







IEH1

Industrial-Grade Electric Unit Heater For Ordinary Locations

www.HazlocHeaters.com

HH Hazloc Heaters[™] is a manufacturer of industrial-grade unit heaters suitable for hazardous and severe-duty locations.



The **IEH1 Evolution** series of industrial-grade electric air heaters are engineered to meet the most demanding requirements of industrial environments. The harsh operating conditions require heating equipment that is safe, reliable, dependable, and available when you need it. **IEH1** unit heaters are designed for maximum heating performance and to provide primary or supplementary heating of people or equipment in non-hazardous and noncorrosive environments.

Designed for heavy-duty use and improved performance!

All *Hazloc Heaters*[™] IEH1 models are designed to meet U.S. and Canadian certification standards. The three housing sizes of IEH1 heaters are available in 76 model choices of voltage and heat output combinations to meet your specific requirements. Numerous factory built-in options are also available for added convenience and safety.

The rugged and versatile **IEH1** heater incorporates high quality stainless steel tubular elements, high performance fan and motor assembly, and sturdy powder coated 16 GA galvanized steel housing and inlet/outlet grilles. The high air flow and air throw, up to 50 feet (15 m), promote air circulation within the space. Furthermore, the more uniform temperature increases comfort levels and helps eliminate cold spots.

Applications!

IEH1 heaters are suitable for a wide variety of applications that include, but are not limited to, aircraft hangars, power generation stations, mine shafts, hoist houses, factories, pump houses, maintenance shops, chemical plants, welding shops, entryways, garages, as well as service stations.



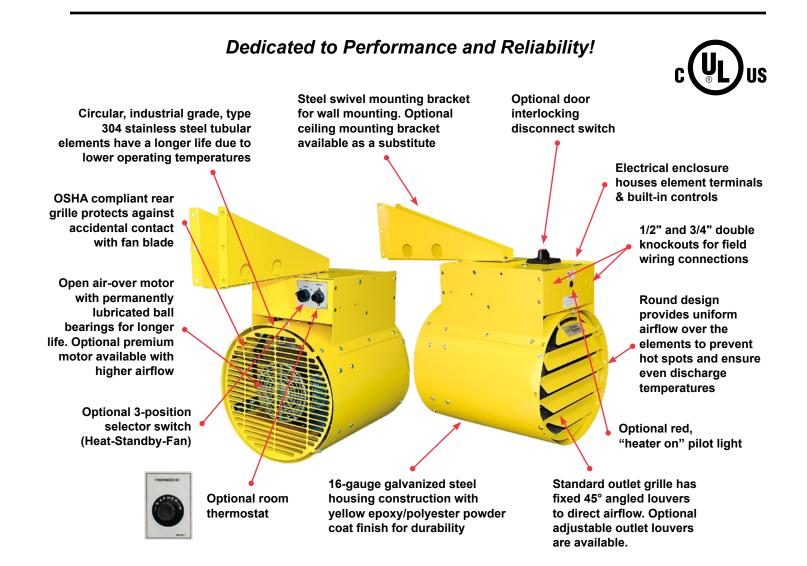
Rugged design, but easily maintained!

IEH1 heaters are designed for industrial applications with all features being heavy-duty to meet your most demanding environments and long-life expectations. Even with heavy-gauge galvanized steel construction used throughout the heater, it does not inhibit maintenance of the product since it has been designed for easy installation and field servicing. All components and motor are factory-wired to a single terminal block for field wiring, eliminating the chance for field error and reducing installation costs. This heater will reduce the downtime and maintenance costs normally experienced in heaters of standard design.



Maximum durability... rugged finned tubular elements!

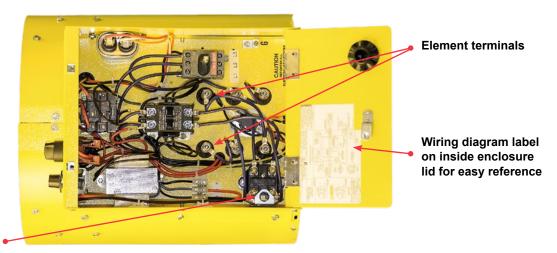
The **IEH1 Evolution** series of heaters uses circular, industrial grade, type 304 stainless steel finned tubular elements for **maximum durability and longer life** in your demanding applications. The round design of the unit heater provides uniform airflow over the elements to prevent hot spots and ensures even discharge temperatures.



