

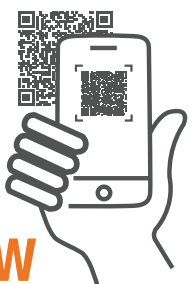
# Product Catalog



Smart Heating Solutions

Manufacturing Electric Heaters Since 1958

60+ Years



**NEW**  
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We Believe Experience Matters



## Fan-Driven Heaters

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Comfort*Craft*



Available Colors

**PX Series  
Wall Heater**

120/208/240V / 250-1750W

Comfort*Craft*



Available Colors

**LPW Series 2  
Large Wall Heater**

120/208/240/277V / 1250-4500W

eco2S



**PX ECO2S Series  
Electronic Wall Heater**

120/208/240V / 750-1750W

eco2S



**LPW ECO2S Series  
Electronic Wall Heater**

120/208/240V / 1250-4500W



# King Electrical Manufacturing Company



## Fan-Driven Heaters

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**W Series  
Wall Heater**

120/208/240V / 500-2000W



**WHF Series  
Wall Heater**

120/208/240V / 500-2000W



**PAW Series  
Wall Heater**

120/208/240/277V / 250-2250W



**PAW Ultra Series  
Wall Heater**

120/208/240/277V / 250-2250W



**SL Series  
Surface Mounted Wall Heater**

120/208/240V / 250-2250W



**EFW-MW Series  
Economy Large Wall Heater**

120/208/240V / 2000-4000W



**WHF-HM Series  
High Wall Heater**

120/208/240V / 500-2000W



**WSC Series  
Economy Wall Heater**

120/208/240V / 500-2000W



**LPWV Series  
Vandal-Resistant Heater**

120/208/240/277V / 500-1500W



**LPWA Series  
Architectural Heater**

120/208/240/277V / 1500-4500W



**KT-MW Series  
Multi-Watt  
Kickspace Heater**

120/208/240V / 250-1500W



**KTW Series  
Horizontal/Vertical  
Kickspace Heater**

120/208/240V / 250-1500W



## Baseboard Heaters

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**K Series  
Baseboard Heater**

120/208/240/277V / 375-2400W



**CB Series  
Ceramic Baseboard Heater**

120/208/240V / 350-1500W



**WHFC Series  
Small Ceiling Heater**

120/208/240V / 500-1500W



**LPWC Series  
Large Ceiling Heater**

120/208/240/277V / 1250-4000W



## Ceiling Heaters

Scan For More Info

# King Electrical Manufacturing Company

**Cove Heaters**  
Scan For More Info

**Radiant Heaters**  
Scan For More Info

**KCV Series  
Cove Heater**  
120/208/240V / 210-1800W

**OK Series  
Radiant Heater**  
120/208/240/480V / 1600-5000W

**Smart Wave**  
Carbon Fiber Heaters

**RK Series  
Infrared Radiant Heater**  
120/208/240V / 1500-4500W  
1 Lamp/2 Lamp/3 Lamp Option

**NEW**

**Line Voltage Thermostats**  
Scan For More Info

**Hoot WiFi**  
Electronic Programmable  
Smart Phone APP  
120/208/240V / 16A / Single/Double Pole

**ClearTouch**  
K302PE / K322E  
7-Day Electronic Programmable  
Non-Programmable  
120/208/240V / 15A / Double Pole

**SIMPLSTAT**  
Push Button To Select Status  
Home 70° Away 55° Sleep 60°  
K702E-2 / K701E-B  
Personalized Presets  
120/208/240V / 16A / Single/Double Pole

**MAX<sup>22</sup>**  
ES / ESP Series  
Electronic Thermostat  
120/208/240V / 22A / Single Pole

**BasicComfort**  
K101 / K102  
& K101-C Cooling  
Line Voltage Thermostat  
120/208/240/277V / 22A

**2-Circuit**  
HP30 Series  
2-Circuit Thermostat  
120/208/240V / 16A per Pole /  
Dual Single Pole

**Are You A Property Manager?  
Are you tired of paying for wasted energy?**

**WINDOW WATCHER**  
WR / WRP Series  
Programmable Thermostat  
120/208/240V / 16A / Single Pole

**Autonomy**  
K702E-2-DTSB  
Dual Timed Thermostat  
120/208/240V / 16A / Double Pole

**Personal Portable Heaters**  
Scan For More Info

**PHM-1**  
Milkhouse Portable Heater  
120V / 1300/1500W

**PH-2**  
Portable Ceramic Heater  
120V / 1500W

**KP1215-ECO**  
ECO Portable Baseboard  
120V / 750/1500W

**KP Series**  
Portable Baseboard  
120V / 1000W



**KPH Series**  
**Portable Baseboard**  
120V / 1000W



**PSH1215T Yellow Jacket**  
**Portable Shop Heater**  
120V / 1500W



**PSH2440TB Yellow Jacket**  
**Portable Shop Heater**  
208/240V / 3750W



**PGH2440TB**  
**Portable Utility Heater**  
240V / 3750W



## Cabinet Heaters

Scan For More Info

**SafeTouch**



**KCF Safetouch Series**  
**Compact Fan Forced**  
**Cabinet Heater**  
208/240/277/480V / 500-5000W



**KCC Series**  
**Convection Cabinet Heater**  
208/240/277/480V / 2000-5000W



**KCA Series**  
**Cabinet Heater**  
208/240/277/480V / 2000-24,000W



**KLA / KLI Series**  
**Architectural Convection Heaters**  
208/240/277V / 1500-6000W



## Draft Barrier Heaters

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**KDBA Series**  
**Architectural Draft Barrier**  
120/208/240/277V / 500-2500W



**KDIA Series**  
**Architectural Draft Barrier**  
120/208/240/277V / 400-2250W



**SB Series**  
**Draft Barrier**  
120/208/240/277V / 400-2500W



**LB Series**  
**Draft Barrier**  
120/208/240/277V / 376-5000W



## Unit Heaters

Scan For More Info



**KB Series**  
**Heavy Duty Unit Heater**  
208/240/277/480V / 4000-40,000W



**KBS Series**  
**Stainless Steel Unit Heater**  
208/240/277/480V / 3000-20,000W



**KB ECO2S Series**  
**2-Stage Electronic Unit Heater**  
208/240V / 4000-15,000W



**KB Platinum Series**  
**Heavy Duty Electronic**  
**Unit Heater**  
208/240/277/480V / 3000-40,000W

# King Electrical Manufacturing Company



## Unit Heaters

Scan For More Info



**KB ECO2S PLUS Series**  
2-Stage Electronic  
Unit Heater w/Remote  
208/240V / 4000-15,000W

**KB PlatinumX Series**  
Heavy Duty Electronic  
Unit Heater w/Remote  
208/240/277/480V / 3000-40,000W

**NOW COMPATIBLE  
WITH NEST OR  
ANY 24V STAT**



**SKB Series**  
Compact Heavy Duty  
Unit Heater  
208/240V / 5000-10,000W



**KBP Series**  
Compact Unit Heater  
120/208/240/277/480V / 950-6,000W



**EKB Series**  
Garage/Shop Heater  
208/240V / 2850-5000W



**KFUH Series**  
High Air Velocity Unit Heater  
208/240/480V / 3000-34,500W



**KFUH Series**  
High Air Velocity Unit Heater  
w/ECM Motor  
208/240/480V / 3800-70,000W



## Industrial Portable Heaters

Scan For More Info

Available Tent Transition Option



**PKB Platinum Series**  
Industrial Electronic  
Portable Utility Heater  
208/240/480V / 5000-20,000W



**PCKW Series**  
Industrial Portable  
Wheeled Unit Heater  
208/240/480V / 10,000-30,000W



**PCKF Series**  
Industrial Portable Unit Heater  
208/240/480V / 10,000-25,000W



**PKB-DT Series**  
Ducted Industrial  
Portable Unit Heater  
208/240/480V / 5000-15,000W



## Explosion-Proof Heaters

Scan For More Info



**PKB-FM Series**  
Industrial Portable  
Unit Heater  
208/240/480V / 5000-20,000W



**PKBS Series**  
Stainless Steel Industrial  
Portable Unit Heater  
208/240/480V / 5000-20,000W



**CX1 Series**  
Explosion-Proof Heater  
120/208/240/277/380/400/415/480/600V  
1,200-7,600W



**FX6 Series**  
Explosion-Proof Heater  
208/240/277/380/400/415/480/600V  
3,000-35,000W



## Marine Heaters

Scan For More Info



**PAW-SS Series  
Stainless Steel  
Marine Heater**

120/208/240/277V / 250-2250W



**DAW-SS Series  
Stainless Steel  
Marine Heater**

120/208/240V / 250-2250W



**MKT-SS Series  
Stainless Steel  
Marine Heater**

120/208/240V / 500-1500W



**KBS Series  
Stainless Steel  
Unit Heater**

208/240/277/480V / 3000-20,000W



## Freeze Protection Heaters

Scan For More Info



**PKBS Series  
Stainless Steel Industrial  
Portable Unit Heater**

208/240/480V / 5000-20,000W



**U Series  
Pumphouse Heater**

120/240V / 62-1000W



**WSC Series  
Economy Wall Heater**

120/208/240V / 500-2000W



**Controls & Sensors  
Pipe Freeze**



## Pipe Freeze Protection

Scan For More Info



**SRP Series  
Pipe Trace Cable**

Pre-Assembled Self-Regulating  
120/240V / 6W/LinFt @ 40°F



**SR Series  
Pipe Trace Cable**

Self-Regulating  
120/240V / 3/5/8/10W/LinFt @ 40°F



**CT Series  
Pipe Trace Cable**

Class1 Div 2  
Self-Regulating  
120/240V / 3/5/8/10W/LinFt @ 40°F



**TRF115-005  
Freeze Protection  
Thermostat**

25 Amp @ 120/208/240V  
22 amp at 277V



## Roof/Gutter De-Icing

Scan For More Info



**SRP Series  
De-Icing Cable**

Pre-Assembled Self-Regulating  
120/240V / 8W/LinFt @ 32°F



**SR Series  
De-Icing Cable**

Self-Regulating  
120/240V / 5/8/12.1/14.8W / LinFt @ 32°F



**CT Series  
De-Icing Cable**

Class1 Div 2  
Self-Regulating  
120/240V / 5/8/12.1/14.8W / LinFt @ 32°F



**SRK13  
Roof Clips**

25 clips per package

# King Electrical Manufacturing Company



## Controls, Sensors & Accessories

Scan For More Info



SR/SRP Series  
Accessories



Roof/Drain  
De-icing System



Controls & Sensors  
Roof & Gutter



Controls & Sensors  
Pipe Freeze



## Plenum Rated Unit Heaters

Scan For More Info



## Make Up Air Units

Scan For More Info



CK Series  
Plenum Rated Unit Heater  
208/240/480V / 3000-50,000W



CKL Series  
Large Plenum Rated Unit Heater  
208/240/480V / 30,000-240,000W



MAU Series  
Make Up Air Unit  
208/240/480V / 3800-34,500W



## Electric Duct Heaters

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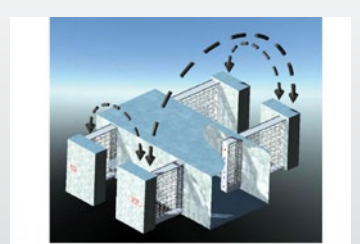


## Electric Furnace Heaters

Scan For More Info



E Series  
Flippable Electric Duct Heater  
120/208/240/277/480V



Options for multiple positions - 1, 2, 3 or 4



KF ECO2S Series  
Electric Furnaces  
480V / 3800-34,500W



KFS ECO2S Series  
Electric Furnaces  
208/240V / 4000-34,500W



## Hydronic Heaters

Scan For More Info



HLB / HSB Series  
Draft Barrier  
400 to 1000 BTU per FT.



H Series  
Small Hydronic Heater  
120V / 1200 - 10,500 BTU



HT Series  
Under-Cabinet Hydronic Heater  
120V / 1600 - 9950 BTU



HM / HME Series  
Medium Hydronic Heater  
120V / 3300 - 18,700 BTU



# King Electrical Manufacturing Company



## Hydronic Heater Thermostats

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HYDRONIC



**HL / HLE Series  
Large Hydronic Heater**  
120V / 6,700-27,250 BTU

HYDRONIC



**HW Series  
Hydronic Thermostats**  
120V / 12.5A

HYDRONIC



**HWP / HWPT Series  
Hydronic Programmable  
Thermostats**  
120V / 12.5A

HYDRONIC



**HB / HBP Series  
Electronic  
Hydronic Thermostat**  
120/208/240V / 16A per Pole  
Dual Single Pole



## High Velocity Fans

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**DFC Series  
High Velocity Drum Fans  
Direct Drive**  
24"/30"/36" / 24"/30" Swivel Base



**DFC Series  
High Velocity Drum Fans  
Belt Drive**  
36"/42"/48"



Optional Misting Kit  
(Shown)

**PFO Series  
Commercial High Velocity  
Oscillating Air Circulator**  
120V / 24"/30"  
8200/7500/6800/6200/4900/530 CFM



Optional Misting Kit  
(Shown)

**WFO Series  
Wall Mount Commercial  
High Velocity  
Oscillating Air Circulator**  
120V / 24"/30"  
8200/7500/6800/6200/4900/530 CFM



**FO-Covers**  
(Available in 24" & 30")  
**Fan Cover**  
Water / UV Resistant



**PFO MistKit**  
(Optional)  
**Converts Fan  
to Misting Fan**



QUALITY IS KING

**ELECTRIC HEATER  
MANUFACTURING**

EST. 1958 • SEATTLE, WA

KING-ELECTRIC.COM



With U.S. & Global Materials



# Wall Heater PX ComfortCraft Series



## Model Code:

PX 24 17 -WD -R  
A B C D E

A: Series  
B: 12 - 120V 20 - 208V 24 - 240V  
C: Watts 15-(750-1500W)  
17-(750-1750W)  
D: Color  
E: Color Box Packaging

# ComfortCraft



Pic-A-Watt  
Selectable Wattage Element



- Modern curved design
- Pic-A-Watt® element
- Multiple wattage options
- Whisper quiet blower design
- Zonal heating systems save money
- C-Frame motor
- Patented Smart Limit Protection®
- 20 gauge powder-coated grill
- Standard color: white dove
- Designer colors available
- 120, 208, 240 volts
- 5 Year limited warranty



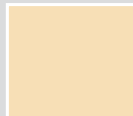
## The PX ComfortCraft Series Wall Heater

King refines comfort with the modern architectural design of the PX ComfortCraft series wall heater. The PX series heater delivers nearly 100% efficient electric heat, perfect for large living areas yet whisper quiet enough for bedrooms. The premium combination of an efficient high-mass steel element and whisper quiet squirrel cage blower, offers top of the class performance and years of trouble-free operation. PX comes with five year warranty and 30+ year history of reliability. For best results use with an electronic line voltage wall thermostat. Also available with a built-in thermostat. King's exclusive Pic-A-Watt® heating element allows customers to select from a range of wattage options, tailoring the heater to a room's specific heating requirements. For smaller areas, choose a lower wattage to efficiently heat the room. For larger rooms, choose a higher wattage and maximize comfort. It's as easy as unplugging a wire to select the wattage during installation. Now That's Smart!

### DESIGNER COLORS AVAILABLE



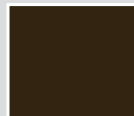
White Dove



Almondine



Satin Nickel



Oiled Bronze

**"Complete" Stock Models** For other color grill options use "Order A'la Carte" chart below to build your own complete heater.

| BASE MODEL  | VOLTS    | COLOR        | WATTS                             | AMPS       | SHIP WEIGHT lbs |
|-------------|----------|--------------|-----------------------------------|------------|-----------------|
| PX1215-WD-R | 120      | White Dove   | 250•500•750•1000•1250•1500        | 2.1 - 12.5 | 12.5            |
| PX1215-AD-R | 120      | Almondine    | 250•500•750•1000•1250•1500        | 2.1 - 12.5 | 12.5            |
| PX1215-SN-R | 120      | Satin Nickel | 250•500•750•1000•1250•1500        | 2.1 - 12.5 | 12.5            |
| PX1215-OB-R | 120      | Oiled Bronze | 250•500•750•1000•1250•1500        | 2.1 - 12.5 | 12.5            |
| PX2017-WD-R | 208      | White Dove   | 250•500•750•1000•1250•1500 • 1750 | 1.2 - 8.4  | 12.5            |
| PX2017-AD-R | 208      | Almondine    | 250•500•750•1000•1250•1500 • 1750 | 1.2 - 8.4  | 12.5            |
| PX2017-SN-R | 208      | Satin Nickel | 250•500•750•1000•1250•1500 • 1750 | 1.2 - 8.4  | 12.5            |
| PX2017-OB-R | 208      | Oiled Bronze | 250•500•750•1000•1250•1500 • 1750 | 1.2 - 8.4  | 12.5            |
| PX2417-WD-R | 240/208* | White Dove   | 250•500•750•1000•1250•1500 • 1750 | 1.1 - 7.3  | 12.5            |
| PX2417-AD-R | 240/208* | Almondine    | 250•500•750•1000•1250•1500 • 1750 | 1.1 - 7.3  | 12.5            |
| PX2417-SN-R | 240/208* | Satin Nickel | 250•500•750•1000•1250•1500 • 1750 | 1.1 - 7.3  | 12.5            |
| PX2417-OB-R | 240/208* | Oiled Bronze | 250•500•750•1000•1250•1500 • 1750 | 1.1 - 7.3  | 12.5            |

(-R) Full color consumer packaging

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and PXG grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| MODEL      | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|------------|-------|--|-----------------|
| PX1215-HRC | 32688 | PX 120V, 1500W, Heatbox Interior & Recessed Wall Can | 10.4            |
| PX2017-HRC | 32689 | PX 208V, 1750W, Heatbox Interior & Recessed Wall Can | 10.4            |
| PX2417-HRC | 32690 | PX 240V, 1750W, Heatbox Interior & Recessed Wall Can | 10.4            |

**STEP 2:** Order Grill

| MODEL  | UPC   | DESCRIPTION                  | SHIP WEIGHT lbs |
|--------|-------|------------------------------|-----------------|
| PXG-WD | 17246 | PX Grill, White Dove Color   | 2.1             |
| PXG-AD | 17247 | PX Grill, Almondine Color    | 2.1             |
| PXG-SN | 17245 | PX Grill, Satin Nickel Color | 2.1             |
| PXG-OB | 17244 | PX Grill, Oiled Bronze Color | 2.1             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|-----------|-------|---|-----------------|
| PXSMF-WD  | 32695 | PX Surface Mount Frame, White Dove Color (H 8-3/4 x W 16-15/16 x D 4-1/4)     | 2.4             |
| PXSMF-AD  | 32696 | PX Surface Mount Frame, Almondine Dove Color (H 8-3/4 x W 16-15/16 x D 4-1/4) | 2.4             |
| PXSMF-SN  | 32697 | PX, Surface Mount Frame, Satin Nickel Color                                   | 2.4             |
| PXSMF-OB  | 32698 | PX, Surface Mount Frame, Oiled Bronze Color                                   | 2.4             |
| PX-RP     | 32699 | PX, Rough-In Plate for New Construction, (10 sets per Box).                   | 6.0             |
| PXIC      | 32704 | PX Wall Can   | 3.0             |
| TKIT-1BW  | 20654 | Wall Heater Accessory SP Thermostat Kit Bright White                          | 0.5             |
| TKIT-2BW  | 20655 | Wall Heater Accessory DP Thermostat Kit Bright White                          | 0.5             |
| TKIT-1A   | 20613 | Wall Heater Accessory SP Thermostat Kit Almond                                | 0.5             |
| TKIT-2A   | 20614 | Wall Heater Accessory DP Thermostat Kit Almond                                | 0.5             |
| TKIT-1B   | 17346 | Wall Heater Accessory SP Thermostat Kit Black                                 | 0.5             |
| TKIT-2B   | 17347 | Wall Heater Accessory DP Thermostat Kit Black                                 | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit                 | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit                 | 0.4             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)                 | 0.5             |

-All A'la Carte orders come in Kraft box packaging

## Engineering Specifications

*Contractor shall supply and install PX ComfortCraft Series in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 1,750 at 120 or 250-1750 at 208, or 240 Volts.

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

**Thermal Overload:** Heaters shall be equipped with King's patented

thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

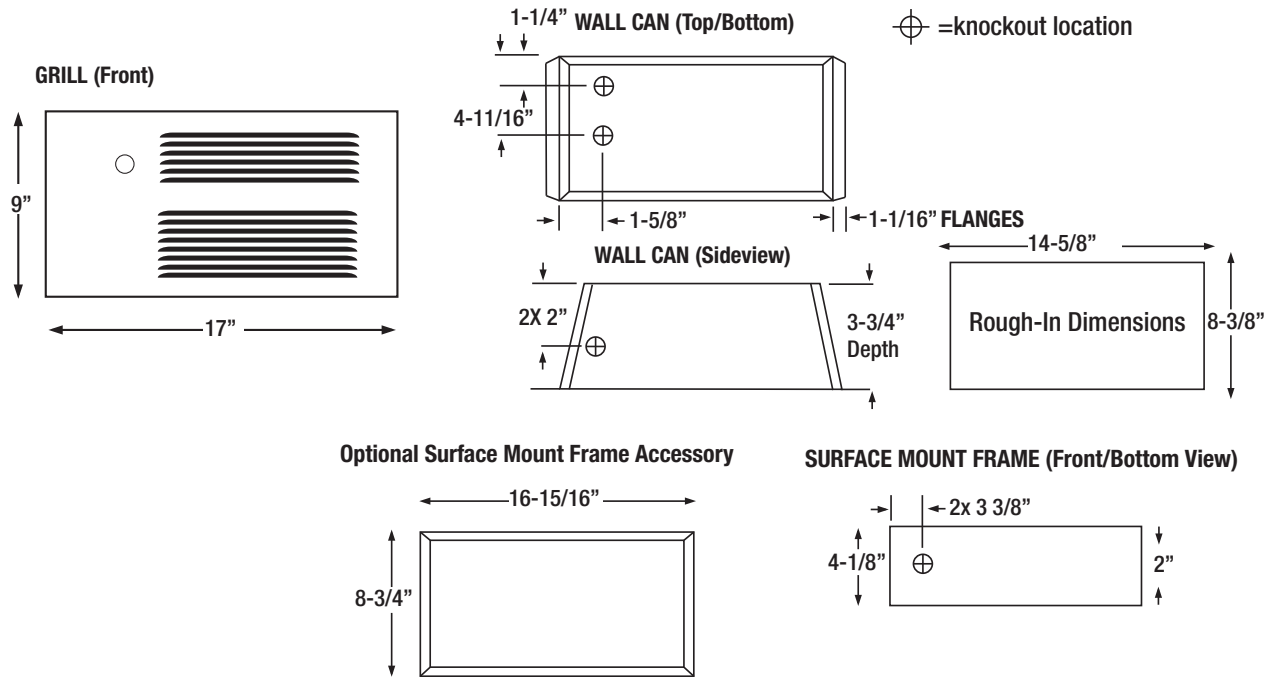
**Wall Cans:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles.

**Grill:** The grill shall be a louvered, one-piece curved front design with rounded edges on all four sides, with duct flange on outlet to achieve maximum heat transfer. The grill shall be epoxy powder-coated in white dove, almondine, oiled bronze or satin nickel.

**Approvals:** cULus (E41422)

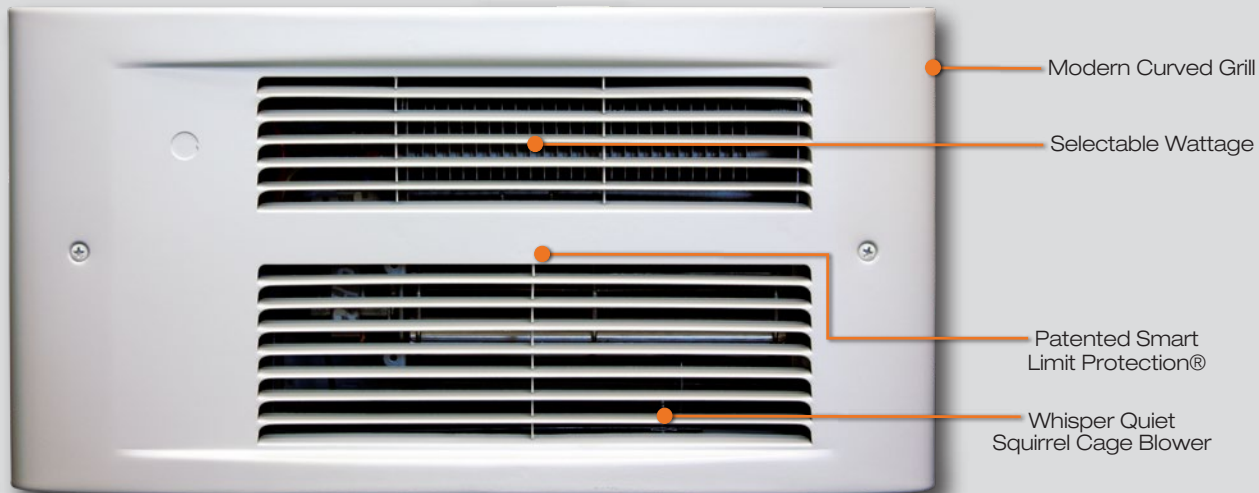
# Wall Heater PX ComfortCraft Series

## Dimensional Data



**ComfortCraft**

### DESIGNER COLORS AVAILABLE



(Shown in White Dove)


**Model Code:**

LPW 24 45 -T -S2 -WD -R  
A B C D E F G

- A: Series
- B: 12 - 120V 24 - 240V  
20 - 208V 27 - 277V
- C: Watts (1250 to 4500)
- D: Thermostat (optional)
- E: Series 2
- F: Color
- G: Retail Packaging

## ComfortCraft



Pic-A-Watt  
Selectable Wattage Element



- Modern curved design
- Dual Pic-A-Watt® elements
- Multiple wattage options
- Long life unit bearing motor
- 5-blade aluminum fan
- 20 Gauge powder-coated grill
- Selector switch: fan/heat/off
- Patented Smart Limit Protection®
- Standard color: white dove
- Design colors available
- 120, 208, 240, or 277 volts
- 5-year limited warranty



With U.S. & Global Materials

## The LPW ComfortCraft Series 2 Large Wall Heater

**King redefines comfort with a sleek and modern new architectural design.** Offerings higher output than our industry leading PAW heater. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. With up to 4500W, this is our most popular large wall heater, used in both residential and commercial applications. Standard with a 3-position selector switch, it has a fan delay to help dissipate heat from the high-mass steel plate fin elements thereby prolonging heater life and increasing energy efficiency. The high quality built-in thermostat has degrees on the label so temperature selection is easy and accurate.

### DESIGNER COLORS AVAILABLE



White Dove Almondine Satin Nickel Oiled Bronze

**"Complete" Stock Models** For other color grill options use "Order A la Carte" chart below to build your own complete heater.

| BASE MODEL       | VOLTS    | COLOR        | WATTS                                   | AMPS        | SHIP WEIGHT lbs |
|------------------|----------|--------------|---|-------------|-----------------|
| LPW1227T-S2-WD-R | 120      | White Dove   | 1250•1500•1750•2000•2750                | 10.4 - 22.9 | 19.0            |
| LPW1227T-S2-AD-R | 120      | Almondine    | 1250•1500•1750•2000•2750                | 10.4 - 22.9 | 19.0            |
| LPW1227T-S2-SN-R | 120      | Satin Nickel | 1250•1500•1750•2000•2750                | 10.4 - 22.9 | 19.0            |
| LPW1227T-S2-OB-R | 120      | Oiled Bronze | 1250•1500•1750•2000•2750                | 10.4 - 22.9 | 19.0            |
| LPW2045T-S2-WD-R | 208      | White Dove   | 2250•2750•3000•3250•3500•3750•4000•4500 | 10.8 - 21.6 | 19.0            |
| LPW2045T-S2-AD-R | 208      | Almondine    | 2250•2750•3000•3250•3500•3750•4000•4500 | 10.8 - 21.6 | 19.0            |
| LPW2045T-S2-SN-R | 208      | Satin Nickel | 2250•2750•3000•3250•3500•3750•4000•4500 | 10.8 - 21.6 | 19.0            |
| LPW2045T-S2-OB-R | 208      | Oiled Bronze | 2250•2750•3000•3250•3500•3750•4000•4500 | 10.8 - 21.6 | 19.0            |
| LPW2445T-S2-WD-R | 240/208* | White Dove   | 2250•2750•3000•3250•3500•3750•4000•4500 | 9.4 - 18.8  | 19.0            |
| LPW2445T-S2-AD-R | 240/208* | Almondine    | 2250•2750•3000•3250•3500•3750•4000•4500 | 9.4 - 18.8  | 19.0            |
| LPW2445T-S2-SN-R | 240/208* | Satin Nickel | 2250•2750•3000•3250•3500•3750•4000•4500 | 9.4 - 18.8  | 19.0            |
| LPW2445T-S2-OB-R | 240/208* | Oiled Bronze | 2250•2750•3000•3250•3500•3750•4000•4500 | 9.4 - 18.8  | 19.0            |
| LPW2740T-S2-WD-R | 277      | White Dove   | 2000•3000•4000                          | 7.2 - 14.4  | 19.0            |
| LPW2740T-S2-AD-R | 277      | Almondine    | 2000•3000•4000                          | 7.2 - 14.4  | 19.0            |
| LPW2740T-S2-SN-R | 277      | Satin Nickel | 2000•3000•4000                          | 7.2 - 14.4  | 19.0            |

(-R) Full color consumer packaging

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

# Large Wall Heater LPW ComfortCraft Series 2

**Order A'la Carte** \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and LPWG grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| ADD SUFFIX      | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------------|-------|--|-----------------|
| LPW1227T-S2-HRC | 32635 | LPW SERIES 2, 120V 2750W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2045T-S2-HRC | 32636 | LPW SERIES 2, 208V 4500W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2445T-S2-HRC | 32637 | LPW SERIES 2, 240V 4500W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2740T-S2-HRC | 32644 | LPW SERIES 2, 277V 4000W, Heatbox Interior & Recessed Wall Can | 11.5            |

**STEP 2:** Order Grill

| MODEL      | UPC   | DESCRIPTION                             | SHIP WEIGHT lbs |
|------------|-------|---|-----------------|
| LPWG-S2-WD | 32624 | LPW SERIES 2, Grill, White Dove Color   | 4.5             |
| LPWG-S2-AD | 32627 | LPW SERIES 2, Grill, Almondine Color    | 4.5             |
| LPWG-S2-SN | 32625 | LPW SERIES 2, Grill, Satin Nickel Color | 4.5             |
| LPWG-S2-OB | 32626 | LPW SERIES 2, Grill, Oiled Bronze Color | 4.5             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION                                  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| LPWSMF-WD | 32620 | LPW, Surface Mount Frame, White Dove Color   | 2               |
| LPWSMF-AD | 32623 | LPW, Surface Mount Frame, Almondine Color    | 2               |
| LPWSMF-SN | 32621 | LPW, Surface Mount Frame, Satin Nickel Color | 2               |
| LPWSMF-OB | 32622 | LPW, Surface Mount Frame, Oiled bronze Color | 2               |
| LPWIC-S2  | 12668 | LPW SERIES 2, Accessory Recess Wall can      | 6.5             |
| LPT-1     | 18155 | LPW Accessory SP STAT - Replacement ONLY     | 0.5             |
| LPT-1-TP  | 18141 | LPW SERIES 2, Accessory Recess Wall can      | 0.4             |

\*\* Kraft box packaging

## Engineering Specifications

Contractor shall supply and install LPW Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

**Motor:** Heavy-duty, cast iron, unit bearing, permanently lubricated with 20cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

**Fan:** High efficiency, dynamically balanced 5-blade aluminum fan. 185 CFM.

**Thermostat:** 1-Pole built-in thermostat 45-80°F operating range.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to eight (8) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented

thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Fan / Heat / Off Switch:** 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors.

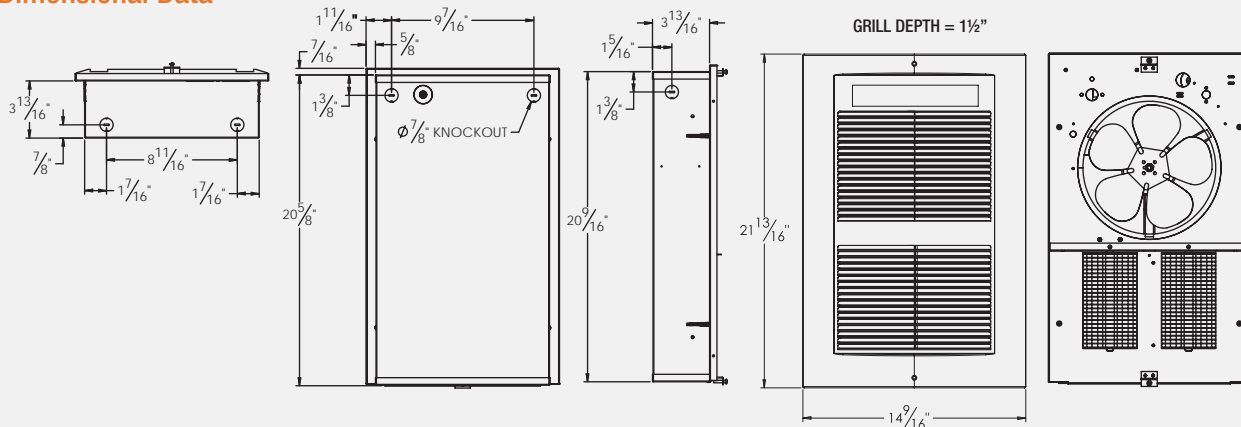
**Wall-box:** 20 gauge electro-galvanized steel with factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

**Grill:** 20 gauge steel finished in a gloss white, powder-coated paint.

**Options:** Retrofit grill, and surface wall-box.

**Approvals:** cULus

## Dimensional Data



# Electronic Wall Heater PX ECO2S Series Pic-A-Watt Selectable Wattage Element



### Model Code:

PX 24 17 -ECO -WD  
A B C D E

- A: Series
- B: 12 - 120V 20 - 208V 24 - 240V
- C: Watts 15-(750-1500W)  
17-(750-1750W)
- D: ECO2S Controller
- E: Color Grill
- F: Color Box Packaging



With U.S. & Global Materials



- Smart ECO2S design
- 2-Stage heating
- Remote temperature sensor
- Hand held remote & wall holder
- Auto Memory Feature: returns units to last settings after power outage
- Pic-A-Watt® element
- Multiple wattage options
- Patented Smart Limit Protection®
- Whisper quiet squirrel cage blower
- Timer & Summer Fan Only Modes
- Display Lock Feature: for high traffic areas
- Bedroom "Environment" Feature: turns off the display when not in use
- Available in (4) new designer finishes
- 5-Year limited warranty

## The PX **eco2S** Series Wall Heater

King redefines comfort with the energy saving smart series ECO2S Wall heater. Combining a sleek and modern design with unparalleled performance, energy efficiency and user control. The ECO2S controller ensures consistent comfort by minimizing temperature swings. In a cold room it utilizes full power to heat the room quickly. Once the desired temperature is achieved, the heater automatically reduces the wattage to maintain the room temperature and save energy. With the ECO2S Remote Temperature Sensor, your ECO2S heater knows exactly where the room's cold spot is and works smarter to keep the entire room comfortable. Just place it on a wall or shelf and get the right temperature, right where you want it. Includes both summer fan only and timer mode options, as well as a remote control for simple operation. In addition, King's exclusive Pic-A-Watt selectable wattage element allows customers to select from a range of wattage options, tailoring the heater to a room's specific heating requirements. It's as easy as unplugging a wire to select the maximum wattage during installation. Now That's Smart!

### Meet the ECO2S Sensor



Balanced Heat  
Throughout the Space



Comfort, Right  
Where You Want It



Remote  
Temperature Sensing

**"Complete" Stock Models** For other color grill options use "Order A'la Carte" chart below to build your own complete heater.

|      | BASE MODEL      | VOLTS    | COLOR        | WATTS                     | AMPS        | SHIP WEIGHT lbs | DESIGNER COLORS AVAILABLE |
|------|-----------------|----------|--------------|---------------------------|-------------|-----------------|---------------------------|
| 120V | PX1215-ECO-WD-R | 120      | White Dove   | 750•1000•1250•1500        | 6.25 - 12.5 | 12.5            |                           |
|      | PX1215-ECO-AD-R | 120      | Almondine    | 750•1000•1250•1500        | 6.25 - 12.5 | 12.5            |                           |
|      | PX1215-ECO-SN-R | 120      | Satin Nickel | 750•1000•1250•1500        | 6.25 - 12.5 | 12.5            |                           |
|      | PX1215-ECO-OB-R | 120      | Oiled Bronze | 750•1000•1250•1500        | 6.25 - 12.5 | 12.5            |                           |
| 208V | PX2017-ECO-WD-R | 208      | White Dove   | 750•1250•1500•1000 • 1750 | 3.6 - 8.4   | 12.5            |                           |
|      | PX2017-ECO-AD-R | 208      | Almondine    | 750•1250•1500•1000 • 1750 | 3.6 - 8.4   | 12.5            |                           |
|      | PX2017-ECO-SN-R | 208      | Satin Nickel | 750•1250•1500•1000 • 1750 | 3.6 - 8.4   | 12.5            |                           |
|      | PX2017-ECO-OB-R | 208      | Oiled Bronze | 750•1250•1500•1000 • 1750 | 3.6 - 8.4   | 12.5            |                           |
| 240V | PX2417-ECO-WD-R | 240/208* | White Dove   | 750•1250•1500•1000 • 1750 | 3.1 - 7.3   | 12.5            |                           |
|      | PX2417-ECO-AD-R | 240/208* | Almondine    | 750•1250•1500•1000 • 1750 | 3.1 - 7.3   | 12.5            |                           |
|      | PX2417-ECO-SN-R | 240/208* | Satin Nickel | 750•1250•1500•1000 • 1750 | 3.1 - 7.3   | 12.5            |                           |
|      | PX2417-ECO-OB-R | 240/208* | Oiled Bronze | 750•1250•1500•1000 • 1750 | 3.1 - 7.3   | 12.5            |                           |



(-R) Full color consumer packaging

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

# Electronic Wall Heater PX ECO2S Series

**Order A'la Carte** \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and PXG-ECO grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| MODEL          | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|----------------|-------|--|-----------------|
| PX1215-ECO-HRC | 32692 | PX ECO, 120V 1500W, Heatbox Interior & Recessed Wall Can | 10.4            |
| PX2017-ECO-HRC | 32693 | PX ECO, 208V 1750W, Heatbox Interior & Recessed Wall Can | 10.4            |
| PX2417-ECO-HRC | 32694 | PX ECO, 240V 1750W, Heatbox Interior & Recessed Wall Can | 10.4            |

**STEP 2:** Order Grill

| MODEL      | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|------------|-------|--|-----------------|
| PXG-ECO-WD | 17242 | PX ECO, Grill, White Dove Color, Includes Remote & Remote Holder   | 2.1             |
| PXG-ECO-AD | 17243 | PX ECO, Grill, Almondine Color, Includes Remote & Remote Holder    | 2.1             |
| PXG-ECO-SN | 17241 | PX ECO, Grill, Satin Nickel Color, Includes Remote & Remote Holder | 2.1             |
| PXG-ECO-OB | 17240 | PX ECO, Grill, Oiled Bronze Color, Includes Remote & Remote Holder | 2.1             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| PXSMF-WD             | 32695 | PX ECO, Surface Mount Frame, White Dove Color                   | 2.4             |
| PXSMF-AD             | 32696 | PX ECO, Surface Mount Frame, Almondine Color                    | 2.4             |
| PXSMF-SN             | 32697 | PX ECO, Surface Mount Frame, Satin Nickel Color                 | 2.4             |
| PXSMF-OB             | 32698 | PX ECO, Surface Mount Frame, Oiled bronze Color                 | 2.4             |
| PX-RP                | 32699 | PX ECO, Rough-In Plate for New Construction, (10 sets per Box). | 6.0             |
| PXIC                 | 32704 | PX ECO, Wall Can  | 3.0             |
| ECO2S-REMOTE         | 33489 | PX ECO Replacement Infrared Remote Control                      | 0.1             |
| ECO2S-REMOTE-BRACKET | 33490 | PX ECO Replacement Infrared Remote Control Wall Mount Bracket   | 0.2             |
| ECO2S-REMOTE-SENSOR  | 33491 | PX ECO Remote Temperature Sensor                                | 0.2             |
| ECO2S-5V-PWRSPLY     | 33167 | PX ECO 5V DC WALL ADAPTER, Optional Accessory                   | 0.4             |

-All A'la Carte orders come in Kraft box packaging

## Engineering Specifications

Contractor shall supply and install PX ECO2S Series electronic in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 750 to 1,750 at 120 or 750-1750 at 208, or 240 Volts.

**ECO2S Electronic Control:** Up, Down temperature mode. Automatic 2-Stage heating (High & ECO Modes). Start/Stop. Fan Only and Timer (1-9hours) Modes. Standard on all heaters. The control voltage is equal to the line voltage.

**ECO2S Remote Temperature Sensor:** Wireless remote temperature sensing for balanced heating at the coldest spot in the room. 2.4G wireless protocol. Includes wall mounting bracket.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.  
**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to

five (5) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

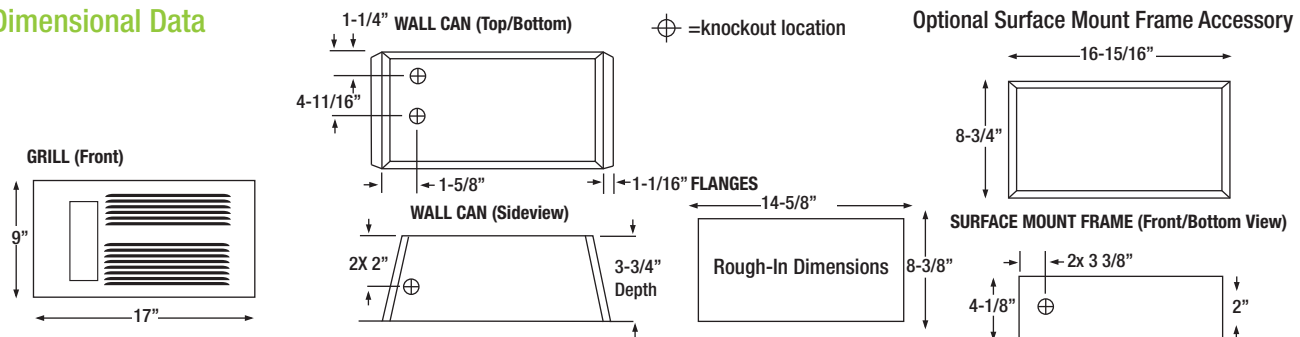
**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects the elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Grill:** The grill shall be a louvered, one-piece curved front design with rounded edges on all four sides, with duct flange outlet to achieve maximum heat transfer. The grill shall be epoxy powder-coated in white dove, almondine, satin nickel or oiled bronze.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles in the wall.

**Approvals:** cULus (E41422)

## Dimensional Data



# Electronic Wall Heater LPW ECO2S Series



**Model Code:**

|     |    |    |     |    |   |
|-----|----|----|-----|----|---|
| LPW | 24 | 45 | ECO | WD | R |
| A   | B  | C  | D   | E  | F |

**A: Series**  
**B: 12 - 120V 24 - 240V 20 - 208V**  
**C: Watts 45-(2500-4500W) 27-(1500-2750W)**  
**D: ECO2S Controller**  
**E: Color**  
**F: Retail Packaging**



With U.S. & Global Materials



- Smart ECO2S design
- 2-Stage heating
- Remote temperature sensor
- Hand held remote & wall holder
- Auto Memory Feature: returns units to last settings after power outage
- Pic-A-Watt® element
- Multiple wattage options
- Patented Smart Limit Protection®
- Whisper quiet squirrel cage blower
- Timer & Summer Fan Only Modes
- Display Lock Feature: for high traffic areas
- Bedroom "Environment" Feature: turns off the display when not in use
- Available in (4) New Designer Finishes
- 5-Year limited warranty

## The LPW Series Electronic 2-Stage Smart Wall Heater w/ Remote

King redefines comfort with the smart series LPW ECO2S wall heater. Combining a sleek and modern design with unparalleled performance, energy efficiency and user control. The ECO2S controller ensures consistent comfort by minimizing temperature swings. In a cold room it utilizes full power to heat the room quickly. Once the desired temperature is achieved, the heater automatically reduces the wattage to maintain the room temperature and save energy. With the ECO2S Remote Temperature Sensor, your ECO2S heater knows exactly where the room's cold spot is and works smarter to keep the entire room comfortable. Just place it on a wall or shelf and get the right temperature, right where you want it. Includes both summer fan only and timer mode options, as well as a remote control for simple operation. In addition, King's exclusive dual Pic-A-Watt selectable wattage elements allow customers to select from a range of wattage options, tailoring the heater to a room's specific heating requirements, up to 4500W. It's as easy as unplugging a wire to select the maximum wattage during installation. Now That's Smart! An ideal choice for both residential and commercial applications.

### Meet the ECO2S Sensor



Balanced Heat  
Throughout the Space



Comfort, Right  
Where You Want It





Remote  
Temperature Sensing



# Electronic Wall Heater LPW ECO2S Series

**“Complete” Stock Models** For other color grill options use "Order A'la Carte" chart below to build your own complete heater.

|              | BASE MODEL       | VOLTS    | COLOR        | WATTS                         | AMPS        | SHIP WEIGHT lbs | DESIGNER COLORS AVAILABLE   |
|--------------|------------------|----------|--------------|-------------------------------|-------------|-----------------|---|
| 120V<br>208V | LPW1227-ECO-WD-R | 120      | White Dove   | 1500•1750•2000•2250•2500•2750 | 10.4 - 22.9 | 19.0            |  <br>White Dove    Satin Nickel |
|              | LPW2045-ECO-WD-R | 208      | White Dove   | 2500•3000•3500•4000•4500      | 10.8 - 21.6 | 19.0            |   |
| 240V         | LPW2445-ECO-WD-R | 240/208* | White Dove   | 2500•3000•3500•4000•4500      | 9.4 - 18.8  | 19.0            |   |
|              | LPW2445-ECO-AD-R | 240/208* | Almondine    | 2500•3000•3500•4000•4500      | 9.4 - 18.8  | 19.0            |   |
|              | LPW2445-ECO-SN-R | 240/208* | Satin Nickel | 2500•3000•3500•4000•4500      | 9.4 - 18.8  | 19.0            |   |
|              | LPW2445-ECO-OB-R | 240/208* | Oiled Bronze | 2500•3000•3500•4000•4500      | 9.4 - 18.8  | 19.0            |   |

(-R) Full color consumer packaging

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code.

For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own “Complete” with designer grill options (not noted above) select HRC model of proper voltage and LPWG grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| MODEL           | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|-----------------|-------|---|-----------------|
| LPW1227-ECO-HRC | 32638 | LPW ECO, 120V 2750W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2045-ECO-HRC | 32639 | LPW ECO, 208V 4500W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2445-ECO-HRC | 32640 | LPW ECO, 240V 4500W, Heatbox Interior & Recessed Wall Can | 11.5            |

**STEP 2:** Order Grill

| MODEL       | UPC   | DESCRIPTION                        | SHIP WEIGHT lbs |
|-------------|-------|------------------------------------|-----------------|
| LPWG-ECO-WD | 32628 | LPW ECO, Grill, White Dove Color   | 4.5             |
| LPWG-ECO-AD | 32631 | LPW ECO, Grill, Almondine Color    | 4.5             |
| LPWG-ECO-SN | 32630 | LPW ECO, Grill, Satin Nickel Color | 4.5             |
| LPWG-ECO-OB | 32629 | LPW ECO, Grill, Oiled Bronze Color | 4.5             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| LPWSMF-WD            | 32620 | LPW, Surface Mount Frame, White Dove Color                      | 2.0             |
| LPWSMF-AD            | 32623 | LPW, Surface Mount Frame, Almondine Color                       | 2.0             |
| LPWSMF-SN            | 32621 | LPW, Surface Mount Frame, Satin Nickel Color                    | 2.0             |
| LPWSMF-OB            | 32622 | LPW, Surface Mount Frame, Oiled bronze Color                    | 2.0             |
| ECO2S-REMOTE         | 33489 | LPW ECO, Replacement Infrared Remote Control                    | 0.1             |
| ECO2S-REMOTE-BRACKET | 33490 | LPW ECO, Replacement Infrared Remote Control Wall Mount Bracket | 0.2             |
| ECO2S-REMOTE-SENSOR  | 33491 | LPW ECO, Remote Temperature Sensor                              | 0.2             |
| ECO2S-5V-PWRSPLY     | 33167 | LPW ECO, 5V DC Wall Adapter, Optional Accessory                 | 0.4             |

-All A'la Carte orders come in Kraft box packaging

## Engineering Specifications

*Contractor shall supply and install LPW-ECO2S Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 1500 to 2750 at 120 or 2500-4500 at 208, or 240 Volts

**Motor:** Heavy-duty, cast iron, unit bearing, permanently lubricated with 20cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

**Fan:** High efficiency, dynamically balanced 5-blade aluminum fan. 185 CFM.

**ECO2S Electronic Control:** Up, Down temperature mode. Automatic 2-Stage heating (High & ECO Modes). Start/Stop. Fan Only and Timer (1-9hours) Modes. Standard on all heaters. The control voltage is equal to the line voltage.

**ECO2S Remote Temperature Sensor:** Wireless remote temperature sensing for balanced heating at the coldest spot in the room. 2.4G wireless protocol. Includes wall mounting bracket.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to five (5) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King’s patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Fan / Heat / Off:** Electronic Controller provides heating and summer fan-only operation.

# Electronic Wall Heater LPW ECO2S Series

## Engineering Specifications *Continued*

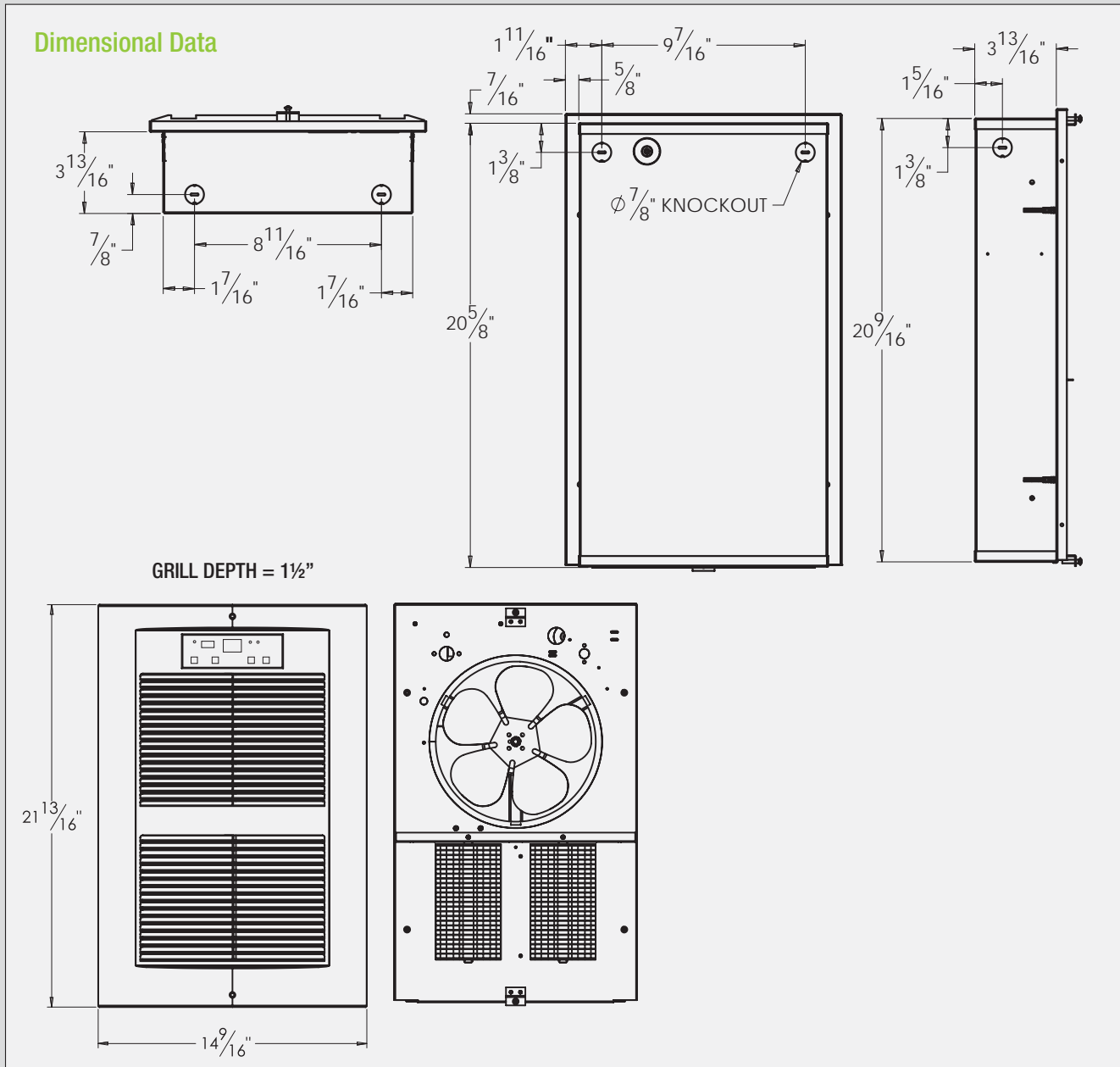
**Wall-Can:** 20 gauge electro-galvanized steel with factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

**Grill:** The grill shall be a louvered, one-piece curved front design with rounded edges on all four sides. The grill shall be epoxy powder-coated in white dove, almondine, satin nickel or oiled bronze.

**Options:** Wired for remote thermostat, retrofit grill, and surface wall-box.

**Approvals:** (E41422 cULus)

### Dimensional Data



# Wall Heater W Series



| Model Code:                     |    |    |     |
|---------------------------------|----|----|-----|
| W                               | 12 | 10 | -T2 |
| A                               | B  | C  | D   |
| <b>A: Series</b>                |    |    |     |
| <b>B: 12 - 120V 24 - 240V</b>   |    |    |     |
| <b>20 - 208V</b>                |    |    |     |
| <b>C: Watts (500 to 2000)</b>   |    |    |     |
| <b>D: Thermostat (optional)</b> |    |    |     |



- Nichrome Open-Coil element
- C-Frame motor
- 4-Blade aluminum fan
- Patented Smart Limit Protection®
- 20 gauge powder-coated grill
- Standard color: white
- 20 gauge electro-galvanized steel recess can
- Wall can with QuickSet™ stud alignment tabs
- Dual wattage & available in 120, 208, 240 Volts
- 1-year limited warranty



## The "W" Wall Heater

The W Heater was designed to be the highest quality economy heater on the market. It is commonly used in apartment construction or as supplemental heat in single family homes. By combining an efficient impeller style fan with a NiChrome heating element, the W heater delivers instant heat in even the draftiest locations. For use with a wall thermostat or in-built thermostat. A powder-coated, surface mounted wall-can may be purchased separately. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side wall, 4" from floor minimum. When the W series is installed in a WSC surface can it adds UL ratings for Wet Location Applications.

### Ordering Information \*Add suffix -W for White Grill

|             | BASE MODEL | VOLTS    | WATTS        | AMPS        | SHIP WEIGHT lbs |
|-------------|------------|----------|--------------|-------------|-----------------|
| <b>120V</b> | W1210      | 120      | 1000 or 500  | 8.3 or 4.2  | 8               |
|             | W1212      | 120      | 1200 or 600  | 5 or 2.5    | 8               |
|             | W1215      | 120      | 1500 or 750  | 12.5 or 6.3 | 8               |
| <b>208V</b> | W2010      | 208      | 1000 or 500  | 4 or 2.4    | 8               |
|             | W2015      | 208      | 1500 or 750  | 7.2 or 3.6  | 8               |
|             | W2020      | 208      | 2000 or 1000 | 9.6 or 4.8  | 8               |
|             | W2410      | 240/208* | 1000 or 500  | 4.1 or 2.1  | 8               |
| <b>240V</b> | W2412      | 240/208* | 1200 or 600  | 5 or 2.5    | 8               |
|             | W2415      | 240/208* | 1500 or 750  | 6.25 or 3.1 | 8               |
|             | W2420      | 240/208* | 2000 or 1000 | 8.3 or 4.2  | 8               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION   | SHIP WEIGHT lbs |
|------------|---|-----------------|
| -W         | White Color   |                 |
| H          | Heatbox Interior Only (No Can or Grill)                         | 6               |
| -T         | Factory Installed Single Pole Thermostat Kit                    | 8               |
| -T2        | Factory Installed Double Pole Thermostat Kit                    | 8               |
| -DS15      | Factory Installed Double Pole Disconnect (10A/ 240V / 15A/120V) | 8               |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

# Wall Heater<sup>W</sup> Series

**Order A'la Carte** Follow steps 1, 2 and 3 below to order a heater from separate parts.

**STEP 1:** Order Heatbox Interior

| ADD SUFFIX | DESCRIPTION                | SHIP WEIGHT lbs |
|------------|----------------------------|-----------------|
| -I         | Heatbox Interior and Grill | 6               |
| -H         | Heatbox Interior           | 6               |

**STEP 2:** Order Wall Can

| MODEL | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-------|-------|--|-----------------|
| UIC   | 12640 | Recess Wall Can  | 3.5             |
| UICF  | 12540 | Recess Can with Flange (remodel)                                 | 4               |
| WSC-W | 19202 | Surface Can - White 13.5" L x 10" W x 4"H (Wet Location Rating)  | 4               |
| WSC-A | 19203 | Surface Can - Almond 13.5" L x 10" W x 4"H (Wet Location Rating) | 4               |
| WSC-B | 19206 | Surface Can - Black 13.5" L x 10" W x 4"H (Wet Location Rating)  | 4               |

**STEP 3:** Order Grill (not required for -I models)

| MODEL     | UPC   | DESCRIPTION                              | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| WG-W      | 11914 | Grill - White                            | 3               |
| WG-A      | 12785 | Grill - Almond                           | 3               |
| WG-B      | 14013 | Grill - Black                            | 3               |
| WOG-W     | 19200 | 10" W x 17" H Retrofit Grill - White     | 3.5             |
| WOG-A     | 18605 | 10" W x 17" H Retrofit Grill - Almond    | 3.5             |
| WOG-XL-W  | 18606 | 14" W x 13.5" H Retrofit Grill - White   | 3.5             |
| WOG-2XL-W | 18608 | 16.4" W x 19.4" H Retrofit Grill - White | 4.0             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 20613 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 20614 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |

## Engineering Specifications

*Contractor shall supply and install W Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Ratings:** Wattages of 500 to 2,000 at 120, 208 or 240 Volts are available. Heaters shall provide air movement at 85 CFM.

**Fan and Motor:** Motor shall be shaded pole, permanently lubricated, C-frame type with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air. The motor shall be equipped with a dynamically balanced four-blade aluminum impeller fan, located in the upper portion of the heat box, and shall provide a down-flow heating pattern.

**Elements:** Assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Wet Location Rating:** When the W series is installed in a WSC surface can it adds UL ratings for Wet Location Applications.

**Smart Limit Thermal Protection:** Turns off heater during any unsafe temperatures on inlet or outlet and will only reset if power is interrupted for 10 minutes. Simply turning thermostat down below set point will reset. Exclusive King design and patented for US and Canada under #6,748,163 B2 and #2,393,882

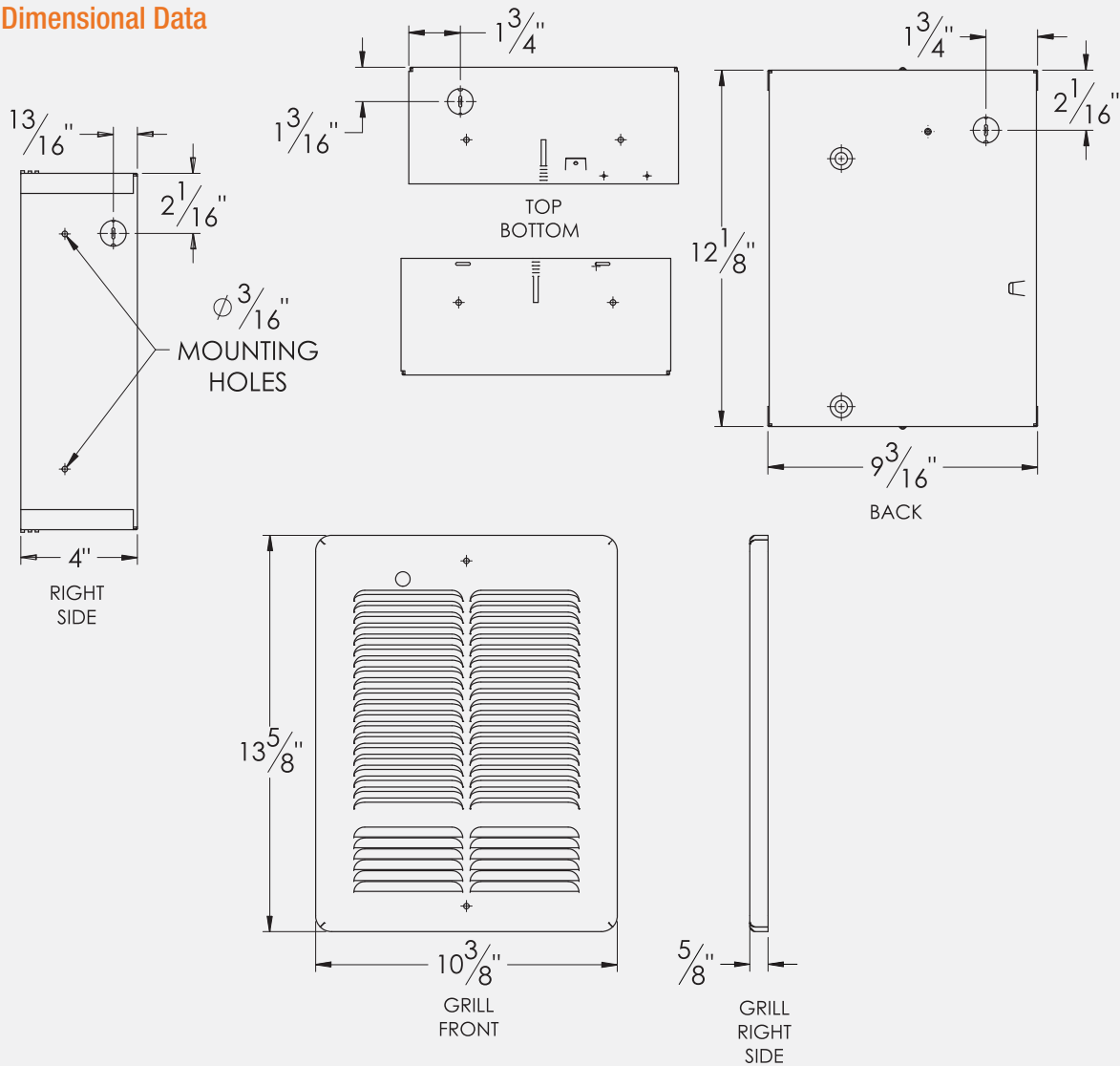
**Wall Can with QuickSet™ stud alignment tabs:** The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side wall, 4" from floor minimum.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

# Wall Heater W Series

## Dimensional Data



$\oplus$  =knockout location **MINIMUM CLEARANCE:** Zero clearance to insulation 4" above floor 6" from adjacent wall

### WSC



W Series with WSC wall surface box passes UL2021 Rain Test for damp locations

### WOG



### Exploded View



# Wall Heater WHF Series



**Model Code:**

|     |    |    |    |    |    |
|-----|----|----|----|----|----|
| WHF | 12 | 10 | -W | -H | -I |
| A   | B  | C  | D  | E  | F  |

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V  
 C: Watts (500 to 2000)  
 D: Color E: Interior Only  
 F: Interior & Grill



- NiChrome Open-Coil Element
- Squirrel Cage Blower
- Whisper Quiet
- Patented Smart Limit Protection®
- 20 gauge powder-coated grill
- Standard color: white
- (Almond color optional)
- C-Frame Motor
- 20 gauge electro-galvanized steel recess can with
- Wall can with QuickSet™ stud alignment tabs
- Dual Wattage & available in 120, 208, or 240 Volts
- 3-year limited warranty



## The WHF Wall Heater

The WHF heater offers extreme value by combining the rapid heat transfer of a NiChrome element with the performance of a squirrel cage blower. This makes for a relatively quiet heater without the added cost of a high mass element like the Pic-A-Watt®. It is commonly used as the first upgrade in apartment construction and is an excellent choice for bathrooms because of the instant heat from the wire element. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side wall, 4" from floor minimum.

### Ordering Information \*Add suffix -W for White Grill

|             | BASE MODEL | VOLTS    | WATTS                  | AMPS                | SHIP WEIGHT lbs |
|-------------|------------|----------|------------------------|---------------------|-----------------|
| <b>120V</b> | WHF1210    | 120      | 500 • 1000             | 4.2 • 8.4           | 8.0             |
|             | WHF1215    | 120      | 750 • 1500             | 6.3 • 12.5          | 8.0             |
|             | WHF2010    | 208      | 500 • 1000             | 2.4 • 4.8           | 8.0             |
| <b>208V</b> | WHF2015    | 208      | 750 • 1500             | 3.6 • 7.2           | 8.0             |
|             | WHF2020    | 208      | 1000 • 2000            | 4.8 • 9.6           | 8.0             |
|             | WHF2410    | 240/208* | 500/375* • 1000/750*   | 2.1/1.8* • 4.2/3.6* | 8.0             |
| <b>240V</b> | WHF2415    | 240/208* | 750/562* • 1500/1125*  | 3.1/2.7* • 6.2/5.4* | 8.0             |
|             | WHF2420    | 240/208* | 1000/750* • 2000/1500* | 4.2/3.6* • 8.4/7.2* | 8.0             |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                                   | SHIP WEIGHT lbs |
|------------|---|-----------------|
| -W         | White Color                                   | 8.0             |
| -H         | Heatbox Interior Only (no can or grill)       | 6.0             |
| -I         | Heatbox Interior and Grill Only (no wall can) | 6.0             |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

### Order A'la Carte Follow steps 1, 2 and 3 below to order a heater from separate parts.

#### STEP 1: Order Heatbox Interior

| ADD SUFFIX | DESCRIPTION                | SHIP WEIGHT lbs |
|------------|----------------------------|-----------------|
| -I         | Heatbox Interior and Grill | 6.0             |
| -H         | Heatbox Interior           | 6.0             |

# Wall Heater WHF Series

## STEP 2: Order Wall Can

| MODEL  | UPC   | DESCRIPTION                                       | SHIP WEIGHT lbs |
|--------|-------|---|-----------------|
| UIC    | 12640 | Recess Wall Can                                   | 3.5             |
| UICF   | 12540 | Recess Can with Flange (remodel)                  | 4.0             |
| WHSC-W | 19204 | Surface Can - White - 13.5" H x 10.125" W x 4" D  | 4.0             |
| WHSC-A | 19205 | Surface Can - Almond - 13.5" H x 10.125" W x 4" D | 4.0             |

## STEP 3: Order Grill (not required for -I models)

| MODEL      | UPC   | DESCRIPTION                | SHIP WEIGHT lbs |
|------------|-------|----------------------------|-----------------|
| WHFG-W     | 12520 | Grill - White              | 2.0             |
| WHFG-A     | 12530 | Grill - Almond             | 2.0             |
| WHFG17W13H | 12523 | Oversize Grill 13"H x 17"W | 3.5             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |

## Engineering Specifications

Contractor shall supply and install WHF Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company.

Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 2,000 at 120, 208, or 240 Volts

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection<sup>SM</sup>, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

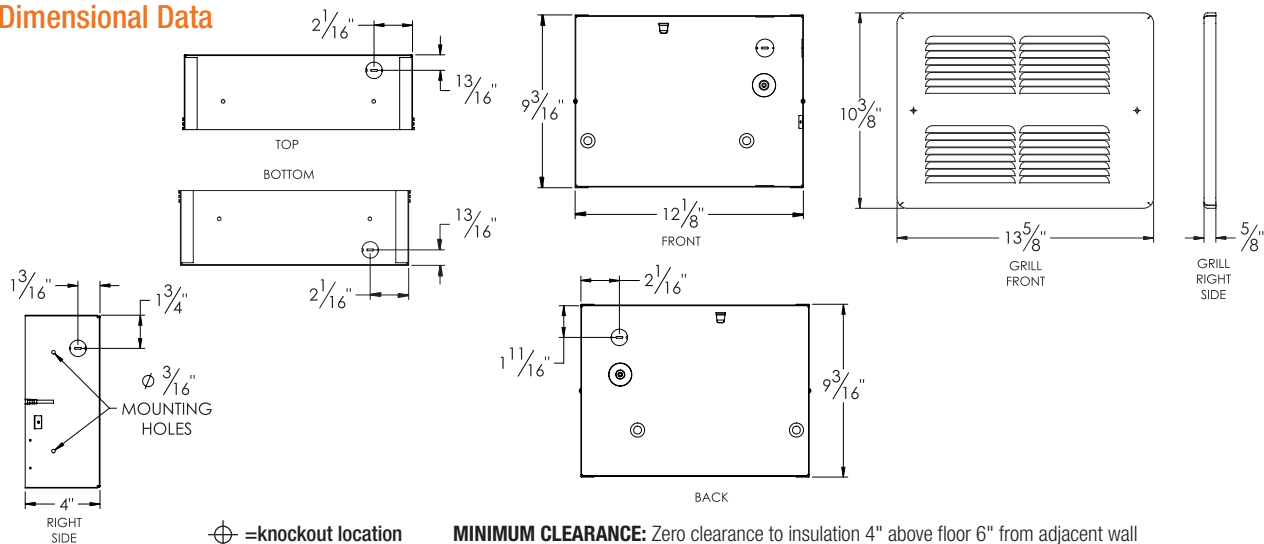
**Elements:** Element assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain knockouts. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed ground-wire. Minimum clearance 4" to floors and 6" to sidewalls. Zero clearance to combustibles material in the wall.

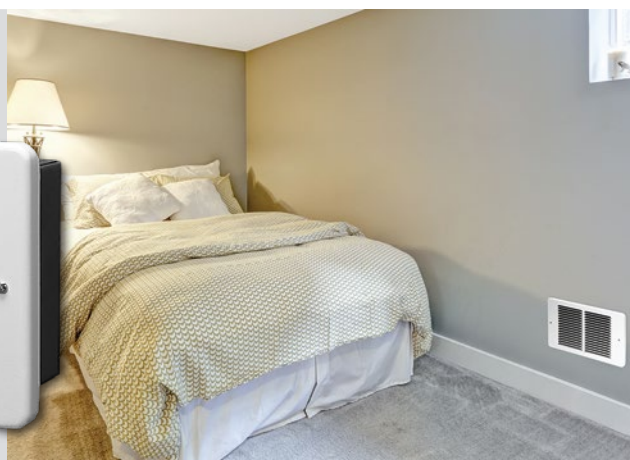
**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by the manufacturer

**Approvals:** cULus (E41422)

### Dimensional Data



# Wall Heater PAW Series


**Model Code:**

|     |    |    |    |     |
|-----|----|----|----|-----|
| PAW | 12 | 15 | -I | -RF |
| A   | B  | C  | D  | E   |

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 C: Watts (250 to 2250)  
 D: Interior & Grill  
 E: Right Hand Feed


**Pic-A-Watt**  
Steel Fin Element


- Pic-A-Watt® element
- Squirrel cage blower
- C-Frame motor
- Patented Smart Limit Protection®
- Whisper quiet
- Multiple wattages 250-2250
- 20 gauge powder-coated grill
- Wall can with QuickSet™ stud alignment tabs
- Standard color: white
- 120, 208, 240, or 277 volts
- 5 Year warranty



## The PAW Series

**The Original Multi-Watt steel fin heater and our most popular heater for single family residences** and upscale condominiums. King's exclusive Pic-A-Watt steel fin element allows customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Perfect for large living areas yet whisper quiet enough for bedrooms. The premium combination of an efficient high-mass steel element and whisper quiet squirrel cage blower, offers top of the class performance and years of trouble-free operation. PAW comes with five year warranty and 20+ year history of reliability. For best results use with an electronic line voltage wall thermostat. Also available is a built-in thermostat kit. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side all, 4" from floor minimum.

### Ordering Information \*Add suffix -W for White Grill

| BASE MODEL | VOLTS    | WATTS  | AMPS       | SHIP WEIGHT lbs |
|------------|----------|--|------------|-----------------|
| PAW1215    | 120      | 250 • 500 • 750 • 1000 • 1250 • 1500         | 2.1 - 12.5 | 9.5             |
| PAW2022    | 208      | 500 • 750 • 1000 • 1250 • 1500 • 1750 • 2250 | 2.4 - 10.8 | 9.5             |
| PAW2422    | 240/208* | 500 • 750 • 1000 • 1250 • 1500 • 1750 • 2250 | 2.1 - 9.4  | 9.5             |
| PAW2720    | 277      | 1000 • 2000                                  | 3.6 - 7.2  | 9.5             |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                           | SHIP WEIGHT lbs |
|------------|---------------------------------------|-----------------|
| -W         | White Color                           |                 |
| -B         | Black Color                           |                 |
| -SS        | Stainless Steel Grill                 | 9.6             |
| -H         | Interior Only (no can or grill)       | 7.5             |
| -I         | Interior and Grill Only (no wall can) | 7.5             |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

### Order A'la Carte Follow steps 1, 2 and 3 below to order a heater from separate parts.

#### STEP 1: Order Heatbox Interior

| ADD SUFFIX | DESCRIPTION                | SHIP WEIGHT lbs |
|------------|----------------------------|-----------------|
| -I         | Heatbox Interior and Grill | 7               |
| -H         | Heatbox Interior           | 7               |



## STEP 2: Order Wall Can

| MODEL    | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------|-------|---|-----------------|
| PAWIC    | 00515 | Recess Wall Can   | 2.5             |
| PAWIC-RF | 14033 | Recess Wall Can - Right Hand Feed   | 2.5             |
| PAWF     | 16319 | Recess Can with Flange - (remodel)  | 2.0             |
| PAWS-W   | 16305 | Surface Can - White - 13.5" L x 4.5" W x 7.5" H (Zero Clearance to Floor)           | 5.5             |
| PAWS-SS  | 16317 | Surface Can - Stainless Steel - 13.5" L x 4.5" W x 7.5" H (Zero Clearance to Floor) | 5.5             |

## STEP 3: Order Grill (not required for -I models)

| MODEL      | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|------------|-------|---|-----------------|
| PAWG-W     | 16304 | Grill - White   | 1.0             |
| PAWG-A     | 16335 | Grill - Almond  | 1.0             |
| PAWG-BLACK | 16355 | Grill - Black   | 1.0             |
| PAWG-SS    | 16330 | Grill - Stainless Steel                                   | 1.0             |
| PAWOG-A-W  | 00555 | 13" H x 13.5" W x 0.5" D Retrofit Grill - White (Size -A) | 3.0             |
| PAWOG-B-W  | 00560 | 8.5" H x 17" W x 0.5" D Retrofit Grill - White (Size -B)  | 3.0             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 20613 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 20614 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |

## Engineering Specifications

*Contractor shall supply and install PAW Series in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements

and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

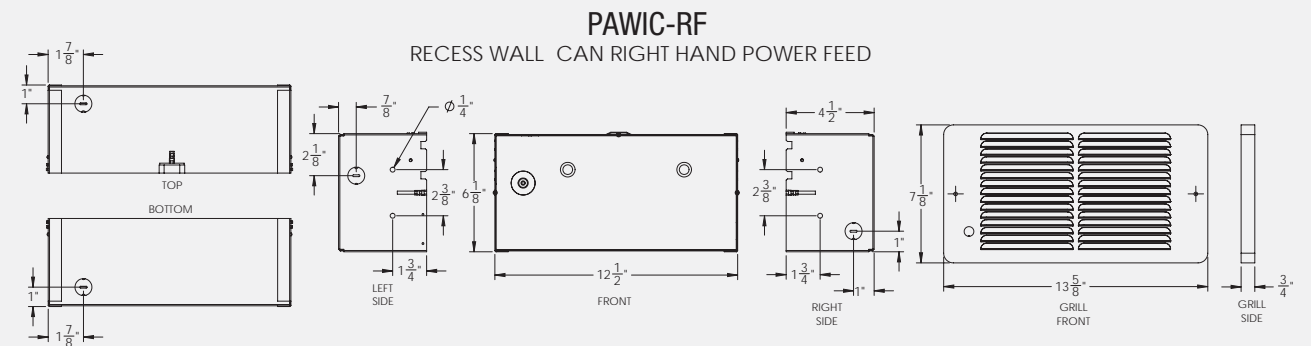
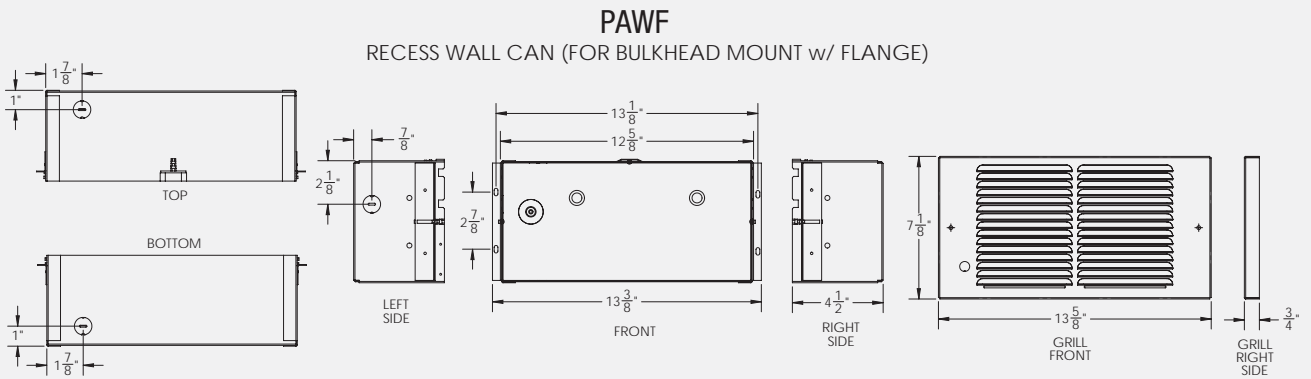
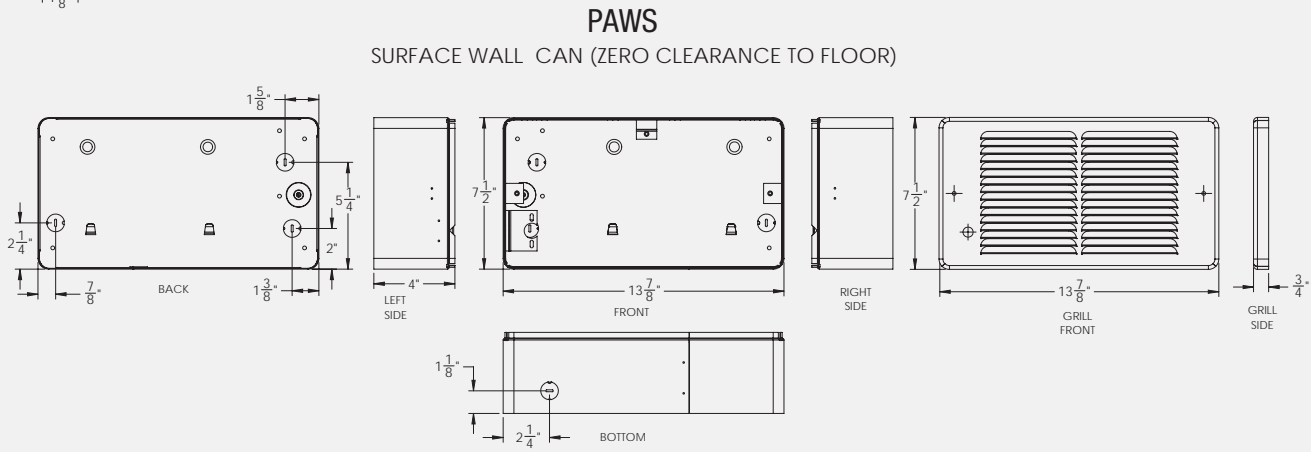
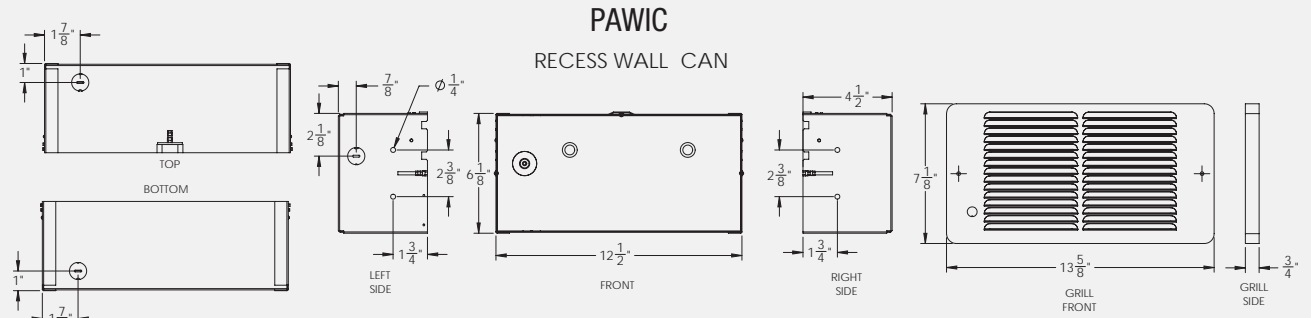
**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in white or almond.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles in the wall.

**Approvals:** cULus (E41422)

# Wall Heater PAW Series

## Dimensional Data



## Options & Accessories

Exploded view



**MINIMUM CLEARANCE**

Zero clearance to insulation 4"  
 above floor 6" from adjacent wall

PAWS

Surface Wall Enclosure

Zero clearance to floor



13.5" L x 4.5" W x 7.5" H

PAWG-SS

Stainless Steel



7.125" H x 13.625" W

PAWOG-A

Oversize Grill



13" H x 13.5" W

PAWOG-B

Oversize Grill



8.5" H x 17" W

TKIT Thermostat For Wall Heaters



DS15

Double Pole Disconnect




**Model Code:**

|     |    |    |    |
|-----|----|----|----|
| PAW | 12 | 15 | -U |
| A   | B  | C  | D  |

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 C: Watts (250 to 2250)  
 D: ULTRA Grill


 Pic-A-Watt  
Steel Fin Element


- Ultra grill
- Patented Smart Limit Protection®
- Standard color: white (optional almond color available)
- Pic-A-Watt® element
- Whisper quiet
- Multiple wattages 250-2250
- 120, 208, 240, 277 volts
- Squirrel cage blower
- C-Frame motor
- 16 gauge powder-coated grill
- 5 Year limited warranty



## The PAW Ultra Series

**Make a bold statement with the PAW ULTRA series heater.** Adding modern sophistication to our original Pic-A-Watt multi-watt steel fin heater with its sleek modern grill design, the ULTRA is ideal for upscale condominiums and luxury residences. King's exclusive Pic-A-Watt steel fin element allows customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Perfect for large living areas yet whisper quiet enough for bedrooms. The premium combination of an efficient high-mass steel element and whisper quiet squirrel cage blower, offers top of the class performance and years of trouble-free operation. PAW comes with five year warranty and 20+ year history of reliability. For use with an electronic line voltage wall thermostat.

### Complete Stock Models - Ordering Information

| MODEL       | UPC   | VOLTS | WATTS                            | AMPS     | SHIP WEIGHT lbs |
|-------------|-------|-------|----------------------------------|----------|-----------------|
| PAW2422-U-W | 18720 | 240   | 500•750•1000•1250•1500•1750•2250 | 2.1-12.5 | 9.5             |

**Order A'la Carte** Follow steps 1, 2 and 3 below to order a heater from separate parts.

#### STEP 1: Order Heatbox Interior

| MODEL     | UPC   | DESCRIPTION      | VOLTS | WATTS                            | AMPS     | SHIP WEIGHT lbs |
|-----------|-------|------------------|-------|----------------------------------|----------|-----------------|
| PAW1215-H | 18720 | Heatbox Interior | 120   | 250•500•750•1000•1250•1500       | 2.1-12.5 | 7               |
| PAW2022-H |       | Heatbox Interior | 208   | 500•750•1000•1250•1500•1750•2250 | 2.4-10.8 | 7               |
| PAW2422-H |       | Heatbox Interior | 204   | 500•750•1000•1250•1500•1750•2250 | 2.1-9.4  | 7               |
| PAW2720-H |       | Heatbox Interior | 277   | 1000•2000                        | 3.6-7.2  | 7               |

#### STEP 2: Order Wall Can

| MODEL    | UPC   | DESCRIPTION                       | SHIP WEIGHT lbs |
|----------|-------|-----------------------------------|-----------------|
| PAWIC    | 00515 | Recess Wall Can                   | 2.5             |
| PAWIC-RF | 14033 | Recess Wall Can - Right Hand Feed | 2.5             |
| PAWF     | 16319 | Recess Can with Flange (remodel)  | 2               |

#### STEP 3: Order Grill

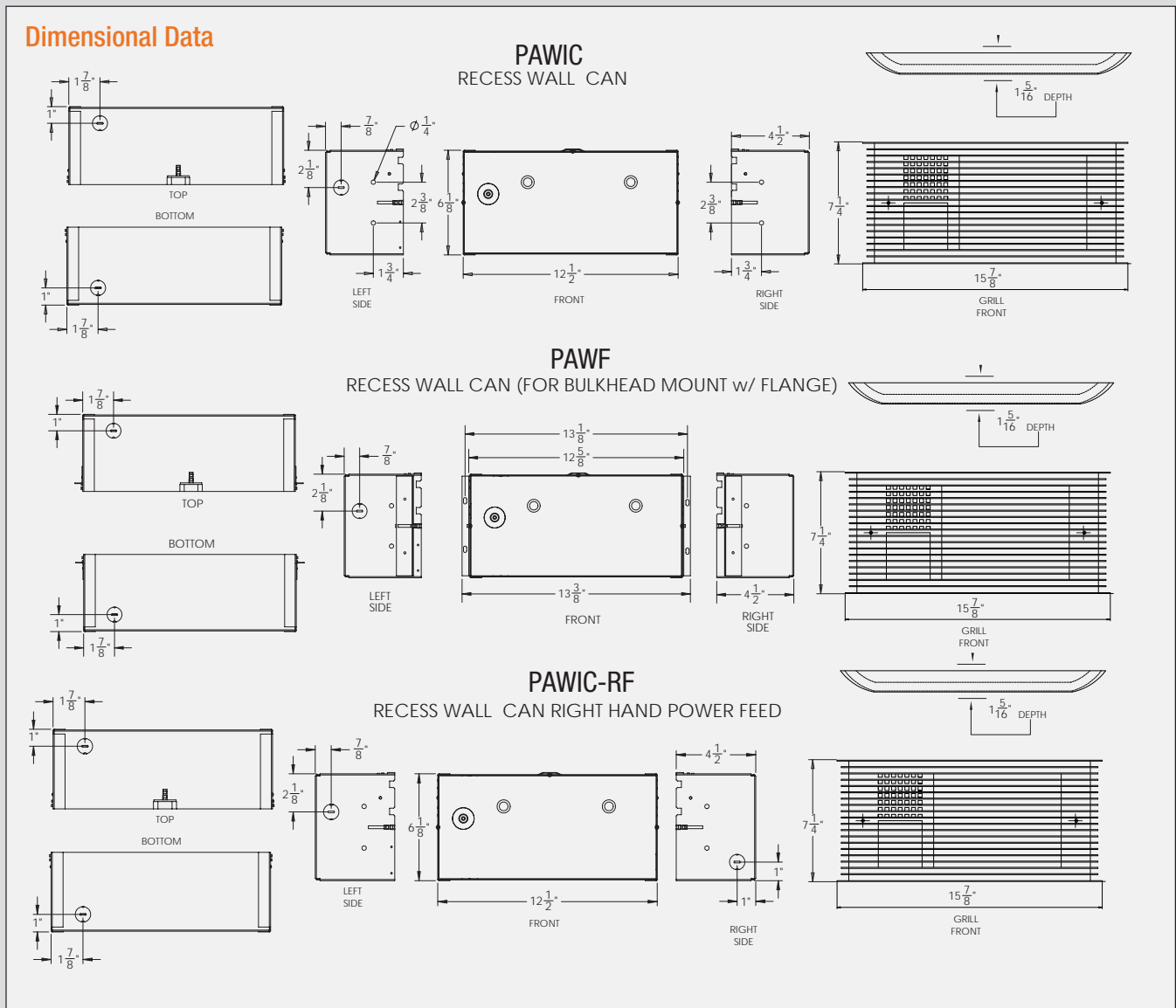
| MODEL   | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|---------|-------|--------------|-----------------|
| ULTRA-W | 18740 | Grill-White  | 1               |
| ULTRA-A | 18745 | Grill-Almond | 1               |

### Accessories

| MODEL     | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|-----------|-------|---|-----------------|
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit | 0.4             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit                        | 0.5             |

# Wall Heater PAW Ultra Series

## Dimensional Data



## Engineering Specifications

Contractor shall supply and install PAW Ultra Series in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements

and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Grill:** The grill shall be a louvered with multiple linear steel bars secured to a steel back plate, with rounded sides to prevent snags with other materials. The grill shall be epoxy powder-coated in white or almond.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles in the wall.

**Approvals:** cULus (E41422)

# Surface Mount Heater SL Series



**Model Code:**

|    |    |    |
|----|----|----|
| SL | 12 | 15 |
| A  | B  | C  |

**A: Series**  
**B: 12 - 120V 24 - 240V**  
**20 - 208V**  
**C: Watts (250 to 2250)**



- Baseboard replacement
- Zero clearance to the floor
- Multiple wattages
- Standard color: bright white
- Whisper quiet
- C-Frame motor
- Surface mount
- 120, 208 or 240 volts
- Pic-A-Watt® element
- Patented Smart Limit Protection®
- 20 Gauge powder coated grill
- 5-year limited warranty
- Squirrel cage blower

## The SL - Surface Mount Wall Heater

The Slim Line heater was specifically designed as a space-saving replacement for baseboard heaters, allowing you to reclaim up to 8 linear feet of valuable wall space. The unique slim surface-mounted wall can allows the heater to be mounted directly in contact with the finished floor (unlike other fan heaters that require to be installed at least 4" above the floor). The Pic-A-Watt® feature allows a customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Baseboard conversion made simple. 2 foot baseboard = 500W; 3 feet = 750W; 4 feet = 1000W; 5 feet = 1250W; 6 feet = 1500W; 8 feet = 1750W; 10 feet = 2250W. Same quiet and reliable design as the original PAW heater but in an easy-to install surface mounted package. For use with a field installed wall thermostat or field installed in-built thermostat.

### Ordering Information \*Add suffix -A for Almond Grill

| MODEL    | UPC   | VOLTS | WATTS                            | AMPS     | SHIP WEIGHT lbs |
|----------|-------|-------|----------------------------------|----------|-----------------|
| SL1215-W | 19550 | 120   | 250•500•750•1000•1250•1500       | 2.1-12.6 | 11              |
| SL2022-W | 19555 | 208   | 500•750•1000•1250•1500•1750•2250 | 2.4-10.8 | 11              |
| SL2422-W | 19560 | 240   | 500•750•1000•1250•1500•1750•2250 | 2.1-9.4  | 11              |

## Engineering Specifications

*Contractor shall supply and install SL Series wall surface-mounted forced air electric heaters manufactured by King Electrical Mfg. Company of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208 or 240 volts. The heater shall be approved for surface mounting with zero clearance from the floor.

**Blower and Motor:** A tangential cylindrical blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented

thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

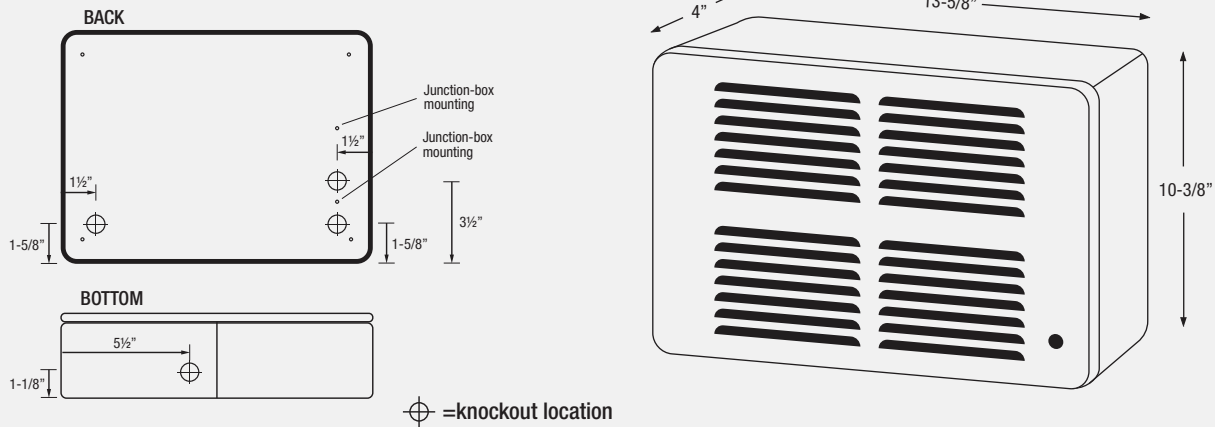
**Surface Can:** The surface can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The surface can shall be epoxy powder coated and contain a stranded ground-wire. Minimum clearance to floors is 0" and 6" to any sidewall.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified on the plans.

**Approvals:** cULus (E41422)

# Surface Mount Heater SL Series

## Dimensional Data



## Accessories

| MODEL | UPC   | DESCRIPTION                             | WEIGHT lbs |
|-------|-------|---|------------|
| SLT-1 | 19562 | Single Pole Single Throw Thermostat Kit | 0.5        |
| SLT-2 | 19564 | Double Pole Single Throw Thermostat Kit | 0.5        |



Smart Heating Solutions

RECLAIM YOUR HOME



Standard Baseboard Heater



New Slimline Space Saving Heater

With the Slimline Fan Heater by

# Multi-Watt Wall Heater EFW-MW Series



### Model Code:

|        |    |    |    |    |    |
|--------|----|----|----|----|----|
| EFW-MW | 24 | 40 | -A | -I | -T |
| A      | B  | C  | D  | E  | F  |

- A: Series
- B: 12 - 120V 24 - 240V  
20 - 208V
- C: Watts (2000 to 4800)
- D: Color
- E: Interior & Grill
- F: Thermostat (optional)



- New multi-wattage design
- NiChrome open-coil element
- Cast aluminum motor
- 5-Blade aluminum fan
- Auto-Reset safety limit
- Standard color: white Optional: almond
- 20 gauge powder-coated grill
- Available in 120, 208, 240 volts
- 1-year limited warranty

## The New EFW-MW Multi-Watt Wall Heater

The EFW-MW heater is designed to be a very affordable, large wattage wall heater. It is commonly used in apartment construction to heat rooms up to 400 square feet, or where a remote thermostat is required on a 4000 Watt-style heater. The NiChrome open-coil element dissipates heat quickly and offers multiple wattage options, tailoring the heater to a rooms' specific heating requirements. The 4-Pole cast aluminum unit bearing motor is permanently lubricated for years of trouble-free service. Intended to be used with wall mounted or built-in thermostat.

### Ordering Information \*Add suffix -W for White Grill or -A for Almond Grill

|      | MODEL        | VOLTS    | WATTS          | AMPS          | SHIP WEIGHT lbs |
|------|--------------|----------|----------------|---------------|-----------------|
| 120V | EFW1230-MW   | 120      | 2000•3000      | 16.6/25       | 16.0            |
| 208V | EFW2040-MW   | 208      | 2000•3000•4000 | 9.6/14.4/19.2 | 16.0            |
| 240V | EFW2440-MW   | 240/208* | 2000•3000•4000 | 8.3/12.5/16.6 | 16.0            |
|      | EFW2440-MW-T | 240/208* | 2000•3000•4000 | 8.3/12.5/16.6 | 16.0            |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                          | SHIP WEIGHT lbs |
|------------|--------------------------------------|-----------------|
| -W         | White Color                          |                 |
| -A         | Almond Color                         |                 |
| -HRC       | Heatbox Interior & Recessed Wall Can | 13.0            |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and EFWG grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| ADD SUFFIX     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|----------------|-------|--|-----------------|
| EFW1230-MW-HRC | 67086 | EFW Heatbox Interior & Recessed Wall Can Only 120V 3000W | 13.0            |
| EFW2040-MW-HRC | 67087 | EFW Heatbox Interior & Recessed Wall Can Only 208V 4000W | 13.0            |
| EFW2440-MW-HRC | 67088 | EFW Heatbox Interior & Recessed Wall Can Only 240V 4000W | 13.0            |

**STEP 2:** Order Grill

| MODEL      | UPC   | DESCRIPTION                             | SHIP WEIGHT lbs |
|------------|-------|---|-----------------|
| EFWG-W     | 19439 | Grill - White                           | 3.0             |
| EFWG-A     | 19440 | Grill - Almond                          | 3.0             |
| EFWOG-W    | 19442 | 21¾" H x 15½" W Oversize Grill - White  | 4.0             |
| EFWOG-A    | 19441 | 21¾" H x 15½" W Oversize Grill - Almond | 4.0             |
| EFWOG-XL-W | 19443 | 21¾" H x 16½" W Oversize Grill          | 6.5             |



# Multi-Watt Wall Heater EFW-MW Series

## Accessories

| MODEL    | UPC   | DESCRIPTION                                      | SHIP WEIGHT lbs |
|----------|-------|--|-----------------|
| UWIC     | 12590 | Recessed Wall Can                                | 6.5             |
| UWSA     | 12599 | Surface Can - White 3¾" Deep                     | 7.5             |
| UWSA-A   | 12595 | Surface Can - Almond                             | 7.5             |
| EFT-1    | 19445 | Single Pole 22 Amp Thermostat Kit                | 0.5             |
| EFT-2    | 19448 | Double Pole 22 Amp Thermostat Kit                | 0.5             |
| LPW-TPC  | 18174 | Tamper-proof Cover for Controls 3¼" x 3¼" x 18¾" | 1.5             |
| EFT-1-TP | 19480 | Tamper-proof Integral Stat Kit                   | 0.5             |

## Engineering Specifications

Contractor shall supply and install EFW-MW Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Motor:** Heavy-duty cast aluminum 4 pole unit bearing, permanently lubricated with 10cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

**Fan:** High efficiency, dynamically balanced 5-blade aluminum fan. 185 CFM.

**Multi-Wattage Elements:** Element assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to select from available wattages.

**Auto Reset Safety Limit:** The thermal cutout turns off power to the heater in the event of overheating and automatically resets when temperature returns to normal.

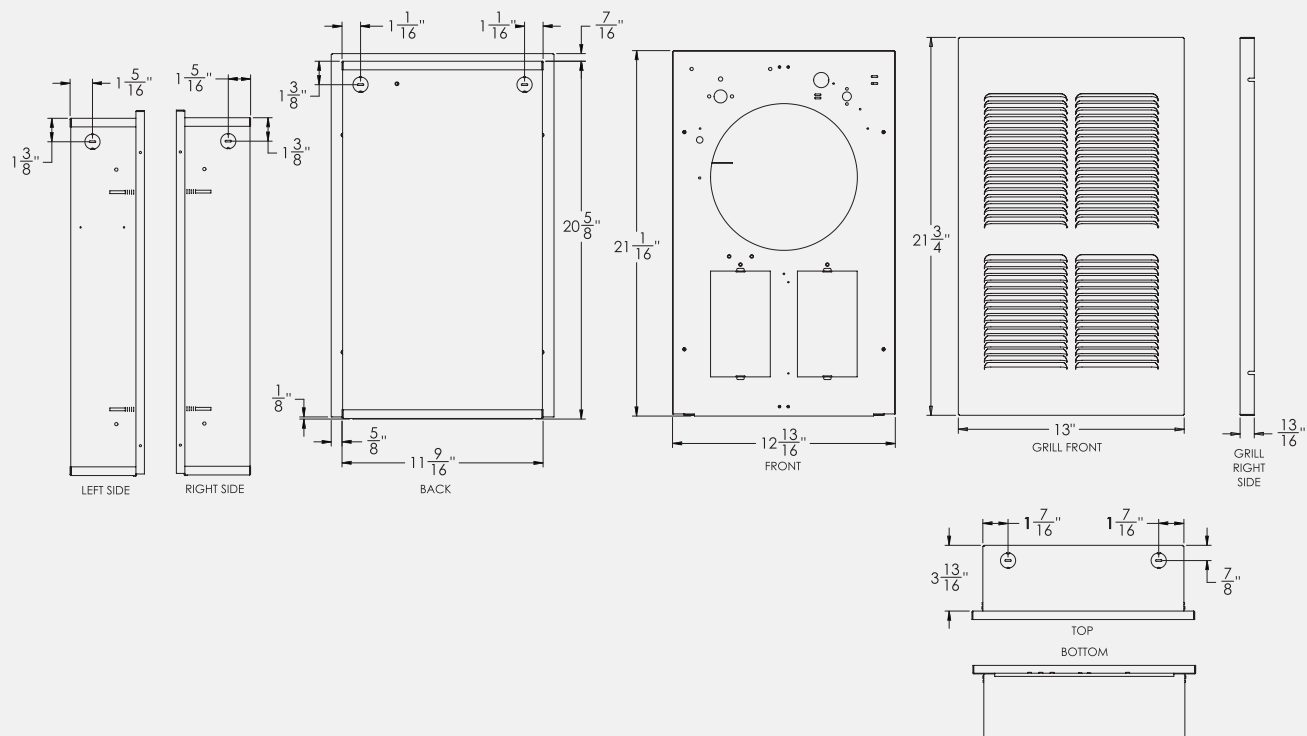
**Wall-box:** 20 gauge electro-galvanized steel with factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to insulation in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

**Grill:** 20 gauge steel finished in a gloss white, powder-coated paint. Optional Almond color.

**Options:** 1-Pole or 2-Pole built-in thermostat 45-80°F operating range, retrofit grill, and surface wall-box.

**Approvals:** cCSAus

## Dimensional Data



# High Wall Heater WHF-HM Series



### Model Code:

|        |    |    |    |
|--------|----|----|----|
| WHF-HM | 12 | 10 | -A |
| A      | B  | C  | D  |

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V  
 C: Watts (500 to 2000)  
 D: Color



With U.S. & Global Materials



- Mounts 6 feet above the floor
- Squirrel Cage Blower
- Whisper Quiet
- Ni-chrome Open-Coil Element
- Patented Smart Limit Protection\*
- 20 gauge powder-coated grill
- Standard color: white
- C-Frame Motor
- 20 gauge electrogalvanized steel recess can with
- Wall can with QuickSet™ stud alignment tabs
- 120, 208, or 240 volts
- Dual Wattage
- 1 Year Warranty

## The WHF-HM Wall Heater

The WHF-HM High Mount heater is designed for applications to be mounted 6' above the floor. It is commonly used where wall space is limited. The high wall mounting allows you to use absolutely any wall in a room without affecting the furniture or decor placement. The WHF-HM provides extreme value by combining an open coil Ni-chrome wire element and squirrel cage blower. For maximum comfort and efficiency, an electronic wall thermostat is recommended. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side all, 72" from floor minimum, 12" from ceiling minimum.

### Ordering Information \*Add suffix -W for White Grill or -A for Almond Grill

|      | BASE MODEL | VOLTS    | WATTS                  | AMPS                | SHIP WEIGHT lbs |
|------|------------|----------|------------------------|---------------------|-----------------|
| 120V | WHF1210-HM | 120      | 500 • 1000             | 4.2 - 8.4           | 8.0             |
|      | WHF1212-HM | 120      | 600 • 1200             | 5.0 - 10.0          | 8.0             |
|      | WHF1215-HM | 120      | 750 • 1500             | 6.3 - 12.5          | 8.0             |
| 208V | WHF2010-HM | 208      | 500 • 1000             | 2.4 - 4.8           | 8.0             |
|      | WHF2015-HM | 208      | 750 • 1500             | 3.6 - 7.2           | 8.0             |
|      | WHF2020-HM | 208      | 1000 • 2000            | 4.8 - 9.6           | 8.0             |
| 240V | WHF2410-HM | 240/208* | 500/375* • 1000/750*   | 2.1/1.8* • 4.2/3.6* | 8.0             |
|      | WHF2415-HM | 240/208* | 750/562* • 1500/1125*  | 3.1/2.7* • 6.2/5.4* | 8.0             |
|      | WHF2420-HM | 240/208* | 1000/750* • 2000/1500* | 4.2/3.6* • 8.4/7.2* | 8.0             |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                                   | SHIP WEIGHT lbs |
|------------|---|-----------------|
| -W         | White Color                                   | 8.0             |
| -H         | Heatbox Interior Only (no can or grill)       | 3.5             |
| -I         | Heatbox Interior and Grill Only (no wall can) | 5.5             |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** Follow steps 1, 2 and 3 below to order a heater from separate parts.

**STEP 1:** Order Heatbox Interior

| ADD SUFFIX | DESCRIPTION                                   | SHIP WEIGHT lbs |
|------------|---|-----------------|
| -H         | Heatbox Interior Only (no can or grill)       | 3.5             |
| -I         | Heatbox Interior and Grill Only (no wall can) | 5.5             |

# High Wall Heater WHF-HM Series

## STEP 2: Order Wall Can

| MODEL  | UPC   | DESCRIPTION                                       | SHIP WEIGHT lbs |
|--------|-------|---|-----------------|
| UIC    | 12640 | Recess Wall Can                                   | 3.5             |
| UICF   | 12540 | Recess Can with Flange (remodel)                  | 4.0             |
| WHSC-W | 19204 | Surface Can - White - 13.5" H x 10.125" W x 4" D  | 4.0             |
| WHSC-A | 19205 | Surface Can - Almond - 13.5" H x 10.125" W x 4" D | 4.0             |

## STEP 3: Order Grill (not required for -I models)

| MODEL     | UPC   | DESCRIPTION                                 | SHIP WEIGHT lbs |
|-----------|-------|---|-----------------|
| WHFG-HM-A | 13509 | WHF ACCY GRILL FOR HIGH MOUNT HEATER ALMOND | 2.0             |
| WHFG-HM-W | 12020 | WHF ACCY GRILL FOR HIGH MOUNT HEATER WHITE  | 2.0             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

## Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit, | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |

## Engineering Specifications

Contractor shall supply and install WHF-HM Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company.

Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 2,000 at 120, 208, or 240 Volts

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection<sup>®</sup>, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

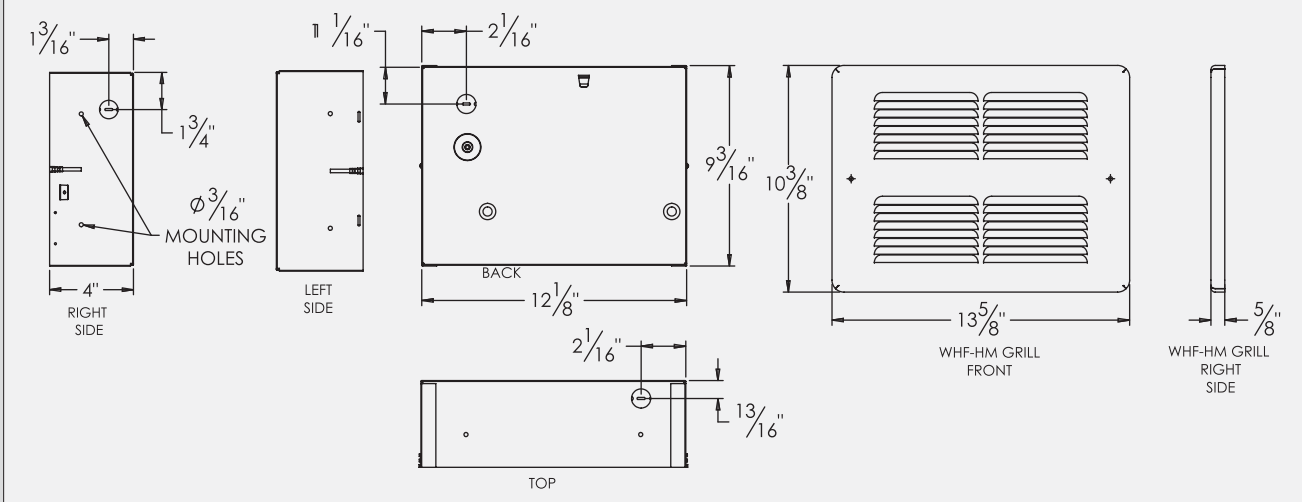
**Elements:** Element assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Wall Can:** The wall can shall be 20 gauge electrogalvanized steel and shall contain knockouts. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed groundwire. Minimum clearance 72" to floors, 6" to sidewalls, and 12" to the ceiling. Zero clearance to down flow.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by the manufacturer

**Approvals:** cULus (E41422)

## Dimensional Data



# Outdoor Rated Wall Heater WSC Series



**Model Code:**

|   |    |    |     |
|---|----|----|-----|
| W | 12 | 10 | -T2 |
| A | B  | C  | D   |

**A: Series**  
**B: 12 - 120V 24 - 240V**  
**20 - 208V**  
**C: Watts (500 to 2000)**  
**D: Thermostat (optional)**



- UL Certified For Outdoor Use
- Surface Mount Design
- C-Frame Motor
- Multiple Freeze Protection Applications
- NiChrome Open Coil Element For Quick Heat Transfer
- 4-Blade Aluminum Fan
- Reduces Moisture From Mechanical Equipment
- Dual Wattage Design
- Patented Smart Limit Protection®
- Keeps Pumps, Valves, & Farm Machinery From Freezing
- 1-year limited warranty

## The "WSC" Outdoor Rated Wall Heater

The WSC Heater is a surfaced-mounted UL certified for outdoor use, ideal for many freeze protection applications.

The WSC was designed to reduce moisture from mechanical equipment and keep pumps, valves, and farm machinery from freezing.

By combining an efficient impeller style fan with a NiChrome heating element, the WSC heater delivers instant heat in even the draftiest locations. For use with a wall thermostat or in-built thermostat.

**"Complete" Stock Models** For other voltage wattage options use "Order A'la Carte" chart below to build your own complete heater.

| BASE MODEL  | UPC   | VOLTS | WATTS    | AMPS       | COLOR | SHIP WEIGHT lbs |
|-------------|-------|-------|----------|------------|-------|-----------------|
| WSC1215-T-B | 33480 | 120   | 1500•750 | 12.5 - 6.3 | Black | 10              |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own "Complete" with options (not noted above) select -I model of proper voltage and WSC-B surface can.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| MODEL       | UPC   | VOLTS    | WATTS       | AMPS       | DESCRIPTION                    | SHIP WEIGHT lbs |
|-------------|-------|----------|-------------|------------|--------------------------------|-----------------|
| W1210-I-T-B | 33481 | 120      | 1000 • 500  | 8.3 or 4.2 | Heatbox Interior & Black Grill | 6               |
| W2020-I-T-B | 33482 | 208      | 2000 • 1000 | 9.6 or 4.8 | Heatbox Interior & Black Grill | 6               |
| W2420-I-T-B | 33483 | 240/208* | 2000 • 1000 | 8.3 or 4.2 | Heatbox Interior & Black Grill | 6               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**STEP 2:** Order Surface Can

| MODEL | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-------|-------|--|-----------------|
| WSC-B | 19206 | Surface Can - Black 13.5" L x 10"W x 4"H (Outdoor Rated) | 4               |

# Outdoor Rated Wall Heater WSC Series

## Engineering Specifications

Contractor shall supply and install WSC Series surface mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Wattages of 500 to 2,000 at 120, 208 or 240 Volts are available. Heaters shall provide air movement at 85 CFM.

**Fan and Motor:** Motor shall be shaded pole, permanently lubricated, C-frame type with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air. The motor shall be equipped with a dynamically balanced four-blade aluminum impeller fan, located in the upper portion of the heat box, and shall provide a down-flow heating pattern.

**Elements:** Assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Outdoor Rated:** When the W series is installed in a WSC surface can it adds UL ratings for outdoor Applications.

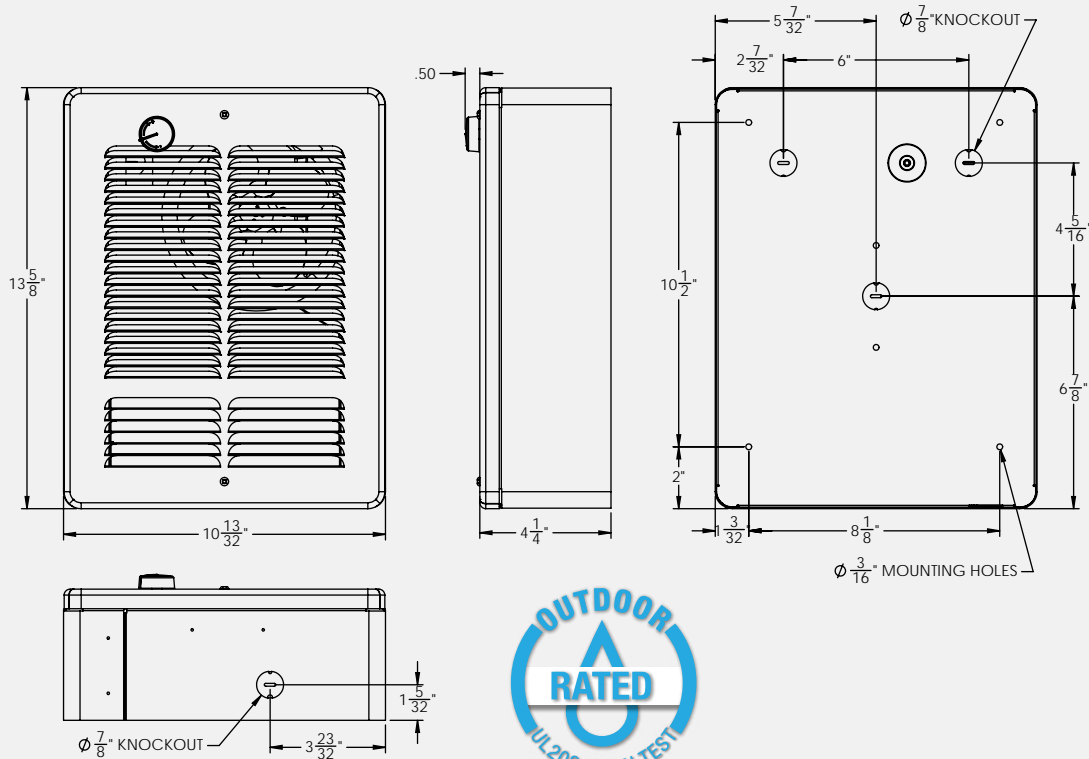
**Smart Limit Thermal Protection:** Turns off heater during any unsafe temperatures on inlet or outlet and will only reset if power is interrupted for 10 minutes. Simply turning thermostat down below set point will reset. Exclusive King design and patented for US and Canada under #6,748,163 B2 and #2,393,882

**Clearance:** 6" to a side wall, 4" from floor minimum.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

### Dimensional Data



# Vandal Resistant Heater LPWW Series



## Model Code:

LPWW 24 15 -TP  
A B C D

A: Series  
B: 12 - 120V 24 - 240V  
20 - 208V 27 - 277V  
C: Watts (500 to 1500)  
D: Thermostat (optional)



Pic-A-Watt



- Pic-A-Watt® element
- Impact/Vandal resistant
- Cast iron motor
- 5-Blade aluminum fan
- Patent Smart Limit Protection®
- Multiple wattages
- 3/16" plate steel grill
- Selector switch: fan/heat/off
- Available in 120, 208, 240, or 277 volts
- Standard color: White
- 5-year limited warranty



## The LPWW Vandal Resistant Heater

High traffic areas, such as detention areas, public rest rooms, rest areas, and any public areas needing vandal resistance are best heated with the LPWW Series. The heavy grill and 3/16" solid steel frame can withstand heavy impact and abuse. Tamper-resistant screws prevent unauthorized disassembly of the grill. Controls are recessed out of reach of fiddling fingers. Moderate wattage and high airflow capacities replenish entryways and hallways to prevent drafts from entering the building's core. Minimum and maximum security level 3 & 4.

### Ordering Information \*Add suffix -BZ for Bronze finish

| MODEL    | UPC   | VOLTS    | WATTS             | AMPS      | SHIP WEIGHT lbs |
|----------|-------|----------|-------------------|-----------|-----------------|
| LPWW1215 | 18286 | 120      | 1250 • 1500       | 10.4-12.5 | 24              |
| LPWW2015 | 18287 | 208      | 500•750•1000•1500 | 2.4-7.2   | 24              |
| LPWW2415 | 18288 | 240/208* | 500•750•1000•1500 | 2.1-6.3   | 24              |
| LPWW2715 | 18289 | 277      | 500•750•1000•1500 | 1.8-5.4   | 24              |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

Contractor shall supply and install LPWW Vandal Resistant Series in-wall mounted forced-air electric heater manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

**Grill:** Heavy 3/16" thick plate with 5/16" hole pattern grille provides high impact resistance to damage. Grill is attached with tamper-proof 1/4"-20 screws (hex socket/pinned). All controls are accessed through grill with slotted screwdriver. Standard color is white. Optional dark bronze available.

**Elements:** Element assemblies shall consist of steel sheathed heating tubes in a furnace brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Optional Built-in Thermostat:** Single Pole factory installed hydraulic capillary tube with precision control. Operating range 40°F to 90°F. Thermostat is tamper-proof to prevent unauthorized adjustment.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat remaining in the elements.

**Fan / Heat / Off Switch:** Tamper-proof 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Controls are accessed through grill with slotted screwdriver.

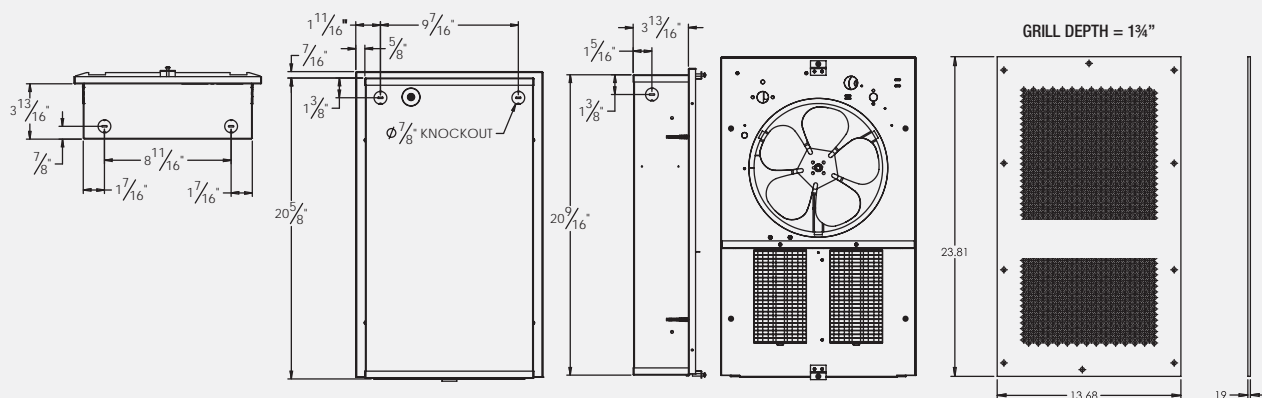
**Unit Bearing Motor:** Permanently lubricated cast iron motor with enclosed rotor provides long-lasting, trouble-free operation and a 20cc oil reservoir. Thermally protected. 1300 RPM.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Wall-box:** 20 gauge electro-galvanized steel with 18 gauge reinforcements. Factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls. Optional Circuit Breaker / Disconnect

**Approvals:** cULus

## Dimensional Data



## Options/Accessories

| ADD SUFFIX | DESCRIPTION   | WEIGHT lbs |
|------------|---|------------|
| -BZ        | Grill - Bronze  | 24         |
| -W         | Grill - White   | 24         |
| -CT24      | Transformer that converts 208, 240 and 277 Volts to 24 Volt Control Circuit | 24.5       |
| -TP        | Factory Installed Tamper-proof Thermostat                                   | 24         |
| -CB        | Circuit Breaker / Disconnect 20A  | 0.5        |

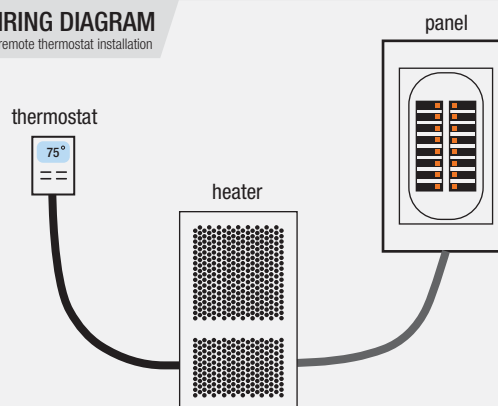
| MODEL     | UPC   | DESCRIPTION                   | WEIGHT lbs |
|-----------|-------|-------------------------------|------------|
| LPWICV    | 12593 | Recess Wall Can               | 6.5        |
| LPWSAV    | 12594 | Surface Mount Wall Box White  | 6.5        |
| LPWSAV-BZ | 12596 | Surface Mount Wall Box Bronze | 3.0        |

## Exploded View



## WIRING DIAGRAM

for remote thermostat installation



Power must be routed to heater first, then to remote thermostat.

## Tamper-proof Screw

Grill is attached with tamper-proof 1/4"-20 screws (hex socket/pinned).



# Architectural Heater LPWA Series



**Model Code:**

|      |    |    |    |     |    |
|------|----|----|----|-----|----|
| LPWA | 24 | 45 | -S | -TP | -G |
| A    | B  | C  | D  | E   | F  |

**A: Series**  
**B: 12 - 120V 24 - 240V**  
**20 - 208V 27 - 277V**  
**C: Watts (1500 to 4500)**  
**D: Surface Can (Included)**  
**E: Tamper Proof Thermostat**  
**F: Color**



- Dual Pic-A-Watt® Elements
- Long life unit bearing motor
- Tamper resistant
- Tamper proof thermostat
- Tamper proof Heat/Fan/OFF Disconnect switch
- 5-Blade aluminum fan
- Patented Smart Limit Protection®
- Multiple wattage options
- Extruded aluminum grill
- 120, 208, 240, or 277 Volts
- 5-year limited warranty
- Optional colors silver, white bronze & black

## The LPWA Architectural Heater

**Entryways, corridors and all public areas are best heated with the LPWA Series.** The heavy duty grill and frame can withstand heavy traffic and abuse. Tamper-resistant screws prevent unauthorized disassembly of the grill. Controls are recessed out-of-reach of fiddling fingers. Comes standard w/ Tamper proof Heat/Fan/OFF disconnect switch & tamper proof built-in thermostat. High wattage and airflow capacities replenish entryways and hallways to prevent drafts from entering the building's core. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements.

**Ordering Information** \*Add suffix -BZ for bronze, -B for black, -W for white, -G for silver

|             | MODEL           | UPC   | COLOR  | VOLTS    | WATTS                                   | AMPS | SHIP WEIGHT lbs |
|-------------|-----------------|-------|--------|----------|---|------|-----------------|
| <b>120V</b> | LPWA1227-TP-G   | 18194 | Silver | 120      | 1250•1500•1750•2000•2750                | 22.9 | 24              |
|             | LPWA1227-TP-W   | 20557 | White  | 120      | 1250•1500•1750•2000•2750                | 22.9 | 24              |
|             | LPWA1227-S-TP-G | 33052 | Silver | 120      | 1250•1500•1750•2000•2750                | 22.9 | 24              |
|             | LPWA1227-S-TP-W | 20558 | White  | 120      | 1250•1500•1750•2000•2750                | 22.9 | 24              |
| <b>208V</b> | LPWA2045-TP-G   | 18245 | Silver | 208      | 2250•2750•3000•3250•3500•3750•4000•4500 | 21.6 | 24              |
|             | LPWA2045-TP-W   | 18247 | White  | 208      | 2250•2750•3000•3250•3500•3750•4000•4500 | 21.6 | 24              |
|             | LPWA2045-S-TP-G | 18241 | Silver | 208      | 2250•2750•3000•3250•3500•3750•4000•4500 | 21.6 | 24              |
|             | LPWA2045-S-TP-W | 18339 | White  | 208      | 2250•2750•3000•3250•3500•3750•4000•4500 | 21.6 | 24              |
| <b>240V</b> | LPWA2445-TP-G   | 18191 | Silver | *240/208 | 2250•2750•3000•3250•3500•3750•4000•4500 | 18.7 | 24              |
|             | LPWA2445-TP-W   | 18178 | White  | *240/208 | 2250•2750•3000•3250•3500•3750•4000•4500 | 18.7 | 24              |
|             | LPWA2445-S-TP-G | 32962 | Silver | *240/208 | 2250•2750•3000•3250•3500•3750•4000•4500 | 18.7 | 24              |
|             | LPWA2445-S-TP-W | 32973 | White  | *240/208 | 2250•2750•3000•3250•3500•3750•4000•4500 | 18.7 | 24              |
| <b>277V</b> | LPWA2740-TP-G   | 18199 | Silver | 277      | 2000•3000•4000                          | 14.4 | 24              |
|             | LPWA2740-TP-W   | 20921 | White  | 277      | 2000•3000•4000                          | 14.4 | 24              |
|             | LPWA2740-S-TP-G | 18185 | Silver | 277      | 2000•3000•4000                          | 14.4 | 24              |
|             | LPWA2740-S-TP-W | 33019 | White  | 277      | 2000•3000•4000                          | 14.4 | 24              |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

*Contractor shall supply and install LPWA Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans*

**Grill:** Heavy duty extruded 12 gauge aluminum provides high impact resistance to damage. Grill is attached with tamper-proof screws (hex socket/pinned). All controls are easily accessed through grill with slotted screwdriver. Standard color is anodized silver. Dark bronze or white is available.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to eight (8) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Tamper Proof:** Single Pole factory installed hydraulic capillary tube with precision control. Operating range 40°F to 90°F. Thermostat is

tamper-proof to prevent unauthorized adjustment.

**Fan / Heat / Off Switch:** Tamper-proof 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Controls are easily accessed through grill with slotted screwdriver.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements.



# Architectural Heater LPWA Series

**Unit Bearing Motor:** Permanently lubricated cast iron motor with enclosed rotor provides long-lasting, trouble-free operation and a 20cc oil reservoir. Thermally protected. 1300 RPM. **Wall box:** 20 gauge electro-galvanized steel. Factory installed ground-wire.

Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls. **Optional Circuit Breaker / Disconnect:** 20 Amp or 30 Amp **Control:** Transformer Relay 24V/ heat lock out delay **Approvals:** cULus

**Dimensional Data**

**MINIMUM CLEARANCE:** Zero clearance to insulation recommended 10" above floor 6" from adjacent wall surface

Front view dimensions: Total width 12 7/8", Total height 23 1/4", Top panel width 11 5/8", Top panel height 3 3/4", Bottom panel height 1 7/8", Bottom panel width 8 1/8".

Side view dimensions: Total height 22 1/8", Top panel height 1 3/4" (both sides), Bottom panel height 1 3/4" (both sides), Clearance to wall 2" (both sides).

Knockouts: 5X Ø 7/8" (1/2" STANDARD CONDUIT)

Perspective view dimensions: Total width 12 3/4", Total height 23 1/4".

## Options

| ADD SUFFIX | DESCRIPTION  | WEIGHT lbs |
|------------|--|------------|
| -B         | Grill - Black  | 24         |
| -BZ        | Grill - Bronze   | 24         |
| -W         | Grill - White  | 24         |
| -G         | Grill - Silver   | 24         |
| -CT24*     | Transformer that converts 208, 240 and 277 Volts to 24 Remote Thermostat Control | 24.5       |
| -HLR       | Heat Lock Out Relay for BMS Systems  | 0          |
| -S         | Surface Can Included   | 24         |
| -CB2       | 20 Amp Double Pole Circuit Breaker / Disconnect (277V Models Only)               | 0.5        |
| -CB3       | 30 Amp Double Pole Circuit Breaker / Disconnect                                  | 0.5        |

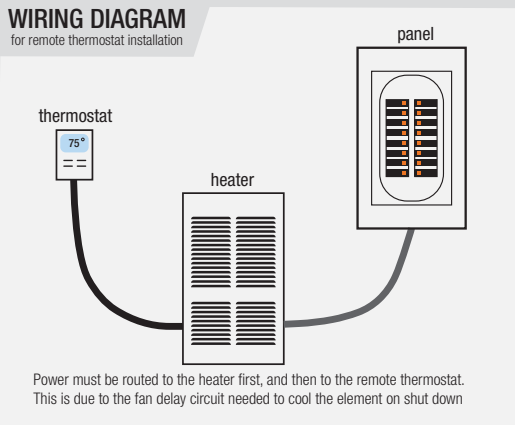
\*Remove -TP Suffix when ordering -CT24 Option

## Accessories

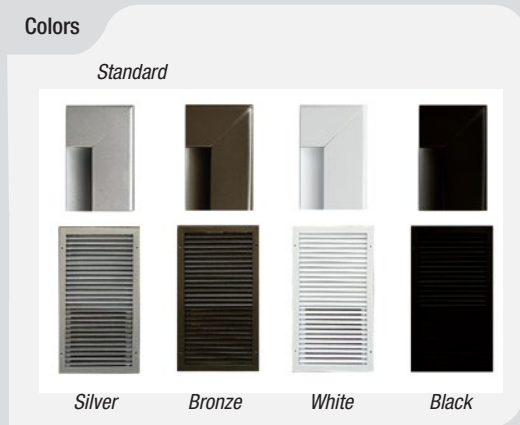
| MODEL     | UPC   | DESCRIPTION                         | WEIGHT lbs |
|-----------|-------|-------------------------------------|------------|
| LPWAIC    | 18200 | Architectural Recess Wall Can       | 6.5        |
| LPWASA-B  | 17345 | Surface Can Black                   | 5          |
| LPWASA-BZ | 18202 | Surface Can Bronze                  | 5          |
| LPWASA-G  | 18197 | Surface Can Silver (Standard)       | 5          |
| LPWASA-W  | 18201 | Surface Can White                   | 5          |
| LPWAG-BZ  | 18206 | LPWA Series Grill - Bronze          | 7          |
| LPWAG-G   | 18179 | LPWA Series Grill - Silver          | 7          |
| LPWAG-BW  | 18387 | LPWA Series Grill - Bright White    | 7          |
| LPWA-TP   | 18140 | Tamper-proof Thermostat Replacement | 2          |

## WIRING DIAGRAM

for remote thermostat installation



## Colors



# Kickspace Heater KT-MW Series



### Model Code:

|    |    |    |    |
|----|----|----|----|
| KT | 12 | 10 | -T |
| A  | B  | C  | D  |

A: Series  
 B: 12 - 120V 24 - 240V  
 C: Watts (250 to 1500)  
 D: Thermostat (optional)



- Open coil nichrome elements
- C-Frame motor
- Squirrel cage blower
- Patented Smart Limit Protection\*
- 20 gauge powder coated grill
- Dual wattage
- Standard color: white
- Optional almond, black, & stainless steel
- 120 or 240/208\* volts
- Low profile
- 1-year limited warranty



## The KT-MW Kickspace Heater

This narrow profile heater is only 3½" tall and specifically designed to conveniently fit under kitchen or bathroom cabinets, providing warm air for cold bathroom or kitchen. Valuable floor and wall space is saved. The optional KTG-24W Retrofit Grill allows for easy replacement of older kickspace heaters. Install heater and fit with long grill to cover existing cutout. For applications other than kickspace use KTG-OL Grill. Check floor covering manufacturer's recommendation for acceptable surface temperature.

