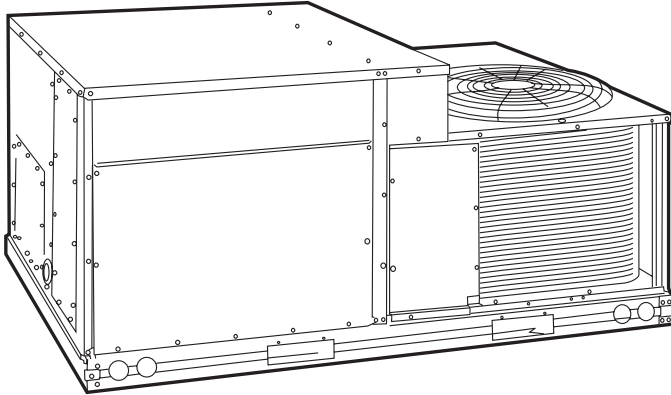


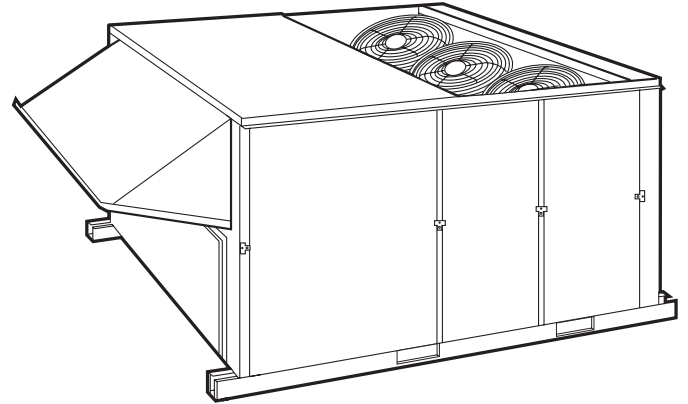


COMMERCIAL SINGLE PACKAGE ROOFTOP GAS HEATING/ELECTRIC COOLING UNITS

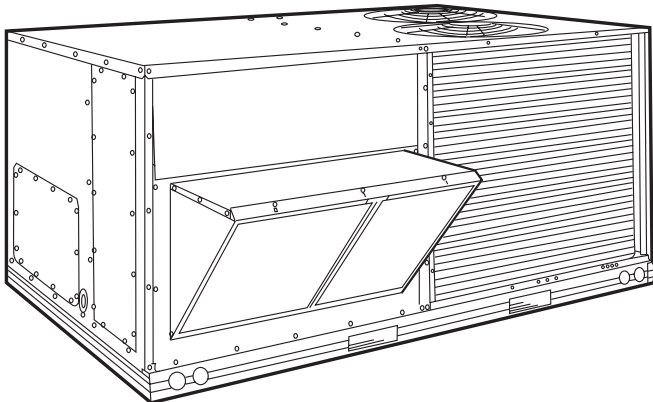
Model 579F/580D
Sizes 036-300
3 to 25 Tons



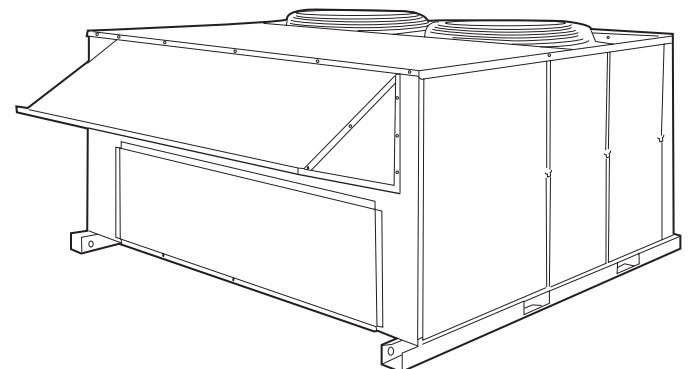
580D036-072



579F180,216



580D090-150



579F240,300

Standard-Efficiency Rooftop Units with:

- Exclusive integrated gas control board with diagnostics
- Alumagard™ heat exchanger coating
- Induced-draft fan for gas combustion
- Tubular, dimpled heat exchangers
- Pre-painted galvanized steel cabinet for long life and quality appearance
- Commercial strength baserails with built-in rigging capability
- Convertible design for horizontal supply/return
- Non-corrosive, sloped condensate drain pan, meets ASHRAE 62-89 (IAQ)
- Two-inch return-air filters
- A wide assortment of factory-installed options available, including high static drives that provide additional performance range

FEATURES/BENEFITS

Every compact one-piece unit arrives fully assembled, charged, tested, and ready to run.

INTEGRATED GAS UNIT CONTROLLER (IGC) (All Models)

— All ignition components are contained in the compact IGC which is easily accessible for servicing. The IGC control board, designed and manufactured exclusively for Bryant rooftop units, provides built-in diagnostic capability. An LED (light-emitting diode) simplifies troubleshooting by providing visual fault notification and system status confirmation.

The IGC also contains an exclusive anti-cycle protection for gas heat operation. After 4 continuous cycles on the unit high-temperature limit switch, the gas heat operation is disabled, and an error code is issued. This feature greatly improves reliability of the rooftop unit.

The IGC also contains burner control logic for accurate and dependable gas ignition. The LED is visible without removing the unit control box access panel. This LED fault-notification system reduces service person troubleshooting time and minimizes service costs. The IGC also maximizes heating efficiency by controlling evaporator-fan on and off delays.

QUIET, EFFICIENT OPERATION AND DEPENDABLE PERFORMANCE — Compressors have vibration isolators for extremely quiet operation. Efficient fan and motor design permits operation at very low sound levels and all 580D036-150 units are mounted either on independent mounting rails (036-072) or on an exclusive polycore plate (090-150).

The 580D090-150 and 579F180-300 units offer high energy efficiency and lower utility costs through part-load operation using 2 stages of cooling.

Quiet and efficient operation is provided by belt-driven evaporator fans (standard on all units over 5 tons). The belt-driven evaporator-fan is equipped with variable-pitch pulleys which allow adjustment within the rpm ranges of the factory-supplied pulleys.

A standard (low-medium static) and alternate (high static) drive is available for 579F180-300 units.

Increased operating efficiency is achieved through computer-designed coils featuring staggered internally enhanced copper tubes. Fins are ripple-edged for strength, lanced, and double waved for higher heat transfer.

Tubular, dimpled gas heat exchangers optimize heat transfer for improved efficiency. The tubular design permits hot gases to make multiple passes across the path of the supply air. The dimpled design creates a turbulent gas flow to maximize heating efficiency. The extra thick Alumagard™ heat exchanger coating provides corrosion resistance and ensures long life.

The California Air Quality Management Districts NO_x requirement of 40 nanograms/joule or less is met when low NO_x kit CRLWNOX001A00 is installed for sizes 036-060.

The unsightly appearance of flue stacks is eliminated and the effects of wind on heating operations are diminished by the induced draft combustion system. The inducer fan draws hot combustion gas through the heat exchanger at the optimum rate for the most effective heat transfer. The heat exchanger operates under negative pressure, preventing flue gas leakage into the indoor supply air.

During the heating mode, the evaporator-fan relay automatically starts the evaporator fan after the heat exchanger warms up to a suitable temperature. The 30-second fan delay prevents cold air from entering the supply duct system when the conditioned space is calling for heat to maximize efficiency.

The direct-spark ignition system saves operating expense when compared to pilot ignition systems. No crossover tube is required, therefore no sooting or pilot fouling problems can occur. All 580D and 579F standard units are designed for natural gas, but an accessory LP (liquid propane) conversion kit is available, if required.

SAFETY IS BUILT IN — All 580D and 579F units have a flame rectification sensor to quickly sense the burner flame and ignite burners almost immediately. Fast shutdown is a certainty since the sensor reacts quickly to any flame outage or system failure. In the event of a shutdown, an error code is issued at the IGC board.

Safety is also assured due to the heating safety controls which will shut down the unit if there is a problem. If excessive temperatures develop, limit switches shut off the gas valve. After 4 continuous short cycles of the high-temperature limit switch, the IGC board locks out the gas heat cycle to prevent any further short cycles. This safety feature is provided exclusively on Bryant rooftop units. The rollout switch also deenergizes the gas valve in the event of a flame rollout.

DURABLE, DEPENDABLE CONSTRUCTION— Designed for durability in any climate, the weather-resistant cabinets are constructed of galvanized steel and bonderized, and all exterior panels are coated with a prepainted baked enamel finish. The paint finish is non-chalking, and is capable of withstanding ASTM B117 500-hour Salt Spray Test. All internal cabinet panels are primed, permitting longer life and a more attractive appearance for the entire unit.

In addition, the 580D090-150 units are designed with a single, continuous top piece to eliminate any possible leaks. Totally-enclosed condenser-fan motors and permanently-lubricated bearings provide additional unit dependability.

EASY INSTALLATION AND CONVERSION — All units are shipped in the vertical discharge configuration for fit-up to standard roof curbs. (Two different curb sizes fit unit sizes 036-072 and 090-150, respectively, and one curb size is needed for 180-300 units.) The contractor can order and install the roof curb early in the construction stage, before decisions on size requirements are made.

All units feature roll-formed baserail design with forklift slots and rigging holes for easier maneuvering. (Forklift slots are found on 3 sides for 580D036-150 units and on 2 sides for 180-300 units.) The standard 580D036-060 units have operating weights under 500 lb and durable packaging protects all units during shipment and storage.

The units can be easily converted from a vertical to a horizontal discharge configuration either by interchanging the panels supplied with the unit (sizes 036-150) or by using one of the horizontal supply/return adapter roof curbs (sizes 180-300).

NOTE: On units using horizontal supply and return the accessory barometric relief or power exhaust **must** be installed on the return ductwork.

Convenient duct openings in the 579F180-300 unit basepans permit side-by-side or concentric duct connections (see Application data section on page 65) without requiring internal unit modification.

The non-corrosive sloped condensate pan permits either an external horizontal side condensate drain (outside the roof curb) or an internal vertical bottom drain (inside the roof curb). Both options require an external, field-supplied P-trap. Also, the condenser coil grille (available on the 036-150 units as a field-installed accessory provides a metal plate as an alternate location for the field-supplied disconnect, if desired.

The 579F/580D units were designed with service technicians in mind. The single-row condenser coils on the 580D036-060 and 090 units simplify the cleaning process. The efficient in-shot burners and all ignition components are contained in an easily removable, compact assembly.

The 580D036-150 units also have a standard filter access panel, which permits tool-less filter changes, even on units with horizontal economizers.

SIMPLE ELECTRICAL CONNECTIONS — Terminal boards, located in the base unit control box, facilitate connections to room thermostat, outdoor thermostat(s), and economizer. Service panels are quickly removed, permitting easy servicing.

Thru-the-bottom service connection capability (sizes 036-150) and thru-the-curb service connections (sizes 180-300) allow power and control wiring to be routed through unit base pan (036-150 units) or curb (180-300 units), minimizing roof penetrations. Both power and control connections are made on the same side of the unit to simplify installation.

In addition, color-coded wires permit easy tracing and diagnostics.

PROVEN COMPRESSOR RELIABILITY — Design techniques feature computer programmed balance between compressor, condenser, and evaporator. Hermetic (036-150 units) and semi-hermetic (180-300 units) compressors with suction and discharge service valves are equipped with compressor over-current and overtemperature protection to ensure dependability. Crankcase heaters (180-300 units) prevent refrigerant dilution of oil during off cycles and ensure proper lubrication at start-up to prolong compressor life. Crankcase heaters are not necessary on 036-150 units due to high-side crankcase design (sizes 072,150) and low refrigerant charge levels (sizes 036-150).

The 579F180 unit (with factory-supplied unloading) is equipped with a thermostatic expansion valve to precisely adjust refrigerant flow during Stage 1 (unloaded) operation. All other 579F/580D units have the exclusive Acutrol™ metering device which precisely controls refrigerant flow, preventing slugging and flood-back, while maintaining optimum unit performance.

Additional unloaders are not recommended on the 579F180-300 units.

INTEGRATED ECONOMIZERS AND OUTDOOR AIR — Optional economizers and manual outdoor-air dampers introduce outdoor air which mixes with the conditioned air, improving indoor air quality and often reducing energy consumption.

During a first stage call for cooling, if the outdoor-air temperature is below the control changeover set point, the discharge-air sensor modulates the economizer outdoor-air damper open to achieve the changeover set point. When second-stage cooling is called for, the compressor is energized in addition to the economizer. If the outdoor-air temperature is above the changeover set point, the first stage of compression is activated and the economizer stays at vent position. Economizer operation is controlled by Accusensor™ I dry-bulb thermostat that senses outdoor-air temperature. Accessory upgrade kits include Accusensor II solid-state enthalpy control (sizes 036-150) and Accusensor III enthalpy sensor.

The Durablade economizer (option or accessory) on the 580D036-150 units has a reliable sliding plate damper which is easily adjusted for 100% outdoor air, 100% return air, or any proportions of mixed air.

The 580D036-150 units can also utilize the optional Parablade economizer. This economizer incorporates a parallel-opposed

blade design with standard enthalpy controls. In addition, the Parablade economizer has a spring return built into the damper motor to provide reliable close-on-power-loss. The Parablade economizer comes equipped with up to 45% barometric relief capability for high outdoor airflow applications.

For units without economizer, year-round ventilation is enhanced by a manual outdoor-air damper (ordered as standard on 579F180-300; ordered as an accessory or an option on 580D036-150 units). The damper can be preset to admit up to 25% outdoor air (sizes 180-300) or 50% outdoor air (sizes 036-150).

In addition, the barometric relief damper or power exhaust accessory can be utilized to help maintain proper building pressure.

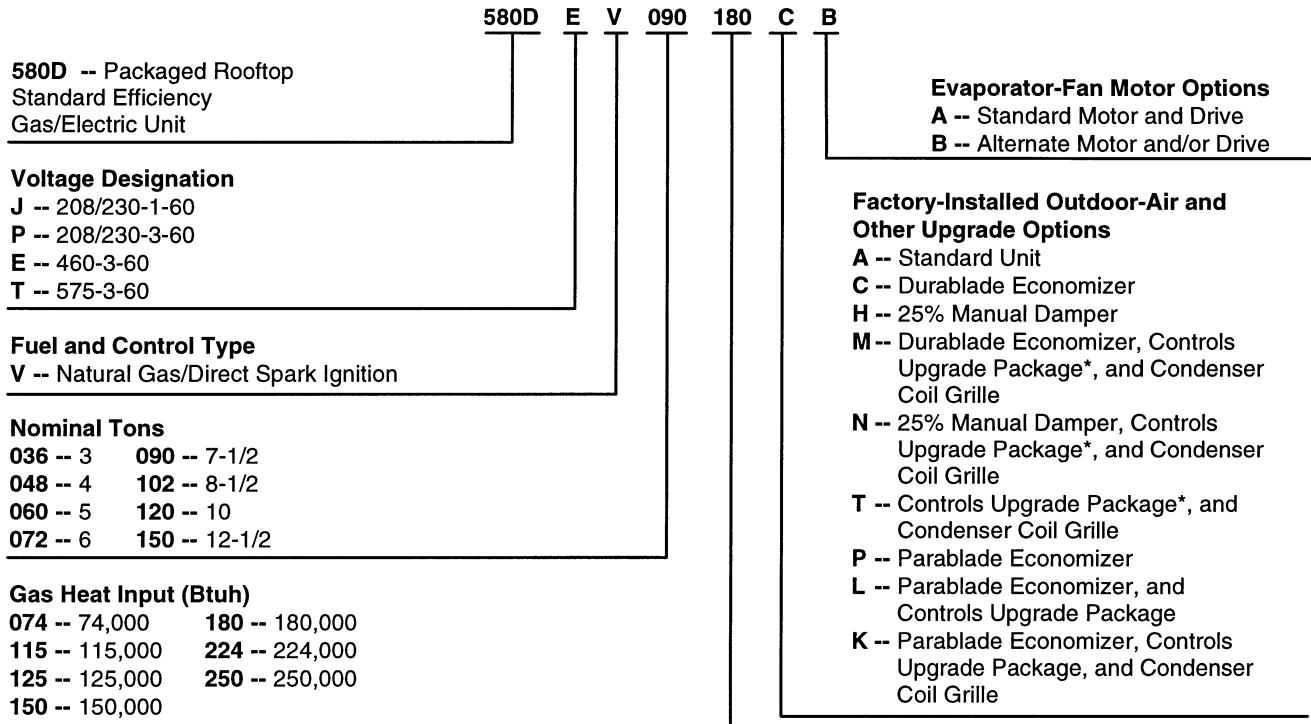
INDOOR-AIR QUALITY — Sloped condensate pans minimize biological growth in rooftop units in accordance with ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) Standard 62-89. Two-inch filters with optional dirty filter indicator switch provide for greater particle reduction in the return air. The face-split evaporator coils improve the dehumidification capability of standard units, and standard enthalpy controls provided with the optional or accessory (sizes 036-150) economizers maximize building humidity control.

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MODEL NUMBER NOMENCLATURE

580D036-150 MODELS ONLY



*Contains high pressure, (loss-of-charge) low-pressure, and freeze protection cutout switches.

NOTE: The example model number 580DEV090180CB designates a 7½ ton 460-3-60 volt gas/electric rooftop unit with 180,000 Btuh natural gas heat, Durablade economizer, and alternate drive.

MODEL NUMBER NOMENCLATURE (cont)

579F180-300 MODELS ONLY

5 7 9 F E V 1 8 0 2 3 0 C B

579F -- Single Package
High-Efficiency Gas/Electric Unit

Voltage Designation

E -- 460-3-60
P -- 208/230-3-60

Fuel and Control Type

V -- Natural Gas/Electric Relight Pilot

Nominal Tons

180 -- 15 Tons
216 -- 18 Tons
240 -- 20 Tons
300 -- 25 Tons

**Fan Drive Position
(Standard Motor)**

B -- Standard Low-Medium
Fan Drive Static
Capability
D -- Alternate High Fan
Drive Static Capability

**Factory-Installed Outdoor-Air
and Other Upgrade Options**

C -- Economizer
H -- Manual Damper

Gas Heat Input (Btuh)

230 -- 230,000
275 -- 275,000
300 -- 300,000
360 -- 360,000

NOTE: The example model number 579FEV180230CB designates a 15-ton 460-3-60 volt gas/electric rooftop unit with 230,000 Btuh natural gas heat input, economizer, and the standard low-medium fan drive static capability.

ARI* CAPACITY RATINGS

| UNIT 580D | NOMINAL TONS | STANDARD CFM | NET COOLING CAPACITY (Btuh) | TOTAL kW | SEER† | | SOUND RATING (Bels) |
|-----------|--------------|--------------|-----------------------------|----------|------------|--------------|---------------------|
| | | | | | Belt Drive | Direct Drive | |
| 036 | 3 | 1200 | 35,000 | 4.0 | 10.0 | 9.7 | 8.2 |
| 048 | 4 | 1600 | 47,000 | 5.5 | 10.0 | 9.7 | 8.2 |
| 060 | 5 | 2000 | 57,000 | 6.7 | 10.0 | 9.7 | 8.2 |

| UNIT | NOMINAL TONS | STANDARD CFM | NET COOLING CAPACITY (Btuh) | TOTAL kW | EER | SOUND RATING (Bels) | IPLV |
|---------|--------------|--------------|-----------------------------|----------|-----|---------------------|-------|
| 580D072 | 6 | 2100 | 72,000 | 8.0 | 9.0 | 8.2 | ** |
| 580D090 | 7½ | 2800 | 85,000 | 9.6 | 8.9 | 8.6 | 9.35 |
| 580D102 | 8½ | 3000 | 99,000 | 11.0 | 9.0 | 8.6 | 9.00 |
| 580D120 | 10 | 4000 | 117,000 | 13.0 | 9.0 | 8.8 | 9.35 |
| 580D150 | 12½ | 4500 | 145,000 | 16.1 | 9.0 | 8.8 | 9.20 |
| 579F180 | 15 | 5250 | 178,000 | 20.7 | 8.6 | 8.8 | 10.70 |
| 579F216 | 18 | 6000 | 190,000 | 21.3 | 8.9 | 9.0 | 9.20 |
| 579F240 | 20 | 6200 | 222,000 | 25.5 | 8.6 | 9.5 | 8.80 |
| 579F300 | 25 | 7200 | 268,000 | 31.4 | 8.5 | 9.5 | 8.40 |

LEGEND

- Bels** — Sound Levels (1 bel = 10 decibels)
- db** — Dry Bulb
- EER** — Energy Efficiency Ratio
- IPLV** — Integrated Part-Load Values
- SEER** — Seasonal Energy Efficiency Ratio
- wb** — Wet Bulb

*Air Conditioning and Refrigeration Institute.

†Applies only to units with capacity of 65,000 Btuh or less.

**The IPLV applies only to two-stage cooling units.

NOTES:

1. Rated in accordance with ARI Standards 210/240-89 (for sizes 036-120) or 360-89 (for sizes 150-240) and 270-89.
2. The 579F300 is beyond the scope of the ARI certification program.
3. ARI ratings are net values, reflecting the effects of circulating fan heat.
4. Ratings are based on:



Cooling Standard: 80 F db, 67 F wb indoor entering-air temperature and 95 F db air entering outdoor unit.

IPLV Standard: 80 F db, 67 F wb indoor entering-air temperature and 80 F db outdoor entering-air temperature.

ARI* CAPACITY RATINGS (cont)

HEATING CAPACITIES AND EFFICIENCIES — 580D036-150

| UNIT 580D | HEATING INPUT (Btuh) Stage 2/Stage 1 | OUTPUT CAPACITY (Btuh) | TEMPERATURE RISE (F) | AFUE (%) | STEADY-STATE EFFICIENCY (%) | CALIFORNIA SEASONAL EFFICIENCY (%) |
|-----------|--|---------------------------|----------------------------|-------------|-----------------------------------|---|
| 036 074 | —/ 72,000 | 59,200 | 25-55 | 80.0 | 80.0 | 77.2 |
| 036 115 | 115,000/ 82,000 | 92,000 | 55-85 | 80.0 | 80.0 | 76.7 |
| 048 074 | —/ 72,000 | 59,200 | 25-55 | 80.0 | 80.0 | 77.2 |
| 048 115 | —/115,000 | 92,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 048 150 | 150,000/120,000 | 120,000 | 50-80 | 80.0 | 80.0 | 76.9 |
| 060 074 | —/ 72,000 | 59,200 | 25-55 | 80.0 | 80.0 | 77.2 |
| 060 115 | —/115,000 | 92,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 060 150 | 150,000/120,000 | 120,000 | 50-80 | 80.0 | 80.0 | 76.9 |
| 072 074 | —/ 72,000 | 59,200 | 25-55 | 80.0 | 80.0 | 77.2 |
| 072 115 | —/115,000 | 92,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 072 150 | 150,000/120,000 | 120,000 | 50-80 | 80.0 | 80.0 | 76.9 |
| 090 125 | —/125,000 | 100,000 | 20-50 | 80.0 | 80.0 | 75.8 |
| 090 180 | 180,000/120,000 | 144,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 090 224 | 224,000/180,000 | 179,200 | 45-75 | 80.0 | 80.0 | 77.1 |
| 102 125 | —/125,000 | 100,000 | 20-50 | 80.0 | 80.0 | 75.8 |
| 102 184 | 180,000/120,000 | 144,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 102 224 | 224,000/180,000 | 179,200 | 45-75 | 80.0 | 80.0 | 77.1 |
| 120 180 | 180,000/120,000 | 144,000 | 35-65 | 80.0 | 80.0 | 77.1 |
| 120 224 | 224,000/180,000 | 179,200 | 35-65 | 80.0 | 80.0 | 77.1 |
| 120 250 | 250,000/200,000 | 200,000 | 40-70 | 80.0 | 80.0 | 76.4 |
| 150 224 | 224,000/180,000 | 179,200 | 35-65 | 80.0 | 80.0 | 77.1 |
| 150 250 | 250,000/200,000 | 200,000 | 40-70 | 80.0 | 80.0 | 76.4 |

LEGEND

AFUE — Annual Fuel Utilization Efficiency

NOTE: NO_x levels are 40 nanograms/joule or less with the accessory NO_x reduction kit (sizes 036-060).

HEATING CAPACITIES AND EFFICIENCIES — 579F180-300

| UNIT 579F | HEATING INPUT (Btuh) Stage 2/Stage 1* | OUTPUT CAPACITY (Btuh) | TEMPERATURE RISE (F) | STEADY-STATE EFFICIENCY (%) | MINIMUM HEATING CFM |
|-----------|---|---------------------------|----------------------------|-----------------------------------|---------------------------|
| 180 230 | 230,000/172,000 | 186,000 | 15-45 | 81.0 | 3800 |
| 180 300 | 300,000/225,000 | 243,000 | 30-60 | 81.0 | 3800 |
| 216 275 | 275,000/206,000 | 223,000 | 15-45 | 81.0 | 4750 |
| 216 360 | 360,000/270,000 | 292,000 | 20-50 | 81.0 | 5450 |
| 240 275 | 275,000/206,000 | 223,000 | 15-45 | 81.0 | 4750 |
| 240 360 | 360,000/270,000 | 292,000 | 20-50 | 81.0 | 5450 |
| 300 275 | 275,000/206,000 | 223,000 | 15-45 | 81.0 | 4750 |
| 300 360 | 360,000/270,000 | 292,000 | 20-50 | 81.0 | 5450 |

*All units are 2-stage heat.

NOTE: Minimum allowable temperature of mixed-air entering the heat exchanger during first-stage heating is 45 F. There is no minimum mixed-air temperature limitation during second-stage heating. For entering-air temperatures below 45 F both stages of heat must be energized together to minimize condensation issues and to ensure proper unit operation.

PHYSICAL DATA — 580D036-072

| UNIT SIZE 580D | | 036 | 048 | 060 | 072 |
|--|-----|----------------------|-------------|-------------|-------------|
| NOMINAL CAPACITY (tons) | | 3 | 4 | 5 | 6 |
| OPERATING WEIGHT (lb) | | | | | |
| Unit | | | | | |
| Al/Al* | | 460 | 470 | 490 | 565 |
| Al/Cu* | | 465 | 476 | 497 | 576 |
| Cu/Cu* | | 468 | 482 | 505 | 587 |
| Economizer | | | | | |
| Durablade | | 34 | 34 | 34 | 34 |
| Parablade | | 42 | 42 | 42 | 42 |
| Roof Curb† | | 115 | 115 | 115 | 115 |
| COMPRESSOR Hermetic | | | | | |
| Quantity | | 1 | 1 | 1 | 1 |
| No. Cylinders (per Circuit) | | 2 | 2 | 2 | 2 |
| Oil (oz) | | 50 | 50 | 50 | 54 |
| REFRIGERANT TYPE R-22 | | | | | |
| Expansion Device | | Acutrol™ Feed Device | | | |
| Operating Charge (lb-oz) | | | | | |
| Circuit 1 | | 3-6 | 4-11 | 5-13 | 7-8 |
| Circuit 2 | | — | — | — | — |
| CONDENSER COIL Enhanced Copper Tubes, Aluminum Lanced Fins | | | | | |
| Rows...Fins/in. | | 1...17 | 1...17 | 1...17 | 2...17 |
| Total Face Area (sq ft) | | 7.36 | 11.39 | 13.19 | 10.42 |
| CONDENSER FAN Propeller Type | | | | | |
| Nominal Cfm | | 3500 | 4000 | 4000 | 4000 |
| Quantity...Diameter (in.) | | 1...22.0 | 1...22.0 | 1...22.0 | 1...22.0 |
| Motor Hp...Rpm | | ¼...1100 | ¼...1100 | ¼...1100 | ¼...1100 |
| Watts Input (Total) | | 325 | 325 | 325 | 325 |
| EVAPORATOR COIL Enhanced Copper Tubes, Aluminum Double-Wavy Fins | | | | | |
| Rows...Fins/in. | | 2...15 | 2...15 | 3...15 | 4...15 |
| Total Face Area (sq ft) | | 4.17 | 5.5 | 5.5 | 5.5 |
| EVAPORATOR FAN Centrifugal Type | | | | | |
| Quantity...Size (in.) | Std | 1...10 x 10 | 1...10 x 10 | 1...11 x 10 | 1...10 x 10 |
| | Alt | 1...10 x 10 | 1...10 x 10 | 1...10 x 10 | — |
| Type Drive | Std | Direct | Direct | Direct | Belt |
| | Alt | Belt | Belt | Belt | — |
| Nominal Cfm | | 1200 | 1600 | 2000 | 2400 |
| Motor Hp | Std | — | — | — | — |
| | Alt | — | — | — | — |
| Maximum Continuous Bhp | Std | .34 | .75 | 1.20 | 2.40 |
| | Alt | 1.00 | 1.00 | 1.80 | — |
| Motor Frame Size | Std | 48 | 48 | 48 | 56 |
| | Alt | 48 | 48 | 48 | — |
| Nominal Rpm High/Low | Std | 860/800 | 1075/970 | 1075/970 | — |
| | Alt | — | — | — | — |
| Fan Rpm Range | Std | — | — | — | 1070-1460 |
| | Alt | 760-1000 | 835-1185 | 900-1300 | — |
| Motor Bearing Type | | Ball | Ball | Ball | Ball |
| Maximum Allowable Rpm | | 2100 | 2100 | 2100 | 2100 |
| Motor Pulley Pitch Diameter Min/Max (in.) | Std | — | — | — | 2.8/3.8 |
| | Alt | 1.9/2.9 | 1.9/2.9 | 2.4/3.4 | — |
| Nominal Motor Shaft Diameter (in.) | Std | ½ | ½ | ½ | ⅝ |
| | Alt | ½ | ½ | ½ | — |
| Fan Pulley Pitch Diameter (in.) | Std | — | — | — | 4.5 |
| | Alt | 4.5 | 4.0 | 4.5 | — |
| Nominal Fan Shaft Diameter (in.) | | — | — | — | — |
| Belt, Quantity...Type...Length (in.) | Std | — | — | — | 1...A...40 |
| | Alt | 1...A...34 | 1...A...34 | 1...A...39 | — |
| Pulley Center Line Distance (in.) | Std | — | — | — | 14.7-15.5 |
| | Alt | 10.0-12.4 | 10.0-12.4 | 14.7-15.5 | — |
| Speed Change per Full Turn of Movable Pulley Flange (rpm) | Std | — | — | — | 80 |
| | Alt | 48 | 70 | 80 | — |
| Movable Pulley Maximum Full Turns From Closed Position | Std | — | — | — | 5 |
| | Alt | 5 | 5 | 5 | — |
| Factory Setting | Std | — | — | — | 3 |
| | Alt | 3 | 3 | 3 | — |
| Factory Speed Setting (rpm) | Std | — | — | — | 1225 |
| | Alt | 856 | 975 | 1060 | — |
| Fan Shaft Diameter at Pulley (in.) | | ½ | ½ | ½ | ½ |

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- Cu — Copper

**Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.
 ††Requires an optional or accessory Controls Upgrade Kit.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line.

*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.
 †Weight of 14-in. roof curb.

PHYSICAL DATA — 580D036-072 (cont)

| UNIT SIZE 580D | 036 MEDIUM/ HIGH HEAT | 048 LOW/MEDIUM/ HIGH HEAT | 060 LOW/MEDIUM/ HIGH HEAT | 072 LOW/MEDIUM/ HIGH HEAT |
|---|-----------------------------|---------------------------------|---------------------------------|---------------------------------|
| FURNACE SECTION | | | | |
| Rollout Switch Cutout Temp (F)** | 195 | 195 | 195 | 195 |
| Burner Orifice Diameter (in. ...drill size) | | | | |
| Natural Gas | .113...33 | .113...33/.113...33/.129...30 | .113...33/.113...33/.129...30 | .113...33/.113...33/.129...30 |
| Liquid Propane | .089...43 | .089...43/.089...43/.102...38 | .089...43/.089...43/.102...38 | .089...43/.089...43/.102...38 |
| Pilot Orifice Diameter (Quantity) in. ...drill size | | | | |
| Natural Gas | — | — | — | — |
| Liquid Propane | — | — | — | — |
| Thermostat Heat Anticipator Setting (amps) | | | | |
| 208/230 v and 575 v Stage 1 | .14 | .14 | .14 | .14 |
| Stage 2 | .14 | .14 | .14 | .14 |
| 460 v Stage 1 | .14 | .14 | .14 | .14 |
| Stage 2 | .14 | .14 | .14 | .14 |
| Gas Input (Btuh) Stage 1 | 72,000/82,000 | 72,000/115,000/120,000 | 72,000/115,000/120,000 | 72,000/115,000/120,000 |
| Stage 2 | —/115,000 | —/—/150,000 | —/—/150,000 | —/—/150,000 |
| Efficiency (Steady State) (%) | 80 | 80 | 80 | 80 |
| Temperature Rise Range | 25-55/55-85 | 25-55/35-65/50-80 | 25-55/35-65/50-80 | 25-55/35-65/50-80 |
| Manifold Pressure (in. wg) | | | | |
| Natural Gas | 3.5 | 3.5 | 3.5 | 3.5 |
| Liquid Propane | 3.5 | 3.5 | 3.5 | 3.5 |
| Gas Valve Quantity | 1 | 1 | 1 | 1 |
| Gas Valve Pressure Range | | | | |
| Psig | 0.180-0.487 | 0.180-0.487 | 0.180-0.487 | 0.180-0.487 |
| in. wg | 5.0-13.5 | 5.0-13.5 | 5.0-13.5 | 5.0-13.5 |
| Field Gas Connection Size (in.) | ½ | ½ | ½ | ½ |
| HIGH-PRESSURE SWITCH (psig)†† | | | | |
| Standard Compressor Internal Relief (Differential) Cutout | | 450 ± 50 | | 500 ± 50 |
| Reset (Auto.) | | 428 | | 428 |
| | | 320 | | 320 |
| LOW-PRESSURE SWITCH (psig)†† | | | | |
| Cutout | | | 7 ± 3 | |
| Reset (Auto.) | | | 22 ± 7 | |
| FREEZE PROTECTION THERMOSTAT (F)** | | | | |
| Opens | | | 30 ± 5 | |
| Closes | | | 45 ± 5 | |
| OUTDOOR-AIR INLET SCREENS | | | | |
| | | | Cleanable | |
| Quantity...Size (in.) | | | 1...20 x 24 x 1 | |
| RETURN-AIR FILTERS | | | | |
| | | | Throwaway | |
| Quantity...Size (in.) | | | 2...16 x 25 x 2 | |

LEGEND

Al — Aluminum
Bhp — Brake Horsepower
Cu — Copper

*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.

†Weight of 14-in. roof curb.

**Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

††Requires an optional or accessory Controls Upgrade Kit.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line.

PHYSICAL DATA — 580D090-150

| UNIT SIZE 580D | 090 | 102 | 120 | 150 |
|--|----------------------|-------------|-------------|-------------|
| NOMINAL CAPACITY (tons) | 7½ | 8½ | 10 | 12½ |
| OPERATING WEIGHT (lb) | | | | |
| Unit | | | | |
| Al/Al* | 870 | 880 | 1035 | 1050 |
| Al/Cu* | 881 | 896 | 1057 | 1077 |
| Cu/Cu* | 893 | 907 | 1080 | 1100 |
| Economizer | | | | |
| Durablade | 44 | 44 | 44 | 44 |
| Parablade | 62 | 62 | 62 | 62 |
| Roof Curb† | 143 | 143 | 143 | 143 |
| COMPRESSOR Hermetic | | | | |
| Quantity | 2 | 2 | 2 | 2 |
| No. Cylinders (per Circuit) | 2 | 2 | 2 | 2 |
| Oil (oz) | 50 ea | 50 ea | 50 ea | 54 ea |
| REFRIGERANT TYPE R-22 | | | | |
| Expansion Device | Acutrol™ Feed Device | | | |
| Operating Charge (lb-oz) | | | | |
| Circuit 1 | 4-13 | 6-14 | 5-13 | 8-10 |
| Circuit 2 | 4-14 | 6- 3 | 5-14 | 8- 8 |
| CONDENSER COIL Enhanced Copper Tubes, Aluminum Lanced Fins | | | | |
| Rows...Fins/in. | 1...17 | 2...17 | 2...17 | 2...17 |
| Total Face Area (sq ft) | 20.50 | 18.00 | 17.42 | 25.00 |
| CONDENSER FAN Propeller Type | | | | |
| Nominal Cfm | 6500 | 6500 | 7000 | 7000 |
| Quantity...Diameter (in.) | 2...22 | 2...22 | 2...22 | 2...22 |
| Motor Hp...Rpm | ¼...1100 | ¼...1100 | ¼...1100 | ¼...1100 |
| Watts Input (Total) | 600 | 600 | 600 | 600 |
| EVAPORATOR COIL Enhanced Copper Tubes, Aluminum Double-Wavy Fins | | | | |
| Rows...Fins/in. | 3...15 | 3...15 | 3...15 | 4...15 |
| Total Face Area (sq ft) | 8.0 | 8.0 | 10.0 | 11.1 |
| EVAPORATOR FAN Centrifugal Type | | | | |
| Quantity...Size (in.) | Std 1...15 x 15 | 1...15 x 15 | 1...15 x 15 | 1...15 x 15 |
| Type Drive | Alt 1...15 x 15 | — | 1...15 x 15 | 1...15 x 15 |
| Std | Belt | Belt | Belt | Belt |
| Alt | Belt | — | Belt | Belt |
| Nominal Cfm | 3000 | 3400 | 4000 | 5000 |
| Motor Hp | Std — | — | — | — |
| Alt | — | — | — | — |
| Maximum Continuous Bhp | Std 2.40 | 2.40 | 2.40 | 4.20 |
| Alt | — | — | 2.90 | 5.25 |
| Motor Frame Size | Std 56 | 56 | 56 | 56 |
| Alt | — | — | 56 | 56 |
| Nominal Rpm High/Low | — | — | — | — |
| Fan Rpm Range | Std 590-840 | 685-935 | 685-935 | 860-1080 |
| Alt | 685-935 | — | 835-1085 | 900-1260 |
| Motor Bearing Type | Ball | Ball | Ball | Ball |
| Maximum Allowable Rpm | 2100 | 2100 | 2100 | 2100 |
| Motor Pulley Pitch Diameter Min/Max (in.) | Std 2.4/3.4 | 2.8/3.8 | 2.8/3.8 | 4.0/5.0 |
| Alt | 2.8/3.8 | — | 3.4/4.4 | 3.1/4.1 |
| Nominal Motor Shaft Diameter (in.) | Std 5/8 | 5/8 | 7/8 | 7/8 |
| Alt | — | — | 7/8 | 7/8 |
| Fan Pulley Pitch Diameter (in.) | Std 7.0 | 7.0 | 7.0 | 8.0 |
| Alt | 7.0 | — | 7.0 | 5.9 |
| Nominal Fan Shaft Diameter (in.) | — | — | — | — |
| Belt, Quantity...Type...Length (in.) | Std 1...A...49 | 1...A...49 | 1...A...49 | 1...A...52 |
| Alt | 1...A...49 | — | 1...A...49 | 1...BX...46 |
| Pulley Center Line Distance (in.) | Std 16.75-19.25 | 16.75-19.25 | 15.85-17.50 | 15.85-17.50 |
| Alt | 16.75-19.25 | — | 15.85-17.50 | 15.85-17.50 |
| Speed Change per Full Turn of Movable Pulley Flange (rpm) | Std 50 | 50 | 50 | 44 |
| Alt | 50 | — | 50 | 50 |
| Movable Pulley Maximum Full Turns From Closed Position | Std 5 | 5 | 5 | 5 |
| Alt | 5 | — | 5 | 6 |
| Factory Setting | Std 5 | 5 | 5 | 5 |
| Alt | 5 | — | 5 | 5 |
| Factory Speed Setting (rpm) | Std 590 | 685 | 685 | 860 |
| Alt | 685 | — | 835 | 960 |
| Fan Shaft Diameter at Pulley (in.) | 1 | 1 | 1 | 1 |

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- Cu — Copper

**Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

††Requires an optional or accessory Controls Upgrade Kit.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line.

*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.

†Weight of 14-in. roof curb.

PHYSICAL DATA — 580D090-150 (cont)

| UNIT SIZE 580D | 090 LOW/MEDIUM/ HIGH HEAT | 102 LOW/MEDIUM/ HIGH HEAT | 120 LOW/MEDIUM/ HIGH HEAT | 150 LOW/ MEDIUM HEAT |
|---|---------------------------------|---------------------------------|---------------------------------|----------------------------|
| FURNACE SECTION | | | | |
| Rollout Switch Cutout Temp (F)†† | 195 | 195 | 195 | 195 |
| Burner Orifice Diameter (in. ...drill size) | | | | |
| Natural Gas | .120...31 | .120...31 | .120...31/.120...31/.129...30 | .120...31/.129...30 |
| Liquid Propane | .096...41 | .096...41 | .096...41/.096...41/.102...38 | .096...41/.102...38 |
| Pilot Orifice Diameter (Quantity) in. ...drill size | | | | |
| Natural Gas | — | — | — | — |
| Liquid Propane | — | — | — | — |
| Thermostat Heat Anticipator Setting (amps) | | | | |
| 208/230 v and 575 v Stage 1 | .14 | .14 | .14 | .14 |
| Stage 2 | .20 | .20 | .20 | .20 |
| 460 v Stage 1 | .14 | .14 | .14 | .14 |
| Stage 2 | .20 | .20 | .20 | .20 |
| Gas Input (Btuh) Stage 1 | 125,000/120,000/180,000 | 125,000/120,000/180,000 | 120,000/180,000/200,000 | 180,000/200,000 |
| Stage 2 | —/180,000/224,000 | —/180,000/224,000 | 180,000/224,000/250,000 | 224,000/250,000 |
| Efficiency (Steady State) (%) | 80 | 80 | 80 | 80 |
| Temperature Rise Range | 20-50/35-65/45-75 | 20-50/35-65/45-75 | 35-65/35-65/40-70 | 35-65/40-70 |
| Manifold Pressure (in. wg) | | | | |
| Natural Gas | 3.5 | 3.5 | 3.5 | 3.5 |
| Liquid Propane | 3.5 | 3.5 | 3.5 | 3.5 |
| Gas Valve Quantity | 1 | 1 | 1 | 1 |
| Gas Valve Pressure Range | | | | |
| Psig | 0.180-0.487 | 0.180-0.487 | 0.180-0.487 | 0.180-0.487 |
| in. wg | 5.0-13.5 | 5.0-13.5 | 5.0-13.5 | 5.0-13.5 |
| Field Gas Connection Size (in.) | 1/2"/3/4"/3/4 | 1/2"/3/4"/3/4 | 3/4"/3/4"/3/4 | 3/4"/3/4 |
| HIGH-PRESSURE SWITCH (psig)†† | | | | |
| Standard Compressor Internal Relief (Differential) Cutout | | 450 ± 50 | | 500 ± 50 |
| Reset (Auto.) | | 428 | | 428 |
| | | 320 | | 320 |
| LOW-PRESSURE SWITCH (psig)†† | | | | |
| Cutout | | 7 ± 3 | | |
| Reset (Auto.) | | 22 ± 7 | | |
| FREEZE PROTECTION THERMOSTAT (F)** | | | | |
| Opens | | 30 ± 5 | | |
| Closes | | 45 ± 5 | | |
| OUTDOOR-AIR INLET SCREENS | | | | |
| | | Cleanable | | |
| Quantity...Size (in.) | | 1...20 x 25 x 1 | | |
| | | 1...16 x 25 x 1 | | |
| RETURN-AIR FILTERS | | | | |
| | | Throwaway | | |
| Quantity...Size (in.) | 4...16 x 20 x 2 | 4...16 x 20 x 2 | 4...20 x 20 x 2 | 4...20 x 20 x 2 |

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- Cu — Copper

*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.

