

CHP16-024-030-036-048-060

CHP20-036-048-060

2 to 5 Ton (7.0 to 17.6 kW)

SEER - up to 12.65

Net Cooling Capacity - 23,800 to 59,000 Btuh (7.0 to 17.3 kW)

Heating Capacity - 23,800 to 56,000 (7.0 to 16.4 kW)

Optional Electric Heat - 5 to 25 kW

Bulletin No. 210363

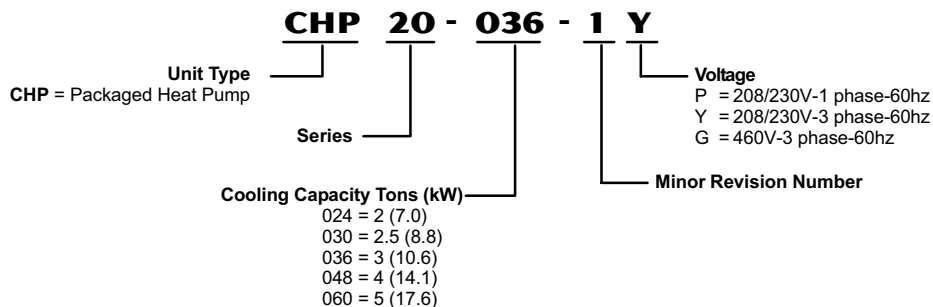
May 2002

Supersedes #210172 - September 2001

#210031 - September 2001



MODEL NUMBER IDENTIFICATION



FEATURES

Application

- SEER of up to 12.65.
- 2 through 5 ton (7.0 through 17.6 kW).
- Single and three phase power supply.
- Bottom (down-flow) or horizontal supply and return air.
- Designed for outdoor rooftop or ground level installations in light commercial applications.

Approvals

- Certified in accordance with the USE certification program, which is based on ARI Standard 210/240-94.
- Sound rated in the Lennox reverberant sound test room in accordance with test conditions included in ARI Standard 270-95.
- Tested in the Lennox Research Laboratory environmental test room.
- Rated according to U.S. Department of Energy (DOE) test procedures.
- Units and components within are bonded for grounding to meet safety standards for servicing required by CSA, NEC and CEC.
- Blower data is from unit tests conducted in the Lennox Laboratory air test chamber.
- Optional electric heaters are UL & ULC listed and are rated and tested according to DOE test procedures and FTC labeling regulations.
- Developed in accordance with ISO 9002 quality standards.
- Each unit test operated at the factory before shipment ensuring dependable operation at start-up.

FEATURES

Equipment Warranty

- Compressor - limited warranty for five years.
- All other covered components - one year limited warranty.
- Refer to Lennox Equipment Limited Warranty certificate for specific details.

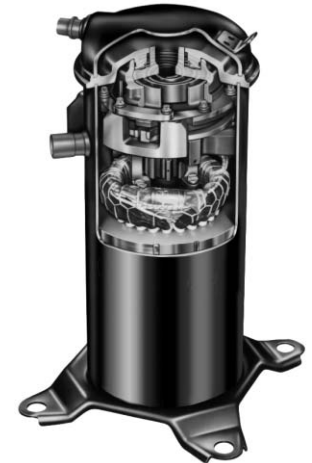
Refrigeration System

- All models include: check/expansion valve, reversing valve, filter drier, suction and liquid line service gauge ports, high pressure switch (manual reset) and full refrigerant charge.
- Freezestat prevents coil freeze-up during low ambient operation or loss of air flow.
- Low ambient operation down to 30°F (-1°C) in cooling mode without additional controls.

Compressors

Copeland Scroll™ - CHP20-036-048-060 and CHP16-036-048-060

- Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.
- Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.
- During compression, one scroll remains stationary while the other scroll orbits around it.
- Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.
- As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.
- When pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls.
- During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.
- Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.
- Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to be worked toward the center and discharged.
- Low gas pulses during compression reduces operational sound levels.
- Compressor motor is internally protected from excessive current and temperature.
- Compressor is installed in the unit on resilient rubber mounts for vibration free operation.
- Crankcase heater assures proper compressor lubrication.



Reciprocating - CHP16-024 and CHP16-030

- Designed for dependable efficiency with minimum operating cost.
- Suction cooled and overload protected with internal pressure relief.
- Hermetically sealed with built-in protection from excessive current and temperatures.
- Crankcase heater assures proper compressor lubrication.
- Running gear assembly resiliently suspended internally inside case. Compressor installed in unit on resilient rubber mounts assuring low sound and vibration free operation.

Outdoor Coil Fan

- Direct drive fan moves large air volumes uniformly through entire outdoor coil for high refrigerant cooling capacity.
- Vertical air discharge keeps air up and away from building.
- Permanently lubricated, permanent split capacitor (PSC) motor.
- Motor totally enclosed for maximum protection from weather, dust and corrosion.
- Corrosion resistant PVC (polyvinyl chloride) coated steel wire fan guard is furnished as standard.

Copper Tube/Enhanced Fin Coil

- Lennox designed and fabricated coil.
- Ripple-edged aluminum fins.
- Long life copper tubing for ease of field servicing.
- Copper tube construction, indoor coil tubes are rifled for improved efficiency.
- Lanced fins provide maximum exposure of fin surface to air stream resulting in excellent heat transfer.
- Fin collars grip tubing for maximum contact area.
- Flared shoulder tubing connections/silver soldering construction.
- Coil is factory tested under high pressure to insure leakproof construction.

Defrost Control

- A solid-state defrost control board is furnished as standard equipment. It gives a defrost cycle (14 minutes, maximum) for every 30, 60 or 90 minutes (adjustable) of compressor "on" time at outdoor coil temperature below 35°F (1.7°C).
- A sensing element mounted on the low pressure side of the outdoor thermal expansion valve determines when the defrost cycle is required. Pressure switch mounted on discharge vapor line terminates defrost cycle.

Continued on Next Page ►

FEATURES

Cabinet

- Heavy gauge, galvanized steel cabinet with five station metal wash process.
- Powder enamel paint, electrostatically bonded to the metal, provides superior rust and corrosion protection.
- Control box is conveniently located with all controls factory wired.
- Large removable panels provide service access.
- Base section and cabinet panels exposed to conditioned air are lined with thick fiberglass insulation.
- Flanged supply and return air openings.
- Electrical inlets furnished for entry into the cabinet.
- Indoor coil drain pan constructed of painted, corrosion resistant galvanized steel with galvanized steel pipe drain outlet coupling.
- Lifting brackets factory installed.

Blower

- Multi-speed direct drive blowers.
- Each blower assembly statically and dynamically balanced.
- Multiple-speed permanent split capacitor (PSC) motor resiliently mounted.
- Blower speeds are easily changed on the blower motor.
- See blower performance tables.

Air Filter

- Washable or vacuum cleanable one inch (25 mm) thick polyurethane frame type air filter.
- Filter rack is furnished for field installation in down-flow applications.
- Filter rack will accept up to two inch (51 mm) thick filter.
- Filters must be field installed in return air duct for horizontal applications without economizer.
- HF16 Horizontal Filter Kit available in Canada.
- See dimension drawings.

Economizer Wiring

- Low voltage thermostat connections in main control area.
- Furnished and factory installed on all models.
- Economizer wiring harness with jack plug connections.
- See Optional Accessories for economizer options.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Ceiling Diffusers

- Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (for even air flow), internally sealed (prevents recirculation), adapts to T-bar ceiling grids or plaster ceilings.
- Step-Down diffusers feature double deflection louvers.
- Flush diffusers feature fixed blade louvers.

Ceiling Diffuser Transitions (Supply and Return)

- Used with diffusers.
- Installs in roof mounting frame, galvanized steel construction, flanges furnished for duct connection, fully insulated.

Coil Guards

- PVC coated steel wire guards to protect outdoor coil. Not for use with Hail Guards.

Compressor Monitor (Canada Only)

- Non-adjustable switch (low ambient cut-out) prevents compressor operation when outdoor temperature is below 35°F (2°C).

Control Systems - See pages 21-22.

Economizer with Gravity Exhaust Dampers (Down-Flow)

- Recirculated air dampers with pressure operated gravity exhaust damper.
- Formed, gasketed damper blades with nylon bearings, 3-position or fully-modulating 24V damper motor with adjustable minimum position switch, electronic discharge air sensor, and adjustable outdoor air enthalpy control.
- Installs directly in cabinet.
- Utilizes filter furnished with unit, filter rack will accept up to 2 in. (51 mm) filter.
- Removable exhaust air hood and outdoor air intake hood with aluminum mesh filter.
- Choice of economizer controls.

Economizer Dampers (Horizontal)

- Combination outdoor air and recirculated air damper.
- Formed, gasketed damper blades with nylon bearings, 3-position or fully-modulating 24V damper motor with adjustable minimum position switch, electronic discharge air sensor, and adjustable outdoor air enthalpy control.
- Installs directly in cabinet.
- 1 in. (25 mm) fiberglass filter furnished. Filter rack will accept up to 2 in. (51 mm) filter.
- Outdoor air intake hood with aluminum mesh filter.
- Choice of economizer controls.

Economizer Gravity Exhaust Dampers

- Use with EMDH16.
- Pressure operated assembly field installs in the return air duct adjacent to the economizer assembly.
- Includes bird screen.

Economizer Enthalpy Control, Differential

- Used in conjunction with outdoor air enthalpy control.
- Determines and selects which air has the lowest enthalpy.
- Return air enthalpy sensor field installs in economizer damper section.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Electric Heat

- Field installed.
- Helix wound nichrome elements, time delay for element staging, individual element limit controls, and wiring harness.
- May be two-stage controlled.
- ECH16R includes supplemental thermal cutoff safety fuses and thermal relay sequencer.
- ECH16 includes supplemental secondary limits, heating control relay, fuse block, thermal relay sequencer (20-25 kW 208/240v), and galvanized steel control box.

Electric Heat Single Point Power Source Sub-Fuse Box

- Use with ECH16R electric heaters and in conjunction with ECH16 fuse box for single point power source applications.
- Installs internal to unit.
- Fuses furnished.
- Constructed of galvanized steel with prepunched mounting holes.

Unit Single Point Power Source Sub Fuse Box

- Installs internal to unit.
- Provides sub-fusing to the unit
- Used in conjunction with ECH16 or ECH16R for single point power source applications.
- Fuses furnished.
- Constructed of galvanized steel with prepunched mounting holes and electrical inlet and outlet holes, hinged box cover.

Hail Guards

- Heavy duty field installed coil guard protects coils from damage.
- Not for use with Coil Guards.

Horizontal Filter Kit (Canada Only)

- For horizontal applications, painted steel cabinet with filter access.
- Disposable, pleated fiber filter furnished.

Low Ambient Control Kit

- Units operate down to 30°F (-1°C) outdoor air temperature in cooling mode without any additional controls.
- Enables unit to operate properly down to 0°F (-17.7°C).

Outdoor Air Damper Section

- For down-flow applications:
 - Damper assembly replaces blower access panel.
 - Manually adjustable, 0 to 25% (fixed) outdoor air.
 - Outdoor air hood with cleanable filter included.

Outdoor Thermostat Kit

- Used to lock out some of the electric heating elements on indoor units where two stage control is applicable.
- Outdoor thermostat maintains the heating load on the low power input as long as possible before allowing the full power load to come on line.

Roof Curb Power Entry Kit

- Allows power entry through roof mounting frame, knockouts provided in roof frame.
- Kit contains 40 in. (1016 mm) armored conduit and installation hardware.
- Two kits are required, one for low voltage and one for high voltage.
- See Dimension Drawing.

Roof Mounting Frame

- Nailer strip furnished, mates to unit, U.S. National Roofing Contractors Approved, shipped knocked down.
- RMF16-41 may be used on all sizes, with a slight unit overhang on CHP16-048-060 and CHP20-036-048-060 units.
- Sound Reduction Plate must be ordered separately for field installation (US Only).

Timed Off Control

- Prevents compressor short-cycling and allows time for suction and discharge pressure to equalize, permitting the compressor to start in an unloaded condition.
- Automatic reset control provides a time delay between compressor shutoff and start-up.

Unit Stand-Off Mounting Kit

- Elevates horizontal application units above mounting surface.
- Includes six high impact polystyrene stand-off mounts. See dimension drawings.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Model No.			CHP16-024	CHP16-030	CHP16-036	CHP20-036	CHP16-048 CHP20-048	CHP16-060 CHP20-060
Ceiling Diffusers	Step-Down - Net Weight - lbs. (kg)		RTD9-65 - 67 (30)			RTD9-65 - 67 (30)		
	Flush - Net Weight - lbs. (kg)		FD9-65 - 37 (17)			FD9-65 - 37 (17)		
	Transitions (Supply and Return) - lbs. (kg)		SRT16-65 - 20 (9)			SRT16-65 - 20 (9)		
Coil Guards			47J23 (2 per order)			47J24 (3 per order)		
Compressor Monitor (Canada Only)			45F08			45F08		
Control Systems			See Pages 21 - 22			See Pages 21 - 22		
Economizers	Down-Flow US Only	Three Position - Net Weight	REMD16-41 - 48 lbs. (22 kg)			REMD16-65 - 66 lbs. (30 kg)		
		Fully-Modulating - Net Weight	REMD16M-41 - 48 lbs. (22 kg)			REMD16M-65 - 66 (30)		
		Indoor Filter Size - in. (mm)	16 x 25 x 1 (406 x 635 x 25)			20 x 25 x 1 (508 x 635 x 25)		
		Outdoor Filter Size - in. (mm)	14 x 25 x 1 (356 x 635 x 25)			18 x 25 x 1 (457 x 635 x 25)		
	Down-Flow Canada Only	Fully-Modulating - Net Weight	REMD16M-41S - 85 lbs. (39 kg)			REMD16M-65S - 105 lbs. (48 kg)		
		Indoor Filter Size - in. (mm)	16 x 25 x 1 (406 x 635 x 25)			20 x 25 x 1 (508 x 635 x 25)		
		Outdoor Filter Size - in. (mm)	19-3/8 x 15-3/4 x 1 (492 x 400 x 25)			19-7/8 x 22-3/4 x 1 (505 x 578 x 25)		
	Horizontal US Only	Three Position - Net Weight	EMDH16-41 - 110 lbs. (50 kg)			EMDH16-65 - 130 lbs. (59 kg)		
		Fully-Modulating - Net Weight	EMDH16M-41 - 110 lbs. (50 kg)			EMDH16M-65 - 130 lbs. (59 kg)		
		Indoor Filter Size - in. (mm)	20 x 24 x1 (508 x 610 x25)			16 x 25 x 1 (406 x 635 x 25) 14 x 25 x 1 (356 x 635 x 1)		
		Outdoor Filter Size - in. (mm)	8 x 24 x 1 (203 x 610 x 25)			8 x 28 x1 (203 x 711 x 25)		
	Horizontal Canada Only	Fully-Modulating - Net Weight	EMDH16M-41S - 70 lbs. (35 kg)			EMDH16M-65S - 86 lbs. (39 kg)		
Indoor Filter Size - in. (mm)		20 x 20 x1 (508 x 508 x25)			20 x 25 x 1 (508 x 635 x 25)			
Outdoor Filter Size - in. (mm)		16-1/2 x 21-3/4 x 1 (419 x 552 x 25)			22-1/2 x 25-1/4 x1 (571 x 641 x 25)			
Electric Heat and Sub-Fuse Boxes			See Pages 16 - 19			See Pages 16 - 19		
Gravity Exhaust Dampers - Net Weight			GEDH16-65 - 4 lbs. (2 kg)			GEDH16-65 - 4 lbs. (2 kg)		
Enthalpy Control, Differential			54G44			54G44		
Hail Guards			90N90 (2 per order)			90N91 (3 per order)		
Horizontal Filter Kit Canada Only	Model No. - Net Weight		HF16-46S - 18 lbs. (8 kg)			HF16-65S - 21 lbs. (10 kg)		
	Number and size of filter - in. (mm)		(1) 20 x 20 x 2 (508 x 508 x 51)			(1) 20 x 25 x 2 (508 x 635 x 51)		
Low Ambient Control Kit			27J00			27J00		
Outdoor Air Damper Section	US Only	Down-Flow - Net Weight	OAD16-41 - 12 lbs. (5 kg)			OAD16-65 - 12 lbs. (5 kg)		
		Number & Size of Filter	(1) 5 x 17 x 1 in. (127 x 432 x 25 mm)			(1) 8 x 17 x 1 (203 x 432 x 25)		
	Canada Only	Down-Flow - Net Weight	OAD16-41S - 10 lbs. (5 kg)			OAD16-65S - 16 lbs. (7 kg)		
		Number & Size of Filter	(1) 14 x 6 x 1 in. (356 x 152 x 25 mm)			(1) 18 x 6 x 1 (457 x 152 x 25)		
Outdoor Thermostat Kit		Thermostat Kit	56A87			56A87		
		Mounting Box	31461			31461		
Roof Curb Power Entry Kit		1/2 in. (13 mm) Conduit	18H70			18H70		
		1 in. (26 mm) Conduit	18H71			18H71		
		1-1/2 in. (39 mm) Conduit	18H72			18H72		
Roof Mounting Frame		Frame	RMF16-41			RMF16-41 or RMF16-65		
		Sound Reduction Plate - US Only	73H80			73H80 or 73H82		
Timed-Off Control			47J27			47J27		
Unit Stand-Off Mounting Kit			38H18			38H18		

□ Indoor filter is not furnished with economizer. REMD16 utilizes existing filter furnished with CHP unit.

