

CONVERTIBLE SINGLE PACKAGE GAS/ELECTRIC UNIT

- Combination gas heating and electric cooling, self-contained for year-round comfort. Systems install on rooftop or at ground level. Units are shipped complete in one carton; with only the flue gas vent requiring mounting at time of installation.

CONSTRUCTION

- Triple-coated steel, consisting of a Polyester top coat, a urethane primer coat preceded by an oxide pretreatment. One piece weather resistant top. Access panels for easy service. Side by side supply and return. Heavy 16 gauge base with rails.
- Coil Guard to protect condenser coil.

ACCESS PANELS

- Located to provide easy serviceability. The gas and electrical controls are behind the same exterior panel.

CONVERTIBLE DISCHARGE

- Units have side-by-side supply and return air openings for either horizontal or down-flow applications. Simply relocate duct cover panels.

COMPRESSOR

- The high efficiency compressor has external rubber mounts to help minimize system noise and features an automatic reset current / temperature sensing overload protection system. 1-1/2 to 4 ton uses hermetic compressors, 5 ton uses a scroll.

COILS

- Both the condenser and evaporator coils have aluminum fins and copper tubes to promote efficient heat transfer. The refrigerant circuit is sealed, tested, and fully charged at the factory.

EXTERNALLY-MOUNTED GAUGE PORTS

- Provides easier servicing and allows for more accurate reading of operating conditions.

INDUCED DRAFT COMBUSTION

- An induced draft combustion blower is used to provide air for combustion. A safety switch is used to prove that air for combustion is being delivered to the main burners before ignition takes place.

HOT SURFACE PILOT (HSP) ELECTRONIC INTERMITTENT IGNITION DEVICE

- The hot surface pilot ignition (HSP) is more energy efficient and provides added safety of operation.

ELECTRONIC FAN CONTROL

- Adjustable electronic fan control with optional low speed continuous fan feature responds quickly to circulate heated air and provide maximum comfort.

IN-SHOT BURNERS

- New design delivers more complete, efficient combustion and *include Nox baffles on PGC models.*

HEAT EXCHANGER

- Aluminized serpentine clamshell heat exchanger provides corrosion resistance for longer life and efficient heat transfer.

EVAPORATOR BLOWER

- All model sizes are equipped with multiple speed direct drive blower motors to provide proper air flow for both heating and cooling requirements.

COIL PROTECTION

- The condenser coil has a sturdy wire inlet grille and UV rated vinyl mesh installed on the surface of the coil for additional protection.

AIR FILTERS

- Air filters are not supplied with these units. Air filters, provided by the installer, can be used in the return air duct system. Accessory filter kit available.

WARRANTY

- Standard five (5) year limited warranty on parts.
- Five (5) year limited warranty on the compressor.
- Ten (10) year limited warranty on the gas fired heat exchanger.