### Ordering Information \*Add suffix -W for White Grill or -B for Black Grill

| BASE MODEL | VOLTS    | WATTS                      | AMPS       | SHIP WEIGHT lbs |
|------------|----------|----------------------------|------------|-----------------|
| KT1215-MW  | 120      | 250•500•750•1000•1250•1500 | 2.1 - 12.5 | 8.5             |
| KT2415-MW  | 240/208* | 250•500•750•1000•1250•1500 | 1.0 - 6.3  | 8.5             |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                        | SHIP WEIGHT lbs |
|------------|------------------------------------|-----------------|
| -B         | Black Color                        | 0               |
| -W         | White Color                        | 0               |
| -SS        | Stainless Steel Color              | 0               |
| -T         | Onboard Single Pole Thermostat Kit | 9               |
| -T2        | Onboard Double Pole Thermostat Kit | 9               |
| -HRC       | Interior & Recessed Wall Can       | 7.5             |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

### Order A'la Carte \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and KTG grill model of proper color.

#### STEP 1: Order Heatbox Interior

| ADD SUFFIX    | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|---------------|-------|---|-----------------|
| KT1215-MW-HRC | 32714 | KT Kick Space HTR 120V 1500W Interior & Recessed Wall Can             | 7.5             |
| KT2415-MW-HRC | 32718 | KT Kick Space HTR 240/208V 1500W/1125W Interior and Recessed Wall Can | 7.5             |

#### STEP 2: Order Grill

| MODEL        | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|--------------|-------|--|-----------------|
| KTG-A        | 12296 | Grill - Almond - 3-1/2" x 16-1/2"                                      | 1.0             |
| KTG-B        | 12297 | Grill - Black - 3-1/2" x 16-1/2"                                       | 1.0             |
| KTG-W        | 12295 | Grill - White - 3-1/2" x 16-1/2"                                       | 1.0             |
| KTG-24W-A    | 20533 | Retrofit Grill - Almond - 24" x 3-3/8"                                 | 1.0             |
| KTG-24W-B    | 12299 | Retrofit Grill - Black - 24" x 3-3/8"                                  | 1.0             |
| KTG-24W-W    | 12276 | Retrofit Grill - White - 24" x 3-3/8"                                  | 1.0             |
| KTG-SS-3-1/2 | 12267 | Grill - Stainless Steel Standard - 3-1/2" x 16-1/2" (No Overlap)       | 1.1             |
| KTG-OL-B     | 12268 | Grill - Overlap 1/2" on All Sides - Black - 4-1/2" x 16-1/2"           | 1.1             |
| KTG-OL-W     | 12275 | Grill - Overlap 1/2" on All Sides - White - 4-1/2" x 16-1/2"           | 1.1             |
| KTG-SS       | 12269 | Grill - Overlap 1/2" on All Sides - Stainless Steel - 4-1/2" x 16-1/2" | 1.1             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

# Kickspace Heater KT-MW Series

## Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 11059 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-1BL  | 17346 | Wall Heater Accessory SP Thermostat Kit Black                  | 0.5             |
| TKIT-2BL  | 17347 | Wall Heater Accessory DP Thermostat Kit Black                  | 0.5             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |

## Engineering Specifications

Contractor shall supply and install KT Series limited space-mounted forced air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 250 to 1,500 at 120 Volts or dual rated from 208 Volts to 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall be dual element construction of coiled Nickel Chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

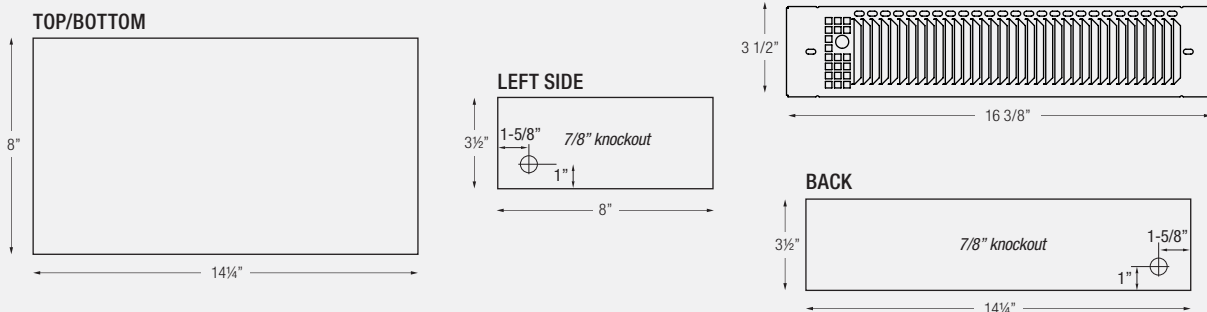
**Grill:** The grill shall be a louvered, one-piece design. The grill shall be epoxy powder-coated in the color specified on the plans.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

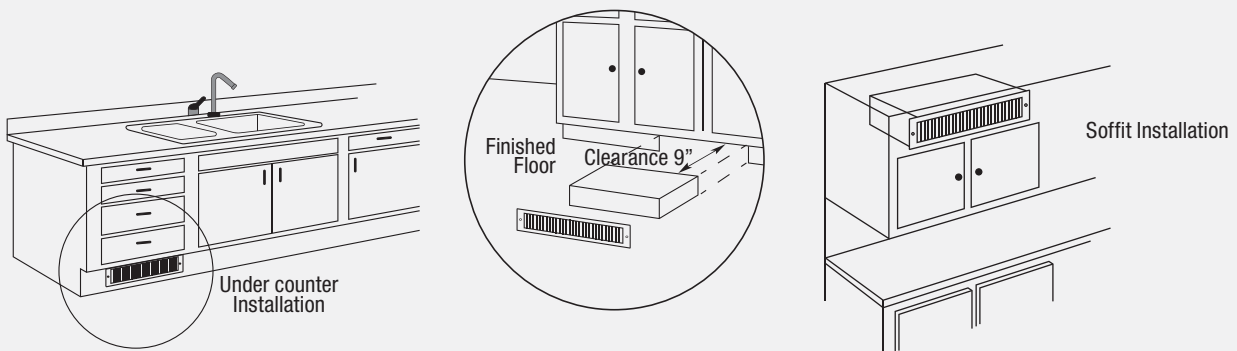
**Wall Can:** The wall can shall be 20 gauge electrogalvanized steel and contain knockouts. The wall can shall be supplied with a factory installed ground wire. Zero Clearance to floors and 6" to sidewalls.

**Approvals:** cULus (E41422)

## Dimensional Data



## Installation



# Multi-Watt Horizontal/Vertical Heater KTW Series



### Model Code:

KTW 12 15 -HLS -RG -B -T  
A B C D E F G

- A: Series
- B: 12 - 120V 24 - 240V
- C: Watts (250 to 1500)
- D: High/Low Switch
- E: Grill Style
- F: Color (black)
- G: Thermostat (optional)



- Triple Coil Nichrome Element
- 20 Gauge Powder Coated Grill
- Low Profile
- C-Frame Motor
- 7 Wattages in one heater
- 120 or 240/208\* volts
- Squirrel Cage Blower
- Standard Color: Black, (optional almond, white or stainless)
- 2-year limited warranty
- Patented Smart Limit Protection®



## Horizontal / Vertical Heater

**King introduces another first.** The only convertible cabinet heater that can be installed either vertically or horizontally on the market. This narrow profile heater is only 3-5/8" tall and specifically designed to fit into kitchen or bathroom cabinets, providing warm comfortable air for a cold bathrooms or kitchens saving valuable floor and wall space. For application other than kickspace, use the KTW-TG Grill.

### Ordering Information \*Add suffix -W for White Grill or -B for Black Grill

| BASE MODEL       | VOLTS    | WATTS                      | AMPS       | SHIP WEIGHT lbs |
|------------------|----------|----------------------------|------------|-----------------|
| KTW1215-HLS-RG-B | 120      | 250•500•750•1000•1250•1500 | 2.1 - 12.5 | 11              |
| KTW1215-HLS-RG-W | 120      | 250•500•750•1000•1250•1500 | 2.1 - 12.5 | 11              |
| KTW2415-HLS-RG-B | 240/208* | 250•500•750•1000•1250•1500 | 1.0 - 6.3  | 11              |
| KTW2415-HLS-RG-W | 240/208* | 250•500•750•1000•1250•1500 | 1.0 - 6.3  | 11              |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Order A'la Carte \*\*To build your own "Complete" select HRC model of proper voltage and KTW-RG grill model of proper color.

#### STEP 1: Order Heatbox Interior and Recessed Wall Can

| ADD SUFFIX      | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|-----------------|-------|---|-----------------|
| KTW1215-HLS-HRC | 14005 | KTW HTR 120V 1500W W/HI-LOW SW Heatbox Interior & Recessed Can Only         | 10.0            |
| KTW2415-HLS-HRC | 14006 | KTW HTR 240/208V 1500/1125 W/HI-LOW SW Heatbox Interior & Recessed Can Only | 10.0            |

#### STEP 2: Order Grill

| MODEL     | UPC   | DESCRIPTION                          | SHIP WEIGHT lbs |
|-----------|-------|--------------------------------------|-----------------|
| KTW-RG-B  | 20578 | Grill, Recessed - Black              | 1.0             |
| KTW-RG-A  | 20577 | Grill, Recessed - Almond             | 1.0             |
| KTW-RG-SS | 20579 | Grill, Recessed - Stainless Steel    | 1.0             |
| KTW-RG-W  | 20580 | Grill, Recessed - White              | 1.0             |
| KTW-TG-A  | 20581 | Grill, SurfaceTrim - Almond          | 1.0             |
| KTW-TG-B  | 20582 | Grill, SurfaceTrim - Black           | 1.0             |
| KTW-TG-SS | 20583 | Grill, SurfaceTrim - Stainless Steel | 1.0             |
| KTW-TG-W  | 20584 | Grill, SurfaceTrim - White           | 1.0             |

**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

### Accessories

| MODEL     | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------|-------|--|-----------------|
| TKIT-1BW  | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW  | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A   | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A   | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-1-TP | 11056 | Built-in Tamper Proof Single Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-2-TP | 11057 | Built-in Tamper Proof Double Pole Single Throw Thermostat Kit  | 0.4             |
| TKIT-1BL  | 17346 | Wall Heater Accessory SP Thermostat Kit Black                  | 0.5             |
| TKIT-2BL  | 17347 | Wall Heater Accessory DP Thermostat Kit Black                  | 0.5             |
| DS15      | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |

# Multi-Watt Horizontal/Vertical Heater KTW Series

## Engineering Specifications

Contractor shall supply and install, KTW Series limited space forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and Voltage as indicated on the plans.

**Elements:** Element assemblies shall have a 3-wattage element construction of coiled nickel chromium, alloy corrosion resistant wire strung with a minimum of two rows of muscovite insulator. Element assemblies shall have factory provided connection to allow field modification of wattage at time of installation.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Hi/Lo selector switch:** Wattage can be adjusted from 250-1250 watts in the low position and 750-1500 watts in the hi position (HLS Optional).

**Wall Can:** The wall can shall be 20-gauge steel and shall contain two 1/2" knockouts for power leads. The wall can shall be supplied with a factory installed grounding wire.

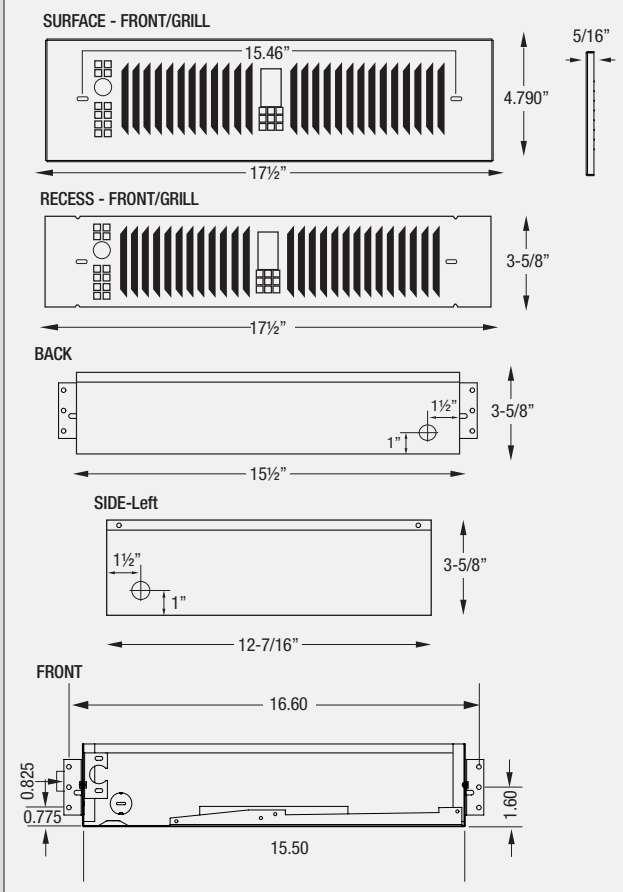
**Grill:** The grill shall be louvered, one piece design. The grill shall be epoxy powder coated in the color specified on the plans or stainless steel.

**Ratings:** Heaters shall be available in wattages of 250 to 1,500 at 120 volts or dual rated from 208 volts to 240 volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Approval:** cULus (E41422)

### Dimensional Data - KTW



### Location for Heater: KTW

This heater has been designed to allow it to be recessed at floor level in the toe space of cabinets or under counters or at the base of walls.

### Internal View of the KTW

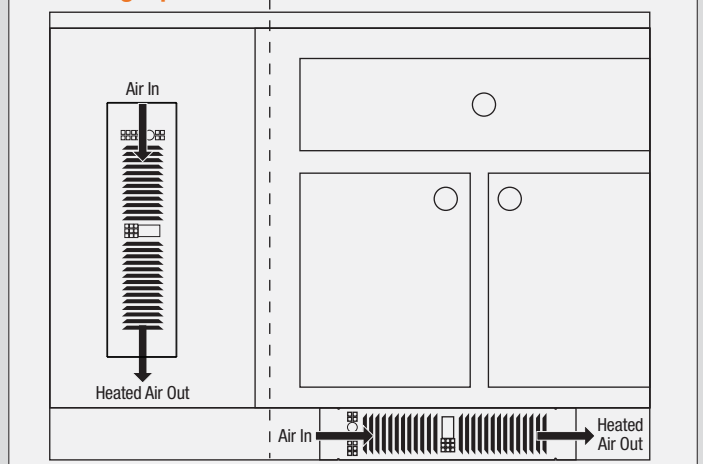


### Minimum Clearance In Wall, Vertical Installation

When placed in a wall or a filler section of a cabinet.

| Front | Top | Bottom | Sides |
|-------|-----|--------|-------|
| 36"   | 0"  | 2"     | 0"    |
| 91cm  | 0cm | 5cm    | 0cm   |

### Mounting Options



### Minimum Clearance In Toe Space Installation

When placed in a wall or a filler section of a cabinet.

| Front | Top | Bottom | Sides |
|-------|-----|--------|-------|
| 36"   | 0"  | 0"     | 0"    |
| 91cm  | 0cm | 0cm    | 0cm   |

# Baseboard Heater K Series



### Model Code:

4 K 24 10 BW -HAL  
A B C D E F

A: Length  
B: Series  
C: Volts  
D: Watts (375 to 2400)  
E: Color (BW) Bright White (A) Almond  
F: -HAL (High Altitude Limit)

- Aluminum ribbon fin element
- Full length safety cutout
- Crushproof element
- Natural convection heat
- Back wire design
- Built-in clamps coming soon
- Baked enamel finish
- Dent resistant die form cover
- 120, 208, 240 or 277 volts
- Available high altitude limit option
- Standard color: bright white (optional almond color)
- 1-year limited warranty

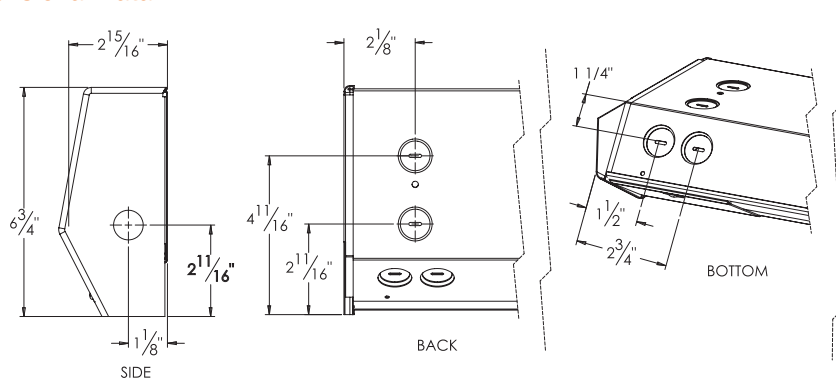


## The K Series Baseboard Heater

**Baseboard heaters** are an economical way to provide heat. They are typically used in apartment construction and other rental properties because of low initial cost and maintenance. Quality components guarantee a long-lasting, reliable heater. Standard color is bright white. Almond color available. Institutional grade 18 gauge front covers and 22 gauge back cans are available for special applications. All other specifications are the same as the standard heater.



### Dimensional Data Standard Junction Box



## Engineering Specifications

Contractor shall supply and install K Series electric convection baseboard heaters manufactured by King Electrical Mfg. Company of the wattage, voltage and length indicated on the plans.

### Construction:

- The heater shall take room air in the bottom (lower front) and discharge it through the top front.
- The heater front, back, bottom, and top shall be fabricated 22 gauge steel, ribbed longitudinally for extra strength and have center support to resist impact loads.
- The heater casing shall have modern rounded ends and corners to provide a smooth appearance, finished with a baked enamel.
- The heater shall be provided with a continuous capillary sensor tube for thermal protection, extending the full length of the heating element, rated at 175° F, and be a fail-safe type.

- The heater shall have a 44 cubic inch junction box at both ends, furnished with five 1/2" knockouts located on the back, bottom, and side.
- Heater elements shall consist of high quality 80% Nickel and 20% Chromium alloy corrosion-resistant wire completely surrounded by Magnesium Oxide and enclosed in a rust-resistant sheath. Ribbon aluminum finning shall be compression welded to the sheathed element to provide chimney-type flue for heat transfer.
- Heaters shall be supplied with a one year limited warranty.

### Rating and Approval:

- The heaters shall be available in ratings from 375 through 1,500 Watts at 120 Volts, and 375 to 2,400 Watts at 208-240 and 277 Volts.
- The heaters shall be available in 187 or 250 Watts per lineal foot.
- cULus (E29778)

# Baseboard Heater K Series

**Ordering Information** Standard models Add suffix BW for bright white color and A for optional almond color.

|             | MODEL  | VOLTS   | WATTS     | AMPS     | LENGTH | SHIP WEIGHT lbs |
|-------------|--------|---------|-----------|----------|--------|-----------------|
| <b>120V</b> | 2K1205 | 120     | 500       | 4.2      | 27"    | 6.5             |
|             | 3K1207 | 120     | 750       | 6.3      | 3 ft.  | 8               |
|             | 4K1210 | 120     | 1000      | 8.3      | 4 ft.  | 10.5            |
|             | 5K1212 | 120     | 1250      | 10.4     | 5 ft.  | 13              |
|             | 6K1215 | 120     | 1500      | 12.5     | 6 ft.  | 15              |
| <b>208V</b> | 2K2005 | 208     | 500       | 2.4      | 27"    | 6.5             |
|             | 3K2007 | 208     | 750       | 3.6      | 3 ft.  | 8               |
|             | 4K2010 | 208     | 1000      | 4.8      | 4 ft.  | 10.5            |
|             | 5K2012 | 208     | 1250      | 6.0      | 5 ft.  | 13              |
|             | 6K2015 | 208     | 1500      | 7.2      | 6 ft.  | 15              |
| <b>240V</b> | 8K2020 | 208     | 2000      | 9.6      | 8 ft.  | 19              |
|             | 8K2024 | 208     | 2400      | 11.5     | 8 ft.  | 19              |
|             | 2K2405 | 240/208 | 500/375   | 2.1/1.8  | 27"    | 6.5             |
|             | 3K2407 | 240/208 | 750/563   | 3.1/2.7  | 3 ft.  | 8               |
|             | 4K2410 | 240/208 | 1000/750  | 4.2/3.7  | 4 ft.  | 10.5            |
| <b>277V</b> | 5K2412 | 240/208 | 1250/938  | 5.2/4.5  | 5 ft.  | 13              |
|             | 6K2415 | 240/208 | 1500/1125 | 6.3/5.5  | 6 ft.  | 15              |
|             | 8K2420 | 240/208 | 2000/1500 | 8.3/7.2  | 8 ft.  | 19              |
|             | 8K2424 | 240/208 | 2400/1800 | 10.0/8.7 | 8 ft.  | 19              |
|             | 2K2403 | 277     | 500       | 1.8      | 27"    | 6.5             |
| <b>277V</b> | 3K2405 | 277     | 750       | 2.7      | 3 ft.  | 8               |
|             | 4K2407 | 277     | 1000      | 3.6      | 4 ft.  | 10.5            |
|             | 5K2410 | 277     | 1250      | 4.5      | 5 ft.  | 13              |
|             | 6K2412 | 277     | 1500      | 5.4      | 6 ft.  | 15              |
|             | 8K2415 | 277     | 2000      | 7.2      | 8 ft.  | 19              |
|             | 8K2418 | 277     | 2400      | 9.0      | 8 ft.  | 19              |

**Ordering Information** \*Low Density: 187 Watts per foot Add suffix BW for bright white color and A for optional almond color.

|  | MODEL  | VOLTS | WATTS | AMPS | LENGTH | SHIP WEIGHT lbs |
|--|--------|-------|-------|------|--------|-----------------|
|  | 2K2405 | 208   | 375   | 1.8  | 27"    | 6.5             |
|  | 3K2407 | 208   | 563   | 2.7  | 3 ft.  | 8               |
|  | 4K2410 | 208   | 750   | 3.6  | 4 ft.  | 10.5            |
|  | 5K2412 | 208   | 938   | 4.5  | 5 ft.  | 13              |
|  | 6K2415 | 208   | 1125  | 5.4  | 6 ft.  | 15              |
|  | 8K2420 | 208   | 1500  | 7.2  | 8 ft.  | 19              |
|  | 8K2424 | 208   | 1800  | 9.0  | 8 ft.  | 19              |
|  | 2K2403 | 240   | 375   | 1.6  | 27"    | 6.5             |
|  | 3K2405 | 240   | 563   | 2.3  | 3 ft.  | 8               |
|  | 4K2407 | 240   | 750   | 3.1  | 4 ft.  | 10.5            |
|  | 5K2410 | 240   | 938   | 3.9  | 5 ft.  | 13              |
|  | 6K2412 | 240   | 1125  | 4.7  | 6 ft.  | 15              |
|  | 8K2415 | 240   | 1500  | 6.3  | 8 ft.  | 19              |
|  | 8K2418 | 240   | 1800  | 7.8  | 8 ft.  | 19              |

## Factory Installed Options

| ADD SUFFIX | DESCRIPTION   | SHIP WEIGHT lbs |
|------------|---|-----------------|
| BW         | Bright White Color  | 0               |
| A          | Almond Color  | 0               |
| -HAL       | High Altitude Limit (For Baseboards Used Above 7,000 Feet Altitude) | N/A             |
| -BK        | Optional Backwire Junction Box                                      | N/A             |

## Accessories

| MODEL           | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-----------------|-------|--|-----------------|
| BK-COVER-A      | 55517 | J-BOX Cover, K/CB Base Board, Blank, Almond                                | 0.2             |
| BK-COVER-BW     | 55518 | J-BOX Cover, K/CB Base Board, Blank, Bright White                          | 0.2             |
| BKT1BW          | 11484 | Built-In Thermostat Kit (SPST) - Bright White (Available in 5 Packs)       | 0.6             |
| BKT2BW          | 11488 | Built-In Thermostat Kit (DPST) - Bright White (Available in 5 Packs)       | 0.5             |
| BKT1A           | 20657 | Built-In Thermostat Kit (SPST) - Almond (Available in 5 Packs)             | 0.6             |
| BKT2A           | 14889 | Built-In Thermostat Kit (SPST) - Almond (Available in 5 Packs)             | 0.6             |
| BKT1BW-TP       | 11542 | Built-In Tamperproof Stat Kit (SPST) - Bright White (Available in 5 Packs) | 0.3             |
| BKT2BW-TP       | 11544 | Built-In Tamperproof Stat Kit (DPST) - Bright White (Available in 5 Packs) | 0.6             |
| BKT-TIMER3HR-BW | 11487 | 3 Hour spring wound timer/wire leads 16 amp/250 Vac. 15 Amp/125 Vac.       | 0.6             |

# Baseboard Heater Accessories K & CB Series

## Accessories

| MODEL       | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-------------|-------|--|-----------------|
| BKC-BW      | 11474 | Corner Connector - Bright White, inside cover                            | 1.5             |
| BKR120-BW   | 11494 | Duplex Cover Plate (includes 120V receptacle) - Bright White (See below) | 0.5             |
| BKLT120-BW* | 11481 | Load Transfer Cover Plate (Heat/Cool/Off) 120V - Bright White            | 0.5             |
| BKLT240-BW* | 11483 | Load Transfer Cover Plate (Heat/Cool/Off) 240V - Bright White            | 0.5             |
| BKCB1-BW    | 11532 | 3-3/4" Relay Control Box - Bright White                                  | 1.5             |
| BKCB2-BW    | 11534 | 7-1/8" Dual Relay Control Box - Bright White                             | 3.0             |

\*Requires BKCB1 Control box, order separately.

## Shield Options \*Add suffix -W for White Grill or -A for Almond Grill NON Cancel-able - NON Returnable item (NCNR)

| MODEL       | DESCRIPTION                     | SHIP WEIGHT lbs |
|-------------|---------------------------------|-----------------|
| SHIELD-33"  | Heater Shield for 27" Baseboard | 6               |
| SHIELD-42"  | Heater Shield for 3' Baseboard  | 7               |
| SHIELD-54"  | Heater Shield for 4' Baseboard  | 8.5             |
| SHIELD-66"  | Heater Shield for 5' Baseboard  | 10              |
| SHIELD-78"  | Heater Shield for 6' Baseboard  | 11              |
| SHIELD-102" | Heater Shield for 8' Baseboard  | 14              |

## Cover Options \* Specify Color: Almond or White NON Cancel-able - NON Returnable item (NCNR)

| MODEL            | DESCRIPTION                      | SHIP WEIGHT lbs |
|------------------|----------------------------------|-----------------|
| BB-18ga Cover 2' | 18 Gauge Cover for 27" Baseboard | 1.5             |
| BB-18ga Cover 3' | 18 Gauge Cover for 3' Baseboard  | 2               |
| BB-18ga Cover 4' | 18 Gauge Cover for 4' Baseboard  | 2.6             |
| BB-18ga Cover 5' | 18 Gauge Cover for 5' Baseboard  | 3.7             |
| BB-18ga Cover 6' | 18 Gauge Cover for 6' Baseboard  | 4               |
| BB-18ga Cover 8' | 18 Gauge Cover for 8' Baseboard  | 5.3             |

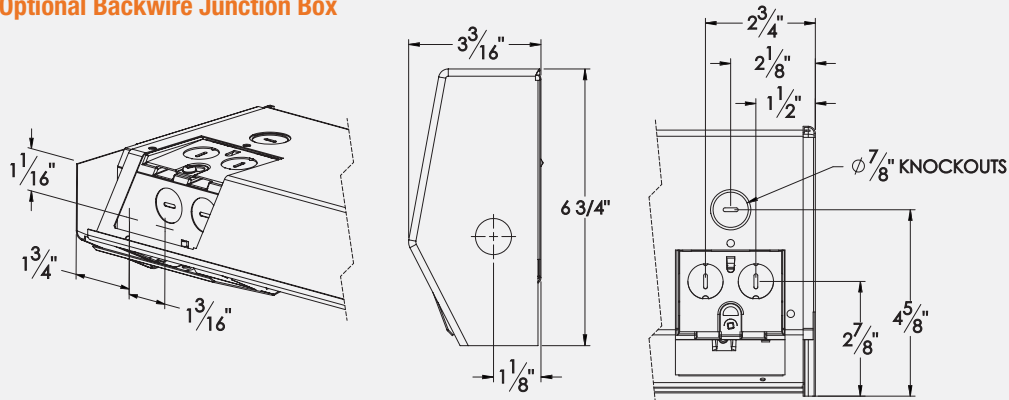
## Thermostats, Options & Accessories



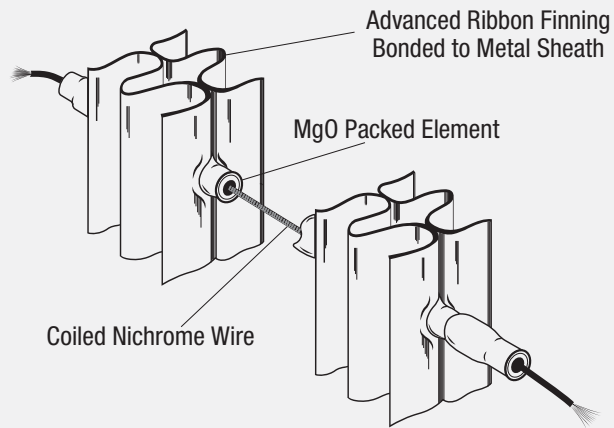


# Baseboard Heater Accessories K & CB Series

## Optional Backwire Junction Box



## Crush Proof Design



# Ceramic Core Baseboard Heater CB Series



### Model Code:

|   |    |     |    |    |      |
|---|----|-----|----|----|------|
| 2 | CB | 240 | 03 | BW | -HAL |
| A | B  | C   | D  | E  | F    |

**A:** Length  
**B:** Series  
**C:** 12 - 120V 24 - 240V 20 - 208V  
**D:** Watts (350 to 1500)  
**E:** Color (BW) Bright White (A) Almond  
**F:** -HAL (High Altitude Limit)



- High mass ceramic heating-core
- Natural convection heat
- Low density heat
- Quiet running
- Fluid-free design
- Standard color: bright white (optional almond color available)
- Available in three voltages 120V / 208V / 240V
- 5 year limited warranty



## The CB Ceramic Core Baseboard Heater

King's premium ceramic baseboard has over 55 years of proven reliability and performance. The high mass ceramic element design far exceeds the performance of a standard baseboard with thermal storage from the ceramic core and more efficient heat transfer from oversized aluminum fins. The result is more gentle heating with fewer on/off cycles as the ceramic core slowly heats up and then continues to dissipate heat during the off cycle. Lower surface temperatures and reduced watt density making the heater much safer. A better alternative to water or oil-filled baseboard heaters that can leak due to high pressure created when heating the fluid in a self-contained vessel.

**Ordering Information** \* Add suffix (-A) for optional Almond finish Note: Over 8500 ft Altitude 210 degree high limits will need to be used.

|             | MODEL       | VOLTS   | WATTS | AMPS | LENGTH | SHIP WEIGHT lbs |
|-------------|-------------|---------|-------|------|--------|-----------------|
| <b>120V</b> | 2CB1203     | 120     | 350   | 2.9  | 27"    | 7               |
|             | 3CB1205     | 120     | 500   | 4.2  | 3 ft.  | 8               |
|             | 4CB1207     | 120     | 750   | 6.3  | 4 ft.  | 10.5            |
|             | 5CB1210     | 120     | 1000  | 8.3  | 5 ft.  | 13              |
|             | 6CB1212     | 120     | 1250  | 10.4 | 6 ft.  | 16              |
|             | <b>208V</b> | 2CB2003 | 208   | 350  | 1.7    | 27"             |
| 3CB2005     |             | 208     | 500   | 2.4  | 3 ft.  | 8               |
| 4CB2007     |             | 208     | 750   | 3.6  | 4 ft.  | 10.5            |
| 5CB2010     |             | 208     | 1000  | 4.8  | 5 ft.  | 13              |
| 6CB2012     |             | 208     | 1250  | 6.0  | 6 ft.  | 16              |
| <b>240V</b> |             | 8CB2015 | 208   | 1500 | 7.2    | 8 ft.           |
|             | 2CB2403     | 240     | 350   | 1.5  | 27"    | 7               |
|             | 3CB2405     | 240     | 500   | 2.1  | 3 ft.  | 8               |
|             | 4CB2407     | 240     | 750   | 3.1  | 4 ft.  | 10.5            |
|             | 5CB2410     | 240     | 1000  | 4.2  | 5 ft.  | 13              |
|             | 6CB2412     | 240     | 1250  | 5.2  | 6 ft.  | 16              |
|             | 8CB2415     | 240     | 1500  | 6.3  | 8 ft.  | 20.5            |

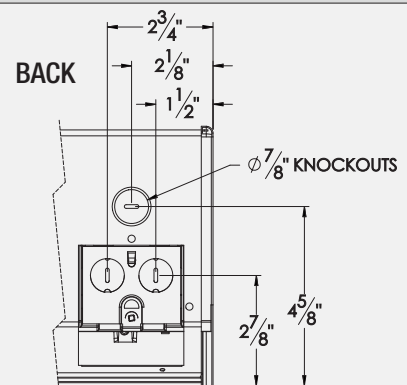
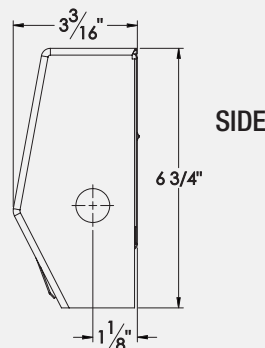
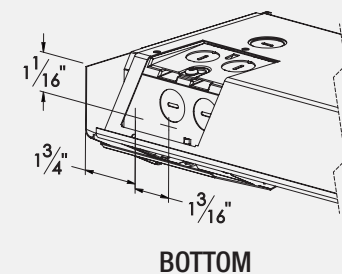
\*Refer to accessories page for options

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION                    | SHIP WEIGHT lbs |
|------------|--------------------------------|-----------------|
| BW         | Bright White Color             | 0               |
| A          | Almond Color                   | 0               |
| -HAL       | High Altitude Limit            | N/A             |
| -BK        | Optional Backwire Junction Box | N/A             |

### Dimensional Data

See Pg 36 for Standard Backwire Junction Box



## Engineering Specifications

Contractor shall supply and install CB ceramic baseboard heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Typical Application:** The rugged construction makes this a very durable heater suitable as a primary heat source for everyday use.

**Element:** The superior performance comes from the proven technology of the ceramic heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in<sup>2</sup>) are made from durable (0.015" thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly.

**Safety:** The large heating element and low watt density produce low surface temperatures making it very safe.

**Thermal Cutout:** A continuous capillary sensor extends the full length of the baseboard, turning the element off when an over temperature

condition occurs. Automatically resets when the normal temperature returns. Optional manual reset available.

**Construction:** Expansion noise is eliminated by welding the junction boxes and element hangers to the baseboard case. 22 gauge steel adds strength across the entire length of the baseboard.

**Quick Wiring:** Identical junction boxes with knockouts in the rear, side and bottom allow the baseboard to be wired from either end. One screw makes quick access to the wiring compartment.

**Exterior:** Durable baked enamel finish. Colors include standard bright white with almond as an option. Custom colors are available upon request. Commercial Construction: Optional 18 gauge front cover for commercial use.

**Options:** Single Pole or Double Pole unit-mount thermostat 45°-80°F.

**Quiet:** The low temperature element heats cleanly and quietly.

**Warranty:** 5 year product warranty.

**Approvals:** cULus (E29778)

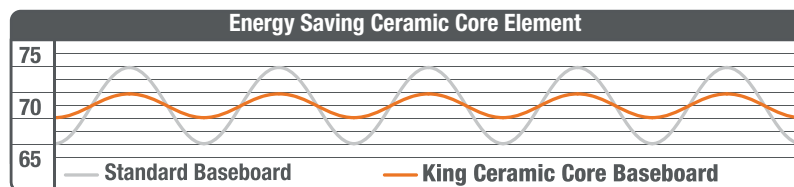


## Over 55 years of Proven Performance

*CB Baseboards Can Save Money on Your Heating Bills!*

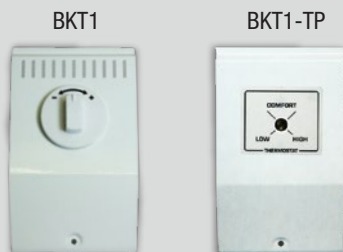
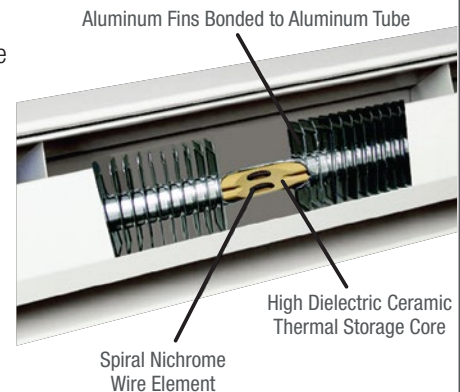
### Ceramic Core Element (Liquid-Free Design)

The CB baseboard produces quiet convection heat with fewer on/off cycles as the ceramic core slowly heats up and then continues to dissipate heat during the off cycle which dramatically reduces the temperature swings associated with standard electric baseboards. Every one degree decrease in the thermostat setting results in approximately a 3% decrease in energy savings. The CB baseboard enables you to feel comfortable at a lower thermostat setting which can result in a 3% to 5% saving on your energy bills.

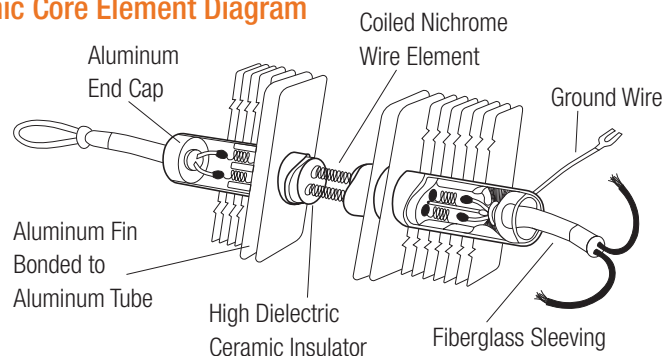


\*Reduces temperature swings

When combined with an electronic thermostat the saving can be over 10% as the temperature swing will be decreased even more. The optimum results of up to 25% savings can be achieved with the CB heater and a programmable thermostat that will turn the temperature down automatically at bedtime and while you are away. (Refer to King's broad selection of electronic line voltage thermostats)



### Ceramic Core Element Diagram



# Ceiling Heater WHFC Series



**Model Code:**

|      |    |    |
|------|----|----|
| WHFC | 12 | 10 |
| A    | B  | C  |

A: Series  
 B: 12 - 120V 20 - 208V 24 - 240V  
 C: Watts (500 to 1500)



- Nichrome open-coil element
- C-Frame motor
- Squirrel cage blower
- Patented Smart Limit Protection®
- Whisper quiet
- Ceiling mount
- Dual wattage
- Recess can with QuickSet™ stops
- Powder coated grill
- Standard color: white (almond optional)
- 3 -year limited warranty

## The WHFC Ceiling Heater

This value-priced ceiling heater provides all of the features offered by the original WHF but adds the benefits of a ceiling mounted design. Its extreme value comes from combining the rapid heat transfer of a NiChrome element with the performance of a squirrel cage blower.

### Ordering Information \*Add suffix -W for White Grill

|      | MODEL    | VOLTS    | WATTS      | AMPS     | SHIP WEIGHT lbs |
|------|----------|----------|------------|----------|-----------------|
| 120V | WHFC1210 | 120      | 500 • 1000 | 4.2-8.4  | 8 lbs           |
|      | WHFC1215 | 120      | 750 • 1500 | 6.3-12.5 | 8 lbs           |
| 208V | WHFC2010 | 208      | 500 • 1000 | 2.4-4.8  | 8 lbs           |
|      | WHFC2015 | 208      | 750 • 1500 | 3.6-7.2  | 8 lbs           |
| 240V | WHFC2410 | 240/208* | 500 • 1000 | 2.1-4.2  | 8 lbs           |
|      | WHFC2415 | 240/208* | 750 • 1500 | 3.1-6.3  | 8 lbs           |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Options / Accessories

| ADD SUFFIX | DESCRIPTION                           | SHIP WEIGHT lbs |
|------------|---------------------------------------|-----------------|
| -W         | White Color                           |                 |
| -I         | Interior and Grill Only (no wall can) | 6.0             |
| -H         | Heat Box Only (no wall can)           | 5.0             |

| MODEL            | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|------------------|-------|---|-----------------|
| DS15             | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V) | 0.5             |
| WHIC-C           | 12650 | Ceiling Recess Can  | 3.5             |
| WHSC-C-W         | 12230 | Surface Can - White   | 4.0             |
| WHFG             | 12520 | Grill - White   | 2.0             |
| WHFC T-Bar Panel | 12133 | T-Bar Panel   | 4.0             |

## Engineering Specifications

Contractor shall supply and install WHFC Series ceiling-mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 1,500 at 120, 208, or 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Elements:** Element assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures

are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted. U.S. PATENT #6,748,163 B2 • CIPO PATENT #2,393,882

**Ceiling Surface Can:** The can shall be 20 gauge electrogalvanized steel and shall contain knockouts. The can shall be provided with a depth gauge, extending the full length of the can. The can shall be supplied with a factory installed groundwire.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

# Large Ceiling Heater LPWC Series



### Model Code:

| LPW                            | 12 | 27 | C |
|--------------------------------|----|----|---|
| A                              | B  | C  | D |
| <b>A: Series</b>               |    |    |   |
| <b>B: 12 - 120V 24 - 240V</b>  |    |    |   |
| <b>20 - 208V 27 - 277V</b>     |    |    |   |
| <b>C: Watts (1250 to 4500)</b> |    |    |   |
| <b>D: C - Ceiling</b>          |    |    |   |
| <b>G - Ground</b>              |    |    |   |



- Pic-A-Watt® element
- Long life unit bearing motor
- Heat/Fan/Off tamperproof disconnect switch
- 5-Bladed Aluminum fan
- Patented Smart Limit Protection®
- Multiple wattages
- Ceiling mount
- Standard color: white (almond optional)
- 20 gauge powder-coated grill
- 120, 208, 240, or 277 volts
- 5-year limited warranty

## Large Pic-A-Watt Ceiling Heater

**Designed for commercial and industrial applications**, the LPWC offers a high-capacity, heavy-duty ceiling heater where wall space is not available. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Available wattages range between 1250 to 4500 watts. Now comes standard w/ Heat/Fan/Off tamperproof disconnect switch. It has a fan delay to help dissipate heat from the steel plate fin elements thereby prolonging heater life and increasing energy efficiency.

**"Complete" Stock Models** For other color grill options use "Order A'la Carte" chart below to build your own complete heater.

| BASE MODEL | UPC   | VOLTS    | WATTS                                   | AMPS        | SHIP WEIGHT lbs |
|------------|-------|----------|---|-------------|-----------------|
| LPW1227C-W | 18188 | 120      | 1250•1500•1750•2000•2750                | 10.4 - 22.9 | 19.0            |
| LPW2040C-W | 22232 | 208      | 2250•2750•3000•3250•3500•3750•4000      | 10.8 - 19.2 | 19.0            |
| LPW2040C-G | 22235 | 208      | 2250•2750•3000•3250•3500•3750•4000      | 10.8 - 21.6 | 19.0            |
| LPW2445C-W | 18164 | 240/208* | 2250•2750•3000•3250•3500•3750•4000•4500 | 9.4 - 18.8  | 19.0            |
| LPW2740C-W | 18192 | 277      | 2000•3000•4000                          | 7.2 - 14.4  | 19.0            |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own "Complete" with designer grill options (not noted above) select HRC model of proper voltage and LPWG grill model of proper color.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| ADD SUFFIX   | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|--------------|-------|---|-----------------|
| LPW1227C-HRC | 32635 | LPW CEILING, 120V 2750W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2040C-HRC | 14304 | LPW CEILING, 208V 4000W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2445C-HRC | 32637 | LPW CEILING, 240V 4500W, Heatbox Interior & Recessed Wall Can | 11.5            |
| LPW2740C-HRC | 32644 | LPW CEILING, 277V 4000W, Heatbox Interior & Recessed Wall Can | 11.5            |

**STEP 2:** Order Grill

| MODEL   | UPC   | DESCRIPTION                  | SHIP WEIGHT lbs |
|---------|-------|------------------------------|-----------------|
| LPWCG-W | 32624 | LPWC, Grill, White Color     | 4.5             |
| LPWCG-A | 32627 | LPWC, Grill, Almondine Color | 4.5             |

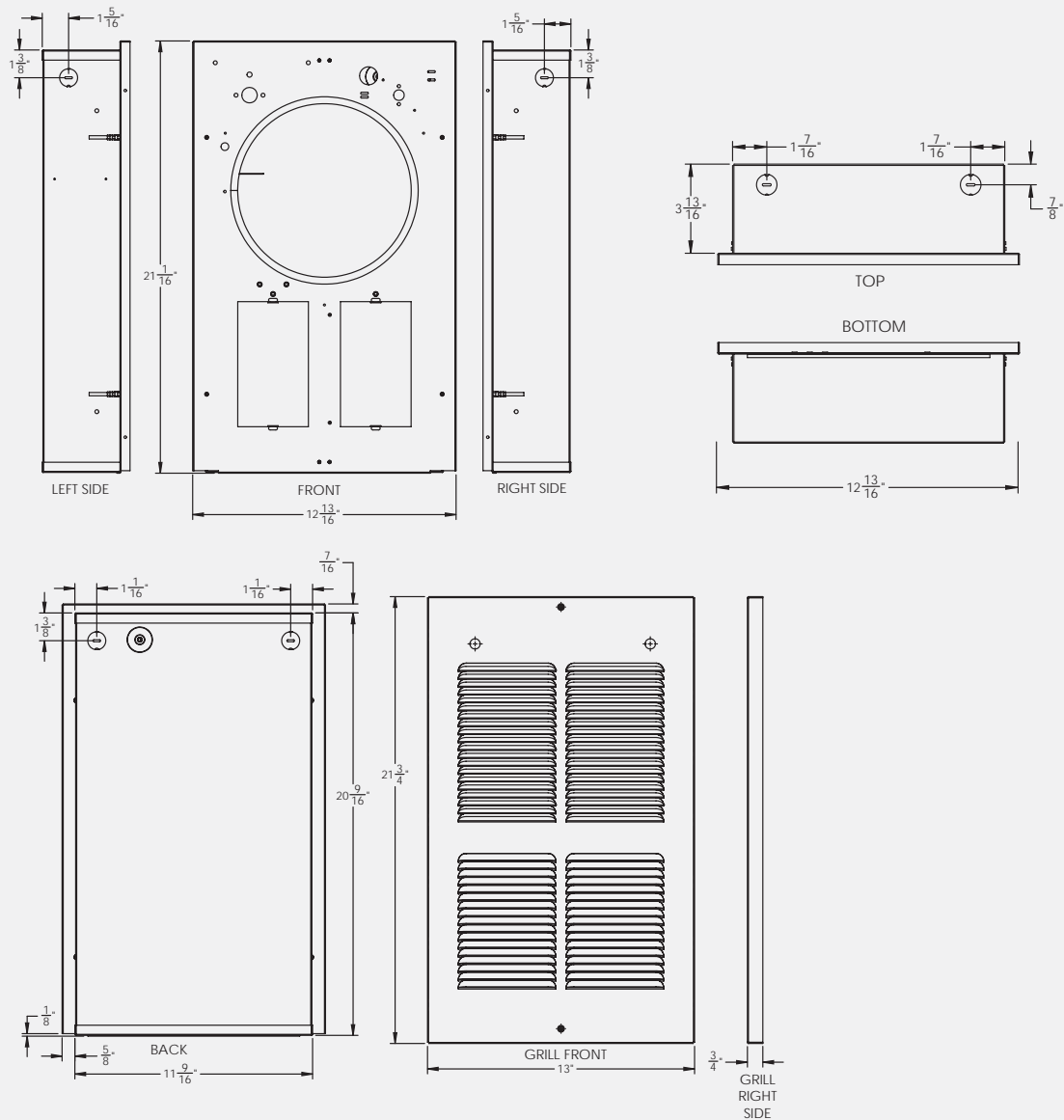
**NOTE:** This is the quickest option when the factory installed heaters options are not in stock.

### Accessories

| MODEL      | UPC   | DESCRIPTION                                    | SHIP WEIGHT lbs |
|------------|-------|--|-----------------|
| LPWCT-1-TP | 19372 | Field Installed SP Thermostat Kit -Tamperproof | 0.3             |
| LPWC-G-W   | 18277 | T-BAR GRID adapter 2X2 FOR LPWC                | 6.0             |
| UWSA-C     | 12598 | Ceiling Surface Can                            | 7.5             |

# Large Ceiling Heater LPWC Series

## Dimensional Data



## Engineering Specifications

Contractor shall supply and install LPWC Series ceiling-mounted forced-air electric heaters manufactured by King Electrical Mfg. Co. of the wattage and voltage as indicated on the plans.

**Motor:** Permanently lubricated, unit bearing motor. 20cc of oil. Enclosed motor for long-lasting, trouble-free operation. Thermally protected. 1300 RPM.

**Fan:** High efficiency, dynamically balanced, 5-bladed aluminum impeller fan. 185 CFM.

**Elements:** 3 steel sheathed heating tubes in a furnace-brazed, plate-finned, block design containing coiled Ni-Chrome wire embedded in a Magnesium Oxide insulator. Assembly provides up to 7 possible wattage configurations available for field installation selection. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Heat/Fan/Off Tamperproof Disconnect Switch:** The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. 3 position switch provides heating and summer fan-only operation.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes.

**Fan Delay Switch:** Fan continues to operate after thermostat shuts off to remove residual heat left in element.

**Wall-box:** 20 gauge electro-galvanized steel. Factory installed ground wire. Zero clearance to insulation. Optional surface box.

**Grill:** 20 gauge steel finished in a gloss white powder-coated paint.

**Approvals:** cULus (E41422)

# Cove Heater KCV Series


**Model Code:**

| KCV                           | 12 | 10 |
|-------------------------------|----|----|
| A                             | B  | C  |
| <b>A: Series</b>              |    |    |
| <b>B: 12 - 120V 20 - 208V</b> |    |    |
| <b>24 - 240V</b>              |    |    |
| <b>C: Watts (210 - 1800)</b>  |    |    |



- Radiant & Convection Heat
- Long Life Elements
- Silent Running
- Junction box at each end
- Extruded aluminum front panel
- Easy surface-mount installation
- Ribbed front for maximum surface radiation
- Open-back design for maximum convection
- 1/2" diameter knockouts for 1/2" conduit
- Standard color: white (almond optional)
- 2-year limited warranty



## The KCV Series Cove Heater

The **KCV cove heater** is a radiant heater that also produces convection heat by heating the air similar to a baseboard. By combining the quick comfort of radiant heat along with the sustained warmth of convection heat, warm air is uniformly dispersed throughout the room. The cove heater is mounted near the ceiling, eliminating furniture placement problems. Surface temperatures are lower than baseboard or fan heaters, making a pleasant form of heat similar to older ceiling cable heating systems. With no moving parts this heater is quiet and maintenance free. Typical uses are day care centers, assisted living housing, housing developments, laundry rooms, bathrooms, bedrooms.

### Ordering Information \* Add suffix -W for White or -A for Almond

|             | MODEL       | VOLTS    | WATTS     | AMPS    | LENGTH  | SHIP WEIGHT lbs |
|-------------|-------------|----------|-----------|---------|---------|-----------------|
| <b>120V</b> | KCV1202     | 120      | 210       | 1.8     | 24"     | 5.5             |
|             | KCV1204     | 120      | 420       | 3.5     | 34"     | 6.7             |
|             | KCV1206     | 120      | 560       | 4.7     | 47"     | 9.3             |
|             | KCV1207     | 120      | 700       | 5.8     | 59"     | 11.2            |
|             | KCV1209     | 120      | 840       | 7.0     | 71"     | 11.2            |
|             | KCV1210     | 120      | 935       | 7.8     | 83"     | 15.3            |
|             | KCV1212     | 120      | 1125      | 9.4     | 94"     | 16.8            |
|             | KCV1215     | 120      | 1400      | 11.7    | 118"    | 26.0            |
|             | <b>208V</b> | KCV2004  | 208       | 420     | 2.0     | 34"             |
| KCV2006     |             | 208      | 560       | 2.7     | 47"     | 9.3             |
| KCV2007     |             | 208      | 700       | 3.4     | 59"     | 11.2            |
| KCV2009     |             | 208      | 840       | 4.0     | 71"     | 13.1            |
| KCV2010     |             | 208      | 935       | 4.5     | 83"     | 15.3            |
| KCV2012     |             | 208      | 1125      | 5.4     | 94"     | 16.8            |
| KCV2015     |             | 208      | 1400      | 6.7     | 118"    | 21.2            |
| KCV2018     |             | 208      | 1800      | 8.7     | 118"    | 21.2            |
| <b>240V</b> |             | KCV2404  | 240/208*  | 420/315 | 1.8/1.5 | 34"             |
|             | KCV2406     | 240/208* | 560/420   | 2.3/2.0 | 47"     | 9.3             |
|             | KCV2407     | 240/208* | 700/525   | 2.9/2.5 | 59"     | 11.2            |
|             | KCV2409     | 240/208* | 840/630   | 3.5/3.0 | 71"     | 13.1            |
|             | KCV2410     | 240/208* | 935/701   | 3.9/3.4 | 83"     | 15.3            |
|             | KCV2412     | 240/208* | 1125/844  | 4.7/4.0 | 94"     | 16.8            |
|             | KCV2415     | 240/208* | 1400/1050 | 5.8/5.0 | 118"    | 26.0            |
|             | KCV2418     | 240/208* | 1800/1350 | 7.5/6.5 | 118"    | 26.0            |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Cove Heater KCV Series

## Accessories/Options

| MODEL   | DESCRIPTION                              | SHIP WEIGHT lbs |
|---------|--|-----------------|
| KCVT-1R | Single Pole Right side wiring thermostat | .25             |
| KCVT-1L | Single Pole left side wiring thermostat  | .25             |
| KCVT-2R | Double Pole Right side wiring thermostat | .25             |
| KCVT-2L | Double Pole Left side wiring thermostat  | .25             |
| -W      | White                                    |                 |
| -A      | Almond                                   |                 |

## Engineering Specifications

### Construction:

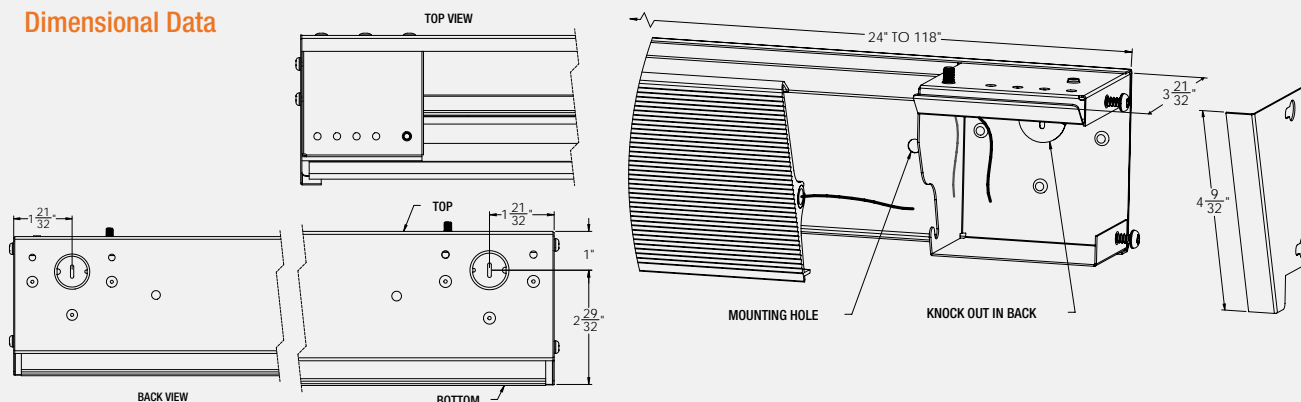
- Constructed of extruded aluminum with a maximum cross section thickness of .962".
- With sawtooth profile to increase radiating surface area.
- Open on top and bottom for maximum convection heating room air.
- With 32 cubic inch junction box at both ends, furnished with 1/2" knockouts on back and top.
- Ni-Chrome wire embedded in Magnesium Oxide powder enclosed and sealed in aluminum sheath.

- Element wattage density of approximately 150 watts per linear foot.
- With full length back case constructed of 22 gauge electrogalvanized steel with baked enamel finish.
- Two year limited warranty.

### Ratings and Approvals:

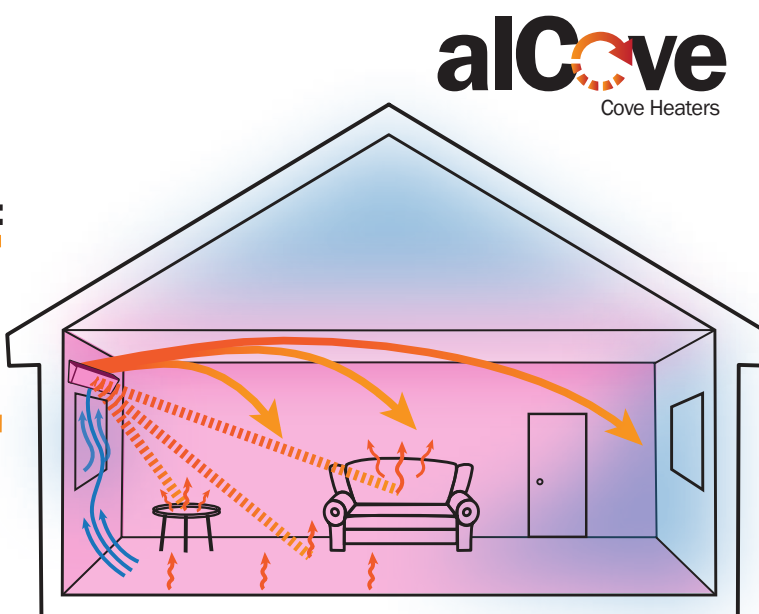
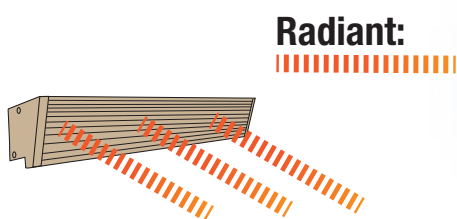
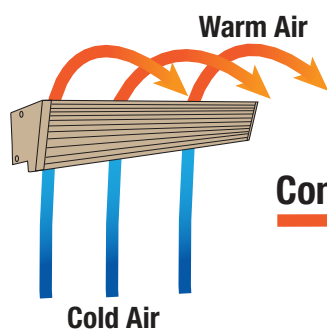
- The heaters shall be available in ratings from 250 - 1800 watts at 120 and 208/240 Volts.
- cULus

### Dimensional Data



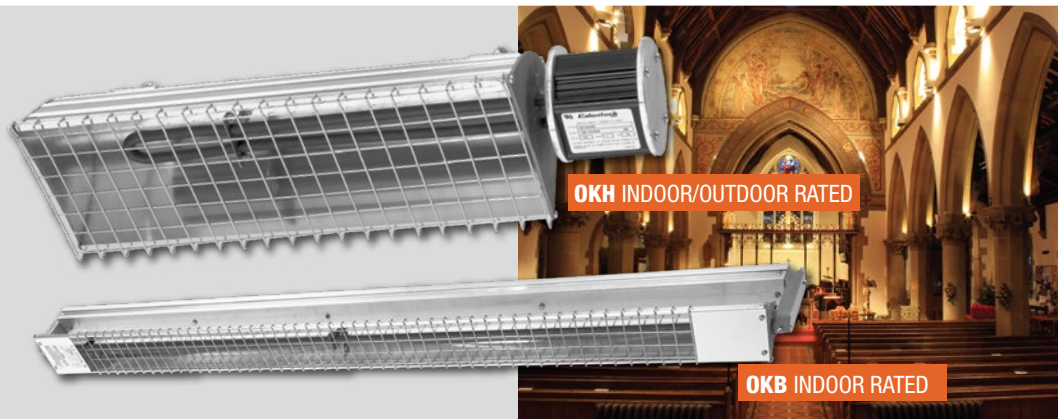
### MINIMUM CLEARANCE

Heaters are not to be mounted closer than 2½" from drywall ceiling or 6" from vinyl or drop ceiling. Heaters to be mounted at least 6 feet from floor.





# Industrial Radiant Heater OK Series



**Model Code:**

|     |    |   |    |       |
|-----|----|---|----|-------|
| OKB | 59 | 3 | C6 | -120V |
| A   | B  | C | D  | E     |

**A: Series**  
H = 45° Pattern  
B = 60° Pattern

**B: Length**  
**C: Watts**  
**D: 60° Reflector**  
**E: Volts**



- **OKB: INDOOR RATED**
- **OKH: INDOOR/OUTDOOR RATED**
- Radiant heat
- Incoloy® element
- 60° spread
- OKB: Anodized reflector
- OKB: Tilting swivel bracket
- OKB: Set screw adjustment
- OKB: Eyebolts for chain mounting
- OKB: Use 90°C wire
- OKH: Hairpin Incoloy® sheathed element
- OKH: Moisture resistant housing
- OKH: Sliding mounting pads

## The OK Radiant Heater Series

The major benefit of infrared heating is its ability to transfer heat to a person or object without heating the surrounding air. The OKB is commonly used for indoor spot heating applications where a great amount of heat is not required and where the mounting height is relatively low. Example installations include churches, garages, and indoor pools. The OKH is excellent for indoor and outdoor areas with increased density. For example: racetracks and other outdoor stadiums, parking garage ramps, aircraft hangars and high bay industrial buildings.

### Ordering Information

| MODEL          | PATTERN SPREAD | WATTS | UPC   | TYPE            | VOLTS | AMPS | MOUNTING HEIGHT | COVERAGE |        |         | LENGTH | WIDTH | HEIGHT | WT. LBS. |
|----------------|----------------|-------|-------|-----------------|-------|------|-----------------|----------|--------|---------|--------|-------|--------|----------|
|                |                |       |       |                 |       |      |                 | WIDTH    | LENGTH | SQ. FT. |        |       |        |          |
| OKH191H6R-120V | 45°            | 1600  | 11650 | Hairpin Element | 120   | 13.3 | 7 ft.           | 4.6"     | 5.6"   | 25.7    | 23.5"  | 7"    | 5"     | 11       |
|                |                |       |       |                 |       |      | 8 ft.           | 5.8"     | 6.6"   | 37.8    |        |       |        |          |
|                |                |       |       |                 |       |      | 9 ft.           | 6.9"     | 7.6"   | 52.3    |        |       |        |          |
| OKH191H6R-240V | 45°            | 1600  | 11655 | Hairpin Element | 240   | 6.6  | 10 ft.          | 8.1"     | 8.6"   | 69.1    | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 11 ft.          | 9.2"     | 9.6"   | 88.1    |        |       |        |          |
| OKB593C6-208V  | 60°            | 3000  | 11665 | Single Element  | 208   | 14.4 | 8 ft.           | 5.8"     | 9.2"   | 52.9    | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 9 ft.           | 6.9"     | 10.2"  | 70.4    |        |       |        |          |
| OKB593C6-240V  | 60°            | 3000  | 11660 | Single Element  | 240   | 12.5 | 10 ft.          | 8.1"     | 11.2"  | 90.2    | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 11 ft.          | 9.2"     | 12.2"  | 112.2   |        |       |        |          |
| OKB593C6-480V  | 60°            | 3000  | 11670 | Single Element  | 480   | 6.25 | 12 ft.          | 10.4"    | 13.2"  | 136.6   | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 13 ft.          | 11.5"    | 14.2"  | 163.3   |        |       |        |          |
| OKB595E6-208V  | 60°            | 5000  | 11680 | Double Element  | 208   | 24   | 10 ft.          | 8.1"     | 11.2"  | 90.2    | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 11 ft.          | 9.2"     | 12.2"  | 112.2   |        |       |        |          |
|                |                |       |       |                 |       |      | 12 ft.          | 10.4"    | 13.2"  | 136.6   |        |       |        |          |
| OKB595E6-240V  | 60°            | 5000  | 11675 | Double Element  | 240   | 20.8 | 13 ft.          | 11.5"    | 14.2"  | 163.3   | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 14 ft.          | 12.7"    | 15.2"  | 192.3   |        |       |        |          |
| OKB595E6-480V  | 60°            | 5000  | 11685 | Double Element  | 480   | 10.4 | 15 ft.          | 13.8"    | 16.2"  | 223.6   | 61.5"  | 4.25" | 5"     | 4        |
|                |                |       |       |                 |       |      | 16 ft.          | 15"      | 17.2"  | 257.1   |        |       |        |          |

### Engineering Specifications

Contractor shall supply and install OK Series radiant heaters by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

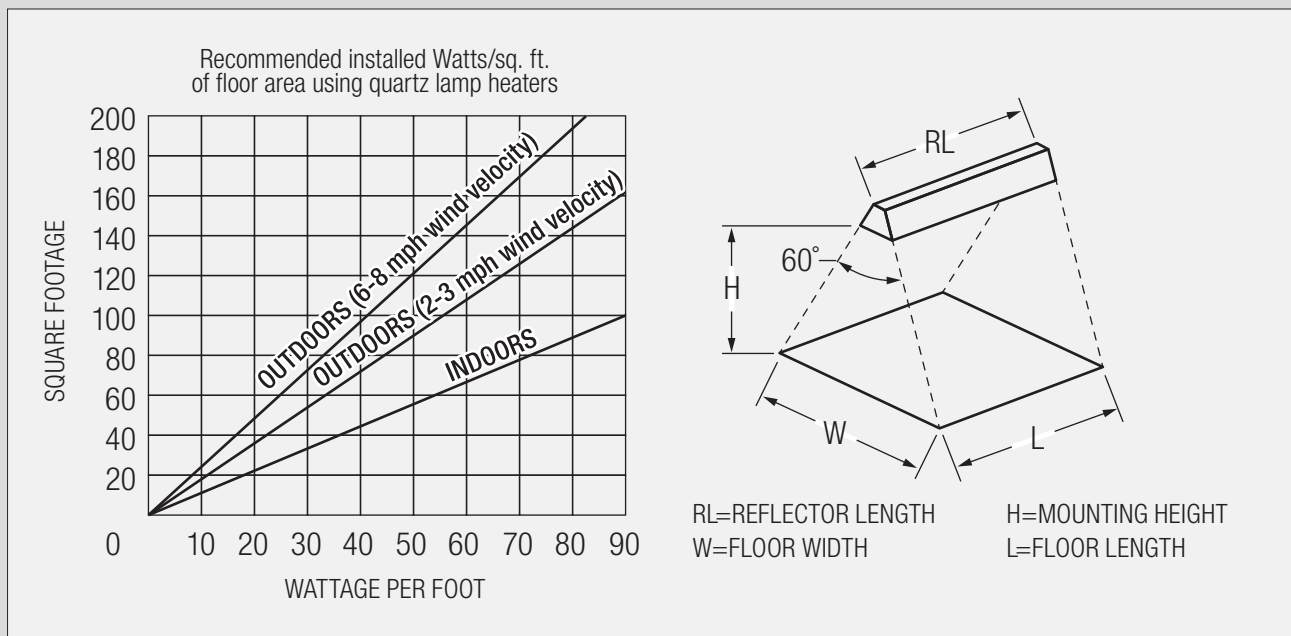
**Element:** Shall be of Ni-Chrome wire embedded in Magnesium Oxide with an Incoloy® metal sheath.

- \* **OKB: INDOOR RATED**
- \* **OKH: INDOOR/OUTDOOR RATED**

**Junction Box:** Will be extruded Aluminum and provided with heater O-ring seals which may be used to seal off junctionbox from moisture (included on OKH units only). OKB units shall have single or dual Incoloy® elements and shall swivel to direct radiant pattern to best meet the needs of application. For indoor use only.

**Mounting:** Shall be provided by means of 2 eyehooks per heater.

# Industrial Radiant Heater OK Series



Use the table above to choose the proper mounting height, heated space coverage and desired temperature rise. For example: a warehouse that is 40°F with a work space area of 135ft<sup>2</sup> needs to be 60°F to make workers comfortable. This requires a temperature rise of 20°F. Referring to the table we find that the OKB at 3000 Watts mounted at 12 feet would provide the required coverage. Note the coverage area and temperature rise are calculated at 3 feet above floor level. This means a heater mounted 10 feet high from the floor would produce values in the table measured 7 feet vertically down from the fixture.

**DANGER: Take precautions to ensure combustible materials are kept a safe distance away, 24 inches minimum.**

## Minimum Space Clearings

| WALL | END | CEILING | FLOOR | BETWEEN |
|------|-----|---------|-------|---------|
| 24"  | 24" | 24"     | 72"   | 36"     |

# Carbon Fiber Radiant Heater RK SmartWave Series



Includes IR Remote

### Model Code:

|    |    |    |     |     |
|----|----|----|-----|-----|
| RK | 24 | 45 | RMT | BLK |
| A  | B  | C  | D   | E   |

A: Series  
 B: Volts 120, 208, 240  
 C: Wattage  
 D: Remote Control  
 E: Black Color



- Instant, directional infrared heat
- Durable, CarbonIQ heating elements rated for 10,000 hours
- High-output medium-wave type lamps
- IP55 water-resistant rated for all weather conditions
- Built-in electronic controller with high & low heating modes
- 24 Hour Timer
- Handheld IR remote control with wall holder
- Easy install 0° to 45° adjustable wall/ceiling brackets or chain Mount (chain not included)
- Aircraft grade aluminum & stainless steel construction for maximum corrosion resistance
- Heats objects not the surrounding air
- Rated for indoor & well protected outdoor applications
- ETL certification for USA and Canada
- 3-Year Limited Warranty on Fixture
- 1-Year Limited Warranty on Carbon Lamps

## The RK SmartWave Carbon Fiber Radiant Heater Series

**SmartWave carbon fiber radiant heaters have the ability to transfer heat to a person or object without heating the surrounding air.** Featuring CarbonIQ, carbon fiber elements, SmartWave produces high-output medium-wave infrared heat energy with a soft visible orange glow. With less intense light than short-wave infrared, SmartWave heaters are a great choice for outdoor patios and applications where high heat is required but less visible light is desired. Featuring an integrated, built-in controller, selecting between the 2 different heat levels, or setting a 24 hour timer to only heat the space while you are using it, is easy. And with the simple hand-held remote control, comfort is always in the palm of your hand.

### Single Lamp Models

| MODEL              | UPC   | DESCRIPTION                                       | LAMPS | TYPE      | VOLTS | WATTS | BTU/H | AMPS | WT. (lbs.) |
|--------------------|-------|---|-------|-----------|-------|-------|-------|------|------------|
| RK1215-RMT-PLG-BLK | 55383 | 24" Black, Carbon Lamp, 6 Ft Cord w/Plug & Remote | 1     | Plug-In   | 120   | 1,500 | 5,118 | 12.5 | 6.7        |
| RK2015-RMT-BLK     | 55384 | 24" Black, Carbon Lamp w/ Remote                  | 1     | Hardwired | 208   | 1,500 | 5,118 | 7.2  | 6.7        |
| RK2415-RMT-BLK     | 55385 | 24" Black, Carbon Lamp w/ Remote                  | 1     | Hardwired | 240   | 1,500 | 5,118 | 6.3  | 6.7        |

### Dual Lamp Models

| MODEL          | UPC   | DESCRIPTION                             | LAMPS | TYPE      | VOLTS | WATTS | BTU/H  | AMPS | WT. (lbs.) |
|----------------|-------|---|-------|-----------|-------|-------|--------|------|------------|
| RK2030-RMT-BLK | 55386 | 43" Black, Double Carbon Lamp w/ Remote | 2     | Hardwired | 208   | 3,000 | 10,236 | 14.4 | 10.2       |
| RK2430-RMT-BLK | 55387 | 43" Black, Double Carbon Lamp w/ Remote | 2     | Hardwired | 240   | 3,000 | 10,236 | 12.5 | 10.2       |

### Triple Lamp Models

| MODEL          | UPC   | DESCRIPTION                             | LAMPS | TYPE      | VOLTS | WATTS | BTU/H  | AMPS | WT. (lbs.) |
|----------------|-------|---|-------|-----------|-------|-------|--------|------|------------|
| RK2045-RMT-BLK | 55388 | 61" Black, Triple Carbon Lamp w/ Remote | 3     | Hardwired | 208   | 4,500 | 15,355 | 21.6 | 14         |
| RK2445-RMT-BLK | 55389 | 61" Black, Triple Carbon Lamp w/ Remote | 3     | Hardwired | 240   | 4,500 | 15,355 | 18.8 | 14         |

### Replacement Accessories

| MODEL            | UPC   | DESCRIPTION                              |
|------------------|-------|--|
| RK-HARDWARE-KIT  | 33547 | Hardwire kit, RK series radiant heaters  |
| RK-TOOL-KIT      | 33548 | Tool kit, RK series radiant heaters      |
| RK-GRILL         | 33549 | Grill, RK series radiant heaters         |
| RK-REMOTE        | 33550 | Remote, RK series radiant heaters        |
| RK-REMOTE-HOLDER | 33551 | Remote Holder, RK series radiant heaters |

### Replacement Lamp Elements

| MODEL       | UPC   | VOLTS | WATTS | LAMP LENGTH | LAMP TYPE        |
|-------------|-------|-------|-------|-------------|------------------|
| RK-LAMP1215 | 33552 | 120   | 1,500 | 24"         | H.O. Medium Wave |
| RK-LAMP2015 | 33553 | 208   | 1,500 | 24"         | H.O. Medium Wave |
| RK-LAMP2415 | 33554 | 240   | 1,500 | 24"         | H.O. Medium Wave |

## SmartWave

### What is CarbonIQ Heating Technology?



#### 10,000 Hour Rated Durability

CarbonIQ infrared lamps are rated for up to an astounding 10,000 hours, producing a soft warm glow that produces more directional heat than traditional quartz heaters.

#### Instant Heat

Since there is little mass in properties of carbon fiber, CarbonIQ heating elements deliver instant heat, right when you need it.



#### Benefits of the Spiraled Coil

The logic is simple. Our carbon fiber elements are formed into a light-weight spiraled coil, which absorbs the effects of thermal expansion and vibrations.

#### More Heat with Less Visible Light

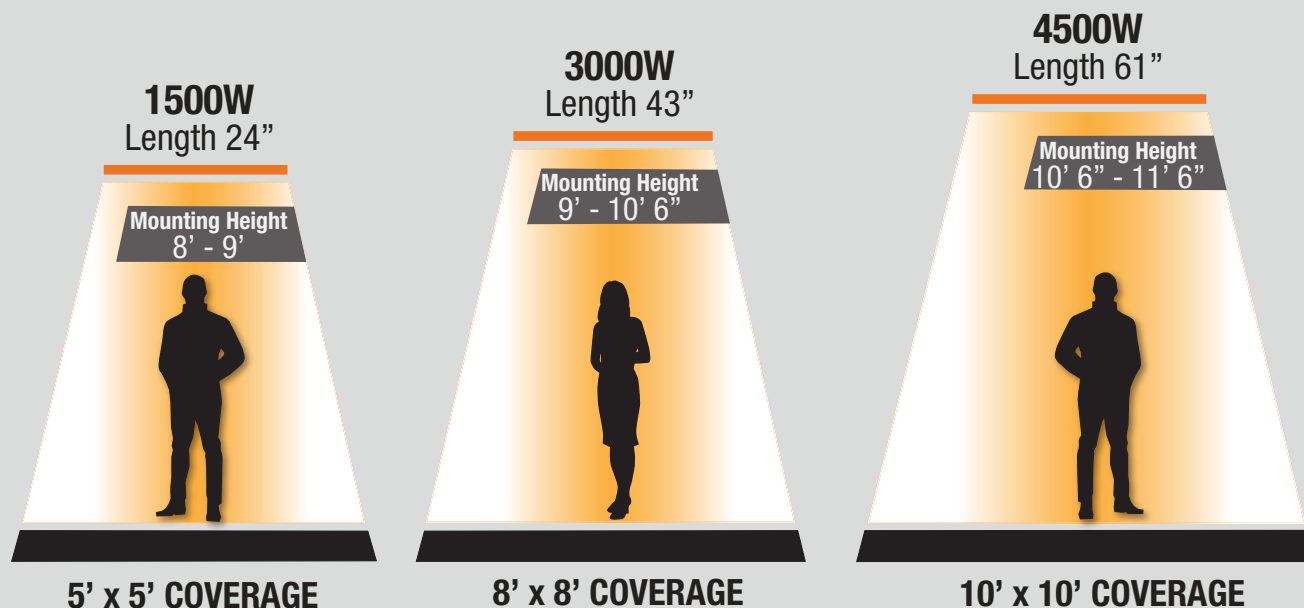
Utilizing the medium wave of the light spectrum, which is more effective at heating human skin, CarbonIQ producing a softer radiant heat which has a similar effect as the sun.

#### 98% Efficient Heat Transfer Rate

Due to the excellent electrical and thermal conducting properties of carbon fiber, it's transfer rate from electricity to heat can reach 98%, which means almost no heat loss, saving valuable energy.

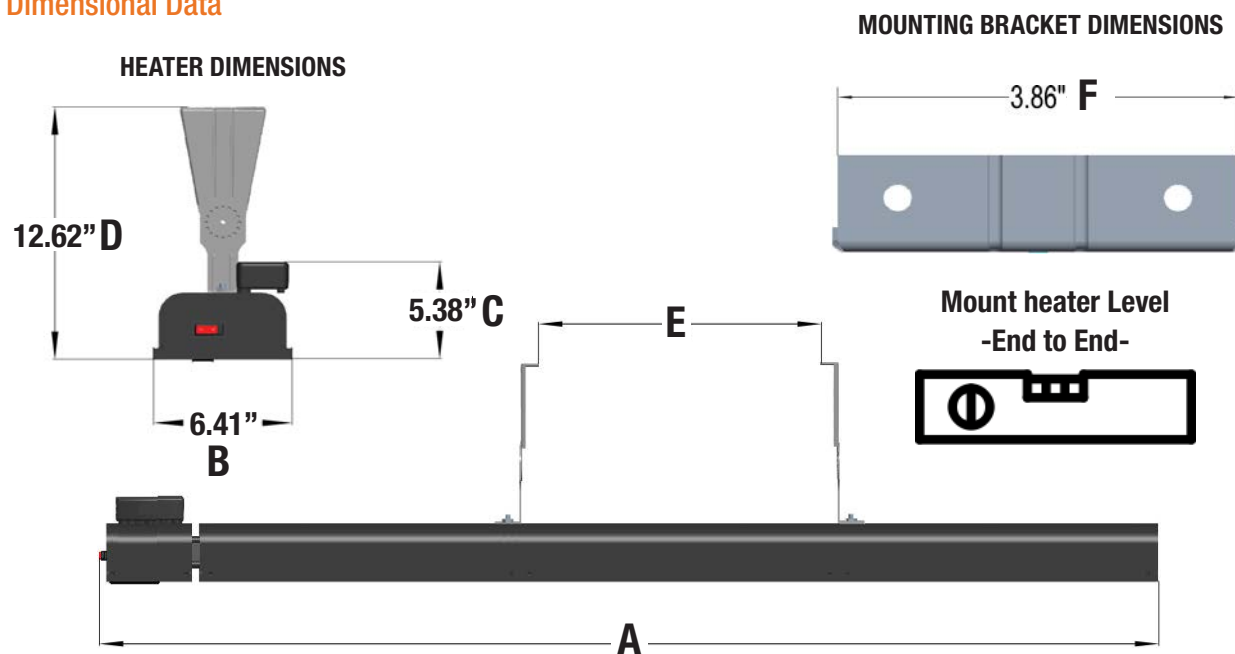
# Carbon Fiber Radiant Heater RK SmartWave Series

## Heat Coverage Areas



**Note:** Indoor or well-protected environments will generally exceed average coverage areas. Heaters can provide less than average coverage in extremely cold/windy conditions.

### Dimensional Data



### Physical Dimensions

| MODEL              |                      | A   | B     | C     | D     | E             | F     |
|--------------------|----------------------|-----|-------|-------|-------|---------------|-------|
| RK1215-RMT-PLG-BLK | (Single Carbon Lamp) | 24" | 6.41" | 5.38" | 12.4" | 7.5" - 8.25"  | 3.86" |
| RK2015-RMT-BLK     | (Single Carbon Lamp) | 24" | 6.41" | 5.38" | 12.4" | 7.5" - 8.25"  | 3.86" |
| RK2415-RMT-BLK     | (Single Carbon Lamp) | 24" | 6.41" | 5.38" | 12.4" | 7.5" - 8.25"  | 3.86" |
| RK-2030-RMT-BLK    | (Double Carbon Lamp) | 42" | 6.41" | 5.38" | 12.4" | 13.5" - 14.2" | 3.86" |
| RK-2430-RMT-BLK    | (Double Carbon Lamp) | 42" | 6.41" | 5.38" | 12.4" | 13.5" - 14.2" | 3.86" |
| RK-2045-RMT-BLK    | (Triple Carbon Lamp) | 60" | 6.41" | 5.38" | 12.4" | 19.7" - 20.5" | 3.86" |
| RK-2445-RMT-BLK    | (Triple Carbon Lamp) | 60" | 6.41" | 5.38" | 12.4" | 19.7" - 20.5" | 3.86" |

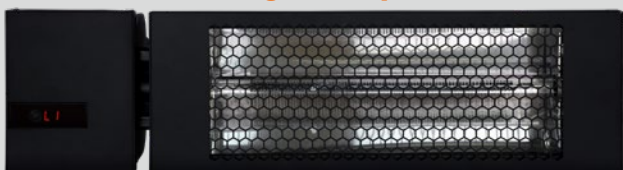
# Carbon Fiber Radiant Heater RK SmartWave Series

## RK SmartWave Series Basic Heating Application Chart

| SERIES | HEATER WATTAGE | LAMP QTY. | RECOMMENDED MOUNTING HEIGHT (Dim A) | RECOMMENDED DISTANCE BETWEEN HEATERS (Dim B) |
|--------|----------------|-----------|-------------------------------------|--|
| RK     | 1500W          | 1         | 8 FT to 9 FT                        | 5FT to 10 FT                                 |
| RK     | 3000W          | 2         | 9 FT to 10 FT 6"                    | 7FT to 14 FT                                 |
| RK     | 4500W          | 3         | 10 FT 6" to 11 FT 6"                | 9FT to 18 FT                                 |

\*Clearance to combustibles published in the RH Series Installation, Operation, Maintenance and Parts Manuals and on safety labels must be maintained at all times. Factory recommended mounting heights are listed as a guideline. If infrared heaters are mounted too low or too high, they may result in discomfort or lack of heat.

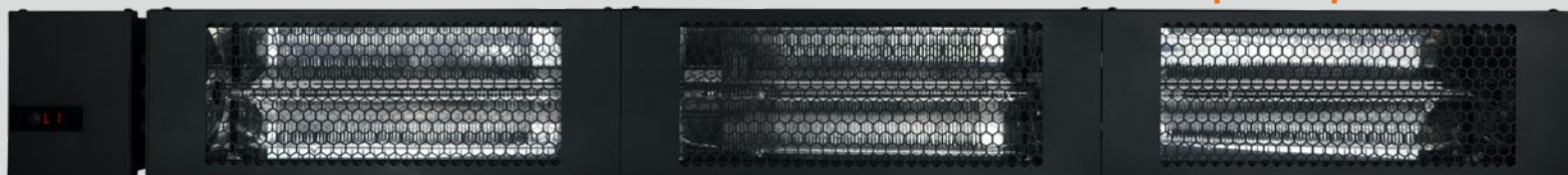
### Single Lamp Model 1500W



### Dual Lamp Model 3000W



### Triple Lamp Model 4500W



# SmartWave



# Carbon Fiber Radiant Heater RK SmartWave Series

## Clearance to Combustibles in Inches

| Length                | Mounting Angle | Side  |        | End  | Top  | Below |
|-----------------------|----------------|-------|--------|------|------|-------|
|                       |                | Front | Behind |      |      |       |
| <b>Single Element</b> |                |       |        |      |      |       |
| 24"                   | 0°             | 1'7"  | 1'7"   | 1'7" | 9.4" | 7'9"  |
|                       | 45°            | 3'3"  | 6.5"   | 1'7" | 1'7" | 7'9"  |
| <b>Double Element</b> |                |       |        |      |      |       |
| 42"                   | 0°             | 1'7"  | 1'7"   | 1'7" | 9.4" | 7'9"  |
|                       | 45°            | 3'3"  | 6.5"   | 1'7" | 1'7" | 7'9"  |
| <b>Triple Element</b> |                |       |        |      |      |       |
| 60"                   | 0°             | 1'7"  | 1'7"   | 1'7" | 9.4" | 7'9"  |
|                       | 45°            | 3'3"  | 6.5"   | 1'7" | 1'7" | 7'9"  |

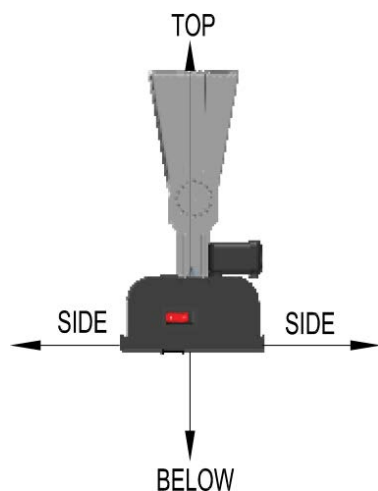
Heaters mounted on an angle between 0° and 45° must maintain clearances posted for 0° or 45° whichever is greater.

**NOTE:** Ensure that building materials with a low heat tolerance (i.e. awnings, fabrics, plastics, sprinklers, insulation, etc.) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the material manufacturer for specific details.

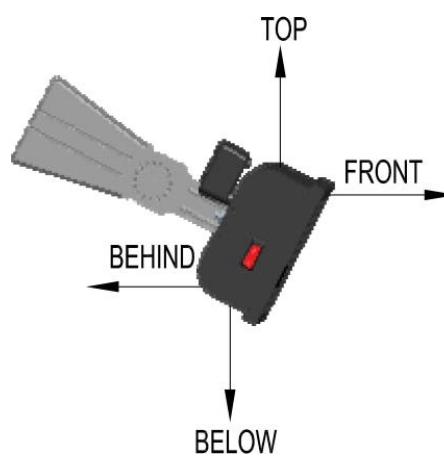
## Clearance to Combustibles



TOP VIEW  
0° Mounting Angle



END VIEW  
0° Mounting Angle



END VIEW  
45° Mounting Angle

# WIFI Electronic Prog. Thermostat Hoot WiFi Series



**NOW AVAILABLE IN WHITE**

**TEMPERATURE LOCK**

**ECO ENERGY SAVING**



(Available in White or Black)

- Large LCD touchscreen display
- Over-the-Air (OTA) firmware upgradeable
- Simple interface for quick adjustments & programming
- Programmable with Hoot Smart Phone App
- Multi-Volt rated 120/208/240V
- Single or double pole line voltage
- Temperature range 41° - 90°F (5° - 32°C)
- User defined max temperature lock
- Program 4 or 6 time periods for maximum flexibility
- Electronic sensing for accurate temperature control (±1°F)
- For use on baseboard, fan forced & radiant electric heaters
- Mounts directly to a 2x4 inch vertical electrical outlet box

**Wifi**



## hoot WiFi Enabled Touchscreen Thermostat & Smart Phone App

**Wifi Enabled:** King's Hoot WiFi enabled thermostat combines the latest technology with a sleek modern design, offering unparalleled user control. It's highly accurate sensing technology saves up to 28% on heating costs. This feature achieves higher comfort levels with reduced temperature swings as compared to economy models. With its simple, intuitive smart phone app interface you can control all thermostats in your home with ease. Control is always in the palm of your hands. Now with Over-the-Air (OTA) firmware upgrades. Get automatic real-time updates to the system software

### Ordering Information

| MODEL  | UPC   | COLOR | DESCRIPTION  |
|--------|-------|-------|--|
| K901-B | 33150 | BLACK | 1P WIFI Programmable Touchscreen Electronic Thermostat, 120/208/240V |
| K901-W | 33509 | WHITE |  |
| K902-B | 33149 | BLACK | 2P WIFI Programmable Touchscreen Electronic Thermostat, 120/208/240V |
| K902-W | 33510 | WHITE |  |

### Engineering Specifications

**Temperature Range:** 41° - 90°F (5° - 32°C) **Accuracy:** +1° F  
**Max Power:** 3328W @ 208VAC (16A)  
**Max Power:** 3840W @ 240VAC (16A)  
**Max Power:** 1920W @ 120VAC (16A)  
**Sensing Element:** Electronic



### Smart Phone iPhone or Android App



- ✓ Connect Via WIFI For Convenient Programming & Use
- ✓ Easy To Navigate Menus For Quick Programming
- ✓ Control Multiple Thermostats For Total Home Control
- ✓ Available for Android and iOS.

**Wifi**

**LIMITED 1 Year Warranty**



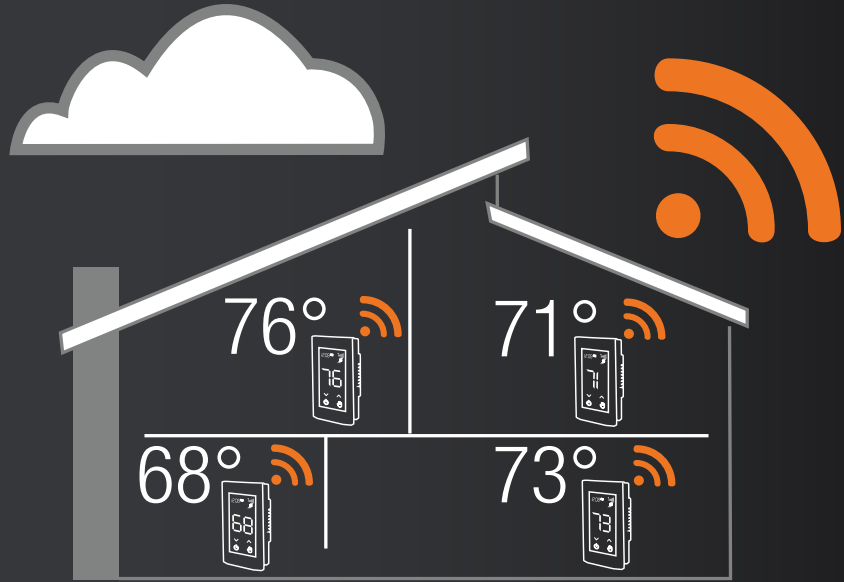


# WIFI Electronic Prog. Thermostat Hoot WiFi Series

## Simple Individual Comfort Control

With Hoot **Wifi** installed in Each Room of Your Home, Every Family Member Can Have Individualized Temperature Control. Each Thermostat in the Hoot Zoning System Has Its Own Individual Schedule, So Your Home's Comfort Will Closely Match Your Family's Routine & Lifestyle

**For Every Room of Your Home, with a Tap of your Phone or Thermostat**



**Easily Create A Multi-Zone Whole House System\***



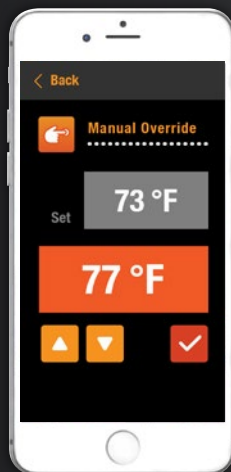
### Remote Temperature Adjustment

Convenient WIFI connectivity allows for total user comfort throughout the home. Control from anywhere with cell service or Wifi. With Hoot smart phone app, you can adjust the room temperature from the comfort of the couch.



### Comfort Just A Touch Away

Each menu in the Hoot app is easy to navigate, allowing for quick & simple programming of all your custom schedules & settings. Making changes is no longer a hassle. Going on vacation? Simply pre-schedule your Vacation mode settings and go have fun! With Hoot, your home is in good hands.



### Changes Made Easy

Manually override your programmed settings at any time with the app or directly through the thermostat. Your presets will still retain the same settings, and the override temperature will only remain until the end of the current period. However, by activating Hold Mode, you can lock the current temperature for any duration until manually changed. **Hoot** gives your home the comfort that you deserve.

Wifi



# Electronic Prog. Thermostat CLEAR TOUCH Series



K302PE



K312RELAY

- 7 day programmable
- Modern design with clear Acrylic panel
- Touch sensitive buttons
- Large LCD display with blue backlight
- Temperature lock feature: set a min & Max temp limit
- Save up to 28% on your heating costs
- 3 minute cycle rate reduces temperature swings
- Complies with all codes requiring anticipated/electronic thermostats
- System On/Standby switch
- 1-year limited warranty



## The ClearTouch™ Electronic 7 Day Programmable Thermostat

King's ClearTouch K302PE combines user-friendly touch sensitive buttons with a sleek modern design, offering unparalleled user comfort control. ClearTouch is an energy-saving fully programmable solution for providing highly accurate temperature control for line voltage electric heaters. It's highly accurate sensing technology saves up to 28% on heating costs. Program a full 7 day schedule with ease for total room control.

### Ordering Information

| MODEL     | UPC   | DESCRIPTION                                 |
|-----------|-------|---|
| K302PE    | 10399 | Thermostat Programmable DP 120/208/240V 15A |
| K312RELAY | 10400 | Thermostat Slave Relay DP 120/208/240V 15A  |

### Engineering Specifications

**Temperature Range:** 41° - 95°F (5° - 35°C) **Accuracy:** +1° F  
**Max Power:** 1800W @ 120VAC (15A)  
**Max Power:** 3120W @ 208VAC (15A)  
**Max Power:** 3600W @ 240VAC (15A)  
**Sensing Element:** Electronic



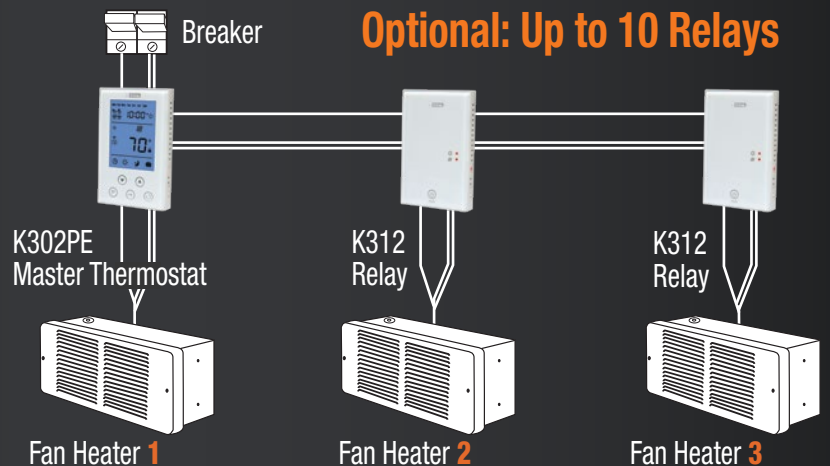
## Want To Control Multiple Heaters?

K302PE thermostats are compatible with K312RELAY (Shown Below) to extend the heating zone beyond 15A & control from one master location.

ClearTouch™



K312RELAY



Optional: Up to 10 Relays

- Add up to 10 Relays to extend the heating zone
- Settings controlled by master thermostat
- Receives signal & activates heat when required
- ♦ ON/STANBY switch to disable heating independently



# Electronic Non-Prog. Thermostat CLEAR TOUCH Series



K322E



K312RELAY

- Simple Up & Down temperature selection
- Electronic sensing for accurate temperature control ( $\pm 1^\circ\text{F}$ ,  $\pm 0.5^\circ\text{C}$ )
- Modern design with clear Acrylic panel
- Touch sensitive buttons
- Large LCD display with blue backlight
- Temperature lock feature: set a min & Max temp limit
- Save up to 15% on your heating costs
- 3 minute cycle rate reduces temperature swings
- Complies with all anticipated/electronic codes
- System On/Standby switch
- Dual Voltage – 120V or 208/240V



## The ClearTouch™ Non-Programmable Electronic Thermostat

King's ClearTouch K322E combines user-friendly touch sensitive buttons with a sleek modern design, offering simple control of a room's temperature. ClearTouch's electronic sensing, provides highly accurate temperature control ( $\pm 1^\circ\text{F}$ ,  $\pm 0.5^\circ\text{C}$ ) for line voltage electric heaters, saving up to 15% on your heating costs.

### Ordering Information

| MODEL     | UPC   | DESCRIPTION                                  |
|-----------|-------|--|
| K322E     | 40360 | Thermostat Non-Programmable 120/208/240V 15A |
| K312RELAY | 10400 | Thermostat Slave Relay DP 120/208/240V 15A   |

### Engineering Specifications

**Temperature Range:** 41° - 95°F (5° - 35°C) **Accuracy:** +1° F  
**Max Power:** 1800W @ 120VAC (15A)  
**Max Power:** 3120W @ 208VAC (15A)  
**Max Power:** 3600W @ 240VAC (15A)  
**Sensing Element:** Electronic



## Want To Control Multiple Heaters?

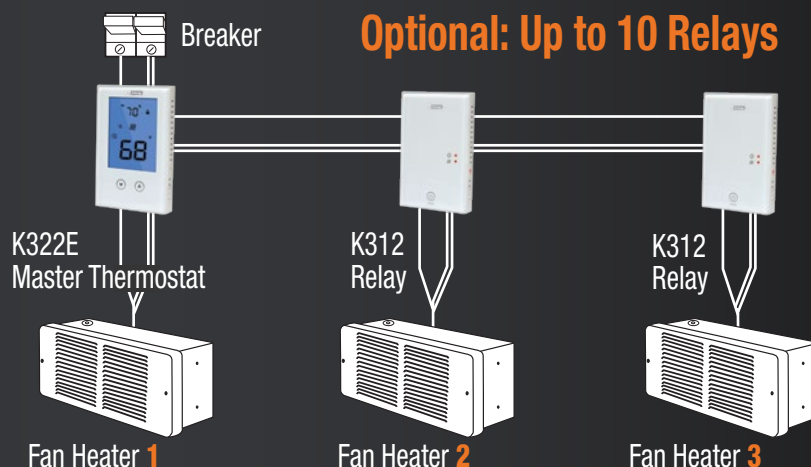
K322E thermostats are compatible with K312RELAY (Shown Below) to extend the heating zone beyond 15A & control from one master location.

# ClearTouch™



K312RELAY

- Add up to 10 Relays to extend the heating zone
- Settings controlled by master thermostat
- Receives signal & activates heat when required
- ON/STANBY switch to disable heating independently



# Personalized Presets SIMPLSTAT Series



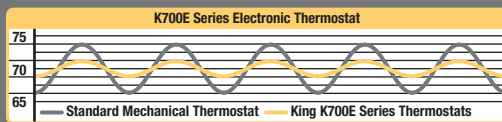
## SIMPLSTAT



- 3 programmable presets (Home / Away / Sleep)
- Single pole battery powered or double pole line voltage
- Large back-lit Display for easy viewing
- Temperature range 41° - 95°F (5° - 35°C)
- Clean, beveled style suits any décor
- Electronic sensing for accurate temperature control ( $\pm 1^\circ\text{F}$ )
- For use on baseboard, fan forced & radiant electric heaters
- Large back-lit buttons allow easy temperature adjustment
- Fully vented cover allows air sensing in all directions
- Mounts directly to a single gang vertical electrical outlet box
- 2-year limited warranty

### The SIMPLSTAT Electronic Thermostat with Personalized Presets

No Programming Required. Featuring a user-friendly interface of 3 oversized, back-lit preset temperature buttons that can be personalized (Home / Away / Sleep). Simply press the custom comfort preset button that applies and have confidence that the room will reach optimal temperature within minutes. Combining industry leading temperature sensing technology with a modern sleek design, King's K700E series achieves lower energy consumption with higher comfort levels by reducing temperature swings as compared to economy models.



#### Ordering Information

| MODEL   | UPC   | DESCRIPTION  |
|---------|-------|--|
| K702E-2 | 10393 | 208/240V, 2P Line Voltage Electronic Thermostat                                |
| K701E-B | 10392 | 120/208/240V, 1P AA Battery Powered Electronic Thermostat (Batteries included) |

#### Engineering Specifications

**Temperature Range:** 41° - 95°F (5° - 35°C) **Accuracy:**  $\pm 1^\circ\text{F}$   
**Max Power:** 1920W @ 120VAC (16A) \*K701E-B Only  
**Max Power:** 3328W @ 208VAC (16A)  
**Max Power:** 3840W @ 240VAC (16A)  
**Sensing Element:** Electronic



### SIMPLSTAT Interface

#### Push Button To Select Status



**Home**

70°



**Away**

55°



**Sleep**

60°

\*Default Settings

Simple, Real-Time Control. Simply press the custom comfort temperature button that applies and have confidence that the room will reach optimal temperature within minutes. Right out of the box, use the factory-default temperatures or personalize by simply updating the defaults with new personalized comfort settings.



# Electronic Thermostat ES120/ES230/ESP230



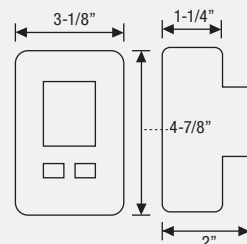
**ES120  
ES230**  
Non Programmable



**ESP230**  
Programmable



## Dimensional Data



- ES saves up to 15% on your heating costs
- ESP saves up to 28% on your heating costs
- Even temperature control
- 3-wire installation
- LCD display of room temperature
- Red LED heater ON indicator
- Comfort color back light display (Red at 75°F / Blue at 65°F)

- Electronic temperature sensing is the most accurate technology
- 3 minute cycle rate reduces temperature swings and increases comfort at all control settings
- Complies with all codes requiring anticipated or electronic thermostats
- Single pole design with third wire to power display
- Shallow design allows more wiring room inside full electrical boxes
- Available in 120V or 208/240V
- System On/Off switch

- 1 year warranty

## Ordering Information

| MODEL    | UPC   | TYPE                    | WIRE LEADS | VOLTS   | AMPS | TEMP. RANGE |
|----------|-------|-------------------------|------------|---------|------|-------------|
| ES120-R  | 10372 | Electronic Line Voltage | 3 Wire     | 120     | 22   | 40°F-95°F   |
| ES230-R  | 10374 | Electronic Line Voltage | 3 Wire     | 208/240 | 22   | 40°F-95°F   |
| ESP120-R | 10378 | 7-Day Programmable      | 3 Wire     | 120     | 22   | 44°F-95°F   |
| ESP230-R | 10380 | 7-Day Programmable      | 3 Wire     | 208/240 | 22   | 44°F-95°F   |

## The ES Electronic Thermostat

This line voltage thermostat is one of-a-kind in features then improved with memory backup for power outages. All the features you want with only two buttons. Simple has always been better. Two keys on the front control the temperature up and down. With comfort color back lighting and an on/off switch to control the illumination and system. Comfort color back light display is blue at 65°F and red at 75°F and varies in color between making it quick and easy to know your temperature. The illuminated LCD display can be read across the room making it easy to see at night. Simple, accurate control is the goal of the ES model. No fancy programming, just dependable temperature control for your home, saving money on your heating bills.

### ES Technical Specifications

- Temperature Range:** 40°F - 95°F (4°-35°C)
- Temperature Default:** Your saved setting
- Display Format:** LCD
- Illumination:** Blue/Red LED
- Sample Rate:** Every 60 seconds
- Room Temp. Display:** Large LCD
- Delay:** 3 minutes on or off
- Accuracy:** NEMA TEST 1.5°F @ 22 Amps, 1.4°F @ 16 Amps, 1.2°F @ 10 Amps, 0.9°F @ 4.2 Amps
- Power Source:** 120 VAC (ES120), 208/240 VAC (ES230), 50 - 60Hz
- Battery Backup**
  - 22 Amps at 240V, 5280 Watts
  - 22 Amps at 208V, 4576 Watts
  - 22 Amps at 120V, 2640 Watts
  - Wire leads #12 AWG
  - 40°F to 95°F set point range
  - Electronically anticipated
- 120V or 208/240V models only
- Digital thermometer/set point
- Meets energy requirements
- Three wire installation
- Snap action relay built-in
- 30 Amp relay
- 3 min. delay between cycles
- For use on all types of electric heaters, fan-forced, baseboard, radiant, etc.
- Single button operation
- Thermistor sensor
- Contemporary styling
- LCD display
- 1.5 degrees maximum
- 3/4" depth into wire box
- On/Off switch for back light
- On/Off switch for system

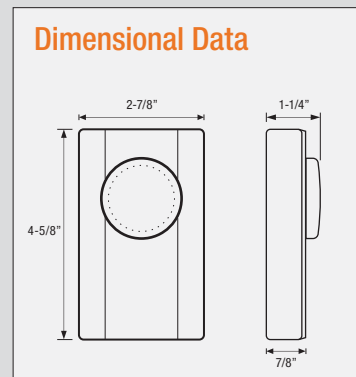
## The ESP Electronic Programmable

This thermostat took years to develop and has become a popular model. All the features you want without too many buttons. Simple is always better. We have added backlighting to the full-size display and an on/off switch to control the illumination. On the front two simple buttons control the temperature up and down, while all the programming keys are hidden under the front cover, protected from wandering, unauthorized fingers. Comfort and convenience is always our primary goal at King.

### ESP Technical Specifications

- Temperature Range:** 44°F - 95°F (7°-35°C)
- Temperature Default:** Your saved setting
- Display Format:** LCD
- Illumination:** Green LED
- Sample Rate:** Every 60 seconds
- Room Temp. Display:** Large LCD
- Delay:** 3 minutes on or off
- Accuracy:** NEMA TEST 1.5°F @ 22 Amps, 1.4°F @ 16 Amps, 1.2°F @ 10 Amps, 0.9°F @ 4.2 Amps
- Power Source:** 208/240 VAC (ES230), 50 - 60Hz
- 22 Amps at 240V, 5280 Watts
- 22 Amps at 208V, 4576 Watts
- 22 Amps at 120V, 2640 Watts
- Wire leads #12 AWG
- 44°F to 95°F set point range
- Electronically anticipated
- 120V or 208/240V models only
- Digital thermometer/set point
- Meets energy requirements
- Three wire installation
- Snap action relay built-in
- 30 Amp relay
- 3/4" depth into wire box
- Single button operation
- Thermistor sensor
- Contemporary styling
- LCD display
- 1.5 degrees maximum
- 3 min. delay between cycles
- For use on all types of electric heaters, fan-forced, baseboard, radiant, etc.
- On/Off switch for backlight
- On/Off switch for system
- Battery backup

# Line Voltage Thermostat K101, K102 & K101-C



- Clean, beveled style suits any decor
- Sits flush against wall
- Includes °C and °F control dials
- Bi-metal mechanical sensing element
- Operates 41° - 90° F ( 3°- 32°C)
- Mounts directly to a 2x4 inch vertical electrical outlet box
- Large knob allows easy adjustment to all temperatures
- Single or Double Pole (positive off) available
- No ground wire design
- 1-year limited warranty



## The K101 & K102 Series Thermostats

The K101 & K102 Series thermostats have a larger, more sensitive, mechanical bi-metal sensor that improves temperature accuracy to  $\pm 3^\circ$  F. This feature achieves a better comfort level with a reduced temperature swing as compared to economy models. Modern appearance with large knob for easy adjustments. No ground wire required, making installation fast and easy.

## The K101-C Cooling Thermostat

The K101-C cooling thermostat has a larger, more sensitive, bi-metal sensor that improves temperature accuracy to  $\pm 3^\circ$  F. This feature achieves a better comfort level with a reduced temperature swing as compared to other mechanical thermostat models. Modern appearance with large knob for easy adjustments. No ground wire required, making installation fast and easy. For cooling only.

### Ordering Information

| MODEL  | UPC   | DESCRIPTION                                |
|--------|-------|--|
| K101   | 20576 | Single Pole - WHITE                        |
| K101-R | 20626 | Single Pole - WHITE, RETAIL                |
| K101A  | 20525 | Single Pole - ALMOND                       |
| K102   | 20623 | Double Pole (Positive Off) - WHITE         |
| K102-R | 20627 | Double Pole (Positive Off) - WHITE, RETAIL |
| K102A  | 20624 | Double Pole (Positive Off) - ALMOND        |
| K101-C | 20631 | Single Pole - WHITE, Cooling Only          |

### Specifications

**Temperature Range:** 41° F-90° F (5° C- 32° C)

**Accuracy:**  $\pm 3^\circ$  F (1.6°C)

**Max Power:** 2640W@ 120VAC (22A)

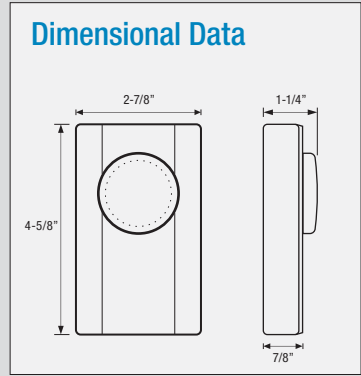
**Max Power:** 4576W@208VAC (22A)

**Max Power:** 5280W@ 240VAC (22A)

**Max Power:** 6094W@ 277VAC (22A)

**Sensing Element:** Bi-metal mechanical

# Line Voltage Cooling Thermostat K101-C



- For line voltage cooling applications
- Clean, beveled style suits any decor
- Sits flush against wall
- Includes °C and °F control dials
- Bi-metal sensing element
- Mounts directly to a 2x4 inch vertical electrical outlet box
- Fully vented cover allows air sensing in all directions
- Large knob allows easy adjustment to all temperatures
- Single Pole, Operates 41° - 90° F (3°- 32°C)
- No ground wire design

## The K101-C Cooling Thermostat

The K101-C cooling thermostat has a larger, more sensitive, bi-metal sensor that improves temperature accuracy to  $\pm 3^\circ$  F. This feature achieves a better comfort level with a reduced temperature swing as compared to economy models. Modern appearance with large knob for easy adjustments. No ground wire, making installation fast and easy. For cooling only.

### Ordering Information

| MODEL  | UPC   | DESCRIPTION                       |
|--------|-------|-----------------------------------|
| K101-C | 20631 | Single Pole - WHITE, Cooling Only |

### Specifications

**Temperature Range:** 41° F-90° F (5° C- 32° C)

**Accuracy:**  $\pm 3^\circ$  F (1.6°C)

**Max Power:** 2640W@ 120VAC (22A)

**Max Power:** 4576W@208VAC (22A)

**Max Power:** 5280W@ 240VAC (22A)

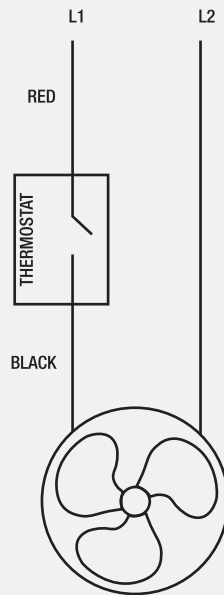
**Max Power:** 4986W@ 277VAC (22A)

**Sensing Element:** Bi-metal

**Certification:**

### Installation

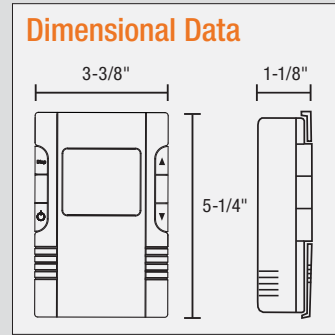
Single Pole wiring  
K101-C



# Two Circuit Thermostat HP Series



LIMITED  
**1 Year**  
Warranty



- 7 day programming
- Save Up to 28% on heating costs
- Dual single pole design with 4 wires
- Easy dial program operation
- Snap action relays
- Shallow design allows more wiring room inside full electrical boxes
- 3 minute cycle rate reduces temperature swings
- Even temperature control
- Power Failure Restart: occupant's set point
- Complies with all codes requiring anticipated or electronic thermostats
- Heat Indicator: LCD, "Heater On"
- White color with gray print
- Accuracy:  $\pm 9^{\circ}\text{F}$
- Battery Powered AA

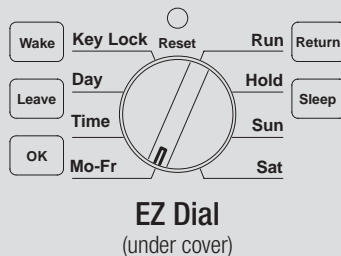
## Ordering Information

| MODEL | UPC   | TYPE                    | PACKAGING  | WIRE LEADS | VOLTS       | AMPS        | TEMP RANGE |
|-------|-------|-------------------------|------------|------------|-------------|-------------|------------|
| HP30  | 19068 | Electronic Line Voltage | Single Box | 4 Wire     | 120/208/240 | 16 per pole | 40°F-93°F  |

## The HP Series Thermostat

**Two Circuit Thermostat** - Allows 2 independent 15 or 20 amp 2 pole circuit breakers to be controlled by one thermostat location. When a large room needs multiple heater circuits but requires one control location.

Featuring a new dial, protected from wandering fingers under the front cover, function selection is an easy twist to the left or right.

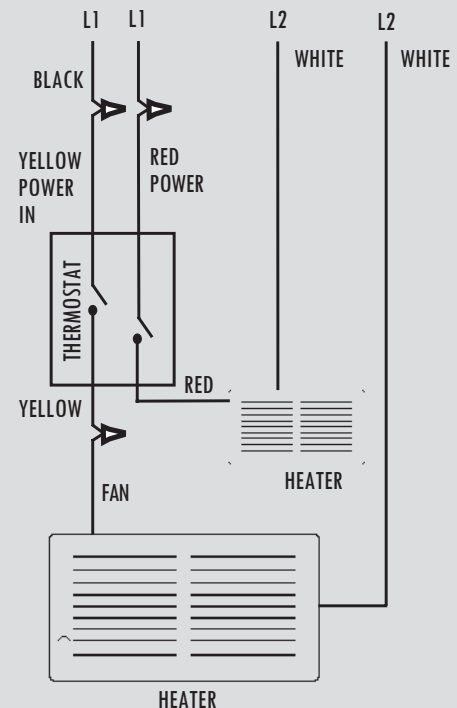


Need to quickly raise or lower the heat? Just push the up or down arrows. Tap the display button to show time, set point or current temperature. This smart thermostat will conveniently tell you by LCD icon when to change the batteries! At King we know what you want and always strive to give it to you.

## OPERATION SCHEMATIC

TWO CIRCUIT  
16 AMPS MAX.  
PER CIRCUIT

## 2 Independent 2-Pole Breakers



## Specifications

**Temperature Range:** 40°F - 93°F (4°-34°C)

**Temperature Default:** Programs Set Point

**Display Format:** LCD

**Display Size:** Large Format

**Illumination:** Seattle blue, on touch of key

**Sample Rate:** Every 60 seconds

**Delay On:** 1 second for relay 2

**Heat Indicator:** LCD "heater On"

**Relay Rating:** 16 Amps x (2) resistive or inductive

**Relay:** AA battery powered

**Mounting:** 2x4 electrical box

**Accuracy:**  $\pm .9^{\circ}\text{F}$

**Maximum Amps:** 16 resistive or inductive

**Maximum Watts per Pole:**

7700 @ 240V

6656 @ 208V

3840 @ 120V

**Minimum Watts:** 0

**Power Supply:** 1 to 240 Volts AC

1 to 30 Volts DC

**Installation:** Leveling of the thermostat is not required.

Mounting screws are provided. Mount the thermostat about five feet above the floor in an area with good air circulation. Avoid mounting the thermostat where it will be affected by drafts, air from ducts and radiant heat sources such as appliances, the sun or plumbing pipes. Typically the best location is above a light switch for that room.

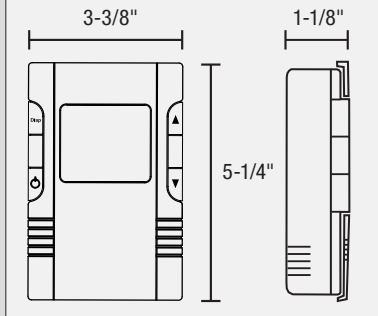


# Programmable Thermostat WR/WRP



**LIMITED  
2 Year  
Warranty**

## Dimensional Data



- **Models available:**
  - WR230: simple electronic thermostat
  - WRP230: adds 7 day programming
- Temperature range: 40° to 75°F (5° - 23°C)
- Power failure Restart: occupant's set point
- Display Format: Liquid Crystal Display (LCD)
- Remote-Controlled Set Back: yes (volt-free)
- Occupancy Sensing - 1 hour delay
- Window Activation: OFF (on display)
- 40°F (5°C) set back when window is open
- 60°F (15.5°C) Unoccupied temp
- Relay Rating: 16 Amps resistive or inductive
- Illumination: Seattle blue, on touch of key
- Heat Indicator: LCD- "Heater On"
- Sample Rate: 1 minute
- Delay On Or Off: 2-3 minutes
- Accuracy: ±0.9°F/±0.5°C
- Max Watts: @ 208/240V = 3320/3840
- Minimum Watts: zero
- Power Supply: 208/240 Volts
- 150 ft total loop distance

## The WR/WRP Series WINDOW WATCHER Thermostat

**Residential housing projects, motels, and ski resorts** often face unnecessarily high and very costly energy bills when windows and/or doors are left open for long periods of time, usually with the heating system on. Introducing the WINDOW WATCHER™ thermostat, designed to reinforce positive energy habits while limiting landlord energy expenses. With a maximum temperature of 74°/23°C the WINDOW WATCHER™ can be customized to your energy saving goals. Sensors placed in a window or door allow this smart thermostat to monitor when they are open. When the volt-free remote contacts are opened the WINDOW WATCHER™ will automatically set the thermostat back to 40°F/5°C, instantly saving you money! When the window or door is closed the thermostat will automatically return to the originally set comfort temperature. An optional occupancy sensor in line allows it to set the thermostat back when a room is unoccupied, potentially saving you even more. Motels can use contacts that are key card or key activated to begin room heating when the room is occupied, keep the heat to a minimum when unoccupied. Window open set back is clearly displayed on the large back-lit LCD screen when "OFF" appears. That is when you know money is staying in your pockets, not flying carelessly out the window! With no user hold or bypass possible, the WINDOW WATCHER™ is the perfect temperature control anywhere you can not monitor but need to. The WINDOW WATCHER™: real world, confirmed energy savings. Helping to save our resources and curb less desirable energy habits.

### Ordering Information

| MODEL    | UPC   | TYPE                    | PACKAGING  | WIRE LEADS | VOLTS   | AMPS | TEMP. RANGE        |
|----------|-------|-------------------------|------------|------------|---------|------|--------------------|
| WR120-B  | 19183 | Electronic Line Voltage | Single Box | 3 Wire     | 120     | 16   | 40°F/5°C-75°F/23°C |
| WRP120-B | 19182 | Electronic Line Voltage | Single Box | 3 Wire     | 120     | 16   | 40°F/5°C-75°F/23°C |
| WR230-B  | 19181 | Electronic Line Voltage | Single Box | 3 Wire     | 240/208 | 16   | 40°F/5°C-75°F/23°C |
| WRP230-B | 19180 | Electronic Line Voltage | Single Box | 3 Wire     | 240/208 | 16   | 40°F/5°C-75°F/23°C |

### Complete Kits

| MODEL        | UPC   | DESCRIPTION  | WIRE LEADS | VOLTS   | AMPS | TEMP. RANGE |
|--------------|-------|--|------------|---------|------|-------------|
| WR120-B-KIT  | 33511 | Kit Includes WR120-B Thermostat, Window Sensor and 50' Wire  | 3 Wire     | 120     | 16   | 40°F-75°F°  |
| WR230-B-KIT  | 33513 | Kit Includes WR230-B Thermostat, Window Sensor and 50' Wire  | 3 Wire     | 240/208 | 16   | 40°F-75°F°  |
| WRP120-B-KIT | 33512 | Kit Includes WRP120-B Thermostat, Window Sensor and 50' Wire | 3 Wire     | 120     | 16   | 40°F-75°F°  |
| WRP230-B-KIT | 33514 | Kit Includes WRP230-B Thermostat, Window Sensor and 50' Wire | 3 Wire     | 240/208 | 16   | 40°F-75°F°  |

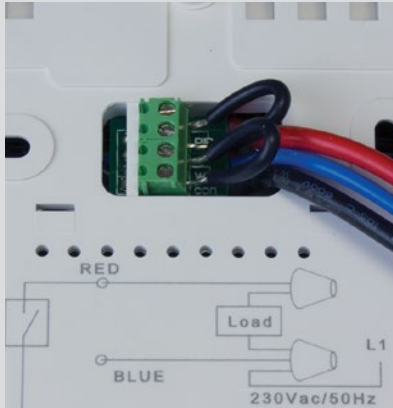
### Accessories

| MODEL          | UPC   | DESCRIPTION   | COLOR     | SHIP WEIGHT lbs |
|----------------|-------|---|-----------|-----------------|
| WR-COVER-BLANK | 33508 | Tamperproof Cover Plate, Blank, For WINDOW WATCHER Thermostat | WHITE     | N/A             |
| WINDOW-CONTACT | 55543 | Window Contact, Standard Surface / 507-AMS-39W                | WHITE     | N/A             |
| 50FT-BELL-WIRE | 55544 | 50-FT Bell Wire, 18/2 RED/WHITE TWISTED                       | RED/WHITE | N/A             |

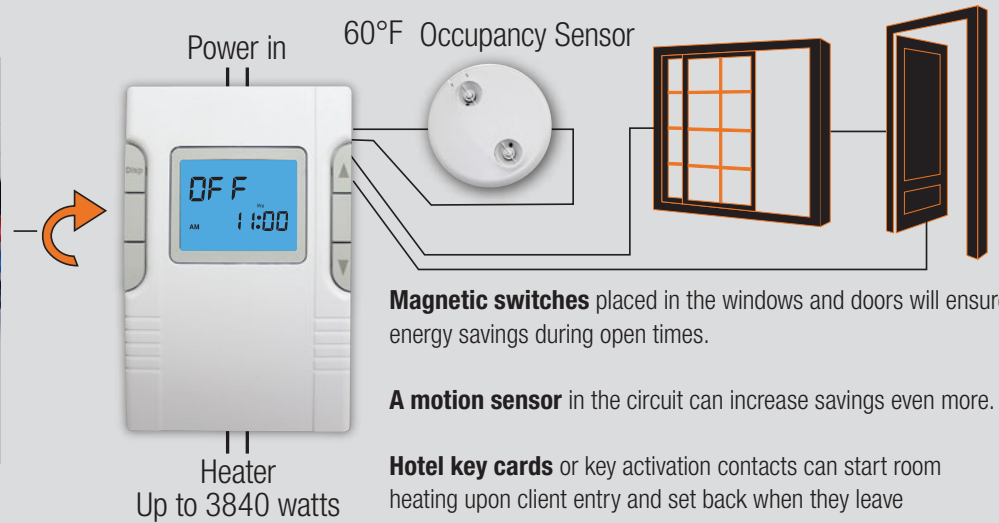
# Programmable Thermostat WR/WRP

## How It Works

**Small bell-type wire**, 90°C (22 gauge) connected to the back of this thermostat senses if a window or door is open. Simple magnetic switches used in alarm systems can be used as the contacts. Combined with occupancy sensors potential savings are maximized.



**WINDOW WATCHER**



**Magnetic switches** placed in the windows and doors will ensure energy savings during open times.

**A motion sensor** in the circuit can increase savings even more.

**Hotel key cards** or key activation contacts can start room heating upon client entry and set back when they leave

# Autonomous Dual Timed Stat



## Occupant Timed Heating For Building Managers

## AUTONOMY

- ✓ Rental Apartments
- ✓ Student Housing
- ✓ Vacation Rentals
- ✓ Air BnB
- ✓ Motels



- 2 preset setback temperatures
- 2 preset times Minor & Major
- Simple 2 button operation
- Single or Double Pole Line Voltage
- Max room temp set point of 74°F Min 55°F
- Simple 2 button operation

- Electronic sensing for accurate temperature control ( $\pm 1^\circ\text{F}$ )
- For use on baseboard, fan forced & radiant electric heaters
- Manual temperature range 55° - 74°F (5° - 24°C)
- Fully vented cover allows air sensing in all directions
- Mounts directly to a single gang vertical electrical outlet box
- 2-year limited warranty

## Autonomous Dual Timed Electronic Thermostat with Setback Presets

No Programming Required, Timed Comfort with tenant able to raise the temperature. Two selectable timed, minor and Major set-back temperatures, The minor setback allows for comfort up to 74 degrees for 1, 2, 3, 4, 8, 12, 16 hours before setting back to 66, 62, or 58 degrees, Major setback happens in 12, 24, 48, 36 or 60 hours and drops the temperature back to 58, 50, or 40 degrees. Simple jumper pins on the circuit board allow you to select the times and the temperatures for your application.

\*Consult factory regarding options for custom time and temperature setbacks. MOQ would apply.

### Ordering Information

| MODEL       | UPC   | DESCRIPTION                          |
|-------------|-------|--------------------------------------|
| K701-1-DTSB | 10401 | 120V, 1P Line Voltage Electronic     |
| *K702E-DTSB | 17192 | 208/240V, 2P Line Voltage Electronic |

Set Back Temperatures

#### Minor

66, 62, 58

Times: 1, 2, 3, 4, 8, 12, 16

#### Major

58, 50, 40

Times: 12, 24, 36, 48, 60

### Accessories

| MODEL            | UPC   | DESCRIPTION                    | SHIP WEIGHT lbs |
|------------------|-------|--------------------------------|-----------------|
| JUMPER-K702-DTSB | 33515 | Jumper, Replacement, K702-DTSB | N/A             |

### Engineering Specifications

Single Pole 3 Wire / \*Double Pole 4 Wire

Temperature Range: 55° - 74°F (5° - 24°C) Accuracy:  $\pm 1^\circ\text{F}$

\*Max Power: 3328W @ 208VAC (16A)

\*Max Power: 3840W @ 240VAC (16A)

Max Power: 1920W @ 120VAC (16A)

Sensing Element: Electronic

16 Amps



## Auto-Double Setback Stat Reduces Energy Waste

Ideal for building managers of dorms and multi-family housing motel & hotel units. Reduces energy waste by automatically setting back the room temperature. Tenant sets the desired room temperature, after a few hours the temperature automatically sets back to the Minor set point. After many hours of no temperature adjustment it sets back to the Major set point.



# Milkhouse Heater PHM-1

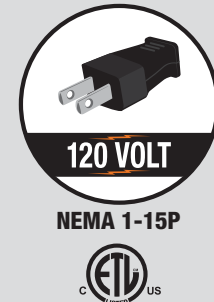


## Specifications

BTU..... 5120  
 Watts..... 1300/1500W  
 Power..... 120V~60Hz  
 Amps..... 12.5 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 4 position switch, fan only/low/high/off
- Ni-chrome heating element
- 6 foot cord 120V plug
- 2 heat settings 1300/1500 watts
- Safety tip-over switch
- Adjustable thermostat
- Convenient carrying handle
- Power indicator light
- Overheat protection
- Durable powder coated steel housing
- 1-year limited warranty

## The PHM-1 Portable Milkhouse Heater

The PHM-1 portable utility heater is a durable heater designed for use in garage/shop applications, where supplemental heat is needed. It features a rugged and durable metal housing. The easy-to-use thermostat lets you adjust heat to the perfect level for your space. For safety, an internal switch automatically cuts off power if heater accidentally tips, falls or overheats.

### Ordering Information

### Dimensions

15¾" h x 9¾" w x 7½" d

| MODEL | UPC   | VOLTS | WATTS     | AMPS | Plug Type |
|-------|-------|-------|-----------|------|-----------|
| PHM-1 | 20992 | 120   | 1300/1500 | 12.5 | 120V Plug |

# Portable Radiant Tower Heater PHTR-9

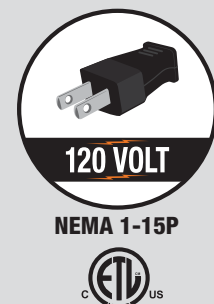


## Specifications

BTU..... 4100  
 Watts..... 600/1200W  
 Power..... 120V~60Hz  
 Amps..... 10 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 2 heat settings 600/1200W
- Dual quartz radiant tower heater
- 6 foot cord 120V plug
- Safety tip-over switch
- Adjustable thermostat
- Comfort grip handle on back
- Durable powder coated steel grill stays cool to the touch
- Overheat Protection
- Power indicator light
- 1-year limited warranty

## The PHTR-9 Portable Radiant Tower Heater

The PHTR-9 Dual quartz radiant tower heater has reflective heating technology that replicates the sun's healthy rays, directly warming the object or person in front of the heater. As the temperature of the heated surface rises, the warming effect is felt throughout the air and surrounding areas. Reflective heaters are great for open or large rooms, and actually save you energy by warming objects and not the entire room. Reflective heating is both safe and healthy—it produces no odors, chemicals or fumes and doesn't stir up dust. Remarkably efficient, our heater uses less power to create the same amount of heat as traditional heaters. Equipped with safety tip-over switch and overheat auto-off protection, the heater is safe and reliable.

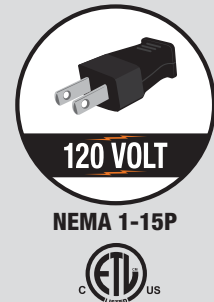
### Ordering Information

### Dimensions

22¼" h x 11" w x 7½" d

| MODEL  | UPC   | VOLTS | WATTS    | AMPS | Plug Type |
|--------|-------|-------|----------|------|-----------|
| PHTR-9 | 20999 | 120   | 600/1200 | 5-10 | 120V Plug |

# Portable Heater PH-2



- 4 position switch, fan only/low/high/off
- Ceramic heating element
- 6 foot cord 120V plug
- Safety tip-over switch
- Adjustable thermostat
- Comfort grip handle on back
- Overheat Protection
- Power indicator light
- 1-year limited warranty

## The PH-2 Portable Ceramic Fan Heater

The PH-2 portable ceramic heater with thermostat delivers comfortable warmth wherever it's needed most. This portable ceramic heater has 2 heat settings with a thermostat that helps regulate the heat automatically. The PH-2 is equipped with a Summer fan feature as well. This portable heater warms, cools and circulates air through out any room.

### Ordering Information

**Dimensions**  
10¾"h x 7½"w x 5½"d

| MODEL | UPC   | VOLTS | WATTS    | AMPS | Plug Type |
|-------|-------|-------|----------|------|-----------|
| PH-2  | 20986 | 120   | 750/1500 | 12.5 | 120V Plug |

### Specifications

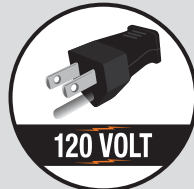
### Minimum Clearance

BTU..... 5120  
 Watts..... 750/1500W  
 Power..... 120V~60Hz  
 Amps..... 12.5 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.

# 2 Stage ECO Portable Baseboard KP1215-ECO

750/1500 Watt 2-Stage Heating



120 VOLT  
NEMA 6-15P



Model Code:

|    |    |    |      |
|----|----|----|------|
| KP | 12 | 15 | -ECO |
| A  | B  | C  | D    |

A: Series  
B: 12 - 120V  
C: Watts (1500)  
D: Energy Saving ECO-stat



- Dual wattage 750/1500W element
- 2-Stage, Energy saving ECO-stat
- ECO-indicating lights
- High temperature limit
- Lighted ON/OFF power switch
- 6 foot cord with grounded plug
- All angle tip-over switch
- White finish/Gray trim
- Quiet and efficient convection heat
- Convenient carry handle on back
- With rounded corners and wide base feet
- 1-year limited warranty



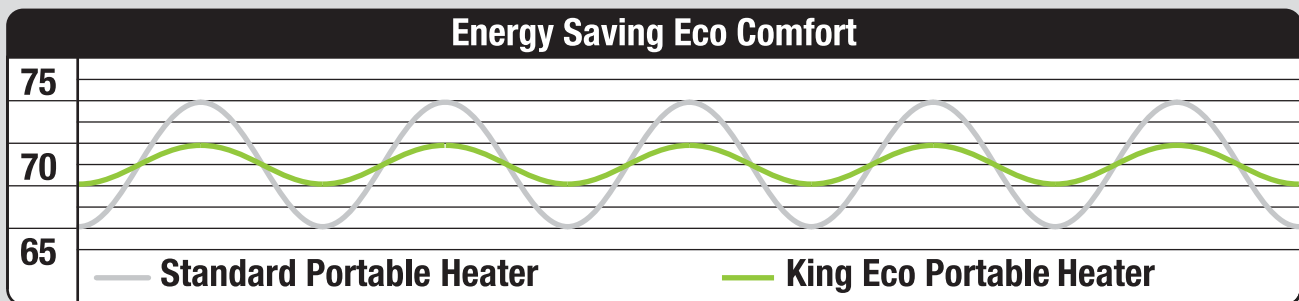
## The KP1215-ECO Portable Baseboard Heater

King Electric's KP1215-ECO with EcoStat automatically uses the lowest wattage required to heat the room, reducing energy consumption. The EcoStat ensures consistent comfort by minimizing room temperature swings. In a cold room it utilizes full power to heat a room quickly. Once the desired temperature is achieved, the heater automatically reduces the wattage to maintain the room temperature. Maximum comfort is achieved.