SPECIFICATIONS - CHP16

Heating/ Cooling Performance		Model No.	CHP16-024	CHP16-030	CHP16-036	CHP16-048	CHP16-060
Nominal Tonnage (kW)			2 (7.0)	2.5 (8.8)	3 (10.6)	4 (14.1)	5 (17.6)
★ARI Cooling Ratings	Cooling capacity - Btuh (kW)		23,800 (7.0)	29,000 (8.5)	34,600 (10.1)	46,500 (13.6)	55,000 (16.1)
	Total unit watts		2615	3185	3870	4915	6225
	SEER (Btuh/Watts)		10.00	10.00	10.00	10.00	10.00
	EER (Btuh/Watts)		9.10	9.10	8.60	9.50	8.80
★ARI High Temperature Heating Ratings	Total capacity - Btuh (kW)		23,800 (7.0)	29,400 (8.6)	35,800 (10.5)	49,500 (14.5)	57,500 (16.8)
	Total unit watts		2235	2780	3430	4605	5765
	C.O.P. (Coefficient of Performance)		3.12	3.10	3.06	3.14	2.94
	HSPF - Region IV (Region V)		6.6 (5.9)	6.6 (5.9)	6.6 (5.9)	6.6 (5.9)	6.6 (5.9)
★ARI Low Temperature Heating Ratings	Total capacity - Btuh (kW)		12,800 (3.7)	17,000 (5.0)	22,800 (6.7)	28,000 (8.2)	33,600 (9.8)
	Total unit watts		1855	2330	3182	3800	5045
	C.O.P. (Coefficient of Performance)		2.02	2.14	2.10	2.16	1.98
*Sound Rating Number (dB)			80	80	80	82	82
Refrigerant Charge (HCFC-22)			5 lbs. 10 oz. (2.55 kg)	6 lbs. 0 oz. (2.72 kg)	7 lbs. 0 oz. (3.18 kg)	10 lbs. 12 oz. (4.88 kg)	10 lbs. 5 oz. (4.68 kg)
Outdoor Coil	Net face area - sq. ft. (m ²) Outer coil		8.6 (0.8)	8.6 (0.8)	8.6 (0.8)	14.3 (1.33)	14.3 (1.33)
	Inner coil		5.3 (0.49)	8.3 (0.77)	8.3 (0.77)	9.9 (0.92)	13.8 (1.28)
	Tube diameter - in. (mm)		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	No. of rows		1.6	2	2	2	2
	Fins per inch (m)		20 (787)	20 (787)	20 (787)	20 (787)	20 (787)
Outdoor Coil Fan	Motor horsepower (W)		1/6 (124)	1/6 (124)	1/6 (124)	1/4 (187)	1/4 (187)
	Motor watts		220	220	220	340	340
	Diameter - in. (mm)		20 (508)	20 (508)	20 (508)	24 (610)	24 (610)
	No. of blades		4	4	4	4	4
	Air volume - cfm (L/s)		2350 (1110)	2200 (1040)	2200 (1040)	3600 (1700)	3600 (1700)
Indoor Coil	Net face area - sq. ft. (m ²)		3.2 (0.3)	4.1 (0.38)	4.1 (0.38)	5.8 (0.54)	5.8 (0.54)
	Tube diameter - in. (mm)		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	No. of rows		3	3	3	3	3
	Fins per inch (m)		15 (591)	15 (591)	15 (591)	15 (591)	15 (591)
	Condensate drain coupling size npt - in.		3/4	3/4	3/4	3/4	3/4
Indoor Coil Blower	Motor horsepower (W)		1/3 (249)	1/3 (249)	1/3 (249)	1/2 (373)	3/4 (560)
	Wheel nominal diameter x width in. (mm)		9 x 8 (229 x 203)	10 x 7 (254 x 178)	10 x 7 (254 x 178)	10 x 8 (254 x 203)	11-1/2 x 8 (292 x 203)
Filters	Cleanable, polyurethane - Number & size - in.		(1) 16 x 25 x 1	(1) 16 x 25 x 1	(1) 16 x 25 x 1	(1) 20 x 25 x 1	(1) 20 x 25 x 1
	mm		406 x 635 x 25	406 x 635 x 25	406 x 635 x 25	508 x 635 x 25	508 x 635 x 25
Shipping Data	Net weight of basic unit - lbs. (kg)		332 (151)	340 (154)	354 (161)	535 (243)	535 (243)
	Shipping weight of basic unit - lbs. (kg) 1 pkg.		417 (187)	426 (193)	436 (198)	610 (277)	610 (277)
Electrical characteristics (60hz)			208/230v - 1 phase		208/230v - 1 ph, 208/230v or 460v - 3 ph		

*Sound Rating Number in accordance with test conditions included in ARI Standard 270.

★Certified in accordance with the USE certification, which is based on ARI Standard 210/240;

Cooling Ratings - 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering indoor coil air

High Temperature Heating Ratings - 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air

Low Temperature Heating Ratings - 17°F (-8°C) db/15°F (-9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.

SPECIFICATIONS - CHP20

Heating/ Cooling Performance	Model No. Nominal Tonnage (kW)	CHP20-036 3 (10.5)	CHP20-048 4 (14.0)	CHP20-060 5 (17.5)
★ARI Cooling Ratings	Cooling Capacity	37,400 Btuh (11.0 kW)	48,000 Btuh (14.1 kW)	59,000 Btuh (17.3 kW)
	Total unit watts	3475	4500	5790
	SEER (Btuh/Watts)	12.65	12.55	12.00
	EER (Btuh/Watts)	10.80	10.70	10.20
★ARI High Temperature Heating Ratings	Total Capacity	35,200 Btuh (10.3 kW)	46,500 Btuh (13.6 kW)	56,000 Btuh (16.4 kW)
	Total unit watts	3280	4135	5110
	C.O.P	3.14	3.30	3.22
	HSPF - Region IV (Region V)	6.90 (6.10)	7.20 (6.20)	7.20 (6.20)
★ARI Low Temperature Heating Ratings	Total Capacity	22,200 Btuh (6.5 kW)	28,200 Btuh (8.3 kW)	33,000 Btuh (9.7 kW)
	Total unit watts	3060	3725	4485
	C.O.P	2.10	2.22	2.16
	*Sound Rating Number (dB)	82	82	82
	Refrigerant Charge (HCFC-22)	9 lbs. 12 oz. (4.42 kg)	10 lbs. 4 oz. (4.65 kg)	11 lbs. 0 oz. (4.99 kg)
Outdoor Coil	Net face area - sq. ft. (m ²) Outer coil	14.3 (1.33)	14.3 (1.33)	14.3 (1.33)
	Inner coil	9.9 (1.28)	13.8 (1.28)	13.8 (1.28)
	Tube diameter - in. (mm)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Number of rows	1.7	2	2
	Fins per inch (m)	20 (787)	20 (787)	20 (787)
Outdoor Coil Fan	Motor output - hp (W)	1/4 (187)	1/4 (187)	1/4 (187)
	Motor watts	340	340	340
	Diameter - in. (mm)	24 (610)	24 (610)	24 (610)
	Number of blades	4	4	4
	Air Volume - cfm (L/s)	3600 (1700)	3600 (1700)	3600 (1700)
Indoor Coil	Net face area - sq. ft. (m ²)	5.8 (0.54)	5.8 (0.54)	5.8 (0.54)
	Tube diameter - in. (mm)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Number of rows	3	4	4
	Fins per inch (m)	15 (591)	14 (551)	14 (551)
	Condensate drain coupling size npt - in.	3/4	3/4	3/4
Indoor Coil Blower	Motor output - hp (W)	1/2 (373)	3/4 (560)	3/4 (560)
	Wheel nominal diameter x width - in. (mm)	10 x 8 (254 x 203)	11 x 8 (279 x 203)	11 x 8 (279 x 203)
Filters	Cleanable, polyurethane - Number & size - in.	(1) 20 x 25 x 1	(1) 20 x 25 x 1	(1) 20 x 25 x 1
	mm	508 x 635 x 25	508 x 635 x 25	508 x 635 x 25
Shipping Data	Net weight of basic unit - lbs. (kg)	455 (206)	535 (243)	535 (243)
	Ship. weight of basic unit - lbs. (kg) 1 pkg.	525 (238)	610 (277)	610 (277)
Electrical characteristics (60 hz)		208/230v or 460v - 3ph		

*Sound Rating Number in accordance with test conditions included in ARI Standard 270.

★Certified in accordance with the USE certification program, which is based on ARI standard 210/240.

Cooling Ratings— 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19.5°C) wb entering indoor coil air.

High Temperature Heating Ratings— 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.

Low Temperature Heating Ratings— 17°F (-8°C) db/15°F (-9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.

COOLING AND HEATING RATINGS - CHP16

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

CHP16-024 — COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	640	300	23.2	6.8	1.80	.69	.83	.95	22.3	6.5	2.03	.70	.84	.97	21.5	6.3	2.29	.71	.86	.99	20.6	6.0	2.58	.73	.88	1.00
	800	380	24.2	7.1	1.81	.74	.90	1.00	23.3	6.8	2.04	.76	.92	1.00	22.4	6.6	2.30	.77	.94	1.00	21.4	6.3	2.59	.79	.96	1.00
	960	455	25.0	7.3	1.81	.79	.96	1.00	24.0	7.0	2.05	.81	.98	1.00	23.1	6.8	2.31	.83	1.00	1.00	22.3	6.5	2.59	.85	1.00	1.00
67°F (19°C)	640	300	24.8	7.3	1.81	.55	.66	.79	23.8	7.0	2.05	.55	.68	.81	22.9	6.7	2.30	.56	.69	.82	21.9	6.4	2.59	.57	.70	.84
	800	380	25.6	7.5	1.81	.58	.72	.87	24.6	7.2	2.05	.58	.73	.89	23.6	6.9	2.31	.59	.75	.90	22.6	6.6	2.60	.60	.77	.92
	960	455	26.3	7.7	1.82	.60	.77	.93	25.2	7.4	2.06	.61	.79	.95	24.6	7.1	2.32	.62	.81	.97	23.1	6.8	2.61	.64	.83	.99
71°F (22°C)	640	300	26.5	7.8	1.82	.41	.53	.64	25.5	7.5	2.06	.41	.53	.65	24.4	7.2	2.32	.41	.54	.66	23.4	6.9	2.61	.42	.55	.68
	800	380	27.4	8.0	1.82	.42	.56	.69	26.3	7.7	2.07	.43	.57	.71	25.2	7.4	2.33	.43	.58	.72	24.1	7.1	2.62	.43	.59	.74
	960	455	28.0	8.2	1.82	.43	.59	.74	26.8	7.9	2.07	.44	.60	.76	25.7	7.5	2.34	.44	.61	.78	24.6	7.2	2.62	.45	.63	.80

CHP16-030 — COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	29.1	8.5	2.18	.72	.86	.97	27.7	8.1	2.36	.74	.88	.99	26.1	7.6	2.54	.76	.90	1.00	24.5	7.2	2.72	.78	.93	1.00
	1000	470	30.4	8.9	2.21	.78	.93	1.00	28.9	8.5	2.40	.80	.95	1.00	27.3	8.0	2.59	.82	.97	1.00	25.7	7.5	2.78	.84	1.00	1.00
	1200	565	31.5	9.2	2.24	.83	.98	1.00	29.9	8.8	2.44	.85	1.00	1.00	28.4	8.3	2.63	.88	1.00	1.00	26.9	7.9	2.84	.91	1.00	1.00
67°F (19°C)	800	380	31.2	9.1	2.23	.57	.69	.82	29.6	8.7	2.42	.58	.71	.85	27.9	8.2	2.61	.59	.73	.87	26.2	7.7	2.81	.60	.75	.90
	1000	470	32.3	9.5	2.26	.60	.75	.89	30.6	9.0	2.46	.61	.77	.92	28.9	8.5	2.65	.62	.79	.95	27.1	7.9	2.85	.64	.82	.98
	1200	565	33.1	9.7	2.28	.63	.80	.96	31.4	9.2	2.48	.65	.83	.98	29.6	8.7	2.68	.66	.85	1.00	27.7	8.1	2.89	.68	.88	1.00
71°F (22°C)	800	380	33.4	9.8	2.29	.43	.55	.67	31.7	9.3	2.49	.43	.56	.68	30.0	8.8	2.70	.43	.57	.70	28.2	8.3	2.91	.44	.58	.72
	1000	470	34.6	10.1	2.32	.44	.58	.73	32.8	9.6	2.53	.44	.59	.74	30.9	9.1	2.74	.45	.61	.77	29.0	8.5	2.95	.45	.63	.79
	1200	565	35.3	10.3	2.33	.45	.62	.78	33.5	9.8	2.55	.45	.63	.80	31.5	9.2	2.76	.46	.65	.83	29.5	8.6	2.98	.47	.67	.86

CHP16-024 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
cfm	L/s	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
640	300	29.4	8.6	1.99	21.6	6.3	1.72	13.4	3.9	1.45	8.4	2.5	1.18	4.2	1.2	.90
800	380	30.1	8.8	1.93	22.3	6.5	1.66	14.1	4.1	1.39	9.1	2.7	1.13	4.9	1.4	.85
960	455	30.6	9.0	1.89	22.8	6.7	1.62	14.6	4.3	1.35	9.6	2.8	1.09	5.4	1.6	.81

CHP16-030 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
cfm	L/s	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	35.8	10.5	2.45	26.7	7.8	2.11	17.1	5.0	1.76	11.6	3.4	1.46	5.6	1.6	1.11
1000	470	36.8	10.8	2.38	27.7	8.1	2.04	18.1	5.3	1.69	12.6	3.7	1.39	6.6	1.9	1.04
1200	565	37.6	11.0	2.33	28.5	8.4	1.99	18.9	5.5	1.64	13.4	3.9	1.34	7.4	2.2	.99

CHP16-024 - HEATING PERFORMANCE at 800 cfm (380 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	1.93	30.1	8.8
60	16	1.87	28.3	8.3
55	13	1.80	26.5	7.8
50	10	1.73	24.6	7.2
47	8	1.69	23.6	6.9
45	7	1.66	22.3	6.5
40	4	1.59	19.1	5.6
35	2	1.52	15.9	4.7
30	-1	1.45	15.0	4.4
25	-4	1.39	14.1	4.1
20	-7	1.33	13.2	3.9
17	-8	1.29	12.7	3.7
15	-9	1.26	11.9	3.5
10	-12	1.20	10.1	3.0
5	-15	1.13	9.1	2.7
0	-18	1.06	8.0	2.3
-5	-21	.99	7.0	2.1
-10	-23	.92	5.9	1.7
-15	-26	.85	4.9	1.4
-20	-29	.78	3.8	1.1

CHP16-030 - HEATING PERFORMANCE at 1000 cfm (470 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.38	36.8	10.8
60	16	2.30	34.7	10.2
55	13	2.21	32.7	9.6
50	10	2.13	30.6	9.0
47	8	2.08	29.4	8.6
45	7	2.04	27.7	8.1
40	4	1.93	23.6	6.9
35	2	1.81	19.5	5.7
30	-1	1.75	18.8	5.5
25	-4	1.69	18.1	5.3
20	-7	1.63	17.4	5.1
17	-8	1.59	17.0	5.0
15	-9	1.56	16.2	4.7
10	-12	1.47	14.1	4.1
5	-15	1.39	12.6	3.7
0	-18	1.30	11.1	3.3
-5	-21	1.21	9.6	2.8
-10	-23	1.13	8.1	2.4
-15	-26	1.04	6.6	1.9
-20	-29	.95	5.1	1.5

COOLING AND HEATING RATINGS - CHP16

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

CHP16-036 — COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
cfm	L/s	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1050	495	35.0	10.3	2.83	.74	.89	1.00	33.8	9.9	3.16	.75	.90	1.00	32.5	9.5	3.52	.77	.92	1.00	31.2	9.1	3.95	.78	.94	1.00
	1200	565	35.9	10.5	2.85	.78	.92	1.00	34.6	10.1	3.17	.79	.94	1.00	33.3	9.8	3.54	.80	.96	1.00	32.0	9.4	3.97	.82	.97	1.00
	1350	635	36.6	10.7	2.86	.81	.96	1.00	35.3	10.3	3.19	.82	.98	1.00	34.0	10.0	3.56	.84	.99	1.00	32.7	9.6	3.99	.86	1.00	1.00
67°F (19°C)	1050	495	37.2	10.9	2.87	.58	.72	.85	35.9	10.5	3.20	.59	.73	.87	34.5	10.1	3.57	.59	.74	.88	33.1	9.7	4.00	.60	.76	.90
	1200	565	37.9	11.1	2.88	.60	.75	.90	36.5	10.7	3.21	.61	.77	.91	35.1	10.3	3.58	.61	.78	.93	33.7	9.9	4.02	.63	.80	.95
	1350	635	38.5	11.3	2.89	.62	.78	.94	37.1	10.9	3.22	.63	.80	.95	35.6	10.4	3.60	.64	.82	.97	34.1	10.0	4.03	.65	.83	.99
71°F (22°C)	1050	495	39.7	11.6	2.91	.43	.56	.69	38.3	11.2	3.24	.43	.57	.70	36.8	10.8	3.63	.44	.58	.72	35.3	10.3	4.05	.44	.59	.73
	1200	565	40.3	11.8	2.93	.44	.58	.73	38.9	11.4	3.26	.44	.59	.74	37.4	11.0	3.64	.44	.60	.76	35.9	10.5	4.07	.45	.61	.77
	1350	635	40.9	12.0	2.94	.45	.61	.76	39.4	11.5	3.27	.45	.62	.78	37.9	11.1	3.65	.45	.63	.79	36.3	10.6	4.09	.46	.64	.81

CHP16-048 — COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
cfm	L/s	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW	75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1280	605	46.1	13.5	3.38	.74	.88	1.00	44.5	13.0	3.76	.75	.89	1.00	42.8	12.5	4.20	.76	.91	1.00	41.0	12.0	4.71	.78	.93	1.00
	1600	755	47.9	14.0	3.41	.79	.95	1.00	46.3	13.6	3.79	.80	.96	1.00	44.5	13.0	4.23	.82	.98	1.00	42.7	12.5	4.74	.84	1.00	1.00
	1920	905	49.5	14.5	3.44	.85	1.00	1.00	47.8	14.0	3.82	.86	1.00	1.00	46.1	13.5	4.26	.88	1.00	1.00	44.3	13.0	4.78	.90	1.00	1.00
67°F (19°C)	1280	605	49.0	14.4	3.43	.58	.71	.84	47.3	13.9	3.81	.59	.72	.86	45.5	13.3	4.25	.59	.74	.87	43.5	12.7	4.76	.60	.75	.89
	1600	755	50.6	14.8	3.46	.61	.77	.92	48.8	14.3	3.84	.62	.78	.93	46.9	13.7	4.28	.63	.80	.95	44.9	13.2	4.79	.64	.82	.97
	1920	905	51.8	15.2	3.48	.64	.82	.98	49.9	14.6	3.86	.65	.84	.99	47.9	14.0	4.30	.67	.86	1.00	45.8	13.4	4.82	.68	.88	1.00
71°F (22°C)	1280	605	52.3	15.3	3.48	.44	.56	.69	50.5	14.8	3.87	.44	.57	.70	48.5	14.2	4.31	.44	.58	.71	46.5	13.6	4.82	.44	.58	.72
	1600	755	53.9	15.8	3.51	.45	.60	.74	51.9	15.2	3.90	.45	.60	.76	49.9	14.6	4.34	.45	.61	.77	47.7	14.0	4.85	.46	.63	.79
	1920	905	55.0	16.1	3.53	.46	.63	.80	53.0	15.5	3.91	.46	.64	.82	50.8	14.9	4.36	.47	.66	.84	48.5	14.2	4.88	.48	.67	.86

CHP16-036 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)	Air Temperature Entering Outdoor Coil															
	65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)			
	cfm	L/s	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input		
1050	495	42.9	12.6	2.95	33.1	9.7	2.70	22.4	6.6	2.45	17.1	5.0	2.18	8.5	2.5	1.62
1200	565	43.4	12.7	2.86	33.6	9.8	2.61	22.9	6.7	2.36	17.6	5.2	2.09	9.0	2.6	1.53
1350	635	43.8	12.8	2.78	34.0	10.0	2.53	23.3	6.8	2.28	18.0	5.3	2.01	9.4	2.8	1.45

CHP16-048 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)	Air Temperature Entering Outdoor Coil															
	65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)			
	cfm	L/s	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input		
1280	605	61.3	18.0	4.04	45.5	13.3	3.66	28.8	8.4	3.27	19.5	5.7	2.88	9.7	2.8	2.18
1600	755	62.4	18.3	3.81	46.6	13.7	3.43	29.9	8.8	3.04	20.6	6.0	2.65	10.8	3.2	1.95
1920	905	63.3	18.6	3.66	47.5	13.9	3.28	30.8	9.0	2.89	21.5	6.3	2.50	11.7	3.4	1.80