GPFM = Standard Models

GPCM = California Models with NOX baffles

10 SEER



UNIT SPECIFICATIONS

MODEL * NUMBER	Electrical Data			Condenser Data									BELS
	208 / 230 Voltage Phase - Hz	Maximum Overcurrent Protection	MC Ampacity	Coil			Fan Motor			Fan			
				Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Diameter (In.)	HP	Full Load Amps	RPM (Max)	Size Diameter (In.)	No. Blades Pitch °	CFM (Max.)	
GP*M18K040(F)	1-60	20 amps.	13.60	8.0	20 / 1	3/8	1/5	1.3	1140	20.3	3 -21	2250	7.6
GP*M24K040(F)	1-60	25 amps.	16.00	8.0	20 / 1	3/8	1/5	1.3	1140	20.3	3 -21	2250	7.8
GP*M24k060(F)	1-60	25 amps.	16.00				1/5	1.3	1140	20.3	3 -21	2250	7.8
GP*M30k060(F)	1-60	35 amps.	21.50	8.0	20 / 1	3/8	1/5	1.3	1140	20.3	3 -21	2250	7.8
GP*M30K080(F)	1-60	35 amps.	21.50				1/5	1.3	1140	20.3	3 -21	2250	7.8
GP*M36k060(F)	1-60	40 amps.	24.40	8.0	20 / 1	3/8	1/3	1.9	1140	20.3	3 -27	2900	7.8
GP*M36K080(F)	1-60	40 amps.	24.40				1/3	1.9	1140	20.3	3 -27	2900	7.8
GP*M36K100(F)	1-60	40 amps.	24.40				1/3	1.9	1140	20.3	3 -27	2900	7.8
GP*M42K080(F)	1-60	45 amps.	27.60	8.0	20 / 2	3/8	1/3	1.9	1140	20.3	3 -27	3000	7.8
GP*M42K100(F)	1-60	45 amps.	27.60				1/3	1.9	1140	20.3	3 -27	3000	7.8
GP*M48K080(F)	1-60	50 amps.	29.90	10.5	20 / 1	3/8	1/3	1.9	1140	20.3	3 -27	3000	7.8
GP*M48K120(F)	1-60	50 amps.	29.90				1/3	1.9	1140	20.3	3 -27	3000	7.8
GP*M60K100(F)	1-60	60 amps.	45.00	14.9	20 / 1		1/3	1.9	1140	20.3	3 -27	3000	8.0
GPFM60K140(E)	1-60	60 amps.	45.00				1/3	1.9	1140	20.3	3 -27	3000	8.0
GPCM60K140(F)	1-60	60 amps.	45.00				1/3	1.9	1140	20.3	3 -27	3000	8.0

* F = GPFM Standard Models, C = GPCM models with Nox baffles and meet California emission requirements.

MODEL * NUMBER	Evaporator Coil									Compressor			Factory Refrigerant Charge R-22 (Oz.)	Ship Weight (Lbs.)
	Coil			Blower H.P. / Type / Speeds	Motor		Blower			Type	Rated Load Amps	Locked Rotor Amps		
	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Diam. (In.)		Full Load Amps	Locked Rotor Amps	Type & Size	RPM (Max)	CFM Rated					
GP*M18K040(F)	3.67	14 / 2	3/8	1/4 / PSC / 3	2.2	4.1	DD10-6A	1000	600	Recip	8.6	49	62	350
GP*M24K040(F)	3.67	14 / 2	3/8	1/4 / PSC / 3	2.2	4.1	DD10-6A	1000	800	Recip	10.5	56	58	350
GP*M24k060(F)	3.67	14 / 2	3/8	1/4 / PSC / 3	2.2	4.1	DD10-6A	1000	800	Recip	10.5	56	58	360
GP*M30k060(F)	3.67	14 / 2	3/8	1/3 / PSC / 3	3.1	5.6	DD10-6A	1000	1000	Recip	13.7	75	71	360
GP*M30K080(F)	3.67	14 / 2	3/8	1/2 / PSC / 3	4.0	6.8	DD10-8A	1000	1000	Recip	13.7	75	71	365
GP*M36k060(F)	3.67	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-9A	1000	1200	Recip	15.5	82	89	365
GP*M36K080(F)	3.67	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-9A	1000	1200	Recip	15.5	82	89	365
GP*M36K100(F)	3.67	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-9A	1000	1200	Recip	15.5	82	89	370
GP*M42K080(F)	3.67	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-9A	1000	1400	Recip	17.8	105	87	410
GP*M42K100(F)	3.67	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-9A	1000	1400	Recip	17.8	105	87	420
GP*M48K080(F)	5.33	14 / 3	3/8	1/2 / PSC / 4	3.6	7.5	DD11-9A	1000	1600	Recip	19.5	102	102	490
GP*M48K120(F)	5.33	14 / 3	3/8	1/2 / PSC / 3	3.6	7.5	DD11-11A	1000	1600	Recip	19.5	102	102	500
GP*M60K100(F)	5.33	14 / 4	3/8	1 / PSC / 4	6.0	11.6	DD12-12A	1000	1900	Scroll	29.7	170	136	510
GPFM60K140(E)	5.33	14 / 4	3/8	1 / PSC / 1	6.0	11.6	DD12-12A	1000	1900	Scroll	29.7	170	136	520
GPCM60K140(F)	5.33	14 / 4	3/8	1 / PSC / 1	6.0	11.6	DD12-12A	1000	1900	Scroll	29.7	170	136	520

* F = GPFM Standard Models, C = GPCM models with Nox baffles and meet California emission requirements.