†Weight of 14-in. roof curb.

**Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

††Requires an optional or accessory Controls Upgrade Kit.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line.

PHYSICAL DATA — 579F180-300

| UNIT SIZE 579F | 180 | 216 | 240 | 300 |
|--|--|--------------------------------------|--------------------------------|----------------------------------|
| NOMINAL CAPACITY (tons) | 15 | 18 | 20 | 25 |
| OPERATING WEIGHT (lb) | | | | |
| Unit | | | | |
| AI/AI* | 1650 | 2150 | 2200 | 2250 |
| Economizer | 110 | 110 | 110 | 110 |
| Roof Curb† | 200 | 200 | 200 | 200 |
| COMPRESSOR | | | | |
| | | Semi-Hermetic | | |
| Model No. ...Quantity (Number of Cylinders) | 06D-537...1 (6) | 06D-824...1 (6) 06D-818...1 (4) | 06D-824...2 (6) | 06D-328...2 (6) |
| Oil (oz) | 115 | 88,115 | 115 ea | 128 ea |
| No. of Cylinders (per circuit) | 6 | 6 | 6 | 6 |
| Cooling Capacity Stages (%) | 0, 66, 100 | 0, 57, 100 | 0, 50, 100 | 0, 50, 100 |
| REFRIGERANT TYPE | | | | |
| | | R-22 | | |
| Expansion Device | TXV | Acutrol™ Refrigerant Metering Device | | |
| Operating Charge (lb-oz) | | | | |
| Circuit 1** | 19-4 | 13-4 | 12-13 | 16-12 |
| Circuit 2 | — | 11-0 | 12-13 | 15-12 |
| CONDENSER COIL | | | | |
| | ¾-in. Enhanced Copper Tubes, Aluminum Lanced or Copper Fins | | | |
| Rows...Fins/in. | 2...17 | 3...15 | 3...15 | 4...15 |
| Total Face Area (sq ft) | 22.2 | 22.2 | 22.2 | 22.2 |
| CONDENSER FAN | | | | |
| | Propeller Type | | | |
| Nominal Cfm | 10,500 | 10,500 | 14,200 | 14,200 |
| Quantity...Diameter (in.) | 3...22 | 3...22 | 2...30 | 2...30 |
| Motor Hp...Rpm | ½...1050 | ½...1050 | 1...1075 | 1...1075 |
| Watts Input (Total) | 1100 | 1100 | 3400 | 3400 |
| EVAPORATOR COIL | | | | |
| | ¾-in. Enhanced Copper Tubes, Aluminum or Copper Plate Fins, Face Split | | | |
| Rows...Fins/in. | 2...17 | 3...17 | 4...15 | 4...15 |
| Total Face Area (sq ft) | 17.9 | 17.9 | 17.9 | 17.9 |
| EVAPORATOR FAN | | | | |
| | Centrifugal Type | | | |
| Quantity...Size (in.) | 2...10 x 10 | 2...12 x 12 | 2...12 x 12 | 2...12 x 12 |
| Type Drive | Belt | Belt | Belt | Belt |
| Nominal Cfm | 6000 | 7200 | 8000 | 10,000 |
| Motor Hp | 3.7 | 5 | 7½ | 10 |
| Motor Nominal rpm | 1725 | 1745 | 1745 | 1740 |
| Maximum Continuous Bhp | 4.25 | 5.90 | 8.7 [208/230 v] 9.5 [460 v] | 10.2 [208/230 v] 11.8 [460 v] |
| Motor Frame Size | 56H | 184T | 213T | 215T |
| Nominal Rpm High/Low | — | — | — | — |
| Fan Rpm Range | Low-Medium Static 891-1179 High Static 1227-1550 | 817-1038 994-1197 | 1002-1225 1193-1458 | 1066-1283 1332-1550 |
| Motor Bearing Type | Ball | Ball | Ball | Ball |
| Maximum Allowable Rpm | 1550 | 1550 | 1550 | 1550 |
| Motor Pulley Pitch Diameter | Low-Medium Static 3.1-4.1 High Static 3.7-4.7 | 3.7-4.7 | 5.4-6.6 | 4.9-5.9 |
| Min/Max (in.) | | 4.9-5.9 | 5.4-6.6 | 4.9-5.9 |
| Nominal Motor Shaft Diameter (in.) | Low-Medium Static 7/8 High Static 1 | 1 | 1 1/8 | 1 3/8 |
| Fan Pulley Pitch Diameter (in.) | 6.0 | 7.9 | 9.4 | 8.0 |
| | 5.2 | 8.6 | 7.9 | 6.4 |
| Nominal Fan Shaft Diameter (in.) | 1 1/16 | 1 1/16 | 1 1/16 | 1 7/16 |
| Belt, Quantity...Type...Length (in.) | Low-Medium Static 1...BX...42 High Static 1...BX...42 | 1...BX...46 1...BX...50 | 1...BX...53 1...BX...50 | 2...BX...50 2...BX...47 |
| Pulley Center Line Distance (in.) | 13.5-15.5 | 13.3-14.8 | 14.6-15.4 | 14.6-15.4 |
| Speed Change per Full Turn of | 48 | 37 | 37 | 36 |
| Movable Pulley Flange (rpm) | High Static 55 | 34 | 44 | 45 |
| Movable Pulley Maximum Full Turns | 5 | 5 | 5 | 5 |
| From Closed Position | | | | |
| Factory Setting | 3.5 | 3.5 | 3.5 | 3.5 |
| Factory Speed Setting (rpm) | Low-Medium Static 1035 High Static 1389 | 934 | 1120 | 1182 |
| Fan Shaft Diameter at Pulley (in.) | 1 1/16 | 1 1/16 | 1 1/16 | 1 7/16 |

LEGEND

- AI — Aluminum
- Bhp — Brake Horsepower
- Cu — Copper
- TXV — Thermostatic Expansion Valve

††Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

‡The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

NOTE: The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

*Evaporator coil fin material/condenser coil fin material.

†Weight of 14-in. roof curb.

**On 579F180-300 units, Circuit 1 consists of lower portion of condenser coil and lower portion of evaporator coil, and Circuit 2 is the upper portion of both coils.

PHYSICAL DATA — 579F180-300 (cont)

| UNIT SIZE 579F | 180 LOW/HIGH HEAT | 216 LOW/HIGH HEAT | 240 LOW/HIGH HEAT | 300 LOW/HIGH HEAT |
|--|------------------------|------------------------|------------------------|------------------------|
| FURNACE SECTION | | | | |
| Rollout Switch Cutout Temp (F)†† | 190 | 190 | 190 | 190 |
| Burner Orifice Diameter (in. ...drill size) Natural Gas | 0.1405...28/0.136...29 | 0.1405...28/0.136...29 | 0.1405...28/0.136...29 | 0.1405...28/0.136...29 |
| Thermostat Heat Anticipator Setting (amps) | | | | |
| 208/230 v Stage 1 | 0.98 | 0.98 | 0.98 | 0.98 |
| Stage 2 | 0.44 | 0.44 | 0.44 | 0.44 |
| 460 v Stage 1 | 0.80 | 0.80 | 0.80 | 0.80 |
| Stage 2 | 0.44 | 0.44 | 0.44 | 0.44 |
| Gas Input (Btuh) Stage 1 | 172,000/225,000 | 206,000/270,000 | 206,000/270,000 | 206,000/270,000 |
| Stage 2 | 230,000/300,000 | 275,000/360,000 | 275,000/360,000 | 275,000/360,000 |
| Efficiency (Steady State) (%) | 81 | 81 | 81 | 81 |
| Temperature Rise Range | 15-45/30-60 | 15-45/20-50 | 15-45/20-50 | 15-45/20-50 |
| Manifold Pressure (in. wg) Natural Gas | 3.3 | 3.3 | 3.3 | 3.3 |
| Gas Valve Pressure Range in. wg | 5.5-13.5 | 5.5-13.5 | 5.5-13.5 | 5.5-13.5 |
| psig | 0.235-0.487 | 0.235-0.487 | 0.235-0.487 | 0.235-0.487 |
| Gas Valve Quantity | 1 | 1 | 1 | 1 |
| Field Gas Connection Size (in.) | ¾ | ¾ | ¾ | ¾ |
| HIGH-PRESSURE SWITCH (psig) | | | | |
| Standard Compressor Internal Relief (Differential) | | | — | |
| Cutout | | | 426 | |
| Reset (Auto.) | | | 320 | |
| LOW-PRESSURE SWITCH (psig) | | | | |
| Cutout | | | 7 | |
| Reset (Auto.) | | | 22 | |
| FREEZE PROTECTION THERMOSTAT (F) | | | | |
| Opens | | | 30 ± 5 | |
| Closes | | | 45 ± 5 | |
| OUTDOOR-AIR INLET SCREENS | | | | |
| | | | Cleanable | |
| Quantity...Size (in.) | | | 2...20 x 25 x 1 | 1...20 x 20 x 1 |
| RETURN-AIR FILTERS | | | | |
| | | | Throwaway | |
| Quantity...Size (in.) | | | 4...20 x 20 x 2 | 4...16 x 20 x 2 |
| POWER EXHAUST ½ Hp 208/230-460 v Motor Direct Drive, Prop-Fan (Factory-wired for 460 v) | | | | |

LEGEND

- Al** — Aluminum
- Bhp** — Brake Horsepower
- Cu** — Copper
- TXV** — Thermostatic Expansion Valve

*Evaporator coil fin material/condenser coil fin material.

†Weight of 14-in. roof curb.

**On 579F180-300 units, Circuit 1 consists of lower portion of condenser coil and lower portion of evaporator coil, and Circuit 2 is the upper portion of both coils.

††Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

|| The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

NOTE: The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

OPTIONS AND ACCESSORIES

| ITEM | OPTION* | ACCESSORY† |
|--|---------|------------|
| Parablade Economizer (036-150 only) | X | |
| Parablade Economizer with Power Exhaust (036-150) | | X |
| Integrated Economizer (180-300) | X | X |
| Durablade Integrated Economizer (036-150; Includes Hood) | X | X |
| Manual Outdoor-Air Damper (ordered as standard on 180-300 units without optional economizer) | X | X |
| Controls Upgrade Kit (036-150)** | X | X |
| Condenser Coil Grille (036-150) | | X |
| Alternate Drive (090, 180-300) | X | |
| Alternate Motor and Drive (036-060, 120,150) | X | |
| LP (Liquid Propane) Conversion Kit | | X |
| Commercial Programmable Thermostat | | X |
| 25% Open Two-Position Damper | | X |
| 100% Open Two-Position Damper (036-150) | | X |
| Barometric Relief Damper (180-300)†† | | X |
| Roof Curbs (Vertical and Horizontal Discharge) | | X |
| Horizontal Adapter (180-300) | | X |
| Thermostats and Subbases | | X |
| Power Exhaust (180-300)†† | | X |
| Low-Ambient Kits (180-300) | | X |
| Winter Start Time-Delay Relay (216-300) | | X |
| Motormaster® Head Pressure Control (Speed Control) (180,216) | | X |
| Motormaster II Head Pressure Control (Cycle Control) (036-150) | | X |
| Motormaster III Head Pressure Control (Speed Control) (240-300) | | X |
| Time Guard® II Control Circuit | | X |
| Thru-the-Bottom Service Connections (036-150) | | X |
| Accusensor™ II Enthalpy Control (036-150) | | X |
| Accusensor III Enthalpy Sensor | | X |
| Condenser Coil Hail Guard Assembly (036-150) | | X |
| Flue Shield (036-150) | | X |
| NO _x Reduction Kit (036-060) | | X |
| Flue Discharge Deflector (036-150) | | X |
| Fan/Filter Status (036-150) | | X |

*Factory-installed.

†Field-installed.

**Includes high-pressure, low-pressure/loss-of-charge, and freeze protection switches.

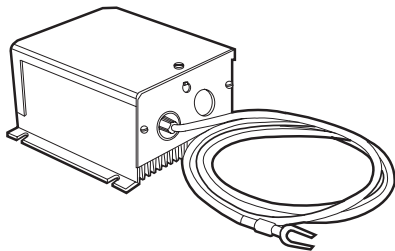
††Not available with horizontal adapter curb (180-300).

NOTES:

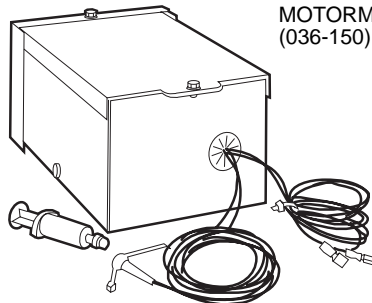
1. Refer to 579F/580D price pages or contact your local representative for accessory and option package information.
2. For units being installed in California Air Quality Management Districts which require NO_x emissions of 40 nanograms/joule or less, kit CRLWNOX001A00 must be installed (sizes 036-060).

HEAD PRESSURE CONTROL

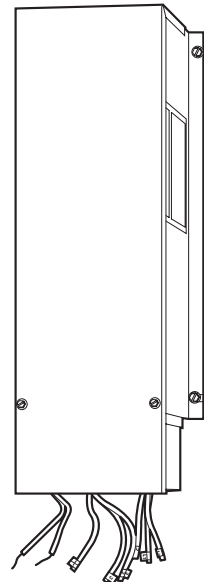
The 580D036 and 579F240 standard units are designed to operate in cooling at outdoor temperatures down to 25 F, the standard 579F180 unit operates down to 40 F, the standard 579F216 unit operates down to 35 F; and the standard 579F300 unit operates down to 48 F. With accessory Motormaster control (579F180,216) (condenser-fan speed modulation), Motormaster II control (condenser-fan cycling for units sizes 036-150), -20 F low-ambient kit (condenser fan sequencing for 579F180), or Motormaster III control (579F240,300) (condenser fan speed modulation) units can operate at outdoor temperatures down to -20 F. The head pressure controls, which mount in the condenser section, control the condenser-fan motor to maintain correct condensing temperature. Refer to Trade Prices or contact your local representative for appropriate accessory combinations for desired outdoor ambient temperature operation.



MOTORMASTER CONTROL
(180,216)

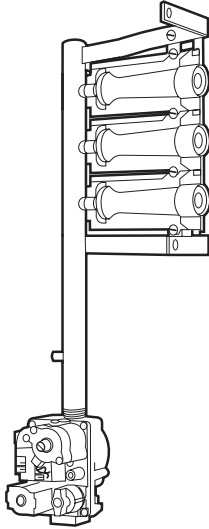


MOTORMASTER II CONTROL
(036-150)



MOTORMASTER III CONTROL
(240,300)

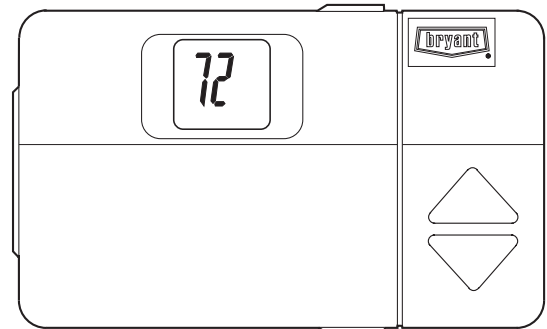
LIQUID PROPANE (LP) CONVERSION KITS



036-072 SHOWN

The LP conversion kit allows the unit to utilize a liquid propane fuel supply in areas where natural gas is unavailable, and permits the unit to be converted from natural gas to LP gas use. The kit contains the orifices required for LP operation.

BRYANT COMMERCIAL PROGRAMMABLE THERMOSTAT

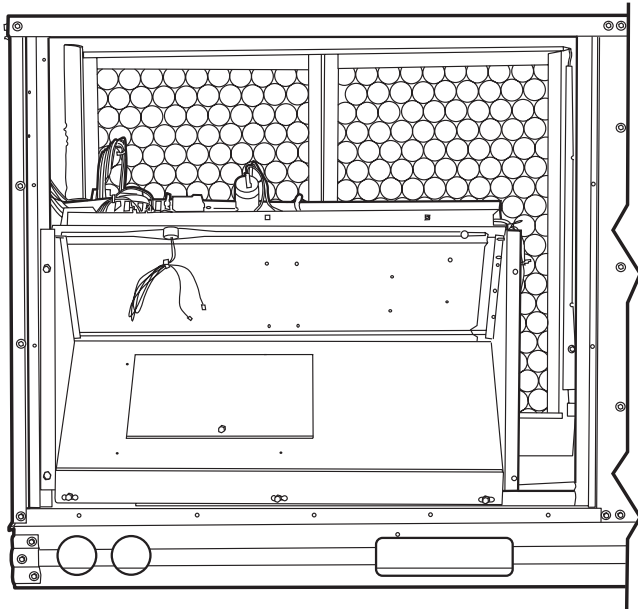


Designed specifically for use with Bryant commercial systems, this Bryant programmable thermostat features LED occupied/unoccupied displays and setback mode which can override continuous fan operation.

TIME GUARD® II CONTROL

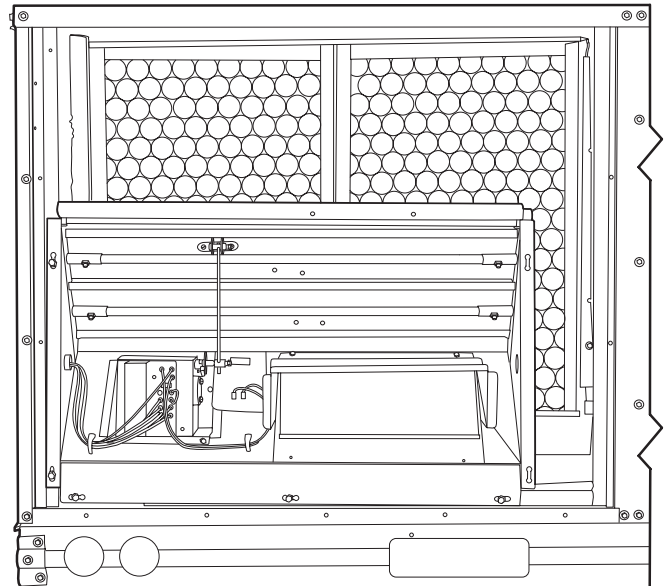
Time Guard II control automatically prevents compressor from restarting for at least 5 minutes after a shutdown. Accessory prevents short cycling of compressor if thermostat is changed rapidly. Time Guard II control mounts in the control compartment of unit.

**DURABLADE ECONOMIZER
(SIZES 036-150)**



Exclusive Durablade economizer damper design saves energy while providing economical and reliable cooling. A sliding plate on the face of the economizer controls the amount of outdoor air entering the system. Closed, it provides a leakproof seal which prevents ambient air from seeping in or conditioned air from seeping out. It can be adjusted easily for 100% outdoor air or any proportions of mixed air. Like the base unit, the economizer is converted easily for horizontal discharge applications.

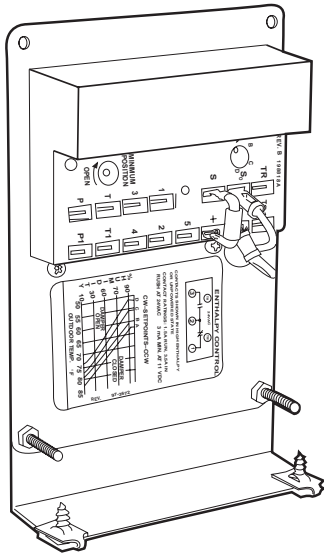
**PARABLADE ECONOMIZER
(SIZES 036-150)**



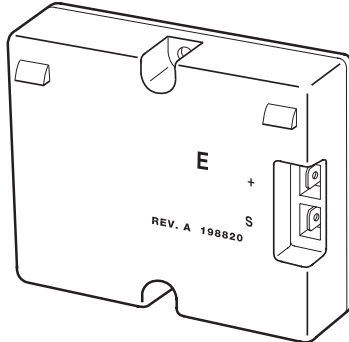
The unique design of the Parablade economizer saves energy while providing economical and reliable cooling. The design uses a parallel-opposed blade damper. The economizer also has built-in spring return for reliable close-on-power-loss. The Parablade design incorporates standard enthalpy controls and up to 45% barometric relief capability for additional flexibility in high outdoor airflow applications.

OPTIONS AND ACCESSORIES (cont)

**ACCUSENSOR™ II
CONTROL
(036-150 Only)**

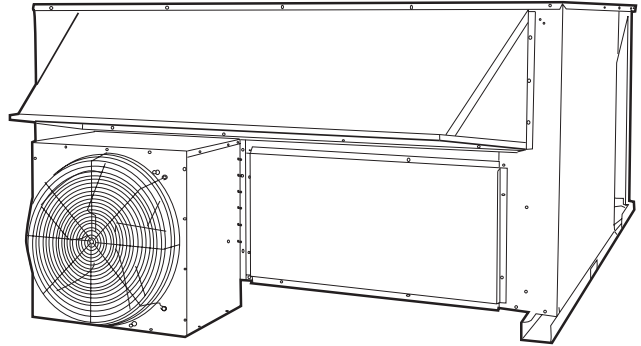


**ACCUSENSOR III
SENSOR**



Accusensor economizer controls help provide efficient, economical economizer operation. Accusensor II solid-state enthalpy control includes the logic and one sensor to calculate both dry- and wet-bulb of the outdoor air to provide an accurate enthalpy reading on 036-150 units. It then decides when to energize the economizer based on this reading. The 180-300 unit economizer provides the decision-making function internally, and requires one Accusensor III sensor for solid-state enthalpy sensing. A second Accusensor III sensor (required for all units for differential enthalpy sensing) compares outdoor temperature and humidity to return-air temperature and humidity and determines the most economical mixture of air (purchased in addition to enthalpy control [sizes 036-150] or to first solid-state enthalpy sensor [sizes 180-300] for differential enthalpy sensing).

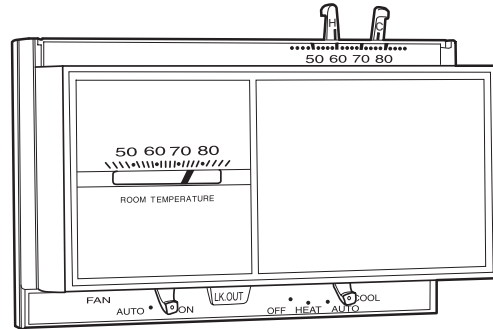
POWER EXHAUST (180-300 SHOWN)



When used with accessory/optional economizer, the power exhaust accessory helps to relieve building over-pressurization.

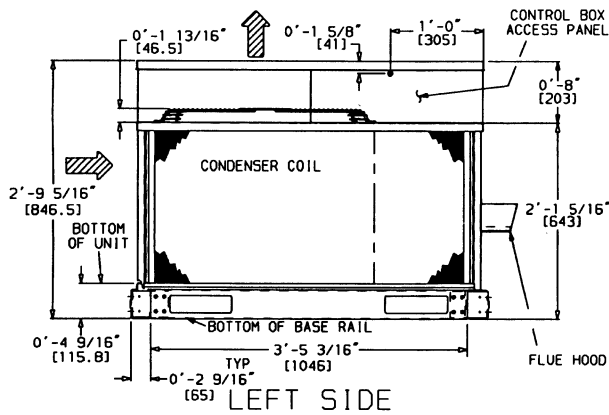
NOTE: This accessory is not available with horizontal supply adapter.

THERMOSTAT



Thermostat (24 v) provides one- or 2-stage cooling for control of unit. Matching subbases are available with or without tamperproof switches and automatic changeover.

BASE UNIT DIMENSIONS — 580D036-072



| UNIT 580D | CORNER WEIGHT* | | | | | | | |
|-----------|----------------|------|-----|------|-----|------|----|------|
| | A | | B | | C | | D | |
| | lb | kg | lb | kg | lb | kg | lb | kg |
| 036 | 140 | 63.5 | 105 | 47.6 | 159 | 72.1 | 56 | 25.4 |
| 048 | 142 | 64.4 | 106 | 48.1 | 162 | 73.5 | 60 | 27.2 |
| 060 | 150 | 68.0 | 115 | 52.2 | 160 | 72.6 | 65 | 29.5 |
| 072 | 165 | 74.8 | 136 | 61.7 | 200 | 90.7 | 64 | 29.0 |

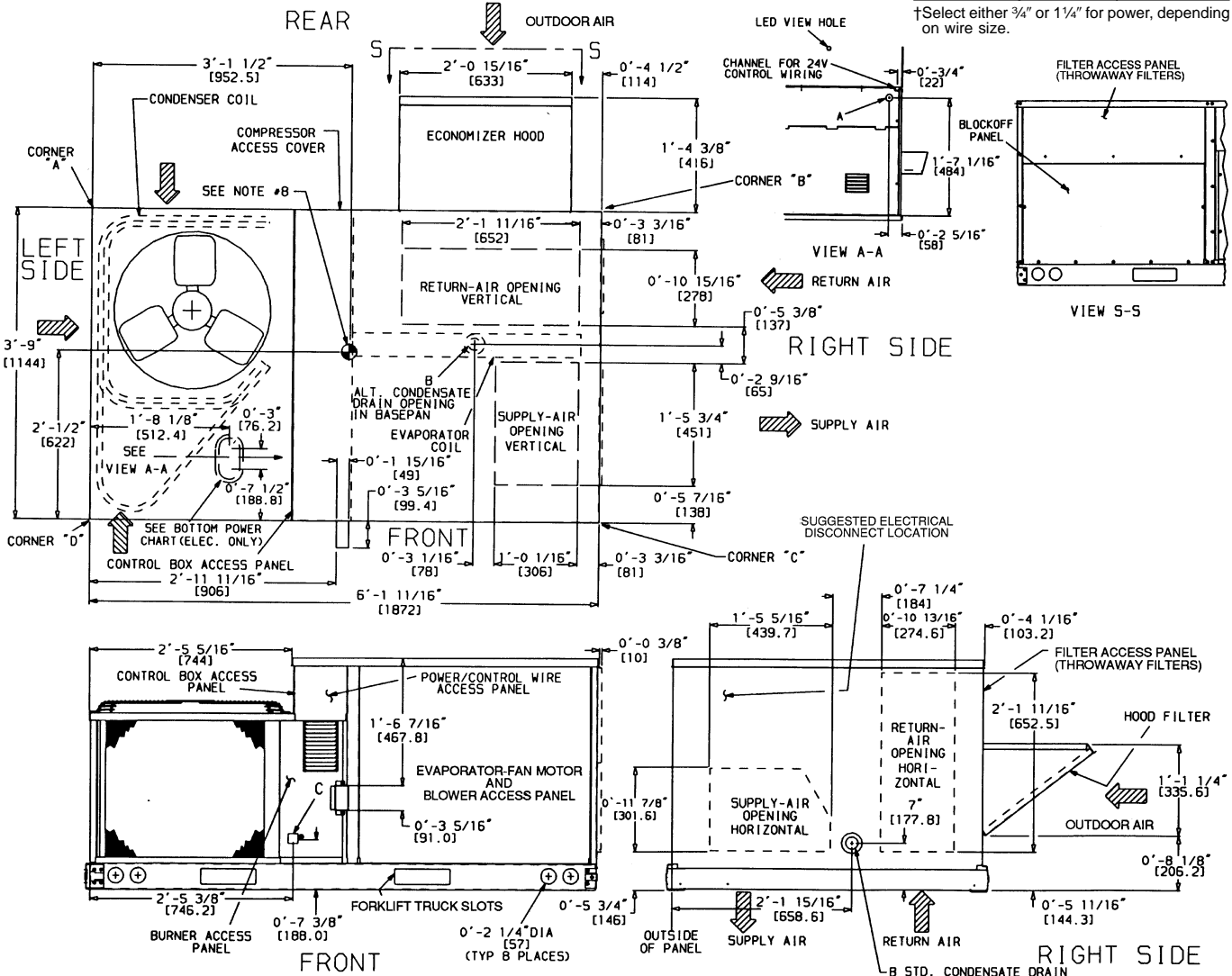
*Weights are for unit only (aluminum plate fins) and do not include options or crating.

| CONNECTION SIZES | |
|------------------|---|
| A | 1 1/16" Dia. [27] Field Power Supply Hole |
| B | 3/4" — 14 NPT Condensate Drain |
| C | 1/2" — 14 NPT Gas Connection |

BOTTOM POWER CHART, THESE HOLES REQUIRED FOR USE WITH ACCESSORY PACKAGES — CRBTMPWR001A00 (1/2", 3/4") CRBTMPWR002A00 (1/2", 1/4")

| THREADED CONDUIT SIZE | WIRE SIZE | REQUIRED HOLE SIZES (MAX) |
|-----------------------|-------------|---------------------------|
| 1/2" | 24 V Power† | 7/8" [22.2] |
| 3/4" | Power† | 1 1/8" [28.4] |
| 1 1/4" | Power† | 1 3/4" [44.4] |

†Select either 3/4" or 1 1/4" for power, depending on wire size.



NOTES:

- Dimensions in [] are in millimeters.
- Center of gravity.
- Direction of airflow.
- On vertical discharge units, ductwork to be attached to accessory roof curb only. For horizontal discharge units, field-supplied flanges should be attached to horizontal discharge openings, and all ductwork should be attached to the flanges.
- Minimum clearance (local codes or jurisdiction may prevail):
 - Between unit, flue side and combustible surfaces, 36 inches.
 - Bottom of unit to combustible surfaces (when not using curb), 1 inch. Bottom of base rail to combustible surfaces (when not using curb) 0 inches.
- Condenser coil, for proper airflow, 36 in. one side, 12 in. the other. The side getting the greater clearance is optional.
- Overhead, 60 in. to assure proper condenser fan operation.
- Between units, control box side, 42 in. per NEC (National Electrical Code).
- Between unit and ungrounded surfaces, control box side, 36 in. per NEC.
- Between unit and block or concrete walls and other grounded surfaces, control box side, 42 in. per NEC.
- Horizontal supply and return end, 0 inches.
- With the exception of the clearance for the condenser coil and combustion side as stated in Notes 5a, b, and c, a removable fence or barricade requires no clearance.
- Units may be installed on combustible floors made from wood or Class A, B, or C roof covering material if set on baserail.
- The vertical center of gravity is 1'-6" [457] up from the bottom of the base rail. Horizontal center of gravity is shown.

BASE UNIT DIMENSIONS — 580D090-150

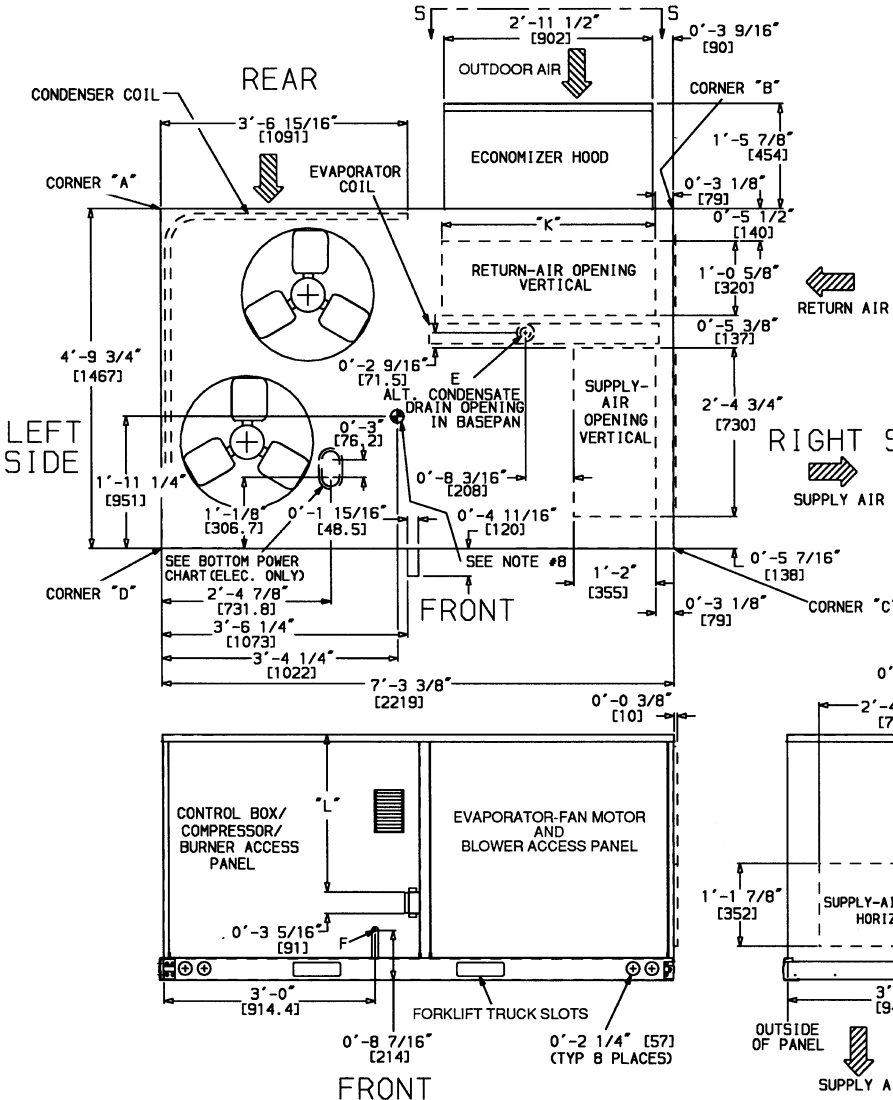
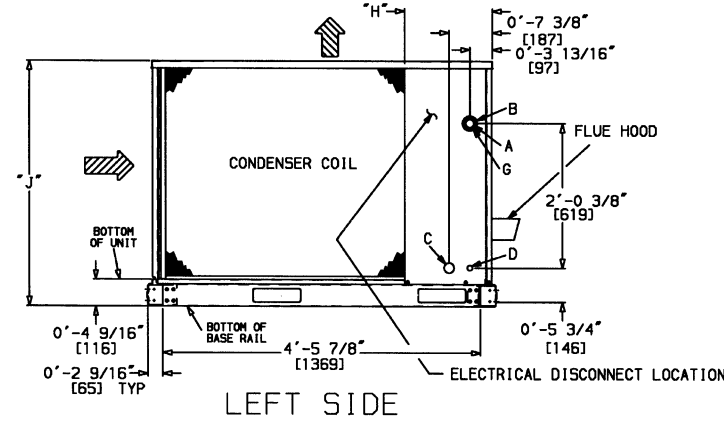
| UNIT 580D | CORNER WEIGHT* | | | | | | | | DIMENSIONS | | | | | | | |
|-----------|----------------|-----|-----|----|-----|-----|-----|-----|---------------------------------|------|----------------------------------|------|----------------------------------|-----|-----------------------------------|-----|
| | A | | B | | C | | D | | "H" | | "J" | | "K" | | "L" | |
| | lb | kg | lb | kg | lb | kg | lb | kg | ft-in. | mm | ft-in. | mm | ft-in. | mm | ft-in. | mm |
| 090 | 189 | 86 | 161 | 73 | 239 | 109 | 280 | 127 | 1-2 ⁷ / ₈ | 378 | 3-5 ⁵ / ₁₆ | 1050 | 2-9 ¹ / ₁₆ | 856 | 2-2 ⁷ / ₁₆ | 672 |
| 102 | 191 | 87 | 163 | 74 | 242 | 110 | 284 | 129 | 3-3 ⁷ / ₈ | 1013 | 3-5 ⁵ / ₁₆ | 1050 | 2-9 ¹ / ₁₆ | 856 | 2-2 ⁷ / ₁₆ | 672 |
| 120 | 225 | 102 | 192 | 87 | 285 | 129 | 333 | 151 | 2-5 ⁷ / ₈ | 759 | 4-1 ⁹ / ₁₆ | 1253 | 3-0 ³ / ₈ | 924 | 2-10 ⁷ / ₁₆ | 875 |
| 150 | 228 | 103 | 195 | 88 | 289 | 131 | 338 | 153 | 1-2 ⁷ / ₈ | 378 | 4-1 ⁵ / ₁₆ | 1253 | 3-0 ³ / ₈ | 924 | 2-10 ⁷ / ₁₆ | 875 |

| CONNECTION SIZES | |
|------------------|---|
| A | 1 ³ / ₈ " Dia [35] Field Power Supply Hole |
| B | 2 ¹ / ₂ " Dia [64] Power Supply Knockout |
| C | 1 ³ / ₄ " Dia [44] Charging Port Hole |
| D | 7 ⁸ / ₁₆ " Dia [22] Field Control Wiring Hole |
| E | 3 ⁴ / ₈ "-14 NPT Condensate Drain |
| F | 1 ² / ₂ "-14 NPT Gas Connection 090 125 & 102 125 |
| G | 3 ⁴ / ₈ "-14 NPT Gas Connection All Others |
| | 2" Dia [51] Power Supply Knockout |

*Weights are for units only (aluminum plate fins) and do not include options or crating.

NOTES:

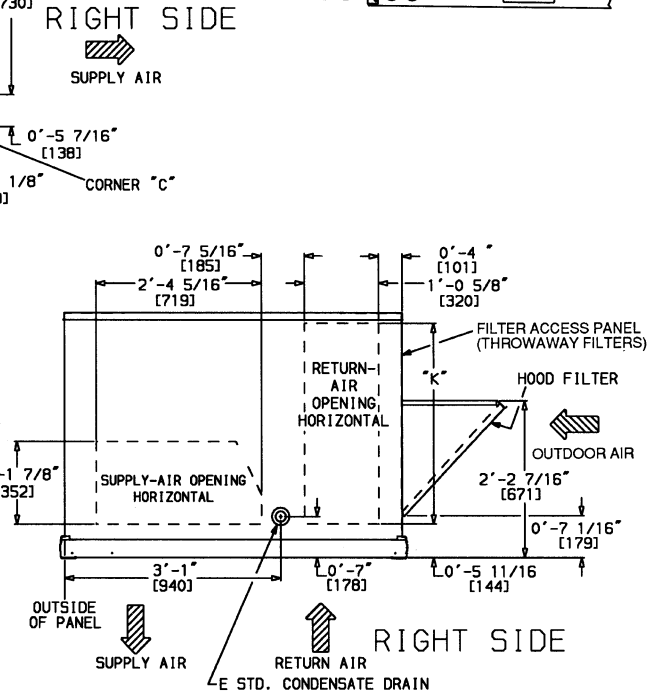
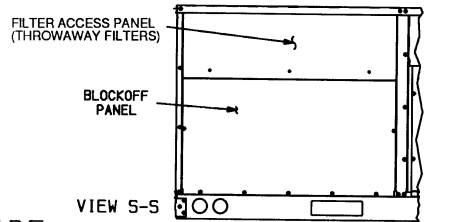
- Dimensions in [] are in millimeters.
- Center of gravity.
- Direction of airflow.
- On vertical discharge units, ductwork to be attached to accessory roof curb only. For horizontal discharge units field-supplied flanges should be attached to horizontal discharge openings, and all ductwork should be attached to the flanges.
- Minimum clearance (local codes or jurisdiction may prevail):
 - Between unit (flue side) and combustible surfaces, 48 inches.
 - Bottom of unit to combustible surfaces (when not using curb) 1 inch.
 - Bottom of base rail to combustible surfaces (when not using curb) 0 inches.
 - Condenser coil, for proper airflow, 36 in. one side, 12 in. the other. The side getting the greater clearance is optional.
 - Overhead, 60 in. to assure proper condenser fan operation.
 - Between units, control box side, 42 in. per NEC (National Electrical Code).
 - Between unit and ungrounded surfaces, control box side, 36 in. per NEC.
 - Between unit and block or concrete walls and other grounded surfaces, control box side, 42 in. per NEC.
 - Horizontal supply and return end, 0 inches.
- With the exception of the clearance for the condenser coil and combustion side as stated in Notes 5a, b, and c, a removable fence or barricade requires no clearance.
- Units may be installed on combustible floors made from wood or Class A, B, or C roof covering material if set on base rail.
 - The vertical center of gravity is 1'-7" [483] up from the bottom of the base rail.
 - Horizontal center of gravity is shown.