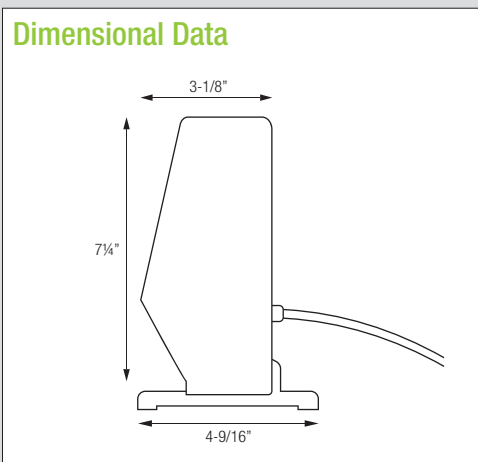
### Ordering Information

| MODEL      | UPC   | VOLTS | WATTS    | LENGTH | BTUH      | AMPS      | PLUG TYPE | WEIGHT (lbs.) |
|------------|-------|-------|----------|--------|-----------|-----------|-----------|---------------|
| KP1215-ECO | 20794 | 120   | 750/1500 | 5 FT.  | 2560/5120 | 6.25-12.5 | 120V Plug | 11.5          |

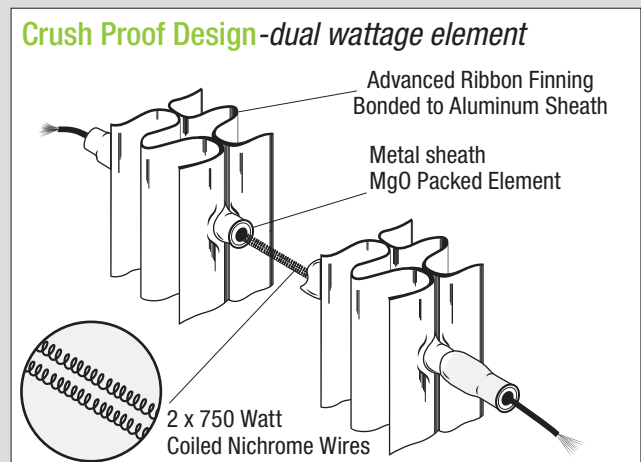
### KP1215-ECO



### Dimensional Data



### Crush Proof Design - dual wattage element



# Portable Baseboard KP/KPH Series



**Model Code:**

|    |    |    |
|----|----|----|
| KP | 12 | 10 |
| A  | B  | C  |

A: Series  
B: Volts 120V  
C: Watts 1000



- Aluminum finned element
- Convection heat
- All angle tip-over switch
- 6 ft. cord w/ grounded plug, 120V
- Baked enamel finish
- Molded base feet
- Carrying handle on back
- Standard Color: white
- Full length safety cutout
- Quiet running
- Pilot light
- Built in thermostat
- 1-year limited warranty

## The KP/KPH Series Portable Baseboard Heater

A portable baseboard is an easy way to add supplementary heat to any room. Baseboards are quiet and trouble-free. A tip-over switch is standard so if the heater is knocked over it will automatically shut off. A built-in thermostat and a 6 foot, 3-wire grounded outlet plug for additional safety are provided. This heater is so rugged it is approved for U.S. government contracts.

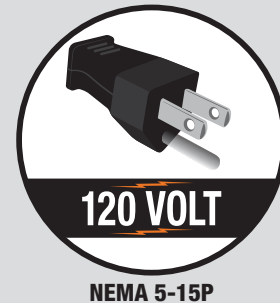
### Ordering Information

| MODEL   | UPC   | VOLTS | WATTS | AMPS | LENGTH | SHIP WEIGHT lbs |
|---------|-------|-------|-------|------|--------|-----------------|
| KP1210  | 10142 | 120   | 1000  | 8.3  | 4 ft.  | 11.5            |
| KPH1210 | 10143 | 120   | 1000  | 8.3  | 3 ft.  | 9.0             |

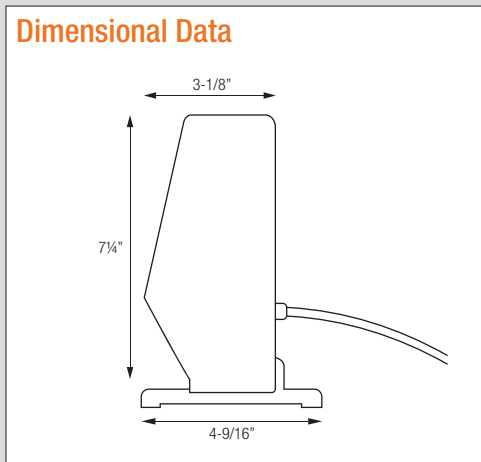
### Engineering Specifications

**Approvals:** UL (E29778)

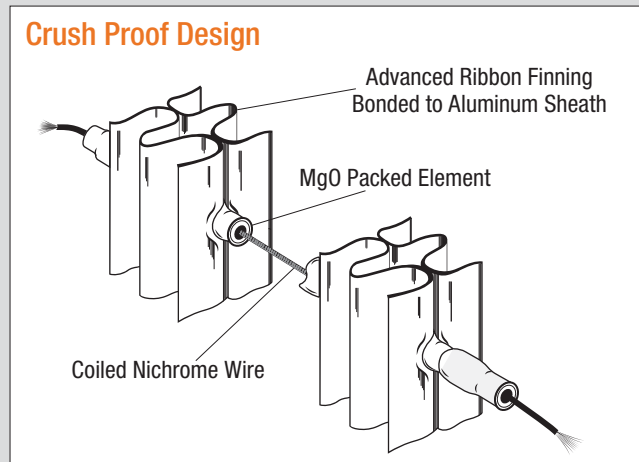
### Plug Configurations



### Dimensional Data



### Crush Proof Design



# Portable Shop Heater PSH1215T



**Model Code:**

|     |    |    |   |
|-----|----|----|---|
| PSH | 12 | 15 | T |
| A   | B  | C  | D |

A: Series  
 B: 12 - 120V  
 C: Watts (1500)  
 D: T - Thermostat

**Yellow Jacket Mini™**



- Built-in thermostat
- On/off switch
- Adjustable tilt control
- Spiral finned heating element
- 6 Foot Cord with 15 Amp plug
- Comfort grip handle
- Auto-reset safety limit
- Power indicator light
- Permanently lubricated motor
- Durable scratch and rust resistant finish
- 1-year limited warranty

## The PSH1215T Portable Shop Heater

The PSH1215T is a rugged portable heater designed to provide supplemental heat at an affordable price. Perfectly suited for personal use applications and small workshops/worksites. The convenient 6 foot cord allows greater mobility to areas needing heat. Easily set the desired temperature with the built-in thermostat. Sure stop high-limit temperature control provides overheat protection. Standard color: yellow body, black grill and handle. 1 year warranty.

### Ordering Information

| MODEL    | UPC   | VOLTS | WATTS | AMPS | Plug Type |
|----------|-------|-------|-------|------|-----------|
| PSH1215T | 20634 | 120   | 1500  | 12.5 | 120V Plug |

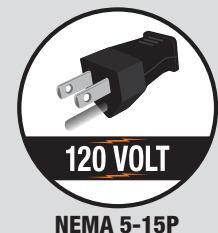


### Specifications

BTU..... 5100B  
 Watts..... 1500W  
 Power (Volts)..... 120V~60Hz  
 Amps..... 12.5 A  
 Cord Length..... 6 ft.  
 Switch..... ON / OFF  
 Air Flow..... 216 CFM

### Minimum Clearance

front..... 3 ft.  
 top..... 1 ft.  
 sides..... 1 ft.  
 rear..... 1 ft.





# Portable Shop Heater PSH2440TB



**Model Code:**

|     |    |    |   |   |
|-----|----|----|---|---|
| PSH | 24 | 40 | T | B |
| A   | B  | C  | D | E |

A: Series  
 B: 24 - 240V  
 C: Watts (3750)  
 D: T - Thermostat  
 E: B - Bracket

**Yellow Jacket Junior™**



- Standard color: Yellow with black accents
- Includes both comfort grip & storage handle
- High limit temperature control with manual reset
- 300 CFM fan
- Stainless steel tubular heating element
- Built-in thermostat (45-85°F)
- Standard finish epoxy/polyester paint
- Handle may be used as a reel for the electric cable
- Mounting bracket for wall or ceiling installation included
- Power indicating light
- 3 pronged 20A 250 VAC outlet required
- 6 ft. (2m) cord NEMA 6-20P
- 51° F temperature rise
- Auto fan delay
- 1-year limited warranty

## The PSH Portable Shop Heater

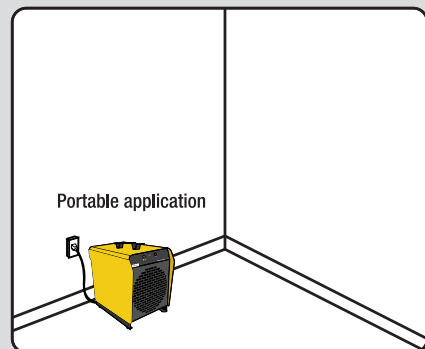
The PSH is a high power portable heater designed to provide a back-up heating source at an affordable price. Perfectly suited for the workshop, garage or construction sites. The convenient 6 foot cord allows greater mobility to areas needing heating, while the handle serves as a reel for the cord when not in use. Easily set the desired temperature with the built-in thermostat. Sure stop high-limit temperature control with manual reset provides overheat protection. With a 300 CFM fan, heat is dispersed efficiently. Standard color: Yellow. 240 Volt Single Phase. 1-year warranty.

### Ordering Information

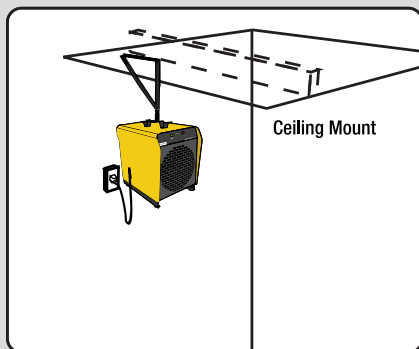
| MODEL     | UPC   | VOLTS    | WATTS       | AMPS  | Plug Type   |
|-----------|-------|----------|-------------|-------|-------------|
| PSH2440TB | 20637 | 240/208* | 3,750/2,812 | 16/14 | NEMA #6-20P |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

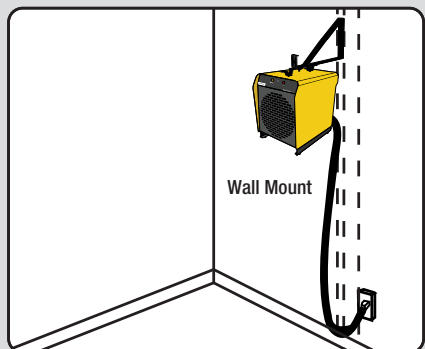
### Easy Installation



Place on the floor and plug into 20 Amp outlet



Mount bracket to ceiling joist and attach heater



Mount bracket to wall stud and attach heater

### Specifications

|                         |            |
|-------------------------|------------|
| BTU.....                | 13,000B    |
| Watts.....              | 3,750W     |
| Heating Area (ft²)..... | 450 ft²    |
| Power (Volts).....      | 240V~60Hz  |
| Amps.....               | 16 A       |
| Heat Settings 1.....    | On/Off     |
| Heat Settings 2.....    | Thermostat |

### Minimum Clearance

|            |       |
|------------|-------|
| front..... | 3 ft. |
| top.....   | 1 ft. |
| sides..... | 1 ft. |
| rear.....  | 1 ft. |

**Receptacle Type:**

**20A-240V NEMA #6-20R**  
 (NOT INCLUDED)

**NOT 120 VOLT**

\*WILL NOT operate on 120V household receptacles

**240 VOLT Receptacle Required**

\*See label on front panel for specific receptacle type

# Portable Garage Heater PGH Series



**\*4800W**

Receptacle Type:  
**30A-250V**  
**NEMA #6-30R**

Ground (NOT INCLUDED)

---

**\*4000W**

Receptacle Type:  
**20A-240V**  
**NEMA #6-20R**

Ground (NOT INCLUDED)

---

**NOT 120 VOLT**

**240 VOLT**  
Receptacle  
Required

\*WILL NOT operate on 120V household receptacles

\*See label on front panel for specific receptacle type

**Model Code:**

|     |    |    |   |   |
|-----|----|----|---|---|
| PGH | 24 | 40 | T | B |
| A   | B  | C  | D | E |

A: Series  
B: 24 - 240V  
C: Watts (3750)  
D: T - Thermostat  
E: B - Bracket



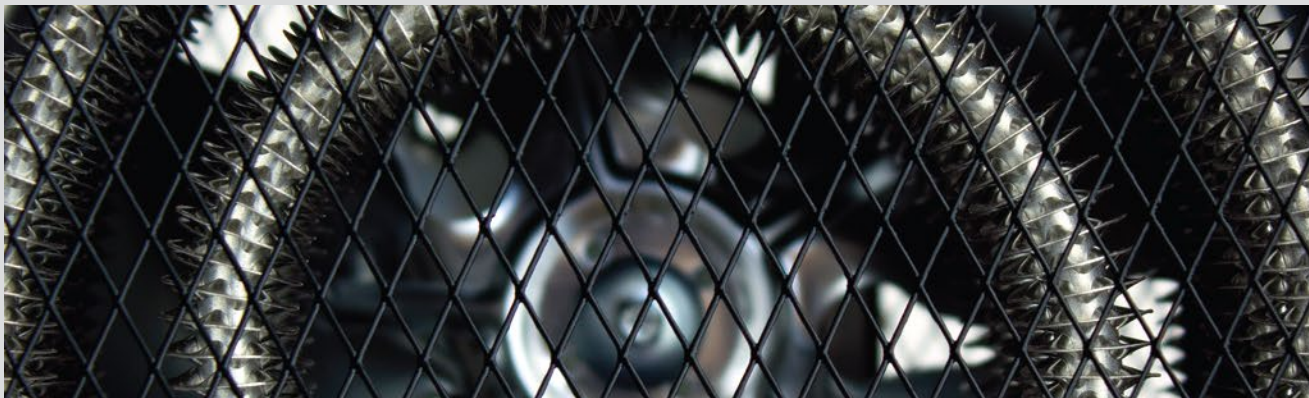
- In-built thermostat and On/Off Switch
- SureStop™ Limit Protection
- Auto-reset Fan Delay increases efficiency
- Stainless Steel tube elements
- 6 foot cord
- Carrying handle with built-in cord storage
- Universal wall / ceiling bracket included
- Durable scratch and rust resistant finish
- 1-year limited warranty

## The PGH Series Portable Garage Heater

The PGH Series is a rugged portable heater designed to provide a high capacity heating source at an affordable price. Perfectly suited for workshops, garages or construction sites. Easily set the desired temperature with the in-built mechanical thermostat. Offering a SureStop™ high temperature-limit, with auto-reset providing protection from overheating.

### Ordering Information

| MODEL      | UPC   | VOLTS    | WATTS      | AMPS       | Plug Type              |
|------------|-------|----------|------------|------------|------------------------|
| PGH2440TB* | 20998 | 240/208* | 3750/2813* | 15.6/13.5* | 20A -240V NEMA 6-20P** |



*Spiral Steel Fin Heating Element For Maximum Heat Exchange*

# Safe Touch Cabinet Heater KCF Series



## SafeTouch™

### Model Code:

KCF 2/3/4 -24 20 -1 -R -T -DS1  
A B C D E F G H

- A: Series
- B: Length
- C: 20 - 208V 24 - 240V  
27 - 277V 48 - 480V
- D: Watts (20=2000 - 50=5000)
- E: -1 single phase -3 three phase
- F: Recess or Surface mount
- G: SP Stat
- H: Double Pole Disconnect Switch

- 125°F max surface temperature
- Ceramic element
- Squirrel cage blower
- Powder-coated
- Fan-Forced heat
- Aluminum fin element
- Capillary tube limit
- Standard color: almond
- 18 gauge cabinet
- 1 or 3-phase
- 5-year limited warranty



## The KCF Series Safe Touch Cabinet Heater

The KCF Safe Touch heater is intended for areas that are required to have surface temperatures below 125 degrees F. These areas are typically, day care centers, memory care centers, common areas where wheel chair patients may be placed or anywhere a temperature of an electric heater over 125 degrees could cause someone to accidentally burn themselves over time. Many older care centers have implemented this type of heater replacing the old style high wattage baseboards as it has been enforced by inspectors and required by code to keep their patients safe. Heavy duty front covers and our Ceramic Core heating element makes this a long lasting heater with virtually no maintenance required. Optional: Sub-base for mounting close to the floor, inbuilt thermostat factory or tamperproof thermostat may be installed. Heaters can be ganged together to work on one thermostat if higher output is required. Not for residential use unless the manual reset option is added.

### Ordering Information

\*Add suffix -1 for single phase, -3 for three phase

\*Add suffix -R for recessed mount, -S for surface mount

|      | MODEL     | VOLTS | WATTS | (1ph) AMPS (3ph) | BTUH | #of BLOWERS | CFM | LENGTH | SHIP WEIGHT lbs |
|------|-----------|-------|-------|------------------|------|-------------|-----|--------|-----------------|
| 208V | KCF2-2005 | 208   | 500   | 2.4 1.4          | 1.7  | 1           | 70  | 24"    | 35              |
|      | KCF3-2007 | 208   | 750   | 3.6 2.1          | 2.6  | 1           | 70  | 36"    | 35              |
|      | KCF4-2015 | 208   | 1500  | 7.2 4.2          | 5.1  | 2           | 140 | 48"    | 45              |
|      | KCF4-2020 | 208   | 2000  | 9.6 5.6          | 6.8  | 3           | 210 | 48"    | 55              |
| 240V | KCF2-2405 | 240   | 500   | 2.1 1.2          | 1.7  | 1           | 70  | 24"    | 35              |
|      | KCF3-2407 | 240   | 750   | 3.1 1.8          | 2.6  | 1           | 70  | 36"    | 35              |
|      | KCF4-2415 | 240   | 1500  | 6.3 3.6          | 5.1  | 2           | 140 | 48"    | 45              |
|      | KCF4-2420 | 240   | 2000  | 8.3 4.8          | 6.8  | 3           | 210 | 48"    | 55              |
| 277V | KCF2-2705 | 277   | 500   | 1.8 n/a          | 1.7  | 1           | 70  | 24"    | 35              |
|      | KCF3-2707 | 277   | 750   | 2.7 n/a          | 2.6  | 1           | 70  | 36"    | 35              |
|      | KCF4-2715 | 277   | 1500  | 5.4 n/a          | 5.1  | 2           | 140 | 48"    | 45              |
|      | KCF4-2720 | 277   | 2000  | 7.2 n/a          | 6.8  | 3           | 210 | 48"    | 55              |
| 480V | KCF2-4805 | 480   | 500   | 1.0 0.6          | 1.7  | 1           | 70  | 24"    | 35              |
|      | KCF3-4807 | 480   | 750   | 1.6 0.9          | 2.6  | 1           | 70  | 36"    | 35              |
|      | KCF4-4815 | 480   | 1500  | 3.1 1.8          | 5.1  | 2           | 140 | 48"    | 45              |
|      | KCF4-4820 | 480   | 2000  | 4.2 2.4          | 6.8  | 3           | 210 | 48"    | 55              |

\*Refer to KCF for dimensions, control options, mounting data.

### Field Installed Accessories

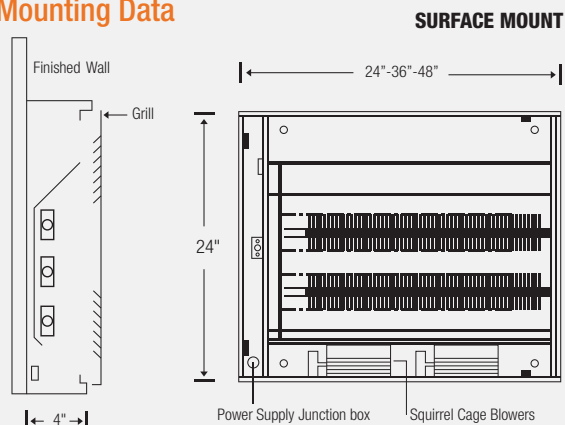
| MODEL    | UPC   | DESCRIPTION                                       |
|----------|-------|---|
| KC-SB-24 | 20319 | KC ACCY SUB-FLOOR BASE 24" WIDE, 2" TALL, 3" DEEP |
| KC-SB-36 | 20316 | KC ACCY SUB-FLOOR BASE 36" WIDE, 2" TALL, 3" DEEP |
| KC-SB-48 | 20317 | KC ACCY SUB-FLOOR BASE 48" WIDE, 2" TALL, 3" DEEP |

### Control Options

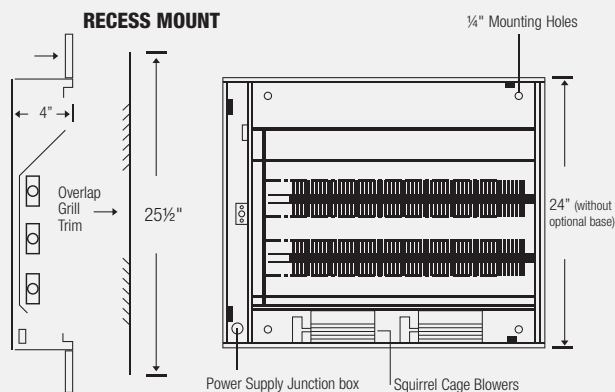
| ADD SUFFIX | DESCRIPTION                                     |
|------------|---|
| -RT        | Line Voltage Terminal Block                     |
| -CX        | Power Contactor (1-Phase models Only)           |
| -RT24      | 24 Volt Contactor & Transformer                 |
| -3PS       | 3-Position Switch                               |
| -DS1       | Double Pole Disconnect Switch (1-Phase)         |
| -DS3       | Three Pole Disconnect Switch (3-Phase)          |
| -T         | 25 Amp Single Pole Thermostat w/Knob            |
| -T2        | 25 Amp Double Pole Thermostat w/Knob            |
| -TP        | 25 Amp Tamperproof (slotted shaft), single pole |

# Safe Touch Cabinet Heater KCF Series

## Mounting Data

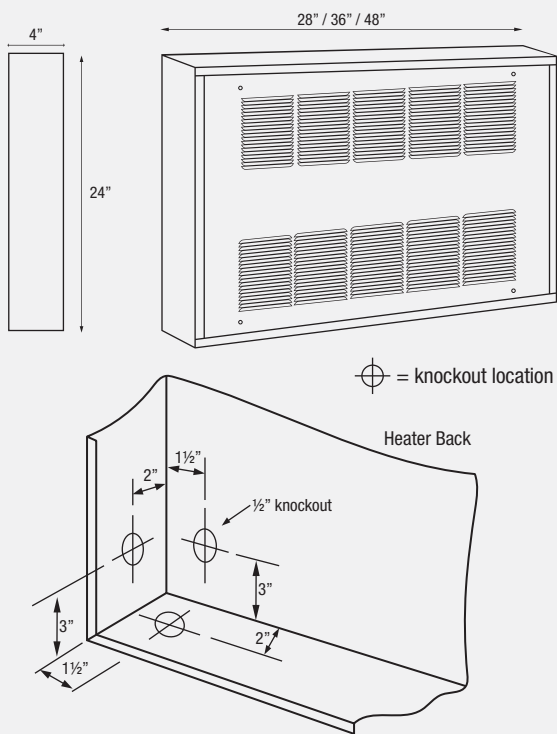


## RECESS MOUNT



**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

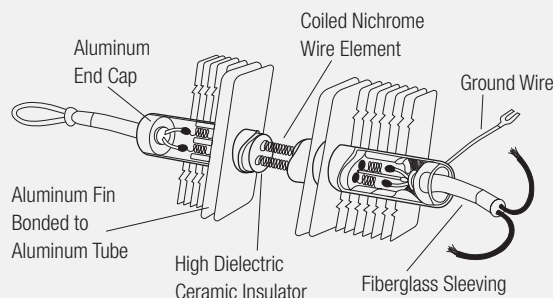
## Dimensional Data



## Control Options

- A line voltage terminal block can be provided for wiring to a remote line voltage thermostat.
- A power contactor with line voltage coil can be provided to remotely switch the heater.
- A power contactor and 24V transformer can be provided to remotely switch the heater.
- A 3-position switch can be provided for manual HEAT/FAN/OFF control.
- A 2-Pole Disconnect switch can be provided for 1-Phase heaters.
- A 3-Pole Disconnect can be provided for 3-Phase heaters.
- A floor sub-base can be provided for direct floor contact.
- A built-in 1-Pole thermostat can be provided for convenience
- A built-in 2-Pole thermostat can be provided for convenience.
- A tamperproof built-in thermostat can be provided without a knob, temperature adjustments are made with a screw driver.

## High Mass Ceramic Element



## Engineering Specifications

Contractor shall supply and install KCF Series Safe Touch cabinet heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Heaters shall be constructed in 18 gauge galvanized Steel with epoxy powder-coated manufacturer's standard finish. A louvered front cover with intake and outlet grille will protect element area and provide ample air flow to dissipate heated air.

**Element:** The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in<sup>2</sup>) are made from durable (0.015" thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly. A fired refractory ceramic core with two large diameter Nickel Chromium

coils attached with high temperature stainless connectors and stranded Nickel wire, terminated in a junction box.

**Controls:** A built-in thermal cutout shall automatically shut off the heater in case of overheating. A built-in thermostat for temperature control will have a range from 40°- 95°F and be of the high accuracy capillary tube-type. Disconnect switch and contactors will be provided if necessary.

**Blower and Motor:** Up to 3 tangential cylindrical blowers, delivering 70 CFM each, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. All 480V units use 277V motors and contactors. This requires a neutral connection.

**Approvals:** cULus

# Compact Fan Forced Cabinet Heater KCF Series



**Model Code:**

|     |       |     |    |    |    |    |      |
|-----|-------|-----|----|----|----|----|------|
| KCF | 2/3/4 | -24 | 20 | -1 | -R | -T | -DS1 |
| A   | B     | C   | D  | E  | F  | G  | H    |

**A: Series**  
**B: Length**  
**C: 20 - 208V 24 - 240V**  
**27 - 277V 48 - 480V**  
**D: Watts (20=2000 - 50=5000)**  
**E: -1 single phase -3 three phase**  
**F: Recess or Surface mount**  
**G: SP Stat**  
**H: Double Pole Disconnect Switch**

- Fan-Forced heat
- Aluminum fin element
- Squirrel cage blower
- 1 or 3-phase
- Standard color: almond
- Ceramic element
- 18 gauge cabinet
- Capillary tube limit
- Powder-coated
- 5-year limited warranty



## The KCF Series Cabinet Heater

The King heavy KCF cabinet heater can be placed almost anywhere. Typical uses are hall or entryways where a deep cabinet heater would be too intrusive. The slim design is great for schools, office, air terminals, auditoriums, apartments, restaurants, churches, factory's, theaters and other locations where a clean impact resistant 18 gauge construction and entry way or comfort heating is needed. The KCF uses the time tested ceramic core heating elements that King developed over 50 years ago and have a very long life. Available in a slim 4" surface mount or the recess in wall installation. A sub-base is available when installing close to the floor to fill the gap. Thermostats, Contactors and Disconnect switches are available as options. Textured powder coated finish in an almond color. KCF model adds quiet tangential fans in the bottom of the cabinet to help move the heated air out of the cabinet. KCF model is not for residential use unless you add the Manual reset limit option.

**Ordering Information** \*Add suffix -1 for single phase, -3 for three phase \*Add suffix -R for recessed mount, -S for surface mount

|             | MODEL     | VOLTS | WATTS | (1ph) AMPS (3ph) | BTUH(000) | #of BLOWERS | CFM | LENGTH | SHIP WEIGHT lbs |
|-------------|-----------|-------|-------|------------------|-----------|-------------|-----|--------|-----------------|
| <b>208V</b> | KCF2-2010 | 208   | 1000  | 4.8 2.8          | 3.42      | 1           | 70  | 24"    | 35              |
|             | KCF2-2020 | 208   | 2000  | 9.6 5.6          | 6.8       | 1           | 70  | 24"    | 35              |
|             | KCF3-2030 | 208   | 3000  | 14.4 8.3         | 10.2      | 2           | 140 | 36"    | 45              |
|             | KCF4-2040 | 208   | 4000  | 19.2 11.1        | 13.6      | 3           | 210 | 48"    | 55              |
|             | KCF4-2050 | 208   | 5000  | 24 13.9          | 17        | 3           | 210 | 48"    | 55              |
| <b>240V</b> | KCF2-2410 | 240   | 1000  | 4.2 2.4          | 3.4       | 1           | 70  | 24"    | 30              |
|             | KCF2-2420 | 240   | 2000  | 8.3 4.8          | 6.8       | 1           | 70  | 24"    | 35              |
|             | KCF3-2430 | 240   | 3000  | 12.5 7.2         | 10.2      | 2           | 140 | 36"    | 45              |
|             | KCF4-2440 | 240   | 4000  | 16.7 9.6         | 13.6      | 3           | 210 | 48"    | 55              |
|             | KCF4-2450 | 240   | 5000  | 20.8 12.0        | 17        | 3           | 210 | 48"    | 55              |
| <b>277V</b> | KCF2-2710 | 277   | 1000  | 3.6 n/a          | 3.4       | 1           | 70  | 24"    | 30              |
|             | KCF2-2720 | 277   | 2000  | 7.2 n/a          | 6.8       | 1           | 70  | 24"    | 35              |
|             | KCF3-2730 | 277   | 3000  | 10.3 n/a         | 10.2      | 2           | 140 | 36"    | 45              |
|             | KCF4-2740 | 277   | 4000  | 14.4 n/a         | 13.6      | 3           | 210 | 48"    | 55              |
|             | KCF4-2750 | 277   | 5000  | 18 n/a           | 17        | 3           | 210 | 48"    | 55              |
| <b>480V</b> | KCF2-4810 | 480   | 1000  | 2.1 1.2          | 3.4       | 1           | 70  | 24"    | 30              |
|             | KCF2-4820 | 480   | 2000  | 4.2 2.4          | 6.8       | 1           | 70  | 24"    | 35              |
|             | KCF3-4830 | 480   | 3000  | 6.5 3.6          | 10.2      | 2           | 140 | 36"    | 45              |
|             | KCF4-4840 | 480   | 4000  | 8.3 4.8          | 13.6      | 3           | 210 | 48"    | 55              |
|             | KCF4-4850 | 480   | 5000  | 10.4 6           | 17        | 3           | 210 | 48"    | 55              |

### Field Installed Accessories

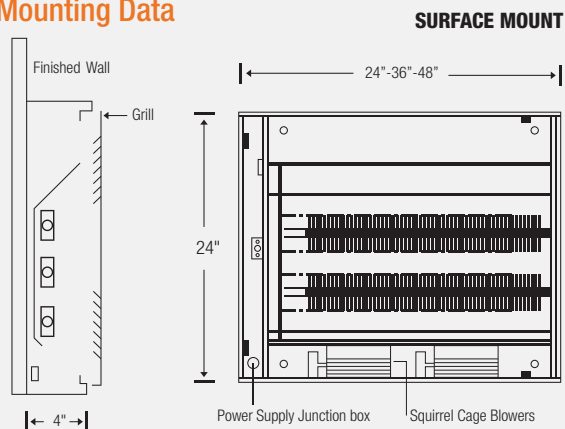
| MODEL    | UPC   | DESCRIPTION                                       |
|----------|-------|---|
| KC-SB-24 | 20319 | KC ACCY SUB-FLOOR BASE 24" WIDE, 2" TALL, 3" DEEP |
| KC-SB-36 | 20316 | KC ACCY SUB-FLOOR BASE 36" WIDE, 2" TALL, 3" DEEP |
| KC-SB-48 | 20317 | KC ACCY SUB-FLOOR BASE 48" WIDE, 2" TALL, 3" DEEP |

### Control Options

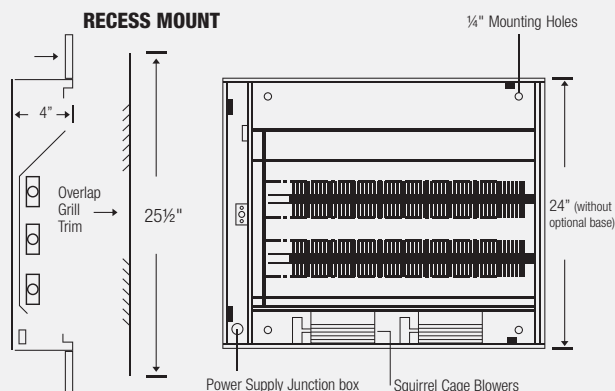
| ADD SUFFIX | DESCRIPTION                                     |
|------------|---|
| -RT        | Line Voltage Terminal Block                     |
| -CX        | Power Contactor (1-Phase models Only)           |
| -RT24      | 24 Volt Contactor & Transformer                 |
| -3PS       | 3-Position Switch                               |
| -DS1       | Double Pole Disconnect Switch (1-Phase)         |
| -DS3       | Three Pole Disconnect Switch (3-Phase)          |
| -T         | 25 Amp Single Pole Thermostat w/Knob            |
| -T2        | 25 Amp Double Pole Thermostat w/Knob            |
| -TP        | 25 Amp Tamperproof (slotted shaft), single pole |

# Compact Fan Forced Cabinet Heater KCF Series

## Mounting Data

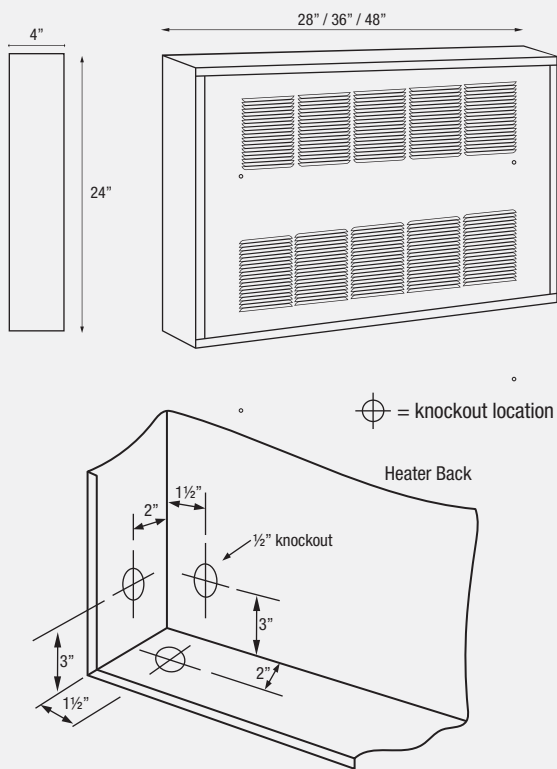


## RECESS MOUNT



**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

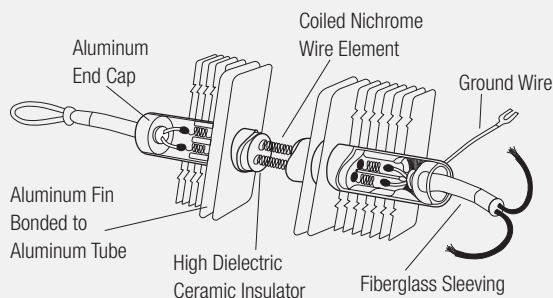
## Dimensional Data



## Control Options

- A line voltage terminal block can be provided for wiring to a remote line voltage thermostat.
- A power contactor with line voltage coil can be provided to remotely switch the heater.
- A power contactor and 24V transformer can be provided to remotely switch the heater.
- A 3-position switch can be provided for manual HEAT/FAN/OFF control.
- A 2-Pole Disconnect switch can be provided for 1-Phase heaters.
- A 3-Pole Disconnect can be provided for 3-Phase heaters.
- A floor sub-base can be provided for direct floor contact.
- A built-in 1-Pole thermostat can be provided for convenience.
- A built-in 2-Pole thermostat can be provided for convenience.
- A tamperproof built-in thermostat can be provided without a knob, temperature adjustments are made with a screw driver.

## High Mass Ceramic Element



## Engineering Specifications

Contractor shall supply and install KCF Series cabinet heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Heaters shall be constructed in 18 gauge galvanized Steel with epoxy powder-coated manufacturer's standard finish. A louvered front cover with intake and outlet grille will protect element area and provide ample air flow to dissipate heated air.

**Element:** The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in<sup>2</sup>) are made from durable (0.015" thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly. A fired refractory ceramic core with two large diameter Nickel Chromium

coils attached with high temperature stainless connectors and stranded Nickel wire, terminated in a junctionbox.

**Controls:** A built-in thermal cutout shall automatically shut off the heater in case of overheating. A built-in thermostat for temperature control will have a range of 40°- 95°F and be of the high accuracy capillary tube-type. Disconnect switch and contactors will be provided if necessary.

**Blower and Motor:** Up to 3 tangential cylindrical blowers, delivering 70 CFM each, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. All 480V units use 277V motors and contactors. This requires a neutral connection.

**Approvals:** cULus

# Compact Convection Cabinet Heater KCC Series



### Model Code:

KCC 2/3/4 -24 20 -1 -R -T -DS1  
A B C D E F G H

- A: Series
- B: Length
- C: 20 - 208V 24 - 240V  
27 - 277V 48 - 480V
- D: Watts (20=2000 - 50=5000)
- E: -1 single phase -3 three phase
- F: Recess or Surface mount
- G: SP Stat
- H: Double Pole Disconnect Switch

- Convection heat
- Quiet running
- Aluminum fin element
- Powder-coated
- Standard color: almond
- Ceramic element
- 18 gauge cabinet
- 1 or 3-phase
- Capillary tube limit
- 5-year limited warranty



## The KCC Series Cabinet Heater

The King heavy KCC cabinet heater can be placed almost anywhere. Typical uses are hall or entryways where a deep cabinet heater would be too intrusive. The slim design is great for schools, office, air terminals, auditoriums, apartments, restaurants, churches, factory's, theaters and other locations where a clean impact resistant 18 gauge construction and entry way or comfort heating is needed. The KCC uses the time tested ceramic core heating elements that King developed over 50 years ago and have a very long life. Available in a slim 4" surface mount or the recess in wall installation. A sub-base is available when installing close to the floor to fill the gap. Thermostats, Contactors and Disconnect switches are available as options. Textured powder coated finish in an almond color.

### Ordering Information

\*Add suffix -1 for single phase, -3 for three phase \*Add suffix -R for recessed mount, -S for surface mount

|      | MODEL     | VOLTS | WATTS | (1ph) AMPS | (3ph) | BTUH(000) | LENGTH | SHIP WEIGHT lbs |
|------|-----------|-------|-------|------------|-------|-----------|--------|-----------------|
| 208V | KCC2-2010 | 208   | 1000  | 4.8        | 2.8   | 3.4       | 24"    | 30              |
|      | KCC2-2020 | 208   | 2000  | 9.6        | 5.6   | 6.8       | 24"    | 30              |
|      | KCC3-2030 | 208   | 3000  | 14.4       | 8.3   | 10.2      | 36"    | 40              |
|      | KCC4-2040 | 208   | 4000  | 19.2       | 11.1  | 13.6      | 48"    | 50              |
| 240V | KCC4-2050 | 208   | 5000  | 24         | 13.9  | 17        | 48"    | 50              |
|      | KCC2-2410 | 240   | 1000  | 4.2        | 2.4   | 3.4       | 24"    | 30              |
|      | KCC2-2420 | 240   | 2000  | 8.3        | 4.8   | 6.8       | 24"    | 30              |
|      | KCC3-2430 | 240   | 3000  | 12.5       | 7.2   | 10.2      | 36"    | 40              |
|      | KCC4-2440 | 240   | 4000  | 16.7       | 9.6   | 13.6      | 48"    | 50              |
| 277V | KCC4-2450 | 240   | 5000  | 20.8       | 12.0  | 17        | 48"    | 50              |
|      | KCC2-2710 | 277   | 1000  | 3.6        | n/a   | 3.4       | 24"    | 30              |
|      | KCC2-2720 | 277   | 2000  | 7.2        | n/a   | 6.8       | 24"    | 30              |
|      | KCC3-2730 | 277   | 3000  | 10.3       | n/a   | 10.2      | 36"    | 40              |
|      | KCC4-2740 | 277   | 4000  | 14.4       | n/a   | 13.6      | 48"    | 50              |
| 480V | KCC4-2750 | 277   | 5000  | 18         | n/a   | 17        | 48"    | 50              |
|      | KCC2-4810 | 480   | 1000  | 2.1        | 1.2   | 3.4       | 24"    | 30              |
|      | KCC2-4820 | 480   | 2000  | 4.2        | 2.4   | 6.8       | 24"    | 30              |
|      | KCC3-4830 | 480   | 3000  | 6.5        | 3.6   | 10.2      | 36"    | 40              |
|      | KCC4-4840 | 480   | 4000  | 8.3        | 4.8   | 13.6      | 48"    | 50              |
|      | KCC4-4850 | 480   | 5000  | 10.4       | 6     | 17        | 48"    | 50              |

### Field Installed Accessories

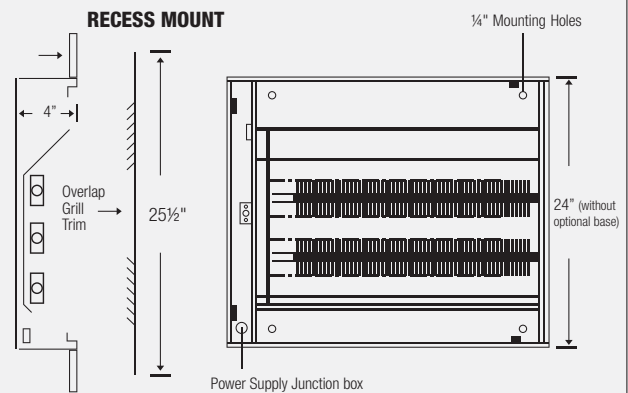
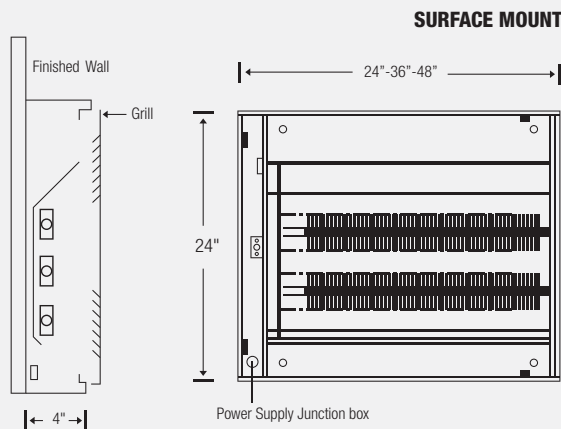
| MODEL    | UPC   | DESCRIPTION                                       |
|----------|-------|---|
| KC-SB-24 | 20319 | KC ACCY SUB-FLOOR BASE 24" WIDE, 2" TALL, 3" DEEP |
| KC-SB-36 | 20316 | KC ACCY SUB-FLOOR BASE 36" WIDE, 2" TALL, 3" DEEP |
| KC-SB-48 | 20317 | KC ACCY SUB-FLOOR BASE 48" WIDE, 2" TALL, 3" DEEP |

### Control Options

| ADD SUFFIX | DESCRIPTION                                     |
|------------|---|
| -RT        | Line Voltage Terminal Block                     |
| -CX        | Power Contactor (1-Phase models Only)           |
| -RT24      | 24 Volt Contactor & Transformer                 |
| -DS1       | Double Pole Disconnect Switch (1-Phase)         |
| -DS3       | Three Pole Disconnect Switch (3-Phase)          |
| -T         | 25 Amp Single Pole Thermostat w/Knob            |
| -T2        | 25 Amp Double Pole Thermostat w/Knob            |
| -TP        | 25 Amp Tamperproof (slotted shaft), single pole |

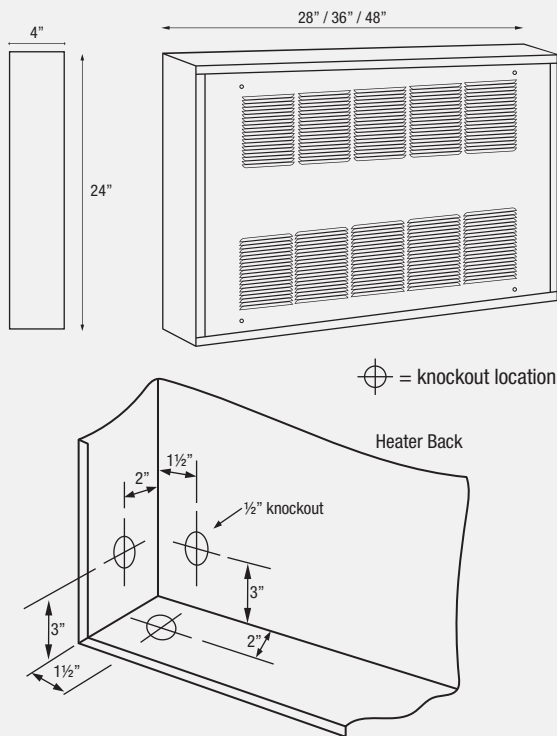
# Compact Convection Cabinet Heater KCC Series

## Mounting Data



**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

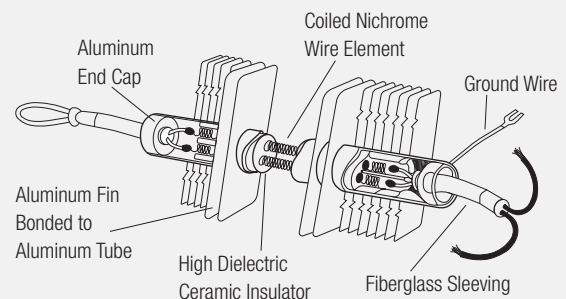
## Dimensional Data



## Control Options

- A line voltage terminal block can be provided for wiring to a remote line voltage thermostat.
- A power contactor with line voltage coil can be provided to remotely switch the heater.
- A power contactor and 24V transformer can be provided to remotely switch the heater.
- A 2-Pole Disconnect switch can be provided for 1-Phase heaters.
- A 3-Pole Disconnect can be provided for 3-Phase heaters.
- A floor sub-base can be provided for direct floor contact.
- A built-in 1-Pole thermostat can be provided for convenience.
- A built-in 2-Pole thermostat can be provided for convenience.
- A tamperproof built-in thermostat can be provided without a knob, temperature adjustments are made with a screw driver.

## Highmass Ceramic Element



## Engineering Specifications

Contractor shall supply and install KCC Series cabinet heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Heaters shall be constructed in 18 gauge galvanized Steel with epoxy powder-coated manufacturer's standard finish. A louvered front cover with intake and outlet grille will protect element area and provide ample air flow to dissipate heated air.

**Element:** The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in<sup>2</sup>) are made from durable (0.015" thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the technology comes when the thermostat

is turned off and the element continues to radiate heat.

It also reduces temperature swings by heating and cooling more evenly. A fired refractory ceramic core with two large diameter Nickel Chromium coils attached with high temperature Nickel connectors and stranded Nickel wire, terminated in a junctionbox.

**Controls:** A built-in thermal cutout shall automatically shut off the heater in case of overheating. A built-in thermostat for temperature control will have a range from 40° - 95°F and be of the high accuracy capillary tube-type. Disconnect switches in junctionbox will be provided if necessary.

**Approvals:** cULus



# Commercial Cabinet Heater KCA Series



### Model Code:

|     |    |    |    |
|-----|----|----|----|
| KCA | 20 | 02 | -3 |
| A   | B  | C  | D  |

**A: Series**  
**B: Volts 20-208V 24-240V**  
**27-277V 48-480V**  
**C: Watts (2000-24000)**  
**D: -1 phase -3 phase**



- Tubular heating element with fins
- 240V/208V factory-lubricated motor (1/15 hp)
- Direct drive, variable speed squirrel-cage fan operating at 48dBA at low speed and 50 dBA at high speed
- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-Phase
- 1 year warranty against defects
- Available in 4 lengths: 28" (711mm), 48" (1219"), 66" (1676mm), 80" (2032mm)
- High-limit temperature control with automatic reset
- Field changeable air inlet and outlet
- Maximum mounting height: 10 ft. (3m)
- Standard color: white (-BW)
- Fan delay
- 18 gauge steel
- Extruded aluminum grill
- 240V control circuit included
- Wide range of control options
- Multi-position mounting (surface, semi-recessed, recessed)

## The KCA Series Cabinet Heater

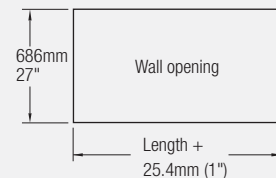
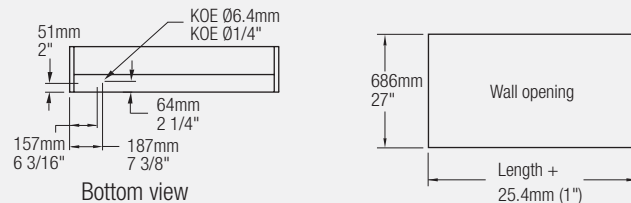
The KCA Cabinet Unit Heater offers a wide range of power ratings, voltage and control options in four cabinet sizes.

Most installations benefit from the heater's custom advantages. The cabinet heater can be mounted on the floor, wall or ceiling. It can also be recessed (wall or ceiling) as required. The fans are powered by 2-speed motors (Hi / Low option) with permanently lubricated sleeve bearings for many years of trouble-free service. The blower wheel is mounted directly on the motor shaft, which reduces the noise level. No belts or bearing blocks are required for the blowers.

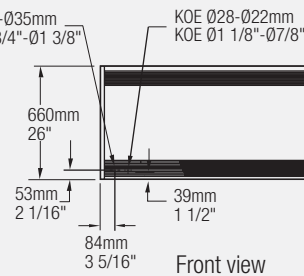
### Accessories

| MODEL   | DESCRIPTION           |
|---|-----------------------|
| <b>Sub-base 2"</b>                                  |                       |
| KCA-SO-28   | 28" (711 mm) cabinet  |
| KCA-SO-48   | 48" (1219 mm) cabinet |
| KCA-SO-66   | 66" (1676 mm) cabinet |
| KCA-SO-80   | 80" (2032 mm) cabinet |
| <b>Recess trim kit 2"</b>                           |                       |
| KCA-CR-28   | 28" (711 mm) cabinet  |
| KCA-CR-48   | 48" (1219 mm) cabinet |
| KCA-CR-66   | 66" (1676 mm) cabinet |
| KCA-CR-80   | 80" (2032 mm) cabinet |
| <b>Air filter (wall mount only)</b>                 |                       |
| KCA-FI-28   | 28" (711 mm) cabinet  |
| KCA-FI-48   | 48" (1219 mm) cabinet |
| KCA-FI-66   | 66" (1676 mm) cabinet |
| KCA-FI-80   | 80" (2032 mm) cabinet |
| <b>Washable air filter (wall installation only)</b> |                       |
| KCA-FIW-28  | 28" (711 mm) cabinet  |
| KCA-FIW-48  | 48" (1219 mm) cabinet |
| KCA-FIW-66  | 66" (1676 mm) cabinet |
| KCA-FIW-80  | 80" (2032 mm) cabinet |
| <b>Special back plate (kit)</b>                     |                       |
| KCA-DU-28   | 28" (711 mm) cabinet  |
| KCA-DU-48   | 48" (1219 mm) cabinet |
| KCA-DU-66   | 66" (1676 mm) cabinet |
| KCA-DU-80   | 80" (2032 mm) cabinet |

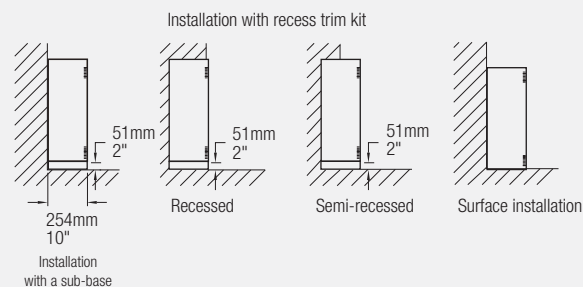
### Dimensional Data



Bottom view



Front view



# Commercial Cabinet Heater KCA Series

## Ordering Information

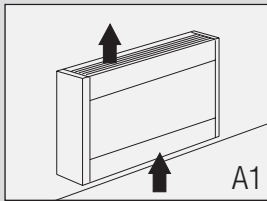
| MODEL       | VOLTS     | (Hi)  | WATTS | (Lo)  | (Hi) | CFM | (Lo) | LENGTH | SHIP WEIGHT lbs |
|-------------|-----------|-------|-------|-------|------|-----|------|--------|-----------------|
| KCAU2002-3* | 208 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2003-3* | 208 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2004-3* | 208 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2005-3* | 208 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2006-3* | 208 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2008-3* | 208 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2010-3  | 208 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2012-3  | 208 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2015-3  | 208 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2018-3  | 208 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2020-3  | 208 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2024-3  | 208 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2402-1  | 240 (1ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2403-1  | 240 (1ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2404-1  | 240 (1ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2405-1  | 240 (1ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2406-1  | 240 (1ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2408-1  | 240 (1ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2410-1  | 240 (1ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2412-1  | 240 (1ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2415-1  | 240 (1ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2418-1  | 240 (1ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2420-1  | 240 (1ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2424-1  | 240 (1ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2402-3  | 240 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2403-3  | 240 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2404-3  | 240 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2405-3  | 240 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2406-3  | 240 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2408-3  | 240 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2410-3  | 240 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2412-3  | 240 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2415-3  | 240 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2418-3  | 240 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2420-3  | 240 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2424-3  | 240 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2702-1  | 277 (1ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2703-1  | 277 (1ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2704-1  | 277 (1ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2705-1  | 277 (1ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2706-1  | 277 (1ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2708-1  | 277 (1ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2710-1  | 277 (1ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2712-1  | 277 (1ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU4802-3* | 480 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU4803-3* | 480 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU4804-3* | 480 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU4805-3* | 480 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU4806-3* | 480 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU4808-3* | 480 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU4810-3* | 480 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU4812-3* | 480 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU4815-3* | 480 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU4818-3* | 480 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU4820-3* | 480 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU4824-3* | 480 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |

Add suffix (-A) for almond, (-AE) for Metallic Silver, (-BG) for Beige-Grey, (-BZ) for Bronze, (-CM) for Metallic Charcoal, (-NR) for Textured Black, (-AL) for Aluminum, (-NL) for Semi-Gloss Black  
 \* 1-ph available upon request, 2000W to 6000W only (change the 3 to a 1 in the product number).

# Commercial Cabinet Heater KCA Series

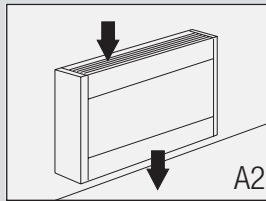
## Mounting Applications

Top



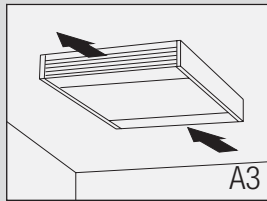
A1

Bottom

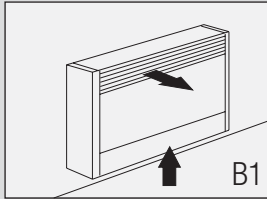


A2

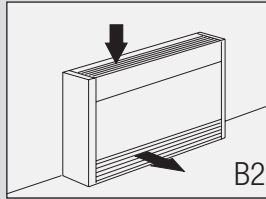
Ceiling



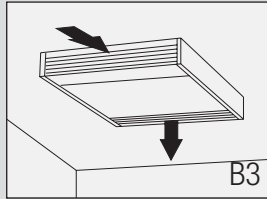
A3



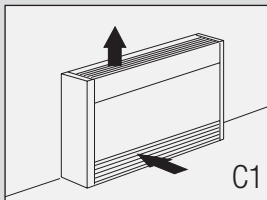
B1



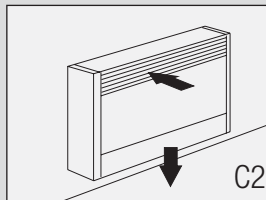
B2



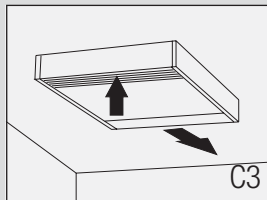
B3



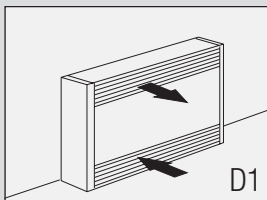
C1



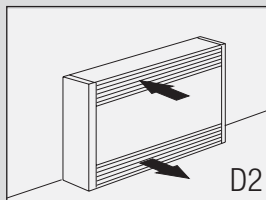
C2



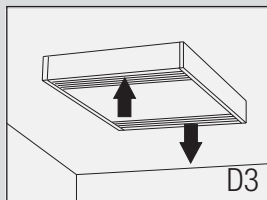
C3



D1



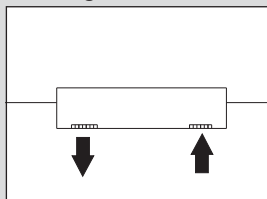
D2



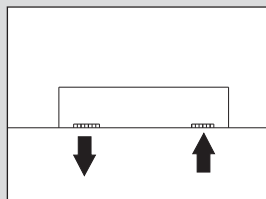
D3

*If Mounting Configuration is not Specified on the Order, D1 will be used as our standard*

Ceiling



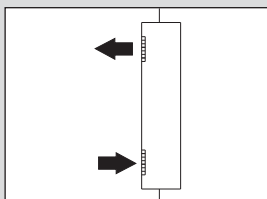
Semi-recessed



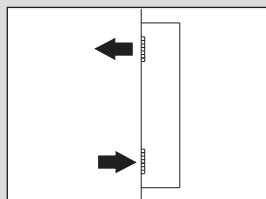
Recessed

(\*D-type mounting only\*)

Wall



Semi-recessed



Recessed

### Control Options

| MODEL             | DESCRIPTION   |
|-------------------|---|
| KCA-RT            | 24V relay with transformer                              |
| KCA-R             | 24V relay without transformer                           |
| Product no-RV     | Factory Installed 24V fan relay                         |
| Product no-RHL    | Factory Installed 24V relay (Hi / Lo)                   |
| Product no-ROO    | Factory Installed 24V relay (On / Stand by)             |
| KCA-T-AV          | Single-pole tamperproof thermostat                      |
| Product no-T2S    | 2-Stage tamperproof thermostat (Factory Installed Only) |
| Product no-DIS40  | Factory Installed disconnect switch, 40A                |
| Product no-DIS80  | Factory Installed disconnect switch, 80A                |
| Product no-IV     | Factory Installed On / Auto switch                      |
| Product no-HL     | Factory Installed Hi / Low switch                       |
| KCA-00*           | On / Off switch   |
| Product no-AF***  | Fresh air inlet   |
| Product no-AFM*** | Power operated fresh air inlet                          |

\*\*\*Do not install built-in thermostat with these options

# Commercial Cabinet Heater KCA Series



### Model Code:

|     |    |    |    |
|-----|----|----|----|
| KCA | 20 | 02 | -3 |
| A   | B  | C  | D  |

**A: Series**  
**B: Volts 20-208V 24-240V**  
**27-277V 48-480V**  
**C: Watts (2000-24000)**  
**D: -1 phase -3 phase**



- Tubular heating element with fins
- 240V/208V factory-lubricated motor (1/15 hp)
- Direct drive, variable speed squirrel-cage fan operating at 48dBA at low speed and 50 dBA at high speed
- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-Phase
- 1 year warranty against defects
- Available in 4 lengths: 28" (711mm), 48" (1219"), 66" (1676mm), 80" (2032mm)
- High-limit temperature control with automatic reset
- Field changeable air inlet and outlet
- Maximum mounting height: 10 ft. (3m)
- Standard color: white (-BW)
- Fan delay
- 18 gauge steel
- Extruded aluminum grill
- 240V control circuit included
- Wide range of control options
- Multi-position mounting (surface, semi-recessed, recessed)

## The KCA Series Cabinet Heater

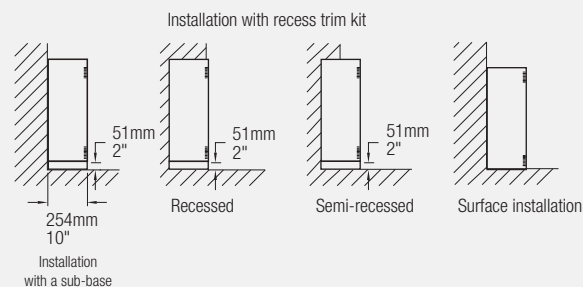
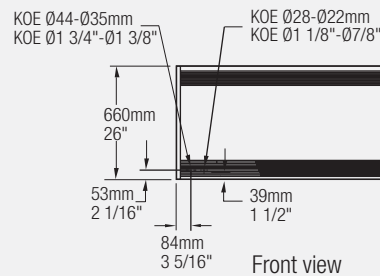
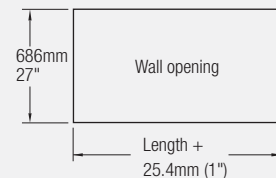
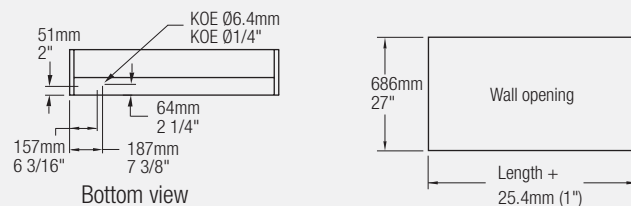
The KCA Cabinet Unit Heater offers a wide range of power ratings, voltage and control options in four cabinet sizes.

Most installations benefit from the heater's custom advantages. The cabinet heater can be mounted on the floor, wall or ceiling. It can also be recessed (wall or ceiling) as required. The fans are powered by 2-speed motors (Hi / Low option) with permanently lubricated sleeve bearings for many years of trouble-free service. The blower wheel is mounted directly on the motor shaft, which reduces the noise level. No belts or bearing blocks are required for the blowers.

### Accessories

| MODEL   | DESCRIPTION           |
|---|-----------------------|
| <b>Sub-base 2"</b>                                  |                       |
| KCA-SO-28   | 28" (711 mm) cabinet  |
| KCA-SO-48   | 48" (1219 mm) cabinet |
| KCA-SO-66   | 66" (1676 mm) cabinet |
| KCA-SO-80   | 80" (2032 mm) cabinet |
| <b>Recess trim kit 2"</b>                           |                       |
| KCA-CR-28   | 28" (711 mm) cabinet  |
| KCA-CR-48   | 48" (1219 mm) cabinet |
| KCA-CR-66   | 66" (1676 mm) cabinet |
| KCA-CR-80   | 80" (2032 mm) cabinet |
| <b>Air filter (wall mount only)</b>                 |                       |
| KCA-FI-28   | 28" (711 mm) cabinet  |
| KCA-FI-48   | 48" (1219 mm) cabinet |
| KCA-FI-66   | 66" (1676 mm) cabinet |
| KCA-FI-80   | 80" (2032 mm) cabinet |
| <b>Washable air filter (wall installation only)</b> |                       |
| KCA-FIW-28  | 28" (711 mm) cabinet  |
| KCA-FIW-48  | 48" (1219 mm) cabinet |
| KCA-FIW-66  | 66" (1676 mm) cabinet |
| KCA-FIW-80  | 80" (2032 mm) cabinet |
| <b>Special back plate (kit)</b>                     |                       |
| KCA-DU-28   | 28" (711 mm) cabinet  |
| KCA-DU-48   | 48" (1219 mm) cabinet |
| KCA-DU-66   | 66" (1676 mm) cabinet |
| KCA-DU-80   | 80" (2032 mm) cabinet |

### Dimensional Data



# Commercial Cabinet Heater KCA Series

## Ordering Information

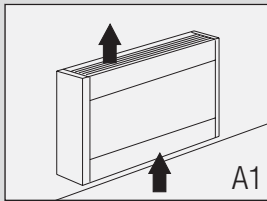
| MODEL       | VOLTS     | (Hi)  | WATTS | (Lo)  | (Hi) | CFM | (Lo) | LENGTH | SHIP WEIGHT lbs |
|-------------|-----------|-------|-------|-------|------|-----|------|--------|-----------------|
| KCAU2002-3* | 208 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2003-3* | 208 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2004-3* | 208 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2005-3* | 208 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2006-3* | 208 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2008-3* | 208 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2010-3  | 208 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2012-3  | 208 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2015-3  | 208 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2018-3  | 208 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2020-3  | 208 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2024-3  | 208 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2402-1  | 240 (1ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2403-1  | 240 (1ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2404-1  | 240 (1ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2405-1  | 240 (1ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2406-1  | 240 (1ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2408-1  | 240 (1ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2410-1  | 240 (1ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2412-1  | 240 (1ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2415-1  | 240 (1ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2418-1  | 240 (1ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2420-1  | 240 (1ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2424-1  | 240 (1ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2402-3  | 240 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2403-3  | 240 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2404-3  | 240 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2405-3  | 240 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2406-3  | 240 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2408-3  | 240 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2410-3  | 240 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2412-3  | 240 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU2415-3  | 240 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2418-3  | 240 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU2420-3  | 240 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2424-3  | 240 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |
| KCAU2702-1  | 277 (1ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2703-1  | 277 (1ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2704-1  | 277 (1ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU2705-1  | 277 (1ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU2706-1  | 277 (1ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU2708-1  | 277 (1ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU2710-1  | 277 (1ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU2712-1  | 277 (1ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU4802-3* | 480 (3ph) | 2000  |       | 1333  | 250  | 200 |      | 28 in  | 115             |
| KCAU4803-3* | 480 (3ph) | 3000  |       | 1000  | 250  | 200 |      | 28 in  | 115             |
| KCAU4804-3* | 480 (3ph) | 4000  |       | 2667  | 250  | 200 |      | 28 in  | 115             |
| KCAU4805-3* | 480 (3ph) | 5000  |       | 3333  | 250  | 200 |      | 28 in  | 115             |
| KCAU4806-3* | 480 (3ph) | 6000  |       | 4000  | 250  | 200 |      | 28 in  | 115             |
| KCAU4808-3* | 480 (3ph) | 8000  |       | 5333  | 500  | 400 |      | 48 in  | 146             |
| KCAU4810-3* | 480 (3ph) | 10000 |       | 6667  | 500  | 400 |      | 48 in  | 146             |
| KCAU4812-3* | 480 (3ph) | 12000 |       | 8000  | 500  | 400 |      | 48 in  | 146             |
| KCAU4815-3* | 480 (3ph) | 15000 |       | 10000 | 750  | 600 |      | 66 in  | 210             |
| KCAU4818-3* | 480 (3ph) | 18000 |       | 12000 | 750  | 600 |      | 66 in  | 210             |
| KCAU4820-3* | 480 (3ph) | 20000 |       | 13333 | 1000 | 800 |      | 80 in  | 240             |
| KCAU4824-3* | 480 (3ph) | 24000 |       | 16000 | 1000 | 800 |      | 80 in  | 240             |

Add suffix (-A) for almond, (-AE) for Metallic Silver, (-BG) for Beige-Grey, (-BZ) for Bronze, (-CM) for Metallic Charcoal, (-NR) for Textured Black, (-AL) for Aluminum, (-NL) for Semi-Gloss Black  
 \* 1-ph available upon request, 2000W to 6000W only (change the 3 to a 1 in the product number).

# Commercial Cabinet Heater KCA Series

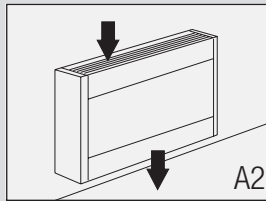
## Mounting Applications

Top



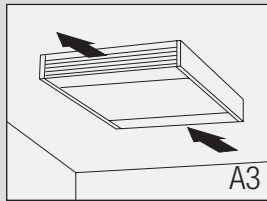
A1

Bottom



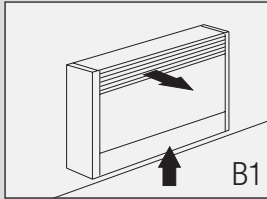
A2

Ceiling

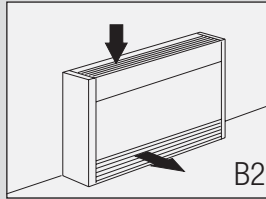


A3

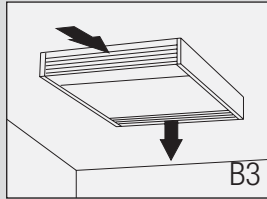
*If Mounting Configuration is not Specified on the Order, D1 will be used as our standard*



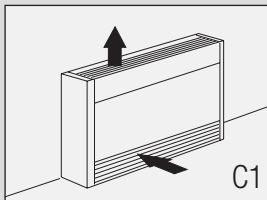
B1



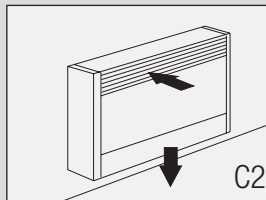
B2



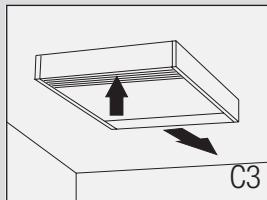
B3



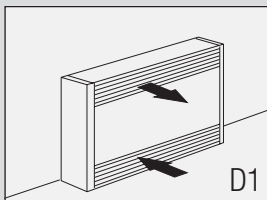
C1



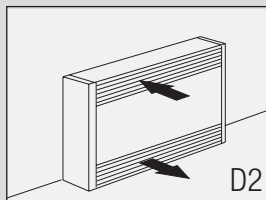
C2



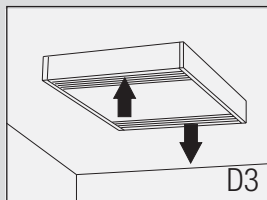
C3



D1

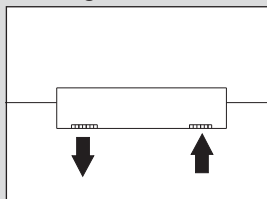


D2

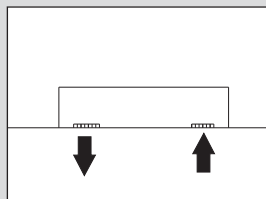


D3

Ceiling



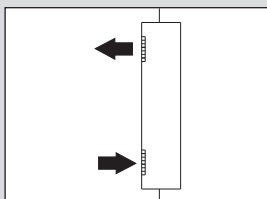
Semi-recessed



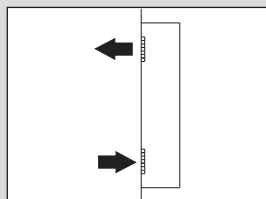
Recessed

(\*D-type mounting only\*)

Wall



Semi-recessed



Recessed

### Control Options

| MODEL             | DESCRIPTION   |
|-------------------|---|
| KCA-RT            | 24V relay with transformer                              |
| KCA-R             | 24V relay without transformer                           |
| Product no-RV     | Factory Installed 24V fan relay                         |
| Product no-RHL    | Factory Installed 24V relay (Hi / Lo)                   |
| Product no-ROO    | Factory Installed 24V relay (On / Stand by)             |
| KCA-T-AV          | Single-pole tamperproof thermostat                      |
| Product no-T2S    | 2-Stage tamperproof thermostat (Factory Installed Only) |
| Product no-DIS40  | Factory Installed disconnect switch, 40A                |
| Product no-DIS80  | Factory Installed disconnect switch, 80A                |
| Product no-IV     | Factory Installed On / Auto switch                      |
| Product no-HL     | Factory Installed Hi / Low switch                       |
| KCA-00*           | On / Off switch   |
| Product no-AF***  | Fresh air inlet   |
| Product no-AFM*** | Power operated fresh air inlet                          |

\*\*\*Do not install built-in thermostat with these options

# Architectural Convection Cabinet Heater KLA Series



### Model Code:

|     |    |    |    |      |
|-----|----|----|----|------|
| KLA | 20 | 15 | -3 | -690 |
| A   | B  | C  | D  | E    |

- A: Series
- B: Volts (12=120, 20=208, 24=240, 27=270)
- C: Watts (15=1500)
- D: Phase (1 or 3)
- E: Length in mm (-690=690mm)

- 3 steel tubular heating elements with aluminum fins
- Front fresh air inlet; top warm air outlet or front (-FR)
- Standard Watt density of 1000W/ft. (3280W/m)
- Low Watt density of 750W/ft. (2460W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white (optional almond color available)
- 20 Gauge Steel Cabinet
- Available in 120, 208, 240, 277 or 600 Volts, 1 Or 3 phase
- 1-year warranty against defects



## The KLA Series Cabinet Heater

Features a maximum power rating of 6000W, the KLA unit is designed for large commercial spaces. This natural convection unit with its architectural design is perfect for areas requiring lots of heat without fan noise. Several options are also available for wall-to-wall installation. In addition, units with front warm air outlet (option -FR) can be completely recessed. Perfect for hospitals or daycares. King highly recommends use of a wall thermostat for greater comfort. **NOT FOR RESIDENTIAL USE.**

### Ordering Information Standard models (1000W/ft)

| WATTS | 240V/208V  | 208V (1 ph) | UPC   | 208V (3 ph) | UPC   | 240V/208V | UPC   | 277V      | UPC   | LENGTH  | WT. (lbs.) |
|-------|------------|-------------|-------|-------------|-------|-----------|-------|-----------|-------|---------|------------|
| 2000  | 2000/1500W | KLA2020-1   | 31108 | KLA2020-3   | 31118 | KLA2420-1 | 31128 | KLA2720-1 | 31138 | 27 3/16 | 37         |
| 3000  | 3000/2250W | KLA2030-1   | 31110 | KLA2030-3   | 31120 | KLA2430-1 | 31130 | KLA2730-1 | 31140 | 37 3/16 | 47         |
| 4000  | 4000/3000W | KLA2040-1   | 31112 | KLA2040-3   | 31122 | KLA2440-1 | 31132 | KLA2740-1 | 31142 | 47 3/16 | 57         |
| 5000  | 5000/3750W | KLA2050-1   | 31114 | KLA2050-3   | 31124 | KLA2450-1 | 31134 | KLA2750-1 | 31144 | 57 3/16 | 67         |
| 6000  | 6000/4500W | KLA2060-1   | 31116 | KLA2060-3   | 31126 | KLA2460-1 | 31136 | KLA2760-1 | 31146 | 65 3/16 | 79         |

### Ordering Information Low density models (750W/ft)

| WATTS | 208V (1 ph)    | UPC   | 208V (3 ph)    | UPC   | 240V           | UPC   | 277V           | UPC   | LENGTH  | WT. (lbs.) |
|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|---------|------------|
| 1500  | KLA2015-1-690  | 31148 | KLA2015-3-690  | 31156 | KLA2415-1-690  | 31164 | KLA2715-1-690  | 31172 | 27 3/16 | 37         |
| 2250  | KLA2022-1-944  | 31150 | KLA2022-3-944  | 31158 | KLA2422-1-944  | 31166 | KLA2722-1-944  | 31174 | 37 3/16 | 47         |
| 3000  | KLA2030-1-1198 | 31152 | KLA2030-3-1198 | 31160 | KLA2430-1-1198 | 31168 | KLA2730-1-1198 | 31176 | 47 3/16 | 57         |
| 4500  | KLA2045-1-1655 | 31154 | KLA2045-3-1655 | 31162 | KLA2445-1-1655 | 31170 | KLA2745-1-1655 | 31178 | 65 3/16 | 79         |

## Engineering Specifications

Contractor shall supply and install KLA Series electric heaters of the wattage and voltage as indicated on the plans.

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black. Custom colors available upon request.

**Finish:** Standard: epoxy/polyester powder paint.

**Voltage:** 208V, 240/208V, 277V, 347V, 600V, 1 or 3-phase.

**Construction:** 20-gauge steel cabinet. 16-gauge steel front cover. Extruded aluminum bar grilles prevent insertion of foreign objects. Front fresh air inlet; top warm air outlet or front (-FR). Clean back available (-BD). Linear high-limit temperature control with automatic reset.

**Heating element:** Three stainless steel tubular heating elements with aluminum fins. Floating heating elements on high-temperature bushings, eliminating expansion noises.

**Watt density:** Standard watt density. Low watt density.

**Control:** Built-in tamperproof thermostat available. Mechanical, electronic or pneumatic relays available. Note: Single-pole thermostat is for 1-phase model only. King highly recommends to use an electronic wall thermostat for greater comfort.

**Installation:** Not for residential use in the United States. Wall or floor mounted installation. Front outlet (-FR) models may be recessed. Mounting holes spaced on 2 in. (51 mm) intervals for ease of installation. Variety of accessories available for wall-to-wall installation. Pedestal kit or sub-base available.

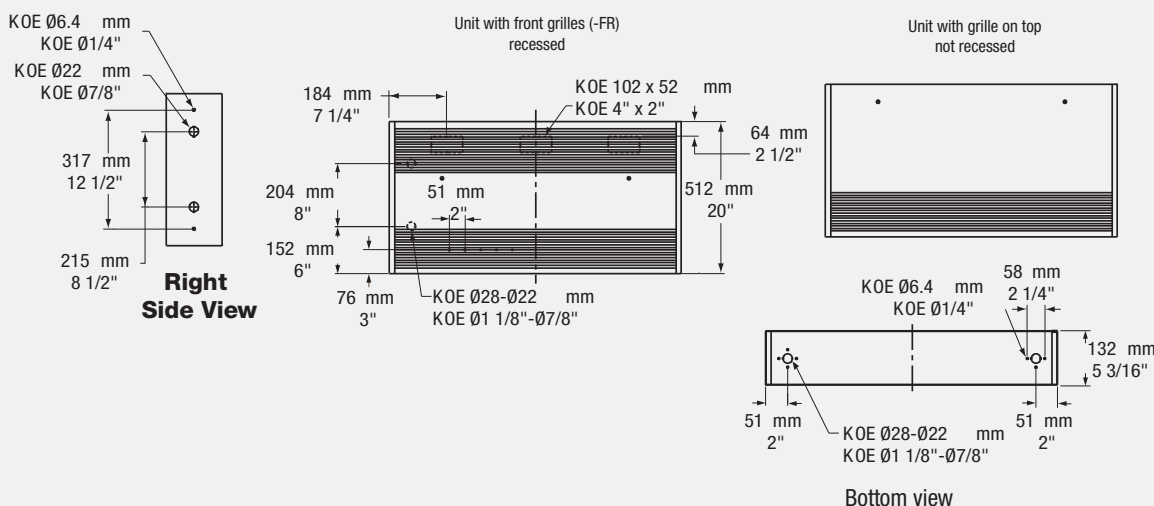
**Warranty:** 1-year warranty against defects.

**Application:** Commercial building, hospital, daycare center.

## Options

| ADD SUFFIX | DESCRIPTION                         |
|------------|-------------------------------------|
| -BW        | Bright White                        |
| -A         | Almond Color                        |
| -AE        | Metallic Silver                     |
| -BZ        | Bronze                              |
| -CM        | Metallic Charcoal)                  |
| -AL        | Aluminum                            |
| -NL        | Semi-Gloss Black                    |
| -FR        | Front outlet models may be recessed |
| -BD        | Clean back                          |

## Dimensional Data



## Control Options

| MODEL            | DESCRIPTION  |
|------------------|--|
| KLA-T-AV         | Single-pole tamperproof thermostat<br>30A, 250V max. - 15A, 600V max.              |
| KLA-T2-AV        | Double-pole tamperproof thermostat<br>30A, 250V max. - 15A, 600V max.              |
| Product no-CTT   | Single-pole relay, coil (240V),<br>25A, 240V - 12.5A, 600V                         |
| Product no-CTT2  | Double-pole relay, coil (240V)<br>25A, 240V - 12.5A, 600V (Factory Installed Only) |
| KLA-R            | Single-pole relay, coil (24V)<br>22A, 208V, 240V - 22A, 208V                       |
| KLA-R2           | Double-pole relay, coil (24V)<br>25A, 240V - 12.5A, 600V                           |
| KLA-RT-208       | Single-pole relay, coil (24V)<br>Transformer (208V / 24V) - 4500W, 208V / 22A      |
| KLA-RT-240       | Single-pole relay, coil (24V)<br>Transformer (240V / 24V) - 5200W, 240V / 22A      |
| KLA-RT-277       | Single-pole relay, coil (24V)<br>Transformer (277V / 24A) - 5200W, 277V / 19A      |
| Product no-TRF24 | Transformer, 24V - 50VA  |
| Product no-TRF24 | Transformer, 240V - 50VA   |
| Product no-PM    | Factory installed pneumatic relay,<br>20A / 600V max.                              |
| KLA-CTR          | Control box (width: 12")   |
| Product no-DIS40 | Factory installed disconnect switch<br>600V, three-pole, 40A                       |

## Accessories

| MODEL         | DESCRIPTION                             | DIMENSIONS (in) |
|---------------|---|-----------------|
| KLA-CI        | Corner (interior and exterior)          |                 |
| KLA-PEC       | Pedestal kit (2)                        | 3 (height)      |
| KLA-S0-27     | Sub-base                                | 27 3/16         |
| KLA-S0-37     | Sub-base                                | 37 3/16         |
| KLA-S0-47     | Sub-base                                | 47 3/16         |
| KLA-S0-57     | Sub-base                                | 57 3/16         |
| KLA-S0-65     | Sub-base                                | 65 3/16         |
| KLA-CR-27     | Recess trim kit                         | 27 3/16         |
| KLA-CR-37     | Recess trim kit                         | 37 3/16         |
| KLA-CR-47     | Recess trim kit                         | 47 3/16         |
| KLA-CR-57     | Recess trim kit                         | 57 3/16         |
| KLA-CR-65     | Recess trim kit                         | 65 3/16         |
| KLA-SV-27     | Empty cabinet                           | 27 3/16         |
| KLA-SV-37     | Empty cabinet                           | 37 3/16         |
| KLA-SV-47     | Empty cabinet                           | 47 3/16         |
| KLA-SV-57     | Empty cabinet                           | 57 3/16         |
| KLA-SV-65     | Empty cabinet                           | 65 3/16         |
| Product no-BD | Factory installed clean back            |                 |
| Product no-FR | Factory installed front warm air outlet |                 |

\*\*\* Filler sections can be cut on workplace. Includes ends and wall supports.



# Architectural Convection Cabinet Heater KLI Series



### Model Code:

| KLI  | 20 | 15 | -3 | -690 |
|--|----|----|----|------|
| A  | B  | C  | D  | E    |
| <b>A: Series</b>                                 |    |    |    |      |
| <b>B: Volts (12=120, 20=208, 24=240, 27=270)</b> |    |    |    |      |
| <b>C: Watts (15=1500)</b>                        |    |    |    |      |
| <b>D: Phase (1 or 3)</b>                         |    |    |    |      |
| <b>E: Length in mm (-690=690mm)</b>              |    |    |    |      |

- 3 steel tubular heating elements with aluminum fins
- Front fresh air inlet; top warm air outlet
- Standard Watt density of 1000W/ft. (3280W/m)
- Low Watt density of 750W/ft. (2460W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white (optional almond color available)
- 20 Gauge Steel Cabinet
- Available in 120, 208, 240, 277 or 600 Volts, 1 Or 3 phase
- 1-year warranty against defects



## The KLI Series Cabinet Heater

The KLI series units offer all of the advantages of the KLA convector heater with the added characteristic of a sloped top which prevents objects from being placed on them. These natural convection heaters are well suited for applications requiring a power rating of 6000W without fan noise. Several options are also available for wall-to-wall installation. Perfect for hospitals or daycares.

**NOT APPROVED FOR RESIDENTIAL USE.**

### Ordering Information Standard models (1000W/ft)

| WATTS | 240V/208V  | 208V (1 ph) | UPC   | 208V (3 ph) | UPC   | 240V/208V | UPC   | 277V      | UPC   | LENGTH  | WT. (lbs.) |
|-------|------------|-------------|-------|-------------|-------|-----------|-------|-----------|-------|---------|------------|
| 2000  | 2000/1500W | KLI2020-1   | 31180 | KLI2020-3   | 31190 | KLI2420-1 | 31200 | KLI2720-1 | 31210 | 27 3/16 | 37         |
| 3000  | 3000/2250W | KLI2030-1   | 31182 | KLI2030-3   | 31192 | KLI2430-1 | 31202 | KLI2730-1 | 31212 | 37 3/16 | 47         |
| 4000  | 4000/3000W | KLI2040-1   | 31184 | KLI2040-3   | 31194 | KLI2440-1 | 31204 | KLI2740-1 | 31214 | 47 3/16 | 57         |
| 5000  | 5000/3750W | KLI2050-1   | 31186 | KLI2050-3   | 31196 | KLI2450-1 | 31206 | KLI2750-1 | 31216 | 57 3/16 | 67         |
| 6000  | 6000/4500W | KLI2060-1   | 31188 | KLI2060-3   | 31198 | KLI2460-1 | 31208 | KLI2760-1 | 31218 | 65 3/16 | 79         |

### Ordering Information Low density models (750W/ft)

| WATTS | 208V (1 ph)    | UPC   | 208V (3 ph)    | UPC   | 240V           | UPC   | 277V           | UPC   | LENGTH  | WT. (lbs.) |
|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|---------|------------|
| 1500  | KLI2015-1-690  | 31220 | KLI2015-3-690  | 31228 | KLI2415-1-690  | 31236 | KLI2715-1-690  | 31244 | 27 3/16 | 37         |
| 2250  | KLI2022-1-944  | 31222 | KLI2022-3-944  | 31230 | KLI2422-1-944  | 31238 | KLI2722-1-944  | 31246 | 37 3/16 | 47         |
| 3000  | KLI2030-1-1198 | 31224 | KLI2030-3-1198 | 31232 | KLI2430-1-1198 | 31240 | KLI2730-1-1198 | 31248 | 47 3/16 | 57         |
| 4500  | KLI2045-1-1655 | 31226 | KLI2045-3-1655 | 31234 | KLI2445-1-1655 | 31242 | KLI2745-1-1655 | 31250 | 65 3/16 | 79         |

## Engineering Specifications

*Contractor shall supply and install KLI Series electric heaters of the wattage and voltage as indicated on the plans.*

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black. Custom colors available upon request.

**Finish:** Standard: epoxy/polyester powder paint.

**Voltage:** 208V, 240/208V, 277V, 347V, 600V, 1 or 3-phase.

**Construction:** 20-gauge steel cabinet. 16-gauge steel front cover. Extruded aluminum bar grilles prevent insertion of foreign objects. Front fresh air inlet; top warm air outlet. Clean back available (-BD). Linear high-limit temperature control with automatic reset.

**Heating element:** Three stainless steel tubular heating elements with aluminum fins. Floating elements on high-temperature nylon bushings eliminating expansion noises.

**Watt density:** Standard watt density. Low watt density.

**Control:** Built-in tamperproof thermostat available. Mechanical, electronic or pneumatic relays available. Note: Single-pole thermostat is for 1-phase model only. King highly recommends to use an electronic wall thermostat for greater comfort.

**Installation:** Not for residential use in the United States. Wall or floor mounted installation. Mounting holes spaced on 2 in. (51 mm) intervals for ease of installation. Variety of accessories available for wall-to-wall installation. Pedestal kit or sub-base available.

**Warranty:** 1-year warranty against defects.

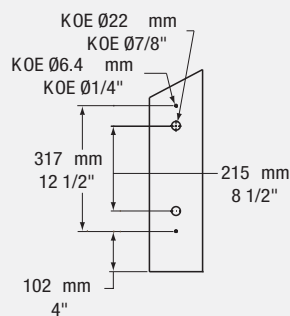
**Application:** Commercial building, hospital, daycare center.

# Architectural Convection Cabinet Heater KLI Series

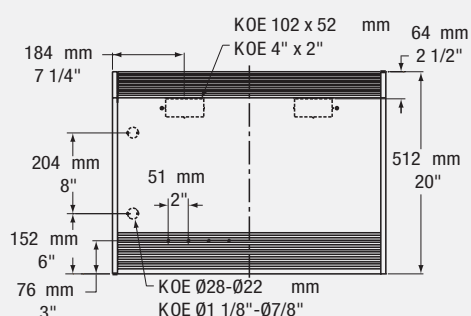
## Options

| ADD SUFFIX | DESCRIPTION       |
|------------|-------------------|
| -BW        | Bright White      |
| -A         | Almond Color      |
| -AE        | Metallic Silver   |
| -BZ        | Bronze            |
| -CM        | Metallic Charcoal |
| -AL        | Aluminum          |
| -NL        | Semi-Gloss Black  |
| -BD        | Clean back        |

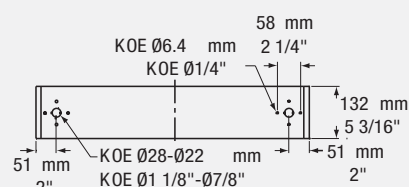
## Dimensional Data



Right side view



Front view



Bottom view

## Control Options

| MODEL             | DESCRIPTION   |
|-------------------|---|
| KLI-T-AV          | Single-pole tamperproof thermostat<br>30A, 250V max. - 15A, 600V max.               |
| KLI-T2-AV         | Double-pole tamperproof thermostat<br>30A, 250V max. - 15A, 600V max.               |
| Product no-CTT    | Single-pole relay, coil (240V),<br>25A, 240V - 12.5A, 600V (Factory Installed Only) |
| Product no-CTT2   | Double-pole relay, coil (240V)<br>25A, 240V - 12.5A, 600V (Factory Installed Only)  |
| KLI-R             | Single-pole relay, coil (24V)<br>22A, 208V, 240V - 22A, 208V                        |
| KLI-R2            | Double-pole relay, coil (24V)<br>25A, 240V - 12.5A, 600V                            |
| KLI-RT-208        | Single-pole relay, coil (24V)<br>Transformer (208V / 24V) - 4500W, 208V / 22A       |
| KLI-RT-240        | Single-pole relay, coil (24V)<br>Transformer (240V / 24V) - 5200W, 240V / 22A       |
| KLI-RT-277        | Single-pole relay, coil (24V)<br>Transformer (277V / 24A) - 5200W, 277V / 19A       |
| Product no-TRF24  | Transformer, 24V - 50VA   |
| Product no-TRF240 | Transformer, 240V - 50VA  |
| Product no-PM     | Factory installed pneumatic relay,<br>20A / 600V max.                               |
| KLI-CTR           | Control box (width: 12")  |
| Product no-DIS40  | Factory installed disconnect switch<br>600V, three-pole, 40A                        |

## Accessories

| MODEL         | DESCRIPTION                    | DIMENSIONS (in) |
|---------------|--------------------------------|-----------------|
| KLI-CI        | Corner (interior and exterior) |                 |
| KLI-PEC       | Pedestal kit (2)               | 3 (height)      |
| KLI-SO-27     | Sub-base                       | 27 3/16         |
| KLI-SO-37     | Sub-base                       | 37 3/16         |
| KLI-SO-47     | Sub-base                       | 47 3/16         |
| KLI-SO-57     | Sub-base                       | 57 3/16         |
| KLI-SO-65     | Sub-base                       | 65 3/16         |
| KLI-SV-27     | Empty cabinet                  | 27 3/16         |
| KLI-SV-37     | Empty cabinet                  | 37 3/16         |
| KLI-SV-47     | Empty cabinet                  | 47 3/16         |
| KLI-SV-57     | Empty cabinet                  | 57 3/16         |
| KLI-SV-65     | Empty cabinet                  | 65 3/16         |
| Product no-BD | Factory installed clean back   |                 |

\*\*\* Filler sections can be cut on workplace. Includes ends and wall supports.

# Architectural Draft Barrier KDBA Series



### Model Code:

|      |    |     |      |
|------|----|-----|------|
| KDBA | 12 | 040 | -731 |
| A    | B  | C   | D    |

**A: Series**  
**B: Volts (12=120, 24=240, 27=270)**  
**C: Watts (040=400)**  
**D: Length in mm (-731=731mm)**

- Steel tubular heating elements with aluminum fins
- Front fresh air inlet or bottom (-BAI); top warm air outlet
- Standard watt density of 275W/ft. (900W/m)
- Low watt density of 200W/ft. (650W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white epoxy/polyester powder paint
- 18 gauge steel cabinet
- Available in 120, 208, 240, 277, 1 phase
- 1-year warranty against defects



## The KDBA Series Draft Barrier

**A compact, economical draft barrier.** Made from steel the KDBA draft barrier is an economical alternative to the aluminum model, yet offering comparable performance. With its rectangular shape, the KDBA is perfect for wall-to-wall installations.

### Ordering Information Standard models (275W/ft)

| WATTS | 240V/208V | 120V      | UPC   | 208V      | UPC   | 240V/208V | UPC   | 277V      | UPC   | LENGTH   | WT. (lbs.) |
|-------|-----------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|----------|------------|
| 500   | 500/375   | KDBA12050 | 31552 | KDBA20050 | 31562 | KDBA24050 | 31580 | KDBA27050 | 31598 | 28 13/16 | 10.5       |
| 750   | 750/563   | KDBA12075 | 31554 | KDBA20075 | 31564 | KDBA24075 | 31582 | KDBA27075 | 31600 | 38 13/16 | 12.7       |
| 1000  | 1000/750  | KDBA12100 | 31556 | KDBA20100 | 31566 | KDBA24100 | 31584 | KDBA27100 | 31602 | 49 1/16  | 14.9       |
| 1250  | 1250/938  | KDBA12125 | 31558 | KDBA20125 | 31568 | KDBA24125 | 31586 | KDBA27125 | 31604 | 58 9/16  | 17         |
| 1500  | 1500/1125 | KDBA12150 | 31560 | KDBA20150 | 31570 | KDBA24150 | 31588 | KDBA27150 | 31606 | 67 1/4   | 18.8       |
| 1750  | 1750/1313 |           |       | KDBA20175 | 31572 | KDBA24175 | 31590 | KDBA27175 | 31608 | 76 9/16  | 20.8       |
| 2000  | 2000/1500 |           |       | KDBA20200 | 31574 | KDBA24200 | 31592 | KDBA27200 | 31610 | 85 3/8   | 22.7       |
| 2250  | 2250/1688 |           |       | KDBA20225 | 31576 | KDBA24225 | 31594 | KDBA27225 | 31612 | 94 3/16  | 24.6       |
| 2500  | 2500/1875 |           |       | KDBA20250 | 31578 | KDBA24250 | 31596 | KDBA27250 | 31314 | 103 3/8  | 26.6       |

### Ordering Information Low density models (200W/ft)

| WATTS | 240V/208V | 120V           | UPC   | 208V           | UPC   | 240V/208V      | UPC   | 277V           | UPC   | LENGTH   | WT. (lbs.) |
|-------|-----------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------|------------|
| 400   | 400/225   | KDBA12040-731  | 31616 | KDBA20040-731  | 31628 | KDBA24040-731  | 31646 | KDBA27040-731  | 31664 | 28 13/16 | 10.5       |
| 600   | 600/375   | KDBA12060-985  | 31618 | KDBA20060-985  | 31630 | KDBA24060-985  | 31648 | KDBA27060-985  | 31666 | 38 13/16 | 12.7       |
| 800   | 800/563   | KDBA12080-1246 | 31620 | KDBA20080-1246 | 31632 | KDBA24080-1246 | 31650 | KDBA27080-1246 | 31668 | 49 1/16  | 14.9       |
| 1000  | 1000/750  | KDBA12100-1487 | 31622 | KDBA20100-1487 | 31634 | KDBA24100-1487 | 31652 | KDBA27100-1487 | 31670 | 58 9/16  | 17         |
| 1200  | 1200/938  | KDBA12120-1708 | 31624 | KDBA20120-1708 | 31636 | KDBA24120-1708 | 31654 | KDBA27120-1708 | 31672 | 67 1/4   | 18.8       |
| 1600  | 1600/1125 | KDBA12160-2168 | 31626 | KDBA20160-2168 | 31638 | KDBA24160-2168 | 31656 | KDBA27160-2168 | 31674 | 85 3/8   | 22.7       |
| 1800  | 1800/1313 |                |       | KDBA20180-2393 | 31640 | KDBA24180-2393 | 31658 | KDBA27180-2393 | 31676 | 94 3/16  | 24.6       |
| 2000  | 2000/1500 |                |       | KDBA20200-2625 | 31642 | KDBA24200-2625 | 31660 | KDBA27200-2625 | 31678 | 103 3/8  | 26.6       |
| 2250  | 2250/1688 |                |       | KDBA20225-2625 | 31644 | KDBA24225-2625 | 31662 | KDBA27225-2625 | 31680 | 103 3/8  | 26.6       |

## Specifications

*Contractor shall supply and install KDBA Series electric heaters of the wattage and voltage as indicated on the plans.*

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black. Custom colors available.

**Finish:** Standard: epoxy/polyester powder paint. Optional: steel plated.

**Voltage:** 120V, 208V, 240V/208V, 277V, 50/60 Hz, 1-phase.

**Construction:** 16-gauge steel front cover. 18-gauge satin coat steel cabinet.

Screw assembly for added strength. Full length built-in wireway. Front fresh air inlet or bottom (-BAI); top warm air outlet. Clean back available (-BD). Linear high-limit temperature control with automatic reset. High altitude version available (-HA). End caps included.

**Heating Element:** Stainless steel tubular heating element with aluminum fins.

Floating heating element on high-temperature nylon bushings eliminating expansion noises.

**Watt Density:** Standard watt density. Low watt density.

**Control:** Built-in thermostat available with a control knob or tamperproof. Mechanical, electronic or pneumatic relays available (installed on the right end only). King highly recommends the use of an electronic wall thermostat for greater comfort.

**Installation:** Heater must be installed at least 2 in. from finished floor (for -BAI option). Mounting holes spaced on 4 in. intervals for ease of installation. Wall or floor mounted installation. Variety of accessories available for wall-to-wall installation. Pedestal kit available.

**Warranty:** 1-year warranty against defects.

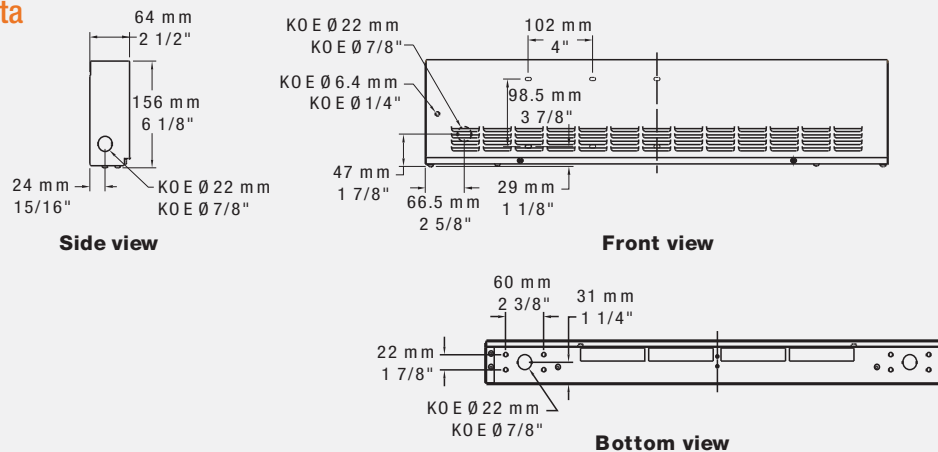
**Application:** Commercial building, office building, hospital, daycare center, private residence.

# Architectural Draft Barrier KDBA Series

## Options

| ADD SUFFIX | DESCRIPTION  |
|------------|--|
| -BW        | Bright White   |
| -A         | Almond Color   |
| -AE        | Metallic Silver  |
| -BZ        | Bronze   |
| -CM        | Metallic Charcoal  |
| -AL        | Aluminum   |
| -NL        | Semi-Gloss Black   |
| -HA        | High altitude version linear high-limit temperature control with automatic reset |
| -BAI       | Bottom fresh air inlet   |

## Dimensional Data



## Control Options

| MODEL             | DESCRIPTION  |
|-------------------|--|
| KDBA-T-AV (1-3)   | Single-pole tamperproof thermostat adjustable with a screwdriver<br>120V, 208V, 240V/25A, 277V/10A |
| KDBA-T2-AV (1-2)  | Double-pole tamperproof thermostat adjustable with a screwdriver<br>120V, 208V, 240V/25A, 277V/10A |
| KDBA-T (1-3)      | Single-pole thermostat with control knob<br>120V, 208V, 240V/25A, 277V/10A                         |
| KDBA-T2 (1-2)     | Double-pole thermostat with control knob<br>120V, 208V, 240V/25A, 277V/10A                         |
| KDBA-RT-120       | 24V relay with transformer - 120V/22A  |
| KDBA-RT-208       | 24V relay with transformer - 208V/22A  |
| KDBA-RT-240       | 24V relay with transformer - 240V/22A  |
| KDBA-RT-277       | 24V relay with transformer - 277V/19A  |
| KDBA-R            | 24V relay without transformer<br>120V, 208V, 240V/22A, 277V/19A                                    |
| Product no-TRIAC  | Factory installed 24V electronic relay<br>15A, 347V and less                                       |
| Product no-TRIACT | Factory installed 24V electronic relay with transformer - 15A, 208V to 347V max.                   |
| Product no-PM     | Factory installed pneumatic relay - 20A, 480V max.   |
| Product no-DIS    | Factory installed disconnect switch<br>20A, 277V max.  |

- 1) Setting range: 40°F to 100°F (5°C to 37°C)
- 2) "Off" position
- 3) Thermostat connect will remain open down to -31°F (-35°C) when set at its minimum

## Accessories

| MODEL          | DESCRIPTION  | DIMENSIONS (in) |
|----------------|--|-----------------|
| KDBA-CI        | Inside corner  | 4               |
| KDBA-CE        | Outside corner   | 4               |
| KDBA-PE        | Round pedestal kit (2)   | 3               |
| KDBA-PEC       | Square-shaped pedestal kit (2)   | 2               |
| KDBA-JT        | Splice plate   | 2               |
| KDBA-JT-PE     | Contour splice plate for BD option and/or heater with pedestals                                  | 2               |
| Product no-HA  | Factory installed linear high-limit temperature control for high altitude (6000 ft. to 8200 ft.) |                 |
| Product no-BD  | Factory installed clean back   |                 |
| KDBA-SV-XX     | Empty cabinet with length XX mm  |                 |
| Product no-BAI | Factory installed bottom fresh air inlet with smooth front panel                                 |                 |

# Architectural Draft Barrier KDIA Series


**Model Code:**

|             |           |            |
|-------------|-----------|------------|
| <b>KDIA</b> | <b>24</b> | <b>250</b> |
| <b>A</b>    | <b>B</b>  | <b>C</b>   |

A: Series  
 B: 12=120V 20=208V  
 24=240/208V 27=277V  
 C: Watts (50=500 - 250=2500)



- Steel tubular heating elements with aluminum fins
- Front fresh air inlet or bottom (-BAI); top warm air outlet
- Standard watt density of 275W/ft. (900W/m)
- Low watt density of 200W/ft. (650W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white epoxy/polyester powder paint
- 18 gauge steel cabinet
- Available in 120, 208, 240, 277, 347 or 600 volts, 1 phase
- 1-year warranty against defects

## The KDIA Series Slope-Top Architectural Draft Barrier

The KDIA Series is an economical sloped top draft barrier. The KDIA draft barrier is specifically designed with a sloped top to eliminate use of the unit as a shelf or seat. Made from steel, the KDIA is an economical alternative to the aluminum sloped top model, yet offering comparable performance. This sloped top draft barrier takes up less space and is well suited for areas where space is limited.

### Ordering Information - Standard Models (275W/FT)

| WATTS | 240V/208V | 120V      | UPC   | 208V      | UPC   | 240V/208V | UPC   | 277V      | UPC   | LENGTH   | WT. (lbs.) |
|-------|-----------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|----------|------------|
| 500   | 500/375   | KDIA12050 | 31682 | KDIA20050 | 31692 | KDIA24050 | 31710 | KDIA27050 | 31728 | 28 13/16 | 11.6       |
| 750   | 750/563   | KDIA12075 | 31684 | KDIA20075 | 31694 | KDIA24075 | 31712 | KDIA27075 | 31730 | 38 13/16 | 15.1       |
| 1000  | 1000/750  | KDIA12100 | 31686 | KDIA20100 | 31696 | KDIA24100 | 31714 | KDIA27100 | 31732 | 49 1/16  | 18.7       |
| 1250  | 1250/938  | KDIA12125 | 31688 | KDIA20125 | 31698 | KDIA24125 | 31716 | KDIA27125 | 31734 | 58 9/16  | 22         |
| 1500  | 1500/1125 | KDIA12150 | 31690 | KDIA20150 | 31700 | KDIA24150 | 31718 | KDIA27150 | 31736 | 67 1/4   | 25         |
| 1750  | 1750/1313 |           |       | KDIA20175 | 31702 | KDIA24175 | 31720 | KDIA27175 | 31738 | 76 9/16  | 28.3       |
| 2000  | 2000/1500 |           |       | KDIA20200 | 31704 | KDIA24200 | 31722 | KDIA27200 | 31740 | 85 3/8   | 31.3       |
| 2250  | 2250/1688 |           |       | KDIA20225 | 31706 | KDIA24225 | 31724 | KDIA27225 | 31742 | 94 3/16  | 34.4       |
| 2500  | 2500/1875 |           |       | KDIA20250 | 31708 | KDIA24250 | 31726 | KDIA27250 | 31744 | 103 3/8  | 37.6       |

### Ordering Information - Low Density (200W/FT)

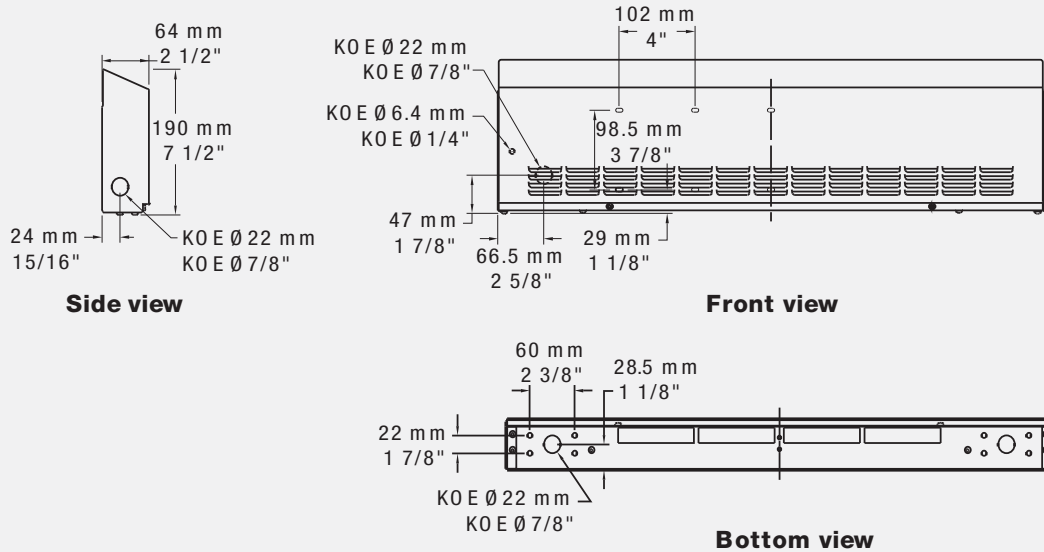
| WATTS | 240V/208V | 120V           | UPC   | 208V           | UPC   | 240V/208V      | UPC   | 277V           | UPC   | LENGTH   | WT. (lbs.) |
|-------|-----------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------|------------|
| 400   | 400/225   | KDIA12040-733  | 31746 | KDIA20040-733  | 31758 | KDIA24040-733  | 31776 | KDIA27040-733  | 31794 | 28 7/8   | 11.6       |
| 600   | 600/375   | KDIA12060-987  | 31748 | KDIA20060-987  | 31760 | KDIA24060-987  | 31778 | KDIA27060-987  | 31796 | 38 7/8   | 15.1       |
| 800   | 800/563   | KDIA12080-1248 | 31750 | KDIA20080-1248 | 31762 | KDIA24080-1248 | 31780 | KDIA27080-1248 | 31798 | 49 1/8   | 18.7       |
| 1000  | 1000/750  | KDIA12100-1489 | 31752 | KDIA20100-1489 | 31764 | KDIA24100-1489 | 31782 | KDIA27100-1489 | 31800 | 58 5/8   | 22         |
| 1200  | 1200/938  | KDIA12120-1710 | 31754 | KDIA20120-1710 | 31766 | KDIA24120-1710 | 31784 | KDIA27120-1710 | 31802 | 67 5/16  | 25         |
| 1600  | 1600/1125 | KDIA12160-2170 | 31756 | KDIA20160-2170 | 31768 | KDIA24160-2170 | 31786 | KDIA27160-2170 | 31804 | 85 7/16  | 28.3       |
| 1800  | 1800/1313 |                |       | KDIA20180-2395 | 31770 | KDIA24180-2395 | 31788 | KDIA27180-2395 | 31806 | 94 5/16  | 31.3       |
| 2000  | 2000/1500 |                |       | KDIA20200-2627 | 31772 | KDIA24200-2627 | 31790 | KDIA27200-2627 | 31808 | 103 7/16 | 34.4       |
| 2250  | 2250/1688 |                |       | KDIA20225-2627 | 31774 | KDIA24225-2627 | 31792 | KDIA27225-2627 | 31810 | 103 7/16 | 37.6       |

### Options

| ADD SUFFIX | DESCRIPTION  |
|------------|--|
| -BW        | Bright White   |
| -A         | Almond Color   |
| -AE        | Metallic Silver  |
| -BZ        | Bronze   |
| -CM        | Metallic Charcoal  |
| -AL        | Aluminum   |
| -NL        | Semi-Gloss Black   |
| -HA        | High altitude version linear high-limit temperature control with automatic reset |
| -BAI       | Bottom fresh air inlet   |

# Architectural Draft Barrier KDIA Series

## Dimensional Data



## Control Options

| MODEL                 | DESCRIPTION  |
|-----------------------|--|
| KDIA-T-AV (1-3)       | Single-pole tamperproof thermostat adjustable with a screwdriver<br>120V, 208V, 240V/25A, 277V/10A |
| KDIA-T2-AV (1-2)      | Double-pole tamperproof thermostat adjustable with a screwdriver<br>120V, 208V, 240V/25A, 277V/10A |
| KDIA-T (1-3)          | Single-pole thermostat with control knob<br>120V, 208V, 240V/25A, 277V/10A                         |
| KDIA-T2 (1-2)         | Double-pole thermostat with control knob<br>120V, 208V, 240V/25A, 277V/10A                         |
| KDIA-RT-120           | 24V relay with transformer - 120V/22A  |
| KDIA-RT-208           | 24V relay with transformer - 208V/22A  |
| KDIA-RT-240           | 24V relay with transformer - 240V/22A  |
| KDIA-RT-277           | 24V relay with transformer - 277V/19A  |
| KDIA-R                | 24V relay without transformer<br>120V, 208V, 240V/22A, 277V/19A                                    |
| Product no-TRIAC-347  | Factory installed 24V electronic relay 15A, 347V and less  |
| Product no-TRIAC-347T | Factory installed 24V electronic relay with transformer - 15A, 208V to 347V max.                   |
| Product no-PM         | Factory installed pneumatic relay - 20A, 480V max.   |
| Product no-DIS        | Factory installed disconnect switch 20A, 277V max.   |

## Accessories

| MODEL          | DESCRIPTION  | DIMENSIONS (in) |
|----------------|--|-----------------|
| KDIA-CI        | Inside corner  | 4               |
| KDIA-CE        | Outside corner   | 4               |
| KDIA-PE        | Round pedestal kit (2)   | 3               |
| KDIA-PEC       | Square-shaped pedestal kit (2)   | 2               |
| KDIA-JT        | Splice plate   | 2               |
| KDIA-JT-PE     | Contour splice plate for BD option and/or heater with pedestals                                  | 2               |
| Product no-HA  | Factory installed linear high-limit temperature control for high altitude (6000 ft. to 8200 ft.) |                 |
| Product no-BD  | Factory installed clean back   |                 |
| KDIA-SV-XX     | Empty cabinet with length XX mm  |                 |
| Product no-BAL | Factory installed bottom fresh air inlet with smooth front panel                                 |                 |

# Draft Barriers SB Series



### Model Code:

|    |   |     |   |    |    |
|----|---|-----|---|----|----|
| SB | F | -ST | 2 | 24 | 03 |
| A  | B | C   | D | E  | F  |

- A: Series
- B: Optional front intake
- C: -ST (Slope Top)
- D: Length
- E: Volts: 12=120V 20=208V  
24=240V 27=277V
- F: Watts (200 - 2500)



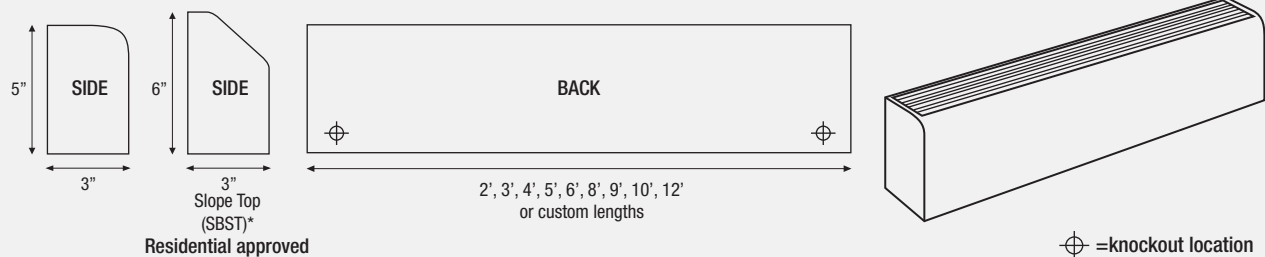
- Full length thermal limit switch
- 14 gauge front and back
- Two piece all aluminum
- Convection heat
- Silent running
- Extended backs and fronts available
- 4" junction-boxes at each end
- 3/4" EMT raceway standard
- 5" D x 3" H cabinet size
- Available in gray, almond, bronze, white, & black
- Multiple heater sections on common back
- Custom cabinet lengths, 2-12 feet in 1/16" increments
- SBST approved for residential use
- 1/2" and 3/4" knockouts
- 1-year limited warranty

## The SB Series Draft Barrier

**Convection heat becomes an architectural finishing touch** in the sleek appearance and continuous look of this heater.

An anodized aluminum finish is available (purchasing requirements may apply) with standard colors including white, gray, black, tan and bronze. Controls can be mounted conveniently in either end of the heater. Feed-through wiring is provided by a built-in wire-way running the entire length of the heater. End caps are required on standalone installation. Residential version requires a slope top. If you need a heater suitable for architectural, commercial and/or industrial use, this is it.

### Dimensional Data



Smooth back available when pedestal mounted and back can be seen.  
\*Approved for residential use

## Engineering Specifications

- Model SB Architectural Draft Barriers shall be 5" H and 3" D. The front cover shall be 14 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil-proof intake and discharge grilles. The one-piece cover shall be extruded for maximum strength and shall be available in lengths up to 12 feet.
- The cover shall be linear mount to the 14 gauge heater back with no visible fasteners. The 14 gauge heater back shall be suitable for mullion-to-mullion mounting.
- Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architect's specifications are available as optional finishes.
- Heat sections from 2 - 10 feet are available. All heaters shall contain 3/4" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.
- 1/2" and 3/4" knockouts shall be provided in the side and rear of the heater junction-box to permit end-to-end wiring.
- All blank sections shall be fully enclosed to allow branch circuit wiring. All heaters shall contain a full length thermal overload protector with automatic reset. Wattages shall be available from 100 to 250 Watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.
- Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free-floating in nylon bushings at each end.
- Control sections are 6" or 12" for pneumatic relay, transformer relay, fused disconnect or duplex receptacle. Optional built-in heater controls shall include thermostats (single and double pole) and disconnect switches.
- Built-in controls shall be tamper-proof and shall be adjustable with a blade screwdriver through the discharge louver.
- All heaters are Underwriters Laboratories listed
- Tested under UL **Safety Standard UL#1042**

# Draft Barriers SB Series

## Ordering Information

\*Also available in 120V, 208V, and 277 Volts. Available in 100 to 250 W/ft. Consult factory for model#

| STANDARD MODEL | UPC   | FRONT INTAKE MODEL | UPC   | VOLTS* | WATTS | LENGTH | NOMINAL WATTS / FT. |
|----------------|-------|--------------------|-------|--------|-------|--------|---------------------|
| SB22404        | 14428 | SBF22404           | 14464 | 240    | 400   | 2'     | 200                 |
| SB22405        | 14430 | SBF22405           | 14466 | 240    | 500   | 2'     | 250                 |
| SB32406        | 14432 | SBF32406           | 14468 | 240    | 600   | 3'     | 200                 |
| SB32407        | 14434 | SBF32407           | 14470 | 240    | 750   | 3'     | 250                 |
| SB42408        | 14436 | SBF42408           | 14472 | 240    | 800   | 4'     | 200                 |
| SB42410        | 14438 | SBF42410           | 14474 | 240    | 1000  | 4'     | 250                 |
| SB52410        | 14440 | SBF52410           | 14476 | 240    | 1000  | 5'     | 200                 |
| SB52412        | 14442 | SBF52412           | 14478 | 240    | 1250  | 5'     | 250                 |
| SB62412        | 14444 | SBF62412           | 14480 | 240    | 1200  | 6'     | 200                 |
| SB62415        | 14446 | SBF62415           | 14482 | 240    | 1500  | 6'     | 250                 |
| SB72414        | 14448 | SBF72414           | 14484 | 240    | 1400  | 7'     | 200                 |
| SB72417        | 14450 | SBF72417           | 14486 | 240    | 1750  | 7'     | 250                 |
| SB82416        | 14452 | SBF82416           | 14488 | 240    | 1600  | 8'     | 200                 |
| SB82420        | 14454 | SBF82420           | 14490 | 240    | 2000  | 8'     | 250                 |
| SB92420        | 14456 | SBF92420           | 14492 | 240    | 2000  | 9'     | 200                 |
| SB92422        | 14458 | SBF92422           | 14494 | 240    | 2250  | 9'     | 250                 |
| SB102420       | 14460 | SBF102420          | 11496 | 240    | 2000  | 10'    | 200                 |
| SB102425       | 14462 | SBF102425          | 14498 | 240    | 2500  | 10'    | 250                 |

## Accessories

| MODEL    | DESCRIPTION         |
|----------|---------------------|
| SB-100BS | 1FT. Blank Section  |
| SB-200BS | 2FT. Blank Section  |
| SB-300BS | 3FT. Blank Section  |
| SB-400BS | 4FT. Blank Section  |
| SB-500BS | 5FT. Blank Section  |
| SB-600BS | 6FT. Blank Section  |
| SB-700BS | 7FT. Blank Section  |
| SB-800BS | 8FT. Blank Section  |
| SB-900BS | 9FT. Blank Section  |
| SB1000BS | 10FT. Blank Section |

## Options

| MODEL    | DESCRIPTION                                   |
|----------|---|
| SB-IC    | Inside Corner                                 |
| SB-OC    | Outside Corner                                |
| SB-EC    | REQUIRED End Cap (Specify right or left) 1/2" |
| SB-SP    | Splice Plate                                  |
| SB-WT    | Wall Trim                                     |
| SB-MESH  | 1/4" Wire mesh under discharge grille         |
| SB-PD-FM | Pedestals (field mounting)                    |

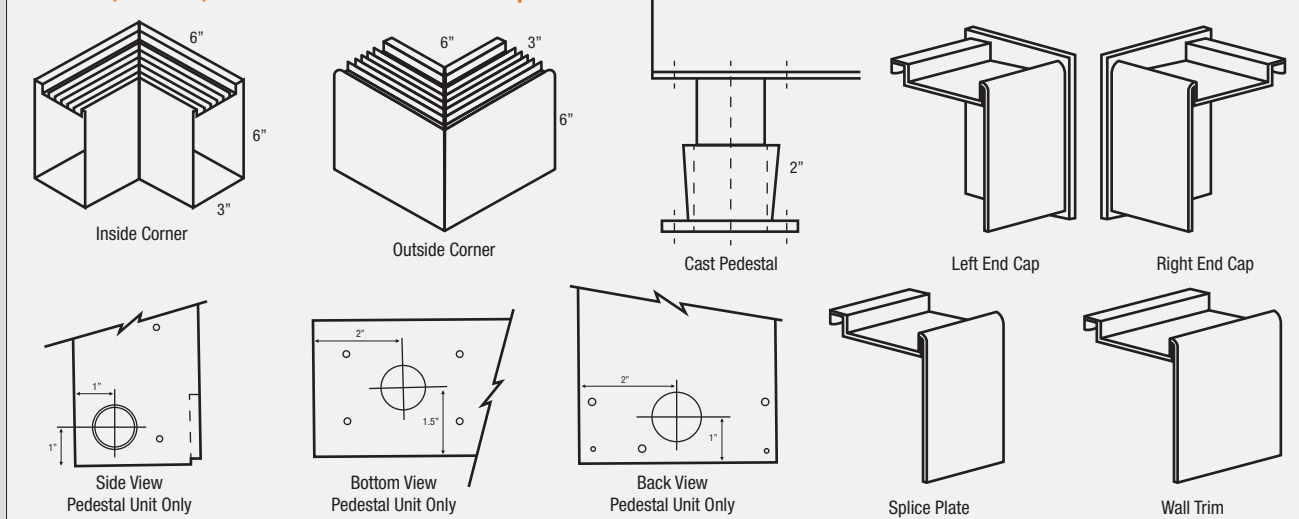
## Control Sections

| MODEL         | DESCRIPTION  |
|---------------|--|
| SBCS-TS       | Thermostat Section - SPST, 20 Amp, 277 Volts             |
| SBCS-TSDS     | Thermostat Disconnect Switch Section, 20 Amp             |
| SBCS-TSR      | Thermostat Relay Switch, 20 Amp                          |
| SBCS-TSDSR    | Thermostat Disconnect Switch, Relay Section, 20 Amp      |
| SBCS-DS       | Disconnect Switch, Section, 20 Amp                       |
| SBCS-R        | Relay Section - SPST, 20 Amp, 277 Volt                   |
| SBCS-RDS      | Relay, Disconnect Switch Section, 20 Amp                 |
| SBCS-TR       | Xformer Relay Section - SPST, 25 Amp, 277 V, 24V Control |
| SBCS-TRDS     | Transformer Relay, Disconnect Switch Section, 20 Amp     |
| SBCS-PE       | PE Relay, SPST, 20 Amp                                   |
| SBCS-DS-FUSED | Disconnect Switch, with 20 Amp fuse and fuse block       |

## Integral Controls

| MODEL | DESCRIPTION  |
|-------|--|
| ITS   | Integral Stat 25 Amp, SPST-120-277 Volts - STD-LF or RT    |
| ITD   | Integral Stat 20 Amp, DPST-208-240 Volts - STD-LF or RT    |
| IDS   | Integral Disconnect Switch 20 Amp, 120-277 V - STD-RT side |

## Corners, Fillers, Blank Sections & End Caps





# Draft Barriers LB Series



### Model Code:

|    |   |   |    |    |
|----|---|---|----|----|
| LB | F | 2 | 24 | 03 |
| A  | B | C | D  | E  |

A: Series  
 B: Optional front intake  
 C: Length  
 D: Volts: 12=120V 20=208V  
 24=240V 27=277V  
 E: Watts (376 - 5000)

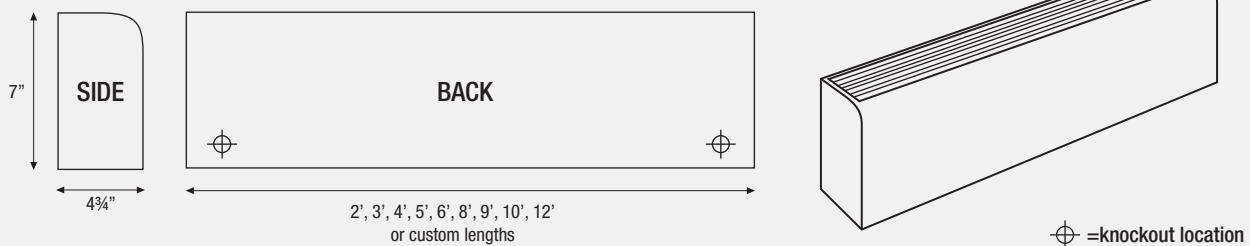


- Full length thermal limit switch
- 12 gauge front and back
- Two piece all aluminum
- Convection heat
- Quiet running
- Extended backs and fronts available
- 4" junction-boxes at each end
- ¾" EMT raceway standard
- 7" H x 5" D cabinet size
- Available in gray, almond, bronze, white, black & more
- Multiple heater sections on common back
- Custom cabinet lengths, 2-12 feet in 1/16" increments
- ½" and ¾" knockouts
- 1-year limited warranty

## The LB Series Draft Barrier

This draft heater is used for tall glass walls or complete heating of large commercial spaces. The sleek lines complement any commercial building. Feed-through wire-ways help provide continuous wall-to-wall warmth. Controls can be conveniently mounted in either end of the heater or in a separate section. Heated sections can be anywhere within the case. End caps are required on stand alone installation. Custom paint colors are available. Optional anodized finishes can match window finishes. Suitable for industrial and commercial uses.

### Dimensional Data



\*Smooth back available when pedestal mounted and back can be seen.

## Engineering Specifications

- Model LB Architectural Draft Barriers shall be 7" H and 5" D. The front cover shall be 12 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with ¼" pencil-proof intake and discharge grilles. The one-piece cover shall be extruded for maximum strength and available in lengths up to 12 feet.
- The cover shall be linear mount to the 12 gauge heater back with no visible fasteners. The 12 gauge heater back shall be suitable for mullion-to-mullion mounting.
- Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architect's specifications are available as optional finishes.
- Heat sections from 2 -10 feet are available. All heaters shall contain ¾" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.
- ½" and ¾" knockouts shall be provided in the side and rear of the heater junction-box to permit end-to-end wiring. All blank sections shall be fully enclosed to allow branch circuit wiring.
- All heaters shall contain a full length thermal overheat protector with automatic reset. Wattages shall be available from 100 to 500 Watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.
- Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free-floating in nylon bushings at each end.
- Control sections are 6" or 12" for pneumatic relay, transformer relay, fused disconnect or duplex receptacle. Optional built-in heater controls shall include thermostats (single and double pole) and disconnect switches.
- Built-in controls shall be tamper-proof and shall be adjustable with a blade screwdriver through the discharge louver.
- All heaters are Underwriters Laboratories listed.
- Tested under UL Safety Standard UL#1042.

# Draft Barriers LB Series

## Ordering Information

\*Also available in 120V, 208V, and 277 Volts. Consult factory for model#

| STANDARD MODEL | UPC   | FRONT INTAKE MODEL | UPC   | VOLTS* | WATTS | LENGTH | NOMINAL WATTS / FT. |
|----------------|-------|--------------------|-------|--------|-------|--------|---------------------|
| LB22403        | 14300 | LBF22403           | 14364 | 240    | 376   | 2'     | 188                 |
| LB22405        | 14302 | LBF22405           | 14366 | 240    | 500   | 2'     | 250                 |
| LB22407        | 14304 | LBF22407           | 14368 | 240    | 750   | 2'     | 350                 |
| LB22410        | 14306 | LBF22410           | 14370 | 240    | 1000  | 2'     | 500                 |
| LB32405        | 14308 | LBF32405           | 14372 | 240    | 564   | 3'     | 188                 |
| LB32407        | 14310 | LBF32407           | 14374 | 240    | 750   | 3'     | 250                 |
| LB32411        | 14312 | LBF32411           | 14376 | 240    | 1125  | 3'     | 350                 |
| LB32415        | 14314 | LBF32415           | 14378 | 240    | 1500  | 3'     | 500                 |
| LB42407        | 14316 | LBF42407           | 14380 | 240    | 750   | 4'     | 188                 |
| LB42410        | 14318 | LBF42410           | 14382 | 240    | 1000  | 4'     | 250                 |
| LB42415        | 14320 | LBF42415           | 14384 | 240    | 1500  | 4'     | 350                 |
| LB42420        | 14322 | LBF42420           | 14386 | 240    | 2000  | 4'     | 500                 |
| LB52409        | 14324 | LBF52409           | 14388 | 240    | 940   | 5'     | 188                 |
| LB52412        | 14326 | LBF52412           | 14390 | 240    | 1250  | 5'     | 250                 |
| LB52418        | 14328 | LBF52418           | 14392 | 240    | 1875  | 5'     | 350                 |
| LB52425        | 14330 | LBF52425           | 14394 | 240    | 2500  | 5'     | 500                 |
| LB62411        | 14332 | LBF62411           | 14396 | 240    | 1125  | 6'     | 188                 |
| LB62415        | 14334 | LBF62415           | 14398 | 240    | 1500  | 6'     | 250                 |
| LB62422        | 14336 | LBF62422           | 14400 | 240    | 2250  | 6'     | 350                 |
| LB62430        | 14338 | LBF62430           | 14402 | 240    | 3000  | 6'     | 500                 |
| LB82415        | 14340 | LBF82415           | 14404 | 240    | 1500  | 8'     | 188                 |
| LB82420        | 14342 | LBF82420           | 14406 | 240    | 2000  | 8'     | 250                 |
| LB82430        | 14344 | LBF82430           | 14408 | 240    | 3000  | 8'     | 350                 |
| LB82440        | 14346 | LBF82440           | 14410 | 240    | 4000  | 8'     | 500                 |
| LB92416        | 14348 | LBF92416           | 14412 | 240    | 1692  | 9'     | 188                 |
| LB92422        | 14350 | LBF92422           | 14414 | 240    | 2250  | 9'     | 250                 |
| LB92433        | 14352 | LBF92433           | 14416 | 240    | 3375  | 9'     | 350                 |
| LB92455        | 14354 | LBF92455           | 14418 | 240    | 4500  | 9'     | 500                 |
| LB102418       | 14356 | LBF102418          | 14420 | 240    | 1875  | 10'    | 188                 |
| LB102425       | 14358 | LBF102425          | 14422 | 240    | 2500  | 10'    | 250                 |
| LB102437       | 14360 | LBF102437          | 14424 | 240    | 3750  | 10'    | 350                 |
| LB102450       | 14362 | LBF102450          | 14426 | 240    | 5000  | 10'    | 500                 |

\*Do not install less than 1-1/2" above floor on bottom air intake style.  
Available in 100 to 500 W/ft. Consult factory for model#

## Accessories

| MODEL    | DESCRIPTION         |
|----------|---------------------|
| LB-100BS | 1FT. Blank Section  |
| LB-200BS | 2FT. Blank Section  |
| LB-300BS | 3FT. Blank Section  |
| LB-400BS | 4FT. Blank Section  |
| LB-500BS | 5FT. Blank Section  |
| LB-600BS | 6FT. Blank Section  |
| LB-700BS | 7FT. Blank Section  |
| LB-800BS | 8FT. Blank Section  |
| LB-900BS | 9FT. Blank Section  |
| LB1000BS | 10FT. Blank Section |

## Options

| MODEL    | DESCRIPTION                                   |
|----------|---|
| LB-IC    | Inside Corner                                 |
| LB-OC    | Outside Corner                                |
| LB-EC    | REQUIRED End Cap (Specify right or left) 1/2" |
| LB-SP    | Splice Plate                                  |
| LB-WT    | Wall Trim                                     |
| LB-MESH  | 1/4" Wire mesh under discharge grill          |
| LB-PD-FM | Pedestals (field mounting)                    |

## Control Sections

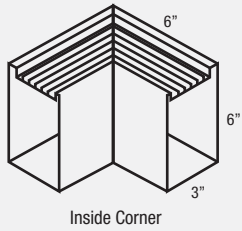
| MODEL         | DESCRIPTION  |
|---------------|--|
| LBCS-R        | Relay Section - SPST, 20 Amp, 277 Volt                   |
| LBCS-RDS      | Relay, Disconnect Switch Section, 20 Amp                 |
| LBCS-TR       | Xformer Relay Section - SPST, 25 Amp, 277 V, 24V Control |
| LBCS-TRDS     | Transformer Relay, Disconnect Switch Section, 20 Amp     |
| LBCS-PE       | PE Relay, SPST, 20 Amp                                   |
| LBCS-DS-FUSED | Disconnect Switch, with 20 Amp fuse and fuse block       |

## Integral Controls

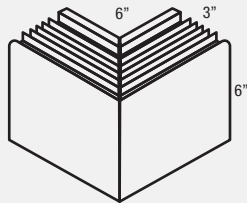
| MODEL      | DESCRIPTION  |
|------------|--|
| ITS        | Integral Stat 25 Amp, SPST-120-277 Volts - STD-LF or RT    |
| ITD        | Integral Stat 20 Amp, DPST-208-240 Volts - STD-LF or RT    |
| IDS        | Integral Disconnect Switch 20 Amp, 120-277 V - STD-RT side |
| LBCS-TS    | Thermostat Section - SPST, 20 Amp, 277 Volts               |
| LBCS-TSDS  | Thermostat Disconnect Switch Section, 20 Amp               |
| LBCS-TSR   | Thermostat Relay Switch, 20 Amp                            |
| LBCS-TSDSR | Thermostat Disconnect Switch, Relay Section, 20 Amp        |
| LBCS-DS    | Disconnect Switch, Section, 20 Amp                         |

# Draft Barriers LB Series

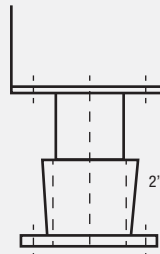
## Corners, Fillers, Blank Sections & End Caps



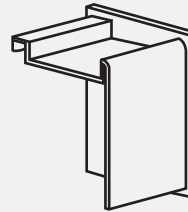
Inside Corner



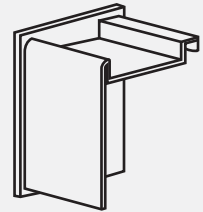
Outside Corner



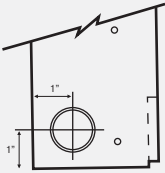
Cast Pedestal



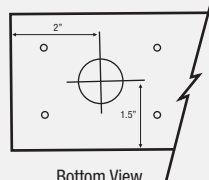
Left End Cap



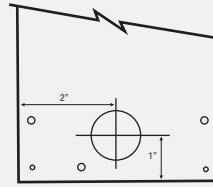
Right End Cap



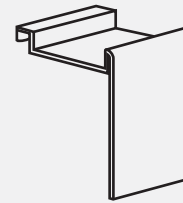
Side View  
Pedestal Unit Only



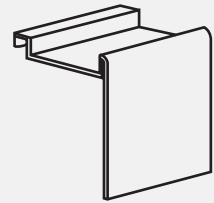
Bottom View  
Pedestal Unit Only



Back View  
Pedestal Unit Only

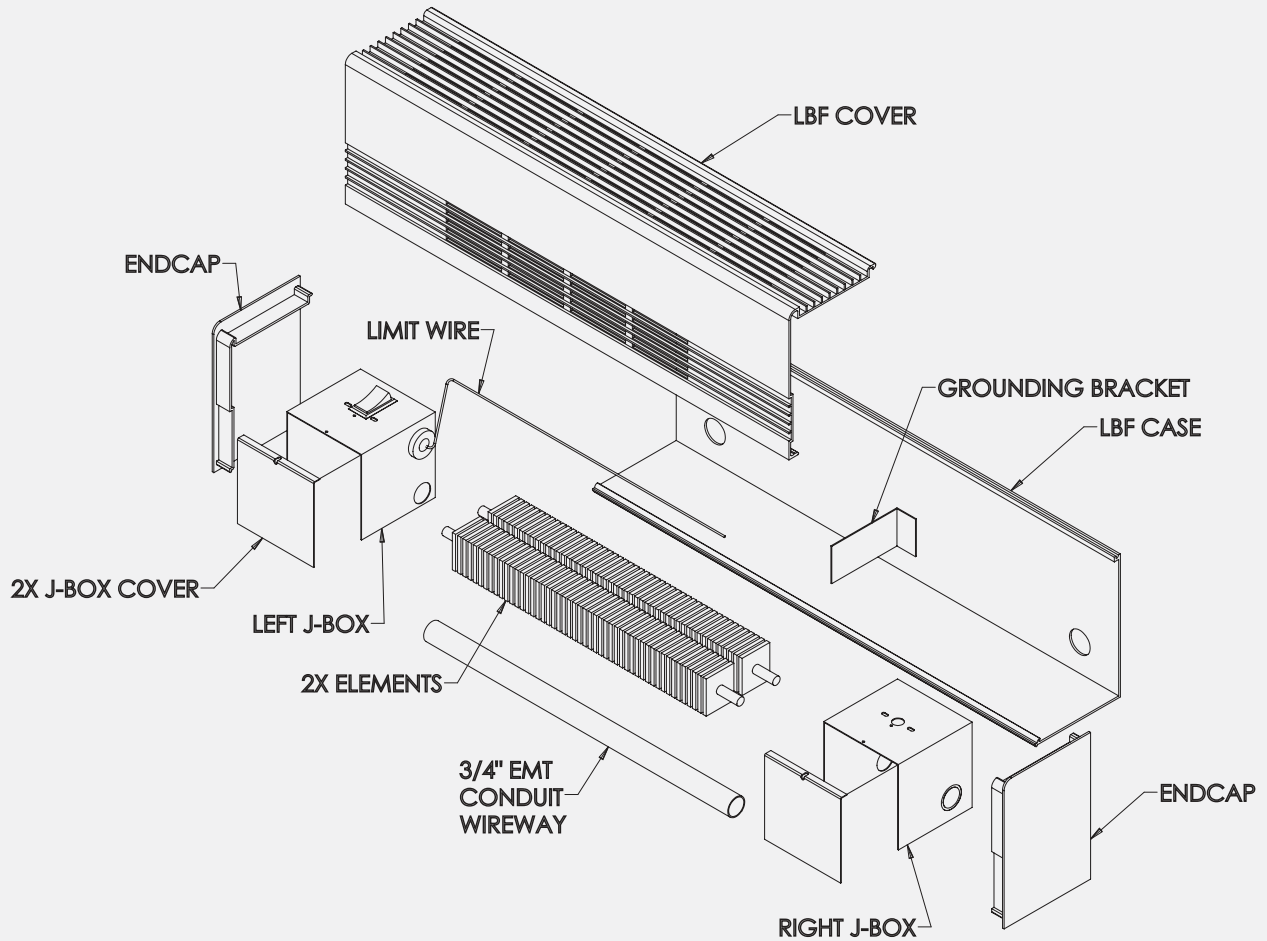


Splice Plate



Wall Trim

## LB EXPLODED VIEW



# Selecting The Proper Unit Heater

To obtain the best performance from King unit heaters use this chart for proper heater selection. To determine which type of unit is best note the ceiling height and room size. In addition to the air throw capabilities of each type of unit heater, wall and ceiling insulation must be considered when determining wattage requirements. The most common error of unit heater selection is installing a unit designed for low ceiling application on a high ceiling. In this application heat is unable to circulate properly to the floor – the result: unsatisfactory comfort or performance level. Following this guide allows correct unit heater selection for the determined space and environment. With correct selection and placement this King unit heater will provide years of high performance heating.

