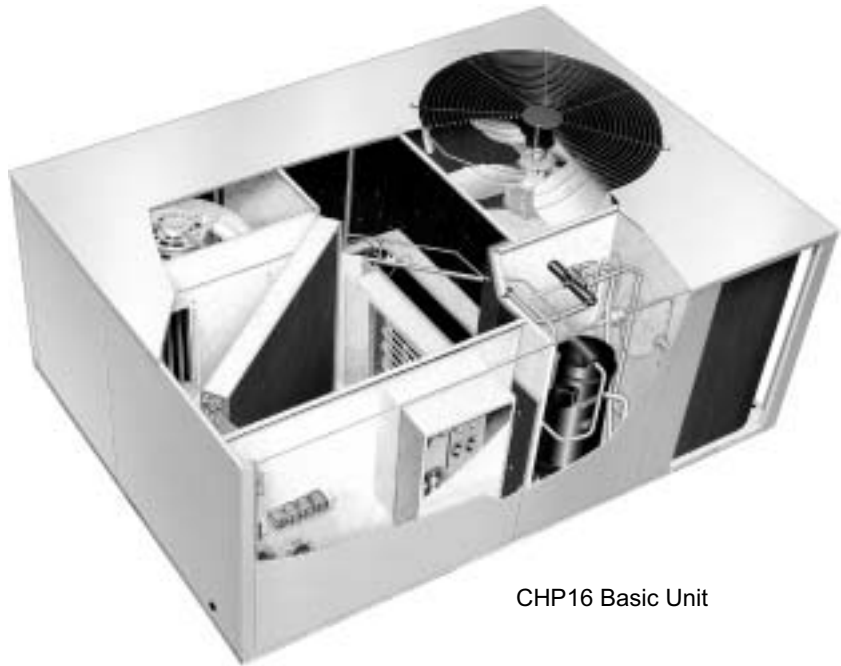


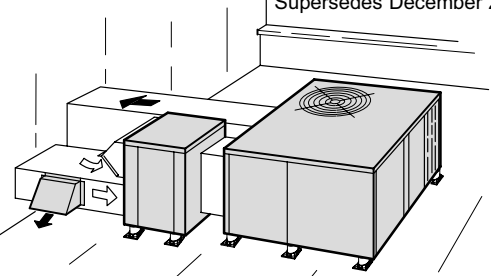
2 to 5 Ton (7.0 to 17.6 kW)  
SEER - 10.0

Net Cooling Capacity - 23,800 to 55,000 Btuh (7.0 to 16.1 kW)  
Heating Capacity - 23,800 to 57,500 (7.0 to 16.8 kW)  
Optional Electric Heat - 5 to 25 kW

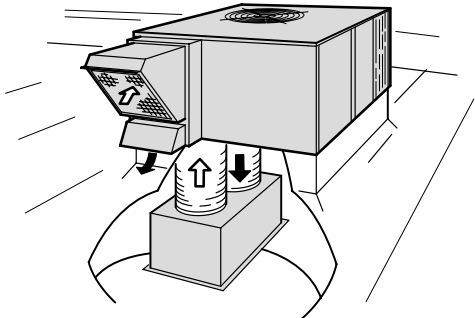
Bulletin No. 210172  
September 2001  
Supersedes December 2000



CHP16 Basic Unit

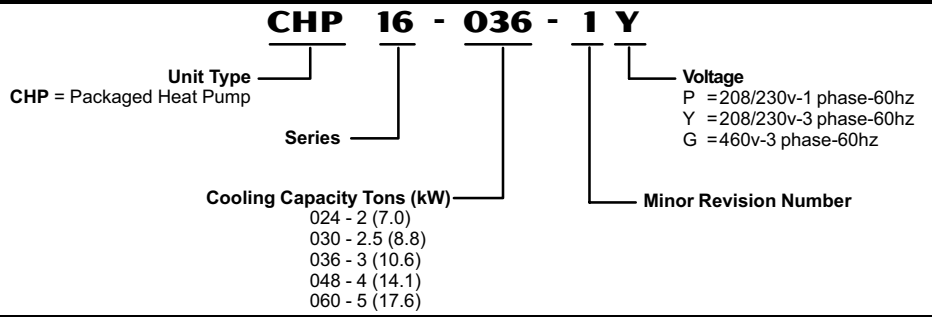


CHP16 Rooftop Installation With Horizontal Economizer



CHP16 Rooftop Installation With Combination Supply and Return Air System

### MODEL NUMBER IDENTIFICATION



### FEATURES

- Application**
- 10.0 SEER.
  - 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 UL, ULC, NEC and CEC.
  - Blower data is from unit tests conducted in the Lennox Laboratory air test chamber.
  - Optional electric heaters are UL and ULC listed and are rated and tested according to DOE test procedures and FTC labeling regulations.
  - Developed in accordance with ISO 9002 quality standards.

## FEATURES - CONTINUED

### 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.

### 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.

### Refrigeration System

- All models include: check/expansion valve, reversing valve, 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).

### Compressor

- 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.
- Scroll compressor on 036, 048 and 060 models.

### Outdoor Coil Fan

- Direct drive fan moves large air volumes uniformly through entire outdoor coil for high refrigerant cooling capacity.
- Vertical air discharge minimizes operating sounds and 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 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) for every 30, 60 or 90 minutes (adjustable) of compressor "on" time at outdoor 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.

### 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 (25mm) 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 (51mm) thick filter.
- Filters must be field installed in return air duct for horizontal applications without economizer.
- HF16 Horizontal Filter Kit available for Canada.
- See dimension drawings.

### Economizer Wiring

- Furnished and factory installed on all models.
- Economizer wiring harness with jack plug connections.
- See next page for economizer options.

| <b>OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA</b>   |  |  |  |  |                            |                              |
|---|--|--|--|--|----------------------------|------------------------------|
| <b>Model No.</b>  |  | <b>CHP16-024</b>   | <b>CHP16-030</b>   | <b>CHP16-036</b>                         | <b>CHP16-048</b>           | <b>CHP16-060</b>             |
| <b>Ceiling Diffusers</b> - Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), adapts to T-bar ceiling grids or plaster ceilings - Net Weight   | <b>Step-Down</b> - double deflection louvers | RTD9-65 - 67 lbs. (30 kg)  |  |  |                            |                              |
|   |  | FD9-65 - 37 lbs.(17 kg)  |  |  |                            |                              |
| <b>Ceiling Diffuser Transitions (Supply and Return)</b> - Used with diffusers, installs in roof mounting frame, galvanized steel construction, flanges furnished for duct connection, fully insulated - Net Weight  |  | SRT16 - 20 lbs. (9 kg)   |  |  |                            |                              |
| <b>Coil Guards</b> - PVC coated steel wire guards to protect outdoor coil. Not for use with Hail Guards.  |  | LB-82199CF (47J23)<br>2 guards per order   |  | LB-82199CG (47J24)<br>3 guards per order |                            |                              |
| <b>Control Systems</b>  |  | See pages 17-18  |  |  |                            |                              |
| <b>Compressor Monitor (Canada Only)</b> - Non-adjustable switch (low ambient cut-out) prevents compressor operation when outdoor temperature is below 35°F (2°C).   |  | T6-1469 (45F08)  |  |  |                            |                              |
| <b>Economizer with Gravity Exhaust Dampers (Down-Flow)</b> - Installs directly in cabinet, recirculated air dampers with pressure operated gravity exhaust damper, formed, gasketed damper blades, nylon bearings, 24v damper motor has adjustable minimum position switch, electronic discharge air sensor, adjustable outdoor air enthalpy control. 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 cleanable aluminum mesh filter. Choice of economizer controls. Model No. - Net Weight - No. & size of filter, in. (mm) | <b>US Only</b>                               | 3 position   | REMD16-41 - 48 lbs. (22 kg)  | REMD16-65 - 66 lbs. (30 kg)              |                            |                              |
|   |  | Fully Modulating   | REMD16M-41 - 48 lbs. (22 kg)                                       | REMD16M-65 - 66 lbs. (30 kg)             |                            |                              |
|   |  | Indoor Filter  | (1) 16 x 25 x 1 (406 x 635 x 25)                                   | (1) 20 x 25 x 1 (508 x 635 x 25)         |                            |                              |
|   |  | Outdoor Filter   | (1) 14 x 25 x 1 (356 x 635 x 25)                                   | (1) 18 x 25 x 1 (457 x 635 x 25)         |                            |                              |
|   | <b>Canada Only</b>                           | Fully Modulating   | REMD16M-41S - 85 lbs. (39 kg)                                      | REMD16M-65S - 105 lbs. (48 kg)           |                            |                              |
|   |  | Indoor Filter  | (1) 16 x 25 x 1 (406 x 635 x 25)                                   | (1) 20 x 25 x 1 (508 x 635 x 25)         |                            |                              |
|   |  | Outdoor Filter   | (1) 19-3/8 x 15-3/4 x 1  | (1) 19-7/8 x 22-3/4 x 1 (505 x 578 x 25) |                            |                              |
|   |  | <b>Economizer Dampers (Horizontal)</b> - Installs directly in cabinet, combination outdoor air and recirculated air damper, formed, gasketed damper blades, nylon bearings, 24v damper motor has adjustable minimum position switch, electronic discharge air sensor, adjustable outdoor air enthalpy control. 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. Model No. - Net Weight - No. & size of filter, in. (mm) |  | 3 position                               | EMDH16-41 110 lbs. (50 kg) | EMDH16-65 - 130 lbs. (59 kg) |
| <b>US Only</b>  | Fully Modulating                             | EMDH16M-41 - 110 lbs. (50 kg)  | EMDH16M-65 - 130 lbs. (59 kg)                                      |  |                            |                              |
|   | Indoor Filter                                | (1) 20 x 24 x 1 (508 x 610 x 25)   | (1) 16 x 25 x 1 (406 x 635 x 25)<br>(1) 14 x 25 x1 (356 x 635 x 1) |  |                            |                              |
|   | Outdoor Filter                               | (1) 8 x 24 x 1 (203 x 610 x 25)  | (1) 8 x 28 x 1 (203 x 711 x 25)                                    |  |                            |                              |
|   | <b>Canada Only</b>                           | Fully Modulating   | EMDH16M-41S - 70 lbs. (32 kg)                                      | EMDH16M-65S - 86 lbs. (39 kg)            |                            |                              |
| Indoor Filter   |  | (1) 20 x 20 x 1 (508 x 508 x 25)   | (1) 20 x 25 x 1 (508 x 635 x 25)                                   |  |                            |                              |
| Outdoor Filter  |  | (1) 16-1/2 x 21-3/4 x 1 (419 x 552 x 25)   | (1) 22-1/2 x 25-1/4 x 1 (571 x 641 x 25)                           |  |                            |                              |
| <b>Economizer Gravity Exhaust Dampers</b> - For use with EMDH16. Pressure operated assembly field installs in the return air duct adjacent to the economizer assembly. Includes bird screen. - Net Weight   |  | GEDH16-65 - 4 lbs. (2 kg)  |  |  |                            |                              |
| <b>Economizer Enthalpy Control, Differential</b> - 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  |  | 54G44  |  |  |                            |                              |
| <b>Electric Heat</b> - Field installed, helix wound nichrome elements, time delay for element staging, individual element limit controls, wiring harness, may be two-stage controlled.<br><b>ECH16R</b> - Supplemental thermal cutoff safety fuses and thermal relay sequencer.<br><b>ECH16</b> - Supplemental secondary limits, heating control relay, fuse block, thermal relay sequencer (20-25 kW 208/230v) and galvanized steel control box.   |  | See Electric Heat Data Tables<br>Pages 12-15   |  |  |                            |                              |

| <b>OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA</b>   |  |   |                  |  |                  |                  |
|---|--|---|------------------|--|------------------|------------------|
| <b>Model No.</b>  |  | <b>CHP16-024</b>  | <b>CHP16-030</b> | <b>CHP16-036</b>   | <b>CHP16-048</b> | <b>CHP16-060</b> |
| <b>Electric Heat Single Point Power Source Sub-Fuse Box</b> - Use with ECH16R electric heaters, use in conjunction with ECH16 fuse box for single point power source applications, installs internal to unit, fuses furnished, constructed of galvanized steel with pre-punched mounting holes  |  | See Electric Heat Data Tables, Pages 12-15                              |                  |  |                  |                  |
| <b>Unit Single Point Power Source Sub Fuse Box</b> - 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 pre-punched mounting holes and electrical inlet and outlet holes, hinged box cover  |  | See Electric Heat Data Tables, Pages 12-15                              |                  |  |                  |                  |
| <b>Hail Guards</b> - Heavy duty field installed coil guard protects coils from damage. Not for use with Coil Guards.  |  | <b>90N90</b><br>2 guards per order                                      |                  | <b>90N91</b><br>3 guards per order                                       |                  |                  |
| <b>Horizontal Filter Kit (Canada Only)</b> - For horizontal applications, painted steel cabinet with filter access, disposable, pleated fiber filter furnished, number and size of filter - Net Weight  |  | HF16-46S - 18 lbs. (8 kg)<br>(1) 20 x 20 x 2 in.<br>(508 x 508 x 51 mm) |                  | HF16-65S - 21 lbs. (10 kg)<br>(1) 20 x 25 x 2 in.<br>(508 x 635 x 51 mm) |                  |                  |
| <b>Low Ambient Control Kit</b> - Units operate down to 30°F (-17.7°C) outdoor air temperature in cooling mode without any additional controls. A Low Ambient Kit can be field installed, enabling unit to operate properly down to 0°F (-1°C).  |  | LB-57113BM (27J00)  |                  |  |                  |                  |
| <b>Outdoor Air Damper Section</b> - 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, number and size of filter - Net Weight  | <b>US Only</b>   | OAD16-41 - 12 lbs. (5 kg)<br>(1) 5 x 17 x 1 in.<br>(127 x 432 x 25 mm)  |                  | OAD16-65 - 12 lbs. (5 kg)<br>(1) 8 x 17 x 1 in.<br>(203 x 432 x 25 mm)   |                  |                  |
|   | <b>Canada Only</b>   | OAD16-41S - 10 lbs. (5 kg)<br>(1) 14 x 6 x 1 in.<br>(356 x 152 x 25 mm) |                  | OAD16-65S - 16 lbs. (7 kg)<br>(1) 18 x 6 x 1 in.<br>(457 x 152 x 25 mm)  |                  |                  |
| <b>Outdoor Air Damper Section</b> - For horizontal applications, installs in return air duct adjacent to unit, manually adjustable (fixed) outdoor air - Net Weight   |  | OAD3-46/65 - 8 lbs. (4 kg)  |                  |  |                  |                  |
| <b>Outdoor Thermostat Kit</b> - 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  | Thermostat Kit   | LB-29740BA (56A87)  |                  |  |                  |                  |
|   | Mounting Box   | M-1595 (31461) / BM-10260 (33A09) Canada Only                           |                  |  |                  |                  |
| <b>Roof Curb Power Entry Kit</b> - 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  | 1/2 in. (13 mm)  | 18H70   |                  |  |                  |                  |
|   | 1 in. (26 mm)  | 18H71   |                  |  |                  |                  |
|   | 1-1/2 in. (39 mm)  | 18H72   |                  |  |                  |                  |
| <b>Roof Mounting Frame</b> - 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 and CHP16-060 units - Net Weight<br>NOTE (US Only) — Sound Reduction Plate must be ordered separately for field installation. | RMF16-41 - 75 lbs. (35 kg)<br>Plate (order separately) (73H80) |   |                  | RMF16-41 - 75 lbs. (35 kg)<br>Plate (order separately) (73H80)           |                  |                  |
|   |  |   |                  | RMF16-65 - 86 lbs. (39 kg)<br>Plate (order separately) (73H82)           |                  |                  |
| <b>Timed Off Control</b> - 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.  |  | LB-50709BK (47J27)  |                  |  |                  |                  |
| <b>Unit Stand-Off Mounting Kit</b> - Elevates horizontal application units above mounting surface. Includes six high impact polystyrene stand-off mounts. See dimension drawings.   |  | 38H18   |                  |  |                  |                  |

☐ Indoor filter is not furnished with economizer. REMD16 utilizes existing filter furnished with CHP16 unit.

## SPECIFICATIONS

| Heating/<br>Cooling<br>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<br>Cooling<br>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)                                    | 10.0                             | 10.0                      | 10.0                                     | 10.0                         | 10.0                       |
|  | EER (Btuh/Watts)                                     | 9.1                              | 9.1                       | 8.6                                      | 9.5                          | 8.8                        |
| ★ARI High<br>Temperature<br>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<br>Temperature<br>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.<br>(2.55 kg)       | 6 lbs. 0 oz.<br>(2.72 kg) | 7 lbs. 0 oz.<br>(3.18 kg)                | 10 lbs. 12 oz.<br>(4.88 kg)  | 10 lbs. 5 oz.<br>(4.68 kg) |
| <b>Outdoor<br/>Coil</b>  | Net face area - sq. ft. (m <sup>2</sup> ) 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)                   |
| <b>Outdoor<br/>Coil<br/>Fan</b>                                    | 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)                |
| <b>Indoor<br/>Coil</b>   | Net face area - sq. ft. (m <sup>2</sup> )            | 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                        |
| <b>Indoor Coil<br/>Blower</b>                                      | Motor horsepower (W)                                 | 1/3 (249)                        | 1/3 (249)                 | 1/3 (249)                                | 1/2 (373)                    | 3/4 (560)                  |
|  | Blower wheel nominal diameter x width in. (mm)       | 9 x 8<br>(229 x 203)             | 10 x 7<br>(254 x 178)     | 10 x 7<br>(254 x 178)                    | 10 x 8<br>(254 x 203)        | 11-1/2 x 8<br>(292 x 203)  |
| <b>No. &amp; size of cleanable polyurethane filters - in. (mm)</b> |  | (1) 16 x 25 x 1 (406 x 635 x 25) |                           |  | 20 x 25 x 1 (508 x 635 x 25) |                            |
| <b>Shipping<br/>Data</b>   | 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)                  |
| <b>Electrical characteristics (60hz)</b>                           |  | 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.