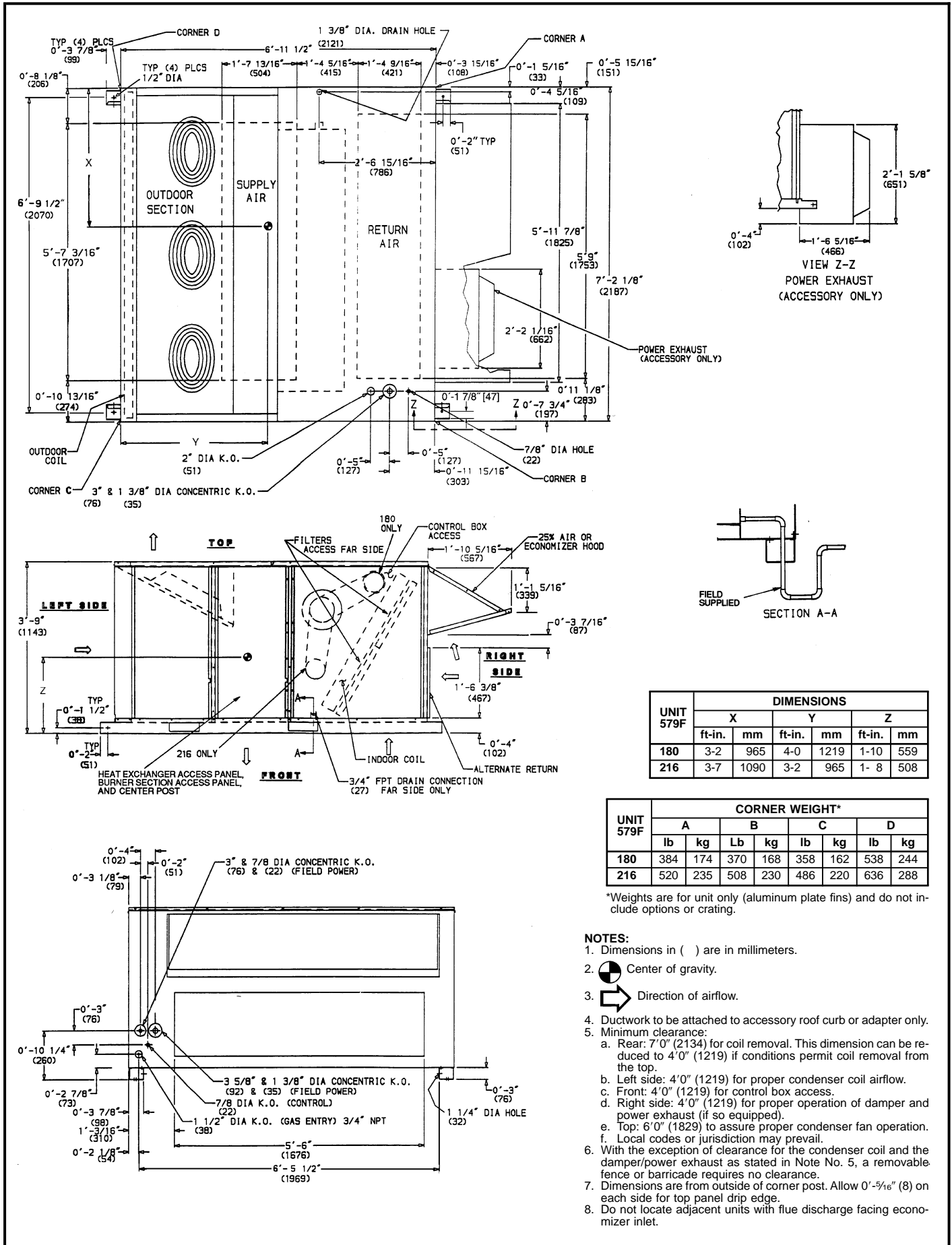
BOTTOM POWER CHART, THESE HOLES REQUIRED FOR USE WITH ACCESSORY PACKAGES — CRBTMPWR001A00 (1/2", 3/4") OR CRBTMPWR002A00 (1/2", 1/4")

| THREADED CONDUIT SIZE | WIRE SIZE | REQUIRED HOLE SIZES (MAX) |
|-----------------------|-------------|---------------------------|
| 1/2" | 24 V Power† | 7/8" [22.2] |
| 3/4" | Power† | 1 1/8" [28.4] |
| 1 1/4" | Power† | 1 3/4" [44.4] |

†Select either 3/4" or 1/4" for power, depending on wire size.



BASE UNIT DIMENSIONS — 579F180,216



| UNIT 579F | DIMENSIONS | | | | | |
|--------------|------------|------|--------|------|--------|-----|
| | X | | Y | | Z | |
| | ft-in. | mm | ft-in. | mm | ft-in. | mm |
| 180 | 3-2 | 965 | 4-0 | 1219 | 1-10 | 559 |
| 216 | 3-7 | 1090 | 3-2 | 965 | 1-8 | 508 |

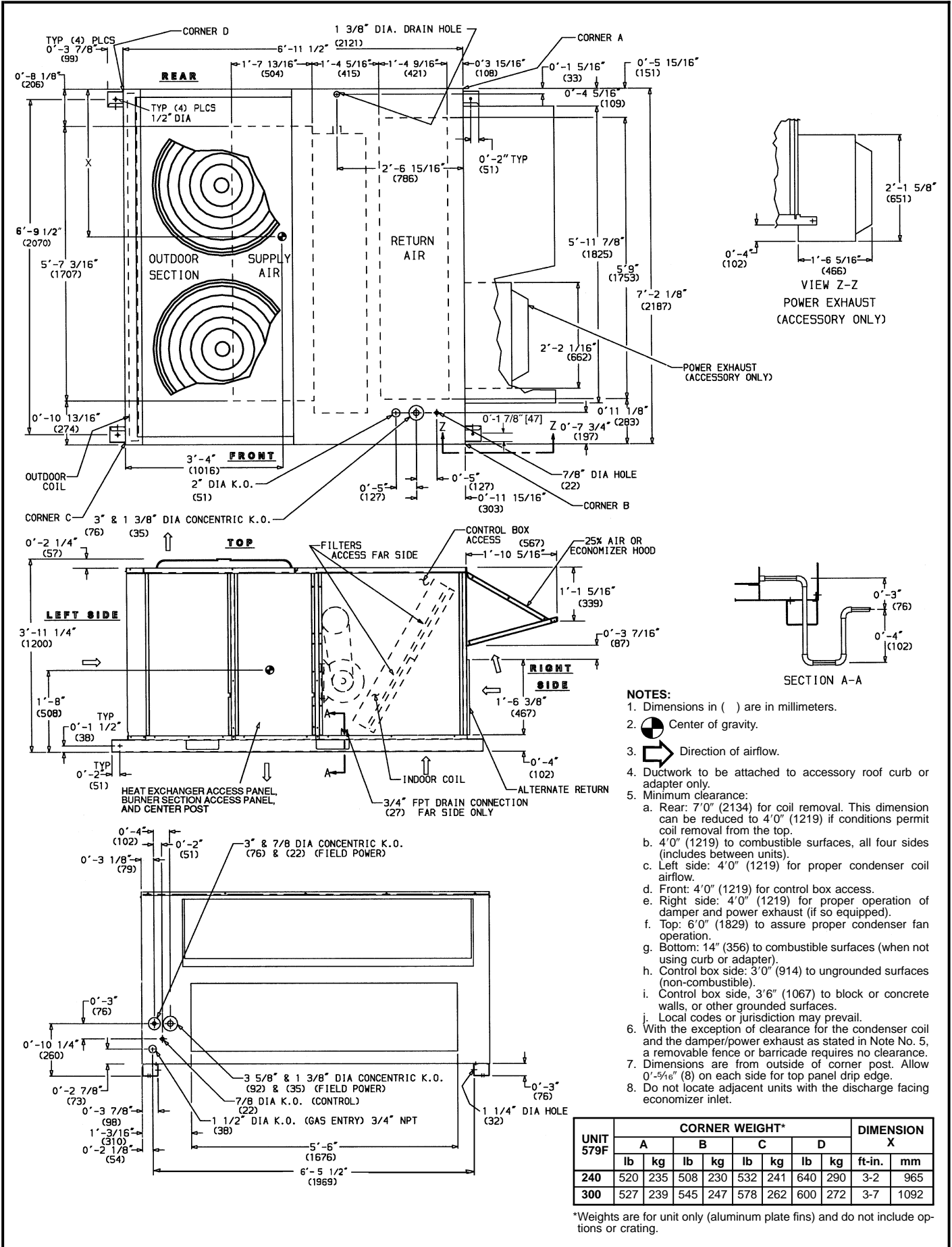
| UNIT 579F | CORNER WEIGHT* | | | | | | | |
|--------------|----------------|-----|-----|-----|-----|-----|-----|-----|
| | A | | B | | C | | D | |
| | lb | kg | Lb | kg | lb | kg | lb | kg |
| 180 | 384 | 174 | 370 | 168 | 358 | 162 | 538 | 244 |
| 216 | 520 | 235 | 508 | 230 | 486 | 220 | 636 | 288 |

*Weights are for unit only (aluminum plate fins) and do not include options or crating.

NOTES:

- Dimensions in () are in millimeters.
- Center of gravity.
- Direction of airflow.
- Ductwork to be attached to accessory roof curb or adapter only.
- Minimum clearance:
 - Rear: 7'0" (2134) for coil removal. This dimension can be reduced to 4'0" (1219) if conditions permit coil removal from the top.
 - Left side: 4'0" (1219) for proper condenser coil airflow.
 - Front: 4'0" (1219) for control box access.
 - Right side: 4'0" (1219) for proper operation of damper and power exhaust (if so equipped).
 - Top: 6'0" (1829) to assure proper condenser fan operation.
 - Local codes or jurisdiction may prevail.
- With the exception of clearance for the condenser coil and the damper/power exhaust as stated in Note No. 5, a removable fence or barricade requires no clearance.
- Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top panel drip edge.
- Do not locate adjacent units with flue discharge facing economizer inlet.

BASE UNIT DIMENSIONS — 579F240,300



- NOTES:**
- Dimensions in () are in millimeters.
 - Center of gravity.
 - Direction of airflow.
 - Ductwork to be attached to accessory roof curb or adapter only.
 - Minimum clearance:
 - Rear: 7'0" (2134) for coil removal. This dimension can be reduced to 4'0" (1219) if conditions permit coil removal from the top.
 - 4'0" (1219) to combustible surfaces, all four sides (includes between units).
 - Left side: 4'0" (1219) for proper condenser coil airflow.
 - Front: 4'0" (1219) for control box access.
 - Right side: 4'0" (1219) for proper operation of damper and power exhaust (if so equipped).
 - Top: 6'0" (1829) to assure proper condenser fan operation.
 - Bottom: 14" (356) to combustible surfaces (when not using curb or adapter).
 - Control box side: 3'0" (914) to ungrounded surfaces (non-combustible).
 - Control box side, 3'6" (1067) to block or concrete walls, or other grounded surfaces.
 - Local codes or jurisdiction may prevail.
 - With the exception of clearance for the condenser coil and the damper/power exhaust as stated in Note No. 5, a removable fence or barricade requires no clearance.
 - Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top panel drip edge.
 - Do not locate adjacent units with the discharge facing economizer inlet.

| UNIT 579F | CORNER WEIGHT* | | | | DIMENSION X | | | | | |
|--------------|----------------|-----|-----|-----|----------------|-----|-----|-----|-----|------|
| | A | B | C | D | ft-in. | mm | | | | |
| 240 | 520 | 235 | 508 | 230 | 532 | 241 | 640 | 290 | 3-2 | 965 |
| 300 | 527 | 239 | 545 | 247 | 578 | 262 | 600 | 272 | 3-7 | 1092 |

*Weights are for unit only (aluminum plate fins) and do not include options or crating.

ACCESSORY DIMENSIONS

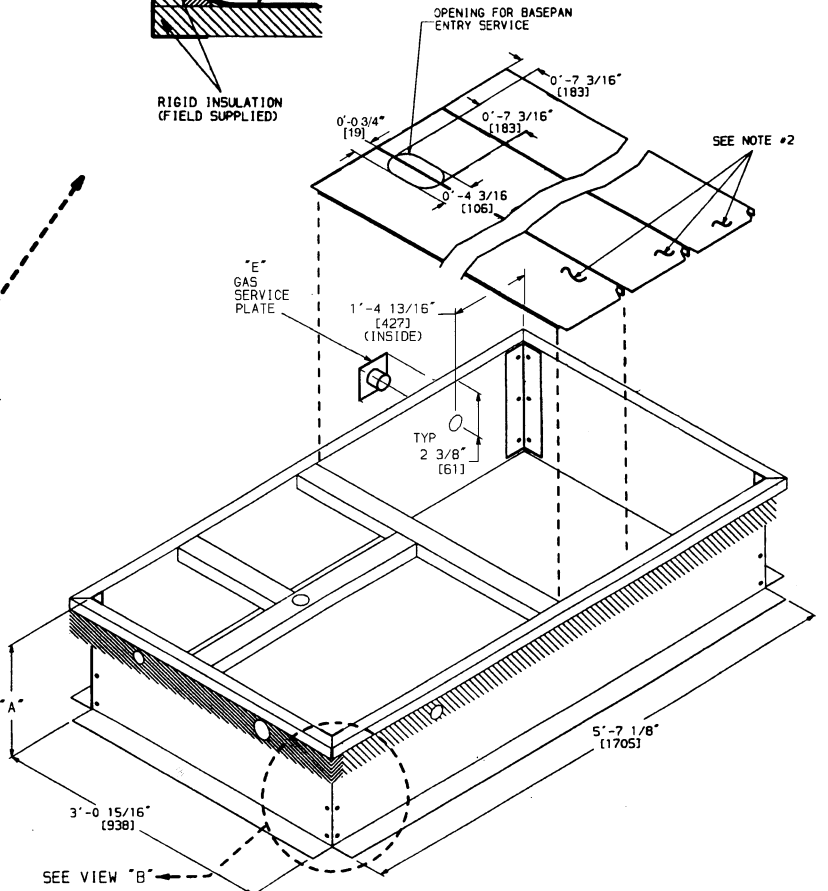
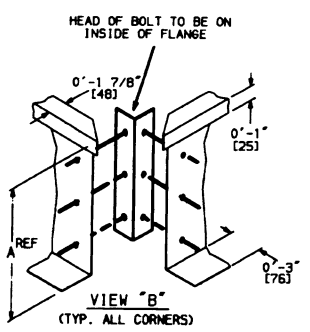
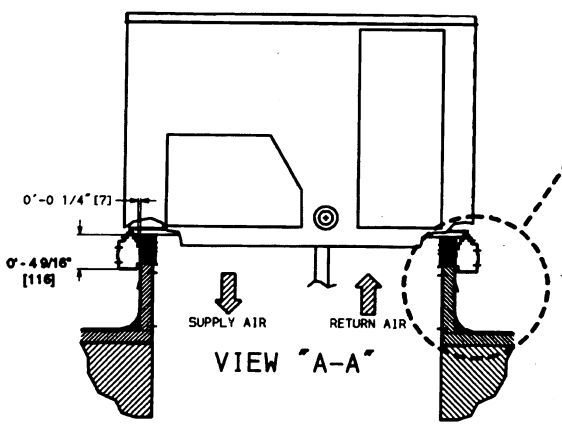
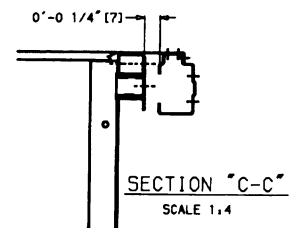
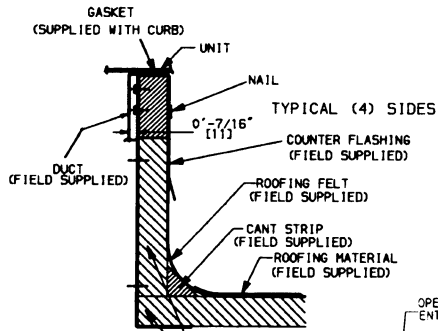
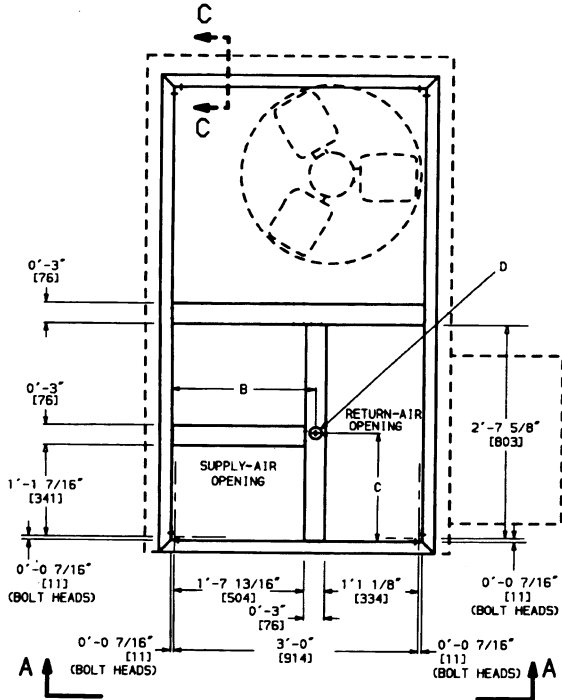
| ROOF CURB ACCESSORY | "A" | UNIT SIZE 580D |
|---------------------|-------------|----------------|
| CRRFCURB001A00 | 1'-2" [356] | 036-072 |
| CRRFCURB002A00 | 2'-0" [610] | |

| UNIT SIZE 580D | "B" | "C" | "D" ALT DRAIN HOLE | "E" GAS | POWER | CONTROL | CONNECTOR PKG ACY |
|----------------|------------------|-------------|--------------------|----------|------------|----------|-----------------------------------|
| 036-072 | 1'-9 1/16" [551] | 1'-4" [406] | 1 3/4" [45] | 3/4" NPT | 3/4" NPT | 1/2" NPT | CRBTMPWR001A00* (Thru-The-Bottom) |
| | | | | 3/4" NPT | 1 1/4" NPT | 1/2" NPT | CRBTMPWR002A00* (Thru-The-Bottom) |

*Either connector package available for either roof curb.

NOTES:

1. Roof curb accessory is shipped unassembled.
2. Insulated panels.
3. Dimensions in [] are in millimeters.
4. Roof curb: galvanized steel.
5. Attach ductwork to curb (flanges of duct rest on curb).
6. Service clearance 4 ft on each side.
7. Direction of airflow.



Roof Curb — 580D036-072

ACCESSORY DIMENSIONS (cont)

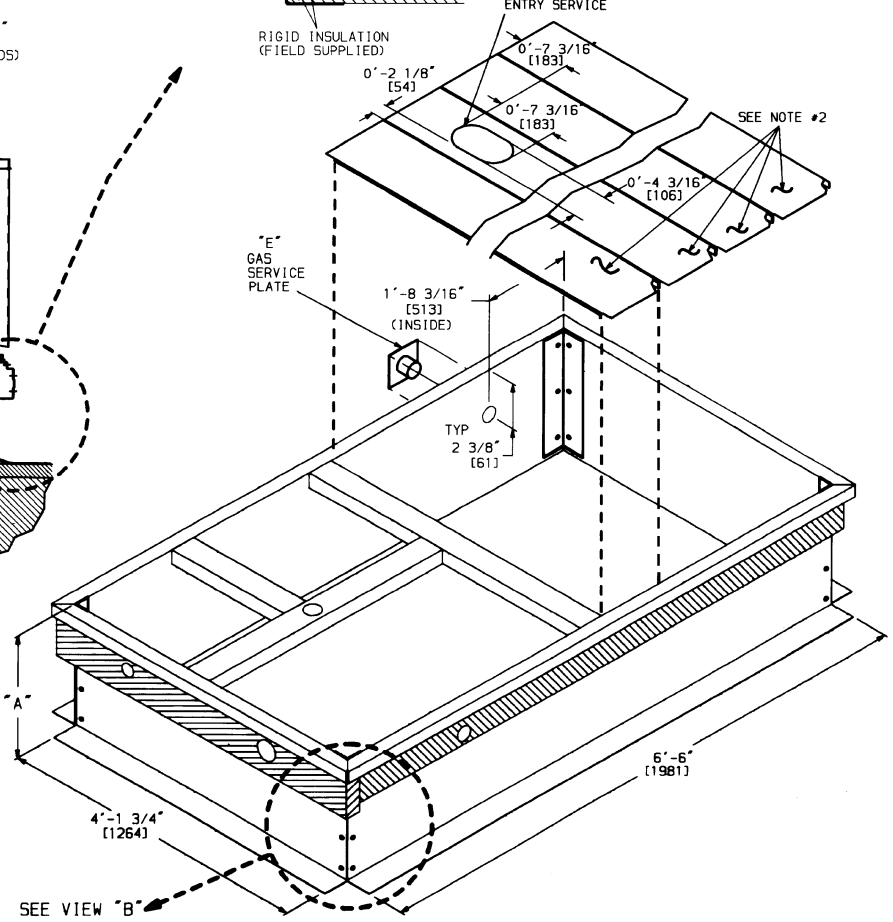
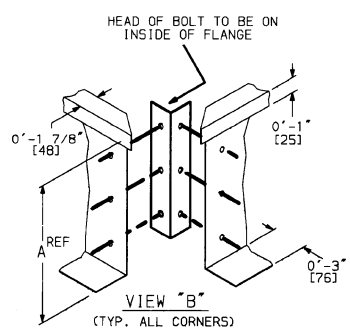
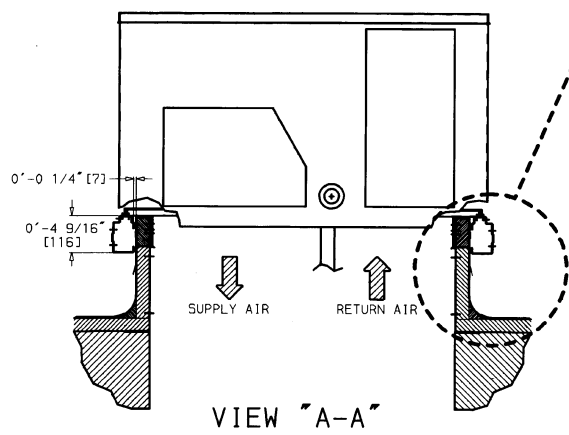
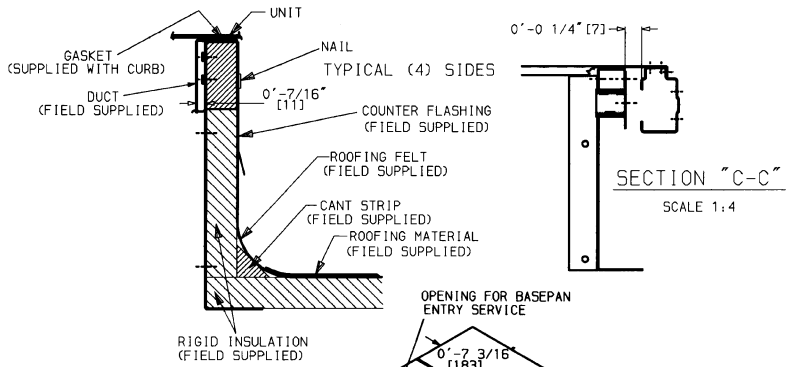
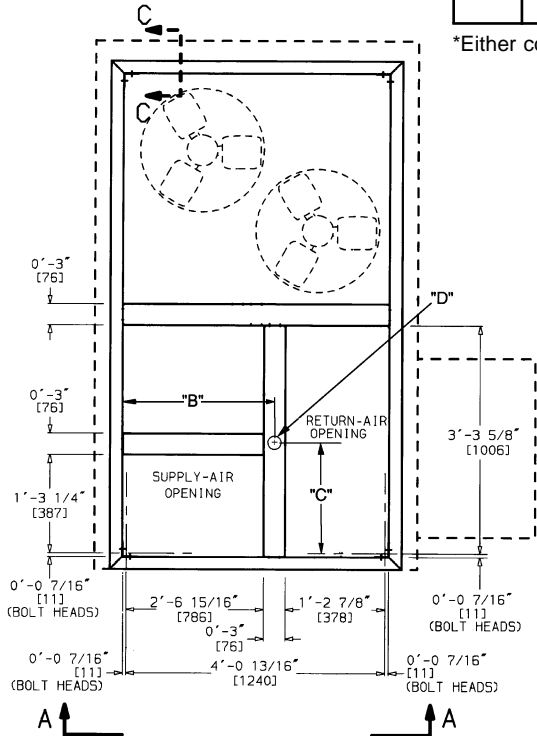
| ROOF CURB ACCESSORY | "A" | UNIT SIZE 580D |
|---------------------|----------------|----------------|
| CRRFCURB003A00 | 1'-2" [356] | 090-150 |
| CRRFCURB004A00 | 2'-0" [610] | |

| UNIT SIZE 580D | "B" | "C" | "D" ALT DRAIN HOLE | "E" GAS | POWER | CONTROL | CONNECTOR PACKAGE ACCESSORY |
|----------------|--|--|---|----------|------------|----------|--|
| 090-150 | 2'-8 ⁷ / ₁₆ " [827] | 1'-10 ¹⁵ / ₁₆ " [583] | 1 ³ / ₄ " [45] | 3/4" NPT | 3/4" NPT | 1/2" NPT | CRBTMPWR001A00* (THRU-THE-BOTTOM CONNECTIONS) |
| | | | | 3/4" NPT | 1 1/4" NPT | 1/2" NPT | CRBTMPWR002A00* (THRU-THE-BOTTOM CONNECTIONS) |

*Either connector package available for either roof curb.

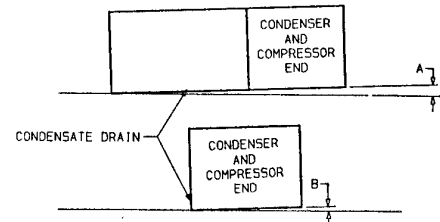
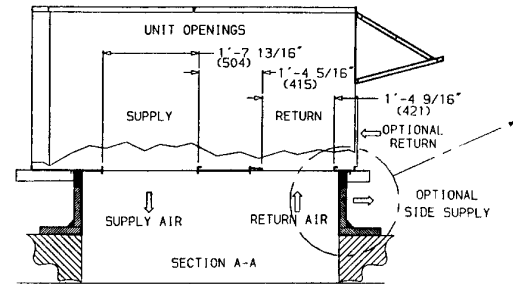
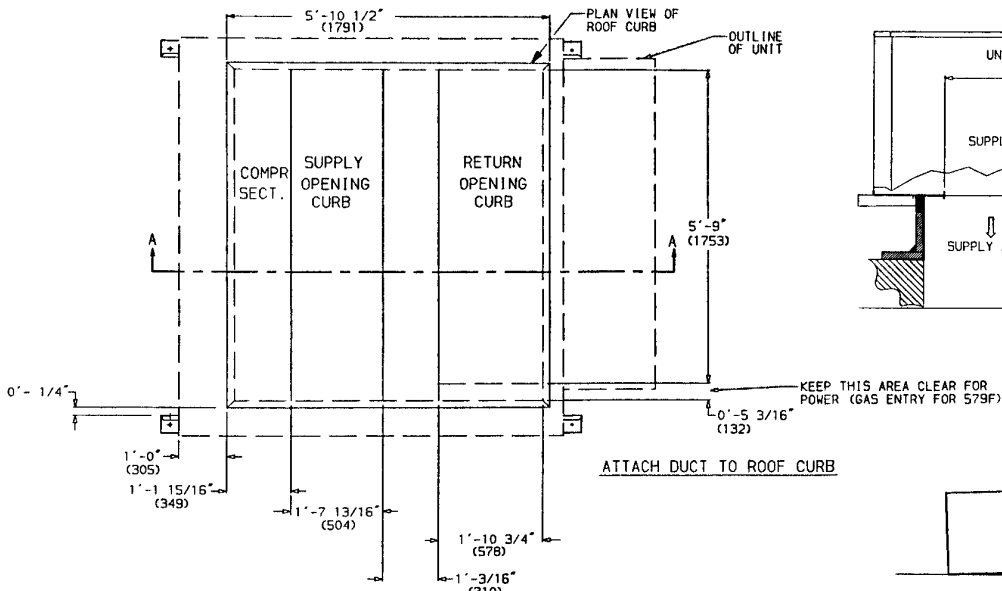
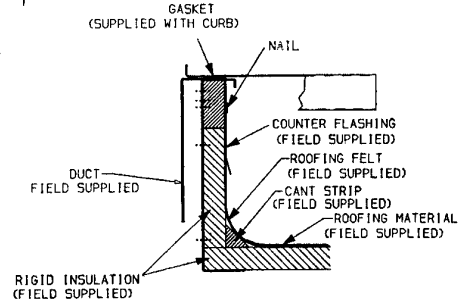
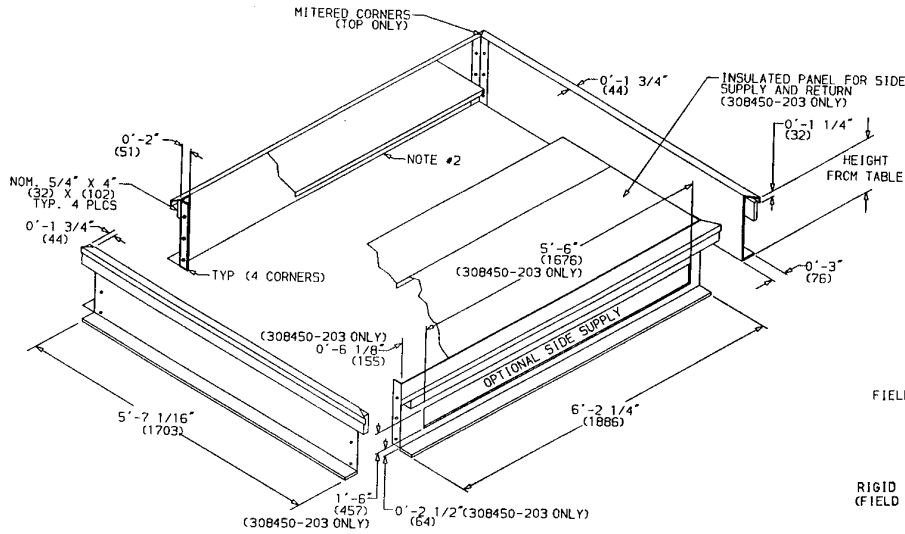
NOTES:

1. Roof curb accessory is shipped unassembled.
2. Insulated panels.
3. Dimensions in [] are in millimeters.
4. Roof curb: galvanized steel.
5. Attach ductwork to curb. (Flanges of duct rest on curb.)
6. Service clearance 4 ft on each side.
7. Direction of airflow.



Roof Curb — 580D090-150

ACCESSORY DIMENSIONS (cont)



NOTES:

1. Roof curb accessory is shipped unassembled.
2. Insulated panels, 1" thick neoprene coated, 1 1/2 lb density.
3. Dimensions in () are in millimeters.
4. Direction of airflow.
5. Roof curb: 16 ga. (VA03-56) steel.

NOTE: To prevent the hazard of stagnant water build-up in the drain pan of the indoor section, unit can only be pitched as shown.

LEGEND

COMPR SECT. — Compressor Section

DIMENSIONS (degrees and inches)

| UNIT | A | | B | |
|------|------|-----|------|-----|
| | DEG. | IN. | DEG. | IN. |
| 579F | .28 | .45 | .28 | .43 |

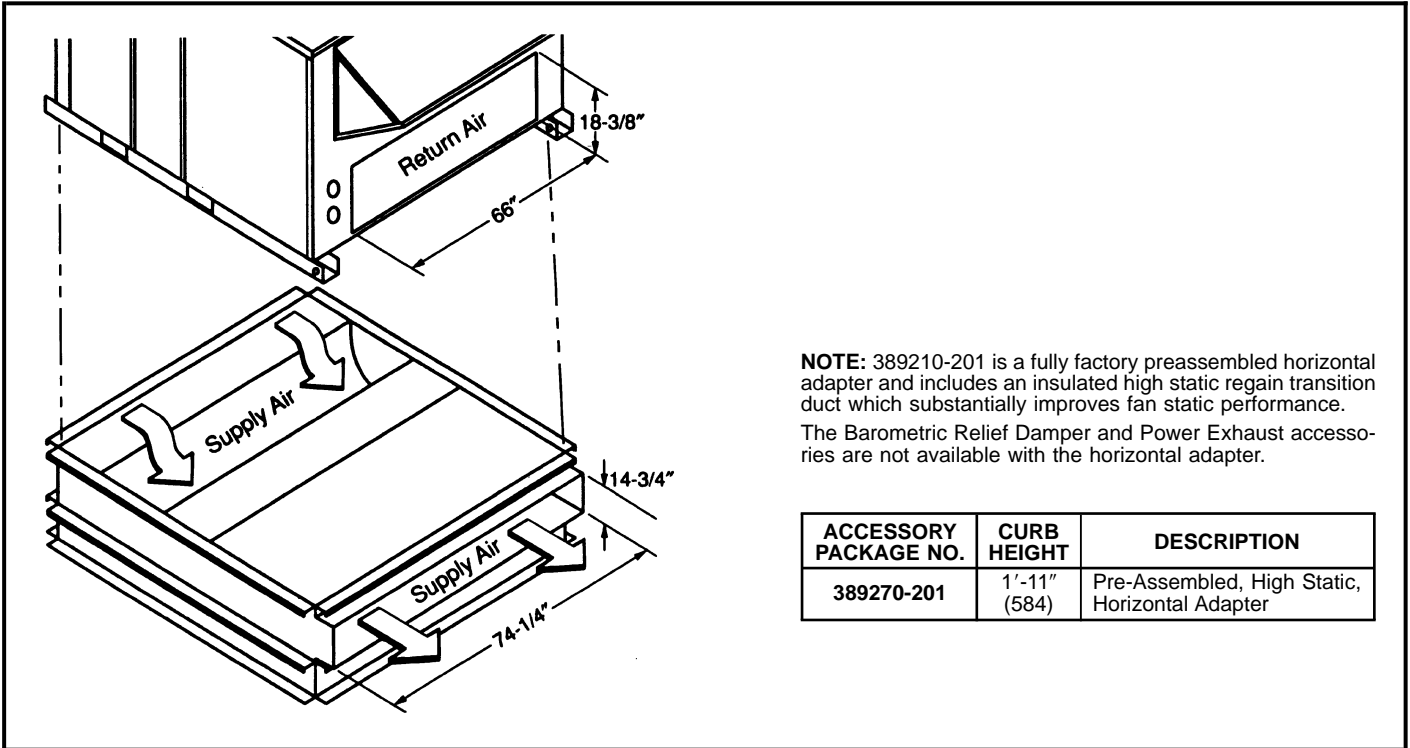
UNIT LEVELING TOLERANCES*

*From edge of unit to horizontal.

| PKG. NO. REF. | CURB HEIGHT | DESCRIPTION |
|---------------|-------------|---|
| 308450-201 | 1'-2" (355) | Standard curb 14" high |
| 308450-202 | 2'-0" (610) | Standard curb for units requiring high installation |
| 308450-203 | 2'-0" (610) | Side supply and return curb for high installation |

Horizontal and Vertical Roof Curbs and Horizontal Adapter 579F180-300

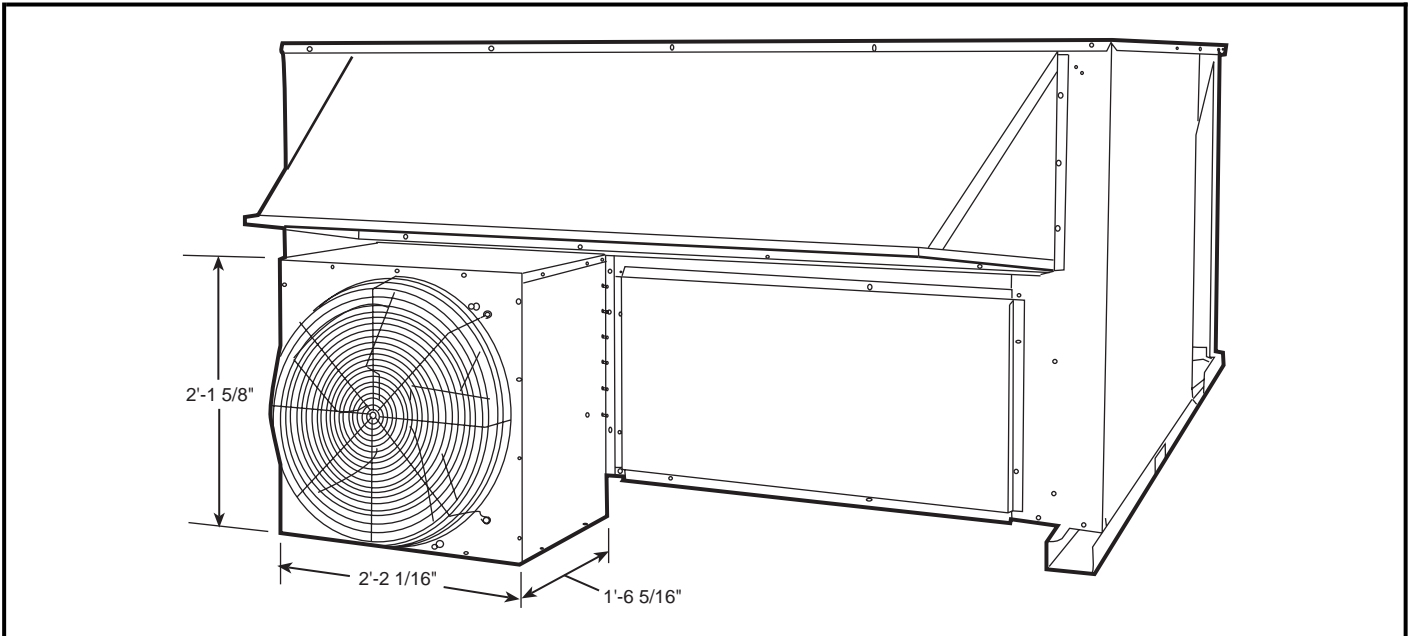
ACCESSORY DIMENSIONS (cont)



NOTE: 389210-201 is a fully factory preassembled horizontal adapter and includes an insulated high static regain transition duct which substantially improves fan static performance. The Barometric Relief Damper and Power Exhaust accessories are not available with the horizontal adapter.

| ACCESSORY PACKAGE NO. | CURB HEIGHT | DESCRIPTION |
|-----------------------|-----------------|--|
| 389270-201 | 1'-11" (584) | Pre-Assembled, High Static, Horizontal Adapter |

**Horizontal Supply/Return Adapter Installation
579F180-300**



**Power Exhaust
(579F180-300)**

SELECTION PROCEDURE (with 579F180 example)

I DETERMINE COOLING AND HEATING REQUIREMENTS AT DESIGN CONDITIONS.

Given:

Required Cooling Capacity 170,000 Btuh
Sensible Heat Capacity 114,000 Btuh
Required Heating Capacity 200,000 Btuh
Condenser Entering Air Temp 95 F (Summer)
Evaporator Entering Air Temp 80 F edb,
67 F ewb
Evaporator Air Quantity 4,500 cfm
External Static Pressure 0.6 in. wg
Electrical Characteristics (V-Ph-Hz) 460-3-60
Vertical discharge unit with optional economizer required.

edb — Entering dry-bulb
ewb — Entering wet-bulb

II SELECT UNIT BASED ON REQUIRED COOLING CAPACITY.

Enter Cooling Capacities table for 579F180 (page 29) at condenser entering temperature 95 F, evaporator air entering at 4,500 cfm and 67 F wb. The 579F180 unit will provide a total cooling capacity of 180,000 Btuh and a sensible heating capacity of 120,000 Btuh. For air entering evaporator at temperatures other than 80 F edb, calculate sensible heat capacity correction as required using the formula in the notes following the Cooling Capacities tables.

NOTE: Unit ratings are gross capacities and do not include the effect of evaporator-fan motor heat. To calculate net capacities, see Step V.

III SELECT HEATING CAPACITY OF UNIT TO PROVIDE DESIGN CONDITION REQUIREMENTS.

In the Heating Capacities and Efficiencies table (page 7) note that the 579F180 300 will provide an output capacity of 243,000 Btuh, which is adequate for the given application.

IV DETERMINE FAN SPEED AND POWER REQUIREMENTS AT DESIGN CONDITIONS.

Before entering the Fan Performance tables, calculate the total static pressure required based on unit components. From the given and the Accessory/FIOP Static Pressure table on page 52 find:

| | |
|----------------------------|--------------------|
| External static pressure | 0.60 in. wg |
| Economizer static pressure | <u>0.04 in. wg</u> |
| Total static pressure | 0.64 in. wg |

Enter the Fan Performance table 579F180 (page 47) at 4,500 cfm and 0.64 in. wg external static pressure. By interpolation, find that the rpm is 988 and the watts are 1334.

V DETERMINE NET COOLING CAPACITY.

Cooling capacities are gross capacities and do not include indoor (evaporator) fan motor (IFM) heat. Use the watts input power to the motor calculated in Section IV above.

IFM Watts = 1334

Determine net cooling capacity using the following formula:

$$\begin{aligned} \text{Net capacity} &= \text{Gross capacity} - \text{IFM heat} \\ &= 180,000 \text{ Btuh} - 1334 \text{ Watts} \\ &\quad \left(3.412 \frac{\text{Btuh}}{\text{Watts}} \right) \\ &= 180,000 \text{ Btuh} - 4552 \text{ Btuh} \\ &= 175,448 \text{ Btuh} \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 120,000 \text{ Btuh} - 4552 \text{ Btuh} \\ &= 115,448 \text{ Btuh} \end{aligned}$$

The calculations show that a 579F180 unit with the standard motor and standard low-medium static drive is the correct selection for the given conditions.