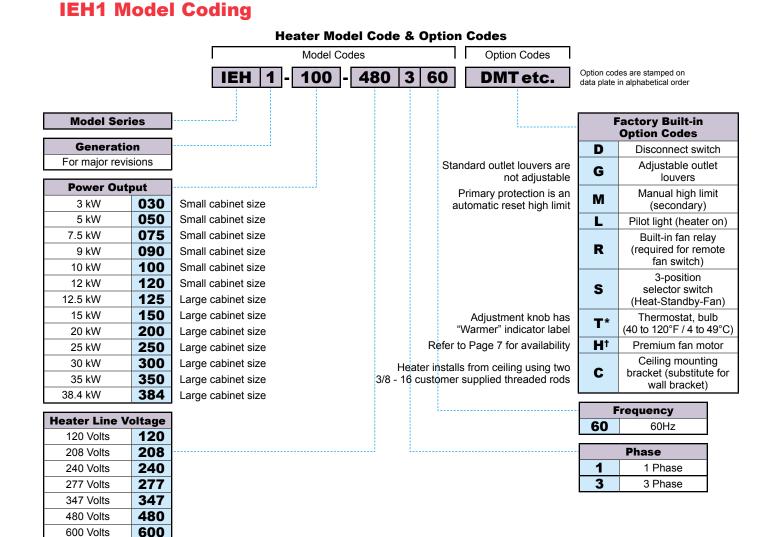
Electrical Enclosure

Built-in controls include automatic reset overtemperature cutout, controlling contactor, transformer for 24 VAC control circuit, and terminal block for field wiring. Heater, fan motor and controls are all connected to the same branch circuit. All models have a fan delay which is a thermal cutout attached to the element.

> Optional secondary manual reset overtemperature cutout available

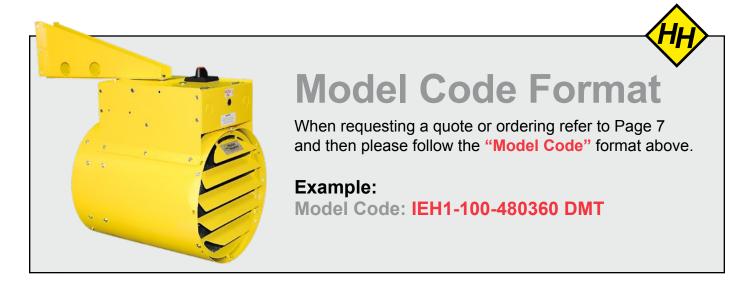






* Thermostat setting should not exceed a room temperature of 104°F (40°C).

[†] The 10, 12, 20, 35 & 38.4 kW models and all 120V, 277V, 347V & 600V models come standard with premium fan motor. On all other models it is an option. Refer to Page 7 for availability.





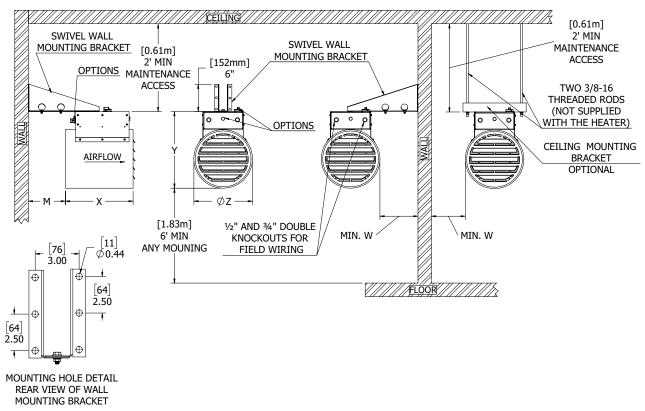
Dimor	aiona Airflowa and Waight	kW			
Dimer	sions, Airflows and Weight	3 to 12	12.5 to 20	25 to 38.4	
	"X" in. (mm)		15 (381)	16.25 (413)	20.75 (527)
Overall heater dimensions	"Y" in. (mm)		17 (432)	23.50 (597)	23.50 (597)
umenerer	"Z" in. (mm)		13 (330)	19.25 (489)	19.25 (489)
Mounting	"M" in. (mm)		8.25 (210)	7 (178)	4 (102)
dimensions	"W" in. (mm)		8.75 (222)	5.50 (140)	5.50 (140)
	Base Fan Motor (1200 rpm)	Air volume cfm (m³/hr)	362 (615)	1342 (2280)	1237 (2102)
Airflow characteristics	Premium Fan Motor (1800 rpm)*	Air volume cfm (m³/hr)	618 (1050)	1774 (3014)	1635 (2778)
	Maximum air throw f	t. (m)	15 (5)	50 (15)	50 (15)
Noise Level (dB)	Standard fan motor (12	:00 rpm)	64	68	68
	Premium fan motor (18	00 rpm)	75	84	84
Approximate	Net lbs (kg)		45 (20)	60 (27)	80 (36)
weight	Shipping Ibs (kg	1)	60 (27)	84 (38)	130 (59)
Shipping package dimensions	in. (mm)		25 x 18 x 15 (635 x 457 x 381)	35 x 21 x 30 (889 x 533 x 762)	35 x 21 x 30 (889 x 533 x 762)