CHP16-036 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.86	43.4	12.7
60	16	2.80	41.3	12.1
55	13	2.74	39.1	11.5
50	10	2.69	37.0	10.8
47	8	2.65	35.7	10.5
45	7	2.61	33.6	9.8
40	4	2.52	28.3	8.3
35	2	2.42	23.1	6.8
30	-1	2.39	23.0	6.7
25	-4	2.36	22.9	6.7
20	-7	2.33	22.8	6.7
17	-8	2.31	22.7	6.7
15	-9	2.29	21.9	6.4
10	-12	2.23	19.7	5.8
5	-15	2.09	17.6	5.2
0	-18	1.95	15.4	4.5
-5	-21	1.81	13.3	3.9
-10	-23	1.67	11.1	3.3
-15	-26	1.53	9.0	2.6
-20	-29	1.39	6.8	2.0

CHP16-048 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.81	62.4	18.3
60	16	3.72	58.8	17.2
55	13	3.63	55.2	16.2
50	10	3.54	51.7	15.2
47	8	3.49	49.5	14.5
45	7	3.43	46.6	13.7
40	4	3.29	39.4	11.5
35	2	3.16	32.3	9.5
30	-1	3.10	31.1	9.1
25	-4	3.04	29.9	8.8
20	-7	2.98	28.7	8.4
17	-8	2.95	28.0	8.2
15	-9	2.91	26.6	7.8
10	-12	2.83	23.0	6.7
5	-15	2.65	20.6	6.0
0	-18	2.47	18.1	5.3
-5	-21	2.30	15.7	4.6
-10	-23	2.12	13.3	3.9
-15	-26	1.95	10.8	3.2
-20	-29	1.77	8.4	2.5

COOLING AND HEATING RATINGS - CHP16/CHP20

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

CHP16-060 — COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1600	755	56.2	16.5	4.32	.75	.89	1.00	54.2	15.9	4.79	.76	.90	1.00	52.0	15.2	5.34	.77	.92	1.00	49.9	14.6	5.97	.79	.94	1.00
	2000	945	58.3	17.1	4.38	.81	.96	1.00	56.2	16.5	4.85	.82	.98	1.00	54.1	15.9	5.39	.84	.99	1.00	51.9	15.2	6.03	.85	1.00	1.00
	2400	1135	60.1	17.6	4.43	.86	1.00	1.00	58.1	17.0	4.90	.88	1.00	1.00	56.0	16.4	5.46	.89	1.00	1.00	54.0	15.8	6.10	.91	1.00	1.00
67°F (19°C)	1600	755	59.5	17.4	4.41	.58	.72	.86	57.4	16.8	4.88	.59	.73	.87	55.1	16.1	5.42	.60	.75	.89	52.8	15.5	6.07	.61	.76	.91
	2000	945	61.3	18.0	4.46	.62	.78	.93	59.0	17.3	4.94	.63	.80	.95	56.7	16.6	5.48	.64	.81	.97	54.3	15.9	6.11	.65	.83	.98
	2400	1135	62.5	18.3	4.50	.65	.84	.99	60.2	17.6	4.97	.66	.86	1.00	57.9	17.0	5.51	.68	.87	1.00	55.4	16.2	6.16	.69	.89	1.00
71°F (22°C)	1600	755	63.3	18.6	4.52	.44	.57	.70	61.1	17.9	4.99	.44	.57	.71	58.7	17.2	5.54	.44	.58	.72	56.2	16.5	6.19	.44	.59	.74
	2000	945	65.0	19.0	4.57	.45	.61	.76	62.6	18.3	5.04	.45	.62	.78	60.1	17.6	5.59	.46	.63	.79	57.6	16.9	6.23	.46	.64	.81
	2400	1135	66.1	19.4	4.60	.46	.64	.82	63.7	18.7	5.08	.47	.65	.84	61.2	17.9	5.63	.47	.67	.85	58.5	17.1	6.27	.48	.68	.88

CHP20-036 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	960	455	36.7	10.8	2.34	.74	.87	1.00	35.4	10.4	2.63	.75	.88	1.00	34.0	10.0	2.97	.76	.90	1.00	32.5	9.5	3.36	.77	.92	1.00
	1200	565	38.2	11.2	2.35	.79	.94	1.00	36.8	10.8	2.64	.80	.96	1.00	35.4	10.4	2.98	.82	.98	1.00	33.9	9.9	3.37	.84	1.00	1.00
	1440	680	39.4	11.5	2.36	.84	1.00	1.00	38.1	11.2	2.65	.86	1.00	1.00	36.7	10.8	2.99	.87	1.00	1.00	35.3	10.3	3.38	.90	1.00	1.00
67°F (19°C)	960	455	39.2	11.5	2.35	.58	1.11	.84	37.8	11.1	2.65	.58	.72	.85	36.3	10.6	2.99	.59	.73	.87	34.8	10.2	3.37	.60	.75	.89
	1200	565	40.6	11.9	2.36	.61	.76	.91	39.1	11.5	2.66	.62	.78	.93	37.5	11.0	3.00	.63	.79	.95	35.9	10.5	3.38	.64	.81	.97
	1440	680	41.6	12.2	2.37	.64	.82	.98	40.0	11.7	2.66	.65	.83	.99	38.4	11.3	3.00	.66	.85	1.00	36.7	10.8	3.39	.67	.87	1.00
71°F (22°C)	960	455	41.9	12.3	2.37	.44	.56	.68	40.4	11.8	2.66	.44	.57	.69	38.9	11.4	3.00	.44	.57	.70	37.2	10.9	3.39	.44	.58	.72
	1200	565	43.3	12.7	2.38	.45	.59	.74	41.7	12.2	2.67	.45	.60	.75	40.1	11.8	3.01	.45	.61	.77	38.3	11.2	3.40	.46	.62	.79
	1440	680	44.3	13.0	2.38	.46	.63	.79	42.6	12.5	2.68	.47	.64	.81	40.9	12.0	3.02	.47	.65	.83	39.1	11.5	3.41	.47	.67	.85

CHP16-060 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)						
cfm	L/s	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	
1600	755	70.9	20.8	5.11	53.2	15.6	4.59	34.3	10.1	4.03	23.6	6.9	3.57	11.6	3.4	2.70
2000	945	72.5	21.2	4.86	54.8	16.1	4.33	35.9	10.5	3.78	25.2	7.4	3.32	13.2	3.9	2.44
2400	1135	73.6	21.6	4.68	55.9	16.4	4.16	37.0	10.8	3.60	26.3	7.7	3.14	14.3	4.2	2.27

CHP20-036 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)						
cfm	L/s	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	
960	455	42.3	12.4	2.81	32.6	9.6	2.60	22.2	6.5	2.38	16.3	4.8	2.15	8.0	2.3	1.62
1200	565	43.0	12.6	2.63	33.3	9.8	2.42	22.9	6.7	2.20	17.0	5.0	1.96	8.7	2.5	1.43
1440	680	43.7	12.8	2.52	34.0	10.0	2.31	23.6	6.9	2.09	17.7	5.2	1.85	9.4	2.8	1.32

CHP16-060 - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input		Total Output	
°F	°C	kW	kW	kBtuh	kW
65	18	4.86	72.5	21.2	21.2
60	16	4.74	68.5	20.1	20.1
55	13	4.62	64.5	18.9	18.9
50	10	4.50	60.4	17.7	17.7
47	8	4.43	58.0	17.0	17.0
45	7	4.33	54.8	16.1	16.1
40	4	4.10	46.6	13.7	13.7
35	2	3.87	38.5	11.3	11.3
30	-1	3.83	37.2	10.9	10.9
25	-4	3.78	35.9	10.5	10.5
20	-7	3.73	34.6	10.1	10.1
17	-8	3.71	33.9	9.9	9.9
15	-9	3.66	32.3	9.5	9.5
10	-12	3.54	28.2	8.3	8.3
5	-15	3.32	25.2	7.4	7.4
0	-18	3.10	22.2	6.5	6.5
-5	-21	2.88	19.2	5.6	5.6
-10	-23	2.66	16.2	4.7	4.7
-15	-26	2.44	13.2	3.9	3.9
-20	-29	2.22	10.2	3.0	3.0

CHP20-036 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input		Total Output	
°F	°C	kW	kW	kBtuh	kW
65	18	2.63	43.0	12.6	12.6
60	16	2.58	40.8	12.0	12.0
55	13	2.53	38.6	11.3	11.3
50	10	2.48	36.5	10.7	10.7
47	8	2.45	35.1	10.3	10.3
45	7	2.42	33.3	9.8	9.8
40	4	2.33	28.6	8.4	8.4
35	2	2.24	24.0	7.0	7.0
30	-1	2.22	23.4	6.9	6.9
25	-4	2.20	22.9	6.7	6.7
20	-7	2.18	22.4	6.6	6.6
17	-8	2.16	22.1	6.5	6.5
15	-9	2.14	21.3	6.2	6.2
10	-12	2.10	19.1	5.6	5.6
5	-15	1.96	17.0	5.0	5.0
0	-18	1.83	14.9	4.4	4.4
-5	-21	1.70	12.9	3.8	3.8
-10	-23	1.57	10.8	3.2	3.2
-15	-26	1.43	8.7	2.5	2.5
-20	-29	1.30	6.6	1.9	1.9

COOLING AND HEATING RATINGS - CHP20

NOTE - For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

CHP20-048 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1280	605	48.5	14.2	3.13	.72	.85	.97	46.8	13.7	3.52	.73	.86	.99	44.9	13.2	3.97	.74	.88	1.00	42.9	12.6	4.50	.75	.90	1.00
	1600	755	50.4	14.8	3.16	.77	.92	1.00	48.6	14.2	3.54	.79	.94	1.00	46.7	13.7	3.99	.80	.96	1.00	44.6	13.1	4.51	.82	.98	1.00
	1920	905	52.0	15.2	3.17	.83	.98	1.00	50.2	14.7	3.56	.84	1.00	1.00	48.4	14.2	4.01	.86	1.00	1.00	46.4	13.6	4.53	.88	1.00	1.00
67°F (19°C)	1280	605	51.5	15.1	3.17	.57	.69	.82	49.7	14.6	3.55	.57	.70	.83	47.7	14.0	4.00	.58	.71	.85	45.5	13.3	4.53	.59	.73	.87
	1600	755	53.2	15.6	3.20	.60	.75	.89	51.2	15.0	3.58	.60	.76	.91	49.1	14.4	4.03	.61	.78	.93	46.9	13.7	4.54	.62	.80	.95
	1920	905	54.4	15.9	3.21	.63	.81	.96	52.4	15.4	3.60	.64	.82	.98	50.2	14.7	4.04	.65	.84	.99	47.9	14.0	4.56	.67	.86	1.00
71°F (22°C)	1280	605	54.8	16.1	3.22	.43	.55	.67	52.9	15.5	3.60	.43	.55	.68	50.8	14.9	4.05	.43	.56	.69	48.4	14.2	4.57	.43	.57	.70
	1600	755	56.5	16.6	3.24	.44	.58	.72	54.4	15.9	3.63	.44	.59	.74	52.2	15.3	4.07	.44	.60	.75	49.8	14.6	4.58	.45	.61	.77
	1920	905	57.6	16.9	3.24	.45	.62	.78	55.4	16.2	3.64	.46	.63	.80	53.1	15.6	4.08	.46	.64	.82	50.6	14.8	4.60	.46	.66	.84

CHP20-060 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1600	755	60.1	17.6	4.18	.73	.87	.99	57.9	17.0	4.69	.74	.88	1.00	55.6	16.3	5.28	.76	.90	1.00	53.2	15.6	5.93	.77	.92	1.00
	2000	945	62.4	18.3	4.21	.79	.94	1.00	60.2	17.6	4.73	.80	.96	1.00	57.9	17.0	5.31	.82	.97	1.00	55.4	16.2	5.96	.83	.99	1.00
	2400	1135	64.5	18.9	4.23	.84	1.00	1.00	62.3	18.3	4.75	.86	1.00	1.00	60.0	17.6	5.34	.88	1.00	1.00	57.7	16.9	5.99	.90	1.00	1.00
67°F (19°C)	1600	755	63.7	18.7	4.22	.57	.71	.84	61.5	18.0	4.74	.58	.72	.85	59.0	17.3	5.32	.59	.73	.87	56.5	16.6	5.98	.60	.74	.89
	2000	945	65.8	19.3	4.25	.61	.77	.91	63.4	18.6	4.77	.61	.78	.93	60.9	17.8	5.36	.62	.79	.95	58.2	17.1	6.00	.64	.81	.97
	2400	1135	67.3	19.7	4.27	.64	.82	.98	64.8	19.0	4.78	.65	.84	.99	62.2	18.2	5.37	.66	.86	1.00	59.4	17.4	6.02	.68	.88	1.00
71°F (22°C)	1600	755	67.9	19.9	4.27	.43	.56	.68	65.5	19.2	4.79	.43	.56	.69	62.9	18.4	5.38	.44	.57	.70	60.2	17.6	6.03	.44	.58	.72
	2000	945	69.9	20.5	4.29	.44	.59	.74	67.3	19.7	4.82	.45	.60	.75	64.6	18.9	5.40	.45	.61	.77	61.8	18.1	6.05	.45	.62	.79
	2400	1135	71.3	20.9	4.31	.46	.63	.80	68.6	20.1	4.83	.46	.64	.82	65.8	19.3	5.42	.47	.65	.84	62.9	18.4	6.06	.47	.67	.86

CHP20-048 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)							
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input						
cfm	L/s	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1280	605	57.2	16.8	3.50	43.4	12.7	3.24	28.5	8.4	2.97	20.6	6.0	2.65	10.2	3.0	2.00	
1600	755	58.1	17.0	3.27	44.3	13.0	3.01	29.4	8.6	2.75	21.5	6.3	2.43	11.1	3.3	1.77	
1920	905	59.1	17.3	3.14	45.3	13.3	2.88	30.4	8.9	2.61	22.5	6.6	2.29	12.1	3.5	1.64	

CHP20-060 - HEATING CAPACITY

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)							
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input						
cfm	L/s	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1600	755	70.2	20.6	4.33	53.4	15.6	4.48	35.8	10.5	4.95	24.1	7.1	3.18	11.9	3.5	2.39	
2000	945	71.6	21.0	4.09	54.8	16.1	4.24	37.2	10.9	4.71	25.5	7.5	2.94	13.3	3.9	2.15	
2400	1135	72.8	21.3	3.94	56.0	16.4	4.09	38.4	11.3	4.56	26.7	7.8	2.79	14.5	4.2	2.00	

CHP20-048 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.27	58.1	17.0
60	16	3.21	55.0	16.1
55	13	3.15	51.9	15.2
50	10	3.09	48.9	14.3
47	8	3.05	47.0	13.8
45	7	3.01	44.3	13.0
40	4	2.93	37.4	11.0
35	2	2.84	30.5	8.9
30	-1	2.79	30.0	8.8
25	-4	2.75	29.4	8.6
20	-7	2.70	28.8	8.4
17	-8	2.68	28.5	8.4
15	-9	2.65	27.2	8.0
10	-12	2.59	24.1	7.1
5	-15	2.43	21.5	6.3
0	-18	2.26	18.9	5.5
-5	-21	2.10	16.3	4.8
-10	-23	1.94	13.7	4.0
-15	-26	1.77	11.1	3.3
-20	-29	1.61	8.5	2.5

CHP20-060 - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.09	71.6	21.0
60	16	4.00	67.7	19.8
55	13	3.92	63.8	18.7
50	10	3.83	59.9	17.6
47	8	3.78	57.5	16.9
45	7	4.24	54.8	16.1
40	4	5.38	48.0	14.1
35	2	6.53	41.2	12.1
30	-1	5.62	39.2	11.5
25	-4	4.71	37.2	10.9
20	-7	3.80	35.2	10.3
17	-8	3.26	34.1	10.0
15	-9	3.22	32.5	9.5
10	-12	3.13	28.6	8.4
5	-15	2.94	25.5	7.5
0	-18	2.74	22.5	6.6
-5	-21	2.54	19.4	5.7
-10	-23	2.35	16.3	4.8
-15	-26	2.15	13.3	3.9
-20	-29	1.95	10.2	3.0

BLOWER DATA - CHP16 - All air data is measured external to the unit with dry coil and without air filter.

CHP16-024 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings								Horizontal Air Openings							
		Air Volume at Various Blower Speeds								Air Volume at Various Blower Speeds							
		High		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1385	655	1025	485	900	425	685	325	1435	675	1035	490	895	420	625	295
.05	12	1380	650	1035	490	915	430	700	330	1420	670	1050	495	915	430	645	305
.10	25	1365	645	1045	495	925	435	710	335	1400	660	1060	500	925	435	660	310
.15	37	1350	635	1045	495	930	440	715	335	1380	650	1060	500	935	440	670	315
.20	50	1330	630	1040	490	930	440	715	335	1360	640	1060	500	935	440	675	320
.25	62	1305	615	1030	485	925	435	715	335	1335	630	1050	495	930	440	675	320
.30	75	1275	600	1010	475	915	430	705	335	1305	615	1035	490	920	435	670	315
.40	100	1205	570	965	455	880	415	680	320	1235	585	985	465	875	415	650	305
.50	125	1120	530	890	420	820	385	640	300	1155	545	910	430	810	380	605	285
.60	150	1015	480	800	380	740	350	585	275	1065	505	810	380	720	340	545	255
.70	175	900	425	685	325	640	300	510	240	960	455	690	325	605	285	465	220
.75	185	835	395	615	290	580	275	470	220	905	425	620	295	540	255	415	195

CHP16-030 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings								Horizontal Air Openings							
		Air Volume at Various Blower Speeds								Air Volume at Various Blower Speeds							
		High		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1485	700	1250	590	1085	500	905	425	1485	700	1345	635	1115	525	920	435
.05	12	1460	690	1250	590	1075	505	900	425	1480	700	1340	630	1120	530	930	440
.10	25	1430	675	1240	585	1070	505	895	420	1465	690	1335	630	1120	530	940	445
.15	37	1400	660	1235	585	1060	500	890	420	1455	685	1325	625	1115	525	945	445
.20	50	1375	650	1225	580	1045	495	885	420	1435	675	1315	620	1110	525	945	445
.25	62	1345	635	1215	575	1035	490	875	415	1420	670	1305	615	1105	520	940	445
.30	75	1315	620	1200	565	1020	480	865	410	1400	660	1285	605	1095	515	935	440
.40	100	1255	590	1165	550	990	465	835	395	1350	635	1250	590	1065	505	910	430
.50	125	1190	560	1125	530	950	450	805	380	1295	610	1200	565	1025	485	875	415
.60	150	1125	530	1075	510	910	430	770	365	1230	580	1145	540	975	460	820	385
.70	175	1060	500	1015	480	865	410	725	340	1160	545	1075	505	915	430	755	355
.75	185	1025	485	985	465	840	395	700	330	1120	530	1040	490	885	420	720	340

CHP16-036 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings								Horizontal Air Openings							
		Air Volume at Various Blower Speeds								Air Volume at Various Blower Speeds							
		High		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1360	640	1270	600	1070	505	890	420	1450	685	1370	645	1080	510	900	425
.05	12	1355	640	1250	590	1060	500	885	420	1430	675	1350	635	1070	505	890	420
.10	25	1350	635	1230	580	1050	495	880	415	1410	665	1330	630	1060	500	880	415
.15	37	1330	630	1220	575	1035	490	870	410	1395	660	1310	615	1055	500	875	415
.20	50	1310	620	1210	570	1020	480	860	405	1380	650	1290	610	1050	495	870	410
.25	62	1295	610	1190	560	1005	475	845	340	1360	640	1270	600	1040	490	860	405
.30	75	1280	605	1170	550	990	470	830	390	1340	630	1250	590	1030	485	850	400
.40	100	1230	580	1130	535	960	455	800	380	1300	615	1210	570	1010	475	830	390
.50	125	1170	550	1070	505	910	430	760	360	1250	590	1170	550	970	460	810	380
.60	150	1100	520	990	465	850	400	700	330	1200	565	1120	530	930	440	770	365
.70	175	1020	480	890	420	780	370	620	295	1150	545	1060	500	890	420	710	335
.75	185	975	460	830	390	740	350	570	270	1125	530	1025	485	870	410	670	315

CHP16-036 BLOWER PERFORMANCE - 460 VOLTS

External Static Pressure		Down-Flow Air Openings						Horizontal Air Openings					
		Air Volume at Various Blower Speeds						Air Volume at Various Blower Speeds					
		High		Medium		Low		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	1560	735	1380	650	1070	505	1665	785	1490	705	1080	510
.05	12	1555	735	1355	640	1075	505	1640	775	1465	690	1080	510
.10	25	1540	725	1330	630	1080	510	1610	760	1440	680	1080	510
.15	37	1510	715	1320	625	1070	505	1585	750	1420	670	1075	505
.20	50	1475	695	1315	620	1060	500	1555	735	1400	660	1070	505
.25	62	1450	685	1295	610	1040	490	1525	720	1380	650	1060	500
.30	75	1430	675	1270	600	1025	485	1495	705	1355	640	1050	495
.40	100	1360	640	1215	575	980	460	1435	675	1300	615	1015	480
.50	125	1280	605	1145	540	925	435	1365	645	1250	590	985	465
.60	150	1185	560	1045	495	850	400	1295	610	1180	555	935	440
.70	175	1070	505	925	435	750	355	1205	570	1100	520	860	405
.75	185	990	465	860	405	680	320	1145	540	1060	500	800	380

BLOWER DATA - CHP16/CHP20 - All air data is measured external to the unit with dry coil and without air filter.