PERFORMANCE DATA

COOLING CAPACITIES

| 580D036 (3 TONS) | | | | | | | | | | |
|--|-----|-----------------------------------|------|------|-----------|------|------|-----------|------|------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | |
| | | 900/0.11 | | | 1200/0.14 | | | 1500/0.17 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 42.8 | 38.9 | 35.0 | 44.8 | 40.8 | 37.0 | 45.8 | 41.9 | 38.2 |
| | SHC | 20.0 | 24.5 | 28.7 | 21.8 | 27.5 | 32.8 | 23.0 | 30.0 | 36.0 |
| | kW | 2.91 | 2.81 | 2.70 | 2.99 | 2.88 | 2.78 | 3.02 | 2.92 | 2.82 |
| 85 | TC | 40.8 | 36.9 | 33.3 | 42.5 | 38.7 | 35.0 | 43.6 | 39.9 | 36.1 |
| | SHC | 19.4 | 23.7 | 27.9 | 21.0 | 26.8 | 31.8 | 22.6 | 29.7 | 35.1 |
| | kW | 3.14 | 3.01 | 2.90 | 3.20 | 3.08 | 2.97 | 3.24 | 3.14 | 3.02 |
| 95 | TC | 38.7 | 34.9 | 31.4 | 40.4 | 36.6 | 33.0 | 41.4 | 37.6 | 34.1 |
| | SHC | 18.6 | 22.9 | 27.0 | 20.3 | 26.0 | 30.9 | 22.0 | 28.8 | 34.0 |
| | kW | 3.35 | 3.21 | 3.09 | 3.42 | 3.29 | 3.16 | 3.47 | 3.35 | 3.22 |
| 105 | TC | 36.5 | 32.8 | 29.2 | 38.1 | 34.3 | 30.9 | 39.0 | 35.2 | 32.4 |
| | SHC | 17.8 | 22.1 | 25.9 | 19.6 | 25.2 | 29.8 | 21.2 | 28.0 | 32.3 |
| | kW | 3.55 | 3.41 | 3.27 | 3.63 | 3.49 | 3.35 | 3.68 | 3.54 | 3.43 |
| 115 | TC | 34.3 | 30.7 | 26.9 | 35.7 | 32.1 | 28.8 | 36.5 | 32.9 | 30.6 |
| | SHC | 17.0 | 21.3 | 24.8 | 19.0 | 24.4 | 28.8 | 20.5 | 27.1 | 30.6 |
| | kW | 3.76 | 3.60 | 3.45 | 3.84 | 3.68 | 3.54 | 3.88 | 3.74 | 3.64 |

| 580D060 (5 TONS) | | | | | | | | | | |
|--|-----|-----------------------------------|------|------|-----------|------|------|-----------|------|------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | |
| | | 1500/0.07 | | | 2000/0.09 | | | 2500/0.12 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 71.0 | 63.8 | 55.4 | 74.5 | 67.2 | 59.2 | 76.5 | 69.7 | 62.1 |
| | SHC | 33.9 | 41.5 | 47.9 | 37.4 | 47.4 | 55.8 | 40.6 | 52.8 | 61.8 |
| | kW | 5.04 | 4.82 | 4.62 | 5.20 | 4.97 | 4.76 | 5.29 | 5.06 | 4.87 |
| 85 | TC | 69.2 | 61.0 | 54.2 | 72.9 | 65.6 | 57.2 | 75.2 | 68.1 | 61.5 |
| | SHC | 33.4 | 40.5 | 47.3 | 37.0 | 46.9 | 54.9 | 40.1 | 52.3 | 61.3 |
| | kW | 5.50 | 5.27 | 5.02 | 5.66 | 5.41 | 5.18 | 5.75 | 5.50 | 5.29 |
| 95 | TC | 65.5 | 56.6 | 50.4 | 69.4 | 60.9 | 53.1 | 71.2 | 63.3 | 57.8 |
| | SHC | 32.1 | 38.8 | 45.6 | 35.8 | 45.3 | 52.6 | 39.1 | 50.9 | 57.8 |
| | kW | 5.88 | 5.62 | 5.37 | 6.01 | 5.76 | 5.53 | 6.12 | 5.87 | 5.67 |
| 105 | TC | 61.9 | 53.1 | 47.1 | 65.4 | 56.6 | 50.5 | 67.1 | 58.8 | 54.5 |
| | SHC | 30.8 | 37.5 | 44.1 | 34.5 | 43.7 | 50.2 | 37.9 | 49.3 | 54.5 |
| | kW | 6.25 | 5.99 | 5.72 | 6.38 | 6.13 | 5.91 | 6.50 | 6.23 | 6.06 |
| 115 | TC | 58.2 | 49.7 | 43.7 | 61.4 | 52.3 | 47.8 | 63.0 | 54.3 | 51.2 |
| | SHC | 29.5 | 36.1 | 42.5 | 33.2 | 42.1 | 47.8 | 36.7 | 47.6 | 51.2 |
| | kW | 6.63 | 6.35 | 6.08 | 6.75 | 6.49 | 6.29 | 6.88 | 6.59 | 6.46 |

| 580D048 (4 TONS) | | | | | | | | | | |
|--|-----|-----------------------------------|------|------|-----------|------|------|-----------|------|------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | |
| | | 1200/0.12 | | | 1600/0.15 | | | 2000/0.18 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 57.9 | 53.1 | 48.3 | 60.4 | 55.9 | 51.3 | 62.2 | 57.3 | 52.9 |
| | SHC | 27.2 | 33.3 | 39.2 | 29.4 | 37.2 | 44.8 | 31.4 | 40.3 | 49.1 |
| | kW | 4.07 | 3.93 | 3.79 | 4.17 | 4.03 | 3.90 | 4.24 | 4.08 | 3.96 |
| 85 | TC | 55.7 | 50.8 | 45.3 | 57.7 | 53.4 | 48.5 | 59.4 | 55.0 | 50.2 |
| | SHC | 26.4 | 32.5 | 37.8 | 28.4 | 36.7 | 43.6 | 30.5 | 40.3 | 47.9 |
| | kW | 4.40 | 4.24 | 4.08 | 4.47 | 4.35 | 4.20 | 4.54 | 4.42 | 4.25 |
| 95 | TC | 52.9 | 48.1 | 42.5 | 55.2 | 50.5 | 45.7 | 56.7 | 52.0 | 47.4 |
| | SHC | 25.5 | 31.5 | 36.4 | 27.6 | 35.6 | 42.2 | 29.7 | 39.2 | 46.7 |
| | kW | 4.70 | 4.54 | 4.36 | 4.78 | 4.63 | 4.47 | 4.87 | 4.70 | 4.56 |
| 105 | TC | 50.1 | 45.3 | 39.8 | 52.3 | 47.6 | 42.8 | 53.6 | 48.9 | 44.9 |
| | SHC | 24.4 | 30.3 | 35.1 | 26.7 | 34.5 | 40.7 | 28.8 | 38.1 | 44.6 |
| | kW | 5.00 | 4.81 | 4.62 | 5.10 | 4.91 | 4.73 | 5.17 | 4.99 | 4.84 |
| 115 | TC | 47.3 | 42.6 | 37.2 | 49.3 | 44.6 | 40.0 | 50.5 | 45.9 | 42.4 |
| | SHC | 23.4 | 29.2 | 33.7 | 25.9 | 33.3 | 39.3 | 27.8 | 37.1 | 42.4 |
| | kW | 5.30 | 5.07 | 4.88 | 5.42 | 5.19 | 4.99 | 5.48 | 5.28 | 5.12 |

Standard Ratings

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry-Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry-Bulb
- Lwb — Leaving Wet-Bulb
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- TC — Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

t_{lwb} = Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

3. The SHC is based on 80 F edb temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from SHC.
Above 80 F edb, add (corr factor x cfm) to SHC.

$$\text{Correction Factor} = 1.10 \times (1 - \text{BF}) \times (\text{edb} - 80).$$

| 580D072 (6 TONS) | | | | | | | | | | | | | |
|--|-----|-----------------------------------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | |
| | | 1800/0.06 | | | 2100/0.08 | | | 2400/0.09 | | | 3000/0.11 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 86.6 | 80.0 | 73.6 | 87.8 | 80.3 | 73.2 | 90.8 | 84.1 | 77.2 | 93.2 | 86.6 | 79.7 |
| | SHC | 42.2 | 52.3 | 62.2 | 43.0 | 53.9 | 65.5 | 46.5 | 59.6 | 71.6 | 50.1 | 66.4 | 78.7 |
| | kW | 5.48 | 5.33 | 5.21 | 5.69 | 5.50 | 5.32 | 5.59 | 5.44 | 5.29 | 5.66 | 5.51 | 5.35 |
| 85 | TC | 84.1 | 77.4 | 71.0 | 84.0 | 77.2 | 69.5 | 87.8 | 81.2 | 74.5 | 90.1 | 83.5 | 77.3 |
| | SHC | 41.4 | 51.3 | 61.1 | 41.7 | 53.1 | 64.0 | 45.5 | 58.6 | 70.3 | 49.4 | 65.4 | 76.7 |
| | kW | 6.17 | 6.00 | 5.85 | 6.21 | 6.04 | 5.83 | 6.27 | 6.11 | 5.94 | 6.35 | 6.19 | 6.02 |
| 95 | TC | 81.6 | 74.7 | 68.5 | 81.0 | 73.5 | 66.3 | 84.8 | 78.2 | 71.8 | 87.0 | 80.4 | 74.8 |
| | SHC | 40.6 | 50.3 | 60.0 | 40.8 | 51.8 | 62.8 | 44.6 | 57.6 | 69.1 | 48.7 | 64.5 | 74.7 |
| | kW | 6.86 | 6.67 | 6.49 | 6.78 | 6.54 | 6.33 | 6.95 | 6.77 | 6.59 | 7.03 | 6.86 | 6.69 |
| 105 | TC | 78.4 | 71.8 | 65.6 | 76.8 | 69.7 | 62.5 | 81.6 | 74.9 | 68.9 | 83.3 | 76.9 | 72.1 |
| | SHC | 39.4 | 49.2 | 58.7 | 39.4 | 50.3 | 61.1 | 43.5 | 56.4 | 67.4 | 47.4 | 63.1 | 72.0 |
| | kW | 7.60 | 7.39 | 7.20 | 7.30 | 7.05 | 6.80 | 7.72 | 7.50 | 7.31 | 7.77 | 7.59 | 7.41 |
| 115 | TC | 75.1 | 68.7 | 62.5 | 72.5 | 65.5 | 58.7 | 78.0 | 71.5 | 66.1 | 79.5 | 73.3 | 69.3 |
| | SHC | 38.1 | 47.9 | 57.2 | 37.9 | 48.7 | 58.7 | 42.3 | 55.1 | 65.5 | 46.3 | 61.6 | 69.2 |
| | kW | 8.36 | 8.14 | 7.93 | 7.81 | 7.53 | 7.27 | 8.49 | 8.25 | 8.06 | 8.55 | 8.33 | 8.18 |

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

| 580D090 (7½ TONS) | | | | | | | | | | | | | |
|--|-----------------------------------|-------|------|-----------|-------|------|-----------|-------|------|-----------|-------|-------|------|
| Temp (F) Air Entering Condenser (Edb) | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | | |
| | 2250/0.07 | | | 2800/0.09 | | | 3000/0.10 | | | 3750/0.12 | | | |
| | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | | |
| | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | |
| 75 | TC | 102.8 | 94.8 | 86.2 | 105.8 | 98.2 | 90.0 | 106.4 | 99.0 | 90.8 | 109.2 | 101.6 | 93.6 |
| | SHC | 49.4 | 61.8 | 73.2 | 52.6 | 67.8 | 81.6 | 53.6 | 69.8 | 84.0 | 58.2 | 77.4 | 92.2 |
| | kW | 7.14 | 6.82 | 6.50 | 7.28 | 6.98 | 6.68 | 7.32 | 7.04 | 6.72 | 7.46 | 7.18 | 6.86 |
| 85 | TC | 98.2 | 90.2 | 81.6 | 101.8 | 93.6 | 85.2 | 102.6 | 94.4 | 86.0 | 104.6 | 96.8 | 89.6 |
| | SHC | 48.0 | 60.2 | 71.2 | 51.6 | 66.4 | 79.6 | 52.8 | 68.6 | 82.0 | 56.8 | 76.0 | 89.4 |
| | kW | 7.66 | 7.34 | 7.00 | 7.82 | 7.50 | 7.18 | 7.86 | 7.54 | 7.22 | 7.98 | 7.68 | 7.40 |
| 95 | TC | 93.8 | 85.2 | 76.6 | 97.0 | 88.4 | 80.0 | 97.6 | 89.0 | 81.2 | 99.4 | 91.2 | 85.2 |
| | SHC | 46.4 | 58.2 | 68.8 | 50.2 | 64.6 | 77.2 | 51.4 | 66.8 | 79.0 | 55.6 | 74.4 | 85.2 |
| | kW | 8.18 | 7.84 | 7.48 | 8.36 | 8.00 | 7.64 | 8.40 | 8.04 | 7.70 | 8.50 | 8.16 | 7.92 |
| 105 | TC | 88.4 | 79.8 | 70.8 | 91.0 | 82.8 | 74.6 | 91.6 | 83.4 | 76.0 | 93.8 | 85.4 | 80.6 |
| | SHC | 44.6 | 56.2 | 66.0 | 48.2 | 62.6 | 74.2 | 49.4 | 64.8 | 75.6 | 54.2 | 72.4 | 80.6 |
| | kW | 8.68 | 8.30 | 7.98 | 8.80 | 8.46 | 8.14 | 8.86 | 8.50 | 8.20 | 8.98 | 8.64 | 8.42 |
| 115 | TC | 82.8 | 73.8 | 66.0 | 85.2 | 76.8 | 69.6 | 85.6 | 77.4 | 71.0 | 87.6 | 79.4 | 76.0 |
| | SHC | 42.6 | 53.8 | 63.2 | 46.4 | 60.4 | 69.6 | 47.8 | 62.6 | 71.0 | 52.8 | 70.4 | 75.8 |
| | kW | 9.16 | 8.78 | 8.42 | 9.30 | 8.92 | 8.64 | 9.34 | 8.96 | 8.72 | 9.48 | 9.10 | 8.94 |

| 580D102 (8½ TONS) | | | | | | | | | | | | | |
|--|-----------------------------------|-------|-------|-----------|-------|-------|-----------|-------|-------|------------|-------|-------|-------|
| Temp (F) Air Entering Condenser (Edb) | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | | |
| | 2550/0.08 | | | 3000/0.10 | | | 3400/0.11 | | | 4250/0.135 | | | |
| | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | | |
| | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | |
| 75 | TC | 116.6 | 108.4 | 99.0 | 119.2 | 111.3 | 101.8 | 120.1 | 112.8 | 103.6 | 122.3 | 114.8 | 106.3 |
| | SHC | 71.9 | 61.9 | 75.9 | 75.2 | 65.1 | 81.4 | 80.5 | 68.0 | 85.6 | 32.7 | 73.9 | 94.4 |
| | kW | 7.77 | 7.57 | 7.38 | 7.86 | 10.68 | 7.44 | 7.89 | 6.72 | 7.51 | 7.97 | 7.80 | 7.60 |
| 85 | TC | 113.3 | 104.2 | 94.0 | 115.7 | 106.9 | 97.0 | 117.2 | 108.7 | 98.8 | 120.1 | 111.0 | 101.8 |
| | SHC | 54.0 | 67.7 | 80.4 | 56.3 | 72.5 | 87.1 | 58.2 | 76.4 | 92.5 | 62.9 | 84.2 | 101.0 |
| | kW | 8.46 | 8.22 | 7.96 | 8.54 | 8.31 | 8.04 | 8.60 | 8.38 | 8.12 | 8.72 | 8.48 | 8.23 |
| 95 | TC | 109.1 | 99.3 | 87.3 | 111.2 | 102.0 | 91.4 | 112.5 | 103.6 | 93.7 | 115.3 | 105.8 | 107.4 |
| | SHC | 52.6 | 65.9 | 77.4 | 55.0 | 70.9 | 84.9 | 57.1 | 75.1 | 90.3 | 62.2 | 83.2 | 97.3 |
| | kW | 8.90 | 8.97 | 8.68 | 8.99 | 9.06 | 8.79 | 9.06 | 9.12 | 8.86 | 4.76 | 9.24 | 9.00 |
| 105 | TC | 103.3 | 94.0 | 81.4 | 105.9 | 96.3 | 84.6 | 107.4 | 97.7 | 87.9 | 109.4 | 99.9 | 92.8 |
| | SHC | 50.5 | 54.0 | 74.5 | 53.5 | 69.1 | 81.4 | 55.8 | 73.1 | 86.6 | 60.4 | 81.4 | 92.8 |
| | kW | 9.74 | 9.43 | 9.08 | 9.85 | 9.54 | 9.21 | 9.92 | 9.60 | 9.29 | 10.03 | 9.72 | 9.48 |
| 115 | TC | 97.7 | 87.9 | 75.9 | 99.9 | 90.4 | 78.8 | 101.3 | 91.8 | 82.4 | 102.9 | 93.8 | 88.3 |
| | SHC | 48.7 | 61.7 | 71.9 | 51.8 | 66.9 | 78.1 | 54.0 | 71.2 | 82.3 | 58.5 | 79.4 | 88.2 |
| | kW | 10.33 | 9.97 | 9.61 | 10.46 | 10.10 | 9.75 | 10.54 | 10.18 | 9.88 | 10.61 | 10.30 | 10.10 |

 Standard Ratings

LEGEND

- BF** — Bypass Factor
- Edb** — Entering Dry-Bulb
- Ewb** — Entering Wet-Bulb
- kW** — Compressor Motor Power Input
- Ldb** — Leaving Dry-Bulb
- Lwb** — Leaving Wet-Bulb
- SHC** — Sensible Heat Capacity (1000 Btuh) Gross
- TC** — Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (} h_{lwb} \text{)}$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

3. The SHC is based on 80 F edb temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from SHC.
Above 80 F edb, add (corr factor x cfm) to SHC.

$$\text{Correction Factor} = 1.10 \times (1 - \text{BF}) \times (\text{edb} - 80).$$

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

| 580D120 (10 TONS) | | | | | | | | | | |
|--|-----|-----------------------------------|-------|-------|------------|-------|-------|-----------|-------|-------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | |
| | | 3000/0.095 | | | 4000/0.125 | | | 5000/0.15 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 135.8 | 124.8 | 112.0 | 142.4 | 130.6 | 119.8 | 146.5 | 134.2 | 123.7 |
| | SHC | 66.8 | 82.6 | 97.4 | 73.2 | 93.4 | 112.7 | 79.7 | 104.4 | 123.1 |
| | kW | 9.76 | 9.41 | 9.10 | 10.00 | 9.61 | 9.27 | 10.17 | 9.75 | 9.41 |
| 85 | TC | 130.0 | 119.6 | 104.0 | 136.0 | 125.0 | 114.5 | 140.0 | 127.9 | 118.8 |
| | SHC | 64.3 | 80.5 | 93.8 | 71.1 | 91.7 | 110.2 | 77.5 | 101.8 | 118.7 |
| | kW | 10.41 | 10.07 | 9.74 | 10.67 | 10.28 | 9.94 | 10.84 | 10.41 | 10.09 |
| 95 | TC | 124.1 | 113.7 | 96.7 | 129.5 | 118.9 | 106.9 | 132.8 | 122.0 | 114.1 |
| | SHC | 62.2 | 78.4 | 90.0 | 69.1 | 89.8 | 105.9 | 74.9 | 100.1 | 114.0 |
| | kW | 11.13 | 10.78 | 10.40 | 11.38 | 10.99 | 10.63 | 11.52 | 11.14 | 10.83 |
| 105 | TC | 118.1 | 104.6 | 87.9 | 122.7 | 111.8 | 98.5 | 126.0 | 115.1 | 108.0 |
| | SHC | 60.4 | 74.9 | 85.2 | 66.9 | 87.7 | 98.5 | 73.1 | 98.3 | 108.0 |
| | kW | 11.93 | 11.52 | 11.10 | 12.13 | 11.74 | 11.41 | 12.27 | 11.89 | 11.65 |
| 115 | TC | 115.0 | 98.0 | 84.2 | 120.0 | 103.8 | 93.4 | 122.6 | 109.8 | 102.8 |
| | SHC | 59.4 | 72.4 | 83.4 | 66.4 | 84.8 | 93.4 | 72.8 | 96.9 | 102.8 |
| | kW | 12.26 | 11.82 | 11.40 | 12.48 | 12.06 | 11.78 | 12.60 | 12.20 | 12.00 |

| 580D150 (12½ TONS) | | | | | | | | | | | | | |
|--|-----|-----------------------------------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | |
| | | 3750/0.08 | | | 4500/0.09 | | | 5000/0.10 | | | 6250/0.12 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 175.6 | 162.2 | 149.2 | 181.0 | 167.5 | 154.2 | 182.9 | 170.2 | 156.4 | 187.2 | 174.7 | 161.8 |
| | SHC | 85.7 | 107.3 | 128.0 | 91.4 | 116.2 | 140.3 | 94.2 | 122.2 | 146.5 | 102.1 | 135.3 | 160.7 |
| | kW | 11.16 | 10.85 | 10.57 | 11.32 | 11.00 | 10.69 | 11.37 | 11.07 | 10.73 | 11.49 | 11.19 | 10.87 |
| 85 | TC | 169.3 | 155.7 | 140.6 | 174.2 | 160.7 | 147.0 | 176.9 | 163.0 | 149.7 | 181.5 | 167.3 | 155.8 |
| | SHC | 83.9 | 104.8 | 124.0 | 89.6 | 113.9 | 137.0 | 92.7 | 119.7 | 143.6 | 100.9 | 133.4 | 155.6 |
| | kW | 12.15 | 11.78 | 11.42 | 12.31 | 11.94 | 11.58 | 12.39 | 12.01 | 11.63 | 12.53 | 12.14 | 11.82 |
| 95 | TC | 161.9 | 148.9 | 132.0 | 166.8 | 153.5 | 139.1 | 169.5 | 155.7 | 142.8 | 173.2 | 159.5 | 149.6 |
| | SHC | 81.4 | 102.0 | 119.8 | 87.0 | 111.1 | 133.2 | 90.7 | 117.3 | 140.2 | 98.3 | 130.8 | 149.6 |
| | kW | 13.12 | 12.72 | 12.28 | 13.30 | 12.89 | 12.46 | 13.40 | 12.97 | 12.56 | 13.54 | 13.11 | 12.78 |
| 105 | TC | 154.9 | 141.3 | 123.0 | 158.8 | 145.4 | 130.2 | 160.9 | 147.6 | 135.0 | 165.3 | 151.2 | 143.2 |
| | SHC | 79.0 | 99.2 | 115.5 | 84.5 | 108.2 | 128.1 | 87.8 | 114.3 | 134.9 | 96.6 | 127.8 | 143.1 |
| | kW | 14.16 | 13.66 | 13.17 | 14.31 | 13.82 | 13.35 | 14.38 | 13.91 | 13.48 | 14.58 | 14.07 | 13.77 |
| 115 | TC | 146.2 | 132.2 | 113.1 | 150.5 | 137.0 | 122.4 | 152.3 | 139.4 | 127.8 | 155.2 | 142.7 | 136.0 |
| | SHC | 76.1 | 95.7 | 110.3 | 81.7 | 105.2 | 122.3 | 85.0 | 111.6 | 127.7 | 92.9 | 125.0 | 135.8 |
| | kW | 15.09 | 14.57 | 14.07 | 15.30 | 14.76 | 14.25 | 15.37 | 14.87 | 14.43 | 15.49 | 15.02 | 14.73 |

Standard Ratings

LEGEND

- BF** — Bypass Factor
- Edb** — Entering Dry-Bulb
- Ewb** — Entering Wet-Bulb
- kW** — Compressor Motor Power Input
- Ldb** — Leaving Dry-Bulb
- Lwb** — Leaving Wet-Bulb
- SHC** — Sensible Heat Capacity (1000 Btuh) Gross
- TC** — Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (} h_{lwb} \text{)}$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$
 Where: h_{ewb} = Enthalpy of air entering evaporator coil
3. The SHC is based on 80 F edb temperature of air entering evaporator coil.
 Below 80 F edb, subtract (corr factor x cfm) from SHC.
 Above 80 F edb, add (corr factor x cfm) to SHC.
 Correction Factor = $1.10 \times (1 - BF) \times (edb - 80)$.

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

| 579F180 (15 TONS) | | | | | | | | | | | | | | | | |
|--|------------|--|-----------|-----------|------------------|-----------|-----------|------------------|-----------|-----------|------------------|-----------|-----------|------------------|-----------|-----------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | | | | |
| | | 4500/0.08 | | | 5250/0.10 | | | 6000/0.11 | | | 6750/0.12 | | | 7500/0.14 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 212.0 | 195.0 | 179.0 | 216.0 | 200.0 | 183.0 | 219.0 | 204.0 | 187.0 | 223.0 | 205.0 | 189.0 | 224.0 | 207.0 | 193.0 |
| | SHC | 101.0 | 126.0 | 148.0 | 105.0 | 133.0 | 161.0 | 109.0 | 141.0 | 170.0 | 115.0 | 152.0 | 179.0 | 118.0 | 157.0 | 187.0 |
| | kW | 15.20 | 14.70 | 14.20 | 15.40 | 14.90 | 14.40 | 15.50 | 15.10 | 14.60 | 15.70 | 15.10 | 14.70 | 15.70 | 15.20 | 14.80 |
| 85 | TC | 205.0 | 188.0 | 171.0 | 210.0 | 193.0 | 176.0 | 212.0 | 196.0 | 179.0 | 215.0 | 199.0 | 182.0 | 216.0 | 199.0 | 185.0 |
| | SHC | 98.5 | 123.0 | 145.0 | 103.0 | 131.0 | 156.0 | 108.0 | 138.0 | 167.0 | 113.0 | 145.0 | 176.0 | 116.0 | 154.0 | 184.0 |
| | kW | 16.60 | 16.10 | 15.50 | 16.80 | 16.30 | 15.70 | 16.90 | 16.40 | 15.90 | 17.10 | 16.50 | 16.00 | 17.10 | 16.60 | 16.10 |
| 95 | TC | 197.0 | 180.0 | 162.0 | 202.0 | 184.0 | 167.0 | 205.0 | 188.0 | 171.0 | 206.0 | 191.0 | 174.0 | 209.0 | 193.0 | 178.0 |
| | SHC | 95.8 | 120.0 | 141.0 | 101.0 | 128.0 | 152.0 | 105.0 | 136.0 | 164.0 | 110.0 | 143.0 | 172.0 | 115.0 | 150.0 | 178.0 |
| | kW | 18.00 | 17.40 | 16.70 | 18.20 | 17.60 | 16.90 | 18.40 | 17.80 | 17.10 | 18.40 | 17.90 | 17.30 | 18.60 | 18.00 | 17.50 |
| 105 | TC | 190.0 | 172.0 | 152.0 | 194.0 | 176.0 | 157.0 | 197.0 | 179.0 | 161.0 | 199.0 | 182.0 | 166.0 | 200.0 | 183.0 | 171.0 |
| | SHC | 93.3 | 117.0 | 136.0 | 98.0 | 125.0 | 148.0 | 103.0 | 133.0 | 158.0 | 107.0 | 140.0 | 166.0 | 112.0 | 148.0 | 171.0 |
| | kW | 19.40 | 18.70 | 17.90 | 19.60 | 18.90 | 18.10 | 19.80 | 19.10 | 18.40 | 19.90 | 19.20 | 18.60 | 20.00 | 19.30 | 18.80 |
| 115 | TC | 180.0 | 161.0 | 142.0 | 185.0 | 166.0 | 146.0 | 187.0 | 170.0 | 151.0 | 190.0 | 172.0 | 158.0 | 191.0 | 173.0 | 163.0 |
| | SHC | 90.0 | 112.0 | 131.0 | 95.4 | 121.0 | 142.0 | 100.0 | 130.0 | 151.0 | 105.0 | 137.0 | 158.0 | 109.0 | 144.0 | 163.0 |
| | kW | 20.80 | 19.90 | 19.10 | 21.00 | 20.10 | 19.30 | 21.20 | 20.30 | 19.60 | 21.40 | 20.50 | 19.90 | 21.50 | 20.60 | 20.10 |

| 579F216 (18 TONS) | | | | | | | | | | | | | |
|--|------------|--|-----------|-----------|------------------|-----------|-----------|------------------|-----------|-----------|------------------|-----------|-----------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | |
| | | 5400/0.06 | | | 6000/0.07 | | | 7200/0.08 | | | 9000/0.09 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 242.0 | 219.6 | 197.3 | 242.0 | 221.1 | 198.4 | 241.0 | 221.0 | 201.8 | 238.0 | 218.8 | 203.3 |
| | SHC | 121.6 | 151.8 | 176.3 | 125.7 | 157.4 | 184.1 | 135.8 | 167.7 | 196.6 | 143.5 | 182.4 | 203.0 |
| | kW | 14.72 | 14.78 | 14.71 | 14.91 | 15.00 | 14.97 | 15.35 | 15.43 | 15.50 | 15.94 | 16.03 | 16.19 |
| 85 | TC | 231.0 | 208.6 | 187.3 | 232.0 | 209.3 | 188.1 | 231.0 | 209.5 | 191.5 | 227.0 | 208.3 | 194.5 |
| | SHC | 116.8 | 146.3 | 171.5 | 121.2 | 152.7 | 178.6 | 128.0 | 162.9 | 189.5 | 142.8 | 177.5 | 193.5 |
| | kW | 16.27 | 16.29 | 16.26 | 16.59 | 16.56 | 16.50 | 17.02 | 17.05 | 17.10 | 17.63 | 17.72 | 17.91 |
| 95 | TC | 218.5 | 196.4 | 176.0 | 220.1 | 197.1 | 178.2 | 219.1 | 198.2 | 181.2 | 215.3 | 196.1 | 185.2 |
| | SHC | 112.5 | 141.3 | 165.6 | 116.4 | 147.1 | 172.7 | 122.4 | 157.6 | 181.2 | 131.8 | 170.2 | 183.9 |
| | kW | 17.83 | 17.79 | 17.73 | 18.15 | 18.12 | 18.08 | 18.64 | 18.71 | 18.76 | 19.37 | 19.36 | 19.71 |
| 105 | TC | 204.3 | 187.2 | 169.4 | 203.1 | 187.2 | 170.9 | 203.4 | 186.5 | 172.8 | 199.8 | 184.3 | 174.4 |
| | SHC | 105.1 | 135.0 | 158.6 | 108.1 | 139.0 | 165.4 | 115.6 | 149.2 | 172.4 | 124.9 | 162.2 | 174.2 |
| | kW | 17.75 | 17.88 | 17.93 | 17.96 | 18.12 | 18.27 | 18.45 | 18.62 | 18.87 | 19.17 | 19.37 | 19.68 |
| 115 | TC | 193.1 | 175.6 | 159.4 | 190.9 | 176.0 | 160.4 | 191.6 | 175.3 | 162.7 | 188.1 | 173.3 | 165.1 |
| | SHC | 101.1 | 129.9 | 153.0 | 102.7 | 134.1 | 158.4 | 110.6 | 143.7 | 162.6 | 111.6 | 155.4 | 164.7 |
| | kW | 19.26 | 19.41 | 19.44 | 19.47 | 19.72 | 19.75 | 20.07 | 20.25 | 20.48 | 20.81 | 21.02 | 21.47 |
| 125 | TC | 178.4 | 163.8 | 148.3 | 179.4 | 163.9 | 150.2 | 177.7 | 163.9 | 152.7 | 174.5 | 160.6 | 154.5 |
| | SHC | 96.1 | 124.1 | 145.8 | 99.5 | 128.6 | 150.1 | 103.7 | 138.5 | 152.6 | 110.8 | 147.5 | 154.1 |
| | kW | 20.73 | 20.86 | 20.85 | 21.04 | 21.17 | 21.33 | 21.52 | 21.82 | 22.08 | 22.29 | 22.50 | 23.10 |

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

| 579F240 (20 TONS) | | | | | | | | | | | | | | | | |
|--|-----------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | | | | |
| | | 6000/0.06 | | | 7000/0.07 | | | 8000/0.08 | | | 9000/0.09 | | | 10,000/0.10 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 274.0 | 250.0 | 226.0 | 280.0 | 256.0 | 232.0 | 284.0 | 260.0 | 236.0 | 288.0 | 264.0 | 242.0 | 292.0 | 268.0 | 246.0 |
| | SHC kW | 130.4 16.92 | 163.6 16.40 | 194.4 15.90 | 136.4 17.04 | 175.0 16.58 | 210.0 16.12 | 210.0 16.12 | 144.4 17.22 | 186.8 16.72 | 224.0 16.22 | 151.8 17.32 | 197.0 16.84 | 236.0 16.36 | 157.4 17.42 | 208.0 16.92 |
| 85 | TC | 264.0 | 240.0 | 216.0 | 270.0 | 244.0 | 222.0 | 276.0 | 250.0 | 226.0 | 278.0 | 254.0 | 232.0 | 282.0 | 256.0 | 238.0 |
| | SHC kW | 127.6 18.54 | 159.8 18.00 | 189.8 17.36 | 138.2 18.72 | 172.2 18.18 | 206.0 17.60 | 206.0 17.60 | 141.8 18.96 | 183.4 18.34 | 220.0 17.74 | 147.8 19.04 | 194.6 18.46 | 232.0 17.94 | 154.6 19.14 | 204.0 18.56 |
| 95 | TC | 252.0 | 228.0 | 204.0 | 258.0 | 234.0 | 210.0 | 262.0 | 238.0 | 216.0 | 266.0 | 240.0 | 222.0 | 270.0 | 242.0 | 228.0 |
| | SHC kW | 124.4 20.20 | 155.4 19.52 | 184.6 18.82 | 131.0 20.40 | 167.6 19.76 | 200.0 19.08 | 200.0 19.08 | 138.8 20.60 | 178.8 19.90 | 214.0 19.28 | 145.2 20.80 | 189.8 20.00 | 222.0 19.52 | 151.8 20.80 | 200.0 20.20 |
| 105 | TC | 240.0 | 216.0 | 190.6 | 246.0 | 222.0 | 196.6 | 250.0 | 226.0 | 204.0 | 252.0 | 228.0 | 212.0 | 256.0 | 230.0 | 218.0 |
| | SHC kW | 120.0 21.80 | 150.8 21.00 | 178.4 20.20 | 127.2 22.00 | 163.6 21.20 | 193.8 20.60 | 193.8 20.60 | 135.0 22.20 | 175.2 21.40 | 204.0 20.80 | 141.6 22.40 | 185.4 21.60 | 212.0 21.00 | 147.4 22.40 | 196.2 21.60 |
| 115 | TC | 228.0 | 204.0 | 176.6 | 232.0 | 208.0 | 184.6 | 236.0 | 212.0 | 194.2 | 238.0 | 214.0 | 202.0 | 240.0 | 216.0 | 208.0 |
| | SHC kW | 116.0 23.40 | 146.2 22.40 | 171.8 21.60 | 123.8 23.60 | 158.4 22.60 | 184.6 22.00 | 184.6 22.00 | 130.4 23.80 | 169.6 22.80 | 194.2 22.40 | 137.2 23.80 | 180.8 23.00 | 202.0 22.60 | 144.0 24.00 | 190.8 23.20 |
| 125 | TC | 214.0 | 188.8 | 163.2 | 218.0 | 194.2 | 174.2 | 220.0 | 197.6 | 183.4 | 224.0 | 199.8 | 190.6 | 226.0 | 202.0 | 196.0 |
| | SHC kW | 111.0 24.80 | 140.8 23.80 | 162.8 23.00 | 118.6 25.00 | 153.4 24.00 | 174.2 23.40 | 174.2 23.40 | 125.8 25.20 | 164.8 24.20 | 183.4 23.80 | 132.0 25.40 | 175.6 24.40 | 190.4 24.00 | 139.0 25.40 | 185.2 24.60 |

| 579F300 (25 TONS) | | | | | | | | | | | | | |
|--|-----------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Temp (F) Air Entering Condenser (Edb) | | Air Entering Evaporator — Cfm/BF | | | | | | | | | | | |
| | | 7000/0.03 | | | 8750/0.05 | | | 10,000/0.07 | | | 11,250/0.09 | | |
| | | Air Entering Evaporator — Ewb (F) | | | | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 323.9 | 299.4 | 275.8 | 331.3 | 312.7 | 288.4 | 336.1 | 319.8 | 294.7 | 342.6 | 322.5 | 300.0 |
| | SHC kW | 159.4 21.10 | 195.2 20.50 | 230.6 19.90 | 170.1 21.30 | 216.5 20.90 | 259.1 20.20 | 259.1 20.20 | 177.6 21.50 | 231.1 21.10 | 276.8 20.40 | 186.6 21.70 | 242.9 21.20 |
| 85 | TC | 315.3 | 290.4 | 264.3 | 326.9 | 303.2 | 278.0 | 333.7 | 309.1 | 285.0 | 335.1 | 314.2 | 291.1 |
| | SHC kW | 156.3 22.70 | 191.7 22.10 | 224.9 21.30 | 168.4 23.10 | 213.2 22.50 | 254.9 21.80 | 254.9 21.80 | 177.5 23.30 | 226.9 22.70 | 273.8 22.00 | 184.4 23.30 | 240.7 22.80 |
| 95 | TC | 304.1 | 277.4 | 243.1 | 315.3 | 290.1 | 263.8 | 320.4 | 295.6 | 271.1 | 324.1 | 300.6 | 279.4 |
| | SHC kW | 152.0 24.80 | 186.5 24.00 | 215.2 23.20 | 165.0 25.20 | 208.5 24.50 | 248.0 23.50 | 248.0 23.50 | 173.0 25.40 | 222.4 24.60 | 266.4 23.80 | 181.6 25.50 | 236.5 24.80 |
| 105 | TC | 291.2 | 261.4 | 224.8 | 300.9 | 274.2 | 242.1 | 305.7 | 280.3 | 252.3 | 309.8 | 284.8 | 266.3 |
| | SHC kW | 147.2 26.90 | 179.7 25.80 | 206.6 25.00 | 159.9 27.20 | 201.8 26.30 | 237.3 25.40 | 237.3 25.40 | 168.3 27.40 | 216.8 26.60 | 252.3 25.80 | 176.8 27.60 | 231.1 26.80 |
| 115 | TC | 274.6 | 237.9 | 207.6 | 285.9 | 251.5 | 222.6 | 291.3 | 258.4 | 237.7 | 293.9 | 267.5 | 247.1 |
| | SHC kW | 140.9 28.80 | 170.0 27.80 | 198.6 26.80 | 154.9 29.40 | 193.2 28.20 | 222.6 27.40 | 222.6 27.40 | 164.1 29.60 | 208.7 28.50 | 237.7 27.70 | 163.0 29.70 | 224.3 28.50 |
| 125 | TC | 254.5 | 214.9 | 184.3 | 266.7 | 230.9 | 206.7 | 272.0 | 236.0 | 220.8 | 276.1 | 240.0 | 231.1 |
| | SHC kW | 133.3 30.90 | 160.8 29.90 | 184.3 28.90 | 148.0 31.40 | 185.1 30.20 | 206.7 29.60 | 206.7 29.60 | 157.5 31.70 | 200.2 30.50 | 220.8 29.90 | 166.6 31.90 | 214.4 30.80 |

Standard Ratings

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry-Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry-Bulb
- Lwb — Leaving Wet-Bulb
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- TC — Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

t_{lwb} = Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

3. The SHC is based on 80 F edb temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from SHC.

Above 80 F edb, add (corr factor x cfm) to SHC.

| BYPASS FACTOR (BF) | ENTERING AIR DRY-BULB TEMP (F) | | | | | |
|--------------------------|--------------------------------|------|------|------|------|-----------------------------|
| | 79 | 78 | 77 | 76 | 75 | under 75 |
| | 81 | 82 | 83 | 84 | 85 | over 85 |
| Correction Factor | | | | | | |
| .05 | 1.04 | 2.07 | 3.11 | 4.14 | 5.18 | Use formula shown below. |
| .10 | .98 | 1.96 | 2.94 | 3.92 | 4.90 | |
| .20 | .87 | 1.74 | 2.62 | 3.49 | 4.36 | |
| .30 | .76 | 1.53 | 2.29 | 3.05 | 3.82 | |

Interpolation is permissible.

$$\text{Correction Factor} = 1.10 \times (1 - \text{BF}) \times (\text{edb} - 80).$$

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS

| 580D036 (3 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | High Speed | | | | | |
| | 208 V | | | 230, 460, 575 V | | | 208 V | | | 230, 460, 575 V | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 900 | 0.49 | 0.21 | 253 | 0.50 | 0.23 | 277 | 0.51 | 0.26 | 307 | 0.55 | 0.31 | 363 |
| 1000 | 0.42 | 0.23 | 270 | 0.43 | 0.25 | 292 | 0.43 | 0.27 | 321 | 0.51 | 0.32 | 374 |
| 1100 | 0.37 | 0.24 | 287 | 0.38 | 0.26 | 307 | 0.39 | 0.28 | 335 | 0.46 | 0.33 | 385 |
| 1200 | 0.33 | 0.26 | 304 | 0.33 | 0.27 | 323 | 0.34 | 0.29 | 349 | 0.40 | 0.34 | 397 |
| 1300 | 0.27 | 0.27 | 321 | 0.28 | 0.29 | 338 | 0.28 | 0.31 | 364 | 0.34 | 0.34 | 408 |
| 1400 | 0.20 | 0.29 | 338 | 0.23 | 0.30 | 354 | 0.25 | 0.32 | 378 | — | — | — |
| 1500 | 0.16 | 0.30 | 355 | 0.18 | 0.31 | 369 | 0.20 | 0.33 | 392 | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
 Esp — External Static Pressure (in. wg)
 FIOP — Factory-Installed Option

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

2. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.

3. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|------|-------|-----|------|-------|-----|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow Cfm | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.3 | | | 0.4 | | | 0.5 | | | 0.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 900 | 581 | 0.12 | 119 | 673 | 0.18 | 179 | 736 | 0.22 | 219 | 805 | 0.25 | 249 | 865 | 0.29 | 288 | 911 | 0.34 | 338 |
| 1000 | 644 | 0.19 | 189 | 709 | 0.22 | 219 | 782 | 0.28 | 279 | 835 | 0.30 | 298 | 900 | 0.35 | 348 | 937 | 0.38 | 378 |
| 1100 | 687 | 0.22 | 219 | 746 | 0.26 | 259 | 806 | 0.30 | 298 | 867 | 0.35 | 348 | 929 | 0.40 | 398 | 964 | 0.40 | 398 |
| 1200 | 733 | 0.26 | 259 | 785 | 0.32 | 318 | 843 | 0.35 | 348 | 903 | 0.41 | 408 | 960 | 0.47 | 467 | 994 | 0.50 | 497 |
| 1300 | 754 | 0.29 | 288 | 826 | 0.38 | 378 | 891 | 0.43 | 428 | 942 | 0.48 | 477 | 991 | 0.53 | 527 | 1047 | 0.60 | 597 |
| 1400 | 810 | 0.35 | 348 | 868 | 0.45 | 448 | 937 | 0.51 | 507 | 984 | 0.57 | 567 | 1032 | 0.62 | 617 | 1067 | 0.67 | 666 |
| 1500 | 841 | 0.42 | 418 | 911 | 0.53 | 527 | 985 | 0.61 | 607 | 1029 | 0.66 | 656 | 1073 | 0.72 | 716 | 1109 | 0.77 | 766 |

| 580D036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont) | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|-------------|-------------|-------------|
| Airflow Cfm | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.7 | | | 0.8 | | | 0.9 | | | 1.0 | | | 1.1 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 900 | 957 | 0.39 | 388 | 988 | 0.43 | 428 | 1039 | 0.47 | 448 | 1061 | 0.51 | 487 | 1083 | 0.54 | 527 | 1105 | 0.58 | 567 |
| 1000 | 992 | 0.44 | 438 | 1039 | 0.49 | 487 | 1061 | 0.55 | 507 | 1088 | 0.60 | 547 | 1111 | 0.66 | 587 | 1136 | 0.72 | 627 |
| 1100 | 1013 | 0.49 | 487 | 1068 | 0.55 | 547 | 1091 | 0.61 | 577 | 1109 | 0.66 | 607 | 1127 | 0.73 | 637 | 1145 | 0.80 | 666 |
| 1200 | 1045 | 0.56 | 557 | 1090 | 0.64 | 637 | 1109 | 0.68 | 647 | 1156 | 0.73 | 676 | 1203 | 0.81 | 706 | 1250 | 0.86 | 736 |
| 1300 | 1075 | 0.64 | 637 | 1122 | 0.70 | 696 | 1152 | 0.76 | 716 | 1190 | 0.82 | 756 | 1228 | 0.87 | 796 | 1266 | 0.94 | 836 |
| 1400 | 1110 | 0.73 | 726 | 1160 | 0.78 | 766 | 1181 | 0.83 | 806 | 1237 | 0.88 | 845 | 1293 | 0.94 | 885 | 1349 | 0.99 | 925 |
| 1500 | 1150 | 0.78 | 816 | 1190 | 0.84 | 855 | 1225 | 0.89 | 895 | 1271 | 0.95 | 945 | 1317 | 1.00 | 995 | 1383 | 1.05 | 1044 |

LEGEND

Bhp — Brake Horsepower Input to Fan
 FIOP — Factory-Installed Option
 Watts — Input Watts to Motor

*Motor drive range is 760 to 1000 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
 2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 1.0 and the maximum continuous watts are 1000. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.