# COOLING AND HEATING RATINGS

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 |       | Sensible To Total Ratio (S/T) Dry Bulb        |                     |       | Total Cooling Capacity |                     | Sensible To Total Ratio (S/T) Dry Bulb |             |                     | Total Cooling Capacity |     | Sensible To Total Ratio (S/T) Dry Bulb |       |              | Total Cooling Capacity |       | Sensible To Total Ratio (S/T) Dry Bulb |                     |       |              |                     |           |           |                     |           |
|                               |                        |       |   |                     |       |                        |                     |  |             |                     |                        |     |  |       |              |                        |       |  |                     |       | 75°F 24°C    | 80°F 27°C           | 85°F 29°C | 75°F 24°C | 80°F 27°C           | 85°F 29°C |
| cfm                           | L/s                    | kBtuh | kW  | Comp Motor kW Input | kBtuh | kW                     | Comp Motor kW Input | kBtuh                                  | kW          | Comp Motor kW Input | kBtuh                  | kW  | Comp Motor kW Input                    | kBtuh | kW           | Comp Motor kW Input    | kBtuh | kW                                     | Comp Motor kW Input | kBtuh | kW           | Comp Motor kW Input | kBtuh     | kW        | Comp Motor kW Input |           |
| 63°F (17°C)                   | 640                    | 300   | 23.2  | 6.8                 | 1.80  | .69                    | .83                 | .95                                    | 22.3        | 6.5                 | 2.03                   | .76 | .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   | 24.2         | 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 |       | Sensible To Total Ratio (S/T) Dry Bulb        |                     |       | Total Cooling Capacity |                     | Sensible To Total Ratio (S/T) Dry Bulb |             |                     | Total Cooling Capacity |     | Sensible To Total Ratio (S/T) Dry Bulb |       |              | Total Cooling Capacity |       | Sensible To Total Ratio (S/T) Dry Bulb |                     |       |              |                     |           |           |                     |           |
|                               |                        |       |   |                     |       |                        |                     |  |             |                     |                        |     |  |       |              |                        |       |  |                     |       | 75°F 24°C    | 80°F 27°C           | 85°F 29°C | 75°F 24°C | 80°F 27°C           | 85°F 29°C |
| cfm                           | L/s                    | kBtuh | kW  | Comp Motor kW Input | kBtuh | kW                     | Comp Motor kW Input | kBtuh                                  | kW          | Comp Motor kW Input | kBtuh                  | kW  | Comp Motor kW Input                    | kBtuh | kW           | Comp Motor kW Input    | kBtuh | kW                                     | Comp Motor kW Input | kBtuh | kW           | Comp Motor kW Input | kBtuh     | kW        | Comp Motor kW Input |           |
| 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<br>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                |     | Total Heating Capacity |      | Total Heating Capacity |      | Total Heating Capacity |     | Total Heating Capacity |     | Total Heating Capacity |      | Total Heating Capacity |     |     |
|   |     | kBtuh                                 | kW  | kBtuh                  | kW   | 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<br>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                |      | Total Heating Capacity |      | Total Heating Capacity |      | Total Heating Capacity |     | Total Heating Capacity |      | Total Heating Capacity |      |     |     |      |
|   |     | kBtuh                                 | kW   | 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

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<br>70°F db<br>(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<br>kBtuh       | kW   | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW   | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | 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<br>70°F db<br>(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<br>kBtuh       | kW   | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW   | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | Comp. Motor kW Input | Total Heating Capacity<br>kBtuh | kW  | 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

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) |       |      | 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)                   | 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       |

## CHP16-060 - HEATING CAPACITY

| Indoor Coil Air Volume<br>70°F db<br>(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 |  |  |
| 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 |               |    |  |  |

## CHP16-060 - 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  | 4.86                      | 72.5         | 21.2 |
| 60                   | 16  | 4.74                      | 68.5         | 20.1 |
| 55                   | 13  | 4.62                      | 64.5         | 18.9 |
| 50                   | 10  | 4.50                      | 60.4         | 17.7 |
| 47                   | 8   | 4.43                      | 58.0         | 17.0 |
| 45                   | 7   | 4.33                      | 54.8         | 16.1 |
| 40                   | 4   | 4.10                      | 46.6         | 13.7 |
| 35                   | 2   | 3.87                      | 38.5         | 11.3 |
| 30                   | -1  | 3.83                      | 37.2         | 10.9 |
| 25                   | -4  | 3.78                      | 35.9         | 10.5 |
| 20                   | -7  | 3.73                      | 34.6         | 10.1 |
| 17                   | -8  | 3.71                      | 33.9         | 9.9  |
| 15                   | -9  | 3.66                      | 32.3         | 9.5  |
| 10                   | -12 | 3.54                      | 28.2         | 8.3  |
| 5                    | -15 | 3.32                      | 25.2         | 7.4  |
| 0                    | -18 | 3.10                      | 22.2         | 6.5  |
| -5                   | -21 | 2.88                      | 19.2         | 5.6  |
| -10                  | -23 | 2.66                      | 16.2         | 4.7  |
| -15                  | -26 | 2.44                      | 13.2         | 3.9  |
| -20                  | -29 | 2.22                      | 10.2         | 3.0  |

## BLOWER DATA

### CHP16-024 BLOWER PERFORMANCE 230 VOLTS (With Down-Flow Air Openings)

| External Static Pressure | Air Volume at Various Blower Speeds |      |             |      |            |     |     |     |     |
|--------------------------|-------------------------------------|------|-------------|------|------------|-----|-----|-----|-----|
|                          | High                                |      | Medium-High |      | Medium-Low |     | Low |     |     |
|                          | in. w.g.                            | Pa   | cfm         | L/s  | cfm        | L/s | cfm | L/s |     |
| 0                        | 0                                   | 1385 | 655         | 1025 | 485        | 900 | 425 | 685 | 325 |
| .05                      | 12                                  | 1380 | 650         | 1035 | 490        | 915 | 430 | 700 | 330 |
| .10                      | 25                                  | 1365 | 645         | 1045 | 495        | 925 | 435 | 710 | 335 |
| .15                      | 37                                  | 1350 | 635         | 1045 | 495        | 930 | 440 | 715 | 335 |
| .20                      | 50                                  | 1330 | 630         | 1040 | 490        | 930 | 440 | 715 | 335 |
| .25                      | 62                                  | 1305 | 615         | 1030 | 485        | 925 | 435 | 715 | 335 |
| .30                      | 75                                  | 1275 | 600         | 1010 | 475        | 915 | 430 | 705 | 335 |
| .40                      | 100                                 | 1205 | 570         | 965  | 455        | 880 | 415 | 680 | 320 |
| .50                      | 125                                 | 1120 | 530         | 890  | 420        | 820 | 385 | 640 | 300 |
| .60                      | 150                                 | 1015 | 480         | 800  | 380        | 740 | 350 | 585 | 275 |
| .70                      | 175                                 | 900  | 425         | 685  | 325        | 640 | 300 | 510 | 240 |
| .75                      | 185                                 | 835  | 395         | 615  | 290        | 580 | 275 | 470 | 220 |

NOTE — For 208v unit operation, derate air volume by 7%  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-024 BLOWER PERFORMANCE 230 VOLTS (With Horizontal Air Openings)

| External Static Pressure | Air Volume at Various Blower Speeds |      |             |      |            |     |     |     |     |
|--------------------------|-------------------------------------|------|-------------|------|------------|-----|-----|-----|-----|
|                          | High                                |      | Medium-High |      | Medium-Low |     | Low |     |     |
|                          | in. w.g.                            | Pa   | cfm         | L/s  | cfm        | L/s | cfm | L/s |     |
| 0                        | 0                                   | 1435 | 675         | 1035 | 490        | 895 | 420 | 625 | 295 |
| .05                      | 12                                  | 1420 | 670         | 1050 | 495        | 915 | 430 | 645 | 305 |
| .10                      | 25                                  | 1400 | 660         | 1060 | 500        | 925 | 435 | 660 | 310 |
| .15                      | 37                                  | 1380 | 650         | 1060 | 500        | 935 | 440 | 670 | 315 |
| .20                      | 50                                  | 1360 | 640         | 1060 | 500        | 935 | 440 | 675 | 320 |
| .25                      | 62                                  | 1335 | 630         | 1050 | 495        | 930 | 440 | 675 | 320 |
| .30                      | 75                                  | 1305 | 615         | 1035 | 490        | 920 | 435 | 670 | 315 |
| .40                      | 100                                 | 1235 | 585         | 985  | 465        | 875 | 415 | 650 | 305 |
| .50                      | 125                                 | 1155 | 545         | 910  | 430        | 810 | 380 | 605 | 285 |
| .60                      | 150                                 | 1065 | 505         | 810  | 380        | 720 | 340 | 545 | 255 |
| .70                      | 175                                 | 960  | 455         | 690  | 325        | 605 | 285 | 465 | 220 |
| .75                      | 185                                 | 905  | 425         | 620  | 295        | 540 | 255 | 415 | 195 |

NOTE — For 208v unit operation, derate air volume by 7%  
All air data is measured external to the unit with dry coil and without air filter.



## BLOWER DATA

### CHP16-030 BLOWER PERFORMANCE 230 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |     |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm | L/s |
| 0                        | 0   | 1485                                | 700 | 1250        | 590 | 1085       | 500 | 905 | 425 |
| .05                      | 12  | 1460                                | 690 | 1250        | 590 | 1075       | 505 | 900 | 425 |
| .10                      | 25  | 1430                                | 675 | 1240        | 585 | 1070       | 505 | 895 | 420 |
| .15                      | 37  | 1400                                | 660 | 1235        | 585 | 1060       | 500 | 890 | 420 |
| .20                      | 50  | 1375                                | 650 | 1225        | 580 | 1045       | 495 | 885 | 420 |
| .25                      | 62  | 1345                                | 635 | 1215        | 575 | 1035       | 490 | 875 | 415 |
| .30                      | 75  | 1315                                | 620 | 1200        | 565 | 1020       | 480 | 865 | 410 |
| .40                      | 100 | 1255                                | 590 | 1165        | 550 | 990        | 465 | 835 | 395 |
| .50                      | 125 | 1190                                | 560 | 1125        | 530 | 950        | 450 | 805 | 380 |
| .60                      | 150 | 1125                                | 530 | 1075        | 510 | 910        | 430 | 770 | 365 |
| .70                      | 175 | 1060                                | 500 | 1015        | 480 | 865        | 410 | 725 | 340 |
| .75                      | 185 | 1025                                | 485 | 985         | 465 | 840        | 395 | 700 | 330 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-030 BLOWER PERFORMANCE 230 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |     |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm | L/s |
| 0                        | 0   | 1485                                | 700 | 1345        | 635 | 1115       | 525 | 920 | 435 |
| .05                      | 12  | 1480                                | 700 | 1340        | 630 | 1120       | 530 | 930 | 440 |
| .10                      | 25  | 1465                                | 690 | 1335        | 630 | 1120       | 530 | 940 | 445 |
| .15                      | 37  | 1455                                | 685 | 1325        | 625 | 1115       | 525 | 945 | 445 |
| .20                      | 50  | 1435                                | 675 | 1315        | 620 | 1110       | 525 | 945 | 445 |
| .25                      | 62  | 1420                                | 670 | 1305        | 615 | 1105       | 520 | 940 | 445 |
| .30                      | 75  | 1400                                | 660 | 1285        | 605 | 1095       | 515 | 935 | 440 |
| .40                      | 100 | 1350                                | 635 | 1250        | 590 | 1065       | 505 | 910 | 430 |
| .50                      | 125 | 1295                                | 610 | 1200        | 565 | 1025       | 485 | 875 | 415 |
| .60                      | 150 | 1230                                | 580 | 1145        | 540 | 975        | 460 | 820 | 385 |
| .70                      | 175 | 1160                                | 545 | 1075        | 505 | 915        | 430 | 755 | 355 |
| .75                      | 185 | 1120                                | 530 | 1040        | 490 | 885        | 420 | 720 | 340 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-036 BLOWER PERFORMANCE 230 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |     |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm | L/s |
| 0                        | 0   | 1360                                | 640 | 1270        | 600 | 1070       | 505 | 890 | 420 |
| .05                      | 12  | 1355                                | 640 | 1250        | 590 | 1060       | 500 | 885 | 420 |
| .10                      | 25  | 1350                                | 635 | 1230        | 580 | 1050       | 495 | 880 | 415 |
| .15                      | 37  | 1330                                | 630 | 1220        | 575 | 1035       | 490 | 870 | 410 |
| .20                      | 50  | 1310                                | 620 | 1210        | 570 | 1020       | 480 | 860 | 405 |
| .25                      | 62  | 1295                                | 610 | 1190        | 560 | 1005       | 475 | 845 | 390 |
| .30                      | 75  | 1280                                | 605 | 1170        | 550 | 990        | 470 | 830 | 390 |
| .40                      | 100 | 1230                                | 580 | 1130        | 535 | 960        | 455 | 800 | 380 |
| .50                      | 125 | 1170                                | 550 | 1070        | 505 | 910        | 430 | 760 | 360 |
| .60                      | 150 | 1100                                | 520 | 990         | 465 | 850        | 400 | 700 | 330 |
| .70                      | 175 | 1020                                | 480 | 890         | 420 | 780        | 370 | 620 | 295 |
| .75                      | 185 | 975                                 | 460 | 830         | 390 | 740        | 350 | 570 | 270 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-036 BLOWER PERFORMANCE 230 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |     |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm | L/s |
| 0                        | 0   | 1450                                | 685 | 1370        | 645 | 1080       | 510 | 900 | 425 |
| .05                      | 12  | 1430                                | 675 | 1350        | 635 | 1070       | 505 | 890 | 420 |
| .10                      | 25  | 1410                                | 665 | 1330        | 630 | 1060       | 500 | 880 | 415 |
| .15                      | 37  | 1395                                | 660 | 1310        | 615 | 1055       | 500 | 875 | 415 |
| .20                      | 50  | 1380                                | 650 | 1290        | 610 | 1050       | 495 | 870 | 410 |
| .25                      | 62  | 1360                                | 640 | 1270        | 600 | 1040       | 490 | 860 | 405 |
| .30                      | 75  | 1340                                | 630 | 1250        | 590 | 1030       | 485 | 850 | 400 |
| .40                      | 100 | 1300                                | 615 | 1210        | 570 | 1010       | 475 | 830 | 390 |
| .50                      | 125 | 1250                                | 590 | 1170        | 550 | 970        | 460 | 810 | 380 |
| .60                      | 150 | 1200                                | 565 | 1120        | 530 | 930        | 440 | 770 | 365 |
| .70                      | 175 | 1150                                | 545 | 1060        | 500 | 890        | 420 | 710 | 335 |
| .75                      | 185 | 1125                                | 530 | 1025        | 485 | 870        | 410 | 670 | 315 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-036 BLOWER PERFORMANCE 460 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |        |     |      |     |
|--------------------------|-----|-------------------------------------|-----|--------|-----|------|-----|
|                          |     | High                                |     | Medium |     | Low  |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm    | L/s | cfm  | L/s |
| 0                        | 0   | 1560                                | 735 | 1380   | 650 | 1070 | 505 |
| .05                      | 12  | 1555                                | 735 | 1355   | 640 | 1075 | 505 |
| .10                      | 25  | 1540                                | 725 | 1330   | 630 | 1080 | 510 |
| .15                      | 37  | 1510                                | 715 | 1320   | 625 | 1070 | 505 |
| .20                      | 50  | 1475                                | 695 | 1315   | 620 | 1060 | 500 |
| .25                      | 62  | 1450                                | 685 | 1295   | 610 | 1040 | 490 |
| .30                      | 75  | 1430                                | 675 | 1270   | 600 | 1025 | 485 |
| .40                      | 100 | 1360                                | 640 | 1215   | 575 | 980  | 460 |
| .50                      | 125 | 1280                                | 605 | 1145   | 540 | 925  | 435 |
| .60                      | 150 | 1185                                | 560 | 1045   | 495 | 850  | 400 |
| .70                      | 175 | 1070                                | 505 | 925    | 435 | 750  | 355 |
| .75                      | 185 | 990                                 | 465 | 860    | 405 | 680  | 320 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