PERFORMANCE DATA: HEATING

MODEL * NUMBER	Input (MBTUH)	Output (MBTUH)	Efficiency **		Temperature Rise ° F	Factory Gas Orifice Size	Gas Piping Size (In.)	Transformer Size Va.
	Standard	Standard	DOE (AFUE)	Calif. (CSE)				
			Std.	Std.				
GP*M18K040(F)	40	32	80.0	76.0	30-60	44	1/2	40
GP*M24K040(F)	40	32	80.0	76.0	30-60	44	1/2	40
GP*M24k060(F)	60	48	80.0	76.0	30-60	44	1/2	40
GP*M30k060(F)	60	48	79.6	76.0	30-60	44	1/2	40
GP*M30K080(F)	80	64	79.8	76.0	35-65	44	1/2	40
GP*M36k060(F)	60	48	79.6	76.0	30-60	44	1/2	40
GP*M36K080(F)	80	64	79.8	76.0	35-65	44	1/2	40
GP*M36K100(F)	100	80	78.5	76.0	35-65	44	1/2	40
GP*M42K080(F)	80	64	79.8	76.0	35-65	44	1/2	40
GP*M42K100(F)	100	80	78.5	76.0	35-65	41	1/2	40
GP*M48K080(F)	80	64	80.0	76.0	35-65	44	1/2	40
GP*M48K120(F)	120	96	80.0	76.0	40-70	42	1/2	40
GP*M60K100(F)	100	80	80.0	76.0	30-60	41	1/2	40
GPFM60K140(E)	140	112	80.0	76.0	35-65	42	1/2	40
GPCM60K140(F)	140	112	80.0	76.0	35-65	42	1/2	40

* F = GPFM Standard Models, C = GPCM with Nox baffles and meet California emission requirements.

** As determined by D.O.E. Annual Fuel Utilization Efficiency (A.F.U.E.) Rating Test. Heating capacity valid for elevations up to 2,000 feet above sea level. For elevations above 2,000 feet, rated capacity should be reduced by 4% for each 1,000 feet above sea level. All models meet California C.S.E. and NOx standards.

PERFORMANCE DATA: COOLING

MODEL * NUMBER	Rated Capacity ¹ BTUH	S / T Ratio	S.E.E.R.	E.E.R. ³	Power Input Watts	Evaporator Rated Airflow (SCFM)	Ext. Static Pressure Drop ² Wet
GP*M18K040(F)	18,000	.75	10.0	9.30	1950	600	.2
GP*M24K040(F)	23,800	.75	10.0	9.10	2700	785	.2
GP*M24k060(F)							
GP*M30k060(F)	28,800	.75	10.0	8.95	3275	1000	.2
GP*M30K080(F)							
GP*M36k060(F)	33,400	.75	10.0	8.50	3890	1100	.2
GP*M36K080(F)							
GP*M36K100(F)							
GP*M42K080(F)	39,500	.75	10.0	8.50	4545	1400	.15
GP*M42K100(F)							
GP*M48K080(F)	45,500	.75	10.00	9.00	5115	1600	.15
GP*M48K120(F)							
GP*M60K100(F)	58,000	.75	10.0	8.75	6480	1900	.15
GPFM60K140(E)							
GPCM60K140(F)							

* F = GPFM Standard Models, C = GPCM with Nox baffles and meet California emission requirements.