4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D048 (4 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | High Speed | | | | | |
| | 208 V | | | 230, 460, 575 V | | | 208 V | | | 230, 460, 575 V | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 1200 | 0.68 | 0.41 | 458 | 0.74 | 0.45 | 506 | 0.74 | 0.51 | 572 | 0.85 | 0.56 | 632 |
| 1300 | 0.61 | 0.42 | 471 | 0.67 | 0.46 | 521 | 0.66 | 0.52 | 589 | 0.78 | 0.58 | 651 |
| 1400 | 0.53 | 0.45 | 503 | 0.59 | 0.49 | 556 | 0.59 | 0.54 | 616 | 0.70 | 0.60 | 681 |
| 1500 | 0.45 | 0.47 | 536 | 0.51 | 0.52 | 593 | 0.52 | 0.56 | 631 | 0.63 | 0.62 | 698 |
| 1600 | 0.36 | 0.49 | 557 | 0.42 | 0.54 | 616 | 0.45 | 0.58 | 654 | 0.56 | 0.64 | 723 |
| 1700 | 0.26 | 0.52 | 584 | 0.32 | 0.57 | 646 | 0.37 | 0.60 | 678 | 0.48 | 0.66 | 750 |
| 1800 | 0.15 | 0.54 | 610 | 0.22 | 0.60 | 674 | 0.30 | 0.62 | 698 | 0.41 | 0.68 | 772 |
| 1900 | 0.04 | 0.56 | 629 | 0.11 | 0.62 | 696 | 0.23 | 0.64 | 720 | 0.34 | 0.70 | 796 |
| 2000 | — | — | — | — | — | — | 0.16 | 0.66 | 744 | 0.26 | 0.73 | 823 |

LEGEND

Bhp — Brake Horsepower Input to Fan
Esp — External Static Pressure (in. wg)
FIOP — Factory-Installed Option

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|------|-------|-----|------|-------|------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.3 | | | 0.4 | | | 0.6 | | | 0.7 | | | 0.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1200 | 596 | 0.20 | 210 | 665 | 0.25 | 263 | 722 | 0.31 | 320 | 779 | 0.36 | 378 | 872 | 0.48 | 504 | 915 | 0.54 | 567 | 957 | 0.60 | 630 |
| 1300 | 633 | 0.24 | 252 | 699 | 0.30 | 315 | 754 | 0.36 | 378 | 809 | 0.42 | 441 | 902 | 0.55 | 578 | 943 | 0.61 | 641 | 984 | 0.67 | 704 |
| 1400 | 672 | 0.30 | 315 | 735 | 0.36 | 378 | 788 | 0.42 | 441 | 840 | 0.48 | 504 | 933 | 0.62 | 651 | 972 | 0.69 | 720 | 1011 | 0.75 | 788 |
| 1500 | 711 | 0.35 | 368 | 770 | 0.42 | 441 | 822 | 0.49 | 510 | 873 | 0.55 | 578 | 963 | 0.69 | 725 | 1002 | 0.77 | 804 | 1041 | 0.84 | 858 |
| 1600 | 751 | 0.42 | 441 | 835 | 0.49 | 515 | 871 | 0.56 | 588 | 907 | 0.63 | 662 | 993 | 0.77 | 787 | 1033 | 0.85 | 869 | 1072 | 0.93 | 950 |
| 1700 | 791 | 0.49 | 515 | 873 | 0.57 | 599 | 907 | 0.65 | 678 | 941 | 0.72 | 757 | 1024 | 0.87 | 889 | 1064 | 0.96 | 976 | 1103 | 1.04 | 1063 |
| 1800 | 831 | 0.58 | 609 | 881 | 0.66 | 693 | 929 | 0.74 | 772 | 976 | 0.81 | 851 | 1057 | 0.97 | 991 | 1095 | 1.06 | 1078 | 1132 | 1.14 | 1165 |
| 1900 | 872 | 0.67 | 704 | 919 | 0.75 | 788 | 965 | 0.84 | 877 | 1011 | 0.92 | 967 | 1091 | 1.08 | 1104 | 1127 | 1.17 | 1191 | 1162 | 1.25 | 1277 |
| 2000 | 913 | 0.77 | 809 | 958 | 0.86 | 904 | 1002 | 0.95 | 993 | 1046 | 1.03 | 1082 | 1125 | 1.21 | 1237 | 1160 | 1.30 | 1323 | 1195 | 1.38 | 1410 |

| 580D048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont) | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | | |
| | 0.9 | | | 1.0 | | | 1.1 | | | 1.2 | | | 1.4 | | | 1.6 | | | 1.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1200 | 993 | 0.65 | 678 | 1028 | 0.69 | 725 | 1056 | 0.72 | 751 | 1083 | 0.74 | 778 | 1134 | 0.80 | 935 | 1185 | 0.88 | 965 | 1331 | 0.99 | 1000 |
| 1300 | 1021 | 0.74 | 772 | 1058 | 0.80 | 841 | 1090 | 0.85 | 888 | 1121 | 0.89 | 935 | 1171 | 0.94 | 988 | 1219 | 1.00 | 999 | 1268 | 1.10 | 1029 |
| 1400 | 1049 | 0.82 | 837 | 1086 | 0.89 | 885 | 1120 | 0.96 | 950 | 1153 | 1.00 | 976 | 1210 | 1.12 | 1071 | 1257 | 1.17 | 1105 | 1307 | 1.25 | 1190 |
| 1500 | 1077 | 0.92 | 922 | 1113 | 0.99 | 985 | 1147 | 1.06 | 1054 | 1180 | 1.13 | 1081 | 1241 | 1.27 | 1215 | 1295 | 1.37 | 1294 | 1339 | 1.43 | 1350 |
| 1600 | 1107 | 1.00 | 998 | 1141 | 1.09 | 1084 | 1174 | 1.17 | 1134 | 1207 | 1.25 | 1196 | 1269 | 1.40 | 1339 | 1326 | 1.54 | 1454 | 1376 | 1.65 | 1558 |
| 1700 | 1137 | 1.12 | 1128 | 1171 | 1.20 | 1194 | 1203 | 1.29 | 1278 | 1235 | 1.37 | 1310 | 1296 | 1.53 | 1463 | 1354 | 1.70 | 1605 | 1407 | 1.84 | 1738 |
| 1800 | 1167 | 1.23 | 1239 | 1202 | 1.32 | 1313 | 1233 | 1.41 | 1398 | 1263 | 1.49 | 1425 | 1323 | 1.67 | 1597 | 1381 | 1.85 | 1747 | 1436 | 2.02 | 1907 |
| 1900 | 1197 | 1.35 | 1360 | 1232 | 1.45 | 1442 | 1263 | 1.54 | 1532 | 1294 | 1.63 | 1559 | 1351 | 1.81 | 1731 | 1408 | 2.00 | 1889 | 1463 | 2.19 | 2068 |
| 2000 | 1229 | 1.48 | 1491 | 1262 | 1.58 | 1572 | 1294 | 1.68 | 1671 | 1325 | 1.78 | 1702 | 1362 | 1.97 | 1884 | 1436 | 2.16 | 2040 | 1489 | 2.36 | 2229 |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Motor drive range is 835 to 1185 rpm. All other rpms require a field-supplied drive.

NOTES:

- Boldface** indicates field-supplied motor and drive are required.
- Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

- Maximum continuous bhp is 1.0, and the maximum continuous watts are 1000. Extensive motor and electrical testing on these units ensure that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D060 (5 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|--------------|------|-------|-----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | Medium Speed | | | | | | High Speed | | | | | |
| | 208 V | | | 230, 460, 575 V | | | 208 V | | | 230, 460, 575 V | | | 208 V | | | 230, 460, 575 V | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 1500 | 0.69 | 0.67 | 750 | 1.01 | 0.71 | 791 | 1.00 | 0.70 | 782 | 1.20 | 0.76 | 845 | 1.22 | 0.79 | 875 | 1.28 | 0.85 | 949 |
| 1600 | 0.49 | 0.70 | 780 | 0.85 | 0.74 | 824 | 0.85 | 0.74 | 821 | 1.06 | 0.79 | 883 | 1.09 | 0.82 | 913 | 1.17 | 0.89 | 988 |
| 1700 | 0.29 | 0.73 | 810 | 0.70 | 0.77 | 857 | 0.70 | 0.77 | 861 | 0.93 | 0.83 | 921 | 0.97 | 0.85 | 950 | 1.06 | 0.92 | 1027 |
| 1800 | 0.09 | 0.75 | 839 | 0.54 | 0.80 | 891 | 0.55 | 0.81 | 900 | 0.80 | 0.86 | 959 | 0.84 | 0.89 | 988 | 0.95 | 0.96 | 1066 |
| 1900 | — | — | — | 0.39 | 0.83 | 924 | 0.40 | 0.84 | 940 | 0.67 | 0.90 | 997 | 0.72 | 0.92 | 1025 | 0.84 | 0.99 | 1105 |
| 2000 | — | — | — | 0.23 | 0.86 | 957 | 0.25 | 0.88 | 979 | 0.54 | 0.93 | 1035 | 0.59 | 0.95 | 1063 | 0.73 | 1.03 | 1144 |
| 2100 | — | — | — | 0.08 | 0.89 | 990 | 0.10 | 0.91 | 1018 | 0.41 | 0.96 | 1073 | 0.46 | 0.99 | 1101 | 0.62 | 1.06 | 1183 |
| 2200 | — | — | — | — | — | — | — | — | — | 0.28 | 1.00 | 1111 | 0.34 | 1.02 | 1138 | 0.51 | 1.10 | 1222 |
| 2300 | — | — | — | — | — | — | — | — | — | 0.15 | 1.03 | 1149 | 0.21 | 1.06 | 1176 | 0.40 | 1.13 | 1261 |
| 2400 | — | — | — | — | — | — | — | — | — | 0.02 | 1.07 | 1187 | 0.09 | 1.09 | 1213 | 0.29 | 1.17 | 1300 |
| 2500 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.18 | 1.20 | 1340 |

LEGEND

Bhp — Brake Horsepower Input to Fan
Esp — External Static Pressure (in. wg)
FIOP — Factory-Installed Option

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)* | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|------|-------|------|------|-------|------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1500 | 750 | 0.36 | 368 | 808 | 0.42 | 429 | 914 | 0.56 | 572 | 1001 | 0.69 | 705 | 1084 | 0.85 | 869 | 1168 | 1.01 | 1032 |
| 1600 | 794 | 0.42 | 429 | 846 | 0.49 | 501 | 950 | 0.64 | 654 | 1034 | 0.78 | 797 | 1111 | 0.94 | 961 | 1194 | 1.11 | 1134 |
| 1700 | 839 | 0.50 | 511 | 884 | 0.57 | 582 | 983 | 0.72 | 736 | 1068 | 0.88 | 899 | 1145 | 1.03 | 1053 | 1218 | 1.21 | 1237 |
| 1800 | 885 | 0.58 | 593 | 924 | 0.66 | 674 | 1018 | 0.82 | 838 | 1105 | 0.98 | 1001 | 1179 | 1.13 | 1155 | 1246 | 1.32 | 1349 |
| 1900 | 932 | 0.68 | 695 | 965 | 0.76 | 777 | 1057 | 0.92 | 940 | 1143 | 1.10 | 1124 | 1212 | 1.26 | 1288 | 1280 | 1.43 | 1461 |
| 2000 | 979 | 0.78 | 797 | 1008 | 0.87 | 889 | 1096 | 1.04 | 1063 | 1177 | 1.22 | 1247 | 1247 | 1.40 | 1431 | 1300 | 1.57 | 1604 |
| 2100 | 1026 | 0.89 | 910 | 1051 | 0.99 | 1012 | 1136 | 1.17 | 1196 | 1210 | 1.35 | 1380 | 1284 | 1.54 | 1574 | 1347 | 1.72 | 1758 |
| 2200 | 1074 | 1.02 | 1042 | 1095 | 1.12 | 1145 | 1173 | 1.30 | 1328 | 1245 | 1.49 | 1523 | 1322 | 1.70 | 1737 | 1380 | 1.89 | 1931 |
| 2300 | 1122 | 1.16 | 1185 | 1140 | 1.26 | 1288 | 1210 | 1.47 | 1502 | 1284 | 1.65 | 1686 | 1356 | 1.80 | 1901 | 1418 | 2.07 | 2115 |
| 2400 | 1170 | 1.30 | 1328 | 1185 | 1.41 | 1441 | 1249 | 1.61 | 1645 | 1323 | 1.80 | 1860 | 1389 | 2.03 | 2074 | 1456 | 2.26 | 2310 |
| 2500 | 1218 | 1.46 | 1492 | 1231 | 1.57 | 1604 | 1289 | 1.78 | 1819 | 1363 | 2.00 | 2044 | 1424 | 2.22 | 2269 | 1500 | 2.45 | 2504 |

| 580D060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont) | | | | | | | | | |
|---|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1500 | 1199 | 1.19 | 1216 | 1226 | 1.46 | 1492 | 1250 | 1.69 | 1757 |
| 1600 | 1263 | 1.28 | 1308 | 1275 | 1.49 | 1523 | 1299 | 1.78 | 1800 |
| 1700 | 1295 | 1.39 | 1420 | 1351 | 1.58 | 1615 | 1352 | 1.80 | 1850 |
| 1300 | 1319 | 1.52 | 1553 | 1389 | 1.71 | 1747 | 1435 | 1.91 | 1952 |
| 1900 | 1343 | 1.64 | 1676 | 1415 | 1.80 | 1891 | 1478 | 2.05 | 2095 |
| 2000 | 1374 | 1.77 | 1809 | 1438 | 1.99 | 2034 | 1505 | 2.21 | 2258 |
| 2100 | 1409 | 1.91 | 1952 | 1465 | 2.14 | 2167 | — | — | — |
| 2200 | 1442 | 2.08 | 2126 | 1498 | 2.30 | 2350 | — | — | — |
| 2300 | 1475 | 2.26 | 2310 | — | — | — | — | — | — |
| 2400 | 1565 | 2.47 | 2524 | — | — | — | — | — | — |
| 2500 | — | — | — | — | — | — | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Motor drive range is 900 to 1300 rpm. All other rpms require a field-supplied drive.

NOTES:

- Boldface** indicates field-supplied motor and drive are required.
- Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.
- Maximum continuous bhp is 1.80 and the maximum continuous watts are 1921. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D072 (6 TONS)* | | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------------|------|-------|------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1800 | 942 | 0.70 | 646 | 978 | 0.66 | 700 | 1063 | 0.82 | 771 | 1147 | 0.97 | 891 | 1248 | 1.20 | 1081 | 1322 | 1.33 | 1190 |
| 1900 | 982 | 0.80 | 739 | 1023 | 0.78 | 779 | 1097 | 0.91 | 843 | 1175 | 1.11 | 1006 | 1266 | 1.29 | 1156 | 1356 | 1.47 | 1310 |
| 2000 | 1022 | 0.91 | 835 | 1068 | 0.90 | 867 | 1132 | 1.01 | 924 | 1218 | 1.23 | 1106 | 1303 | 1.41 | 1258 | 1397 | 1.52 | 1353 |
| 2100 | 1063 | 0.99 | 916 | 1115 | 1.00 | 998 | 1180 | 1.17 | 1056 | 1261 | 1.35 | 1207 | 1340 | 1.53 | 1361 | 1428 | 1.66 | 1473 |
| 2200 | 1104 | 1.13 | 1039 | 1159 | 1.15 | 1081 | 1214 | 1.28 | 1148 | 1310 | 1.52 | 1353 | 1375 | 1.63 | 1447 | 1459 | 1.80 | 1595 |
| 2300 | 1130 | 1.26 | 1156 | 1202 | 1.29 | 1140 | 1248 | 1.38 | 1233 | 1358 | 1.69 | 1499 | 1410 | 1.72 | 1526 | 1488 | 1.93 | 1709 |
| 2400 | 1174 | 1.37 | 1258 | 1237 | 1.41 | 1224 | 1292 | 1.55 | 1378 | 1392 | 1.81 | 1604 | 1460 | 1.90 | 1683 | 1532 | 2.14 | 1892 |
| 2500 | 1201 | 1.48 | 1361 | 1272 | 1.53 | 1335 | 1335 | 1.71 | 1517 | 1427 | 1.94 | 1718 | 1518 | 2.16 | 1910 | 1575 | 2.35 | 2076 |
| 2600 | 1246 | 1.62 | 1491 | 1320 | 1.68 | 1482 | 1368 | 1.81 | 1604 | 1458 | 2.06 | 1823 | 1562 | 2.42 | 2136 | 1620 | 2.59 | 2283 |
| 2700 | 1285 | 1.75 | 1613 | 1361 | 1.82 | 1595 | 1400 | 1.91 | 1691 | 1490 | 2.19 | 1936 | 1602 | 2.64 | 2326 | 1666 | 2.85 | 2504 |
| 2800 | 1304 | 1.87 | 1726 | 1402 | 1.95 | 1639 | 1439 | 2.08 | 1840 | 1543 | 2.43 | 2145 | 1642 | 2.86 | 2512 | — | — | — |
| 2900 | 1345 | 2.07 | 1910 | 1446 | 2.16 | 1814 | 1477 | 2.16 | 1989 | 1585 | 2.65 | 2335 | — | — | — | — | — | — |
| 3000 | 1378 | 2.26 | 2084 | 1489 | 2.36 | 2032 | 1529 | 2.52 | 2223 | 1598 | 2.73 | 2444 | — | — | — | — | — | — |

| 580D072 (6 TONS)* (cont) | | | | | | | | | |
|--------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1800 | 1395 | 1.46 | 1301 | 1475 | 1.56 | 1387 | 1542 | 1.71 | 1517 |
| 1900 | 1430 | 1.58 | 1404 | 1504 | 1.69 | 1499 | 1556 | 1.82 | 1613 |
| 2000 | 1459 | 1.67 | 1482 | 1532 | 1.82 | 1613 | 1588 | 1.97 | 1744 |
| 2100 | 1489 | 1.80 | 1595 | 1567 | 1.99 | 1761 | 1626 | 2.16 | 1910 |
| 2200 | 1528 | 1.95 | 1726 | 1603 | 2.17 | 1919 | 1666 | 2.37 | 2093 |
| 2300 | 1561 | 2.13 | 1884 | 1637 | 2.35 | 2076 | 1710 | 2.54 | 2272 |
| 2400 | 1584 | 2.28 | 2015 | 1671 | 2.55 | 2249 | 1756 | 2.70 | 2467 |
| 2500 | 1633 | 2.53 | 2232 | 1698 | 2.72 | 2405 | — | — | — |
| 2600 | 1675 | 2.77 | 2436 | — | — | — | — | — | — |
| 2700 | — | — | — | — | — | — | — | — | — |
| 2800 | — | — | — | — | — | — | — | — | — |
| 2900 | — | — | — | — | — | — | — | — | — |
| 3000 | — | — | — | — | — | — | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Motor drive range is 1070 to 1460 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.40 and the maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D090 (7½ TONS)* | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|------|-------|-----|------|-------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2250 | 514 | 0.55 | 562 | 593 | 0.76 | 723 | 662 | 0.99 | 907 | 724 | 1.22 | 1097 | 781 | 1.78 | 1318 |
| 2300 | 521 | 0.57 | 577 | 600 | 0.79 | 747 | 668 | 1.02 | 932 | 730 | 1.26 | 1131 | 786 | 1.50 | 1335 |
| 2400 | 536 | 0.63 | 623 | 613 | 0.85 | 795 | 680 | 1.09 | 989 | 741 | 1.34 | 1199 | 796 | 1.59 | 1413 |
| 2500 | 551 | 0.69 | 669 | 626 | 0.93 | 859 | 693 | 1.17 | 1056 | 753 | 1.43 | 1275 | 808 | 1.69 | 1499 |
| 2550 | 559 | 0.72 | 692 | 634 | 0.97 | 891 | 700 | 1.21 | 1089 | 759 | 1.48 | 1318 | 814 | 1.74 | 1543 |
| 2600 | 567 | 0.75 | 716 | 641 | 1.00 | 916 | 706 | 1.25 | 1123 | 764 | 1.52 | 1353 | 819 | 1.79 | 1587 |
| 2700 | 582 | 0.83 | 779 | 655 | 1.08 | 981 | 719 | 1.34 | 1199 | 776 | 1.61 | 1430 | 831 | 1.89 | 1674 |
| 2800 | 598 | 0.90 | 835 | 670 | 1.17 | 1056 | 732 | 1.43 | 1275 | 789 | 1.71 | 1517 | 842 | 2.00 | 1770 |
| 2900 | 614 | 0.98 | 899 | 684 | 1.25 | 1123 | 745 | 1.53 | 1361 | 802 | 1.81 | 1604 | 854 | 2.11 | 1866 |
| 3000 | 630 | 1.07 | 973 | 699 | 1.35 | 1207 | 759 | 1.63 | 1447 | 815 | 1.92 | 1700 | 866 | 2.23 | 1971 |
| 3100 | 646 | 1.16 | 1047 | 714 | 1.45 | 1292 | 773 | 1.74 | 1543 | 828 | 2.04 | 1805 | 878 | 2.35 | 2076 |
| 3200 | 662 | 1.26 | 1131 | 729 | 1.55 | 1378 | 787 | 1.86 | 1648 | 841 | 2.16 | 1910 | 891 | 2.48 | 2188 |
| 3300 | 679 | 1.36 | 1216 | 744 | 1.66 | 1473 | 801 | 1.98 | 1753 | 854 | 2.29 | 2023 | 904 | 2.61 | 2300 |
| 3400 | 695 | 1.47 | 1310 | 759 | 1.78 | 1578 | 816 | 2.10 | 1858 | 867 | 2.42 | 2136 | 917 | 2.75 | 2420 |
| 3500 | 712 | 1.59 | 1413 | 774 | 1.90 | 1683 | 830 | 2.23 | 1971 | 881 | 2.56 | 2257 | 930 | 2.90 | 2546 |
| 3600 | 729 | 1.71 | 1517 | 790 | 2.03 | 1796 | 845 | 2.37 | 2093 | 895 | 2.71 | 2386 | 943 | 3.05 | 2670 |
| 3700 | 745 | 1.84 | 1630 | 805 | 2.17 | 1919 | 860 | 2.52 | 2223 | 909 | 2.87 | 2521 | 956 | 3.22 | 2807 |
| 3750 | 754 | 1.91 | 1691 | 813 | 2.24 | 1980 | 868 | 2.59 | 2283 | 917 | 2.95 | 2587 | 963 | 3.30 | 2870 |

| 580D090 (7½ TONS)* (cont) | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2250 | 841 | 1.81 | 1604 | 902 | 2.25 | 1989 | 939 | 2.60 | 2292 |
| 2300 | 843 | 1.83 | 1621 | 905 | 2.28 | 2015 | 943 | 2.62 | 2309 |
| 2400 | 849 | 1.88 | 1665 | 910 | 2.31 | 2041 | 952 | 2.74 | 2411 |
| 2500 | 859 | 1.96 | 1735 | 912 | 2.31 | 2050 | 963 | 2.81 | 2470 |
| 2550 | 864 | 2.01 | 1779 | 915 | 2.34 | 2067 | 968 | 2.81 | 2479 |
| 2600 | 869 | 2.06 | 1823 | 918 | 2.37 | 2093 | 973 | 2.81 | 2487 |
| 2700 | 880 | 2.17 | 1919 | 927 | 2.47 | 2180 | 976 | 2.84 | 2495 |
| 2800 | 892 | 2.29 | 2023 | 938 | 2.58 | 2275 | 983 | 2.92 | 2562 |
| 2900 | 903 | 2.42 | 2136 | 949 | 2.71 | 2386 | 993 | 3.03 | 2653 |
| 3000 | 915 | 2.54 | 2240 | 961 | 2.85 | 2504 | 1003 | 3.17 | 2767 |
| 3100 | 926 | 2.67 | 2352 | 972 | 3.00 | 2629 | 1015 | 3.32 | 2886 |
| 3200 | 938 | 2.81 | 2470 | 983 | 3.14 | 2743 | 1026 | 3.47 | 3002 |
| 3300 | 950 | 2.95 | 2587 | 995 | 3.30 | 2870 | — | — | — |
| 3400 | 963 | 3.10 | 2710 | 1007 | 3.45 | 2987 | — | — | — |
| 3500 | 976 | 3.25 | 2831 | — | — | — | — | — | — |
| 3600 | 988 | 3.41 | 2956 | — | — | — | — | — | — |
| 3700 | — | — | — | — | — | — | — | — | — |
| 3750 | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOP — Factory-Installed Option
- Watts — Input Watts to Motor

*Standard drive range is 590 to 840 rpm. Alternate drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.40 and the maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D102 (8½ TONS)* | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2550 | 559 | 0.72 | 692 | 634 | 0.97 | 891 | 700 | 1.21 | 1089 | 759 | 1.48 | 1318 | 814 | 1.74 | 1543 |
| 2600 | 567 | 0.75 | 716 | 641 | 1.00 | 916 | 706 | 1.25 | 1123 | 764 | 1.52 | 1353 | 819 | 1.79 | 1587 |
| 2700 | 582 | 0.83 | 779 | 655 | 1.08 | 981 | 719 | 1.34 | 1199 | 776 | 1.61 | 1430 | 831 | 1.89 | 1674 |
| 2800 | 598 | 0.90 | 835 | 670 | 1.17 | 1056 | 732 | 1.43 | 1275 | 789 | 1.71 | 1517 | 842 | 2.00 | 1770 |
| 2900 | 614 | 0.98 | 899 | 684 | 1.25 | 1123 | 745 | 1.53 | 1361 | 802 | 1.81 | 1604 | 854 | 2.11 | 1866 |
| 3000 | 630 | 1.07 | 973 | 690 | 1.35 | 1207 | 759 | 1.63 | 1147 | 815 | 1.92 | 1700 | 866 | 2.23 | 1971 |
| 3100 | 646 | 1.16 | 1047 | 714 | 1.45 | 1292 | 773 | 1.74 | 1543 | 828 | 2.04 | 1805 | 878 | 2.35 | 2076 |
| 3200 | 662 | 1.26 | 1131 | 729 | 1.55 | 1378 | 787 | 1.86 | 1648 | 841 | 2.16 | 1910 | 891 | 2.48 | 2188 |
| 3300 | 679 | 1.36 | 1216 | 744 | 1.66 | 1473 | 801 | 1.98 | 1753 | 854 | 2.29 | 2023 | 904 | 2.61 | 2300 |
| 3400 | 695 | 1.47 | 1310 | 759 | 1.78 | 1578 | 816 | 2.10 | 1858 | 867 | 2.42 | 2136 | 917 | 2.75 | 2420 |
| 3500 | 712 | 1.59 | 1413 | 774 | 1.90 | 1683 | 830 | 2.23 | 1971 | 881 | 2.56 | 2257 | 930 | 2.90 | 2546 |
| 3600 | 729 | 1.71 | 1517 | 790 | 2.03 | 1796 | 845 | 2.37 | 2093 | 895 | 2.71 | 2386 | 943 | 3.05 | 2670 |
| 3700 | 745 | 1.84 | 1630 | 805 | 2.17 | 1919 | 860 | 2.52 | 2223 | 909 | 2.87 | 2521 | 956 | 3.22 | 2807 |
| 3750 | 754 | 1.91 | 1691 | 813 | 2.24 | 1980 | 868 | 2.59 | 2283 | 917 | 2.95 | 2587 | 963 | 3.30 | 2870 |
| 3800 | 762 | 1.98 | 1753 | 821 | 2.31 | 2041 | 875 | 2.66 | 2343 | 924 | 3.03 | 2653 | 970 | 3.38 | 2933 |
| 3900 | 779 | 2.12 | 1875 | 836 | 2.46 | 2171 | 890 | 2.82 | 2479 | 938 | 3.19 | 2783 | — | — | — |
| 4000 | 796 | 2.27 | 2006 | 852 | 2.61 | 2300 | 905 | 2.98 | 2612 | 953 | 3.37 | 2925 | — | — | — |
| 4100 | 813 | 2.42 | 2136 | 868 | 2.78 | 2445 | 920 | 3.15 | 2751 | — | — | — | — | — | — |
| 4200 | 830 | 2.59 | 2283 | 884 | 2.95 | 2587 | 935 | 3.33 | 2894 | — | — | — | — | — | — |
| 4250 | 839 | 2.68 | 2360 | 890 | 3.04 | 2661 | — | — | — | — | — | — | — | — | — |

| 580D102 (8½ TONS)* (cont) | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2550 | 864 | 2.01 | 1779 | 915 | 2.34 | 2067 | 968 | 2.81 | 2479 |
| 2600 | 869 | 2.06 | 1823 | 918 | 2.37 | 2093 | 973 | 2.81 | 2487 |
| 2700 | 880 | 2.17 | 1919 | 927 | 2.47 | 2180 | 976 | 2.84 | 2495 |
| 2800 | 892 | 2.29 | 2023 | 938 | 2.58 | 2275 | 983 | 2.92 | 2562 |
| 2900 | 903 | 2.42 | 2136 | 949 | 2.71 | 2386 | 993 | 3.03 | 2653 |
| 3000 | 915 | 2.54 | 2240 | 961 | 2.85 | 2504 | 1003 | 3.17 | 2767 |
| 3100 | 926 | 2.67 | 2352 | 972 | 3.00 | 2629 | 1016 | 3.32 | 2886 |
| 3200 | 938 | 2.81 | 2470 | 983 | 3.14 | 2743 | 1026 | 3.47 | 3002 |
| 3300 | 950 | 2.95 | 2587 | 995 | 3.30 | 2870 | — | — | — |
| 3400 | 963 | 3.10 | 2710 | 1007 | 3.45 | 2987 | — | — | — |
| 3500 | 976 | 3.25 | 2831 | — | — | — | — | — | — |
| 3600 | 988 | 3.41 | 2956 | — | — | — | — | — | — |
| 3700 | — | — | — | — | — | — | — | — | — |
| 3750 | — | — | — | — | — | — | — | — | — |
| 3800 | — | — | — | — | — | — | — | — | — |
| 3900 | — | — | — | — | — | — | — | — | — |
| 4000 | — | — | — | — | — | — | — | — | — |
| 4100 | — | — | — | — | — | — | — | — | — |
| 4200 | — | — | — | — | — | — | — | — | — |
| 4250 | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOF — Factory-Installed Option
- Watts — Input Watts to Motor

*Motor drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOF static pressure information.

3. Maximum continuous bhp is 2.4 and maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D120 (10 TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3000 | 592 | 0.76 | 723 | 661 | 0.93 | 859 | 722 | 1.09 | 989 | 779 | 1.26 | 1131 | 829 | 1.42 | 1267 | 880 | 1.58 | 1404 |
| 3100 | 607 | 0.83 | 779 | 676 | 1.01 | 924 | 734 | 1.17 | 1056 | 791 | 1.34 | 1199 | 840 | 1.51 | 1344 | 890 | 1.68 | 1491 |
| 3200 | 622 | 0.90 | 835 | 690 | 1.09 | 989 | 746 | 1.25 | 1123 | 803 | 1.43 | 1275 | 852 | 1.60 | 1422 | 900 | 1.77 | 1569 |
| 3300 | 638 | 0.98 | 899 | 705 | 1.17 | 1056 | 759 | 1.33 | 1190 | 815 | 1.52 | 1353 | 864 | 1.70 | 1508 | 910 | 1.88 | 1665 |
| 3400 | 653 | 1.06 | 965 | 719 | 1.26 | 1131 | 772 | 1.43 | 1275 | 826 | 1.62 | 1439 | 876 | 1.81 | 1604 | 921 | 1.98 | 1753 |
| 3500 | 669 | 1.15 | 1039 | 733 | 1.35 | 1207 | 786 | 1.53 | 1361 | 838 | 1.72 | 1526 | 888 | 1.91 | 1691 | 933 | 2.10 | 1858 |
| 3600 | 684 | 1.24 | 1114 | 747 | 1.44 | 1284 | 800 | 1.64 | 1456 | 850 | 1.82 | 1613 | 900 | 2.03 | 1796 | 945 | 2.22 | 2014 |
| 3700 | 700 | 1.33 | 1190 | 760 | 1.54 | 1370 | 814 | 1.75 | 1552 | 863 | 1.92 | 1700 | 912 | 2.14 | 1892 | 957 | 2.34 | 2117 |
| 3800 | 715 | 1.43 | 1275 | 774 | 1.64 | 1456 | 828 | 1.86 | 1648 | 875 | 2.04 | 1805 | 924 | 2.26 | 1997 | 969 | 2.47 | 2230 |
| 3900 | 731 | 1.54 | 1370 | 787 | 1.74 | 1543 | 843 | 1.98 | 1753 | 888 | 2.16 | 1910 | 936 | 2.38 | 2151 | 981 | 2.60 | 2344 |
| 4000 | 747 | 1.64 | 1456 | 801 | 1.85 | 1639 | 857 | 2.10 | 1858 | 902 | 2.30 | 2032 | 948 | 2.51 | 2265 | 993 | 2.74 | 2469 |
| 4100 | 763 | 1.76 | 1560 | 816 | 1.97 | 1744 | 872 | 2.23 | 1971 | 916 | 2.44 | 2203 | 960 | 2.64 | 2380 | 1005 | 2.88 | 2596 |
| 4200 | 778 | 1.88 | 1665 | 831 | 2.10 | 1884 | 886 | 2.36 | 2084 | 929 | 2.58 | 2326 | 972 | 2.78 | 2505 | 1016 | 3.03 | 2735 |
| 4300 | 794 | 2.00 | 1770 | 846 | 2.23 | 1971 | 900 | 2.50 | 2256 | 943 | 2.73 | 2460 | 985 | 2.93 | 2642 | 1028 | 3.17 | 2866 |
| 4400 | 810 | 2.13 | 1884 | 861 | 2.37 | 2093 | 913 | 2.64 | 2380 | 958 | 2.89 | 2605 | 999 | 3.09 | 2791 | 1040 | 3.32 | 3010 |
| 4500 | 826 | 2.27 | 2006 | 876 | 2.52 | 2273 | 927 | 2.78 | 2505 | 973 | 3.04 | 2744 | 1012 | 3.26 | 2952 | — | — | — |
| 4600 | 842 | 2.41 | 2177 | 892 | 2.67 | 2406 | 940 | 2.92 | 2633 | 987 | 3.21 | 2904 | — | — | — | — | — | — |
| 4700 | 858 | 2.55 | 2300 | 907 | 2.83 | 2551 | 954 | 3.08 | 2782 | 1002 | 3.38 | 3068 | — | — | — | — | — | — |
| 4800 | 874 | 2.70 | 2433 | 922 | 2.99 | 2698 | 968 | 3.24 | 2933 | — | — | — | — | — | — | — | — | — |
| 4900 | 890 | 2.86 | 2578 | 938 | 3.16 | 2857 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5000 | 906 | 3.03 | 2735 | 953 | 3.33 | 3020 | — | — | — | — | — | — | — | — | — | — | — | — |

| 580D120 (10 TONS)* (cont) | | | | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3000 | 924 | 1.73 | 1534 | 970 | 1.89 | 1736 | 1019 | 2.00 | 1828 | 1066 | 2.30 | 2082 |
| 3100 | 935 | 1.84 | 1695 | 977 | 2.00 | 1828 | 1026 | 2.17 | 1971 | 1070 | 2.44 | 2203 |
| 3200 | 946 | 1.95 | 1786 | 987 | 2.11 | 1920 | 1029 | 2.28 | 2065 | 1075 | 2.51 | 2265 |
| 3300 | 957 | 2.06 | 1878 | 998 | 2.23 | 2022 | 1037 | 2.40 | 2169 | 1082 | 2.58 | 2326 |
| 3400 | 967 | 2.17 | 1971 | 1009 | 2.35 | 2125 | 1047 | 2.53 | 2282 | 1087 | 2.70 | 2433 |
| 3500 | 976 | 2.29 | 2074 | 1020 | 2.48 | 2238 | 1058 | 2.66 | 2397 | 1095 | 2.84 | 2560 |
| 3600 | 986 | 2.41 | 2177 | 1030 | 2.61 | 2353 | 1069 | 2.80 | 2523 | 1106 | 2.98 | 2688 |
| 3700 | 998 | 2.54 | 2291 | 1039 | 2.74 | 2469 | 1081 | 2.94 | 2651 | 1117 | 3.13 | 2829 |
| 3800 | 1010 | 2.67 | 2406 | 1049 | 2.87 | 2587 | 1091 | 3.08 | 2782 | 1128 | 3.29 | 2981 |
| 3900 | 1022 | 2.81 | 2533 | 1060 | 3.02 | 2726 | 1100 | 3.23 | 2923 | — | — | — |
| 4000 | 1034 | 2.96 | 2670 | 1072 | 3.17 | 2866 | 1110 | 3.38 | 3068 | — | — | — |
| 4100 | 1046 | 3.11 | 2810 | 1084 | 3.32 | 3010 | — | — | — | — | — | — |
| 4200 | 1058 | 3.26 | 2952 | — | — | — | — | — | — | — | — | — |
| 4300 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4400 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4500 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4600 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4700 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4800 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4900 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5000 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Standard motor drive range is 685 to 935 rpm. Alternate motor drive range is 835 to 1085 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.4 for the standard motor and 2.9 for the alternate motor. Maximum continuous watts are 2120 for the standard motor and 2615 for the alternate motor. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 VERTICAL DISCHARGE UNITS (cont)

| 580D150 (12½ TONS)* | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3750 | 737 | 1.41 | 1300 | 798 | 1.64 | 1486 | 854 | 1.84 | 1658 | 909 | 2.12 | 1893 | 961 | 2.35 | 2097 | 1014 | 2.61 | 2325 |
| 3800 | 745 | 1.46 | 1340 | 805 | 1.69 | 1531 | 861 | 1.89 | 1700 | 915 | 2.17 | 1940 | 967 | 2.41 | 2149 | 1019 | 2.67 | 2378 |
| 3900 | 761 | 1.56 | 1423 | 820 | 1.80 | 1624 | 875 | 2.01 | 1802 | 928 | 2.29 | 2044 | 979 | 2.55 | 2272 | 1029 | 2.80 | 2494 |
| 4000 | 777 | 1.67 | 1514 | 836 | 1.92 | 1725 | 889 | 2.14 | 1914 | 941 | 2.40 | 2140 | 991 | 2.68 | 2387 | 1040 | 2.94 | 2620 |
| 4100 | 793 | 1.79 | 1615 | 851 | 2.05 | 1836 | 904 | 2.27 | 2027 | 955 | 2.52 | 2246 | 1004 | 2.82 | 2512 | 1052 | 3.08 | 2746 |
| 4200 | 810 | 1.91 | 1717 | 867 | 2.18 | 1948 | 918 | 2.41 | 2149 | 968 | 2.65 | 2361 | 1017 | 2.96 | 2638 | 1064 | 3.23 | 2882 |
| 4300 | 826 | 2.04 | 1828 | 883 | 2.32 | 2070 | 933 | 2.55 | 2272 | 982 | 2.79 | 2485 | 1030 | 3.11 | 2773 | 1076 | 3.40 | 3037 |
| 4400 | 842 | 2.17 | 1940 | 898 | 2.46 | 2193 | 948 | 2.70 | 2405 | 996 | 2.93 | 2611 | 1043 | 3.25 | 2901 | 1088 | 3.56 | 3184 |
| 4500 | 859 | 2.31 | 2061 | 914 | 2.60 | 2316 | 962 | 2.85 | 2539 | 1010 | 3.09 | 2755 | 1056 | 3.40 | 3037 | 1101 | 3.73 | 3341 |
| 4600 | 876 | 2.45 | 2184 | 930 | 2.76 | 2459 | 977 | 3.01 | 2683 | 1024 | 3.26 | 2910 | 1070 | 3.55 | 3175 | 1114 | 3.90 | 3498 |
| 4700 | 892 | 2.60 | 2316 | 945 | 2.91 | 2593 | 992 | 3.18 | 2837 | 1039 | 3.43 | 3065 | 1083 | 3.71 | 3322 | 1126 | 4.07 | 3655 |
| 4800 | 909 | 2.77 | 2468 | 961 | 3.07 | 2737 | 1008 | 3.36 | 3001 | 1053 | 3.61 | 3230 | 1097 | 3.88 | 3479 | 1140 | 4.25 | 3822 |
| 4900 | 926 | 2.93 | 2611 | 977 | 3.24 | 2891 | 1024 | 3.54 | 3166 | 1068 | 3.80 | 3405 | 1111 | 4.06 | 3646 | 1153 | 4.41 | 3971 |
| 5000 | 942 | 3.11 | 2773 | 993 | 3.41 | 3047 | 1039 | 3.73 | 3341 | 1080 | 3.99 | 3581 | 1125 | 4.25 | 3822 | 1166 | 4.59 | 4139 |
| 5100 | 959 | 3.29 | 2937 | 1009 | 3.60 | 3221 | 1055 | 3.92 | 3516 | 1097 | 4.19 | 3767 | 1139 | 4.46 | 4018 | 1180 | 4.78 | 4316 |
| 5200 | 976 | 3.47 | 3101 | 1025 | 3.78 | 3387 | 1071 | 4.12 | 3702 | 1112 | 4.40 | 3962 | 1153 | 4.67 | 4214 | 1194 | 4.98 | 4503 |
| 5300 | 993 | 3.67 | 3285 | 1041 | 3.98 | 3572 | 1086 | 4.33 | 3897 | 1127 | 4.61 | 4158 | 1168 | 4.90 | 4428 | 1208 | 5.19 | 4698 |
| 5400 | 1010 | 3.87 | 3470 | 1057 | 4.18 | 3757 | 1102 | 4.54 | 4093 | 1142 | 4.84 | 4372 | 1182 | 5.13 | 4642 | — | — | — |
| 5500 | 1027 | 4.07 | 3655 | 1073 | 4.39 | 3953 | 1118 | 4.76 | 4298 | 1157 | 5.07 | 4586 | — | — | — | — | — | — |
| 5600 | 1043 | 4.29 | 3860 | 1090 | 4.61 | 4158 | 1133 | 4.99 | 4512 | — | — | — | — | — | — | — | — | — |
| 5700 | 1060 | 4.51 | 4065 | 1106 | 4.83 | 4363 | 1149 | 5.22 | 4726 | — | — | — | — | — | — | — | — | — |
| 5800 | 1077 | 4.74 | 4279 | 1122 | 5.07 | 4586 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5900 | 1094 | 4.98 | 4503 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 6000 | 1111 | 5.22 | 4726 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 6100 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 6250 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| 580D150 (12½ TONS)* (cont) | | | | | | | | | | | | |
|----------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3750 | 1065 | 2.87 | 2557 | 1113 | 3.12 | 2783 | 1158 | 3.36 | 2997 | 1197 | 3.56 | 3180 |
| 3800 | 1070 | 2.94 | 2620 | 1118 | 3.19 | 2846 | 1163 | 3.44 | 3074 | 1203 | 3.65 | 3267 |
| 3900 | 1079 | 3.07 | 2737 | 1128 | 3.34 | 2983 | 1173 | 3.60 | 3221 | 1214 | 3.83 | 3433 |
| 4000 | 1089 | 3.22 | 2873 | 1137 | 3.49 | 3120 | 1183 | 3.76 | 3368 | 1225 | 4.00 | 3590 |
| 4100 | 1100 | 3.36 | 3001 | 1147 | 3.65 | 3267 | 1193 | 3.93 | 3525 | 1236 | 4.19 | 3767 |
| 4200 | 1110 | 3.51 | 3138 | 1157 | 3.81 | 3414 | 1202 | 4.09 | 3674 | 1245 | 4.38 | 3943 |
| 4300 | 1121 | 3.67 | 3285 | 1167 | 3.97 | 3562 | 1212 | 4.27 | 3841 | 1255 | 4.56 | 4111 |
| 4400 | 1133 | 3.84 | 3442 | 1178 | 4.14 | 3720 | 1222 | 4.44 | 3999 | 1265 | 4.74 | 4279 |
| 4500 | 1144 | 4.00 | 3590 | 1188 | 4.31 | 3878 | 1232 | 4.62 | 4167 | 1274 | 4.93 | 4456 |
| 4600 | 1157 | 4.19 | 3767 | 1199 | 4.49 | 4046 | 1242 | 4.81 | 4344 | 1284 | 5.13 | 4642 |
| 4700 | 1169 | 4.38 | 3943 | 1210 | 4.68 | 4223 | 1252 | 5.00 | 4521 | — | — | — |
| 4800 | 1181 | 4.58 | 4130 | 1222 | 4.87 | 4400 | 1263 | 5.20 | 4707 | — | — | — |
| 4900 | 1194 | 4.77 | 4307 | 1234 | 5.09 | 4605 | — | — | — | — | — | — |
| 5000 | 1207 | 4.97 | 4493 | — | — | — | — | — | — | — | — | — |
| 5100 | 1220 | 5.18 | 4689 | — | — | — | — | — | — | — | — | — |
| 5200 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5300 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5400 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5500 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5600 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5700 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5800 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5900 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6000 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6100 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6250 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOP — Factory-Installed Option
- Watts — Input Watts to Motor

*Standard motor drive range is 860 to 1080 rpm. Alternate motor drive range is 900 to 1260 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 4.20 for the standard motor and 5.25 for the alternate motor. Maximum continuous watts are 3775 for the standard motor and 4400 for the alternate motor. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS

| 580D036 (3 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | High Speed | | | | | |
| | 208 v | | | 230, 460, 575 v | | | 208 v | | | 230, 460, 575 v | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 900 | 0.54 | 0.21 | 253 | 0.57 | 0.23 | 277 | 0.55 | 0.26 | 307 | 0.60 | 0.31 | 363 |
| 1000 | 0.49 | 0.23 | 270 | 0.51 | 0.25 | 292 | 0.52 | 0.27 | 321 | 0.53 | 0.32 | 374 |
| 1100 | 0.43 | 0.24 | 287 | 0.45 | 0.26 | 307 | 0.46 | 0.28 | 335 | 0.49 | 0.33 | 385 |
| 1200 | 0.39 | 0.26 | 304 | 0.40 | 0.27 | 323 | 0.38 | 0.29 | 349 | 0.43 | 0.34 | 397 |
| 1300 | 0.33 | 0.27 | 321 | 0.35 | 0.29 | 338 | 0.35 | 0.31 | 364 | 0.36 | 0.34 | 408 |
| 1400 | 0.26 | 0.29 | 338 | 0.28 | 0.30 | 354 | 0.29 | 0.32 | 378 | — | — | — |
| 1500 | 0.21 | 0.30 | 355 | 0.23 | 0.31 | 369 | 0.24 | 0.33 | 392 | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
Esp — External Static Pressure (in. wg)
FIOP — Factory-Installed Option

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

2. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.

3. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.3 | | | 0.4 | | | 0.5 | | | 0.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 900 | 526 | 0.06 | 70 | 584 | 0.08 | 99 | 656 | 0.12 | 139 | 734 | 0.22 | 219 | 818 | 0.25 | 269 | 875 | 0.27 | 269 |
| 1000 | 570 | 0.09 | 109 | 627 | 0.13 | 149 | 738 | 0.19 | 189 | 800 | 0.26 | 259 | 848 | 0.29 | 288 | 895 | 0.31 | 308 |
| 1100 | 614 | 0.13 | 149 | 670 | 0.16 | 189 | 758 | 0.23 | 229 | 812 | 0.29 | 288 | 863 | 0.32 | 308 | 914 | 0.35 | 348 |
| 1200 | 658 | 0.16 | 189 | 710 | 0.23 | 229 | 780 | 0.28 | 279 | 840 | 0.32 | 318 | 889 | 0.36 | 358 | 938 | 0.40 | 398 |
| 1300 | 703 | 0.20 | 239 | 752 | 0.27 | 269 | 808 | 0.32 | 318 | 868 | 0.37 | 368 | 916 | 0.41 | 408 | 963 | 0.45 | 448 |
| 1400 | 725 | 0.29 | 288 | 776 | 0.31 | 308 | 845 | 0.38 | 378 | 891 | 0.42 | 418 | 937 | 0.47 | 467 | 983 | 0.51 | 507 |
| 1500 | 755 | 0.33 | 328 | 816 | 0.38 | 378 | 870 | 0.43 | 428 | 924 | 0.48 | 477 | 969 | 0.53 | 527 | 1014 | 0.58 | 577 |

| 580D036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont) | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.7 | | | 0.8 | | | 0.9 | | | 1.0 | | | 1.1 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 900 | 924 | 0.32 | 308 | 953 | 0.35 | 348 | 989 | 0.38 | 388 | 1028 | 0.42 | 438 | 1074 | 0.45 | 487 | 1120 | 0.50 | 537 |
| 1000 | 936 | 0.35 | 348 | 977 | 0.39 | 388 | 1020 | 0.44 | 438 | 1064 | 0.48 | 477 | 1124 | 0.52 | 537 | 1185 | 0.55 | 597 |
| 1100 | 960 | 0.39 | 388 | 1005 | 0.43 | 428 | 1052 | 0.49 | 487 | 1100 | 0.52 | 527 | 1163 | 0.56 | 587 | 1225 | 0.60 | 647 |
| 1200 | 988 | 0.45 | 448 | 1038 | 0.50 | 497 | 1076 | 0.53 | 527 | 1136 | 0.59 | 577 | 1201 | 0.61 | 647 | 1266 | 0.64 | 716 |
| 1300 | 1012 | 0.51 | 507 | 1061 | 0.56 | 557 | 1094 | 0.61 | 607 | 1172 | 0.65 | 647 | 1239 | 0.69 | 716 | 1306 | 0.72 | 786 |
| 1400 | 1027 | 0.56 | 557 | 1071 | 0.60 | 597 | 1108 | 0.67 | 666 | 1208 | 0.70 | 706 | 1278 | 0.75 | 786 | 1347 | 0.79 | 865 |
| 1500 | 1056 | 0.63 | 627 | 1097 | 0.68 | 676 | 1117 | 0.70 | 696 | 1245 | 0.74 | 776 | 1315 | 0.80 | 865 | 1385 | 0.85 | 955 |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Motor drive range is 760 to 1000 rpm. All other rpms require a field-supplied drive.

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

2. Maximum continuous bhp is 1.00 and maximum continuous watts are 1000. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.

3. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

4. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D048 (4 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | High Speed | | | | | |
| | 208 v | | | 230, 460, 575 v | | | 208 v | | | 230, 460, 575 v | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 1200 | 0.75 | 0.41 | 458 | 0.81 | 0.45 | 506 | 0.87 | 0.51 | 572 | 0.92 | 0.56 | 632 |
| 1300 | 0.68 | 0.42 | 471 | 0.74 | 0.46 | 521 | 0.79 | 0.52 | 589 | 0.85 | 0.58 | 651 |
| 1400 | 0.60 | 0.45 | 503 | 0.66 | 0.49 | 556 | 0.71 | 0.54 | 616 | 0.77 | 0.60 | 681 |
| 1500 | 0.51 | 0.47 | 536 | 0.58 | 0.52 | 593 | 0.64 | 0.56 | 631 | 0.70 | 0.62 | 698 |
| 1600 | 0.42 | 0.49 | 557 | 0.49 | 0.54 | 616 | 0.56 | 0.58 | 654 | 0.63 | 0.64 | 723 |
| 1700 | 0.32 | 0.52 | 584 | 0.39 | 0.57 | 646 | 0.48 | 0.60 | 678 | 0.55 | 0.66 | 750 |
| 1800 | 0.21 | 0.54 | 610 | 0.29 | 0.60 | 674 | 0.41 | 0.62 | 698 | 0.48 | 0.68 | 772 |
| 1900 | 0.09 | 0.56 | 629 | 0.18 | 0.62 | 696 | 0.33 | 0.64 | 720 | 0.41 | 0.70 | 796 |
| 2000 | — | — | — | 0.06 | 0.65 | 731 | 0.26 | 0.66 | 744 | 0.33 | 0.73 | 823 |

LEGEND

Bhp — Brake Horsepower Input to Fan
Esp — External Static Pressure (in. wg)
FIOP — Factory-Installed Option

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|------|-------|-----|------|-------|-----|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.3 | | | 0.4 | | | 0.6 | | | 0.7 | | | 0.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1200 | 569 | 0.18 | 189 | 641 | 0.23 | 242 | 701 | 0.29 | 299 | 761 | 0.34 | 357 | 859 | 0.46 | 483 | 901 | 0.52 | 546 | 943 | 0.58 | 609 |
| 1300 | 604 | 0.22 | 231 | 673 | 0.28 | 294 | 731 | 0.34 | 352 | 788 | 0.39 | 410 | 887 | 0.52 | 546 | 928 | 0.59 | 615 | 968 | 0.65 | 683 |
| 1400 | 640 | 0.27 | 284 | 705 | 0.33 | 347 | 761 | 0.39 | 410 | 817 | 0.45 | 473 | 914 | 0.59 | 620 | 955 | 0.66 | 688 | 996 | 0.72 | 757 |
| 1500 | 676 | 0.32 | 336 | 738 | 0.38 | 399 | 793 | 0.45 | 468 | 847 | 0.51 | 536 | 940 | 0.65 | 683 | 982 | 0.73 | 767 | 1024 | 0.81 | 851 |
| 1600 | 713 | 0.38 | 399 | 772 | 0.44 | 462 | 825 | 0.51 | 536 | 877 | 0.58 | 609 | 967 | 0.73 | 767 | 1009 | 0.81 | 851 | 1051 | 0.89 | 935 |
| 1700 | 750 | 0.45 | 473 | 806 | 0.51 | 536 | 857 | 0.59 | 615 | 908 | 0.66 | 693 | 997 | 0.81 | 851 | 1037 | 0.90 | 940 | 1077 | 1.01 | 1030 |
| 1800 | 788 | 0.52 | 546 | 841 | 0.59 | 620 | 890 | 0.67 | 704 | 939 | 0.75 | 788 | 1026 | 0.91 | 956 | 1065 | 1.01 | 1040 | 1104 | 1.07 | 1124 |
| 1900 | 826 | 0.60 | 630 | 876 | 0.68 | 714 | 924 | 0.76 | 799 | 971 | 0.84 | 883 | 1056 | 1.01 | 1061 | 1094 | 1.10 | 1151 | 1132 | 1.18 | 1240 |
| 2000 | 864 | 0.70 | 735 | 912 | 0.77 | 809 | 958 | 0.86 | 898 | 1004 | 0.94 | 988 | 1087 | 1.12 | 1177 | 1125 | 1.21 | 1271 | 1162 | 1.30 | 1366 |

| 580D048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont) | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | | |
| | 0.9 | | | 1.0 | | | 1.1 | | | 1.2 | | | 1.4 | | | 1.6 | | | 1.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1200 | 987 | 0.64 | 652 | 1030 | 0.70 | 695 | 1068 | 0.79 | 792 | 1106 | 0.87 | 889 | 1134 | 0.98 | 998 | 1189 | 1.12 | 1138 | 1245 | 1.21 | 1358 |
| 1300 | 1006 | 0.71 | 709 | 1044 | 0.77 | 736 | 1086 | 0.84 | 833 | 1128 | 0.91 | 930 | 1183 | 1.10 | 1052 | 1226 | 1.23 | 1215 | 1297 | 1.35 | 1406 |
| 1400 | 1033 | 0.79 | 797 | 1069 | 0.86 | 838 | 1104 | 0.93 | 925 | 1139 | 1.01 | 1012 | 1218 | 1.14 | 1090 | 1286 | 1.34 | 1282 | 1320 | 1.48 | 1463 |
| 1500 | 1060 | 0.88 | 891 | 1095 | 0.95 | 930 | 1129 | 1.02 | 1022 | 1162 | 1.09 | 1114 | 1228 | 1.24 | 1186 | 1303 | 1.40 | 1339 | 1343 | 1.60 | 1530 |
| 1600 | 1087 | 1.01 | 1001 | 1123 | 1.05 | 1073 | 1156 | 1.13 | 1150 | 1185 | 1.20 | 1226 | 1250 | 1.35 | 1291 | 1319 | 1.51 | 1444 | 1382 | 1.68 | 1607 |
| 1700 | 1114 | 1.07 | 1108 | 1151 | 1.15 | 1185 | 1183 | 1.23 | 1262 | 1215 | 1.31 | 1339 | 1276 | 1.48 | 1415 | 1334 | 1.64 | 1569 | 1398 | 1.80 | 1722 |
| 1800 | 1141 | 1.17 | 1221 | 1178 | 1.26 | 1318 | 1211 | 1.35 | 1390 | 1243 | 1.43 | 1461 | 1303 | 1.61 | 1540 | 1359 | 1.78 | 1702 | 1418 | 1.95 | 1865 |
| 1900 | 1168 | 1.28 | 1371 | 1204 | 1.37 | 1502 | 1238 | 1.47 | 1548 | 1271 | 1.56 | 1594 | 1330 | 1.74 | 1664 | 1386 | 1.93 | 1846 | 1439 | 2.11 | 2018 |
| 2000 | 1197 | 1.39 | 1485 | 1231 | 1.48 | 1604 | 1265 | 1.59 | 1666 | 1298 | 1.69 | 1727 | 1358 | 1.89 | 1808 | 1413 | 2.08 | 1989 | 1466 | 2.27 | 2171 |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Motor drive range is 835 to 1185 rpm. All other rpms require a field-supplied drive.

NOTES:

- Boldface** indicates field-supplied motor and drive are required.
- Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

- Maximum continuous bhp is 1.00 and the maximum continuous watts are 1000. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D060 (5 TONS) — STANDARD MOTOR (DIRECT DRIVE) | | | | | | | | | | | | | | | | | | |
|--|-----------|------|-------|-----------------|------|-------|--------------|------|-------|----------------|------|-------|------------|------|-------|-----------------|------|-------|
| Airflow (Cfm) | Low Speed | | | | | | Medium Speed | | | | | | High Speed | | | | | |
| | 208 V | | | 230, 460, 575 V | | | 208 V | | | 230,460, 575 V | | | 208 V | | | 230, 460, 575 V | | |
| | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts | Esp | Bhp | Watts |
| 1500 | 0.74 | 0.67 | 750 | 1.06 | 0.71 | 791 | 1.07 | 0.70 | 782 | 1.27 | 0.76 | 845 | 1.26 | 0.79 | 875 | 1.33 | 0.85 | 949 |
| 1600 | 0.54 | 0.70 | 780 | 0.90 | 0.74 | 824 | 0.92 | 0.74 | 821 | 1.13 | 0.79 | 883 | 1.14 | 0.82 | 913 | 1.22 | 0.89 | 988 |
| 1700 | 0.34 | 0.73 | 810 | 0.75 | 0.77 | 857 | 0.77 | 0.77 | 861 | 1.00 | 0.83 | 921 | 1.01 | 0.85 | 950 | 1.11 | 0.92 | 1027 |
| 1800 | 0.14 | 0.75 | 839 | 0.59 | 0.80 | 891 | 0.62 | 0.81 | 900 | 0.87 | 0.86 | 959 | 0.89 | 0.88 | 988 | 1.00 | 0.96 | 1066 |
| 1900 | — | — | — | 0.44 | 0.83 | 924 | 0.47 | 0.84 | 940 | 0.74 | 0.90 | 997 | 0.77 | 0.92 | 1025 | 0.89 | 0.99 | 1105 |
| 2000 | — | — | — | 0.28 | 0.86 | 957 | 0.32 | 0.88 | 979 | 0.61 | 0.93 | 1035 | 0.64 | 0.95 | 1063 | 0.78 | 1.03 | 1144 |
| 2100 | — | — | — | 0.13 | 0.89 | 990 | 0.17 | 0.91 | 1018 | 0.48 | 0.96 | 1073 | 0.51 | 0.99 | 1101 | 0.67 | 1.06 | 1183 |
| 2200 | — | — | — | — | — | — | 0.02 | 0.95 | 1058 | 0.35 | 1.00 | 1111 | 0.39 | 1.02 | 1138 | 0.56 | 1.10 | 1222 |
| 2300 | — | — | — | — | — | — | — | — | — | 0.22 | 1.03 | 1149 | 0.26 | 1.06 | 1176 | 0.45 | 1.13 | 1261 |
| 2400 | — | — | — | — | — | — | — | — | — | 0.09 | 1.07 | 1187 | 0.14 | 1.09 | 1213 | 0.34 | 1.17 | 1300 |
| 2500 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.23 | 1.20 | 1340 |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- Esp — External Static Pressure (in. wg)
- FIOF — Factory-Installed Option

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOF static pressure information.
2. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
3. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.

| 580D060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE) | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|------|-------|------|------|-------|------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1500 | 730 | 0.34 | 357 | 789 | 0.40 | 420 | 896 | 0.53 | 557 | 990 | 0.67 | 704 | 1072 | 0.83 | 872 | 1153 | 1.00 | 1051 |
| 1600 | 770 | 0.40 | 420 | 826 | 0.46 | 483 | 931 | 0.61 | 641 | 1020 | 0.75 | 788 | 1101 | 0.91 | 956 | 1178 | 1.09 | 1145 |
| 1700 | 811 | 0.47 | 494 | 865 | 0.54 | 567 | 966 | 0.69 | 725 | 1051 | 0.84 | 883 | 1133 | 1.01 | 1061 | 1205 | 1.18 | 1240 |
| 1800 | 852 | 0.55 | 578 | 905 | 0.62 | 651 | 1002 | 0.78 | 820 | 1084 | 0.93 | 977 | 1163 | 1.10 | 1156 | 1235 | 1.29 | 1355 |
| 1900 | 894 | 0.54 | 567 | 945 | 0.72 | 757 | 1037 | 0.88 | 925 | 1119 | 1.04 | 1093 | 1194 | 1.21 | 1271 | 1266 | 1.40 | 1471 |
| 2000 | 936 | 0.74 | 778 | 984 | 0.82 | 862 | 1072 | 0.98 | 1030 | 1154 | 1.16 | 1219 | 1226 | 1.33 | 1397 | 1297 | 1.53 | 1608 |
| 2100 | 978 | 0.85 | 893 | 1024 | 0.93 | 977 | 1108 | 1.10 | 1156 | 1192 | 1.29 | 1355 | 1259 | 1.47 | 1545 | 1327 | 1.66 | 1744 |
| 2200 | 1021 | 0.97 | 1019 | 1064 | 1.05 | 1103 | 1145 | 1.22 | 1282 | 1225 | 1.43 | 1503 | 1294 | 1.62 | 1702 | 1359 | 1.80 | 1902 |
| 2300 | 1064 | 1.10 | 1156 | 1104 | 1.18 | 1240 | 1183 | 1.36 | 1429 | 1260 | 1.57 | 1650 | 1330 | 1.78 | 1870 | 1392 | 1.97 | 2070 |
| 2400 | 1107 | 1.24 | 1303 | 1145 | 1.32 | 1387 | 1222 | 1.45 | 1524 | 1296 | 1.73 | 1818 | 1365 | 1.94 | 2038 | 1426 | 2.15 | 2259 |
| 2500 | 1150 | 1.39 | 1460 | 1186 | 1.48 | 1555 | 1262 | 1.68 | 1765 | 1331 | 1.89 | 1986 | 1400 | 2.12 | 2227 | 1461 | 2.34 | 2459 |

| 580D060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE) (cont) | | | | | | | | | | | | |
|--|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | | 1.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1500 | 1221 | 1.17 | 1229 | 1256 | 1.30 | 1366 | 1283 | 1.32 | 1387 | 1303 | 1.22 | 1282 |
| 1600 | 1252 | 1.27 | 1334 | 1311 | 1.45 | 1524 | 1340 | 1.58 | 1660 | 1330 | 1.61 | 1692 |
| 1700 | 1278 | 1.37 | 1439 | 1345 | 1.57 | 1650 | 1397 | 1.76 | 1849 | 1424 | 1.89 | 1986 |
| 1800 | 1303 | 1.48 | 1555 | 1371 | 1.69 | 1776 | 1433 | 1.90 | 1996 | 1480 | 2.09 | 2196 |
| 1900 | 1330 | 1.59 | 1671 | 1396 | 1.80 | 1902 | 1460 | 2.03 | 2133 | 1517 | 2.25 | 2364 |
| 2000 | 1362 | 1.73 | 1818 | 1422 | 1.94 | 2038 | 1485 | 2.16 | 2270 | 1544 | 2.40 | 2522 |
| 2100 | 1393 | 1.87 | 1965 | 1452 | 2.08 | 2185 | 1510 | 2.31 | 2427 | 1570 | 2.55 | 2674 |
| 2200 | 1423 | 2.02 | 2122 | 1483 | 2.24 | 2354 | 1538 | 2.46 | 2585 | 1594 | 2.71 | 2821 |
| 2300 | 1454 | 2.18 | 2291 | 1515 | 2.41 | 2532 | 1571 | 2.64 | 2758 | 1623 | 2.88 | 2976 |
| 2400 | 1485 | 2.36 | 2480 | 1544 | 2.59 | 2721 | 1604 | 2.84 | 2947 | 1657 | 3.07 | 3152 |
| 2500 | 1518 | 2.55 | 2679 | 1574 | 2.78 | 2905 | 1633 | 3.03 | 3134 | 1692 | 3.28 | 3345 |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOF — Factory-Installed Option
- Watts — Input Watts to Motor

*Motor drive range is 900 to 1300 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOF static pressure information.
3. Maximum continuous bhp is 1.80 and maximum continuous watts are 1921. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D072 (6 TONS)* | | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.1 | | | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1800 | 885 | 0.63 | 623 | 942 | 0.73 | 700 | 1047 | 0.90 | 835 | 1139 | 1.05 | 956 | 1193 | 1.14 | 1031 | 1276 | 1.30 | 1165 |
| 1900 | 928 | 0.73 | 700 | 982 | 0.83 | 779 | 1084 | 1.02 | 932 | 1160 | 1.11 | 1006 | 1223 | 1.24 | 1114 | 1301 | 1.38 | 1233 |
| 2000 | 971 | 0.84 | 787 | 1022 | 0.94 | 867 | 1121 | 1.12 | 1014 | 1188 | 1.22 | 1097 | 1254 | 1.36 | 1216 | 1329 | 1.44 | 1284 |
| 2100 | 1015 | 0.97 | 891 | 1063 | 1.10 | 998 | 1140 | 1.18 | 1064 | 1196 | 1.27 | 1140 | 1272 | 1.45 | 1292 | 1354 | 1.58 | 1404 |
| 2200 | 1060 | 1.10 | 998 | 1104 | 1.20 | 1081 | 1159 | 1.23 | 1106 | 1229 | 1.41 | 1258 | 1306 | 1.53 | 1361 | 1363 | 1.70 | 1508 |
| 2300 | 1104 | 1.25 | 1123 | 1130 | 1.27 | 1140 | 1196 | 1.37 | 1224 | 1264 | 1.56 | 1387 | 1340 | 1.66 | 1473 | 1397 | 1.86 | 1648 |
| 2400 | 1138 | 1.30 | 1165 | 1174 | 1.37 | 1224 | 1245 | 1.57 | 1396 | 1305 | 1.63 | 1447 | 1373 | 1.84 | 1630 | 1440 | 1.95 | 1726 |
| 2500 | 1183 | 1.43 | 1275 | 1201 | 1.50 | 1335 | 1284 | 1.65 | 1465 | 1338 | 1.75 | 1552 | 1402 | 1.99 | 1761 | 1469 | 2.04 | 1805 |
| 2600 | 1210 | 1.58 | 1404 | 1246 | 1.67 | 1482 | 1312 | 1.76 | 1560 | 1366 | 1.96 | 1735 | 1435 | 2.10 | 1858 | 1494 | 2.19 | 1936 |
| 2700 | 1254 | 1.76 | 1560 | 1285 | 1.80 | 1595 | 1354 | 1.95 | 1726 | 1403 | 2.14 | 1892 | 1474 | 2.21 | 1954 | 1536 | 2.46 | 2171 |
| 2800 | 1274 | 1.82 | 1613 | 1304 | 1.85 | 1639 | 1374 | 2.12 | 1875 | 1459 | 2.25 | 1989 | 1514 | 2.42 | 2136 | 1570 | 2.66 | 2343 |
| 2900 | 1318 | 1.95 | 1726 | 1345 | 2.05 | 1814 | 1412 | 2.32 | 2050 | 1496 | 2.54 | 2240 | 1529 | 2.61 | 2300 | 1603 | 2.87 | 2521 |
| 3000 | 1362 | 2.20 | 1945 | 1378 | 2.30 | 2032 | 1451 | 2.40 | 2119 | 1534 | 2.66 | 2343 | 1560 | 2.81 | 2470 | 1611 | 3.01 | 2648 |

| 580D072 (6 TONS)* (cont) | | | | | | | | | |
|--------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 1800 | 1341 | 1.40 | 1250 | 1413 | 1.55 | 1378 | 1474 | 1.58 | 1404 |
| 1900 | 1374 | 1.53 | 1361 | 1437 | 1.62 | 1439 | 1490 | 1.67 | 1482 |
| 2000 | 1396 | 1.66 | 1473 | 1460 | 1.68 | 1491 | 1509 | 1.77 | 1569 |
| 2100 | 1413 | 1.75 | 1552 | 1475 | 1.73 | 1534 | 1529 | 1.92 | 1700 |
| 2200 | 1434 | 1.81 | 1604 | 1487 | 1.85 | 1639 | 1554 | 2.07 | 1831 |
| 2300 | 1459 | 1.88 | 1665 | 1520 | 2.07 | 1831 | 1576 | 2.24 | 1980 |
| 2400 | 1502 | 2.06 | 1823 | 1552 | 2.24 | 1980 | 1604 | 2.42 | 2136 |
| 2500 | 1524 | 2.24 | 1980 | 1585 | 2.42 | 2136 | 1638 | 2.60 | 2292 |
| 2600 | 1552 | 2.40 | 2119 | 1616 | 2.63 | 2317 | 1671 | 2.80 | 2462 |
| 2700 | 1584 | 2.61 | 2300 | 1646 | 2.83 | 2487 | 1706 | 2.97 | 2653 |
| 2800 | 1624 | 2.85 | 2504 | 1677 | 2.99 | 2661 | — | — | — |
| 2900 | 1671 | 3.03 | 2725 | — | — | — | — | — | — |
| 3000 | — | — | — | — | — | — | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
 FIOP — Factory-Installed Option
 Watts — Input Watts to Motor

*Motor drive range is 1070 to 1460 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.4 and maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D090 (7½ TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|------|-------|-----|------|-------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 0.9 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2250 | 507 | 0.53 | 547 | 586 | 0.73 | 700 | 658 | 0.97 | 891 | 722 | 1.22 | 1097 | 752 | 1.34 | 1199 | 783 | 1.46 | 1301 |
| 2300 | 513 | 0.55 | 562 | 592 | 0.76 | 723 | 663 | 1.00 | 916 | 727 | 1.26 | 1131 | 756 | 1.38 | 1224 | 786 | 1.49 | 1327 |
| 2400 | 528 | 0.60 | 600 | 606 | 0.83 | 779 | 674 | 1.06 | 965 | 738 | 1.34 | 1199 | 766 | 1.46 | 1301 | 795 | 1.58 | 1404 |
| 2500 | 542 | 0.66 | 646 | 619 | 0.90 | 835 | 686 | 1.13 | 1022 | 748 | 1.41 | 1258 | 777 | 1.55 | 1370 | 806 | 1.68 | 1491 |
| 2550 | 550 | 0.69 | 669 | 627 | 0.94 | 867 | 692 | 1.17 | 1056 | 754 | 1.45 | 1292 | 783 | 1.60 | 1413 | 812 | 1.74 | 1543 |
| 2600 | 557 | 0.72 | 692 | 634 | 0.97 | 891 | 698 | 1.21 | 1089 | 759 | 1.49 | 1327 | 787 | 1.64 | 1456 | 816 | 1.79 | 1587 |
| 2700 | 573 | 0.79 | 747 | 648 | 1.05 | 956 | 711 | 1.29 | 1156 | 770 | 1.58 | 1404 | 798 | 1.73 | 1534 | 827 | 1.88 | 1665 |
| 2800 | 588 | 0.86 | 803 | 662 | 1.13 | 1022 | 723 | 1.38 | 1233 | 782 | 1.66 | 1473 | 809 | 1.82 | 1613 | 837 | 1.98 | 1753 |
| 2900 | 604 | 0.94 | 867 | 676 | 1.21 | 1089 | 737 | 1.48 | 1318 | 794 | 1.76 | 1560 | 821 | 1.92 | 1700 | 848 | 2.08 | 1840 |
| 3000 | 620 | 1.02 | 932 | 690 | 1.30 | 1165 | 750 | 1.58 | 1404 | 806 | 1.86 | 1648 | 832 | 2.02 | 1788 | 849 | 2.18 | 1927 |
| 3100 | 636 | 1.11 | 1006 | 704 | 1.39 | 1241 | 764 | 1.69 | 1499 | 818 | 1.97 | 1744 | 844 | 2.13 | 1884 | 870 | 2.29 | 2023 |
| 3200 | 652 | 1.21 | 1089 | 718 | 1.49 | 1327 | 778 | 1.80 | 1595 | 831 | 2.09 | 1849 | 856 | 2.25 | 1980 | 882 | 2.40 | 2119 |
| 3300 | 668 | 1.31 | 1173 | 732 | 1.59 | 1413 | 793 | 1.92 | 1700 | 844 | 2.21 | 1954 | 869 | 2.37 | 2093 | 894 | 2.53 | 2232 |
| 3400 | 684 | 1.41 | 1258 | 747 | 1.70 | 1508 | 807 | 2.04 | 1805 | 857 | 2.35 | 2076 | 882 | 2.51 | 2206 | 907 | 2.66 | 2343 |
| 3500 | 701 | 1.53 | 1361 | 762 | 1.82 | 1613 | 821 | 2.16 | 1910 | 871 | 2.48 | 2188 | 895 | 2.64 | 2326 | 919 | 2.80 | 2462 |
| 3600 | 717 | 1.65 | 1465 | 777 | 1.94 | 1718 | 835 | 2.29 | 2023 | 885 | 2.63 | 2317 | 908 | 2.79 | 2453 | 932 | 2.95 | 2587 |
| 3700 | 733 | 1.77 | 1569 | 792 | 2.07 | 1831 | 849 | 2.42 | 2136 | 899 | 2.78 | 2445 | 922 | 2.95 | 2579 | 945 | 3.11 | 2718 |
| 3750 | 742 | 1.84 | 1630 | 800 | 2.14 | 1892 | 856 | 2.49 | 2197 | 907 | 2.86 | 2512 | 929 | 3.03 | 2653 | 952 | 3.20 | 2719 |

| 580D090 (7½ TONS)* (cont) | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2250 | 843 | 1.81 | 1604 | 908 | 2.25 | 1989 | 955 | 2.59 | 2283 |
| 2300 | 846 | 1.84 | 1630 | 910 | 2.25 | 2015 | 959 | 2.61 | 2300 |
| 2400 | 853 | 1.88 | 1665 | 912 | 2.31 | 2041 | 967 | 2.68 | 2360 |
| 2500 | 859 | 1.94 | 1718 | 919 | 2.37 | 2093 | 971 | 2.73 | 2403 |
| 2550 | 864 | 1.99 | 1761 | 920 | 2.39 | 2110 | 974 | 2.76 | 2428 |
| 2600 | 868 | 2.04 | 1805 | 921 | 2.41 | 2136 | 976 | 2.78 | 2445 |
| 2700 | 878 | 2.16 | 1910 | 928 | 2.45 | 2162 | 983 | 2.88 | 2529 |
| 2800 | 889 | 2.29 | 2023 | 937 | 2.57 | 2266 | 986 | 2.91 | 2554 |
| 2900 | 900 | 2.41 | 2128 | 947 | 2.70 | 2377 | 993 | 3.01 | 2637 |
| 3000 | 910 | 2.52 | 2223 | 958 | 2.85 | 2504 | 1002 | 3.15 | 2751 |
| 3100 | 920 | 2.64 | 2326 | 968 | 2.99 | 2620 | 1012 | 3.30 | 2870 |
| 3200 | 931 | 2.76 | 2428 | 979 | 3.13 | 2735 | 1023 | 3.47 | 3002 |
| 3300 | 942 | 2.89 | 2537 | 989 | 3.26 | 2839 | 1034 | 3.63 | 3121 |
| 3400 | 954 | 3.02 | 2645 | 1000 | 3.40 | 2948 | 1044 | 3.79 | 3237 |
| 3500 | 966 | 3.15 | 2751 | 1011 | 3.55 | 3062 | 1054 | 3.94 | 3340 |
| 3600 | 978 | 3.30 | 2870 | 1022 | 3.69 | 3165 | 1065 | 4.10 | 3445 |
| 3700 | 990 | 3.45 | 2987 | 1034 | 3.84 | 3272 | 1076 | 4.26 | 3544 |
| 3750 | 997 | 3.54 | 3055 | 1040 | 3.93 | 3333 | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Standard drive range is 590 to 840 rpm. Alternate drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.4 and maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D102 (8½ TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 0.9 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2550 | 550 | 0.69 | 669 | 627 | 0.94 | 867 | 692 | 1.17 | 1056 | 754 | 1.45 | 1292 | 783 | 1.60 | 1413 | 812 | 1.74 | 1543 |
| 2600 | 557 | 0.72 | 692 | 634 | 0.97 | 891 | 698 | 1.21 | 1089 | 759 | 1.49 | 1327 | 787 | 1.64 | 1456 | 816 | 1.79 | 1587 |
| 2700 | 573 | 0.79 | 747 | 648 | 1.05 | 956 | 711 | 1.29 | 1156 | 770 | 1.58 | 1404 | 798 | 1.73 | 1534 | 827 | 1.88 | 1665 |
| 2800 | 588 | 0.86 | 803 | 662 | 1.13 | 1022 | 723 | 1.38 | 1233 | 782 | 1.66 | 1473 | 809 | 1.82 | 1613 | 837 | 1.98 | 1753 |
| 2900 | 604 | 0.94 | 867 | 676 | 1.21 | 1089 | 737 | 1.48 | 1318 | 794 | 1.76 | 1560 | 821 | 1.92 | 1700 | 848 | 2.08 | 1840 |
| 3000 | 620 | 1.02 | 932 | 690 | 1.30 | 1165 | 750 | 1.58 | 1404 | 806 | 1.86 | 1648 | 832 | 2.02 | 1788 | 849 | 2.18 | 1927 |
| 3100 | 636 | 1.11 | 1006 | 704 | 1.39 | 1241 | 764 | 1.69 | 1499 | 818 | 1.97 | 1744 | 844 | 2.13 | 1884 | 870 | 2.29 | 2023 |
| 3200 | 652 | 1.21 | 1089 | 718 | 1.49 | 1327 | 778 | 1.80 | 1595 | 831 | 2.09 | 1849 | 856 | 2.25 | 1980 | 882 | 2.40 | 2119 |
| 3300 | 668 | 1.31 | 1173 | 732 | 1.59 | 1413 | 793 | 1.92 | 1700 | 844 | 2.21 | 1954 | 869 | 2.37 | 2093 | 894 | 2.53 | 2232 |
| 3400 | 684 | 1.41 | 1258 | 747 | 1.70 | 1508 | 807 | 2.04 | 1805 | 857 | 2.35 | 2076 | 882 | 2.51 | 2206 | 907 | 2.66 | 2343 |
| 3500 | 701 | 1.53 | 1361 | 762 | 1.82 | 1613 | 821 | 2.16 | 1910 | 871 | 2.48 | 2188 | 895 | 2.64 | 2326 | 919 | 2.80 | 2462 |
| 3600 | 717 | 1.65 | 1465 | 777 | 1.94 | 1718 | 835 | 2.29 | 2023 | 885 | 2.63 | 2317 | 908 | 2.79 | 2453 | 932 | 2.95 | 2587 |
| 3700 | 733 | 1.77 | 1569 | 792 | 2.07 | 1831 | 849 | 2.42 | 2136 | 899 | 2.78 | 2445 | 922 | 2.95 | 2579 | 945 | 3.11 | 2718 |
| 3750 | 742 | 1.84 | 1630 | 800 | 2.14 | 1892 | 856 | 2.49 | 2197 | 907 | 2.86 | 2512 | 929 | 3.03 | 2653 | 952 | 3.20 | 2719 |
| 3800 | 750 | 1.90 | 1683 | 807 | 2.21 | 1954 | 863 | 2.56 | 2257 | 914 | 2.93 | 2571 | 936 | 3.11 | 2847 | 958 | 3.28 | 2854 |
| 3900 | 767 | 2.04 | 1805 | 822 | 2.35 | 2076 | 877 | 2.71 | 2386 | 928 | 3.09 | 2702 | 950 | 3.27 | 2979 | 972 | 3.45 | 2987 |
| 4000 | 783 | 2.18 | 1927 | 838 | 2.50 | 2206 | 891 | 2.86 | 2512 | 942 | 3.26 | 2839 | 964 | 3.45 | 3187 | 986 | 3.63 | 3121 |
| 4100 | 800 | 2.34 | 2067 | 854 | 2.66 | 2343 | 905 | 3.02 | 2645 | 956 | 2.43 | 2971 | 978 | 3.62 | 3244 | 1000 | 3.81 | 3251 |
| 4200 | 817 | 2.49 | 2197 | 869 | 2.82 | 2479 | 920 | 3.19 | 2783 | 970 | 3.60 | 3099 | 992 | 3.80 | 3258 | 1015 | 4.00 | 3380 |
| 4250 | 826 | 2.58 | 2275 | 877 | 2.91 | 2554 | 928 | 3.28 | 2854 | 977 | 3.69 | 3165 | 999 | 3.90 | 3306 | 1022 | 4.10 | 3445 |

| 580D102 (8½ TONS)* (cont) | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | |
| | 1.2 | | | 1.4 | | | 1.6 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 2550 | 864 | 1.99 | 1761 | 920 | 2.39 | 2110 | 974 | 2.76 | 2428 |
| 2600 | 868 | 2.04 | 1805 | 921 | 2.41 | 2136 | 976 | 2.78 | 2445 |
| 2700 | 878 | 2.16 | 1910 | 928 | 2.45 | 2162 | 983 | 2.88 | 2529 |
| 2800 | 889 | 2.29 | 2023 | 937 | 2.57 | 2266 | 986 | 2.91 | 2554 |
| 2900 | 900 | 2.41 | 2128 | 947 | 2.70 | 2377 | 993 | 3.01 | 2637 |
| 3000 | 910 | 2.52 | 2223 | 958 | 2.85 | 2504 | 1002 | 3.15 | 2751 |
| 3100 | 920 | 2.64 | 2326 | 968 | 2.99 | 2620 | 1012 | 3.30 | 2870 |
| 3200 | 931 | 2.76 | 2428 | 979 | 3.13 | 2735 | 1023 | 3.47 | 3002 |
| 3300 | 942 | 2.89 | 2537 | 989 | 3.26 | 2839 | 1034 | 3.63 | 3121 |
| 3400 | 954 | 3.02 | 2645 | 1000 | 3.40 | 2948 | 1044 | 3.79 | 3237 |
| 3500 | 966 | 3.15 | 2751 | 1011 | 3.55 | 3062 | 1054 | 3.94 | 3340 |
| 3600 | 978 | 3.30 | 2870 | 1022 | 3.69 | 3165 | 1065 | 4.10 | 3445 |
| 3700 | 990 | 3.45 | 2987 | 1034 | 3.84 | 3272 | 1076 | 4.26 | 3544 |
| 3750 | 997 | 3.54 | 3055 | 1040 | 3.93 | 3333 | 1082 | 5.27 | 3609 |
| 3800 | 1003 | 3.62 | 3114 | 1045 | 4.01 | 3387 | 1087 | 4.43 | 3643 |
| 3900 | 1015 | 3.80 | 3244 | 1057 | 4.18 | 3495 | 1098 | 4.60 | 3733 |
| 4000 | 1028 | 3.99 | 3373 | 1070 | 4.36 | 3603 | 1110 | 4.78 | 3820 |
| 4100 | 1042 | 4.18 | 3495 | 1082 | 4.56 | 3713 | 1122 | 4.97 | 3902 |
| 4200 | 1055 | 4.38 | 3614 | 1095 | 4.76 | 3811 | 1134 | 5.16 | 3971 |
| 4250 | 1062 | 4.49 | 3676 | 1102 | 4.87 | 3860 | — | — | — |

LEGEND

- Bhp** — Brake Horsepower Input to Fan
- FIOF** — Factory-Installed Option
- Watts** — Input Watts to Motor

*Motor drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOF static pressure information.