## Application Tips

First, calculate heating loads in the conventional way using the N.E.M.A. handbook or ASHRAE guide. Next, determine quantity and size of heaters to be used. In instances where large groups of people are normally settled in the same location use a large number of smaller kW heaters (Example: people on a production line or skilled machine operations). By utilizing heaters in this manner one can best distribute uniform heat, prevent hot drafts, reduce potential noise levels and balance the electrical operating demand. When considering warehouse areas or storage rooms where heat distribution and constant temperatures are less important, use fewer heaters of higher capacity. To maintain uniform heat and reduce stratified air it is recommended that the total CFM of the units turn the air over approximately 3 times per hour.

## Horizontal Mount

Smaller rooms can be heated by one unit heater. Where two walls are exposed heaters should be mounted as shown below. In larger rooms, units should be located so air streams wipe exposed walls without blowing at them. Units should be located so the airstream of one supports that of another thus setting up a circulatory air movement. (Distance between units to be approximately 1 times published air throw). Units should not be mounted horizontally in areas having ceiling heights in excess of 10 to 12 feet. *See Figure 1*

## Vertical Mount

Units should be mounted vertically in high bay areas where they may not otherwise interfere with assorted material or handling equipment. Heaters should be situated to provide free air circulation. Size and selection of units should be based on recommended mounting height. Unit heaters are frequently used to combat cold air inrush when loading dock doors are opened. For such applications, one or more units should be arranged to blow warm air vertically in front of opening. *See Figure 2*

## Dual Mounting

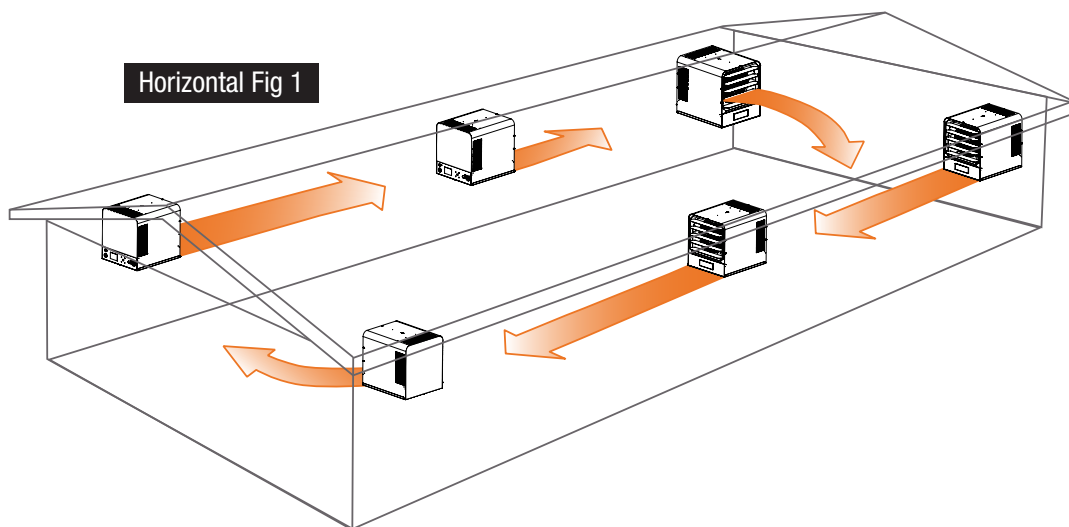
Where square footage is large and comfort essential, both horizontal and vertical installations may best serve your requirements. *See Figure 3*

## Mounting Limitations

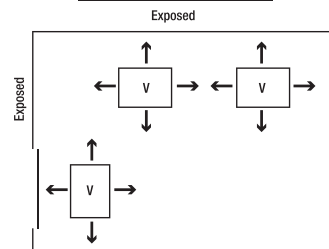
Unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Please refer to the factory for explosion proof or marine application heater information. Do not install unit heaters above recommended maximum mounting height. See chart for height information. Obstructions must not block unit heater air inlet or discharge. To prevent possible injury heaters must be mounted at least 6 feet above the floor to prevent accidental contact with heating element or fan blade.

## Selection

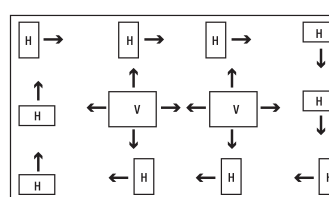
| CEILING HEIGHT | UNDER 8 FEET | 10 FEET  | 12 FEET   | 13 FEET AND OVER |
|----------------|--------------|----------|-----------|------------------|
| 250 Sq. Ft.    | N/A          | KBP      | KBP       | KFUH             |
| 1000 Sq. Ft.   | KBP          | KBP      | KBP / KB  | KFUH             |
| 2000 Sq.Ft.    | KBP / KB     | KBP / KB | KB / KFUH | KFUH             |
| 3000 Sq. Ft.   | KB           | KB       | KFUH      | KFUH             |
| 5000 Sq. Ft.   | KB           | KFUH     | KFUH      | KFUH             |
| 10,000 Sq. Ft. | KB           | KFUH     | KFUH      | KFUH             |



**Vertical Fig 2**



**Dual Fig 3**



# Heavy Duty Unit Heater KB Series



### Model Code:

|    |    |    |    |    |     |
|----|----|----|----|----|-----|
| KB | 48 | 10 | -1 | -T | -B1 |
| A  | B  | C  | D  | E  | F   |

**A:** Series  
**B:** 20 - 208V, 24 - 240/208V  
 27 - 277V, 48 - 480V  
**C:** kiloWatts (4-66)  
**D:** -1 = Single Phase  
 -3 = Three Phase  
**E:** -T = Built-In Thermostat  
**F:** -B1 = Bracket



- Spiral finned element
- Long life unit bearing motor
- Manual limit
- Aluminum fan blade
- Built-In Thermostat
- Standard color: gray
- High-temp safety limit
- Universal mounting bracket included
- Tested to UL standards for safety
- Adjustable louvers
- 5-year limited warranty
- Hinged access cover



## The KB Horizontal Unit Heater

King's KB series unit heaters are designed for use as primary or supplemental heat sources in large or exposed areas, including high-rise buildings, stores, warehouses, garages, water treatment and fire room vaults to prevent freezing. Spiral finned steel elements and high CFM ensure even air distribution producing cooler element operation, prolonging heater life. By combining the highest quality components, with a dynamically balanced fan blade the KB unit heater will provide years of trouble-free service. Includes universal wall/ceiling bracket for simple installation and built-in thermostat for precision heating control.

### Ordering Information - single phase

| MODEL         | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS       | THERMOSTAT CONTROL VOLTAGE | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|---------------|-------|------|------------|-------|----------|------------|----------------------------|----------|------|------------|-----------|-------------------|------|------------|
| KB2003-1-T-B1 | 13294 | 3.3  | 11.3       | 1     | 208      | 15.9       | 208                        | 16W**    | 520  | 20°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2004-1-T-B1 | 15011 | 4    | 13.7       | 1     | 208      | 19.2       | 208                        | 16W**    | 520  | 24°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2005-1-T-B1 | 13368 | 5    | 17.1       | 1     | 208      | 24.0       | 208                        | 16W**    | 520  | 30°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2007-1-T-B2 | 30780 | 7.5  | 25.6       | 1     | 208      | 36.1       | 208                        | 25W**    | 690  | 34°        | 20ft.     | 9ft.              | B    | 45.0       |
| KB2010-1-T-B2 | 13540 | 9.9  | 34.1       | 1     | 208      | 48.0       | 208                        | 35W**    | 800  | 39°        | 24ft.     | 10ft.             | B    | 45.0       |
| KB2012-1-T-B2 | 13618 | 12.5 | 42.7       | 1     | 208      | 60.1       | 208                        | 50W**    | 935  | 39°        | 28ft.     | 11ft.             | C    | 50.0       |
| KB2015-1-T-B2 | 13674 | 15   | 51.2       | 1     | 208      | 72.1       | 208                        | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C    | 50.0       |
| KB2403-1-T-B1 | -     | 3.3  | 11.3       | 1     | 240/208* | 13.8/11.9* | 240                        | 9W       | 520  | 20°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2404-1-T-B1 | 13356 | 4    | 13.7       | 1     | 240/208* | 16.7/14.4* | 240                        | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2405-1-T-B1 | 13376 | 5    | 17.1       | 1     | 240/208* | 20.8/18*   | 240                        | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2407-1-T-B2 | 13436 | 7.5  | 25.6       | 1     | 240/208* | 31.3/27*   | 240                        | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B    | 45.0       |
| KB2410-1-T-B2 | 13548 | 10   | 34.1       | 1     | 240/208* | 41.7/36.1* | 240                        | 16W      | 800  | 40°        | 24ft.     | 10ft.             | B    | 45.0       |
| KB2412-1-T-B2 | 13626 | 12.5 | 42.7       | 1     | 240/208* | 52.1/45.1* | 240                        | 35W      | 825  | 42°        | 28ft.     | 11ft.             | C    | 50.0       |
| KB2415-1-T-B2 | 13682 | 15   | 51.2       | 1     | 240/208* | 62.5/54.1* | 240                        | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C    | 50.0       |
| KB2703-1-T-B1 | 13310 | 3    | 10.2       | 1     | 277      | 10.8       | 277                        | 9W       | 520  | 18°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2704-1-T-B1 | 13360 | 4    | 13.7       | 1     | 277      | 14.4       | 277                        | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2705-1-T-B1 | 13384 | 5    | 17.1       | 1     | 277      | 18.1       | 277                        | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB2707-1-T-B2 | 13464 | 7.5  | 25.6       | 1     | 277      | 27.1       | 277                        | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B    | 45.0       |
| KB2712-1-T-B2 | 30782 | 10   | 34.1       | 1     | 277      | 45.1       | 277                        | 25W      | 800  | 40°        | 24ft.     | 10ft.             | B    | 45.0       |
| KB4804-1-T-B1 | 15017 | 4    | 13.7       | 1     | 480      | 8.3        | 24***                      | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB4805-1-T-B1 | 13390 | 5    | 17.1       | 1     | 480      | 10.4       | 24***                      | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A    | 30.5       |
| KB4807-1-T-B2 | 30781 | 7.5  | 25.6       | 1     | 480      | 15.6       | 24***                      | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B    | 45.0       |
| KB4810-1-T-B2 | 13562 | 10   | 42.7       | 1     | 480      | 20.8       | 24***                      | 25W      | 800  | 40°        | 24ft.     | 10ft.             | B    | 45.0       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation

\*\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

# Heavy Duty Unit Heater KB Series

## Ordering Information - multi phase

| MODEL           | UPC   | KW   | BTUH<br>(000) | PHASE | VOLTS    | AMPS                  | THERM.<br>CONTROL<br>VOLTAGE | MOTOR<br>HP | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | *SIZE | WT.<br>(lbs.) |
|-----------------|-------|------|---------------|-------|----------|-----------------------|------------------------------|-------------|------|---------------|--------------|-------------------------|-------|---------------|
| KB2003-3MP-T-B2 | 13298 | 3    | 10.2          | 1-3   | 208      | 14.4 & 8.3            | 208                          | 16W**       | 520  | 18°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB2005-3MP-T-B2 | 13372 | 5    | 17.1          | 1-3   | 208      | 24 & 13.9             | 208                          | 16W**       | 520  | 30°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB2007-3MP-T-B2 | 13452 | 7.5  | 25.6          | 1-3   | 208      | 36.1 & 20.8           | 208                          | 25W**       | 690  | 34°           | 24ft.        | 9ft.                    | C     | 46.5          |
| KB2010-3MP-T-B2 | 13544 | 9.98 | 34.1          | 1-3   | 208      | 48 & 27.7             | 208                          | 35W**       | 800  | 39°           | 29ft.        | 11ft.                   | C     | 46.5          |
| KB2403-3MP-T-B2 | 13306 | 3    | 10.2          | 1-3   | 240/208* | 12.5/7.2* & 10.8/6.2* | 240                          | 9W          | 520  | 18°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB2405-3MP-T-B2 | 13380 | 5    | 17.1          | 1-3   | 240/208* | 20.8/12* & 27/15.6*   | 240                          | 9W          | 520  | 30°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB2407-3MP-T-B2 | 13460 | 7.5  | 25.6          | 1-3   | 240/208* | 31.3/27* & 18/15.6*   | 240                          | 16W         | 690  | 34°           | 24ft.        | 9ft.                    | C     | 46.5          |
| KB2410-3MP-T-B2 | 13552 | 10   | 34.1          | 1-3   | 240/208* | 41.7/24* & 36.1/20.8* | 240                          | 25W         | 800  | 40°           | 29ft.        | 11ft.                   | C     | 46.5          |
| KB4803-3MP-T-B2 | 13320 | 3    | 10.2          | 1-3   | 480      | 6.3 & 3.6             | 24***                        | 9W          | 520  | 18°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB4805-3MP-T-B2 | 13394 | 5    | 17.1          | 1-3   | 480      | 10.4 & 6              | 24***                        | 9W          | 520  | 30°           | 20ft.        | 8ft.                    | C     | 45.0          |
| KB4807-3MP-T-B2 | 13474 | 7.5  | 25.6          | 1-3   | 480      | 15.6 & 9              | 24***                        | 16W         | 690  | 34°           | 24ft.        | 9ft.                    | C     | 46.5          |
| KB4810-3MP-T-B2 | 13566 | 10   | 34.1          | 1-3   | 480      | 20.8 & 12             | 24***                        | 25W         | 800  | 40°           | 29ft.        | 11ft.                   | C     | 46.5          |
| KB4812-3MP-T-B2 | 13646 | 12.5 | 42.7          | 1-3   | 480      | 26 & 15               | 24***                        | 35W         | 935  | 42°           | 31ft.        | 12ft.                   | C     | 50.0          |
| KB4815-3MP-T-B2 | 13700 | 15   | 51.2          | 1-3   | 480      | 31.3 & 18             | 24***                        | 50W         | 1050 | 45°           | 33ft.        | 13ft.                   | C     | 50.0          |
| KB4820-3MP-T-B2 | 13750 | 20   | 68.3          | 1-3   | 480      | 41.7 & 24             | 24***                        | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E     | 60.0          |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation

\*\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

## Ordering Information - three phase

| MODEL         | UPC   | KW   | BTUH<br>(000) | PHASE | VOLTS    | AMPS       | THERM.<br>CONTROL<br>VOLTAGE | MOTOR<br>HP | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | *SIZE | WT.<br>(lbs.) |
|---------------|-------|------|---------------|-------|----------|------------|------------------------------|-------------|------|---------------|--------------|-------------------------|-------|---------------|
| KB2012-3-T-B2 | 30783 | 12.5 | 42.7          | 3     | 208      | 34.7       | 208                          | 50W**       | 935  | 42°           | 31ft.        | 12ft.                   | C     | 50.0          |
| KB2015-3-T-B2 | 30785 | 15   | 51.2          | 3     | 208      | 41.7       | 208                          | 50W         | 1050 | 45°           | 33ft.        | 13ft.                   | C     | 50.0          |
| KB2020-3-T-B2 | 13736 | 20   | 68.3          | 3     | 208      | 55.6       | 208                          | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E     | 60.0          |
| KB2412-3-T-B2 | 30784 | 12.5 | 42.7          | 3     | 240/208* | 30.1/26*   | 240                          | 35W         | 935  | 42°           | 31ft.        | 12ft.                   | C     | 50.0          |
| KB2415-3-T-B2 | 30786 | 15   | 51.2          | 3     | 240/208* | 36.1/31.2* | 240                          | 50W         | 1050 | 45°           | 33ft.        | 13ft.                   | C     | 50.0          |
| KB2420-3-T-B2 | 13740 | 20   | 68.3          | 3     | 240/208* | 48.1/41.6* | 240                          | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E     | 60.0          |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation

## Field Mount Accessories

| MODEL | UPC   | DESCRIPTION   | WT. (lbs.) |
|-------|-------|---|------------|
| DS32  | 13480 | Disconnect Switch, Field Installed Kit, 32 Amp, 600V  | 2.0        |
| DS63  | 13481 | Disconnect Switch, Field Installed Kit, 63 Amp, 600V  | 2.0        |
| DS80  | 13482 | Disconnect Switch, Field Installed Kit, 80 Amp, 600V  | 2.0        |
| DS100 | 13483 | Disconnect Switch, Field Installed Kit, 100 Amp, 600V | 5.0        |

## Replacement Accessories

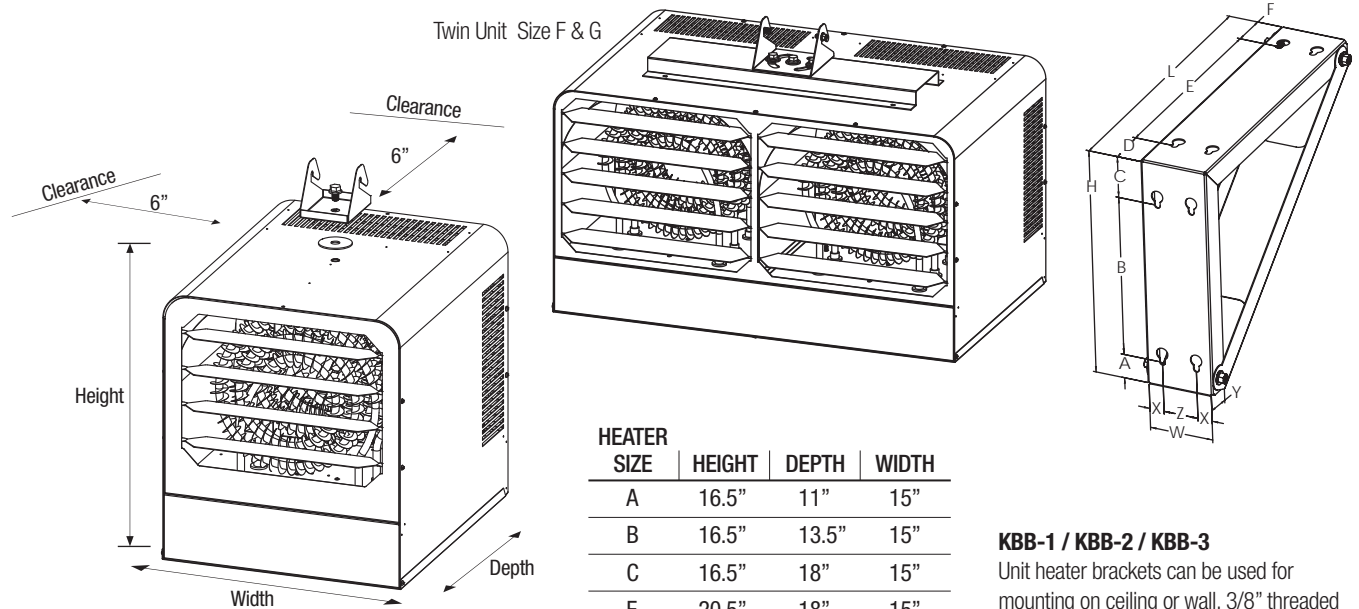
| MODEL | UPC   | DESCRIPTION   | WT. (lbs.) |
|-------|-------|---|------------|
| KBB-1 | 15192 | Universal Wall/Ceiling Small Mounting Bracket (for heaters with size A heaters)   | 1.9        |
| KBB-2 | 15195 | Universal Wall/Ceiling Large Mounting Bracket (for heaters with size B, C, and E) | 2.6        |
| KBHK  | 13487 | KB Replacement Hardware Kit   | 0.1        |
| KBHS  | 13486 | KB Replacement Hook Swivel  | 0.3        |

## Bracket Selection Chart

| BRACKET # | HEATER KW SIZE<br>USED WITH                    | BRACKET DIMENSIONS  |                      |                      |                     |    |                    |                    |                     |                    |    |    |     |
|-----------|--|---------------------|----------------------|----------------------|---------------------|----|--------------------|--------------------|---------------------|--------------------|----|----|-----|
|           |  | L                   | W                    | H                    | A                   | B  | C                  | D                  | E                   | F                  | X  | Y  | Z   |
| KBB-1     | 3 to 5 kW (1 phase)                            | 12½"                | 2 <sub>15/16</sub> " | 10 <sub>1/16</sub> " | 1 <sub>3/16</sub> " | 7" | 1 <sub>7/8</sub> " | 1 <sub>7/8</sub> " | 9¼"                 | 1 <sub>5/8</sub> " | ¾" | 1" | ½"  |
| KBB-2     | 7.5 to 15 kW (1 phase)<br>3 to 20 kW (3 phase) | 16 <sub>7/8</sub> " | 2 <sub>15/16</sub> " | 10 <sub>1/8</sub> "  | 1¼"                 | 7" | 1 <sub>7/8</sub> " | 1 <sub>5/8</sub> " | 13 <sub>5/8</sub> " | 1 <sub>5/8</sub> " | ¾" | 1" | 1½" |

# Heavy Duty Unit Heater KB Series

## Dimensional Data



| HEATER SIZE | HEIGHT | DEPTH | WIDTH |
|-------------|--------|-------|-------|
| A           | 16.5"  | 11"   | 15"   |
| B           | 16.5"  | 13.5" | 15"   |
| C           | 16.5"  | 18"   | 15"   |
| E           | 20.5"  | 18"   | 15"   |
| F           | 18.5"  | 18"   | 30"   |
| G           | 16.5"  | 18"   | 30"   |

**KBB-1 / KBB-2 / KBB-3**  
 Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor. Refer to bracket selection chart.

## Engineering Specifications

Contractor shall supply and install KB Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Built-In Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 90

**Manual Thermal Cutout:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 6kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp.

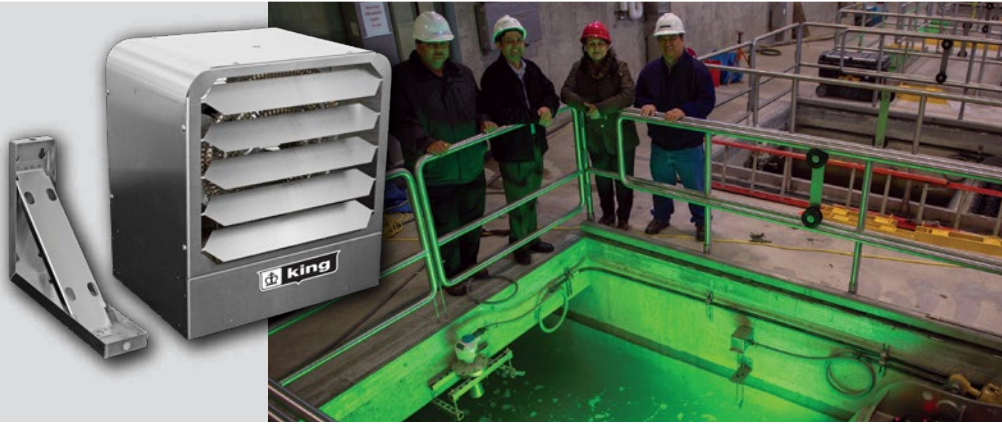
**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with N.E.C. standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Easy Installation:** A hinged access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)



# Stainless Steel Unit Heater KBS Series



### Model Code:

**KBS 48 10 -1 -T -B1 -CT24**  
**A B C D E F G**

**A: Series**  
**B: 20 - 208V, 24 - 240V**  
**27 - 277V, 48 - 480V**  
**C: KiloWatts**  
**D: -1 Phase, -3 Phase**  
**E: -T = Built-In Thermostat**  
**F: -B1 = Bracket**  
**G: -CT24 = Provision for 24V Remote Thermostat**  
**(Thermostat purchased separately)**



- 304 Stainless Steel Construction
- For Areas Requiring Periodic Hose-Down
- Adjustable Louvers to Direct Air
- Permanent Lubricated Unit Bearing Motor
- Patented Smart Limit Protection®
- High Mass Steel Fin Heat Exchanger
- N.E.M.A. 4 Enclosure
- Universal Wall/Ceiling Bracket Included
- 2-Year Limited Warranty

## The KBS Stainless Steel Unit Heater

**KBS unit heaters are specially constructed** for heating of, and freeze protection in, dirty, dusty or corrosive areas requiring periodic washing or hose-down. Typical places of use are: waste water treatment plants, car/truck washes, cement plants, steel mills or such, canneries and dairy facilities, ship and marine docks, fish processors and load banks for generators. The heater is constructed from 18-gauge type 304 Stainless Steel and elements making it extremely corrosion resistant. The N.E.M.A. 4 wiring compartment is sealed and gasketed making it water tight. All optional control components are U.L. listed for use in N.E.M.A. 4 enclosures.

### Ordering Information - single phase - includes single pole thermostat

| MODEL | UPC            | KW BTUH PHASE |       | VOLTS | AMPS | THERM. CONTROL VOLTAGE | MOTOR HP   | CFM   | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE  | WT. (lbs.) |   |      |
|-------|----------------|---------------|-------|-------|------|------------------------|------------|-------|------------|-----------|-------------------|-------|------------|---|------|
|       |                | (000)         | (000) |       |      |                        |            |       |            |           |                   |       |            |   |      |
| 208V  | KBS2003-1-T-B1 | 22064         | 3.3   | 11.3  | 1    | 208                    | 15.9       | 208   | 16W**      | 520       | 20°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2004-1-T-B1 | -             | 4     | 13.7  | 1    | 208                    | 19.2       | 208   | 16W**      | 520       | 24°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2005-1-T-B1 | 22125         | 5     | 17.1  | 1    | 208                    | 24.0       | 208   | 16W**      | 520       | 30°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2007-1-T-B2 | 20934         | 7.5   | 25.6  | 1    | 208                    | 36.1       | 208   | 25W**      | 690       | 34°               | 20ft. | 9ft.       | B | 45.0 |
|       | KBS2010-1-T-B2 | 22148         | 9.9   | 34.1  | 1    | 208                    | 48.0       | 208   | 35W**      | 800       | 39°               | 24ft. | 10ft.      | B | 45.0 |
|       | KBS2012-1-T-B2 | 22160         | 12.5  | 42.7  | 1    | 208                    | 60.1       | 208   | 50W**      | 935       | 42°               | 28ft. | 11ft.      | C | 50.0 |
| 240V  | KBS2015-1-T-B2 | -             | 15    | 51.2  | 1    | 208                    | 72.1       | 208   | 50W        | 1050      | 45°               | 33ft. | 12ft.      | C | 50.0 |
|       | KBS2403-1-T-B1 | 20889         | 3.3   | 11.3  | 1    | 240/208*               | 13.8/11.9* | 240   | 9W         | 520       | 20°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2404-1-T-B1 | -             | 4     | 13.7  | 1    | 240/208*               | 16.7/14.4* | 240   | 9W         | 520       | 24°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2405-1-T-B1 | 20820         | 5     | 17.1  | 1    | 240/208*               | 20.8/18*   | 240   | 9W         | 520       | 30°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2407-1-T-B2 | 22138         | 7.5   | 25.6  | 1    | 240/208*               | 31.3/27*   | 240   | 16W        | 690       | 34°               | 20ft. | 9ft.       | B | 45.0 |
|       | KBS2410-1-T-B2 | 22152         | 10    | 34.1  | 1    | 240/208*               | 41.7/36.1* | 240   | 16W        | 800       | 40°               | 24ft. | 10ft.      | B | 45.0 |
| 277V  | KBS2412-1-T-B2 | 22160         | 12.5  | 42.7  | 1    | 240/208*               | 52.1/45.1* | 240   | 35W        | 935       | 42°               | 28ft. | 11ft.      | C | 50.0 |
|       | KBS2415-1-T-B2 | -             | 15    | 51.2  | 1    | 240/208*               | 62.5/54.1* | 240   | 50W        | 1050      | 45°               | 33ft. | 12ft.      | C | 50.0 |
|       | KBS2703-1-T-B1 | 22216         | 3     | 10.2  | 1    | 277                    | 10.8       | 277   | 9W         | 520       | 18°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2704-1-T-B1 | -             | 4     | 13.7  | 1    | 277                    | 14.4       | 277   | 9W         | 520       | 24°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2705-1-T-B1 | 13281         | 5     | 17.1  | 1    | 277                    | 18.1       | 277   | 9W         | 520       | 30°               | 15ft. | 8ft.       | A | 30.5 |
|       | KBS2707-1-T-B2 | 55490         | 7.5   | 25.6  | 1    | 277                    | 27.1       | 277   | 16W        | 690       | 34°               | 20ft. | 9ft.       | B | 45.0 |
| 480V  | KBS2710-1-T-B2 | 33157         | 10    | 34.1  | 1    | 277                    | 36.1       | 277   | 25W        | 800       | 40°               | 24ft. | 10ft.      | B | 45.0 |
|       | KBS4803-1-T-B1 | 19734         | 3.3   | 11.3  | 1    | 480                    | 6.3        | 24*** | 9W         | 520       | 30°               | 16ft. | 8ft.       | A | 30.5 |
|       | KBS4805-1-T-B1 | 19759         | 5     | 17.1  | 1    | 480                    | 10.4       | 24*** | 9W         | 520       | 30°               | 16ft. | 8ft.       | A | 30.5 |
|       | KBS4807-1-T-B2 | 55491         | 7.5   | 25.6  | 1    | 480                    | 15.6       | 24*** | 16W        | 690       | 34°               | 20ft. | 9ft.       | B | 45.0 |
|       | KBS4810-1-T-B2 | 55494         | 10    | 42.7  | 1    | 480                    | 20.8       | 24*** | 25W        | 800       | 40°               | 24ft. | 10ft.      | B | 45.0 |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation \*\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).



# Stainless Steel Unit Heater KBS Series

## Ordering Information - three phase - includes single pole thermostat

|      | MODEL          | UPC   | KW   | BTUH<br>(000) | PHASE | VOLTS    | AMPS       | THERM.<br>CONTROL<br>VOLTAGE | MOTOR<br>HP | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | SIZE | WT.<br>(lbs.) |
|------|----------------|-------|------|---------------|-------|----------|------------|------------------------------|-------------|------|---------------|--------------|-------------------------|------|---------------|
| 208V | KBS2012-3-T-B2 | 55501 | 12.5 | 42.7          | 3     | 208      | 34.7       | 208                          | 50W**       | 935  | 42°           | 31ft.        | 12ft.                   | C    | 50.0          |
|      | KBS2020-3-T-B2 | 22174 | 20   | 68.3          | 3     | 208      | 55.5       | 208                          | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E    | 60.0          |
|      | KBS2025-3-T-B2 | -     | 25   | 85.3          | 3     | 208      | 69.4       | 208                          | (2) 50W**   | 1870 | 42°           | 39ft.        | 15ft.                   | F    | 85.0          |
|      | KBS2030-3-T-B2 | -     | 30   | 102.4         | 3     | 208      | 83.2       | 208                          | (2) 50W     | 2100 | 45°           | 41ft.        | 17ft.                   | F    | 85.0          |
| 240V | KBS2412-3-T-B2 | 55502 | 12.5 | 42.7          | 3     | 240/208* | 30.1/26*   | 240                          | 35W         | 935  | 42°           | 31ft.        | 12ft.                   | C    | 50.0          |
|      | KBS2415-3-T-B2 | 55504 | 15   | 51.2          | 3     | 240/208* | 36.1/31.2* | 240                          | 50W         | 1050 | 45°           | 33ft.        | 13ft.                   | C    | 50.0          |
|      | KBS2420-3-T-B2 | 22175 | 20   | 68.3          | 3     | 240/208* | 48.1/41.6* | 240                          | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E    | 60.0          |
|      | KBS2425-3-T-B2 | -     | 25   | 85.3          | 3     | 240/208* | 60.2/52.1* | 240                          | (2) 35W     | 1870 | 42°           | 39ft.        | 15ft.                   | F    | 85.0          |
|      | KBS2430-3-T-B2 | -     | 30   | 102.4         | 3     | 240/208* | 72.3/62.5* | 240                          | (2) 50W     | 2100 | 45°           | 41ft.        | 17ft.                   | F    | 85.0          |
|      | KBS2440-3-T-B2 | -     | 40   | 136.5         | 3     | 240/208* | 96.3/83.3* | 240                          | (2) ¼HP     | 3500 | 36°           | 43ft.        | 19ft.                   | F    | 100.0         |
| 480V | KBS4820-3-T-B2 | -     | 20   | 68.3          | 3     | 480      | 24.1       | 24***                        | ¼HP         | 1750 | 36°           | 37ft.        | 14ft.                   | E    | 60.0          |
|      | KBS4825-3-T-B2 | -     | 25   | 85.3          | 3     | 480      | 30.1       | 24***                        | (2) 35W     | 1870 | 42°           | 39ft.        | 15ft.                   | F    | 85.0          |
|      | KBS4830-3-T-B2 | 19816 | 30   | 102.4         | 3     | 480      | 36.1       | 24***                        | (2) 50W     | 2100 | 45°           | 41ft.        | 17ft.                   | F    | 85.0          |
|      | KBS4840-3-T-B2 | -     | 40   | 136.5         | 3     | 480      | 48.1       | 24***                        | (2) ¼HP     | 3500 | 36°           | 43ft.        | 19ft.                   | G    | 100.0         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation. \*\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

## Ordering Information - multi-phase - includes single pole thermostat

|                  | MODEL            | UPC   | KW   | BTUH<br>(000) | PHASE | VOLTS    | AMPS                  | THERM.<br>CONTROL<br>VOLTAGE | MOTOR<br>HP | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | SIZE | WT.<br>(lbs.) |
|------------------|------------------|-------|------|---------------|-------|----------|-----------------------|------------------------------|-------------|------|---------------|--------------|-------------------------|------|---------------|
| 208V             | KBS2003-3MP-T-B2 | 19701 | 3    | 10.2          | 1-3   | 208      | 14.4 & 8.3            | 208                          | 16W**       | 520  | 18°           | 20ft.        | 8ft.                    | C    | 45.0          |
|                  | KBS2005-3MP-T-B2 | 22006 | 5    | 17.1          | 1-3   | 208      | 24 & 13.9             | 208                          | 16W**       | 520  | 30°           | 20ft.        | 8ft.                    | C    | 45.0          |
|                  | KBS2007-3MP-T-B2 | 22136 | 7.5  | 25.6          | 1-3   | 208      | 36.1 & 20.8           | 208                          | 25W**       | 690  | 34°           | 24ft.        | 9ft.                    | C    | 46.5          |
|                  | KBS2010-3MP-T-B2 | 19767 | 9.98 | 34.1          | 1-3   | 208      | 48 & 27.7             | 208                          | 35W**       | 800  | 39°           | 29ft.        | 11ft.                   | C    | 46.5          |
| 240V             | KBS2403-3MP-T-B2 | 55499 | 3    | 10.2          | 1-3   | 240/208* | 12.5/7.2* & 10.8/6.2* | 240                          | 9W          | 520  | 18°           | 20ft.        | 8ft.                    | C    | 45.0          |
|                  | KBS2405-3MP-T-B2 | 55500 | 5    | 17.1          | 1-3   | 240/208* | 20.8/12* & 18/10.4*   | 240                          | 9W          | 520  | 30°           | 20ft.        | 8ft.                    | C    | 45.0          |
|                  | KBS2407-3MP-T-B2 | 22140 | 7.5  | 25.6          | 1-3   | 240/208* | 31.3/18* & 27/15.6*   | 240                          | 16W         | 690  | 34°           | 24ft.        | 9ft.                    | C    | 46.5          |
|                  | KBS2410-3MP-T-B2 | 22152 | 10   | 34.1          | 1-3   | 240/208* | 41.7/24* & 36.1/20.8* | 240                          | 25W         | 800  | 40°           | 29ft.        | 11ft.                   | C    | 46.5          |
|                  | KBS4803-3MP-T-B2 | 19735 | 3    | 10.2          | 1-3   | 480      | 6.3 / 3.6             | 24***                        | 9W          | 520  | 18°           | 20ft.        | 8ft.                    | C    | 45.0          |
|                  | KBS4805-3MP-T-B2 | 22129 | 5    | 17.1          | 1-3   | 480      | 10.4 / 6              | 24***                        | 9W          | 520  | 30°           | 20ft.        | 8ft.                    | C    | 45.0          |
| 480V             | KBS4807-3MP-T-B2 | 22129 | 7.5  | 25.6          | 1-3   | 480      | 15.6 / 9              | 24***                        | 16W         | 690  | 34°           | 24ft.        | 9ft.                    | C    | 46.5          |
|                  | KBS4810-3MP-T-B2 | 22156 | 10   | 34.1          | 1-3   | 480      | 20.8 / 12             | 24***                        | 25W         | 800  | 40°           | 29ft.        | 11ft.                   | C    | 46.5          |
|                  | KBS4812-3MP-T-B2 | 19783 | 12.5 | 42.7          | 1-3   | 480      | 26 / 15               | 24***                        | 35W         | 935  | 42°           | 31ft.        | 12ft.                   | C    | 50.0          |
|                  | KBS4815-3MP-T-B2 | 22176 | 15   | 51.2          | 1-3   | 480      | 31.3 / 18             | 24***                        | 50W         | 1050 | 45°           | 33ft.        | 13ft.                   | C    | 50.0          |
| KBS4820-3MP-T-B2 | 22177            | 20    | 68.3 | 1-3           | 480   | 41.7/24  | 24***                 | ¼HP                          | 2100        | 30°  | 47 ft.        | 13ft.        | E                       | 55.0 |               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation. \*\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

## Ordering Information - single phase - with provision for 24V remote thermostat (thermostat purchased separately)

|                      | MODEL                | UPC   | KW   | BTUH<br>(000) | PHASE    | VOLTS    | AMPS       | THERM.<br>CONTROL<br>VOLTAGE | MOTOR<br>HP | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | SIZE | WT.<br>(lbs.) |
|----------------------|----------------------|-------|------|---------------|----------|----------|------------|------------------------------|-------------|------|---------------|--------------|-------------------------|------|---------------|
| 208V                 | KBS2003-1-B1-CT24-RT | 33558 | 3    | 11.3          | 1        | 208      | 15.9       | 24                           | 16W**       | 520  | 20°           | 15ft.        | 8ft.                    | A    | 30.5          |
|                      | KBS2004-1-B1-CT24-RT | -     | 4    | 13.7          | 1        | 208      | 19.2       | 24                           | 16W**       | 520  | 24°           | 15ft.        | 8ft.                    | A    | 30.5          |
|                      | KBS2005-1-B1-CT24-RT | 33559 | 5    | 17.1          | 1        | 208      | 24         | 24                           | 16W**       | 520  | 30°           | 15ft.        | 8ft.                    | A    | 30.5          |
|                      | KBS2007-1-B2-CT24-RT | 33560 | 7.5  | 25.6          | 1        | 208      | 36.1       | 24                           | 25W**       | 690  | 34°           | 20ft.        | 9ft.                    | B    | 45.0          |
|                      | KBS2010-1-B2-CT24-RT | 33561 | 9.98 | 34.1          | 1        | 208      | 48.0       | 24                           | 35W**       | 800  | 39°           | 24ft.        | 10ft.                   | B    | 45.0          |
|                      | KBS2012-1-B2-CT24-RT | 33562 | 12.5 | 42.7          | 1        | 208      | 60.1       | 24                           | 50W**       | 935  | 42°           | 28ft.        | 11ft.                   | C    | 50.0          |
| 240V                 | KBS2015-1-B2-CT24-RT | -     | 15   | 51.2          | 1        | 208      | 72.1       | 24                           | 50W         | 1050 | 45°           | 33ft.        | 12ft.                   | C    | 50.0          |
|                      | KBS2403-1-B1-CT24-RT | 33563 | 3.3  | 11.3          | 1        | 240/208* | 15.9/13.7* | 24                           | 9W          | 520  | 20°           | 15ft.        | 8ft.                    | A    | 30.5          |
|                      | KBS2404-1-B1-CT24-RT | -     | 4    | 13.7          | 1        | 240/208* | 16.7/14.4* | 24                           | 9W          | 520  | 24°           | 15ft.        | 8ft.                    | A    | 30.5          |
| KBS2405-1-B1-CT24-RT | 33564                | 5     | 17.1 | 1             | 240/208* | 20.8/18* | 24         | 9W                           | 520         | 30°  | 15ft.         | 8ft.         | A                       | 30.5 |               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*240V motor derated for 208V operation.

# Stainless Steel Unit Heater KBS Series

## Ordering Information - single phase - with provision for 24V remote thermostat (thermostat purchased separately)

|      | MODEL                | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS       | THERM. CONTROL VOLTAGE | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|----------------------|-------|------|------------|-------|----------|------------|------------------------|----------|------|------------|-----------|-------------------|------|------------|
| 240V | KBS2407-1-B2-CT24-RT | 33565 | 7.5  | 25.6       | 1     | 240/208* | 31.3/27*   | 24                     | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B    | 45.0       |
|      | KBS2410-1-B2-CT24-RT | 33566 | 10   | 34.1       | 1     | 240/208* | 41.7/36.1* | 24                     | 16W      | 800  | 40°        | 24ft.     | 10ft.             | B    | 45.0       |
|      | KBS2412-1-B2-CT24-RT | 33567 | 12.5 | 42.7       | 1     | 240/208* | 52.1/45.1* | 24                     | 35W      | 935  | 42°        | 28ft.     | 11ft.             | C    | 50.0       |
|      | KBS2415-1-B2-CT24-RT | -     | 15   | 51.2       | 1     | 240/208* | 62.5/54.1* | 24                     | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C    | 50.0       |
| 277V | KBS2703-1-B1-CT24-RT | 33568 | 3    | 10.2       | 1     | 277      | 10.8       | 24                     | 9W       | 520  | 18°        | 15ft.     | 8ft.              | A    | 30.5       |
|      | KBS2704-1-B1-CT24-RT | -     | 4    | 13.7       | 1     | 277      | 14.4       | 24                     | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A    | 30.5       |
|      | KBS2705-1-B1-CT24-RT | 33569 | 5    | 17.1       | 1     | 277      | 18.1       | 24                     | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A    | 30.5       |
|      | KBS2707-1-B2-CT24-RT | 33570 | 7.5  | 25.6       | 1     | 277      | 27.1       | 24                     | 9W       | 520  | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
|      | KBS2710-1-B2-CT24-RT | 33571 | 10   | 34.1       | 1     | 277      | 36.1       | 24                     | 25W      | 800  | 40°        | 24ft.     | 10ft.             | B    | 45.0       |
|      | KBS2715-1-B2-CT24-RT | -     | 15   | 51.2       | 1     | 277      | 54.2       | 24                     | 50W      | 1050 | 40°        | 20ft.     | 9ft.              | B    | 50.0       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Ordering Information - three phase - with provision for 24V remote thermostat (thermostat purchased separately)

|      | MODEL                | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS       | THERM. CONTROL VOLTAGE | MOTOR HP  | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|----------------------|-------|------|------------|-------|----------|------------|------------------------|-----------|------|------------|-----------|-------------------|------|------------|
| 208V | KBS2012-3-B2-CT24-RT | 33576 | 12.5 | 42.7       | 3     | 208      | 34.7       | 24                     | 50W**     | 935  | 42°        | 31ft.     | 12ft.             | C    | 50.0       |
|      | KBS2020-3-B2-CT24-RT | 33578 | 20   | 51.2       | 3     | 208      | 55.5       | 24                     | ¼HP       | 1750 | 36°        | 37ft.     | 14ft.             | E    | 60.0       |
|      | KBS2025-3-B2-CT24-RT | -     | 25   | 85.3       | 3     | 208      | 69.5       | 24                     | (2) 50W** | 1870 | 42°        | 39ft.     | 15ft.             | F    | 85.0       |
|      | KBS2030-3-B2-CT24-RT | -     | 30   | 102.3      | 3     | 208      | 83.2       | 24                     | (2) 50W   | 2100 | 45°        | 41ft.     | 17ft.             | F    | 85.0       |
| 240V | KBS2412-3-B2-CT24-RT | 33579 | 12.5 | 42.7       | 3     | 240/208* | 30.1/26*   | 24                     | 35W       | 935  | 42°        | 31ft.     | 12ft.             | C    | 50.0       |
|      | KBS2415-3-B2-CT24-RT | 33580 | 15   | 51.2       | 3     | 240/208* | 36.1/31.2* | 24                     | 50W       | 1050 | 45°        | 33ft.     | 13ft.             | C    | 50.0       |
|      | KBS2420-3-B2-CT24-RT | 33581 | 20   | 68.3       | 3     | 240/208* | 48.1/41.6* | 24                     | ¼HP       | 1750 | 36°        | 37ft.     | 14ft.             | E    | 60.0       |
|      | KBS2425-3-B2-CT24-RT | -     | 25   | 85.3       | 3     | 240/208* | 60.1/52*   | 24                     | (2) 35W   | 1870 | 42°        | 39ft.     | 15ft.             | F    | 85.0       |
|      | KBS2430-3-B2-CT24-RT | -     | 30   | 102.4      | 3     | 240/208* | 72.1/62.4* | 24                     | (2) 50W   | 2100 | 45°        | 41ft.     | 17ft.             | F    | 85.0       |
|      | KBS2440-3-B2-CT24-RT | -     | 40   | 136.5      | 3     | 240/208* | 96.2/83.2* | 24                     | (2) ¼HP   | 3500 | 36°        | 43ft.     | 19ft.             | F    | 100.0      |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Ordering Information - multi-phase - with provision for 24V remote thermostat (thermostat purchased separately)

|      | MODEL                  | UPC   | KW  | BTUH (000) | PHASE | VOLTS    | AMPS                 | THERM. CONTROL VOLTAGE | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|------------------------|-------|-----|------------|-------|----------|----------------------|------------------------|----------|-----|------------|-----------|-------------------|------|------------|
| 208V | KBS2003-3MP-B2-CT24-RT | 33582 | 3   | 10.2       | 1-3   | 208      | 14.4 & 8.3           | 24                     | 16W**    | 520 | 18°        | 20ft.     | 8ft.              | C    | 45.0       |
|      | KBS2005-3MP-B2-CT24-RT | 33583 | 5   | 17.1       | 1-3   | 208      | 24 & 13.9            | 24                     | 16W**    | 520 | 30°        | 20ft.     | 8ft.              | C    | 45.0       |
|      | KBS2007-3MP-B2-CT24-RT | 33584 | 7.5 | 25.6       | 1-3   | 208      | 36.1 & 20.8          | 24                     | 25W**    | 690 | 34°        | 24ft.     | 9ft.              | C    | 46.5       |
|      | KBS2010-3MP-B2-CT24-RT | 33585 | 10  | 34.1       | 1-3   | 208      | 48 & 27.7            | 24                     | 35W**    | 800 | 39°        | 29ft.     | 11ft.             | C    | 46.5       |
| 240V | KBS2403-3MP-B2-CT24-RT | 33586 | 3   | 10.2       | 1-3   | 240/208* | 12.5/7.2 & 10.8/6.2* | 24                     | 9W       | 520 | 18°        | 20ft.     | 8ft.              | C    | 45.0       |
|      | KBS2405-3MP-B2-CT24-RT | 33587 | 5   | 17.1       | 1-3   | 240/208* | 20.8/12 & 18/10.4*   | 24                     | 9W       | 520 | 30°        | 20ft.     | 8ft.              | C    | 45.0       |
|      | KBS2407-3MP-B2-CT24-RT | 33588 | 7.5 | 25.6       | 1-3   | 240/208* | 31.3/18 & 27/15.6*   | 24                     | 16W      | 690 | 34°        | 24ft.     | 9ft.              | C    | 46.5       |
|      | KBS2410-3MP-B2-CT24-RT | 33589 | 10  | 34.1       | 1-3   | 240/208* | 41.7/24 & 36.1/20.8* | 24                     | 25W      | 800 | 40°        | 29ft.     | 11ft.             | C    | 46.5       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

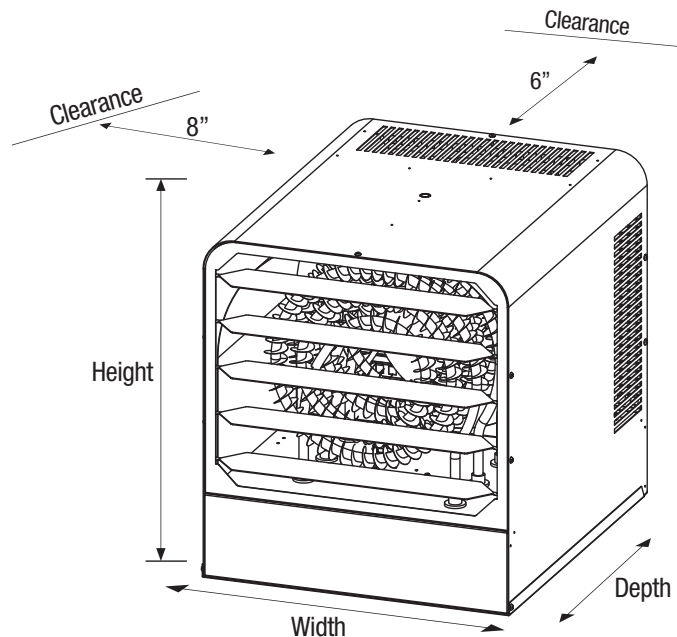
## Replacement Accessories

| MODEL    | UPC#  | DESCRIPTION  | WT. (lbs) |
|----------|-------|--|-----------|
| KBB-1-SS | 15254 | Stainless Steel Mounting Bracket (Replacement) - Small | 3         |
| KBB-2-SS | 15256 | Stainless Steel Mounting Bracket (Replacement) - Large | 4         |

# Stainless Steel Unit Heater KBS Series

## Dimensional Data

| SIZE | HEIGHT | DEPTH | WIDTH |
|------|--------|-------|-------|
| A    | 16.5"  | 11"   | 15"   |
| B    | 16.5"  | 13.5" | 15"   |
| C    | 16.5"  | 18"   | 15"   |
| E    | 20.5"  | 18"   | 15"   |



## Engineering Specifications

Contractor shall supply and install KBS Series Stainless Steel heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Stainless Steel Construction:** All exterior and interior metal enclosure parts are made from 18 gauge type 304 Stainless Steel. All fasteners and hardware are Stainless Steel.

**Adjustable Outlet Louver:** Stainless Steel louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge Stainless Steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**N.E.M.A. 4 Enclosure:** Every electrical component in the wiring compartment is sealed with a polyurethane adhesive. The bottom access panel is sealed with a ¼" high density polyurethane gasket. This provides excellent protection against corrosion, windblown dust, dirt, and rain, splashing water and hose-directed water. All optional control accessories are N.E.M.A. 4 rated.

**Stainless Steel Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum air flow stream. Stainless steel increases element life in extremely corrosive environments such as waste water treatment plants.

**Totally Enclosed Fan Motor:** Permanently lubricated, long life unit bearing coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type mounted directly to the motor shaft for maximum efficiency.

**Manual Reset Limit Electrically Held:** Power is disconnected from the heater if an overheated condition occurs. The heater is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 5kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp.

**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Approvals:** cULus

# Electronic Unit Heater KB ECO2S Series



### Model Code:

|    |    |    |    |     |      |
|----|----|----|----|-----|------|
| KB | 24 | 04 | -1 | -B2 | -ECO |
| A  | B  | C  | D  | E   | F    |

A: Series  
 B: 20 - 208V, 24 - 240/208V  
 C: kiloWatts ( 4 - 15 )  
 D: -1 = Single Phase  
 E: -B2 = Universal Bracket  
 F: -ECO = Electronic Control



- Smart ECO2S design
- 2-Stage heating
- Hand held remote & wall holder
- Timer & Summer Fan
- Only Modes
- Auto Memory Feature: returns units to last settings after power outage
- Built-In Fan Delay To Dissipate Heat
- High mass steel fin heat exchanger
- Patented Smart Limit® Protection
- Patented Smart Limit® Protection
- Permanent lubricated unit bearing motor
- Universal wall/ceiling bracket included
- UL Certified in Canada & US
- Proudly made in the USA with U.S. & Global Materials
- 5-Year Limited Warranty



## ECO2S 2-Stage Garage Heater with IR Remote Control

The ECO2S KB series unit heaters offers unparalleled performance, energy efficiency and user control by incorporating another **King innovation**, the in-built ECO2S electronic thermostat with remote control. Offering energy efficient 2-stage heating, with Eco mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. Designed for use as primary or supplemental heat sources in warehouses, stores or large garages spaces. Spiral steel elements and high CFM ensure even air distribution producing cooler element operation which prolongs the life of the heater. By combining the highest quality components, with a dynamically balanced fan blade, the KB ECO2S unit heater will provide years of trouble-free service and keep heating bills to a minimum. Includes universal wall/ceiling bracket for simple installation.

### ECO2S Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan only mode
- Built-In fan delay



Remote Style May Vary

## Engineering Specifications

*Contractor shall supply and install KB ECO2S Series garage heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application. Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life unit bearing motor with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** 5 blade fan mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Electronic Control:** Up, down temperature mode. Start/Stop. Standard on all heaters. The control voltage is equal to the line voltage (208, 240) for 5kW models. Over 5kW the line voltage control is operating the contactors.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

# Electronic Unit Heater KB ECO2S Series

## Ordering Information

|      | MODEL           | UPC   | kilo WATTS | BTUH (000) | PHASE | VOLTS    | AMPS       | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|-----------------|-------|------------|------------|-------|----------|------------|----------|------|------------|-----------|------------------|------|------------|
| 208V | KB2004-1-B2-ECO | 22045 | 4          | 13.7       | 1     | 208      | 19.2       | 16W**    | 520  | 24°F       | 15 ft.    | 8 ft.            | B    | 30.5       |
|      | KB2005-1-B2-ECO | 22046 | 5          | 17.1       | 1     | 208      | 24         | 16W**    | 520  | 30°F       | 15 ft.    | 8 ft.            | B    | 30.5       |
|      | KB2007-1-B2-ECO | 22048 | 7.5        | 25.6       | 1     | 208      | 36.1       | 25W**    | 690  | 34°F       | 20 ft.    | 9 ft.            | B    | 45         |
|      | KB2010-1-B2-ECO | 22050 | 10         | 34.1       | 1     | 208      | 48.1       | 35W**    | 800  | 39°F       | 24 ft.    | 10 ft.           | B    | 45         |
|      | KB2012-1-B2-ECO | 22051 | 12.5       | 42.7       | 1     | 208      | 60.1       | 50W**    | 935  | 42°F       | 28 ft.    | 11 ft.           | C    | 50         |
|      | KB2015-1-B2-ECO | 22052 | 15         | 51.2       | 1     | 208      | 72.1       | 50W      | 1050 | 45°F       | 33 ft.    | 12 ft.           | C    | 50         |
| 240V | KB2404-1-B2-ECO | 22037 | 4          | 13.7       | 1     | 240/208* | 16.7/14.4* | 9W       | 520  | 24°F       | 15 ft.    | 8 ft.            | B    | 30.5       |
|      | KB2405-1-B2-ECO | 22038 | 5          | 17.1       | 1     | 240/208* | 20.8/18*   | 9W       | 520  | 30°F       | 15 ft.    | 8 ft.            | B    | 30.5       |
|      | KB2407-1-B2-ECO | 22040 | 7.5        | 25.6       | 1     | 240/208* | 31.3/27*   | 16W      | 690  | 34°F       | 20 ft.    | 9 ft.            | B    | 45         |
|      | KB2410-1-B2-ECO | 22042 | 10         | 34.1       | 1     | 240/208* | 41.7/36.1* | 16W      | 800  | 40°F       | 24 ft.    | 10 ft.           | B    | 45         |
|      | KB2412-1-B2-ECO | 22043 | 12.5       | 42.7       | 1     | 240/208* | 52.1/45.1* | 35W      | 935  | 42°F       | 28 ft.    | 11 ft.           | C    | 50         |
|      | KB2415-1-B2-ECO | 22044 | 15         | 51.2       | 1     | 240/208* | 62.5/54.1* | 50W      | 1050 | 45°F       | 33 ft.    | 12 ft.           | C    | 50         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

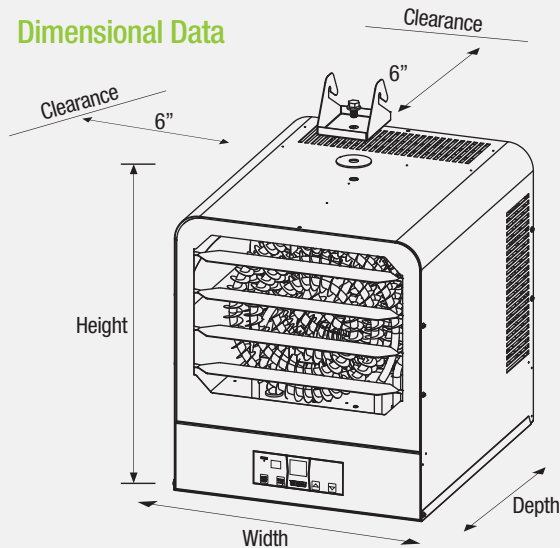
## Replacement Accessories

| MODEL                | UPC   | DESCRIPTION  | WT. (lbs.) |
|----------------------|-------|--|------------|
| ECO2S-REMOTE         | 33489 | ECO2S Replacement Infrared Remote Control                    | 0.1        |
| ECO2S-REMOTE-BRACKET | 33490 | ECO2S Replacement Infrared Remote Control Wall Mount Bracket | .04        |
| KBB-2                | 15195 | Replacement Universal Large Mounting Bracket                 | 2.6        |
| KBHS                 | 13486 | Replacement Hook swivel                                      | 0.3        |
| KBHK                 | 13487 | Replacement Hardware Kit                                     | 0.1        |

## Bracket Selection Chart

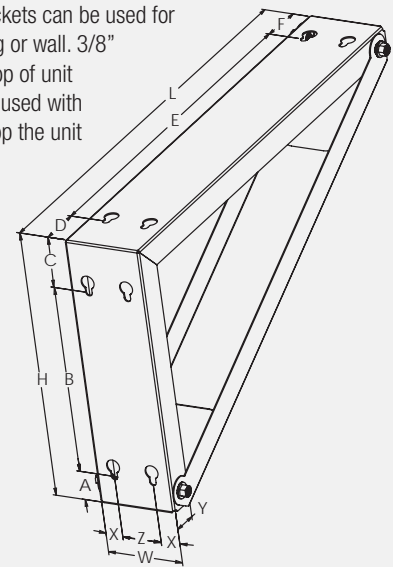
| BRACKET # | HEATER KW SIZE USED WITH | BRACKET DIMENSIONS               |                                   |                                  |                                 |    |                                 |                                 |                                  |                                 |                                 |    |                                 |
|-----------|--------------------------|----------------------------------|-----------------------------------|----------------------------------|---------------------------------|----|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|----|---------------------------------|
|           |                          | L                                | W                                 | H                                | A                               | B  | C                               | D                               | E                                | F                               | X                               | Y  | Z                               |
| KBB-2     | 4 to 15 kW (1 phase)     | 16 <sup>7</sup> / <sub>8</sub> " | 2 <sup>15</sup> / <sub>16</sub> " | 10 <sup>1</sup> / <sub>8</sub> " | 1 <sup>1</sup> / <sub>4</sub> " | 7" | 1 <sup>7</sup> / <sub>8</sub> " | 1 <sup>5</sup> / <sub>8</sub> " | 13 <sup>5</sup> / <sub>8</sub> " | 1 <sup>5</sup> / <sub>8</sub> " | 3 <sup>4</sup> / <sub>4</sub> " | 1" | 1 <sup>1</sup> / <sub>2</sub> " |

## Dimensional Data

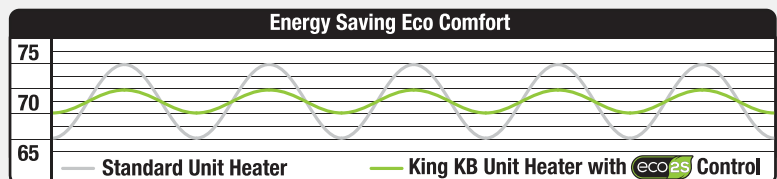


### • KBB-2 Wall/Ceiling Bracket Included

Garage heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor.



| HEATER SIZE | HEIGHT | DEPTH | WIDTH |
|-------------|--------|-------|-------|
| B           | 16.5"  | 13.5" | 15"   |
| C           | 16.5"  | 18"   | 15"   |



\*Reduces temperature swings

# Electronic Unit Heater KB Platinum Series



**PLATINUM**

**Model Code:**

|    |    |    |    |    |     |
|----|----|----|----|----|-----|
| KB | 48 | 10 | -1 | -P | -FB |
| A  | B  | C  | D  | E  | F   |

**A: Series**  
**B: 20 - 208V, 24 - 240/208V, 27 - 277V, 48 - 480V**  
**C: kiloWatts (4-66)**  
**D: -1 = Single Phase, -3 = Three Phase, -3MP = 1-3 Phase**  
**E: -P = Platinum Controller**  
**F: FB = Fuse Block**

- Energy-Saving electronic temperature controller
- Hand held remote & wall holder
- Timer & Summer Fan Only modes
- Adjustable louvers to direct air
- Auto Memory Feature: returns units to last settings after power outage
- Built-In Fan Delay to Dissipate Heat
- High Mass Steel Fin Heat Exchanger
- Patented Smart Limit Protection®
- Permanent Lubricated Unit Bearing Motor
- Universal Wall/Ceiling Bracket Included
- 5-Year Limited Warranty

## The KB Platinum Heavy Duty Electronic Unit Heater

King's KB Platinum series unit heaters are the most full-featured unit heaters on the market, with in-built electronic thermostat for accuracy and remote control for simple operation. With integrated summer fan only and thermostat timer mode, the KB Platinum has you covered. Designed for use as primary or supplemental heat sources in large or exposed areas, including high-rise buildings, stores, warehouses, garages, water treatment and fire room vaults to prevent freezing. Spiral finned steel elements and high CFM ensure even air distribution producing cooler element operation, prolonging heater life. By combining the highest quality components, with a dynamically balanced fan blade, the KB Platinum unit heater will provide years of trouble-free service. Includes universal wall/ceiling bracket for simple installation.

### Platinum Electronic Controller Features

- Electronic control for accuracy
- Thermostat timer mode (1-9 Hours)
- Summer Fan only mode
- Large LED display
- Built-In fan delay
- Remote control and wall/ceiling bracket included
- Heaters above 20kW are ECO2S 2-stage heaters



### Engineering Specifications

*Contractor shall supply and install KB Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal

overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 6kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp.

**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with N.E.C. standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

# Electronic Unit Heater KB Platinum Series

## Ordering Information - single phase

|      | MODEL         | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS       | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|---------------|-------|------|------------|-------|----------|------------|----------|------|------------|-----------|-------------------|-------|------------|
| 208V | KB2003-1-P    | 13312 | 3    | 11.3       | 1     | 208      | 15.9       | 16W**    | 520  | 20°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2004-1-P    | 13315 | 4    | 13.7       | 1     | 208      | 19.2       | 16W**    | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2005-1-P    | 13323 | 5    | 17.1       | 1     | 208      | 24.0       | 16W**    | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2007-1-P    | 13326 | 7.5  | 25.6       | 1     | 208      | 36.1       | 25W**    | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2010-1-P    | 13329 | 9.98 | 34.1       | 1     | 208      | 48.0       | 35W**    | 800  | 39°        | 24ft.     | 10ft.             | B     | 45.0       |
|      | KB2012-1-P-FB | 13404 | 12.5 | 42.7       | 1     | 208      | 60.1       | 50W**    | 935  | 42°        | 28ft.     | 11ft.             | C     | 50.0       |
|      | KB2015-1-P-FB | 13406 | 15   | 51.2       | 1     | 208      | 72.1       | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C     | 50.0       |
| 240V | KB2403-1-P    | 13313 | 3    | 11.3       | 1     | 240/208* | 13.8/11.9* | 9W       | 520  | 20°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2404-1-P    | 13316 | 4    | 13.7       | 1     | 240/208* | 16.7/14.4* | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2405-1-P    | 13324 | 5    | 17.1       | 1     | 240/208* | 20.8/18.0* | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2407-1-P    | 13327 | 7.5  | 25.6       | 1     | 240/208* | 31.3/27.0* | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2410-1-P    | 13330 | 10   | 34.1       | 1     | 240/208* | 41.7/36.1* | 16W      | 800  | 40°        | 24ft.     | 10ft.             | B     | 45.0       |
|      | KB2412-1-P-FB | 13405 | 12.5 | 42.7       | 1     | 240/208* | 52.1/45.1* | 35W      | 935  | 42°        | 28ft.     | 11ft.             | C     | 50.0       |
|      | KB2415-1-P-FB | 13407 | 15   | 51.2       | 1     | 240/208* | 62.5/54.1* | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C     | 50.0       |
| 277V | KB2703-1-P    | 13314 | 3    | 10.2       | 1     | 277      | 10.8       | 9W       | 520  | 18°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2704-1-P    | 13317 | 4    | 13.7       | 1     | 277      | 14.4       | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2705-1-P    | 13325 | 5    | 17.1       | 1     | 277      | 18.1       | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2707-1-P    | 13328 | 7.5  | 25.6       | 1     | 277      | 27.1       | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2710-1-P    | 13331 | 10   | 34.1       | 1     | 277      | 36.1       | 25W      | 800  | 40°        | 24ft.     | 10ft.             | B     | 45.0       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Ordering Information - three phase

|      | MODEL         | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS       | MOTOR HP  | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|---------------|-------|------|------------|-------|----------|------------|-----------|------|------------|-----------|-------------------|-------|------------|
| 208V | KB2012-3-P    | 13344 | 12.5 | 42.7       | 3     | 208      | 34.7       | 50W**     | 935  | 42°        | 31ft.     | 12ft.             | C     | 50.0       |
|      | KB2015-3-P    | 13346 | 15   | 51.2       | 3     | 208      | 41.7       | 50W       | 1050 | 45°        | 33ft.     | 13ft.             | C     | 50.0       |
|      | KB2020-3-P-FB | 13408 | 20   | 68.3       | 3     | 208      | 55.6       | 1/4HP     | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
|      | KB2025-3-P-FB | 13417 | 25   | 85.3       | 3     | 208      | 69.5       | (2) 50W** | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | KB2030-3-P-FB | 13419 | 30   | 102.4      | 3     | 208      | 83.2       | (2) 50W   | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
|      | KB2412-3-P    | 13345 | 12.5 | 42.7       | 3     | 240/208* | 30.1/26*   | 35W       | 935  | 42°        | 31ft.     | 12ft.             | C     | 50.0       |
|      | KB2415-3-P    | 13347 | 15   | 51.2       | 3     | 240/208* | 36.1/31.2* | 50W       | 1050 | 45°        | 33ft.     | 13ft.             | C     | 50.0       |
| 240V | KB2420-3-P-FB | 13409 | 20   | 68.3       | 3     | 240/208* | 48.1/41.6* | 1/4HP     | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
|      | KB2425-3-P-FB | 13418 | 25   | 85.3       | 3     | 240/208* | 60.1/52*   | (2) 35W   | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | KB2430-3-P-FB | 13420 | 30   | 102.4      | 3     | 240/208* | 72.3/62.4* | (2) 50W   | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
|      | KB2440-3-P-FB | 13438 | 40   | 136.5      | 3     | 240/208* | 96.2/83.3* | (2) 1/4HP | 3500 | 36°        | 43ft.     | 19ft.             | F     | 100.0      |
|      | KB4820-3-P    | 13416 | 20   | 68.3       | 3     | 480      | 24.1       | 1/4 HP    | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
|      | KB4825-3-P    | 13439 | 25   | 85.3       | 3     | 480      | 30.1       | (2) 35W   | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | KB4830-3-P    | 13440 | 30   | 102.4      | 3     | 480      | 36.1       | (2) 50W   | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
| 480V | KB4840-3-P-FB | 13441 | 40   | 136.5      | 3     | 480      | 48.2       | (2) 1/4HP | 3500 | 36°        | 43ft.     | 19ft.             | G     | 100.0      |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Ordering Information - multi-phase

|      | MODEL        | UPC   | KW  | BTUH (000) | PHASE | VOLTS | AMPS      | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|--------------|-------|-----|------------|-------|-------|-----------|----------|-----|------------|-----------|-------------------|-------|------------|
| 208V | KB2003-3MP-P | 13332 | 3   | 10.2       | 1-3   | 208   | 14.4/8.3  | 16W**    | 520 | 18°        | 20ft.     | 8ft.              | C     | 45.0       |
|      | KB2005-3MP-P | 13334 | 5   | 17.1       | 1-3   | 208   | 24/13.9   | 16W**    | 520 | 30°        | 20ft.     | 8ft.              | C     | 45.0       |
|      | KB2007-3MP-P | 13336 | 7.5 | 25.6       | 1-3   | 208   | 36.1/20.8 | 25W**    | 690 | 34°        | 24ft.     | 9ft.              | C     | 46.5       |
|      | KB2010-3MP-P | 13343 | 10  | 34.1       | 1-3   | 208   | 48/27.7   | 35W**    | 800 | 39°        | 29ft.     | 11ft.             | C     | 46.5       |

\*Continued on next page

# Electronic Unit Heater KB Platinum Series

## Ordering Information - multi-phase

|              | MODEL        | UPC   | KW   | BTUH PHASE<br>(000) | VOLTS | AMPS      | MOTOR<br>HP             | CFM  | TEMP.<br>RISE | AIR<br>THROW | MAX.<br>MOUNT<br>HEIGHT | *SIZE | WT.<br>(lbs.) |      |
|--------------|--------------|-------|------|---------------------|-------|-----------|-------------------------|------|---------------|--------------|-------------------------|-------|---------------|------|
| 240V         | KB2403-3MP-P | 13333 | 3    | 10.2                | 1-3   | 240/208*  | 12.5/10.8* & 7.2/6.2*   | 9W   | 520           | 18°          | 20ft.                   | 8ft.  | C             | 45.0 |
|              | KB2405-3MP-P | 13335 | 5    | 17.1                | 1-3   | 240/208*  | 20.8/18* & 12/10.4*     | 9W   | 520           | 30°          | 20ft.                   | 8ft.  | C             | 45.0 |
|              | KB2407-3MP-P | 13337 | 7.5  | 25.6                | 1-3   | 240/208*  | 31.2/27* & 18/15.6*     | 16W  | 690           | 34°          | 24ft.                   | 9ft.  | C             | 46.5 |
|              | KB2410-3MP-P | 13338 | 10   | 34.1                | 1-3   | 240/208*  | 41.7/36.1* & 24.1/20.8* | 25W  | 800           | 40°          | 29ft.                   | 11ft. | C             | 46.5 |
| 480V         | KB4803-3MP-P | 13348 | 3    | 10.2                | 1-3   | 480       | 6.3/3.6                 | 9W   | 520           | 18°          | 20ft.                   | 8ft.  | C             | 45.0 |
|              | KB4805-3MP-P | 13349 | 5    | 17.1                | 1-3   | 480       | 10.4/6.0                | 9W   | 520           | 30°          | 20ft.                   | 8ft.  | C             | 45.0 |
|              | KB4807-3MP-P | 13350 | 7.5  | 25.6                | 1-3   | 480       | 15.6/9                  | 16W  | 690           | 34°          | 24ft.                   | 9ft.  | C             | 46.5 |
|              | KB4810-3MP-P | 13351 | 10   | 34.1                | 1-3   | 480       | 20.8/12.0               | 25W  | 800           | 40°          | 29ft.                   | 11ft. | C             | 46.5 |
|              | KB4812-3MP-P | 13401 | 12.5 | 42.7                | 1-3   | 480       | 26/15                   | 35W  | 935           | 42°          | 31ft.                   | 12ft. | C             | 50.0 |
| KB4815-3MP-P | 13402        | 15    | 51.2 | 1-3                 | 480   | 31.3 & 18 | 50W                     | 1050 | 45°           | 33ft.        | 13ft.                   | C     | 50.0          |      |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Field Mount Options

| ADD SUFFIX: | UPC   | DESCRIPTION   | WT. (lbs.) |
|-------------|-------|---|------------|
| DS32        | 13480 | Disconnect Switch, Field Installed Kit, 32 AMP, 600V  | 2.0        |
| DS63        | 13481 | Disconnect Switch, Field Installed Kit, 63 AMP, 600V  | 2.0        |
| DS80        | 13482 | Disconnect Switch, Field Installed Kit, 80 AMP, 600V  | 2.0        |
| DS100       | 13483 | Disconnect Switch, Field Installed Kit, 100 AMP, 600V | 5.0        |

## Replacement Accessories

| MODEL                | UPC   | DESCRIPTION   | WT. (lbs.) |
|----------------------|-------|---|------------|
| ECO2S-REMOTE         | 33489 | ECO2S Replacement Infrared Remote Control   | 0.1        |
| ECO2S-REMOTE-BRACKET | 33490 | ECO2S Replacement Infrared Remote Control Wall Mount Bracket                                | .04        |
| KBB-1                | 13484 | Replacement Universal Wall/Ceiling Small Mounting Bracket (for heaters with size A heaters) | 1.9        |
| KBB-2                | 13485 | Replacement Universal Wall/Ceiling Large Mounting Bracket (for heaters with size B and C)   | 2.6        |
| KBB-3                | 13488 | Replacement Universal Wall/Ceiling Large Mounting Bracket (for heaters with size F & G)     | 3.9        |
| KBHS                 | 13486 | Replacement Hook Swivel   | 0.4        |
| KBHK                 | 13487 | Replacement Hardware Kit  | 0.1        |

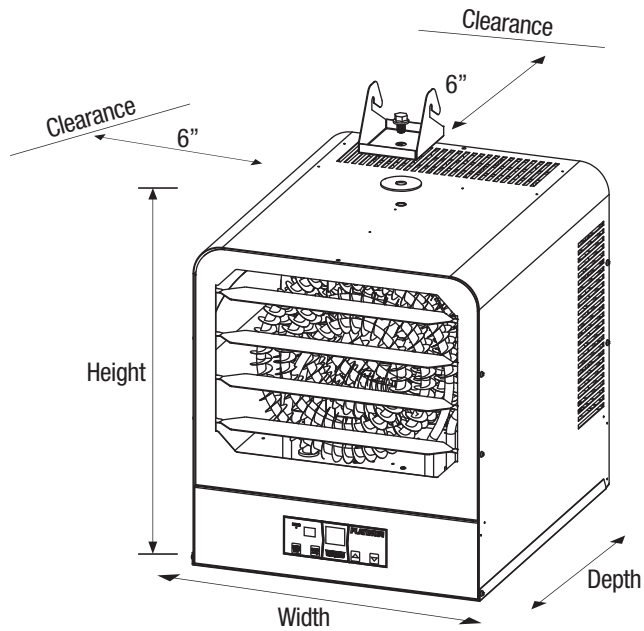
## Bracket Selection Chart

| BRACKET # | HEATER KW SIZE<br>USED WITH                    | BRACKET DIMENSIONS  |                      |                      |                     |     |                    |                    |                     |                    |                      |    |     |
|-----------|--|---------------------|----------------------|----------------------|---------------------|-----|--------------------|--------------------|---------------------|--------------------|----------------------|----|-----|
|           |  | L                   | W                    | H                    | A                   | B   | C                  | D                  | E                   | F                  | X                    | Y  | Z   |
| KBB-1     | 3 to 5 kW (1 phase)                            | 12½"                | 2 <sub>15/16</sub> " | 10 <sub>1/16</sub> " | 1 <sub>3/16</sub> " | 7"  | 1 <sub>7/8</sub> " | 1 <sub>7/8</sub> " | 9¼"                 | 1 <sub>7/8</sub> " | ¾"                   | 1" | ½"  |
| KBB-2     | 7.5 to 10 kW (1 phase)<br>3 to 20 kW (3 phase) | 16 <sub>7/8</sub> " | 2 <sub>15/16</sub> " | 10 <sub>1/8</sub> "  | 1¼"                 | 7"  | 1 <sub>7/8</sub> " | 1 <sub>5/8</sub> " | 13 <sub>5/8</sub> " | 1 <sub>5/8</sub> " | ¾"                   | 1" | 1½" |
| KBB-3     | 25 to 40 kW (3 phase)                          | 19½"                | 4 <sub>3/16</sub> "  | 13 <sub>3/16</sub> " | 1 <sub>5/16</sub> " | 10" | 1 <sub>7/8</sub> " | 1 <sub>5/8</sub> " | 16¼"                | 1 <sub>1/8</sub> " | 11 <sub>1/16</sub> " | 1" | 2"  |



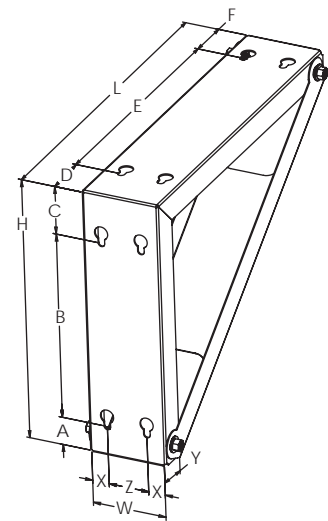
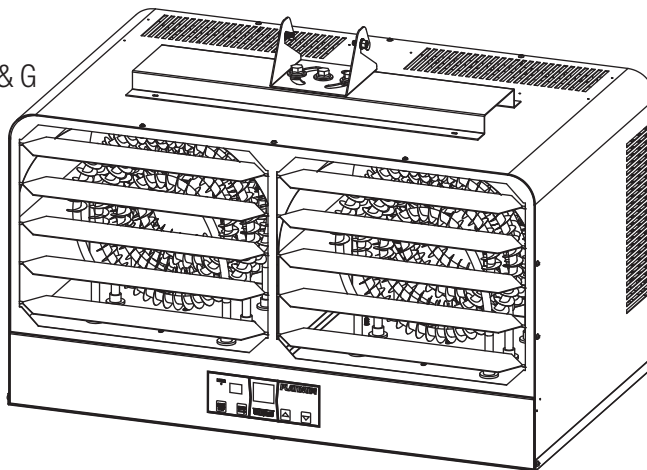
# Electronic Unit Heater KB Platinum Series

## Dimensional Data



| HEATER SIZE | HEIGHT | DEPTH | WIDTH |
|-------------|--------|-------|-------|
| A           | 16.5"  | 11"   | 15"   |
| B           | 16.5"  | 13.5" | 15"   |
| C           | 16.5"  | 18"   | 15"   |
| E           | 20.5"  | 18"   | 15"   |
| F           | 18.5"  | 18"   | 30"   |
| G           | 20.5"  | 18"   | 30"   |

## Double Unit Size F & G



### KBB-1, KBB-2 & KBB-3

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor. Refer to bracket selection chart.

# 2-Stage Electronic Unit Heater KB ECO2S+ Series



### Model Code:

KB 24 04 -1 -ECO2S-PLUS -FB  
A B C D E F

- A: Series
- B: 20 - 208V, 24 - 240/208V
- C: kiloWatts ( 4 - 15 )
- D: -1 = Single Phase
- E: ECO2S-PLUS = Electronic Control + Remote Sensor
- F: Fuse Block



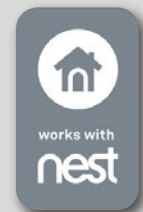
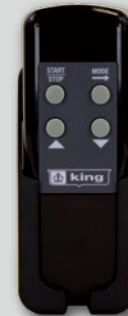
- Smart ECO2S design
- 2-Stage heating
- Remote temperature sensor
- Hand held remote & wall holder
- Built-In provision for optional 24V remote thermostat
- Compatible with NEST / any 24V WIFI stat
- Timer & Summer Fan Only Modes
- Auto Memory Feature: returns units to last settings after power outage
- Built-In fan delay to dissipate heat
- High mass steel fin heat exchanger
- Patented Smart Limit® Protection
- Permanent Lubricated Unit Bearing Motor
- Universal Wall/Ceiling Bracket Included
- 5-Year Limited Warranty

## ECO2S+ 2-Stage Electronic Garage Heater with IR Remote Control

The ECO2S+ KB series unit heaters offers unparalleled performance, energy efficiency and user control by incorporating another King innovation, the in-built ECO2S+ electronic thermostat with remote control. Offering energy efficient 2-stage heating, with Eco mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. With the ECO2S+ Remote Temperature Sensor, your ECO2S+ heater knows exactly where the room's cold spot is and works smarter to keep the entire room comfortable. Just place it on a wall or shelf and get the right temperature, right where you want it. Comes standard with a provision for adding an optional 24V thermostat for remote temperature control. Combined with integrated summer fan only and thermostat timer modes, the KB ECO2S+ has you covered....Designed for use as primary or supplemental heat sources in warehouses, stores or large garages spaces. Spiral steel elements and high CFM ensure even air distribution producing cooler element operation which prolongs the life of the heater. By combining the highest quality components, with a dynamically balanced fan blade, the KB ECO2S+ unit heater will provide years of trouble-free service and keep heating bills to a minimum. Includes universal wall/ceiling bracket for simple installation.

### ECO2S+ Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan Only mode
- Built-In fan delay
- Built-In provision for optional 24V remote thermostat
- Compatible with NEST / any 24V WIFI Stat



or Any 24V  
WIFI Stat

### Meet the eco2s+ Sensor



Balanced Heat  
Throughout the Space



Comfort, Right  
Where You Want It



Remote  
Temperature Sensing

# 2-Stage Electronic Unit Heater KB ECO2S+ Series

## Ordering Information - single phase

|      | MODEL                  | UPC   | KW   | BTUH (000) | PHASE | VOLTS    | AMPS      | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|------------------------|-------|------|------------|-------|----------|-----------|----------|------|------------|-----------|-------------------|-------|------------|
| 208V | KB2004-1-ECO2S-PLUS    | 33236 | 4    | 13.5       | 1     | 208      | 19.2      | 16W**    | 520  | 24°F       | 15ft.     | 8ft.              | B     | 30.5       |
|      | KB2005-1-ECO2S-PLUS    | 33238 | 5    | 17         | 1     | 208      | 24.0      | 16W**    | 520  | 30°F       | 15ft.     | 8ft.              | B     | 30.5       |
|      | KB2007-1-ECO2S-PLUS    | 33240 | 7.5  | 25.6       | 1     | 208      | 36.1      | 25W**    | 690  | 34°F       | 20ft.     | 9ft.              | B     | 45         |
|      | KB2010-1-ECO2S-PLUS    | 33242 | 10   | 34.1       | 1     | 208      | 48.1      | 35W**    | 800  | 39°F       | 24ft.     | 10ft.             | B     | 45         |
|      | KB2012-1-ECO2S-PLUS-FB | 33244 | 12.5 | 42.7       | 1     | 208      | 60.1      | 50W**    | 935  | 42°F       | 28ft.     | 11ft.             | C     | 50         |
|      | KB2015-1-ECO2S-PLUS-FB | 33246 | 15   | 51.2       | 1     | 208      | 72.1      | 50W      | 1050 | 45°F       | 33ft.     | 12ft.             | C     | 50         |
| 240V | KB2404-1-ECO2S-PLUS    | 33237 | 4    | 13.5       | 1     | 240/208* | 16.6/14.4 | 9W       | 520  | 24°F       | 15ft.     | 8ft.              | B     | 30.5       |
|      | KB2405-1-ECO2S-PLUS    | 33239 | 5    | 17         | 1     | 240/208* | 20.8/18.0 | 9W       | 520  | 30°F       | 15ft.     | 8ft.              | B     | 30.5       |
|      | KB2407-1-ECO2S-PLUS    | 33241 | 7.5  | 25.6       | 1     | 240/208* | 31.2/27.0 | 16W      | 690  | 34°F       | 20ft.     | 9ft.              | B     | 45         |
|      | KB2410-1-ECO2S-PLUS    | 33243 | 10   | 34.1       | 1     | 240/208* | 41.6/36.1 | 16W      | 800  | 40°F       | 24ft.     | 10ft.             | B     | 45         |
|      | KB2412-1-ECO2S-PLUS-FB | 33245 | 12.5 | 42.7       | 1     | 240/208* | 52.1/45.1 | 35W      | 935  | 42°F       | 28ft.     | 11ft.             | C     | 50         |
|      | KB2415-1-ECO2S-PLUS-FB | 33247 | 15   | 51.2       | 1     | 240/208* | 62.5/54.1 | 50W      | 1050 | 45°F       | 33ft.     | 12ft.             | C     | 50         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.  
 \*\*240V motor derated for 208V operation.

## Replacement Accessories

| MODEL                | UPC   | DESCRIPTION  | WT. (lbs.) |
|----------------------|-------|--|------------|
| ECO2S-REMOTE         | 33489 | ECO2S Replacement Infrared Remote Control                    | 0.1        |
| ECO2S-REMOTE-BRACKET | 33490 | ECO2S Replacement Infrared Remote Control Wall Mount Bracket | .04        |
| ECO2S-REMOTE-SENSOR  | 33491 | ECO2S+ Remote Temperature Sensor                             | 0.1        |
| ECO2S-5V-PWRSPLY     | 33167 | ECO2S+ 5V DC WALL ADAPTER, Optional Accessory                | 0.4        |
| KBB-2                | 15195 | Replacement Universal Large Mounting Bracket                 | 2.6        |
| KBHS                 | 13486 | Replacement Hook swivel                                      | 0.3        |
| KBHK                 | 13487 | Replacement Hardware Kit                                     | 0.1        |

## Bracket Selection Chart

| BRACKET # | HEATER KW SIZE USED WITH | BRACKET DIMENSIONS               |                                   |                                  |                                 |    |                                 |                                 |                                  |                                 |    |    |                                 |
|-----------|--------------------------|----------------------------------|-----------------------------------|----------------------------------|---------------------------------|----|---------------------------------|---------------------------------|----------------------------------|---------------------------------|----|----|---------------------------------|
|           |                          | L                                | W                                 | H                                | A                               | B  | C                               | D                               | E                                | F                               | X  | Y  | Z                               |
| KBB-2     | 4 to 15 kW (1 phase)     | 16 <sup>7</sup> / <sub>8</sub> " | 21 <sup>5</sup> / <sub>16</sub> " | 10 <sup>1</sup> / <sub>8</sub> " | 1 <sup>1</sup> / <sub>4</sub> " | 7" | 1 <sup>7</sup> / <sub>8</sub> " | 1 <sup>5</sup> / <sub>8</sub> " | 13 <sup>5</sup> / <sub>8</sub> " | 1 <sup>5</sup> / <sub>8</sub> " | ¾" | 1" | 1 <sup>1</sup> / <sub>2</sub> " |

## Engineering Specifications

Contractor shall supply and install KB ECO2S+ Series garage heaters manufactured by King Electrical Mfg. Company.  
 Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application. Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life unit bearing motor with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** 5 blade fan mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**ECO2S+ Electronic Control:** Up, Down temperature mode. Automatic 2-Stage heating (High & ECO Modes). Start/Stop. Fan Only and Timer (1-9hours) Modes. Standard on all heaters.

**ECO2S+ Remote Temperature Sensor:** Wireless remote temperature sensing for balanced heating at the coldest spot in the room. 2.4G wireless protocol. Includes wall mounting bracket.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.

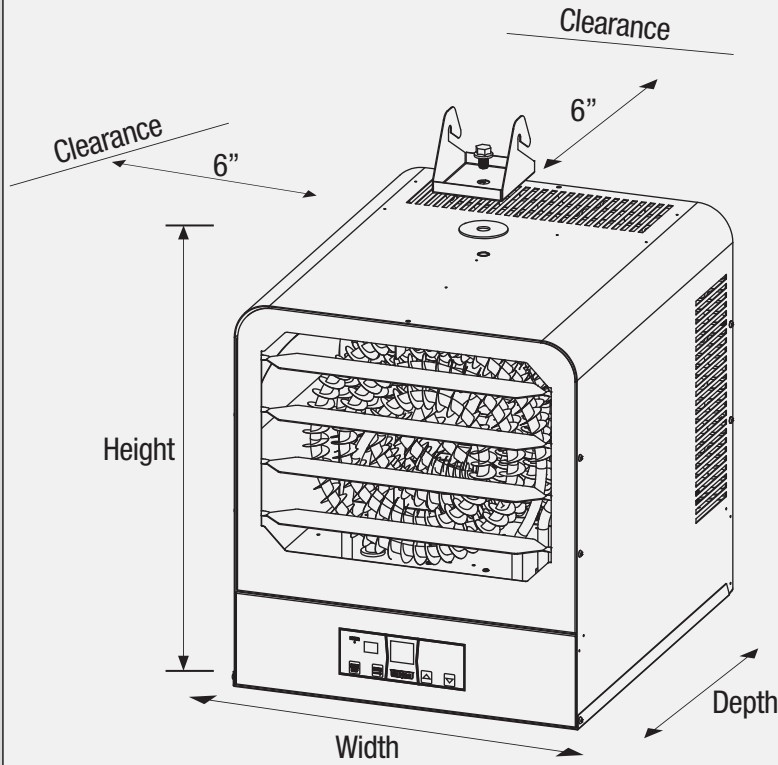
**Provision For 24V Remote Thermostat:** Includes terminals to connect an optional 24V 2-Stage Thermostat. Compatible with NEST / any 24V WIFI Stat.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

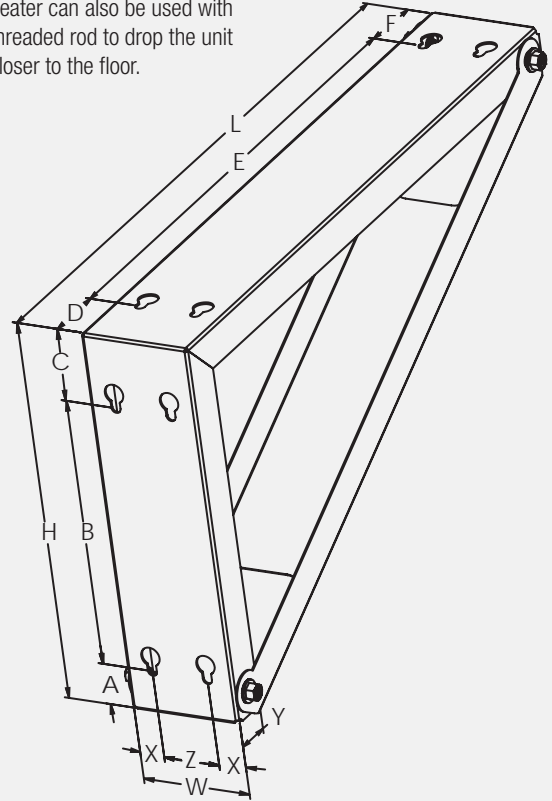
# 2-Stage Electronic Unit Heater KB ECO2S+ Series

## Dimensional Data

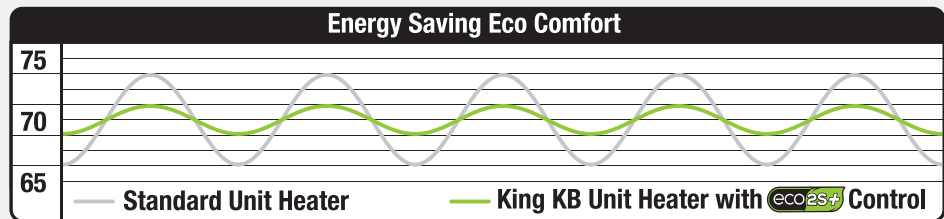


### • KBB-2 Wall/Ceiling Bracket Included

Garage heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor.



| HEATER SIZE | HEIGHT | DEPTH | WIDTH |
|-------------|--------|-------|-------|
| B           | 16.5"  | 13.5" | 15"   |
| C           | 16.5"  | 18"   | 15"   |



\*Reduces temperature swings

# Electronic Unit Heater KB PlatinumX Series



## Model Code:

KB 48 10 -3MP -PLTMX -FB  
A B C D E F

- A: Series
- B: 20 - 208V, 24 - 240/208V  
27 - 277V, 48 - 480V
- C: kiloWatts (3-40)
- D: -1 = Single Phase  
-3 = Three Phase  
-3MP = 1-3 Phase
- E: -PLTMX = Electronic Controller + 24V Remote Thermostat Provision
- F: Fuse Block

# PLATINUMX

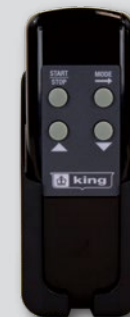
- Energy-Saving PlatinumX Electronic Temperature Controller
- Built-In Provision for Optional 24V Remote Thermostat
- Compatible with NEST / Any 24V WIFI Stat
- Remote Control Included with Wall Holder
- Summer Fan Only & Timer Modes
- Auto Memory Feature: returns units to last settings after power outage
- Adjustable Louvers to Direct Air
- Built-In Fan Delay to Dissipate Heat
- High Mass Steel Fin Heat Exchanger
- Patented Smart Limit Protection®
- Permanent Lubricated Unit Bearing Motor
- Universal Wall/Ceiling Bracket Included
- 5-Year Limited Warranty

## The KB PlatinumX Horizontal Unit Heater

King's KB PlatinumX series unit heaters are the most full-featured unit heaters on the market, with in-built electronic thermostat for accuracy and remote control for simple operation. Comes standard with a provision for adding an optional 24V thermostat for remote temperature control. Includes integrated summer fan only and thermostat timer modes, the KB PlatinumX has you covered. Designed for use as primary or supplemental heat sources in large or exposed areas, including high-rise buildings, stores, warehouses, garages, water treatment and fire room vaults to prevent freezing. Spiral finned steel elements and high CFM ensure even air distribution producing cooler element operation, prolonging heater life. By combining the highest quality components, with a dynamically balanced fan blade, the KB PlatinumX unit heater will provide years of trouble-free service. Includes universal wall/ceiling bracket for simple installation.

### PlatinumX Electronic Controller Features

- Electronic control for accuracy
- Thermostat timer mode (1-9 Hours)
- Summer Fan only mode
- Large LED display
- Built-In fan delay
- Built-In provision for optional 24V remote thermostat
- Remote control and wall/ceiling bracket included
- Heaters above 20kW are ECO2S+ 2-stage heaters
- Compatible with NEST / any 24V WIFI Stat



or Any 24V  
WIFI Stat

## Engineering Specifications

*Contractor shall supply and install KB PlatinumX Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Auto Memory Feature:** Returns Unit To Last Settings After Power Outage.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 6kW, and all 3-Phase heaters.

**Provision For 24V Remote Thermostat:** Includes terminals to connect an optional 24V 2-Stage Thermostat. Compatible with NEST / any 24V WIFI Stat

**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with N.E.C. standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

# Electronic Unit Heater KB PlatinumX Series

## Ordering Information - single phase

|      | MODEL             | UPC   | KW   | BTUH | PHASE | VOLTS    | AMPS       | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|-------------------|-------|------|------|-------|----------|------------|----------|------|------------|-----------|-------------------|-------|------------|
| 208V | KB2003-1-PLTMX    | 33188 | 3.3  | 11.3 | 1     | 208      | 15.9       | 16W**    | 520  | 20°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2004-1-PLTMX    | 33191 | 4    | 13.7 | 1     | 208      | 19.2       | 16W**    | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2005-1-PLTMX    | 33194 | 5    | 17.1 | 1     | 208      | 24.0       | 16W**    | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2007-1-PLTMX    | 33197 | 7.5  | 25.6 | 1     | 208      | 36.1       | 25W**    | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2010-1-PLTMX    | 33200 | 9.98 | 34.1 | 1     | 208      | 48.0       | 35W**    | 800  | 39°        | 24ft.     | 10ft.             | B     | 45.0       |
|      | KB2012-1-PLTMX-FB | 33221 | 12.5 | 42.7 | 1     | 208      | 60.1       | 50W**    | 935  | 42°        | 28ft.     | 11ft.             | C     | 50.0       |
|      | KB2015-1-PLTMX-FB | 33223 | 15   | 51.2 | 1     | 208      | 72.1       | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C     | 50.0       |
| 240V | KB2403-1-PLTMX    | 33189 | 3.3  | 11.3 | 1     | 240/208* | 13.8/11.9* | 9W       | 520  | 20°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2404-1-PLTMX    | 33192 | 4    | 13.5 | 1     | 240/208* | 16.7/14.4* | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2405-1-PLTMX    | 33195 | 5    | 17   | 1     | 240/208* | 20.8/18*   | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2407-1-PLTMX    | 33198 | 7.5  | 25.6 | 1     | 240/208* | 31.3/27*   | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2410-1-PLTMX    | 33201 | 10   | 34.1 | 1     | 240/208* | 41.7/36.1* | 16W      | 800  | 40°        | 24ft.     | 10ft.             | B     | 45.0       |
|      | KB2412-1-PLTMX-FB | 33222 | 12.5 | 42.7 | 1     | 240/208* | 52.1/45.1* | 35W      | 935  | 42°        | 28ft.     | 11ft.             | C     | 50.0       |
|      | KB2415-1-PLTMX-FB | 33224 | 15   | 51.2 | 1     | 240/208* | 62.5/54.1* | 50W      | 1050 | 45°        | 33ft.     | 12ft.             | C     | 50.0       |
| 277V | KB2703-1-PLTMX    | 33190 | 3    | 10.2 | 1     | 277      | 10.8       | 9W       | 520  | 18°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2704-1-PLTMX    | 33193 | 4    | 13.5 | 1     | 277      | 14.4       | 9W       | 520  | 24°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2705-1-PLTMX    | 33196 | 5    | 17   | 1     | 277      | 18.1       | 9W       | 520  | 30°        | 15ft.     | 8ft.              | A     | 30.5       |
|      | KB2707-1-PLTMX    | 33199 | 7.5  | 25.6 | 1     | 277      | 27.1       | 16W      | 690  | 34°        | 20ft.     | 9ft.              | B     | 45.0       |
|      | KB2710-1-PLTMX    | 33202 | 10   | 34.1 | 1     | 277      | 36.1       | 25W      | 800  | 40°        | 24ft.     | 10ft.             | B     | 45.0       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Ordering Information - three phase

|      | MODEL               | UPC   | KW   | BTUH  | PHASE | VOLTS    | AMPS       | MOTOR HP   | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------|---------------------|-------|------|-------|-------|----------|------------|------------|------|------------|-----------|-------------------|-------|------------|
| 208V | KB2012-3-PLTMX      | 33211 | 12.5 | 42.7  | 3     | 208      | 34.7       | 50W**      | 935  | 42°        | 31ft.     | 12ft.             | C     | 50.0       |
|      | KB2015-3-PLTMX      | 33213 | 15   | 51.2  | 3     | 208      | 41.6       | 50W        | 1050 | 45°        | 33ft.     | 13ft.             | C     | 50.0       |
|      | KB2020-3-PLTMX-FB   | 33225 | 20   | 68.3  | 3     | 208      | 55.5       | 1/4 HP     | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
|      | **KB2025-3-PLTMX-FB | 33228 | 25   | 85.3  | 3     | 208      | 69.4       | (2) 50W**  | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | **KB2030-3-PLTMX-FB | 33230 | 30   | 102.4 | 3     | 208      | 83.2       | (2) 50W    | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
|      | KB2412-3-PLTMX      | 33212 | 12.5 | 42.7  | 3     | 240/208* | 30.1/26*   | 35W        | 935  | 42°        | 31ft.     | 12ft.             | C     | 50.0       |
|      | KB2415-3-PLTMX      | 33214 | 15   | 51.2  | 3     | 240/208* | 36.1/31.2* | 50W        | 1050 | 45°        | 33ft.     | 13ft.             | C     | 50.0       |
| 240V | KB2420-3-PLTMX-FB   | 33226 | 20   | 68.3  | 3     | 240/208* | 48.1/41.6* | 1/4 HP     | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
|      | **KB2425-3-PLTMX-FB | 33229 | 25   | 85.3  | 3     | 240/208* | 60.1/52.0* | (2) 35W    | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | **KB2430-3-PLTMX-FB | 33231 | 30   | 102.4 | 3     | 240/208* | 72.1/62.4* | (2) 50W    | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
|      | **KB2440-3-PLTMX-FB | 33232 | 40   | 136.5 | 3     | 240/208* | 96.2/83.2* | (2) 1/4 HP | 3500 | 36°        | 43ft.     | 19ft.             | F     | 100.0      |
|      | KB4820-3-PLTMX      | 33227 | 20   | 68.3  | 3     | 480      | 24.0       | 1/4 HP     | 1750 | 36°        | 37ft.     | 14ft.             | E     | 60.0       |
| 480V | **KB4825-3-PLTMX    | 33233 | 25   | 85.3  | 3     | 480      | 30.1       | (2) 35W    | 1870 | 42°        | 39ft.     | 15ft.             | F     | 85.0       |
|      | **KB4830-3-PLTMX    | 33234 | 30   | 102.4 | 3     | 480      | 36.1       | (2) 50W    | 2100 | 45°        | 41ft.     | 17ft.             | F     | 85.0       |
|      | **KB4840-3-PLTMX-FB | 33235 | 40   | 136.5 | 3     | 480      | 48.1       | (2) 1/4 HP | 3500 | 36°        | 43ft.     | 19ft.             | G     | 100.0      |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

# Electronic Unit Heater KB PlatinumX Series

## Ordering Information - multi-phase

|                  | MODEL            | UPC   | KW   | BTUH | PHASE | VOLTS       | AMPS                    | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | *SIZE | WT. (lbs.) |
|------------------|------------------|-------|------|------|-------|-------------|-------------------------|----------|-----|------------|-----------|-------------------|-------|------------|
| 208V             | KB2003-3MP-PLTMX | 33203 | 3    | 10.2 | 1-3   | 208         | 14.4/8.3                | 16W**    | 520 | 18°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB2005-3MP-PLTMX | 33205 | 5    | 17.1 | 1-3   | 208         | 24 & 13.9               | 16W**    | 520 | 30°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB2007-3MP-PLTMX | 33207 | 7.5  | 25.6 | 1-3   | 208         | 36.1 & 20.8             | 25W**    | 690 | 34°        | 24ft.     | 9ft.              | C     | 46.5       |
|                  | KB2010-3MP-PLTMX | 33210 | 9.98 | 34.1 | 1-3   | 208         | 48/27.7                 | 35W**    | 800 | 39°        | 29ft.     | 11ft.             | C     | 46.5       |
| 240V             | KB2403-3MP-PLTMX | 33204 | 3    | 10.2 | 1-3   | 240/208*    | 12.5/7.2* & 10.8/6.2*   | 9W       | 520 | 18°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB2405-3MP-PLTMX | 33206 | 5    | 17.1 | 1-3   | 240/208*    | 20.8/18* & 18/15.6*     | 9W       | 520 | 30°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB2407-3MP-PLTMX | 33208 | 7.5  | 25.6 | 1-3   | 240/208*    | 31.2/27* & 18/15.6*     | 16W      | 690 | 34°        | 24ft.     | 9ft.              | C     | 46.5       |
|                  | KB2410-3MP-PLTMX | 33209 | 10   | 34.1 | 1-3   | 240/208*    | 41.7/36.1* & 24.1/20.8* | 25W      | 800 | 40°        | 29ft.     | 11ft.             | C     | 46.5       |
| 480V             | KB4803-3MP-PLTMX | 33215 | 3    | 10.2 | 1-3   | 480         | 6.3/3.6                 | 9W       | 520 | 18°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB4805-3MP-PLTMX | 33216 | 5    | 17.1 | 1-3   | 480         | 10.4 & 6.0              | 9W       | 520 | 30°        | 20ft.     | 8ft.              | C     | 45.0       |
|                  | KB4807-3MP-PLTMX | 33217 | 7.5  | 25.6 | 1-3   | 480         | 15.6/9                  | 16W      | 690 | 34°        | 24ft.     | 9ft.              | C     | 46.5       |
|                  | KB4810-3MP-PLTMX | 33218 | 10   | 34.1 | 1-3   | 480         | 20.8 & 12               | 25W      | 800 | 40°        | 29ft.     | 11ft.             | C     | 46.5       |
|                  | KB4812-3MP-PLTMX | 33219 | 12.5 | 42.7 | 1-3   | 480         | 26 & 15                 | 35W      | 935 | 42°        | 31ft.     | 12ft.             | C     | 50.0       |
| KB4815-3MP-PLTMX | 33220            | 15    | 51.2 | 1-3  | 480   | 31.3 & 18.1 | 50W                     | 1050     | 45° | 33ft.      | 13ft.     | C                 | 50.0  |            |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*\*240V motor derated for 208V operation.

## Field Mount Options

| ADD SUFFIX: | UPC   | DESCRIPTION   | WT. (lbs.) |
|-------------|-------|---|------------|
| DS32        | 13480 | Disconnect Switch, Field Installed Kit, 32 AMP, 600V  | 2.0        |
| DS63        | 13481 | Disconnect Switch, Field Installed Kit, 63 AMP, 600V  | 2.0        |
| DS80        | 13482 | Disconnect Switch, Field Installed Kit, 80 AMP, 600V  | 2.0        |
| DS100       | 13483 | Disconnect Switch, Field Installed Kit, 100 AMP, 600V | 5.0        |

## Replacement Accessories

| MODEL                | UPC   | DESCRIPTION   | WT. (lbs.) |
|----------------------|-------|---|------------|
| ECO2S-REMOTE         | 33489 | ECO2S Replacement Infrared Remote Control   | 0.1        |
| ECO2S-REMOTE-BRACKET | 33490 | ECO2S Replacement Infrared Remote Control Wall Mount Bracket                                | .04        |
| KBB-1                | 13484 | Replacement Universal Wall/Ceiling Small Mounting Bracket (for heaters with size A heaters) | 1.9        |
| KBB-2                | 13485 | Replacement Universal Wall/Ceiling Large Mounting Bracket (for heaters with size B and C)   | 2.6        |
| KBB-3                | 13488 | Replacement Universal Wall/Ceiling Large Mounting Bracket (for heaters with size F & G )    | 3.9        |
| KBHS                 | 13486 | Replacement Hook Swivel   | 0.4        |
| KBHK                 | 13487 | Replacement Hardware Kit  | 0.1        |

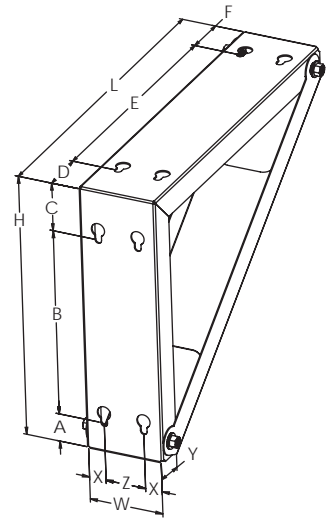
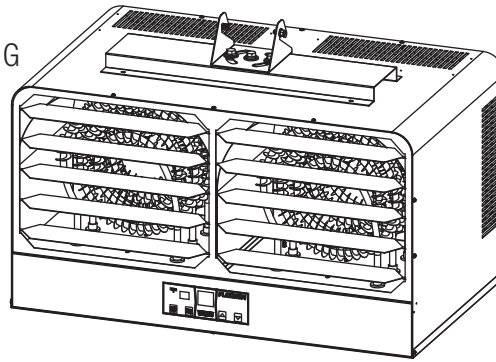
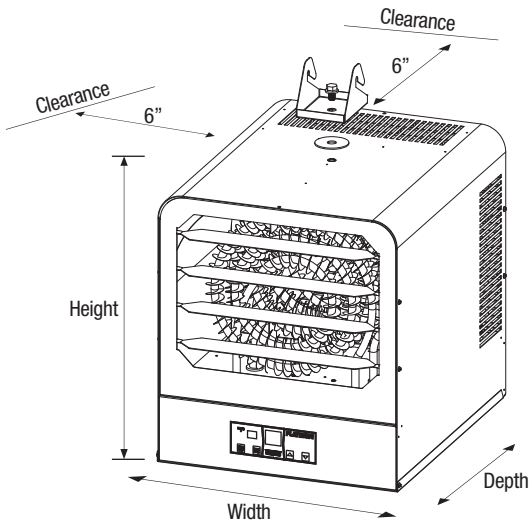
## Bracket Selection Chart

| BRACKET # | HEATER KW SIZE USED WITH                       | BRACKET DIMENSIONS               |                                   |                                   |                                  |     |                                 |                                 |                                  |                                 |                                   |    |     |
|-----------|--|----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|-----|---------------------------------|---------------------------------|----------------------------------|---------------------------------|-----------------------------------|----|-----|
|           |  | L                                | W                                 | H                                 | A                                | B   | C                               | D                               | E                                | F                               | X                                 | Y  | Z   |
| KBB-1     | 3 to 5 kW (1 phase)                            | 12½"                             | 2 <sub>15</sub> / <sub>16</sub> " | 10 <sub>1</sub> / <sub>16</sub> " | 1 <sub>3</sub> / <sub>16</sub> " | 7"  | 1 <sub>7</sub> / <sub>8</sub> " | 1 <sub>7</sub> / <sub>8</sub> " | 9¼"                              | 1 <sub>7</sub> / <sub>8</sub> " | ¾"                                | 1" | ½"  |
| KBB-2     | 7.5 to 10 kW (1 phase)<br>3 to 20 kW (3 phase) | 16 <sub>7</sub> / <sub>8</sub> " | 2 <sub>15</sub> / <sub>16</sub> " | 10 <sub>1</sub> / <sub>8</sub> "  | 1¼"                              | 7"  | 1 <sub>7</sub> / <sub>8</sub> " | 1 <sub>5</sub> / <sub>8</sub> " | 13 <sub>5</sub> / <sub>8</sub> " | 1 <sub>5</sub> / <sub>8</sub> " | ¾"                                | 1" | 1½" |
| KBB-3     | 25 to 40 kW (3 phase)                          | 19½"                             | 4 <sub>3</sub> / <sub>16</sub> "  | 13 <sub>3</sub> / <sub>16</sub> " | 1 <sub>5</sub> / <sub>16</sub> " | 10" | 1 <sub>7</sub> / <sub>8</sub> " | 1 <sub>5</sub> / <sub>8</sub> " | 16¼"                             | 1 <sub>1</sub> / <sub>8</sub> " | 11 <sub>1</sub> / <sub>16</sub> " | 1" | 2"  |

# Electronic Unit Heater KB PlatinumX Series

## Dimensional Data

Double Unit Size F & G



| HEATER SIZE | HEIGHT | DEPTH | WIDTH |
|-------------|--------|-------|-------|
| A           | 16.5"  | 11"   | 15"   |
| B           | 16.5"  | 13.5" | 15"   |
| C           | 16.5"  | 18"   | 15"   |
| E           | 20.5"  | 18"   | 15"   |
| F           | 18.5"  | 18"   | 30"   |
| G           | 20.5"  | 18"   | 30"   |

### KBB-1, KBB-2 & KBB-3

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor. Refer to bracket selection chart.



# Compact Heavy Duty Unit Heater SKB Series



### Model Code:

|     |    |    |   |   |   |
|-----|----|----|---|---|---|
| SKB | 24 | 05 | 1 | T | B |
| A   | B  | C  | D | E | F |

- A: Series
- B: 20 - 208V  
24 - 240V
- C: Watts
- D: Single Phase
- E: Thermostat
- F: Bracket



Kraft box packaging

- Spiral finned element
- Permanently lubricated motor
- Patented Smart Limit® protection
- High efficiency aluminum fan blade
- Built-in thermostat
- Universal mounting bracket
- Standard color: Gray
- 3-year limited warranty
- Adjustable louvers
- Power & Over-temp indicating lights
- High /Low switch & fan delay\*



## The SKB Compact Heavy Duty Unit Heater

The SKB compact heavy duty unit heater is designed for use as primary or supplemental heat sources in large or exposed areas, including commercial stores, workshops, barns, storage shed and garages to prevent freezing. Spiral finned steel elements and high air volume (CFM) ensure efficient heat exchange producing cooler element operation, prolonging heater life. By combining the highest quality components with a dynamically balanced fan blade, the SKB unit heater will provide years of trouble-free service. Includes both a power on indicating light and a red caution light that comes on if the heater stops due to the over temperature limit tripping. A universal wall/ceiling bracket provides for quick and simple installation. The built-in thermostat turns the heater on and off to maintain the desired room temperature or a remote wall thermostat can be used.

### Ordering Information - single phase

| MODEL          | UPC   | KW  | BTUH | PHASE | VOLTS    | AMPS      | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT | WT. (lbs.) |
|----------------|-------|-----|------|-------|----------|-----------|----------|-----|------------|-----------|------------|------------|
| *SKB2005-1-T-B | 13413 | 5   | 17   | 1     | 208      | 24        | 9W       | 400 | 40°        | 16ft.     | 8ft.       | 30.5       |
| SKB2007-1-T-B  | 13414 | 7.5 | 25.6 | 1     | 208      | 36.1      | 16W      | 600 | 40°        | 20ft.     | 9ft.       | 45.0       |
| SKB2009-1-T-B  | 13415 | 9.2 | 31.4 | 1     | 208      | 44.2      | 25W      | 725 | 42°        | 24ft.     | 10ft.      | 45.0       |
| SKB2405-1-T-B  | 13410 | 5   | 17   | 1     | 240/208* | 20.8/18   | 9W       | 400 | 40°        | 16ft.     | 8ft.       | 30.5       |
| SKB2407-1-T-B  | 13411 | 7.5 | 25.6 | 1     | 240/208* | 31.2/27   | 16W      | 600 | 40°        | 20ft.     | 9ft.       | 45.0       |
| SKB2410-1-T-B  | 13412 | 10  | 34.1 | 1     | 240/208* | 41.6/36.1 | 25W      | 725 | 44°        | 24ft.     | 10ft.      | 45.0       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. \*High Low switch & fan delay not available in 5KW unit

### Engineering Specifications

Contractor shall supply and install SKB Series unit heaters manufactured by King Electrical Mfg. Company.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Rounded corners give it an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 90° F.

**Red Caution Light:** Comes on if high temperature safety limit trips.

**Yellow Power on Light:** Gives visual indication that the heater is turned on.

**\* High/Low Switch:** Provided on 7.5kw & 10kw models. Low setting reduces wattage in half. Fan delay keeps fan running after thermostat cycles off to dissipate all the heat from the elements, making the heater more efficient and prolonging the life of the elements.

# Compact Heavy Duty Unit Heater SKB Series

## Engineering Specifications Continued

**Two Pole Contactor:** Provided on 7.5kw & 10kw models. Breaks both L1 and L2 of the power supply wires, the control circuit operates at 240V.

**Electrically Held Thermal Overload:** Heaters shall be equipped with King's patented Smart Limit Protection®, which disconnects the heater when an over temperatures condition occurs. If the Smart Limit trips, it will remain open and will not automatically reset until the thermostat or circuit breaker is turned off for a few minutes.

After the overload switch cools the power can be turned back on and the heater will operate again. This keeps the heater from repeatedly cycling allowing the user to

determine the cause of the over temperature condition such as an object being placed in front of heater.

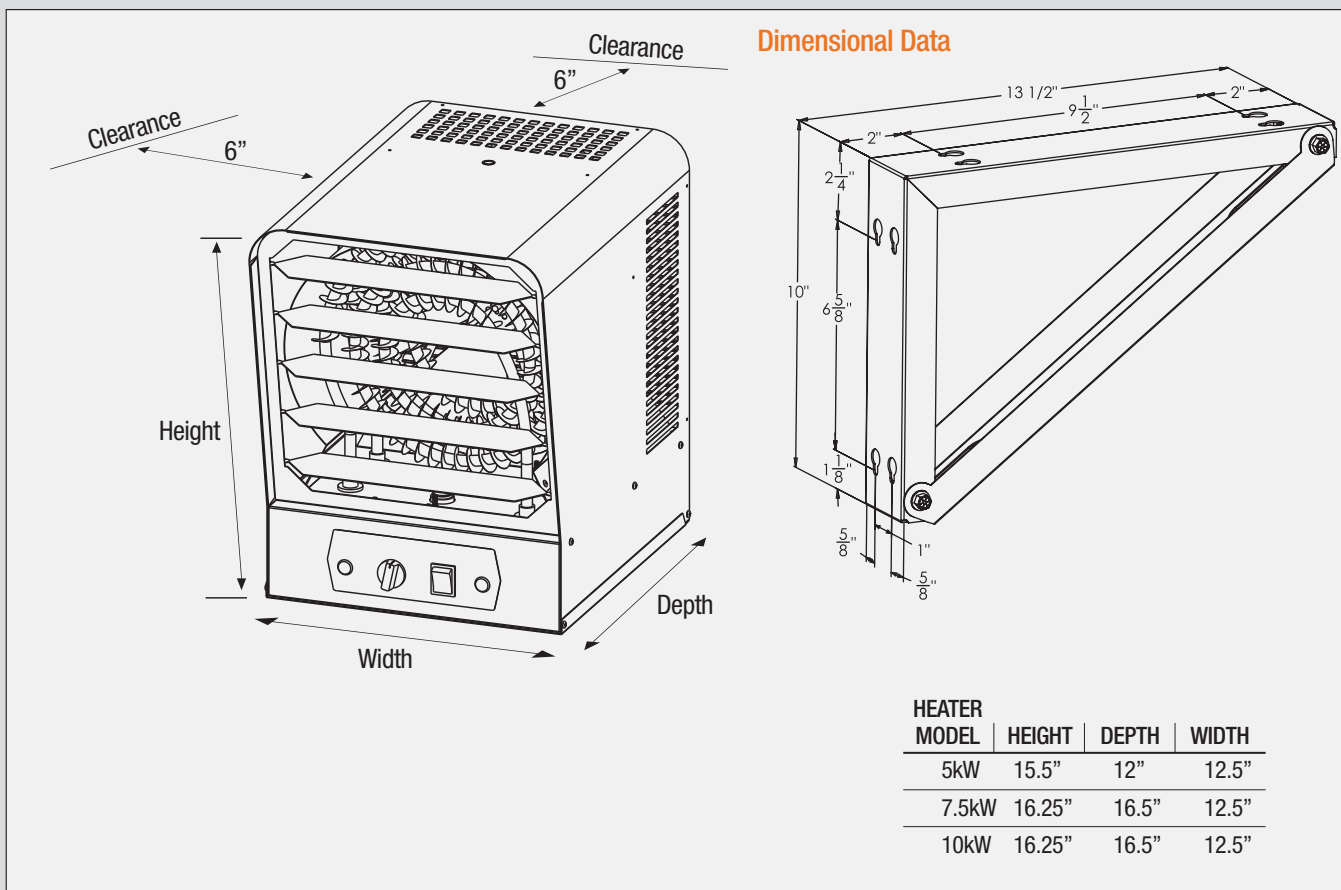
**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

### • SKB Wall/Ceiling Bracket Included

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor.



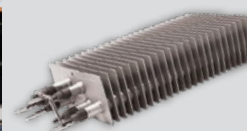
# Compact Unit Heater KBP Series



**Model Code:**

|     |    |    |
|-----|----|----|
| KBP | 24 | 06 |
| A   | B  | C  |

**A: Series**  
**B:** 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 48 - 480V  
**C: Watts (950 to 6000)**


**Pic-A-Watt**  
Steel Fin Element


- Pic-A-Watt® element
- Multiple wattage selection
- Long life cast iron motor
- Aluminum fan blade
- High accuracy built-in thermostat
- Fan delay
- Patented Smart Limit Protection®
- Selector switch—fan/heat/off
- Universal (wall/ceiling) mounting bracket
- Standard color: Onyx Gray
- 5-year limited warranty



## Multiple Wattage Unit Heater

**The KBP is the industry standard for multi-wattage garage / shop heaters.** Designed for rugged performance, the flow-through design efficiently moves air by pulling air from the back of the heater and discharges it out the front, easily heating a large space. With high quality components suitable for both residential and commercial applications, it comes standard with a 3-position switch and an accurate built-in thermostat. The integral fan delay continues to dissipate heat from the elements during the cool down period, maximizing the heat exchange in the room. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements.

### Ordering Information

| MODEL         | UPC   | VOLTS    | PHASE | WATTAGE                      | AMPS            | WEIGHT (lbs.) |
|---------------|-------|----------|-------|------------------------------|-----------------|---------------|
| KBP1230       | 15191 | 120      | 1     | 2850-1900-950                | 24-16-8         | 26            |
| KBP2406*      | 15190 | 240/208* | 1     | 5700-4750-3800-2850-1900-950 | 24-20-16-12-8-4 | 24            |
| KBP2006-3MP** | 15193 | 208*     | 1-3   | 5700-2850                    | 27-15           | 26            |
| KBP2406-3MP** | 15188 | 240/208* | 1-3   | 5700-2850                    | 24-14           | 25            |
| KBP2704       | 15187 | 277      | 1     | 4000-3000-2000-1000          | 14              | 26            |
| KBP4804-3MP** | 15196 | 480***   | 1-3   | 4160                         | 9-5             | 26            |
| KBP4806-3MP** | 15197 | 480***   | 1-3   | 6000                         | 13-8            | 26            |

\*Approved for 208V operation. Heater will draw 13% less Amps and 25% less wattage \*\*3-Phase units do not have Heat / Fan / Off \*\* Prewired for 3-Phase, Field Convertible to 1-Phase  
 \*\*\*480 Volt models are 24 Volt control Minimum clearance from combustibles: 18" from front, 2" from top, 6" from sides and 5" from rear. Minimum clearance 6' from floor.

### Engineering Specifications

*Contractor shall supply and install KBP Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Pic-A-Watt Heating Element:** Exclusive King multi-tap element allows field adjustment to several wattages at time of installation. Steel sheath elements of various resistance are copper brazed to steel plate fins producing a multi-wattage heating element.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 90° F.

**Fan/Heat/Off Switch:** 3-position switch provides heating and summer fan only operation.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements. Power must not be interrupted.

**CFM:** 270

**Universal Mounting Bracket:** Combination ceiling/wall bracket is included with every heater.

**Unit Bearing Motor:** Permanently lubricated, long life, unit bearing 4-Pole motor with 20 cc of oil. Enclosed rotor provides long-lasting, trouble-free operation. Thermally protected. 1300 RPM.

**Electrically Held Smart Limit Protection:** Heater shuts off when an over temperature condition exists and automatically resets when the normal operating temperature returns.

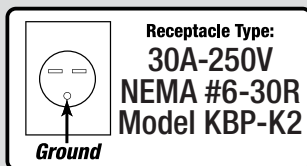
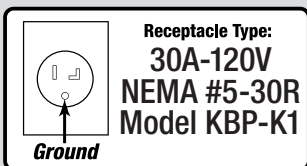
**Tested:** UL 2021

**Approval:** cCSAus

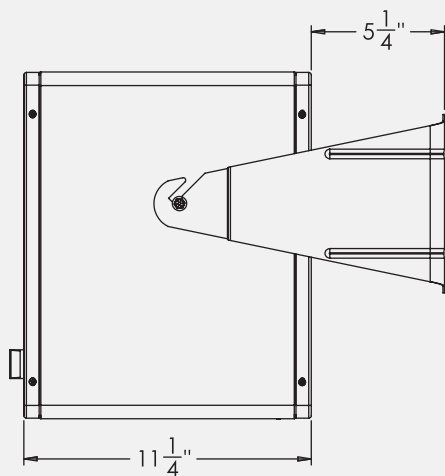
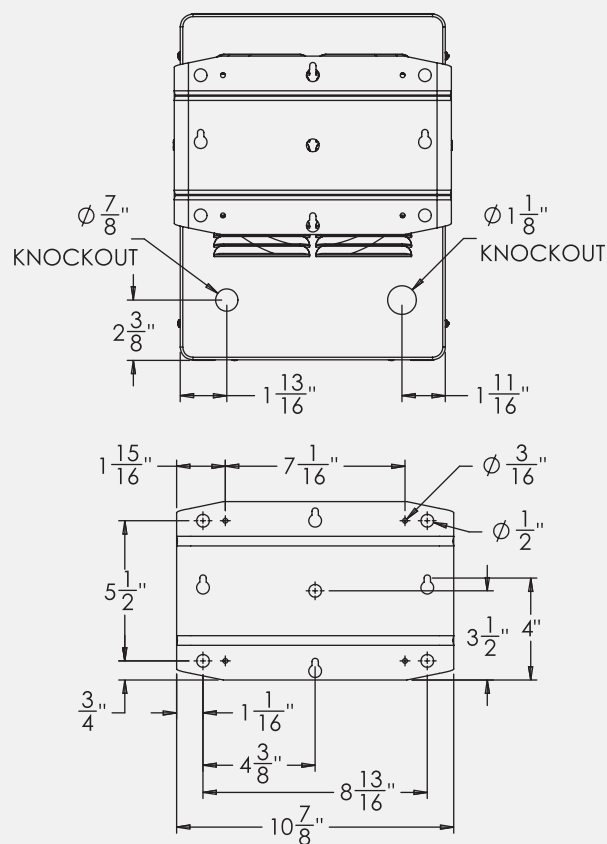
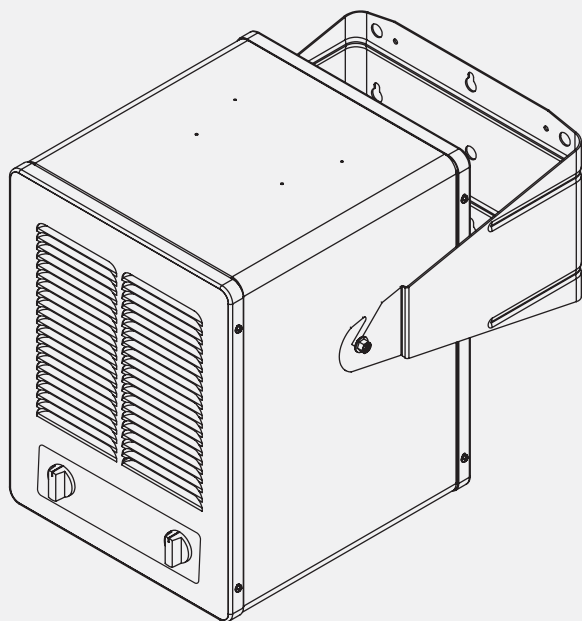
# Compact Unit Heater KBP Series

## Accessories

| MODEL  | UPC   | PHASE  | WEIGHT (lbs.) |
|--------|-------|--|---------------|
| KBP-K1 | 15198 | 6 ft. cord/handle kit - 120V, 1-Phase, 30 Amp (Receptacle not included. See below) | 2             |
| KBP-K2 | 15199 | 6 ft. cord/handle kit - 240V, 1-Phase, 30 Amp (Receptacle included. See below)     | 2             |



## Dimensional Data



# Garage/Shop Heater EKB Series



### Model Code:

|     |    |    |    |
|-----|----|----|----|
| EKB | 24 | 40 | TB |
| A   | B  | C  | D  |

A: Series  
 B: 20 - 208V 24 - 240V  
 C: Watts (5000)  
 D: TB- Thermostat & Bracket



- Quick heat element
- Long life unit bearing motor
- Patented Smart Limit® protection
- Aluminum fan blade
- Built-in thermostat
- Universal mounting bracket
- Standard color: black textured finish
- Safety sensor on each element
- 1-year limited warranty



## The EKB Garage/Shop Heater

The EKB is designed to be an affordable, high-capacity garage / shop heater. Combining King's patented Smart Limit safety technology with dual NiChrome coil elements for rapid heat transfer, the EKB is ideal for many residential applications. The flow-through design efficiently moves air by pulling air from the back and sides of the heater and discharges it out the front, easily heating a large space. The built-in thermostat has a temperature range from 40 to 85 degrees. The universal mounting bracket can be wall or ceiling mounted at a minimum of 6 feet above the floor. Good air distribution and comfort is achieved by swiveling the bracket to specific work areas.

### Ordering Information

|      | MODEL     | UPC   | VOLTS | WATTS | AMPS | WIRE          | BREAKER SIZE  | TEMP RISE | HEATING SQ FT |
|------|-----------|-------|-------|-------|------|---------------|---------------|-----------|---------------|
| 208V | EKB2050TB | 16501 | 208   | 5000  | 24   | 10-2 w/ground | 30 Amp 2 pole | 80        | 750           |
|      | EKB2040TB | 16503 | 208   | 3750  | 18   | 10-2 w/ground | 30 Amp 2 pole | 70        | 600           |
| 240V | EKB2450TB | 16500 | 240   | 5000  | 20   | 10-2 w/ground | 30 Amp 2 pole | 80        | 750           |
|      | EKB2440TB | 16502 | 240   | 3850  | 16   | 12-2 w/ground | 20 Amp 2 pole | 70        | 600           |

### Engineering Specifications

**Heating Elements:** Rigid Muscovite Mica construction with 80-20 NiChrome heating wire provides quick heating without cold air start ups, heat is wiped from elements as fans slows to a stop. Manual reset Safety sensor on each element.

**Thermostat:** Factory installed single pole operation range 40 to 85 degrees F.

**Unit Bearing Motor:** Permanently lubricated, cast aluminum unit bearing, 6-watt output 4 pole motor, 1550 rpm, 20 cc oil supply.