CHP20-036 - CHP16-048 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings								Horizontal Air Openings							
		Air Volume at Various Blower Speeds								Air Volume at Various Blower Speeds							
		High		Medium-High		Medium-Low		Low		High		Medium-High		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2015	950	1610	760	1425	670	1240	585	2075	980	1675	790	1445	680	1275	600
.05	12	2000	945	1595	755	1420	670	1235	585	2060	970	1660	785	1440	680	1270	600
.10	25	1980	935	1580	745	1415	670	1235	585	2040	965	1645	775	1435	675	1270	600
.15	37	1960	925	1575	745	1415	670	1230	580	2020	955	1635	770	1435	675	1265	595
.20	50	1935	915	1560	735	1405	665	1225	580	1995	940	1620	765	1425	670	1260	595
.25	62	1910	900	1540	725	1395	660	1215	575	1965	930	1600	755	1415	670	1250	590
.30	75	1885	890	1520	715	1385	655	1205	570	1940	915	1580	745	1405	665	1240	585
.40	100	1825	860	1485	700	1355	640	1185	560	1880	890	1545	730	1375	650	1220	575
.50	125	1760	830	1445	680	1315	620	1160	550	1815	855	1500	710	1335	630	1195	565
.60	150	1690	800	1395	660	1260	595	1130	535	1740	820	1450	685	1280	605	1165	550
.70	175	1615	760	1335	630	1190	560	1095	515	1655	780	1395	660	1210	570	1130	535
.75	185	1575	745	1300	615	1145	540	1065	505	1605	755	1365	645	1165	550	1110	525

CHP20-036 - CHP16-048 BLOWER PERFORMANCE - 460 VOLTS

External Static Pressure		Down-Flow Air Openings						Horizontal Air Openings					
		Air Volume at Various Blower Speeds						Air Volume at Various Blower Speeds					
		High		Medium		Low		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2075	980	1650	780	1105	520	2090	985	1755	830	1115	525
.05	12	2045	965	1635	770	1105	520	2065	975	1740	820	1115	525
.10	25	2015	950	1625	765	1100	520	2035	960	1720	810	1110	525
.15	37	1980	935	1615	760	1100	520	2005	945	1705	805	1110	525
.20	50	1945	920	1600	755	1095	515	1975	930	1685	795	1105	520
.25	62	1915	905	1585	750	1090	515	1950	920	1675	790	1100	520
.30	75	1880	890	1570	740	1085	510	1920	905	1650	780	1095	515
.40	100	1810	855	1535	725	1070	505	1860	880	1600	755	1080	510
.50	125	1735	820	1490	705	1045	495	1790	845	1555	735	1055	500
.60	150	1650	780	1430	675	1010	475	1720	810	1495	705	1020	480
.70	175	1555	735	1355	640	965	455	1640	775	1425	670	975	460
.75	185	1500	710	1310	620	935	440	1595	755	1385	655	945	445

CHP20-048/060 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings										Horizontal Air Openings									
		Air Volume at Various Blower Speeds										Air Volume at Various Blower Speeds									
		High		Medium-High		Medium		Medium-Low		Low		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2375	1120	2255	1065	2070	975	1810	855	1570	740	2475	1170	2280	1075	2100	990	1840	870	1500	710
.05	10	2350	1110	2235	1055	2060	970	1805	850	1565	740	2450	1155	2260	1065	2090	985	1835	865	1505	710
.10	25	2325	1095	2215	1045	2045	965	1795	845	1565	740	2425	1145	2235	1055	2075	980	1825	860	1505	710
.15	35	2300	1085	2190	1035	2030	960	1785	845	1560	735	2400	1135	2215	1045	2055	970	1815	855	1505	710
.20	50	2270	1070	2165	1020	2010	950	1775	840	1550	730	2370	1120	2190	1035	2035	960	1800	850	1500	710
.25	60	2245	1060	2145	1010	1990	940	1760	830	1545	730	2340	1105	2160	1020	2015	950	1785	845	1495	705
.30	75	2215	1045	2115	1000	1970	930	1745	825	1535	725	2305	1090	2135	1010	1995	940	1770	835	1485	700
.40	100	2150	1015	2060	970	1925	910	1710	805	1510	715	2240	1055	2075	980	1945	920	1730	815	1460	690
.50	125	2085	985	2000	945	1875	885	1670	790	1475	695	2165	1020	2010	950	1895	895	1680	795	1430	675
.60	150	2015	950	1935	915	1815	855	1625	765	1435	675	2090	985	1935	915	1835	865	1625	765	1390	655
.70	175	1940	915	1865	880	1755	830	1570	740	1390	655	2005	945	1860	880	1765	835	1560	735	1340	630
.75	185	1900	895	1825	860	1720	810	1540	725	1360	640	1960	925	1820	860	1730	815	1525	720	1310	620

CHP20-048/060 BLOWER PERFORMANCE - 460 VOLTS

External Static Pressure		Down-Flow Air Openings						Horizontal Air Openings					
		Air Volume at Various Blower Speeds						Air Volume at Various Blower Speeds					
		High		Medium		Low		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2255	1065	2120	1000	1865	880	2310	1090	2150	1015	1925	910
.05	10	2230	1055	2100	990	1855	875	2290	1080	2130	1005	1910	900
.10	25	2210	1045	2075	980	1840	870	2265	1070	2105	995	1895	895
.15	35	2185	1030	2050	970	1830	865	2240	1055	2080	980	1880	885
.20	50	2155	1015	2025	955	1815	855	2210	1045	2055	970	1860	880
.25	60	2130	1005	2000	945	1795	845	2180	1030	2030	960	1840	870
.30	75	2100	990	1970	930	1775	840	2150	1015	2000	945	1820	860
.40	100	2035	960	1910	900	1730	815	2085	985	1940	915	1770	835
.50	125	1965	925	1845	870	1680	795	2020	955	1875	885	1715	810
.60	150	1890	890	1775	840	1620	765	1945	920	1810	855	1655	780
.70	175	1815	855	1700	800	1550	730	1865	880	1735	820	1590	750
.75	185	1770	835	1660	785	1515	715	1825	860	1695	800	1555	735

BLOWER DATA - CHP16 - All air data is measured external to the unit with dry coil and without air filter.

CHP16-060 BLOWER PERFORMANCE - 230 VOLTS (For 208V unit operation, derate air volume by 7%)

External Static Pressure		Down-Flow Air Openings										Horizontal Air Openings									
		Air Volume at Various Blower Speeds										Air Volume at Various Blower Speeds									
		High		Medium-High		Medium		Medium-Low		Low		High		Medium-High		Medium		Medium-Low		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2450	1155	2200	1040	1990	940	1760	830	1460	690	2570	1215	2220	1050	2000	945	1780	840	1510	715
.05	12	2430	1145	2180	1030	1980	935	1750	825	1470	695	2560	1210	2210	1045	1990	940	1780	840	1520	715
.10	25	2410	1135	2170	1025	1970	930	1740	820	1490	705	2540	1200	2200	1040	1980	935	1770	835	1530	720
.15	37	2390	1130	2160	1020	1960	925	1730	815	1500	710	2520	1190	2190	1035	1970	930	1770	835	1520	715
.20	50	2360	1115	2140	1010	1950	920	1720	810	1490	705	2500	1180	2180	1030	1960	925	1760	830	1510	715
.25	62	2340	1105	2120	1000	1930	910	1710	805	1490	705	2480	1170	2160	1020	1940	915	1750	825	1510	715
.30	75	2320	1095	2100	990	1910	900	1700	800	1480	700	2440	1150	2140	1010	1920	905	1740	820	1500	710
.40	100	2270	1070	2060	970	1880	885	1670	780	1470	695	2390	1130	2100	990	1900	895	1710	805	1470	695
.50	125	2230	1052	2010	950	1830	865	1640	775	1430	675	2320	1095	2060	970	1860	880	1670	790	1440	680
.60	150	2170	1025	1930	910	1780	840	1600	755	1390	655	2240	1055	2010	950	1810	855	1630	770	1400	660
.70	175	2120	1000	1890	890	1730	815	1550	730	1340	630	2160	1020	1950	920	1760	830	1580	745	1350	635
.75	185	2080	980	1850	875	1700	800	1530	720	1310	620	2120	1000	1920	905	1720	810	1560	735	1330	630

CHP16-060 BLOWER PERFORMANCE - 460 VOLTS

External Static Pressure		Down-Flow Air Openings						Horizontal Air Openings					
		Air Volume at Various Blower Speeds						Air Volume at Various Blower Speeds					
		High		Medium		Low		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0	0	2450	1155	2090	985	1740	820	2570	1215	2100	990	1760	830
.05	12	2430	1145	2080	980	1740	820	2560	1210	2090	985	1770	835
.10	25	2410	1135	2060	970	1730	815	2540	1200	2070	975	1760	830
.15	37	2390	1130	2040	965	1720	810	2520	1190	2050	965	1760	830
.20	50	2360	1115	2020	955	1710	805	2500	1180	2030	960	1750	825
.25	62	2340	1105	2000	945	1700	800	2480	1170	2010	950	1740	820
.30	75	2320	1095	1990	940	1680	795	2440	1150	2000	945	1720	810
.40	100	2270	1070	1940	915	1630	770	2390	1130	1960	925	1670	790
.50	125	2230	1050	1880	885	1590	750	2320	1095	1910	900	1620	765
.60	150	2170	1025	1840	870	1520	715	2240	1105	1870	880	1550	730
.70	175	2120	1000	1770	835	1460	690	2160	1020	1800	850	1490	705
.75	185	2080	980	1740	820	1440	680	2120	1000	1760	830	1470	695

BLOWER DATA

CEILING DIFFUSER AIR THROW DATA

Model No.	RTD9-65		FD9-65		
	Effective Throw	Effective Throw	Effective Throw	Effective Throw	
Air Volume	ft.	m	ft.	m	
cfm	L/s	ft.	m	ft.	m
1000	470	10-17	3-5	15-20	5-6
1200	565	11-18	3-5	16-22	5-7
1400	660	12-19	4-6	17-24	5-7
1600	755	12-20	4-6	18-25	5-8
1800	850	13-21	4-6	20-28	6-9
2000	945	14-23	4-7	21-29	6-9
2200	1040	16-25	5-8	22-30	7-9

Effective throw based on terminal velocities of 75 ft. (22.9 m) per minute.

WET INDOOR COIL AIR RESISTANCE

Model Number	Air Volume		Air Resistance	
	cfm	L/s	in. w.g.	Pa
CHP16-024	600	285	0.05	12
	800	380	0.06	15
	1000	470	0.07	17
CHP16-030	1200	565	0.08	20
	800	380	0.09	22
	1000	470	0.10	25
CHP16-036	1200	565	0.11	27
	1400	660	0.12	30
	800	380	0.09	22
CHP20-036	1000	470	0.08	20
	1200	565	0.09	22
	1400	660	0.10	25
CHP16-048	1600	755	0.11	27
	1800	850	0.12	30
	2000	945	0.13	32
	2200	1040	0.14	35
CHP16-060	1600	755	0.08	20
	1800	850	0.09	22
CHP20-048	2000	945	0.10	25
	2200	1040	0.11	27

BLOWER DATA

FILTER AND ACCESSORY AIR RESISTANCE - Electric heaters have no appreciable air resistance.

Unit Model No.	Air Volume		Total Air Resistance											
			1 in. (25mm) Filter Furnished		REMD16 Down-Flow Economizer						EMDH16 Horizontal Economizer			
					Less Filter		With Optional Pleated Polyester 2 in. (51mm) Filter		With Optional Fiberglass 2 in. (51mm) Filter		With Furnished 1 in. (25mm) Filter		Less Filter	
cfm	L/s	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	
CHP16-024 CHP16-030 CHP16-036	800	380	.15	37	.05	12	.27	67	.13	32	.18	45	.10	25
	1000	470	.18	45	.06	15	.34	85	.18	45	.26	65	.15	37
	1200	565	.21	52	.09	22	.42	104	.24	60	.35	87	.21	52
	1400	660	.25	62	.15	37	.51	127	.31	77	.46	114	.29	72
CHP16-048 CHP16-060	1200	565	.12	30	.04	10	.28	70	.18	45	.23	57	.15	37
	1400	660	.13	32	.04	10	.34	85	.22	55	.26	65	.16	40
	1600	755	.15	37	.05	12	.40	99	.27	67	.30	75	.17	42
CHP20-036 CHP20-048 CHP20-060	1800	850	.17	42	.06	15	.48	119	.33	82	.35	87	.19	47
	2000	945	.20	50	.08	20	.56	139	.39	97	.40	99	.22	55
	2200	1040	.23	57	.13	32	.66	164	.46	114	.47	117	.26	85

DIFFUSER AIR RESISTANCE

Unit Model No.	Air Volume		Total Air Resistance							
			RTD9-65 Diffuser						FD9-65 Diffuser	
			2 Ends Open		1 Side 2 Ends Open		All Ends & Sides Open			
cfm	L/s	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	
CHP16-024 CHP16-030 CHP16-036	800	380	.15	37	.13	32	.11	27	.11	27
	1000	470	.19	47	.16	40	.14	35	.14	35
	1200	565	.25	62	.20	50	.17	42	.17	42
	1400	660	.33	82	.26	65	.20	50	.20	50
CHP16-048 CHP16-060	1600	755	.43	107	.32	80	.20	50	.24	60
	1800	850	.56	139	.40	90	.30	75	.30	75
CHP20-036 CHP20-048 CHP20-060	2000	945	.73	182	.50	124	.36	90	.36	90
	2200	1040	.95	236	.63	157	.44	109	.44	109

ELECTRICAL DATA

General Data	Model No.	CHP16-024	CHP16-030	CHP16-036			CHP16-048		
		208/230V-1ph	208/230V-1ph	208/230V-1ph	208/230V-3ph	460V-3ph	208/230V-1ph	208/230V-3ph	460V-3ph
Line voltage data - 60 hz									
Rec. max. fuse size (amps)		25	30	40	30	15	50	35	15
†Minimum Circuit Ampacity		16	21	27	20	11	34	23	11
Compressor	Rated load amps	10.1	13.0	17.7	12.2	6.2	21.8	12.8	6.4
	Locked rotor amps	60	69.4	100	77	39	131	91	46
Outdoor Coil Fan Motor	Full load amps	1.1	1.1	1.1	1.1	0.73	2.3	2.3	1.1
	Locked rotor amps	2.2	2.2	2.2	2.2	1.3	4.4	4.4	2.0
Indoor Coil Blower Motor	Motor output - hp (W)	1/3 (249)	1/3 (249)	1/3 (249)	1/3 (249)	1/3 (249)	1/2 (373)	1/2 (373)	1/2 (373)
	Full load amps	2.1	3	3	3	1.8	3.9	3.9	1.8
	Locked rotor amps	4.2	6.2	6.2	6.2	4.4	8.3	8.3	4.4

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

NOTE - Extremes of operating range are plus and minus 10% of line voltage.

ELECTRICAL DATA

General Data	Model No.	CHP16-060			CHP20-036		CHP20-048		CHP20-060	
		208/230V-1ph	208/230V-3ph	460V-3ph	208/230V-3ph	460V-3ph	208/230V-3ph	460V-3ph	208/230V-3ph	460V-3ph
Line voltage data - 60 hz										
Rec. max. fuse size (amps)		60	40	20	25	15	40	15	45	20
†Minimum Circuit Ampacity		39	27	13	20	10	26	13	29	14
Compressor	Rated load amps	25.0	15.5	7.5	10.3	5.2	14.7	7.1	17.3	8.2
	Locked rotor amps	170	124	60	77	39	91	50	123	62
Outdoor Coil Fan Motor	Full load amps	2.3	1.1	1.1	2.3	1.1	2.3	1.1	2.3	1.1
	Locked rotor amps	4.4	2	2	4.4	2	4.4	2	4.4	2
Indoor Coil Blower Motor	Motor output - hp	3/4 (560)	3/4 (560)	3/4 (560)	1/2 (373)	1/2 (373)	3/4 (560)	3/4 (560)	3/4 (560)	3/4 (560)
	Full load amps	4.6	2.4	2.4	3.9	1.8	4.6	2.4	4.6	2.4
	Locked rotor amps	10	3.8	3.8	8.3	4.4	10	3.8	10	3.8

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

NOTE - Extremes of operating range are plus and minus 10% of line voltage.