¹ Rated Capacity @ ARI standard conditions, 95° Amb, 80° DB/67° WB, 230 Volts. For applications at 208 volts deduct 1000 BTU.

² Includes a .08 drop for a filter

³ For reference only

EXPANDED PERFORMANCE DATA (COOLING) - 3 TON

Airflow IDB* CFM			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
			65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
70	1210	MBh S/T KW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
			[Data rows for 3 TON table, including values for 70, 75, 80, and 85 CFM and various indoor temperatures]																							

EXPANDED PERFORMANCE DATA (COOLING) - 3-1/2 TON

Airflow IDB* CFM			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
			65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
70	1568	MBh S/T KW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
			[Data rows for 3-1/2 TON table, including values for 70, 75, 80, and 85 CFM and various indoor temperatures]																							

* Entering Indoor Temperature - Degrees F. Dry Bulb Standard Rating

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ACCESSORIES

ROOF CURBS, TRANSITION AND DUCT KITS

Used on (Unit Size)	8" Curb	14" Curb	24" Curb	Square to Round Transition Kit	Round Duct Size (Inches)	Concentric Grill Flush Mount	Concentric Grill Step Down
1 1/2 - 3 1/2 Ton	ACL01FB0A *	ACM01FB0A *	ACH01FB0A *	ACT01FB0A	16	AXB020CFA	AXB020CSA
	AXB020CLA **	AXB020CMA **	AXB020CHA **	AXB020CTA	16	AXB020CFA	AXB020CSA
4 - 5 Ton	ACL02FB0A *	ACM02FB0A *	ACH02FB0A *	ACT02FB0A	18	AXB030CFA	AXB030CSA
	AXB020CLA **	AXB020CMA **	AXB020CHA **	ACT22FB0A	18	AXB030CFA	AXB030CSA

ROOF CURB DIMENSIONS (AC SERIES)

Model No.	A	B	C	D	E	F	G	H	K (ACL)	K (ACM)	K (ACH)
AC(L,M,H)01FB0A	42-1/2	39-1/2	16	21-1/2	2	45-3/4	42-3/4	20	8	14	24
AC(L,M,H)02FB0A	44-3/4	41-3/4	18-7/8	20-7/8	2	45-3/4	42-3/4	22	8	14	24

ROOF CURB DIMENSIONS (AX SERIES)

Model No.	A	B	C	D	E	F	G	H	K (CLA)	K (CMA)	K (CHA)
AXB020C(L,M,H)A**	42-3/4	39-3/4	18	18	3-3/4	42-3/4	39-3/4	18	8	14	24

* Full Perimeter Curbs

** AXB curbs are not full perimeter curbs. 1-1/2 to 3-1/2 ton units have a 3 inch overhang on the control access panel end of the unit. The 4 & 5 ton units have a 3 to 4 inch overhang on the back and sides. There will be some supply air blockage, but this does not affect the performance of the unit.

ECONOMIZERS

Description	Mainline Model Number	Used on
Fully Modulating Horizontal	AHE01FB0A	1-1/2 to 3-1/2 Ton
Fully Modulating Horizontal	AHE02FB0A	4 to 5 Ton
Fully Modulating Downflow	AEM01FB0A	1-1/2 to 3-1/2 Ton
3 Position Horizontal	AHP01FB0A	1-1/2 to 3-1/2 Ton
3 Position Horizontal	AHP02FB0A	4 to 5 Ton
3 Position Downflow	AEP01FB0A	1-1/2 to 3-1/2 Ton

FRESH AIR DAMPERS

Description	Mainline Model Number	Used on
35% Manual Fresh Air Damper	AFA01FB0A	1-1/2 to 3-1/2 Ton
35% Manual Fresh Air Damper	AFA02FB0A	4 to 5 Ton
35% Motorized Fresh Air Damper	AFM01FB0A	1-1/2 to 3-1/2 Ton
35% Motorized Fresh Air Damper	AFM02FB0A	4 to 5 Ton