3. Maximum continuous bhp is 2.4 and maximum continuous watts are 2120. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D120 (10 TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|------|-------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3000 | 552 | 0.68 | 661 | 632 | 0.87 | 810 | 701 | 1.05 | 956 | 761 | 1.22 | 1097 | 816 | 1.36 | 1216 | 871 | 1.54 | 1370 |
| 3100 | 565 | 0.74 | 708 | 644 | 0.93 | 859 | 711 | 1.12 | 1014 | 772 | 1.31 | 1173 | 825 | 1.45 | 1292 | 879 | 1.63 | 1447 |
| 3200 | 578 | 0.81 | 763 | 656 | 1.00 | 916 | 723 | 1.20 | 1081 | 782 | 1.39 | 1241 | 835 | 1.55 | 1378 | 887 | 1.71 | 1517 |
| 3300 | 591 | 0.88 | 818 | 668 | 1.08 | 973 | 734 | 1.28 | 1148 | 793 | 1.47 | 1310 | 845 | 1.65 | 1465 | 895 | 1.80 | 1595 |
| 3400 | 605 | 0.96 | 883 | 680 | 1.16 | 1047 | 745 | 1.36 | 1216 | 803 | 1.56 | 1387 | 856 | 1.75 | 1552 | 904 | 1.91 | 1691 |
| 3500 | 619 | 1.04 | 948 | 691 | 1.23 | 1106 | 755 | 1.44 | 1284 | 813 | 1.65 | 1465 | 867 | 1.86 | 1648 | 914 | 2.03 | 1796 |
| 3600 | 633 | 1.13 | 1022 | 703 | 1.31 | 1173 | 766 | 1.52 | 1353 | 824 | 1.74 | 1543 | 877 | 1.97 | 1744 | 924 | 2.15 | 1901 |
| 3700 | 648 | 1.23 | 1106 | 714 | 1.39 | 1241 | 777 | 1.61 | 1430 | 835 | 1.85 | 1639 | 887 | 2.07 | 1831 | 935 | 2.28 | 2015 |
| 3800 | 662 | 1.33 | 1190 | 726 | 1.51 | 1310 | 789 | 1.72 | 1526 | 846 | 1.95 | 1726 | 897 | 2.18 | 1927 | 946 | 2.40 | 2169 |
| 3900 | 677 | 1.44 | 1284 | 738 | 1.61 | 1387 | 801 | 1.82 | 1613 | 857 | 2.06 | 1823 | 908 | 2.29 | 2023 | 956 | 2.53 | 2282 |
| 4000 | 692 | 1.55 | 1378 | 750 | 1.73 | 1473 | 813 | 1.94 | 1718 | 868 | 2.17 | 1919 | 918 | 2.40 | 2119 | 967 | 2.66 | 2397 |
| 4100 | 707 | 1.67 | 1482 | 762 | 1.84 | 1560 | 825 | 2.05 | 1814 | 878 | 2.28 | 2015 | 929 | 2.53 | 2282 | 977 | 2.78 | 2505 |
| 4200 | 722 | 1.80 | 1595 | 775 | 1.97 | 1656 | 837 | 2.16 | 1910 | 889 | 2.40 | 2119 | 941 | 2.66 | 2397 | 987 | 2.91 | 2624 |
| 4300 | 737 | 1.94 | 1718 | 787 | 2.09 | 1761 | 848 | 2.27 | 2006 | 900 | 2.52 | 2273 | 952 | 2.80 | 2523 | 999 | 3.04 | 2744 |
| 4400 | 752 | 2.08 | 1840 | 800 | 2.21 | 1875 | 860 | 2.39 | 2110 | 912 | 2.66 | 2397 | 962 | 2.93 | 2642 | 1008 | 3.19 | 2885 |
| 4500 | 768 | 2.24 | 1980 | 814 | 2.35 | 1989 | 871 | 2.51 | 2265 | 924 | 2.80 | 2523 | 973 | 3.07 | 2772 | 1019 | 3.34 | 3029 |
| 4600 | 783 | 2.40 | 2119 | 827 | 2.50 | 2121 | 883 | 2.64 | 2380 | 937 | 2.95 | 2661 | 983 | 3.21 | 2904 | — | — | — |
| 4700 | 799 | 2.56 | 2309 | 841 | 2.64 | 2291 | 894 | 2.77 | 2496 | 949 | 3.10 | 2800 | 994 | 3.36 | 3049 | — | — | — |
| 4800 | 814 | 2.74 | 2469 | 855 | 2.80 | 2424 | 906 | 2.91 | 2624 | 961 | 3.26 | 2952 | — | — | — | — | — | — |
| 4900 | — | — | — | 868 | 2.90 | 2578 | 918 | 3.05 | 2754 | 972 | 3.40 | 3088 | — | — | — | — | — | — |
| 5000 | — | — | — | 883 | 3.10 | 2735 | 931 | 3.21 | 2904 | — | — | — | — | — | — | — | — | — |

| 580D120 (10 TONS)* (cont) | | | | | | | | | | | | |
|---------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3000 | 918 | 1.67 | 1482 | 967 | 1.89 | 1736 | 1010 | 2.09 | 1903 | 1063 | 2.46 | 2221 |
| 3100 | 928 | 1.78 | 1478 | 973 | 1.94 | 1778 | 1018 | 2.17 | 1971 | 1070 | 2.51 | 2265 |
| 3200 | 937 | 1.90 | 1745 | 981 | 2.04 | 1861 | 1026 | 2.26 | 2048 | 1075 | 2.57 | 2318 |
| 3300 | 946 | 2.00 | 1828 | 991 | 2.16 | 1963 | 1032 | 2.32 | 2099 | 1080 | 2.64 | 2380 |
| 3400 | 953 | 2.10 | 1912 | 1000 | 2.29 | 2074 | 1041 | 2.44 | 2203 | 1083 | 2.65 | 2389 |
| 3500 | 961 | 2.20 | 1997 | 1009 | 2.41 | 2177 | 1051 | 2.57 | 2318 | 1090 | 2.74 | 2469 |
| 3600 | 970 | 2.32 | 2099 | 1017 | 2.53 | 2282 | 1061 | 2.72 | 2451 | 1099 | 2.88 | 2596 |
| 3700 | 980 | 2.45 | 2212 | 1024 | 2.64 | 2380 | 1069 | 2.87 | 2587 | 1109 | 3.03 | 2735 |
| 3800 | 989 | 2.58 | 2326 | 1033 | 2.76 | 2487 | 1077 | 2.99 | 2698 | 1118 | 3.20 | 2895 |
| 3900 | 1000 | 2.73 | 2460 | 1042 | 2.91 | 2624 | 1085 | 3.12 | 2819 | 1127 | 3.36 | 3049 |
| 4000 | 1010 | 2.87 | 2587 | 1052 | 3.06 | 2763 | 1093 | 3.24 | 2933 | — | — | — |
| 4100 | 1021 | 3.02 | 2726 | 1062 | 3.22 | 2914 | 1102 | 3.41 | 3097 | — | — | — |
| 4200 | 1032 | 3.17 | 2866 | 1072 | 3.38 | 2971 | — | — | — | — | — | — |
| 4300 | 1042 | 3.32 | 3010 | — | — | — | — | — | — | — | — | — |
| 4400 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4500 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4600 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4700 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4800 | — | — | — | — | — | — | — | — | — | — | — | — |
| 4900 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5000 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOP — Factory-Installed Option
- Watts — Input Watts to Motor

*Standard motor drive range is 685 to 935 rpm. Alternate motor drive range is 835 to 1085 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 2.4 for the standard motor and 2.9 for the alternate motor. Maximum continuous watts are 2120 for the standard motor and 2615 for the alternate motor. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 580D036-150 HORIZONTAL DISCHARGE UNITS (cont)

| 580D150 (12½ TONS)* | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------------------|------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3750 | 684 | 1.24 | 1162 | 755 | 1.48 | 1353 | 816 | 1.70 | 1540 | 875 | 1.94 | 1738 | 933 | 2.23 | 1988 | 989 | 2.49 | 2219 |
| 3800 | 691 | 1.28 | 1194 | 761 | 1.52 | 1390 | 822 | 1.75 | 1582 | 880 | 1.98 | 1776 | 937 | 2.28 | 2035 | 993 | 2.55 | 2272 |
| 3900 | 705 | 1.37 | 1267 | 773 | 1.62 | 1473 | 834 | 1.86 | 1674 | 891 | 2.08 | 1862 | 947 | 2.39 | 2131 | 1002 | 2.66 | 2370 |
| 4000 | 720 | 1.47 | 1349 | 786 | 1.71 | 1548 | 847 | 1.97 | 1768 | 902 | 2.19 | 1957 | 957 | 2.50 | 2228 | 1011 | 2.79 | 2485 |
| 4100 | 734 | 1.56 | 1423 | 800 | 1.82 | 1641 | 860 | 2.09 | 1871 | 914 | 2.31 | 2061 | 967 | 2.60 | 2316 | 1021 | 2.91 | 2593 |
| 4200 | 749 | 1.66 | 1506 | 813 | 1.92 | 1725 | 873 | 2.21 | 1974 | 926 | 2.44 | 2175 | 978 | 2.71 | 2414 | 1030 | 3.04 | 2710 |
| 4300 | 764 | 1.77 | 1598 | 826 | 2.04 | 1828 | 886 | 2.33 | 2079 | 938 | 2.57 | 2290 | 989 | 2.83 | 2521 | 1040 | 3.18 | 2837 |
| 4400 | 779 | 1.88 | 1691 | 840 | 2.16 | 1931 | 899 | 2.46 | 2193 | 951 | 2.71 | 2414 | 1000 | 2.96 | 2638 | 1050 | 3.31 | 2955 |
| 4500 | 793 | 1.99 | 1785 | 854 | 2.28 | 2035 | 912 | 2.59 | 2307 | 963 | 2.86 | 2548 | 1012 | 3.09 | 2755 | 1061 | 3.43 | 3065 |
| 4600 | 808 | 2.11 | 1888 | 868 | 2.42 | 2158 | 925 | 2.73 | 2459 | 975 | 3.00 | 2674 | 1024 | 3.25 | 2901 | 1071 | 3.56 | 3184 |
| 4700 | 822 | 2.24 | 2000 | 882 | 2.56 | 2281 | 937 | 2.86 | 2548 | 988 | 3.16 | 2819 | 1036 | 3.42 | 3056 | 1082 | 3.70 | 3313 |
| 4800 | 837 | 2.37 | 2114 | 896 | 2.71 | 2414 | 950 | 3.00 | 2674 | 1001 | 3.32 | 2964 | 1048 | 3.59 | 3212 | 1093 | 3.86 | 3461 |
| 4900 | 852 | 2.51 | 2237 | 910 | 2.86 | 2548 | 963 | 3.15 | 2810 | 1014 | 3.48 | 3111 | 1060 | 3.76 | 3368 | 1105 | 4.02 | 3609 |
| 5000 | 867 | 2.65 | 2361 | 924 | 3.01 | 2683 | 977 | 3.30 | 2946 | 1027 | 3.65 | 3267 | 1073 | 3.94 | 3535 | 1117 | 4.20 | 3776 |
| 5100 | 882 | 2.79 | 2485 | 938 | 3.17 | 2828 | 990 | 3.46 | 3092 | 1040 | 3.82 | 3424 | 1085 | 4.12 | 3702 | 1129 | 4.40 | 3962 |
| 5200 | 896 | 2.95 | 2629 | 952 | 3.33 | 2973 | 1003 | 3.63 | 3248 | 1053 | 4.00 | 3590 | 1098 | 4.30 | 3869 | 1141 | 4.60 | 4148 |
| 5300 | 911 | 3.11 | 2773 | 967 | 3.50 | 3129 | 1017 | 3.80 | 3405 | 1066 | 4.18 | 3757 | 1111 | 4.50 | 4055 | 1153 | 4.80 | 4335 |
| 5400 | 926 | 3.27 | 2919 | 981 | 3.68 | 3294 | 1030 | 3.98 | 3572 | 1079 | 4.35 | 3916 | 1124 | 4.70 | 4270 | 1166 | 5.01 | 4531 |
| 5500 | 940 | 3.44 | 3074 | 995 | 3.86 | 3461 | 1044 | 4.17 | 3748 | 1092 | 4.54 | 4093 | 1137 | 4.91 | 4437 | 1178 | 5.22 | 4726 |
| 5600 | 955 | 3.62 | 3239 | 1010 | 4.04 | 3627 | 1058 | 4.38 | 3943 | 1105 | 4.73 | 4270 | 1150 | 5.12 | 4633 | — | — | — |
| 5700 | 970 | 3.80 | 3405 | 1024 | 4.23 | 3804 | 1072 | 4.59 | 4139 | 1118 | 4.93 | 4456 | — | — | — | — | — | — |
| 5800 | 985 | 3.99 | 3581 | 1039 | 4.42 | 3981 | 1086 | 4.80 | 4335 | 1131 | 5.14 | 4652 | — | — | — | — | — | — |
| 5900 | 1000 | 4.18 | 3757 | 1053 | 4.62 | 4167 | 1100 | 5.02 | 4540 | — | — | — | — | — | — | — | — | — |
| 6000 | 1015 | 4.39 | 3953 | 1068 | 4.83 | 4363 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6100 | 1030 | 4.59 | 4139 | 1083 | 5.04 | 4558 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6250 | 1062 | 5.02 | 4560 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| 580D150 (12½ TONS)* (cont) | | | | | | | | | | | | |
|----------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 3750 | 1041 | 2.75 | 2445 | 1086 | 2.98 | 2634 | 1122 | 3.16 | 2819 | 1146 | 3.28 | 2928 |
| 3800 | 1046 | 2.81 | 2503 | 1092 | 3.05 | 2719 | 1129 | 3.25 | 2901 | 1156 | 3.39 | 3028 |
| 3900 | 1055 | 2.94 | 2620 | 1102 | 3.20 | 2855 | 1143 | 3.42 | 3056 | 1174 | 3.59 | 3212 |
| 4000 | 1064 | 3.07 | 2737 | 1112 | 3.34 | 2983 | 1155 | 3.59 | 3212 | 1190 | 3.80 | 3405 |
| 4100 | 1072 | 3.20 | 2855 | 1121 | 3.49 | 3120 | 1165 | 3.76 | 3368 | 1203 | 3.99 | 3581 |
| 4200 | 1081 | 3.34 | 2983 | 1130 | 3.64 | 3258 | 1175 | 3.92 | 3516 | 1215 | 4.18 | 3757 |
| 4300 | 1090 | 3.48 | 3111 | 1139 | 3.79 | 3396 | 1185 | 4.08 | 3664 | 1226 | 4.36 | 3925 |
| 4400 | 1100 | 3.63 | 3248 | 1148 | 3.94 | 3535 | 1194 | 4.25 | 3822 | 1236 | 4.54 | 4093 |
| 4500 | 1109 | 3.78 | 3387 | 1157 | 4.09 | 3674 | 1203 | 4.42 | 3981 | 1246 | 4.72 | 4260 |
| 4600 | 1119 | 3.93 | 3525 | 1166 | 4.26 | 3832 | 1212 | 4.58 | 4130 | 1255 | 4.91 | 4437 |
| 4700 | 1129 | 4.09 | 3674 | 1175 | 4.43 | 3990 | 1221 | 4.76 | 4298 | 1264 | 5.09 | 4605 |
| 4800 | 1139 | 4.24 | 3813 | 1185 | 4.60 | 4148 | 1230 | 4.93 | 4456 | — | — | — |
| 4900 | 1150 | 4.38 | 3943 | 1194 | 4.77 | 4307 | 1239 | 5.12 | 4633 | — | — | — |
| 5000 | 1161 | 4.54 | 4093 | 1204 | 4.95 | 4475 | — | — | — | — | — | — |
| 5100 | 1172 | 4.71 | 4251 | 1214 | 5.13 | 4642 | — | — | — | — | — | — |
| 5200 | 1183 | 4.91 | 4419 | — | — | — | — | — | — | — | — | — |
| 5300 | 1194 | 5.08 | 4596 | — | — | — | — | — | — | — | — | — |
| 5400 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5500 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5600 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5700 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5800 | — | — | — | — | — | — | — | — | — | — | — | — |
| 5900 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6000 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6100 | — | — | — | — | — | — | — | — | — | — | — | — |
| 6250 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp — Brake Horsepower Input to Fan
- FIOP — Factory-Installed Option
- Watts — Input Watts to Motor

*Standard motor drive range is 860 to 1080 rpm. Alternate motor drive range is 900 to 1260 rpm. All other rpms require a field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied motor and drive are required.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP static pressure information.

3. Maximum continuous bhp is 4.2 for the standard motor and 5.25 for the alternate motor. The maximum continuous watts are 3775 for the standard motor and 4400 for the alternate motor. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 55 for additional information.
4. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
5. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 579F180-300 UNITS

| 579F180 (15 TONS) | | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 4500 | 801 | 1.05 | 933 | 890 | 1.26 | 1119 | 971 | 1.46 | 1297 | 1050 | 1.67 | 1483 | 1125 | 1.88 | 1670 | 1200 | 2.12 | 1883 |
| 4800 | 843 | 1.25 | 1110 | 928 | 1.47 | 1306 | 1006 | 1.68 | 1492 | 1081 | 1.90 | 1687 | 1153 | 2.13 | 1892 | 1223 | 2.36 | 2096 |
| 5100 | 885 | 1.47 | 1306 | 968 | 1.70 | 1510 | 1043 | 1.93 | 1714 | 1114 | 2.16 | 1918 | 1183 | 2.40 | 2131 | 1250 | 2.64 | 2345 |
| 5400 | 927 | 1.71 | 1519 | 1008 | 1.95 | 1732 | 1080 | 2.20 | 1954 | 1148 | 2.44 | 2167 | 1214 | 2.69 | 2389 | 1279 | 2.94 | 2611 |
| 5700 | 971 | 1.98 | 1758 | 1049 | 2.24 | 1989 | 1118 | 2.50 | 2220 | 1134 | 2.75 | 2442 | 1247 | 3.01 | 2673 | 1309 | 3.28 | 2913 |
| 6000 | 1016 | 2.28 | 2025 | 1091 | 2.55 | 2265 | 1158 | 2.83 | 2513 | 1222 | 3.10 | 2753 | 1282 | 3.36 | 2984 | 1342 | 3.64 | 3233 |
| 6300 | 1059 | 2.60 | 2309 | 1133 | 2.89 | 2567 | 1198 | 3.17 | 2815 | 1259 | 3.46 | 3073 | 1318 | 3.74 | 3321 | 1375 | 4.02 | 3570 |
| 6600 | 1104 | 2.96 | 2629 | 1174 | 3.26 | 2895 | 1239 | 3.56 | 3162 | 1297 | 3.86 | 3428 | 1355 | 4.15 | 3686 | 1405 | 4.40 | 3970 |
| 6900 | 1150 | 3.35 | 2975 | 1218 | 3.67 | 3259 | 1281 | 3.98 | 3535 | 1340 | 4.20 | 3730 | 1392 | 4.55 | 4040 | 1460 | 4.95 | 4350 |
| 7200 | 1194 | 3.77 | 3348 | 1260 | 4.10 | 3641 | 1325 | 4.40 | 3907 | 1390 | 4.65 | 4130 | 1440 | 5.10 | 4530 | 1510 | 5.30 | 4700 |
| 7500 | 1238 | 4.23 | 3758 | 1300 | 4.50 | 3996 | 1370 | 4.90 | 4351 | 1435 | 5.00 | 4440 | 1490 | 5.60 | 4970 | — | — | — |

| 579F180 (15 TONS) | | | | | | | | | | | | |
|-------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 4500 | 1275 | 2.39 | 2123 | 1349 | 2.70 | 2398 | 1421 | 3.03 | 2691 | 1490 | 3.39 | 3011 |
| 4800 | 1293 | 2.62 | 2327 | 1364 | 2.92 | 2593 | 1433 | 3.24 | 2877 | 1501 | 3.59 | 3188 |
| 5100 | 1316 | 2.90 | 2575 | 1382 | 3.18 | 2824 | 1448 | 3.49 | 3099 | 1514 | 3.86 | 3428 |
| 5400 | 1342 | 3.20 | 2842 | 1403 | 3.47 | 3082 | 1466 | 3.77 | 3348 | 1529 | 4.16 | 3694 |
| 5700 | 1370 | 3.54 | 3144 | 1429 | 3.81 | 3384 | 1487 | 4.11 | 3650 | — | — | — |
| 6000 | 1401 | 3.92 | 3481 | 1458 | 4.20 | 3730 | 1525 | 4.50 | 3776 | — | — | — |
| 6300 | 1430 | 4.30 | 3820 | 1490 | 4.55 | 4040 | — | — | — | — | — | — |
| 6600 | 1461 | 4.85 | 4305 | 1530 | 5.00 | 4440 | — | — | — | — | — | — |
| 6900 | 1500 | 5.35 | 4750 | — | — | — | — | — | — | — | — | — |
| 7200 | — | — | — | — | — | — | — | — | — | — | — | — |
| 7500 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp** — Brake Horsepower Input to Fan
FIOP — Factory Installed Option
Watts — Input Watts to Motor

*Standard low-medium static drive range is 891 to 1179 rpm. Alternate high static drive range is 1227 to 1550 rpm. Other rpms require a field-supplied drive.

NOTES:

1. Static pressure losses (i.e., economizer) must be added to external static pressure before entering Fan Performance table. See Accessory/FIOP Static Pressure table on page 52 for more information.

2. Interpolation is permissible. Do not extrapolate.
 3. Maximum continuous bhp is 4.25 and the maximum continuous watts are 3775. Extensive motor and drive testing on these units ensures that the full horsepower range of the motor can be utilized with confidence. Using your fan motors up to the watts rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 579F180-300 UNITS (cont)

| 579F216 (18 TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 5000 | 669 | 1.10 | 1019 | 772 | 1.40 | 1291 | 870 | 1.80 | 1582 | 963 | 2.10 | 1903 | 1052 | 2.50 | 2251 | 1137 | 2.90 | 2623 |
| 5500 | 717 | 1.40 | 1292 | 813 | 1.80 | 1585 | 905 | 2.10 | 1892 | 992 | 2.50 | 2223 | 1076 | 2.90 | 2680 | 1157 | 3.30 | 2962 |
| 6000 | 767 | 1.80 | 1617 | 858 | 2.20 | 1932 | 944 | 2.50 | 2256 | 1026 | 2.90 | 2600 | 1104 | 3.30 | 2967 | 1181 | 3.80 | 3358 |
| 6500 | 817 | 2.20 | 1992 | 903 | 2.60 | 2329 | 985 | 3.00 | 2673 | 1062 | 3.40 | 3031 | 1136 | 3.80 | 3410 | 1209 | 4.30 | 3811 |
| 7000 | 869 | 2.70 | 2427 | 950 | 3.10 | 2787 | 1028 | 3.50 | 3151 | 1102 | 3.90 | 3527 | 1172 | 4.40 | 3919 | 1241 | 4.80 | 4331 |
| 7200 | 889 | 2.94 | 2624 | 969 | 3.34 | 2993 | 1046 | 3.74 | 3366 | 1118 | 4.18 | 3749 | 1187 | 4.64 | 4147 | 1255 | 5.08 | 4564 |
| 7500 | 920 | 3.30 | 2919 | 998 | 3.70 | 3303 | 1073 | 4.10 | 3689 | 1143 | 4.60 | 4083 | 1210 | 5.00 | 4490 | 1275 | 5.50 | 4914 |
| 8000 | 973 | 3.90 | 3476 | 1047 | 4.30 | 3886 | 1119 | 4.80 | 4294 | 1186 | 5.30 | 4708 | 1250 | 5.70 | 5131 | — | — | — |
| 8500 | 1026 | 4.60 | 4102 | 1097 | 5.10 | 4635 | 1166 | 5.60 | 4967 | — | — | — | — | — | — | — | — | — |
| 9000 | 1079 | 5.40 | 4800 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| 579F216 (18 TONS)* (cont) | | | | | | | | | | | | |
|---------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | |
| | 1.3 | | | 1.4 | | | 1.6 | | | 1.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 5000 | 1178 | 3.15 | 2820 | 1218 | 3.40 | 3016 | 1295 | 3.80 | 3425 | 1369 | 4.30 | 3849 |
| 5500 | 1196 | 3.55 | 3164 | 1234 | 3.80 | 3366 | 1309 | 4.20 | 3789 | 1381 | 4.70 | 4229 |
| 6000 | 1218 | 4.00 | 3565 | 1251 | 4.20 | 3772 | 1327 | 4.70 | 4206 | 1396 | 5.20 | 4658 |
| 6500 | 1244 | 4.50 | 4022 | 1279 | 4.70 | 4233 | 1348 | 5.20 | 4677 | 1415 | 5.80 | 5139 |
| 7000 | 1275 | 5.05 | 4547 | 1308 | 5.30 | 4762 | — | — | — | — | — | — |
| 7200 | 1288 | 5.33 | 4783 | — | — | — | — | — | — | — | — | — |
| 7500 | 1307 | 5.75 | 5135 | — | — | — | — | — | — | — | — | — |
| 8000 | — | — | — | — | — | — | — | — | — | — | — | — |
| 8500 | — | — | — | — | — | — | — | — | — | — | — | — |
| 9000 | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

Bhp — Brake Horsepower Input to Fan
FIOP — Factory-Installed Option
Watts — Input Watts to Motor

*Standard low-medium static drive range is 817 to 1038 rpm. Alternate high static high static motor drive range is 994 to 1197. Other rpms require a field-supplied drive.

NOTES:

1. Static pressure losses (i.e., economizer) must be added to external static pressure before entering Fan Performance table. See Accessory/FIOP Static Pressure table on page 52 for more information.

- Interpolation is permissible. Do not extrapolate.
- Maximum continuous bhp is 5.9 and the maximum continuous watts are 5180. Extensive motor and drive testing on these units ensures that the full horsepower range of the motor can be utilized with confidence. Using your fan motors up to the watts rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
- Deduct 0.2 in. wg static pressure for high heat units at or above 8000 cfm.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 579F180-300 UNITS (cont)

| 579F240 (20 TONS)* | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 1.0 | | | 1.2 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 6000 | 767 | 1.80 | 1617 | 858 | 2.20 | 1932 | 944 | 2.50 | 2256 | 1026 | 2.90 | 2600 | 1104 | 3.30 | 2967 | 1181 | 3.80 | 3358 |
| 6500 | 817 | 2.20 | 1992 | 903 | 2.60 | 2329 | 985 | 3.00 | 2673 | 1062 | 3.40 | 3031 | 1136 | 3.80 | 3410 | 1209 | 4.30 | 3811 |
| 7000 | 869 | 2.70 | 2427 | 950 | 3.10 | 2787 | 1028 | 3.50 | 3151 | 1102 | 3.90 | 3527 | 1172 | 4.40 | 3919 | 1241 | 4.80 | 4331 |
| 7500 | 920 | 3.30 | 2919 | 998 | 3.70 | 3303 | 1073 | 4.10 | 3689 | 1143 | 4.60 | 4083 | 1210 | 5.00 | 4490 | 1275 | 5.50 | 4914 |
| 8000 | 973 | 3.90 | 3476 | 1047 | 4.30 | 3886 | 1119 | 4.80 | 4294 | 1186 | 5.30 | 4708 | 1250 | 5.70 | 5131 | 1313 | 6.20 | 5569 |
| 8500 | 1026 | 4.60 | 4102 | 1097 | 5.10 | 4635 | 1166 | 5.60 | 4967 | 1231 | 6.00 | 5401 | 1292 | 6.50 | 5843 | 1352 | 7.00 | 6297 |
| 9000 | 1079 | 5.40 | 4800 | 1147 | 5.90 | 5257 | 1214 | 6.40 | 5714 | 1276 | 6.90 | 6171 | 1336 | 7.40 | 6632 | 1393 | 7.90 | 7102 |
| 9500 | 1133 | 6.20 | 5576 | 1199 | 6.80 | 6058 | 1263 | 7.30 | 6540 | 1323 | 7.90 | 7018 | 1381 | 8.40 | 7500 | 1436 | 8.90 | 7988 |
| 10,000 | 1188 | 7.20 | 6432 | 1250 | 7.80 | 6939 | 1313 | 8.30 | 7444 | 1371 | 8.90 | 7946 | 1426 | 9.50 | 8449 | — | — | — |

| 579F240 (20 TONS)* (cont) | | | | | | | | | | | | | | | |
|---------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | |
| | 1.4 | | | 1.6 | | | 1.8 | | | 1.9 | | | 2.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 6000 | 1255 | 4.20 | 3772 | 1327 | 4.70 | 4206 | 1396 | 5.20 | 4658 | 1431 | 5.45 | 4884 | 1465 | 5.70 | 5110 |
| 6500 | 1279 | 4.70 | 4233 | 1348 | 5.20 | 4677 | 1415 | 5.80 | 5139 | 1449 | 6.10 | 5370 | 1482 | 6.40 | 5601 |
| 7000 | 1308 | 5.30 | 4762 | 1373 | 5.80 | 5215 | 1437 | 6.40 | 5686 | 1469 | 6.70 | 5922 | 1501 | 7.00 | 6157 |
| 7500 | 1339 | 6.00 | 5356 | 1401 | 6.50 | 5818 | 1462 | 7.00 | 6298 | 1493 | 7.25 | 6538 | 1523 | 7.50 | 6778 |
| 8000 | 1373 | 6.70 | 6024 | 1433 | 7.30 | 6495 | 1493 | 7.80 | 6966 | 1523 | 8.05 | 7202 | — | — | — |
| 8500 | 1410 | 7.60 | 6765 | 1467 | 8.10 | 7248 | 1524 | 8.70 | 7731 | — | — | — | — | — | — |
| 9000 | 1449 | 8.50 | 7584 | 1503 | 9.00 | 8033 | — | — | — | — | — | — | — | — | — |
| 9500 | 1488 | 9.40 | 8403 | — | — | — | — | — | — | — | — | — | — | — | — |
| 10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp** — Brake Horsepower Input to Fan
- FIOP** — Factory-Installed Option
- Watts** — Input Watts to Motor

*Standard low-medium static motor drive range is 1002 to 1225 rpm. Alternate high static motor drive range is 1193 to 1458 rpm. Other rpms require a field-supplied drive.

NOTES:

1. Static pressure losses (i.e., economizer) must be added to external static pressure before entering Fan Performance table. See Accessory/FIOP Static Pressure table on page 52 for more information.

2. Interpolation is permissible. Do not extrapolate.
3. Maximum continuous bhp is 8.7 for 208/230-v units and 9.5 for 460-v units. The maximum continuous watts are 7915 for the 208/230-v units and 8640 for the 460-v units. Extensive motor and drive testing on these units ensures that the full horsepower range of the motor can be utilized with confidence. Using your fan motors up to the watts rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
4. Deduct 0.2 in. wg static pressure for high heat units at or above 9000 cfm. Deduct 0.3 in. wg static pressure for high heat units at or above 10,000 cfm.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — 579F180-300 UNITS (cont)

| 579F300 (25 TONS)* | | | | | | | | | | | | | | | | | | |
|---------------------------|--|------------|--------------|------------|-------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | |
| | 0.2 | | | 0.4 | | | 0.6 | | | 0.8 | | | 0.9 | | | 1.0 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 7,500 | 962 | 3.39 | 3123 | 1039 | 3.81 | 3507 | 1111 | 4.23 | 3895 | 1179 | 4.66 | 4295 | 1212 | 4.89 | 4503 | 1245 | 5.11 | 4710 |
| 8,000 | 1017 | 4.04 | 3717 | 1091 | 4.48 | 4126 | 1160 | 4.93 | 4536 | 1225 | 5.38 | 4954 | 1256 | 5.62 | 5170 | 1287 | 5.85 | 5386 |
| 8,500 | 1072 | 4.76 | 4385 | 1143 | 5.23 | 4818 | 1209 | 5.70 | 5250 | 1271 | 6.18 | 5688 | 1302 | 6.42 | 5913 | 1332 | 6.66 | 6137 |
| 9,000 | 1128 | 5.57 | 5129 | 1196 | 6.07 | 5587 | 1260 | 6.56 | 6042 | 1320 | 7.06 | 6501 | 1348 | 7.32 | 6735 | 1377 | 7.57 | 6968 |
| 9,500 | 1185 | 6.47 | 5955 | 1250 | 6.99 | 6437 | 1311 | 7.51 | 6915 | 1369 | 8.03 | 7395 | 1396 | 8.30 | 7638 | 1424 | 8.56 | 7881 |
| 10,000 | 1241 | 7.45 | 6865 | 1304 | 8.00 | 7372 | 1363 | 8.55 | 7873 | 1419 | 9.09 | 8376 | 1445 | 9.37 | 8629 | 1472 | 9.64 | 8882 |
| 10,500 | 1298 | 8.54 | 7865 | 1359 | 9.12 | 8396 | 1415 | 9.69 | 8921 | 1469 | 10.26 | 9446 | 1495 | 10.55 | 9710 | 1521 | 10.83 | 9973 |
| 11,000 | 1355 | 9.72 | 8956 | 1414 | 10.33 | 9512 | 1469 | 10.93 | 10,062 | 1521 | 11.52 | 10,609 | — | — | — | — | — | — |
| 11,250 | 1384 | 10.36 | 9540 | 1441 | 10.97 | 10,107 | 1495 | 11.58 | 10,668 | — | — | — | — | — | — | — | — | — |

| 579F300 (25 TONS)* (cont) | | | | | | | | | | | | | | | |
|----------------------------------|--|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| Airflow (Cfm) | External Static Pressure (in. wg) | | | | | | | | | | | | | | |
| | 1.2 | | | 1.3 | | | 1.4 | | | 1.6 | | | 1.8 | | |
| | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts | Rpm | Bhp | Watts |
| 7,500 | 1309 | 5.58 | 5143 | 1341 | 5.83 | 5370 | 1372 | 6.08 | 5597 | 1434 | 6.59 | 6067 | 1494 | 7.12 | 6558 |
| 8,000 | 1349 | 6.33 | 5833 | 1379 | 6.59 | 6065 | 1409 | 6.84 | 6297 | 1467 | 7.36 | 6779 | — | — | — |
| 8,500 | 1390 | 7.17 | 6600 | 1419 | 7.43 | 6839 | 1447 | 7.68 | 7077 | 1504 | 8.22 | 7571 | — | — | — |
| 9,000 | 1433 | 8.08 | 7446 | 1461 | 8.35 | 7692 | 1488 | 8.62 | 7938 | — | — | — | — | — | — |
| 9,500 | 1478 | 9.10 | 8378 | 1505 | 9.37 | 8626 | — | — | — | — | — | — | — | — | — |
| 10,000 | 1524 | 10.20 | 9396 | 1550 | 10.48 | 9653 | — | — | — | — | — | — | — | — | — |
| 10,500 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 11,000 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 11,250 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

LEGEND

- Bhp** — Brake Horsepower Input to Fan
- FIOP** — Factory-Installed Option
- Watts** — Input Watts to Motor

*Standard low-medium static motor drive range is 1066 to 1283 rpm. Alternate high static motor drive range is 1332 to 1550 rpm. Other rpms require a field-supplied drive.

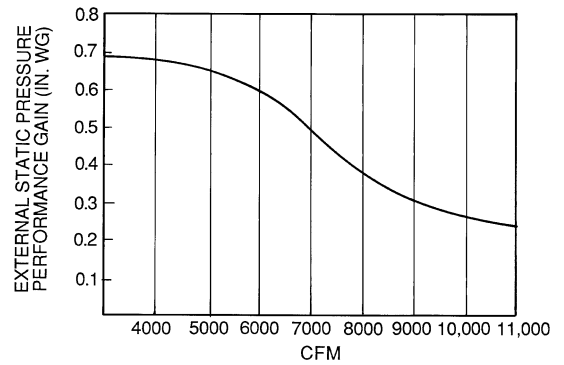
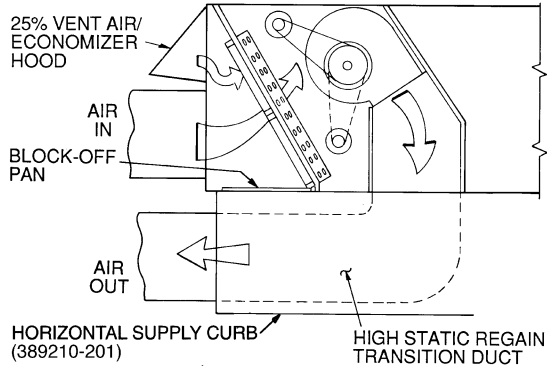
NOTES:

1. Static pressure losses (i.e., economizer) must be added to external static pressure before entering Fan Performance table. See Accessory/FIOP Static Pressure table on page 52 for more information.

2. Interpolation is permissible. Do not extrapolate.
3. Fan performance is based on wet coils, clean filters, and casing losses.
4. Maximum continuous bhp is 10.2 for 208/230-v units and 11.8 for 460-v units. The maximum continuous watts are 9510 for the 208/230-v units and 11,000 for the 460-v units. Extensive motor and drive testing on these units ensures that the full horsepower range of the motor can be utilized with confidence. Using your fan motors up to the watts rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
5. Deduct 0.3 in. wg static pressure for high heat units at or above 10,000 cfm.

PERFORMANCE DATA (cont)

579F180-300 HORIZONTAL SUPPLY/RETURN FAN PERFORMANCE WITH 389210-201 HIGH STATIC REGAIN ADAPTER CURB



NOTES:

1. Dimensions are in millimeters.
2. The 389210-201 high static regain adapter accessories may be used to provide horizontal supply/return.

NOTE: The 389210-201 horizontal supply/return adapter accessories improve 579F180-300 fan performance by increasing external static pressure by amount shown above.

AIR QUANTITY LIMITS

| UNIT | MINIMUM CFM | MAXIMUM CFM |
|---------|-------------|-------------|
| 580D036 | 900 | 1500 |
| 580D048 | 1200 | 2000 |
| 580D060 | 1500 | 2500 |
| 580D072 | 1800 | 3000 |
| 580D090 | 2250 | 3750 |
| 580D102 | 2550 | 4250 |

| UNIT | MINIMUM CFM | MAXIMUM CFM |
|---------|-------------|-------------|
| 580D120 | 3000 | 5,000 |
| 580D150 | 3750 | 6,250 |
| 579F180 | 4500 | 7,500 |
| 579F216 | 5400 | 9,000 |
| 579F240 | 6000 | 10,000 |
| 579F300 | 7000 | 11,250 |

SOUND POWER (Total Unit)

| UNIT | SOUND RATING (60 Hz) | A-WEIGHTED (dB) | OCTAVE BANDS | | | | | | | |
|-------------|----------------------|-----------------|--------------|------|------|------|------|------|------|------|
| | | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 580D036-072 | 8.2 Bels | 80.5 | 56.8 | 75.8 | 72.4 | 72.9 | 74.8 | 75.4 | 71.3 | 69.1 |
| 580D090,102 | 8.6 Bels | 86.4 | 83.2 | 87.4 | 83.5 | 82.8 | 83.0 | 77.7 | 71.8 | 67.0 |
| 580D120 | 8.8 Bels | 87.6 | 97.6 | 90.4 | 85.7 | 84.8 | 83.9 | 77.5 | 71.3 | 65.8 |
| 580D150 | 8.8 Bels | 86.4 | 83.7 | 87.2 | 83.4 | 82.8 | 83.0 | 77.7 | 71.8 | 67.0 |
| 580D180 | 8.8 Bels | 87.3 | 87.1 | 89.9 | 86.4 | 84.0 | 82.7 | 79.0 | 73.9 | 68.6 |
| 580D216 | 9.0 Bels | 89.5 | 95.7 | 88.9 | 87.2 | 85.2 | 81.9 | 79.5 | 72.7 | 66.0 |
| 579F240 | 9.5 Bels | 94.1 | 98.7 | 92.3 | 93.8 | 90.9 | 89.6 | 85.9 | 80.3 | 74.3 |
| 579F300 | 9.5 Bels | 94.1 | 98.7 | 92.3 | 93.8 | 90.9 | 89.6 | 85.9 | 80.3 | 74.3 |

Bels — Sound Levels (1 bel = 10 decibels)

PERFORMANCE DATA (cont)

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) – 580D036-072

| COMPONENT | CFM | | | | | | | | | |
|----------------------|------|------|------|------|------|------|------|------|------|------|
| | 900 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 3000 |
| Durablade Economizer | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| Parablade Economizer | 0.08 | 0.10 | 0.17 | 0.26 | 0.33 | 0.34 | 0.36 | 0.40 | 0.44 | — |

LEGEND

FIOP – Factory-Installed Option

*The static pressure must be added to external static pressure. The sum and the evaporator entering-air cfm should then be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) – 580D090-150

| COMPONENT | CFM | | | | | | | | | |
|----------------------|------|------|------|------|------|------|------|------|------|------|
| | 2200 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6250 |
| Durablade Economizer | 0.02 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 |
| Parablade Economizer | 0.21 | 0.25 | 0.35 | 0.49 | 0.61 | — | — | — | — | — |

LEGEND

FIOP – Factory-Installed Option

*The static pressure must be added to external static pressure. The sum and the evaporator entering-air cfm should then be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) – 579F180-300

| COMPONENT | CFM | | | | | | | | | |
|------------|------|------|------|------|------|------|------|--------|--------|--|
| | 4500 | 5000 | 5400 | 6000 | 7200 | 7500 | 9000 | 10,000 | 11,250 | |
| Economizer | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | |

LEGEND

FIOP – Factory-Installed Option

*The static pressure must be added to external static pressure. The sum and the evaporator entering-air cfm should then be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

FAN RPM AT MOTOR PULLEY SETTINGS* — 580D036-150 AND 579F180-300

| UNIT | MOTOR PULLEY TURNS OPEN | | | | | | | | | | | | |
|-----------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0 | ½ | 1 | 1½ | 2 | 2½ | 3 | 3½ | 4 | 4½ | 5 | 5½ | 6 |
| 580D036† | 1000 | 976 | 952 | 928 | 904 | 880 | 856 | 832 | 808 | 784 | 760 | — | — |
| 580D048† | 1185 | 1150 | 1115 | 1080 | 1045 | 1010 | 975 | 940 | 905 | 870 | 835 | — | — |
| 580D060† | 1300 | 1260 | 1220 | 1180 | 1140 | 1100 | 1060 | 1020 | 980 | 940 | 900 | — | — |
| 580D072** | 1460 | 1420 | 1380 | 1345 | 1305 | 1265 | 1225 | 1185 | 1150 | 1110 | 1070 | — | — |
| 580D090** | 840 | 815 | 790 | 765 | 740 | 715 | 690 | 665 | 635 | 615 | 590 | — | — |
| 580D090†† | 935 | 910 | 885 | 860 | 835 | 810 | 785 | 760 | 735 | 710 | 685 | — | — |
| 580D102** | 935 | 910 | 885 | 860 | 835 | 810 | 785 | 760 | 735 | 710 | 685 | — | — |
| 580D120** | 935 | 910 | 885 | 860 | 835 | 810 | 785 | 760 | 735 | 710 | 685 | — | — |
| 580D120† | 1085 | 1060 | 1035 | 1010 | 985 | 960 | 935 | 910 | 885 | 860 | 835 | — | — |
| 580D150** | 1080 | 1060 | 1035 | 1015 | 990 | 970 | 950 | 925 | 905 | 880 | 860 | — | — |
| 580D150† | 1260 | 1220 | 1185 | 1155 | 1130 | 1100 | 1075 | 1045 | 1015 | 990 | 960 | 930 | 900 |
| 579F180** | | | 1179 | 1150 | 1121 | 1093 | 1064 | 1035 | 1006 | 978 | 949 | 920 | 891 |
| 579F180†† | | | 1559 | 1522 | 1488 | 1455 | 1422 | 1389 | 1356 | 1323 | 1289 | 1256 | 1227 |
| 579F216** | | | 1038 | 1023 | 1001 | 979 | 956 | 934 | 912 | 890 | 868 | 846 | 817 |
| 579F216†† | | | 1197 | 1185 | 1165 | 1145 | 1124 | 1104 | 1084 | 1064 | 1043 | 1023 | 994 |
| 579F240** | | | 1225 | 1209 | 1187 | 1165 | 1143 | 1120 | 1098 | 1076 | 1053 | 1031 | 1022 |
| 579F240†† | | | 1458 | 1434 | 1407 | 1381 | 1354 | 1328 | 1301 | 1275 | 1248 | 1222 | 1193 |
| 579F300** | | | 1283 | 1269 | 1247 | 1225 | 1203 | 1182 | 1160 | 1138 | 1116 | 1095 | 1066 |
| 579F300†† | | | N/A | N/A | 1551 | 1524 | 1497 | 1470 | 1443 | 1415 | 1388 | 1361 | 1332 |

*Approximate fan rpm shown.