Note: Heaters are packed inside cardboard boxes with protective packing material.

* The 10, 12, 20, 35 & 38.4 kW models and all 120V, 277V, 347V & 600V models come standard with premium fan motor. On all other models it is an option. Refer to Page 7 for availability.

Recommended Maximum Mounting Height From Floor ft. (m)							
3 to 5 kW	7.5 to 10 kW	12 to 20 kW	25 to 38.4 kW				
10 (3)	15 (4.6)	20 (6.1)	25 (7.6)				

IEH1 Physical Dimensions



IEH1 General Specifications

Approvals	Certification	cULus - Certified to Canadian and U.S. standards.					
Cabinet	Housing material	16-gauge (0.0635 in.) (1.61 mm) galvanized steel with yellow epoxy/polyester powder coat paint.					
	Inlet grille	16-gauge (0.0635 in.) (1.61 mm) galvanized steel with yellow epoxy/polyester powder coat paint. Meets OSHA requirements.					
	Outlet grille	16-gauge (0.0635 in.) (1.61 mm) galvanized steel fixed louvers with yellow epoxy/ polyester powder coat paint. For adjustable outlet louvers select option code (G).					
	Fasteners	Zinc plated steel and stainless steel.					
	Enclosure	16-gauge (0.0635 in.) (1.61 mm) galvanized steel with yellow epoxy/polyester powder coat paint. Houses element terminals and built-in controls that are all connected to the same branch circuit. Single terminal block for field wiring.					
	Mounting bracket	Heater comes complete with a galvanized steel swivel wall mounting bracket with yellow epoxy/polyester powder coat paint. If heater is to be installed from ceiling using two field-supplied 3/8-16 threaded rods, select option code (C) to substitute ceiling bracket for factory swivel wall mounting bracket.					
Motor/Fan	Motor type	Open air-over, epoxy coated, with built-in thermal protection and permanently lubricated ball bearings . Base motor is 1200 rpm. For 1800 rpm, Premium fan motor, select option code (H). The 10, 12, 20, 35 & 38.4 kW models and all 120V, 277V, 347V & 600 Volt models come standard with Premium fan motor.					
	Fan blade	Aluminum. Three-blade or four-blade depending on kW size.					
Heating Elements	Material Industrial grade, type 304 stainless steel finned tubular elements (Sheath and Fir						
Protection	Temperature high limits One automatic reset overtemperature cutout. For a secondary manual reset overtemperature cutout, select option code (M).						
Controls	Fan delay	Thermal cutout attached to an element.					
Controis	Control circuit	24VAC control circuit. Includes main magnetic contactor and control voltage transformer.					
	Adjustable outlet louvers	Replaces fixed louvers. Select option code (G).					
	Fan relay	Required for remote fan switch. Select option code (R).					
	Premium fan motor (1800 rpm)	Replaces standard 1200 rpm motor. Select option code (H). The 10, 12, 20, 35 & 38.4 kV models and all 120V, 277V, 347V & 600 Volt models come standard with Premium fan motor.					
	3-Position selector switch	Position markings: Heat-Standby-Fan. Select option code (S).					
Factory Built-in	Room thermostat	Knob with "Warmer" and arrow indicating direction. Range: 40 to 120°F (4 to 49°C). Select option code (T).					
Options	Disconnect switch	Main supply power door interlocking disconnect located on door of control enclosure. Select option code (D).					
	Pilot light	Red "Heater on" pilot light. Select option code (L).					
	Secondary high limit	Manual reset overtemperature cutout. Select option code (M).					
	Substitute ceiling mounting bracket	Replaces swivel wall mounting bracket. Heater installs from the ceiling with two field- supplied 3/8-16 threaded rods. Select option code (C).					
Operating Limits							