RETURN AIR FILTER KIT

Description	Mainline Model Number	Used on
Return Air Filter Kit	AKF12FBOA	ALL

Filters not included in kit, small chassis uses 12 x 25 x 1 (2 ea), large chassis uses 14 x 25 x 1 (2 ea)

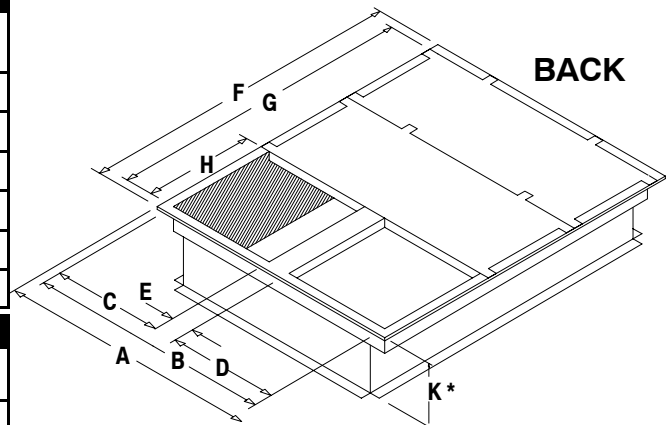
HAIL GUARD

Description	Mainline Model Number	Used on
Hail Guard	AGH01FB0A	1-1/2 to 3-1/2 Ton
	AGH02FB0A	4 to 5 Ton

CONVERSION KITS

MODEL	Natural to L.P.		L.P. to Natural		MODEL	Natural to L.P.		L.P. to Natural	
	KIT 1172662 ORIFICE #54	KIT 1172663 ORIFICE #55	KIT 1172664 ORIFICE #44	KIT 1098575 ORIFICE #41,42		KIT 1172662 ORIFICE #54	KIT 1172663 ORIFICE #55	KIT 1172664 ORIFICE #44	KIT 1098575 ORIFICE #41,42
GP*M18K040(F)		X	X		GP*M36K100(F)	X			X
GP*M24K040(F)		X	X		GP*M42K080(F)		X	X	
GP*M24K060(F)		X	X		GP*M42K100(F)	X			X
GP*M30K060(F)		X	X		GP*M48K080(F)		X	X	
GP*M30K080(F)		X	X		GP*M48K120(F)	X			X
GP*M36K060(F)		X	X		GP*M60K100(F)	X			X
GP*M36K080(F)		X	X		GP*M60K140(E/F)	X			X

* F = GPFM Standard Models, C = GPCM models with Nox baffles and meet California emission requirements.