### CHP16-036 BLOWER PERFORMANCE 460 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |        |     |      |     |
|--------------------------|-----|-------------------------------------|-----|--------|-----|------|-----|
|                          |     | High                                |     | Medium |     | Low  |     |
| in. w.g.                 | Pa  | cfm                                 | L/s | cfm    | L/s | cfm  | L/s |
| 0                        | 0   | 1665                                | 785 | 1490   | 705 | 1080 | 510 |
| .05                      | 12  | 1640                                | 775 | 1465   | 690 | 1080 | 510 |
| .10                      | 25  | 1610                                | 760 | 1440   | 680 | 1080 | 510 |
| .15                      | 37  | 1585                                | 750 | 1420   | 670 | 1075 | 505 |
| .20                      | 50  | 1555                                | 735 | 1400   | 660 | 1070 | 505 |
| .25                      | 62  | 1525                                | 720 | 1380   | 650 | 1060 | 500 |
| .30                      | 75  | 1495                                | 705 | 1355   | 640 | 1050 | 495 |
| .40                      | 100 | 1435                                | 675 | 1300   | 615 | 1015 | 480 |
| .50                      | 125 | 1365                                | 645 | 1250   | 590 | 985  | 465 |
| .60                      | 150 | 1295                                | 610 | 1180   | 555 | 935  | 440 |
| .70                      | 175 | 1205                                | 570 | 1100   | 520 | 860  | 405 |
| .75                      | 185 | 1145                                | 540 | 1060   | 500 | 800  | 380 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

## BLOWER DATA

### CHP16-048 BLOWER PERFORMANCE 230 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |      |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|------|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low  |     |
|                          |     | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |     |             |     |            |     |      |     |
| 0                        | 0   | 2015                                | 950 | 1610        | 760 | 1425       | 670 | 1240 | 585 |
| .05                      | 12  | 2000                                | 945 | 1595        | 755 | 1420       | 670 | 1235 | 585 |
| .10                      | 25  | 1980                                | 935 | 1580        | 745 | 1415       | 670 | 1235 | 585 |
| .15                      | 37  | 1960                                | 925 | 1575        | 745 | 1415       | 670 | 1230 | 580 |
| .20                      | 50  | 1935                                | 915 | 1560        | 735 | 1405       | 665 | 1225 | 580 |
| .25                      | 62  | 1910                                | 900 | 1540        | 725 | 1395       | 660 | 1215 | 575 |
| .30                      | 75  | 1885                                | 890 | 1520        | 715 | 1385       | 655 | 1205 | 570 |
| .40                      | 100 | 1825                                | 860 | 1485        | 700 | 1355       | 640 | 1185 | 560 |
| .50                      | 125 | 1760                                | 830 | 1445        | 680 | 1315       | 620 | 1160 | 550 |
| .60                      | 150 | 1690                                | 800 | 1395        | 660 | 1260       | 595 | 1130 | 535 |
| .70                      | 175 | 1615                                | 760 | 1335        | 630 | 1190       | 560 | 1095 | 515 |
| .75                      | 185 | 1575                                | 745 | 1300        | 615 | 1145       | 540 | 1065 | 505 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-048 BLOWER PERFORMANCE 230 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |             |     |            |     |      |     |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|------|-----|
|                          |     | High                                |     | Medium-High |     | Medium-Low |     | Low  |     |
|                          |     | cfm                                 | L/s | cfm         | L/s | cfm        | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |     |             |     |            |     |      |     |
| 0                        | 0   | 2075                                | 980 | 1675        | 790 | 1445       | 680 | 1275 | 600 |
| .05                      | 12  | 2060                                | 970 | 1660        | 785 | 1440       | 680 | 1270 | 600 |
| .10                      | 25  | 2040                                | 965 | 1645        | 775 | 1435       | 675 | 1270 | 600 |
| .15                      | 37  | 2020                                | 955 | 1635        | 770 | 1435       | 675 | 1265 | 595 |
| .20                      | 50  | 1995                                | 940 | 1620        | 765 | 1425       | 670 | 1260 | 595 |
| .25                      | 62  | 1965                                | 930 | 1600        | 755 | 1415       | 670 | 1250 | 590 |
| .30                      | 75  | 1940                                | 915 | 1580        | 745 | 1405       | 665 | 1240 | 585 |
| .40                      | 100 | 1880                                | 890 | 1545        | 730 | 1375       | 650 | 1220 | 575 |
| .50                      | 125 | 1815                                | 855 | 1500        | 710 | 1335       | 630 | 1195 | 565 |
| .60                      | 150 | 1740                                | 820 | 1450        | 685 | 1280       | 605 | 1165 | 550 |
| .70                      | 175 | 1655                                | 780 | 1395        | 660 | 1210       | 570 | 1130 | 535 |
| .75                      | 185 | 1605                                | 755 | 1365        | 645 | 1165       | 550 | 1110 | 525 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-048 BLOWER PERFORMANCE 460 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |        |     |      |     |
|--------------------------|-----|-------------------------------------|-----|--------|-----|------|-----|
|                          |     | High                                |     | Medium |     | Low  |     |
|                          |     | cfm                                 | L/s | cfm    | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |     |        |     |      |     |
| 0                        | 0   | 2075                                | 980 | 1650   | 780 | 1105 | 520 |
| .05                      | 12  | 2045                                | 965 | 1635   | 770 | 1105 | 520 |
| .10                      | 25  | 2015                                | 950 | 1625   | 765 | 1100 | 520 |
| .15                      | 37  | 1980                                | 935 | 1615   | 760 | 1100 | 520 |
| .20                      | 50  | 1945                                | 920 | 1600   | 755 | 1095 | 515 |
| .25                      | 62  | 1915                                | 905 | 1585   | 750 | 1090 | 515 |
| .30                      | 75  | 1880                                | 890 | 1570   | 740 | 1085 | 510 |
| .40                      | 100 | 1810                                | 855 | 1535   | 725 | 1070 | 505 |
| .50                      | 125 | 1735                                | 820 | 1490   | 705 | 1045 | 495 |
| .60                      | 150 | 1650                                | 780 | 1430   | 675 | 1010 | 475 |
| .70                      | 175 | 1555                                | 735 | 1355   | 640 | 965  | 455 |
| .75                      | 185 | 1500                                | 710 | 1310   | 620 | 935  | 440 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

### CHP16-048 BLOWER PERFORMANCE 460 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |     |        |     |      |     |
|--------------------------|-----|-------------------------------------|-----|--------|-----|------|-----|
|                          |     | High                                |     | Medium |     | Low  |     |
|                          |     | cfm                                 | L/s | cfm    | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |     |        |     |      |     |
| 0                        | 0   | 2090                                | 985 | 1755   | 830 | 1115 | 525 |
| .05                      | 12  | 2065                                | 975 | 1740   | 820 | 1115 | 525 |
| .10                      | 25  | 2035                                | 960 | 1720   | 810 | 1110 | 525 |
| .15                      | 37  | 2005                                | 945 | 1705   | 805 | 1110 | 525 |
| .20                      | 50  | 1975                                | 930 | 1685   | 795 | 1105 | 520 |
| .25                      | 62  | 1950                                | 920 | 1675   | 790 | 1100 | 520 |
| .30                      | 75  | 1920                                | 905 | 1650   | 780 | 1095 | 515 |
| .40                      | 100 | 1860                                | 880 | 1600   | 755 | 1080 | 510 |
| .50                      | 125 | 1790                                | 845 | 1555   | 735 | 1055 | 500 |
| .60                      | 150 | 1720                                | 810 | 1495   | 705 | 1020 | 480 |
| .70                      | 175 | 1640                                | 775 | 1425   | 670 | 975  | 460 |
| .75                      | 185 | 1595                                | 755 | 1385   | 655 | 945  | 445 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

### CHP16-060 BLOWER PERFORMANCE 230 VOLTS (With Down-Flow Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |      |             |      |        |     |            |     |      |     |
|--------------------------|-----|-------------------------------------|------|-------------|------|--------|-----|------------|-----|------|-----|
|                          |     | High                                |      | Medium-High |      | Medium |     | Medium-Low |     | Low  |     |
|                          |     | cfm                                 | L/s  | cfm         | L/s  | cfm    | L/s | cfm        | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |      |             |      |        |     |            |     |      |     |
| 0                        | 0   | 2450                                | 1155 | 2200        | 1040 | 1990   | 940 | 1760       | 830 | 1460 | 690 |
| .05                      | 12  | 2430                                | 1145 | 2180        | 1030 | 1980   | 935 | 1750       | 825 | 1470 | 695 |
| .10                      | 25  | 2410                                | 1135 | 2170        | 1025 | 1970   | 930 | 1740       | 820 | 1490 | 705 |
| .15                      | 37  | 2390                                | 1130 | 2160        | 1020 | 1960   | 925 | 1730       | 815 | 1500 | 710 |
| .20                      | 50  | 2360                                | 1115 | 2140        | 1010 | 1950   | 920 | 1720       | 810 | 1490 | 705 |
| .25                      | 62  | 2340                                | 1105 | 2120        | 1000 | 1930   | 910 | 1710       | 805 | 1490 | 705 |
| .30                      | 75  | 2320                                | 1095 | 2100        | 990  | 1910   | 900 | 1700       | 800 | 1480 | 700 |
| .40                      | 100 | 2270                                | 1070 | 2060        | 970  | 1880   | 885 | 1670       | 780 | 1470 | 695 |
| .50                      | 125 | 2230                                | 1052 | 2010        | 950  | 1830   | 865 | 1640       | 775 | 1430 | 675 |
| .60                      | 150 | 2170                                | 1025 | 1930        | 910  | 1780   | 840 | 1600       | 755 | 1390 | 655 |
| .70                      | 175 | 2120                                | 1000 | 1890        | 890  | 1730   | 815 | 1550       | 730 | 1340 | 630 |
| .75                      | 185 | 2080                                | 980  | 1850        | 875  | 1700   | 800 | 1530       | 720 | 1310 | 620 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

### CHP16-060 BLOWER PERFORMANCE 230 VOLTS (With Horizontal Air Openings)

| External Static Pressure |     | Air Volume at Various Blower Speeds |      |             |      |        |     |            |     |      |     |
|--------------------------|-----|-------------------------------------|------|-------------|------|--------|-----|------------|-----|------|-----|
|                          |     | High                                |      | Medium-High |      | Medium |     | Medium-Low |     | Low  |     |
|                          |     | cfm                                 | L/s  | cfm         | L/s  | cfm    | L/s | cfm        | L/s | cfm  | L/s |
| in. w.g.                 | Pa  |                                     |      |             |      |        |     |            |     |      |     |
| 0                        | 0   | 2570                                | 1215 | 2220        | 1050 | 2000   | 945 | 1780       | 840 | 1510 | 715 |
| .05                      | 12  | 2560                                | 1210 | 2210        | 1045 | 1990   | 940 | 1780       | 840 | 1520 | 715 |
| .10                      | 25  | 2540                                | 1200 | 2200        | 1040 | 1980   | 935 | 1770       | 835 | 1530 | 720 |
| .15                      | 37  | 2520                                | 1190 | 2190        | 1035 | 1970   | 930 | 1770       | 835 | 1520 | 715 |
| .20                      | 50  | 2500                                | 1180 | 2180        | 1030 | 1960   | 925 | 1760       | 830 | 1510 | 715 |
| .25                      | 62  | 2480                                | 1170 | 2160        | 1020 | 1940   | 915 | 1750       | 825 | 1510 | 715 |
| .30                      | 75  | 2440                                | 1150 | 2140        | 1010 | 1920   | 905 | 1740       | 820 | 1500 | 710 |
| .40                      | 100 | 2390                                | 1130 | 2100        | 990  | 1900   | 895 | 1710       | 805 | 1470 | 695 |
| .50                      | 125 | 2320                                | 1095 | 2060        | 970  | 1860   | 880 | 1670       | 790 | 1440 | 680 |
| .60                      | 150 | 2240                                | 1055 | 2010        | 950  | 1810   | 855 | 1630       | 770 | 1400 | 660 |
| .70                      | 175 | 2160                                | 1020 | 1950        | 920  | 1760   | 830 | 1580       | 745 | 1350 | 635 |
| .75                      | 185 | 2120                                | 1000 | 1920        | 905  | 1720   | 810 | 1560       | 735 | 1330 | 630 |

NOTE — For 208v unit operation, derate air volume by 7%.  
All air data is measured external to the unit with dry coil and without air filter.

## BLOWER DATA

| CHP16-060 BLOWER PERFORMANCE<br>460 VOLTS (With Down-Flow Air Openings) |     |                                     |      |        |     |      |     |
|---|-----|-------------------------------------|------|--------|-----|------|-----|
| External Static Pressure  |     | Air Volume at Various Blower Speeds |      |        |     |      |     |
|   |     | High                                |      | Medium |     | Low  |     |
| in. w.g.  | Pa  | cfm                                 | L/s  | cfm    | L/s | cfm  | L/s |
| 0   | 0   | 2450                                | 1155 | 2090   | 985 | 1740 | 820 |
| .05   | 12  | 2430                                | 1145 | 2080   | 980 | 1740 | 820 |
| .10   | 25  | 2410                                | 1135 | 2060   | 970 | 1730 | 815 |
| .15   | 37  | 2390                                | 1130 | 2040   | 965 | 1720 | 810 |
| .20   | 50  | 2360                                | 1115 | 2020   | 955 | 1710 | 805 |
| .25   | 62  | 2340                                | 1105 | 2000   | 945 | 1700 | 800 |
| .30   | 75  | 2320                                | 1095 | 1990   | 940 | 1680 | 795 |
| .40   | 100 | 2270                                | 1070 | 1940   | 915 | 1630 | 770 |
| .50   | 125 | 2230                                | 1050 | 1880   | 885 | 1590 | 750 |
| .60   | 150 | 2170                                | 1025 | 1840   | 870 | 1520 | 715 |
| .70   | 175 | 2120                                | 1000 | 1770   | 835 | 1460 | 690 |
| .75   | 185 | 2080                                | 980  | 1740   | 820 | 1440 | 680 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

| CHP16-060 BLOWER PERFORMANCE<br>460 VOLTS (With Horizontal Air Openings) |     |                                     |      |        |     |      |     |
|--|-----|-------------------------------------|------|--------|-----|------|-----|
| External Static Pressure   |     | Air Volume at Various Blower Speeds |      |        |     |      |     |
|  |     | High                                |      | Medium |     | Low  |     |
| in. w.g.   | Pa  | cfm                                 | L/s  | cfm    | L/s | cfm  | L/s |
| 0  | 0   | 2570                                | 1215 | 2100   | 990 | 1760 | 830 |
| .05  | 12  | 2560                                | 1210 | 2090   | 985 | 1770 | 835 |
| .10  | 25  | 2540                                | 1200 | 2070   | 975 | 1760 | 830 |
| .15  | 37  | 2520                                | 1190 | 2050   | 965 | 1760 | 830 |
| .20  | 50  | 2500                                | 1180 | 2030   | 960 | 1750 | 825 |
| .25  | 62  | 2480                                | 1170 | 2010   | 950 | 1740 | 820 |
| .30  | 75  | 2440                                | 1150 | 2000   | 945 | 1720 | 810 |
| .40  | 100 | 2390                                | 1130 | 1960   | 925 | 1670 | 790 |
| .50  | 125 | 2320                                | 1095 | 1910   | 900 | 1620 | 765 |
| .60  | 150 | 2240                                | 1105 | 1870   | 880 | 1550 | 730 |
| .70  | 175 | 2160                                | 1020 | 1800   | 850 | 1490 | 705 |
| .75  | 185 | 2120                                | 1000 | 1760   | 830 | 1470 | 695 |

NOTE — All air data is measured external to the unit with dry coil and without air filter.

## FILTER AND ACCESSORY 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<br>CHP16-030<br>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<br>CHP16-060              | 1600       | 755      | .15                           | 37       | .05                         | 12       | .40   | 99       | .27  | 67       | .30                                | 75       | .17         | 42 |
|                                     | 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 |          | FD9-65 Diffuser |     |
| cfm                                 | L/s        | in. w.g. | Pa                   | in. w.g. | Pa                 | in. w.g. | Pa                    | in. w.g. | Pa              |     |
| CHP16-024<br>CHP16-030<br>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<br>CHP16-060              | 1600       | 755      | .43                  | 107      | .32                | 80       | .20                   | 50       | .24             | 60  |
|                                     | 1800       | 850      | .56                  | 139      | .40                | 90       | .30                   | 75       | .30             | 75  |
|                                     | 2000       | 945      | .73                  | 182      | .50                | 124      | .36                   | 90       | .36             | 90  |
|                                     | 2200       | 1040     | .95                  | 236      | .63                | 157      | .44                   | 109      | .44             | 109 |

NOTE - Electric heaters have no appreciable air resistance.