T812A1010 Remote Room Thermostat

	Part #: 1006998
0FF/ / \ \ 50 60 70 80 90 °F	1-stage, snap action bimetal type
20 00 10 90 90 F	Heating only applications, SPST, 18 to 30VAC, 1 stage
	Anticipator: adjustable 0.18A to 1.2A @ 30VAC
	Temperature adjustment range: 50 to 90°F (10 to 32°C)
	Differential: +/- 3°F (1.5°C)
	Dimensions: 3.125" W x 3.125" H x 0.875" D (79 mm x 79 mm x 23 mm)
	Tamperproof: No
	Thermometer: No
	Positive off: Yes



10 20 30 °C

kW (btu/hr)	Line Volts	Phase Ø	Total Current	Appro: Air Terr	ximate np. Rise			Motor		Model See Page 4 to complete	Approximate Shipping
(500,111)	Fond	~	A (†)	°F	°C	HP	Volts	Phase	Availability	model coding	Lead Time (A)
3 (10236)	120		29	15 21	8		120		Standard Optional	IEH1-030-120160 *	
	208 240	-	<u>17</u> 15	21	12 12		208 240	1	Optional	IEH1-030-208160 * IEH1-030-240160 *	
	277	1	13	15	8	1/4	277		Standard	IEH1-030-277160 *	
	347		11	15	8		347		Standard	IEH1-030-347160 *	
	480		8	21	12		480		Optional	IEH1-030-480160 * IEH1-030-600160 * IEH1-030-208360 *	
	600 208		<u>6</u> 11	<u>15</u> 21	8 12		600 208		Standard Optional		
	200	3	10	21	12	1/4	200	1	Optional	IEH1-030-240360 *	
	480		5	21	12		480		Optional	IEH1-030-480360 *	
	208	-	27	35	19		208		Optional	IEH1-050-208160 *	
	240 277		23 20	35 26	19 14		240 277	1	Optional Standard	IEH1-050-240160 * IEH1-050-277160 *	
	347	- 1	17	20	14	1/4	347		Standard	IEH1-050-277160	
5	480		12	35	19		480		Optional	IEH1-050-480160 *	
(17060)	600		10	26	14		600		Standard	IEH1-050-600160 *	
	208		16	35	19		208		Optional	IEH1-050-208360 *	
	240 480	3	<u>15</u> 8	35 35	19 19	1/4	240 480	1	Optional Optional	IEH1-050-240360 * IEH1-050-480360 *	
	600		6	26	19		600		Standard	IEH1-050-600360 *	
	208		39	53	29		208		Optional	IEH1-075-208160 *	
	240		34	53	29		240		Optional	IEH1-075-240160 *	
	277 347	1	29 24	39	22 22	1/4	277	1	Standard Standard	IEH1-075-277160 *	
7.5	480		<u>24</u> 17	<u>39</u> 53	22		347 480		Optional	IEH1-075-347160 * IEH1-075-480160 *	
(25590)	600		14	39	23		600		Standard	IEH1-075-600160 *	
(,	208		23	53	29		208		Optional	IEH1-075-208360 *	
	240	3	21	53	29	1/4	240	1 Optional	IEH1-075-240360 *		
	480 600		<u>11</u> 9	<u>53</u> 39	29 22		480 600		Optional Standard	IEH1-075-480360 * IEH1-075-600360 *	
	208		46	64	36		208		Optional	IEH1-090-208160 *	
	240		40	64	36		240		Optional	IEH1-090-240160 *	ى خ
	277	1	35	47	26	1/4	277	1	Standard	IEH1-090-277160 *	
	347		29	47	26	1/-	347		Standard Optional Standard	IEH1-090-347160 *	
9 (30709)	480 600		<u>20</u> 17	<u>64</u> 47	36 26		480 600			IEH1-090-480160 * IEH1-090-600160 *	ö
(30703)	208		28	64	36		208		Optional	IEH1-090-208360 *	N
	240	3	24	64	36	1/4	240	1	Ontional	IEH1-090-240360 *	+*
	480		12	64	36	1/4	480	Optional	IEH1-090-480360 *	Ş	
	600		10	47	26		600		Standard	IEH1-090-600360 *	to 4 weeks
	240 277		44 39				240 277	1		IEH1-100-240160 * IEH1-100-277160 *	
	347	1	32	52	29	1/4	347			IEH1-100-347160 *	
10	480		22	-	-		480			IEH1-100-480160 *	
(34120)	600		19				600		Standard	IEH1-100-600160 *	
(***=*)	208 240	- 3 -	30 27				208 240			IEH1-100-208360 *	
	480		14	52	29	1/4	480	1		IEH1-100-240360 * IEH1-100-480360 *	
	600		11	600			IEH1-100-600360 *				
	277		46	46	Ì			277		IEH1-120-277160 *	
	347	1	38	62	34	1/4	347	1	1	IEH1-120-347160 *	
12	480 208			27 36 32 62 34		1/4	480 208	Standard	IEH1-120-480160 * IEH1-120-208360 *		
(40946)	200	2			24		200		Clandaru	IEH1-120-240360 *	
	480	3	16	62	34	1/4	480	1		IEH1-120-480360 *	
	600		13	00	10		600		Oterrited	IEH1-120-600360 *	
	347 208	1	39 37	22 31	12 17		347 208		Standard Optional	IEH1-125-347160 * IEH1-125-208360 *	
12.5	208		33	31	17	1/4	208	1	Optional	IEH1-125-200360 *	
(42652)	480	3	17	31	17		480		Optional	IEH1-125-480360 *	
	600		14	22	12		600		Standard	IEH1-125-600360 *	
	347	1	47	27	15		347		Standard	IEH1-150-347160 *	
15	208 240		<u>44</u> 39	<u>38</u> 38	21 21	1/4	208 240	1	Optional Optional	IEH1-150-208360 * IEH1-150-240360 *	
(51180)	480	3	20	38	21	1/4	480	1	Optional	IEH1-150-240360 *	
	600		16	27	15		600		Standard	IEH1-150-600360 *	
20 (68240)	480 600	3	26 21	35	19	1/4	480 600	1	Standard	IEH1-200-480360 * IEH1-200-600360 *	
25 (85300)	480	3	32 26	66 44	37 24	1/4	480	1	Optional Standard	IEH1-250-480360 * IEH1-250-600360 *	
30	480	3	38	79	44	1/4	480	1	Optional	IEH1-300-480360 *	
(102360) 35	600 480	3	<u>31</u> 44	<u>53</u> 61	29 34	1/4	600 480	1	Standard Standard	IEH1-300-600360 * IEH1-350-480360 *	
(119420) 38.4	600 480		35 48				600 480			IEH1-350-600360 * IEH1-384-480360 *	
(131026)	600	3	38	70	39	1/4	600	1	Standard	IEH1-384-600360 *	