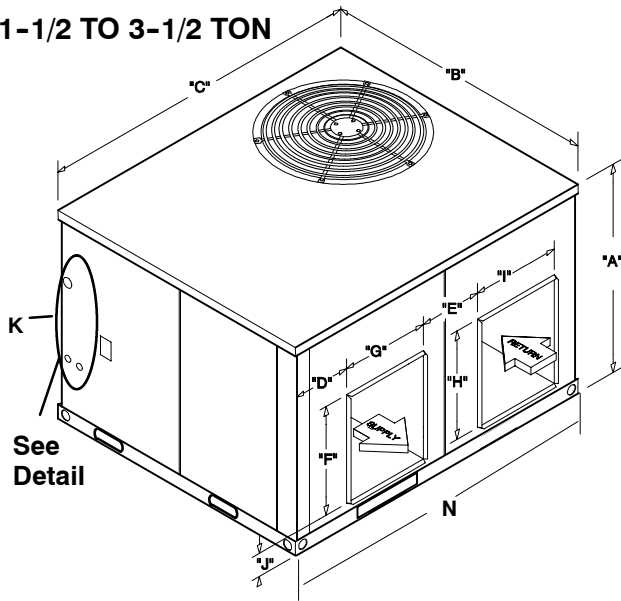


Curb Dimensions

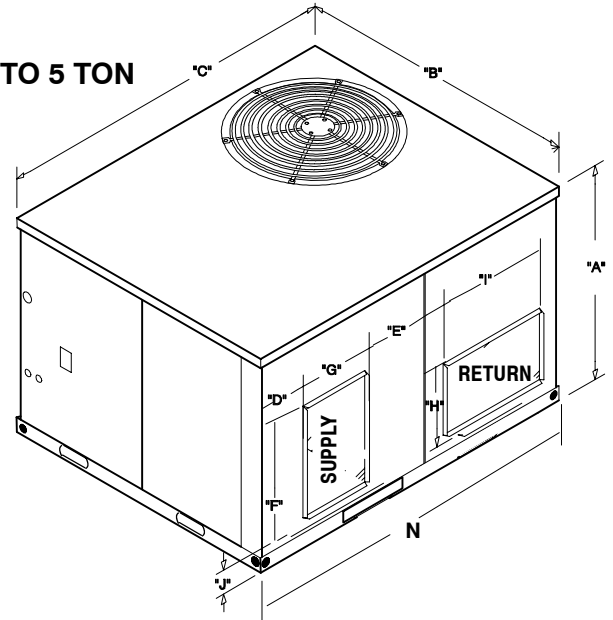
Roof Curbs available in 8", 14" and 24" Heights (K Dimensions)