## CEILING DIFFUSER AIR THROW DATA

| Model No.  |      | RTD9-65         |     | FD9-65          |       |
|------------|------|-----------------|-----|-----------------|-------|
| Air Volume |      | Effective Throw |     | Effective Throw |       |
| cfm        | L/s  | ft.             | m   | ft. — ft.       | (m) 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 |
|              | 1200       | 565  | 0.08           | 20 |
| CHP16-030    | 800        | 380  | 0.09           | 22 |
|              | 1000       | 470  | 0.10           | 25 |
|              | 1200       | 565  | 0.11           | 27 |
| CHP16-036    | 800        | 380  | 0.09           | 22 |
|              | 1000       | 470  | 0.10           | 25 |
|              | 1200       | 565  | 0.11           | 27 |
|              | 1400       | 660  | 0.12           | 30 |
| 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 |
|              | 2000       | 945  | 0.10           | 25 |
|              | 2200       | 1040 | 0.11           | 27 |

## ELECTRICAL DATA

| General Data                   | Model No.             | CHP16-024           | CHP16-030           | CHP16-036           |                     |                 | CHP16-048           |                     |                 | CHP16-060           |                     |                 |
|--------------------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|-----------------|---------------------|---------------------|-----------------|---------------------|---------------------|-----------------|
|                                |                       | 208/230v<br>1 phase | 208/230v<br>1 phase | 208/230v<br>1 phase | 208/230v<br>3 phase | 460v<br>3 phase | 208/230v<br>1 phase | 208/230v<br>3 phase | 460v<br>3 phase | 208/230v<br>1 phase | 208/230v<br>3 phase | 460v<br>3 phase |
| Line voltage data - 60 hz      |                       |                     |                     |                     |                     |                 |                     |                     |                 |                     |                     |                 |
| Rec. max. fuse size (amps)     |                       | 25                  | 30                  | 40                  | 30                  | 15              | 50                  | 35                  | 15              | 60                  | 40                  | 20              |
| †Minimum Circuit Ampacity      |                       | 16                  | 21                  | 27                  | 20                  | 11              | 34                  | 23                  | 11              | 39                  | 27                  | 13              |
| Compressor                     | Rated load amps       | 10.1                | 13.0                | 17.7                | 12.2                | 6.2             | 21.8                | 12.8                | 6.4             | 25.0                | 15.5                | 7.5             |
|                                | Locked rotor amps     | 60.0                | 69.4                | 100.0               | 77.0                | 39.0            | 131.0               | 91.0                | 46.0            | 170.0               | 124.0               | 60.0            |
| Outdoor Coil<br>Fan Motor      | Full load amps        | 1.1                 | 1.1                 | 1.1                 | 1.1                 | 0.73            | 2.3                 | 2.3                 | 1.1             | 2.3                 | 1.1                 | 1.1             |
|                                | Locked rotor amps     | 2.2                 | 2.2                 | 2.2                 | 2.2                 | 1.3             | 4.4                 | 4.4                 | 2.0             | 4.4                 | 2.0                 | 2.0             |
| Indoor Coil<br>Blower<br>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)       | 3/4 (560)           | 3/4 (560)           | 3/4 (560)       |
|                                | Full load amps        | 2.1                 | 3.0                 | 3.0                 | 3.0                 | 1.8             | 3.9                 | 3.9                 | 1.8             | 4.6                 | 2.4                 | 2.4             |
|                                | Locked rotor amps     | 4.2                 | 6.2                 | 6.2                 | 6.2                 | 4.4             | 8.3                 | 8.3                 | 4.4             | 10.0                | 3.8                 | 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 Btu/h 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<br>1 phase          | 5 kW<br>ECH16R-5<br>(31H46)<br>4 lbs. (2 kg)    | 1            | 208         | 3.8                    | 12,800                    | 23                                    | 39                          | 40                | ECH16R-26/41-5<br>(31H26)                | ECH16-261<br>(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<br>ECH16R-7<br>(31H47)<br>5 lbs. (2 kg)    | 1            | 208         | 5.3                    | 17,900                    | 32                                    | 48                          | 50                | ECH16R-26/65-7<br>(31H25)                | ECH16-261<br>(31H10) |
|                               |   | 1            | 220         | 5.9                    | 20,100                    | 37                                    | 53                          | 60                |  |                      |
|                               |   | 1            | 230         | 6.4                    | 21,900                    | 37                                    | 53                          | 60                |  |                      |
|                               | 10 kW<br>ECH16R-10<br>(31H48)<br>5 lbs. (2 kg)  | 1            | 208         | 7.5                    | 25,600                    | 46                                    | 61                          | 70                | ECH16R-26/65-10<br>(31H24)               | ECH16-261<br>(31H10) |
|                               |   | 1            | 220         | 8.4                    | 28,700                    | 53                                    | 68                          | 70                |  |                      |
|                               |   | 1            | 230         | 9.2                    | 31,300                    | 53                                    | 68                          | 70                |  |                      |
|                               | 15 kW<br>ECH16R-15<br>(31H27)<br>18 lbs. (8 kg) | 1            | 208         | 11.3                   | 38,400                    | 68                                    | 84                          | 90                | Not required                             | ECH16-261<br>(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<br>1 phase          | 5 kW<br>ECH16R-5<br>(31H46)<br>4 lbs. (2 kg)    | 1            | 208         | 3.8                    | 12,800                    | 23                                    | 43                          | 50                | ECH16R-26/41-5<br>(31H26)                | ECH16-311<br>(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<br>ECH16R-7<br>(31H47)<br>5 lbs. (2 kg)    | 1            | 208         | 5.3                    | 17,900                    | 32                                    | 52                          | 60                | ECH16R-26/65-7<br>(31H25)                | ECH16-311<br>(31H11) |
|                               |   | 1            | 220         | 5.9                    | 20,100                    | 37                                    | 57                          | 60                |  |                      |
|                               |   | 1            | 230         | 6.4                    | 21,800                    | 37                                    | 57                          | 60                |  |                      |
|                               | 10 kW<br>ECH16R-10<br>(31H48)<br>5 lbs. (2 kg)  | 1            | 208         | 7.5                    | 25,600                    | 46                                    | 66                          | 70                | ECH16R-26/65-10<br>(31H24)               | ECH16-311<br>(31H11) |
|                               |   | 1            | 220         | 8.4                    | 28,700                    | 53                                    | 73                          | 80                |  |                      |
|                               |   | 1            | 230         | 9.2                    | 31,300                    | 53                                    | 73                          | 80                |  |                      |
|                               | 15 kW<br>ECH16R-15<br>(31H27)<br>18 lbs. (8 kg) | 1            | 208         | 11.3                   | 38,400                    | 68                                    | 89                          | 90                | Not required                             | ECH16-311<br>(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 - CHA16-036

| 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 Unit + Electric Heat |                   | Optional Single Point Power Source Boxes |   |
|---|---|--------------|-------------|------------------------|--------------------------|---------------------------------------|-----------------------------|-------------------|--|---|
|   |   |              |             |                        |                          |                                       | †Minimum Circuit Ampacity   | Maximum Fuse Size | Heater Sub-Fuse Box                      | Unit Sub-Fuse Box                                   |
| <b>CHP16-036</b><br>1 phase                           | <b>5 kW</b><br>ECH16R-5<br>(31H46)<br>4 lbs. (2 kg)   | 1            | 208         | 3.7                    | 12,600                   | 23                                    | 50                          | 60                | ECH16R-26/41-5<br>(31H26)                | ECH16-411<br>(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                |  |   |
|   | <b>7 kW</b><br>ECH16R-7<br>(31H47)<br>5 lbs. (2 kg)   | 1            | 208         | 5.3                    | 18,100                   | 32                                    | 58                          | 70                | ECH16R-26/65-7<br>(31H25)                | ECH16-411<br>(31H12)                                |
|   |   | 1            | 220         | 5.9                    | 20,100                   | 37                                    | 63                          | 70                |  |   |
|   |   | 1            | 230         | 6.4                    | 21,800                   | 37                                    | 63                          | 70                |  |   |
|   |   | 1            | 240         | 7.0                    | 23,900                   | 37                                    | 63                          | 70                |  |   |
|   | <b>10 kW</b><br>ECH16R-10<br>(31H48)<br>5 lbs. (2 kg)   | 1            | 208         | 7.5                    | 25,600                   | 46                                    | 72                          | 80                | ECH16R-26/65-10<br>(31H24)               | ECH16-411<br>(31H12)                                |
|   |   | 1            | 220         | 8.4                    | 28,700                   | 53                                    | 79                          | 80                |  |   |
|   |   | 1            | 230         | 9.2                    | 31,400                   | 53                                    | 79                          | 80                |  |   |
|   |   | 1            | 240         | 10.0                   | 34,100                   | 53                                    | 79                          | 80                |  |   |
|   | <b>15 kW</b><br>ECH16-15<br>(31H27)<br>18 lbs. (8 kg)   | 1            | 208         | 11.3                   | 38,600                   | 68                                    | 95                          | 100               | Not required                             | ECH16-411<br>(31H12)                                |
|   |   | 1            | 220         | 12.6                   | 43,000                   | 79                                    | 105                         | 110               |  |   |
|   |   | 1            | 230         | 13.8                   | 47,100                   | 79                                    | 105                         | 110               |  |   |
|   |   | 1            | 240         | 15.0                   | 51,200                   | 79                                    | 105                         | 110               |  |   |
| <b>20 kW</b><br>ECH16-20<br>(31H28)<br>19 lbs. (9 kg) | 1   | 208          | 15.0        | 51,200                 | 91                       | 117                                   | 125                         | Not required      | ECH16-411<br>(31H12)                     |   |
|   | 1   | 220          | 16.8        | 57,300                 | 105                      | 131                                   | 150                         |                   |  |   |
|   | 1   | 230          | 18.4        | 62,800                 | 105                      | 131                                   | 150                         |                   |  |   |
|   | 1   | 240          | 20.0        | 68,300                 | 105                      | 131                                   | 150                         |                   |  |   |
| <b>CHP16-036</b><br>3 phase                           | <b>5 kW</b><br>ECH16-5<br>208/230v<br>(31H30)<br>17 lbs. (9 kg)   | 1            | 208         | 3.8                    | 12,800                   | 13                                    | 33                          | 40                | Not required                             | ECH16-413<br>208/230v<br>(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                |  |   |
|   | <b>7 kW</b><br>ECH16-7<br>208/230v<br>(31H31)<br>460v<br>(31H36)<br>575v<br>(31H41)<br>17 lbs. (8 kg)   | 1            | 208         | 5.3                    | 18,000                   | 19                                    | 38                          | 45                | Not required                             | ECH16-413<br>208/230v<br>(31H15)<br>460v<br>(31H18) |
|   |   | 1            | 220         | 5.9                    | 20,000                   | 21                                    | 41                          | 45                |  |   |
|   |   | 1            | 230         | 6.4                    | 22,000                   | 21                                    | 41                          | 45                |  |   |
|   |   | 1            | 240         | 7.0                    | 23,900                   | 21                                    | 41                          | 45                |  |   |
|   |   | 1            | 440         | 5.8                    | 19,800                   | 11                                    | 21                          | 25                |  |   |
|   |   | 1            | 460         | 6.5                    | 22,200                   | 11                                    | 21                          | 25                |  |   |
|   | <b>10 kW</b><br>ECH16-10<br>208/230v<br>(31H32)<br>460v<br>(31H37)<br>575v<br>(31H42)<br>17 lbs. (8 kg) | 1            | 208         | 7.5                    | 25,600                   | 27                                    | 46                          | 50                | Not required                             | ECH16-413<br>208/230v<br>(31H15)<br>460v<br>(31H18) |
|   |   | 1            | 220         | 8.4                    | 28,700                   | 31                                    | 50                          | 50                |  |   |
|   |   | 1            | 230         | 9.2                    | 31,400                   | 31                                    | 50                          | 50                |  |   |
|   |   | 1            | 240         | 10.0                   | 34,100                   | 31                                    | 50                          | 50                |  |   |
|   |   | 1            | 440         | 8.4                    | 28,700                   | 15                                    | 25                          | 30                |  |   |
|   |   | 1            | 460         | 9.2                    | 31,400                   | 15                                    | 25                          | 30                |  |   |
|   | <b>15 kW</b><br>ECH16-15<br>208/230v<br>(31H33)<br>460v<br>(31H38)<br>575v<br>(31H43)<br>17 lbs. (8 kg) | 1            | 208         | 11.3                   | 38,500                   | 40                                    | 59                          | 60                | Not required                             | ECH16-413<br>208/230v<br>(31H15)<br>460v<br>(31H18) |
|   |   | 1            | 220         | 12.6                   | 43,000                   | 46                                    | 65                          | 70                |  |   |
|   |   | 1            | 230         | 13.8                   | 47,100                   | 46                                    | 65                          | 70                |  |   |
|   |   | 1            | 240         | 15.0                   | 51,200                   | 46                                    | 65                          | 70                |  |   |
|   |   | 1            | 440         | 12.6                   | 43,000                   | 23                                    | 33                          | 35                |  |   |
|   |   | 1            | 460         | 13.8                   | 47,100                   | 23                                    | 33                          | 35                |  |   |
|   | <b>20 kW</b><br>ECH16-20<br>208/230v<br>(31H34)<br>460v<br>(31H39)<br>575v<br>(31H44)<br>20 lbs. (9 kg) | 2            | 208         | 15.0                   | 51,300                   | 53                                    | 72                          | 80                | Not required                             | ECH16-413<br>208/230v<br>(31H15)<br>460v<br>(31H18) |
|   |   | 2            | 220         | 16.8                   | 57,300                   | 61                                    | 80                          | 80                |  |   |
| 2   |   | 230          | 18.4        | 62,800                 | 61                       | 80                                    | 80                          |                   |  |   |
| 2   |   | 240          | 20.0        | 68,300                 | 61                       | 80                                    | 80                          |                   |  |   |
| 1   |   | 440          | 16.8        | 57,300                 | 31                       | 41                                    | 45                          |                   |  |   |
| 1   |   | 460          | 18.4        | 62,800                 | 31                       | 41                                    | 45                          |                   |  |   |
| 1   |   | 480          | 20.0        | 68,200                 | 31                       | 41                                    | 45                          |                   |  |   |
| 1   |   | 480          | 20.0        | 68,200                 | 31                       | 41                                    | 45                          |                   |  |   |