IEH1 Heater Performance Data

(*) Refer to Page 4 for Factory Built-in Option codes to complete entire model code for ordering.

(†) Total Amps = Heating element amps and motor amps.

(Δ) Heaters ordered with custom options subject to longer shipping lead times.

Large quantity orders may also be subject to longer lead times.

Additional Products Available

Hazloc Heaters[™] offers a wide variety of steam/hydronic air heaters, explosion-proof electric air heaters, washdown/corrosion resistant air heaters, non-hazardous area air heaters, air sensing thermostats, disconnect switches and other related accessories.

Please visit www.HazlocHeaters.com and click on the Products link.



HH→Hazloc Heaters[™] "Safe heat when you need it!"

Quality Mission Statement

Quality is... customers that come back, and products that don't.

Limited Warranty

Hazloc Heaters[™] warrants all IEH1 series of industrial-grade electric unit heaters against defects in materials and workmanship under normal conditions of use for a period of eighteen (18) months from date of purchase or twelve (12) months from date the product is first placed into service, whichever period lapses first, based on the following terms:

- 1. The heater must not be modified in any way.
- 2. The heater must be stored, installed and used only in accordance with the owner's manual and attached data plate information.
- **3.** Replacement parts will be provided free of charge as necessary to restore any unit to normal operating condition, provided that the defective parts be returned to us freight prepaid and that the replacement parts be accepted freight collect.
- **4.** The complete heater may be returned to our manufacturing plant for repair or replacement (at our discretion), freight charges prepaid.
- 5. Contamination by dirt, dust, etc. or corrosion will not be considered as defects.
- 6. This warranty shall be limited to the actual equipment involved and, under no circumstances, shall include or extend to installation or removal costs, or to consequential damages or losses.





afe heat when you need it!

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