**Mounting Bracket:** 18 ga steel, multiple mounting options - ceiling/wall.

**CFM:** 270 Maximum

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. U.S. PATENT #6,748,163 B2 • CIPO PATENT #2,393,882

**Case:** 22 ga steel, inlet and outlet perforation, special side and top safety air inlets.

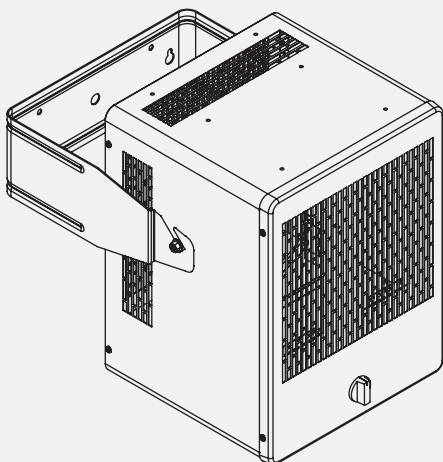
**Exterior:** Durable textured finish.

**Approval:** cULus (E41422)

# Garage/Shop Heater EKB Series

## Dimensional Data

### EKB Unit Heater



Heater case size  
w/o bracket  
Height: 13 5/8 in. / 34.6 cm  
Width: 10 3/8 in. / 26.35 cm  
Depth: 9 3/9 in. / 24.76 cm

Maximum Outside Dims  
W/bracket and stat  
Height: 18 3/4 in. / 47.62 cm  
Width: 11 3/8 in. / 28.90 cm  
Depth: 10 5/8 in. / 26.98 cm

### Bracket Information

Hole Sizes  
\* 1/2 in. / 1.27 cm 3 holes  
+ 1/4 in. / .63 cm 4 holes

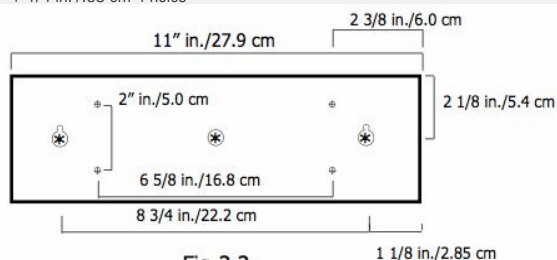
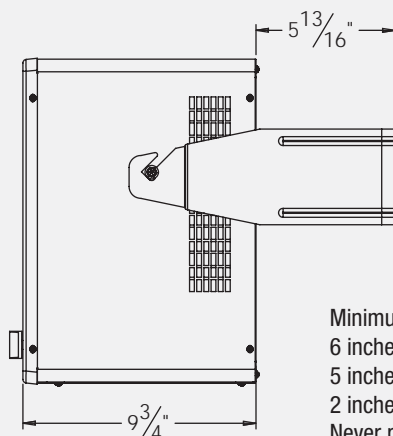
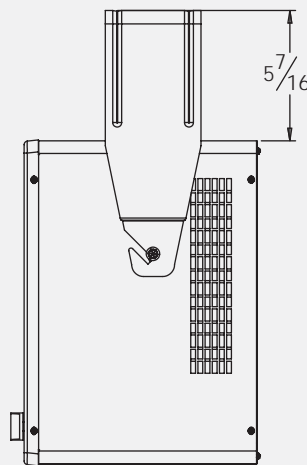
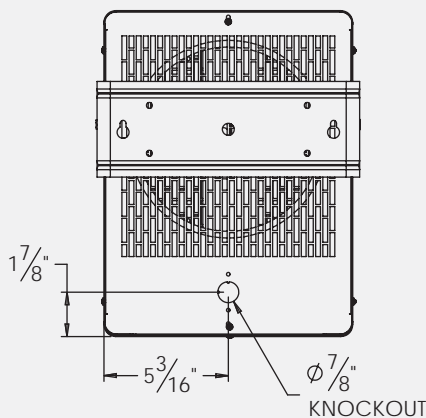
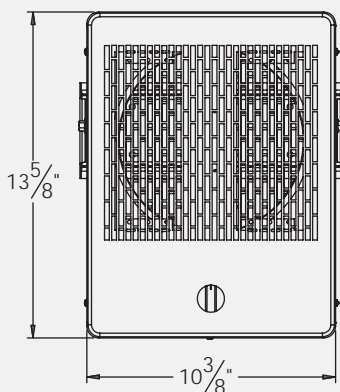


Fig 2.2



Minimum clearances from walls and ceiling  
6 inches / 15.24 cm to the side  
5 inches / 12.7 cm from the back  
2 inches / 5.08 cm from ceiling  
Never point heater at ceiling  
Maintain clearance of at least 3 ft. in front  
of heat outlet

### MINIMUM CLEARANCE

From combustibles: 18" from front,  
2" from top, 6" from sides  
and 5" from rear.

# High Air Velocity Unit Heater KFUH Series



### Model Code:

|      |    |    |    |
|------|----|----|----|
| KFUH | 48 | 10 | -3 |
| A    | B  | C  | D  |

A: Series

B: 48 - 480V

C: Kilowatts

D: 1 or 3-phase



Shown with KFUH DIFFUSER.  
KFUH DIFFUSER required for  
this heater and is sold separately

- Heavy duty open coil element
- Adjustable louver hood (sold separately)
- Ductable on intake & outlet
- Fan-only relay
- Direct drive air over type motor
- 22 gauge steel
- 24 Volt control
- 5-year limited warranty
- Dual inlet industrial blower
- Quiet switching relays
- Diffuser must be ordered separately
- Horizontal or Vertical Mount
- Replaceable intake filter
- ECM Motor (optional)

## The KFUH High Air Velocity Unit Heater

The KFUH series commercial unit heater is an efficient, dependable unit heater perfectly suited for high ceiling applications such as warehouses, parking garages and docks. The 3-speed, high-capacity motor and blower quietly delivers large volumes of air ranging from 775 to 1540 CFM minimum. With welded mounting channels on the unit, the heater may be mounted at any angle. Safety screens are provided at both the air intake and discharge aperture. The intake filter is replaceable. Thermostat may be ordered separately.

**FIELD WIRING:** 480 Volt unit heaters do not have circuit breakers but are fused when internal protection is required over 48 Amps.

Terminal blocks are supplied for field wiring on all units. Consult the National Electric Code for proper wire size and service circuit breaker protection.

**CONTROL WIRING:** Connect low voltage thermostat to terminals R and W on the low voltage terminal block. For fan only operation connect terminals R and G with a switch or thermostat fan switch.

Unit shown with standard diffuser model # KFUH DIFFUSER ordered separately. Additional diffusers are located on the 3rd page of this specification sheet.

### Ordering Information- single phase

|       | MODEL      | VOLTS    | kilo watts | BTUH  | AMPS  | PHASE | ELEMENTS | MOTOR HP | # of SIZE | WT. (lbs) |
|-------|------------|----------|------------|-------|-------|-------|----------|----------|-----------|-----------|
| 208-V | KFUH2004-1 | 208      | 3.8        | 12.8  | 18    | 1     | 1        | 1/5      | Fig. A    | 57        |
|       | KFUH2005-1 | 208      | 5.0        | 17.1  | 24    | 1     | 1        | 1/5      | Fig. A    | 57        |
|       | KFUH2008-1 | 208      | 8.0        | 27.3  | 38.5  | 1     | 2        | 1/5      | Fig. A    | 57        |
|       | KFUH2010-1 | 208      | 10         | 34.1  | 48.1  | 1     | 2        | 1/5      | Fig. A    | 65        |
|       | KFUH2012-1 | 208      | 12         | 40.9  | 57.7  | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH2015-1 | 208      | 15         | 51.2  | 72.1  | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH2018-1 | 208      | 17.3       | 58.8  | 82.9  | 1     | 4        | 1/3      | Fig. B    | 74        |
|       | KFUH2020-1 | 208      | 20         | 68.3  | 96.2  | 1     | 4        | 1/2      | Fig. B    | 76        |
|       | KFUH2025-1 | 208      | 25         | 85.3  | 120.2 | 1     | 5        | 3/4      | Fig. B    | 81        |
|       | KFUH2030-1 | 208      | 25         | 102.4 | 144.2 | 1     | 6        | 3/4      | Fig. B    | 85        |
| 240-V | KFUH2404-1 | 240/208* | 4          | 13.7  | 16.7  | 1     | 1        | 1/5      | Fig. A    | 57        |
|       | KFUH2405-1 | 240/208* | 5          | 17.1  | 20.8  | 1     | 1        | 1/5      | Fig. A    | 57        |
|       | KFUH2408-1 | 240/208* | 8          | 27.3  | 33.3  | 1     | 2        | 1/5      | Fig. A    | 57        |
|       | KFUH2410-1 | 240/208* | 10         | 34.1  | 41.7  | 1     | 2        | 1/5      | Fig. A    | 65        |
|       | KFUH2412-1 | 240/208* | 12         | 50    | 50    | 1     | 2        | 1/3      | Fig. A    | 65        |
|       | KFUH2415-1 | 240/208* | 15         | 51.2  | 62.5  | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH2418-1 | 240/208* | 17.3       | 58.9  | 71.9  | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH2420-1 | 240/208* | 20         | 68.3  | 83.3  | 1     | 4        | 1/2      | Fig. B    | 76        |
|       | KFUH2425-1 | 240/208* | 25         | 85.3  | 104.2 | 1     | 5        | 1/2      | Fig. B    | 81        |
|       | KFUH2430-1 | 240/208* | 30         | 102.4 | 125   | 1     | 6        | 3/4      | Fig. B    | 85        |
|       | KFUH2435-1 | 240/208* | 34.5       | 117.7 | 143.8 | 1     | 6        | 3/4      | Fig. B    | 85        |
|       | KFUH4804-1 | 480      | 4          | 13.7  | 8.3   | 1     | 1        | 1/5      | Fig. A    | 57        |
|       | KFUH4805-1 | 480      | 5          | 17.1  | 10.4  | 1     | 1        | 1/5      | Fig. A    | 57        |

# High Air Velocity Unit Heater KFUH Series

## Ordering Information- single phase (Continued)

|       | MODEL      | VOLTS | kilo watts | BTUH  | AMPS | PHASE | ELEMENTS | MOTOR HP | # of SIZE | WT. (lbs) |
|-------|------------|-------|------------|-------|------|-------|----------|----------|-----------|-----------|
| 480-V | KFUH4808-1 | 480   | 8          | 27.3  | 16.7 | 1     | 2        | 1/5      | Fig. A    | 57        |
|       | KFUH4810-1 | 480   | 10         | 34.1  | 20.8 | 1     | 2        | 1/5      | Fig. A    | 65        |
|       | KFUH4812-1 | 480   | 12         | 41    | 25   | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH4815-1 | 480   | 15         | 51.2  | 31.3 | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH4818-1 | 480   | 17.3       | 58.9  | 35.9 | 1     | 3        | 1/3      | Fig. A    | 74        |
|       | KFUH4820-1 | 480   | 20         | 68.3  | 41.7 | 1     | 4        | 1/2      | Fig. B    | 76        |
|       | KFUH4825-1 | 480   | 20         | 85.3  | 52.1 | 1     | 5        | 1/2      | Fig. B    | 81        |
|       | KFUH4830-1 | 480   | 30         | 102.4 | 62.5 | 1     | 6        | 3/4      | Fig. B    | 85        |
|       | KFUH4835-1 | 480   | 34.5       | 102.4 | 71.9 | 1     | 6        | 3/4      | Fig. B    | 85        |

## Ordering Information- three phase

|            | MODEL      | VOLTS    | kilo watts | BTUH  | AMPS  | PHASE | ELEMENTS | MOTOR HP | # of SIZE | WT. (lbs) |
|------------|------------|----------|------------|-------|-------|-------|----------|----------|-----------|-----------|
| 208-V      | KFUH2005-3 | 208      | 5          | 17.1  | 13.9  | 3     | 1        | 1/5      | Fig. A    | 57        |
|            | KFUH2007-3 | 208      | 7.5        | 25.6  | 20.8  | 3     | 2        | 1/5      | Fig. A    | 57        |
|            | KFUH2010-3 | 208      | 10         | 34.1  | 27.8  | 3     | 2        | 1/5      | Fig. A    | 65        |
|            | KFUH2012-3 | 208      | 12.4       | 42.3  | 34.4  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH2015-3 | 208      | 15         | 51.2  | 41.7  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH2020-3 | 208      | 20         | 68.3  | 55.6  | 3     | 4        | 1/2      | Fig. B    | 76        |
|            | KFUH2025-3 | 208      | 25         | 85.3  | 69.5  | 3     | 5        | 3/4      | Fig. B    | 81        |
|            | KFUH2030-3 | 208      | 30         | 102.4 | 83.4  | 3     | 6        | 3/4      | Fig. B    | 85        |
|            | KFUH2040-3 | 208      | 40         | 136.5 | 111.2 | 3     | 8        | 2 x 3/4  | Fig. C    | 152       |
|            | KFUH2050-3 | 208      | 50         | 170.6 | 139   | 3     | 10       | 2 x 3/4  | Fig. C    | 162       |
| 240-V      | KFUH2060-3 | 208      | 60         | 204.8 | 166.7 | 3     | 12       | 2 x 3/4  | Fig. C    | 170       |
|            | KFUH2405-3 | 240/208* | 5          | 17.1  | 12    | 3     | 1        | 1/5      | Fig. A    | 57        |
|            | KFUH2410-3 | 240/208* | 10         | 34.1  | 24.1  | 3     | 2        | 1/5      | Fig. A    | 65        |
|            | KFUH2412-3 | 240/208* | 12         | 40.9  | 28.9  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH2415-3 | 240/208* | 15         | 51.2  | 36.1  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH2418-3 | 240/208* | 17.3       | 58.8  | 41.5  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH2420-3 | 240/208* | 20         | 68.3  | 48.2  | 3     | 4        | 1/2      | Fig. B    | 85        |
|            | KFUH2425-3 | 240/208* | 25         | 85.3  | 60.2  | 3     | 5        | 1/2      | Fig. B    | 81        |
|            | KFUH2430-3 | 240/208* | 30         | 102.4 | 72.3  | 3     | 6        | 3/4      | Fig. B    | 85        |
|            | KFUH2435-3 | 240/208* | 34.5       | 117.7 | 83.1  | 3     | 6        | 3/4      | Fig. B    | 85        |
| 480-V      | KFUH2440-3 | 240/208* | 40         | 136.5 | 96.3  | 3     | 8        | 2 x 3/4  | Fig. C    | 170       |
|            | KFUH2450-3 | 240/208* | 50         | 170.7 | 120.4 | 3     | 10       | 2 x 3/4  | Fig. C    | 162       |
|            | KFUH2460-3 | 240/208* | 60         | 204.8 | 144.5 | 3     | 12       | 2 x 3/4  | Fig. C    | 170       |
|            | KFUH2470-3 | 240/208* | 70         | 238.9 | 168.6 | 3     | 12       | 2 x 3/4  | Fig. C    | 170       |
|            | KFUH4805-3 | 480      | 5          | 17.1  | 6     | 3     | 1        | 1/5      | Fig. A    | 57        |
|            | KFUH4810-3 | 480      | 10         | 34.1  | 12    | 3     | 2        | 1/5      | Fig. A    | 65        |
|            | KFUH4812-3 | 480      | 12         | 40.9  | 14.5  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH4815-3 | 480      | 15         | 51.2  | 18.1  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH4818-3 | 480      | 17.3       | 58.8  | 20.8  | 3     | 3        | 1/3      | Fig. A    | 74        |
|            | KFUH4820-3 | 480      | 20         | 68.3  | 24.1  | 3     | 4        | 1/2      | Fig. B    | 76        |
| KFUH4825-3 | 480        | 25       | 85.3       | 30.1  | 3     | 5     | 1/2      | Fig. B   | 81        |           |
| KFUH4830-3 | 480        | 30       | 102.4      | 36.1  | 3     | 6     | 3/4      | Fig. B   | 85        |           |
| KFUH4835-3 | 480        | 34.5     | 117.7      | 41.5  | 3     | 6     | 3/4      | Fig. B   | 85        |           |
| KFUH4840-3 | 480        | 40       | 136.5      | 48.2  | 3     | 8     | 2 x 3/4  | Fig. C   | 152       |           |
| KFUH4850-3 | 480        | 50       | 170.7      | 60.2  | 3     | 10    | 2 x 3/4  | Fig. C   | 162       |           |
| KFUH4860-3 | 480        | 60       | 204.8      | 72.3  | 3     | 12    | 2 x 3/4  | Fig. C   | 170       |           |
| KFUH4870-3 | 480        | 70       | 238.9      | 84.3  | 3     | 12    | 2 x 3/4  | Fig. C   | 170       |           |



# High Air Velocity Unit Heater KFUH Series

## Factory Installed Options

| ADD SUFFIX: | DESCRIPTION   |
|-------------|---|
| -2S1        | 2 Stage Control 1-Phase models  |
| -2S3        | 2 Stage Control 3-Phase models (5 kW increments only)                 |
| -DS32       | Factory Installed 32 Amp, 3-Pole Non-Fused Locking Disconnect Switch  |
| -DS63       | Factory Installed 63 Amp, 3-Pole Non-Fused Locking Disconnect Switch  |
| -DS80       | Factory Installed 80 Amp, 3-Pole Non-Fused Locking Disconnect Switch  |
| -DS100      | Factory Installed 100 Amp, 3-Pole Non-Fused Locking Disconnect Switch |
| -T          | Factory Installed Stat SPST. Temperature range 40F to 100F            |
| -2TS        | Factory Installed Stat (DPST). Temperature range 40F to 100F          |
| -SF         | Factory Installed Summer Fan Switch                                   |

## KFUH Diffuser Options & Accessories

| MODEL         | UPC   | DESCRIPTION  | WEIGHT (lbs.) |
|---------------|-------|--|---------------|
| KFUH-DIFFUSER | 15741 | Standard KFUH Air Diffuser   | 5.0           |
| KFUH-ND       | 15725 | No Diffuser, 1" duct collar only discharge side for connection to 14" x 14" duct | N/A           |
| KFUH-RD       | 15743 | Radial diffuser for wide pattern heat dispersion                                 | 4.0           |
| KFUH-90D      | 15728 | Right angle elbow (90°) diffuser with adjustable louvers                         | 15.0          |
| KFUH-90RD     | 15729 | Right angle elbow (90°) with radial diffuser                                     | 14.0          |
| 1E30-910      | 19000 | Wall mount thermostat, 24V, range 50°- 90°                                       | 1.0           |
| KFUH-PTBL     | 17216 | Kit to make KFUH Portable. Includes casters and mounting bracket (No Cord)       | N/A           |

## Engineering Specifications

*Contractor shall supply and install KFUH Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Transformer:** Each unit is equipped with a heavy duty low voltage (24 Volt) transformer for the thermostat control circuit.

**Heating Elements:** Quick heating, long life Ni-Chrome elements are sized to provide proper watt density for maximum heat dissipation by fan-forced air convection currents.

**Terminal Block:** For single strike field wiring.

**Low Voltage Terminal Block:** For 24 Volt control.

**Air Filter:** Convenient access for replacement of standard 16" x 20" x 1" filter.

**Motor:** Long life, 48 frame capacitor run, thermally protected, permanently lubricated, direct drive motor (no belts to adjust or slip). This low noise, up to 3-speed motor is designed for maintenance-free operation.

**Overcurrent Protection:** 480 volt models have single strike terminal block. Units over 48 amps have 60 amp fusing.

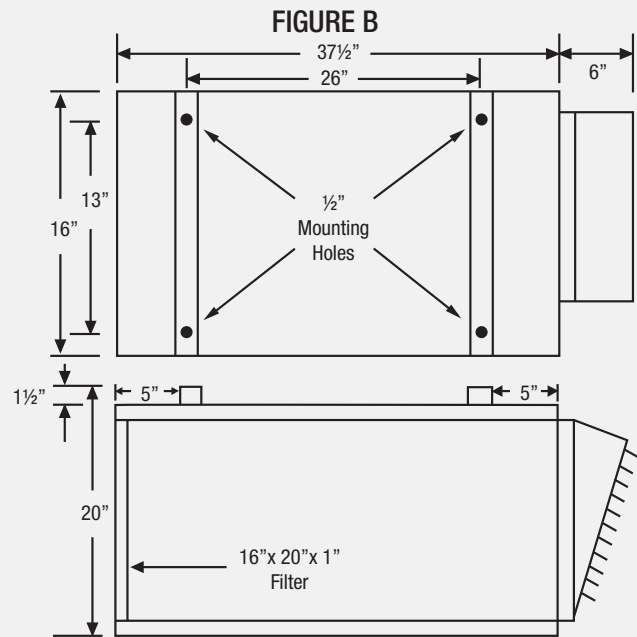
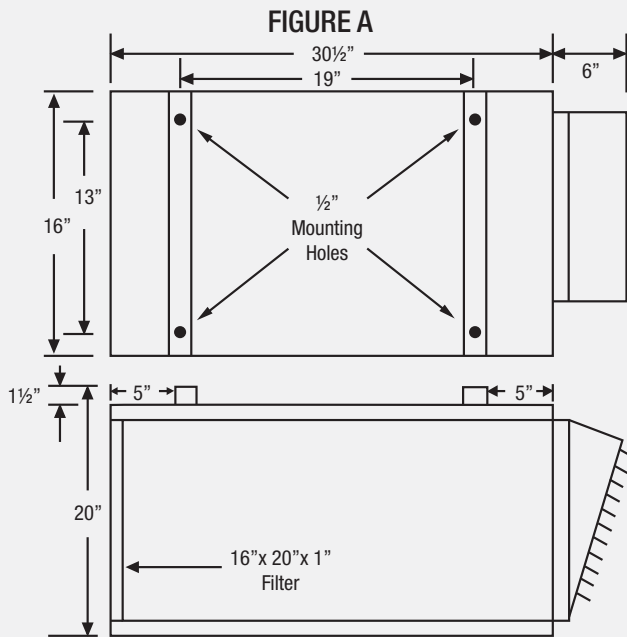
**Limit Control:** Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 kW use a manual reset limit control to completely shut the unit heater off should overtemperature occur.

**Fan Relay:** Heavy duty fan relay standard with summer fan operation.

**Approvals:** UL (E41422)

# High Air Velocity Unit Heater KFUH Series

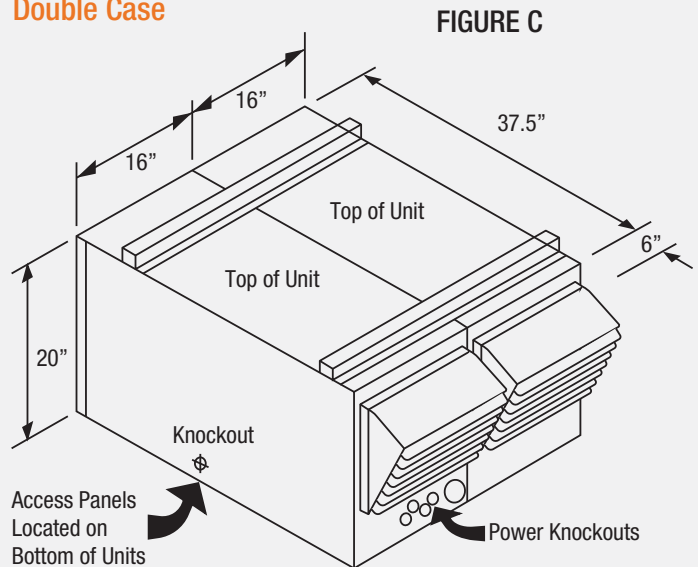
## Dimensional Data



## Air Flow Chart

| MODEL    | KW   | HP  | BLOWER | CFM  | RISE (F) |
|----------|------|-----|--------|------|----------|
| KFUH**04 | 4    | 1/5 | 90-7R  | 832  | 15       |
| KFUH**05 | 5    | 1/5 | 90-7R  | 832  | 19       |
| KFUH**07 | 7.5  | 1/5 | 90-7R  | 1030 | 23       |
| KFUH**08 | 8    | 1/5 | 90-7R  | 1030 | 25       |
| KFUH**10 | 10   | 1/5 | 90-7R  | 1030 | 31       |
| KFUH**12 | 12.5 | 1/3 | 90-7R  | 1168 | 37       |
| KFUH**15 | 15   | 1/3 | 90-7R  | 1168 | 41       |
| KFUH**18 | 17.5 | 1/3 | 90-7R  | 1376 | 40       |
| KFUH**20 | 20   | 1/2 | 100-8T | 1575 | 40       |
| KFUH**25 | 25   | 1/2 | 100-8T | 1690 | 47       |
| KFUH**30 | 30   | 3/4 | 100-8T | 1987 | 48       |
| KFUH**35 | 35   | 3/4 | 100-8T | 2154 | 51       |

## Double Case



(1) \*\* Represents the voltage, 20=208V, 24=240V, 48=480V.  
Voltage of the KF/KFS unit does not affect the data in this table.

90-7R 9" Blower Wheel Diameter, 7" Wide

100-8T 10" Blower Wheel Diameter, 8" Wide

HP PSC Motor

# High Air Velocity Unit Heater KFUH Series

## Diffusers



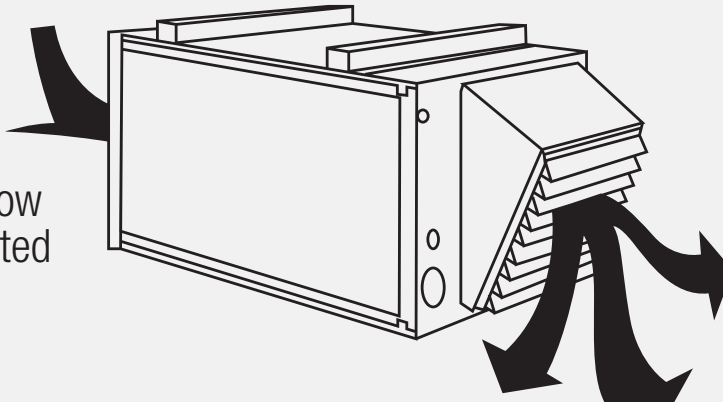
KFUH-90RD



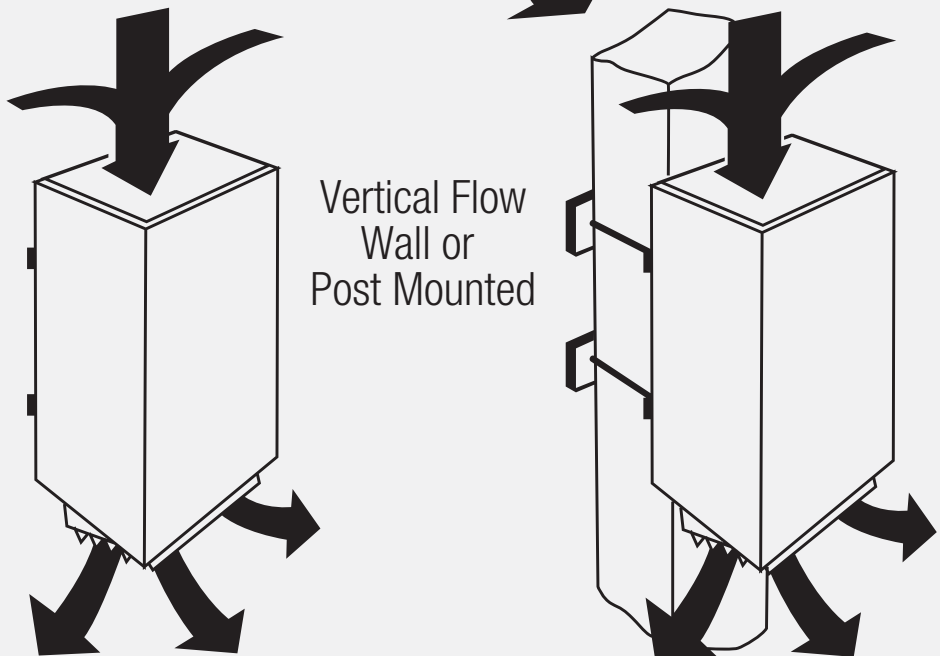
KFUH-90D

## Mounting

Horizontal Flow  
Ceiling Mounted



Vertical Flow  
Wall or  
Post Mounted





# High Air Velocity Unit Heater KFUH ECO2S Series



### Model Code:

|      |    |    |    |
|------|----|----|----|
| KFUH | 24 | 10 | -1 |
| A    | B  | C  | D  |

A: Series  
B: 20 - 208V 24 - 240V  
C: Kilowatts  
D: 1 or 3-phase

Shown with KFUH DIFFUSER. KFUH DIFFUSER required for this heater and is sold separately



- Energy efficient ECM motor
- 2-Stage comfort heating 15% Savings
- Heavy duty open coil element
- Dual inlet industrial blower
- Horizontal or vertical mount
- Direct drive air over type motor
- Adjustable louver hood (sold separately)
- Quiet switching relays
- Replaceable intake filter
- 24 Volt control
- Ductable on intake and outlet
- Fan-only relay
- 3 speeds
- 5-year limited warranty



## The KFUH ECO2S High Air Velocity Unit Heater

### ENERGY SAVINGS meets MAXIMUM COMFORT with the ECM Motor & 2 Stage Heating

The KFUH ECO2S Model adds a state of the art electronically controlled motor and 2 heating stages for added comfort and Maximum Energy Savings. The KFUH series commercial unit heater is an efficient, dependable unit heater perfectly suited for high ceiling applications such as warehouses, parking garages and docks. The 3-speed, ECM motor and blower quietly delivers large volumes of air ranging from 775 to 1540 CFM minimum. With welded mounting channels on the unit, the heater may be mounted at any angle. Safety screens are provided at both the air intake and discharge aperture. The intake filter is replaceable. Thermostat may be ordered separately.

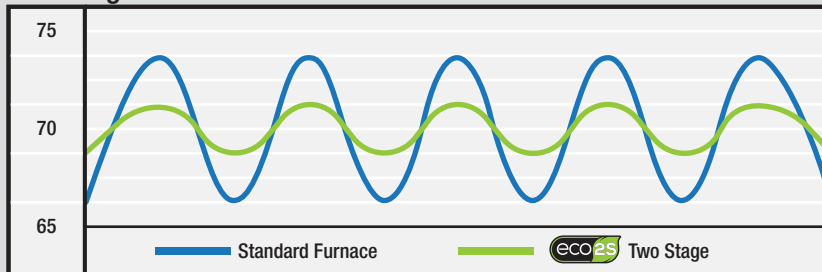
**FIELD WIRING:** Terminal blocks are supplied for field wiring on all units. Consult the National Electric Code for proper wire size and service circuit breaker protection. **CONTROL WIRING:** Connect low voltage thermostat to terminals R and W on the low voltage terminal block. For fan only operation connect terminals R and G with a switch or thermostat fan switch. Unit shown with standard diffuser model # KFUH DIFFUSER ordered separately. Unit shown with standard diffuser model # KFUH DIFFUSER ordered separately. Additional diffusers are located on the 3rd page of this specification sheet.

## TWO STAGE COMFORT Why 2 Stage is Better

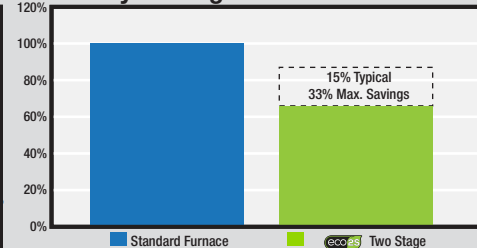
2 Stage controlled Furnaces allow you to use less energy during mild Spring and Fall temperatures. It's like having a smaller furnace installed just for spring and fall, then when winter hits you have the reserve power of the second heating stage to fight off the cold weather. It also has the benefit of creating more even comfort temperatures.

**Note:** The Furnace will run a percentage longer to reach the room temperature so the ECM motors efficiency is key to getting the most out of your Furnace.

### Two Stage Comfort

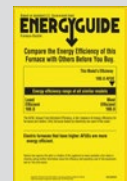
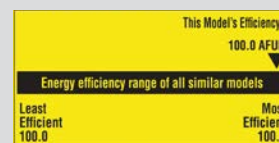


### Yearly Savings



The KFUH ECO2S is more efficient and will save you up to 33% more per year versus standard furnace motors

- Designed for extended life
- Energy efficient
- Improved reliability
- Cooler operating temperature
- 3 speeds
- 15% 2 Stage



# High Air Velocity Unit Heater KFUH ECO2S Series

## Ordering Information- single phase

| MODEL              | BTUH    | VOLTS | PHASE | KW   | RESISTIVE AMPS | STAGE1  | STAGE2  | # OF ELEMENTS | INTERNAL CB | MOTOR  | MOTOR FLA | SIZE   | WT.(lbs) |
|--------------------|---------|-------|-------|------|----------------|---------|---------|---------------|-------------|--------|-----------|--------|----------|
| KFUH2004-1-ECM     | 12,799  | 208   | 1     | 3.8  | 18             | 4 kW    | *N/A    | 1             | NO          | 1/3 HP | 2.9       | Fig. A | 57.0     |
| KFUH2005-1-ECM     | 17,065  | 208   | 1     | 5.0  | 24             | 5 kW    | *N/A    | 1             | NO          | 1/3 HP | 2.9       | Fig. A | 57.0     |
| KFUH2008-1-2S1-ECM | 27,304  | 208   | 1     | 8.0  | 38             | 4.25 kW | 3.75 kW | 2             | NO          | 1/3 HP | 2.9       | Fig. A | 57.0     |
| KFUH2010-1-2S1-ECM | 34,130  | 208   | 1     | 10.0 | 48             | 5 kW    | 5kW     | 2             | 60          | 1/3 HP | 2.9       | Fig. A | 65.0     |
| KFUH2012-1-2S1-ECM | 40,956  | 208   | 1     | 12.0 | 58             | 7.5 kW  | 4.5 kW  | 3             | 60          | 1/3 HP | 2.9       | Fig. A | 74.0     |
| KFUH2015-1-2S1-ECM | 51,195  | 208   | 1     | 15.0 | 72             | 10 kW   | 5 kW    | 3             | 60+60       | 1/3 HP | 2.9       | Fig. A | 74.0     |
| KFUH2018-1-2S1-ECM | 58,874  | 208   | 1     | 17.3 | 83             | 8.65 kW | 8.65 kW | 4             | 60+60       | 1/3 HP | 2.9       | Fig. B | 74.0     |
| KFUH2020-1-2S1-ECM | 68,260  | 208   | 1     | 20.0 | 96             | 10 kW   | 10kW    | 4             | 60+60       | 1/2 HP | 2.9       | Fig. B | 76.0     |
| KFUH2025-1-2S1-ECM | 85,325  | 208   | 1     | 25.0 | 120            | 15 kW   | 10 kW   | 5             | 60+60+60    | 1/2 HP | 2.9       | Fig. B | 81.0     |
| KFUH2030-1-2S1-ECM | 102,390 | 208   | 1     | 30.0 | 144            | 20 kW   | 10 kW   | 6             | 60+60+60    | 3/4 HP | 2.9       | Fig. B | 85.0     |
| KFUH2404-1-ECM     | 13,652  | 240   | 1     | 4.0  | 17             | 4 kW    | *N/A    | 1             | NO          | 1/3 HP | 2.7       | Fig. A | 57.0     |
| KFUH2405-1-ECM     | 17,065  | 240   | 1     | 5.0  | 21             | 5 kW    | *N/A    | 1             | NO          | 1/3 HP | 2.7       | Fig. A | 57.0     |
| KFUH2408-1-2S1-ECM | 27,304  | 240   | 1     | 8.0  | 33             | 4 kW    | 4 kW    | 2             | NO          | 1/3 HP | 2.7       | Fig. A | 57.0     |
| KFUH2410-1-2S1-ECM | 34,130  | 240   | 1     | 10.0 | 42             | 5kW     | 5 kW    | 2             | NO          | 1/3 HP | 2.7       | Fig. A | 65.0     |
| KFUH2412-1-2S1-ECM | 40,956  | 240   | 1     | 12.0 | 50             | 5.75 kW | 5.75 kW | 2             | 60          | 1/3 HP | 2.7       | Fig. A | 74.0     |
| KFUH2415-1-2S1-ECM | 51,195  | 240   | 1     | 15.0 | 63             | 10 kw   | 5 kW    | 3             | 60+60       | 1/3 HP | 2.7       | Fig. A | 74.0     |
| KFUH2418-1-2S1-ECM | 58,874  | 240   | 1     | 17.3 | 72             | 11.5 kw | 5.75 kW | 3             | 60+60       | 1/3 HP | 2.7       | Fig. A | 74.0     |
| KFUH2420-1-2S1-ECM | 68,260  | 240   | 1     | 20.0 | 83             | 10kw    | 10 kW   | 4             | 60+60       | 1/2 HP | 3.9       | Fig. B | 76.0     |
| KFUH2425-1-2S1-ECM | 85,325  | 240   | 1     | 25.0 | 104            | 15 kW   | 10 kW   | 5             | 60+60+60    | 1/2 HP | 3.9       | Fig. B | 81.0     |
| KFUH2430-1-2S1-ECM | 102,390 | 240   | 1     | 30.0 | 125            | 20 kW   | 10 kW   | 6             | 60+60+60    | 3/4 HP | 3.9       | Fig. B | 85.0     |
| KFUH2435-1-2S1-ECM | 117,749 | 240   | 1     | 34.5 | 144            | 23 kW   | 11.5 kW | 6             | 60+60+60    | 3/4 HP | 3.9       | Fig. B | 85.0     |
| KFUH4804-1-ECM     | 13,652  | 480   | 1     | 4.0  | 8              | 4 kW    | *N/A    | 1             | NO          | 1/3 HP | 0.7       | Fig. A | 57.0     |
| KFUH4805-1-ECM     | 17,065  | 480   | 1     | 5.0  | 10             | 5 kW    | *N/A    | 1             | NO          | 1/3 HP | 0.7       | Fig. A | 57.0     |
| KFUH4808-1-2S1-ECM | 27,304  | 480   | 1     | 8.0  | 17             | 4 kW    | 4 kW    | 2             | NO          | 1/3 HP | 0.7       | Fig. A | 57.0     |
| KFUH4810-1-2S1-ECM | 34,130  | 480   | 1     | 10.0 | 21             | 5 kW    | 5 kW    | 2             | NO          | 1/3 HP | 0.7       | Fig. A | 65.0     |
| KFUH4812-1-2S1-ECM | 40,956  | 480   | 1     | 12.0 | 25             | 8 kW    | 4 kW    | 3             | NO          | 1/3 HP | 0.7       | Fig. A | 74.0     |
| KFUH4815-1-2S1-ECM | 51,195  | 480   | 1     | 15.0 | 31             | 10 kW   | 5 kW    | 3             | NO          | 1/3 HP | 0.7       | Fig. A | 74.0     |
| KFUH4818-1-2S1-ECM | 58,874  | 480   | 1     | 17.3 | 36             | 11.5 kW | 5.75 kW | 3             | NO          | 1/3 HP | 0.7       | Fig. A | 74.0     |
| KFUH4820-1-2S1-ECM | 68,260  | 480   | 1     | 20.0 | 42             | 15 kW   | 5 kW    | 4             | NO          | 1/2 HP | 1.1       | Fig. B | 76.0     |
| KFUH4825-1-2S1-ECM | 85,325  | 480   | 1     | 25.0 | 52             | 15 kW   | 10 kW   | 5             | 60          | 1/2 HP | 1.1       | Fig. B | 81.0     |
| KFUH4830-1-2S1-ECM | 102,390 | 480   | 1     | 30.0 | 63             | 20 kW   | 10 kW   | 6             | 60+60       | 3/4 HP | 1.1       | Fig. B | 85.0     |
| KFUH4835-1-2S1-ECM | 117,749 | 480   | 1     | 34.5 | 72             | 23 kW   | 11.5 kW | 6             | 60+60       | 3/4 HP | 1.1       | Fig. B | 85.0     |

\*Not Available in 2-Stage.

## Ordering Information- three phase

| MODEL              | BTUH    | VOLTS | PHASE | KW   | RESISTIVE AMPS | STAGE1   | STAGE2   | # OF ELEMENTS | INTERNAL CB | MOTOR      | MOTOR FLA | SIZE   | WT.(lbs) |
|--------------------|---------|-------|-------|------|----------------|----------|----------|---------------|-------------|------------|-----------|--------|----------|
| KFUH2005-3-ECM     | 17,065  | 208   | 3     | 5.0  | 14             | 5 kW     | N/A      | 1             | NO          | 1/3 HP     | 2.9       | Fig. A | 57.0     |
| KFUH2008-3-2S3-ECM | 27,304  | 208   | 3     | 8.0  | 22             | 4 kW     | 4 kW     | 2             | NO          | 1/3 HP     | 2.9       | Fig. A | 57.0     |
| KFUH2010-3-2S3-ECM | 34,130  | 208   | 3     | 10.0 | 28             | 5 kW     | 5 kW     | 2             | NO          | 1/3 HP     | 2.9       | Fig. A | 65.0     |
| KFUH2012-3-2S3-ECM | 42,253  | 208   | 3     | 12.4 | 34             | 7.5 kW   | 3.75 kW  | 3             | NO          | 1/3 HP     | 2.9       | Fig. A | 74.0     |
| KFUH2015-3-2S3-ECM | 51,195  | 208   | 3     | 15.0 | 42             | 10 kW    | 5 kW     | 3             | NO          | 1/3 HP     | 2.9       | Fig. A | 74.0     |
| KFUH2020-3-2S3-ECM | 68,260  | 208   | 3     | 20.0 | 56             | 15 kW    | 5 kW     | 4             | 60          | 1/2 HP     | 4.2       | Fig. B | 76.0     |
| KFUH2025-3-2S3-ECM | 85,325  | 208   | 3     | 25.0 | 69             | 15 kW    | 10 kW    | 5             | 60+60       | 1/2 HP     | 4.2       | Fig. B | 81.0     |
| KFUH2030-3-2S3-ECM | 102,390 | 208   | 3     | 30.0 | 83             | 20 kW    | 10 kW    | 6             | 60+60       | 3/4 HP     | 4.2       | Fig. B | 85.0     |
| KFUH2040-3-2S3-ECM | 136,520 | 208   | 3     | 40.0 | 111            | 20kW     | 20 kW    | 8             | 60+60       | 2 x 1/2 HP | 8.4       | Fig. C | N/A      |
| KFUH2050-3-2S3-ECM | 170,650 | 208   | 3     | 50.0 | 139            | 25 kW    | 25 kW    | 10            | 60+60       | 2 x 1/2 HP | 8.4       | Fig. C | N/A      |
| KFUH2060-3-2S3-ECM | 204,780 | 208   | 3     | 60.0 | 167            | 30 kW    | 30 kW    | 12            | 60+60+60    | 2 x 3/4 HP | 8.4       | Fig. C | N/A      |
| KFUH2405-3-ECM     | 17,065  | 240   | 3     | 5.0  | 12             | 5 kW     | *N/A     | 1             | NO          | 1/3 HP     | 2.7       | Fig. A | 57.0     |
| KFUH2410-3-2S3-ECM | 34,130  | 240   | 3     | 10.0 | 24             | 5 kW     | 5 kW     | 2             | NO          | 1/3 HP     | 2.7       | Fig. A | 65.0     |
| KFUH2412-3-2S3-ECM | 40,956  | 240   | 3     | 12.0 | 29             | 6 kW     | 6 kW     | 3             | NO          | 1/3 HP     | 2.7       | Fig. A | 74.0     |
| KFUH2415-3-2S3-ECM | 51,195  | 240   | 3     | 15.0 | 36             | 10 kW    | 5 kW     | 3             | NO          | 1/3 HP     | 2.7       | Fig. A | 74.0     |
| KFUH2418-3-ECM     | 58,874  | 240   | 3     | 17.3 | 42             | 17.25 kW | *N/A     | 3             | NO          | 1/3 HP     | 2.7       | Fig. A | 74.0     |
| KFUH2420-3-2S3-ECM | 68,260  | 240   | 3     | 20.0 | 48             | 10 kW    | 10 kW    | 4             | 60          | 1/2 HP     | 3.9       | Fig. B | 76.0     |
| KFUH2425-3-2S3-ECM | 85,325  | 240   | 3     | 25.0 | 60             | 15 kW    | 10 kW    | 5             | 60          | 1/2 HP     | 3.9       | Fig. B | 81.0     |
| KFUH2430-3-2S3-ECM | 102,390 | 240   | 3     | 30.0 | 72             | 20 kW    | 10kW     | 6             | 60+60       | 3/4 HP     | 3.9       | Fig. B | 85.0     |
| KFUH2435-3-2S3-ECM | 117,749 | 240   | 3     | 34.5 | 83             | 17.25 kW | 17.25 kW | 6             | 60+60       | 3/4 HP     | 3.9       | Fig. B | 85.0     |
| KFUH2440-3-2S3-ECM | 136,520 | 240   | 3     | 40.0 | 96             | 20 kW    | 20 kW    | 8             | 60+60       | 2 x 1/2 HP | 7.8       | Fig. C | N/A      |
| KFUH2450-3-2S3-ECM | 170,650 | 240   | 3     | 50.0 | 120            | 25 kW    | 25 kW    | 10            | 60+60       | 2 x 1/2 HP | 7.8       | Fig. C | N/A      |
| KFUH2460-3-2S3-ECM | 204,780 | 240   | 3     | 60.0 | 145            | 30 kW    | 30 kW    | 12            | 60+60+60    | 2 x 3/4 HP | 7.8       | Fig. C | N/A      |
| KFUH2470-3-ECM     | 238,910 | 240   | 3     | 70.0 | 169            | 70 kW    | *N/A     | 12            | 60+60+60    | 2 x 3/4 HP | 7.8       | Fig. C | N/A      |
| KFUH4805-3-ECM     | 17,065  | 480   | 3     | 5.0  | 6              | 5 kW     | *N/A     | 1             | NO          | 1/3 HP     | 0.7       | Fig. A | 57.0     |
| KFUH4810-3-2S3-ECM | 34,130  | 480   | 3     | 10.0 | 12             | 5 kW     | 5 kW     | 2             | NO          | 1/3 HP     | 0.7       | Fig. A | 65.0     |
| KFUH4812-3-ECM     | 40,956  | 480   | 3     | 12.0 | 14             | 12 kW    | *N/A     | 3             | NO          | 1/3 HP     | 0.7       | Fig. A | 74.0     |
| KFUH4815-3-2S3-ECM | 51,195  | 480   | 3     | 15.0 | 18             | 10 kW    | 5 kW     | 3             | NO          | 1/3 HP     | 0.7       | Fig. A | 74.0     |

\*Not Available in 2-Stage.

# High Air Velocity Unit Heater KFUH ECO2S Series

## Ordering Information - three phase

| MODEL              | BTUH    | VOLTS | PHASE | KW   | RESISTIVE AMPS | STAGE1   | STAGE2   | # OF ELEMENTS | INTERNAL CB | MOTOR      | MOTOR FLA | SIZE   | WT.(lbs) |
|--------------------|---------|-------|-------|------|----------------|----------|----------|---------------|-------------|------------|-----------|--------|----------|
| KFUH4818-3-ECM     | 58,874  | 480   | 3     | 17.3 | 21             | 17.3 kW  | *N/A     | 3             | NO          | 1/3 HP     | 0.7       | Fig. A | 74.0     |
| KFUH4820-3-2S3-ECM | 68,260  | 480   | 3     | 20.0 | 24             | 10 kW    | 10 kW    | 4             | NO          | 1/2 HP     | 1.1       | Fig. B | 76.0     |
| KFUH4825-3-2S3-ECM | 85,325  | 480   | 3     | 25.0 | 30             | 15 kW    | 10 kW    | 5             | NO          | 1/2 HP     | 1.1       | Fig. B | 81.0     |
| KFUH4830-3-2S3-ECM | 102,390 | 480   | 3     | 30.0 | 36             | 20 kW    | 10 kW    | 6             | NO          | 3/4 HP     | 1.1       | Fig. B | 85.0     |
| KFUH4835-3-2S3-ECM | 117,749 | 480   | 3     | 34.5 | 42             | 17.25 kW | 17.25 kW | 6             | NO          | 3/4 HP     | 1.1       | Fig. B | 85.0     |
| KFUH4840-3-2S3-ECM | 136,520 | 480   | 3     | 40.0 | 48             | 20 kW    | 20 kW    | 8             | 60          | 2 x 1/2 HP | 2.2       | Fig. C | N/A      |
| KFUH4850-3-2S3-ECM | 170,650 | 480   | 3     | 50.0 | 60             | 25 kW    | 25 kW    | 10            | 60+60       | 2 x 1/2 HP | 2.2       | Fig. C | N/A      |
| KFUH4860-3-2S3-ECM | 204,780 | 480   | 3     | 60.0 | 72             | 30 kW    | 30 kW    | 12            | 60+60       | 2 x 3/4 HP | 2.2       | Fig. C | N/A      |
| KFUH4870-3-ECM     | 238,910 | 480   | 3     | 70.0 | 84             | 70 kW    | *N/A     | 12            | 60+60       | 2 x 3/4 HP | 2.2       | Fig. C | N/A      |

\*Not Available in 2-Stage.

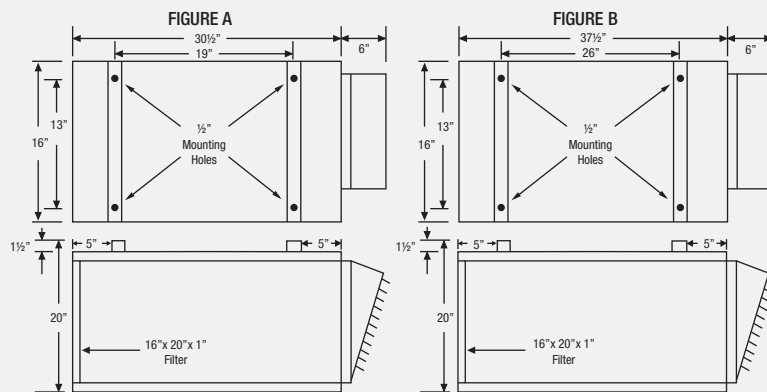
## Factory Installed Options

| ADD SUFFIX | DESCRIPTION   | WEIGHT (lbs.) |
|------------|---|---------------|
| -T         | Factory Installed Stat (SPST). Temperature range 40°F to 100°F        | N/A           |
| -2TS       | Factory Installed Stat (DPST). Temperature range 40°F to 100°F        | N/A           |
| -SF        | Factory Installed Summer Fan Switch                                   | N/A           |
| -DS32      | Factory Installed 32 Amp, 3-Pole Non-Fused Locking Disconnect Switch  | N/A           |
| -DS63      | Factory Installed 63 Amp, 3-Pole Non-Fused Locking Disconnect Switch  | NA            |
| -DS80      | Factory Installed 80 Amp, 3-Pole Non-Fused Locking Disconnect Switch  | N/A           |
| -DS100     | Factory Installed 100 Amp, 3-Pole Non-Fused Locking Disconnect Switch | N/A           |

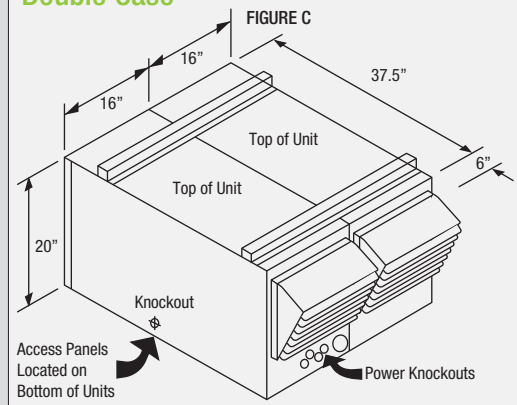
## Accessories

| MODEL         | UPC   | DESCRIPTION  | WEIGHT (lbs.) |
|---------------|-------|--|---------------|
| KFUH-DIFFUSER | 15741 | Standard KFUH Air Diffuser                               | 5.0           |
| KFUH-RD       | 15743 | Radial diffuser for wide pattern heat dispersion         | 4.0           |
| KFUH-90D      | 15728 | Right angle elbow (90°) diffuser with adjustable louvers | 15.0          |
| KFUH-90RD     | 15729 | Right angle elbow (90°) with radial diffuser             | 14.0          |
| 1E30N-910     | 55379 | Thermostat 24V Mercury Free-Vertical 45°-90°F            | 1.0           |

## Dimensional Data



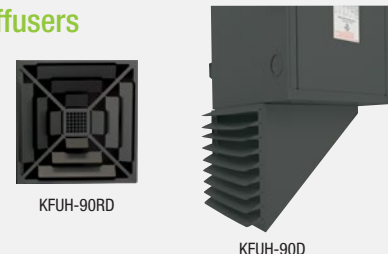
## Double Case



## Mounting



## Diffusers



# High Air Velocity Unit Heater KFUH ECO2S Series



## Air Flow Chart

(For 4 to 17.3kW Units with 1/3HP ECM Motor)

| MODEL    | KW   | TORQUE    | CFM   | RISE<br>(F) |
|----------|------|-----------|-------|-------------|
| KFUH**04 | 4    | (2) 6.8   | 708   | 18          |
|          |      | 9.4       | 919   | 14          |
|          |      | 12.0      | 1,085 | 12          |
|          |      | 17.0      | 1,320 | 10          |
|          |      | 20.0      | 1,536 | 8           |
| KFUH**05 | 5    | (2) 6.8   | 708   | 22          |
|          |      | 9.4       | 919   | 17          |
|          |      | 12.0      | 1,085 | 15          |
|          |      | 17.0      | 1,320 | 12          |
|          |      | 20.0      | 1,536 | 10          |
| KFUH**08 | 8    | (1) 6.8   | 708   | 36          |
|          |      | (2) 9.4   | 919   | 27          |
|          |      | 12.0      | 1,085 | 23          |
|          |      | 17.0      | 1,320 | 19          |
|          |      | 20.0      | 1,536 | 16          |
| KFUH**10 | 10   | (1) 6.8   | 708   | 45          |
|          |      | (2) 9.4   | 919   | 34          |
|          |      | 12.0      | 1,085 | 29          |
|          |      | 17.0      | 1,320 | 24          |
|          |      | 20.0      | 1,536 | 21          |
| KFUH**12 | 12   | (1) 6.8   | 708   | 54          |
|          |      | (2) 9.4   | 919   | 41          |
|          |      | 12.0      | 1,085 | 35          |
|          |      | 17.0      | 1,320 | 29          |
|          |      | 20.0      | 1,536 | 25          |
| KFUH**15 | 15   | (1) 6.8   | 708   | 67          |
|          |      | 9.4       | 919   | 52          |
|          |      | (2) 12.0  | 1,085 | 44          |
|          |      | 17.0      | 1,320 | 36          |
|          |      | 20.0      | 1,536 | 31          |
| KFUH**18 | 17.3 | 6.8       | 708   | 77          |
|          |      | (1) 9.4   | 919   | 59          |
|          |      | 12.0      | 1,085 | 50          |
|          |      | x(2) 17.0 | 1,320 | 41          |
|          |      | 20.0      | 1,536 | 35          |

## Air Flow Chart

(For 20 to 25kW Units with 1/2HP ECM Motor)

| MODEL      | KW | TORQUE   | CFM   | RISE<br>(F) |
|------------|----|----------|-------|-------------|
| KF/KFS**20 | 20 | (1) 15.5 | 1,258 | 50          |
|            |    | (2) 19.0 | 1,466 | 43          |
|            |    | 22.5     | 1,575 | 40          |
|            |    | 26.0     | 1,690 | 37          |
|            |    | 30.0     | 1,771 | 36          |
| KF/KFS**25 | 25 | 15.5     | 1,258 | 63          |
|            |    | (1) 19.0 | 1,466 | 54          |
|            |    | 22.5     | 1,575 | 50          |
|            |    | (2) 26.0 | 1,690 | 47          |
|            |    | 30.0     | 1,771 | 45          |

## Air Flow Chart

(For 20 to 35kW Units with 3/4HP ECM Motor)

| MODEL                              | KW | TORQUE   | CFM   | RISE<br>(F) |
|------------------------------------|----|----------|-------|-------------|
| KF/KFS**20<br>(Optional)<br>3/4 HP | 20 | (1) 26.0 | 1,592 | 40          |
|                                    |    | 30.0     | 1,789 | 35          |
|                                    |    | (2) 35.0 | 1,814 | 35          |
|                                    |    | 40.5     | 2,080 | 30          |
|                                    |    | 45.0     | 2,142 | 30          |
| KF/KFS**25<br>(Optional)<br>3/4 HP | 25 | (1) 26.0 | 1,592 | 50          |
|                                    |    | 30.0     | 1,789 | 44          |
|                                    |    | (2) 35.0 | 1,814 | 44          |
|                                    |    | 40.5     | 2,080 | 38          |
|                                    |    | 45.0     | 2,142 | 37          |
| KF/KFS**30                         | 30 | (1) 26.0 | 1,592 | 60          |
|                                    |    | 30.0     | 1,789 | 53          |
|                                    |    | 35.0     | 1,814 | 52          |
|                                    |    | (2) 40.5 | 2,080 | 46          |
|                                    |    | 45.0     | 2,142 | 44          |
| KF/KFS**35                         | 35 | 26.0     | 1,592 | 69          |
|                                    |    | (1) 30.0 | 1,789 | 62          |
|                                    |    | 35.0     | 1,814 | 61          |
|                                    |    | (2) 40.5 | 2,080 | 53          |
|                                    |    | 45.0     | 2,142 | 52          |

(A) \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

(B) NR= Not Recommended, Temperature Rise is above maximum design parameter.

(C) The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

(D) (1)= Stage 1 Torque Settings (2) = Stage 2 Torque Settings / (2) = Default for Single Stage KFUH

(E) Blower: 10" diameter, 8" wide

## Engineering Specifications

*Contractor shall supply and install KFUH ECO2S Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Transformer:** Each unit is equipped with a heavy duty low voltage (24 Volt) transformer for the thermostat control circuit.

**Heating Elements:** Quick heating, long life Ni-Chrome elements are sized to provide proper watt density for maximum heat dissipation by fan-forced air convection currents.

**Terminal Block:** For single strike field wiring.

**Low Voltage Terminal Block:** For 24 Volt control.

**Air Filter:** Convenient access for replacement of standard 16" x 20" x 1" filter.

**Motor:** Energy Saving, Long life, thermally protected, permanently lubricated, direct drive ECM motor—no belts to adjust or slip.

This low noise, 3 speed motor is designed for use with air conditioning capability as well as heating. Very quiet operating. 60 second fan delay.

**Overcurrent Protection:** 208 & 240 volt KFUH ECO2S models have 60 amp circuit breakers with single strike terminal block. Units over 48 amps have 60 amp fusing.

**Limit Control:** Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 kW use a manual reset limit control to completely shut the unit heater off should overtemperature occur.

**Fan Relay:** Heavy duty fan relay standard with summer fan operation.

**Approvals:** UL (E41422)

# Electronic Portable Unit Heater PKB Series



## PLATINUM

### Model Code:

|                                      |    |    |    |
|--------------------------------------|----|----|----|
| PKB                                  | 20 | 10 | -1 |
| A                                    | B  | C  | D  |
| A: Series                            |    |    |    |
| B: 20 - 208V, 24 - 240V<br>48 - 480V |    |    |    |
| C: KW (10)                           |    |    |    |
| D: 1-Phase, 3-Phase                  |    |    |    |

- Platinum electronic temperature controller
- Patented Smart Limit Protection®
- Standard color: Textured gray
- Large LED display
- Adjustable louvers
- 6ft. SO cord (no plug)
- Remote control included
- Unit bearing motor
- Heavy duty 16 gauge wheel base
- Fan Only & timer modes
- Spiral finned heat elements
- 2-year limited warranty



## The PKB Platinum Electronic Portable Utility Heater

King's PKB Electronic Portable Utility Heaters are the most full-featured utility heaters on the market, with in-built Platinum electronic thermostat for accuracy and remote control for simple operation. With integrated summer fan only and thermostat timer mode, the PKB Platinum has you covered. Constructed to hold up to the rigorous demands of a jobsite or industrial facility. It is the best heat source to assist in dry-out applications where dry electric heat is preferred to propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the PKB Platinum the best solution for temporary large capacity heating applications. Spiral finned steel elements and high CFM ensure even air distribution producing cooler element operation, prolonging heater life.

### Ordering Information

|                 | MODEL          | KW       | BTUH      | PHASE | VOLTS    | AMPS      | CFM | SIZE | SO CORD SIZE |
|-----------------|----------------|----------|-----------|-------|----------|-----------|-----|------|--------------|
| <b>208V</b>     | PKB2007-1-P    | 7.5      | 25.6      | 1     | 208      | 36.1      | 600 | B    | 8/3          |
|                 | PKB2010-1-P    | 10       | 34.1      | 1     | 208      | 48.1      | 725 | B    | 6/3          |
|                 | PKB2015-1-P-FB | 15       | 51.2      | 1     | 208      | 72.1      | 925 | C    | 2/3          |
| <b>240/208V</b> | PKB2407-1-P    | 7.5/5.6  | 25.6/19.2 | 1     | 240/208* | 31.3/26.9 | 600 | B    | 8/3          |
|                 | PKB2410-1-P    | 10/7.5   | 34.1/25.6 | 1     | 240/208* | 41.7/36.1 | 725 | B    | 6/3          |
|                 | PKB2412-1-P-FB | 12.5/9.4 | 42.7/32.0 | 1     | 240/208* | 52.1/45.1 | 825 | C    | 6/3          |
|                 | PKB2415-1-P-FB | 15/11.25 | 51.2/38.4 | 1     | 240/208* | 62.5/54.1 | 925 | C    | 4/3          |
| <b>480V</b>     | PKB4807-1-P    | 7.5      | 25.6      | 1     | 480      | 15.6      | 600 | B    | 14/3         |
|                 | PKB4810-1-P    | 10       | 34.1      | 1     | 480      | 20.8      | 725 | B    | 12/3         |
|                 | PKB4812-1-P    | 12.5     | 42.7      | 1     | 480      | 26.0      | 825 | C    | 10/3         |
|                 | PKB4815-1-P    | 15       | 51.2      | 1     | 480      | 31.3      | 925 | C    | 8/3          |

|                 | MODEL          | KW       | BTUH       | PHASE | VOLTS    | AMPS      | CFM  | SIZE | SO CORD SIZE |
|-----------------|----------------|----------|------------|-------|----------|-----------|------|------|--------------|
| <b>208V</b>     | PKB2007-3-P    | 7.5      | 25.6       | 3     | 208      | 20.8      | 600  | C    | 10/4         |
|                 | PKB2010-3-P    | 10       | 34.1       | 3     | 208      | 27.7      | 725  | C    | 8/4          |
|                 | PKB2015-3-P    | 15       | 51.2       | 3     | 208      | 41.6      | 925  | C    | 6/4          |
|                 | PKB2020-3-P-FB | 20       | 68.2       | 3     | 208      | 55.5      | 1100 | C    | 4/4          |
| <b>240/208V</b> | PKB2407-3-P    | 7.5/5.6  | 25.6/19.2  | 3     | 240/208* | 18.0/15.5 | 600  | C    | 12/4         |
|                 | PKB2410-3-P    | 10/7.5   | 34.1/25.6  | 3     | 240/208* | 24.1/20.8 | 725  | C    | 10/4         |
|                 | PKB2412-3-P    | 12.5/9.4 | 42.7/32.0  | 3     | 240/208* | 30.1/26.1 | 825  | C    | 8/4          |
|                 | PKB2415-3-P    | 15/11.25 | 51.2/38.4  | 3     | 240/208* | 36.1/31.2 | 925  | C    | 6/4          |
|                 | PKB2420-3-P-FB | 20/15    | 68.2/51.20 | 3     | 240/208* | 48.1/41.6 | 1100 | C    | 4/4          |
| <b>480V</b>     | PKB4807-3-P    | 7.5      | 25.6       | 3     | 480      | 9.0       | 600  | C    | 14/4         |
|                 | PKB4810-3-P    | 10       | 34.1       | 3     | 480      | 12.0      | 725  | C    | 14/4         |
|                 | PKB4812-3-P    | 12.5     | 42.7       | 3     | 480      | 15.0      | 825  | C    | 12/4         |
|                 | PKB4815-3-P    | 15       | 51.2       | 3     | 480      | 18.0      | 925  | C    | 12/4         |
|                 | PKB4820-3-P    | 20       | 68.2       | 3     | 480      | 24.0      | 1100 | C    | 10/4         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.





# Electronic Portable Unit Heater PKB Series

## Platinum Electronic Controller Features

- Electronic control for accuracy
- Thermostat timer mode (1-9 Hours)
- Summer Fan only mode
- Large LED display
- Built-In fan delay
- Remote control included



## Engineering Specifications

Contractor shall supply and install PKB Series electronic utility heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Electronic Control:** Up, down temperature mode. Start/Stop. Standard on all heaters. The control voltage is equal to the line voltage (208, 240) for 5kW the line voltage control is operating the contactors.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Cord Length:** 6 Foot SO Cord (No Plug Provided)

**Approvals:** cETLus (517271) & (30314521)

## Options/Accessories

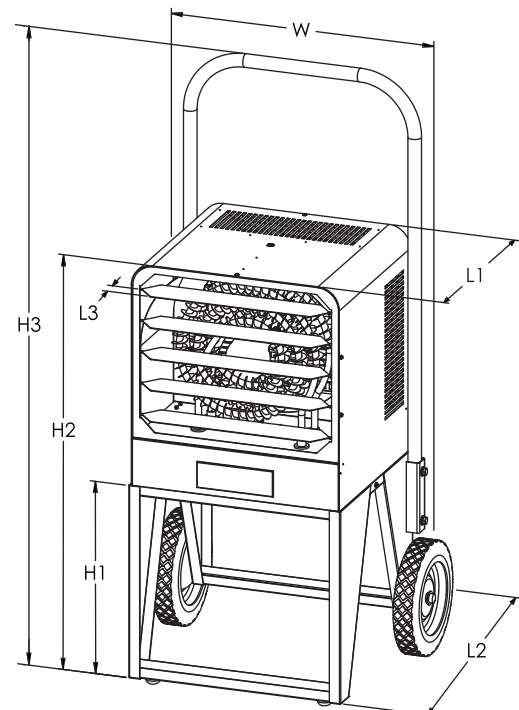
| ADD SUFFIX | DESCRIPTION         |
|------------|---------------------|
| -25C       | 25 foot cord option |

## Dimensional Data

| HEATER SIZE | DIMENSIONS |      |    |     |      |      |      |
|-------------|------------|------|----|-----|------|------|------|
|             | L1         | L2   | L3 | W   | H1   | H2   | H3   |
| A           | 13½"       | 17"  | 1" | 19" | 14¼" | 30¼" | 41¼" |
| B           | 18"        | 21½" | 1" | 19" | 14¼" | 30¼" | 41¼" |
| C           | 24"        | 21½" | 1" | 19" | 14¼" | 30¼" | 41¼" |

## Minimum Clearance

- front.....3 ft.
- top.....1 ft.
- sides.....1 ft.
- rear.....1 ft.





# Industrial Portable Wheeled Unit Heater PCKW Series



**Model Code:**  
**PCKW 48 20 -3**  
**A B C D**

**A:** Series  
**B:** 20 - 208V, 24 - 240V 48-480V  
**C:** kiloWatts (10 - 25)  
**D:** -1 = Single Phase  
 -3 = Three Phase



- High Mass Steel Fin Heat Exchangers
- Large Capacity Dual-Inlet Blower Handles High Static Pressure
- Moves Large Air Volumes (1500 CFM)
- Built-In Thermostat (40°-100°F)
- Washable Intake Air Filters
- Front & Back Carrying Handles
- 2 Heavy-Duty Pneumatic Wheels
- Heat Switch& Fan Only Switch
- Long Life 48 Frame Totally Enclosed Motor
- Patented Smart Limit Protection®
- N.E.M.A. 12" Gasket Construction
- 6ft SO Cord (No Plug)
- Optional 12" Duct Transition Available.
- Non-Mercury Tip Over Switch
- 2-Year Limited Warranty

## PCKW Industrial Portable Wheeled Unit Heater

The King PCKW industrial portable wheeled unit heater is constructed to hold up to the rigorous demands of a jobsite or industrial facility. This unit heater is the very BEST heat source to assist in complete "Dry-out" applications, where dry electric heat is preferred to propane or kerosene space heaters. In addition, electric heat omits absolutely no odor, flame or carbon monoxide. The high CFM and moderate temperature rise are also key features to make this unit heater the very best solution for temporary large capacity heating and dry-out applications. Features front and back carry handles and heavy-duty pneumatic wheels for ease of portability and washable intake air filters to simplify maintenance. Comes standard with a built-in thermostat, heat on and fan only switches for maximum temperature control. With the optional accessory PCKW-DT12 12" duct transition feature the heater can be ducted, to direct the heated air to required areas.

### Ordering Information

|             | MODEL      | UPC   | VOLTS    | kiloWATTS | BTUH | PHASE | AMPS      | MOTOR HP | CFM  | SOOW CORD GAUGE | WEIGHT LBS |
|-------------|------------|-------|----------|-----------|------|-------|-----------|----------|------|-----------------|------------|
| <b>208V</b> | PCKW2010-1 | 33095 | 208      | 10        | 34.1 | 1     | 48.1      | 1/4      | 1000 | 6/3             | 142        |
|             | PCKW2015-1 | 33096 | 208      | 15        | 51.2 | 1     | 72.1      | 1/3      | 1000 | 2/3             | 142        |
| <b>240V</b> | PCKW2410-1 | 33097 | 240/208* | 10/7.5    | 34.1 | 1     | 41.7/36.1 | 1/4      | 1000 | 6/3             | 142        |
|             | PCKW2415-1 | 33098 | 240/208* | 15/11.25  | 51.2 | 1     | 62.5/54.1 | 1/3      | 1000 | 4/3             | 142        |
|             | MODEL      | UPC   | VOLTS    | kiloWATTS | BTUH | PHASE | AMPS      | MOTOR HP | CFM  | SOOW CORD GAUGE | WEIGHT LBS |
| <b>208V</b> | PCKW2010-3 | 33099 | 208      | 10        | 34.1 | 3     | 27.7      | 1/4      | 1000 | 8/4             | 142        |
|             | PCKW2015-3 | 33100 | 208      | 15        | 51.2 | 3     | 41.6      | 1/3      | 1000 | 5/4             | 142        |
|             | PCKW2020-3 | 33101 | 208      | 20        | 68.3 | 3     | 55.5      | 1/2      | 1250 | 4/4             | 142        |
|             | PCKW2025-3 | 33102 | 208      | 25        | 85.3 | 3     | 69.4      | 1/2      | 1250 | 2/4             | 142        |
|             | PCKW2410-3 | 33104 | 240/208* | 10/7.5    | 34.1 | 3     | 24.1/20.8 | 1/4      | 1000 | 10/4            | 142        |
| <b>240V</b> | PCKW2415-3 | 33105 | 240/208* | 15/11.25  | 51.2 | 3     | 36.1/54.1 | 1/3      | 1000 | 6/4             | 142        |
|             | PCKW2420-3 | 33106 | 240/208* | 20/15     | 68.3 | 3     | 48.1/41.6 | 1/2      | 1250 | 4/4             | 142        |
|             | PCKW2425-3 | 33107 | 240/208* | 25/18.8   | 85.3 | 3     | 60.1/52.2 | 1/2      | 1250 | 2/4             | 142        |
|             | PCKW4810-3 | 33109 | 480      | 10        | 34.1 | 3     | 12.0      | 1/4      | 1000 | 14/4            | 142        |
|             | PCKW4815-3 | 33110 | 480      | 15        | 51.2 | 3     | 18.1      | 1/3      | 1000 | 12/4            | 142        |
| <b>480V</b> | PCKW4820-3 | 33111 | 480      | 20        | 68.3 | 3     | 24.0      | 1/2      | 1250 | 10/4            | 142        |
|             | PCKW4825-3 | 33112 | 480      | 25        | 85.3 | 3     | 30.1      | 1/2      | 1250 | 8/4             | 142        |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Field Installed Accessory

| ADD SUFFIX: | UPC   | DESCRIPTION                   |
|-------------|-------|-------------------------------|
| PCKW-DT12   | 33518 | 12" Duct Transition Accessory |

# Industrial Portable Wheeled Unit Heater PCKW Series

## Engineering Specifications

Contractor shall supply PCKW series Industrial Portable Unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** The heater case is fabricated from high tensile 18 gauge electrogalvanized steel that is welded together forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Washable Intake Air Filters:** Constructed of aluminum and protects against foreign objects entering the heater. 3 Washable Filters: .75" x 16" x 16" prevents dirt and dust build up in the heater.

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins and then formed into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60°C ambient. Large capacity dual-inlet blower handles high static pressure and moves large air volume. Motor leads are enclosed in a seal tight raceway to prolong equipment life & reduce maintenance.

**Air Intake Temperature Control:** A built-in thermostat located at the intake blower is factory set at 100°F which prevents the heater from operating when the ambient temperature exceeds this limit. This will prevent the heater from wasting energy and is an extra measure of safety.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

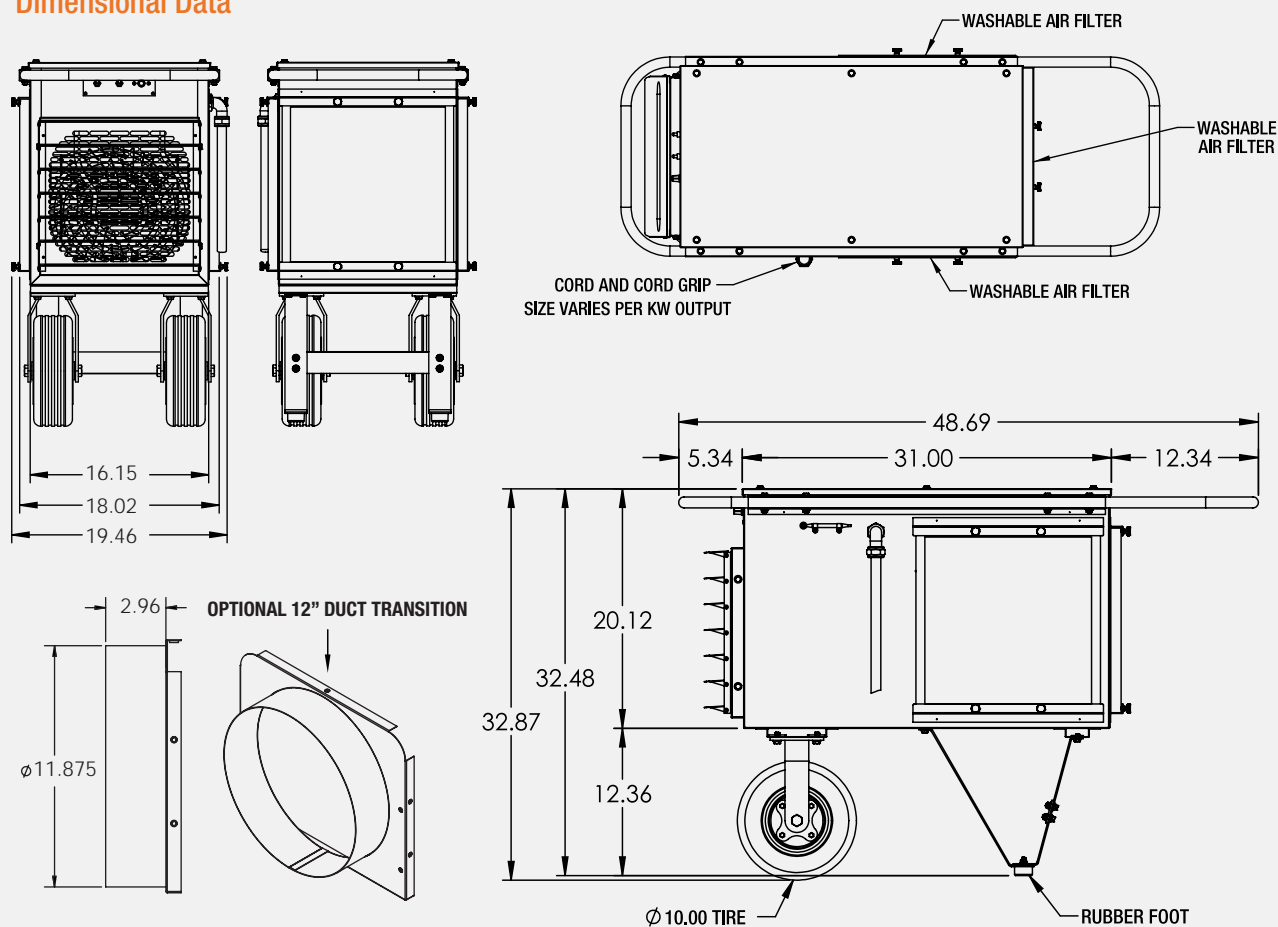
**Internal Controls:** Magnetic contactors are standard on all units. Sub circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard to dissipate residual heat from the heating elements.

**Easy Wiring:** Large wiring compartment allows quick access.

**Wheels:** 2 heavy-duty pneumatic wheels are provided for ease of portability.

**Approvals:** UL Certified to comply with UL 2021, standard for Fixed and Location-Dedicated Electric Room Heaters and CSA C22.2 No. 46 for Electric Air-Heaters.

### Dimensional Data



# Industrial Portable Outdoor Rated Unit Heater PCKF Series



(Shown with industrial steel frame and cord storage shelf)

### Model Code:

PCKF 48 20 -3  
A B C D

A: Series  
B: 20 - 208V, 24 - 240V 48-480V  
C: kiloWatts (10 - 25)  
D: -1 = Single Phase  
-3 = Three Phase



- UL Certified For Wet Locations
- Remote Thermostat w/100' cord
- Inlet Rain Baffle
- Industrial Frame w/ Integrated Grab Bars
- N.E.M.A. 12 Gasket Construction
- Complies FAA's Airport Regulations
- of 18 inch Ground Clearance
- High Mass Steel Fin Heat Exchangers
- Large Capacity Dual-Inlet Blower Handles High Static Pressure
- Moves Large Air Volumes
- 12" Duct Transitions
- 24V Control For Heat or Fan Only
- Replaceable Intake Air Filter
- Long Life 48 Frame Totally Enclosed Motor
- Patented Smart Limit Protection®
- 6ft SO Cord (No Plug)
- Durable 18-gauge steel enclosure
- Non-Mercury Tip Over switch
- Cord Storage Shelf
- 2-Year Limited Warranty

## PCKF Industrial Portable Unit Heater

The King PCKF industrial portable outdoor rated unit heater is constructed to hold up to the rigorous demands of a jobsite or industrial facility. The King PCKF industrial portable outdoor rated unit heater is constructed to hold up to the rigorous demands of a jobsite or industrial facility. This unit heater is the very BEST heat source to assist in complete "Dry-out" applications, where dry electric heat is preferred to propane or kerosene space heaters. In addition, electric heat omits absolutely no odor, flame or carbon monoxide. The high CFM and moderate temperature rise are also key features to make this unit heater the very best solution for temporary large capacity heating and dry-out applications. Comes standard with a remote thermostat & 100' cord plus a 12" collar for adding a flexible duct to extend the heated air to where it is needed. The Industrial Steel Frame complies with the FAA's Airport regulations of 18 inch above the ground for air inlet of the heater to reduce the jet fuel vapor being drawn in. This outdoor rated portable unit heater allows you to place the heater outside in the rain and feed heated air into a building structure, plane, container, apartment, ship or any work area requiring heated dry fresh air and not take up space in the work area. Includes an intake rain baffle and electrical compartment rain cover and is UL approved for Outdoor Use.

### Ordering Information

|      | MODEL      | UPC   | VOLTS    | kiloWATTS | BTUH | PHASE | AMPS      | MOTOR HP | CFM  | SOOW CORD GAUGE | WEIGHT LBS |
|------|------------|-------|----------|-----------|------|-------|-----------|----------|------|-----------------|------------|
| 208V | PCKF2010-1 | 33114 | 208      | 10        | 34.1 | 1     | 48.1      | 1/4      | 1000 | 6/3             | 157        |
|      | PCKF2015-1 | 33115 | 208      | 15        | 51.2 | 1     | 72.1      | 1/3      | 1000 | 2/3             | 157        |
| 240V | PCKF2410-1 | 33116 | 240/208* | 10/7.5    | 34.1 | 1     | 41.7/36.1 | 1/4      | 1000 | 6/3             | 157        |
|      | PCKF2415-1 | 33117 | 240/208* | 15/11.25  | 51.2 | 1     | 62.5/54.1 | 1/3      | 1000 | 4/3             | 157        |
|      | MODEL      | UPC   | VOLTS    | kiloWATTS | BTUH | PHASE | AMPS      | MOTOR HP | CFM  | SOOW CORD GAUGE | WEIGHT LBS |
| 208V | PCKF2010-3 | 33118 | 208      | 10        | 34.1 | 3     | 27.7      | 1/4      | 1000 | 8/4             | 157        |
|      | PCKF2015-3 | 33119 | 208      | 15        | 51.2 | 3     | 41.6      | 1/3      | 1000 | 5/4             | 157        |
|      | PCKF2020-3 | 33120 | 208      | 20        | 68.3 | 3     | 55.5      | 1/2      | 1250 | 4/4             | 157        |
|      | PCKF2025-3 | 33121 | 208      | 25        | 85.3 | 3     | 69.4      | 1/2      | 1250 | 2/4             | 157        |
|      | PCKF2410-3 | 33123 | 240/208* | 10/7.5    | 34.1 | 3     | 24.1/20.8 | 1/4      | 1000 | 10/4            | 157        |
| 240V | PCKF2415-3 | 33124 | 240/208* | 15/11.25  | 51.2 | 3     | 36.1/54.1 | 1/3      | 1000 | 6/4             | 157        |
|      | PCKF2420-3 | 33125 | 240/208* | 20/15     | 68.3 | 3     | 48.1/41.6 | 1/2      | 1250 | 4/4             | 157        |
|      | PCKF2425-3 | 33126 | 240/208* | 25/18.8   | 85.3 | 3     | 60.1/52.2 | 1/2      | 1250 | 2/4             | 157        |
|      | PCKF4810-3 | 33128 | 480      | 10        | 34.1 | 3     | 12.0      | 1/4      | 1000 | 14/4            | 157        |
| 480V | PCKF4815-3 | 33129 | 480      | 15        | 51.2 | 3     | 18.1      | 1/3      | 1000 | 12/4            | 157        |
|      | PCKF4820-3 | 33130 | 480      | 20        | 68.3 | 3     | 24.0      | 1/2      | 1250 | 10/4            | 157        |
|      | PCKF4825-3 | 33131 | 480      | 25        | 85.3 | 3     | 30.1      | 1/2      | 1250 | 8/4             | 157        |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Industrial Portable Outdoor Rated Unit Heater PCKF Series

## Accessories

| MODEL                 | UPC   | DESCRIPTION              |
|-----------------------|-------|--------------------------|
| DT-TENT-TRANSITION-12 | 55479 | 12" DUCT TENT TRANSITION |
| PCKF-DO-WC-36         | 33546 | 36" DUAL OUTLET WITH CAP |

## Engineering Specifications

Contractor shall supply PCKF series Industrial Portable Outdoor Rated Unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** The heater case is fabricated from high tensile 18 gauge electrogalvanized steel that is welded together forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**12" Duct Transition:** A flexible 12" duct can be added to extend the heated air to where it is needed.

**Replaceable Intake Air Filter:** Protects against foreign objects entering the heater. 1" x 16" x 24" prevents dirt and dust build up in the heater.

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Outdoor Rating:** UL certified for use in outdoor wet locations. Includes intake rain baffle and electrical compartment rain cover.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins and then formed into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning

the element in the maximum airflow stream.

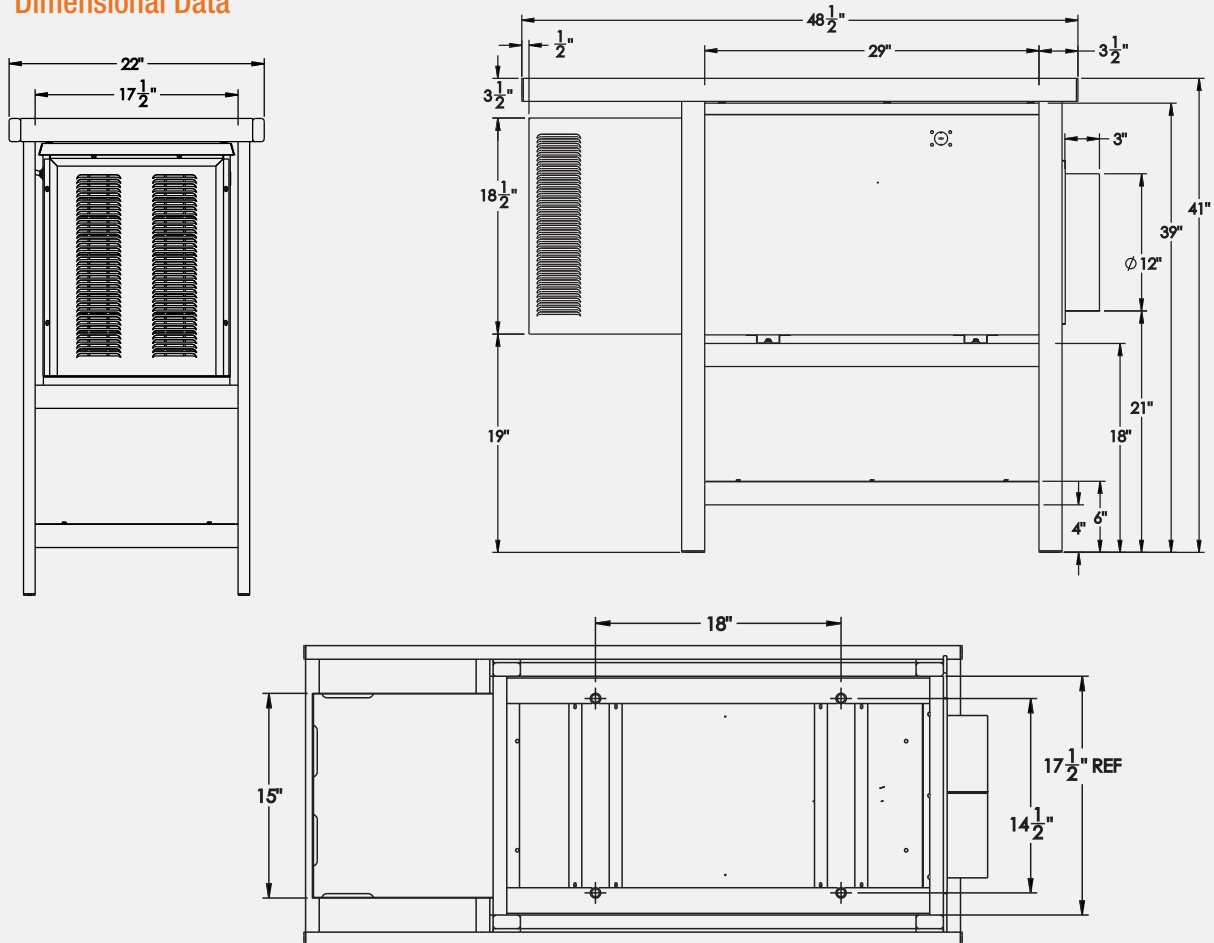
**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60°C ambient. Large capacity dual-inlet blower handles high static pressure and moves large air volume. Motor leads are enclosed in a seal tight raceway to prolong equipment life & reduce maintenance.

**Remote Temperature Control:** Indulges a remote thermostat with 100' cord to temperature from a remote location.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Approvals:** UL Certified to comply with UL 2021, standard for Fixed and Location-Dedicated Electric Room Heaters and CSA C22.2 No. 46 for Electric Air-Heaters.

### Dimensional Data



# Ductable Portable Unit Heater PKB-DT Series



### Model Code:

|     |    |    |    |    |     |     |
|-----|----|----|----|----|-----|-----|
| PKB | 48 | 10 | -3 | -T | -DT | -FM |
| A   | B  | C  | D  | E  | F   | G   |

- A: Series
- B: 20 - 208V, 24 - 240V, 48 - 480V
- C: KW (10)
- D: 1-Phase, 3-Phase
- E: T= Mechanical Thermostat
- F: DT = Duct Transition
- G: FM = Floor Mount - (2) convenience carry handles and rubber feet.



- 12" Duct transition collar
- High mass steel fin heat exchanger
- Built-in thermostat (40°-100°F)
- Dual carrying handles
- 4 heavy-duty rubber feet
- Long life unit bearing motor
- Fan only switch
- Patented Smart Limit Protection®
- 6ft. S0 cord (no plug)
- Durable 20-gauge steel enclosure
- Non-mercury tip over switch
- Standard color: Textured gray
- 2-year limited warranty
- Optional DT-TENT-TRANSITION -12 Accessory for tented enclosures



## The PKB-DT Ductable Industrial Portable Unit Heater

King's PKB-DT ductable industrial portable unit heater is constructed to hold up to the rigorous demands of jobsites or industrial facilities. These portable heaters can be ducted, to direct the heated air to required areas and are ideal for construction sites, warehouse and warehouse space heating, agriculture, events and military applications. It is the best heat source to assist in dry-out applications where dry electric heat is preferred over propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the PKB-DT the best solution for temporary large capacity heating applications.

### Ordering Information

|              | MODEL             | KW         | BTUH      | PHASE | VOLTS    | AMPS      | CFM | SIZE | S0 CORD SIZE |
|--------------|-------------------|------------|-----------|-------|----------|-----------|-----|------|--------------|
| 208V         | PKB2005-1-T-DT-FM | 5          | 17.1      | 1     | 208      | 24.0      | 600 | A    | 12/3         |
|              | PKB2007-1-T-DT-FM | 7.5        | 25.6      | 1     | 208      | 36.1      | 600 | B    | 8/3          |
|              | PKB2010-1-T-DT-FM | 10         | 34.1      | 1     | 208      | 48.1      | 725 | B    | 6/3          |
| 240/<br>208V | PKB2015-1-T-DT-FM | 15         | 51.2      | 1     | 208      | 72.1      | 925 | C    | 2/3          |
|              | PKB2405-1-T-DT-FM | 5/3.8      | 17.1/12.8 | 1     | 240/208* | 20.8/18.0 | 600 | A    | 8/3          |
|              | PKB2407-1-T-DT-FM | 7.5/5.6    | 25.6/19.2 | 1     | 240/208* | 31.3/26.9 | 600 | B    | 8/3          |
|              | PKB2410-1-T-DT-FM | 10/7.5     | 34.1/25.6 | 1     | 240/208* | 41.7/36.1 | 725 | B    | 6/3          |
| 480V         | PKB2412-1-T-DT-FM | 12.5/9.4   | 42.7/32.0 | 1     | 240/208* | 52.1/45.1 | 825 | C    | 6/3          |
|              | PKB2415-1-T-DT-FM | 15.5/11.25 | 51.2/38.4 | 1     | 240/208* | 62.5/54.1 | 925 | C    | 4/3          |
|              | PKB4805-1-T-DT-FM | 5          | 17.1      | 1     | 480      | 10.4      | 600 | A    | 14/3         |
|              | PKB4807-1-T-DT-FM | 7.5        | 25.6      | 1     | 480      | 15.6      | 600 | B    | 14/3         |
|              | PKB4810-1-T-DT-FM | 10         | 34.1      | 1     | 480      | 20.8      | 725 | B    | 12/3         |
| 208V         | PKB4812-1-T-DT-FM | 12.5       | 42.7      | 1     | 480      | 26        | 825 | C    | 10/3         |
|              | PKB4815-1-T-DT-FM | 15         | 51.2      | 1     | 480      | 31.3      | 925 | C    | 8/3          |
|              | PKB2005-3-T-DT-FM | 5          | 17.1      | 3     | 208      | 13.9      | 600 | C    | 8/3          |
|              | PKB2007-3-T-DT-FM | 7.5        | 25.6      | 3     | 208      | 20.8      | 600 | C    | 10/4         |
|              | PKB2010-3-T-DT-FM | 10         | 34.1      | 3     | 208      | 27.7      | 725 | C    | 8/4          |
| 240/<br>208V | PKB2015-3-T-DT-FM | 15         | 51.2      | 3     | 208      | 41.6      | 925 | C    | 6/4          |
|              | PKB2405-3-T-DT-FM | 5/3.8      | 17.1/12.8 | 3     | 240/208* | 12.0/10.5 | 600 | C    | 12/4         |
|              | PKB2407-3-T-DT-FM | 7.5/5.6    | 25.6/19.2 | 3     | 240/208* | 18.0/15.5 | 600 | C    | 12/4         |
|              | PKB2410-3-T-DT-FM | 10/7.5     | 34.1/25.6 | 3     | 240/208* | 24.1/20.8 | 725 | C    | 10/4         |
|              | PKB2412-3-T-DT-FM | 12.5/9.4   | 42.7/32.0 | 3     | 240/208* | 30.1/26.1 | 825 | C    | 8/4          |
| 480V         | PKB2415-3-T-DT-FM | 15/11.3    | 51.2/38.4 | 3     | 240/208* | 36.1/31.2 | 925 | C    | 6/4          |
|              | PKB4805-3-T-DT-FM | 5          | 17.1      | 3     | 480      | 6.0       | 600 | C    | 14/4         |
|              | PKB4807-3-T-DT-FM | 7.5        | 25.6      | 3     | 480      | 9.0       | 600 | C    | 14/4         |
|              | PKB4810-3-T-DT-FM | 10         | 34.1      | 3     | 480      | 12.0      | 725 | C    | 14/4         |
|              | PKB4812-3-T-DT-FM | 12.5       | 42.7      | 3     | 480      | 15.0      | 825 | C    | 12/4         |
|              | PKB4815-3-T-DT-FM | 15         | 51.2      | 3     | 480      | 18.0      | 925 | C    | 12/4         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Ductable Portable Unit Heater PKB-DT Series

## Engineering Specifications

Contractor shall supply and install PKB-DT Series ductable portable unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 100

**Fan Only Switch:** Comes standard with fan-only switch.

**Duct Transition:** Comes standard with a 12" duct transition to allow for connection of ducting (optional). A duct reducer can be added (purchased separately) to allow for a minimum of 8" ducting on all models, except 12.5KW where 12" minimum duct size is required. Ducting should not exceed 25 Foot in length.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best

heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Cord Length:** 6 Foot SO Cord (No Plug Provided)

**Approvals:** cETLus (517271) & (30314521)

## Factory Installed Options

| ADD SUFFIX | DESCRIPTION         |
|------------|---------------------|
| -25C       | 25 foot cord option |

## Accessories

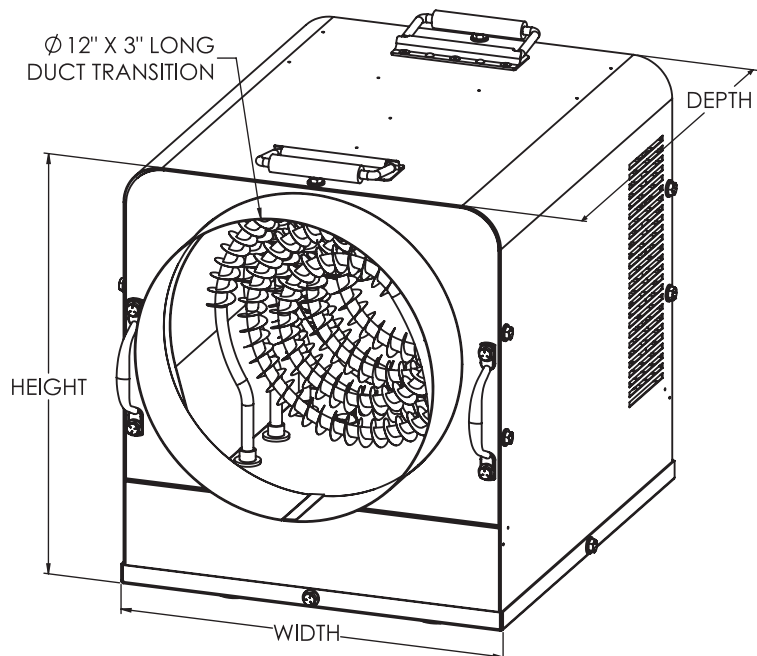
| MODEL                 | UPC   | DESCRIPTION                                       |
|-----------------------|-------|---|
| DT-TENT-TRANSITION-12 | 55479 | 12" DUCT TENT TRANSITION w/10FT 12" Flexible duct |

## Dimensional Data

| HEATER SIZE | DIMENSIONS |       |       | DT1 |
|-------------|------------|-------|-------|-----|
|             | HEIGHT     | DEPTH | WIDTH |     |
| A           | 16.5"      | 11"   | 15.1" | 12" |
| B           | 16.5"      | 13.5" | 15.1" | 12" |
| C           | 16.5"      | 18"   | 15.1" | 12" |

## Minimum Clearance

|            |       |
|------------|-------|
| front..... | 3 ft. |
| top.....   | 1 ft. |
| sides..... | 1 ft. |
| rear.....  | 1 ft. |



# Industrial Portable Unit Heater PKB-FM Series



### Model Code:

PKB 48 10 -3 -T -FM  
A B C D E F

A: Series

B: 20 - 208V, 24 - 240V, 48 - 480V

C: KW (10)

D: 1-Phase, 3-Phase

E: T= Mechanical Thermostat

F: FM = Floor Mount -  
(2) convenience carry handles  
and rubber feet.



- Adjustable Louvers
- High mass steel fin heat exchanger
- Built-in thermostat (40°-100°F)
- Dual carrying handles
- 4 heavy-duty rubber feet
- Long life unit bearing motor
- Fan only switch
- Patented Smart Limit Protection®
- 6ft. SO cord (no plug)
- Durable 20-gauge steel enclosure
- Non-mercury tip over switch
- Standard color: Textured gray
- 2-year limited warranty



## The PKB-FM Industrial Portable Unit Heater

King's PKB-FM industrial portable unit heater is constructed to hold up to the rigorous demands of jobsites or industrial facilities. These portable heaters offer adjustable louvers, to direct the heated air to required areas and are ideal for construction sites, warehouse and warehouse space heating, agriculture, events and military applications. It is the best heat source to assist in dry-out applications where dry electric heat is preferred over propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the PKB-FM the best solution for temporary large capacity heating applications.

### Ordering Information

|              | MODEL          | KW       | BTUH      | PHASE | VOLTS    | AMPS      | CFM  | SIZE | SO CORD SIZE |
|--------------|----------------|----------|-----------|-------|----------|-----------|------|------|--------------|
| 208V         | PKB2005-1-T-FM | 5        | 17.1      | 1     | 208      | 24.0      | 600  | A    | 12/3         |
|              | PKB2007-1-T-FM | 7.5      | 25.6      | 1     | 208      | 36.1      | 600  | B    | 8/3          |
|              | PKB2010-1-T-FM | 10       | 34.1      | 1     | 208      | 48.1      | 725  | B    | 6/3          |
|              | PKB2015-1-T-FM | 15       | 51.2      | 1     | 208      | 72.1      | 925  | C    | 2/3          |
| 240/<br>208V | PKB2405-1-T-FM | 5/3.8    | 17.1/12.8 | 1     | 240/208* | 20.8/18.0 | 600  | A    | 8/3          |
|              | PKB2407-1-T-FM | 7.5/5.6  | 25.6/19.2 | 1     | 240/208* | 31.3/26.9 | 600  | B    | 8/3          |
|              | PKB2410-1-T-FM | 10/7.5   | 34.1/25.6 | 1     | 240/208* | 41.7/36.1 | 725  | B    | 6/3          |
|              | PKB2412-1-T-FM | 12.5/9.4 | 42.7/32.0 | 1     | 240/208* | 52.1/45.1 | 825  | C    | 6/3          |
|              | PKB2415-1-T-FM | 15/11.25 | 51.2/38.4 | 1     | 240/208* | 62.5/54.1 | 925  | C    | 4/3          |
| 480V         | PKB4805-1-T-FM | 5        | 17.1      | 1     | 480      | 10.4      | 600  | A    | 14/3         |
|              | PKB4807-1-T-FM | 7.5      | 25.6      | 1     | 480      | 15.6      | 600  | B    | 14/3         |
|              | PKB4810-1-T-FM | 10       | 34.1      | 1     | 480      | 20.8      | 725  | B    | 12/3         |
|              | PKB4812-1-T-FM | 12.5     | 42.7      | 1     | 480      | 26        | 825  | C    | 10/3         |
|              | PKB4815-1-T-FM | 15       | 51.2      | 1     | 480      | 31.3      | 925  | C    | 8/3          |
| 208V         | PKB2005-3-T-FM | 5        | 17.1      | 3     | 208      | 13.9      | 600  | C    | 8/3          |
|              | PKB2007-3-T-FM | 7.5      | 25.6      | 3     | 208      | 20.8      | 600  | C    | 10/4         |
|              | PKB2010-3-T-FM | 10       | 34.1      | 3     | 208      | 27.7      | 725  | C    | 8/4          |
|              | PKB2015-3-T-FM | 15       | 51.2      | 3     | 208      | 41.6      | 925  | C    | 6/4          |
|              | PKB2020-3-T-FM | 20       | 68.2      | 3     | 208      | 55.5      | 1100 | C    | 4/4          |
| 240/<br>208V | PKB2405-3-T-FM | 5/3.8    | 17.1/12.8 | 3     | 240/208* | 12.0/10.5 | 600  | C    | 12/4         |
|              | PKB2407-3-T-FM | 7.5/5.6  | 25.6/19.2 | 3     | 240/208* | 18.0/15.5 | 600  | C    | 12/4         |
|              | PKB2410-3-T-FM | 10/7.5   | 34.1/25.6 | 3     | 240/208* | 24.0/20.8 | 725  | C    | 10/4         |
|              | PKB2412-3-T-FM | 12.5/9.4 | 42.7/32.0 | 3     | 240/208* | 30.1/26.1 | 825  | C    | 8/4          |
|              | PKB2415-3-T-FM | 15/11.25 | 51.2/38.4 | 3     | 240/208* | 36.1/31.2 | 925  | C    | 6/4          |
| 480V         | PKB2420-3-T-FM | 20/15    | 68.2/51.2 | 3     | 240/208* | 48.1/41.6 | 1100 | C    | 4/4          |
|              | PKB4805-3-T-FM | 5        | 17.1      | 3     | 480      | 6.0       | 600  | C    | 14/4         |
|              | PKB4807-3-T-FM | 7.5      | 25.6      | 3     | 480      | 9.0       | 600  | C    | 14/4         |
|              | PKB4810-3-T-FM | 10       | 34.1      | 3     | 480      | 12.0      | 725  | C    | 14/4         |
|              | PKB4812-3-T-FM | 12.5     | 42.7      | 3     | 480      | 15.0      | 825  | C    | 12/4         |
|              | PKB4820-3-T-FM | 20       | 68.2      | 3     | 480      | 24.0      | 1100 | C    | 10/4         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.



# Industrial Portable Unit Heater PKB-FM Series

## Engineering Specifications

Contractor shall supply and install PKB-FM Series ductable portable unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 100.

**Fan Only Switch:** Comes standard with fan-only switch.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Adjustable Outlet Louvers:** Louvers direct Up or Down as needed for the heating application.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Cord Length:** 6 Foot SO Cord (No Plug Provided)

**Approvals:** cETLus (517271) & (30314521)

## Factory Installed Options

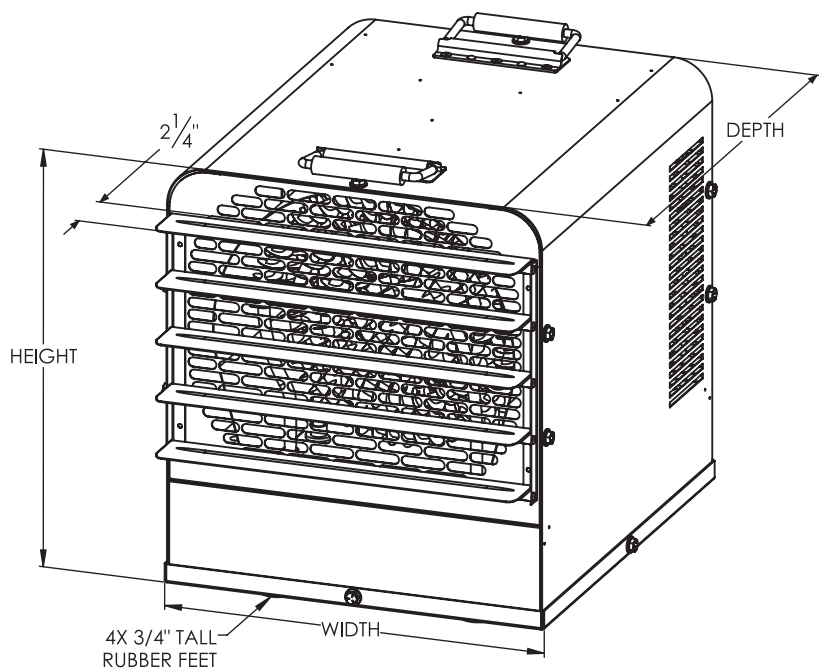
| ADD SUFFIX | DESCRIPTION         |
|------------|---------------------|
| -25C       | 25 foot cord option |

## Dimensional Data

| HEATER SIZE | DIMENSIONS |       |       |
|-------------|------------|-------|-------|
|             | HEIGHT     | DEPTH | WIDTH |
| A           | 16.5"      | 11"   | 15.1" |
| B           | 16.5"      | 13.5" | 15.1" |
| C           | 16.5"      | 18"   | 15.1" |

### Minimum Clearance

|            |       |
|------------|-------|
| front..... | 3 ft. |
| top.....   | 1 ft. |
| sides..... | 1 ft. |
| rear.....  | 1 ft. |



# Stainless Portable Unit Heater PKBS Series



### Model Code:

PKBS 48 10 -3 -T -FM  
A B C D E G

- A: Series
- B: 20 - 208V, 24 - 240V, 48 - 480V
- C: KW (10)
- D: 1-Phase, 3-Phase
- E: T= Mechanical Thermostat
- G: FM = Floor Mount -  
(2) convenience carry handles and rubber feet.



- 18 gauge 304 stainless steel
- High mass steel fin heat exchanger
- Built-in thermostat (40°-100°F)
- Dual carrying handles
- 4 heavy-duty rubber feet
- Adjustable louvers
- Long life unit bearing motor
- Fan only switch
- Patented Smart Limit Protection®
- 6ft. SO cord (no plug)
- N.E.M.A. 4 enclosure
- Non-mercury tip over switch
- For areas requiring periodic hose-down
- Standard color: Textured gray
- 2-year limited warranty



## The PKBS Stainless Steel Portable Unit Heater

King's PKBS Stainless Steel Portable Unit Heater is specially constructed for heating of, and freeze protection in, dirty, dusty or corrosive areas requiring periodic washing or hose-down. Typical places of use are: wastewater treatment plants, car/truck washes, agriculture, ship and marine docks, fish processors, and military applications. The heater is constructed from 18-gauge type 304 Stainless Steel and elements making it extremely corrosion resistant. The N.E.M.A. 4 wiring compartment is sealed and gasketed making it watertight. All optional control components are U.L. listed for use in N.E.M.A. 4 enclosures. It is the best heat source to assist in dry-out applications where dry electric heat is preferred over propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the PKBS the best solution for temporary large capacity heating applications.

### Ordering Information

|                 | MODEL           | KW              | BTUH       | PHASE     | VOLTS    | AMPS      | CFM       | SIZE | SO CORD SIZE |
|-----------------|-----------------|-----------------|------------|-----------|----------|-----------|-----------|------|--------------|
| <b>208V</b>     | PKBS2005-1-T-FM | 5               | 17.1       | 1         | 208      | 24.0      | 600       | A    | 8/3          |
|                 | PKBS2007-1-T-FM | 7.5             | 25.6       | 1         | 208      | 36.1      | 600       | B    | 8/3          |
|                 | PKBS2010-1-T-FM | 10              | 34.1       | 1         | 208      | 48.1      | 725       | B    | 6/3          |
|                 | PKBS2015-1-T-FM | 15              | 51.2       | 1         | 208      | 72.1      | 925       | C    | 2/3          |
| <b>240/208V</b> | PKBS2405-1-T-FM | 5               | 25.6/19.2  | 1         | 240/208* | 20.8/24.0 | 600       | A    | 8/3          |
|                 | PKBS2407-1-T-FM | 7.5/5.6         | 25.6/19.2  | 1         | 240/208* | 31.3/26.9 | 600       | B    | 8/3          |
|                 | PKBS2410-1-T-FM | 10/7.5          | 34.1/25.6  | 1         | 240/208* | 41.7/36.1 | 725       | B    | 6/3          |
|                 | PKBS2412-1-T-FM | 12.5/9.4        | 42.7/32.0  | 1         | 240/208* | 52.1/45.1 | 825       | C    | 6/3          |
|                 | PKBS2415-1-T-FM | 15/11.25        | 51.2/38.4  | 1         | 240/208* | 62.5/54.1 | 925       | C    | 4/3          |
|                 | <b>480V</b>     | PKBS4805-1-T-FM | 5          | 17.1      | 1        | 480       | 10.4      | 600  | A            |
| PKBS4807-1-T-FM |                 | 7.5             | 25.6       | 1         | 480      | 15.6      | 600       | B    | 14/3         |
| PKBS4810-1-T-FM |                 | 10              | 34.1       | 1         | 480      | 20.8      | 725       | B    | 12/3         |
| PKBS4812-1-T-FM |                 | 12.5            | 42.7       | 1         | 480      | 26.0      | 825       | C    | 10/3         |
| PKBS4815-1-T-FM |                 | 15              | 42.7       | 1         | 480      | 31.3      | 925       | C    | 8/3          |
| <b>208V</b>     |                 | PKBS2005-3-T-FM | 5          | 17.1      | 3        | 208       | 13.9      | 600  | C            |
|                 | PKBS2007-3-T-FM | 7.5             | 25.6       | 3         | 208      | 20.8      | 600       | C    | 10/4         |
|                 | PKBS2010-3-T-FM | 10              | 34.1       | 3         | 208      | 27.7      | 725       | C    | 8/4          |
|                 | PKBS2015-3-T-FM | 15              | 51.2       | 3         | 208      | 41.6      | 925       | C    | 6/4          |
|                 | PKBS2020-3-T-FM | 20              | 68.2       | 3         | 208      | 55.5      | 1100      | C    | 4/4          |
|                 | <b>240/208V</b> | PKBS2405-3-T-FM | 5          | 25.6/19.2 | 3        | 240/208*  | 12.0/10.5 | 600  | C            |
| PKBS2407-3-T-FM |                 | 7.5/5.6         | 25.6/19.2  | 3         | 240/208* | 18.0/15.5 | 600       | C    | 12/4         |
| PKBS2410-3-T-FM |                 | 10/7.5          | 34.1/25.6  | 3         | 240/208* | 24.1/20.8 | 725       | C    | 10/4         |
| PKBS2412-3-T-FM |                 | 12.5/9.4        | 42.7/32.0  | 3         | 240/208* | 30.1/26.1 | 825       | C    | 8/4          |
| PKBS2415-3-T-FM |                 | 15/11.25        | 51.2/38.4  | 3         | 240/208* | 36.1/31.2 | 925       | C    | 6/4          |
| PKBS2420-3-T-FM |                 | 20/15           | 68.2/51.20 | 3         | 240/208* | 48.1/41.6 | 1100      | C    | 4/4          |
| <b>480V</b>     | PKBS4805-3-T-FM | 5               | 17.1       | 3         | 480      | 6.0       | 600       | C    | 14/4         |
|                 | PKBS4807-3-T-FM | 7.5             | 25.6       | 3         | 480      | 9.0       | 600       | C    | 14/4         |
|                 | PKBS4810-3-T-FM | 10              | 34.1       | 3         | 480      | 12.0      | 725       | C    | 14/4         |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Stainless Portable Unit Heater PKBS Series

## Ordering Information *Continued*

| MODEL           | KW   | BTUH | PHASE | VOLTS | AMPS | CFM  | SIZE | SO CORD SIZE |
|-----------------|------|------|-------|-------|------|------|------|--------------|
| PKBS4812-3-T-FM | 12.5 | 42.7 | 3     | 480   | 15.0 | 825  | C    | 12/4         |
| PKBS4815-3-T-FM | 15   | 51.2 | 3     | 480   | 18.0 | 925  | C    | 12/4         |
| PKBS4820-3-T-FM | 20   | 68.2 | 3     | 480   | 24.0 | 1100 | C    | 10/4         |

## Engineering Specifications

Contractor shall supply and install PKBS Series portable unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Stainless Steel Construction: All exterior and interior metal enclosure parts are made from 18 gauge type 304 Stainless Steel.

All fasteners and hardware are Stainless Steel. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 100

**Fan Only Switch:** Comes standard with fan-only switch.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Stainless Steel Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum air flow stream.

Stainless steel increases element life in extremely corrosive environments such as waste water treatment plants.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Cord Length:** 6 Foot SO Cord (No Plug Provided)

**Approvals:** cETLus ( 517271 ) & (30314521)

## Options/Accessories

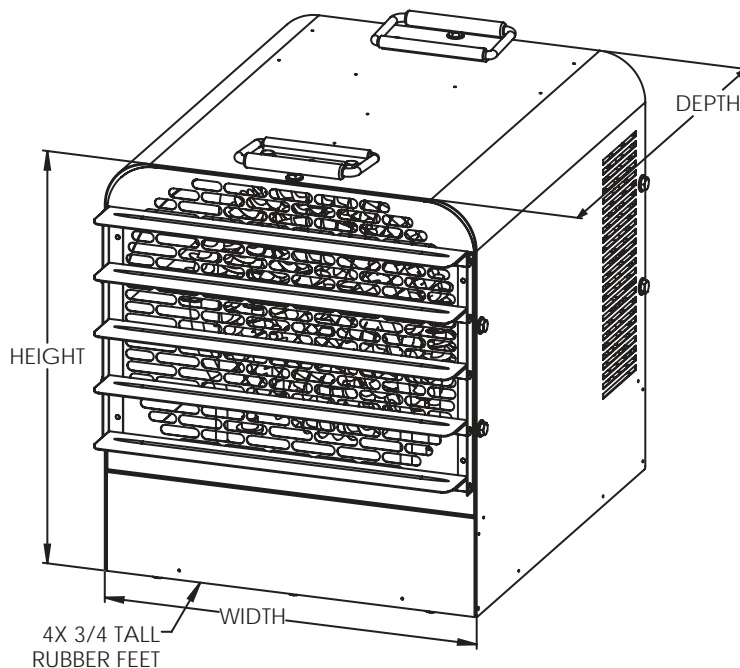
| ADD SUFFIX | DESCRIPTION         |
|------------|---------------------|
| -25C       | 25 foot cord option |

## Dimensional Data

| HEATER SIZE | DIMENSIONS |       |       |
|-------------|------------|-------|-------|
|             | HEIGHT     | DEPTH | WIDTH |
| A           | 16.5"      | 11"   | 15.1" |
| B           | 16.5"      | 13.5" | 15.1" |
| C           | 16.5"      | 18"   | 15.1" |

### Minimum Clearance

|            |       |
|------------|-------|
| front..... | 3 ft. |
| top.....   | 1 ft. |
| sides..... | 1 ft. |
| rear.....  | 1 ft. |



# Explosion-Proof Heater Model CX1



### Model Code:

|     |     |   |    |     |     |     |   |
|-----|-----|---|----|-----|-----|-----|---|
| CX1 | 220 | 1 | 60 | 012 | T2A | IIB | T |
| A   | B   | C | D  | E   | F   | G   | H |

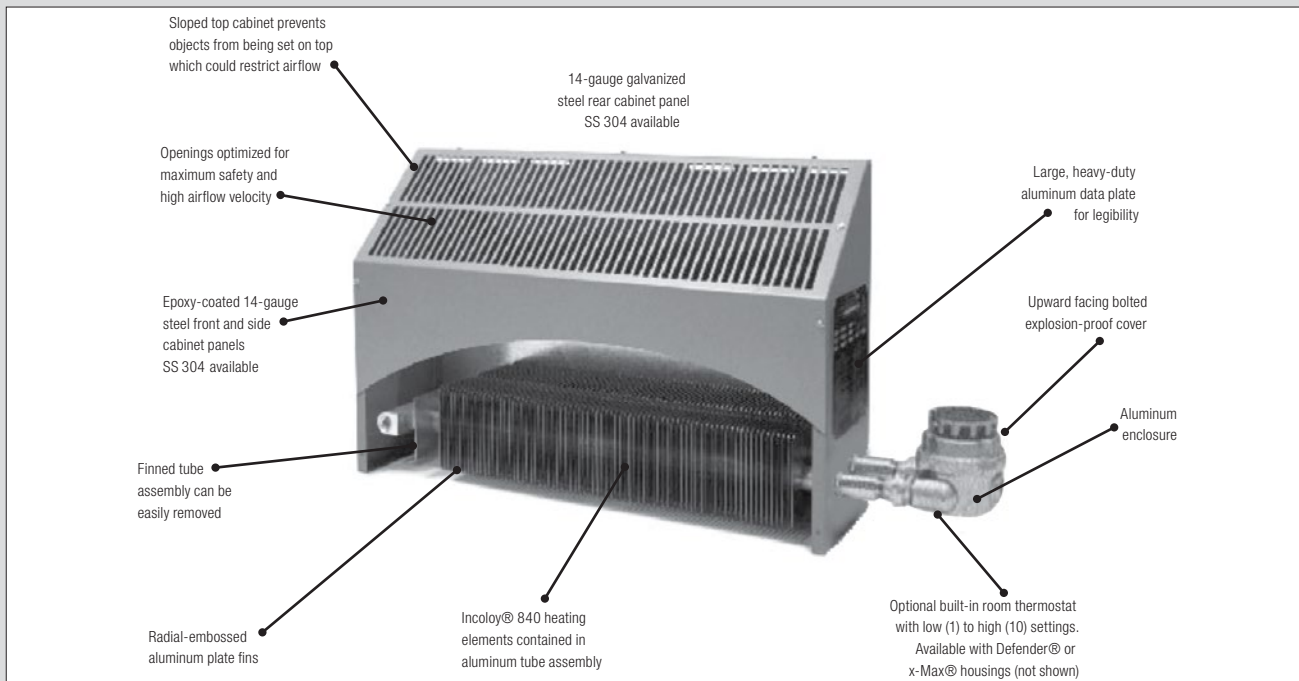
- A: Model Series
- B: 120, 208, 240, 277, 380, 400, 415  
480, 600 volt options
- C: 1-Phase
- D: 50 Hertz, 60 Hertz
- E: Heater Kilowatts
- F: Rated Area (Temperature)  
T2a=536°F, T3=392°F
- G: T-Code (Grouping) IIB=Group C & D  
IIC=Group A, B, C & D
- H: T=Built-In Thermostat



- Sloped-top cabinet
- No exposed copper or brass
- High-velocity airflow
- 14GA steel cabinet
- Available with stainless-steel construction
- One of the shortest cabinet lengths available
- Optional built-in thermostat
- Incoloy® 840 heating elements
- Radial-embossed aluminum plate fins
- Galvanized steel mounting brackets
- IP55 moisture ingress protection
- Approvals - Groups A, B, C, D; IIA, IIB & IIC; available

## CX1 Explosion-Proof Heater

For hazardous locations heating, rely on the Ruffneck™ CX1 ProVector® for the most dependable, trouble-free service available. Explosion-proof air heaters were designed to satisfy the demanding requirements of the oil and gas well drilling industry. The harsh operating conditions of this application require the utmost in heater reliability.



## Engineering Specifications

Contractor shall supply and install CX1 Series explosion-proof heaters by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

### Hazardous Location Classifications

**Without Built-in Thermostat:** Defender® housing Class I, Div. 1 & 2, Groups B, C, & D; Zones 1 & 2, Groups IIA, IIB + H,x-Max® housing Class I, Div. 1 & 2, Groups A, B, C, & D; Zones 1 & 2, Groups IIA, IIB, & IIC.

**With Built-in Thermostat:** XCT Defender® thermostat: Class I, Div. 1 & 2, Groups C & D; Zones 1 & 2, Groups IIA & IIB XT thermostat: Class I, Div. 1 & 2, Groups A, B, C, & D; Zones 1 & 2, Groups IIA, IIB, & IIC.

**Enclosure:** Defender® housing is cast aluminum with bolt on cover. Groups IIB, x-Max® housing is extruded aluminum with two screwed on covers. The x-Max® housing offers IP55 moisture ingress protection. Groups IIC.

**Mounting Brackets:** Two 14-gauge (0.075" / 12 mm) galvanized steel brackets for standard cabinet. Stainless-steel brackets provided with optional stainless-steel cabinet.

**Heating Elements:** Two Incoloy® 840 sheathed elements

**Temperature Code Rating:** Temperature Code T2A - 536°F (280°C) or T3 - 392°F (200°C).

**Temperature Limitations:** Operational: -49°F to 104°F (-45°C to 40°C) Storage: -49°F to 176°F (-45°C to 80°C). Optional up to 300°F (149°C) available.

**Cabinet Material:** 14-gauge (0.075" / 1.90mm) epoxy coated steel with galvanized rear panel. Optional - 14-gauge 304 stainless-steel cabinet and mounting hardware available

# Explosion-Proof Heater Model CX1

## Ordering Information - Performance Data for CX1 ProVector®

| MODEL               | kW<br>(BTU/hr) | UNIT<br>VOLTAGE<br>(VOLTS) | BASIC<br>UNIT | GAS GROUP               |                     |                      |                     | SUPPLY<br>WIRE<br>SIZE<br>(AWG)*** | UNIT<br>CURRENT<br>(AMPS) | MAX.<br>CIRCUIT<br>FUSE<br>(AMPS)* | CABINET<br>LENGTH<br>in(mm) | TEMP.<br>CODE |
|---------------------|----------------|----------------------------|---------------|-------------------------|---------------------|----------------------|---------------------|------------------------------------|---------------------------|------------------------------------|-----------------------------|---------------|
|                     |                |                            |               | IIB+H2<br>W/O<br>T'STAT | IIB<br>W/<br>T'STAT | IIC<br>W/O<br>T'STAT | IIC<br>W/<br>T'STAT |                                    |                           |                                    |                             |               |
| CX1-120160-012-T3   | 1.2            | 120                        | •             | •                       | •                   | •                    | •                   | 12                                 | 10.0                      | 15                                 | 31.3 (796)                  | T3            |
| CX1-120160-018-T3   | 1.8            | 120                        | •             | •                       | •                   | •                    | •                   | 12                                 | 15.0                      | 20                                 | 31.3 (796)                  | T3            |
| CX1-208160-012-T3   | 1.2            | 208                        | •             | •                       | •                   | •                    | •                   | 12                                 | 5.8                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-208160-018-T3   | 1.8            | 208                        | •             | •                       | •                   | •                    | •                   | 12                                 | 8.7                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-208160-036-T3** | 3.6            | 208                        | •             | •                       | •                   | •                    | •                   | 12                                 | 17.3                      | 20                                 | 49.5 (1256)                 | T3            |
| CX1-208160-048-T2A  | 4.8            | 208                        | •             | •                       | •                   | •                    | •                   | 8                                  | 23.1                      | 25                                 | 49.5 (1256)                 | T2A           |
| CX1-208160-076-T2A  | 7.6            | 208                        | •             | •                       | •                   | •                    | •                   | 8                                  | 36.5                      | 40                                 | 59.5 (1511)                 | T2A           |
| CX1-240160-012-T3   | 1.2            | 240                        | •             | •                       | •                   | •                    | •                   | 12                                 | 5.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-240160-018-T3   | 1.8            | 240                        | •             | •                       | •                   | •                    | •                   | 12                                 | 7.5                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-240160-036-T3** | 3.6            | 240                        | •             | •                       | •                   | •                    | •                   | 12                                 | 15.0                      | 20                                 | 49.5 (1256)                 | T3            |
| CX1-240160-048-T2A  | 4.8            | 240                        | •             | •                       | •                   | •                    | •                   | 10                                 | 20.0                      | 25                                 | 49.5 (1256)                 | T2A           |
| CX1-240160-076-T2A  | 7.6            | 240                        | •             | •                       | •                   | •                    | •                   | 8                                  | 31.7                      | 35                                 | 59.5 (1511)                 | T2A           |
| CX1-277160-012-T3   | 1.2            | 277                        | •             | •                       | •                   | •                    | •                   | 12                                 | 4.3                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-277160-018-T3   | 1.8            | 277                        | •             | •                       | •                   | •                    | •                   | 12                                 | 6.5                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-277160-036-T3** | 3.6            | 277                        | •             | •                       | •                   | •                    | •                   | 12                                 | 13.0                      | 15                                 | 49.5 (1256)                 | T3            |
| CX1-277160-048-T2A  | 4.8            | 277                        | •             | •                       | •                   | •                    | •                   | 12                                 | 17.3                      | 20                                 | 49.5 (1256)                 | T2A           |
| CX1-277160-076-T2A  | 7.6            | 277                        | •             | •                       | •                   | •                    | •                   | 8                                  | 27.4                      | 30                                 | 59.5 (1511)                 | T2A           |
| CX1-380160-0075-T3  | 0.75           | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-380160-0113-T3  | 1.13           | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-380160-012-T3   | 1.2            | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.2                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-380160-018-T3   | 1.8            | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 4.7                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-380160-0226-T2A | 2.26           | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 5.9                       | 15                                 | 31.3 (796)                  | T2A           |
| CX1-380160-0301-T3  | 3.01           | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 7.9                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-380160-036-T3** | 3.6            | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 9.5                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-380160-0476-T2A | 4.76           | 380                        | •             | •                       | •                   | •                    | •                   | 10                                 | 12.5                      | 15                                 | 59.5 (1511)                 | T2A           |
| CX1-380160-048-T2A  | 4.8            | 380                        | •             | •                       | •                   | •                    | •                   | 12                                 | 12.6                      | 15                                 | 49.5 (1256)                 | T2A           |
| CX1-380160-076-T2A  | 7.6            | 380                        | •             | •                       | •                   | •                    | •                   | 10                                 | 20.0                      | 25                                 | 59.5 (1511)                 | T2A           |
| CX1-400160-0083-T3  | 0.83           | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.1                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-400160-012-T3   | 1.2            | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-400160-0125-T3  | 1.25           | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.1                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-400160-018-T3   | 1.8            | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 4.5                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-400160-025-T2A  | 2.5            | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 6.3                       | 15                                 | 31.3 (796)                  | T2A           |
| CX1-400160-0333-T3  | 3.33           | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 8.3                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-400160-036-T3** | 3.6            | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 9.0                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-400160-048-T2A  | 4.8            | 400                        | •             | •                       | •                   | •                    | •                   | 12                                 | 12.0                      | 15                                 | 49.5 (1256)                 | T2A           |
| CX1-400160-0528-T2A | 5.28           | 400                        | •             | •                       | •                   | •                    | •                   | 10                                 | 13.2                      | 15                                 | 59.5 (1511)                 | T2A           |
| CX1-400160-076-T2A  | 7.6            | 400                        | •             | •                       | •                   | •                    | •                   | 10                                 | 19.0                      | 20                                 | 59.5 (1511)                 | T2A           |
| CX1-415160-009-T3   | 0.9            | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.2                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-415160-012-T3   | 1.2            | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.9                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-415160-0135-T3  | 1.35           | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.3                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-415160-018-T3   | 1.8            | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 4.3                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-415160-0269-T2A | 2.69           | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 6.5                       | 15                                 | 31.3 (796)                  | T2A           |
| CX1-415160-0359-T3  | 3.59           | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 8.7                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-415160-036-T3** | 3.6            | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 8.7                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-415160-048-T2A  | 4.8            | 415                        | •             | •                       | •                   | •                    | •                   | 12                                 | 11.6                      | 15                                 | 49.5 (1256)                 | T2A           |
| CX1-415160-0568-T2A | 5.68           | 415                        | •             | •                       | •                   | •                    | •                   | 10                                 | 13.7                      | 15                                 | 59.5 (1511)                 | T2A           |
| CX1-415160-076-T2A  | 7.6            | 415                        | •             | •                       | •                   | •                    | •                   | 10                                 | 18.3                      | 20                                 | 59.5 (1511)                 | T2A           |
| CX1-480160-012-T3   | 1.2            | 480                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.5                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-480160-018-T3   | 1.8            | 480                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.8                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-480160-036-T3** | 3.6            | 480                        | •             | •                       | •                   | •                    | •                   | 12                                 | 7.5                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-480160-048-T2A  | 4.8            | 480                        | •             | •                       | •                   | •                    | •                   | 12                                 | 10.0                      | 15                                 | 49.5 (1256)                 | T2A           |
| CX1-480160-076-T2A  | 7.6            | 480                        | •             | •                       | •                   | •                    | •                   | 10                                 | 15.8                      | 20                                 | 59.5 (1511)                 | T2A           |
| CX1-600160-012-T3   | 1.2            | 600                        | •             | •                       | •                   | •                    | •                   | 12                                 | 2.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-600160-018-T3   | 1.8            | 600                        | •             | •                       | •                   | •                    | •                   | 12                                 | 3.0                       | 15                                 | 31.3 (796)                  | T3            |
| CX1-600160-036-T3** | 3.6            | 600                        | •             | •                       | •                   | •                    | •                   | 12                                 | 6.0                       | 15                                 | 49.5 (1256)                 | T3            |
| CX1-600160-048-T2A  | 4.8            | 600                        | •             | •                       | •                   | •                    | •                   | 12                                 | 8.0                       | 15                                 | 49.5 (1256)                 | T2A           |
| CX1-600160-076-T2A  | 7.6            | 600                        | •             | •                       | •                   | •                    | •                   | 12                                 | 12.7                      | 15                                 | 59.5 (1511)                 | T2A           |

# Explosion-Proof Heater Model CX1

All units are single phase

\*Or equivalent breaker as per local electrical inspection authority requirements.

\*\* For 3.6 kW heaters rated T3 cabinet length is 49.5" (1256mm). 3.6 kW heaters rated T2A cabinet length is 31.3" (796mm)

\*\*\* Ensure supply wire size adheres to applicable local and national electrical codes

**Notes**

1. Heater is functioning normally if, at rated voltage, the current draw is within 10% of the value in this table.
2. Operation at lower voltages that rated will result in reduced output and current draw.  
Actual Output (kW) = [(Supply Voltage)² ÷ (Rated Voltage)²] × Rated Unit Wattage (kW)
3. Add suffix "T" for optional built-in thermostat. Thermostat not available on IIB + H models.

4. Add suffix "H" for high-temperature ambient storage option. High temperature storage option is not available with thermostat option. Not available on IIB models.

5. For IIB model with XCT built-in thermostat - Class I, Div. 1 & 2, Groups C & D; Zones 1 & 2, Groups IIA and IIB

6. For IIC model with XT built-in thermostat - Class I, Div. 1 & 2, Groups A,B,C & D; Zones 1 & 2, Groups IIA, IIB, IIC

7. IIC Grouping units come with x-Max® housing

8. Remote mounted, Defender, explosion-proof room thermostats are not suitable for Group B & IIC applications

9. Remote contactors are required on all 600V heaters, and heaters with a current draw greater than 22 amps

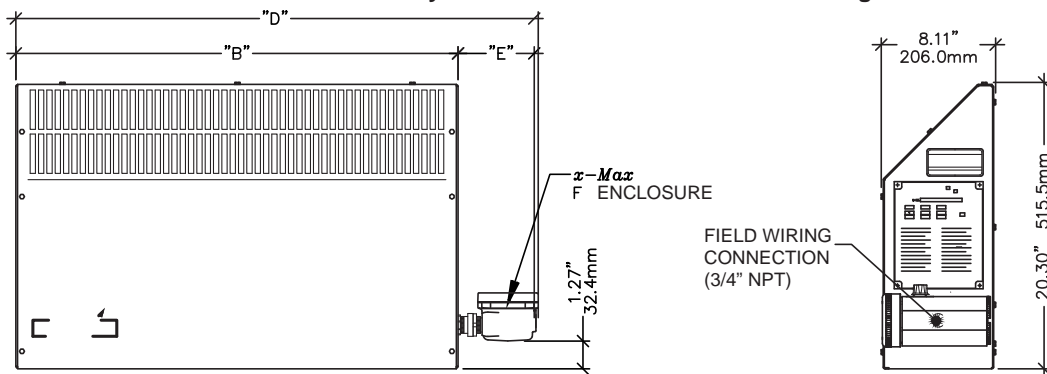
(supplied & installed by others), when utilizing XT-311 remote thermostat.