ELECTRIC HEAT DATA - CHP16-024-030

Single Package Unit Model No.	Electric Heater Model No. & Net Weight	No. of Steps	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only †Minimum Circuit Ampacity	†Total Unit + Electric Heat		Optional Single Point Power Source Boxes	
							†Minimum Circuit Ampacity	Maximum Fuse Size	Heater Sub-Fuse Box	Unit Sub-Fuse Box
CHP16-024 1 phase	5 kW ECH16R-5 (31H46) 4 lbs. (2 kg)	1	208	3.8	12,800	26	42	45	ECH16R-26/41-5 (31H26)	ECH16-261 (31H10)
		1	220	4.2	14,300	26	42	45		
		1	230	4.6	15,700	26	42	45		
		1	240	5.0	17,100	26	42	45		
	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	208	5.3	17,900	37	53	60	ECH16R-26/65-7 (31H25)	ECH16-261 (31H10)
		1	220	5.9	20,100	37	53	60		
		1	230	6.4	21,900	37	53	60		
		1	240	7.0	23,900	37	53	60		
	10 kW ECH16R-10 (31H48) 5 lbs. (2 kg)	1	208	7.5	25,600	53	68	70	ECH16R-26/65-10 (31H24)	ECH16-261 (31H10)
		1	220	8.4	28,700	53	68	70		
		1	230	9.2	31,300	53	68	70		
		1	240	10.0	34,100	53	68	70		
	15 kW ECH16-15 (31H27) 18 lbs. (8 kg)	1	208	11.3	38,400	79	94	100	Not required	ECH16-261 (31H10)
		1	220	12.6	43,000	79	94	100		
		1	230	13.8	47,100	79	94	100		
		1	240	15.0	51,200	79	94	100		
CHP16-030 1 phase	5 kW ECH16R-5 (31H46) 4 lbs. (2 kg)	1	208	3.8	12,800	26	47	50	ECH16R-26/41-5 (31H26)	ECH16-311 (31H11)
		1	220	4.2	14,300	26	47	50		
		1	230	4.6	15,700	26	47	50		
		1	240	5.0	17,100	26	47	50		
	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	208	5.3	17,900	37	57	60	ECH16R-26/65-7 (31H25)	ECH16-311 (31H11)
		1	220	5.9	20,100	37	57	60		
		1	230	6.4	21,800	37	57	60		
		1	240	7.0	23,900	37	57	60		
	10 kW ECH16R-10 (31H48) 5 lbs. (2 kg)	1	208	7.5	25,600	53	73	80	ECH16R-26/65-10 (31H24)	ECH16-311 (31H11)
		1	220	8.4	28,700	53	73	80		
		1	230	9.2	31,300	53	73	80		
		1	240	10.0	34,100	53	73	80		
	15 kW ECH16-15 (31H27) 18 lbs. (8 kg)	1	208	11.3	38,400	79	99	100	Not required	ECH16-311 (31H11)
		1	220	12.6	43,000	79	99	100		
		1	230	13.8	47,100	79	99	100		
		1	240	15.0	51,200	79	99	100		

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

ELECTRIC HEAT DATA - CHP16-036 - CHP20-036

Single Package Unit Model No.	Electric Heater Model No. & Net Weight	No. of Steps	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only Minimum Circuit Ampacity	†Total CHP16 Unit + Electric Heat		†Total CHP20 Unit + Electric Heat		Optional Single Point Power Source Boxes	
							Minimum Circuit Ampacity	Maximum Fuse Size	Minimum Circuit Ampacity	Maximum Fuse Size	Heater Sub-Fuse Box	Unit Sub-Fuse Box
CHP16-036 1 phase	5 kW ECH16R-5 (31H46) 4 lbs. (2 kg)	1	208	3.7	12,600	26	53	60	---	---	ECH16R-26/41-5 (31H26)	ECH16-411 (31H12)
		1	220	4.2	14,300	26	53	60	---	---		
		1	230	4.6	15,700	26	53	60	---	---		
		1	240	5.0	17,100	26	53	60	---	---		
	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	208	5.3	18,100	37	63	70	---	---	ECH16R-26/65-7 (31H25)	ECH16-411 (31H12)
		1	220	5.9	20,100	37	63	70	---	---		
		1	230	6.4	21,800	37	63	70	---	---		
	10 kW ECH16R-10 (31H48) 5 lbs. (2 kg)	1	208	7.5	25,600	53	79	80	---	---	ECH16R-26/65-10 (31H24)	ECH16-411 (31H12)
		1	220	8.4	28,700	53	79	80	---	---		
		1	230	9.2	31,400	53	79	80	---	---		
	15 kW ECH16-15 (31H27) 18 lbs. (8 kg)	1	208	11.3	38,600	79	105	110	---	---	Not required	ECH16-411 (31H12)
		1	220	12.6	43,000	79	105	110	---	---		
1		230	13.8	47,100	79	105	110	---	---			
20 kW ECH16-20 (31H28) 19 lbs. (9 kg)	1	208	15.0	51,200	105	131	150	---	---	Not required	ECH16-411 (31H12)	
	1	220	16.8	57,300	105	131	150	---	---			
	1	230	18.4	62,800	105	131	150	---	---			
CHP16-036 3 phase	5 kW ECH16-5 208/230v (31H30) 17 lbs. (9 kg)	1	208	3.8	12,800	15	35	40	---	---	Not required	ECH16-413 208/230v (31H15)
		1	220	4.2	14,300	15	35	40	---	---		
		1	230	4.6	15,700	15	35	40	---	---		
		1	240	5.0	17,100	15	35	40	---	---		
CHP16-036 CHP20-036 3 phase	7 kW ECH16-7 208/230v (31H31) 460v (31H36) 17 lbs. (8 kg)	1	208	5.3	18,000	21	41	45	41	45	Not required	ECH16-413 208/230v (31H15) 460v (31H18)
		1	220	5.9	20,000	21	41	45	41	45		
		1	230	6.4	22,000	21	41	45	41	45		
		1	240	7.0	23,900	21	41	45	41	45		
		1	440	5.8	19,800	11	21	25	20	20		
		1	460	6.5	22,200	11	21	25	20	20		
	10 kW ECH16-10 208/230v (31H32) 460v (31H37) 17 lbs. (8 kg)	1	208	7.5	25,600	31	50	50	50	50	Not required	ECH16-413 208/230v (31H15) 460v (31H18)
		1	220	8.4	28,700	31	50	50	50	50		
		1	230	9.2	31,400	31	50	50	50	50		
		1	240	10.0	34,100	31	50	50	50	50		
		1	440	8.4	28,700	15	25	30	25	25		
		1	460	9.2	31,400	15	25	30	25	25		
	15 kW ECH16-15 208/230v (31H33) 460v (31H38) 17 lbs. (8 kg)	1	208	11.3	38,500	46	65	70	65	70	Not required	ECH16-413 208/230v (31H15) 460v (31H18)
		1	220	12.6	43,000	46	65	70	65	70		
		1	230	13.8	47,100	46	65	70	65	70		
		1	240	15.0	51,200	46	65	70	65	70		
		1	440	12.6	43,000	23	33	35	32	35		
		1	460	13.8	47,100	23	33	35	32	35		
	20 kW ECH16-20 208/230v (31H34) 460v (31H39) 20 lbs. (9 kg)	2	208	15.0	51,300	61	80	80	80	80	Not required	ECH16-413 208/230v (31H15) 460v (31H18)
		2	220	16.8	57,300	61	80	80	80	80		
		2	230	18.4	62,800	61	80	80	80	80		
		2	240	20.0	68,300	61	80	80	80	80		
		1	440	16.8	57,300	31	41	45	40	40		
		1	460	18.4	62,800	31	41	45	40	40		
1	480	20.0	68,200	31	41	45	40	40				

ELECTRIC HEAT DATA - CHP16-048 - CHP20-048

Single Package Unit Model No.	Electric Heater Model No. & Net Weight	No. of Steps	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only †Minimum Circuit Ampacity	†Total CHP16 Unit + Electric Heat		†Total CHP20 Unit + Electric Heat		Optional Single Point Power Source Boxes		
							†Minimum Circuit Ampacity	Maximum Fuse Size	†Minimum Circuit Ampacity	Maximum Fuse Size	Heater Sub-Fuse Box	Unit Sub-Fuse Box	
CHP16-048 1 phase	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	208	5.3	18,000	37	70	80	---	---	ECH16R-26/65-7 (31H25)	ECH16-511 (31H13)	
		1	220	5.9	20,000	37	70	80	---	---			
		1	230	6.4	22,000	37	70	80	---	---			
		1	240	7.0	23,900	37	70	80	---	---			
	10 kW ECH16R-10 (31H48) 5 lbs. (2 kg)	1	208	7.5	25,600	53	86	90	---	---	ECH16R-26/65-10 (31H24)	ECH16-511 (31H13)	
		1	220	8.4	28,700	53	86	90	---	---			
		1	230	9.2	31,300	53	86	90	---	---			
		1	240	10.0	34,100	53	86	90	---	---			
	15 kW ECH16-15 (31H27) 18 lbs. (8 kg)	1	208	11.3	38,500	79	112	125	---	---	Not required	ECH16-511 (31H13)	
		1	220	12.6	43,000	79	112	125	---	---			
		1	230	13.8	47,000	79	112	125	---	---			
		1	240	15.0	51,200	79	112	125	---	---			
	20 kW ECH16-20 (31H28) 19 lbs. (9 kg)	1	208	15.0	51,200	105	138	150	---	---	Not required	ECH16-511 (31H13)	
		1	220	16.8	57,300	105	138	150	---	---			
		1	230	18.4	62,700	105	138	150	---	---			
		1	240	20.0	68,200	105	138	150	---	---			
	25 kW ECH16-25 (31H29) 19 lbs. (9 kg)	1	208	18.8	64,200	131	164	175	---	---	Not required	ECH16-511 (31H13)	
		1	220	21.0	71,700	131	164	175	---	---			
		1	230	23.0	78,500	131	164	175	---	---			
		1	240	25.0	85,300	131	164	175	---	---			
	CHP16-048 CHP20-048 3 phase	7 kW ECH16-7 208/230v (31H31) 460v (31H36) 17 lbs. (8 kg)	1	208	5.3	18,000	21	44	50	47	50	Not required	ECH16-513 208/230v (31H16) ECH16 -413/513 460v (31H21)
			1	220	5.9	20,000	21	44	50	47	50		
			1	230	6.4	22,000	21	44	50	47	50		
			1	240	7.0	23,900	21	44	50	47	50		
1			440	5.8	19,800	11	22	25	23	25			
1			460	6.5	22,200	11	22	25	23	25			
1			480	7.0	23,900	11	22	25	23	25			
1			480	7.0	23,900	11	22	25	23	25			
10 kW ECH16-10 208/230v (31H32) 460v (31H37) 17 lbs. (8 kg)		1	208	7.5	25,600	31	53	60	56	60	Not required	ECH16-513 208/230v (31H16) ECH16 -413/513 460v (31H21)	
		1	220	8.4	28,700	31	53	60	56	60			
		1	230	9.2	31,300	31	53	60	56	60			
		1	240	10.0	34,100	31	53	60	56	60			
		1	440	8.4	28,700	15	26	30	28	30			
		1	460	9.2	31,400	15	26	30	28	30			
		1	480	10.0	34,100	15	26	30	28	30			
		1	480	10.0	34,100	15	26	30	28	30			
15 kW ECH16-15 208/230v (31H33) 460v (31H38) 17 lbs. (8 kg)		1	208	11.3	38,500	46	68	70	71	80	Not required	ECH16-513 208/230v (31H16) ECH16 -413/513 460v (31H21)	
		1	220	12.6	43,000	46	68	70	71	80			
		1	230	13.8	47,100	46	68	70	71	80			
		1	240	15.0	51,200	46	68	70	71	80			
		1	440	12.6	43,000	23	34	35	35	35			
		1	460	13.8	47,100	23	34	35	35	35			
		1	480	15.0	51,200	23	34	35	35	35			
		1	480	15.0	51,200	23	34	35	35	35			
20 kW ECH16-20 208/230v (31H34) 460v (31H39) 20 lbs. (9 kg)	2	208	15.0	51,200	61	83	90	86	90	Not required	ECH16-513 208/230v (31H16) ECH16 -413/513 460v (31H21)		
	2	220	16.8	57,300	61	83	90	86	90				
	2	230	18.4	62,700	61	83	90	86	90				
	2	240	20.0	68,200	61	83	90	86	90				
	1	440	16.8	57,300	31	42	45	43	45				
	1	460	18.4	62,700	31	42	45	43	45				
	1	480	20.0	68,200	31	42	45	43	45				
	1	480	20.0	68,200	31	42	45	43	45				
25 kW ECH16-25 208/230v (31H35) 460v (31H40) 20 lbs. (9 kg)	2	208	18.8	64,000	76	98	100	101	110	Not required	ECH16-513 208/230v (31H16) ECH16 -413/513 460v (31H21)		
	2	220	21.0	71,600	76	98	100	101	110				
	2	230	22.9	78,300	76	98	100	101	110				
	2	240	25.0	85,300	76	98	100	101	110				
	1	440	21.0	71,800	38	49	50	50	50				
	1	460	22.9	78,300	38	49	50	50	50				
	1	480	25.0	85,300	38	49	50	50	50				
	1	480	25.0	85,300	38	49	50	50	50				

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

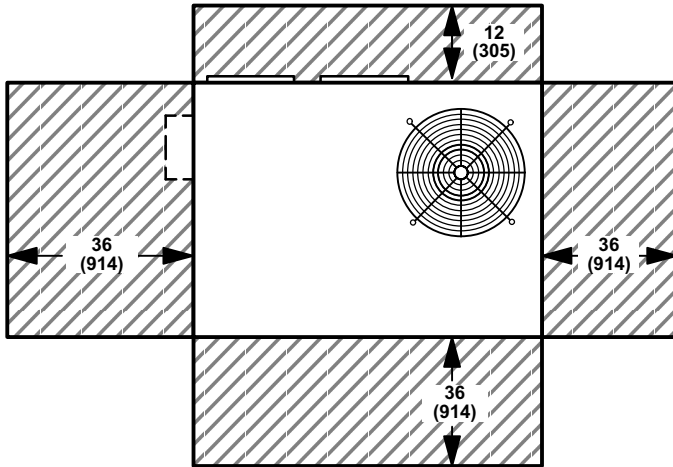
ELECTRIC HEAT DATA - CHP16-060 - CHP20-060

Single Package Unit Model No.	Electric Heater Model No. & Net Weight	No. of Steps	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only Minimum Circuit Ampacity	†Total CHP16 Unit + Electric Heat		†Total CHP20 Unit + Electric Heat		Optional Single Point Power Source Boxes	
							Minimum Circuit Ampacity	Maximum Fuse Size	Minimum Circuit Ampacity	Maximum Fuse Size	Heater Sub-Fuse Box	Unit Sub-Fuse Box
CHP16-060 1 phase	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	208	5.3	18,000	37	75	90	---	---	ECH16R-26/65-7 (31H25)	ECH16-651 (31H14)
		1	220	5.9	20,000	37	75	90	---	---		
	7 kW ECH16R-7 (31H47) 5 lbs. (2 kg)	1	230	6.4	22,000	37	75	90	---	---	ECH16R-26/65-7 (31H25)	ECH16-651 (31H14)
		1	240	7.0	23,900	37	75	90	---	---		
	10 kW ECH16R-10 (31H48) 5 lbs. (2 kg)	1	208	7.5	25,600	53	91	100	---	---	ECH16R-26/65-10 (31H24)	ECH16-651 (31H14)
		1	220	8.4	28,700	53	91	100	---	---		
		1	230	9.2	31,300	53	91	100	---	---		
	15 kW ECH16-15 (31H27) 18 lbs. (8 kg)	1	240	10.0	34,100	53	91	100	---	---	Not required	ECH16-651 (31H14)
		1	208	11.3	38,500	79	117	125	---	---		
		1	220	12.6	43,000	79	117	125	---	---		
	20 kW ECH16-20 (31H28) 19 lbs. (9 kg)	1	230	13.8	47,000	79	117	125	---	---	Not required	ECH16-651 (31H14)
		1	240	15.0	51,200	79	117	125	---	---		
		1	208	15.0	51,200	105	143	150	---	---		
	25 kW ECH16-25 (31H29) 19 lbs. (9 kg)	1	220	16.8	57,300	105	143	150	---	---	Not required	ECH16-651 (31H14)
		1	230	18.4	62,700	105	143	150	---	---		
		1	240	20.0	68,200	105	143	150	---	---		
CHP16-060 CHP20-060 3 phase	7 kW ECH16-7 208/230v (31H31) 460v (31H36) 17 lbs. (8 kg)	1	208	5.3	18,000	21	48	50	50	60	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)
		1	220	5.9	20,000	21	48	50	50	60		
		1	230	6.4	22,000	21	48	50	50	60		
		1	240	7.0	23,900	21	48	50	50	60		
		1	440	5.8	20,000	11	24	30	26	30		
		1	460	6.5	22,000	11	24	30	26	30		
	10 kW ECH16-10 208/230v (31H32) 460v (31H37) 17 lbs. (8 kg)	1	480	7.0	23,900	11	24	30	26	30	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)
		1	208	7.5	25,600	31	57	60	59	60		
		1	220	8.4	28,700	31	57	60	59	60		
		1	230	9.2	31,300	31	57	60	59	60		
		1	240	10.0	34,100	31	57	60	59	60		
		1	440	8.4	28,600	15	28	35	30	35		
	15 kW ECH16-15 208/230v (31H33) 460v (31H38) 17 lbs. (8 kg)	1	460	9.2	31,300	15	28	35	30	35	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)
		1	480	10.0	34,100	15	28	35	30	35		
		1	208	11.3	38,500	46	72	80	74	80		
		1	220	12.6	43,000	46	72	80	74	80		
		1	230	13.8	47,100	46	72	80	74	80		
	20 kW ECH16-20 208/230v (31H34) 460v (31H39) 20 lbs. (9 kg)	1	240	15.0	51,200	46	72	80	74	80	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)
		1	440	12.6	43,000	23	36	40	38	40		
		1	460	13.8	47,100	23	36	40	38	40		
		1	480	15.0	51,200	23	36	40	38	40		
		2	208	15.0	51,200	61	87	90	89	90		
		2	220	16.8	57,300	61	87	90	89	90		
	25 kW ECH16-25 208/230v (31H35) 460v (31H40) 20 lbs. (9 kg)	2	230	18.4	62,700	61	87	90	89	90	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)
2		240	20.0	68,200	61	87	90	89	90			
1		440	16.8	57,500	31	43	45	45	45			
1		460	18.4	62,800	31	43	45	45	45			
1		480	20.0	68,200	31	43	45	45	45			
2		208	18.8	64,000	76	102	110	104	110			
2		220	21.0	71,600	76	102	110	104	110			
2	230	22.9	78,100	76	102	110	104	110				
25 kW ECH16-25 208/230v (31H35) 460v (31H40) 20 lbs. (9 kg)	2	240	25.0	85,300	76	102	110	104	110	Not required	ECH16-653 208/230v (58L07) ECH16 -513/653 460v (31H19)	
	1	440	21.0	71,800	38	51	60	53	60			
	1	460	22.9	78,300	38	51	60	53	60			
		1	480	25.0	85,300	38	51	60	53	60		

†Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

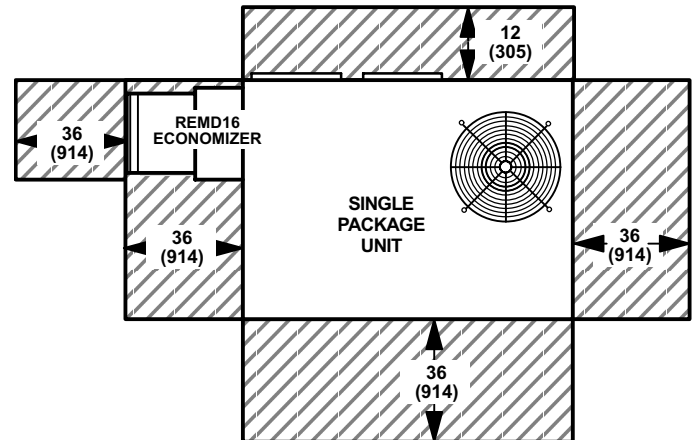
INSTALLATION CLEARANCES - INCHES (MM)

BASIC UNIT



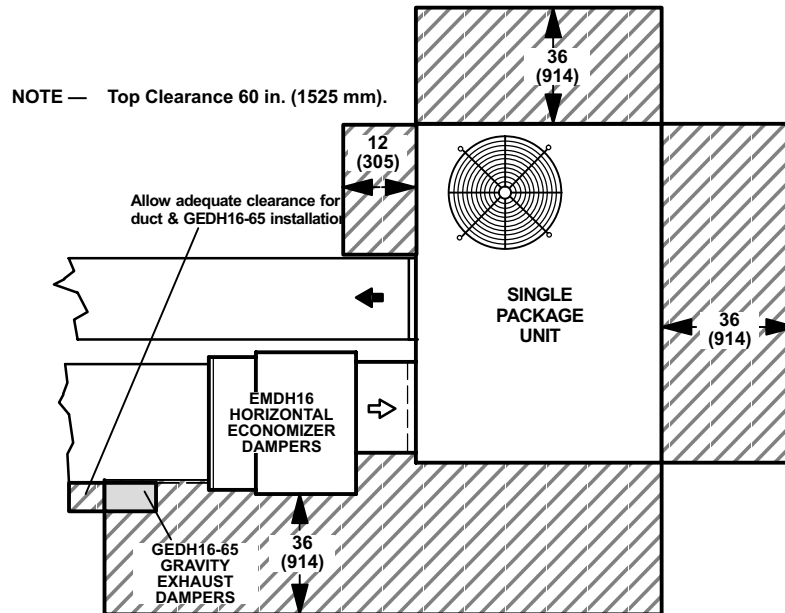
NOTE — Top Clearance 60 in. (1525 mm).
 NOTE — Entire perimeter of unit requires support when elevated above mounting surface.