†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 - CHA16-048

| 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 Unit + Electric Heat |                   | Optional Single Point Power Source Boxes                             |  |
|--|--|--------------|-------------|------------------------|--------------------------|---------------------------------------|-----------------------------|-------------------|--|--|
|  |  |              |             |                        |                          |                                       | †Minimum Circuit Ampacity   | Maximum Fuse Size | Heater Sub-Fuse Box  | Unit Sub-Fuse Box  |
| CHP16-048<br>1 phase   | 7 kW<br>ECH16R-7<br>(31H47)<br>5 lbs. (2 kg)   | 1            | 208         | 5.3                    | 18,000                   | 32                                    | 66                          | 80                | ECH16R-26/65-7<br>(31H25)  | ECH16-511<br>(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<br>ECH16R-10<br>(31H48)<br>5 lbs. (2 kg)   | 1            | 208         | 7.5                    | 25,600                   | 46                                    | 79                          | 90                | ECH16R-26/65-10<br>(31H24)   | ECH16-511<br>(31H13)   |
|  |  | 1            | 220         | 8.4                    | 28,700                   | 53                                    | 86                          | 90                |  |  |
|  |  | 1            | 230         | 9.2                    | 31,300                   | 53                                    | 86                          | 90                |  |  |
|  | 15 kW<br>ECH16-15<br>(31H27)<br>18 lbs. (8 kg)   | 1            | 208         | 11.3                   | 38,500                   | 68                                    | 102                         | 110               | Not required   | ECH16-511<br>(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<br>ECH16-20<br>(31H28)<br>19 lbs. (9 kg)   | 1            | 208         | 15.0                   | 51,200                   | 91                                    | 124                         | 125               | Not required   | ECH16-511<br>(31H13)   |
| 1  |  | 220          | 16.8        | 57,300                 | 105                      | 138                                   | 150                         |                   |  |  |
| 1  |  | 230          | 18.4        | 62,700                 | 105                      | 138                                   | 150                         |                   |  |  |
| 25 kW<br>ECH16-25<br>(31H29)<br>19 lbs. (9 kg)   | 1  | 208          | 18.8        | 64,200                 | 113                      | 147                                   | 150                         | Not required      | ECH16-511<br>(31H13)   |  |
|  | 1  | 220          | 21.0        | 71,700                 | 131                      | 164                                   | 175                         |                   |  |  |
|  | 1  | 230          | 23.0        | 78,500                 | 131                      | 164                                   | 175                         |                   |  |  |
| CHP16-048<br>3 phase   | 7 kW<br>ECH16-7<br>208/230v<br>(31H31)<br>460v<br>(31H36)<br>575v<br>(31H41)<br>17 lbs. (8 kg)   | 1            | 208         | 5.3                    | 18,000                   | 19                                    | 41                          | 50                | Not required   | ECH16-513<br>208/230v<br>(31H16)<br>ECH16-413/513<br>460v<br>(31H21) |
|  |  | 1            | 220         | 5.9                    | 20,000                   | 21                                    | 44                          | 50                |  |  |
|  |  | 1            | 230         | 6.4                    | 22,000                   | 21                                    | 44                          | 50                |  |  |
|  |  | 1            | 240         | 7.0                    | 23,900                   | 21                                    | 44                          | 50                |  |  |
|  |  | 1            | 440         | 5.8                    | 19,800                   | 11                                    | 22                          | 25                |  |  |
|  |  | 1            | 460         | 6.5                    | 22,200                   | 11                                    | 22                          | 25                |  |  |
|  | 10 kW<br>ECH16-10<br>208/230v<br>(31H32)<br>460v<br>(31H37)<br>575v<br>(31H42)<br>17 lbs. (8 kg) | 1            | 208         | 7.5                    | 25,600                   | 27                                    | 49                          | 50                | Not required   | ECH16-513<br>208/230v<br>(31H16)<br>ECH16-413/513<br>460v<br>(31H21) |
|  |  | 1            | 220         | 8.4                    | 28,700                   | 31                                    | 53                          | 60                |  |  |
|  |  | 1            | 230         | 9.2                    | 31,300                   | 31                                    | 53                          | 60                |  |  |
|  |  | 1            | 240         | 10.0                   | 34,100                   | 31                                    | 53                          | 60                |  |  |
|  |  | 1            | 440         | 8.4                    | 28,700                   | 15                                    | 26                          | 30                |  |  |
|  |  | 1            | 460         | 9.2                    | 31,400                   | 15                                    | 26                          | 30                |  |  |
|  | 15 kW<br>ECH16-15<br>208/230v<br>(31H33)<br>460v<br>(31H38)<br>575v<br>(31H43)<br>17 lbs. (8 kg) | 1            | 208         | 11.3                   | 38,500                   | 40                                    | 62                          | 70                | Not required   | ECH16-513<br>208/230v<br>(31H16)<br>ECH16-413/513<br>460v<br>(31H21) |
|  |  | 1            | 220         | 12.6                   | 43,000                   | 46                                    | 68                          | 70                |  |  |
|  |  | 1            | 230         | 13.8                   | 47,100                   | 46                                    | 68                          | 70                |  |  |
|  |  | 1            | 240         | 15.0                   | 51,200                   | 46                                    | 68                          | 70                |  |  |
|  |  | 1            | 440         | 12.6                   | 43,000                   | 23                                    | 34                          | 35                |  |  |
|  |  | 1            | 460         | 13.8                   | 47,100                   | 23                                    | 34                          | 35                |  |  |
|  | 20 kW<br>ECH16-20<br>208/230v<br>(31H34)<br>460v<br>(31H39)<br>575v<br>(31H44)<br>20 lbs. (9 kg) | 2            | 208         | 15.0                   | 51,200                   | 53                                    | 75                          | 80                | Not required   | ECH16-513<br>208/230v<br>(31H16)<br>ECH16-413/513<br>460v<br>(31H21) |
|  |  | 2            | 220         | 16.8                   | 57,300                   | 61                                    | 83                          | 90                |  |  |
|  |  | 2            | 230         | 18.4                   | 62,700                   | 61                                    | 83                          | 90                |  |  |
|  |  | 2            | 240         | 20.0                   | 68,200                   | 61                                    | 83                          | 90                |  |  |
|  |  | 1            | 440         | 16.8                   | 57,300                   | 31                                    | 42                          | 45                |  |  |
|  |  | 1            | 460         | 18.4                   | 62,700                   | 31                                    | 42                          | 45                |  |  |
| 25 kW<br>ECH16-25<br>208/230v<br>(31H35)<br>460v<br>(31H40)<br>575v<br>(31H45)<br>20 lbs. (9 kg) | 2  | 208          | 18.8        | 64,000                 | 66                       | 88                                    | 90                          | Not required      | ECH16-513<br>208/230v<br>(31H16)<br>ECH16-413/513<br>460v<br>(31H21) |  |
|  | 2  | 220          | 21.0        | 71,600                 | 76                       | 98                                    | 100                         |                   |  |  |
|  | 2  | 230          | 22.9        | 78,300                 | 76                       | 98                                    | 100                         |                   |  |  |
|  | 2  | 240          | 25.0        | 85,300                 | 76                       | 98                                    | 100                         |                   |  |  |
|  | 1  | 440          | 21.0        | 71,800                 | 38                       | 49                                    | 50                          |                   |  |  |
|  | 1  | 460          | 22.9        | 78,300                 | 38                       | 49                                    | 50                          |                   |  |  |
| 1  | 480  | 25.0         | 85,300      | 38                     | 49                       | 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).

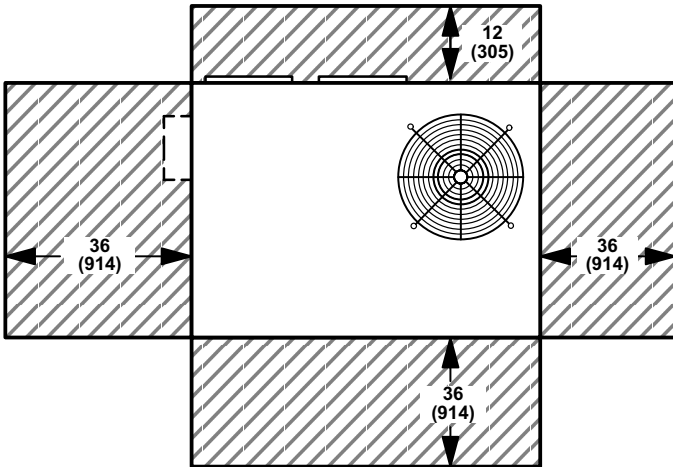
## ELECTRIC HEAT DATA - CHA16-060

| 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 Unit + Electric Heat |                   | Optional Single Point Power Source Boxes                             |  |
|---|---|--------------|-------------|------------------------|--------------------------|---------------------------------------|-----------------------------|-------------------|--|--|
|   |   |              |             |                        |                          |                                       | †Minimum Circuit Ampacity   | Maximum Fuse Size | Heater Sub-Fuse Box  | Unit Sub-Fuse Box  |
| <b>CHP16-060</b><br>1 phase   | <b>7 kW</b><br>ECH16R-7<br>(31H47)<br>5 lbs. (2 kg)   | 1            | 208         | 5.3                    | 18,000                   | 32                                    | 70                          | 80                | ECH16R-26/65-7<br>(31H25)  | ECH16-651<br>(31H14)   |
|   |   | 1            | 220         | 5.9                    | 20,000                   | 37                                    | 75                          | 90                |  |  |
|   |   | 1            | 230         | 6.4                    | 22,000                   | 37                                    | 75                          | 90                |  |  |
|   |   | 1            | 240         | 7.0                    | 23,900                   | 37                                    | 75                          | 90                |  |  |
|   | <b>10 kW</b><br>ECH16R-10<br>(31H48)<br>5 lbs. (2 kg)   | 1            | 208         | 7.5                    | 25,600                   | 46                                    | 84                          | 100               | ECH16R-26/65-10<br>(31H24)   | ECH16-651<br>(31H14)   |
|   |   | 1            | 220         | 8.4                    | 28,700                   | 53                                    | 91                          | 100               |  |  |
|   |   | 1            | 230         | 9.2                    | 31,300                   | 53                                    | 91                          | 100               |  |  |
|   |   | 1            | 240         | 10.0                   | 34,100                   | 53                                    | 91                          | 100               |  |  |
|   | <b>15 kW</b><br>ECH16-15<br>(31H27)<br>18 lbs. (8 kg)   | 1            | 208         | 11.3                   | 38,500                   | 68                                    | 106                         | 110               | Not required   | ECH16-651<br>(31H14)   |
|   |   | 1            | 220         | 12.6                   | 43,000                   | 79                                    | 117                         | 125               |  |  |
|   |   | 1            | 230         | 13.8                   | 47,000                   | 79                                    | 117                         | 125               |  |  |
|   |   | 1            | 240         | 15.0                   | 51,200                   | 79                                    | 117                         | 125               |  |  |
|   | <b>20 kW</b><br>ECH16-20<br>(31H28)<br>19 lbs. (9 kg)   | 1            | 208         | 15.0                   | 51,200                   | 91                                    | 129                         | 150               | Not required   | ECH16-651<br>(31H14)   |
|   |   | 1            | 220         | 16.8                   | 57,300                   | 105                                   | 143                         | 150               |  |  |
|   |   | 1            | 230         | 18.4                   | 62,700                   | 105                                   | 143                         | 150               |  |  |
|   |   | 1            | 240         | 20.0                   | 68,200                   | 105                                   | 143                         | 150               |  |  |
|   | <b>25 kW</b><br>ECH16-25<br>(31H29)<br>19 lbs. (9 kg)   | 1            | 208         | 18.8                   | 64,200                   | 113                                   | 151                         | 150               | Not required   | ECH16-651<br>(31H14)   |
|   |   | 1            | 220         | 21.0                   | 71,700                   | 131                                   | 169                         | 175               |  |  |
| 1   |   | 230          | 23.0        | 78,500                 | 131                      | 169                                   | 175                         |                   |  |  |
| 1   |   | 240          | 25.0        | 85,300                 | 131                      | 169                                   | 175                         |                   |  |  |
| <b>CHP16-060</b><br>3 phase   | <b>7 kW</b><br>ECH16-7<br>208/230v<br>(31H31)<br>460v<br>(31H36)<br>575v<br>(31H41)<br>17 lbs. (8 kg)   | 1            | 208         | 5.3                    | 18,000                   | 19                                    | 45                          | 50                | Not required   | ECH16-653<br>208/230v<br>(58L07)<br>ECH16-513/653<br>460v<br>(31H19) |
|   |   | 1            | 220         | 5.9                    | 20,000                   | 21                                    | 48                          | 50                |  |  |
|   |   | 1            | 230         | 6.4                    | 22,000                   | 21                                    | 48                          | 50                |  |  |
|   |   | 1            | 240         | 7.0                    | 23,900                   | 21                                    | 48                          | 50                |  |  |
|   |   | 1            | 440         | 5.8                    | 20,000                   | 11                                    | 24                          | 30                |  |  |
|   |   | 1            | 460         | 6.5                    | 22,000                   | 11                                    | 24                          | 30                |  |  |
|   | <b>10 kW</b><br>ECH16-10<br>208/230v<br>(31H32)<br>460v<br>(31H37)<br>575v<br>(31H42)<br>17 lbs. (8 kg) | 1            | 208         | 7.5                    | 25,600                   | 27                                    | 53                          | 60                | Not required   | ECH16-653<br>208/230v<br>(58L07)<br>ECH16-513/653<br>460v<br>(31H19) |
|   |   | 1            | 220         | 8.4                    | 28,700                   | 31                                    | 57                          | 60                |  |  |
|   |   | 1            | 230         | 9.2                    | 31,300                   | 31                                    | 57                          | 60                |  |  |
|   |   | 1            | 240         | 10.0                   | 34,100                   | 31                                    | 57                          | 60                |  |  |
|   |   | 1            | 440         | 8.4                    | 28,600                   | 15                                    | 28                          | 35                |  |  |
|   |   | 1            | 460         | 9.2                    | 31,300                   | 15                                    | 28                          | 35                |  |  |
|   | <b>15 kW</b><br>ECH16-15<br>208/230v<br>(31H33)<br>460v<br>(31H38)<br>575v<br>(31H43)<br>17 lbs. (8 kg) | 1            | 208         | 11.3                   | 38,500                   | 40                                    | 66                          | 70                | Not required   | ECH16-653<br>208/230v<br>(58L07)<br>ECH16-513/653<br>460v<br>(31H19) |
|   |   | 1            | 220         | 12.6                   | 43,000                   | 46                                    | 72                          | 80                |  |  |
|   |   | 1            | 230         | 13.8                   | 47,100                   | 46                                    | 72                          | 80                |  |  |
|   |   | 1            | 240         | 15.0                   | 51,200                   | 46                                    | 72                          | 80                |  |  |
|   |   | 1            | 440         | 12.6                   | 43,000                   | 23                                    | 36                          | 40                |  |  |
|   |   | 1            | 460         | 13.8                   | 47,100                   | 23                                    | 36                          | 40                |  |  |
|   | <b>20 kW</b><br>ECH16-20<br>208/230v<br>(31H34)<br>460v<br>(31H39)<br>575v<br>(31H44)<br>20 lbs. (9 kg) | 2            | 208         | 15.0                   | 51,200                   | 53                                    | 79                          | 80                | Not required   | ECH16-653<br>208/230v<br>(58L07)<br>ECH16-513/653<br>460v<br>(31H19) |
|   |   | 2            | 220         | 16.8                   | 57,300                   | 61                                    | 87                          | 90                |  |  |
|   |   | 2            | 230         | 18.4                   | 62,700                   | 61                                    | 87                          | 90                |  |  |
|   |   | 2            | 240         | 20.0                   | 68,200                   | 61                                    | 87                          | 90                |  |  |
|   |   | 1            | 440         | 16.8                   | 57,500                   | 31                                    | 43                          | 45                |  |  |
|   |   | 1            | 460         | 18.4                   | 62,800                   | 31                                    | 43                          | 45                |  |  |
| <b>25 kW</b><br>ECH16-25<br>208/230v<br>(31H35)<br>460v<br>(31H40)<br>575v<br>(31H45)<br>20 lbs. (9 kg) | 2   | 208          | 18.8        | 64,000                 | 66                       | 92                                    | 100                         | Not required      | ECH16-653<br>208/230v<br>(58L07)<br>ECH16-513/653<br>460v<br>(31H19) |  |
|   | 2   | 220          | 21.0        | 71,600                 | 76                       | 102                                   | 110                         |                   |  |  |
|   | 2   | 230          | 22.9        | 78,100                 | 76                       | 102                                   | 110                         |                   |  |  |
|   | 2   | 240          | 25.0        | 85,300                 | 76                       | 102                                   | 110                         |                   |  |  |
|   | 1   | 440          | 21.0        | 71,800                 | 38                       | 51                                    | 60                          |                   |  |  |
|   | 1   | 460          | 22.9        | 78,300                 | 38                       | 51                                    | 60                          |                   |  |  |
|   |   | 1            | 480         | 25.0                   | 85,300                   | 38                                    | 51                          | 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).

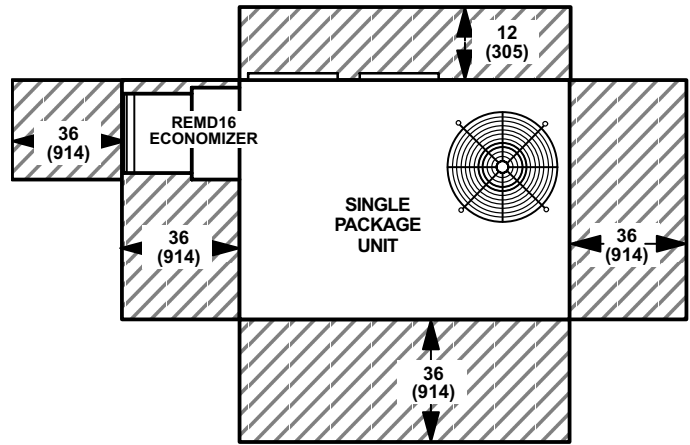
# INSTALLATION CLEARANCES - INCHES (MM)

**CHP16 BASIC UNIT**



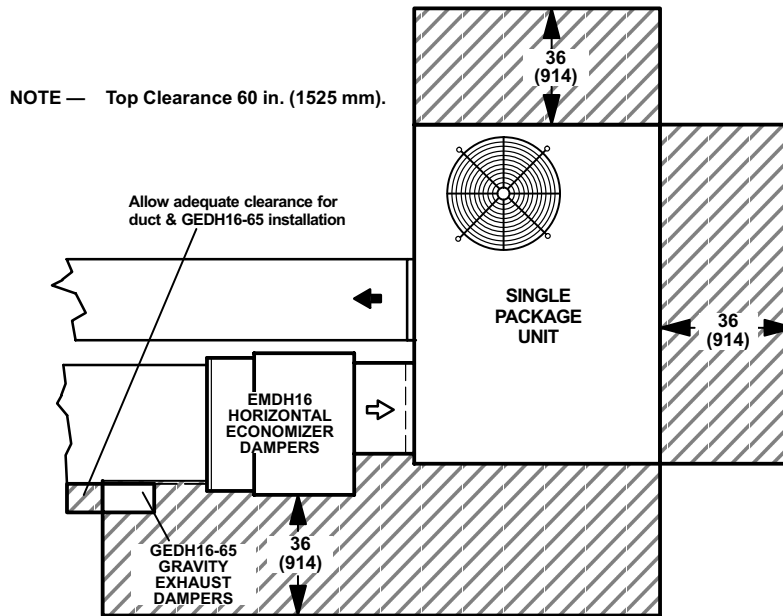
NOTE — Top Clearance 60 in. (1525 mm).  
 NOTE — Entire perimeter of unit requires support when elevated above mounting surface.

**CHP16 UNIT WITH REMD16 ECONOMIZER**



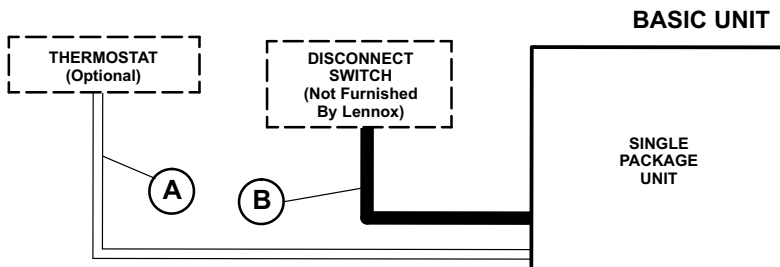
NOTE — Top Clearance 60 in. (1525 mm).