10. Temperature code ratings: T2A - 536°F (280°C), T3 - 392°F (200°C)

## Specifications

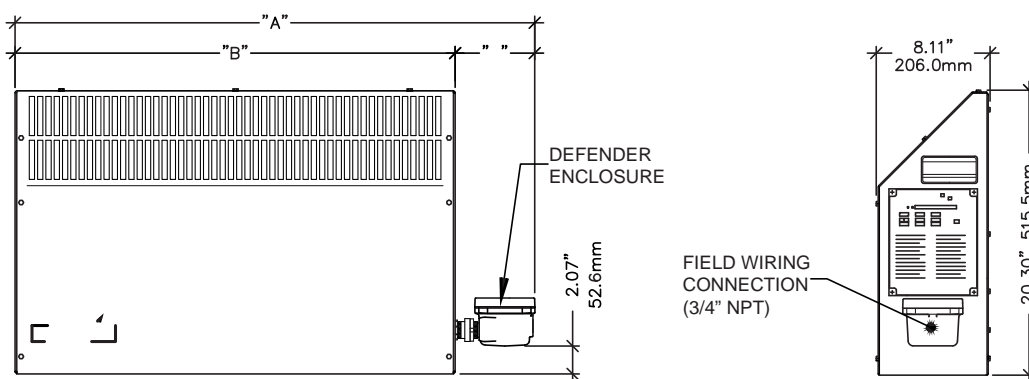
| NOMINAL WATTAGE (kW)         | CABINET LENGTH "B" | NET WEIGHT (lbs) | SHIPPING WEIGHT (lbs) |
|------------------------------|--------------------|------------------|-----------------------|
| 0.75 - 2.69 & 3.6 (T2a)      | 31.3               | 55.3             | 65                    |
| 3.01 - 3.59 & 3.6 (T3) & 4.8 | 49.4               | 80.7             | 92.8                  |
| 4.76, 5.28 - 7.6             | 59.5               | 95               | 105                   |

**CX1 ProVector® Physical Dimensions with x-Max® housing**



| HEATER KW RATING           | "D" DIMENSION |                | "B" DIMENSION   | "E" DIMENSION |                |
|----------------------------|---------------|----------------|-----------------|---------------|----------------|
|                            | W/ EXTENSION  | WITH EXTENSION |                 | W/ EXTENSION  | WITH EXTENSION |
| 0.75 - 2.69, 3.6 (T2A)     | 37.6" 954mm   | 39.6" 1007mm   | 31.34" 796.0mm  | 6.2" 158mm    | 8.3" 211mm     |
| 3.01 - 3.59, 3.6 (T3), 4.8 | 55.7" 1414mm  | 57.8" 1467mm   | 49.45" 1256.0mm | 6.2" 158mm    | 8.3" 211mm     |
| 4.76, 5.28 - 7.6           | 65.7" 1669mm  | 67.8" 1722mm   | 59.49" 1511.0mm | 6.2" 158mm    | 8.3" 211mm     |

**CX1 ProVector® Physical Dimensions with Defender® housing**



| HEATER KW RATING           | "A" DIMENSION |                | "B" DIMENSION   | "C" DIMENSION |                |
|----------------------------|---------------|----------------|-----------------|---------------|----------------|
|                            | W/ EXTENSION  | WITH EXTENSION |                 | W/ EXTENSION  | WITH EXTENSION |
| 0.75 - 2.69, 3.6 (T2A)     | 36.9" 938mm   | 39.0" 991mm    | 31.34" 796.0mm  | .6" 142mm     | 7.7" 195mm     |
| 3.01 - 3.59, 3.6 (T3), 4.8 | 55.0" 1398mm  | 57.1" 1441mm   | 49.45" 1256.0mm | 5.6" 142mm    | 7.7" 195mm     |
| 4.76, 5.28 - 7.6           | 66.1" 1669mm  | 67.2" 1706mm   | 59.49" 1511.0mm | .6" 142mm     | 7.7" 195mm     |

Notes: Heaters with built-in thermostat come with tube extensions.

# Explosion-Proof Heater Model FX6



## Model Code:

| FX6 | 480 | 3 | 60 | 300 | T |
|-----|-----|---|----|-----|---|
| A   | B   | C | D  | E   | F |

A: Model Series, 5th Generation  
 B: 208V, 240V, 480V, 600V  
 C: 1-Phase, 3-Phase  
 D: 50 Hertz, 60 Hertz  
 E: Heater Kilowatts  
 F: Built-In Thermostat



- Rated for Class 1, Div. 1 & 2 applications
- Explosion proof motor
- Aluminum fan
- 2 levels of over temp protection
- Multiple wattages available
- Wall or ceiling mount
- 14 gauge powder coated steel

## Explosion-Proof Heater

**FX6 heaters are cULus certified for use in hazardous locations.** They are designed for the harshest environments such as: dry indoor industrial applications, oil refineries, petrochemical plants, pulp and paper mills, grain elevators, hazardous waste storage facilities, wastewater treatment plants, etc., where specific explosive gases or dusts may be present. The FX6 offers a larger junction box for easier installation, additional limit controls and a heavy duty core. The heater core assembly is contained in a sturdy, epoxy-coated 12-gauge steel cabinet, which also carries the motor and fan assembly. Adjustable louvers allow directional control of the airflow. A narrow gap, two-piece fan guard is provided to shield all moving parts. All fasteners are zinc plated for corrosion protection. FX heaters are built to last. All FX products are subjected to exhaustive technical analysis and testing during design and development, and are manufactured under a registered quality assurance program. As a result, they have consistently proven their safety and reliability. For hazardous location heating, rely on the King FX6 heater for the most dependable, trouble-free service available. Suitable for the following hazardous location classifications: •Class I, Divisions 1 & 2, Groups C & D, •Class II, Divisions 1 & 2, Groups E, F & G, •Class I, Zones 1 & 2, Groups IIA & IIB, •Temperature Code T3B 165°C (329°F)

## Engineering Specifications

*Contractor shall supply and install FX6 Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Hazardous Locations Classifications:** Class I, Divisions 1 & 2, Group C & D  
 • Class II, Divisions 1 & 2, Group E, F & G • Class I, Zones 1 & 2, Group IIA & IIB  
 • Temperature Code T3B (329°F) (165°C)

**Enclosures:** NEMA Type 7 & 9. For dry, indoor use only. Do not immerse in water. Do not store or use in areas exposed to rain or snow

**Motor Type:** Explosion-proof. Thermally protected. Permanently lubricated ball bearings.

**Fan:** Aluminum blade. Steel spider and hub with 5/8" (15.875 mm) bore.

**Fan Guard:** Split design with close wire spacing. 1/4" (6.3 mm) diameter probe will not enter.

**Mounting Holes:** Two 9/16" (14.3 mm) diameter holes at the top of heater.

**Heating Elements:** Three Long-life metal-sheathed elements.

**Temperature High-Limit:** Automatic reset type, snap-action bimetal, open on temperature rise. Rated 100,000 cycles at 10 amps, handles 0.128 amps

**Control Circuit:** 120V, 0.128 amps, 15VA. (Grounded).

**Safety Protection Circuit:** Snap action bimetal switch, rated for 100,000 cycles at 10 amps. Part of secondary thermal protection circuit with dedicated contactor. Independent of main control circuit.

**Slim Junction Box:** 10.25" (230 mm) x 8.00" (180 mm) x 6.75" (172 mm)

**Optional Built-In Thermostat:** Explosion-proof. 36°F to 82°F (2°C to 28°C)

**Optional Built-In Disconnect Switch:** DS for use only on heaters with total current not exceeding 48 amps. Lockout handle accepts 1/4" diameter padlock shackle

**Optional Pilot Light:** Explosion-proof light fixture with replaceable bulb

**Control Transformer:** Multiple voltage primary, 120V secondary, 50VA.

**Contactors:** 75 amps. Rated for 1,000,000 mechanical operations. 120 V, 15 VA coil (separately fuse-protected)

**Heat Transfer Fluid:** Proprietary heat transfer fluid

**Cabinet Material:** 12 ga. (0.104") (2.60 mm) steel. Epoxy coated with five-stage pretreatment, including iron phosphate. Optional stainless steel.

**Core:** Steel with integral aluminum fins, vacuum charged and hermetically sealed

**Conduit Material:** Heavy walled, 0.122" (3.1 mm) steel

**Overpressure Protection:** Preset 100 psig (690 kPa) pressure relief valve, no field serviceable parts. Preset 300 PSIG (2070 kPa) rupture disk, no field serviceable parts.

**Operational Temperature Range:** -58°F to 104°F (-50°C to 40°C)

**Storage Limitations:** -58°F to 176°F (-50°C to 80°C). Do not immerse in water. Do not expose to rain or snow.

# Explosion-Proof Heater Model FX6

**Ordering Information** - Performance Data for 60 Hertz FX6- UL, Temperature Code T3B (328°F) 165°C

| MODEL                       | VOLTS | PHASE | NOMINAL WATTAGE (kW) | AMPS | OPTIONAL BUILT-IN DISCONNECT SWITCH | AIR TEMP. RISE  | BTU/HR  |
|-----------------------------|-------|-------|----------------------|------|-------------------------------------|-----------------|---------|
| FX6-208160-030              | 208   | 1     | 3                    | 18.5 | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-208360-030              | 208   | 3     | 3                    | 10.6 | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-240160-030              | 240   | 1     | 3                    | 16.6 | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-240360-030              | 240   | 3     | 3                    | 9.6  | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-480160-030**            | 480   | 1     | 3                    | 7.1  | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-480360-030              | 480   | 3     | 3                    | 4.8  | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-600360-030              | 600   | 3     | 3                    | 3.6  | DS                                  | 19°F (10.5°C)   | 10,250  |
| FX6-208160-050              | 208   | 1     | 5                    | 28.1 | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-208360-050              | 208   | 3     | 5                    | 16.2 | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-240160-050              | 240   | 1     | 5                    | 24.9 | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-240360-050              | 240   | 3     | 5                    | 14.4 | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-480160-050**            | 480   | 1     | 5                    | 11.2 | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-480360-050              | 480   | 3     | 5                    | 7.2  | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-600360-050              | 600   | 3     | 5                    | 5.5  | DS                                  | 31.6°F (17.6°C) | 17,050  |
| FX6-208160-075              | 208   | 1     | 7.5                  | 40.2 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-208360-075              | 208   | 3     | 7.5                  | 23.1 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-240160-075              | 240   | 1     | 7.5                  | 35.4 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-240360-075              | 240   | 3     | 7.5                  | 20.5 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-480160-075**            | 480   | 1     | 7.5                  | 16.4 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-480360-075              | 480   | 3     | 7.5                  | 10.2 | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-600360-075              | 600   | 3     | 7.5                  | 7.9  | DS                                  | 27.9°F (15.5°C) | 25,600  |
| FX6-208160-100**            | 208   | 1     | 10                   | 52.2 | NOT AVAILABLE                       | 37.2°F (20.6°C) | 34,100  |
| FX6-208360-100              | 208   | 3     | 10                   | 30.1 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-240160-100              | 240   | 1     | 10                   | 45.8 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-240360-100              | 240   | 3     | 10                   | 26.5 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-480160-100 <sup>1</sup> | 480   | 1     | 10                   | 21.6 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-480360-100              | 480   | 3     | 10                   | 13.2 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-600360-100              | 600   | 3     | 10                   | 10.3 | DS                                  | 37.2°F (20.6°C) | 34,100  |
| FX6-208360-150              | 208   | 3     | 15                   | 44   | NOT AVAILABLE                       | 27.1°F (15.1°C) | 51,200  |
| FX6-240160-150*             | 240   | 1     | 15                   | 66.6 | DS                                  | 27.1°F (15.1°C) | 51,200  |
| FX6-240360-150              | 240   | 3     | 15                   | 38.5 | DS                                  | 27.1°F (15.1°C) | 51,200  |
| FX6-480160-150**            | 480   | 1     | 15                   | 32.1 | DS                                  | 27.1°F (15.1°C) | 51,200  |
| FX6-480360-150              | 480   | 3     | 15                   | 19.3 | DS                                  | 27.1°F (15.1°C) | 51,200  |
| FX6-600360-150              | 600   | 3     | 15                   | 15.2 | DS                                  | 27.1°F (15.1°C) | 51,200  |
| FX6-480160-200**            | 480   | 1     | 20                   | 42.5 | DS                                  | 36.1°F (20.1°C) | 68,250  |
| FX6-480360-200              | 480   | 3     | 20                   | 25.3 | DS                                  | 36.1°F (20.1°C) | 68,250  |
| FX6-600360-200              | 600   | 3     | 20                   | 20   | DS                                  | 36.1°F (20.1°C) | 68,250  |
| FX6-480360-250              | 480   | 3     | 25                   | 31.3 | DS                                  | 22.0°F (12.2°C) | 85,300  |
| FX6-600360-250              | 600   | 3     | 25                   | 24.8 | DS                                  | 22.0°F (12.2°C) | 85,300  |
| FX6-480360-300              | 480   | 3     | 30                   | 37.3 | DS                                  | 26.4°F (14.6°C) | 102,350 |
| FX6-600360-300              | 600   | 3     | 30                   | 29.6 | DS                                  | 26.4°F (14.6°C) | 102,350 |
| FX6-480360-350              | 480   | 3     | 35                   | 43.3 | DS                                  | 30.7°F (17.1°C) | 119,450 |
| FX6-600360-350              | 600   | 3     | 35                   | 34.4 | DS                                  | 30.7°F (17.1°C) | 119,450 |

\* Exceeds the 48 amp circuit limit of NEC 424-22. DS not available for these units.

\*\*480 V: 1-phase units are certified for Class I, Div. 1, Group D and Class II, Div.1 Groups F & G

## Options

| ADD SUFFIX | DESCRIPTION                 |
|------------|-----------------------------|
| -T         | Built-in thermostat.        |
| -D         | Built-in disconnect switch. |
| -P         | Built-in pilot light.       |
| -S         | 3-way switch.               |

Continued



# Explosion-Proof Heater Model FX6

## Options

| ADD SUFFIX | DESCRIPTION                                    |
|------------|--|
| -H         | High "off" (deenergized) ambient temperatures. |
| -C         | Heresite                                       |
| -A         | Stainless-steel cabinet.                       |

## Ordering Information - Performance Data for 50 Hertz FX6, Temperature Code T3B (329°F) 165°C

| MODEL           | VOLTS | PHASE | NOMINAL WATTAGE (kW) | AMPS | OPTIONAL BUILT-IN DISCONNECT SWITCH | AIR TEMP. RISE  | BTU/HR |
|-----------------|-------|-------|----------------------|------|-------------------------------------|-----------------|--------|
| FX6-220150-025  | 220   | 1     | 2.5                  | 16.1 | DS                                  | 19.7°F (11°C)   | 8,550  |
| FX6-220150-042  | 220   | 1     | 4.2                  | 23.8 | DS                                  | 33.2°F (18.4°C) | 14,350 |
| FX6-220150-063  | 220   | 1     | 6.3                  | 33.3 | DS                                  | 28.5°F (15.7°C) | 21,500 |
| FX6-220150-084  | 220   | 1     | 8.4                  | 42.9 | DS                                  | 37.8°F (21.1°C) | 28,700 |
| FX6-220150-126* | 220   | 1     | 12.6                 | 62.0 | NOT AVAILABLE                       | 27.5°F (15.2°C) | 43,000 |
| FX6-230150-028  | 230   | 1     | 2.8                  | 16.3 | DS                                  | 22.1°F (12.3°C) | 9,550  |
| FX6-230150-046  | 230   | 1     | 4.6                  | 24.1 | DS                                  | 36.4°F (20.2°C) | 16,000 |
| FX6-230150-069  | 230   | 1     | 6.9                  | 34.1 | DS                                  | 31.1°F (17.2°C) | 23,550 |
| FX6-230150-138* | 230   | 1     | 13.8                 | 64.1 | NOT AVAILABLE                       | 30.1°F (16.6°C) | 47,100 |
| FX6-380350-025  | 380   | 3     | 2.5                  | 4.9  | DS                                  | 11.2°F (6.3°C)  | 8,550  |
| FX6-380350-042  | 380   | 3     | 4.2                  | 7.5  | DS                                  | 19.0°F (10.5°C) | 14,350 |
| FX6-380350-063  | 380   | 3     | 6.3                  | 10.7 | DS                                  | 28.5°F (15.7°C) | 21,500 |
| FX6-380350-084  | 380   | 3     | 8.4                  | 13.9 | DS                                  | 37.8°F (21.1°C) | 28,700 |
| FX6-380350-125  | 380   | 3     | 12.5                 | 20.1 | DS                                  | 27.5°F (15.2°C) | 42,700 |
| FX6-380350-209  | 380   | 3     | 20.9                 | 32.9 | DS                                  | 22.0°F (12.1°C) | 71,350 |
| FX6-400350-028  | 400   | 3     | 2.8                  | 5.1  | DS                                  | 12.5°F (7.0°C)  | 9,550  |
| FX6-400350-046  | 400   | 3     | 4.6                  | 7.7  | DS                                  | 20.7°F (11.5°C) | 15,700 |
| FX6-400350-069  | 400   | 3     | 6.9                  | 11.1 | DS                                  | 31.1°F (17.2°C) | 23,550 |
| FX6-400350-093  | 400   | 3     | 9.3                  | 14.5 | DS                                  | 42.0°F (23.2°C) | 31,750 |
| FX6-400350-139  | 400   | 3     | 13.9                 | 21.1 | DS                                  | 30.2°F (16.7°C) | 74,450 |
| FX6-400350-185  | 400   | 3     | 18.5                 | 27.8 | DS                                  | 40.2°F (22.3°C) | 63,150 |
| FX6-400350-231  | 400   | 3     | 23.1                 | 34.5 | DS                                  | 24.2°F (13.5°C) | 78,850 |
| FX6-415350-037  | 415   | 3     | 3.7                  | 6.4  | DS                                  | 16.6°F (9.2°C)  | 12,650 |
| FX6-415350-075  | 415   | 3     | 7.5                  | 11.6 | DS                                  | 33.8°F (18.7°C) | 25,600 |
| FX6-415350-149  | 415   | 3     | 14.9                 | 22.0 | DS                                  | 32.5°F (18.1°C) | 50,850 |
| FX6-415350-224  | 415   | 3     | 22.4                 | 32.4 | DS                                  | 23.5°F (13.1°C) | 76,450 |
| FX6-440350-042  | 440   | 3     | 4.2                  | 6.7  | DS                                  | 19.0°F (10.5°C) | 14,350 |
| FX6-440350-084  | 440   | 3     | 8.4                  | 12.2 | DS                                  | 37.8°F (21.1°C) | 28,700 |
| FX6-440350-168  | 440   | 3     | 16.8                 | 23.3 | DS                                  | 36.5°F (20.3°C) | 57,350 |
| FX6-440350-209  | 440   | 3     | 20.9                 | 28.7 | DS                                  | 22.1°F (12.2°C) | 71,350 |

\* Exceeds the 48 amp circuit limit of NEC 424-22. DS not available for these units.

\*\*480 V: 1-phase units are certified for Class I, Div. 1, Group D and Class II, Div.1 Groups F & G

## Specifications - 60 Hertz FX6

| NOMINAL WATTAGE (kW) | MAX. ALTITUDE (FT) | AIR DELIVERY @70°F (CFM) | HORIZONTAL THROW (FT) | MAX. MOUNTING HEIGHT (FT) | MOTOR POWER (W) | MOTOR SPEED (RPM) | FAN DIAMETER (in) | NET WEIGHT (lbs) |             | SHIPPING WEIGHT (lbs) |             |
|----------------------|--------------------|--------------------------|-----------------------|---------------------------|-----------------|-------------------|-------------------|------------------|-------------|-----------------------|-------------|
|                      |                    |                          |                       |                           |                 |                   |                   | WITH DS5         | WITHOUT DS5 | WITH DS5              | WITHOUT DS5 |
| 3                    | 12,000             | 850                      | 30                    | 10                        | 373             | 1,725             | 12                | 152              | 140         | 206                   | 194         |
| 5                    | 8,000              | 850                      | 30                    | 10                        | 373             | 1,725             | 12                | 152              | 140         | 206                   | 194         |
| 7.5                  | 10,000             | 850                      | 30                    | 10                        | 373             | 1,725             | 12                | 152              | 140         | 206                   | 194         |
| 10                   | 7,000              | 850                      | 30                    | 10                        | 373             | 1,725             | 12                | 152              | 140         | 206                   | 194         |
| 15                   | 10,000             | 1,750                    | 40                    | 10                        | 373             | 1,725             | 16                | 180              | 168         | 230                   | 218         |
| 20                   | 7,000              | 1,750                    | 40                    | 10                        | 373             | 1,725             | 16                | 180              | 168         | 230                   | 218         |
| 25                   | 10,000             | 3,600                    | 70                    | 20                        | 373             | 1,725             | 20                | 213              | 201         | 264                   | 252         |
| 30                   | 7,000              | 3,600                    | 70                    | 20                        | 373             | 1,725             | 20                | 213              | 201         | 264                   | 252         |
| 35                   | 6,000              | 3,600                    | 70                    | 20                        | 373             | 1,725             | 20                | 213              | 201         | 264                   | 252         |

Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum

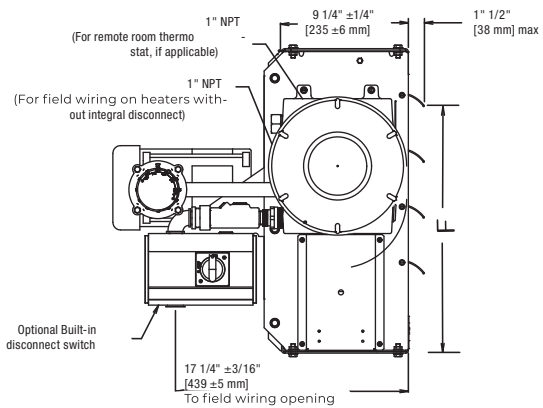
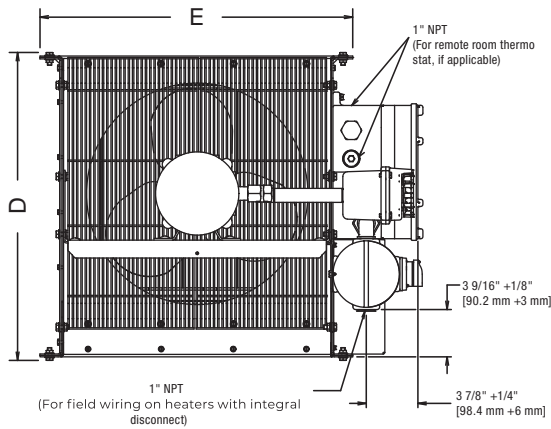
# Explosion-Proof Heater Model FX6

## Specifications - 50 Hertz FX6

| NOMINAL WATTAGE (kW) | MAX. ALTITUDE (FT) | AIR DELIVERY @70°F (CFM) | HORIZONTAL THROW (FT) | MAX. MOUNTING HEIGHT (FT) | MOTOR POWER (W) | MOTOR SPEED (RPM) | FAN DIAMETER (in) | NET WEIGHT (lbs) |             | SHIPPING WEIGHT (lbs) |             |
|----------------------|--------------------|--------------------------|-----------------------|---------------------------|-----------------|-------------------|-------------------|------------------|-------------|-----------------------|-------------|
|                      |                    |                          |                       |                           |                 |                   |                   | WITH DS5         | WITHOUT DS5 | WITH DS5              | WITHOUT DS5 |
| 2.5                  | 12,000             | 700                      | 25                    | 10                        | 187             | 1,437             | 12                | 152              | 140         | 206                   | 194         |
| 3.7 & 4.2            | 8,000              | 700                      | 25                    | 10                        | 187             | 1,437             | 12                | 152              | 140         | 206                   | 194         |
| 6.3 & 7.5            | 10,000             | 700                      | 25                    | 10                        | 187             | 1,437             | 12                | 152              | 140         | 206                   | 194         |
| 8.4                  | 7,000              | 700                      | 25                    | 10                        | 187             | 1,437             | 12                | 152              | 140         | 206                   | 194         |
| 12.5 & 12.6          | 10,000             | 1,450                    | 35                    | 10                        | 187             | 1,437             | 16                | 180              | 168         | 230                   | 218         |
| 14.9 & 16.7          | 7,000              | 1,450                    | 35                    | 10                        | 187             | 1,437             | 16                | 180              | 168         | 230                   | 218         |
| 20.9                 | 10,000             | 3,000                    | 60                    | 20                        | 187             | 1,437             | 16                | 213              | 201         | 264                   | 252         |
| 22.4                 | 7,000              | 3,000                    | 60                    | 20                        | 187             | 1,437             | 16                | 213              | 201         | 264                   | 252         |

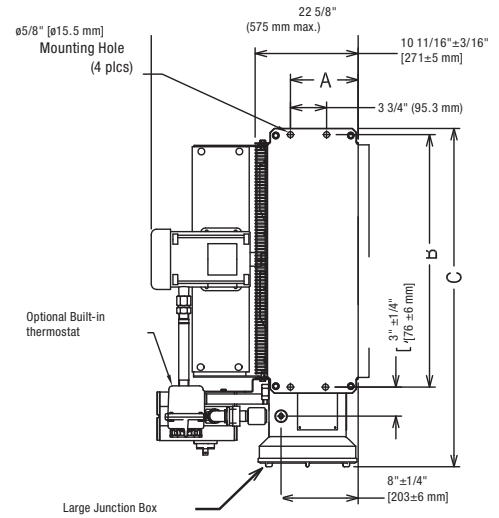
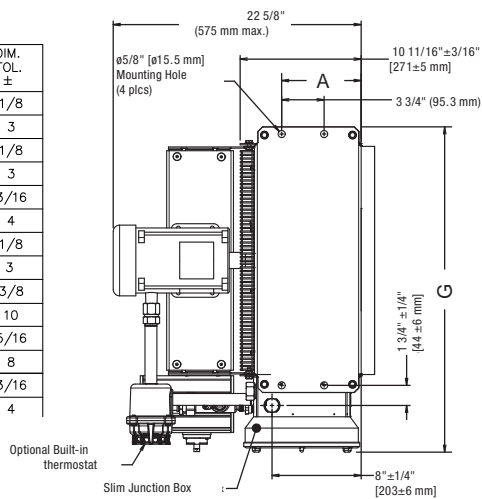
Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum

## Dimensional Data

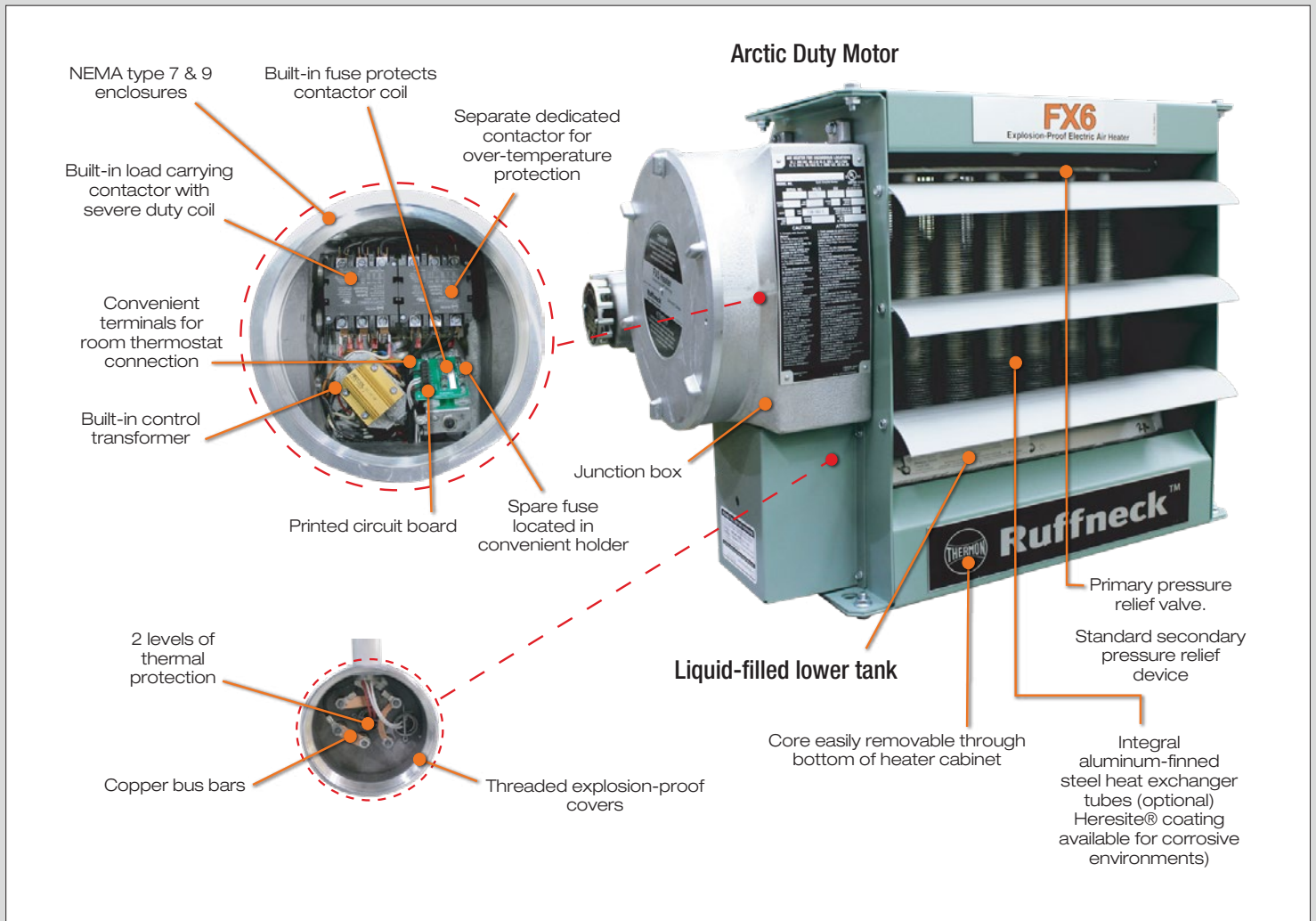


Dimensional Tolerances +1/8" [+3 mm]  
Unless otherwise specified.

| DIM. | kW  | 2.5-10  | 12.5-20 | 20.9-35  | DIM. TOL. ± |
|------|-----|---------|---------|----------|-------------|
|      |     | in.     | in.     | in.      |             |
| A    | in. | 7       | 7       | 7        | 1/8         |
|      | mm  | 178     | 178     | 178      | 3           |
| B    | in. | 18-3/16 | 22-5/16 | 26-1/4   | 1/8         |
|      | mm  | 462     | 566     | 667      | 3           |
| C    | in. | 27      | 31      | 35       | 3/16        |
|      | mm  | 686     | 787     | 889      | 4           |
| D    | in. | 19      | 23      | 27       | 1/8         |
|      | mm  | 484     | 586     | 688      | 3           |
| E    | in. | 19-7/16 | 23-7/16 | 27-7/16  | 3/8         |
|      | mm  | 492     | 596     | 697      | 10          |
| F    | in. | 17-1/2  | 19-1/2  | 21-13/16 | 5/16        |
|      | mm  | 444     | 495     | 554      | 8           |
| G    | in. | 24-5/8  | 28-5/8  | 32-5/8   | 3/16        |
|      | mm  | 625     | 727     | 828      | 4           |



# Explosion-Proof Heater Model FX6





**Model Code:**

|     |    |    |     |     |
|-----|----|----|-----|-----|
| PAW | 12 | 15 | -SS | -ST |
| A   | B  | C  | D   | E   |

**A: Series**  
**B: Volts: 12=120V 20=208V 24=240V 27=277V**  
**C: Watts (250 - 2250)**  
**D: Stainless Steel**  
**E: Slope Top**



- 304 stainless steel enclosure
- Pic-A-Watt® Element
- Multiple wattages
- Flange-mount wall can
- Manual reset high limit
- C-Frame motor
- Squirrel cage blower
- Patented Smart Limit Protection®
- Whisper quiet
- Slope top
- Approved for inspected vessels
- 3-year limited warranty



## The Stainless Steel PAW-SS Series

**The heater of choice in the boating industry.** This is the only electric heater specifically designed to be used in marine applications. It has all the great features of the Pic-A-Watt® heater (including a stainless steel grill, wall can and interior) enabling it to stand up to the corrosive environment on saltwater boats. The wall can is flanged for recess mounting into a wood bulkhead. Consult factory or review catalog for other models, including a high-efficiency motor and a Dial-A-Watt™ switch allowing you to change the wattage with a grill-mounted selector switch.

**Ordering Information** \*Add suffix -ST for Slope Top Surface Can (required when surface-mounting on inspected vessels)

| MODEL      | UPC   | VOLTS | WATTS                            | AMPS     | SHIP WEIGHT lbs |
|------------|-------|-------|----------------------------------|----------|-----------------|
| PAW1215-SS | 16315 | 120V  | 250•500•750•1000•1250•1500       | 2.1-12.5 | 9.5             |
| PAW2022-SS | 00516 | 208V  | 500•750•1000•1250•1500•1750•2250 | 2.4-10.8 | 9.5             |
| PAW2422-SS | 16313 | 240V  | 500•750•1000•1250•1500•1750•2250 | 2.1-9.4  | 9.5             |
| PAW2720-SS | 00518 | 277V  | 1000•2000                        | 3.6-7.2  | 9.5             |

### Options

| ADD SUFFIX | DESCRIPTION   |
|------------|---|
| -ST        | Adds slope top wall can. Required on inspected vessels. |

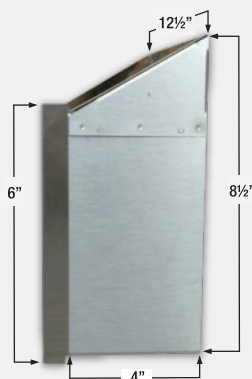
### Accessories

| MODEL    | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|----------|-------|--|-----------------|
| PAWF-SS  | 16318 | Bulkhead Can with Flange - Stainless Steel. Inspected vessel.  | 2               |
| PAWS-SS  | 16317 | Surface Can - Stainless Steel                                  | 2               |
| PAWG-SS  | 16330 | Marine Grille - Stainless Steel                                | 2               |
| TKIT-1BW | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A  | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A  | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |

### Also Available in a Slope-Top Surface Mounted Can



Intended for use on inspected vessels

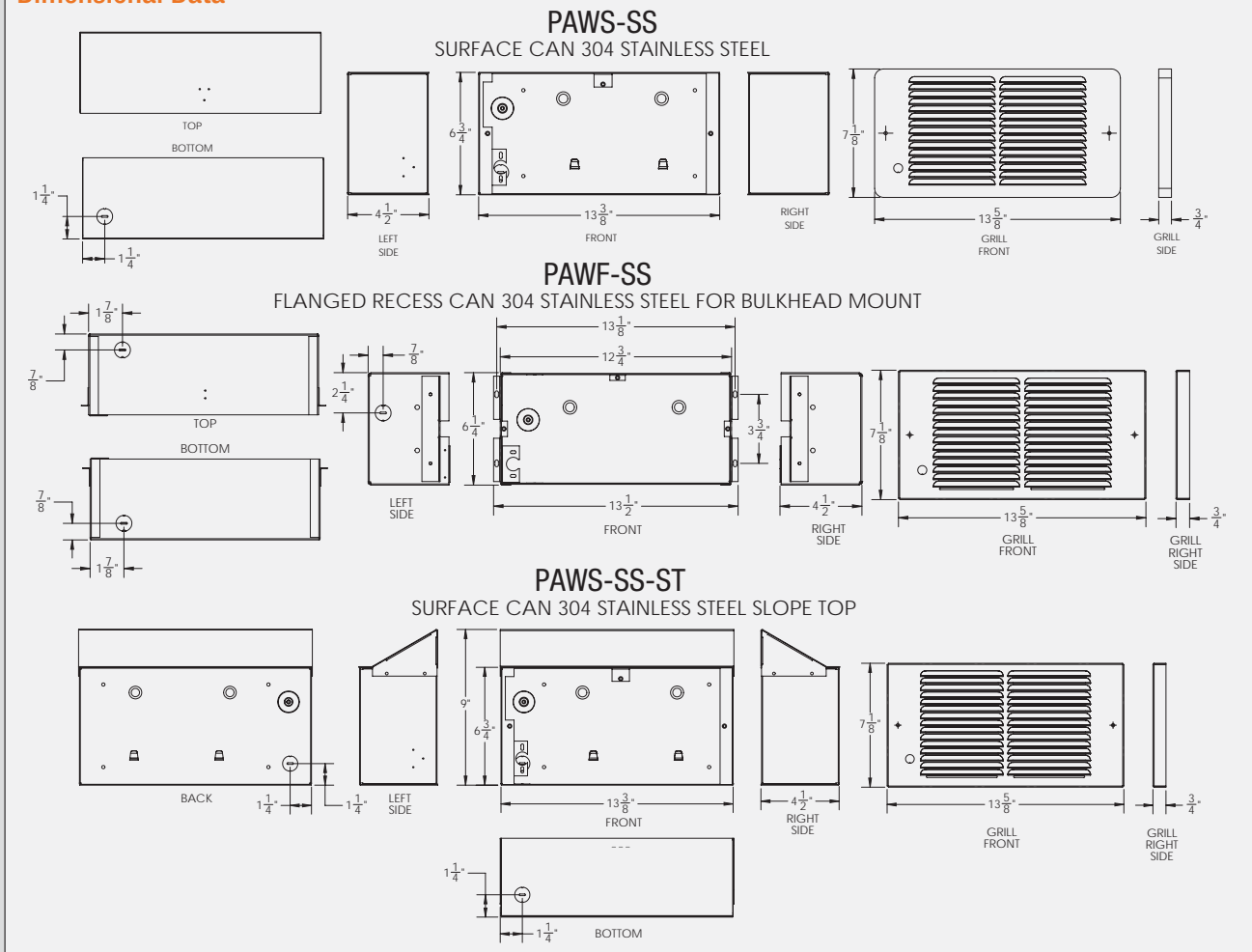


#### MINIMUM CLEARANCE

Zero clearance to insulation 4" above floor 6" from adjacent wall

# Stainless Steel PAW-SS Series

## Dimensional Data



## Engineering Specifications

Contractor shall supply and install PAW Stainless Steel Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** The heater wall can and heat box assembly will be of 20 gauge 304 stainless steel and have a depth gauge label on top of the wall can. Flanges on each side of the wall can will aid in mounting to wooden bulkheads. All fasteners are stainless steel or nickel plated. If surface mounting on a inspected vessel an angled top can will be used.

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall Can:** The wall can shall be 20 gauge stainless steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge or flange and a factory installed Copper ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in wall.

**Grill:** The grill shall be a louvered, one-piece design with square corners on all four sides. The grill shall be clear epoxy powder-coated.

**Approval:** Heaters shall be listed and approved by Underwriters Laboratories or equal.



**Model Code:**

| DAW  | 12 | 15 | -SS | -ST |
|--|----|----|-----|-----|
| A  | B  | C  | D   | E   |
| <b>A: Series</b>                                     |    |    |     |     |
| <b>B: Volts: 12=120V 20=208V<br/>24=240V 27=277V</b> |    |    |     |     |
| <b>C: Watts (250 - 2250)</b>                         |    |    |     |     |
| <b>D: Stainless Steel</b>                            |    |    |     |     |
| <b>E: Slope Top</b>                                  |    |    |     |     |



- Select from up to 7 wattages with switch on grill
- Pic-A-Watt® Element
- 304 Stainless Steel Enclosure
- C-Frame Motor
- Squirrel Cage Blower
- Whisper Quiet
- Green pilot light indicates heat is on
- 20 gauge clear powder-coated grill
- Multiple wattage selection
- Flange-mount wall can
- Smart Limit Protection®
- 1-Pole or 2-Pole unit mount thermostat 45° - 80°F
- 120, 208, or 240 Volts



## The Stainless Steel DAW-SS Series

**A heater unique to King featuring the ability to choose the wattage needed.** A heavy-duty industrial switch mounted on the grill allows quick and easy choice of up to 7 different heat settings. Use where higher wattage is not required during unoccupied periods. Typical installations are toll booths, motor home/RVs, pleasure craft and cabins. By providing air movement and dry heat, musty, moldy odors are reduced and interior fabric life is maximized. Utilizing a lower wattage provides winter freeze protection with the bonus of energy savings. During RV use the heater load (Amperage) can be adjusted to the receptacle or cord size. This prevents damage to plugs and receptacles due to overloading. During lay-up periods, wattage can be adjusted to the correct level. Quiet operating tangential cylindrical (squirrel cage) blower and commercial grade element make the Dial-A-Watt™ the heater of choice for people on the move.

### Ordering Information

| MODEL          | UPC   | VOLTS | WATTS                            | AMPS     | SHIP WEIGHT lbs |
|----------------|-------|-------|----------------------------------|----------|-----------------|
| DAW1215-SS     | 19251 | 120   | 250•500•750•1000•1250•1500       | 2.1-12.5 | 9               |
| DAW1215-SS-ST  | 19255 | 120   | 250•500•750•1000•1250•1500       | 2.1-12.5 | 12              |
| DAW1215-W      | 19250 | 120   | 250•500•750•1000•1250•1500       | 2.1-12.5 | 9               |
| DAW1215 W/CORD | 16356 | 120   | 250•500•750•1000•1250•1500       | 2.1-12.5 | 9               |
| DAW2022-SS     | 19208 | 208   | 500•750•1000•1250•1500•1750•2250 | 2.4-10.8 | 9               |
| DAW2422-SS     | 19252 | 240   | 500•750•1000•1250•1500•1750•2250 | 2.1-9.4  | 9               |
| DAW2422-W      | 19254 | 240   | 500•750•1000•1250•1500•1750•2250 | 2.1-9.4  | 9               |

Refer to Stainless Steel PAW Series for dimensions and accessories

### Factory Installed Options

| ADD SUFFIX | DESCRIPTION |
|------------|-------------|
| -ST        | Slope Top   |

### Accessories

| MODEL    | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|----------|-------|--|-----------------|
| DAWG-SS  | 19257 | DAW Accessory Grill Stainless Steel                            | 2               |
| DS15     | 13824 | Disconnect Switch, Field Installed Kit (10A/ 240V / 15A/120V)  | 0.5             |
| TKIT-1BW | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A  | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A  | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |

# Stainless Steel DAW-SS Series

## Engineering Specifications

Contractor shall supply and install, DAW Stainless Steel Series wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, or 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

**Elements:** Element assemblies shall consist of steel sheathed heating tubes in a furnace brazed, plate-finned, block design. Each sheathed tube shall contain coiled a Ni-Chrome wire embedded in an insulator of Magnesium Oxide.

**Thermal Overload:** Heaters shall be equipped with thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall

remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall Can:** The wall can shall be stainless steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge or flange mount, and a factory installed Copper groundwire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall.

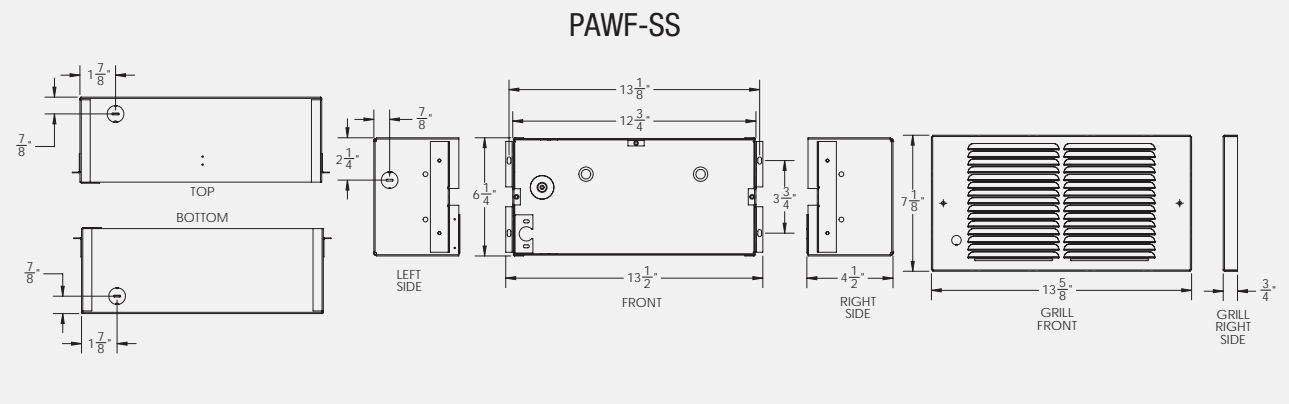
**Grill:** 304 brushed stainless steel, clear powder coating.

**Selector Switch:** Shall provide up to 7 wattage settings adjustable from switch on front of heater.

**Indicator:** Light designates heater is operating.

**Approval:** Heaters shall be listed and approved by Underwriters Laboratories or equal.

## Dimensional Data



# Stainless Steel MKT-SS Series



### Model Code:

|     |    |    |     |
|-----|----|----|-----|
| MKT | 12 | 10 | -SS |
| A   | B  | C  | D   |

A: Series  
 B: Volts: 12=120V 20=208V  
 24=240V  
 C: Watts (375 - 1500)  
 D: Stainless Steel



- 304 Stainless steel construction
- Low profile
- Open-coil element
- Squirrel cage blower
- C-Frame motor
- Stainless steel grill
- Overlap grill
- Patented Smart Limit Protection®
- 1-year limited warranty



## The Stainless Steel MKT-SS Series

**This low-profile kick space heater fits where standard heaters cannot.** Stainless steel construction makes it ideally suited where corrosion resistance is needed such as marine vessels or other high humidity areas. A typical marine vessel application is mounting through a bulkhead or plywood cabinet. The oversize grill (photo) is standard. For under-counter applications check the accessories table for the appropriate grill.

### Ordering Information

|      | MODEL      | UPC   | VOLTS    | WATTS                 | AMPS                | SHIP WEIGHT lbs |
|------|------------|-------|----------|-----------------------|---------------------|-----------------|
| 120V | MKT1210-SS | 11007 | 120      | 1000 • 500            | 8.3 • 4.2           | 8               |
|      | MKT1215-SS | 11014 | 120      | 1500 • 750            | 12.5 • 6.3          | 8               |
| 240V | MKT2410-SS | 11001 | 240/208* | 1000 • 500/750 • 375  | 4.2 • 2.1/3.6 • 1.8 | 8               |
|      | MKT2412-SS | 11005 | 240/208* | 1200 • 600/900 • 450  | 5.0 • 2.5/4.3 • 2.2 | 8               |
|      | MKT2415-SS | 11008 | 240/208* | 1500 • 750/1125 • 563 | 6.3 • 3.2/5.4 • 2.7 | 8               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

Refer to KT Series heater for dimensional data

### Accessories

| MODEL        | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|--------------|-------|--|-----------------|
| KTG-SS       | 12269 | Stainless Steel Grill 4-1/2" (Surface)                         | 1.0             |
| KTG-SS-3-1/2 | 12267 | SS Grille Standard – 3-1/2" X 16-1/2" (No Overlap) (Recess)    | 1.1             |
| TKIT-1BW     | 20654 | Built-in Single Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-2BW     | 20655 | Built-in Double Pole Single Throw Thermostat Kit, Bright White | 0.5             |
| TKIT-1A      | 11058 | Built-in Single Pole Single Throw Thermostat Kit, Almond       | 0.5             |
| TKIT-2A      | 11059 | Built-in Double Pole Single Throw Thermostat Kit, Almond       | 0.5             |

## Engineering Specifications

*Contractor shall supply and install MKT Series limited space-mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Motor:** Thermally protected and permanently lubricated.

**Fan:** Tangential (squirrel cage) blower provides whisper-quiet operation at 70 CFM.

**Element:** Dual wattage element allows for field adjustment. Made from Ni-Chrome alloy open-coil wire wrapped around a mica insulator.

**Thermal Cutout:** Safety limit turns off power to the element if it overheats and automatically resets.

**Thermal Overload:** Heaters shall be equipped with thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded.

If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall-box:** 20 gauge type 304 brushed stainless steel. All fasteners and hardware are stainless steel. Zero clearance to floors and 6" to sidewalls. Zero clearance to combustibles.

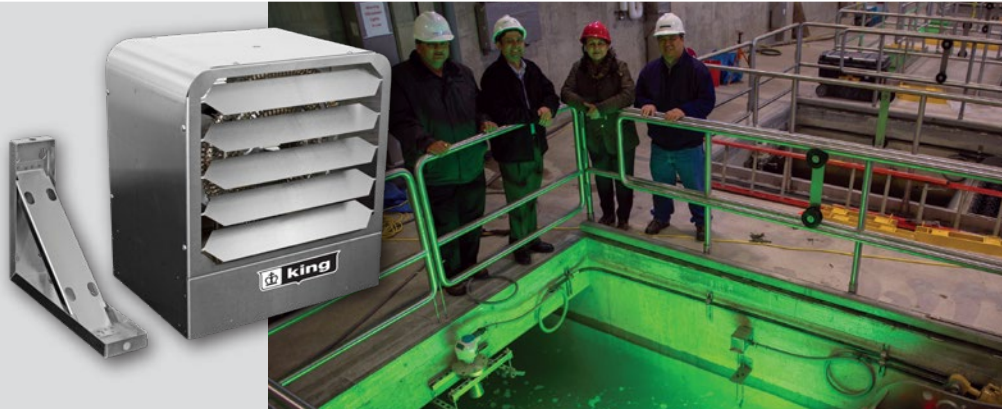
**Grill:** 20 gauge 304 stainless steel, clear epoxy finish.

**Options:** 1-Pole or 2-Pole unit-mount thermostat 45 - 80°F operating range and overlap grill.





# Stainless Steel Unit Heater KBS Series



### Model Code:

**KBS 48 10 -1 -T -B1 -CT24**  
**A B C D E F G**

**A: Series**  
**B: 20 - 208V, 24 - 240V**  
**27 - 277V, 48 - 480V**  
**C: KiloWatts**  
**D: -1 Phase, -3 Phase**  
**E: -T = Built-In Thermostat**  
**F: -B1 = Bracket**  
**G: -CT24 = Provision for 24V Remote Thermostat**  
**(Thermostat purchased separately)**



- 304 Stainless Steel Construction
- Permanent Lubricated Unit Bearing Motor
- N.E.M.A. 4 Enclosure
- For Areas Requiring Periodic Hose-Down
- Patented Smart Limit Protection®
- Universal Wall/Ceiling Bracket Included
- Adjustable Louvers to Direct Air
- High Mass Steel Fin Heat Exchanger
- 2-Year Limited Warranty

## The KBS Stainless Steel Unit Heater

**KBS unit heaters are specially constructed** for heating of, and freeze protection in, dirty, dusty or corrosive areas requiring periodic washing or hose-down. Typical places of use are: waste water treatment plants, car/truck washes, cement plants, steel mills or such, canneries and dairy facilities, ship and marine docks, fish processors and load banks for generators. The heater is constructed from 18-gauge type 304 Stainless Steel and elements making it extremely corrosion resistant. The N.E.M.A. 4 wiring compartment is sealed and gasketed making it water tight. All optional control components are U.L. listed for use in N.E.M.A. 4 enclosures.

### Ordering Information - single phase - includes single pole thermostat

| MODEL | UPC            | KW    | BTUH | PHASE | VOLTS | AMPS     | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE  | WT. (lbs.) |      |
|-------|----------------|-------|------|-------|-------|----------|--------------------------|----------|-----|------------|-----------|-------------------|-------|------------|------|
| 208V  | KBS2003-1-T-B1 | 22064 | 3    | 10.2  | 1     | 208      | 14.4                     | 208      | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2005-1-T-B1 | 22125 | 5    | 17    | 1     | 208      | 24                       | 208      | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2007-1-T-B2 | 20934 | 7.5  | 25.6  | 1     | 208      | 36.1                     | 208      | 16W | 600        | 40°       | 20ft.             | 9ft.  | B          | 45.0 |
|       | KBS2010-1-T-B2 | 22148 | 10   | 34.1  | 1     | 208      | 48.1                     | 208      | 25W | 725        | 44°       | 24ft.             | 10ft. | B          | 45.0 |
|       | KBS2012-1-T-B2 | 22160 | 12.5 | 42.7  | 1     | 208      | 60.1                     | 208      | 35W | 825        | 48°       | 30ft.             | 11ft. | C          | 46.5 |
| 240V  | KBS2403-1-T-B1 | 20889 | 3    | 10.2  | 1     | 240/208* | 12.5/10.8*               | 24       | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2405-1-T-B1 | 20820 | 5    | 17    | 1     | 240/208* | 20.8/18*                 | 24       | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2407-1-T-B2 | 22138 | 7.5  | 25.6  | 1     | 240/208* | 31.2/27*                 | 24       | 16W | 600        | 40°       | 20ft.             | 9ft.  | B          | 45.0 |
|       | KBS2410-1-T-B2 | 22152 | 10   | 34.1  | 1     | 240/208* | 41.6/36.1*               | 24       | 25W | 725        | 44°       | 24ft.             | 10ft. | B          | 45.0 |
| 277V  | KBS2412-1-T-B2 | 22160 | 12.5 | 42.7  | 1     | 240/208* | 52/45.1*                 | 24       | 35W | 825        | 48°       | 30ft.             | 11ft. | C          | 46.5 |
|       | KBS2703-1-T-B1 | 22216 | 3    | 10.2  | 1     | 277      | 10.8                     | 277      | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2705-1-T-B1 | 13281 | 5    | 17    | 1     | 277      | 18.1                     | 277      | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS2707-1-T-B2 | 55490 | 7.5  | 25.6  | 1     | 277      | 27                       | 277      | 16W | 600        | 40°       | 20ft.             | 9ft.  | B          | 45.0 |
|       | KBS2710-1-T-B2 | 33157 | 10   | 34.1  | 1     | 277      | 36.1                     | 277      | 25W | 725        | 44°       | 24ft.             | 10ft. | B          | 45.0 |
| 480V  | KBS4803-1-T-B1 | 19734 | 3    | 10.2  | 1     | 480      | 6.3                      | 24       | 9W  | 400        |           |                   |       |            | 30.5 |
|       | KBS4805-1-T-B1 | 19759 | 5    | 17    | 1     | 480      | 10.4                     | 24       | 9W  | 400        | 40°       | 16ft.             | 8ft.  | A          | 30.5 |
|       | KBS4807-1-T-B2 | 55491 | 7.5  | 25.6  | 1     | 480      | 15.6                     | 24       | 16W | 600        | 40°       | 20ft.             | 9ft.  | B          | 45.0 |
|       | KBS4810-1-T-B2 | 55494 | 10   | 34.1  | 1     | 480      | 20.8                     | 24       | 25W | 725        | 44°       | 24ft.             | 10ft. | B          | 45.0 |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

### Ordering Information - three phase - includes single pole thermostat

| MODEL | UPC            | KW    | BTUH | PHASE | VOLTS | AMPS     | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE  | WT. (lbs.) |      |
|-------|----------------|-------|------|-------|-------|----------|--------------------------|----------|-----|------------|-----------|-------------------|-------|------------|------|
| 208V  | KBS2012-3-T-B2 | 55501 | 12.5 | 42.7  | 3     | 208      | 34.6                     | 208      | 35W | 825        | 48°       | 30ft.             | 11ft. | C          | 46.5 |
|       | KBS2015-3-T-B2 | 55503 | 15   | 51.2  | 3     | 208      | 41.6                     | 208      | 35W | 925        | 51°       | 33ft.             | 12ft. | C          | 46.5 |
|       | KBS2020-3-T-B2 | 22174 | 20   | 68.3  | 3     | 208      | 55.5                     | 208      | 50W | 1100       | 57°       | 47ft.             | 13ft. | C          | 46.5 |
| 240V  | KBS2412-3-T-B2 | 55502 | 12.5 | 42.7  | 3     | 240/208* | 30/26*                   | 24       | 35W | 825        | 48°       | 30ft.             | 11ft. | C          | 46.5 |
|       | KBS2415-3-T-B2 | 55504 | 15   | 51.2  | 3     | 240/208* | 36/31.2*                 | 24       | 35W | 925        | 51°       | 33ft.             | 12ft. | C          | 46.5 |
|       | KBS2420-3-T-B2 | 22175 | 20   | 68.3  | 3     | 240/208* | 48.1/41.6*               | 24       | 50W | 1100       | 57°       | 47ft.             | 13ft. | C          | 46.5 |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Stainless Steel Unit Heater KBS Series

## Ordering Information - multi-phase - includes single pole thermostat

|      | MODEL            | UPC   | KW   | BTUH | PHASE | VOLTS    | AMPS                 | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|------------------|-------|------|------|-------|----------|----------------------|--------------------------|----------|------|------------|-----------|-------------------|------|------------|
| 208V | KBS2003-3MP-T-B2 | 19701 | 3    | 10.2 | 1-3   | 208      | 14.4 & 8.3           | 208                      | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2005-3MP-T-B2 | 22006 | 5    | 17.1 | 1-3   | 208      | 24 & 13.9            | 208                      | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2007-3MP-T-B2 | 22136 | 7.5  | 25.6 | 1-3   | 208      | 36.1 & 20.8          | 208                      | 16W      | 600  | 40°        | 20ft.     | 9ft.              | C    | 46.5       |
|      | KBS2010-3MP-T-B2 | 19767 | 10   | 34.1 | 1-3   | 208      | 48.1 & 27.7          | 208                      | 25W      | 725  | 44°        | 24ft.     | 10ft.             | C    | 46.5       |
| 240V | KBS2403-3MP-T-B2 | 55499 | 3    | 10.2 | 1-3   | 240/208* | 12.5/7.2 & 14.4/8.3* | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2405-3MP-T-B2 | 55500 | 5    | 17.1 | 1-3   | 240/208* | 20.8/18 & 18/15.6*   | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2407-3MP-T-B2 | 22140 | 7.5  | 25.6 | 1-3   | 240/208* | 31.2/27 & 18/15.6*   | 24                       | 16W      | 600  | 40°        | 20ft.     | 9ft.              | C    | 46.5       |
|      | KBS2410-3MP-T-B2 | 22152 | 10   | 34.1 | 1-3   | 240/208* | 41.6/36.1 & 24/20.8* | 24                       | 25W      | 725  | 44°        | 24ft.     | 10ft.             | C    | 46.5       |
| 480V | KBS4803-3MP-T-B2 | 19735 | 3    | 10.2 | 1-3   | 480      | 6.3/3.6              | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS4805-3MP-T-B2 | 22129 | 5    | 17.1 | 1-3   | 480      | 10.4/6               | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS4810-3MP-T-B2 | 22156 | 10   | 34.1 | 1-3   | 480      | 20.8/12              | 24                       | 25W      | 725  | 44°        | 24ft.     | 10ft.             | C    | 46.5       |
|      | KBS4812-3MP-T-B2 | 19783 | 12.5 | 42.7 | 1-3   | 480      | 26/15                | 24                       | 35W      | 825  | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
|      | KBS4815-3MP-T-B2 | 22176 | 15   | 51.2 | 1-3   | 480      | 31.2/18              | 24                       | 35W      | 925  | 51°        | 33ft.     | 12ft.             | C    | 46.5       |
|      | KBS4820-3MP-T-B2 | 22177 | 20   | 68.3 | 1-3   | 480      | 41.6/24.1            | 24                       | 50W      | 1100 | 57°        | 37 ft.    | 12ft.             | E    | 55.0       |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\* 480V models include provision for 24V remote thermostat (thermostat purchased separately).

## Ordering Information - single phase - with provision for 24V remote thermostat (thermostat purchased separately)

|              | MODEL             | UPC   | KW   | BTUH | PHASE | VOLTS    | AMPS       | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|--------------|-------------------|-------|------|------|-------|----------|------------|--------------------------|----------|-----|------------|-----------|-------------------|------|------------|
| 208V         | KBS2003-1-B1-CT24 | 33558 | 3    | 10.2 | 1     | 208      | 14.4       | 24                       | 9W       | 400 | 40°        | 16ft.     | 8ft.              | A    | 30.5       |
|              | KBS2005-1-B1-CT24 | 33559 | 5    | 17   | 1     | 208      | 24         | 24                       | 9W       | 400 | 40°        | 16ft.     | 8ft.              | A    | 30.5       |
|              | KBS2007-1-B2-CT24 | 33560 | 7.5  | 25.6 | 1     | 208      | 48.1       | 24                       | 16W      | 600 | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
|              | KBS2010-1-B2-CT24 | 33561 | 10   | 34.1 | 1     | 208      | 48.1       | 24                       | 25W      | 725 | 44°        | 24ft.     | 10ft.             | B    | 45.0       |
|              | KBS2012-1-B2-CT24 | 33562 | 12.5 | 42.7 | 1     | 208      | 60.1       | 24                       | 35W      | 825 | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
| 240V         | KBS2403-1-B1-CT24 | 33563 | 3    | 10.2 | 1     | 240/208* | 12.5/10.8* | 24                       | 9W       | 400 | 40°        | 16ft.     | 8ft.              | A    | 30.5       |
|              | KBS2405-1-B1-CT24 | 33564 | 5    | 17   | 1     | 240/208* | 20.8/18*   | 24                       | 9W       | 400 | 40°        | 16ft.     | 8ft.              | A    | 30.5       |
|              | KBS2407-1-B2-CT24 | 33565 | 7.5  | 25.6 | 1     | 240/208* | 31.2/27*   | 24                       | 16W      | 600 | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
|              | KBS2410-1-B2-CT24 | 33566 | 10   | 34.1 | 1     | 240/208* | 41.6/36.1* | 24                       | 25W      | 725 | 44°        | 24ft.     | 10ft.             | B    | 45.0       |
| 277V         | KBS2412-1-B2-CT24 | 33567 | 12.5 | 42.7 | 1     | 240/208* | 52/45.1*   | 24                       | 35W      | 825 | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
|              | KBS2703-1-B1-CT24 | 33568 | 3    | 10.2 | 1     | 277      | 10.8       | 24                       | 9W       | 400 | 40°        | 20ft.     | 9ft.              | A    | 30.5       |
|              | KBS2705-1-B1-CT24 | 33569 | 5    | 17   | 1     | 277      | 18.1       | 24                       | 9W       | 400 | 40°        | 20ft.     | 9ft.              | A    | 30.5       |
| 480V         | KBS2707-1-B2-CT24 | 33570 | 7.5  | 25.6 | 1     | 277      | 27         | 24                       | 16W      | 600 | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
|              | KBS2710-1-B2-CT24 | 33571 | 10   | 34.1 | 1     | 277      | 36.1       | 24                       | 25W      | 725 | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
|              | KBS4803-1-B1      | 33572 | 3    | 10.2 | 1     | 480      | 6.3        | 24                       | 9W       | 400 |            |           |                   |      | 30.5       |
|              | KBS4805-1-B1      | 33573 | 5    | 17   | 1     | 480      | 10.4       | 24                       | 9W       | 400 | 40°        | 20ft.     | 9ft.              | A    | 30.5       |
|              | KBS4807-1-B2      | 33574 | 7.5  | 25.6 | 1     | 480      | 15.6       | 24                       | 16W      | 600 | 40°        | 20ft.     | 9ft.              | B    | 45.0       |
| KBS4810-1-B2 | 33575             | 10    | 34.1 | 1    | 480   | 20.8     | 24         | 25W                      | 725      | 44° | 24ft.      | 10ft.     | B                 | 45.0 |            |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\* Factory set with provision for 24V Remote Thermostat ( purchased separately)

## Ordering Information - three phase - with provision for 24V remote thermostat (thermostat purchased separately)

|      | MODEL             | UPC   | KW   | BTUH | PHASE | VOLTS    | AMPS       | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|-------------------|-------|------|------|-------|----------|------------|--------------------------|----------|------|------------|-----------|-------------------|------|------------|
| 208V | KBS2012-3-B2-CT24 | 33576 | 12.5 | 42.7 | 3     | 208      | 34.6       | 24                       | 35W      | 825  | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
|      | KBS2015-3-B2-CT24 | 33577 | 15   | 51.2 | 3     | 208      | 41.6       | 24                       | 35W      | 925  | 51°        | 33ft.     | 12ft.             | C    | 46.5       |
|      | KBS2020-3-B2-CT24 | 33578 | 20   | 68.3 | 3     | 208      | 55.5       | 24                       | 50W      | 1100 | 57°        | 47ft.     | 13ft.             | C    | 46.5       |
| 240V | KBS2412-3-B2-CT24 | 33579 | 12.5 | 42.7 | 3     | 240/208* | 30/26*     | 24                       | 35W      | 825  | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
|      | KBS2415-3-B2-CT24 | 33580 | 15   | 51.2 | 3     | 240/208* | 36/31.2*   | 24                       | 35W      | 925  | 51°        | 33ft.     | 12ft.             | C    | 46.5       |
|      | KBS2420-3-B2-CT24 | 33581 | 20   | 68.3 | 3     | 240/208* | 48.1/41.6* | 24                       | 50W      | 1100 | 57°        | 47ft.     | 13ft.             | C    | 46.5       |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\* Factory set with provision for 24V Remote Thermostat ( purchased separately)

# Stainless Steel Unit Heater KBS Series

**Ordering Information - multi-phase** - with provision for 24V remote thermostat (thermostat purchased separately)

|      | MODEL               | UPC   | KW   | BTUH | PHASE | VOLTS    | AMPS                 | **THERM. CONTROL VOLTAGE | MOTOR HP | CFM  | TEMP. RISE | AIR THROW | MAX. MOUNT HEIGHT | SIZE | WT. (lbs.) |
|------|---------------------|-------|------|------|-------|----------|----------------------|--------------------------|----------|------|------------|-----------|-------------------|------|------------|
| 208V | KBS2003-3MP-B2-CT24 | 33582 | 3    | 10.2 | 1-3   | 208      | 14.4 & 8.3           | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2005-3MP-B2-CT24 | 33583 | 5    | 17.1 | 1-3   | 208      | 24 & 13.9            | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2007-3MP-B2-CT24 | 33584 | 7.5  | 25.6 | 1-3   | 208      | 36.1 & 20.8          | 24                       | 16W      | 600  | 40°        | 20ft.     | 9ft.              | C    | 46.5       |
|      | KBS2010-3MP-B2-CT24 | 33585 | 10   | 34.1 | 1-3   | 208      | 48.1 & 27.7          | 24                       | 25W      | 725  | 44°        | 24ft.     | 10ft.             | C    | 46.5       |
| 240V | KBS2403-3MP-B2-CT24 | 33586 | 3    | 10.2 | 1-3   | 240/208* | 12.5/7.2 & 10.8/6.2* | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2405-3MP-B2-CT24 | 33587 | 5    | 17.1 | 1-3   | 240/208* | 20.8/12 & 18/10.4*   | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS2407-3MP-B2-CT24 | 33588 | 7.5  | 25.6 | 1-3   | 240/208* | 31.2/27 & 18/15.6*   | 24                       | 16W      | 600  | 40°        | 20ft.     | 9ft.              | C    | 46.5       |
|      | KBS2410-3MP-B2-CT24 | 33589 | 10   | 34.1 | 1-3   | 240/208* | 41.6/36.1 & 24/20.8* | 24                       | 25W      | 725  | 44°        | 24ft.     | 10ft.             | C    | 46.5       |
| 480V | KBS4803-3MP-B2      | 33590 | 3    | 10.2 | 1-3   | 480      | 6.3 & 3.6            | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS4805-3MP-B2      | 33591 | 5    | 17.1 | 1-3   | 480      | 10.4 & 9.6           | 24                       | 9W       | 400  | 40°        | 16ft.     | 8ft.              | C    | 46.5       |
|      | KBS4807-3MP-B2      | 33592 | 7.5  | 25.6 | 1-3   | 480      | 15.6 & 9             | 24                       | 16W      | 600  | 40°        | 20ft.     | 9ft.              | C    | 46.5       |
|      | KBS4810-3MP-B2      | 33593 | 12.5 | 17.1 | 1-3   | 480      | 26 & 15              | 24                       | 35W      | 825  | 48°        | 30ft.     | 11ft.             | C    | 46.5       |
|      | KBS4815-3MP-B2      | 33594 | 15   | 17.1 | 1-3   | 480      | 18 & 12              | 24                       | 35W      | 925  | 51°        | 33ft.     | 12ft.             | C    | 46.5       |
|      | KBS4820-3MP-B2      | 33596 | 20   | 17.1 | 1-3   | 480      | 41.6 & 24.1          | 24                       | 50W      | 1100 | 57°        | 37ft.     | 12ft.             | E    | 55         |

Maximum mounting height is manufacturer's recommendation \*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\* Factory set with provision for 24V Remote Thermostat ( Purchased Separately)

## Replacement Accessories

| MODEL    | UPC#  | DESCRIPTION  | WT. (lbs) |
|----------|-------|--|-----------|
| KBB-1-SS | 15254 | Stainless Steel Mounting Bracket (Replacement) - Small | 3         |
| KBB-2-SS | 15256 | Stainless Steel Mounting Bracket (Replacement) - Large | 4         |

## Engineering Specifications

Contractor shall supply and install KBS Series Stainless Steel heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Stainless Steel Construction:** All exterior and interior metal enclosure parts are made from 18 gauge type 304 Stainless Steel. All fasteners and hardware are Stainless Steel.

**Adjustable Outlet Louver:** Stainless Steel louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge Stainless Steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**N.E.M.A. 4 Enclosure:** Every electrical component in the wiring compartment is sealed with a polyurethane adhesive. The bottom access panel is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against corrosion, windblown dust, dirt, and rain, splashing water and hose-directed water. All optional control accessories are N.E.M.A. 4 rated.

**Stainless Steel Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum air flow stream. Stainless steel increases element life in extremely corrosive environments such as waste water treatment plants.

**Totally Enclosed Fan Motor:** Permanently lubricated, long life unit bearing coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

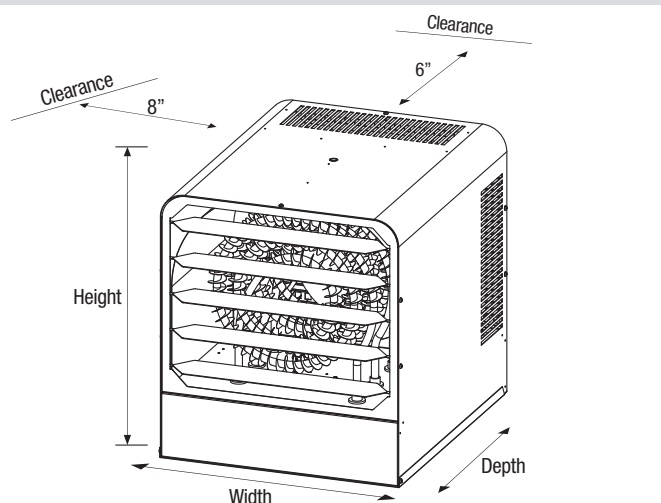
**Aluminum Fan Blade:** Axial flow-type mounted directly to the motor shaft for maximum efficiency.

**Manual Reset Limit Electrically Held:** Power is disconnected from the heater if an overheated condition occurs. The heater is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 5kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp.

**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Approvals:** cULus



## Dimensional Data

| SIZE | HEIGHT | DEPTH | WIDTH |
|------|--------|-------|-------|
| A    | 16.5"  | 11"   | 15"   |
| B    | 16.5"  | 13.5" | 15"   |
| C    | 16.5"  | 18"   | 15"   |
| E    | 20.5"  | 18"   | 15"   |

# Stainless Portable Unit Heater PKBS Series



### Model Code:

PKBS 48 10 -3 -T -FM  
A B C D E G

- A: Series
- B: 20 - 208V, 24 - 240V, 48 - 480V
- C: KW (10)
- D: 1-Phase, 3-Phase
- E: T= Mechanical Thermostat
- G: FM = Floor Mount -  
(2) convenience carry handles and rubber feet.



- 18 gauge 304 stainless steel
- High mass steel fin heat exchanger
- Built-in thermostat (40°-100°F)
- Dual carrying handles
- 4 heavy-duty rubber feet
- Adjustable louvers
- Long life unit bearing motor
- Fan only switch
- Patented Smart Limit Protection®
- 6ft. SO cord (no plug)
- N.E.M.A. 4 enclosure
- Non-mercury tip over switch
- For areas requiring periodic hose-down
- Standard color: Textured gray
- 2-year limited warranty



## The PKBS Stainless Steel Portable Unit Heater

King's PKBS Stainless Steel Portable Unit Heater is specially constructed for heating of, and freeze protection in, dirty, dusty or corrosive areas requiring periodic washing or hose-down. Typical places of use are: wastewater treatment plants, car/truck washes, agriculture, ship and marine docks, fish processors, and military applications. The heater is constructed from 18-gauge type 304 Stainless Steel and elements making it extremely corrosion resistant. The N.E.M.A. 4 wiring compartment is sealed and gasketed making it watertight. All optional control components are U.L. listed for use in N.E.M.A. 4 enclosures. It is the best heat source to assist in dry-out applications where dry electric heat is preferred over propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the PKBS the best solution for temporary large capacity heating applications.

### Ordering Information

|                 | MODEL           | KW              | BTUH       | PHASE | VOLTS    | AMPS      | CFM  | SIZE | SO CORD SIZE |      |
|-----------------|-----------------|-----------------|------------|-------|----------|-----------|------|------|--------------|------|
| <b>208V</b>     | PKBS2005-1-T-FM | 5               | 17.1       | 1     | 208      | 24.0      | 600  | A    | 8/3          |      |
|                 | PKBS2007-1-T-FM | 7.5             | 25.6       | 1     | 208      | 36.1      | 600  | B    | 8/3          |      |
|                 | PKBS2010-1-T-FM | 10              | 34.1       | 1     | 208      | 48.1      | 725  | B    | 6/3          |      |
|                 | PKBS2015-1-T-FM | 15              | 51.2       | 1     | 208      | 72.1      | 925  | C    | 2/3          |      |
| <b>240/208V</b> | PKBS2405-1-T-FM | 5               | 25.6/19.2  | 1     | 240/208* | 20.8/24.0 | 600  | A    | 8/3          |      |
|                 | PKBS2407-1-T-FM | 7.5/5.6         | 25.6/19.2  | 1     | 240/208* | 31.3/26.9 | 600  | B    | 8/3          |      |
|                 | PKBS2410-1-T-FM | 10/7.5          | 34.1/25.6  | 1     | 240/208* | 41.7/36.1 | 725  | B    | 6/3          |      |
|                 | PKBS2412-1-T-FM | 12.5/9.4        | 42.7/32.0  | 1     | 240/208* | 52.1/45.1 | 825  | C    | 6/3          |      |
|                 | PKBS2415-1-T-FM | 15/11.25        | 51.2/38.4  | 1     | 240/208* | 62.5/54.1 | 925  | C    | 4/3          |      |
|                 | <b>480V</b>     | PKBS4805-1-T-FM | 5          | 17.1  | 1        | 480       | 10.4 | 600  | A            | 14/3 |
| PKBS4807-1-T-FM |                 | 7.5             | 25.6       | 1     | 480      | 15.6      | 600  | B    | 14/3         |      |
| PKBS4810-1-T-FM |                 | 10              | 34.1       | 1     | 480      | 20.8      | 725  | B    | 12/3         |      |
| PKBS4812-1-T-FM |                 | 12.5            | 42.7       | 1     | 480      | 26.0      | 825  | C    | 10/3         |      |
| PKBS4815-1-T-FM |                 | 15              | 42.7       | 1     | 480      | 31.3      | 925  | C    | 8/3          |      |
| <b>208V</b>     |                 | PKBS2005-3-T-FM | 5          | 17.1  | 3        | 208       | 13.9 | 600  | C            | 8/3  |
|                 | PKBS2007-3-T-FM | 7.5             | 25.6       | 3     | 208      | 20.8      | 600  | C    | 10/4         |      |
|                 | PKBS2010-3-T-FM | 10              | 34.1       | 3     | 208      | 27.7      | 725  | C    | 8/4          |      |
|                 | PKBS2015-3-T-FM | 15              | 51.2       | 3     | 208      | 41.6      | 925  | C    | 6/4          |      |
|                 | PKBS2020-3-T-FM | 20              | 68.2       | 3     | 208      | 55.5      | 1100 | C    | 4/4          |      |
|                 | PKBS2405-3-T-FM | 5               | 25.6/19.2  | 3     | 240/208* | 12.0/10.5 | 600  | C    | 12/4         |      |
|                 | PKBS2407-3-T-FM | 7.5/5.6         | 25.6/19.2  | 3     | 240/208* | 18.0/15.5 | 600  | C    | 12/4         |      |
|                 | PKBS2410-3-T-FM | 10/7.5          | 34.1/25.6  | 3     | 240/208* | 24.1/20.8 | 725  | C    | 10/4         |      |
| <b>240/208V</b> | PKBS2412-3-T-FM | 12.5/9.4        | 42.7/32.0  | 3     | 240/208* | 30.1/26.1 | 825  | C    | 8/4          |      |
|                 | PKBS2415-3-T-FM | 15/11.25        | 51.2/38.4  | 3     | 240/208* | 36.1/31.2 | 925  | C    | 6/4          |      |
|                 | PKBS2420-3-T-FM | 20/15           | 68.2/51.20 | 3     | 240/208* | 48.1/41.6 | 1100 | C    | 4/4          |      |
|                 | <b>480V</b>     | PKBS4805-3-T-FM | 5          | 17.1  | 3        | 480       | 6.0  | 600  | C            | 14/4 |
|                 |                 | PKBS4807-3-T-FM | 7.5        | 25.6  | 3        | 480       | 9.0  | 600  | C            | 14/4 |
|                 |                 | PKBS4810-3-T-FM | 10         | 34.1  | 3        | 480       | 12.0 | 725  | C            | 14/4 |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Stainless Portable Unit Heater PKBS Series

## Ordering Information *Continued*

| MODEL           | KW   | BTUH | PHASE | VOLTS | AMPS | CFM  | SIZE | SO CORD SIZE |
|-----------------|------|------|-------|-------|------|------|------|--------------|
| PKBS4812-3-T-FM | 12.5 | 42.7 | 3     | 480   | 15.0 | 825  | C    | 12/4         |
| PKBS4815-3-T-FM | 15   | 51.2 | 3     | 480   | 18.0 | 925  | C    | 12/4         |
| PKBS4820-3-T-FM | 20   | 68.2 | 3     | 480   | 24.0 | 1100 | C    | 10/4         |

## Engineering Specifications

Contractor shall supply and install PKBS Series portable unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Stainless Steel Construction: All exterior and interior metal enclosure parts are made from 18 gauge type 304 Stainless Steel. All fasteners and hardware are Stainless Steel. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 100

**Fan Only Switch:** Comes standard with fan-only switch.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Stainless Steel Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum air flow stream.

Stainless steel increases element life in extremely corrosive environments such as waste water treatment plants.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Cord Length:** 6 Foot SO Cord (No Plug Provided)

**Approvals:** cETLus ( 517271 ) & (30314521)

## Options/Accessories

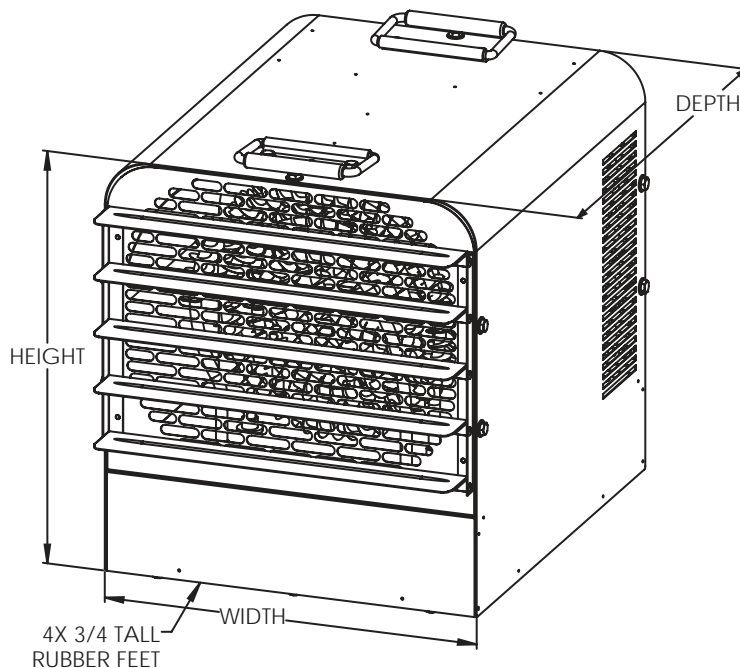
| ADD SUFFIX | DESCRIPTION         |
|------------|---------------------|
| -25C       | 25 foot cord option |

## Dimensional Data

| HEATER SIZE | DIMENSIONS |       |       |
|-------------|------------|-------|-------|
|             | HEIGHT     | DEPTH | WIDTH |
| A           | 16.5"      | 11"   | 15.1" |
| B           | 16.5"      | 13.5" | 15.1" |
| C           | 16.5"      | 18"   | 15.1" |

### Minimum Clearance

|            |       |
|------------|-------|
| front..... | 3 ft. |
| top.....   | 1 ft. |
| sides..... | 1 ft. |
| rear.....  | 1 ft. |





# Pumphouse Heater U Series



### Model Code:

|   |    |    |
|---|----|----|
| U | 24 | 10 |
| A | B  | C  |

A: Series  
 B: 12 - 120V 20- 208V  
 24 - 240V  
 C: Watts (1000)



Rated for damp locations

- ETL listed for use in damp locations
- Available in gray or stainless steel (-SS)
- Designed to meet requirements outlined in ASSE-1060
- Built-in thermostat with frost protection (40° to 90°F)
- Standard baked enamel protective coating
- Built in mounting bracket
- Convection/Radiant heat
- Vertical (Up to 500W) or horizontal mount
- 1-year limited warranty



## The U Series Pumphouse Heater

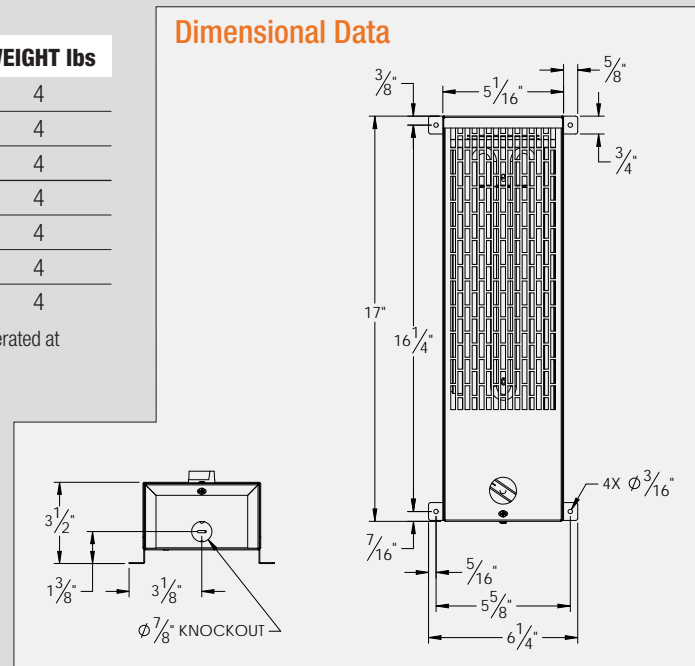
The U Series heater is designed to reduce moisture from mechanical equipment and keep pumps, valves, and farm machinery from freezing. Having the radiant heat absorbed by the metal equipment makes this heater more effective than convection heaters. The built-in thermostat turns off when the ambient temperature is safely above freezing. An optional 304 Stainless Steel (Add-SS to the model number) version helps prevent corrosion associated with high moisture locations like pump houses. A steel guard helps keep foreign objects away from the element. This heater is simple and reliable with no moving parts to wear out or maintain, making it an inexpensive choice for freeze protection. Specifically designed to operate in both vertical and horizontal positions (Up to 500W).

### Ordering Information

|      | MODEL  | UPC#  | VOLTAGE      | WATTAGE      | WEIGHT lbs |
|------|--------|-------|--------------|--------------|------------|
| 120V | U1250  | 12605 | 120          | 500          | 4          |
|      | U1275  | 12606 | 120          | 750          | 4          |
|      | U12100 | 12609 | 120          | 1000         | 4          |
| 240V | U2425  | 12612 | 240/208/120* | 250/187/62   | 4          |
|      | U2450  | 12615 | 240/208/120* | 500/375/125  | 4          |
|      | U2475  | 12618 | 240/208/120* | 750/563/187  | 4          |
|      | U24100 | 12621 | 240/208/120* | 1000/750/250 | 4          |

\*Triple rated 240V heaters will draw 13% less amps and 25% less wattage when operated at 208V / Draw 50% less amps and 75% less wattage when operated at 120V

### Dimensional Data



### Engineering Specifications

Contractor shall supply and install U Pump House series radiant heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Element:** Incoloy 840 Superalloy, corrosion resistant element

**Thermostat:** Built-in snap action with a range of 40° to 90°F.

**Safety Limit:** Capillary tube running the full length of the element provides over-temperature protection then automatically resets when temperature drops.

**Enclosure:** Steel case painted gray.

**Safety Standard:** cETLus



# Pumphouse Heater U-SS Series



### Model Code:

|   |    |    |    |
|---|----|----|----|
| U | 24 | 10 | SS |
| A | B  | C  | D  |

A: Series  
 B: 12 - 120V 20- 208V  
 24 - 240V  
 C: Watts (1000)  
 D: -SS Stainless Steel



Rated for damp locations

- ETL listed for use in damp locations
- Available in stainless steel (-SS) or painted gray
- Designed to meet requirements outlined in ASSE-1060
- Built-in thermostat with frost protection (40° to 90°F)
- Standard baked enamel protective coating
- Built in mounting bracket
- Convection/Radiant heat
- Vertical (Up to 500W) or horizontal mount
- 1-year limited warranty



## The U-SS Series Pumphouse Heater

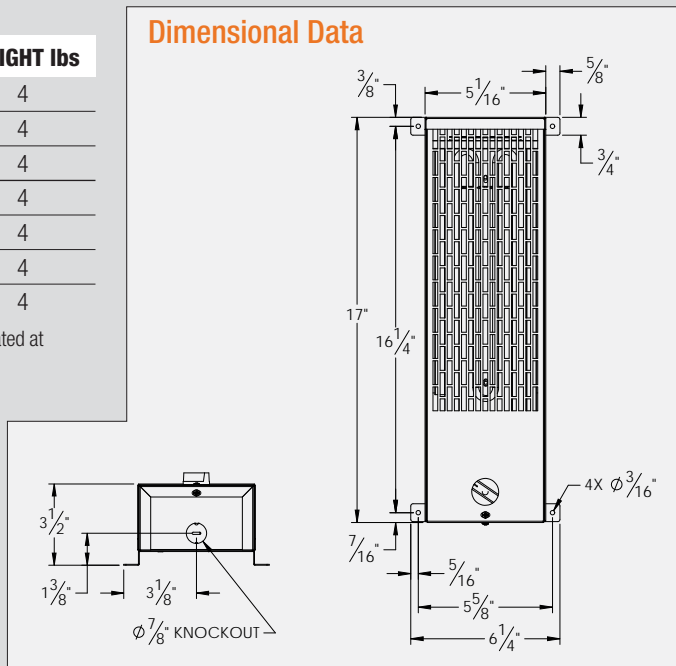
The U-SS Series heater is designed to reduce moisture from mechanical equipment and keep pumps, valves, and farm machinery from freezing. Having the radiant heat absorbed by the metal equipment makes this heater more effective than convection heaters. The built-in thermostat turns off when the ambient temperature is safely above freezing. Helps prevent corrosion associated with high moisture locations like pump houses. A steel guard helps keep foreign objects away from the element. This heater is simple and reliable with no moving parts to wear out or maintain, making it an inexpensive choice for freeze protection. Specifically designed to operate in both vertical and horizontal positions (Up to 500W).

### Ordering Information

|      | MODEL     | UPC#  | VOLTAGE      | WATTAGE      | WEIGHT lbs |
|------|-----------|-------|--------------|--------------|------------|
| 120V | U1250-SS  | 12627 | 120          | 500          | 4          |
|      | U1275-SS  | 12630 | 120          | 750          | 4          |
|      | U12100-SS | 12633 | 120          | 1000         | 4          |
| 240V | U2425-SS  | 12634 | 240/208/120* | 250/187/62   | 4          |
|      | U2450-SS  | 12635 | 240/208/120* | 500/375/125  | 4          |
|      | U2475-SS  | 12636 | 240/208/120* | 750/563/187  | 4          |
|      | U24100-SS | 12637 | 240/208/120* | 1000/750/250 | 4          |

\*Triple rated 240V heaters will draw 13% less amps and 25% less wattage when operated at 208V / Draw 50% less amps and 75% less wattage when operated at 120V

### Dimensional Data



## Engineering Specifications

Contractor shall supply and install U Pump House series radiant heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Element:** Incoloy 840 Superalloy, corrosion resistant element

**Thermostat:** Built-in snap action with a range of 40° to 90°F.

**Safety Limit:** Capillary tube running the full length of the element provides over-temperature protection then automatically resets when temperature drops.

**Enclosure:** Stainless Steel case.

**Safety Standard:** cETLus

# Outdoor Rated Wall Heater WSC Series



**Model Code:**

|   |    |    |     |
|---|----|----|-----|
| W | 12 | 10 | -T2 |
| A | B  | C  | D   |

**A: Series**  
**B: 12 - 120V 24 - 240V**  
**20 - 208V**  
**C: Watts (500 to 2000)**  
**D: Thermostat (optional)**



- UL Certified For Outdoor Use
- Multiple Freeze Protection Applications
- Reduces Moisture From Mechanical Equipment
- Keeps Pumps, Valves, & Farm Machinery From Freezing
- Surface Mount Design
- NiChrome Open Coil Element For Quick Heat Transfer
- Dual Wattage Design
- C-Frame Motor
- 4-Blade Aluminum Fan
- Patented Smart Limit Protection®
- 1-year limited warranty

## The "WSC" Outdoor Rated Wall Heater

The WSC Heater is a surfaced-mounted UL certified for outdoor use, ideal for many freeze protection applications.

The WSC was designed to reduce moisture from mechanical equipment and keep pumps, valves, and farm machinery from freezing.

By combining an efficient impeller style fan with a NiChrome heating element, the WSC heater delivers instant heat in even the draftiest locations. For use with a wall thermostat or in-built thermostat.

**"Complete" Stock Models** For other voltage wattage options use "Order A'la Carte" chart below to build your own complete heater.

| BASE MODEL  | UPC   | VOLTS | WATTS    | AMPS       | COLOR | SHIP WEIGHT lbs |
|-------------|-------|-------|----------|------------|-------|-----------------|
| WSC1215-T-B | 33480 | 120   | 1500•750 | 12.5 - 6.3 | Black | 10              |

**NOTE:** Not all configurations listed above are stock items (A+ or A stock code). Refer to price book for the Stock code. For non-stock items refer to the table below to order heater parts separately.

**Order A'la Carte** \*\*To build your own "Complete" with options (not noted above) select -I model of proper voltage and WSC-B surface can.

**STEP 1:** Order Heatbox Interior and Recessed Wall Can

| MODEL       | UPC   | VOLTS    | WATTS       | AMPS       | DESCRIPTION                    | SHIP WEIGHT lbs |
|-------------|-------|----------|-------------|------------|--------------------------------|-----------------|
| W1210-I-T-B | 33481 | 120      | 1000 • 500  | 8.3 or 4.2 | Heatbox Interior & Black Grill | 6               |
| W2020-I-T-B | 33482 | 208      | 2000 • 1000 | 9.6 or 4.8 | Heatbox Interior & Black Grill | 6               |
| W2420-I-T-B | 33483 | 240/208* | 2000 • 1000 | 8.3 or 4.2 | Heatbox Interior & Black Grill | 6               |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

**STEP 2:** Order Surface Can

| MODEL | UPC   | DESCRIPTION  | SHIP WEIGHT lbs |
|-------|-------|--|-----------------|
| WSC-B | 19206 | Surface Can - Black 13.5" L x 10"W x 4"H (Outdoor Rated) | 4               |



# Outdoor Rated Wall Heater WSC Series

## Engineering Specifications

Contractor shall supply and install WSC Series surface mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Wattages of 500 to 2,000 at 120, 208 or 240 Volts are available. Heaters shall provide air movement at 85 CFM.

**Fan and Motor:** Motor shall be shaded pole, permanently lubricated, C-frame type with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air. The motor shall be equipped with a dynamically balanced four-blade aluminum impeller fan, located in the upper portion of the heat box, and shall provide a down-flow heating pattern.

**Elements:** Assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Outdoor Rated:** When the W series is installed in a WSC surface can it adds UL ratings for outdoor Applications.

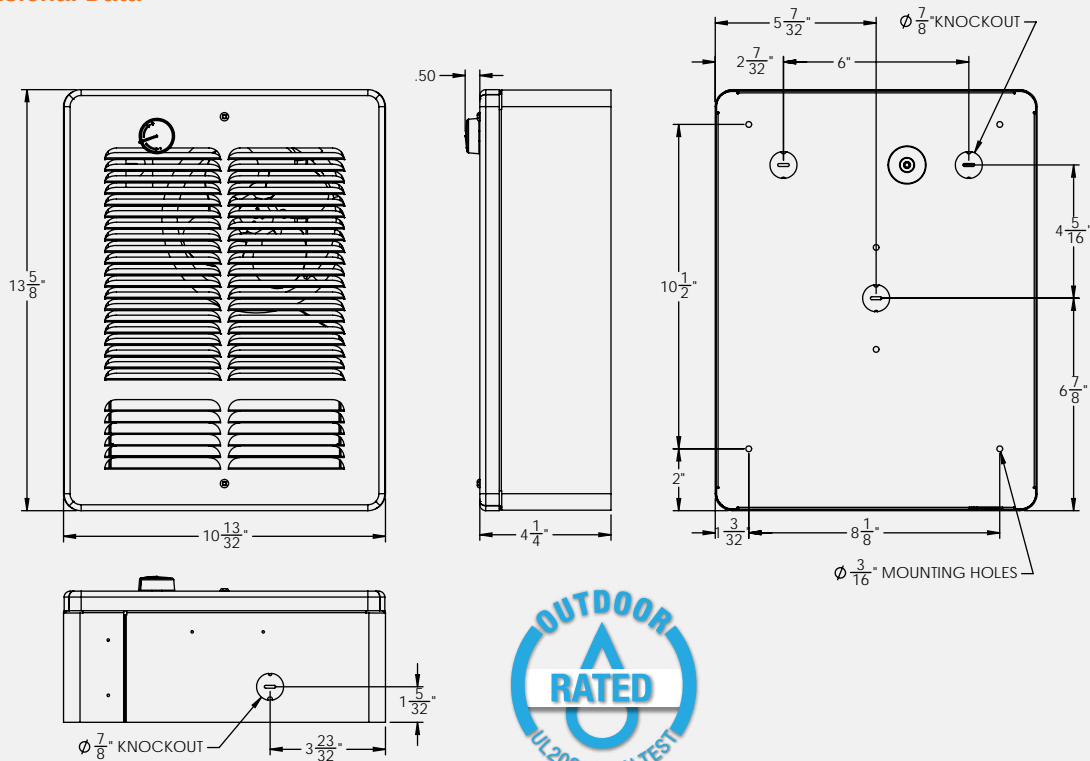
**Smart Limit Thermal Protection:** Turns off heater during any unsafe temperatures on inlet or outlet and will only reset if power is interrupted for 10 minutes. Simply turning thermostat down below set point will reset. Exclusive King design and patented for US and Canada under #6,748,163 B2 and #2,393,882

**Clearance:** 6" to a side wall, 4" from floor minimum.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

## Dimensional Data



# Controls & Sensors

## Roof & Gutter De-Icing Controls



**CWR IceFree™**



**GIT-1**



**DS-2C /DS-224**



**DS-8C /DS-824C**



**CDP-2**

| MODEL   | UPC   | DESCRIPTION   |
|---------|-------|---|
| DS-2C   | 42331 | Rain/Snow controller w/built-in sensor, 100-277V - 30amp w/Adjustable Temperature Trigger Points, used for snow melt cable projects   |
| DS-5C   | 42332 | Rain/Snow controller w/built-in sensor, 100-277V - 2-30amp w/Adjustable Temperature Trigger Points, used for snow melt cable projects |
| DS-8    | 48480 | Gutter ice melting controller, NEMA 3R, 120/208/240V, 30amp, adjustable temperature range 34°F to 44°F, 1/2" hub                      |
| DS-8C   | 42335 | Gutter ice melting controller, NEMA 3R, 120/208/240/277V, 30amp, adjustable temperature range 34°F to 44°F, 1/2" hub                  |
| DS-8/24 | 40481 | Gutter ice melting controller, NEMA 3R, 24V, 30amp, adjustable temperature range 34°F to 44°F, 1/2" hub                               |
| DS-9C   | 42426 | Gutter ice melting controller, NEMA 3R, 120/208/240/277V, 2-30amp, adjustable temperature range 34°F to 44°F, 1/2" hub                |
| CDP-2   | 40482 | Indoor sensor control display, manual/auto/standby modes, includes 18" lead   |
| CS-1    | 40483 | Control cable for CDP-2 control panel, 18" lead   |
| CS-50   | 40484 | Control cable for CDP-2 control panel, 50 ft. lead  |
| MG-3    | 40485 | Replacement sensor for DS controller  |
| GIT-1   | 40508 | GIT-1 Gutter De-Icing sensor  |
| CWR-120 | 48710 | CWR IceFree Controller with 6 ft. cord and grounded plug (See Page 1)   |

Call for availability on additional ETI controls not shown above.

## Pipe Freeze Protection



**IFC12**



**TRF115-005**

| MODEL      | UPC   | DESCRIPTION  |
|------------|-------|--|
| TRF115-005 | 40486 | Freeze protection thermostat, weatherproof with 5 ft. remote bulb & capillary, 25 amp at 120/208/240V, 22 amp at 277V, adjustable temp 0°F, suitable for 24 VAC operation (w/Power-On indicator light) |
| IFC12      | 40490 | Plug in fixed thermostat, 120V, 15 amp, on at 35°F off at 45°F (12/case)   |

Call for availability on additional ETI controls not shown above.

## Snow Melt Controls



**SIT-6E**



**SMNPLT**

| MODEL                | UPC   | DESCRIPTION   |
|----------------------|-------|---|
| SCIT-6E              | 40505 | SIT-6E Pavement Sensor (requires 23832 Pavement Sensor Housing) |
| 23832 Sensor Housing | 40506 | Pavement Sensor Housing (not pictured)                          |
| SMNPLT               | 40507 | Snow Melt Name Plate (per NEC 426.13 requirements)              |

Call for availability on additional ETI controls not shown above.

# Pipe Freeze Protection



## Pipe Freeze Protection Systems

King's Pipe Freeze Protection systems ensure that your pipes remain clear of ice and water continues to flow all winter long. Easy installation makes the process go quickly so you can be prepared long before winter arrives. Perfect for residential, commercial or industrial applications.

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metal and plastic pipes. The cable is pre-terminated with a 30 inch cold lead.

SR Series Self-Regulating Heating Cable is designed for commercial and industrial pipe trace applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metal and plastic pipes. The cable is available in 100 and 250 ft coils and also 500 and 1,000 ft reels.

CWP Series Constant Wattage Pipe Trace Heating Cable is designed to prevent pipes from freezing, keeping water flowing down to  $-40^{\circ}\text{F}$ . Operating at 7W per linear foot, it has an integrated energy-saving thermostat for efficient use and a power indicator light in the plug. The CWP is pre-assembled and ready to install on metal and plastic pipes.

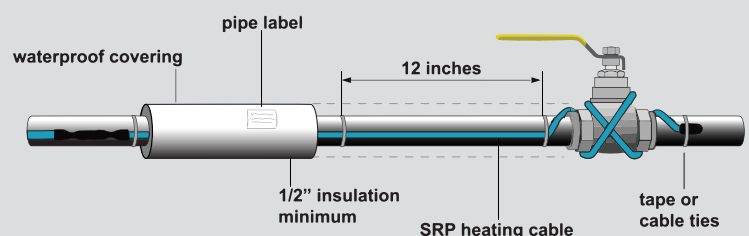
### SR/SRP Cable



#### Cable Construction Table

|                     |                                      |
|---------------------|--------------------------------------|
| Outer Jacket        | Rugged polyolefin UV jacket          |
| Outer Jacket (-CT)* | Fluoropolymer jacket                 |
| Ground Braid        | Tinned copper                        |
| Inner Jacket        | Flame retardent thermoplastic        |
| Core                | Self-regulating semi-conductive core |
| Bus Wire            | 16 gauge tinned copper               |
| Bending Radius      | 1" (24mm)                            |

### SR/SRP Application



### CWP Application



# Pre-Assembled Self-Regulating Pipe Trace Cable

## Pre-Assembled



**120 Volt - Grounded Plug**



**Model Code:**

**SCM 12 6 -6**  
**A B C D**

**A: Pre-Assembled Self Reg.**  
**B: 12 - 120V**  
**24 - 240V**  
**C: Watts per foot**  
**D: Linear Length in feet**

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications.

**SRP Self-Regulating Pre-Assembled Heating Cable Features**

- Pre-terminated with 30 inch grounded plug and end splice
- Suitable for use on metal and plastic pipes
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire
- 6 w/ft at 40°F (5°C)



**120V**

| MODEL      | UPC   | LENGTH   | VOLTS | WATTS* |
|------------|-------|----------|-------|--------|
| SRP126-6   | 40400 | 6 FT.    | 120   | 36     |
| SRP126-12  | 40402 | 12 FT.   | 120   | 72     |
| SRP126-18  | 40404 | 18 FT.   | 120   | 108    |
| SRP126-24  | 40406 | 24 FT.   | 120   | 144    |
| SRP126-37  | 48711 | 37.5 FT. | 120   | 225    |
| SRP126-50  | 40408 | 50 FT.   | 120   | 300    |
| SRP126-62  | 48712 | 62.5 FT. | 120   | 375    |
| SRP126-75  | 40410 | 75 FT.   | 120   | 450    |
| SRP126-87  | 48713 | 87.5 FT. | 120   | 525    |
| SRP126-100 | 40412 | 100 FT.  | 120   | 600    |
| SRP126-125 | 48714 | 125 FT.  | 120   | 750    |
| SRP126-150 | 48715 | 150 FT.  | 120   | 900    |

\*Wattage rating for pipe freeze protection application is 6 w/ft determined at 40°F (5°C).



**240V - Cold Leads**



SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications.

**SRP Self-Regulating Pre-Assembled Heating Cable Features**

- Pre-terminated with 30 inch grounded plug and end splice
- Suitable for use on metal and plastic pipes
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire
- 6 w/ft at 40°F (5°C)

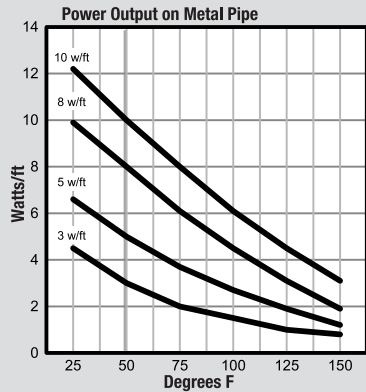


**240V**

| MODEL      | UPC   | LENGTH   | VOLTS | WATTS* |
|------------|-------|----------|-------|--------|
| SRP246-6   | 42373 | 6 FT.    | 240   | 36     |
| SRP246-12  | 42374 | 12 FT.   | 240   | 72     |
| SRP246-18  | 42375 | 18 FT.   | 240   | 108    |
| SRP246-24  | 42376 | 24 FT.   | 240   | 144    |
| SRP246-37  | 48716 | 37.5 FT. | 240   | 225    |
| SRP246-50  | 42377 | 50 FT.   | 240   | 300    |
| SRP246-62  | 48717 | 62.5 FT. | 240   | 375    |
| SRP246-75  | 42378 | 75 FT.   | 240   | 450    |
| SRP246-87  | 48718 | 87.5 FT. | 240   | 525    |
| SRP246-100 | 42379 | 100 FT.  | 240   | 600    |
| SRP246-125 | 48719 | 125 FT.  | 240   | 750    |
| SRP246-150 | 48720 | 150 FT.  | 240   | 900    |
| SRP246-175 | 48721 | 175 FT.  | 240   | 1050   |
| SRP246-200 | 48722 | 200 FT.  | 240   | 1200   |

\*Wattage rating for pipe freeze protection application is 6 w/ft determined at 40°F (5°C).

# Self-Regulating Pipe Trace Cable



1,000 ft. Reel

**Model Code:**

**SR 12 3 -250**  
**A B C D**

**A: Self Regulating Cable**

**B: 12 - 120V**

**24 - 240V**

**C: Watts per foot**

**D: Linear Length in feet**

SR Series Self-Regulating Heating Cable is designed for a variety of industrial and commercial pipe trace applications.

**SR Self-Regulating Heating Cable Features**

- Stops pipe and valve freeze down to -40°F
- Cable will not overheat or burn out when overlapped
- Suitable for use on metal and plastic pipes
- 2 year warranty



**AVAILABLE LENGTHS**

|             | <b>VOLTS</b> | <b>PIPE RATING**<br/>WATTS/FT.</b> | <b>100 FT. LENGTH<br/>MODEL / UPC</b> | <b>250 FT. LENGTH<br/>MODEL / UPC</b> | <b>500 FT. LENGTH<br/>MODEL / UPC</b> | <b>1000 FT. LENGTH<br/>MODEL / UPC</b> | <b>WEIGHT/FT.</b> |
|-------------|--------------|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|-------------------|
| <b>120V</b> | 120          | 3                                  | SR123-100 / 40513                     | SR123-250 / 40414                     | SR123-500 / 48735                     | SR123-1000 / 40416                     | 0.080 LBS./FT.    |
|             | 120          | 5                                  | SR125-100 / 40514                     | SR125-250 / 40418                     | SR125-500 / 48736                     | SR125-1000 / 40420                     | 0.080 LBS./FT.    |
|             | 120          | 8                                  | SR128-100 / 40515                     | SR128-250 / 40422                     | SR128-500 / 48737                     | SR128-1000 / 40424                     | 0.080 LBS./FT.    |
|             | 120          | 10                                 | SR1210-100 / 40516                    | SR1210-250 / 40426                    | SR1210-500 / 48742                    | SR1210-1000 / 40428                    | 0.080 LBS./FT.    |
| <b>240V</b> | 240*         | 3                                  | SR243-100 / 40517                     | SR243-250 / 40430                     | SR243-500 / 48739                     | SR243-1000 / 40432                     | 0.080 LBS./FT.    |
|             | 240*         | 5                                  | SR245-100 / 40518                     | SR245-250 / 40434                     | SR245-500 / 48740                     | SR245-1000 / 40436                     | 0.080 LBS./FT.    |
|             | 240*         | 8                                  | SR248-100 / 40519                     | SR248-250 / 40438                     | SR248-500 / 48741                     | SR248-1000 / 40440                     | 0.080 LBS./FT.    |
|             | 240*         | 10                                 | SR2410-100 / 40520                    | SR2410-250 / 40442                    | SR2410-500 / 48746                    | SR2410-1000 / 40444                    | 0.080 LBS./FT.    |

\*\*Wattage rating for pipe freeze protection application is determined at 50°F (10°C).

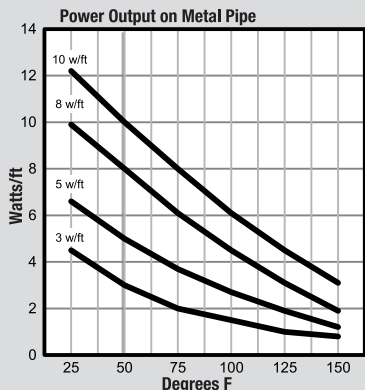
\*Approved for 208, 220, 240, 277 volt operation, refer to wattage adjustment tables for output rating (Table 4 Page 28).

**Controls and thermostats should always be used with King heating cable systems.**

**SR ACCESSORIES** Refer to page 36 for SR Accessories

| <b>MODEL</b> | <b>UPC</b> | <b>DESCRIPTION</b>  | <b>WEIGHT</b> |
|--------------|------------|---|---------------|
| SRK00        | 40462      | Hard wired power connection kit, includes end seal              | 0.3 lbs.      |
| SRK02        | 40461      | Connection kit, includes end seal                               | 0.3 lbs.      |
| SRK03        | 40464      | Pipe trace tape (66 ft) and 10 labels per pack                  | 0.1 lbs.      |
| SRK04        | 61713      | 2.5" x 50 yards 2 Mil Foil tape                                 | 1.0 lbs.      |
| SRK08        | 40466      | Plug in 120V connection kit with GFEP device, includes end seal | 1.0 lbs.      |
| SRK10        | 40468      | Weatherproof splice/tee kit, includes end seal                  | 0.2 lbs.      |
| SRK12        | 40470      | End seal kit (2 per package)                                    | 0.1 lbs.      |
| SRK14        | 40473      | 3M VHB double sided acrylic foam pads (25 per package)          | 0.1 lbs.      |
| SRK15        | 40476      | Downspout hanger and cable ties                                 | 0.3 lbs.      |
| SRK17        | 40477      | 11 & 13mm Gel end seal  | 0.1 lbs.      |

# CT Self-Regulating Pipe Trace Cable



1,000 ft. Reel

**Model Code:**

|    |    |   |      |    |
|----|----|---|------|----|
| SR | 12 | 3 | -250 | CT |
| A  | B  | C | D    | E  |

**A: Self Regulating Cable**  
**B: 12 - 120V**  
**24 - 240V**  
**C: Watts per foot**  
**D: Linear Length in feet**  
**E: FluoroPolymer Jacket**

**Hazardous Locations**

Class I, Div. 2, Groups A,B,C,D  
 Class II, Div. 2, Groups E,F,G  
 Class III



**Zone Approvals**

T5 or T6

CT self-regulating heating cables are designed for industrial and commercial freeze protection and process-temperature maintenance applications. CT cables maintain process temperatures up to 150°F (65°C) and can withstand intermittent exposure to temperatures up to 185°F (85°C). The heating cables are configured for use in nonhazardous and hazardous locations, including areas where corrosives may be present.

**CT Self-Regulating Heating Cable Features**

- For both hazardous and non-hazardous locations
- Stops pipe and valve freeze down to -40F
- Cable will not overheat or burn out when overlapped
- Suitable for use on metal and plastic pipes
- 10 year warranty

**AVAILABLE LENGTHS**

|             | VOLTS | PIPE RATING**<br>WATTS/FT. | 100 FT. LENGTH<br>MODEL / UPC | 250 FT. LENGTH<br>MODEL / UPC | 500 FT. LENGTH<br>MODEL / UPC | 1000 FT. LENGTH<br>MODEL / UPC | WEIGHT/FT.     |
|-------------|-------|----------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|----------------|
| <b>120V</b> | 120   | 3                          | SR123-100-CT / 40522          | SR123-250-CT / 40523          | SR123-500-CT / 40538          | SR123-1000-CT / 40375          | 0.080 LBS./FT. |
|             | 120   | 5                          | SR125-100-CT / 40524          | SR125-250-CT / 40525          | SR125-500-CT / 48744          | SR125-1000-CT / 40377          | 0.080 LBS./FT. |
|             | 120   | 8                          | SR128-100-CT / 40526          | SR128-250-CT / 40527          | SR128-500-CT / 48745          | SR128-1000-CT / 40379          | 0.080 LBS./FT. |
|             | 120   | 10                         | SR1210-100-CT / 40528         | SR1210-250-CT / 40529         | SR1210-500-CT / 48742         | SR1210-1000-CT / 40428         | 0.080 LBS./FT. |
| <b>240V</b> | 240*  | 3                          | SR243-100-CT / 40530          | SR243-250-CT / 40531          | SR243-500-CT / 48747          | SR243-1000-CT / 40376          | 0.080 LBS./FT. |
|             | 240*  | 5                          | SR245-100-CT / 40532          | SR245-250-CT / 40533          | SR245-500-CT / 48748          | SR245-1000-CT / 40378          | 0.080 LBS./FT. |
|             | 240*  | 8                          | SR248-100-CT / 40534          | SR248-250-CT / 40535          | SR248-500-CT / 48749          | SR248-1000-CT / 40380          | 0.080 LBS./FT. |
|             | 240*  | 10                         | SR2410-100-CT / 40536         | SR2410-250-CT / 40537         | SR2410-500-CT / 48746         | SR2410-1000-CT / 40382         | 0.080 LBS./FT. |

\*\*Wattage rating for pipe freeze protection application is determined at 50°F (10°C).

\*Approved for 208, 220, 240, 277 volt operation, refer to wattage adjustment tables for output rating (Table 4 Page 28).

**Controls and thermostats should always be used with King heating cable systems.**

**CT ACCESSORIES FOR NON HAZARDOUS APPLICATIONS**

|       |   |
|-------|---|
| SRK00 | Hard wired power connection kit, includes end seal              |
| SRK03 | Pipe trace tape (66 ft) and 10 labels per pack                  |
| SRK04 | 2.5" x 50 yards 2 Mil foil tape                                 |
| SRK08 | Plug in 120V connection kit with GFEP device, includes end seal |
| SRK10 | Weatherproof splice/tee kit, includes end seal                  |
| SRK12 | End seal kit (2 per package)                                    |
| SRK17 | 11 & 13mm Gel end seal  |

**CT ACCESSORIES FOR HAZARDOUS APPLICATIONS**

|         |                      |
|---------|----------------------|
| CT-9002 | CT square box        |
| CT-9003 | CT splice connection |
| CT-9004 | CT tee connection    |
| CT-9005 | CT end seal          |



CT-9002



CT-9003



CT-9004



CT-9005



# Roof/Gutter De-Icing



## Roof/Gutter De-icing Systems

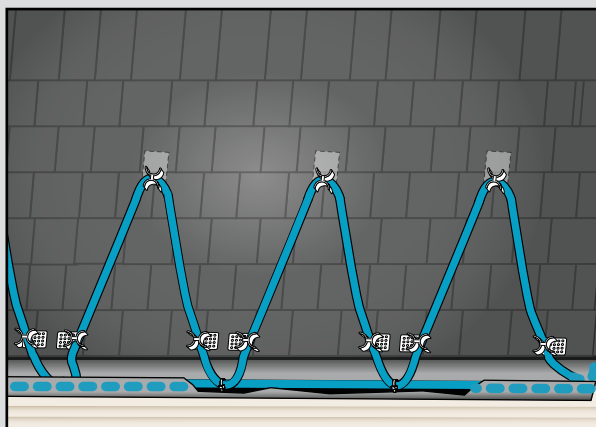
King's Roof/Gutter De-icing systems helps prevent snow and ice build-up on roofs and gutters. Whether installed on a shake, shingle or metal roof, the SRP & SR will give you the desired results you are looking for. The system is reliable and will not overheat or burn out if overlapped.

SR Series Self-Regulating Heating Cable is designed for commercial and industrial pipe trace applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metal and plastic pipes. The cable is available in 100 and 250 ft coils and also 500 and 1,000 ft reels.

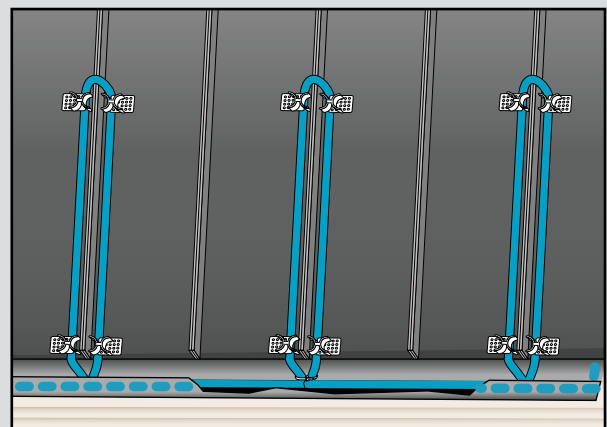
SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of gutter and roof de-icing applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metallic and nonmetallic downspouts and gutters. The cable is pre-terminated with a 30 inch cold lead and grounded plug

CWR Series is designed to prevent costly roof damage caused by ice dams forming and helps maintain free flowing water through gutters and downspouts to the ground level. Requires no special wiring or assembly. Simply run cable per the instructions for both shingle and metal roofs. Sizes range from 20ft - 240ft to accommodate most roofs. System includes roof clips and spacers.

### Shake/Shingle Roof Installation



### Metal Seam Roof Installation



# Pre-Assembled Self-Regulating De-Icing Cable

## Pre-Assembled



**120 Volt - Grounded Plug**



**Model Code:**

**SRP 12 6 -6**  
**A B C D**

**A: Pre-Assembled Self Reg.**

**B: 12 - 120V**

**24 - 240V**

**C: Watts per foot\***

**D: Linear Length in feet**

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of roof & gutter de-icing applications.

### SRP Self-Regulating Pre-Assembled Heating Cable Features

- Pre-terminated with 30 inch ground plug and end splice
- Suitable for metallic and nonmetallic gutters and downspouts
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire



**120V**

| MODEL      | UPC   | LENGTH   | VOLTS | WATTS* |
|------------|-------|----------|-------|--------|
| SRP126-6   | 40400 | 6 FT.    | 120   | 48     |
| SRP126-12  | 40402 | 12 FT.   | 120   | 96     |
| SRP126-18  | 40404 | 18 FT.   | 120   | 144    |
| SRP126-24  | 40406 | 24 FT.   | 120   | 192    |
| SRP126-37  | 48711 | 37.5 FT. | 120   | 300    |
| SRP126-50  | 40408 | 50 FT.   | 120   | 400    |
| SRP126-62  | 48712 | 62.5 FT. | 120   | 500    |
| SRP126-75  | 40410 | 75 FT.   | 120   | 600    |
| SRP126-87  | 48713 | 87.5 FT. | 120   | 700    |
| SRP126-100 | 40412 | 100 FT.  | 120   | 800    |
| SRP126-125 | 48714 | 125 FT.  | 120   | 1000   |
| SRP126-150 | 48715 | 150 FT.  | 120   | 1200   |

\*Wattage rating for roof and gutter de-icing application is 8 w/ft determined at 32°F (0°C).



**240 Volt - Cold Leads**



SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of roof & gutter de-icing applications.

### SRP Self-Regulating Pre-Assembled Heating Cable Features

- Cable will not overheat or burn out when overlapped
- Suitable for use on metal and plastic pipes
- 16 gauge heating cable bus wire
- 2 year warranty



**240V**

| MODEL      | UPC   | LENGTH   | VOLTS | WATTS* |
|------------|-------|----------|-------|--------|
| SRP246-6   | 42373 | 6 FT.    | 240   | 48     |
| SRP246-12  | 42374 | 12 FT.   | 240   | 96     |
| SRP246-18  | 42375 | 18 FT.   | 240   | 144    |
| SRP246-24  | 42376 | 24 FT.   | 240   | 192    |
| SRP246-37  | 48716 | 37.5 FT. | 240   | 300    |
| SRP246-50  | 42377 | 50 FT.   | 240   | 400    |
| SRP246-62  | 48717 | 62.5 FT. | 240   | 500    |
| SRP246-75  | 42378 | 75 FT.   | 240   | 600    |
| SRP246-87  | 48718 | 87.5 FT. | 240   | 700    |
| SRP246-100 | 42379 | 100 FT.  | 240   | 800    |
| SRP246-125 | 48719 | 125 FT.  | 240   | 1000   |
| SRP246-150 | 48720 | 150 FT.  | 240   | 1200   |
| SRP246-175 | 48721 | 175 FT.  | 240   | 1400   |
| SRP246-200 | 48722 | 200 FT.  | 240   | 1600   |

\*Wattage rating for roof and gutter de-icing application is 8 w/ft determined at 32°F (0°C).



# Self-Regulating Roof/Gutter De-Icing Cable



### Model Code:

**SR 12 3 -250**  
**A B C D**

**A: Self Regulating Cable**

**B: 12 - 120V**

**24 - 240V**

**C: Watts per foot**

**D: Linear Length in feet**

SR Series Self-Regulating Heating Cable is designed for a variety of industrial and commercial de-icing applications.

### SR Self-Regulating Heating Cable Features

- Cable will not overheat or burn out when overlapped
- 2 year warranty

- Suitable for metallic and nonmetallic gutters and downspouts
- Wattage rating is determined at 32°F (0°C).



### AVAILABLE LENGTHS

|             |                   | AVAILABLE LENGTHS |                    |                    |                    |                     |                |
|-------------|-------------------|-------------------|--------------------|--------------------|--------------------|---------------------|----------------|
|             | DE-ICING RATING** | 100 FT. LENGTH    | 250 FT. LENGTH     | 500 FT. LENGTH     | 1000 FT. LENGTH    | WEIGHT/FT.          |                |
| VOLTS       | WATTS/FT.         | MODEL / UPC       | MODEL / UPC        | MODEL / UPC        | MODEL / UPC        |                     |                |
| <b>120V</b> | 120               | 5                 | SR123-100 / 40513  | SR123-250 / 40414  | SR123-500 / 48735  | SR123-1000 / 40416  | 0.080 LBS./FT. |
|             | 120               | 8                 | SR125-100 / 40514  | SR125-250 / 40418  | SR125-500 / 48736  | SR125-1000 / 40420  | 0.080 LBS./FT. |
|             | 120               | 12.1              | SR128-100 / 40515  | SR128-250 / 40422  | SR128-500 / 48737  | SR128-1000 / 40424  | 0.080 LBS./FT. |
|             | 120               | 14.8              | SR1210-100 / 40516 | SR1210-250 / 40426 | SR1210-500 / 48733 | SR1210-1000 / 40428 | 0.080 LBS./FT. |
| <b>240V</b> | 240               | 5                 | SR243-100 / 40517  | SR243-250 / 40430  | SR243-500 / 48739  | SR243-1000 / 40432  | 0.080 LBS./FT. |
|             | 240               | 8                 | SR245-100 / 40518  | SR245-250 / 40434  | SR245-500 / 48740  | SR245-1000 / 40436  | 0.080 LBS./FT. |
|             | 240               | 12.1              | SR248-100 / 40519  | SR248-250 / 40438  | SR248-500 / 48741  | SR248-1000 / 40440  | 0.080 LBS./FT. |
|             | 240               | 14.8              | SR2410-100 / 40520 | SR2410-250 / 40442 | SR2410-500 / 48738 | SR2410-1000 / 40444 | 0.080 LBS./FT. |

\*\*Wattage rating for roof and gutter de-icing application is determined at 32°F (0°C).

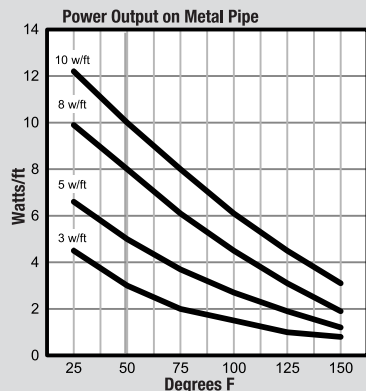
\*Approved for 208, 220, 277 volt operation, refer to wattage adjustment tables for output rating (Table 4 Page 28).

**Controls and thermostats should always be used with King heating cable systems.**

**SR ACCESSORIES** Refer to page 36 for SR Accessories

| MODEL   | UPC   | DESCRIPTION   | WEIGHT    |
|---------|-------|---|-----------|
| CWRK-35 | 48732 | 19 Roof Clips & 16 Spacers                                      | 0.09 lbs. |
| SRK00   | 40462 | Hard wired power connection kit, includes end seal              | 0.3 lbs.  |
| SRK02   | 40461 | Connection kit, includes end seal                               | 0.3 lbs.  |
| SRK08   | 40466 | Plug in 120V connection kit with GFEP device, includes end seal | 1.0 lbs.  |
| SRK10   | 40468 | Weatherproof splice/tee kit, includes end seal                  | 0.2 lbs.  |
| SRK12   | 40470 | End seal kit (2 per package)                                    | 0.1 lbs.  |
| SRK13   | 40472 | Roof Clip (25 per package)                                      | 0.2 lbs.  |
| SRK14   | 40473 | 3M VHB double sided acrylic foam pads (25 per package)          | 0.1 lbs.  |
| SRK15   | 40476 | Downspout hanger and cable ties                                 | 0.3 lbs.  |
| SRK17   | 40477 | 11 & 13mm Gel end seal  | 0.1 lbs.  |

# CT Self-Regulating Roof/Gutter De-Icing Cable



1,000 ft. Reel

**Model Code:**

**SR 12 3 -250 CT**  
**A B C D E**  
**A: Self Regulating Cable**  
**B: 12 - 120V**  
**24 - 240V**  
**C: Watts per foot**  
**D: Linear Length in feet**  
**E: FluoroPolymer Jacket**

**Hazardous Locations**

Class I, Div. 2, Groups A,B,C,D  
 Class II, Div. 2, Groups E,F,G  
 Class III



**Zone Approvals**

T5 or T6

CT self-regulating heating cables are designed for industrial and commercial roof and gutter de-icing applications. The fluoropolymer outer jacket (-CT) provides maximum abrasion, chemical, and mechanical resistance. Configured for use in nonhazardous and hazardous locations, including areas where corrosives may be present.

**CT Self-Regulating Heating Cable Features**

- For both hazardous and non-hazardous locations
- Cable will not overheat or burn out when overlapped
- Suitable for roofs made from standard roofing materials, including shake, shingle, rubber, tar, wood, metal, and plastic
- Suitable for use on metallic and nonmetallic gutters and downspouts
- Wattage rating is determined at 32°F (0°C)
- 10 year warranty

**AVAILABLE LENGTHS**

|             | VOLTS | PIPE RATING**<br>WATTS/FT. | 100 FT. LENGTH<br>MODEL / UPC | 250 FT. LENGTH<br>MODEL / UPC | 500 FT. LENGTH<br>MODEL / UPC | 1000 FT. LENGTH<br>MODEL / UPC | WEIGHT/FT.     |
|-------------|-------|----------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|----------------|
| <b>120V</b> | 120   | 5                          | SR123-100-CT / 40522          | SR123-250-CT / 40523          | SR123-500-CT / 40538          | SR123-1000-CT / 40375          | 0.080 LBS./FT. |
|             | 120   | 8                          | SR125-100-CT / 40524          | SR125-250-CT / 40525          | SR125-500-CT / 48744          | SR125-1000-CT / 40377          | 0.080 LBS./FT. |
|             | 120   | 12.1                       | SR128-100-CT / 40526          | SR128-250-CT / 40527          | SR128-500-CT / 48745          | SR128-1000-CT / 40379          | 0.080 LBS./FT. |
|             | 120   | 14.8                       | SR1210-100-CT / 40528         | SR1210-250-CT / 40529         | SR1210-500-CT / 48742         | SR1210-1000-CT / 40428         | 0.080 LBS./FT. |
| <b>240V</b> | 240*  | 5                          | SR243-100-CT / 40530          | SR243-250-CT / 40531          | SR243-500-CT / 48747          | SR243-1000-CT / 40376          | 0.080 LBS./FT. |
|             | 240*  | 8                          | SR245-100-CT / 40532          | SR245-250-CT / 40533          | SR245-500-CT / 48748          | SR245-1000-CT / 40378          | 0.080 LBS./FT. |
|             | 240*  | 12.1                       | SR248-100-CT / 40534          | SR248-250-CT / 40535          | SR248-500-CT / 48749          | SR248-1000-CT / 40380          | 0.080 LBS./FT. |
|             | 240*  | 14.8                       | SR2410-100-CT / 40536         | SR2410-250-CT / 40537         | SR2410-500-CT / 48746         | SR2410-1000-CT / 40382         | 0.080 LBS./FT. |

\*\*Wattage rating for roof and gutter de-icing application is 8 w/ft determined at 32°F (0°C).

\*Approved for 208, 220, 240, 277 volt operation, refer to wattage adjustment tables for output rating (Table 4 Page 28).

**Controls and thermostats should always be used with King heating cable systems.**

**CT ACCESSORIES FOR HAZARDOUS APPLICATIONS**

|         |                      |
|---------|----------------------|
| CT-9002 | CT square box        |
| CT-9003 | CT splice connection |
| CT-9004 | CT tee connection    |
| CT-9005 | CT end seal          |



CT-9002



CT-9003



CT-9004



CT-9005

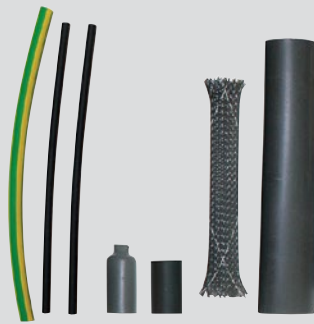


# SR/SRP Accessories



### SRK00 Hard Wired Power Connection Kit

Contains labels, pipe mounting bracket, box connector, wire nuts and heat shrink tubing to make electrical supply connection to a metal junction box. Includes one end seal.



### SRK02 Connection Kit

Contains heat shrink tubing and woven braid. Also includes one end seal.



### SRK10 Splice and Tee Kit

Contains heat shrink tubing and other materials to make one splice or one tee connection. Also includes one end seal.



### SRK08 Plug in 120V Connection Kit with GFEP Device

Contains labels, GFEP protection device with 120V plug, cable ties, crimp type connectors, heat shrink tubing and labels. Includes one end seal.



### SRK12 End Seal Kit

Contains heat shrink tubing and other materials to make two end seals.



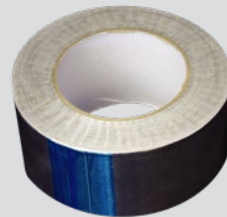
### SRK03 Tape

Pipe trace tape and labels.



### SRK14

3M VHB double sided acrylic foam pads  
For use with SRK13 clips in metal gutter



### SRK04

2.5" x 50 yards 2 mil Foil tape



### SRK13 Clip

Roof clip for mounting cable

### SRK15 Downspout

Downspout hanger and cable ties.



### SRK17

11 & 13mm Gel end seal

| MODEL | UPC   | DESCRIPTION   | WEIGHT   |
|-------|-------|---|----------|
| SRK00 | 40462 | Hard wired power connection kit, includes end seal              | 0.3 lbs. |
| SRK02 | 40461 | Connection kit, includes end seal                               | 0.3 lbs. |
| SRK03 | 40464 | Pipe trace tape (66ft) and 10 labels per package                | 1.0 lbs. |
| SRK04 | 61713 | 2.5" x 50 yards 2 mil foil tape                                 | 1.6 lbs. |
| SRK08 | 40466 | Plug in 120V connection kit with GFEP device, includes end seal | 1.0 lbs. |
| SRK10 | 40468 | Weatherproof splice/tee kit, includes end seal                  | 0.2 lbs. |
| SRK12 | 40470 | End seal kit (2 per package)                                    | 0.1 lbs. |
| SRK13 | 40472 | Roof clip (25 per package)                                      | 0.2 lbs. |
| SRK14 | 40473 | 3M VHB double sided acrylic foam pads (25 per package)          | 0.1 lbs. |
| SRK15 | 40476 | Downspout hanger and cable ties                                 | 0.3 lbs. |
| SRK17 | 40477 | 11 & 13mm Gel end seal  | 0.1 lbs. |

# Roof/Drain De-Icing System



With the introduction of membrane & rubber roofing materials, the attachment of de-icing cables to the roof has presented a dilemma for roofing specialists. A major concern of property owners is the damage caused by ice damming. The roof drain de-icing jig was created with several things in mind. The jig is lightweight, inexpensive, and uses SRG series de-icing cable without anchoring through the roof membrane. It is easy to customize to job conditions in the field. It adapts easily for use in canales and scuppers on southwestern and flat roof style architecture, both commercial and residential. It is easy to install with small hand tools.



**4RDDJ2**



**6RDDJ2**



**3625R14 RAY**

| MODEL       | UPC   | DESCRIPTION   |
|-------------|-------|---|
| 4RDDJ2      | 40509 | Canale/Scupper Jig, consists of 1 frame and 4 rays  |
| 6RDDJ2      | 40510 | Flat Roof Drain Jig, consists of 1 frame and 6 rays |
| 3625R14 RAY | 40511 | Cable Keeper / RDDJ-Grid                            |

Call for availability on additional ETI controls not shown above.

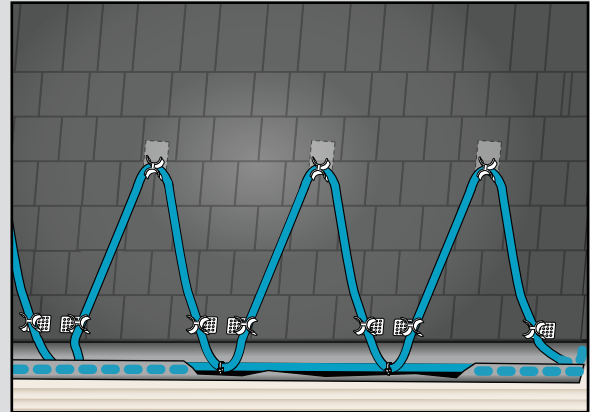
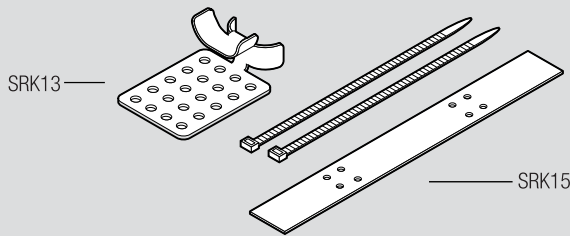
# Charts & Tables SRP Pre-assembled Self Regulating Cable



Pipe freeze protection

## Cable Construction Table

|              |                                      |
|--------------|--------------------------------------|
| Outer Jacket | Rugged polyolefin UV jacket          |
| Ground Braid | Tinned copper                        |
| Inner Jacket | Flame retardant thermoplastic        |
| Core         | Self-regulating semi-conductive core |
| Bus Wire     | 16 gauge tinned copper               |



Roof and gutter de-icing (SRK13 Roof Clips)

SRP self-regulating pre-assembled heating cable are designed for a variety of pipe freeze protection and roof & gutter de-icing applications. The heat output (wattage) increases and decreases automatically based on changes in the climate conditions. This unique feature ensures maximum energy efficiency because the cable to regulates heat output on its own, increasing energy output only when it is needed to prevent pipe freezing and ice build up on roofs & gutters. No thermostat is required.