UNIT WITH REMD16 ECONOMIZER



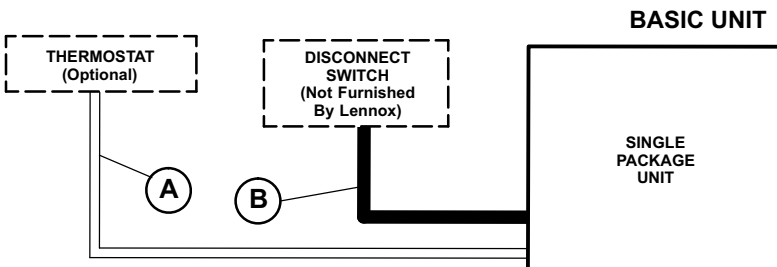
NOTE — Top Clearance 60 in. (1525 mm).

UNIT WITH EMD16H ECONOMIZER AND GEDH16-65 GRAVITY EXHAUST DAMPER



NOTE — Top Clearance 60 in. (1525 mm).

FIELD WIRING



- A — *Five Wire Low Voltage (Electro-mechanical)
- *Six Wire Low Voltage (Electronic)
- B — Two or Three Wire Power (See Electrical Data Table)

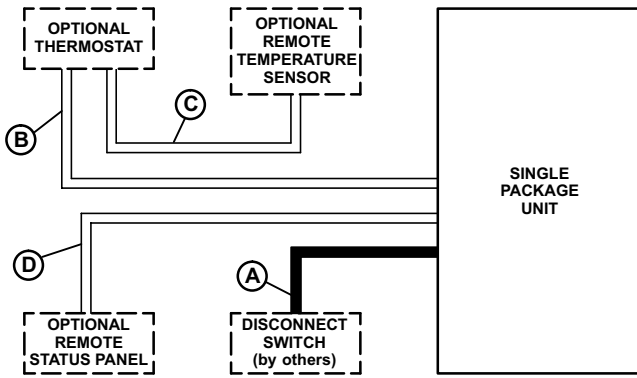
— Field Wiring Not Furnished —

*When economizer with two stage thermostat is used, one additional wire is required

NOTE - All wiring must conform to NEC or CEC and local electrical codes.

FIELD WIRING

T7300/T8600/T8624 THERMOSTAT CONTROL SYSTEM

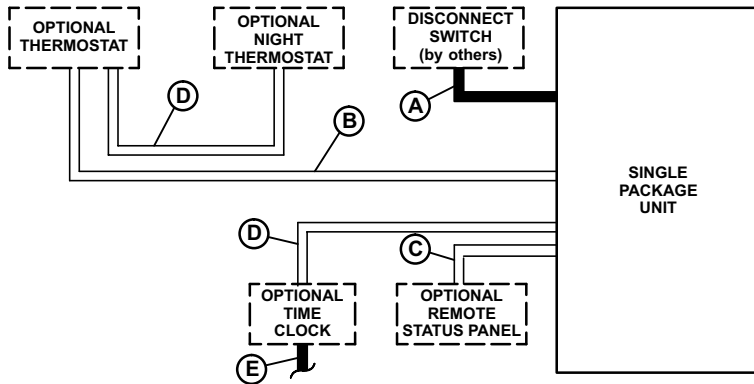


- A - Two or Three wire power (See Electrical Data Table)
- B - Nine wire low voltage
- C - Two wire low voltage
- Nine wire low voltage (T7300 Room Sensor with Override)
- D - Eleven wire low voltage

- Field wiring not furnished -

NOTE - All wiring must conform to NEC or CEC and local electrical codes.

ELECTRO-MECHANICAL THERMOSTAT CONTROL SYSTEM



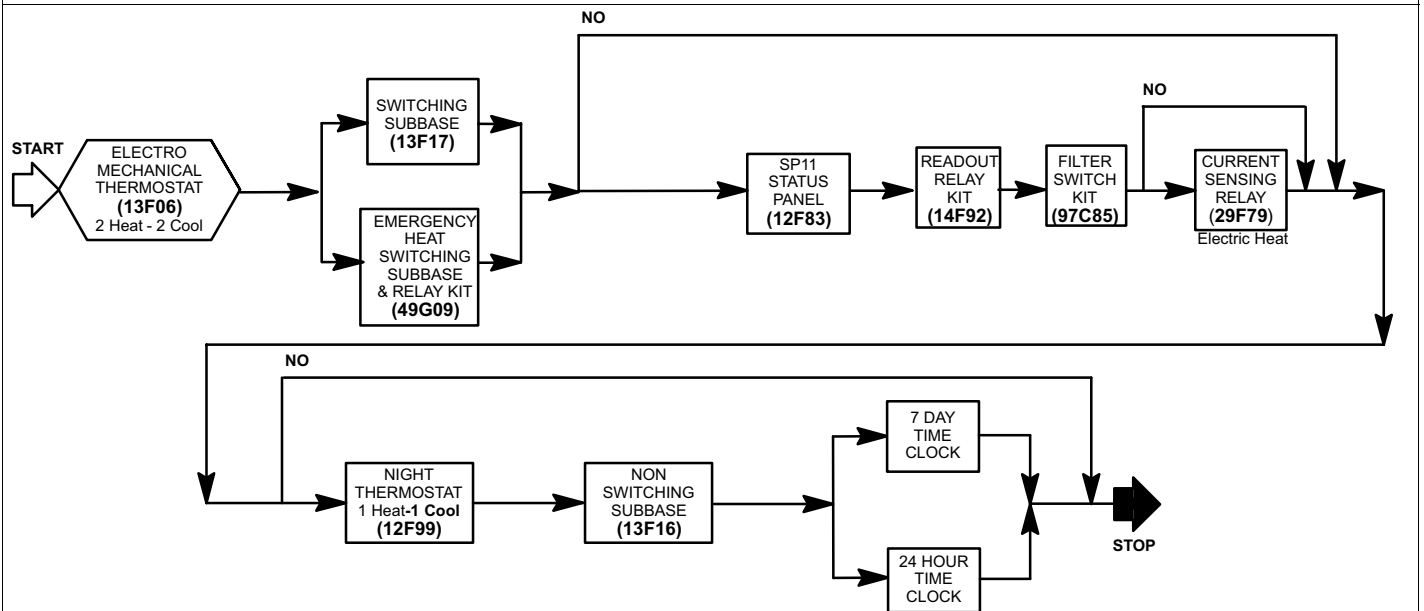
- A - Two or Three wire power (See Electrical Data Table)
- B - Six wire low voltage
Ten wire low voltage - with Emergency Heat
Switching Subbase
- C - Eleven wire low voltage
- D - Two wire low voltage
- E - Two wire low voltage

- Field wiring not furnished -

NOTE - All wiring must conform to NEC or CEC and local electrical codes.

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS (FIELD INSTALLED)

System and Component Description	Catalog No.
ELECTRO-MECHANICAL THERMOSTAT	
Thermostat — Two stage heat & two stage cool with dual temperature levers, subbase choice	13F06
Subbase — Manual system switch (Off-Heat-Auto-Cool), fan switch (Auto-On)	13F17
Emergency Heat Subbase and Relay Kit	49G09
Status Panel — May be ordered extra	12F83
Night Setback Operation — Order components below	
Thermostat — One stage heat & one stage cool	12F99
Subbase — Non-switching	13F16
Time Clock — 7 day operation, indicates day and night periods, 2 hour increments, battery back-up	See Price Book for Selection
Time Clock — 24 hour night setback operation, 15 minute increments, battery back-up	See Price Book for Selection



OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS (FIELD INSTALLED)

System and Component Description	Catalog No.																			
HONEYWELL T7300 THERMOSTAT																				
Thermostat — Programmable, internal or optional remote temperature sensing (sensor required), touch sensitive keyboard, automatic switching, °F or °C readout, no anticipator, droop/no droop selection, indicator LED's, hour/day programming, override capabilities, time and operational mode readout, stage status indicators, battery back-up, subbase choice, manual system switch (Heat-Off-Auto-Cool), fan switch (Auto-On)	37L54																			
Subbase — Selectable staging, indicator LED's, auxiliary relay output for economizer operation	Up to two stage heat & two stage cool 37L55																			
	Up to three stage heat & three stage cool 37L53																			
Sensor — Room temperature	58C92																			
Sensor — Room temperature with 3 hour override and setpoint adjustment	86G67																			
Sensor — Return air temperature	27C40																			
Status Panel — May be ordered extra	12F83																			
HONEYWELL T8611G THERMOSTAT																				
Thermostat — Programmable, touch sensitive keypad, automatic heat/cool switching, °F or °C readout, indicator LED's, four temperature settings per daily schedule, override capabilities, time and operational mode readout, battery back-up (batteries included)	—																			
T8611G Thermostat — 2 heat/1 cool, 7 day programming, wiring wall plate included	37L60																			
Status Panel — May be ordered extra	12F83																			
STATUS PANEL																				
SP11 Status Panel — Allows remote monitoring of unit through status lights, requires Status Panel Readout Kit																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Cool Mode</th> <th style="width: 20%;">Status Light</th> <th style="width: 60%;">Definition</th> </tr> </thead> <tbody> <tr> <td>Heat Mode</td> <td>Green</td> <td>Heating operation</td> </tr> <tr> <td>Compressor 1</td> <td>Green</td> <td>Compressor operation</td> </tr> <tr> <td>Compressor 2</td> <td>Red</td> <td>Compressor malfunction</td> </tr> <tr> <td>No Heat</td> <td>Red</td> <td>Not used</td> </tr> <tr> <td>Filter</td> <td>Red</td> <td>Requires service</td> </tr> </tbody> </table>	Cool Mode	Status Light	Definition	Heat Mode	Green	Heating operation	Compressor 1	Green	Compressor operation	Compressor 2	Red	Compressor malfunction	No Heat	Red	Not used	Filter	Red	Requires service	12F83
Cool Mode	Status Light	Definition																		
Heat Mode	Green	Heating operation																		
Compressor 1	Green	Compressor operation																		
Compressor 2	Red	Compressor malfunction																		
No Heat	Red	Not used																		
Filter	Red	Requires service																		
Status Panel Readout Kit — Required to interface SP11 to unit operation		14F92																		
Filter Switch Kit — Required with Filter light option on SP11		97C85																		
Current Sensing Relay — For operation of No Heat light with electric heat on SP11		29F79																		

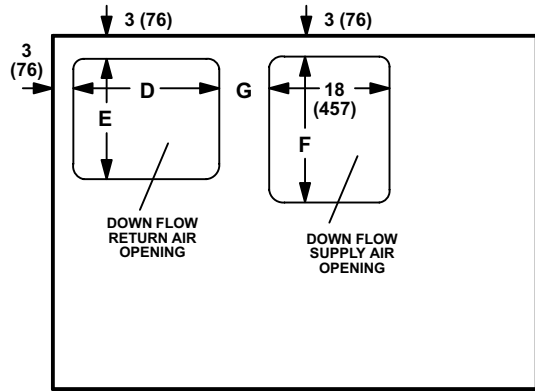
DIMENSIONS - INCHES (MM) BASIC UNIT

CORNER WEIGHTS

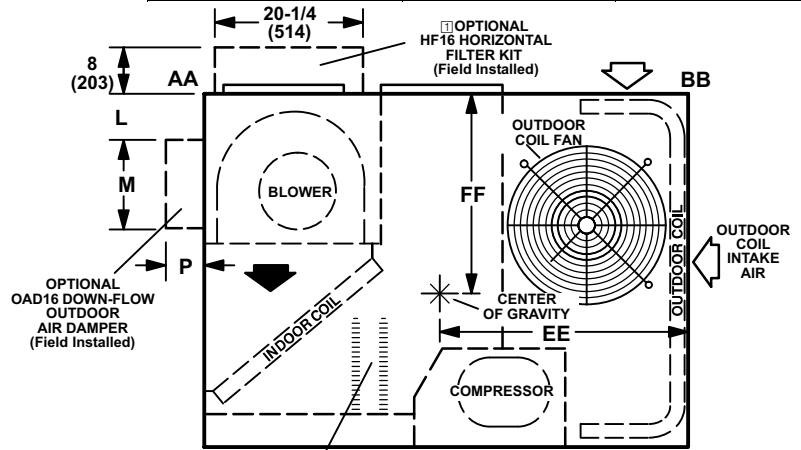
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
CHP16-024	66	30	71	32	101	46	94	43
CHP16-030	68	31	73	33	103	47	96	44
CHP16-036	71	323	76	34	107	49	100	46
CHP20-036	89	40	95	43	140	64	131	60
CHP16-048 CHP16-060	104	47	112	51	165	75	154	70

CENTER OF GRAVITY

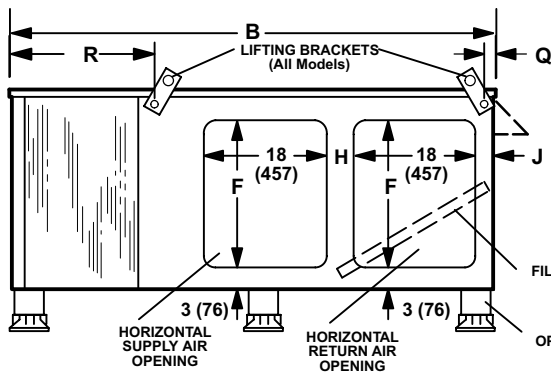
Model Number	EE		FF	
	inch	mm	inch	mm
CHP16-024 CHP16-030 CHP16-036	29	737	27	686
CHP16-048 CHP16-060	35	889	31	787



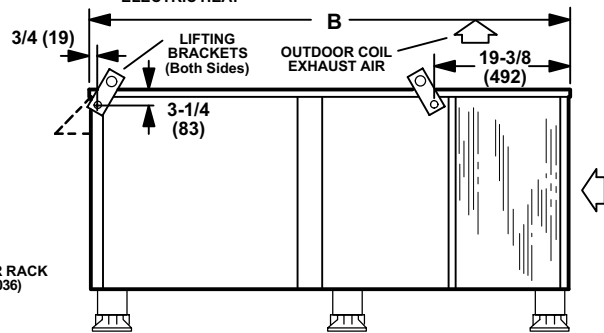
TOP VIEW BASE SECTION



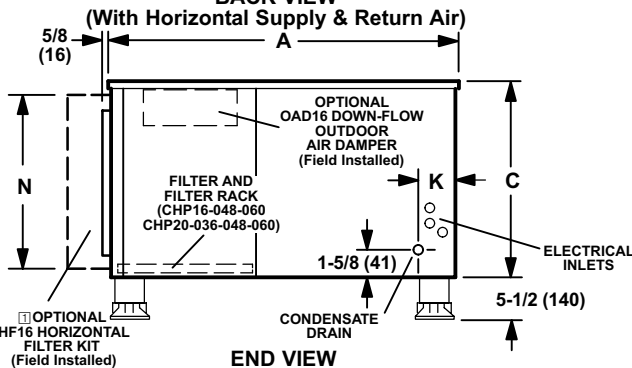
TOP VIEW



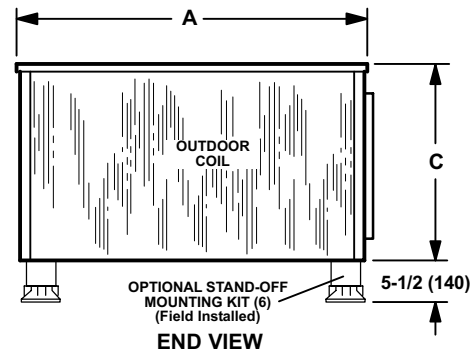
BACK VIEW



FRONT VIEW



END VIEW



END VIEW

Model Number	A		B		C		D		E		F		G		H		J	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP16-024 CHP16-030 CHP16-036	46	1168	60	1524	23	584	18	457	13	330	13	330	10	254	3	76	4	102
CHP16-048 CHP16-060	52	1321	72-1/2	1842	29	737	22	559	18	457	22	559	7-1/2	191	5	127	3	76

Model Number	K		L		M		M		N		P		P		Q		R	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP16-024 CHP16-030 CHP16-036	6-1/2	165	2	51	13-3/4	349	14-1/2	368	22	559	5	127	6	152	4	102	16-5/8	422
CHP16-048 CHP16-060	6-1/8	156	5	127	13-3/4	349	18-5/8	473	27	688	8	203	6	152	3/4	19	19-3/8	492

Canada Only.