**CHP16 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 —

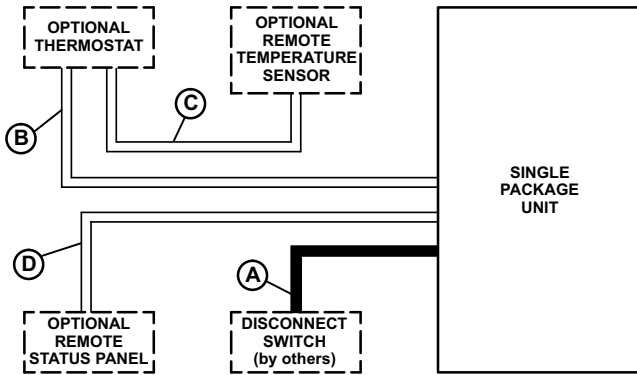
\*When economizer with two stage thermostat is used, one additional wire is required

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



# FIELD WIRING

## T7300/T8600/T8624 THERMOSTAT CONTROL SYSTEM

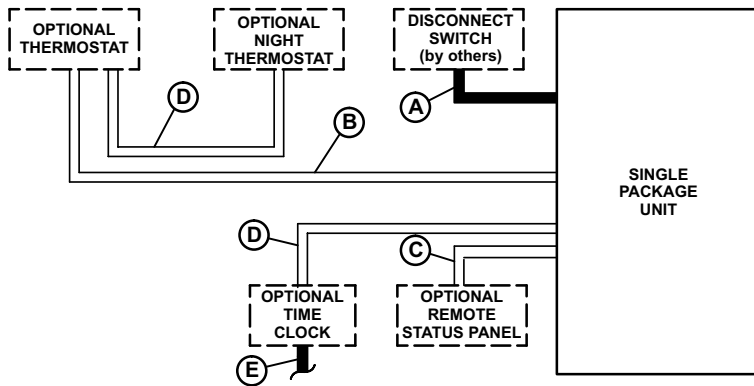


- A - Two or Three wire power (See Electrical Data Table)
- B - Nine wire low voltage
- C - Two wire low voltage
- Nine wire low voltage (T7300 Room Sensor with Override)
- D - Eleven wire low voltage

- Field wiring not furnished -

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

## ELECTRO-MECHANICAL THERMOSTAT CONTROL SYSTEM



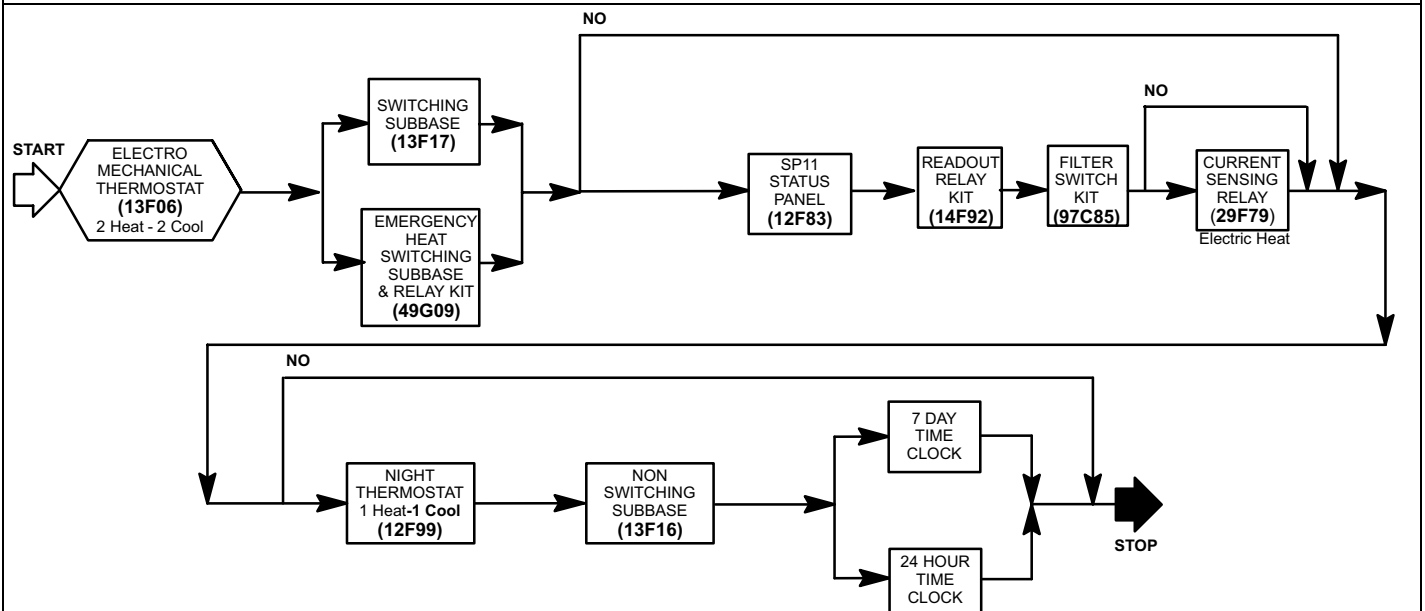
- A - Two or Three wire power (See Electrical Data Table)
- B - Six wire low voltage  
Ten wire low voltage - with Emergency Heat  
Switching Subbase
- C - Eleven wire low voltage
- D - Two wire low voltage
- E - Two wire low voltage

- Field wiring not furnished -

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

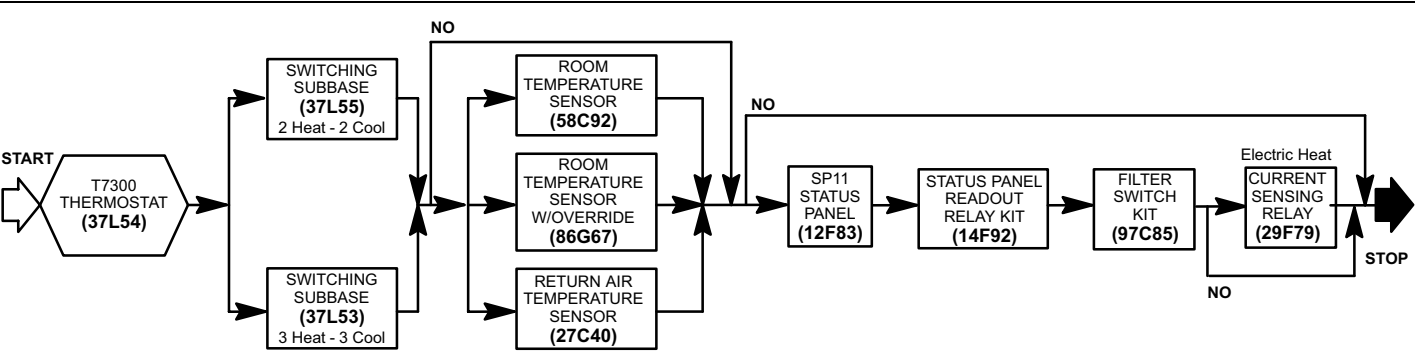
## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS (FIELD INSTALLED)

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

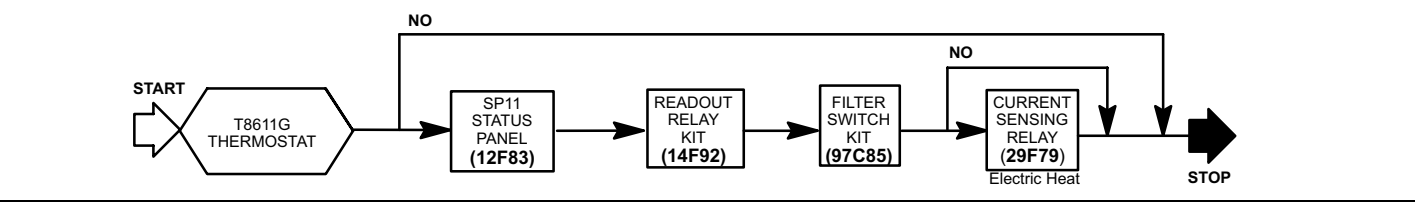


# OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS (FIELD INSTALLED)

| System and Component Description   | Catalog No.                               |              |
|--|---|--------------|
| <b>HONEYWELL T7300 THERMOSTAT</b>  |   |              |
| <b>Thermostat</b> — 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) | <b>37L54</b>                              |              |
| <b>Subbase</b> — Selectable staging, indicator LED's, auxiliary relay output for economizer operation  | Up to two stage heat & two stage cool     | <b>37L55</b> |
|  | Up to three stage heat & three stage cool | <b>37L53</b> |
| <b>Sensor</b> — Room temperature   | <b>58C92</b>                              |              |
| <b>Sensor</b> — Room temperature with 3 hour override and setpoint adjustment  | <b>86G67</b>                              |              |
| <b>Sensor</b> — Return air temperature   | <b>27C40</b>                              |              |
| <b>Status Panel</b> — May be ordered extra   | <b>12F83</b>                              |              |



|  |              |
|--|--------------|
| <b>HONEYWELL T8611G THERMOSTAT</b>   |              |
| <b>Thermostat</b> — 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) | —            |
| <b>T8611G Thermostat</b> — 2 heat/1 cool, 7 day programming, wiring wall plate included  | <b>37L60</b> |
| <b>Status Panel</b> — May be ordered extra   | <b>12F83</b> |



| STATUS PANEL   |                     |                        |              |
|--|---------------------|------------------------|--------------|
| <b>SP11 Status Panel</b> — Allows remote monitoring of unit through status lights, requires Status Panel Readout Kit |                     |                        |              |
|  | <b>Status Light</b> | <b>Definition</b>      |              |
| Cool Mode  | Green               | Cooling operation      |              |
| Heat Mode  | Green               | Heating operation      |              |
| Compressor 1   | Green               | Compressor operation   |              |
|  | Red                 | Compressor malfunction | <b>12F83</b> |
| Compressor 2   |                     | Not used               |              |
| No Heat  | Red                 | Requires service       |              |
| Filter   | Red                 | Requires service       |              |
| <b>Status Panel Readout Kit</b> — Required to interface SP11 to unit operation                                       |                     |                        | <b>14F92</b> |
| <b>Filter Switch Kit</b> — Required with Filter light option on SP11   |                     |                        | <b>97C85</b> |
| <b>Current Sensing Relay</b> — For operation of No Heat light with electric heat on SP11                             |                     |                        | <b>29F79</b> |

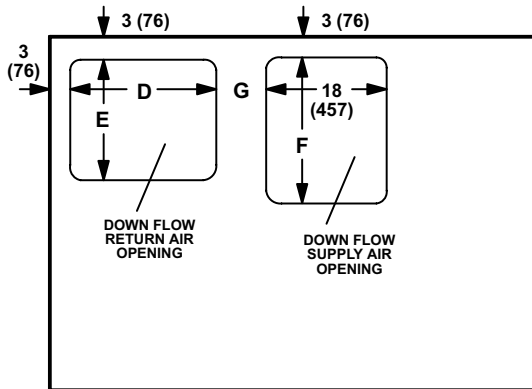
# DIMENSIONS - INCHES (MM) BASIC UNIT

## CORNER WEIGHTS

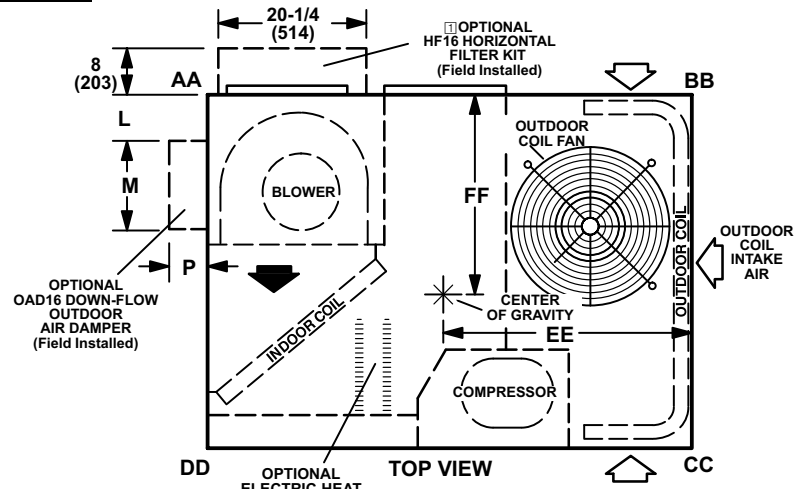
| Model Number | AA   |     | BB   |    | CC   |    | DD   |    |
|--------------|------|-----|------|----|------|----|------|----|
|              | lbs. | kg  | lbs. | kg | lbs. | kg | lbs. | kg |
| CHP16-024    | 66   | 30  | 71   | 32 | 101  | 46 | 94   | 43 |
| CHP16-030    | 68   | 31  | 73   |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

## CENTER OF GRAVITY

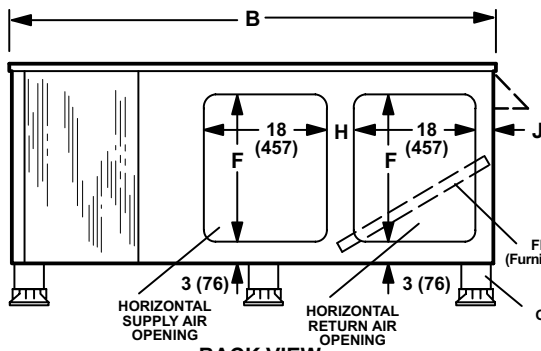
| Model Number                        | EE   |     | FF   |     |
|-------------------------------------|------|-----|------|-----|
|                                     | inch | mm  | inch | mm  |
| CHP16-024<br>CHP16-030<br>CHP16-036 | 29   | 737 | 27   | 686 |
| CHP16-048<br>CHP16-060            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



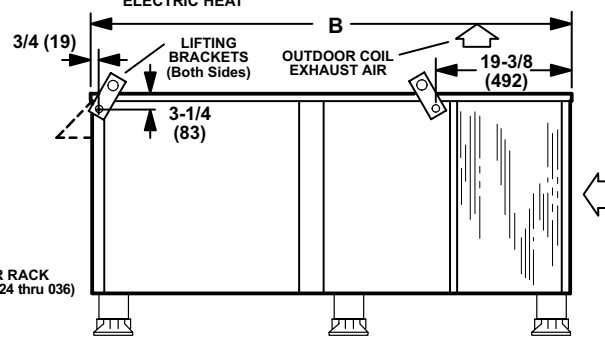
TOP VIEW BASE SECTION



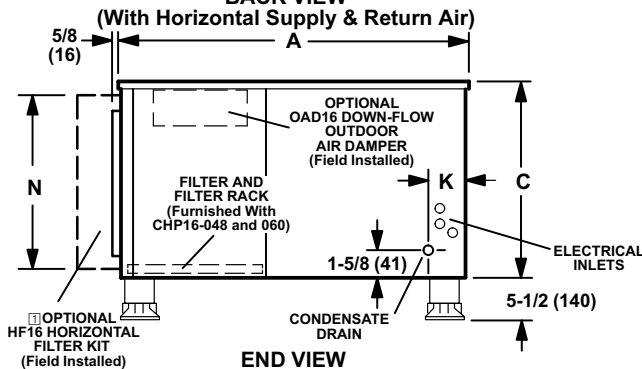
TOP VIEW



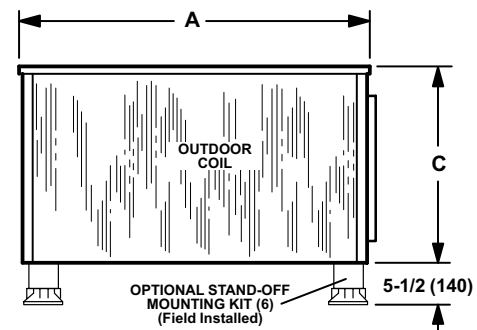
BACK VIEW  
(With Horizontal Supply & Return Air)



FRONT VIEW



END VIEW



END VIEW

| Model Number                        | A    |      | B      |      | C    |     | D    |     | E    |     | F    |     | G     |     |
|-------------------------------------|------|------|--------|------|------|-----|------|-----|------|-----|------|-----|-------|-----|
|                                     | inch | mm   | inch   | mm   | inch | mm  | inch | mm  | inch | mm  | inch | mm  | inch  | mm  |
| CHP16-024<br>CHP16-030<br>CHP16-036 | 46   | 1168 | 60     | 1524 | 23   | 584 | 18   | 457 | 13   | 330 | 13   | 330 | 10    | 254 |
| CHP16-048<br>CHP16-060              | 52   | 1321 | 72-1/2 | 1842 | 29   | 737 | 22   | 559 | 18   | 457 | 22   | 559 | 7-1/2 | 191 |

| Model Number                        | H    |     | J    |     | K     |     | L    |     | M      |     | M      |     | N        |            | P    |     | P    |     |
|-------------------------------------|------|-----|------|-----|-------|-----|------|-----|--------|-----|--------|-----|----------|------------|------|-----|------|-----|
|                                     | inch | mm  | inch | mm  | inch  | mm  | inch | mm  | inch   | mm  | inch   | mm  | inch     | mm         | inch | mm  | inch | mm  |
| CHP16-024<br>CHP16-030<br>CHP16-036 | 3    | 76  | 4    | 102 | 6-1/2 | 165 | 2    | 51  | 13-3/4 | 349 | 14-1/2 | 368 | 22       | 559        | 5    | 127 | 6    | 152 |
| CHP16-048<br>CHP16-060              | 5    | 127 | 3    | 76  | 6-1/8 | 156 | 5    | 127 | 13-3/4 | 349 | 18-5/8 | 473 | 22<br>27 | 559<br>688 | 8    | 203 | 6    | 152 |

☐ Canada Only.