### SRP Cable Features

- Rated 6 watts/foot at 40° F (5°C) for pipe freeze protection
- Pre-terminated with 30 inch ground plug and end splice
- Suitable for metallic and nonmetallic gutters and downspouts
- 16 gauge heating cable bus wire
- Rated 8 watts/foot at 32°F (0°C) for roof and de-icing
- Suitable for use on metal and plastic pipes
- Cable will not overheat or burnout when overlapped
- 2 year warranty

### Kit Contents:

- SRP pre-assembled electric heating cable
- Roof and gutter labels
- Pipe trace labels

## SRP Cables and Accessories

| 120V MODEL | UPC   | 240V MODEL | UPC   | LENGTH   | PIPE RATING* | DE-ICING RATING* |
|------------|-------|------------|-------|----------|--------------|------------------|
| SRP126-6   | 40400 | SRP246-6   | 42373 | 6 FT.    | 36 W         | 48 W             |
| SRP126-12  | 40402 | SRP246-12  | 42374 | 12 FT.   | 72 W         | 96 W             |
| SRP126-18  | 40404 | SRP246-18  | 42375 | 18 FT.   | 108 W        | 144 W            |
| SRP126-24  | 40406 | SRP246-24  | 42376 | 24 FT.   | 144 W        | 192 W            |
| SRP126-37  | 48711 | SRP246-37  | 48716 | 37.5 FT. | 225 W        | 300 W            |
| SRP126-50  | 40408 | SRP246-50  | 42377 | 50 FT.   | 300 W        | 400 W            |
| SRP126-62  | 48712 | SRP246-62  | 48717 | 62.5 FT. | 375 W        | 500 W            |
| SRP126-75  | 40410 | SRP246-75  | 42378 | 75 FT.   | 450 W        | 600 W            |
| SRP126-87  | 48713 | SRP246-87  | 48718 | 87.5 FT. | 525 W        | 700 W            |
| SRP126-100 | 40412 | SRP246-100 | 42379 | 100 FT.  | 600 W        | 800 W            |
| SRP126-125 | 48714 | SRP246-125 | 48719 | 125 FT.  | 750 W        | 1000 W           |
| SRP126-150 | 48715 | SRP246-150 | 48720 | 150 FT.  | 900 W        | 1200 W           |
|            |       | SRP246-175 | 48721 | 175 FT.  | 1050 W       | 1400 W           |
|            |       | SRP246-200 | 48722 | 200 FT.  | 1200 W       | 1600 W           |

\*Wattage rating for pipe freeze protection application is determined at 40°F (5°C). Wattage rating for roof and gutter de-icing application is determined at 32°F (0°C).

| MODEL | UPC   | DESCRIPTION                                     |
|-------|-------|---|
| SRK03 | 40464 | Pipe trace tape (66 ft.) and 10 labels per pack |
| SRK13 | 40472 | Roof clip (25 per pack)                         |
| SRK15 | 40476 | Downspout hanger and cable ties                 |

## Heating Cable Selection for Pipe Freeze Protection

| Pipe   | Type | 5' | 10' | 15' | 20' | 25' | 30' | 35' | 40' | 45' | 50' | 55' | 60' | 65' | 70' | 75' | 80' | 85' | 90' | 95' | 100' | 125' | 150' | 175' | 200' |
|--------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| 1/2"   | M    | A  | B   | C   | D   | E   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J    | K    | L    | M    | N    |
|        | P    | A  | B   | C   | D   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J   | K    | L    | M    | N    | -    |
| 1"     | M    | A  | B   | C   | D   | E   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J    | K    | L    | M    | N    |
|        | P    | B  | B   | C   | D   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J   | K    | L    | M    | N    | -    |
| 1 1/2" | M    | A  | B   | C   | D   | E   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J    | K    | L    | M    | N    |
|        | P    | B  | C   | D   | E   | E   | F   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J   | K   | K    | M    | N    | -    | -    |
| 2"     | M    | A  | B   | C   | D   | E   | E   | E   | F   | F   | G   | G   | H   | H   | H   | I   | I   | J   | J   | J   | K    | L    | M    | N    | -    |
|        | P    | B  | C   | E   | E   | F   | G   | H   | H   | I   | J   | J   | K   | K   | L   | L   | L   | M   | M   | M   | N    | -    | -    | -    | -    |
| 2 1/2" | M    | A  | C   | C   | D   | E   | F   | F   | F   | G   | G   | H   | H   | I   | I   | J   | J   | K   | K   | K   | K    | L    | N    | -    | -    |
|        | P    | B  | D   | E   | F   | G   | H   | I   | J   | K   | K   | L   | L   | M   | M   | N   | N   | -   | -   | -   | -    | -    | -    | -    | -    |

|          |           |           |           |             |           |             |            |             |            |
|----------|-----------|-----------|-----------|-------------|-----------|-------------|------------|-------------|------------|
| <b>A</b> | <b>B</b>  | <b>C</b>  | <b>D</b>  | <b>E</b>    | <b>F</b>  | <b>G</b>    | <b>H</b>   | <b>I</b>    | <b>J</b>   |
| SRP126-6 | SRP126-12 | SRP126-18 | SRP126-24 | SRP126-37.5 | SRP126-50 | SRP126-62.5 | SRP126-75  | SRP126-87.5 | SRP126-100 |
| SRP246-6 | SRP246-12 | SRP246-18 | SRP246-24 | SRP246-37.5 | SRP246-50 | SRP246-62.5 | SRP246-75  | SRP246-87.5 | SRP246-100 |
|          |           |           |           |             |           | <b>K</b>    | <b>L</b>   | <b>M</b>    | <b>N</b>   |
|          |           |           |           |             |           | SRP126-125  | SRP126-150 | SRP246-175  | SRP246-200 |
|          |           |           |           |             |           | SRP246-125  | SRP246-150 |             |            |

**M = Metal Pipe / P = Plastic Pipe**

Add 1 foot to the cable length for each valve or spigot.

Chart is based on the lowest outside temperature of 0°F (-18°C)

with a minimum of 1/2" thick fiberglass insulation. Use 1" insulation for protection down to -20°F (-29°C).



## Selecting the Required Heating Cable Length for Roof and Gutter De-icing

### How to Calculate the proper Heating Cable Length:

Use the formula below to determine the amount of heating cable required.

Total heating cable length = A+B+C+D

**A** (Roof edge) x (heating cable multiplier)

**B** (Roof edge x 0.5)

**C** (Total gutter length)

**D** (Total downspout length + 1 ft.)

=Total heating cable length required.

### Example: Standard Roof

1. Roof edge = 14 ft.
2. Eave overhang = 1 ft. (Refer to cable multiplier table)
3. Gutter = 14 ft.
4. Downspout = 12 ft.

### Heating Cable Required:

Roof edge: 14 ft. x 2.8 (Multiplier from table) = 39.2 ft.  
 Roof extension\*: 14 ft. x 0.5 = 7.0 ft.  
 Roof gutter: 14 ft. = 14.0 ft.  
 Downspout: 12 ft. + 1 ft. = 13.0 ft.  
 Total heating cable length required: = 73.2 ft.

### Solution for Example = SRP126-75

\*Roof extension is the length of cable required to prevent ice dams between the roof edge and the gutter. When there are no gutters present it forms a drip loop to prevent ice dams at the roof edge.

### Heating Cable Multiplier Table

| Eave Overhang | Standard Roof | Metal Roof (18" Seam) | Metal Roof (24" Seam) |
|---------------|---------------|-----------------------|-----------------------|
| None          | 2.0           | 2.5                   | 2.0                   |
| 12"           | 2.8           | 2.8                   | 2.4                   |
| 24"           | 3.8           | 3.6                   | 2.9                   |
| 36"           | 4.8           | 4.3                   | 3.6                   |

Use the number in the table and multiply it by the length of the roof edge.

### Calculations for Gutters, Downspouts and Valleys:

1. For standard non-metal roofs, add 1 foot of heating cable for each foot of gutter.
2. Add 1 foot of heating cable per foot of downspout.
3. If the downspout is in the middle of the run, loop the cable down and back up. Double the length of the downspout for determining the length of cable to install.
4. For valleys, run the heating cable two thirds of the way up and down the valley. Add this additional length to the overall cable.
5. For gutters 6 inches wide use two cable runs.

# Charts & Tables SR Self Regulating Cable

## For Pipe Freeze Protection and Roof & Gutter De-Icing



### Description:

King SR Self-regulation cable is designed for a variety of industrial and commercial pipe trace applications including hazardous and non hazardous environments. The standard polyolefin jacket is water resistant and resistant to inorganic chemicals. With the optional (-CT) jacket, the cable is resistant to organic chemicals and corrosive environments.

The cable will regulate its power output (watt/ft.) automatically in response to changes in the surrounding temperature. Parallel construction makes it easier to install than zone or series types of cable since it can be cut to length at any point and terminated on site. The self-regulating feature allows the cable to be overlapped without overheating or burning out the cable.

SR is available in 3, 5, 8 and 10 watts per foot at 120, 240 volts. SR heating cable carries a 2 year warranty.

### Cable Construction Table

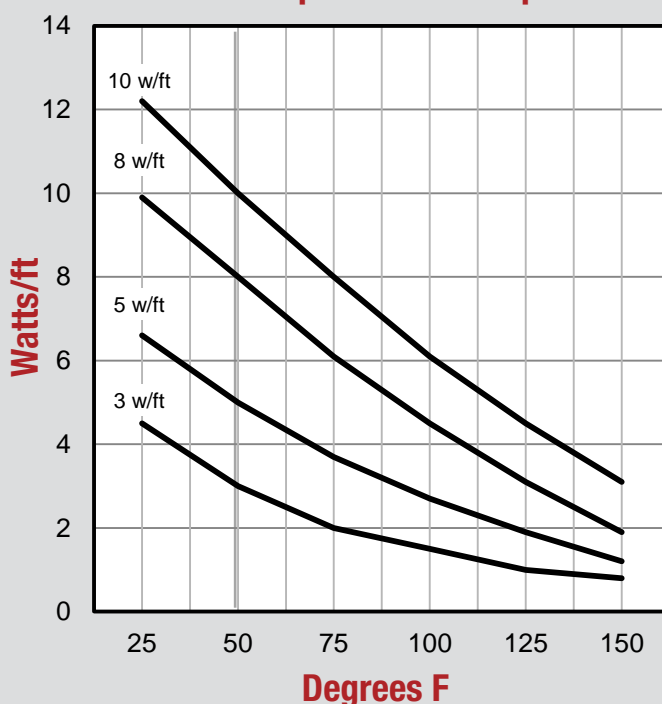
|                     |                                      |
|---------------------|--------------------------------------|
| Outer Jacket        | Rugged polyolefin UV jacket          |
| Outer Jacket (-CT)* | Fluoropolymer jacket                 |
| Ground Braid        | Tinned copper                        |
| Inner Jacket        | Flame retardent thermoplastic        |
| Core                | Self-regulating semi-conductive core |
| Bus Wire            | 16 gauge tinned copper               |

\*Add -CT to the end of the model number for Fluoropolymer jacket.

### Technical Data Table

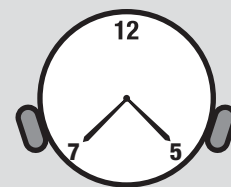
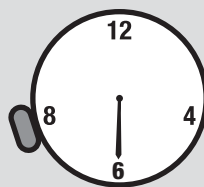
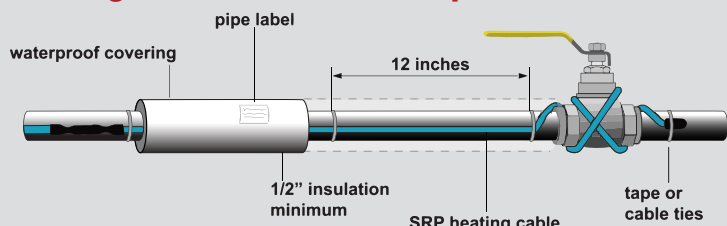
|  |  |
|--|--|
| Maximum operating temperature                        | 150°F (65°C)                                     |
| Maximum exposure temperature                         | 185°F (85°C)                                     |
| Minimum installation temperature                     | -40°F (-40°C)                                    |
| Minimum bending radius                               | 1" (24mm)  |
| Dimensions   | 0.496" x 0.236"<br>(12.6mm x 6mm)                |
| Service Voltage                                      | 110V-120V, 208V-277V                             |
| Wattage rating temperature                           | 50°F (10°C)                                      |
| Hazardous Location Rating<br>(-CT Outer Jacket only) | Class I, Div. 2<br>Class II, Div. 2<br>Class III |

### Power Output on Metal Pipe



# Charts & Tables SR Self Regulating Cable Pipe Freeze Protection

## Heating Cable Selection for Pipe Freeze Protection



**Single Cable Location**

**Double Cable Location**

For a single cable, run it straight along the bottom of the pipe in the 4 or 8 o'clock position. If two cables are required, attach them at the 4 and 8 o'clock positions as shown in the figure above.

Use Table 1 to select the cable size for metal pipes and use Table 2 for plastic pipes. Read across the table to find the pipe size, then drop down to the row corresponding to the design air temperature and the thickness of the insulation that will be used. The cell that intersects will give the power (watts/ft.) of the heating cable required, it may also have a (2) in the cell which means 2 cables are required.

**Table 1 - SR Cable Selection for Metal Pipes (w/ft.)<sup>1</sup>**

| Lowest Air Temp. | Insulation Thickness | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3"    | 4"    | 6"     | 8"    |
|------------------|----------------------|------|------|----|--------|--------|----|--------|-------|-------|--------|-------|
| 0°F (-18°C)      | 1/2"                 | 3    | 3    | 3  | 3      | 5      | 5  | 5      | 5     | 8     | 8      | 10    |
|                  | 1"                   | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 5     | 5     | 8      | 8     |
|                  | 1-1/2"               | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 3     | 5     | 5      | 5     |
|                  | 2"                   | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 3     | 3     | 5      | 5     |
| -20°F (-29°C)    | 1/2"                 | 3    | 5    | 5  | 5      | 5      | 5  | 8      | 8     | 10    | 10     | *     |
|                  | 1"                   | 3    | 3    | 3  | 3      | 3      | 5  | 5      | 5     | 8     | 8      | 10    |
|                  | 1-1/2"               | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 5     | 5     | 8      | 8     |
| -40°F (-40°C)    | 2"                   | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 3     | 5     | 5      | 8     |
|                  | 1/2"                 | 5    | 5    | 5  | 5      | 8      | 8  | 10     | (2) 8 | (2) 8 | (2) 10 | *     |
|                  | 1"                   | 3    | 3    | 3  | 5      | 5      | 5  | 8      | 8     | 8     | 10     | (2) 8 |
|                  | 1-1/2"               | 3    | 3    | 3  | 3      | 3      | 5  | 5      | 5     | 8     | 8      | 10    |
|                  | 2"                   | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 5     | 5     | 8      | 8     |
| 3"               | 3                    | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 3     | 3     | 5      | 5     |

**Table 2 - SR Cable Selection for Plastic Pipes (w/ft.)<sup>1</sup>**

| Lowest Air Temp. | Insulation Thickness | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3"     | 4"     | 6"     | 8"     |
|------------------|----------------------|------|------|----|--------|--------|----|--------|--------|--------|--------|--------|
| 0°F (-18°C)      | 1/2"                 | 3    | 5    | 5  | 5      | 8      | 8  | 8      | 10     | (2) 8  | (2) 10 | *      |
|                  | 1"                   | 3    | 3    | 3  | 5      | 5      | 5  | 5      | 5      | 5      | 8      | 8      |
|                  | 1-1/2"               | 3    | 3    | 3  | 3      | 3      | 3  | 5      | 8      | 8      | 8      | 10     |
|                  | 2"                   | 3    | 3    | 3  | 3      | 3      | 3  | 3      | 5      | 5      | 8      | 8      |
| -20°F (-29°C)    | 1/2"                 | 5    | 5    | 8  | 8      | 10     | 10 | (2) 8  | (2) 8  | (2) 10 | *      | *      |
|                  | 1"                   | 3    | 3    | 5  | 5      | 5      | 8  | 8      | 8      | 10     | (2) 8  | (2) 10 |
|                  | 1-1/2"               | 5    | 5    | 5  | 5      | 5      | 5  | 5      | 8      | 8      | 10     | (2) 8  |
| -40°F (-40°C)    | 2"                   | 3    | 3    | 3  | 3      | 3      | 5  | 5      | 5      | 8      | 8      | 10     |
|                  | 1/2"                 | 8    | 8    | 8  | 8      | 10     | 10 | (2) 8  | (2) 10 | *      | *      | *      |
|                  | 1"                   | 5    | 5    | 5  | 8      | 8      | 8  | 10     | 10     | (2) 8  | *      | *      |
|                  | 1-1/2"               | 5    | 5    | 5  | 5      | 5      | 8  | 8      | 8      | 10     | (2) 8  | (2) 10 |
|                  | 2"                   | 5    | 5    | 5  | 5      | 5      | 5  | 5      | 8      | 8      | 10     | (2) 8  |
| 3"               | 3                    | 3    | 5    | 5  | 5      | 5      | 5  | 5      | 5      | 5      | 8      | 10     |

1. Tables are based on using fiberglass insulation or equivalent while maintaining a 40°F (4°C) pipe temperature with a 10% safety factor and 20 mph wind speed.

\*Contact King for proper cable selection.





## Heating Cable Selection for Roof/Gutter De-Icing

### Calculation For Heating Cable Length

Total heating cable length = A+B+C+D+E+F+G

**A** (Roof edge) x (heating cable multiplier)

**B** (Roof edge x 0.5)

**C** (Total gutter length)

**D** (Total downspout length + 1 ft.)

**E** (1 ft. for each power connection)

**F** (2 ft. for each splice)

**G** (3 ft. for each tee connection)

=Total heating cable length required.

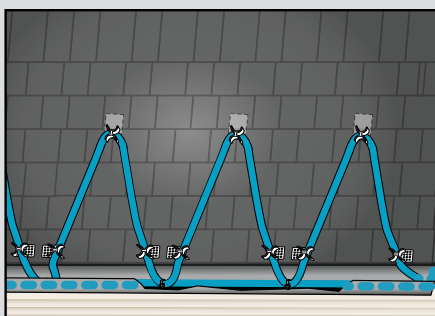
#### Example:

1. Roof edge = 48 ft.
2. Eave overhang = 1 ft. (Refer to cable table 6)
3. Gutter = 48 ft.
4. Downspout = 22 ft.
5. Power connection = 2 each
6. Splice = 3 each

#### Heating Cable Required:

|                                      |                             |             |
|--------------------------------------|-----------------------------|-------------|
| <b>A</b> Roof edge:                  | 48 ft. x 2.8 (From table 6) | = 134.4 ft. |
| <b>B</b> Roof extension*:            | 48 ft. x 0.5                | = 24.0 ft.  |
| <b>C</b> Roof gutter:                | 48 ft.                      | = 48.0 ft.  |
| <b>D</b> Downspout:                  | 22 ft. + 1 ft.              | = 23.0 ft.  |
| <b>E</b> Power Connection:           | 2 x 1 ft.                   | = 2.0 ft.   |
| <b>F</b> Splice Connection:          | 3 x 2 ft.                   | = 6.0 ft.   |
| <b>G</b> Tee Connection:             | 0 x 3 ft.                   | = 0 ft.     |
| Total heating cable length required: |                             | = 237.4 ft. |

\*Roof extension is the length of cable required to prevent ice dams between the roof edge and the gutter. When there are no gutters present it forms a drip loop to prevent ice dams at the roof edge.



### Table 7 - Tracing Heights for Shake/Shingle Roof

| Eave Overhang | Tracing Width | Tracing Height | Cable/Roof Edge |
|---------------|---------------|----------------|-----------------|
| None          | 24"           | 18"            | 2.0 ft.         |
| 12"           | 24"           | 18"            | 2.8 ft.         |
| 24"           | 24"           | 30"            | 3.8 ft.         |
| 36"           | 24"           | 42"            | 4.8 ft.         |

The last column gives the amount of cable required per foot of roof edge for standard shake and shingle roof (table 7) or a metal seam roof (table 8).

### Table 6 - Heating Cable Multiplier

| Eave Overhang | Standard Roof | Metal Roof 18" Seam | Metal Roof 24" Seam |
|---------------|---------------|---------------------|---------------------|
| None          | 2.0           | 2.5                 | 2.0                 |
| 12"           | 2.8           | 2.8                 | 2.4                 |
| 24"           | 3.8           | 3.6                 | 2.4                 |
| 36"           | 4.8           | 4.3                 | 3.6                 |

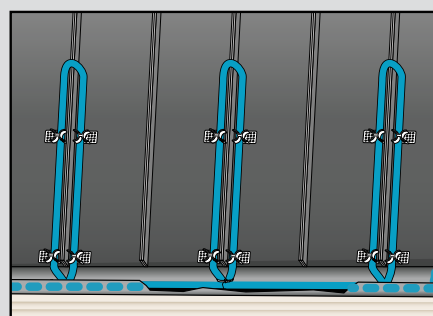
Use the number in the table and multiply it by the length of the roof

#### Calculations for Gutters, Downspout and Valley

1. For standard non-metal roofs, add 1 foot of heating cable for each foot of gutter.
2. Add 1 foot of heating cable per foot of downspout.
3. If the downspout is in the middle of the run, loop the cable down and back up. Double the length of the downspout for determining the length of the cable to install.
4. For valleys, run the heating cable two thirds of the way up and down the valley. Add this additional length to the overall cable.
5. For gutters 6 inches wide use two cable runs.

#### Design Notes

1. In-line splices and tee splices should be avoided where possible.
2. Heating cable in downspouts should be looped and extend below the frost line if tied into a drainage system.
3. End terminations should not be located in an area where moisture is present. End terminations should not be located at the lowest point of downspouts.
4. For roof drains leading into a heated area, a loop of heating cable should be installed to a depth of 3 ft.



### Table 8 - Tracing Heights for Metal Seam Roof

| Eave Overhang | Tracing Width | Tracing Height | Cable/Roof Edge |
|---------------|---------------|----------------|-----------------|
| None          | 18"           | 18"            | 2.5 ft.         |
| 12"           | 18"           | 24"            | 2.8 ft.         |
| 24"           | 18"           | 36"            | 3.6 ft.         |
| 36"           | 18"           | 48"            | 4.3 ft.         |
| None          | 24"           | 18"            | 2.0 ft.         |
| 12"           | 24"           | 24"            | 2.4 ft.         |
| 24"           | 24"           | 36"            | 2.9 ft.         |
| 36"           | 24"           | 48"            | 3.6 ft.         |

# Charts & Tables SR Self Regulating Cable Roof/Gutter De-Icing

### Table 9 - Circuit Breaker Protection for De-icing

| Cable  | Volts | Start up Temp. | 15 Amp (ft.) | 20 Amp (ft.) | 30 Amp (ft.) | 40 Amp (ft.) |
|--------|-------|----------------|--------------|--------------|--------------|--------------|
| SR123  | 120V  | 32°F (0°C)     | 273          | 273          | 273          | 273          |
|        |       | 20°F (-7°C)    | 254          | 268          | 273          | 273          |
|        |       | 0°F (-18°C)    | 213          | 255          | 273          | 273          |
|        |       | -20°F (-29°C)  | 182          | 248          | 273          | 273          |
| SR243  | 240V  | 32°F (0°C)     | 547          | 547          | 547          | 547          |
|        |       | 20°F (-7°C)    | 501          | 547          | 547          | 547          |
|        |       | 0°F (-18°C)    | 426          | 547          | 547          | 547          |
|        |       | -20°F (-29°C)  | 368          | 492          | 547          | 547          |
| SR125  | 120V  | 32°F (0°C)     | 188          | 216          | 216          | 216          |
|        |       | 20°F (-7°C)    | 166          | 216          | 216          | 216          |
|        |       | 0°F (-18°C)    | 144          | 193          | 216          | 216          |
|        |       | -20°F (-29°C)  | 127          | 173          | 216          | 216          |
| SR245  | 240V  | 32°F (0°C)     | 381          | 432          | 432          | 432          |
|        |       | 20°F (-7°C)    | 331          | 432          | 432          | 432          |
|        |       | 0°F (-18°C)    | 292          | 387          | 432          | 432          |
|        |       | -20°F (-29°C)  | 258          | 347          | 432          | 432          |
| SR128  | 120V  | 32°F (0°C)     | 126          | 168          | 171          | 171          |
|        |       | 20°F (-7°C)    | 118          | 157          | 171          | 171          |
|        |       | 0°F (-18°C)    | 103          | 136          | 171          | 171          |
|        |       | -20°F (-29°C)  | 92           | 123          | 168          | 171          |
| SR248  | 240V  | 32°F (0°C)     | 257          | 342          | 347          | 347          |
|        |       | 20°F (-7°C)    | 235          | 311          | 347          | 347          |
|        |       | 0°F (-18°C)    | 204          | 268          | 347          | 347          |
|        |       | -20°F (-29°C)  | 184          | 244          | 347          | 347          |
| SR1210 | 120V  | 32°F (0°C)     | 102          | 143          | 152          | 152          |
|        |       | 20°F (-7°C)    | 97           | 126          | 152          | 152          |
|        |       | 0°F (-18°C)    | 88           | 117          | 152          | 152          |
|        |       | -20°F (-29°C)  | 76           | 104          | 152          | 152          |
| SR2410 | 240V  | 32°F (0°C)     | 172          | 226          | 312          | 312          |
|        |       | 20°F (-7°C)    | 159          | 215          | 312          | 312          |
|        |       | 0°F (-18°C)    | 150          | 197          | 298          | 312          |
|        |       | -20°F (-29°C)  | 138          | 182          | 273          | 312          |

#### Technical Data Notes:

1. The maximum single cable run is the longest length of heating cable before there is a significant voltage drop which will lower the wattage rating of the cable.
2. The circuit breaker sizes in Table 9 are per the National Electric Code (NEC).

### Table 10 - Technical Data Ratings

| Technical Data Table       |                                |
|----------------------------|--------------------------------|
| Maximum operating temp.    | 150°F (65°C)                   |
| Maximum exposure temp.     | 185°F (85°C)                   |
| Minimum installation temp. | 0°F (-18°C)                    |
| Minimum bending radius     | 1" (24mm)                      |
| Dimensions                 | 0.496" x 0.236" (12.6mm x 6mm) |
| Service voltage            | 110-120V, 208V-277V            |

### Table 11 - Maximum Single Run Length

| Model  | Volts | Output at 32°F (0°C) | Maximum Single Run Length |
|--------|-------|----------------------|---------------------------|
| SR123  | 120V  | 5.0 w/ft.            | 273 ft. (83M)             |
|        | 208V  | 4.1 w/ft.            | 530 ft. (129M)            |
| SR243  | 240V  | 5.0 w/ft.            | 547 ft. (161M)            |
|        | 277V  | 5.9 w/ft.            | 590 ft. (180M)            |
| SR125  | 120V  | 8.0 w/ft.            | 216 ft. (66M)             |
|        | 208V  | 7.1 w/ft.            | 397 ft. (121M)            |
| SR245  | 240V  | 8.0 w/ft.            | 432 ft. (132M)            |
|        | 277V  | 9.0 w/ft.            | 466 ft. (142M)            |
| SR128  | 120V  | 12.1 w/ft.           | 171 ft. (52M)             |
|        | 208V  | 11.4 w/ft.           | 312 ft. (95M)             |
| SR248  | 240V  | 12.1 w/ft.           | 347 ft. (106M)            |
|        | 277V  | 13.0 w/ft.           | 385 ft. (117M)            |
| SR1210 | 120V  | 14.8 w/ft.           | 152 ft. (46M)             |
|        | 208V  | 14.2 w/ft.           | 274 ft. (83M)             |
| SR2410 | 240V  | 14.8 w/ft.           | 312 ft. (95M)             |
|        | 277V  | 15.8 w/ft.           | 346 ft. (106M)            |

### Table 12 - Circuit Length Adjustments

| Model  | 208V | 277V |
|--------|------|------|
| SR243  | 0.97 | 1.08 |
| SR245  | 0.92 | 1.08 |
| SR248  | 0.90 | 1.11 |
| SR2410 | 0.88 | 1.11 |

Circuit length adjustments for 240V cables operated 208V and 277V are noted in Table 12

3. The NEC requires ground-fault equipment protection (GFEP) for fixed outdoor de-icing equipment. All electrical connections should be made by a licensed electrician.

# Plenum Rated Unit Heater CK Series



## Model Code:

|    |    |    |    |
|----|----|----|----|
| CK | 48 | 10 | -3 |
| A  | B  | C  | D  |

A: Series

B: 20 - 208V 24 - 240V  
48 - 480V

C: Kilowatts

D: 1 or 3-phase



- Spiral finned element
- Dual inlet blower
- Totally enclosed motor
- N.E.M.A. 12 construction
- Adjustable louver hood
- Available in 208, 240 & 480 volt
- 18GA steel enclosure
- 24V control
- Horizontal/Vertical mount
- Can be ducted
- Fan only relay
- 3-year limited warranty

## Concealed Space Use - Zero Clearance

The CK model is a special application heater approved for use in concealed areas of buildings such as an area between a finished ceiling and drop ceiling, in an open plenum or in a ducted system. It is specifically designed for high-rise and office buildings, factories, auto body shops, food processing plants, plating shops, and machine shops. It is engineered to withstand dirty, dusty, moist or even mildly corrosive environments, and rated for zero clearance mounting against any surface.

**Not intended for use where flammable vapors, gases, liquids or other combustibles are, or may be present.**

### Factory Installed Options

**Thermostat:** A N.E.M.A. 4X thermostat.

**Element Step Control:** 2-Stage control. For improved energy management additional steps can be added (refer to options chart).

**Disconnect Switch:** Available with a 3-Pole non-fused disconnect with a padlock provision.

**Motor HP Upgrades:** Standard models are listed with motors that will provide sufficient CFM for the kW they are designed for. Where additional CFM is required a larger motor and blower can be provided.

**No Diffuser:** Used when heater will be connected to ductwork or use an alternate diffuser.

## Engineering Specifications

*Contractor shall supply and install CK Series plenum heaters manufactured by King Electrical Mfg. Company.*

*Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** The heater case is fabricated from high tensile 18 gauge electrogalvanized steel that is welded together forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Intake and Discharge Screen:** Heavy gauge steel screen protects against foreign objects entering the heater. A 1" x 16" x 20" filter is provided to prevent dirt and dust build up in the heater.

**Air Filter:** Convenient access for replacement of standard 16" x 20" x 1" filter.

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a ¼" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins and then formed into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60°C ambient. Large capacity dual-inlet blower handles high static pressure and moves large air volume. Motor leads are enclosed

in a sealrite raceway to prolong equipment life & reduce maintenance.

**Air Intake Temperature Control:** A built-in thermostat located at the intake blower is factory set at 100°F which prevents the heater from operating when the ambient temperature exceeds this limit.

This will prevent the heater from wasting energy and is an extra measure of safety.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all units. A transformer is provided for 24 Volt control. This enables the customer to use a standard low voltage thermostat. Subcircuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on models above 11kW to dissipate residual heat from the heating elements.

**Easy Wiring:** large wiring compartment allows quick access

**Mounting:** CK heater comes with two brackets welded on top to be hung from the ceiling or beam using threaded rod.

**Approvals:** ETL Certified to comply with standard for Heating and Cooling Equipment ANSI/UL 1995 fourth edition.

Meets stringent City of Chicago codes for plenum use.

# Plenum Rated Unit Heater CK Series

## Ordering Information \*Suffix -1 = single phase & Suffix -3 = 3 phase

|                 | MODEL        | KILOWATTS | BTUH(000) | VOLTS    | AMPS        | MOTOR HP  | CFM  | TEMP. RISE °F | SIZE   | WEIGHT lbs |    |
|-----------------|--------------|-----------|-----------|----------|-------------|-----------|------|---------------|--------|------------|----|
| <b>208V</b>     | CK2003-1     | 3.3       | 10        | 208      | 14.4        | 1/4       | 600  | 17.4°         | Fig. A | 75         |    |
|                 | CK2005-1     | 5         | 17        | 208      | 24.0        | 1/4       | 600  | 26.3°         | Fig. A | 75         |    |
|                 | CK2007-1     | 7.5       | 23.9      | 208      | 33.6        | 1/4       | 1000 | 23.7°         | Fig. A | 80         |    |
|                 | CK2010-1     | 10        | 34.1      | 208      | 48.1        | 1/4       | 1000 | 31.6°         | Fig. A | 80         |    |
|                 | CK2012-1     | 12.5      | 41        | 208      | 57.7        | 1/3       | 1000 | 39.5°         | Fig. A | 85         |    |
|                 | CK2015-1     | 15        | 51.2      | 208      | 72.1        | 1/3       | 1000 | 47.4°         | Fig. A | 85         |    |
| <b>240/208V</b> | CK2403-1     | 3.3/2.5   | 10        | 240/208* | 13.8/12     | 1/4       | 600  | 17.4°         | Fig. A | 75         |    |
|                 | CK2405-1     | 5/3.8     | 17        | 240/208* | 20.8/18.0   | 1/4       | 600  | 26.3°         | Fig. A | 75         |    |
|                 | CK2407-1     | 7.5/5.6   | 23.9      | 240/208* | 31.3/27.0   | 1/4       | 1000 | 23.7°         | Fig. A | 80         |    |
|                 | CK2410-1     | 10/7.5    | 34.1      | 240/208* | 41.7/36.0   | 1/4       | 1000 | 31.6°         | Fig. A | 80         |    |
|                 | CK2412-1     | 12.5/9.4  | 41        | 240/208* | 52.1/45.1   | 1/3       | 1000 | 39.5°         | Fig. A | 85         |    |
|                 | CK2415-1     | 15/11.3   | 51.2      | 240/208* | 62.5/54.1   | 1/3       | 1000 | 47.4°         | Fig. A | 85         |    |
| <b>480V</b>     | CK4805-1     | 5         | 17        | 480      | 10.4        | 1/4       | 1000 | 15.8°         | Fig. A | 75         |    |
|                 | CK4807-1     | 7.5       | 23.9      | 480      | 14.6        | 1/4       | 1000 | 23.7°         | Fig. A | 80         |    |
|                 | CK4810-1     | 10        | 34.1      | 480      | 20.8        | 1/4       | 1000 | 31.6°         | Fig. A | 80         |    |
|                 | CK4812-1     | 12.5      | 41        | 480      | 25.0        | 1/3       | 1000 | 39.5°         | Fig. A | 85         |    |
|                 | CK4815-1     | 15        | 51.2      | 480      | 31.1        | 1/3       | 1000 | 47.4°         | Fig. A | 85         |    |
|                 | <b>208V</b>  | CK2003-3  | 3         | 10       | 208         | 8.3       | 1/4  | 600           | 17.4°  | Fig. A     | 90 |
| CK2005-3        |              | 5         | 17.1      | 208      | 13.8        | 1/4       | 600  | 26.3°         | Fig. A | 90         |    |
| CK2007-3        |              | 7.5       | 23.9      | 208      | 19.5        | 1/4       | 1000 | 23.7°         | Fig. A | 90         |    |
| CK2010-3        |              | 10        | 34.1      | 208      | 27.8        | 1/4       | 1000 | 31.6°         | Fig. A | 90         |    |
| CK2012-3        |              | 12.5      | 41        | 208      | 33.3        | 1/3       | 1000 | 39.5°         | Fig. A | 90         |    |
| CK2015-3        |              | 15        | 51.2      | 208      | 41.6        | 1/3       | 1000 | 47.4°         | Fig. A | 90         |    |
| CK2020-3        |              | 20        | 68.3      | 208      | 55.5        | 1/2       | 1250 | 50.6°         | Fig. A | 95         |    |
| CK2025-3        |              | 25        | 85.3      | 208      | 69.4        | 1/2       | 1250 | 63.2°         | Fig. A | 95         |    |
| CK2030-3-DBL    |              | 30        | 102.4     | 208      | 83.3        | 1/3       | 2000 | 47.4°         | Fig. B | 180        |    |
| CK2040-3-DBL    |              | 40        | 136.5     | 208      | 111.0       | 1/3       | 2500 | 50.6°         | Fig. B | 190        |    |
| CK2050-3-DBL    |              | 50        | 170.6     | 208      | 138.7       | 1/3       | 2500 | 63.2°         | Fig. B | 190        |    |
| <b>240/208V</b> |              | CK2403-3  | 3/2.3     | 10       | 240/208*    | 7.2/6.2   | 1/4  | 600           | 17.4°  | Fig. A     | 90 |
|                 |              | CK2405-3  | 5/3.8     | 17.1     | 240/208*    | 12.0/18.0 | 1/4  | 600           | 26.3°  | Fig. A     | 90 |
|                 |              | CK2407-3  | 7.5/5.6   | 23.9     | 240/208*    | 18.0/15.6 | 1/4  | 1000          | 23.7°  | Fig. A     | 90 |
|                 |              | CK2410-3  | 10/7.5    | 34.1     | 240/208*    | 24.0/20.8 | 1/4  | 1000          | 31.6°  | Fig. A     | 90 |
|                 | CK2412-3     | 12.5/9.4  | 41        | 240/208* | 30.1/26.0   | 1/3       | 1000 | 39.5°         | Fig. A | 90         |    |
|                 | CK2415-3     | 15/11.3   | 51.2      | 240/208* | 36.1/31.2   | 1/3       | 1000 | 47.4°         | Fig. A | 90         |    |
|                 | CK2420-3     | 20/15     | 68.3      | 240/208* | 48.1/41.6   | 1/2       | 1250 | 50.6°         | Fig. A | 95         |    |
|                 | CK2425-3     | 25/18.8   | 85.3      | 240/208* | 60.1/52.0   | 1/2       | 1250 | 63.2°         | Fig. A | 95         |    |
|                 | CK2430-3-DBL | 30/22.5   | 102.4     | 240/208* | 72.1/62.4   | 1/3       | 2000 | 47.4°         | Fig. B | 180        |    |
|                 | CK2440-3-DBL | 40/30     | 136.5     | 240/208* | 96.2/83.2   | 1/3       | 2500 | 50.6°         | Fig. B | 190        |    |
|                 | CK2450-3-DBL | 50/37.5   | 170.6     | 240/208* | 120.2/104.0 | 1/3       | 2500 | 63.2°         | Fig. B | 190        |    |
|                 | <b>480V</b>  | CK4805-3  | 5         | 17.1     | 480         | 6         | 1/4  | 1000          | 15.8°  | Fig. A     | 90 |
|                 |              | CK4807-3  | 7.5       | 23.9     | 480         | 9.0       | 1/4  | 1000          | 23.7°  | Fig. A     | 90 |
|                 |              | CK4810-3  | 10        | 34.1     | 480         | 12        | 1/4  | 1000          | 31.6°  | Fig. A     | 90 |
|                 |              | CK4812-3  | 12.5      | 41       | 480         | 15        | 1/3  | 1000          | 39.5°  | Fig. A     | 90 |
| CK4815-3        |              | 15        | 51.2      | 480      | 18          | 1/3       | 1000 | 47.4°         | Fig. A | 90         |    |
| CK4820-3        |              | 20        | 68.3      | 480      | 24.0        | 1/2       | 1250 | 50.6°         | Fig. A | 95         |    |
| CK4825-3        |              | 25        | 85.3      | 480      | 30.1        | 1/2       | 1250 | 63.2°         | Fig. A | 95         |    |
| CK4830-3-DBL    |              | 30        | 102.4     | 480      | 36.1        | 1/3       | 2000 | 47.4°         | Fig. B | 180        |    |
| CK4840-3-DBL    |              | 40        | 136.5     | 480      | 48.1        | 1/3       | 2500 | 50.6°         | Fig. B | 190        |    |
| CK4850-3-DBL    |              | 50        | 170.6     | 480      | 60.1        | 1/3       | 2500 | 63.2°         | Fig. B | 190        |    |

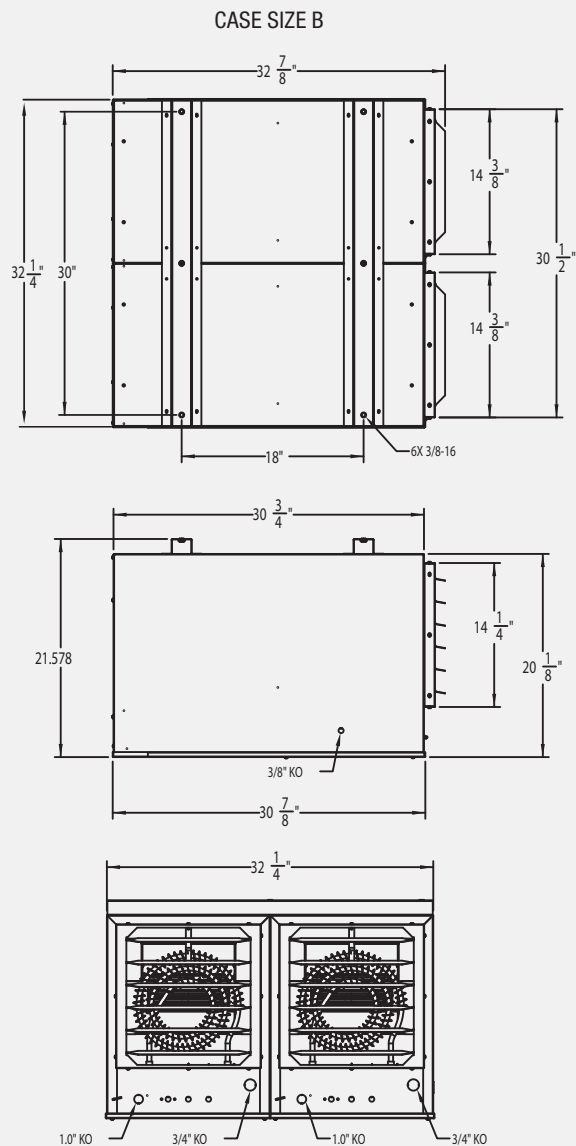
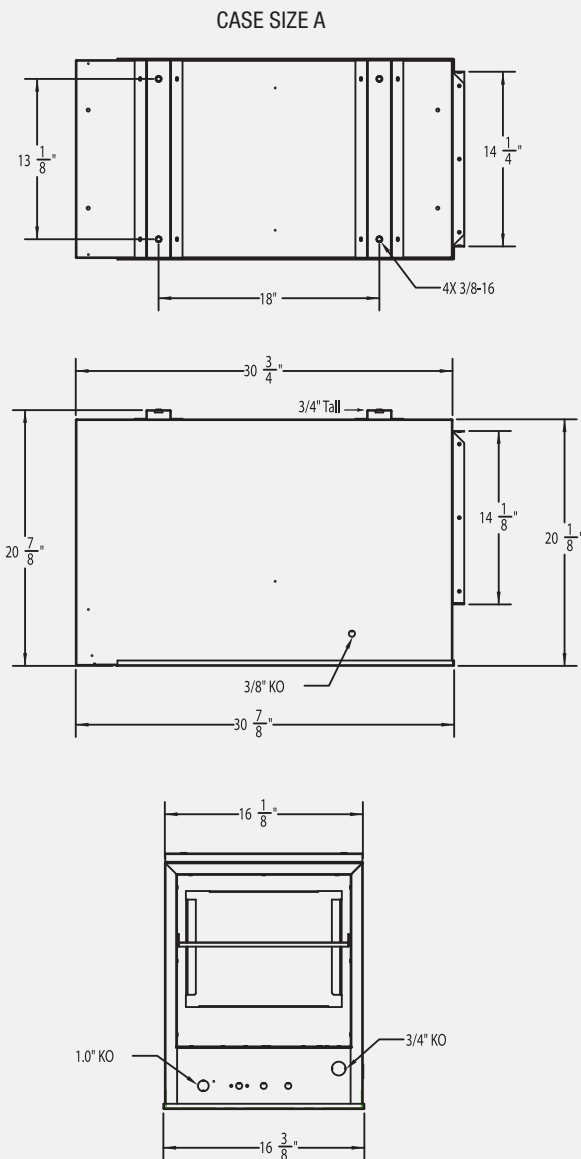
\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

# Plenum Rated Unit Heater CK Series

## Options

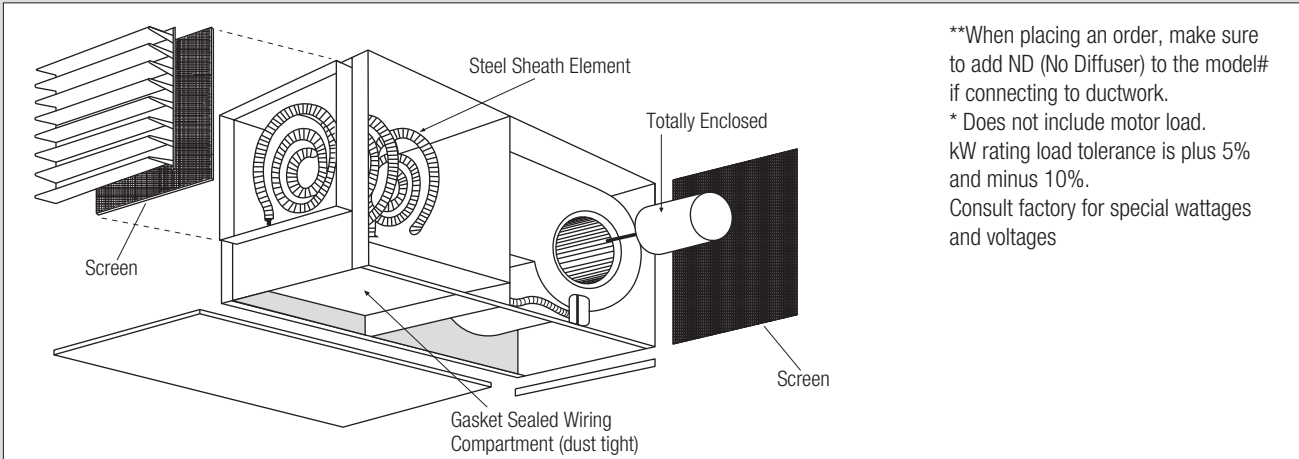
| ADD SUFFIX | DESCRIPTION   |
|------------|---|
| -T         | NEMA 4X Single Pole Thermostat  |
| -ND        | No Diffuser Option - Applications when connecting to ductwork   |
| -1/4HP     | Substitute 1/4 HP Motor (1000 CFM)  |
| -1/3HP     | Substitute 1/3 HP Motor (1250 CFM)  |
| -1/2HP     | Substitute 1/2 HP Motor (1500 CFM)  |
| -3/4HP     | Substitute 3/4 HP Motor (2000 CFM)  |
| -DS32      | 32 Amp 3-Pole Lockable Disconnect Switch  |
| -DS63      | 63 Amp 3-Pole Lockable Disconnect Switch  |
| -DS80      | 80 Amp 3-Pole Lockable Disconnect Switch  |
| -DS100     | 100 Amp 3-Pole Disconnect Switch  |
| -2TS       | Accessory 2-Stage Thermostat  |
| -2S1       | 2-Stage Heating - 1 Phase Models  |
| -2S3       | 2-Stage Heating - 3 Phase Double Case Models*<br><i>(*Single Case 3 Phase Heaters Can Not be 2-Stage)</i> |

## Dimensional Data

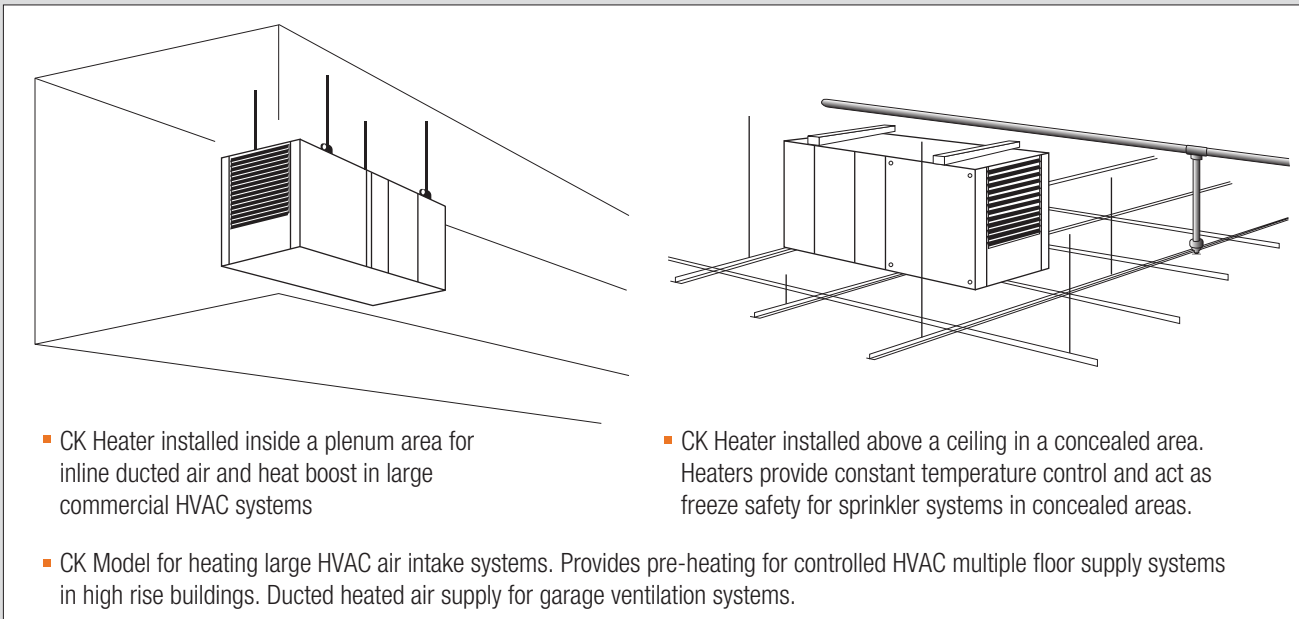


# Plenum Rated Unit Heater CK Series

## Internal View



## Installation Options



Front View



Backside



CK Double

# Large Plenum Rated Heater CKL Series



### Model Code:

CKL 48 140 -3 -8 -6.0 -1.2 -VPS5 -SSR -PT -DS200  
 A B C -D -E -F -G -H -I -J -K

- A: Series
- B: 20 - 208V 24 - 240V 48 - 480V
- C: Kilowatts
- D: -1 = 1-Phase or -3 = 3-phase
- E: Step Controller -1 to 8 Step Controller  
(See Base Model Chart)
- F: CFM: Example: 6000 CFM = 6.0
- G: External Static Pressure - Measured by Inches Water Gauge (WG)  
(Provided by Customer)
- H: Motor RPM Control Type + Horsepower (2/3/5/7.5/10)  
 VPS - Variable Pitch Sheave - (Fixed Motor Speed w/ minor adjustment)  
 -VPS2=2HP / -VPS3=3HP / -VPS5=5HP / -VPS7.5=7.5HP / -VPS10=10HP  
 VFD - Variable Frequency Drive - (Variable Motor Speed)  
 -VFD2=2HP / -VFD3=3HP / -VFD5=5HP / -VFD7.5=7.5HP / -VFD10=10HP
- I: Solid State Relays (SSR) for modulating 1 Stage (Vernier Stage)
- J: Proportional Thermostat and remote sensor to control discharge temperature.
- K: Disconnect Switch

- Spiral finned element
- High mass steel fin heat exchanger
- Dual inlet blower
- Totally enclosed motor
- N.E.M.A. 12 construction
- Filter racks
- 208/240/480 volt
- Variable pitch sheave & Variable frequency drive options
- Fixed louver hood
- 16GA steel enclosure
- Element step control "See Table"
- Can be ducted
- 24V control
- 3-year limited warranty



## The CKL Series Plenum Rated Makeup Air Unit

This large kW special application unit heater is approved for use in concealed areas of buildings. It is specifically designed to provide makeup air for highrise and office buildings, factories, auto body shops, food processing plants, plating shops and machine shops. This heater may be installed in inaccessible areas such as between a concrete ceiling and a drop tile ceiling, in a open plenum or ducted system. The heater is designed to withstand a dirty, dusty, moist or mildly corrosive environment. The heater is not intended for use where flammable vapors, gases, liquids or other combustibles are, or may be, present.

### Factory Installed Options

- Disconnect Switch:** Available with a 3-Pole non-fused disconnect with door interlocking feature and a padlock provision.
- Variable Frequency Drive:** By adding a VFD to an AC motor, speed can be varied with precision. VFDs regulate the frequency that is fed to the motor, to run at the speed or with the torque according to the demand needed.
- Variable Pitch Sheave (VPS):** Provides a simple method to vary fan speed to meet the required air flow specifications.

**Solid State Relay (SSR):** A solid state relay (SSR) enables high-precision, high-frequency temperature control by modulating the heat output as needed to meet the current demand.

**Proportional Thermostat:** Controls discharge temperature and element step controller for improved energy management.

### Base Model Chart

|             | MODEL        | BTUH(000) | VOLTS | PHASE | KILO WATTS | RESISTIVE AMPS | No OF STAGES | KILO WATTS PER STAGE | WEIGHT lbs |
|-------------|--------------|-----------|-------|-------|------------|----------------|--------------|----------------------|------------|
| 208V        | CKL2050-3-4  | 170,650   | 208   | 3     | 50.0       | 139            | 4            | 12.5                 | 650        |
|             | CKL2060-3-4  | 204,780   | 208   | 3     | 60.0       | 167            | 4            | 15.0                 | 650        |
|             | CKL2070-3-6  | 238,909   | 208   | 3     | 70.0       | 195            | 6            | 11.7                 | 650        |
|             | CKL2080-3-6  | 273,040   | 208   | 3     | 80.0       | 222            | 6            | 13.3                 | 700        |
|             | CKL2090-3-6  | 307,170   | 208   | 3     | 90.0       | 250            | 6            | 15.0                 | 700        |
|             | CKL20100-3-8 | 341,300   | 208   | 3     | 100.0      | 278            | 8            | 12.5                 | 850        |
| 240V        | CKL2450-3-4  | 170,650   | 240   | 3     | 50.0       | 120            | 4            | 12.5                 | 650        |
|             | CKL2460-3-4  | 204,780   | 240   | 3     | 60.0       | 145            | 4            | 15.0                 | 650        |
|             | CKL2470-3-6  | 238,909   | 240   | 3     | 70.0       | 169            | 6            | 11.7                 | 650        |
|             | CKL2480-3-6  | 273,040   | 240   | 3     | 80.0       | 193            | 6            | 13.3                 | 700        |
|             | CKL2490-3-6  | 307,170   | 240   | 3     | 90.0       | 217            | 6            | 15.0                 | 700        |
|             | CKL24100-3-8 | 341,300   | 240   | 3     | 100.0      | 241            | 8            | 12.5                 | 850        |
| 480V        | CKL24110-3-8 | 375,430   | 240   | 3     | 110.0      | 265            | 8            | 13.8                 | 850        |
|             | CKL24120-3-8 | 409,560   | 240   | 3     | 120.0      | 289            | 8            | 15.0                 | 850        |
|             | CKL4850-3-4  | 170,650   | 480   | 3     | 50.0       | 60             | 4            | 12.5                 | 650        |
|             | CKL4860-3-4  | 204,780   | 480   | 3     | 60.0       | 72             | 4            | 15.0                 | 650        |
|             | CKL4870-3-6  | 238,909   | 480   | 3     | 70.0       | 84             | 6            | 11.7                 | 650        |
|             | CKL4880-3-6  | 273,040   | 480   | 3     | 80.0       | 96             | 6            | 13.3                 | 700        |
| CKL4890-3-6 | 307,170      | 480       | 3     | 90.0  | 108        | 6              | 15.0         | 700                  |            |



# Large Plenum Rated Heater CKL Series

## Base Model Chart

480V

| MODEL        | BTUH(000) | VOLTS | PHASE | KILO WATTS | RESISTIVE AMPS | No OF STAGES | KILO WATTS PER STAGE | WEIGHT lbs |
|--------------|-----------|-------|-------|------------|----------------|--------------|----------------------|------------|
| CKL48100-3-8 | 341,300   | 480   | 3     | 100.0      | 120            | 8            | 12.5                 | 850        |
| CKL48110-3-8 | 375,430   | 480   | 3     | 110.0      | 132            | 8            | 13.8                 | 850        |
| CKL48120-3-8 | 409,560   | 480   | 3     | 120.0      | 145            | 8            | 15.0                 | 850        |
| CKL48130-3-8 | 443,690   | 480   | 3     | 130.0      | 157            | 8            | 16.3                 | 850        |
| CKL48140-3-8 | 477,820   | 480   | 3     | 140.0      | 169            | 8            | 17.5                 | 900        |
| CKL48150-3-8 | 511,950   | 480   | 3     | 150.0      | 181            | 8            | 18.8                 | 900        |
| CKL48160-3-8 | 546,080   | 480   | 3     | 160.0      | 193            | 8            | 20.0                 | 950        |
| CKL48170-3-8 | 580,210   | 480   | 3     | 170.0      | 205            | 8            | 21.3                 | 850        |
| CKL48180-3-8 | 614,340   | 480   | 3     | 180.0      | 217            | 8            | 22.5                 | 1000       |
| CKL48190-3-8 | 648,470   | 480   | 3     | 190.0      | 229            | 8            | 23.8                 | 1000       |
| CKL48200-3-8 | 682,600   | 480   | 3     | 200.0      | 241            | 8            | 25.0                 | 1000       |
| CKL48210-3-8 | 716,730   | 480   | 3     | 210.0      | 253            | 8            | 26.3                 | 1000       |
| CKL48220-3-8 | 750,860   | 480   | 3     | 220.0      | 265            | 8            | 27.5                 | 1000       |
| CKL48230-3-8 | 784,990   | 480   | 3     | 230.0      | 277            | 8            | 28.8                 | 1000       |
| CKL48240-3-8 | 819,120   | 480   | 3     | 240.0      | 289            | 8            | 30.0                 | 1000       |

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

\*\*When placing an order, make sure to add ND (No Diffuser) to the model# if connecting to ductwork. \* Does not include motor load.

kW rating load tolerance is plus 5% and minus 10%. Consult factory for special wattages and voltages

### BLOWER SPECIFICATIONS

- 1) Quiet forward curve, double inlet, dynamically balanced wheels.
- 2) Galvanized housing and wheels for increased corrosion resistance.
- 3) Keyed wheels, keyed shaft extensions and sealed ball bearings for higher horsepower motors.
- 4) Galvanized mounting supports, vibro-pads and heavy duty mounting hardware.
- 5) Belt drive allows field adjustment of blower RPM to adjust for changes in system SP.

### Required Factory Installed Motor Options

| MODEL   | DESCRIPTION   |
|---------|---|
| -VPS2   | Variable Pitch Sheave 2HP Motor - Fixed Motor Speed w/ minor adjustment   |
| -VPS3   | Variable Pitch Sheave 3HP Motor - Fixed Motor Speed w/ minor adjustment   |
| -VPS5   | Variable Pitch Sheave 5HP Motor - Fixed Motor Speed w/ minor adjustment   |
| -VPS7.5 | Variable Pitch Sheave 7.5HP Motor - Fixed Motor Speed w/ minor adjustment |
| -VPS10  | Variable Pitch Sheave 10HP Motor - Fixed Motor Speed w/ minor adjustment  |
| -VFD2   | Variable Frequency Drive 2HP - Variable Motor Speed                       |
| -VFD3   | Variable Frequency Drive 3HP - Variable Motor Speed                       |
| -VFD5   | Variable Frequency Drive 5HP - Variable Motor Speed                       |
| -VFD7.5 | Variable Frequency Drive 7.5HP - Variable Motor Speed                     |
| -VFD10  | Variable Frequency Drive 10HP - Variable Motor Speed                      |

### Optional Factory Installed Options

| MODEL  | DESCRIPTION   |
|--------|---|
| -SSR   | Solid State Relays (SSR) for modulating 1 Stage (Vernier Stage)             |
| -PT    | Proportional Thermostat and remote sensor to control discharge temperature. |
| -DS100 | CKL 100 Amp Disconnect  |
| -DS150 | CKL 150 Amp Disconnect  |
| -DS200 | CKL 200 Amp Disconnect  |
| -DS400 | CKL 400 Amp Disconnect  |

# Large Plenum Rated Heater CKL Series

## How to Size a CKL Heater

### Step1: Customer Supplied Specs Example:

|                          |          |
|--------------------------|----------|
| 1. Voltage Required      | 480V     |
| 2. Phase Required        | 3 Phase  |
| 3. ΔT (Temperature Rise) | 70       |
| 4. Air Volume (CFM)      | 6000 CFM |
| 5. Static Pressure       | 1.2" WG  |

### Step2: Calculate KW Requirement

- Calculate BTUH Requirement  
BTUH Formula = (CFM x 1.08) x Temperature rise  
(1.08 factor assumes air density at sea level)  
**Example: (6000 x 1.08) x 70 = 453,600 BTUH Requirement**
- Convert BTUH to KW Requirement  
KW Conversion Formula = BTUH/3413  
**Example: 453,600/3413 = 133KW.**  
Then round up to nearest kW in BASE MODELS CHART  
= **140KW Requirement**

### Step3: Select Base Model

- Refer to **BASE MODELS CHART**
- Select model matching Voltage, Phase and KW Requirements  
**Example: 480V, 3-Phase, 140kW**

### Step4: Select Motor Horsepower

- Refer to **AIR DELIVERY / MOTOR SELECTION CHART**
- Find CFM (Column B) matching customer requirement  
**Example: 6000 CFM**
- Refer to Static Pressure (Column E).  
Based on system static requirement  
**Example: 1.2" WG**, find the closest " WG  
that is equal or above the system requirement.  
**Example: 2.9" WG**
- Refer to Motor HP (Column D) and select related Motor HP  
**Example: 5HP**

### Step5: Select Motor Speed Type (Fixed or Variable)

- VPS - Variable Pitch Sheave -  
(Fixed Motor Speed w/ minor field adjustment)
- VFD - Variable Frequency Drive - (Variable Motor Speed)  
**Example: VPS**

### Step6: Select Additional Options

- SSR - Solid State Relays (SSR) for modulating 1 Stage (Vernier Stage)
- PT - Proportional Thermostat and remote sensor to control discharge temperature.
- DS - (XX) Disconnect Switch  
**Example: No Additional Options Required**

### Step7: Compile Final Complete Model Number Based on Model Code Legend

**Example:** Final Model: CKL48140-3-8-6.0-1.2-VPS4

## How to Determine ΔT (Temperature Rise)

**Step1:** Winter Design Temp For Location

**Step2:** Desired Heater Discharge Temp

**Step3:** ΔT (Temperature Rise) = Heater Discharge Temp - Winter Design Temp

**Example:** 75°F 5°F = 70°F ΔT (Temperature Rise)

## Air Delivery / Motor Selection Chart

|                  | A      | B     | C   | D             | E            |
|------------------|--------|-------|-----|---------------|--------------|
|                  |        |       |     | Motor         | Max External |
| ITEM NUMBER      | CFM    | FPM   | HP  | Static ("WG") |              |
| -2.5-x.x-Vxx2    | 2,500  | 870   | 2   | 2.4           |              |
| -2.5-x.x-Vxx3    | 2,500  | 870   | 3   | 3.3           |              |
| -3.0-x.x-Vxx2    | 3,000  | 1,045 | 2   | 2.2           |              |
| -3.0-x.x-Vxx3    | 3,000  | 1,045 | 3   | 3.1           |              |
| -3.5-x.x-Vxx3    | 3,500  | 1,220 | 3   | 2.8           |              |
| -3.5-x.x-Vxx5    | 3,500  | 1,220 | 5   | 4.1           |              |
| -4.0-x.x-Vxx3    | 4,000  | 1,394 | 3   | 2.6           |              |
| -4.0-x.x-Vxx5    | 4,000  | 1,394 | 5   | 3.9           |              |
| -4.5-x.x-Vxx3    | 4,500  | 1,586 | 3   | 2.3           |              |
| -4.5-x.x-Vxx5    | 4,500  | 1,586 | 5   | 3.7           |              |
| -5.0-x.x-Vxx3    | 5,000  | 1,742 | 3   | 2.0           |              |
| -5.0-x.x-Vxx5    | 5,000  | 1,742 | 5   | 3.5           |              |
| -5.5-x.x-Vxx5    | 5,500  | 1,916 | 5   | 3.1           |              |
| -5.5-x.x-Vxx7.5  | 5,500  | 1,916 | 7.5 | 4.4           |              |
| -6.0-x.x-Vxx5    | 6,000  | 2,265 | 5   | 2.9           |              |
| -6.0-x.x-Vxx7.5  | 6,000  | 2,265 | 7.5 | 4.2           |              |
| -6.5-x.x-Vxx5    | 6,500  | 2,091 | 5   | 2.6           |              |
| -6.5-x.x-Vxx7.5  | 6,500  | 2,091 | 7.5 | 4.0           |              |
| -7.0-x.x-Vxx5    | 7,000  | 2,439 | 5   | 2.3           |              |
| -7.0-x.x-Vxx7.5  | 7,000  | 2,439 | 7.5 | 3.8           |              |
| -7.5-x.x-Vxx5    | 7,500  | 2,613 | 5   | 2.0           |              |
| -7.5-x.x-Vxx7.5  | 7,500  | 2,613 | 7.5 | 3.4           |              |
| -8.0-x.x-Vxx7.5  | 8,000  | 2,787 | 7.5 | 3.2           |              |
| -8.0-x.x-Vxx10   | 8,000  | 2,787 | 10  | 4.0           |              |
| -8.5-x.x-Vxx7.5  | 8,500  | 2,962 | 7.5 | 2.7           |              |
| -8.5-x.x-Vxx10   | 8,500  | 2,962 | 10  | 3.7           |              |
| -9.0-x.x-Vxx7.5  | 9,000  | 3,136 | 7.5 | 2.4           |              |
| -9.0-x.x-Vxx10   | 9,000  | 3,136 | 10  | 3.5           |              |
| -9.5-x.x-Vxx7.5  | 9,500  | 3,310 | 7.5 | 2.1           |              |
| -9.5-x.x-Vxx10   | 9,500  | 3,310 | 10  | 3.3           |              |
| -10.0-x.x-Vxx7.5 | 10,000 | 3,484 | 7.5 | 1.8           |              |
| -10.0-x.x-Vxx10  | 10,000 | 3,484 | 10  | 2.9           |              |
| -10.0-x.x-Vxx10  | 10,500 | 3,659 | 10  | 2.5           |              |
| -11.0-x.x-Vxx10  | 15,000 | 3,833 | 10  | 2.2           |              |
| -11.0-x.x-Vxx10  | 11,500 | 4,007 | 10  | 1.8           |              |
| -12.0-x.x-Vxx10  | 12,000 | 4,148 | 10  | 1.5           |              |

## Motor Amps Chart

| Motor HP | 208V FLA | 240V FLA | 480V FLA |
|----------|----------|----------|----------|
| 2HP      | 7.8      | 6.8      | 3.4      |
| 3HP      | 11.0     | 9.6      | 4.8      |
| 5HP      | 17.5     | 15.2     | 7.6      |
| 7.5HP    | 25.3     | 22.0     | 11.0     |
| 10HP     | N/A      | N/A      | 14.0     |

# Large Plenum Rated Heater CKL Series



**Step Controller**

## Standard Feature

The King CKL make up air unit is equipped with a 1 to 8 step controller and an optional vernier stage. This provides on/off control for each heating stage plus one fully modulating step when ordered with Solid State Relays (SSR). The SSR option must be ordered to enable the vernier control option. For example, a 240KW unit will have 7 on/off steps at 30KW and 1 fully modulating step. The last 30KW step will modulate from 0 to 30KW to precisely control the discharge temperature. This is the most cost-effective way to achieve high quality temperature control.



**Variable Pitch Sheave**

## Optional Feature

Variable pitch sheaves (VPSs) are a simple method to vary fan speed to meet the required air flow specifications. The secret is within the threaded, angular faced discs that are the core of the V-shaped groove on each pulley. If you need more speed, move the discs toward each other. This alignment produces a belt that simply rides higher in the groove. To reduce the speed, simply increase the space between the two discs, which slows down the belt's motion.



**Variable Frequency Drive**

## Optional Feature

By adding a VFD to an AC motor, speed can be varied with precision. Variable frequency drives sit between the electrical supply and the motor. Power from the electrical supply goes into a drive and the drive then regulates the power that is fed to the motor. This step allows the drive to adjust the frequency and the voltage that fed into to the motor based on your current process demands. This means you run your AC motors at the speed or with the torque according to the demand needed. This is why you can save large amounts of money using the AC drives.



**Solid State Relay (SSR)**

## Optional Feature

A solid state relay (SSR) enables high-precision, high-frequency temperature control by modulating the heat output as needed to meet the current demand. It is a transistor activated by a small DC control signal produced by the temperature controller. This type of relays can switch high amperage in less than a second. They're used for heaters which require very frequent power switching and is mounted on a heat sink to dissipate the heat they generate.



**Proportional Thermostat**

## Optional Feature

A proportional thermostat is designed to allow the appliance to heat more regularly and at low power, in order to minimize variations in the temperature of the room. The temperature of the room varies no more than  $\pm 0.9$  °F from the requested temperature. A proportional thermostat, therefore, makes it possible to obtain a more stable and precise temperature for better comfort.

# Large Plenum Rated Heater CKL Series

## Internal View

Front View



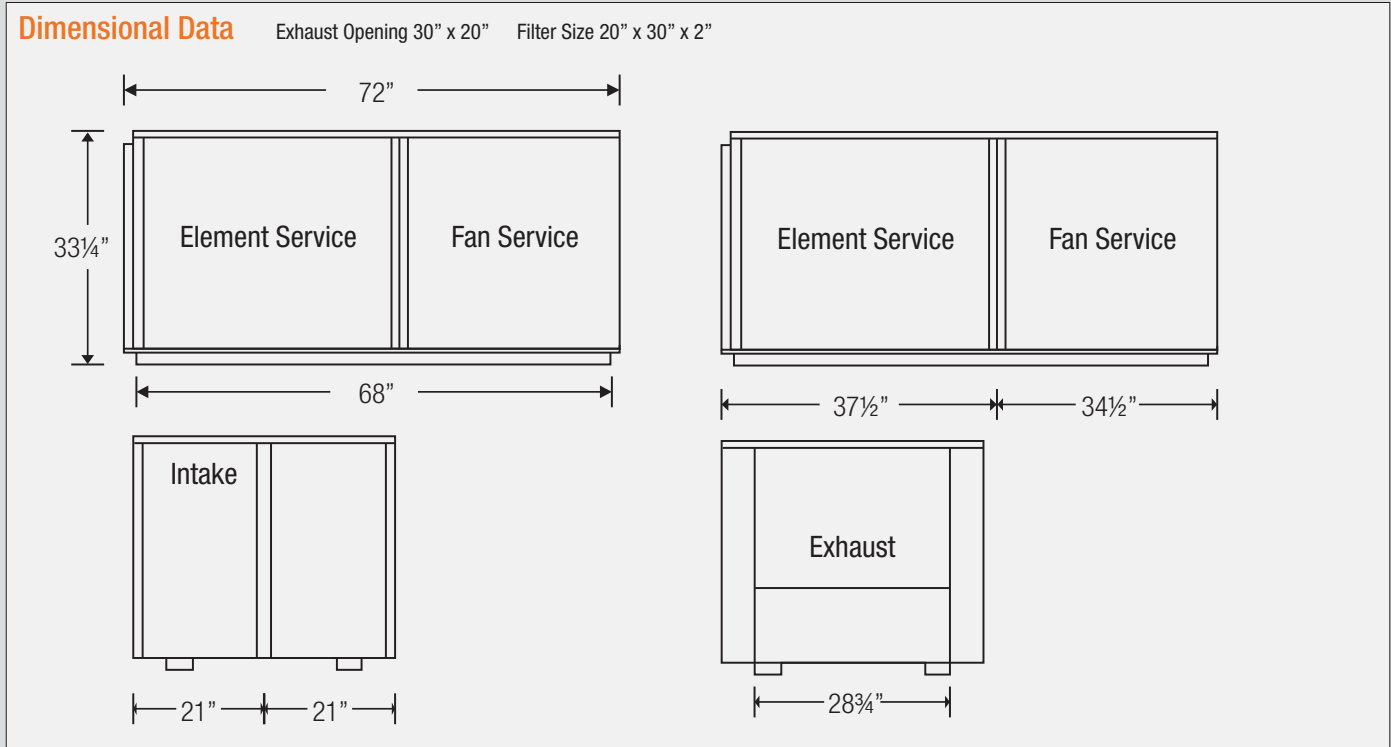
Back View



Motor & Blower



# Large Plenum Rated Heater CKL Series



## Engineering Specifications

Contractor shall supply and install CKL Series plenum heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** The heater case is fabricated from 16 gauge high tensile electro-galvanized Steel forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**Air Outlet Louver:** Fixed louvers

**Intake and Discharge Screen:** Heavy gauge Steel screen protects against foreign objects entering the heater. A filter is provided to prevent dirt and dust build-up in the heater.

**Air Filter:** Convenient access for replacement of standard filter. Filter not included.

**Step Controller:** The King CKL make up air unit is equipped with a 1 to 8 step controller and an optional vernier stage. This provides on/off control for each heating stage plus one fully modulating step when ordered with the optional Solid State Relays (SSR).

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Easy Wiring:** A large wiring compartment with easy access allows for quick installation.

**Mounting:** The CKL heater comes with frame mounts.

**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60° C ambient. Large capacity dual inlet blower handles high static pressure and moves large air volume. Motor leads are enclosed in a sealtight raceway to prolong equipment life and reduce maintenance.

**Air Intake Temperature Control:** A built-in thermostat located at the intake blower is factory set at 100°F which prevents the heater

from operating when the ambient temperature exceeds this limit. This will prevent the heater from wasting energy and is an extra measure of safety.

**Auto-Reset Thermal Cutout:** Power is disconnected from the heater if an overheated condition occurs. The element is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all units. A transformer is provided for 24 Volt control. This enables the customer to use a standard low voltage thermostat. Sub circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on all models to dissipate residual heat from the heating elements.

**Variable Pitch Sheave (VPS) Option:** Provides a simple method to vary fan speed to meet the required air flow specifications.

**Variable Frequency Drive (VFD) Option:** Regulates the frequency that is fed to the motor, to run at the speed according to the demand needed.

**Solid State Relay (SSR) Option:** A solid state relay (SSR) enables high-precision, high-frequency temperature control by modulating the heat output as needed to meet the current demand.

**Proportional Thermostat Option:**

A proportional thermostat is designed to allow the appliance to heat more regularly and at low power, in order to minimize variations in the temperature of the room. The temperature of the room varies no more than ±0.9 °F from the requested temperature.

**Disconnect Switch Option:** Available with a 3-Pole non-fused disconnect with door interlocking feature and a padlock provision.

**Approvals:** ETL Certified to comply with standard for Heating and Cooling Equipment ANSI/UL 1995 fourth edition.

Meets stringent City of Chicago codes for plenum use.

# Make Up Air Unit CLEAR AIR MAU Series



### Model Code:

|     |    |    |   |     |     |
|-----|----|----|---|-----|-----|
| MAU | 48 | 20 | 1 | ECM | SSR |
| A   | B  | C  | D | E   | F   |

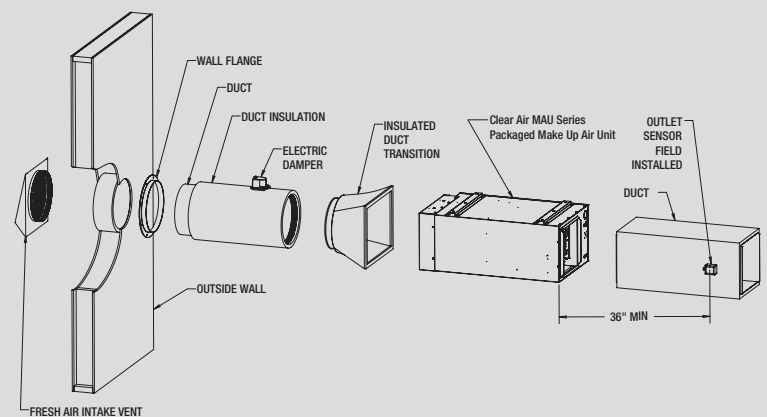
- A: Series
- B: 20 - 208V 24 - 240V
- C: Kilowatts
- D: 1 or 3-phase
- E: ECM Motor
- F: Solid State Relay

Shown with MAUFH FILTER HOUSING. (sold separately)



- Packaged, all-in-one make up air solution
- 700-1770 CFM @ 0.2" static pressure
- Plenum rated for concealed spaces
- Compact design, vertical or horizontal mounting
- Fully modulating electric heat using solid state relay (SSR) technology
- Built-in electronic proportional thermostat, 0-10V DC or 4-20ma
- Includes field installed remote duct sensor connected to thermostat
- Thermostat can be relocated to be used as a wall mounted room thermostat
- Energy efficient ECM motor, 1/3, 1/2HP & 3/4HP
- 5 motor torque settings for field adjustments to meet CFM and temperature rise requirements
- Detailed CFM/static pressure/temperature rise tables to design a perfect trouble-free solution
- Available in 208V, 240V and 480V – single or three phase
- 4KW to 35KW
- Integrated control circuit for connection to: damper, exhaust fans, outside thermostat & humidistat, ect.
- Separate 40VA control power transformer for auxiliary devices
- Side access panel for easy wiring & maintenance
- 20-gauge electro galvanized steel cabinet with corrosion resistant textured paint finish
- Replaceable 1" or 2" filter
- 3-year limited warranty

**The King Clear Air Make-Up Air Unit** is a plenum rated unit, designed to “make up” the air in your interior space that has been removed due to process exhaust fans. The building ventilation and the make-up air system work together to ensure the building pressure is maintained, while eliminating temperature fluctuations and a number of air quality issues. Clear Air MAU preheats the incoming fresh air at the lowest cost, thus continuously providing comfortable ventilation throughout the building. Featuring an energy efficient ECM motor, the Clear Air combines a fan driven fully modulating electric heating unit with a fresh air relay logic control circuit providing an extremely versatile all-in-one packaged unit. The MAU is approved for use in concealed areas of buildings such as an area between a finished ceiling and drop ceiling. It is designed to work with HVAC equipment to provide indoor air quality into a return side or supply side of the ductwork system or alternatively directly into the building space.



The King Clear Air MAU includes the Packaged Make Up Air Unit and Duct Sensor. Other components are common and are purchased separately by the installer.

# Make Up Air Unit CLEAR AIR MAU Series

## Ordering Information

|                        | MODEL                  | VOLTS             | kilo watts | BTUH  | AMPS | PHASE | # of ELEMENTS | INTERNAL C/B | MOTOR HP | MOTOR FLA | WT. (lbs) |
|------------------------|------------------------|-------------------|------------|-------|------|-------|---------------|--------------|----------|-----------|-----------|
| <b>208V</b><br>1-Phase | MAU2004-1-ECM-SSR      | 208               | 3.8        | 12.8  | 18   | 1     | 1             | 60           | 1/3      | 2.7       | 57        |
|                        | MAU2005-1-ECM-SSR      | 208               | 5.0        | 17.1  | 24   | 1     | 1             | 60           | 1/3      | 2.7       | 57        |
|                        | MAU2008-1-ECM-SSR      | 208               | 8.0        | 27.3  | 38   | 1     | 2             | 60           | 1/3      | 2.7       | 57        |
|                        | MAU2010-1-ECM-SSR      | 208               | 10.0       | 34.1  | 48   | 1     | 2             | 60           | 1/3      | 2.7       | 65        |
|                        | MAU2012-1-ECM-SSR      | 208               | 12.0       | 41.0  | 58   | 1     | 3             | 60           | 1/3      | 2.7       | 74        |
|                        | MAU2015-1-ECM-SSR      | 208               | 15.0       | 51.2  | 72   | 1     | 3             | 60+60        | 1/3      | 2.7       | 74        |
|                        | MAU2018-1-ECM-SSR      | 208               | 17.3       | 58.9  | 83   | 1     | 4             | 60+60        | 1/3      | 3.9       | 76        |
|                        | MAU2020-1-ECM-SSR      | 208               | 20.0       | 68.3  | 96   | 1     | 4             | 60+60        | 1/2      | 3.9       | 76        |
|                        | MAU2025-1-ECM-SSR      | 208               | 25.0       | 85.3  | 120  | 1     | 5             | 60+60+60     | 1/2      | 6.0       | 81        |
|                        | MAU2030-1-ECM-SSR      | 208               | 30.0       | 102.4 | 144  | 1     | 6             | 60+60+60     | 3/4      | 6.0       | 85        |
| <b>240V</b><br>1-Phase | MAU2404-1-ECM-SSR      | 240               | 4.0        | 13.7  | 17   | 1     | 1             | 60           | 1/3      | 2.9       | 57        |
|                        | MAU2405-1-ECM-SSR      | 240               | 5.0        | 17.1  | 21   | 1     | 1             | 60           | 1/3      | 2.9       | 57        |
|                        | MAU2408-1-ECM-SSR      | 240               | 8.0        | 27.3  | 33   | 1     | 2             | 60           | 1/3      | 2.9       | 57        |
|                        | MAU2410-1-ECM-SSR      | 240               | 10.0       | 34.1  | 42   | 1     | 2             | 60           | 1/3      | 2.9       | 65        |
|                        | MAU2412-1-ECM-SSR      | 240               | 11.5       | 41.0  | 50   | 1     | 2             | 60           | 1/3      | 2.9       | 74        |
|                        | MAU2415-1-ECM-SSR      | 240               | 15.0       | 51.2  | 63   | 1     | 3             | 60+60        | 1/3      | 2.7       | 74        |
|                        | MAU2418-1-ECM-SSR      | 240               | 17.3       | 58.9  | 72   | 1     | 3             | 60+60        | 1/3      | 2.7       | 74        |
|                        | MAU2420-1-ECM-SSR      | 240               | 20.0       | 68.3  | 83   | 1     | 4             | 60+60        | 1/2      | 4.2       | 76        |
|                        | MAU2425-1-ECM-SSR      | 240               | 25.0       | 85.3  | 104  | 1     | 5             | 60+60+60     | 1/2      | 4.2       | 81        |
|                        | MAU2430-1-ECM-SSR      | 240               | 30.0       | 102.4 | 125  | 1     | 6             | 60+60+60     | 3/4      | 6.2       | 85        |
| <b>480V</b><br>1-Phase | MAU2435-1-ECM-SSR      | 240               | 34.5       | 117.8 | 144  | 1     | 6             | 60+60+60     | 3/4      | 6.2       | 85        |
|                        | MAU4804-1-ECM-SSR      | 480               | 4.0        | 13.7  | 8    | 1     | 1             | NO           | 1/3      | 0.7       | 57        |
|                        | MAU4805-1-ECM-SSR      | 480               | 5.0        | 17.1  | 10   | 1     | 1             | NO           | 1/3      | 0.7       | 57        |
|                        | MAU4808-1-ECM-SSR      | 480               | 8.0        | 27.3  | 17   | 1     | 2             | NO           | 1/3      | 0.7       | 57        |
|                        | MAU4810-1-ECM-SSR      | 480               | 10.0       | 34.1  | 21   | 1     | 2             | NO           | 1/3      | 0.7       | 65        |
|                        | MAU4812-1-ECM-SSR      | 480               | 12.0       | 41.0  | 25   | 1     | 3             | NO           | 1/3      | 0.7       | 74        |
|                        | MAU4815-1-ECM-SSR      | 480               | 15.0       | 51.2  | 31   | 1     | 3             | NO           | 1/3      | 0.7       | 74        |
|                        | MAU4818-1-ECM-SSR      | 480               | 17.3       | 58.9  | 36   | 1     | 3             | NO           | 1/3      | 0.7       | 74        |
|                        | MAU4820-1-ECM-SSR      | 480               | 20.0       | 68.3  | 42   | 1     | 4             | NO           | 1/2      | 1.1       | 76        |
|                        | MAU4825-1-ECM-SSR      | 480               | 25.0       | 85.3  | 52   | 1     | 5             | NO           | 1/2      | 1.1       | 81        |
| <b>208V</b><br>3-Phase | MAU4830-1-ECM-SSR      | 480               | 30.0       | 102.4 | 63   | 1     | 6             | NO           | 3/4      | 1.1       | 85        |
|                        | MAU4835-1-ECM-SSR      | 480               | 34.5       | 117.7 | 72   | 1     | 6             | NO           | 3/4      | 1.1       | 85        |
|                        | MAU2005-3-ECM-SSR      | 208               | 5.0        | 17.1  | 14   | 3     | 1             | 60           | 1/3      | 2.7       | 57        |
|                        | MAU2007-3-ECM-SSR      | 208               | 7.5        | 25.6  | 21   | 3     | 2             | 60           | 1/3      | 2.7       | 57        |
|                        | MAU2010-3-ECM-SSR      | 208               | 10.0       | 34.1  | 28   | 3     | 2             | 60           | 1/3      | 2.7       | 65        |
|                        | MAU2012-3-ECM-SSR      | 208               | 12.5       | 42.7  | 34   | 3     | 3             | 60           | 1/3      | 2.7       | 65        |
|                        | MAU2015-3-ECM-SSR      | 208               | 15.0       | 51.2  | 42   | 3     | 3             | 60           | 1/3      | 2.7       | 74        |
|                        | MAU2020-3-ECM-SSR      | 208               | 20.0       | 68.3  | 56   | 3     | 4             | 60           | 1/2      | 3.9       | 76        |
|                        | MAU2025-3-ECM-SSR      | 208               | 25.0       | 85.3  | 69   | 3     | 5             | 60+60        | 3/4      | 6.0       | 81        |
|                        | MAU2030-3-ECM-SSR      | 208               | 30.0       | 102.4 | 83   | 3     | 6             | 60+60        | 3/4      | 6.0       | 85        |
| <b>240V</b><br>3-Phase | MAU2405-3-ECM-SSR      | 240               | 5.0        | 17.1  | 12   | 3     | 1             | 60           | 1/3      | 2.9       | 57        |
|                        | MAU2410-3-ECM-SSR      | 240               | 10.0       | 34.1  | 24   | 3     | 2             | 60           | 1/3      | 2.9       | 65        |
|                        | MAU2412-3-ECM-SSR      | 240               | 12.0       | 41    | 29   | 3     | 3             | 60           | 1/3      | 2.9       | 74        |
|                        | MAU2415-3-ECM-SSR      | 240               | 15.0       | 51.2  | 36   | 3     | 3             | 60           | 1/3      | 2.9       | 74        |
|                        | MAU2418-3-ECM-SSR      | 240               | 17.3       | 58.9  | 42   | 3     | 3             | 60           | 1/3      | 2.9       | 74        |
|                        | MAU2420-3-ECM-SSR      | 240               | 20.0       | 68.3  | 48   | 3     | 4             | 60           | 1/2      | 4.2       | 76        |
|                        | MAU2425-3-ECM-SSR      | 240               | 25.0       | 85.3  | 60   | 3     | 5             | 60           | 1/2      | 4.2       | 81        |
|                        | MAU2430-3-ECM-SSR      | 240               | 30.0       | 102.4 | 72   | 3     | 6             | 60+60        | 3/4      | 6.2       | 85        |
|                        | MAU2435-3-ECM-SSR      | 240               | 34.5       | 117.7 | 83   | 3     | 6             | 60+60        | 3/4      | 6.2       | 85        |
|                        | <b>480V</b><br>3-Phase | MAU4805-3-ECM-SSR | 480        | 5.0   | 17.1 | 6     | 3             | 1            | NO       | 1/3       | 0.8       |
| MAU4810-3-ECM-SSR      |                        | 480               | 10.0       | 34.1  | 12   | 3     | 2             | NO           | 1/3      | 0.8       | 65        |
| MAU4815-3-ECM-SSR      |                        | 480               | 15.0       | 51.2  | 18   | 3     | 3             | NO           | 1/3      | 0.8       | 74        |
| MAU4818-3-ECM-SSR      |                        | 480               | 17.3       | 58.9  | 21   | 3     | 3             | NO           | 1/3      | 0.8       | 74        |

# Make Up Air Unit CLEAR AIR MAU Series

## Ordering Information

| MODEL             | VOLTS | kilo watts | BTUH  | AMPS | PHASE | # of ELEMENTS | INTERNAL C/B | MOTOR HP | MOTOR FLA | WT. (lbs) |
|-------------------|-------|------------|-------|------|-------|---------------|--------------|----------|-----------|-----------|
| MAU4820-3-ECM-SSR | 480   | 20.0       | 68.3  | 24   | 3     | 4             | NO           | 1/2      | 1.2       | 76        |
| MAU4825-3-ECM-SSR | 480   | 25.0       | 85.3  | 30   | 3     | 5             | NO           | 1/2      | 1.2       | 81        |
| MAU4830-3-ECM-SSR | 480   | 30.0       | 102.4 | 36   | 3     | 6             | NO           | 3/4      | 1.7       | 85        |
| MAU4835-3-ECM-SSR | 480   | 34.5       | 117.7 | 42   | 3     | 6             | NO           | 3/4      | 1.7       | 85        |

## Accessories

| MODEL  | UPC   | DESCRIPTION  | WEIGHT(lbs.) |
|--------|-------|--|--------------|
| KFS-DT | 20186 | Transition from 14" x 14" Outlet to 12" round, discharge side      | 2.5          |
| MAUFH  | 14478 | Filter housing for MAU series heaters (must be ordered separately) | 6.5          |

## Controls Accessories

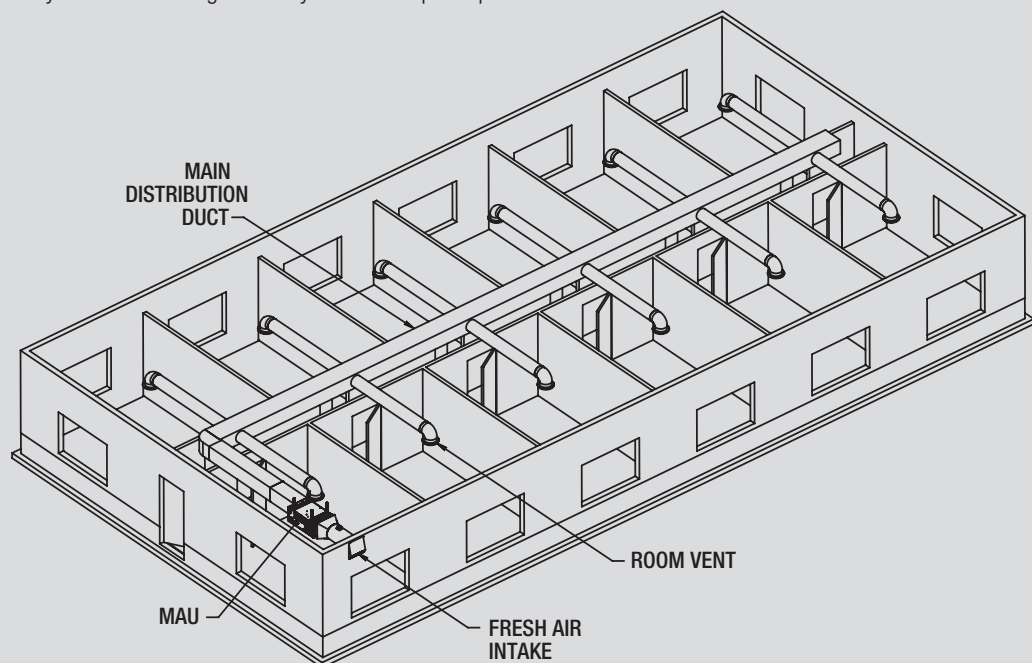
| MODEL   | UPC   | DESCRIPTION   | WEIGHT(lbs.) |
|---------|-------|---|--------------|
| DFC120V | 33445 | Digital Fan Control, 5 Modes of Operation - 120V (Requires -CR120 Factory Installed Option) | 1.0          |

## Factory Installed Options

| ADD SUFFIX: | DESCRIPTION   |
|-------------|---|
| -CR120      | 10 Amp Relay, SPDT w/10-30 Vac/dc/120 Vac Coil that switches the 24V heater control circuit |
| -DS32       | 32 Amp, 3-Pole Disconnect Switch w/ Padlock Provision                                       |
| -DS63       | 63 Amp, 3-Pole Disconnect Switch w/ Padlock Provision                                       |
| -DS100      | 100 Amp, 3-Pole Disconnect Switch w/ Padlock Provision                                      |
| -3/4HP      | Sub 3/4 HP Motor & Blower - 20 kW to 25 kW Model Only                                       |

## Direct Ducting Installation

The Clear Air MAU can be installed to have its own dedicated outdoor fresh air duct system that is filtered, pre-heated and then is distributed DIRECTLY to each room and hallway through register grills. In this way, it acts independently to the primary heating system that could be hydronic, electric zonal heat or a centralized HVAC system. When installed as a direct system, make sure the Temperature rise is sufficient to bring adequate warm tempered air into the building. For example, in a cold climate when the outside air is at 0°F the Temperature rise would need to be at least 70°F to warm the air adequately before delivering it directly to the occupied space.



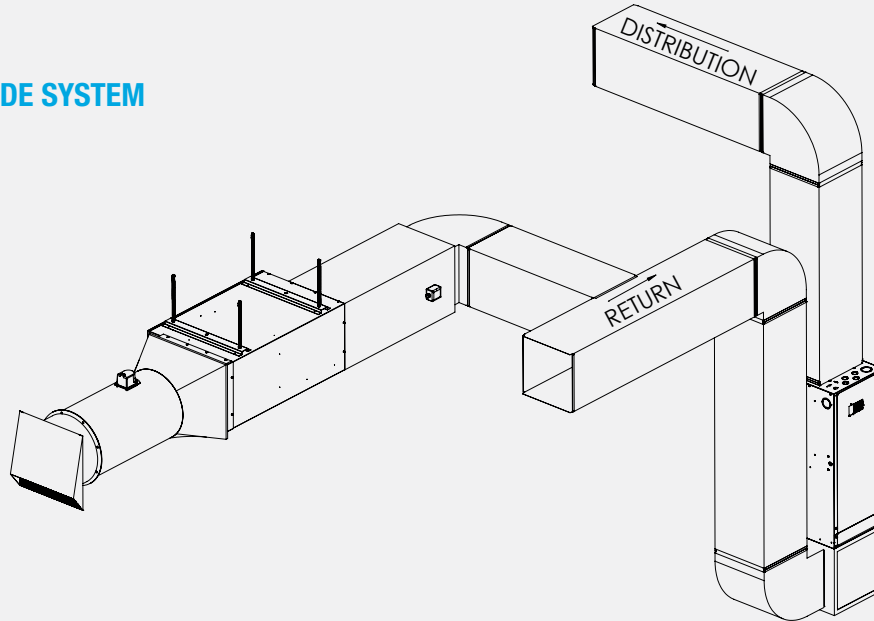


# Make Up Air Unit CLEAR AIR MAU Series

## HVAC Return and Supply Air Ducting Connection

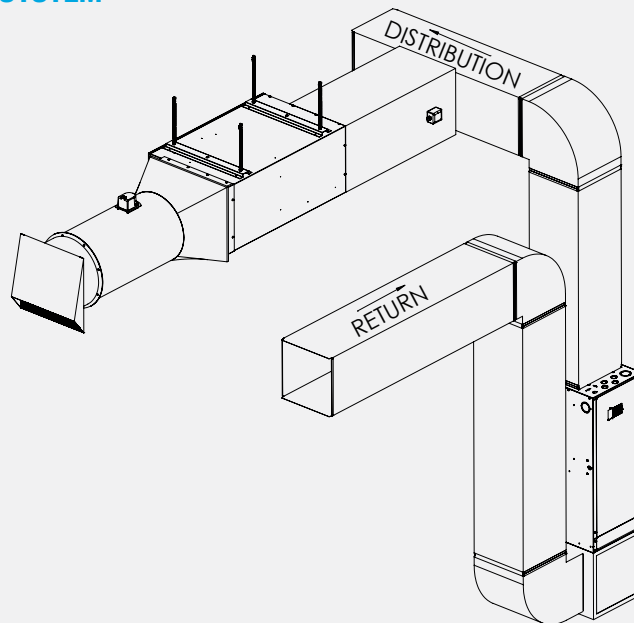
The second method consists of using the furnace distribution system to distribute fresh air. There are two methods of connecting the device to the furnace: Supply air side connection or Return air side connection.

### RETURN AIR SIDE SYSTEM



**Return Connection:** Cut an opening in the return air duct at least 3 feet from the furnace. Connect this opening to the Clear Air MAU.

### DISTRIBUTION AIR SIDE SYSTEM



**Supply Connection:** Cut an opening in the supply air duct, at least 2 ft. from the furnace. Connect this opening to the Clear Air MAU.

# Make Up Air Unit CLEAR AIR MAU Series

**Air Flow Chart** (For 4 to 17.25kW Units with 1/3HP ECM Motor)

| MODEL   | KW    | TORQUE | 0.1"WC |      | 0.2"WC |      | 0.3"WC |      | 0.4"WC |      | 0.5"WC |      | 0.6"WC |      | 0.7"WC |      | 0.8"WC |      | 0.9"WC |      | 1.0"WC |      |     |      |
|---------|-------|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|-----|------|
|         |       |        | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM | RISE |
| MAU**04 | 4     | 6.8    | 832    | 15   | 708    | 18   | 593    | 21   | 510    | 25   | 442    | 29   | 374    | 34   | 320    | 39   | 278    | 46   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 12   | 919    | 14   | 826    | 15   | 739    | 17   | 658    | 19   | 594    | 21   | 546    | 23   | 494    | 26   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 11   | 1,085  | 12   | 992    | 13   | 902    | 14   | 835    | 15   | 783    | 16   | 736    | 17   | 700    | 18   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 9    | 1,320  | 10   | 1,259  | 10   | 1,189  | 11   | 1,116  | 11   | 1,060  | 12   | 1,016  | 12   | 987    | 13   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 8    | 1,536  | 8    | 1,462  | 9    | 1,380  | 9    | 1,275  | 10   | 1,192  | 11   | 1,107  | 11   | 1,043  | 12   |        |      |        |      |     |      |
| MAU**05 | 5     | 6.8    | 832    | 19   | 708    | 22   | 593    | 27   | 510    | 31   | 442    | 36   | 374    | 42   | 320    | 49   | 278    | 57   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 15   | 919    | 17   | 826    | 19   | 739    | 21   | 658    | 24   | 594    | 27   | 546    | 29   | 494    | 32   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 14   | 1,085  | 15   | 992    | 16   | 902    | 18   | 835    | 19   | 783    | 20   | 736    | 21   | 700    | 23   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 11   | 1,320  | 12   | 1,259  | 13   | 1,189  | 13   | 1,116  | 14   | 1,060  | 15   | 1,016  | 16   | 987    | 16   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 10   | 1,536  | 10   | 1,462  | 11   | 1,380  | 11   | 1,275  | 12   | 1,192  | 13   | 1,107  | 14   | 1,043  | 15   |        |      |        |      |     |      |
| MAU**08 | 8     | 6.8    | 832    | 30   | 708    | 36   | 593    | 43   | 510    | 50   | 442    | 57   | 374    | 68   | 320    | 79   | 278    | 91   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 25   | 919    | 27   | 826    | 31   | 739    | 34   | 658    | 38   | 594    | 43   | 546    | 46   | 494    | 51   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 22   | 1,085  | 23   | 992    | 25   | 902    | 28   | 835    | 30   | 783    | 32   | 736    | 34   | 700    | 36   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 18   | 1,320  | 19   | 1,259  | 20   | 1,189  | 21   | 1,116  | 23   | 1,060  | 24   | 1,016  | 25   | 987    | 26   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 16   | 1,536  | 16   | 1,462  | 17   | 1,380  | 18   | 1,275  | 20   | 1,192  | 21   | 1,107  | 23   | 1,043  | 24   |        |      |        |      |     |      |
| MAU**10 | 10    | 6.8    | 832    | 38   | 708    | 45   | 593    | 53   | 510    | 62   | 442    | 71   | 374    | 84   | 320    | 99   | 278    | NR   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 31   | 919    | 34   | 826    | 38   | 739    | 43   | 658    | 48   | 594    | 53   | 546    | 58   | 494    | 64   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 27   | 1,085  | 29   | 992    | 32   | 902    | 35   | 835    | 38   | 783    | 40   | 736    | 43   | 700    | 45   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 23   | 1,320  | 24   | 1,259  | 25   | 1,189  | 27   | 1,116  | 28   | 1,060  | 30   | 1,016  | 31   | 987    | 32   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 20   | 1,536  | 21   | 1,462  | 22   | 1,380  | 23   | 1,275  | 25   | 1,192  | 27   | 1,107  | 29   | 1,043  | 30   |        |      |        |      |     |      |
| MAU**12 | 12    | 6.8    | 832    | 46   | 708    | 54   | 593    | 64   | 510    | 74   | 442    | 86   | 374    | 101  | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 37   | 919    | 41   | 826    | 46   | 739    | 51   | 658    | 58   | 594    | 64   | 546    | 69   | 494    | 77   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 32   | 1,085  | 35   | 992    | 38   | 902    | 42   | 835    | 45   | 783    | 48   | 736    | 52   | 700    | 54   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 28   | 1,320  | 29   | 1,259  | 30   | 1,189  | 32   | 1,116  | 34   | 1,060  | 36   | 1,016  | 37   | 987    | 38   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 24   | 1,536  | 25   | 1,462  | 26   | 1,380  | 27   | 1,275  | 30   | 1,192  | 32   | 1,107  | 34   | 1,043  | 36   |        |      |        |      |     |      |
| MAU**15 | 15    | 6.8    | 832    | 57   | 708    | 67   | 593    | 80   | 510    | 93   | 442    | 107  | 374    | NR   | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 46   | 919    | 52   | 826    | 57   | 739    | 64   | 658    | 72   | 594    | 80   | 546    | 87   | 494    | 96   |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 41   | 1,085  | 44   | 992    | 48   | 902    | 53   | 835    | 57   | 783    | 61   | 736    | 64   | 700    | 68   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 34   | 1,320  | 36   | 1,259  | 38   | 1,189  | 40   | 1,116  | 42   | 1,060  | 45   | 1,016  | 47   | 987    | 48   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 30   | 1,536  | 31   | 1,462  | 32   | 1,380  | 34   | 1,275  | 37   | 1,192  | 40   | 1,107  | 43   | 1,043  | 45   |        |      |        |      |     |      |
| MAU**18 | 17.25 | 6.8    | 832    | 66   | 708    | 77   | 593    | 92   | 510    | 107  | 442    | NR   | 374    | NR   | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|         |       | 9.4    | 1,030  | 53   | 919    | 59   | 826    | 66   | 739    | 74   | 658    | 83   | 594    | 92   | 546    | 100  | 494    | 110  |        |      |        |      |     |      |
|         |       | 12.0   | 1,168  | 47   | 1,085  | 50   | 992    | 55   | 902    | 60   | 835    | 65   | 783    | 70   | 736    | 74   | 700    | 78   |        |      |        |      |     |      |
|         |       | 17.0   | 1,376  | 40   | 1,320  | 41   | 1,259  | 43   | 1,189  | 46   | 1,116  | 49   | 1,060  | 51   | 1,016  | 54   | 987    | 55   |        |      |        |      |     |      |
|         |       | 20.0   | 1,582  | 34   | 1,536  | 35   | 1,462  | 37   | 1,380  | 40   | 1,275  | 43   | 1,192  | 46   | 1,107  | 49   | 1,043  | 52   |        |      |        |      |     |      |

**Air Flow Chart** (For 20 to 25kW Units with 1/2HP ECM Motor)

| MODEL   | KW | TORQUE | 0.1"WC |      | 0.2"WC |      | 0.3"WC |      | 0.4"WC |      | 0.5"WC |      | 0.6"WC |      | 0.7"WC |      | 0.8"WC |      | 0.9"WC |      | 1.0"WC |      |     |      |
|---------|----|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|-----|------|
|         |    |        | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM | RISE |
| MAU**20 | 20 | 15.0   |        |      | 1,258  | 50   | 1,262  | 50   | 1,193  | 53   | 1,132  | 56   | 1,054  | 60   | 910    | 69   | 834    | 76   | 821    | 77   | 705    | 90   |     |      |
|         |    | 19.0   |        |      | 1,466  | 43   | 1,419  | 45   | 1,300  | 49   | 1,285  | 49   | 1,218  | 52   | 1,180  | 54   | 1,015  | 62   | 979    | 65   | 934    | 68   |     |      |
|         |    | 22.5   |        |      | 1,575  | 40   | 1,570  | 40   | 1,564  | 40   | 1,363  | 46   | 1,347  | 47   | 1,284  | 49   | 1,256  | 50   | 1,200  | 53   | 1,152  | 55   |     |      |
|         |    | 26.0   |        |      | 1,690  | 37   | 1,679  | 38   | 1,640  | 39   | 1,546  | 41   | 1,472  | 43   | 1,430  | 44   | 1,378  | 46   | 1,358  | 47   | 1,315  | 48   |     |      |
|         |    | 30.0   |        |      | 1,771  | 36   | 1,766  | 36   | 1,723  | 37   | 1,728  | 37   | 1,569  | 40   | 1,542  | 41   | 1,522  | 42   | 1,487  | 43   | 1,415  | 45   |     |      |
| MAU**25 | 25 | 15.5   |        |      | 1,258  | 63   | 1,262  | 63   | 1,193  | 66   | 1,132  | 70   | 1,054  | 75   | 910    | 87   | 834    | 95   | 821    | 96   | 705    | NR   |     |      |
|         |    | 19.0   |        |      | 1,466  | 54   | 1,419  | 56   | 1,300  | 61   | 1,285  | 61   | 1,218  | 65   | 1,180  | 67   | 1,015  | 78   | 979    | 81   | 934    | 85   |     |      |
|         |    | 22.5   |        |      | 1,575  | 50   | 1,570  | 50   | 1,564  | 51   | 1,363  | 58   | 1,347  | 59   | 1,284  | 62   | 1,256  | 63   | 1,200  | 66   | 1,152  | 69   |     |      |
|         |    | 26.0   |        |      | 1,690  | 47   | 1,679  | 47   | 1,640  | 48   | 1,546  | 51   | 1,472  | 54   | 1,430  | 55   | 1,378  | 57   | 1,358  | 58   | 1,315  | 60   |     |      |
|         |    | 30.0   |        |      | 1,771  | 45   | 1,766  | 45   | 1,723  | 46   | 1,728  | 46   | 1,569  | 50   | 1,542  | 51   | 1,522  | 52   | 1,487  | 53   | 1,415  | 56   |     |      |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the MAU unit does not affect the data in this table.

B NR= Not Recommended, Temperature Rise is above maximum design parameter.

C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

E Blower: 10" diameter, 8" wide

# Make Up Air Unit CLEAR AIR MAU Series

**Air Flow Chart** (For 20 to 25kW Units with OPTIONAL 3/4HP ECM Motor)

| MODEL   | KW | 0.1"WC |       | 0.2"WC |       | 0.3"WC |       | 0.4"WC |       | 0.5"WC |       | 0.6"WC |       | 0.7"WC |       | 0.8"WC |       | 0.9"WC |       | 1.0"WC |       |      |
|---------|----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|
|         |    | TORQUE | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE |
| MAU**20 | 20 |        |       | (F)    |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |      |
|         |    | 26.0   |       |        | 1,592 | 40     | 1,592 | 40     | 1,581 | 40     | 1,551 | 41     | 1,529 | 41     | 1,496 | 42     | 1,432 | 44     | 1,353 | 47     | 1,231 | 51   |
|         |    | 30.0   |       |        | 1,789 | 35     | 1,758 | 36     | 1,716 | 37     | 1,650 | 38     | 1,598 | 40     | 1,552 | 41     | 1,451 | 41     | 1,451 | 44     | 1,282 | 49   |
|         |    | 35.0   |       |        | 1,814 | 35     | 1,819 | 35     | 1,828 | 35     | 1,866 | 34     | 1,849 | 34     | 1,794 | 35     | 1,688 | 37     | 1,561 | 40     | 1,316 | 48   |
|         |    | 40.5   |       |        | 2,080 | 30     | 2,122 | 30     | 2,082 | 30     | 2,054 | 31     | 1,916 | 33     | 1,814 | 35     | 1,700 | 37     | 1,482 | 43     | 1,230 | 51   |
| MAU**25 | 25 | 45.0   |       |        | 2,174 | 29     | 2,154 | 29     | 2,148 | 29     | 2,138 | 30     | 2,094 | 30     | 1,928 | 33     | 1,671 | 38     | 1,471 | 43     | 1,232 | 51   |
|         |    | 26.0   |       |        | 1,592 | 50     | 1,592 | 50     | 1,581 | 50     | 1,551 | 51     | 1,529 | 52     | 1,496 | 53     | 1,432 | 55     | 1,353 | 58     | 1,231 | NR   |
|         |    | 30.0   |       |        | 1,789 | 44     | 1,758 | 45     | 1,716 | 46     | 1,692 | 47     | 1,650 | 48     | 1,598 | 49     | 1,552 | 51     | 1,451 | 54     | 1,282 | 62   |
|         |    | 35.0   |       |        | 1,814 | 44     | 1,819 | 43     | 1,828 | 43     | 1,866 | 42     | 1,849 | 43     | 1,794 | 44     | 1,688 | 47     | 1,561 | 51     | 1,316 | 60   |
|         |    | 40.5   |       |        | 2,080 | 38     | 2,122 | 37     | 2,082 | 38     | 2,054 | 38     | 1,916 | 41     | 1,814 | 44     | 1,700 | 46     | 1,482 | 53     | 1,230 | 64   |
|         |    |        | 2,174 | 36     | 2,154 | 37     | 2,139 | 37     | 2,138 | 37     | 2,094 | 38     | 1,928 | 41     | 1,671 | 47     | 1,471 | 54     | 1,232 | 64     |       |      |

**Air Flow Chart** (For 30 to 35kW Units with 3/4HP ECM Motor)

| MODEL      | KW | 0.1"WC |       | 0.2"WC |       | 0.3"WC |       | 0.4"WC |       | 0.5"WC |       | 0.6"WC |       | 0.7"WC |       | 0.8"WC |       | 0.9"WC |       | 1.0"WC |       |      |
|------------|----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|
|            |    | TORQUE | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE |
| KF/KFS**30 | 30 |        |       | (F)    |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |      |
|            |    | 26.0   |       |        | 1,592 | 60     | 1,592 | 60     | 1,581 | 60     | 1,551 | 61     | 1,529 | 62     | 1,496 | 63     | 1,432 | NR     | 1,353 | NR     | 1,231 | NR   |
|            |    | 30.0   |       |        | 1,789 | 53     | 1,758 | 54     | 1,716 | 55     | 1,692 | 56     | 1,650 | 57     | 1,598 | 59     | 1,552 | 61     | 1,451 | 65     | 1,282 | 74   |
|            |    | 35.0   |       |        | 1,814 | 52     | 1,819 | 52     | 1,828 | 52     | 1,866 | 51     | 1,849 | 51     | 1,794 | 53     | 1,688 | 56     | 1,561 | 61     | 1,316 | 72   |
|            |    | 40.5   |       |        | 2,080 | 46     | 2,122 | 45     | 2,082 | 46     | 2,054 | 46     | 1,916 | 49     | 1,814 | 52     | 1,700 | 56     | 1,482 | 64     | 1,230 | 77   |
| KF/KFS**35 | 35 | 45.0   |       |        | 2,174 | 44     | 2,154 | 44     | 2,148 | 44     | 2,138 | 44     | 2,094 | 45     | 1,928 | 49     | 1,671 | 57     | 1,471 | 64     | 1,232 | 77   |
|            |    | 26.0   |       |        | 1,592 | 69     | 1,592 | 69     | 1,581 | 60     | 1,551 | 71     | 1,529 | 72     | 1,496 | NR     | 1,432 | NR     | 1,353 | NR     | 1,231 | NR   |
|            |    | 30.0   |       |        | 1,789 | 62     | 1,758 | 63     | 1,716 | 64     | 1,692 | 65     | 1,650 | 67     | 1,598 | 69     | 1,552 | 71     | 1,451 | NR     | 1,282 | NR   |
|            |    | 35.0   |       |        | 1,814 | 61     | 1,819 | 61     | 1,828 | 60     | 1,866 | 59     | 1,849 | 60     | 1,794 | 62     | 1,688 | 66     | 1,561 | 71     | 1,316 | 84   |
|            |    | 40.5   |       |        | 2,080 | 53     | 2,122 | 52     | 2,082 | 53     | 2,054 | 54     | 1,916 | 58     | 1,814 | 61     | 1,700 | 65     | 1,482 | 75     | 1,230 | 90   |
|            |    |        | 2,174 | 51     | 2,154 | 51     | 2,148 | 52     | 2,138 | 52     | 2,094 | 53     | 1,928 | 57     | 1,671 | 66     | 1,471 | 75     | 1,232 | 90     |       |      |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the MAU unit does not affect the data in this table.  
 B NR= Not Recommended, Temperature Rise is above maximum design parameter.  
 C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.  
 E Blower: 10" diameter, 8" wide

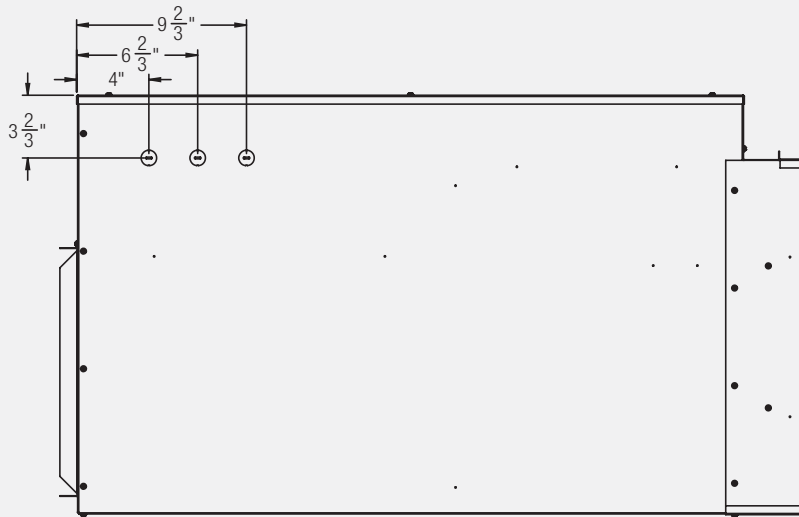
## Airflow Design Considerations

The King Clear Air MAU has a wide range of airflow options that can be field adjusted to match the needs of a specific installation. Providing fresh air into a building has several design parameters that must be taken into consideration:

1. The amount of fresh air required is normally calculated as Cubic Feet per Minute (CFM) per person or CFM per square feet of the building or a room. The required CFM can also be designed to meet a specific exhaust air condition such as in a commercial kitchen where the MAU is set to match the exhaust air of the cooking hoods.
2. Static pressure is one of the most important factors in HVAC design. Simply put, static pressure refers to the resistance to airflow in a heating and cooling system's components and duct work. To determine operating total external static pressure, measure pressures where air enters and leaves the MAU equipment. Add the two readings together to find total external static pressure. Make sure not to exceed the external static pressures listed in the design tables, doing so will cause harm the equipment.
3. Temperature rise or Delta T is the difference between the incoming air temperature and the discharge temperature of the MAU. In make-up air applications the required temperature rise is influenced by the geographic territory where colder climates require much more heat capacity to temper cold incoming air into the building. Another factor to consider is whether the fresh air is delivered directly such as to a room, hallway or delivered to the supply side of an HVAC system where the conditioned air might need to be 70F versus the fresh air being delivered to the return air intake where the design temperature could be 55F. Under sizing the MAU could lead to insufficient delivery temperatures causing colder than desired air to enter the building.

# Make Up Air Unit CLEAR AIR MAU Series

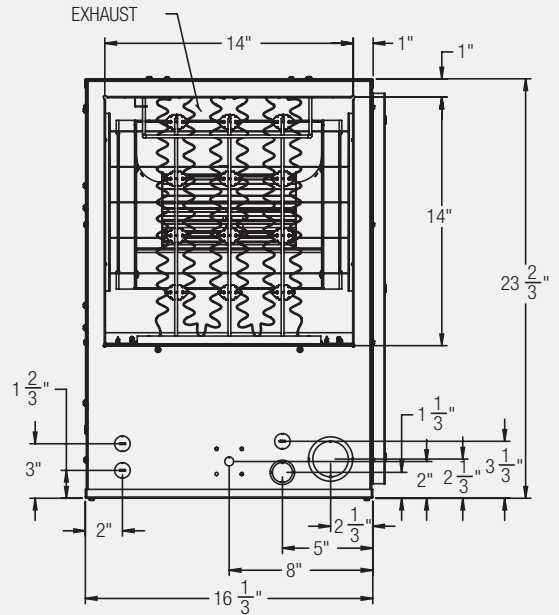
## Dimensional Data



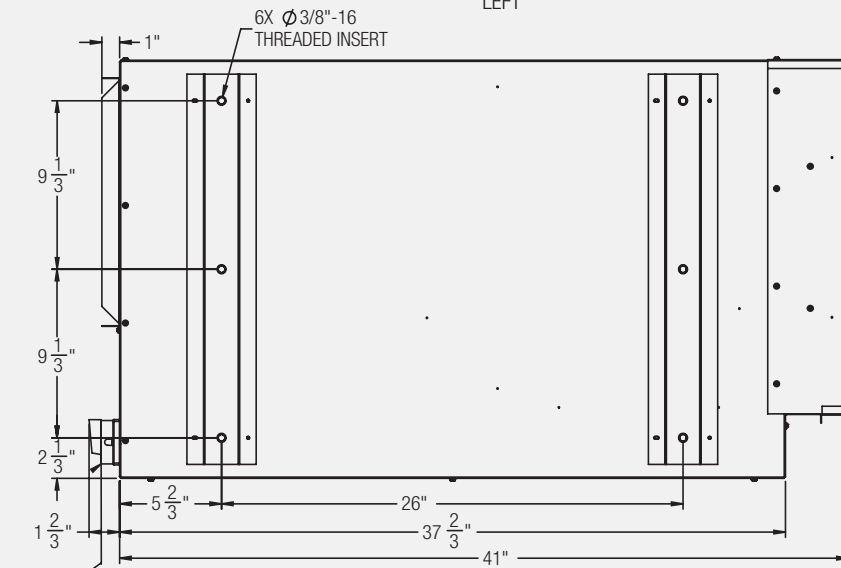
BOTTOM



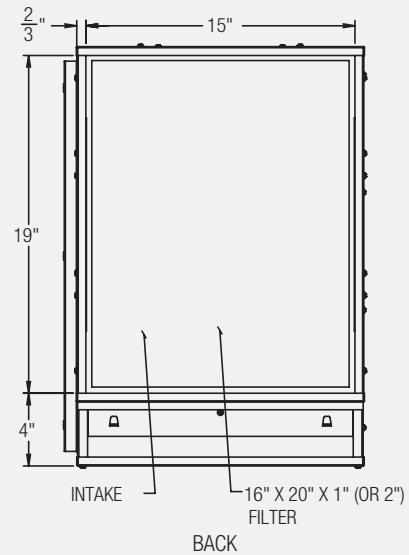
LEFT



FRONT



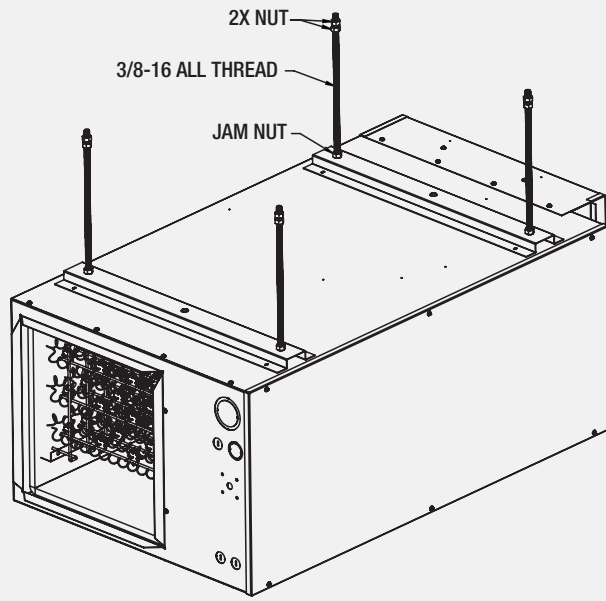
TOP



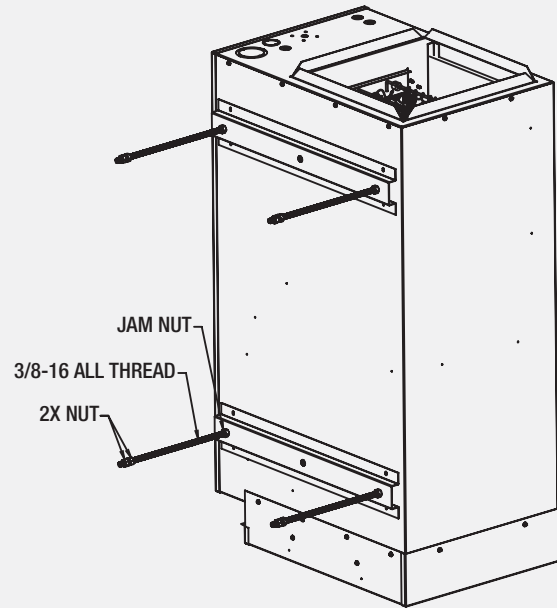
BACK

# Make Up Air Unit CLEAR AIR MAU Series

## Horizontal/Vertical Mounting Illustration



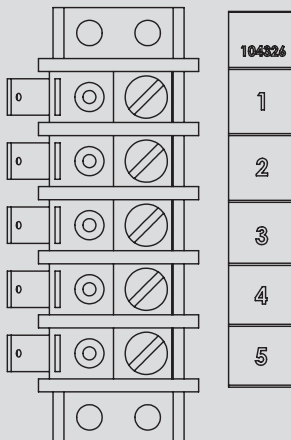
**Horizontal**



**Vertical**

## Motor Torque Field Adjustment

The versatility of the King Clear Air MAU allows for the ECM motor torque to be adjusted in the field. Pressure test the system to find the actual external static pressure, then fine tune the system by adjusting the motor torque setting. The goal is to meet the CFM/Temperature rise combination for the intended design criteria. The ECM motor is pre-programmed with 5 torque values and terminated at the 5-point terminal strip as shown below.

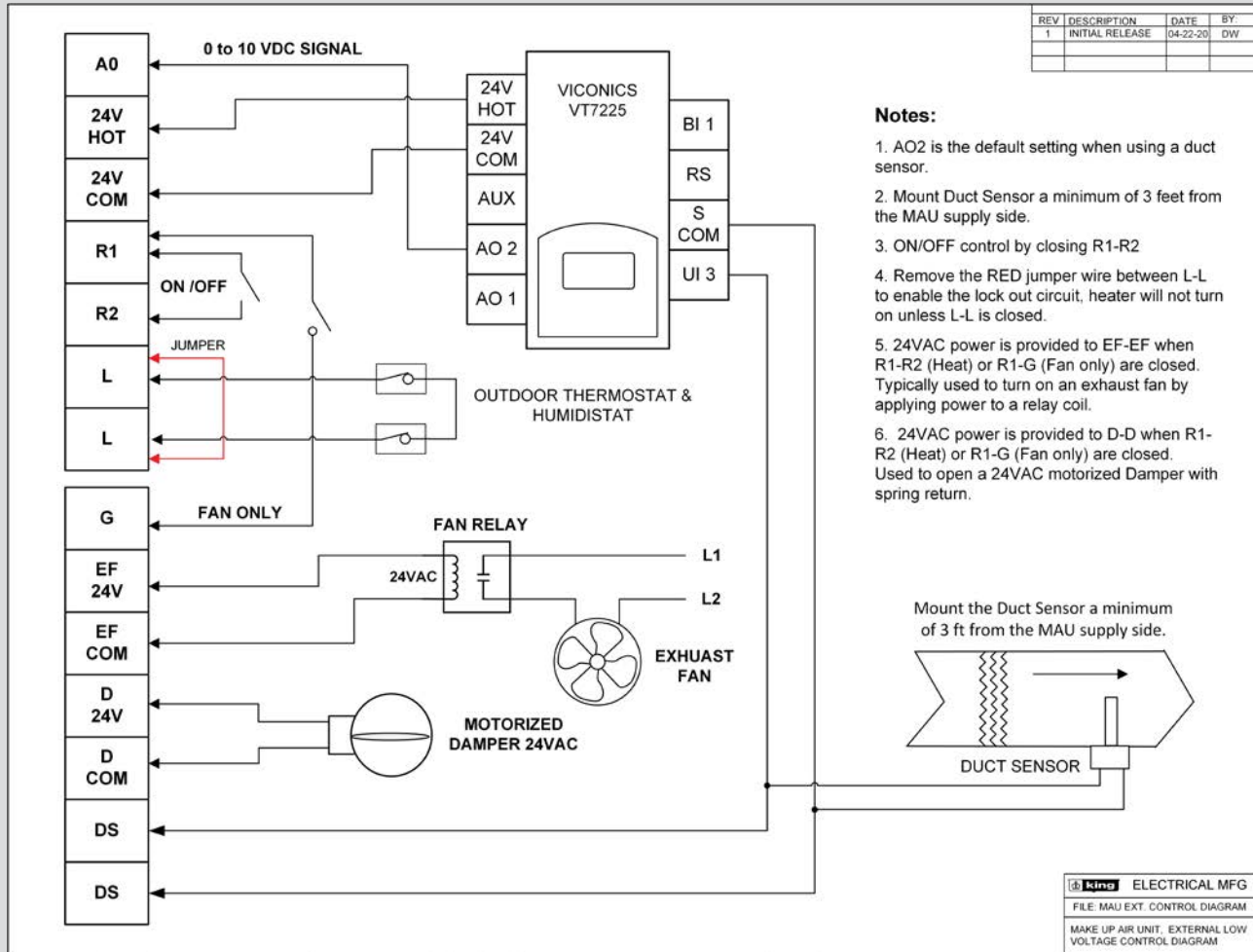


| Motor Tap# | 1/3 HP Torque | 1/2 HP Torque | 3/4 HP Torque | Wire Color   |
|------------|---------------|---------------|---------------|--------------|
| 1          | 6.8 in-lb.    | 15.0 in-lb.   | 26.0 in-lb.   | RED          |
| 2          | 9.4 in-lb.    | 19.0 in-lb.   | 30.0 in-lb.   | ORANGE       |
| 3          | 12.0 in-lb.   | 22.5 in-lb.   | 35.0 in-lb.   | BLACK        |
| 4          | 17.0 in-lb.   | 26.0 in-lb.   | 40.5 in-lb.   | ORANGE/BLACK |
| 5          | 20.0 in-lb.   | 30.0 in-lb.   | 45.0 in-lb.   | BROWN/BLACK  |



**ECM Motor**

# Make Up Air Unit CLEAR AIR MAU Series



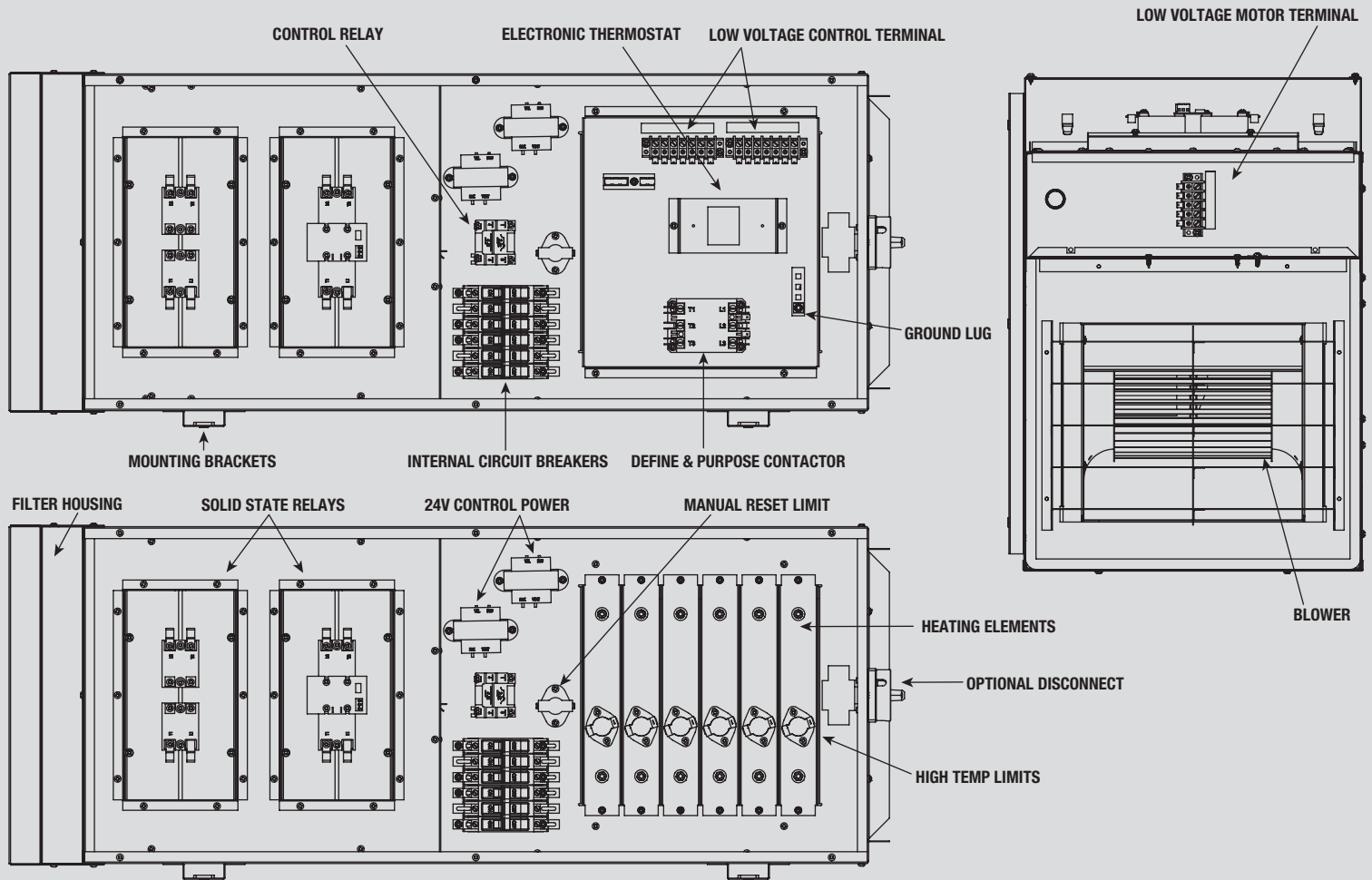
## Low Voltage Control Wiring

The King Clear Air MAU has a built-in relay logic control circuit enabling other make up air components to be controlled directly by the MAU. Review all the system components such as the damper, exhaust fans, outside thermostat and humidistat. All the control options are prewired to a 14-point terminal strip making them easy to integrate by the installer. The control circuit does not require any programming, simply enabled the control features by wiring the external components directly to the MAU low voltage terminal strip. List of control features:

- R1-R2, ON/OFF control of the MAU. Closing this circuit via a dry contact will turn on the fan and the modulating heating circuit. This is often done by a building management system, but other common methods are to be activated by a current transformer (CT) on an exhaust fan, a timer, or a manual switch. Once on, the Solid-State Relay (SSR) regulates the wattage to the heating elements to accurately control the discharge air temperature from the MAU regardless of the incoming outdoor air temperature.
- A0, proportional signal from the built-in thermostat (0-10VDC) that drives the SSR to modulate the heat output.
- DS-DS, DUCT SENSOR, the field installed duct sensor is connected to thermostat for controlling and maintaining the output temperature, type 2 NTC thermistor, 10K ohms.
- 24V HOT - 24V COM, these are the 24VAC connections to the modulating thermostat.
- L-L, LOCKOUT CIRCUIT, the controller can be wired to an optional outdoor thermostat and/or a humidistat by using the 'L-L' terminals to prevent the MUA from turning on. Remove the factory set jumper to activate this feature. This feature can also be used to monitor indoor activity such as an occupancy sensor and CO2 sensor.
- G, FAN ONLY, closing G-R1 will turn on the fan and bypass the modulating heating circuit. No heat in this mode.
- EF-EF, EXHAUST FAN, provides a switched 24VAC circuit to connect a fan relay that will turn on an exhaust fan relay or other auxiliary device.
- D-D, DAMPER, provides a switched 24VAC circuit to connect to a motorized damper with spring return. Note: 40VA maximum for the sum of EF-EF and D-D.

**Note:** If the design calls for a room thermostat, the inbuilt thermostat and duct sensor can be removed. Place the thermostat in the new room location and extend the wiring connections from the MAU low voltage terminal strip, connect A0 on the terminal strip to AO 2 on the thermostat when used as a room thermostat without a duct sensor.

# Make Up Air Unit CLEAR AIR MAU Series



## Engineering Specifications

Contractor shall furnish and install King Make up air unit (MAU) manufactured by King Electrical Manufacturing.

**Motor:** Direct drive high efficiency, thermally protected, permanently lubricated ECM motor, no belts to adjust or maintain.

**Motor Terminal:** The MAU shall have a 5-point terminal block to easily field adjust the motor torque setting of the ECM motor.

**Modulating Heat:** 100% fully modulating heating control through Solid State Relay (SSR) technology. The SSR relays shall be mounted in the blower compartment to allow the free flow of incoming air to cool the heat sinks.

**Thermostat:** The MAU shall be controlled by an electronic proportional thermostat using a 0 to 10VDC of 4 to 20ma signal. The inbuilt thermostat can be removed and relocated to room and used as a wall mounted thermostat.