UNIT DIMENSIONS

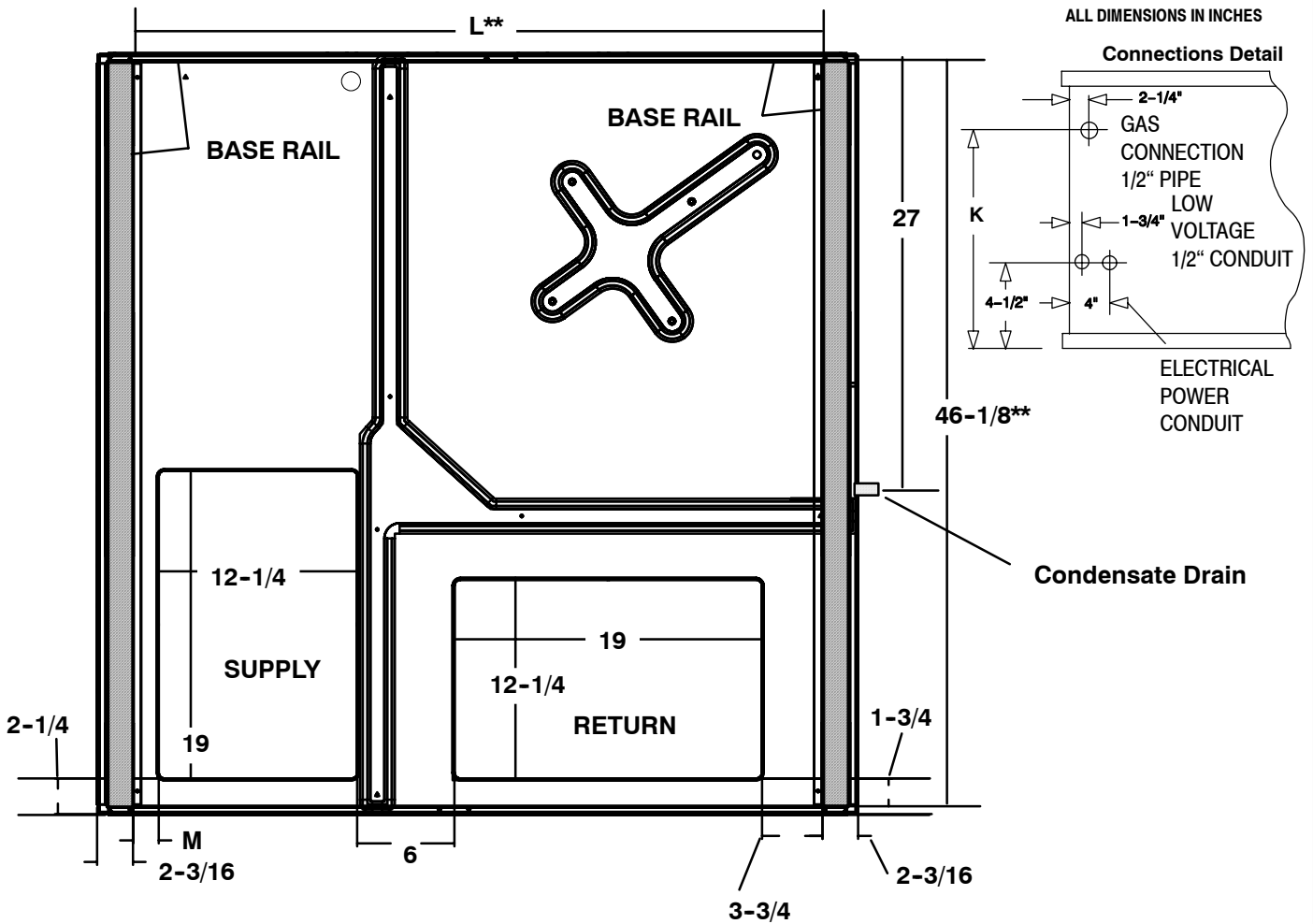
1-1/2 TO 3-1/2 TON



4 TO 5 TON

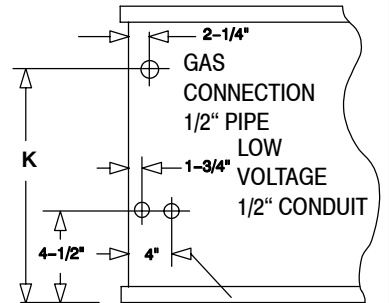


BASE PAN - CHASSIS



ALL DIMENSIONS IN INCHES

Connections Detail



ELECTRICAL POWER CONDUIT

Condensate Drain

UNIT SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1-1/2 TO 3-1/2 Ton	29-1/2	47-1/2	47-1/2	3	9-1/2	12	14	12	14	4-1/2	16	42-3/4	1-9/16	46-1/2
4 TO 5 Ton	37-1/2	47-1/2	51-1/2	7-1/2	6-1/2	19	12	12	19	4-1/2	22	46-1/4	5-3/16	49-3/4

** Measured from inside to inside on base rails.

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	G	P	F	M24	K	060	F Engineering Code
GAS ELECTRIC							GAS HEAT INPUT
P = Single Package							040 = 40,000 100 = 100,000 060 = 60,000 120 = 120,000 080 = 80,000 140 = 140,000
F = STANDARD SERIES							ELECTRICAL CHARACTERISTICS
C = CALIFORNIA NOx EQUIPPED MODELS							K = 208 / 230-1-60
							COOLING CAPACITY (NOMINAL BTUH) M used on 5 ton and below.
							18 = 1-1/2 Ton 24 = 2 Ton 30 = 2-1/2 Ton, 36 = 3 ton 42 = 3-1/2 Ton 48 = 4 Ton 60 = 5 Ton

GUIDE SPECIFICATION

CABINET

The cabinet is made of triple-coated steel, consisting of a Polyester top coat, a urethane primer coat preceded by an oxide pretreatment. One piece weather resistant top. The base rails are 16 gauge steel with fork lift slots and holes provided for lifting shackles. The unit is designed with convertible airflow for either horizontal or downflow applications with conversion accomplished by re-locating two panels. Indoor blower compartment interior cabinet surfaces are insulated with a minimum 1/2" thick, flexible glass insulation, coated on the air side. Aluminum foil faced glass fiber insulation is used in the furnace compartment.

COOLING SECTION

The unit is factory charged and operationally ready upon delivery. The unit refrigerant circuit has a high efficiency fully hermetic compressor (5 ton has scroll compressor) with internal overload protection, and copper tube / aluminum fin evaporator and condenser coils. The unit is designed for cooling operation to 40° F and will be capable of being wired for field installed economizer type accessories.