# ACCESSORY DIMENSIONS - INCHES (MM)

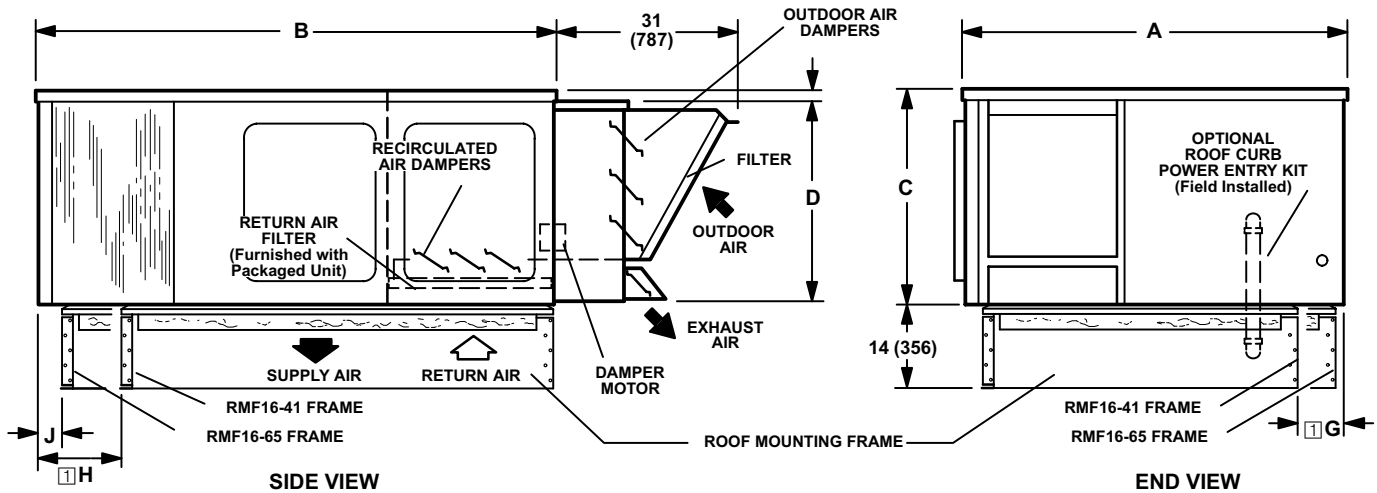
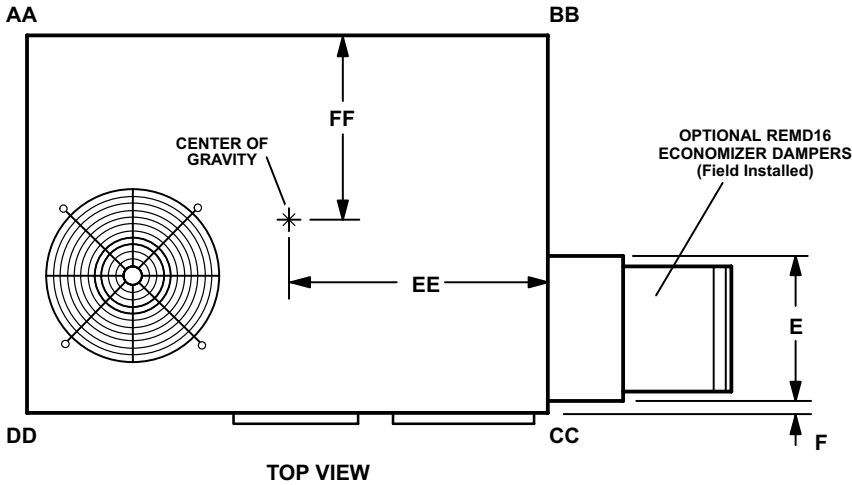
## CHP16 UNIT WITH REMD16 ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME

### CORNER WEIGHTS

| Model Number           | AA   |    | BB   |    | CC   |    | DD   |    |
|------------------------|------|----|------|----|------|----|------|----|
|                        | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg |
| CHP16-024              | 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 |
| CHP16-048<br>CHP16-060 | 174  | 79 | 199  | 91 | 168  | 76 | 146  | 66 |

### CENTER OF GRAVITY

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

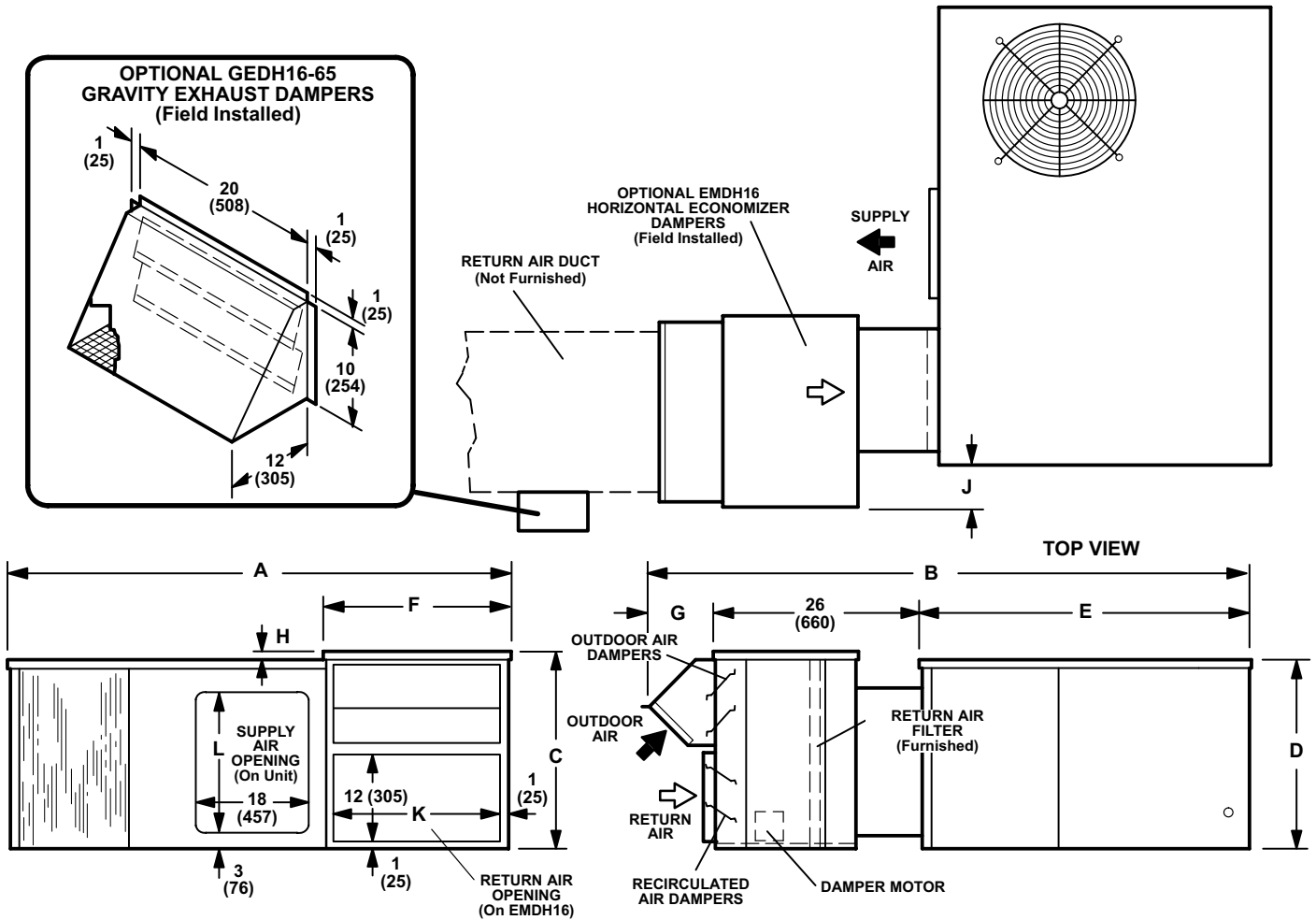


| Model Number                        | A    |      | B      |      | C    |     | D      |     | E       |     | F     |    | G    |     | H    |     | J     |     |
|-------------------------------------|------|------|--------|------|------|-----|--------|-----|---------|-----|-------|----|------|-----|------|-----|-------|-----|
|                                     | inch | mm   | inch   | mm   | inch | mm  | inch   | mm  | inch    | mm  | inch  | mm | inch | mm  | inch | mm  | inch  | mm  |
| CHP16-024<br>CHP16-030<br>CHP16-036 | 46   | 1168 | 60     | 1524 | 23   | 584 | 21-3/4 | 552 | 16-1/4  | 413 | 3/4   | 19 | ---  | --- | ---  | --- | ---   | --- |
| CHP16-048<br>CHP16-060              | 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.

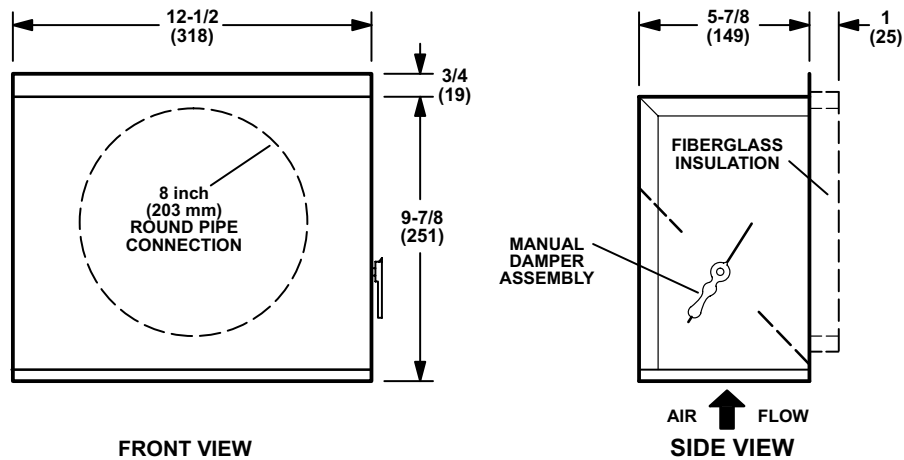
# ACCESSORY DIMENSIONS - INCHES (MM)

## CHP16 UNIT WITH EMDH16 HORIZONTAL ECONOMIZER DAMPER SECTION AND GEDH16-65 GRAVITY EXHAUST DAMPERS



| 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<br>CHP16-030<br>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 |
| CHP16-048<br>CHP16-060              | 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 |

## OAD3-46/65 MANUAL MINIMUM OUTDOOR AIR DAMPER



# ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY

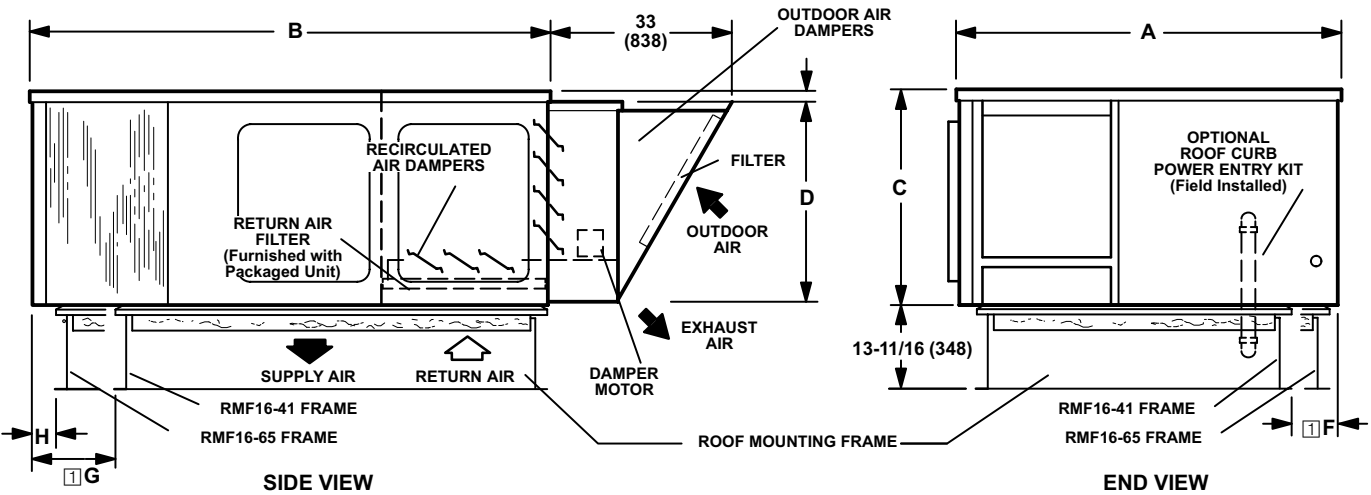
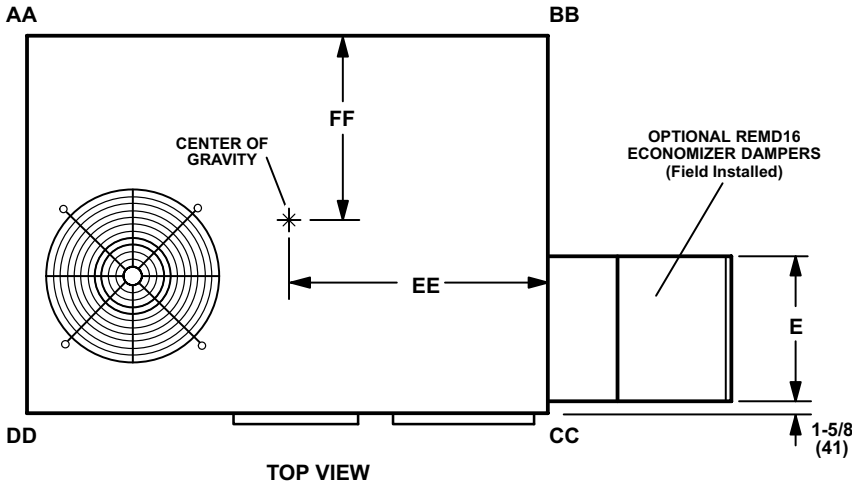
## CHP16 UNIT WITH REMD16 ECONOMIZER DAMPER SECTION AND RMF16 ROOF MOUNTING FRAME

### 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    | 202  | 92 | 258  | 117 | 234  | 106 | 184  | 84 |
| CHP16-060    |      |    |      |     |      |     |      |    |

### CENTER OF GRAVITY

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

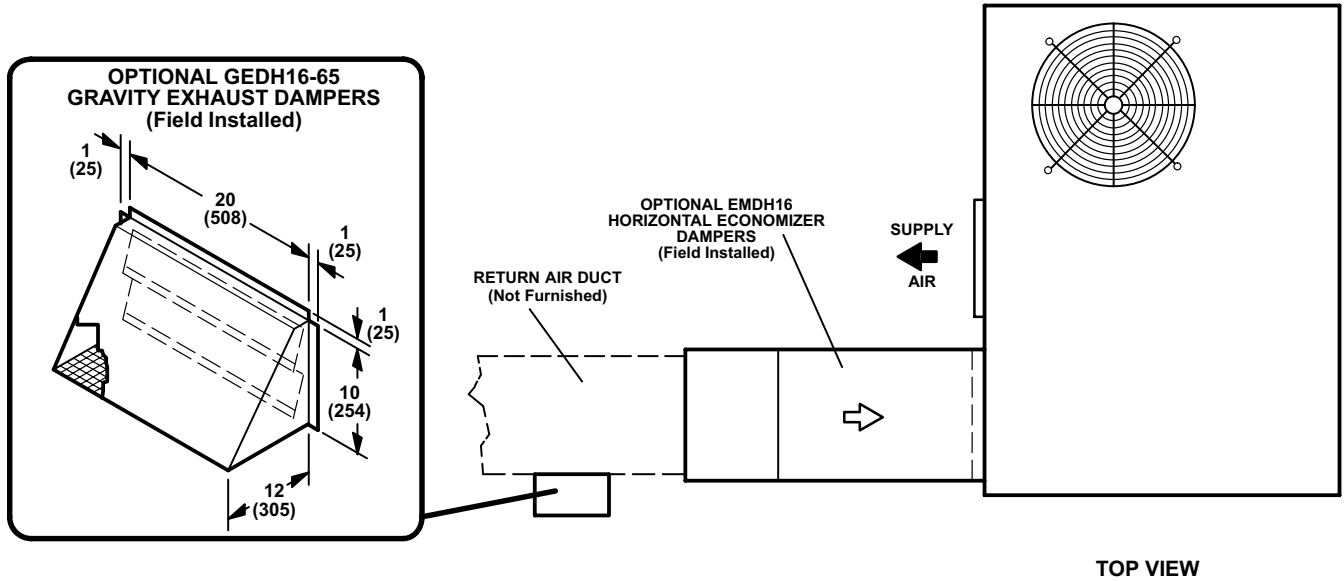


| Model Number | A    |      | B      |      | C    |     | D      |     | E      |     | F    |     | G    |     | H     |     |
|--------------|------|------|--------|------|------|-----|--------|-----|--------|-----|------|-----|------|-----|-------|-----|
|              | inch | mm   | inch   | mm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