**Duct Sensor:** The MAU shall be provided with a field installed duct sensor, type 2 NTC thermistor, 10K ohms.

**Heating Elements:** Quick heating, long life Ni-Chrome elements supported by a steel frame and insulated with ceramic holders.

**LV Terminal Block:** All low voltage wires are terminated at a 14-point block with factory side quick connects and field side screw terminals.

**Control Circuit:** The MAU shall have a relay logic control circuit providing a dedicated 24V power supply that is switched to activate external devices such as: a damper, exhaust fan, etc..

**Lockout Circuit:** The MAU shall have a lockout circuit for auxiliary devices such as an outside thermostat or humidistat to prevent the MUA from turning on unless predetermined conditions are met.

**Overcurrent Protection:** The MAU shall have a 24V high temperature limit circuit wired in series to protect each individual heating element. In addition, it shall have one electrically held manual limit monitoring the condition of entire unit. If tripped, this limit must be manually reset by shutting off the power, waiting several minutes and then turning the power back on. This provides an extra level of overheating protection to the unit.

**Enclosure:** The MAU shall be constructed from 20GA electrogalvanized sheet metal of welded construction and finished with a corrosion resistant gray finish. Unpainted sheet steel is not acceptable. Access to the wiring compartment shall be from the side for easy wiring and maintenance. The unit shall have welded brackets with 6 - 3/8" weld nuts for sturdy mounting either vertically or horizontally. Provide both Line voltage and Low voltage knockouts to speed contractor installation. Provide knockouts for an optional disconnect.

**Blower:** Centrifugal dual inlet blower shall be used, axial fans not permitted. Blower shall be rigidly mounted to the enclosure with internal welded mounting brackets.

**Optional Disconnect:** The unit shall have the option to mount an internal Supply Power Disconnect.

**Approvals:** UL: The MAU shall be Underwriters Laboratory (UL) approved and labeled. Meets UL1995 standards and stringent City of Chicago codes for plenum use.

# Flippable Electric Duct Heater E Series



- Patent pending flippable design
- Can be installed 6 different ways
- Better heater coverage
- Lower coil watt density
- Integration with VAV single duct valves and controls
- Design program offers wider distribution of kilowatt sizes
- Solid state relay controls
- Heats large volumes of air with fast warm-ups and cool-downs
- Our open design provides low pressure drops with no build up of excessive temperatures and the low static pressures allow you to use smaller, more economical blowers
- Available in voltages up to 600 volts: single and three phase
- Two frame types are available: slip in and flange.

## The E Series Flippable Duct Heater

**EVH and EDH, products, brings innovation and flexibility** to the electric duct heater and variable air volume, (VAV), heater markets. Both series include symmetrical design features that provide flexibility during installation at a project or work site. Duct heaters are used in forced air applications to provide standalone space heat or to supplement existing heating systems. Installation examples include space heating, primary heating, reheating, multi-zone or VAV, Replacement of existing and secondary/auxiliary heating. All models may be flipped and rotated as long as the diffuser/radiant screen is moved to the inlet air side where applicable.

### For EVH Models:

Minimum air velocity is 70 CFM per KW (75-80 recommended)  
 Maximum inlet air temp is 100 degrees F°  
 Maximum heater KW is 16.5 KW per ft<sup>2</sup> of duct cross section.

### For EDH Models:

Minimum air velocity is 70 CFM per KW (75-80 recommended)  
 Maximum inlet air temp is 100 degrees F°  
 Maximum heater KW is 18 KW per ft<sup>2</sup> of duct cross section.

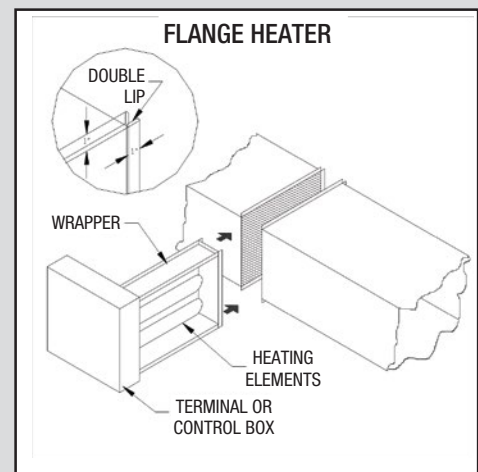
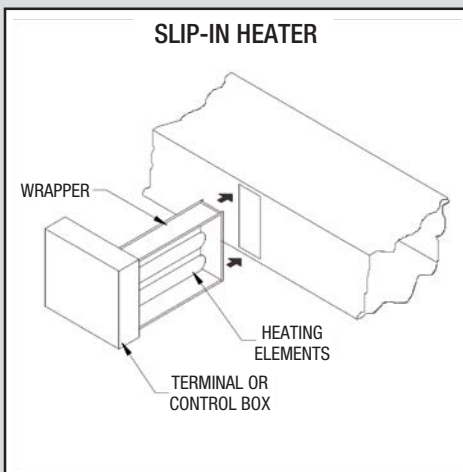
## Engineering Specifications

**Composition and Materials:** All sheet metal housing. 0.034+.008/-0.00 minimum spangle galvanized sheet steel grade G-90.

**Standard Features:** Open-coil element, airflow switch, detailed wiring diagram, Control terminal board and Grounding lugs, Power fusing over 48 amps included, A disconnecting magnetic control contactor per stage or each 48-amp circuit within a stage, Automatic high-limit switch for primary

over-temperature protection, Manual reset high-limit switch for secondary over-temperature protection, The wire rack element suspension system allows for a low pressure drop across the coils, In horizontal applications, airflow can travel in either direction without any modification, allowing for easy field modifications, Control box features hinge and latch for easy access.

**Approvals:** cULus, ETL, UL International





# Electric Duct Heaters DHC/DC/E/R Series

## TECHNICAL DATA

### DETERMINING MAXIMUM HEATER KW

Duct Width (inches) x Duct Height (inches)

Total Square Inches x 156

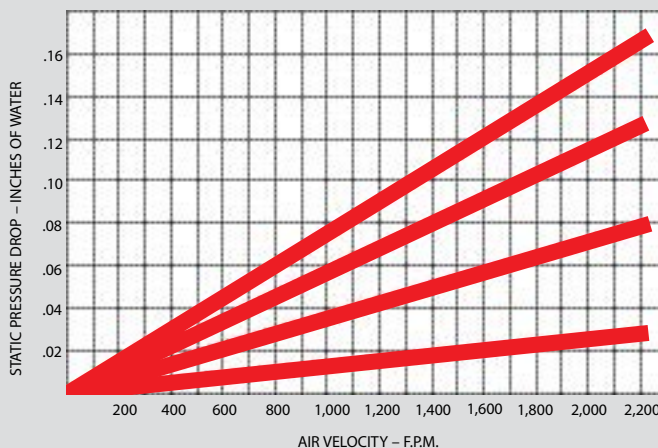
Maximum Watts per Square Inch of Duct Face Area

Duct Width (feet) x Duct Height (feet)

Total Square Feet x 22.464

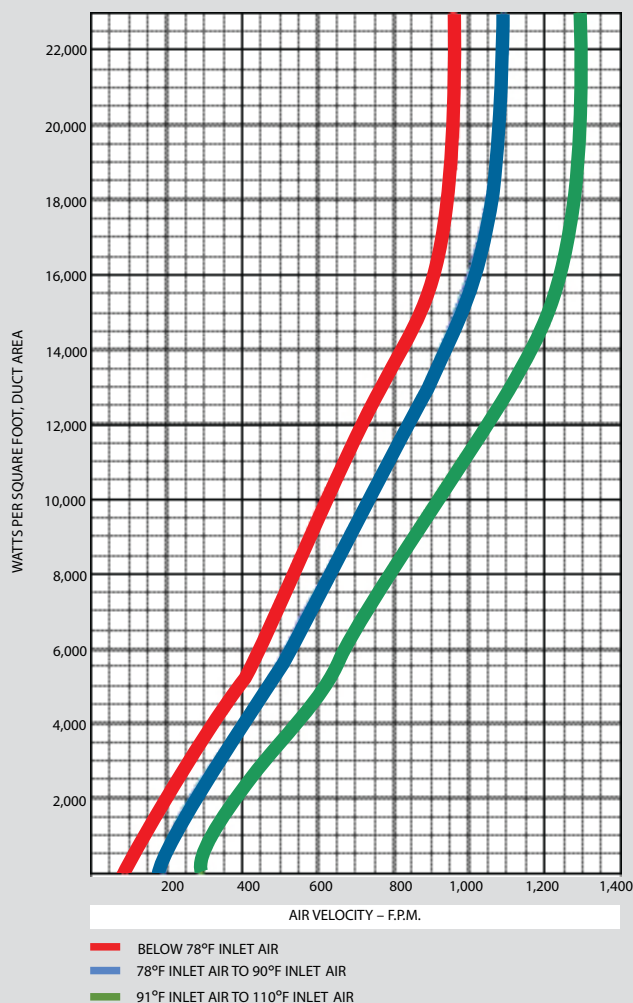
Maximum KW per Square Foot of Duct Face Area

### PRESSURE DROP THROUGH HEATER



1, 2, 3 and 4 – the number of rows of heater coils  
When the number of rows of heater coils is unknown, assume 4

### MINIMUM AIR VELOCITIES



#### General

- A. The minimum airflow in a duct heater is directly related to the inlet air temperature. Consideration must be given to both airflow across the heater and the inlet temperature.
- B. To calculate the watts per sq. ft. of duct area, divide the total watts required by the duct area.

#### Example

- C. Duct size equals 2 ft. x 3 ft., total watts equal 20,000 watts per square foot equals

$$\frac{20,000}{6} = 3333$$

- D. If the air handling equipment is expressed in F.P.M., then a direct cross reference can be made by comparing the temperature of the air (as it enters the duct heater) to the KW rating on the table at the rated air velocity.

1. Draw a line horizontally from the watts/sq. ft. required to the inlet air temperature being used.
2. From this point of intersection on the inlet temperature line, draw a line down vertically to establish the air velocity.
3. In cases where the velocity is less than that determined from the chart, then either the velocity must be increased, the KW required must be reduced or both must be done.

- E. In cases where the airflow is expressed in C.F.M., convert to F.P.M. by dividing the C.F.M. by the duct area.

$$\frac{\text{C.F.M.}}{\text{Duct Area}} = \text{F.P.M.}$$

# Electronic Furnace KF/KFS ECO2S Series



### Model Code:

|     |    |    |   |     |     |
|-----|----|----|---|-----|-----|
| KFS | 24 | 20 | 1 | 2S1 | ECM |
| A   | B  | C  | D | E   | F   |

- A: Series
- B: 24 - 240V 20 - 208V
- C: Kilowatts
- D: 1-phase 3-phase
- E: 2 Stage 2S1= 2 Stage 1-phase  
2S3= 2 Stage 3-phase
- F: ECM Motor



- Energy efficient ECM motor
- 2-Stage comfort heating 15% Savings
- Heavy duty open coil elements
- Sequenced heating elements
- Down flow or up flow
- 16" x 20" x 1" inlet filter
- Welded cabinet design
- Horizontal or vertical mount
- Mobile home approved
- Breaker disconnects
- Baked enamel finish
- Extended life
- Standard 24 volt control
- Fan only relay
- Quiet sound insulated cabinet
- 5 Year limited warranty



## The KFS ECO2S Electric Furnace

**ENERGY SAVINGS meets MAXIMUM COMFORT with the ECM Motor & 2 Stage Heating**

The ECO2S Series Model adds a state of the art electronically controlled motor and 2 heating stages for added comfort and Maximum Energy Savings. The KFS ECO2S Series furnace is the quietest and most compact unit available in its class. Ideal for residential applications, and yet powerful enough for commercial and process heating applications as well. It's the perfect choice for both new and replacement installations. The compact design allows it to be installed in either upflow, downflow or horizontal applications. Featuring a maintenance free blower, an insulated cabinet for quiet operation, and heavy gauge coiled nickel-chromium wire heating elements, the KFS furnace will provide years of trouble-free operation.

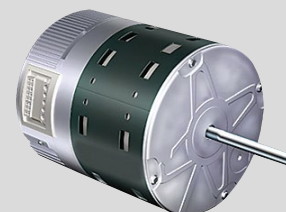
### Motor Features

- Energy Saver
- AFUE 100% (Energy Guide Rating) Most Efficient
- 3 speeds available
- Designed for extended life
- Efficiency up to 80%
- 60 second time delay

- Up to 33% greater efficiency with ECM motor
- Up to 200% greater efficiency with ECM motor in constant fan mode

### Heating Features

- 2-Stage Elements & control
- Ni-Chrome Elements
- More even heating



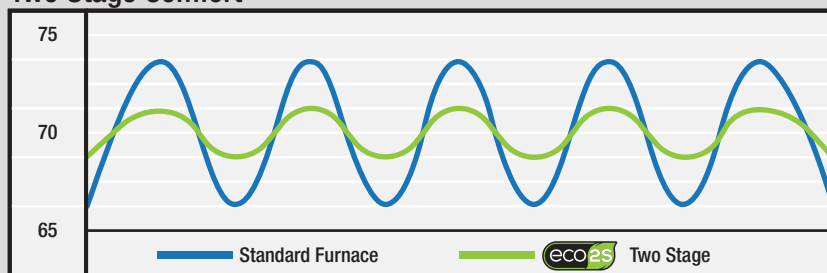
ECM Motor

## TWO STAGE COMFORT Why 2 Stage is Better

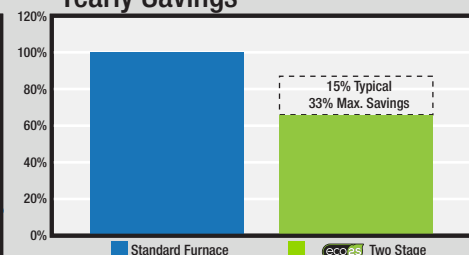
2 Stage controlled Furnaces allow you to use less energy during mild Spring and Fall temperatures. It's like having a smaller furnace installed just for spring and fall, then when winter hits you have the reserve power of the second heating stage to fight off the cold weather. It also has the benefit of creating more even comfort temperatures.

**Note:** The Furnace will run a percentage longer to reach the room temperature so the ECM motors efficiency is key to getting the most out of your Furnace.

### Two Stage Comfort

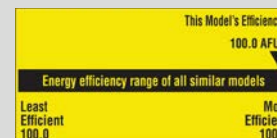


### Yearly Savings



The ECO2S Series is more efficient and will save you up to 33% more per year versus standard furnace motors

- Designed for extended life
- Energy efficient
- Improved reliability
- Cooler operating temperature
- 3 speeds
- 15% 2 Stage



# Electronic Furnace KF/KFS ECO2S Series

## Ordering Information- single phase

| MODEL             | BTUH    | VOLTS | PHASE | KW   | RESISTIVE AMPS | STAGE1  | STAGE2  | # OF ELEMENTS | INTERNAL CB | MOTOR | MOTOR FLA | SIZE   | WT.(lbs) |
|-------------------|---------|-------|-------|------|----------------|---------|---------|---------------|-------------|-------|-----------|--------|----------|
| KFS2004-1-ECM     | 12,799  | 208   | 1     | 3.8  | 18             | 4 kW    | *N/A    | 1             | 60          | 1/3HP | 2.7       | Fig. A | 57.0     |
| KFS2005-1-ECM     | 17,065  | 208   | 1     | 5.0  | 24             | 5 kW    | *N/A    | 1             | 60          | 1/3HP | 2.7       | Fig. A | 57.0     |
| KFS2008-1-2S1-ECM | 27,304  | 208   | 1     | 8    | 38             | 4.25    | 3.75 kW | 2             | 60          | 1/3HP | 2.7       | Fig. A | 57.0     |
| KFS2010-1-2S1-ECM | 34,130  | 208   | 1     | 10.0 | 48             | 5 kW    | 5 kW    | 2             | 60          | 1/3HP | 2.7       | Fig. A | 65.0     |
| KFS2012-1-2S1-ECM | 40,956  | 208   | 1     | 12.0 | 58             | 7.5 kW  | 4.5 kW  | 3             | 60          | 1/3HP | 2.7       | Fig. A | 74.0     |
| KFS2015-1-2S1-ECM | 51,195  | 208   | 1     | 15.0 | 72             | 10 kW   | 5 kW    | 3             | 60+60       | 1/3HP | 2.7       | Fig. A | 74.0     |
| KFS2018-1-2S1-ECM | 58,874  | 208   | 1     | 17.3 | 83             | 8.6 kW  | 10kW    | 4             | 60+60       | 1/3HP | 3.9       | Fig. B | 76.0     |
| KFS2020-1-2S1-ECM | 68,260  | 208   | 1     | 20.0 | 96             | 10 kW   | 10kW    | 4             | 60+60       | 1/2HP | 3.9       | Fig. B | 76.0     |
| KFS2025-1-2S1-ECM | 85,325  | 208   | 1     | 25.0 | 120            | 15 kW   | 10 kW   | 5             | 60+60+60    | 1/2HP | 6.0       | Fig. B | 81.0     |
| KFS2030-1-2S1-ECM | 102,390 | 208   | 1     | 30.0 | 144            | 20 kW   | 10 kW   | 6             | 60+60+60    | 3/4HP | 6.0       | Fig. B | 85.0     |
| KFS2404-1-ECM     | 13,652  | 240   | 1     | 4.0  | 17             | 4 kW    | *N/A    | 1             | 60          | 1/3HP | 2.9       | Fig. A | 57.0     |
| KFS2405-1-ECM     | 17,065  | 240   | 1     | 5.0  | 21             | 5 kW    | *N/A    | 1             | 60          | 1/3HP | 2.9       | Fig. A | 57.0     |
| KFS2408-1-2S1-ECM | 27,304  | 240   | 1     | 8.0  | 33             | 4 kW    | 4 kW    | 2             | 60          | 1/3HP | 2.9       | Fig. A | 57.0     |
| KFS2410-1-2S1-ECM | 34,130  | 240   | 1     | 10.0 | 42             | 5kW     | 5 kW    | 2             | 60          | 1/3HP | 2.9       | Fig. A | 65.0     |
| KFS2412-1-2S1-ECM | 40,956  | 240   | 1     | 12.0 | 50             | 5.75 kW | 5.75 kW | 2             | 60          | 1/3HP | 2.9       | Fig. A | 74.0     |
| KFS2415-1-2S1-ECM | 51,195  | 240   | 1     | 15.0 | 63             | 10 kw   | 5 kW    | 3             | 60+60       | 1/3HP | 2.9       | Fig. A | 74.0     |
| KFS2418-1-2S1-ECM | 58,874  | 240   | 1     | 17.3 | 72             | 11.5 kw | 5.75 kW | 3             | 60+60       | 1/3HP | 2.9       | Fig. A | 74.0     |
| KFS2420-1-2S1-ECM | 68,260  | 240   | 1     | 20.0 | 83             | 10kw    | 10 kW   | 4             | 60+60       | 1/2HP | 4.2       | Fig. B | 76.0     |
| KFS2425-1-2S1-ECM | 85,325  | 240   | 1     | 25.0 | 104            | 15 kW   | 10 kW   | 5             | 60+60+60    | 1/2HP | 4.2       | Fig. B | 81.0     |
| KFS2430-1-2S1-ECM | 102,390 | 240   | 1     | 30.0 | 125            | 20 kW   | 10 kW   | 6             | 60+60+60    | 3/4HP | 6.2       | Fig. B | 85.0     |
| KFS2435-1-2S1-ECM | 117,749 | 240   | 1     | 34.5 | 144            | 23 kW   | 11.5 kW | 6             | 60+60+60    | 3/4HP | 6.2       | Fig. B | 85.0     |
| KF4804-1-ECM      | 13,652  | 480   | 1     | 4.0  | 8              | 4 kW    | *N/A    | 1             | NO          | 1/3HP | 0.8       | Fig. A | 57.0     |
| KF4805-1-ECM      | 17,065  | 480   | 1     | 5.0  | 10             | 5 kW    | *N/A    | 1             | NO          | 1/3HP | 0.8       | Fig. A | 57.0     |
| KF4808-1-2S1-ECM  | 27,304  | 480   | 1     | 8.0  | 17             | 4 kW    | 4 kW    | 2             | NO          | 1/3HP | 0.8       | Fig. A | 57.0     |
| KF4810-1-2S1-ECM  | 34,130  | 480   | 1     | 10.0 | 21             | 5 kW    | 5 kW    | 2             | NO          | 1/3HP | 0.8       | Fig. A | 65.0     |
| KF4812-1-2S1-ECM  | 40,956  | 480   | 1     | 12.0 | 25             | 8 kW    | 4 kW    | 3             | NO          | 1/3HP | 0.8       | Fig. A | 74.0     |
| KF4815-1-2S1-ECM  | 51,195  | 480   | 1     | 15.0 | 31             | 10 kW   | 5 kW    | 3             | NO          | 1/3HP | 0.8       | Fig. A | 74.0     |
| KF4818-1-2S1-ECM  | 58,874  | 480   | 1     | 17.3 | 36             | 11.5 kW | 5.75 kW | 3             | NO          | 1/3HP | 0.8       | Fig. A | 74.0     |
| KF4820-1-2S1-ECM  | 68,260  | 480   | 1     | 20.0 | 42             | 15 kW   | 5 kW    | 4             | NO          | 1/2HP | 1.2       | Fig. B | 76.0     |
| KF4825-1-2S1-ECM  | 85,325  | 480   | 1     | 25.0 | 52             | 15 kW   | 10 kW   | 5             | NO          | 1/2HP | 1.2       | Fig. B | 81.0     |
| KF4830-1-2S1-ECM  | 102,390 | 480   | 1     | 30.0 | 63             | 20 kW   | 10 kW   | 6             | NO          | 3/4HP | 1.7       | Fig. B | 85.0     |
| KF4835-1-2S1-ECM  | 117,749 | 480   | 1     | 34.5 | 72             | 23 kW   | 11.5 kW | 6             | NO          | 3/4HP | 1.7       | Fig. B | 85.0     |

\*Not Available in 2-Stage.

## Ordering Information- three phase

| MODEL             | BTUH    | VOLTS | PHASE | KW   | RESISTIVE AMPS | STAGE1   | STAGE2   | # OF ELEMENTS | INTERNAL CB | MOTOR  | MOTOR FLA | SIZE   | WT.(lbs) |
|-------------------|---------|-------|-------|------|----------------|----------|----------|---------------|-------------|--------|-----------|--------|----------|
| KFS2005-3-ECM     | 17,065  | 208   | 3     | 5.0  | 14             | 5 kW     | *N/A     | 1             | 60          | 1/3HP  | 2.7       | Fig. A | 57.0     |
| KFS2007-3-2S3-ECM | 25,598  | 208   | 3     | 7.5  | 21             | 3.8 kW   | 3.8 kW   | 2             | 60          | 1/3HP  | 2.7       | Fig. A | 57.0     |
| KFS2010-3-2S3-ECM | 34,130  | 208   | 3     | 10.0 | 28             | 5 kW     | 5 kW     | 2             | 60          | 1/3HP  | 2.7       | Fig. A | 65.0     |
| KFS2012-3-2S3-ECM | 42,662  | 208   | 3     | 12.5 | 34             | 7.5 kW   | 5 kW     | 3             | 60          | 1/3HP  | 2.7       | Fig. A | 74.0     |
| KFS2015-3-2S3-ECM | 51,195  | 208   | 3     | 15.0 | 42             | 10 kW    | 5 kW     | 3             | 60          | 1/3HP  | 2.7       | Fig. A | 74.0     |
| KFS2020-3-2S3-ECM | 68,260  | 208   | 3     | 20.0 | 56             | 15 kW    | 5 kW     | 4             | 60          | 1/2 HP | 3.9       | Fig. B | 76.0     |
| KFS2025-3-2S3-ECM | 85,325  | 208   | 3     | 25.0 | 69             | 15 kW    | 10 kW    | 5             | 60+60       | 3/4 HP | 6.0       | Fig. B | 81.0     |
| KFS2030-3-2S3-ECM | 102,390 | 208   | 3     | 30.0 | 83             | 20 kW    | 10 kW    | 6             | 60+60       | 3/4 HP | 6.0       | Fig. B | 85.0     |
| KFS2405-3-ECM     | 17,065  | 240   | 3     | 5.0  | 12             | 5 kW     | *N/A     | 1             | 60          | 1/3HP  | 2.9       | Fig. A | 57.0     |
| KFS2410-3-2S3-ECM | 34,130  | 240   | 3     | 10.0 | 24             | 5 kW     | 5 kW     | 2             | 60          | 1/3HP  | 2.9       | Fig. A | 65.0     |
| KFS2412-3-2S3-ECM | 40,956  | 240   | 3     | 12.0 | 29             | 6.5 kW   | 5.5 kW   | 3             | 60          | 1/3HP  | 2.9       | Fig. A | 74.0     |
| KFS2415-3-2S3-ECM | 51,195  | 240   | 3     | 15.0 | 36             | 10 kW    | 5 kW     | 3             | 60          | 1/3HP  | 2.9       | Fig. A | 74.0     |
| KFS2418-3-2S3-ECM | 58,874  | 240   | 3     | 17.3 | 42             | 12.3 kW  | 5 kW     | 3             | 60          | 1/3HP  | 2.9       | Fig. A | 74.0     |
| KFS2420-3-2S3-ECM | 68,260  | 240   | 3     | 20.0 | 48             | 10 kW    | 10 kW    | 4             | 60          | 1/2 HP | 4.2       | Fig. B | 76.0     |
| KFS2425-3-2S3-ECM | 85,325  | 240   | 3     | 25.0 | 60             | 15 kW    | 10 kW    | 5             | 60          | 1/2 HP | 4.2       | Fig. B | 81.0     |
| KFS2430-3-2S3-ECM | 102,390 | 240   | 3     | 30.0 | 72             | 20 kW    | 10kW     | 6             | 60+60       | 3/4 HP | 6.2       | Fig. B | 85.0     |
| KFS2435-3-ECM     | 117,749 | 240   | 3     | 34.5 | 83             | 35 kW    | N/A      | 6             | 60+60       | 3/4 HP | 6.2       | Fig. B | 85.0     |
| KF4805-3-ECM      | 17,065  | 480   | 3     | 5.0  | 6              | 5 kW     | *N/A     | 1             | NO          | 1/3HP  | 0.8       | Fig. A | 57.0     |
| KF4810-3-2S3-ECM  | 34,130  | 480   | 3     | 10.0 | 12             | 5 kW     | 5 kW     | 2             | NO          | 1/3HP  | 0.8       | Fig. A | 65.0     |
| KF4815-3-2S3-ECM  | 51,195  | 480   | 3     | 15.0 | 18             | 10 kW    | 5 kW     | 3             | NO          | 1/3HP  | 0.8       | Fig. A | 74.0     |
| KF4818-3-ECM      | 58,874  | 480   | 3     | 17.3 | 21             | 17.3 kW  | *N/A     | 3             | NO          | 1/3HP  | 0.8       | Fig. A | 74.0     |
| KF4820-3-2S3-ECM  | 68,260  | 480   | 3     | 20.0 | 24             | 10 kW    | 10 kW    | 4             | NO          | 1/2HP  | 1.2       | Fig. B | 76.0     |
| KF4825-3-2S3-ECM  | 85,325  | 480   | 3     | 25.0 | 30             | 15 kW    | 10 kW    | 5             | NO          | 1/2HP  | 1.2       | Fig. B | 81.0     |
| KF4830-3-2S3-ECM  | 102,390 | 480   | 3     | 30.0 | 36             | 20 kW    | 10 kW    | 6             | NO          | 3/4HP  | 1.7       | Fig. B | 85.0     |
| KF4835-3-2S3-ECM  | 117,749 | 480   | 3     | 34.5 | 42             | 17.25 kW | 17.25 kW | 6             | NO          | 3/4HP  | 1.7       | Fig. B | 85.0     |

\*Not Available in 2-Stage.

# Electronic Furnace KF/KFS ECO2S Series

## Accessories

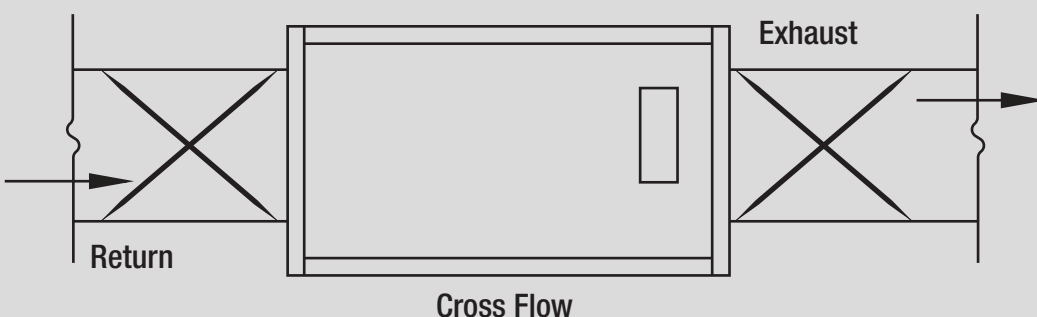
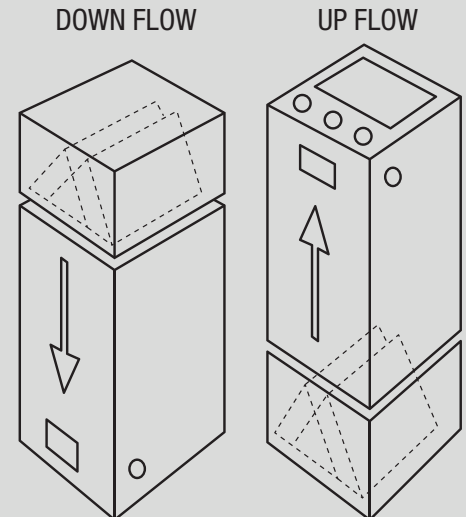
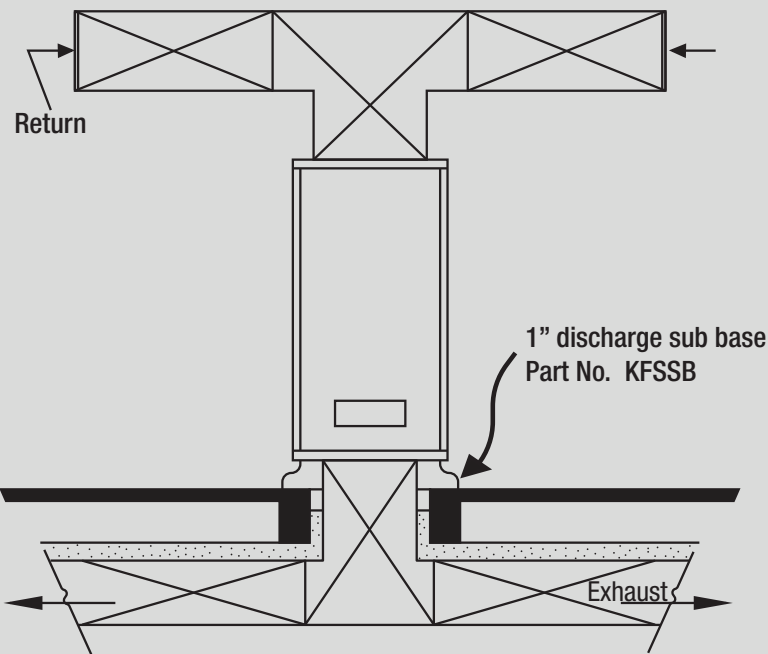
| MODEL    | UPC   | DESCRIPTION   | WEIGHT(lbs.) |
|----------|-------|---|--------------|
| KFS-4PJB | 20185 | * 4-Pole Jumper Bar - 15kW to 20kW                              | .05          |
| KFS-6PJB | 20184 | * 6-Pole Jumper Bar - 25kW to 30kW                              | .05          |
| KFSSB    | 20182 | Outlet Collar ( To provide 1" clearance for combustible floors) | 5            |
| KFS-Q02C | 20181 | Small Cooling Cabinet 16" L x 22" W x 19½" H - 13 lbs.          | 25           |
| KFS-Q03C | 20180 | Large Cooling Cabinet 18" L x 22" W x 19½" H - 15 lbs.          | 25           |
| KFS-DT   | 20186 | Transition from 14" x 14" Outlet to 12" round                   | 25           |

\* For single strike connection

| DIMENSIONAL CLEARANCE                 |       |
|---------------------------------------|-------|
| Cabinet Sides                         | 1 in. |
| Cabinet Front                         | 0 in. |
| Exhaust duct within 3 feet of furnace | 1 in. |
| Return Air Plenum                     | 0 in. |

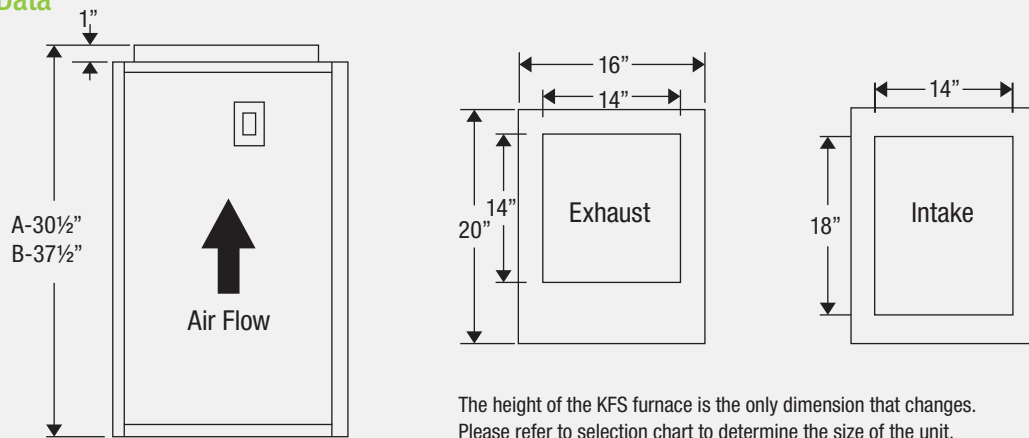
## Factory Installed Options

| ADD SUFFIX: | DESCRIPTION  |
|-------------|--|
| -DS32       | 32 Amp, 3-Pole Disconnect Switch w/ Padlock Provision  |
| -DS63       | 63 Amp, 3-Pole Disconnect Switch w/ Padlock Provision  |
| -DS80       | 80 Amp, 3-Pole Disconnect Switch w/ Padlock Provision  |
| -DS100      | 100 Amp, 3-Pole Disconnect Switch w/ Padlock Provision |
| -3/4HP      | Sub 3/4HP Motor for 20kW & 25kW Models Only            |



# Electronic Furnace KF/KFS ECO2S Series

## Dimensional Data



The height of the KFS furnace is the only dimension that changes. Please refer to selection chart to determine the size of the unit.

## Air Flow Chart (For 4 to 17.25kW Units with 1/3HP ECM Motor)

| MODEL      | KW    | TORQUE   | 0.1"WC |      | 0.2"WC |      | 0.3"WC |      | 0.4"WC |      | 0.5"WC |      | 0.6"WC |      | 0.7"WC |      | 0.8"WC |      | 0.9"WC |      | 1.0"WC |      |     |      |
|------------|-------|----------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|-----|------|
|            |       |          | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM    | RISE | CFM | RISE |
| KF/KFS**04 | 4     | (2) 6.8  | 832    | 15   | 708    | 18   | 593    | 21   | 510    | 25   | 442    | 29   | 374    | 34   | 320    | 39   | 278    | 46   |        |      |        |      |     |      |
|            |       | 9.4      | 1,030  | 12   | 919    | 14   | 826    | 15   | 739    | 17   | 658    | 19   | 594    | 21   | 546    | 23   | 494    | 26   |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 11   | 1,085  | 12   | 992    | 13   | 902    | 14   | 835    | 15   | 783    | 16   | 736    | 17   | 700    | 18   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 9    | 1,320  | 10   | 1,259  | 10   | 1,189  | 11   | 1,116  | 11   | 1,060  | 12   | 1,016  | 12   | 987    | 13   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 8    | 1,536  | 8    | 1,462  | 9    | 1,380  | 9    | 1,275  | 10   | 1,192  | 11   | 1,107  | 11   | 1,043  | 12   |        |      |        |      |     |      |
| KF/KFS**05 | 5     | (2) 6.8  | 832    | 19   | 708    | 22   | 593    | 27   | 510    | 31   | 442    | 36   | 374    | 42   | 320    | 49   | 278    | 57   |        |      |        |      |     |      |
|            |       | 9.4      | 1,030  | 15   | 919    | 17   | 826    | 19   | 739    | 21   | 658    | 24   | 594    | 27   | 546    | 29   | 494    | 32   |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 14   | 1,085  | 15   | 992    | 16   | 902    | 18   | 835    | 19   | 783    | 20   | 736    | 21   | 700    | 23   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 11   | 1,320  | 12   | 1,259  | 13   | 1,189  | 13   | 1,116  | 14   | 1,060  | 15   | 1,016  | 16   | 987    | 16   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 10   | 1,536  | 10   | 1,462  | 11   | 1,380  | 11   | 1,275  | 12   | 1,192  | 13   | 1,107  | 14   | 1,043  | 15   |        |      |        |      |     |      |
| KF/KFS**08 | 8     | (1) 6.8  | 832    | 30   | 708    | 36   | 593    | 43   | 510    | 50   | 442    | 57   | 374    | 68   | 320    | 79   | 278    | 91   |        |      |        |      |     |      |
|            |       | (2) 9.4  | 1,030  | 25   | 919    | 27   | 826    | 31   | 739    | 34   | 658    | 38   | 594    | 43   | 546    | 46   | 494    | 51   |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 22   | 1,085  | 23   | 992    | 25   | 902    | 28   | 835    | 30   | 783    | 32   | 736    | 34   | 700    | 36   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 18   | 1,320  | 19   | 1,259  | 20   | 1,189  | 21   | 1,116  | 23   | 1,060  | 24   | 1,016  | 25   | 987    | 26   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 16   | 1,536  | 16   | 1,462  | 17   | 1,380  | 18   | 1,275  | 20   | 1,192  | 21   | 1,107  | 23   | 1,043  | 24   |        |      |        |      |     |      |
| KF/KFS**10 | 10    | (1) 6.8  | 832    | 38   | 708    | 45   | 593    | 53   | 510    | 62   | 442    | 71   | 374    | 84   | 320    | 99   | 278    | NR   |        |      |        |      |     |      |
|            |       | (2) 9.4  | 1,030  | 31   | 919    | 34   | 826    | 38   | 739    | 43   | 658    | 48   | 594    | 53   | 546    | 58   | 494    | 64   |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 27   | 1,085  | 29   | 992    | 32   | 902    | 35   | 835    | 38   | 783    | 40   | 736    | 43   | 700    | 45   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 23   | 1,320  | 24   | 1,259  | 25   | 1,189  | 27   | 1,116  | 28   | 1,060  | 30   | 1,016  | 31   | 987    | 32   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 20   | 1,536  | 21   | 1,462  | 22   | 1,380  | 23   | 1,275  | 25   | 1,192  | 27   | 1,107  | 29   | 1,043  | 30   |        |      |        |      |     |      |
| KF/KFS**12 | 12    | (1) 6.8  | 832    | 46   | 708    | 54   | 593    | 64   | 510    | 74   | 442    | 86   | 374    | 101  | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|            |       | (2) 9.4  | 1,030  | 37   | 919    | 41   | 826    | 46   | 739    | 51   | 658    | 58   | 594    | 64   | 546    | 69   | 494    | 77   |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 32   | 1,085  | 35   | 992    | 38   | 902    | 42   | 835    | 45   | 783    | 48   | 736    | 52   | 700    | 54   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 28   | 1,320  | 29   | 1,259  | 30   | 1,189  | 32   | 1,116  | 34   | 1,060  | 36   | 1,016  | 37   | 987    | 38   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 24   | 1,536  | 25   | 1,462  | 26   | 1,380  | 27   | 1,275  | 30   | 1,192  | 32   | 1,107  | 34   | 1,043  | 36   |        |      |        |      |     |      |
| KF/KFS**15 | 15    | (1) 6.8  | 832    | 57   | 708    | 67   | 593    | 80   | 510    | 93   | 442    | 107  | 374    | NR   | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|            |       | 9.4      | 1,030  | 46   | 919    | 52   | 826    | 57   | 739    | 64   | 658    | 72   | 594    | 80   | 546    | 87   | 494    | 96   |        |      |        |      |     |      |
|            |       | (2) 12.0 | 1,168  | 41   | 1,085  | 44   | 992    | 48   | 902    | 53   | 835    | 57   | 783    | 61   | 736    | 64   | 700    | 68   |        |      |        |      |     |      |
|            |       | 17.0     | 1,376  | 34   | 1,320  | 36   | 1,259  | 38   | 1,189  | 40   | 1,116  | 42   | 1,060  | 45   | 1,016  | 47   | 987    | 48   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 30   | 1,536  | 31   | 1,462  | 32   | 1,380  | 34   | 1,275  | 37   | 1,192  | 40   | 1,107  | 43   | 1,043  | 45   |        |      |        |      |     |      |
| KF/KFS**18 | 17.25 | 6.8      | 832    | 66   | 708    | 77   | 593    | 92   | 510    | 107  | 442    | NR   | 374    | NR   | 320    | NR   | 278    | NR   |        |      |        |      |     |      |
|            |       | (1) 9.4  | 1,030  | 53   | 919    | 59   | 826    | 66   | 739    | 74   | 658    | 83   | 594    | 92   | 546    | 100  | 494    | 110  |        |      |        |      |     |      |
|            |       | 12.0     | 1,168  | 47   | 1,085  | 50   | 992    | 55   | 902    | 60   | 835    | 65   | 783    | 70   | 736    | 74   | 700    | 78   |        |      |        |      |     |      |
|            |       | (2) 17.0 | 1,376  | 40   | 1,320  | 41   | 1,259  | 43   | 1,189  | 46   | 1,116  | 49   | 1,060  | 51   | 1,016  | 54   | 987    | 55   |        |      |        |      |     |      |
|            |       | 20.0     | 1,582  | 34   | 1,536  | 35   | 1,462  | 37   | 1,380  | 40   | 1,275  | 43   | 1,192  | 46   | 1,107  | 49   | 1,043  | 52   |        |      |        |      |     |      |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

B NR= Not Recommended, Temperature Rise is above maximum design parameter.

C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

D (1) = Stage 1 Torque Settings (2) = Stage 2 Torque Settings / (2) = Default for Single Stage KFUH

E Blower: 10" diameter, 8" wide

# Electronic Furnace KF/KFS ECO2S Series

## Air Flow Chart (For 20 to 25kW Units with 1/2HP ECM Motor)

| MODEL      | KW   | 0.1"WC   |     | 0.2"WC |       | 0.3"WC |       | 0.4"WC |       | 0.5"WC |       | 0.6"WC |       | 0.7"WC |       | 0.8"WC |       | 0.9"WC |       | 1.0"WC |       |      |    |
|------------|------|----------|-----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|----|
|            |      | TORQUE   | CFM | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE |    |
| KF/KFS**20 | 20   |          |     | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)  |    |
|            |      | (1) 15.0 |     |        | 1,258 | 50     | 1,262 | 50     | 1,193 | 53     | 1,132 | 56     | 1,054 | 60     | 910   | 69     | 834   | 76     | 821   | 77     | 705   | 90   |    |
|            |      | (2) 19.0 |     |        | 1,466 | 43     | 1,419 | 45     | 1,300 | 49     | 1,285 | 49     | 1,218 | 52     | 1,180 | 54     | 1,015 | 62     | 979   | 65     | 934   | 68   |    |
|            |      | 22.5     |     |        | 1,575 | 40     | 1,570 | 40     | 1,564 | 40     | 1,363 | 46     | 1,347 | 47     | 1,284 | 49     | 1,256 | 50     | 1,200 | 53     | 1,152 |      | 55 |
|            |      | 26.0     |     |        | 1,690 | 37     | 1,679 | 38     | 1,640 | 39     | 1,546 | 41     | 1,472 | 43     | 1,430 | 44     | 1,378 | 46     | 1,358 | 47     | 1,315 | 48   |    |
| KF/KFS**25 | 25   |          |     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |      |    |
|            |      | 15.5     |     |        | 1,258 | 63     | 1,262 | 63     | 1,193 | 66     | 1,132 | 70     | 1,054 | 75     | 910   | 87     | 834   | 95     | 821   | 96     | 705   | NR   |    |
|            |      | (1) 19.0 |     |        | 1,466 | 54     | 1,419 | 56     | 1,300 | 61     | 1,285 | 61     | 1,218 | 65     | 1,180 | 67     | 1,015 | 78     | 979   | 81     | 934   | 85   |    |
|            |      | 22.5     |     |        | 1,575 | 50     | 1,570 | 50     | 1,564 | 51     | 1,363 | 58     | 1,347 | 59     | 1,284 | 62     | 1,256 | 63     | 1,200 | 66     | 1,152 | 69   |    |
|            |      | (2) 26.0 |     |        | 1,690 | 47     | 1,679 | 47     | 1,640 | 48     | 1,546 | 51     | 1,472 | 54     | 1,430 | 55     | 1,378 | 57     | 1,358 | 58     | 1,315 | 60   |    |
|            | 30.0 |          |     | 1,771  | 45    | 1,766  | 45    | 1,723  | 46    | 1,728  | 46    | 1,569  | 50    | 1,542  | 51    | 1,522  | 52    | 1,487  | 53    | 1,415  | 56    |      |    |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

B NR= Not Recommended, Temperature Rise is above maximum design parameter.

C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

D (1) = Stage 1 Torque Settings (2) = Stage 2 Torque Settings / (2) = Default for Single Stage KFUH

E Blower: 10" diameter, 8" wide

## Air Flow Chart (For 20 to 25kW Units with OPTIONAL 3/4HP ECM Motor)

| MODEL      | KW   | 0.1"WC   |     | 0.2"WC |       | 0.3"WC |       | 0.4"WC |       | 0.5"WC |       | 0.6"WC |       | 0.7"WC |       | 0.8"WC |       | 0.9"WC |       | 1.0"WC |       |      |  |
|------------|------|----------|-----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|--|
|            |      | TORQUE   | CFM | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE |  |
| KF/KFS**20 | 20   |          |     | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)  |  |
|            |      | (1) 26.0 |     |        | 1,592 | 40     | 1,592 | 40     | 1,581 | 40     | 1,551 | 41     | 1,529 | 41     | 1,496 | 42     | 1,432 | 44     | 1,353 | 47     | 1,231 | 51   |  |
|            |      | 30.0     |     |        | 1,789 | 35     | 1,758 | 36     | 1,716 | 37     | 1,650 | 38     | 1,598 | 40     | 1,552 | 41     | 1,451 | 41     | 1,451 | 44     | 1,282 | 49   |  |
|            |      | (2) 35.0 |     |        | 1,814 | 35     | 1,819 | 35     | 1,828 | 35     | 1,866 | 34     | 1,849 | 34     | 1,794 | 35     | 1,688 | 37     | 1,561 | 40     | 1,316 | 48   |  |
|            |      | 40.5     |     |        | 2,080 | 30     | 2,122 | 30     | 2,082 | 30     | 2,054 | 31     | 1,916 | 33     | 1,814 | 35     | 1,700 | 37     | 1,482 | 43     | 1,230 | 51   |  |
| KF/KFS**25 | 25   |          |     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |      |  |
|            |      | (1) 26.0 |     |        | 1,592 | 50     | 1,592 | 50     | 1,581 | 50     | 1,551 | 51     | 1,529 | 52     | 1,496 | 53     | 1,432 | 55     | 1,353 | 58     | 1,231 | NR   |  |
|            |      | 30.0     |     |        | 1,789 | 44     | 1,758 | 45     | 1,716 | 46     | 1,692 | 47     | 1,650 | 48     | 1,598 | 49     | 1,552 | 51     | 1,451 | 54     | 1,282 | 62   |  |
|            |      | (2) 35.0 |     |        | 1,814 | 44     | 1,819 | 43     | 1,828 | 43     | 1,866 | 42     | 1,849 | 43     | 1,794 | 44     | 1,688 | 47     | 1,561 | 51     | 1,316 | 60   |  |
|            |      | 40.5     |     |        | 2,080 | 38     | 2,122 | 37     | 2,082 | 38     | 2,054 | 38     | 1,916 | 41     | 1,814 | 44     | 1,700 | 46     | 1,482 | 53     | 1,230 | 64   |  |
|            | 45.0 |          |     | 2,174  | 36    | 2,154  | 37    | 2,139  | 37    | 2,138  | 37    | 2,094  | 38    | 1,928  | 41    | 1,671  | 47    | 1,471  | 54    | 1,232  | 64    |      |  |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

B NR= Not Recommended, Temperature Rise is above maximum design parameter.

C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

D (1) = Stage 1 Torque Settings (2) = Stage 2 Torque Settings / (2) = Default for Single Stage KFUH

E Blower: 10" diameter, 8" wide

## Air Flow Chart (For 30 to 35kW Units with 3/4HP ECM Motor)

| MODEL      | KW   | 0.1"WC   |     | 0.2"WC |       | 0.3"WC |       | 0.4"WC |       | 0.5"WC |       | 0.6"WC |       | 0.7"WC |       | 0.8"WC |       | 0.9"WC |       | 1.0"WC |       |      |  |
|------------|------|----------|-----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|--|
|            |      | TORQUE   | CFM | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE   | CFM   | RISE |  |
| KF/KFS**30 | 30   |          |     | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)    |       | (F)  |  |
|            |      | (1) 26.0 |     |        | 1,592 | 60     | 1,592 | 60     | 1,581 | 60     | 1,551 | 61     | 1,529 | 62     | 1,496 | 63     | 1,432 | NR     | 1,353 | NR     | 1,231 | NR   |  |
|            |      | 30.0     |     |        | 1,789 | 53     | 1,758 | 54     | 1,716 | 55     | 1,692 | 56     | 1,650 | 57     | 1,598 | 59     | 1,552 | 61     | 1,451 | 65     | 1,282 | 74   |  |
|            |      | 35.0     |     |        | 1,814 | 52     | 1,819 | 52     | 1,828 | 52     | 1,866 | 51     | 1,849 | 51     | 1,794 | 53     | 1,688 | 56     | 1,561 | 61     | 1,316 | 72   |  |
|            |      | (2) 40.5 |     |        | 2,080 | 46     | 2,122 | 45     | 2,082 | 46     | 2,054 | 46     | 1,916 | 49     | 1,814 | 52     | 1,700 | 56     | 1,482 | 64     | 1,230 | 77   |  |
| KF/KFS**35 | 35   |          |     |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |        |       |      |  |
|            |      | 26.0     |     |        | 1,592 | 69     | 1,592 | 69     | 1,581 | 60     | 1,551 | 71     | 1,529 | 72     | 1,496 | NR     | 1,432 | NR     | 1,353 | NR     | 1,231 | NR   |  |
|            |      | (1) 30.0 |     |        | 1,789 | 62     | 1,758 | 63     | 1,716 | 64     | 1,692 | 65     | 1,650 | 67     | 1,598 | 69     | 1,552 | 71     | 1,451 | NR     | 1,282 | NR   |  |
|            |      | 35.0     |     |        | 1,814 | 61     | 1,819 | 61     | 1,828 | 60     | 1,866 | 59     | 1,849 | 60     | 1,794 | 62     | 1,688 | 66     | 1,561 | 71     | 1,316 | 84   |  |
|            |      | (2) 45.0 |     |        | 2,080 | 53     | 2,122 | 52     | 2,082 | 53     | 2,054 | 54     | 1,916 | 58     | 1,814 | 61     | 1,700 | 65     | 1,482 | 75     | 1,230 | 90   |  |
|            | 45.0 |          |     | 2,174  | 51    | 2,154  | 51    | 2,148  | 52    | 2,138  | 52    | 2,094  | 53    | 1,928  | 57    | 1,671  | 66    | 1,471  | 75    | 1,232  | 90    |      |  |

A \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

B NR= Not Recommended, Temperature Rise is above maximum design parameter.

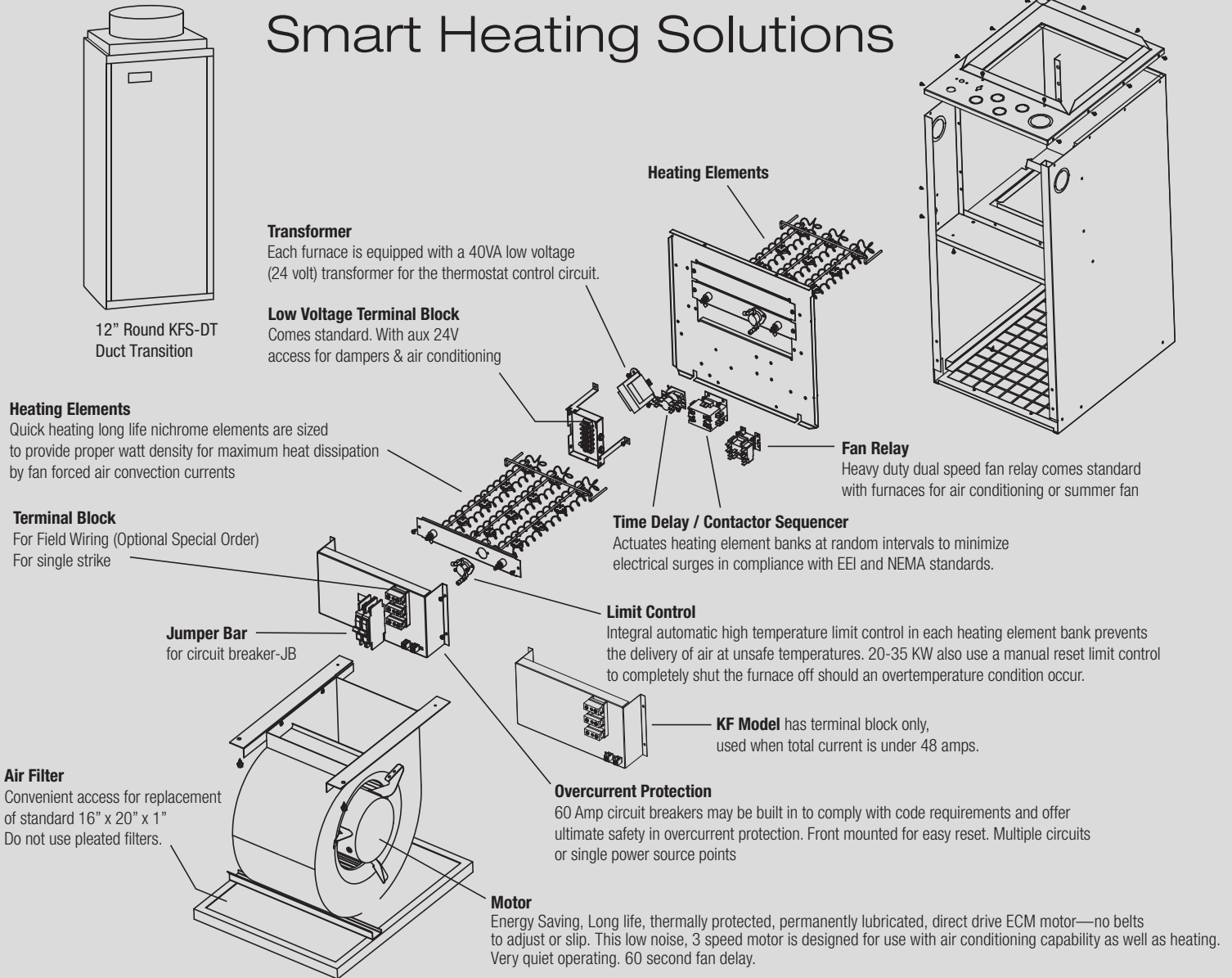
C The highlighted cells are the factory default torque setting for each model. The ECM motor has 5 field adjustable torque settings, allowing for a wide range of design choices.

D (1) = Stage 1 Torque Settings (2) = Stage 2 Torque Settings / (2) = Default for Single Stage KFUH

E Blower: 10" diameter, 8" wide

## Internal Diagram - exploded view

### Smart Heating Solutions



## Engineering Specifications

Contractor shall supply and install KFS ECO2S Series electric furnaces manufactured by King Electrical Mfg. Company. Furnaces shall be of the wattage and voltage as indicated on the plans.

**Transformer:** Each furnace is equipped with a heavy duty low voltage (40 VA) transformer for the thermostat control circuit.

**Time Delay Sequencer:** Actuates heating element banks to minimize electrical surges in compliance with E.E.I. and N.E.M.A. standards.

**Heating Elements:** Quick heating, long life Ni-Chrome elements are sized to provide proper watt density for maximum heat dissipation.

**Terminal Block:** For field wiring (optional special order) KFSTB Single Strike Connection. Takes multiple circuits into a single feed.

**Air Filter:** Convenient access for replacement of standard 16" x 20" x 1" filter. Do not use pleated filters.

**Motor:** Energy Saving, Long life, thermally protected, permanently lubricated, direct drive ECM motor—no belts to adjust or slip.

This low noise, 3 speed motor is designed for use with air conditioning capability as well as heating. Very quiet operating. 60 second fan delay.

**Overcurrent Protection:** 208 and 240 volt KFS models have 60 amp circuit breakers.

**Limit Control:** Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 KW models use a manual reset limit control to completely shut the furnace off should an unsafe temperature occur. Summer fan only operation. Fan can be run independently from heating. Mobile Home approved.

**Unique Fan Orifice:** Louver directs air over all heating elements and side walls evenly ensuring longer life performance.

**Low Voltage Terminal Block:** 24 Volt control screw terminals.

**Approvals:** cULus (E48864) USA and Canada

# Hydronic Heaters

## HYDRONIC

Heat only the rooms which need it, borrowing heat from any hot water source.

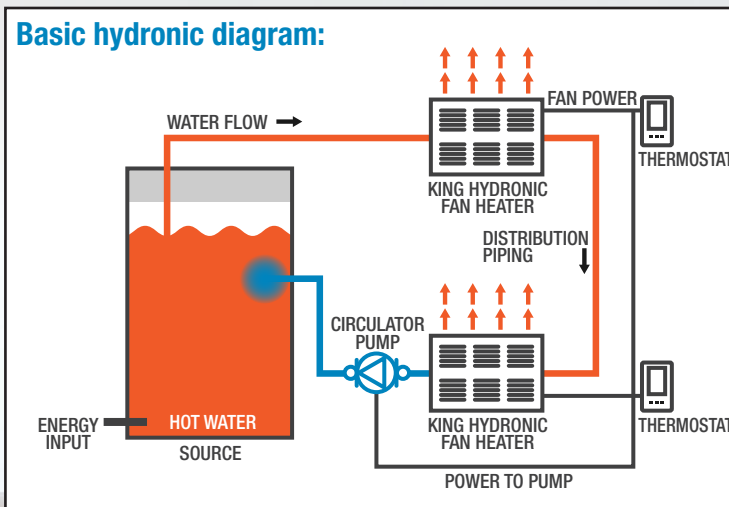
- ✓ Compatible with typical hot water sources
- ✓ Reduce utility bills with individual room control
- ✓ Built with high quality components
- ✓ Quiet operation
- ✓ More free space: no furnace room needed
- ✓ Approved for use with potable water (HWPT required)

### How does King's hydronic system work?

The concept is simple: Redirect existing hot water rather than expend energy to create a new heat source. King's hydronic heating system uses hot water from your hot water tank (any hot water source — gas, electric, solar, etc.), passes it through highly efficient radiant heat plates, and returns the hot water to your tank. Inside the heater, a gentle fan draws room-temperature air across the radiant plates where the air is warmed before being pushed back out into the room. But the real magic is in our thermostat system, which maintains consistent individual room temperatures while using the smallest amount of energy possible.

### Why King's hydronic system makes sense today:

- Utilizes a hot water system already in place
- Minimal floor space used — no furnace footprint
- Single room temperature control lowers cost
- Less temperature fluctuation than typical systems
- Easier to install than forced air ducting
- One less sub on job
- Minimal components to install, uses flexible hot-water lines
- Maximized energy savings with ECM fan and two-step thermostat
- Near-silent operation, smooth, consistent, comfortable room heat
- High-quality, American-made construction means low maintenance
- Works with typical hot water energy source: gas, electric, solar, etc.



King's hydronic system offers cost-saving zone control, heat source sharing, near silent operation, quality construction, and easy installation.



# Hydronic Draft Barrier HLB Series



### Model Code:

| HLB                | F | 2 |
|--------------------|---|---|
| A                  | B | C |
| A: Series          |   |   |
| B: F- Front intake |   |   |
| T- Bottom intake   |   |   |
| C: Length          |   |   |

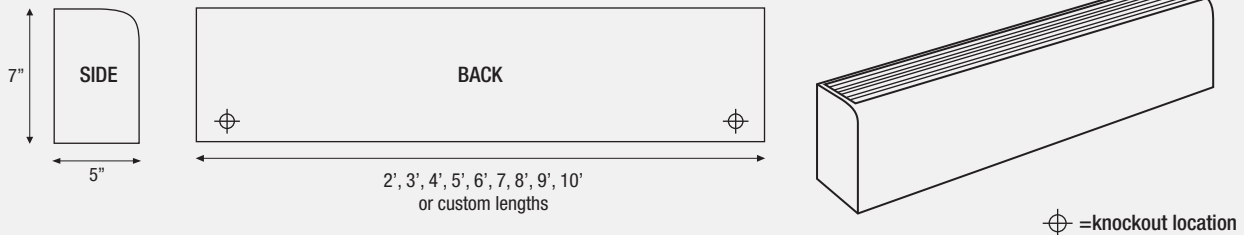


- Bottom intake, top discharge HLBT
- Front intake, top discharge HLBF
- 12GA extruded aluminum front & back
- Snap fit 2 piece construction
- Painted and anodized finishes
- Valve compartments are 6" or 12"
- 3/4" and 1" copper tubes available
- 400 to 1000 BTUH ratings (per foot)
- Multiple sections on one common back
- 1/4" pencil proof discharge grill
- Aluminum fins for quick heat
- LB is 5"W x 7"H
- 1-year limited warranty

## The HLB Series Hot Water Draft Barrier

**MODEL HLB residential/commercial hydronic baseboards** offers superior performance, beauty and versatility that is combined with strength and durability. Softline baseboard provides a gentle curtain of warmth along cold outside walls. No drafts and no cold spots. It is ideal for residential, apartment and commercial applications. Painting after installation does not affect the operation. The heavy gauge back plate design assures perfect alignment of the enclosure, and holds the front panel firmly in place. The unique patented heating element for models HLB are available in 3/4" and 1/2" copper tube sizes. HLB baseboard is available completely factory assembled, in coded cartons, in lengths of 2 through 10 feet. Model HLB is available in seven standard colors. Anodized finishes are also available.

### Dimensional Data



Smooth back available when pedestal mounted and back can be seen.

### Engineering Specifications

*Design draft barriers shall be 7" high and 5" wide. The front cover shall be one piece 12 gauge aluminum construction suitable for architectural, commercial and industrial use, with 1/4" pencil proof top discharge. The one piece cover shall be extruded aluminum for maximum strength and shall be available in lengths to 12". The front cover shall snap fit to the 12 gauge back cover with no screw heads or assembly fasteners. The 12 gauge back cover shall be suitable for mullion to mullion mounting. Standard painted finishes shall be provided.*

**Element:** Heat sections from 2' to 10' are available. Furnish and install model emb or slit type heating element. The element shall be manufactured with 1/2", 3/4" and 1" nominal copper tubing with .010" thick aluminum fins, having full collars for uniform spacing and optimum thermal contact. Fins shall be mechanically bonded to the copper tube. One end of each element shall be expanded to accept the unexpanded end of another tube without coupling.

**Element mount bracket:** Element bracket is constructed of 16 gauge galvanized steel and are mounted to the backplate for noiseless expansion of element. Designed for easy installation into pre-punched mounting holes. Elements are supplied with nylon brackets for noiseless expansion.

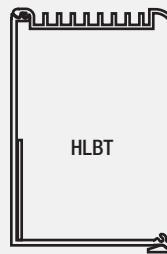
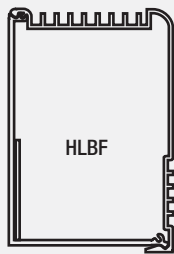
**Installation features:** Model HLB construction allows simple, snap-fit installation. The back plate which houses the heating element assembly is simply attached to the wall surface at the desired height and the front cover enclosure is then snapped into place.

**Pedestal features:** Model HLBT-PD, HLBPF-PD, HSBST-PD shall have 2" adjustable pedestals and the heater back will be painted to match the front cover. 1" of adjustment is available on the cast iron pedestal.

**Pedestal quantities:** 2 on 1', 2', 3', 4', 5', 6' / 3 on 7', 8', 9', 10'

# Hydronic Draft Barrier HLB Series

## Side View



## Ordering Information

| FRONT INTAKE |       | BOTTOM INTAKE |       | LENGTH |
|--------------|-------|---------------|-------|--------|
| MODEL        | UPC   | MODEL         | UPC   |        |
| HLBF-2       | 32516 | HLBT-2        | 32551 | 2'     |
| HLBF-3       | 32517 | HLBT-3        | 32552 | 3'     |
| HLBF-4       | 32518 | HLBT-4        | 32553 | 4'     |
| HLBF-5       | 32519 | HLBT-5        | 32554 | 5'     |
| HLBF-6       | 32520 | HLBT-6        | 32555 | 6'     |
| HLBF-7       | 32521 | HLBT-7        | 32556 | 7'     |
| HLBF-8       | 32522 | HLBT-8        | 32557 | 8'     |
| HLBF-9       | 32523 | HLBT-9        | 32558 | 9'     |
| HLBF-10      | 32524 | HLBT-10       | 32559 | 10'    |

Louvers on blank sections not punched unless otherwise spec.

Add suffix -pd to catalog number for pedestal style heater. Pedestals can be field mounted.

All valve compartments are 6" or 12" long. Price is the same for 6" or 12". Dimensions shown on inside and outside corners are wall dimensions.

Anodize finishes available, consult factory. Finished backs are available.

Units are furnished with factory installed element support.

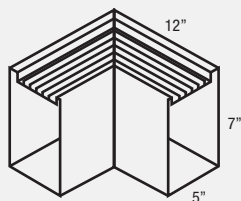
## Accessories

| FRONT INTAKE |       | BOTTOM INTAKE |       | DESCRIPTION                         | LENGTH |
|--------------|-------|---------------|-------|-------------------------------------|--------|
| MODEL        | UPC   | MODEL         | UPC   |                                     |        |
| HLBF-IC      | 32525 | HLBT-IC       | 32560 | INSIDE CORNER                       | 6"     |
| HLBF-OC      | 32526 | HLBT-OC       | 32561 | OUTSIDE CORNER                      | 6"     |
| HLBF-SP      | 32528 | HLBT-SP       | 32563 | SPLICE PLATE                        | 2"     |
| HLBF-WT      | 32529 | HLBF-WT       | 32564 | WALL TRIM                           | 4"     |
| HLBF-VC      | 32530 | HLBT-VC       | 32565 | VALVE COMPANMENT                    | 12"    |
| HLBF-EC      | 32527 | HLBT-EC       | 32562 | END CAP (SPECIFY RT OR LT)          |        |
| HLB-MESH     | 32531 |               |       | 1/4" WIREMESH UNDER DISCHARGE GRILL |        |
| HSB-PD       | 32515 |               |       | PEDESTALS                           |        |

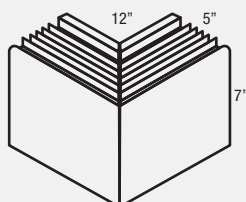
## Elements (Sold Separately)

| MODEL     | UPC   | DESCRIPTION                     | LENGTH |
|-----------|-------|---------------------------------|--------|
| HSLT-3/4" | 32534 | 3/4" COPPER TUBE FINNED ELEMENT | 2'-10' |
| HSLT-1"   | 32535 | 1" COPPER TUBE FINNED ELEMENT   | 7'-10' |

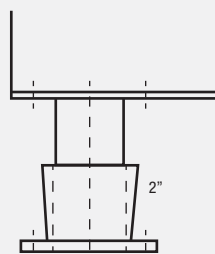
## Corners, Fillers, Blank Sections & End Caps



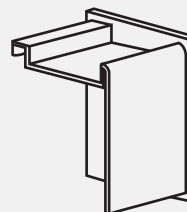
Inside Corner



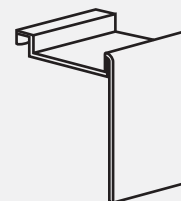
Outside Corner



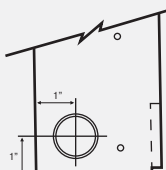
Cast Pedestal



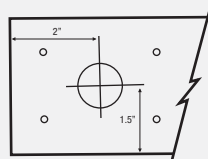
End Cap



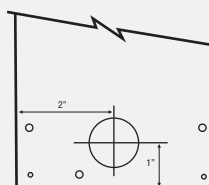
Splice Plate



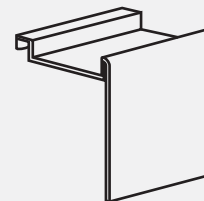
Side View  
Pedestal Unit Only



Bottom View  
Pedestal Unit Only



Back View  
Pedestal Unit Only



Wall Trim

# Hydronic Draft Barrier HSB Series



### Model Code:

| HSB                          | F | 2 |
|------------------------------|---|---|
| A                            | B | C |
| A: Series                    |   |   |
| B: F- Front intake           |   |   |
| T- Bottom intake             |   |   |
| ST- Slope top, bottom intake |   |   |
| C: Length                    |   |   |

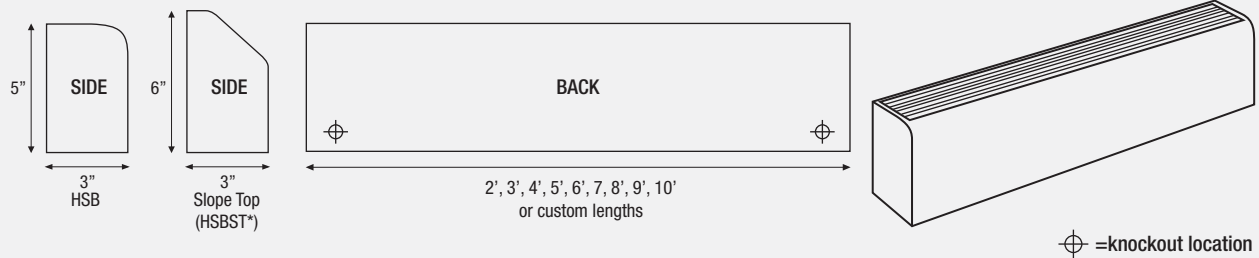


- Bottom intake, top discharge HSBT
- Front intake, top discharge HSBF
- Slope top, bottom intake HSBST (12GA)
- 14GA extruded aluminum front & back
- Snap fit 2 piece construction
- Valve compartments are 6" or 12"
- 3/4" and 1" copper tubes available
- 400 to 1000 BTUH ratings (per foot)
- HSB is 3"W x 5"H, HSBST is 3"W x 6"H
- 1/4" pencil proof discharge grill
- Multiple sections on one common back
- 1-year limited warranty

## The HSB Series Hot Water Draft Barrier

**MODEL HSB residential/commercial hydronic baseboards** offers superior performance, beauty and versatility that is combined with strength and durability. Softline baseboard provides a gentle curtain of warmth along cold outside walls. No drafts and no cold spots. It is ideal for residential, apartment and commercial applications. Painting after installation does not affect the operation. The heavy gauge back plate design assures perfect alignment of the enclosure, and holds the front panel firmly in place. The unique patented heating element for models HSB are available in 3/4" and 1/2" copper tube sizes. HSB baseboard is available completely factory assembled, in coded cartons, in lengths of 2 through 10 feet. Model HSB is available in seven standard colors. Anodized finishes are also available.

### Dimensional Data



Smooth back available when pedestal mounted and back can be seen.  
 \*Approved for residential use

## Engineering Specifications

*HSB Draft Barriers shall be 5" or 6" high and 3" wide. The front cover shall be 14 gauge (12GA, HSBST) aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil proof top and discharge. The one piece cover shall be extruded aluminum for maximum strength and shall be available in lengths to 14". The front cover shall snap fit to the back cover with no screw heads or assembly fasteners. The back cover shall be suitable for mullion to mullion mounting. Standard painted finishes shall be provided.*

**Element:** Heat sections from 2' to 10' are available. Furnish and install model HEMB or HSLT type heating element. The element shall be manufactured with 3/4" and 1" nominal copper tubing with .010" thick aluminum fins, having full collars for uniform spacing and optimum thermal contact. Fins shall be mechanically bonded to the copper tube. One end of each element shall be expanded to accept the unexpanded end of another tube without coupling.

**Element mount bracket:** Element bracket is constructed of 16 gauge galvanized steel and are mounted to the backplate for noiseless expansion of element. Designed for easy installation into pre-punched mounting holes. Elements are supplied with nylon brackets for noiseless expansion.

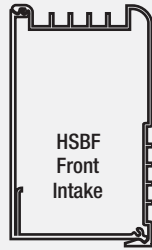
**Installation features:** Model HSB construction allows simple, snap-fit installation. The back plate which houses the heating element assembly is simply attached to the wall surface at the desired height and the front cover enclosure is then snapped into place.

**Pedestal features:** Model HSBT-PD, HSBF-PD, HSBST-PD shall have 2" adjustable pedestals and the heater back will be painted to match the front cover. 1" of adjustment is available on the cast iron pedestal.

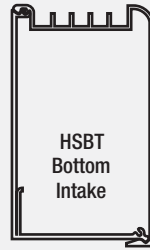
**Pedestal quantities:** 2 on 1', 2', 3', 4', 5', 6' / 3 on 7', 8', 9', 10'

# Hydronic Draft Barrier HSB Series

## Side View



HSBF  
Front  
Intake



HSBT  
Bottom  
Intake



HSBST  
Slope  
Top

## Ordering Information

| FRONT INTAKE |       | BOTTOM INTAKE |       | SLOPE TOP |       | LENGTH |
|--------------|-------|---------------|-------|-----------|-------|--------|
| MODEL        | UPC   | MODEL         | UPC   | MODEL     | UPC   |        |
| HSBF-2       | 32499 | HSBT-2        | 32536 | HSBST-2   | 32566 | 2'     |
| HSBF-3       | 32500 | HSBT-3        | 32537 | HSBST-3   | 32567 | 3'     |
| HSBF-4       | 32501 | HSBT-4        | 32538 | HSBST-4   | 32568 | 4'     |
| HSBF-5       | 32502 | HSBT-5        | 32539 | HSBST-5   | 32569 | 5'     |
| HSBF-6       | 32503 | HSBT-6        | 32540 | HSBST-6   | 32570 | 6'     |
| HSBF-7       | 32504 | HSBT-7        | 32541 | HSBST-7   | 32571 | 7'     |
| HSBF-8       | 32505 | HSBT-8        | 32542 | HSBST-8   | 32572 | 8'     |
| HSBF-9       | 32506 | HSBT-9        | 32543 | HSBST-9   | 32573 | 9'     |
| HSBF-10      | 32507 | HSBT-10       | 32544 | HSBST-10  | 32574 | 10'    |

Louvers on blank sections not punched unless otherwise spec.

Add suffix -pd to catalog number for pedestal style heater. Pedestals can be field mounted.

All valve compartments are 6" or 12" long. Price is the same for 6" or 12". Dimensions shown on inside and outside corners are wall dimensions.

Anodize finishes available, consult factory. Finished backs are available.

Units are furnished with factory installed element support.

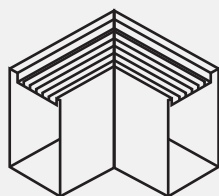
## Accessories

| FRONT INTAKE |       | BOTTOM INTAKE |       | DESCRIPTION                         | LENGTH |
|--------------|-------|---------------|-------|-------------------------------------|--------|
| MODEL        | UPC   | MODEL         | UPC   |                                     |        |
| HSBF-IC      | 32508 | HSBT-IC       | 32545 | INSIDE CORNER                       | 6"     |
| HSBF-OC      | 32509 | HSBT-OC       | 32546 | OUTSIDE CORNER                      | 6"     |
| HSBF-SP      | 32511 | HSBT-SP       | 32548 | SPLICE PLATE                        | 2"     |
| HSBF-WT      | 32512 | HSBT-WT       | 32549 | WALL TRIM                           | 4"     |
| HSBF-VC      | 32513 | HSBT-VC       | 32550 | VALVE COMPARTMENT                   | 12"    |
| HSBF-EC      | 32510 | HSBT-EC       | 32547 | END CAP (SPECIFY RT OR LT)          |        |
| HSB-MESH     | 32514 |               |       | 1/4" WIREMESH UNDER DISCHARGE GRILL |        |
| HSB-PD       | 32515 |               |       | PEDESTALS                           |        |

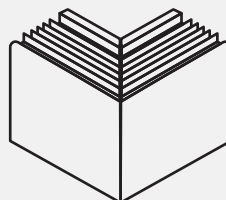
## Elements (Sold Separately)

| MODEL     | UPC   | DESCRIPTION                     | LENGTH |
|-----------|-------|---------------------------------|--------|
| HSLT-3/4" | 32534 | 3/4" COPPER TUBE FINNED ELEMENT | 2'-10' |
| HSLT-1"   | 32535 | 1" COPPER TUBE FINNED ELEMENT   | 7'-10' |

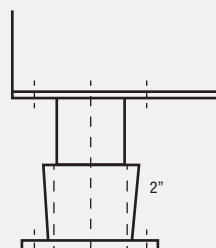
## Corners, Fillers, Blank Sections & End Caps



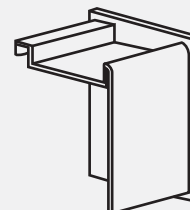
Inside Corner



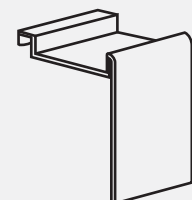
Outside Corner



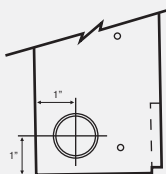
Cast Pedestal



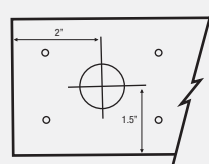
End Cap



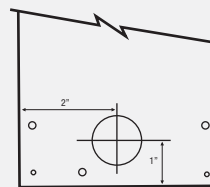
Splice Plate



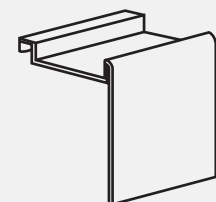
Side View  
Pedestal Unit Only



Bottom View  
Pedestal Unit Only



Back View  
Pedestal Unit Only



Wall Trim

# Small Hydronic Heater H-Series



### Model Code:

H 6 12 6/8 AS-FS GW  
A B C D E F

A: H Series Hot Water  
B: Number of copper tubes in coil  
C: Voltage 12 = 120 Volt  
D: 6,000 Btu heat output @ 140°F  
8,000 Btu heat output @ 160°F  
E: Aqua Stat / Fan Switch  
F: Grill color



- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes
- Flow-through design
- 4 or 8 Aluminum fins per inch
- Easy motor removal for maintenance
- Permanently lubricated motor
- Powder-coated white grill
- Hi / Off / Lo fan switch
- Use HW series thermostats
- 2-year limited warranty

## The H-Series Small Hydronic Heater - 1,800 to 10,500 BTU

King's H Series small hydronic heater uses the energy from a building's hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual thermostat room control. By installing hydronic systems in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in bedrooms, bathrooms, and laundry rooms. Provides 1800 to 10,500 Btu heat output.

### Ordering Information

| Model Number        | Volts | Can Size               | Grill Size               |
|---------------------|-------|------------------------|--------------------------|
| H412 – all versions | 120   | 9½" h x 14¾" w x 4¾" d | 10½" h x 15¾" w x 7/8" d |
| H612 – all versions | 120   | 11" h x 14¾" w x 4¾" d | 12½" h x 15¾" w x 7/8" d |

| MODEL    | FINS PER IN CH | FT. OF WATER PRESSURE DROP @ 2 GPM | Btu@2GPM   | 120°F 48°C | 140°F* 60°C | 160°F* 71°C | 180°F 82°C | 200°F 93°C MAX. | AMPS | RPM  | CFM |
|----------|----------------|------------------------------------|------------|------------|-------------|-------------|------------|-----------------|------|------|-----|
| H412 2/3 | 4              | .36                                | High Speed | 1,800      | 2,500       | 3,600       | 3,500      | 4,100           | .54  | 2000 | 80  |
| H412 2/3 | 4              | .36                                | Low Speed  | 1,200      | 1,400       | 1,700       | 2,000      | 2,300           | .51  | 1750 | 50  |
| H412 3/4 | 8              | .36                                | High Speed | 2,200      | 3,100       | 4,000       | 4,800      | 6,100           | .54  | 2000 | 80  |
| H412 3/4 | 8              | .36                                | Low Speed  | 1,200      | 1,800       | 2,400       | 3,000      | 3,800           | .51  | 1750 | 50  |
| H612 4/5 | 4              | .54                                | High Speed | 3,600      | 4,700       | 5,800       | 7,100      | 8,500           | .48  | 2550 | 120 |
| H612 4/5 | 4              | .54                                | Low Speed  | 3,200      | 4,000       | 5,000       | 6,100      | 7,300           | .40  | 1850 | 105 |
| H612 6/8 | 8              | .54                                | High Speed | 4,100      | 6,000       | 7,600       | 9,100      | 10,500          | .48  | 2500 | 120 |
| H612 6/8 | 8              | .54                                | Low Speed  | 3,700      | 5,200       | 6,500       | 7,900      | 9,600           | .40  | 1850 | 105 |

\*most common water temperature range

Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems.

Electrical circuit size: 15 amp maximum.

BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

### Engineering Specifications

Contractor shall supply and install H Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 50 or 120 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" ID Copper tubes with Aluminum fins of no more than 8 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Copper tube used in coil is Alloy 122 made to ASTM B-75 specifications. For potable water use.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grill screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated ¼" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with ¼" male brass blades for easy wiring.

**Water Connections:** 1/2" ID bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.



# Hydronic Kickspace Heater HT Series



### Model Code:

|    |   |    |     |    |    |
|----|---|----|-----|----|----|
| HT | 4 | 12 | 2/3 | AS | GW |
| A  | B | C  | D   | E  | F  |

**A:** Series  
**B:** Number of Copper Tubes in Coil  
**C:** 12 - 120V  
**D:** BTU Heat Output  
**E:** Aqua Stat  
**F:** Grille White, Almond or Black color



- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes
- Flow-through design
- 4 or 8 Aluminum fins per inch
- Easy motor removal for maintenance
- Permanently lubricated motor
- Powder-coated white grill
- Hi / Off / Lo fan switch
- Use HW series thermostats
- 1 Year Warranty

## The HT Series Hydronic Kickspace Heater

King's HT Series Kicks-pace hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Uniquely designed to add heat to areas of the home previously thought not possible. With a compact, space-saving design the HT heater can be inconspicuously installed in the kick-space area at the base of kitchen and bathroom cabinets, under window sills or even in stair risers, providing warmth and comfort to formerly troublesome areas. Provides 1700 to 9950 BTU heat output.

### Ordering Information

| MODEL     | FINS PER INCH | FT. OF WATER PRESSURE DROP @ 2 GPM | AMPS | RPM  | CFM | BTUH@2GPM  | 120°  | 140** | 160** | 180°  | 200° MAX. |
|-----------|---------------|------------------------------------|------|------|-----|------------|-------|-------|-------|-------|-----------|
| HT412 2/3 | 8             | 0.36                               | 0.54 | 2000 | 83  | High Speed | 1,700 | 2,500 | 3,400 | 4,600 | 5,200     |
| HT412 2/3 | 8             | 0.36                               | 0.51 | 1800 | 76  | Low Speed  | 1,600 | 2,400 | 3,200 | 4,000 | 5,000     |
| HT612 4/5 | 8             | 0.54                               | 0.54 | 2000 | 83  | High Speed | 2,800 | 4,000 | 5,100 | 6,900 | 8,200     |
| HT612 4/5 | 8             | 0.54                               | 0.51 | 1800 | 76  | Low Speed  | 2,400 | 3,250 | 4,350 | 6,000 | 6,500     |
| HT812 5/7 | 8             | 0.72                               | 0.54 | 2000 | 83  | High Speed | 3,675 | 5,000 | 6,600 | 7,500 | 9,950     |
| HT812 5/7 | 8             | 0.72                               | 0.51 | 1800 | 76  | Low Speed  | 3,200 | 4,300 | 5,400 | 7,000 | 8,400     |

\*Aqua Stat not required when using a King HW series hydronic thermostat with fan start-up delay. In-built Aqua Stat (AS) is available, consult factory for price and availability. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum. BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05. Grille colors available in White (-GW) or Black (-GB) or Almond (-GA). Add suffix to end of model number.

| MODEL     | AQUA STAT | CONTROLS FAN SWITCH | WHITE | GRILLES ALMOND | BLACK | WATER TEMPERATURE 140°F/60°C | WATER TEMPERATURE 160°F/72°C | VOLTS | AMPS |
|-----------|-----------|---------------------|-------|----------------|-------|------------------------------|------------------------------|-------|------|
| HT412 2/3 | AS        | FS                  | GW    | GA             | GB    | 2500                         | 3400                         | 120   | 0.36 |
| HT612 4/5 | AS        | FS                  | GW    | GA             | GB    | 4000                         | 5100                         | 120   | 0.36 |
| HT812 5/7 | AS        | FS                  | GW    | GA             | GB    | 5000                         | 6600                         | 120   | 0.54 |

## Engineering Specifications

Contractor shall supply and install H Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 83 CFM or 76 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" trade size Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grill screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated 1/4" quick connects.

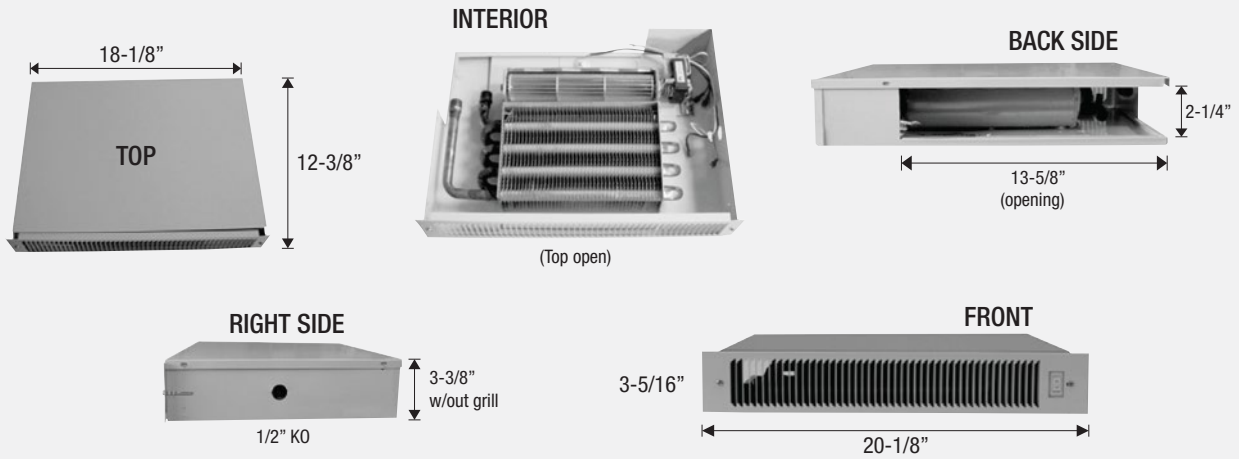
**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with 1/4" male brass blades for easy wiring.

**Water Connections:** 5/8" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** cETLus. . All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.

# Hydronic Kickspace Heater HT Series

## Dimensional Data



## Aquastat



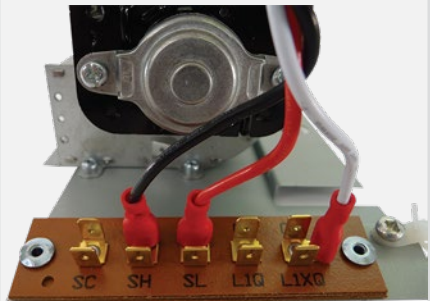
The optional **aqua stat** component makes sure the water temperature is over 115° before the fan is turned on.

## 3-Position Switch



All models include a pre-wired, clear, easy-to-read terminal board with wiring diagram.

## Terminal Board



The optional fan speed switch allows fan speeds of high, low and a center "off" position.

# Medium Hydronic Heater HM/HME Series


**Model Code:**

|    |   |    |     |       |    |
|----|---|----|-----|-------|----|
| HM | 8 | 12 | 6/9 | AS-FS | GW |
| A  | B | C  | D   | E     | F  |

**A: Series**
**B: Number of Copper Tubes in Coil**
**C: 12 - 120V**
**D: BTU Heat Output**
**E: Aqua Stat / Fan Switch**
**F: Grill White or Black color**


- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes
- Flow-through design
- 4 or 8 Aluminum fins per inch
- Easy motor removal for maintenance
- Permanently lubricated motor
- Powder-coated white grill
- Hi / Off / Lo fan switch
- Use HW series thermostats
- 2-year limited warranty

## HM / HME Series Hydronic Medium Heater - 4,960 to 18,700 BTU

King's HM / MHE Series medium hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in bedrooms, bathrooms, and laundry rooms. For use in both residential and commercial applications. Provides 4960 to 18,700 Btu heat output.

| Model Number                       | Volts                        | Can Size                 |                       |                        |                        | Grill Size                        |                                  |                                       |
|------------------------------------|------------------------------|--------------------------|-----------------------|------------------------|------------------------|-----------------------------------|----------------------------------|---------------------------------------|
| HM & HME 812 & 1012 – all versions | 120                          | 21¼" h x 14 ¼" w x 4¾" d |                       |                        |                        | 23¼" h x 15½" w x ¾" d            |                                  |                                       |
| MODEL                              | Water Pressure Drop at 2 GPM | 120°F 48°C               | 140°F* 60°C           | 160°F* 71°C            | 180°F 82°C 200°F MAX   | Motor Hi/Lo CFM                   | Decibels at 3-ft distance        | Hi/Lo: Amps Hi/Lo: Watts              |
| HM812 6/9                          | .72                          | 4800 Btu<br>3300 Btu     | 6250 Btu<br>4900 Btu  | 9500 Btu<br>7100 Btu   | 13700 Btu<br>11000 Btu | 3 watt output<br>250 / 150CFM     | Hi 55 dbA<br>Lo 52 dbA           | .30 / .29 Amps<br>36 / 34.8 Watts     |
| HM812 8/11                         | .72                          | 6000 Btu<br>4800 Btu     | 8550 Btu<br>7100 Btu  | 11200 Btu<br>8000 Btu  | 14800 Btu<br>11000 Btu | 5 watt output<br>375 / 220 CFM    | Hi 62 dbA<br>Lo 58 dbA           | .42 / .38 Amps<br>50.4 / 45.6 Watts   |
| HM1012 10/13                       | .90                          | 7500 Btu<br>5500 Btu     | 10000 Btu<br>7900 Btu | 13500 Btu<br>9750 Btu  | 16600 Btu<br>12000 Btu | 3 watt output<br>250 / 150CFM     | Hi 55 dbA<br>Lo 52 dbA           | .30 / .29 Amps<br>36 / 34.8 Watts     |
| HM1012-11/15                       | .90                          | 8812 Btu<br>6600 Btu     | 11700 Btu<br>8800 Btu | 15500 Btu<br>11600 Btu | 18700 Btu<br>14000 Btu | 5 watt output<br>375 / 220 CFM    | Hi 62 dbA<br>Lo 58 dbA           | .42 / .38 Amps<br>50.4 / 45.6 Watts   |
| Energy saver ECM Motor             | Water Pressure Drop at 2 GPM | 120°F 48°C               | 140°F* 60°C           | 160°F* 71°C            | 180°F 82°C             | Progressive CFM                   | RUN / START                      | Energy Saver Hi/Lo: Amps Hi/Lo: Watts |
| HME 812-8/11                       | .72                          | 6000 Btu<br>4800 Btu     | 8550 Btu<br>7100 Btu  | 11200 Btu<br>8000 Btu  | 14800 Btu<br>11000 Btu | 150 to 375 High<br>150 to 250 Low | Hi 57 / 54 dbA<br>Lo 54 / 51 dbA | .06 / .04 Amps<br>7.2 / 4.8 Watts     |
| HME1012-11/15                      | .90                          | 8812 Btu<br>6600 Btu     | 11700 Btu<br>8800 Btu | 15500 Btu<br>11600 Btu | 18700 Btu<br>14000 Btu | 150 to 375 High<br>150 to 250 Low | Hi 63 / 60 dbA<br>Lo 54 / 51 dbA | .09 / .06 Amps<br>10.8 / 7.2 Watts    |

\*most common water temperature range. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications.

Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum.

BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## Engineering Specifications

Contractor shall supply and install HM/HME Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 150-375 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" OD Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grille screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated ¼" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with ¼" male brass blades for easy wiring.

**Water Connections:** 1/2" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.



# Large Hydronic Heater HL/HLE Series



**Model Code:**

|    |    |    |      |       |    |
|----|----|----|------|-------|----|
| HL | 10 | 12 | 8/11 | AS-FS | GW |
| A  | B  | C  | D    | E     | F  |

**A:** Series  
**B:** Number of Copper Tubes in Coil  
**C:** 12 - 120V  
**D:** BTU Heat Output  
**E:** Aqua Stat / Fan Switch  
**F:** Grill White or Black color



- Tangential Blowers
- 1/2" Trade size copper tubes
- Easy motor removal for maintenance
- Hi / Off / Lo fan switch
- Fast Coil Heating
- Flow-through design
- Permanently lubricated motor
- Use HW series thermostats
- Quiet Operation
- 4 or 8 Aluminum fins per inch
- Powder-coated white grill
- 2-year limited warranty

## HL / HLE Series Large Hydronic Heater - 6,700 to 27,250 BTU

King's HL HLE Series large hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in public areas, corridors, entry ways and large rooms or hallways. For use in both residential and commercial applications. Provides 6700 to 27,250 BTU heat output. Recommended 17 BTU per square foot for new construction.

| Model Number                        | Volts | Can Size                 | Grill Size             |
|-------------------------------------|-------|--------------------------|------------------------|
| HL & HLE 1012 & 1412 – all versions | 120   | 24¾" h x 14 ¼" w x 4¾" d | 26¼" h x 15½" w x ¾" d |

| MODEL                     | FT. OF WATER PRESSURE DROP @ 2 GPM | 120°F<br>48°C          | 140°F*<br>60°C         | 160°F*<br>71°C         | 180°F<br>82°C<br>200°F MAX | Motor Hi/Lo<br>CFM                | Decibels at<br>3-ft distance | Hi/Lo: Amps<br>Hi/Lo: Watts                 |
|---------------------------|------------------------------------|------------------------|------------------------|------------------------|----------------------------|-----------------------------------|------------------------------|---|
| HL1012 8/11               | .90                                | 6000 BTU<br>4700 BTU   | 8550 BTU<br>6200 BTU   | 11100 BTU<br>8000 BTU  | 14800 BTU<br>11000 BTU     | 3 watt output<br>250 / 150CFM     | Hi 57/55 dbA<br>Lo 54/52 dbA | .30 / .29 Amps<br>36 / 34.8 Watts           |
| HL1012 10/13              | .90                                | 7500 BTU<br>5500 BTU   | 10000 BTU<br>8000 BTU  | 13500 BTU<br>9750 BTU  | 16600 BTU<br>12000 BTU     | 3 watt output<br>250 / 150CFM     | Hi 57/55 dbA<br>Lo 54/52 dbA | .30 / .29 Amps<br>36 / 34.8 Watts           |
| HL1012-11/15              | .90                                | 8812 BTU<br>6600 BTU   | 11700 BTU<br>8800 BTU  | 15500 BTU<br>11600 BTU | 18700 BTU<br>14000 BTU     | 5 watt output<br>375 / 220 CFM    | Hi 64/62 dbA<br>Lo 60/58 dbA | .42 / .38 Amps<br>50.4 / 45.6 Watts         |
| HL1412-15/20              | 1.2                                | 10600 BTU<br>7400 BTU  | 15500 BTU<br>11600 BTU | 20000 BTU<br>15000 BTU | 26000 BTU<br>19500 BTU     | 5 watt output<br>375 / 220 CFM    | Hi 64/62 dbA<br>Lo 60/58 dbA | .42 / .38 Amps<br>50.4 / 45.6 Watts         |
| HL1412-20/25              | 1.2                                | 17000 BTU<br>13000 BTU | 20000 BTU<br>16800 BTU | 24050 BTU<br>19100 BTU | 27250 BTU<br>22500 BTU     | 9 watt output<br>375 / 220 CFM    | Hi 64/62 dbA<br>Lo 60/58 dbA | .42 / .38 Amps<br>50.4 / 45.6 Watts         |
| Energy saver<br>ECM Motor | FT. OF WATER PRESSURE DROP @ 2 GPM | 120°F<br>48°C          | 140°F*<br>60°C         | 160°F*<br>71°C         | 180°F<br>82°C              | Progressive<br>CFM                | Decibels at<br>3-ft distance | Energy saver<br>Hi/Lo: Amps<br>Hi/Lo: Watts |
| HLE 1012-11/15            | .90                                | 8812 BTU<br>6600 BTU   | 11700 BTU<br>8800 BTU  | 15500 BTU<br>11600 BTU | 18700 BTU<br>14000 BTU     | 150 to 375 High<br>150 to 250 Low | Hi 57/55 dbA<br>Lo 54/52 dbA | .06 / .04 Amps<br>7.2 / 4.8 Watts           |
| HLE 1412-15/20            | 1.2                                | 10600 BTU<br>8812 BTU  | 15500 BTU<br>11700 BTU | 20000 BTU<br>15500 BTU | 26000 BTU<br>18700 BTU     | 150 to 375 High<br>150 to 250 Low | Hi 63/61 dbA<br>Lo 54/52 dbA | .09 / .06 Amps<br>10.8 / 7.2 Watts          |

\*most common water temperature range. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum. BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## Engineering Specifications

Contractor shall supply and install HL/HLE Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 150 to 375 CFM of air. Quiet operation of less than 53 dBA weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" ID Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grill screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electrogalvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated ¼" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with ¼" male brass blades for easy wiring.

**Water Connections:** 1/2" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**ECM Motor:** We program the motor to start slowly and quietly at 50% of its maximum speed. Over a 3 to 5 minute period, if the room is not reaching the set point it will slowly ramp up to 100% airflow to heat the room. It not only saves energy but also makes a large output heater have a soft quiet start, yet can increase to its maximum output and sound level over time while not disturbing residents.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.

# Hydronic To Electric Conversion HI Series



**Model Code:**

|    |   |    |    |
|----|---|----|----|
| HI | 4 | 24 | 22 |
| A  | B | C  | D  |

- A: Series
- B: Length
- C: Volts (24=240)
- D: Watts



- Maintains historical building features
- Tenants can now be billed independently
- 3 aluminum ribbon heating elements
- ETL approved
- Increase comfort with zone control
- No boiler technician required
- Natural convection
- Full length limit
- Integrate with building management systems
- Simple and easy to install
- Custom sizes available
- Built in J box
- 1-year limited warranty

## Boiler Conversion: Steam or Hot Water to Electric Systems

Converting your existing steam or hot water heating system is easy with the King electric heating unit! It is ETL approved for any appropriate sized steam heating cabinet – and there are countless sizes to fit your radiator cabinets! No need to remove the steam coil, just add the electric unit to the cabinet, a remote mount thermostat and tenant can now be billed for the heating and boiler can be dismantled.

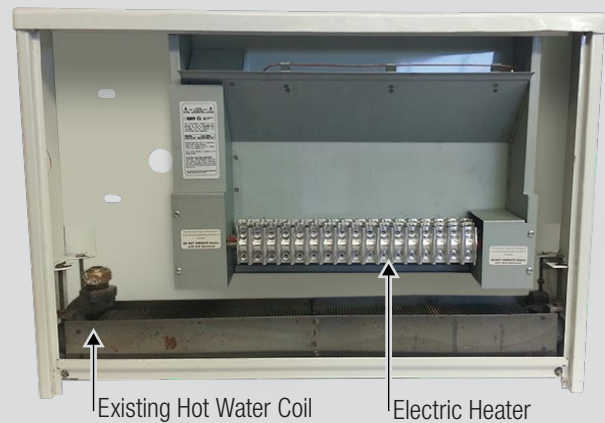
### There are three standard interior cabinet sizes to accommodate your retrofit!

| MODEL | VOLTS       | WATTS          | MIN. REQ. CABINET SPACE | INSTALLED HEATER SECTION |
|-------|-------------|----------------|-------------------------|--------------------------|
| HI2-  | 208/240     | 563/844        | 29" x 20" x 4¼"         | 18" x 14" x 3¾"          |
| HI3-  | 208/240     | 844/1126       | 40" x 20" x 4¼"         | 31" x 14" x 3¾"          |
| HI4-  | 208/240/277 | 1500/1687/2250 | 49" x 20" x 4¼"         | 42" x 14" x 3¾"          |

Without Conversion



With Conversion



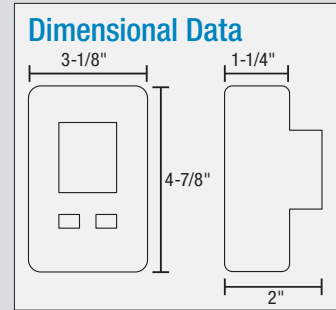
# Hydronic Thermostat HW, HWP & HWPT



**HW120**  
Non Programmable  
For Hydronic Heaters



**HWP120**  
Programmable  
For Hydronic Heaters  
**HWPT120**  
Programmable  
Adds Timer for Pump



- Save up to 15% on your heating costs (HW)
- Save up to 28% on your heating costs (HWP/HWPT)
- Even temperature control
- Pre-programmed
- LCD backlight display with temperature
- Green backlight display
- Push button temp. settings
- 1 year warranty
- Electronic temperature sensing is the most accurate technology
- 3 minute cycle rate reduces temperature swings and increases comfort at all control settings
- Complies with all codes requiring anticipated or electronic thermostats
- Single pole design with third wire to power display
- Shallow design allows more wiring room inside full electrical boxes
- 2 circuits, 1 minute delay on 2nd circuit
- HWPT adds pump exerciser for potable water applications



## Ordering Information

| MODEL   | UPC   | TYPE   | WIRE LEADS | VOLTS | AMPS | TEMP. RANGE |
|---------|-------|--|------------|-------|------|-------------|
| HW120   | 19048 | Electronic Line Voltage                                    | 4 Wire     | 120   | 12.5 | 40°F-95°F   |
| HWP120  | 19047 | 7 Day Independent Electronic Programmable                  | 4 Wire     | 120   | 12.5 | 44°F-95°F   |
| HWPT120 | 19049 | 7 Day Ind. Elec. Prog. w/ 15 min. pump timer every 24 hrs. | 4 Wire     | 120   | 12.5 | 44°F-95°F   |

## The HW Non Prog. Electronic Thermostat

The HW (hot water) Series was intended for use as a 2 circuit thermostat controlling a circuit pump and fan on a hydronic coil heating system, though it could be used when needing a 2 circuit control with 1 minute delay on the second circuit. This control solves the historic problem of using a standard 22 Amp bi-metal heating thermostat on a hydronic system which require high Amp loads to be accurate. Without a load they will not shut off properly, continuing to circulate hot water when not needed. This control positively controls both circuits creating energy savings and superior comfort control, while providing excellent hydronic control.

## The HWP Programmable Electronic Thermostat

Adds 7 independent day programming with 4 times and temperature settings per day to save energy and also start system before you get home.

## The HWPT Programmable Electronic Thermostat

Programmable features plus it adds a 15 minute pump exerciser every 24 hours as required by code on potable water heating systems. First cycle will start in 12 hours from the power on time so that all cycling will happen at night.

### HW Technical Specifications

**Temperature Range:**

40°F to 95°F (4°C - 35°C)

**Temperature Default:**

Your saved setting

**Display Format:** LCD

**Display Size:** Large Format

**Sample Rate:** Every 60 seconds

**Delay On or Off:** 3 minutes

**Heat Indicator:** Radiant

**Relay Rating:** 12.5 Amps

**Accuracy:** ± .9°F @ 1500W

**Maximum Amps:** 12.5 res. per pole

**Maximum Watts:** 3000 @ 240V  
2600 @ 208V - 1500 @ 120V per pole

**Minimum Watts:** 0

**Power Source:** 120VAC, 50-60Hz

- 12.5 Amps per circuit.

- Four wire installation.
- Snap action relays.
- Wire leads #16 AWG.
- ¾" depth into wire box.
- 40°F to 95°F (4°C - 35°C) set point range.
- Thermistor sensor.
- Digital thermometer/set point.
- Large LCD display.
- Meets energy code requirements.
- 1.2 degrees differential.
- 3 min. delay between cycles.
- 1 min. delay between circuits.
- For use on hydronic fan coils.
- On/Off switch for green backlight & system.
- Battery backup.

### HWP/HWPT Technical Specifications

**Temperature Range:**

44°F to 95°F (7°C - 35°C)

**Temperature Default:**

Your saved setting

**Display Format:** LCD

**Display Size:** Large Format

**Sample Rate:** Every 60 seconds

**Delay On or Off:** 3 minutes

**Heat Indicator:** LCD "heater on"

**Relay Rating:** 12.5 Amps

**Accuracy:** ± 1.2°F @ 2000W

**Maximum Amps:** 12.5 resistive

**Maximum Watts:** 3000 @ 240V  
2600 @ 208V - 1500 @ 120V

**Minimum Watts:** 0

**Power Source:** 120VAC, 50-60Hz

- 12.5 Amps per circuit.

- Four wire installation.
- Snap action relays.
- Wire leads #16 AWG.
- ¾" depth into wire box.
- 44°F to 95°F (7°C - 35°C) set point range.
- Thermistor sensor.
- Digital thermometer/set point.
- Large LCD display.
- Meets energy code requirements.
- 1.2 degrees differential.
- 3 min. delay between cycles.
- 1 min. delay between circuits.
- For use on hydronic fan coils.
- On/Off switch for green backlight & system.
- Battery backup.
- HWPT adds exerciser pump timer.

# Electronic Hydronic Thermostat HBP



2 Circuit Control of Pump & Fan for Hydronic System



Non Programmable



- Save up to 28% on your heating costs
- Even temperature control
- LCD heater ON indicator
- LCD display with temperature
- White color with gray print
- 1 year warranty
- Uses AA batteries
- Electronic temperature sensing is the most accurate technology
- 3 minute cycle rate reduces temperature swings and increases comfort at all control settings
- Complies with all codes requiring anticipated or electronic thermostats
- Dual single pole design with three wires
- Shallow design allows more wiring room inside full electrical boxes
- Flame icon heat indicator, low battery indication



## Ordering Information

| MODEL | UPC   | TYPE                              | PACKAGING       | WIRE LEADS | VOLTS       | AMPS<br>Per Pole | TEMP. RANGE |
|-------|-------|-----------------------------------|-----------------|------------|-------------|------------------|-------------|
| HBP   | 19051 | 5+1+1 Day Electronic Programmable | Box (50 pieces) | 3 Wire     | 120/208/240 | 16               | 40°F-95°F   |

## The HBP Electronic Thermostat

This HBP Series was intended to be used as a 2 circuit thermostat controlling a circulation pump and a fan on a hydronic coil heating system, though it could have other uses where you need a 2 circuit control with a 1 minute delay on the 2nd circuit. This control will solve the historic problem of using a standard 22 Amp bi-metal heating thermostat on a hydronic system which require high Amp loads to be accurate. Without a load on a Bi-metal thermostat it will not shut off circulating hot water when not needed. This HBP control positively controls both circuits creating energy savings, superior control and comfortable living spaces.

## Installation

This line voltage device should be installed and serviced by a qualified electrician. The thermostat has been designed to mount to a standard 2" X 4" electrical outlet box. Leveling of the thermostat is not required. Mounting screws are provided. Mount the thermostat about five feet above the floor in an area with good air circulation. Avoid mounting the thermostat where it will be affected by drafts, air from ducts, and radiant heat sources such as appliances, the sun or plumbing pipes. Typically the best location is above a light switch for that room.

## Technical Specifications

### Temperature Range:

40°F to 95°F (4°C - 35°C)

**Temperature Default:** 68°F (20°C)

**Display Format:** LCD

**Display Size:** Large Format

**Sample Rate:** Every 60 seconds

**Delay On or Off:** 3 minutes

**Heat Indicator:** LCD "heater on"

**Relay Rating:** 16 Amps

**Relay:** AA battery powered

**Accuracy:** ± .9°F @ 2000W

**Maximum Amps:** 16 resistive

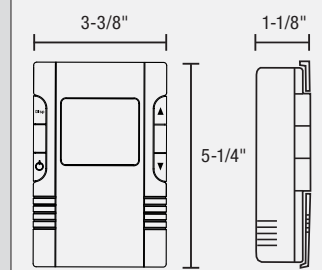
**Maximum Watts:** 3840 @ 240V -  
3328 @ 208V - 1920 @ 120V

**Minimum Watts:** 0

**Power Supply:** 1-240VAC / 1-30VDC

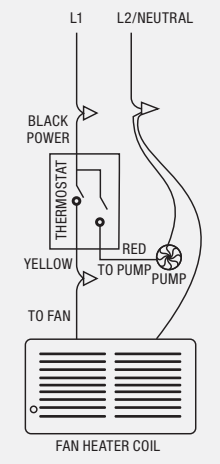
- 16 Amps at 240V, 3840 Watts.
- 16 Amps at 208V, 3328 Watts.
- 16 Amps at 120V, 1920 Watts.
- Three wire installation.
- Snap action relay built-in.
- Wire leads #12 AWG.
- No depth into wire box.
- 40°F to 95°F (4°C to 35°C) set point range.
- Dual switch operation.
- Electronically anticipated.
- Battery operated by AA batteries
- Thermistor sensor.
- Contemporary styling.
- Digital thermometer/set point.
- LCD display.
- Meets all energy requirements.
- 1.5 degrees maximum.
- 3 min. delay between cycles.

### Dimensional Data



### Wiring Diagram

120/208/240



# High Velocity Drum Fans Direct Drive



### Model Code:

DFC -24 D -S  
A B C D

A: Series  
B: Fan Diameter  
(36", 42", 48")  
C: D = Direct Drive Motor  
D: -S = Swivel Base (Optional)



- 2-speed switch Belt drive motor
- 3 aerodynamically balanced blades
- Convenient handles & Rugged wheels
- Meets OSHA 1910.212(A)(5) requirements
- 9 Ft, 120V grounded cord & plug
- Scratch resistant, powder- coated finish
- Built-in cord wrap
- Heavy duty 20 gauge steel drum
- Reinforced with tubular cross braces
- Standard color: King Green
- Optional swivel base available
- 1-year limited warranty

## The King High Velocity Drum Fans - Direct Drive

**King High Velocity Direct Drive Drum Fans** are great for heavy duty air circulation in light duty commercial applications where an economical solution is needed. They are dependable, running on less power and require less maintenance compared to other motors. The 2-speed, direct drive fan has 3 aerodynamically balanced aluminum blades for even, steady airflow and to provide maximum airflow and motor efficiency. The scratch resistant King green finish looks sharp and is easy to clean. Rugged flat-free wheels with metal hubs last for years and roll easily over uneven surfaces. Cord wrap for convenient storage. UL listed.

### Ordering Information

| MODEL NUMBER | UPC<br>#093319 | DESCRIPTION                        | CFM   | WT. (lbs.) |
|--------------|----------------|------------------------------------|-------|------------|
| DFC-24D-S    | 32705          | Drum Fan, 24" Direct Drive, Swivel | 7300  | 39.04      |
| DFC-30D-S    | 32707          | Drum Fan, 30" Direct Drive, Swivel | 8800  | 54.96      |
| DFC-36D      | 32709          | Drum Fan, 36" Direct Drive, Fixed  | 11630 | 65.74      |

### Accessories

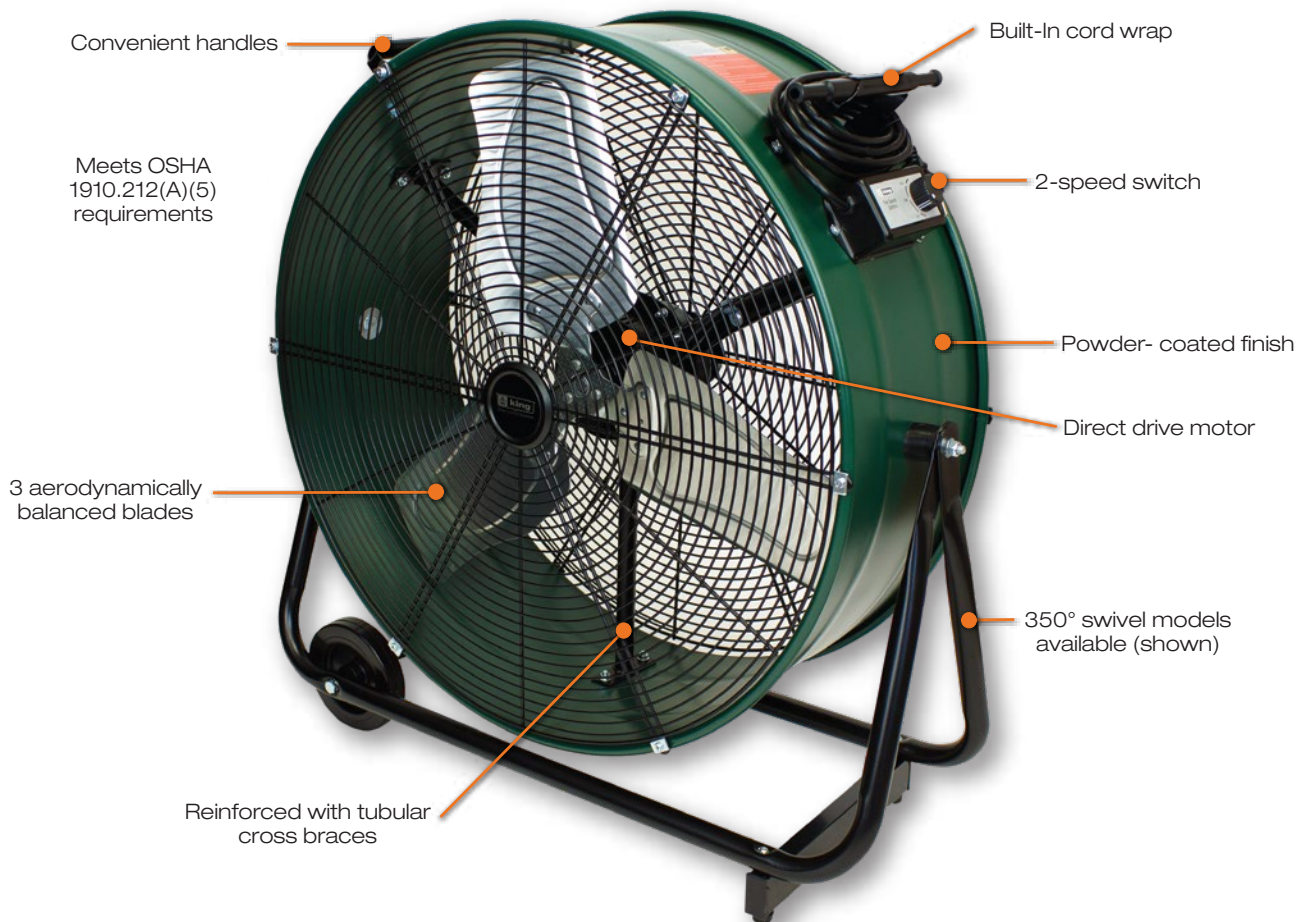
| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| FAN-SPEED-CONTROLLER | 55378 | Fan Motor Variable Speed Control Plug-In, 120V 2.5A Max | 0.5             |



FAN-SPEED-CONTROLLER

# High Velocity Drum Fans Direct Drive

## Direct Drive



# High Velocity Drum Fans Belt Drive



### Model Code:

|     |     |   |
|-----|-----|---|
| DFC | -24 | B |
| A   | B   | C |

A: Series

B: Fan Diameter  
(36", 42", 48")

C: B = Belt Drive Motor



- 2-speed switch Belt drive motor
- Incredibly quiet for its size & performance levels
- 4 aerodynamically balanced blades
- Convenient handles & Rugged wheels
- Meets OSHA 1910.212(A)(5) requirements
- 9 Ft, 120V grounded cord & plug
- Scratch resistant, powder- coated finish
- Built-In cord wrap
- Heavy duty 20 gauge steel drum
- Reinforced with tubular cross braces
- Standard color: King Green
- 1-year limited warranty

## The King High Velocity Drum Fans - Belt Drive

**King High Velocity Industrial Belt Drive Drum Fans** were specifically designed for industrial applications where quality, performance, and durability are required. Rugged and reliable, they make less noise and use a lower power load, which gives the fan's motor a longer life. The 2-speed, belt drive fan has 4 aerodynamically balanced aluminum blades for even, steady airflow and to provide maximum airflow and motor efficiency. The scratch-resistant King green finish looks sharp and is easy to clean. Rugged flat-free wheels with metal hubs last for years and roll easily over uneven surfaces. Cord wrap for convenient storage. UL listed.

### Ordering Information

| MODEL NUMBER | UPC #093319 | DESCRIPTION                     | CFM   | WT. (lbs.) |
|--------------|-------------|---------------------------------|-------|------------|
| DFC-42B      | 32711       | Drum Fan, 42" Belt Drive, Fixed | 15800 | 96.01      |
| DFC-48B      | 32712       | Drum Fan, 48" Belt Drive, Fixed | 17800 | 118.5      |

### Accessories

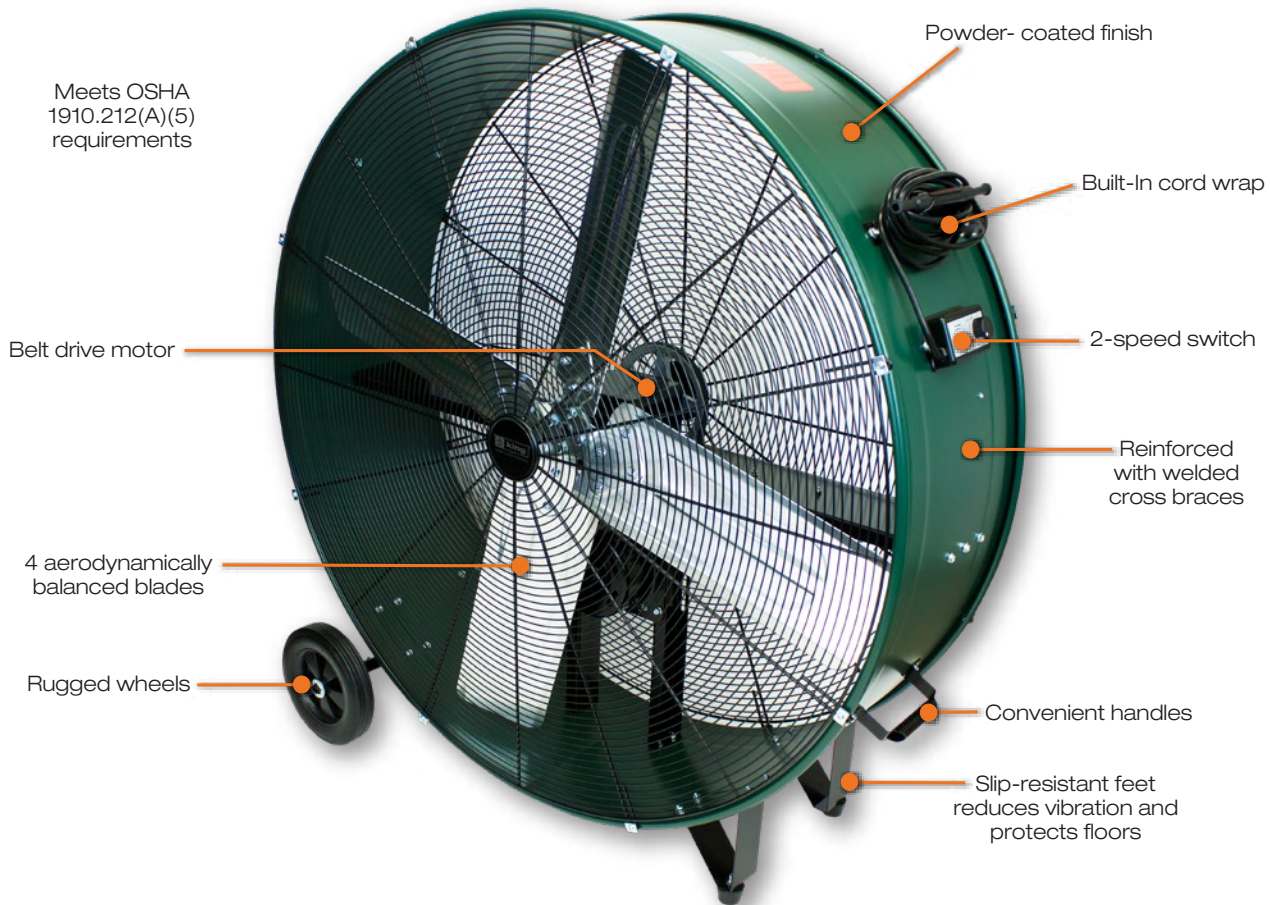
| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| FAN-SPEED-CONTROLLER | 55378 | Fan Motor Variable Speed Control Plug-In, 120V 2.5A Max | .05             |



FAN-SPEED-CONTROLLER

# High Velocity Drum Fans Belt Drive

## Belt Drive





# High Velocity Commercial Air Circulator PFC Series



Model Code:

PFC -24  
A B

A: Series  
B: Fan Diameter  
(24", 30")



- Heavy duty air circulation
- Available in 24" & 30" Models
- 2-speed switch controls airflow output
- Direct drive motor for dependability
- Pull chain switch
- Scratch resistant, powder-coated finish
- 3 aerodynamically balanced blades
- Heavy duty steel fan guards
- Meets OSHA 1910.212(A)(5) requirements
- 9 Ft, 120V grounded cord & plug
- Adjustable height from 57" to 75"
- Standard color: King Green
- 1-year limited warranty

## The King High Velocity Commercial Air Circulator

**King High Velocity Commercial Air Circulators** are a powerful commercial-grade solution for cooling workshops, warehouses, factories, gyms and more. The direct drive motor is dependable, running on less power and require less maintenance compared to other motors. The 2-speed, direct drive fan has 3 aerodynamically balanced aluminum blades for even, steady airflow and to provide maximum airflow and motor efficiency. The scratch resistant King green finish looks sharp and is easy to clean. Height adjustable from 57" to 75" to direct the air flow where you need it most.

### Ordering Information

| STOCK CODE | UPC #093319 | MODEL NUMBER | DESCRIPTION                                      | CFM  | WT. (lbs.) |
|------------|-------------|--------------|--|------|------------|
| A          | 32721       | PFC-24       | 24" Commercial Air Circulator With Pedestal Base | 8800 | 67.2       |
| A          | 32722       | PFC-30       | 30" Commercial Air Circulator With Pedestal Base | 9100 | 73.3       |

### PFC Series

3 aerodynamically balanced blades

2-Speed Pull Chain Switch-Controls airflow output to match your needs

9 Ft Grounded Three Wire Conductor Cord & Plug, 120V - For easy portability

Scratch resistant, powder coated finish



# High Velocity Outdoor Rated Air Circulator PFO Series



Optional Misting Kit (Shown)



Model Code:

PFO -24  
A B

A: Series  
B: Fan Diameter  
-24 = 24"  
-30 = 30"



- 24" & 30" Commercial High Velocity Oscillating Air Circulator
- Outdoor Rated with Pedestal Base
- Optional Misting Kit Available
- Optional Fan-Speed-Controller
- 3-Speed Pull Chain Switch
- Totally Enclosed, Outdoor Rated Motor
- 3 Aerodynamically Balanced Blades
- Heavy Duty Steel Fan Guards
- Meets OSHA 1910.212(A)(5) Requirements
- 9 Ft, 120V Grounded Cord & GFCI Plug
- Scratch Resistant, Powder-Coated Finish
- Adjustable Height from 57" to 75"
- UL Certified for USA & Canada
- 1-Year Limited Warranty

## The King High Velocity Commercial Air Circulator

**King Commercial High Velocity Outdoor Rated Oscillating Air Circulators** are a powerful commercial-grade solution for cooling workshops, warehouses, factories, gyms and more. This oscillating fan motion distributes airflow in a 80 degree sweeping motion or from a fixed position. The waterproof, totally enclosed motor is outdoor rated for wet locations and offers 3-speeds. Featuring 3 aerodynamically balanced aluminum blades for even, steady airflow and to provide maximum air and motor efficiency. The scratch resistant King green finish looks sharp and is easy to clean. Height adjustable from 57" to 75" to direct the air flow where you need it most.

### Ordering Information

| MODEL NUMBER | UPC #093319 | DESCRIPTION   | CFM            | WT. (lbs.) |
|--------------|-------------|---|----------------|------------|
| PFO-24       | 33151       | 24" Outdoor Rated Oscillating Circulator With Pedestal Base | 7500/6200/4900 | 67.2       |
| PFO-30       | 33152       | 30" Outdoor Rated Oscillating Circulator With Pedestal Base | 8200/6800/5300 | 73.3       |

### Accessories

| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| PFO-MISTKIT          | 33153 | Add-On Accessory For Optional Misting Feature           | 0.5             |
| FO-COVER-24          | 55376 | 24" Water Resistant Fan Cover                           | 0.25            |
| FO-COVER-30          | 55377 | 30" Water Resistant Fan Cover                           | 0.25            |
| FAN-SPEED-CONTROLLER | 55378 | Fan Motor Variable Speed Control Plug-In, 120V 2.5A Max | 0.5             |



FAN-SPEED-CONTROLLER



FO-COVERS  
(Available in 24" & 30")

# High Velocity Outdoor Rated Air Circulator PFO Series

## PFO Series

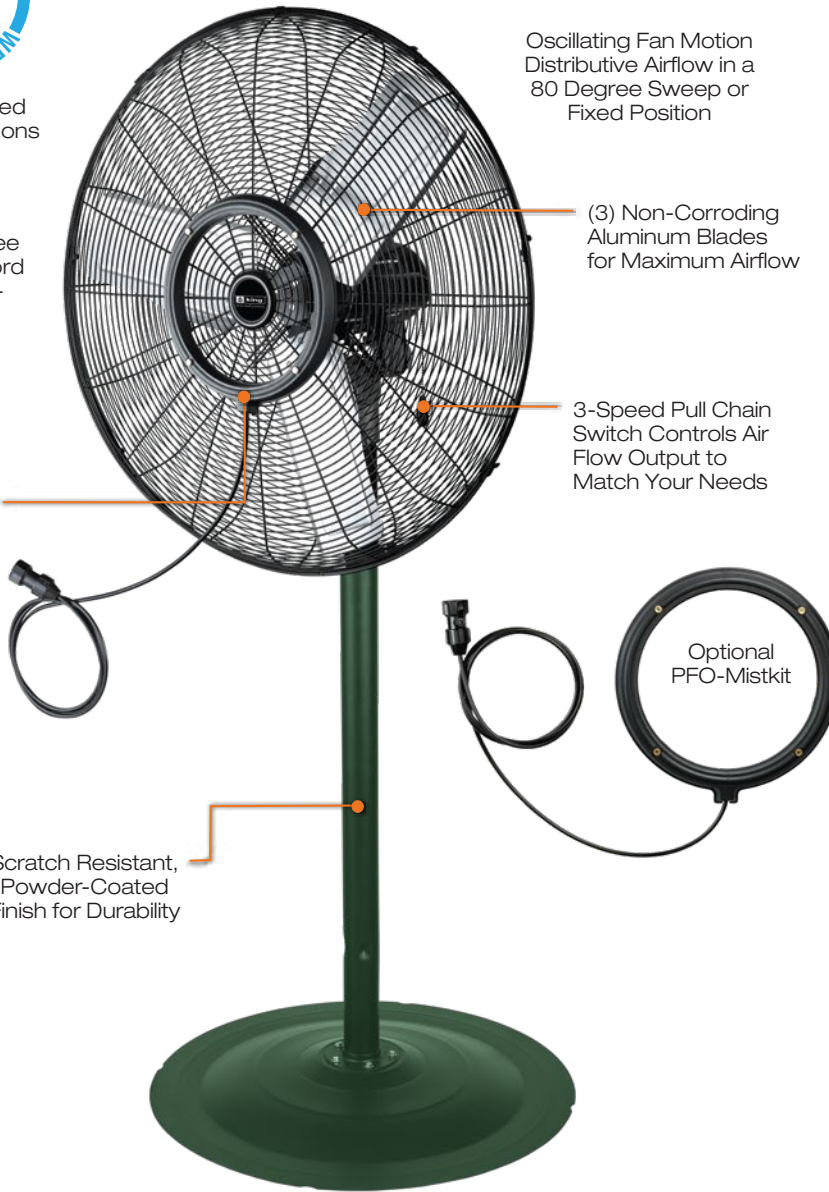


Outdoor Rated  
for Wet Locations

9 Ft Grounded Three  
Wire Conductor Cord  
& GFCI Plug, 120V -  
For Easy Portability  
& Safety

Optional Misting  
Kit Available: Adds  
a Fine Mist of Cool  
Comfort to Hot  
Environments

Scratch Resistant,  
Powder-Coated  
Finish for Durability



Oscillating Fan Motion  
Distributive Airflow in a  
80 Degree Sweep or  
Fixed Position

(3) Non-Corroding  
Aluminum Blades  
for Maximum Airflow

3-Speed Pull Chain  
Switch Controls Air  
Flow Output to  
Match Your Needs

Optional  
PFO-Mistkit

Water Resistant  
Fan Cover  
(Available in 24" & 30")



# High Velocity Outdoor Rated Air Circulator WFO Series



Optional Misting Kit (Shown)



**Model Code:**

WFO -24  
A B

A: Series  
B: Fan Diameter  
-24 = 24"  
-30 = 30"



- 24" & 30" Commercial High Velocity Oscillating Air Circulator
- Outdoor Rated with Wall Mount
- Wall mounted to direct airflow
- 80 degree oscillating motion
- Optional Misting Kit Available
- Optional Fan-Speed-Controller
- 3-Speed Pull Chain Switch
- Totally Enclosed, Outdoor Rated Motor
- 3 Aerodynamically Balanced Blades
- Heavy Duty Steel Fan Guards
- Meets OSHA 1910.212(A)(5) Requirements
- 9 Ft, 120V Grounded Cord & GFCI Plug
- Scratch Resistant, Powder- Coated Finish
- UL Certified for USA & Canada
- 1-Year Limited Warranty

## The King High Velocity Commercial Air Circulator

**King Commercial High Velocity Outdoor Rated Oscillating Air Circulators** are a powerful commercial-grade solution for cooling workshops, warehouses, factories, gyms and more. This oscillating fan motion distributes airflow in a 80 degree sweeping motion or disengage for manual desired hand positioning. The waterproof, totally enclosed motor is outdoor rated for wet locations and offers 3-speeds. Featuring 3 aerodynamically balanced aluminum blades for even, steady airflow and to provide maximum air and motor efficiency. The scratch resistant King green finish looks sharp and is easy to clean. Wall Mounted to direct the air flow where you need it most.

### Ordering Information

| MODEL NUMBER | UPC #093319 | DESCRIPTION   | CFM            | WT. (lbs.) |
|--------------|-------------|---|----------------|------------|
| WFO-24       | 33154       | 24" Outdoor Rated Oscillating Wall Mounted Air Circulator | 7500/6200/4900 | 67.2       |
| WFO-30       | 33155       | 30" Outdoor Rated Oscillating Wall Mounted Air Circulator | 8200/6800/5300 | 73.3       |

### Accessories

| MODEL                | UPC   | DESCRIPTION   | SHIP WEIGHT lbs |
|----------------------|-------|---|-----------------|
| PFO-MISTKIT          | 33153 | Add-On Accessory For Optional Misting Feature           | 0.5             |
| FO-COVER-24          | 55376 | 24" Water Resistant Fan Cover                           | 0.25            |
| FO-COVER-30          | 55377 | 30" Water Resistant Fan Cover                           | 0.25            |
| FAN-SPEED-CONTROLLER | 55378 | Fan Motor Variable Speed Control Plug-In, 120V 2.5A Max | 0.5             |



FAN-SPEED-CONTROLLER



FO-COVERS (Available in 24" & 30")

# High Velocity Outdoor Rated Air Circulator WFO Series

## WFO Series



Outdoor Rated  
for Wet Locations

Water Resistant  
Fan Cover  
(Available in 24" & 30")

Oscillating Fan Motion Distributive  
Airflow in a 80 Degree Sweep or  
Disengage for Manual Desired  
Hand Positioning

(3) Non-Corroding  
Aluminum Blades  
for Maximum Airflow

3-Speed Pull Chain  
Switch Controls Air  
Flow Output to  
Match Your Needs

Optional Misting  
Kit Available: Adds  
a Fine Mist of Cool  
Comfort to Hot  
Environments

Wall Mount Bracket

9 Ft Grounded Three  
Wire Conductor Cord  
& GFCI Plug, 120V -  
For Easy Portability  
& Safety

Optional  
PFO-Mistkit