ACCESSORY DIMENSIONS - INCHES (MM)

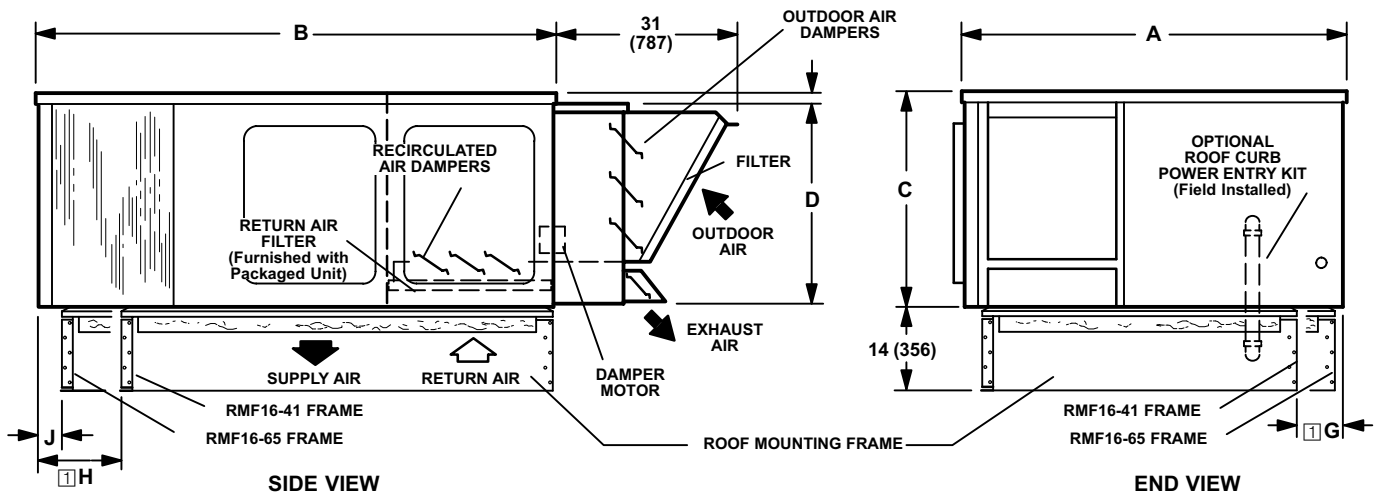
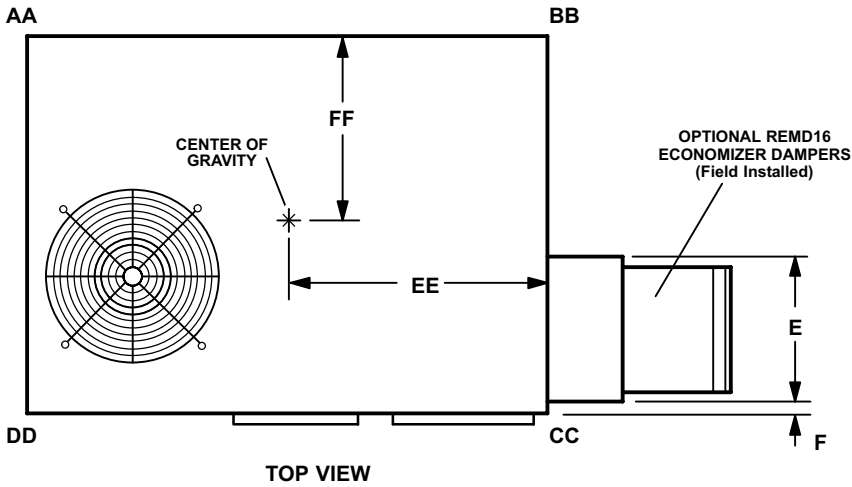
UNIT WITH REMD16 ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME

CORNER WEIGHTS

Model Number	AA		BB		CC		DD		
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	
CHP16-024	112	51	131	59	115	52	98	45	
CHP16-030	114	52	133	60	117	53	100	45	
CHP16-036	117	53	137	62	120	55	103	47	
CHP20-036	149	68	176	80	152	69	129	59	
CHP16-048 CHP16-060	CHP20-048 CHP20-060	174	79	199	91	168	76	146	66

CENTER OF GRAVITY

Model Number	EE		FF		
	inch	mm	inch	mm	
CHP16-024 CHP16-030 CHP16-036	27-5/8	702	21-1/2	546	
CHP16-048 CHP16-060	CHP20-036 CHP20-048 CHP20-060	33-3/4	857	23-3/4	603

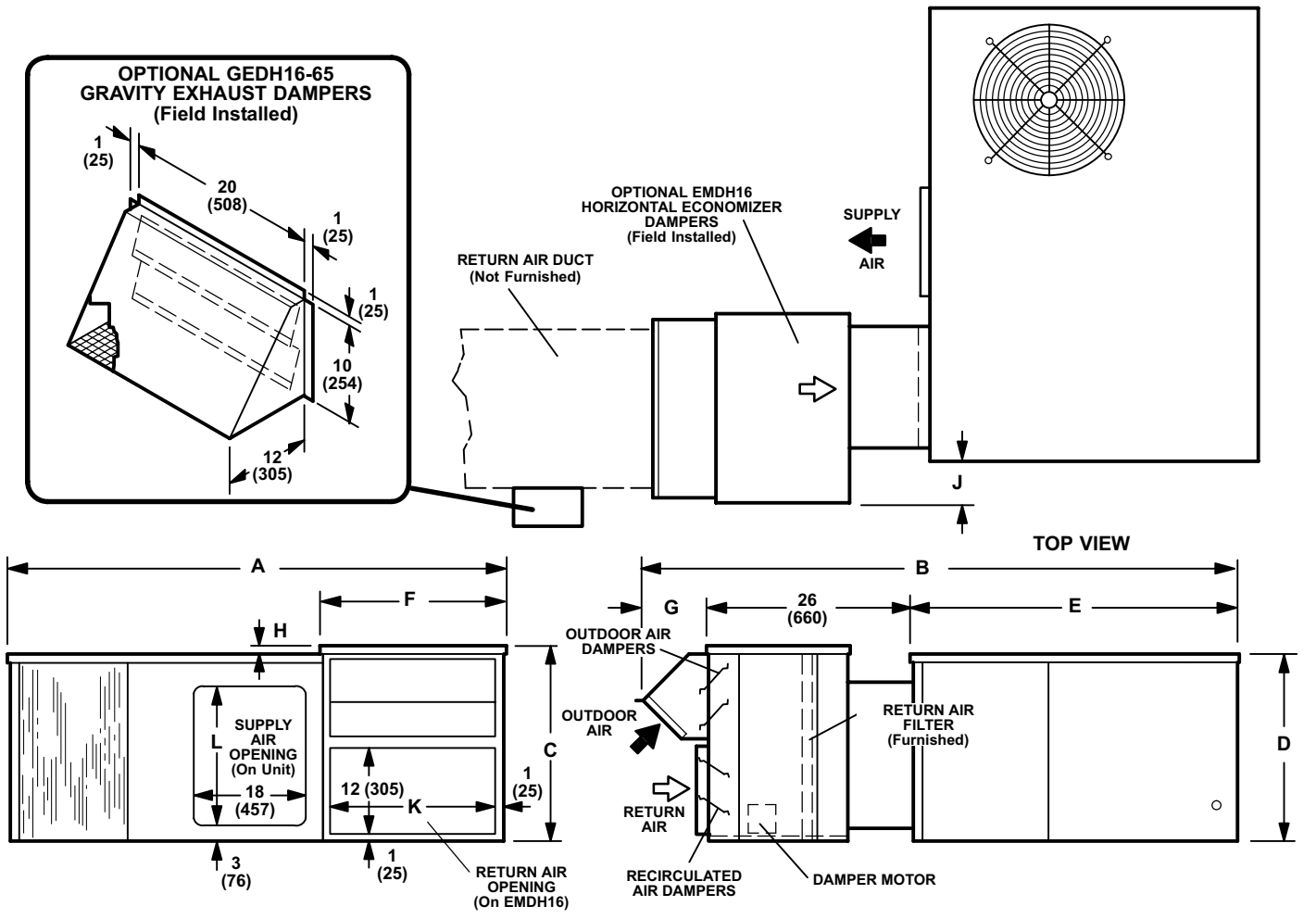


Model Number	A		B		C		D		E		F		G		H		J		
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
CHP16-024 CHP16-030 CHP16-036	46	1168	60	1524	23	584	21-3/4	552	16-1/4	413	3/4	19	---	---	---	---	---	---	
CHP16-048 CHP16-060	CHP20-036 CHP20-048 CHP20-060	52	1321	72-1/2	1842	29	737	27-3/4	705	20-7/16	519	1-1/2	38	7	178	16	406	3-1/2	89

☐ Dimensions reflect usage with RMF16-41 mounting frame.

ACCESSORY DIMENSIONS - INCHES (MM)

UNIT WITH EMDH16 HORIZONTAL ECONOMIZER DAMPER SECTION AND GEDH16-65 GRAVITY EXHAUST DAMPERS



END VIEW

SIDE VIEW

Model Number	A		B		C		D		E		F		G		H		J		K		L	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP16-024 CHP16-030 CHP16-036	63	1600	81-1/2	2070	26	660	23	584	46	1168	26	660	9-1/2	241	3	76	3	76	24	610	13	330
CHP20-036 CHP16-048 CHP20-048 CHP16-060 CHP20-060	79-1/2	2019	90	8100	30-3/8	772	29	737	52	1321	30-1/2	775	12	305	1-1/2	38	7	178	28-7/8	733	22	559

ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY

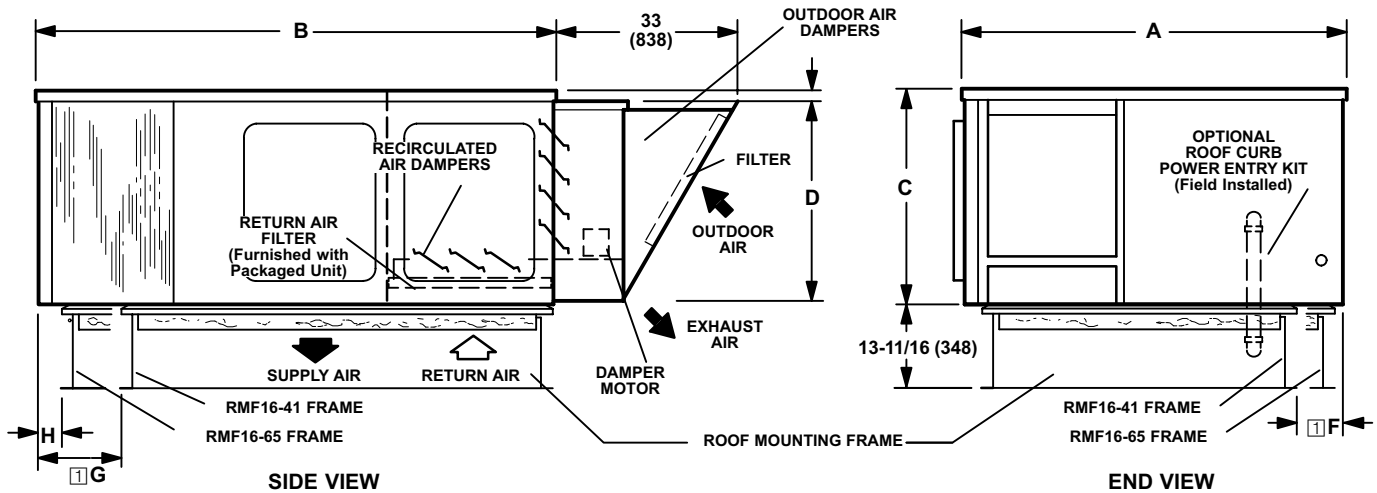
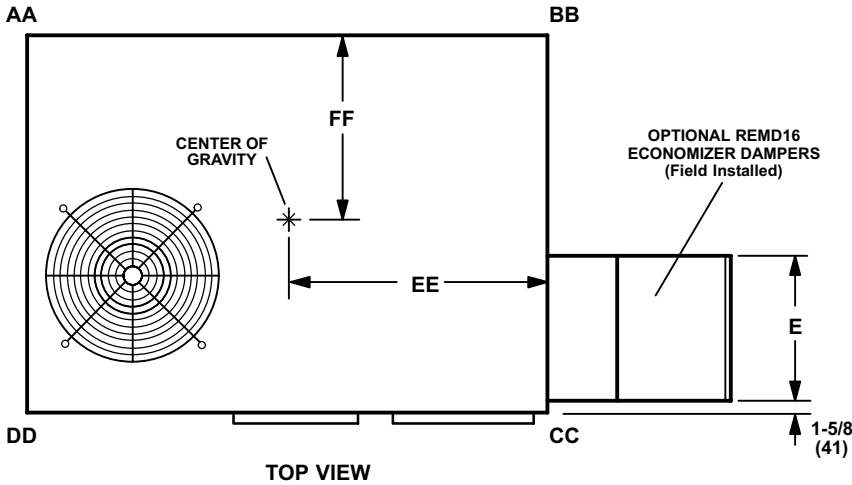
CHP16 UNIT WITH REMD16 ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME

CORNER WEIGHTS

Model Number	AA		BB		CC		DD		
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	
CHP16-024	133	60	178	81	174	79	130	59	
CHP16-030	134	61	180	82	177	80	132	60	
CHP16-036	138	63	184	84	180	82	135	61	
CHP16-048 CHP16-060	CHP20-036 CHP20-048 CHP20-060	202	92	258	117	234	106	184	84

CENTER OF GRAVITY

Model Number	EE		FF		
	inch	mm	inch	mm	
CHP16-024 CHP16-030 CHP16-036	25-5/8	651	22-3/4	578	
CHP16-048 CHP16-060	CHP20-036 CHP20-048 CHP20-060	31-7/8	810	24-3/4	629

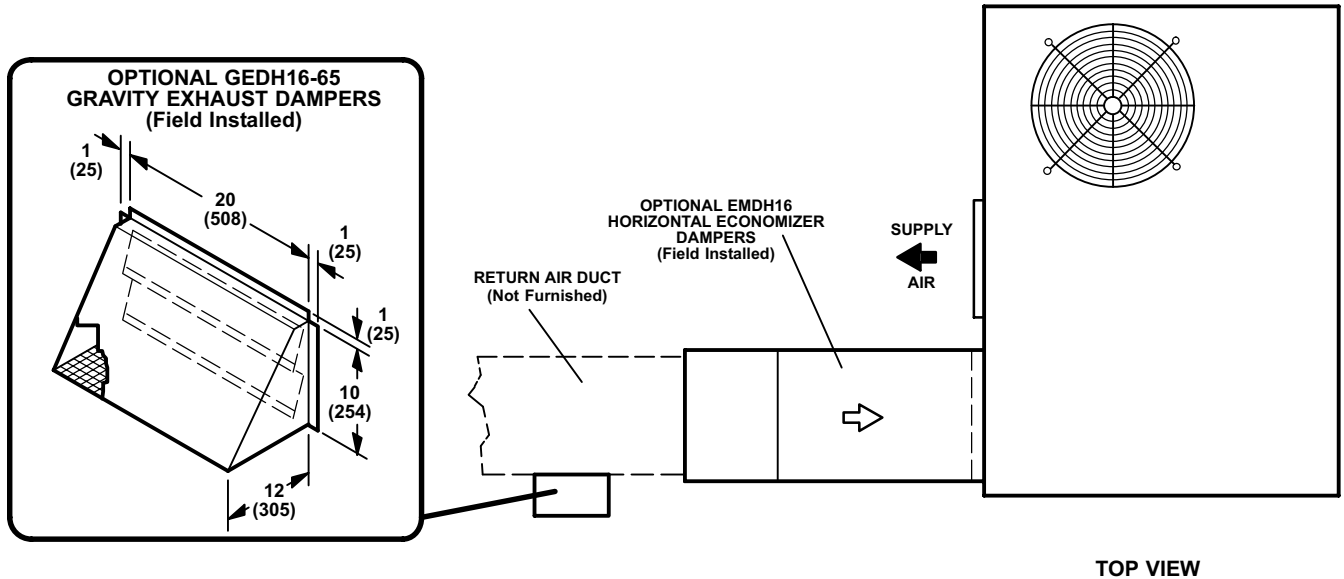


Model Number	A		B		C		D		E		F		G		H		
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
CHP16-024 CHP16-030 CHP16-036	46	1168	60	1524	23	584	21-3/4	552	16	406	---	---	---	---	---	---	
CHP16-048 CHP16-060	CHP20-036 CHP20-048 CHP20-060	52	1321	72-1/2	1842	29	737	27-3/4	705	20-1/4	514	7	178	16	406	3-1/2	89

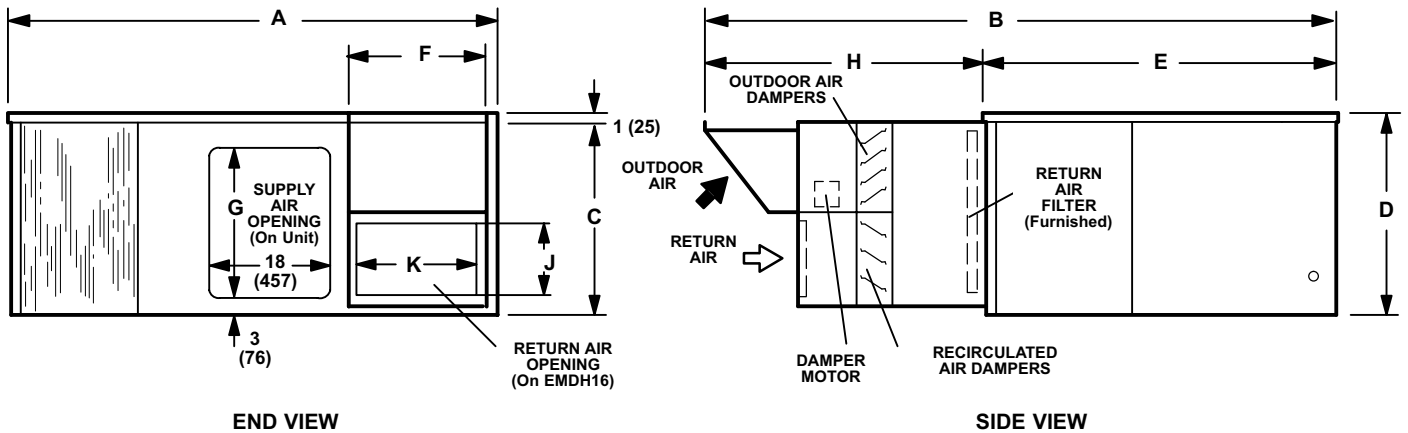
☐ Dimensions reflect usage with RMF16-41 mounting frame.

ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY

CHP16 UNIT WITH EMDH16M HORIZONTAL ECONOMIZER DAMPER SECTION AND GEDH16-65 GRAVITY EXHAUST DAMPERS



TOP VIEW



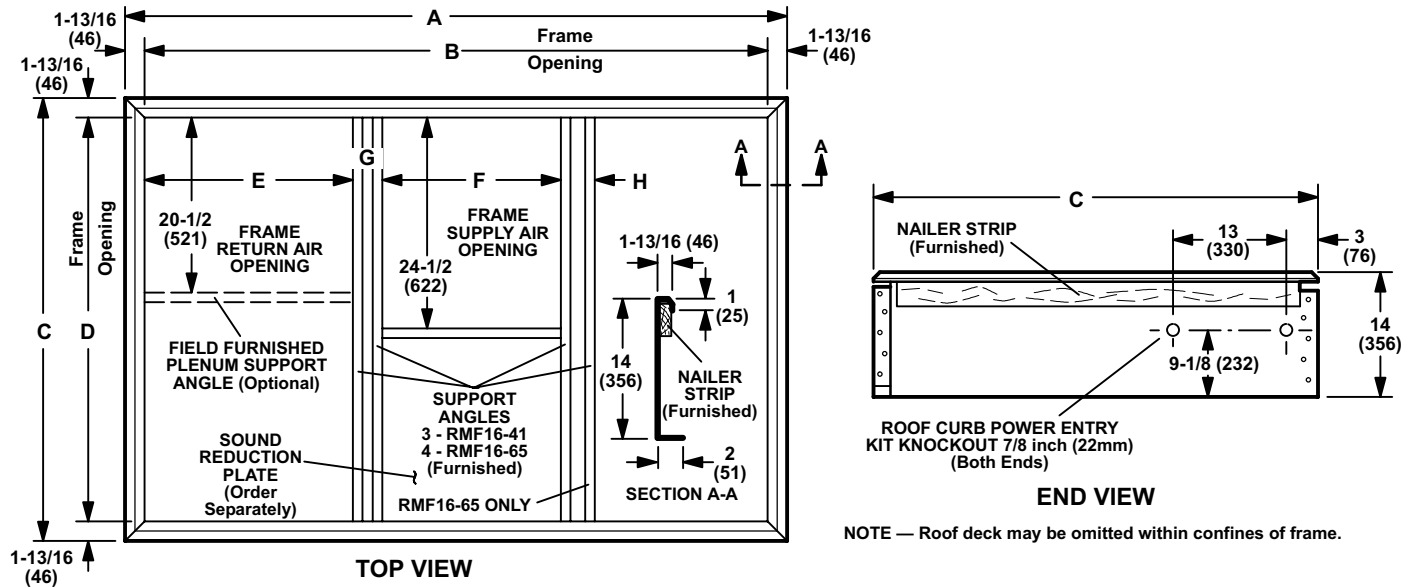
END VIEW

SIDE VIEW

Model Number	A		B		C		D		E		F		G		H		J		K	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP16-024 CHP16-030 CHP16-036	60	1524	84-1/2	2146	22	559	23	584	46	1168	22	559	13	330	38-1/2	979	9	229	20	508
CHP16-048 CHP16-060	72-1/2	1842	97-7/8	2486	27	686	29	737	52	1321	23-5/8	600	22	559	45-7/8	1165	12	305	21-3/4	552
CHP20-036 CHP20-048 CHP20-060																				

ACCESSORY DIMENSIONS - INCHES (MM)

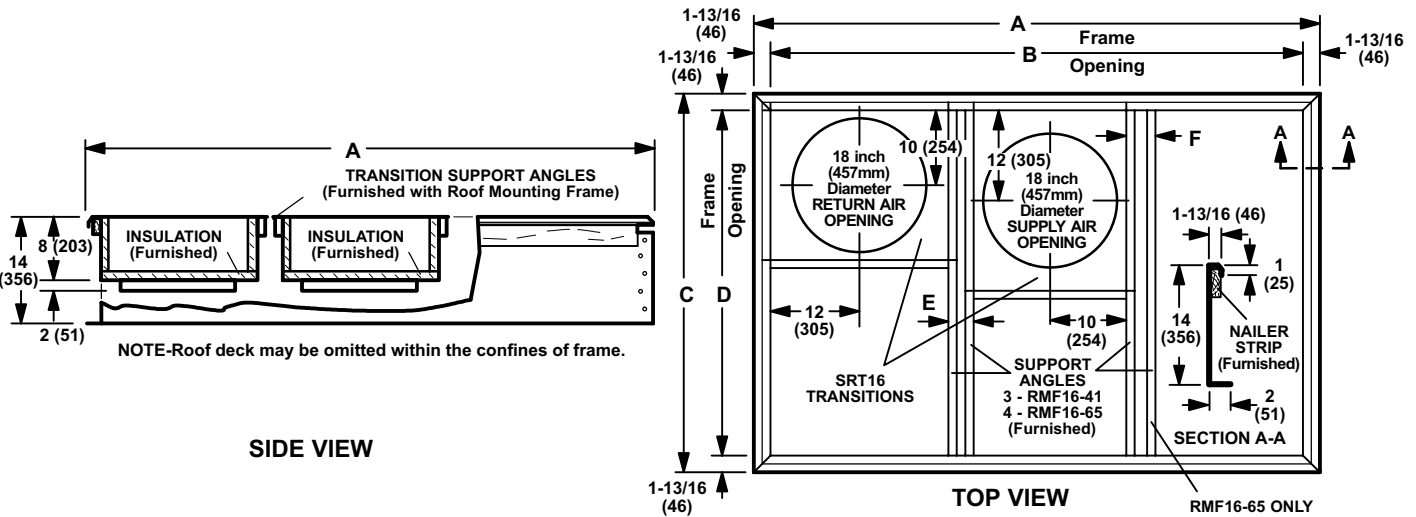
RMF16-41 & RMF16-65 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



Model Number	A		B		C		D		E		F		G		H	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-41	56-3/8	1432	52-3/4	1340	44-1/8	1121	40-1/2	1029	24-3/8	619	20-9/16	522	4	102	---	---
RMF16-65	69	1753	65-3/8	1661	50-1/2	1283	46-7/8	1191	24-1/4	616	20-1/2	521	4	102	4	102

□ 3-1/4 inches (83 mm) for CHP16-024-030-036.

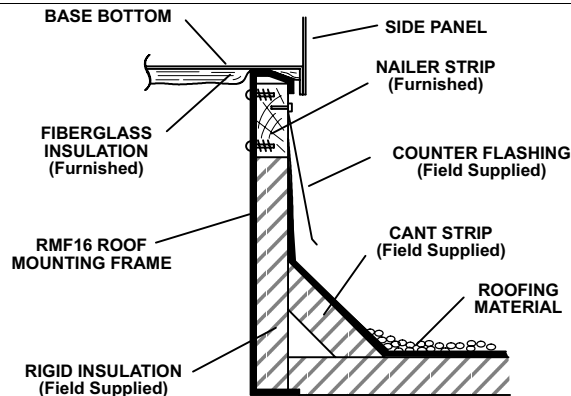
RMF16-41 & RMF16-65 ROOF MOUNTING FRAMES WITH SRT16-65 SUPPLY AND RETURN AIR TRANSITIONS FOR FD9-65 & RTD9-65 CEILING DIFFUSERS



Model Number	A		B		C		D		E		F	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-41 With SRT16-65	56-3/8	1432	52-3/4	1340	44-1/8	1121	40-1/2	1029	4	102	---	---
RMF16-65 With SRT16-65	69	1753	65-3/8	1661	50-1/2	1283	46-7/8	1191	4	102	4	102

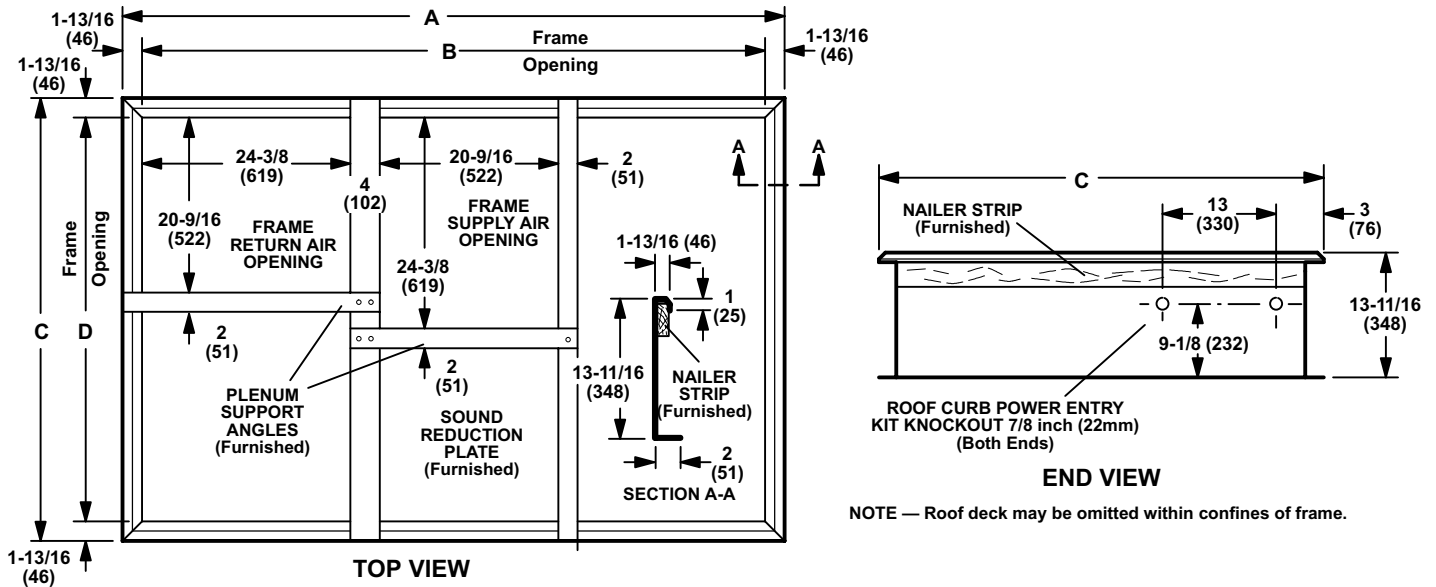
□ 3-1/4 inches (83 mm) for CHP16-024-030-036.

TYPICAL FLASHING DETAIL FOR RMF16 ROOF MOUNTING FRAME



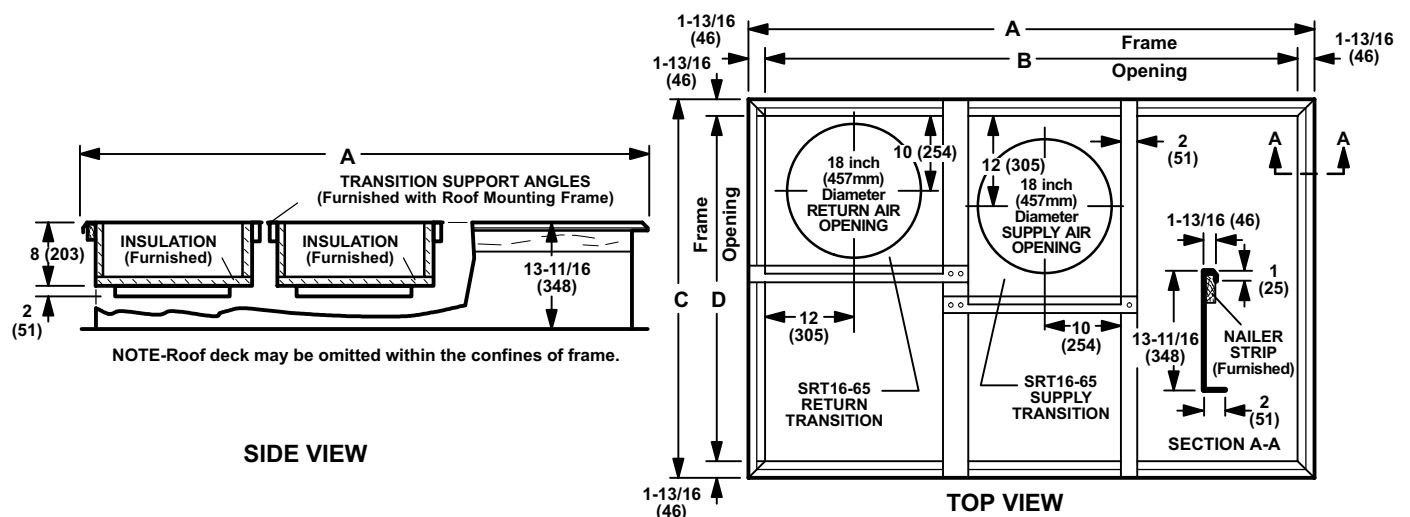
ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY

RMF16-41 & 65 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



Model Number	A		B		C		D	
	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-41	56-3/8	1432	52-3/4	1340	44-1/8	1121	40-1/2	1029
RMF16-65	69	1753	65-3/8	1661	50-1/2	1283	46-7/8	1191

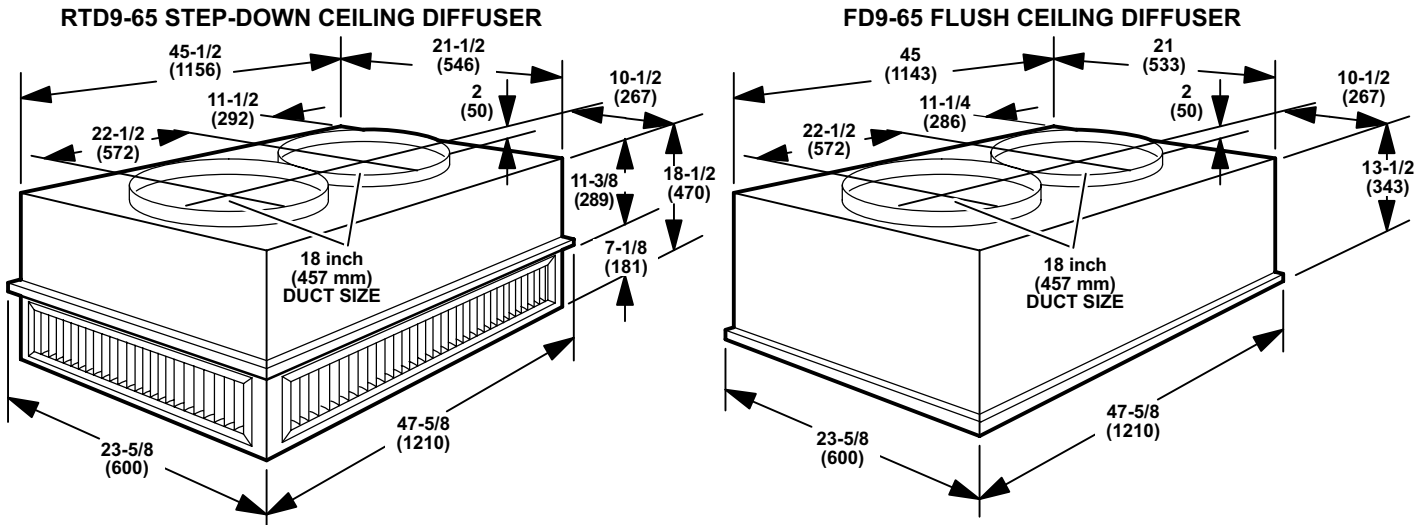
RMF16-41 & RMF16-65 ROOF MOUNTING FRAMES WITH SRT16-65 SUPPLY AND RETURN AIR TRANSITIONS FOR FD9-65 & RTD9-65 CEILING DIFFUSERS



Model Number	A		B		C		D	
	inch	mm	inch	mm	inch	mm	inch	mm
RMF16-41 With SRT16-65	56-3/8	1432	52-3/4	1340	44-1/8	1121	40-1/2	1029
RMF16-65 With SRT16-65	69	1753	65-3/8	1661	50-1/2	1283	46-7/8	1191

ACCESSORY DIMENSIONS - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS



GUIDE SPECIFICATIONS

General

- Furnish and install a single package heat pump unit, complete with automatic controls.
- The single package unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment.
- The manufacturer shall have parts and service available throughout the U.S. and Canada.
- The equipment shall be shipped completely factory assembled, precharged, piped and wired internally ready for field connections.
- The manufacturer shall test operate system at the factory before shipment.

Air Distribution

- Equipment shall be capable of bottom (down-flow) or side (horizontal) handling of conditioned air.

Approvals

- All electrical components shall have UL and ULC or CSA Listing. All wiring shall be in compliance with NEC and CEC.
- Shall be rated and certified in accordance with the USE certification program, which is based on ARI Standard 210/240-94.

Equipment Warranty

- Compressors have a limited warranty for a full five years.
- All other covered components have a limited warranty for one year.
- Refer to the Lennox Equipment Limited Warranty certificate for details.

Refrigeration System

- The coils shall be non-ferrous construction with aluminum fins mechanically bonded to durable copper tubes. Coils shall be pressure leak tested.
- Outdoor coil shall be formed coil construction. Optional coil guards shall be available.
- Compressors shall be resiliently mounted, have overload protection and compressor crankcase heater. CHP16-036-048-060 and CHP20 models shall have scroll compressors. The refrigeration system shall have discharge, suction and liquid line service gauge ports, freestat, high pressure switch, liquid line filter drier, check and expansion valve, reversing valve and full refrigerant charge.
- Control options available shall consist of low ambient controls, timed-off control and thermostat.

Cabinet

- Shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal.
- Cabinet panels where conditioned air is handled shall be fully insulated to prevent sweating and minimize sound. Openings shall be provided for power connection entry.
- Supply and return air openings shall be flanged.
- Indoor coil condensate drain shall be provided.
- Lifting brackets shall be factory installed.

Economizer Wiring

- Economizer wiring harness shall be furnished and factory installed.

Service Access

- All components, wiring and inspection areas shall be completely accessible through removable panels.

Supply Air Blowers

- Centrifugal supply air blower shall be direct driven by a multi-speed motor.
- Blower shall be statically and dynamically balanced.

Outdoor Coil Fans

- Direct drive propeller type condenser fans shall discharge vertically.
- Fan motor shall be permanently lubricated and inherently protected.
- Fans shall have a safety guard.

Air Filters

- Cleanable 1 inch (25 mm) thick filters shall be furnished.

OPTIONAL ACCESSORIES

Ceiling Diffusers

- Furnish and install a (flush or stepdown) optional combination ceiling supply and return air diffuser.

Ceiling Diffuser Supply and Return Air Transitions

- Supply and return transitions shall be available, for field installation in the roof mounting frame, to facilitate duct connection to the diffuser.

Coil Guards

- PVC (polyvinyl chloride) coated steel wire coil guards shall be available for field installation to protect outdoor coils from damage.

Control Systems

- Shall provide a selection of thermostats and related controls to automatically operate the mechanical equipment through the heating or cooling and ventilating cycles as required.

Economizer Dampers

- Furnish and install, complete with controls, an air mixing damper assembly including outdoor air and recirculated air dampers.
- The assembly shall provide for the introduction of outside air for minimum ventilation and free cooling.
- Damper motor shall be 24 volt fully modulating or three position spring return.
- Down-flow models shall include Gravity Exhaust Dampers.
- Horizontal models shall require optional Gravity Exhaust Dampers.
- Controls shall include electronic discharge air sensor, minimum position switch, and solid-state adjustable enthalpy control.
- Control option available shall consist of differential enthalpy control (return air sensor).

Electric Heaters

- Shall be available for field installation.
- Heating elements shall be nichrome bare wire exposed directly to the air stream.
- ECH16R safety devices shall consist of limit controls and thermal cutoff safety fuses. ECH16 safety devices shall consist of limit controls and fuse block.
- ECH16-20 and 25kW (208/240v-3ph) heaters shall have thermal time delay relay to bring elements on and off in sequence with at time delay between each element.
- Heaters shall be UL and ULC listed.
- Optional heater sub-fuse box shall be available for ECH16R electric heaters for single point power supply applications.

Hail Guards

- Hail guards shall be available for field installation to protect outdoor coils from damage.

Horizontal Gravity Exhaust Dampers

- Pressure operated dampers shall install in return air duct for horizontal applications.
- Damper blades shall ride in nylon bearings and be gasketed for tight seal and quiet operation.

Outdoor Air Damper Section

- Optional manual outdoor dampers shall be available to provide outdoor air requirements of up to 25%.
- Damper section field installs external to the unit.
- Shall be equipped with outdoor air hood filter for extra air filtering and bird screen protection.

Remote Status Panel

- Shall be available for installation within the conditioned area to observe equipment operation.
- The panel shall include signal lights for Cool Mode, Heat Mode, Compressor 1, Compressor 2, No Heat and Filter.

Roof Curb Power Entry Kit

- Optional kit shall provide power entry to the unit through the roof mounting frame.

Roof Mounting Frame

- Mechanical contractor shall install a steel roof mounting frame for bottom discharge and return air duct connection.
- It shall mate to the bottom perimeter of the equipment.
- When flashed into the roof it shall make a unit mounting curb and provide weatherproof duct connection and entry into the conditioned area.
- Flashing shall be the responsibility of a roofing contractor.
- Frame shall be approved by US National Roofing Contractors Association.

Single Point Power Source Unit Sub-Fuse Box

- Optional box shall field install internal to the unit and provide single point power source connection and sub-fusing for unit.
- Shall be of galvanized steel with mounting holes, electrical inlets and hinged cover.

Stand-Off Mounting Kit

- Optional kit shall be available to elevate unit above mounting surface in horizontal applications.