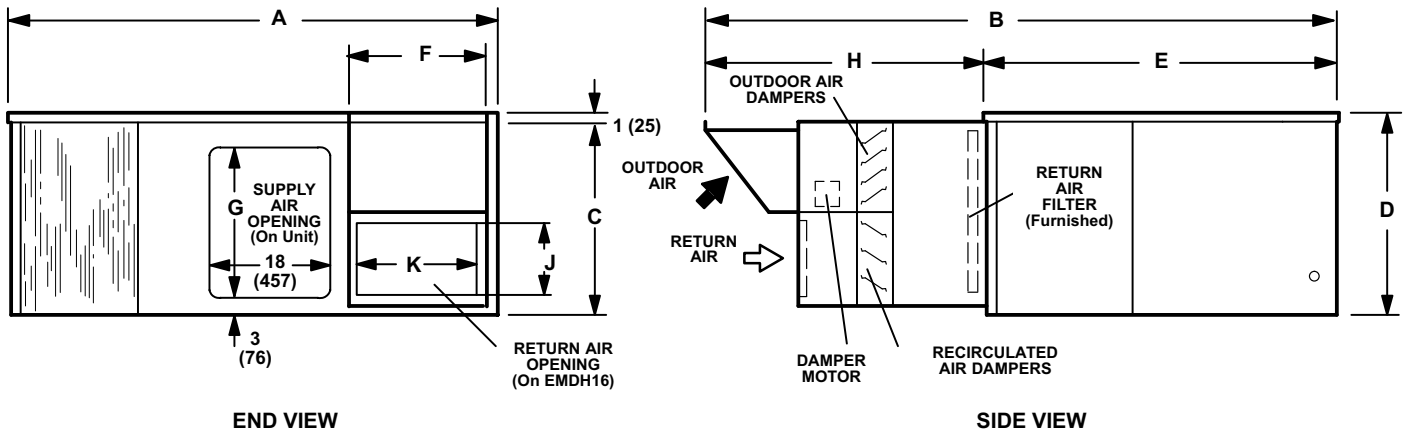
☐ Dimensions reflect usage with RMF16-41 mounting frame.

**ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY**

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



TOP VIEW



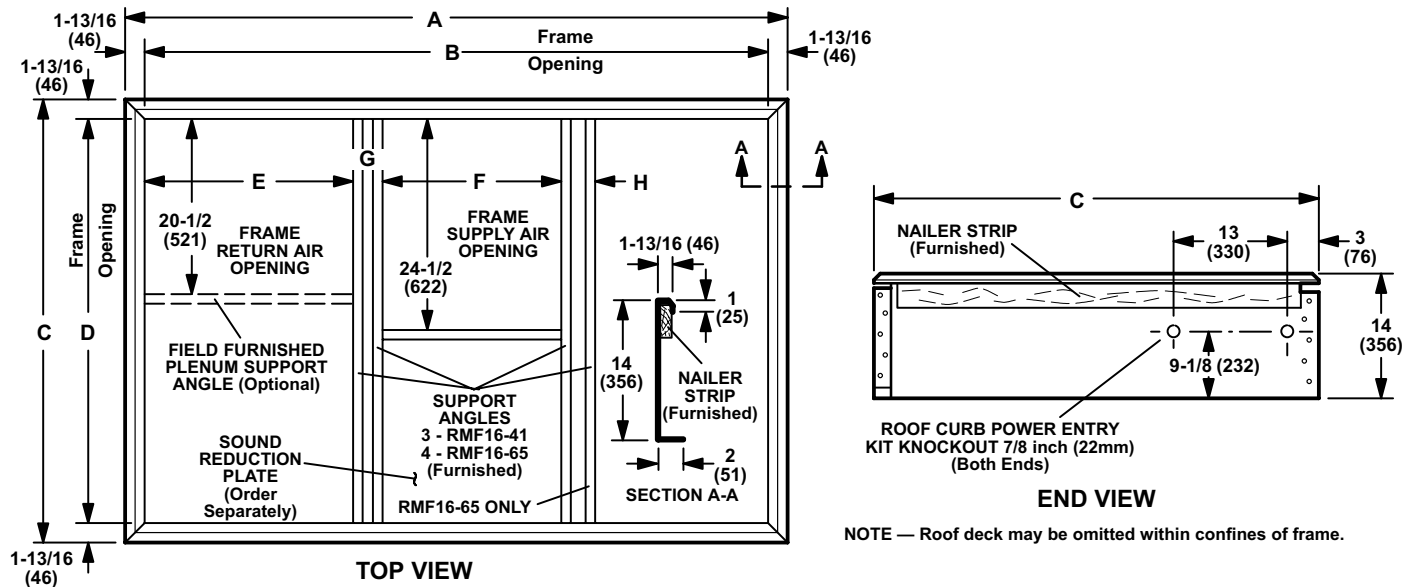
END VIEW

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<br>CHP16-030<br>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<br>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 |

# ACCESSORY DIMENSIONS - INCHES (MM)

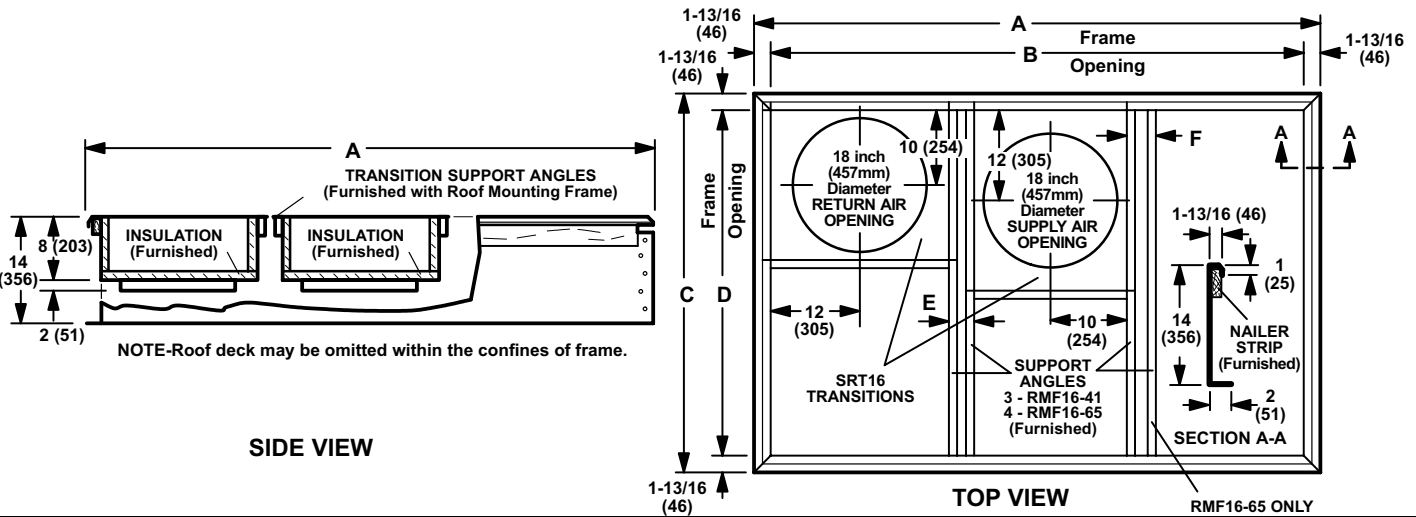
## RMF16-41 & RMF16-65 ROOF MOUNTING FRAME WITH DOUBLE DUCT OPENING



| 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.

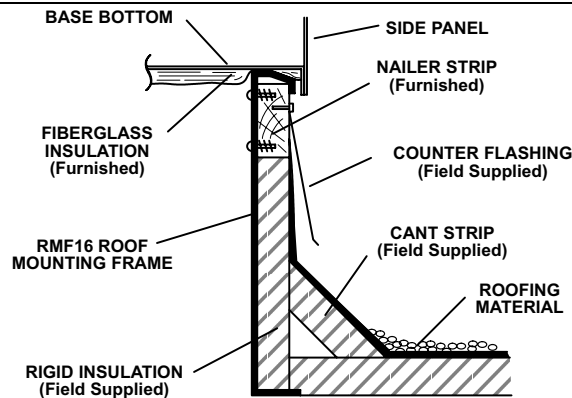
## RMF16-41 & RMF16-65 ROOF MOUNTING FRAMES WITH SRT16-65 SUPPLY AND RETURN AIR TRANSITIONS FOR FD9-65 & RTD9-65 CEILING DIFFUSERS



| 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.

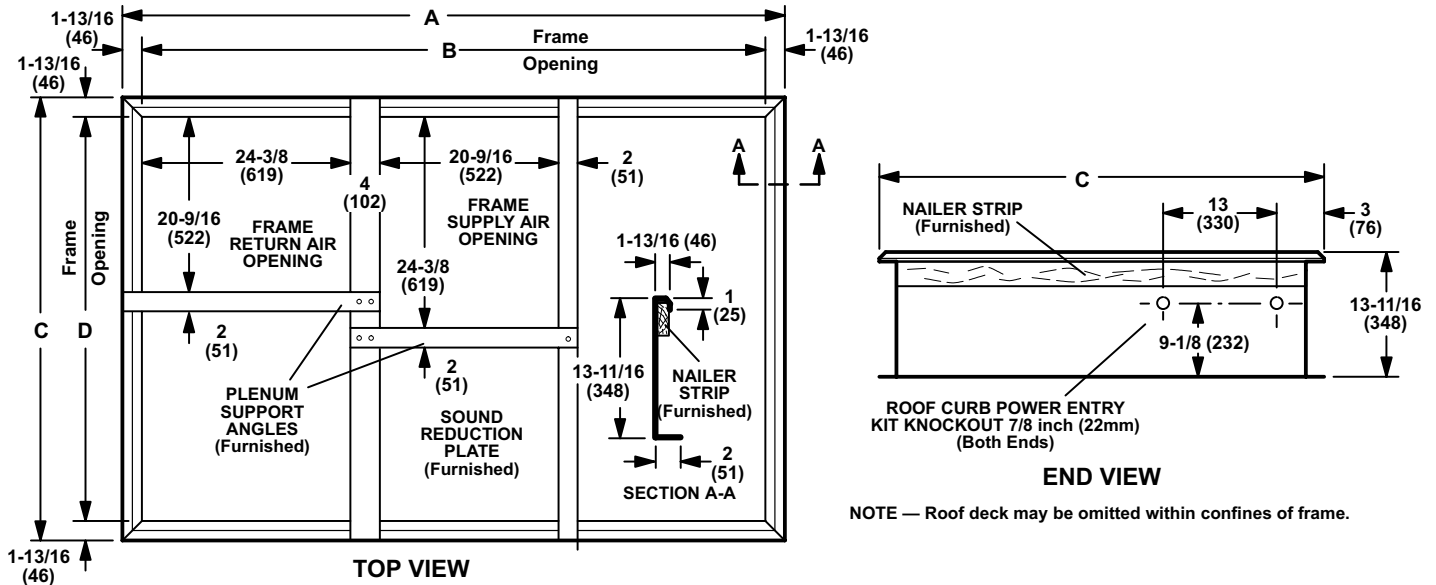
## TYPICAL FLASHING DETAIL FOR RMF16 ROOF MOUNTING FRAME





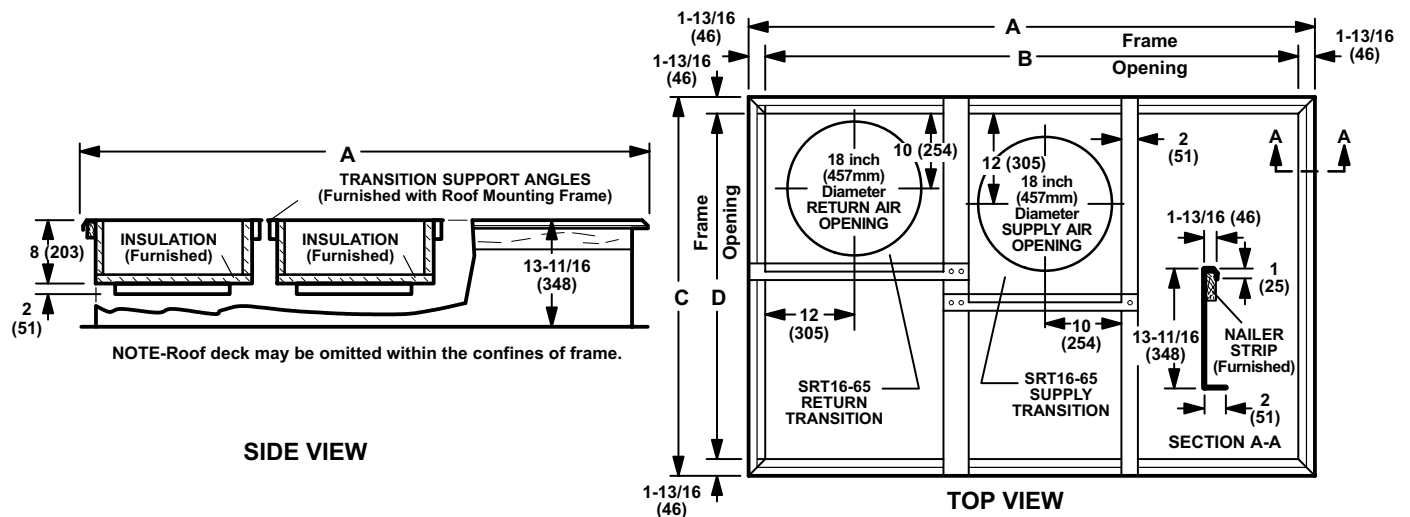
# ACCESSORY DIMENSIONS - INCHES (MM) - CANADA ONLY

## 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 |

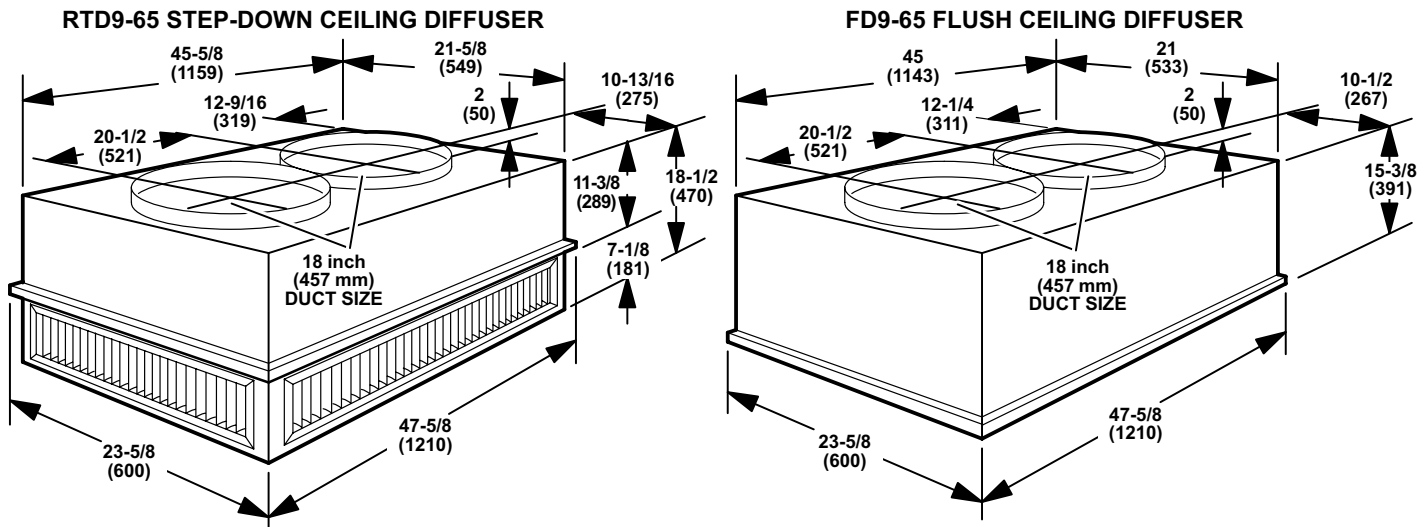
## RMF16-41 & RMF16-65 ROOF MOUNTING FRAMES WITH SRT16-65 SUPPLY AND RETURN AIR TRANSITIONS FOR FD9-65 & RTD9-65 CEILING DIFFUSERS



| 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 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. 036, 048 and 060 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.