COILS

The evaporator and condenser coils are fabricated with aluminum fins mechanically bonded to copper tubing. Both coils are pressure tested prior to assembly into the unit and electronically leak tested after assembly into the unit.

CONDENSER FAN

The unit has a single direct-drive propeller-fan / motor assembly. The assembly is mounted directly to a vertical-discharge grille that is easily removed for service. Motors are 1100 RPM with sleeve or ball bearings and internal overload protection.

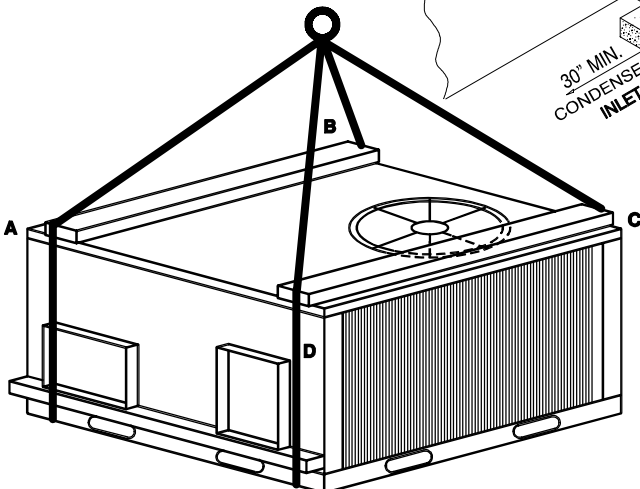
EVAPORATOR BLOWER

All units have a direct-drive evaporator blower motor as a standard. The direct-drive evaporator blower motor has sleeve bearings and internal overload protection.

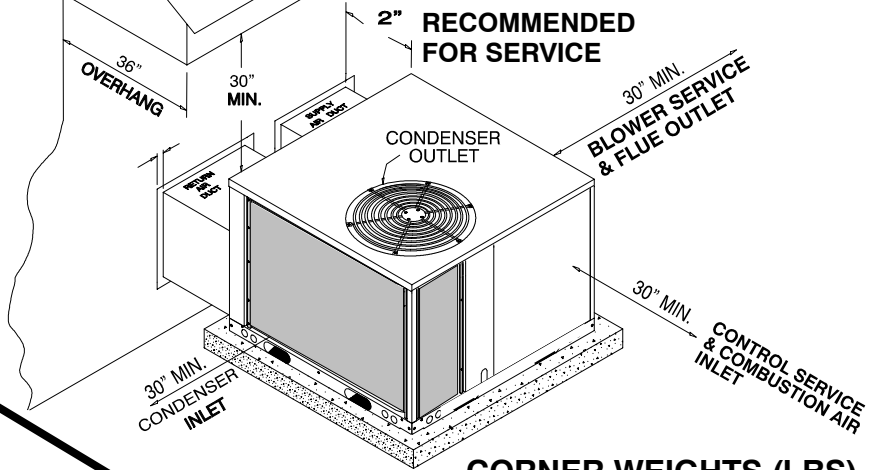
HEATING SECTION

The gas-fired heating section features an induced draft blower for combustion air. The unit has an aluminized steel serpentine clamshell heat exchanger located on the discharge air side of the blower. The system uses in-shot burners ignited by a hot surface pilot ignition system, protected by both a high heat limit switch and flame roll-out switch. The induced draft blower motor is interlocked with a proven air pressure safety device.

RIGGING DETAILS



INSTALLATION CLEARANCES



CORNER WEIGHTS (LBS)

UNIT SIZE	A	B	C	D	OPERATING WEIGHT TOTAL
1-1/2 TON	68	85	119	68	340
2 TON	68	85	119	68	340
2-1/2 TON	70	88	122	70	350
3 TON	72	90	126	72	360
3-1/2 TON	77	98	131	77	380
4 TON	98	123	171	98	490
5 TON	100	125	175	100	500