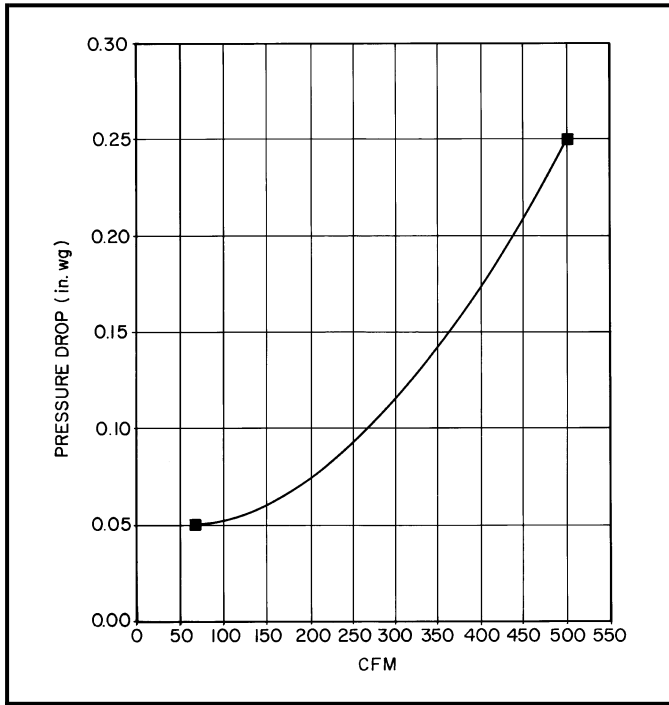
†Indicates alternate motor and drive package.

**Indicates standard motor and drive package.

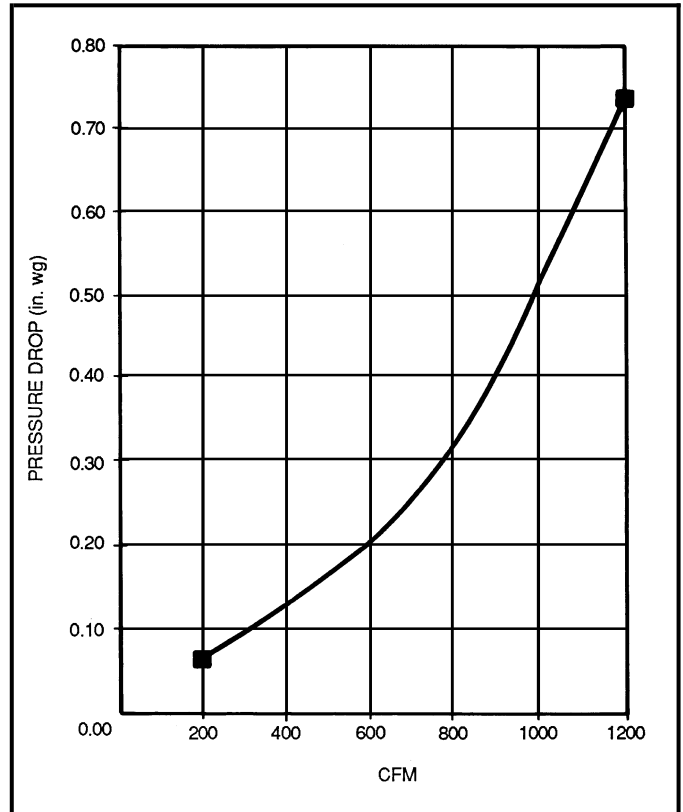
††Indicates alternate drive package only.

||Due to belt and pulley size, pulley cannot be set to this number of turns open.

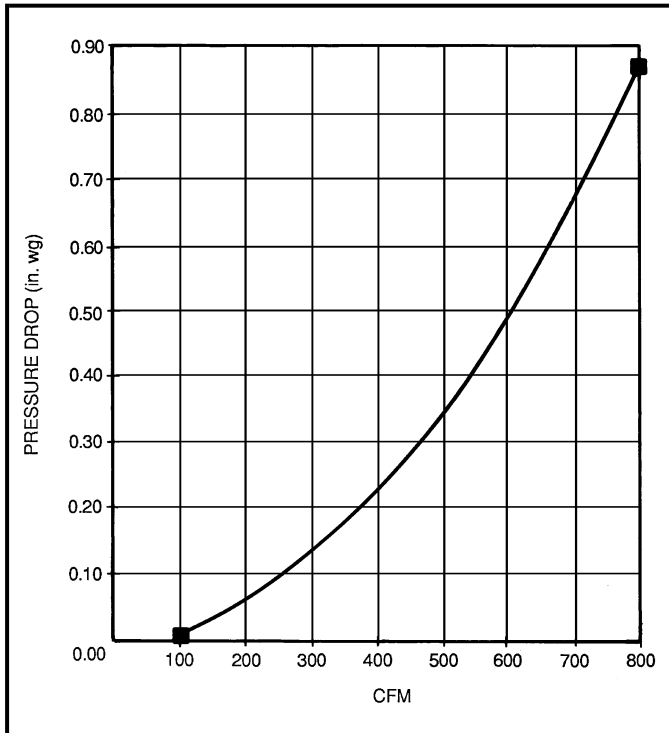
PERFORMANCE DATA (cont)



Durablade Economizer Barometric Relief Damper Characteristics — 580D036-150



Parablade Economizer Barometric Relief Damper Characteristics — 580D090-150



Parablade Economizer Barometric Relief Damper Characteristics — 580D036-072

ALTITUDE COMPENSATION* — 580D036-072

| ELEVATION (ft) | 72,000 AND 115,000 BTUH NOMINAL INPUT | | 150,000 BTUH NOMINAL INPUT | |
|----------------|---------------------------------------|------------------------------|----------------------------|------------------------------|
| | Natural Gas Orifice Size† | Liquid Propane Orifice Size† | Natural Gas Orifice Size† | Liquid Propane Orifice Size† |
| 0-2,000 | 33 | 43 | 30 | 38 |
| 2,000 | 34 | 43 | 30 | 39 |
| 3,000 | 35 | 44 | 31 | 40 |
| 4,000 | 36 | 44 | 32 | 41 |
| 5,000 | 36 | 44 | 33 | 42 |
| 6,000 | 37 | 45 | 34 | 43 |
| 7,000 | 37 | 45 | 35 | 43 |
| 8,000 | 38 | 46 | 36 | 44 |
| 9,000 | 39 | 47 | 37 | 44 |
| 10,000 | 41 | 48 | 38 | 45 |
| 11,000 | 43 | 48 | 39 | 45 |
| 12,000 | 44 | 49 | 40 | 46 |
| 13,000 | 44 | 49 | 41 | 47 |
| 14,000 | 45 | 50 | 42 | 47 |

*As the height above sea level increases, there is less oxygen per cubic foot of air. Therefore, heat input rate should be reduced at higher altitudes.

†Orifices available through your local distributor.

PERFORMANCE DATA (cont)

ALTITUDE COMPENSATION* — 580D090-150

| ELEVATION (ft) | 125,000, 180,000, AND 224,000 BTUH NOMINAL INPUT | | 250,000 BTUH NOMINAL INPUT | |
|----------------|--|------------------------------|----------------------------|------------------------------|
| | Natural Gas Orifice Size† | Liquid Propane Orifice Size† | Natural Gas Orifice Size† | Liquid Propane Orifice Size† |
| 0-2,000 | 31 | 41 | 30 | 38 |
| 2,000 | 32 | 42 | 30 | 39 |
| 3,000 | 32 | 42 | 31 | 40 |
| 4,000 | 32 | 42 | 32 | 41 |
| 5,000 | 33 | 43 | 33 | 42 |
| 6,000 | 34 | 43 | 34 | 43 |
| 7,000 | 35 | 44 | 35 | 43 |
| 8,000 | 36 | 44 | 36 | 44 |
| 9,000 | 37 | 45 | 37 | 44 |
| 10,000 | 38 | 46 | 38 | 45 |
| 11,000 | 39 | 47 | 39 | 45 |
| 12,000 | 40 | 47 | 40 | 46 |
| 13,000 | 41 | 48 | 41 | 47 |
| 14,000 | 42 | 48 | 42 | 47 |

*As the height above sea level increases, there is less oxygen per cubic foot of air. Therefore, heat input rate should be reduced at higher altitudes.

†Orifices available through your local distributor.

EVAPORATOR-FAN MOTOR EFFICIENCY

| UNIT | MOTOR EFFICIENCY (%) |
|------------------|----------------------|
| 580D036,048 | 75 |
| 580D060 | 74 |
| 580D072 | 84 |
| 580D090-120 | 80 |
| 580D150 | 87 |
| 579F180 (3.7 Hp) | 85.8 |
| 579F216 (5 Hp) | 87.5 |
| 579F240 (7.5 Hp) | 88.5 |
| 579F300 (10 Hp) | 89.5 |

NOTE: All indoor-fan motors 5 hp and larger meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.

ALTITUDE COMPENSATION* — 579F180-300

| ELEVATION (ft) | NATURAL GAS ORIFICE SIZE† | |
|----------------|---------------------------|-----------|
| | Lo Heat | High Heat |
| 0-2,000 | 28 | 29 |
| 2,000 | 29 | 29 |
| 3,000 | 29 | 30 |
| 4,000 | 29 | 30 |
| 5,000 | 30 | 30 |
| 6,000 | 30 | 30 |
| 7,000 | 31 | 31 |
| 8,000 | 31 | 31 |
| 9,000 | 31 | 31 |
| 10,000 | 32 | 32 |

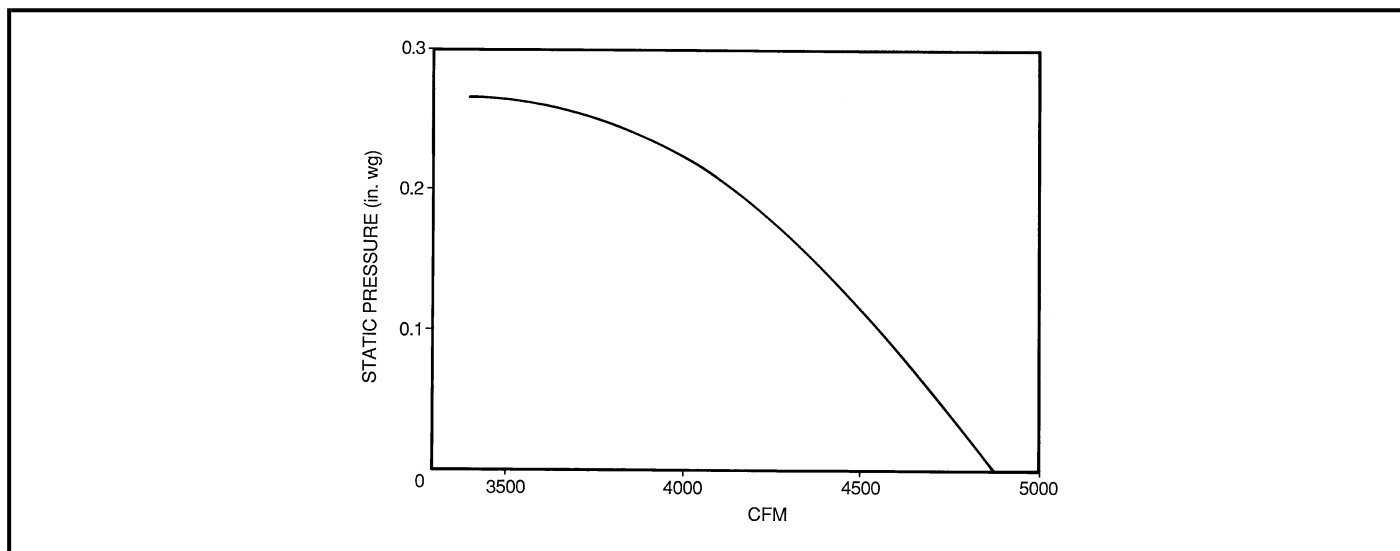
*As the height above sea level increases, there is less oxygen per cubic foot of air. Therefore, heat input rate should be reduced at higher altitudes.

†Orifices available through your local distributor.

ALTITUDE DERATING FACTOR* — ALL UNITS

| ELEVATION (ft) | MAXIMUM HEATING VALUE (Btu/ft ³) |
|----------------|--|
| 0-2,000 | 1,100 |
| 2,001-3,000 | 1,050 |
| 3,001-4,000 | 1,000 |
| 4,001-5,000 | 950 |
| 5,001-6,000 | 900 |

*Derating of the unit is not required unless the heating value of the gas exceeds the values listed in the table above, or if the elevation exceeds 6000 ft. Derating conditions must be 4% per thousand ft above sea level. For example, at 4000 ft, if the heating value of the gas exceeds 1000 Btu/ft³, the unit will require a 16% derating. For elevations above 6000 ft, the same formula applies. For example, at 7000 ft, the unit will require a 28% derating of the maximum heating value per the National Fuel Gas Code.



Fan Performance Using Accessory Power Exhaust (579F180-300)

PERFORMANCE DATA (cont)

EVAPORATOR-FAN MOTOR PERFORMANCE

| UNIT | EVAPORATOR-FAN MOTOR | UNIT VOLTAGE | MAXIMUM ACCEPTABLE CONTINUOUS BHP* | MAXIMUM ACCEPTABLE OPERATING WATTS | MAXIMUM AMP DRAW |
|---------|----------------------|--------------|------------------------------------|------------------------------------|------------------|
| 580D036 | Standard | 208/230 | 0.34 | 440 | 2.9 |
| | | 460 | | | 1.4 |
| | | 575 | | | 1.4 |
| | Alternate | 208/230 | 1.00 | 1000 | 5.4 |
| | | 460 | | | 2.3 |
| | | 575 | | | 2.3 |
| 580D048 | Standard | 208/230 | 0.75 | 850 | 3.5 |
| | | 460 | | | 1.8 |
| | | 575 | | | 1.8 |
| | Alternate | 208/230 | 1.00 | 1000 | 5.4 |
| | | 460 | | | 2.3 |
| | | 575 | | | 2.3 |
| 580D060 | Standard | 208/230 | 1.20 | 1340 | 5.9 |
| | | 460 | | | 3.2 |
| | | 575 | | | 3.2 |
| | Alternate | 208/230 | 1.80 | 1921 | 8.9 |
| | | 460 | | | 4.7 |
| | | 575 | | | 4.7 |
| 580D072 | Standard | 208/230 | 2.40 | 2120 | 6.1 |
| | | 460 | | | 2.7 |
| | | 575 | | | 2.7 |
| 580D090 | Standard | 208/230 | 2.40 | 2120 | 6.1 |
| | | 460 | | | 2.7 |
| | | 575 | | | 2.7 |
| 580D102 | Standard | 208/230 | 2.40 | 2120 | 6.1 |
| | | 460 | | | 2.7 |
| | | 575 | | | 2.7 |
| 580D120 | Standard | 208/230 | 2.40 | 2120 | 6.1 |
| | | 460 | | | 2.7 |
| | | 575 | | | 2.7 |
| | Alternate | 208/230 | 2.90 | 2615 | 7.9 |
| | | 460 | | | 3.6 |
| | | 575 | | | 3.6 |
| 580D150 | Standard | 208/230 | 4.20 | 3775 | 11.1 |
| | | 460 | | | 5.0 |
| | | 575 | | | 5.0 |
| | Alternate | 208/230 | 5.25 | 4400 | 15.0 |
| | | 460 | | | 7.4 |
| | | 575 | | | 7.4 |
| 579F180 | Standard | 208/230 | 4.25 | 3775 | 10.5 |
| | | 460 | | | 4.8 |
| 579F216 | Standard | 208/230 | 5.90 | 5180 | 15.8 |
| | | 460 | | | 7.9 |
| 579F240 | Standard | 208/230 | 8.70 | 7915 | 22.0 |
| | | 460 | | | 13.0 |
| 579F300 | Standard | 208/230 | 10.20 | 9510 | 28.0 |
| | | 460 | | | 14.6 |

LEGEND

Bhp — Brake Horsepower

*Extensive motor and electrical testing on these units ensures that the full horsepower range of the motors can be utilized with confidence. Using your fan motors up to the horsepower ratings shown in this table will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.

NOTE: All indoor-fan motors 5 hp and larger meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.

ELECTRICAL DATA — 580D036-150

| UNIT 580D | NOMINAL VOLTAGE (60 Hz) | IFM TYPE | VOLTAGE RANGE | | COMPR (ea) | | OFM (ea) | | IFM FLA | COMBUSTION FAN MOTOR FLA | POWER SUPPLY | | DISCONNECT SIZE* | |
|---------------------------|-------------------------------|-------------|------------------|-----|---------------|-------|-------------|-----|------------|--------------------------------|--------------|-------|---------------------|---------|
| | | | Min | Max | RLA | LRA | Hp | FLA | | | MCA | MOCP† | FLA | LRA |
| 036 (3 Tons) | 208/230 (single phase) | Std | 187 | 254 | 18.0 | 96.0 | ¼ | 1.4 | 2.8 | .57 | 26.7/26.7 | 35/35 | 26/26 | 106/106 |
| | | Alt | | | | | | | 4.9 | | | | | |
| | 208/230 (3 phase) | Std | 187 | 254 | 16.4 | 75.0 | ¼ | 1.4 | 2.8 | .57 | 24.7/24.7 | 30/30 | 24/24 | 85/85 |
| | | Alt | | | | | | | 4.9 | | | | | |
| | 460 (3 phase) | Std | 414 | 508 | 4.8 | 40.0 | ¼ | 0.8 | 1.3 | .30 | 8.1 | 15 | 8 | 46 |
| | | Alt | | | | | | | 2.1 | | | | | |
| | 575 (3 phase) | Std | 518 | 632 | 4.1 | 31.0 | ¼ | 0.8 | 1.3 | .30 | 7.2 | 15 | 7 | 37 |
| | | Alt | | | | | | | 2.1 | | | | | |
| 048 (4 Tons) | 208/230 (single phase) | Std | 187 | 254 | 23.0 | 110.0 | ¼ | 1.4 | 3.5 | .57 | 34.7/34.7 | 40/40 | 32/32 | 122/122 |
| | | Alt | | | | | | | 4.9 | | | | | |
| | 208/230 (3 phase) | Std | 187 | 254 | 15.3 | 92.0 | ¼ | 1.4 | 3.5 | .57 | 24.0/24.0 | 30/30 | 24/24 | 104/104 |
| | | Alt | | | | | | | 4.9 | | | | | |
| | 460 (3 phase) | Std | 414 | 508 | 7.0 | 46.0 | ¼ | 0.8 | 1.8 | .30 | 11.4 | 15 | 11 | 52 |
| | | Alt | | | | | | | 2.1 | | | | | |
| | 575 (3 phase) | Std | 518 | 632 | 5.8 | 44.0 | ¼ | 0.8 | 1.8 | .30 | 9.3 | 15 | 9 | 49 |
| | | Alt | | | | | | | 2.1 | | | | | |
| 060 (5 Tons) | 208/230 (single phase) | Std | 187 | 254 | 30.5 | 141.0 | ¼ | 1.4 | 5.9 | .57 | 42.7/42.7 | 50/50 | 43/43 | 155/155 |
| | | Alt | | | | | | | 8.8 | | | | | |
| | 208/230 (3 phase) | Std | 187 | 254 | 17.7 | 110.0 | ¼ | 1.4 | 5.9 | .57 | 29.4/29.4 | 35/35 | 29/29 | 124/124 |
| | | Alt | | | | | | | 5.8 | | | | | |
| | 460 (3 phase) | Std | 414 | 508 | 8.6 | 55.0 | ¼ | 0.8 | 3.2 | .30 | 14.8 | 20 | 15 | 63 |
| | | Alt | | | | | | | 2.6 | | | | | |
| | 575 (3 phase) | Std | 518 | 632 | 6.4 | 44.0 | ¼ | 0.8 | 3.2 | .30 | 12.0 | 15 | 12 | 52 |
| | | Alt | | | | | | | 2.6 | | | | | |
| 072 (6 Tons) | 208/230 (3 phase) | Std | 187 | 254 | 23.6 | 146.0 | ¼ | 1.4 | 5.8 | .57 | 36.1/36.1 | 45/45 | 35/35 | 181/181 |
| | 460 (3 phase) | Std | 414 | 508 | 10.6 | 73.0 | ¼ | 0.8 | 2.6 | .30 | 16.7 | 20 | 16 | 89 |
| | 575 (3 phase) | Std | 518 | 632 | 8.5 | 58.4 | ¼ | 0.8 | 2.6 | .30 | 14.4 | 15 | 12 | 76 |
| 090 (7½ Tons) | 208/230 (3 phase) | Std | 187 | 254 | 13.6 | 73.4 | ¼ | 1.4 | 5.8 | .57 | 40.1/40.1 | 45/45 | 42/42 | 229/229 |
| | 460 (3 phase) | Std | 414 | 508 | 6.2 | 37.7 | ¼ | 0.7 | 2.6 | .30 | 18.4 | 25 | 19 | 108 |
| | 575 (3 phase) | Std | 518 | 632 | 4.9 | 31.0 | ¼ | 0.7 | 2.6 | .30 | 14.9 | 20 | 16 | 97 |
| 102 (8½ Tons) | 208/230 (3 phase) | Std | 187 | 254 | 15.8 | 92.0 | ¼ | 1.4 | 5.8 | .57 | 44.2/44.2 | 50/50 | 46/46 | 231/231 |
| | 460 (3 phase) | Std | 414 | 508 | 7.4 | 46.0 | ¼ | 0.7 | 2.6 | .30 | 20.7 | 25 | 22 | 116 |
| | 575 (3 phase) | Std | 518 | 632 | 5.9 | 44.0 | ¼ | 0.7 | 2.6 | .30 | 16.5 | 20 | 17 | 107 |
| 120 (10 Tons) | 208/230 (3 phase) | Std | 187 | 254 | 17.9 | 110.0 | ¼ | 1.4 | 5.8 | .57 | 48.9/48.9 | 60/60 | 51/51 | 267/267 |
| | | Alt | | | | | | | 7.5 | | | | | |
| | 460 (3 phase) | Std | 414 | 508 | 8.6 | 55.0 | ¼ | 0.7 | 2.6 | .30 | 23.4 | 30 | 24 | 134 |
| | | Alt | | | | | | | 3.4 | | | | | |
| | 575 (3 phase) | Std | 518 | 632 | 6.4 | 44.0 | ¼ | 0.7 | 2.6 | .30 | 17.6 | 20 | 18 | 107 |
| Alt | 3.4 | 18.2 | | | | | | | 20 | | | | | |
| 150 (12½ Tons) | 208/230 (3 phase) | Std | 187 | 254 | 23.0 | 142.0 | ¼ | 1.4 | 10.6 | .57 | 63.6/63.6 | 70/70 | 67/67 | 375/375 |
| | | Alt | | | | | | | 15.0 | | | | | |
| | 460 (3 phase) | Std | 414 | 508 | 10.4 | 73.0 | ¼ | 0.7 | 4.8 | .30 | 29.6 | 40 | 31 | 190 |
| | | Alt | | | | | | | 7.4 | | | | | |
| | 575 (3 phase) | Std | 518 | 632 | 8.3 | 58.4 | ¼ | 0.7 | 4.8 | .30 | 26.6 | 30 | 28 | 154 |
| Alt | 7.4 | 28.6 | | | | | | | 35 | | | | | |

See Legend and Notes on page 57.

ELECTRICAL DATA — 579F180-300

| UNIT | NOMINAL VOLTAGE (60 Hz) | VOLTAGE RANGE | | COMPRESSOR | | | | OFM | | | IFM | POWER EXHAUST | | COMBUSTION FAN MOTOR | POWER SUPPLY | |
|---------------|-------------------------|---------------|-----|------------|-----|-------|-----|-----|-----|----------|-----------|---------------|------|----------------------|--------------|---------|
| | | | | NO. 1 | | NO. 2 | | Qty | Hp | FLA (ea) | | FLA | LRA | | FLA | MCA |
| | | Min | Max | RLA | LRA | RLA | LRA | | | | | | | | | |
| 180 (15 Tons) | 208/230 (3 phase) | 187 | 254 | 61.0 | 266 | — | — | 3 | 1/2 | 1.70 | 10.5/10.5 | — | — | 0.57 | 92/92 | 150/150 |
| | | | | | | | | | | | | 4.6 | 18.8 | 0.57 | 96/96 | 150/150 |
| | 460 (3 phase) | 414 | 508 | 28.0 | 120 | — | — | 3 | 1/2 | 0.80 | 4.8 | — | — | 0.30 | 42 | 70 |
| 216 (18 Tons) | 208/230 (3 phase) | 187 | 254 | 35.6 | 198 | 28.2 | 160 | 3 | 1/2 | 1.70 | 15.8/15.8 | — | — | 0.57 | 94/94 | 125/125 |
| | | | | | | | | | | | | 4.6 | 18.8 | 0.57 | 98/98 | 125/125 |
| | 460 (3 phase) | 414 | 508 | 17.8 | 99 | 14.1 | 80 | 3 | 1/2 | 0.80 | 7.9 | — | — | 0.30 | 47 | 60 |
| 240 (20 Tons) | 208/230 (3 phase) | 187 | 254 | 35.6 | 198 | 35.6 | 198 | 2 | 1 | 5.50 | 25.0/25.0 | — | — | 0.57 | 116/116 | 150/150 |
| | | | | | | | | | | | | 4.6 | 18.8 | 0.57 | 121/121 | 150/150 |
| | 460 (3 phase) | 414 | 508 | 17.8 | 99 | 17.8 | 99 | 2 | 1 | 2.80 | 13.0 | — | — | 0.30 | 59 | 70 |
| 300 (25 Tons) | 208/230 (3 phase) | 187 | 254 | 43.6 | 228 | 43.6 | 228 | 2 | 1 | 5.50 | 28.0/28.0 | — | — | 0.57 | 137/137 | 175/175 |
| | | | | | | | | | | | | 4.6 | 18.8 | 0.57 | 142/142 | 175/175 |
| | 460 (3 phase) | 414 | 508 | 22.1 | 114 | 22.1 | 114 | 2 | 1 | 2.80 | 14.6 | — | — | 0.30 | 70 | 90 |
| | | | | | | | | | | | | 2.3 | 6.0 | 0.30 | 72 | 90 |

LEGEND

- FLA — Full Load Amps
- HACR — Heating, Air Conditioning and Refrigeration
- IFM — Indoor (Evaporator) Fan Motor
- LRA — Locked Rotor Amps
- MCA — Minimum Circuit Amps
- MOCP — Maximum Overcurrent Protection
- NEC — National Electrical Code
- OFM — Outdoor (Condenser) Fan Motor
- RLA — Rated Load Amps

*Used to determine minimum disconnect size per NEC.
 †Fuse or HACR circuit breaker.



036-150 Only



180-300 Only



180-300 Only



036-072 Only



090-150 Only

NOTES:

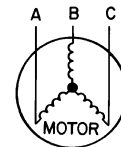
- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.

2. Unbalanced 3-Phase Supply Voltage

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

EXAMPLE: Supply voltage is 460-3-60.



AB = 452 v
 BC = 464 v
 AC = 455 v

$$\begin{aligned} \text{Average Voltage} &= \frac{452 + 464 + 455}{3} \\ &= \frac{1371}{3} \\ &= 457 \end{aligned}$$

Determine maximum deviation from average voltage.

- (AB) 457 - 452 = 5 v
- (BC) 464 - 457 = 7 v
- (AC) 457 - 455 = 2 v

Maximum deviation is 7 v.

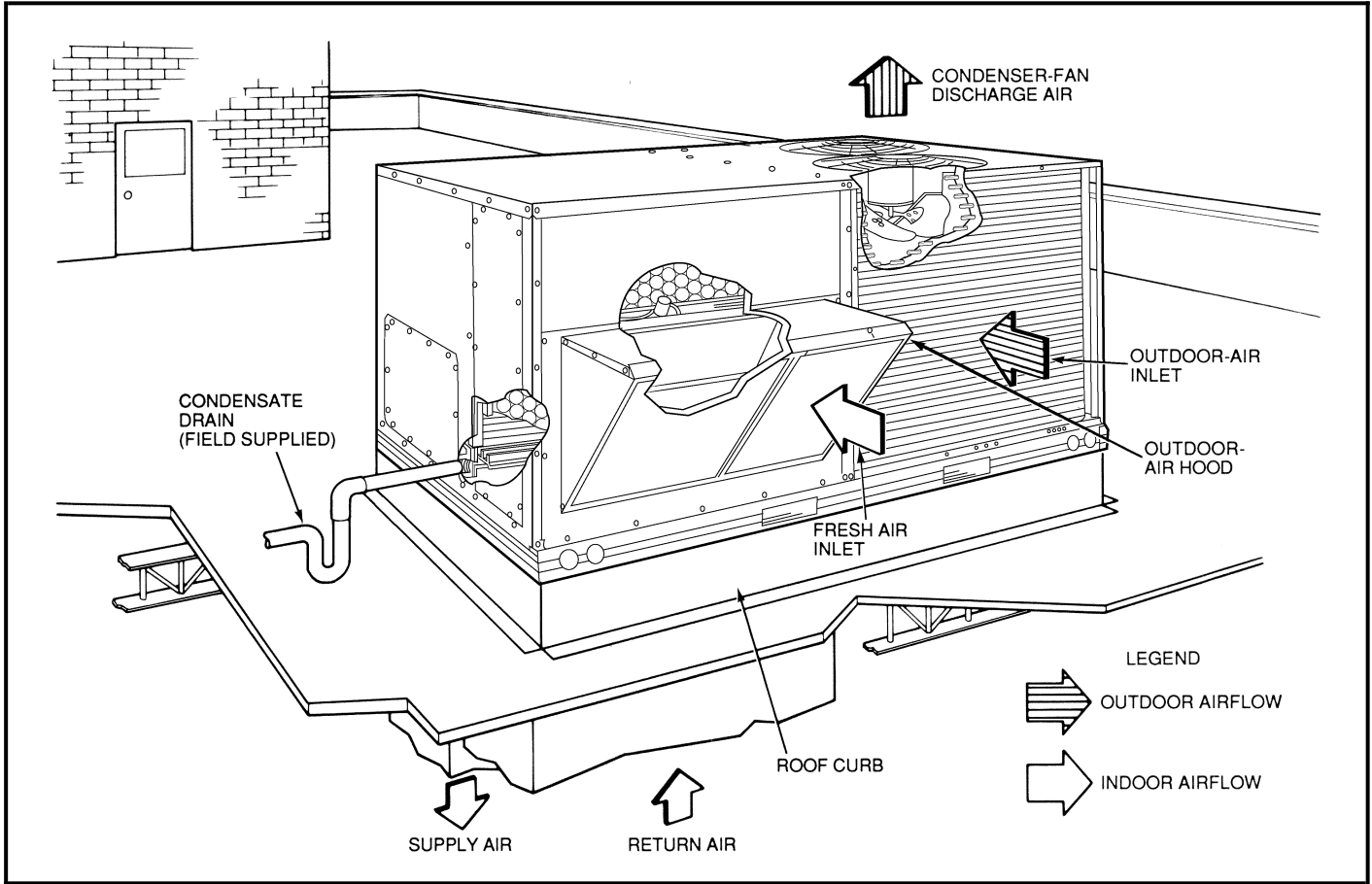
Determine percent voltage imbalance.

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{7}{457} \\ &= 1.53\% \end{aligned}$$

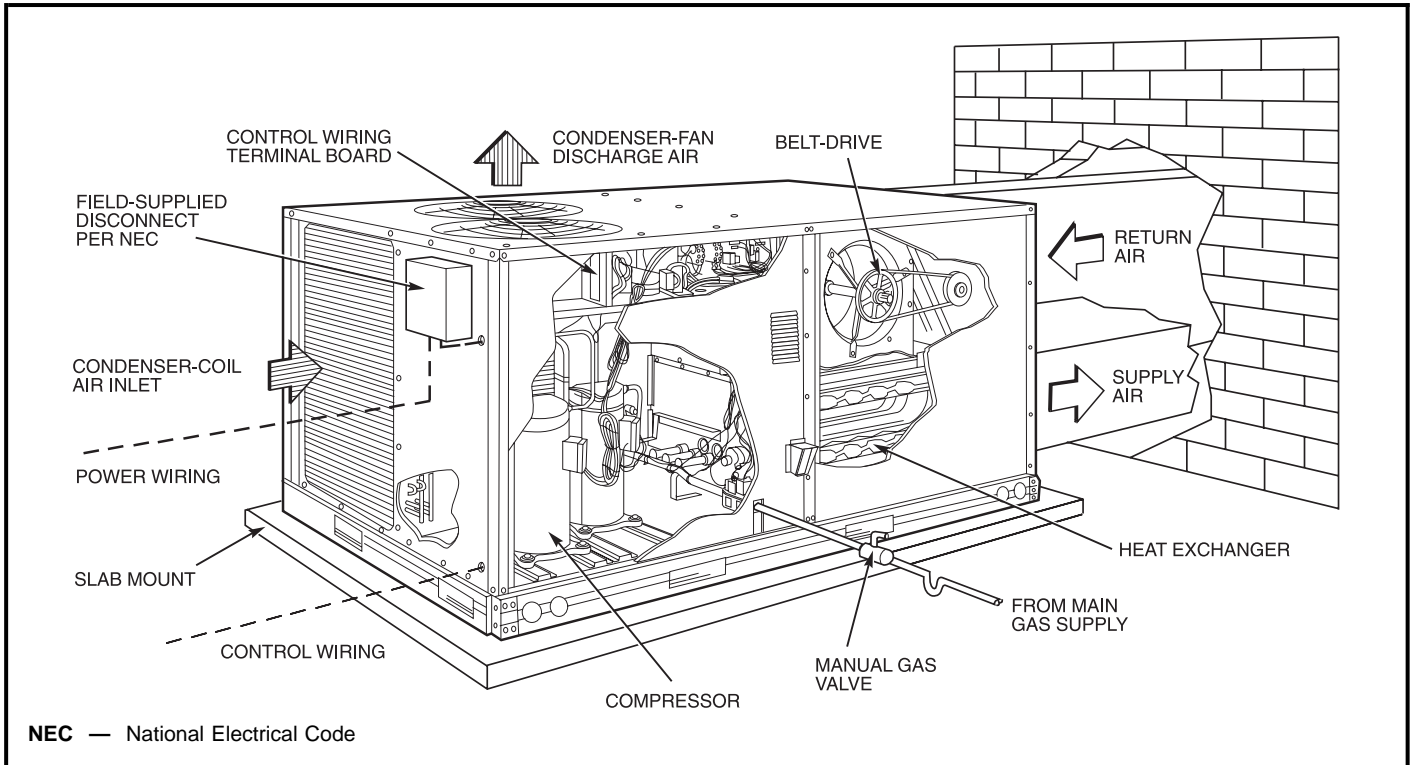
This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

TYPICAL PIPING AND WIRING — 580D036-150

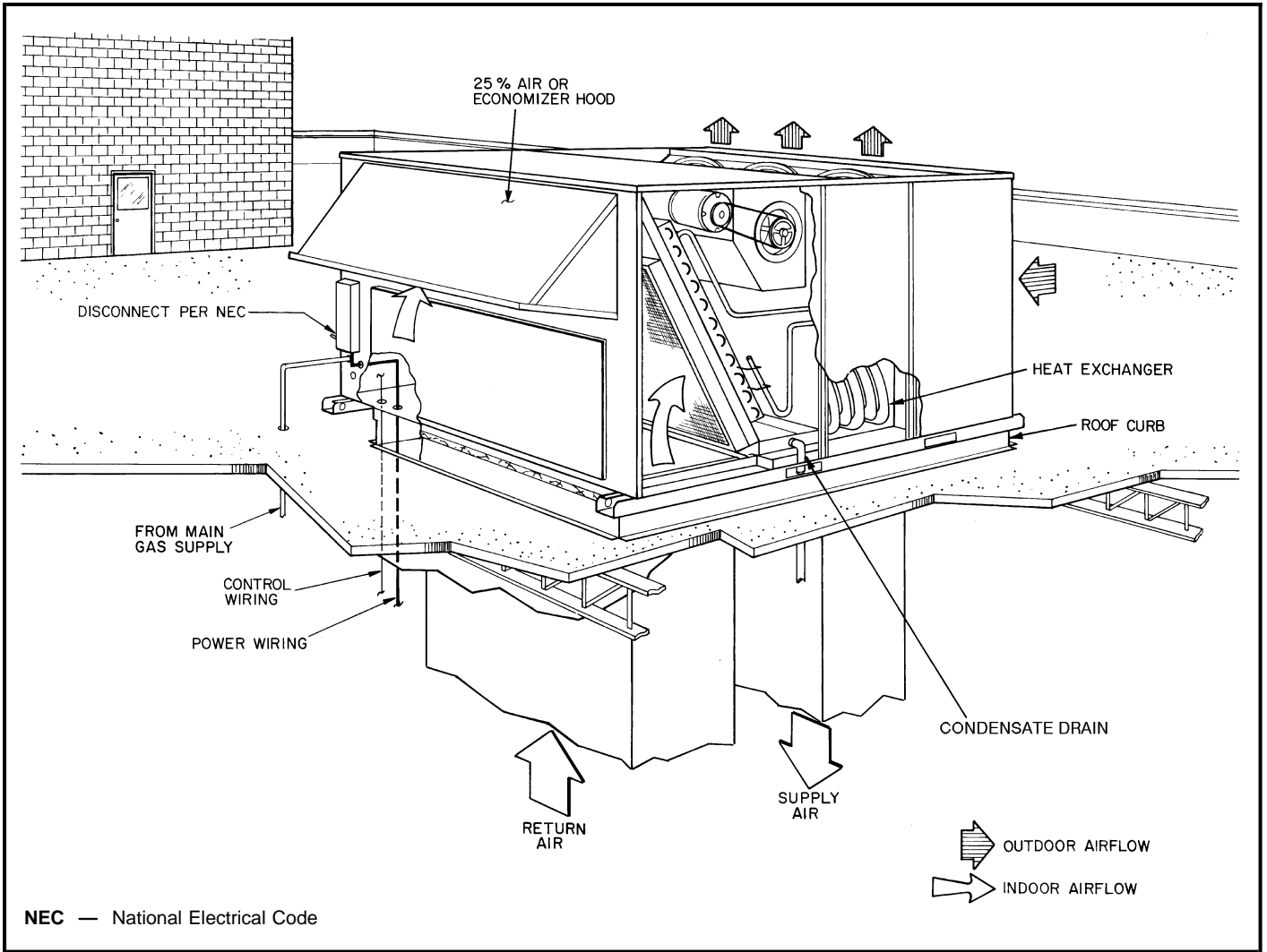


Vertical Discharge Ducting



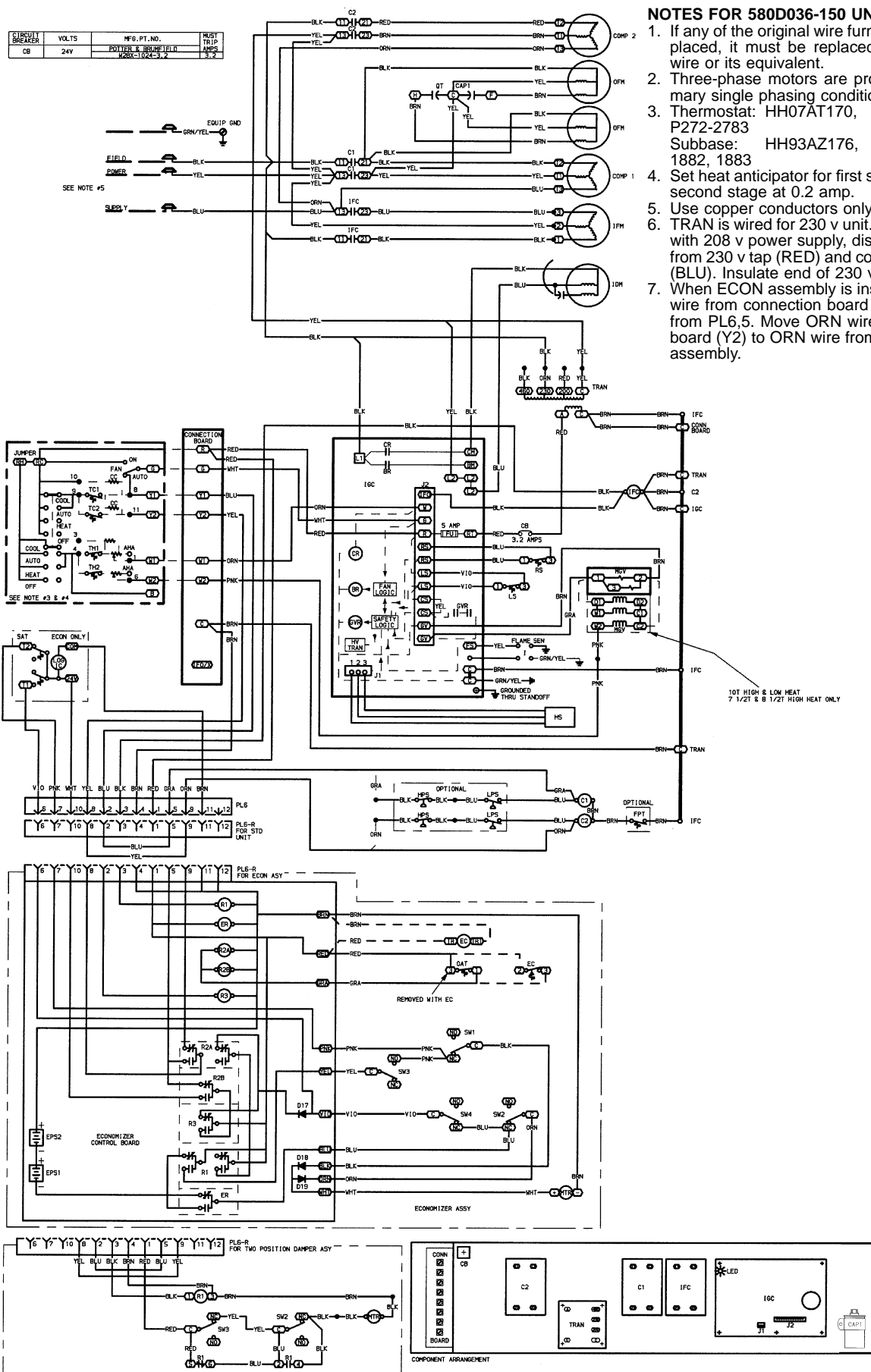
Horizontal Discharge Ducting

TYPICAL PIPING AND WIRING — 579F180-300
(579F180 shown)



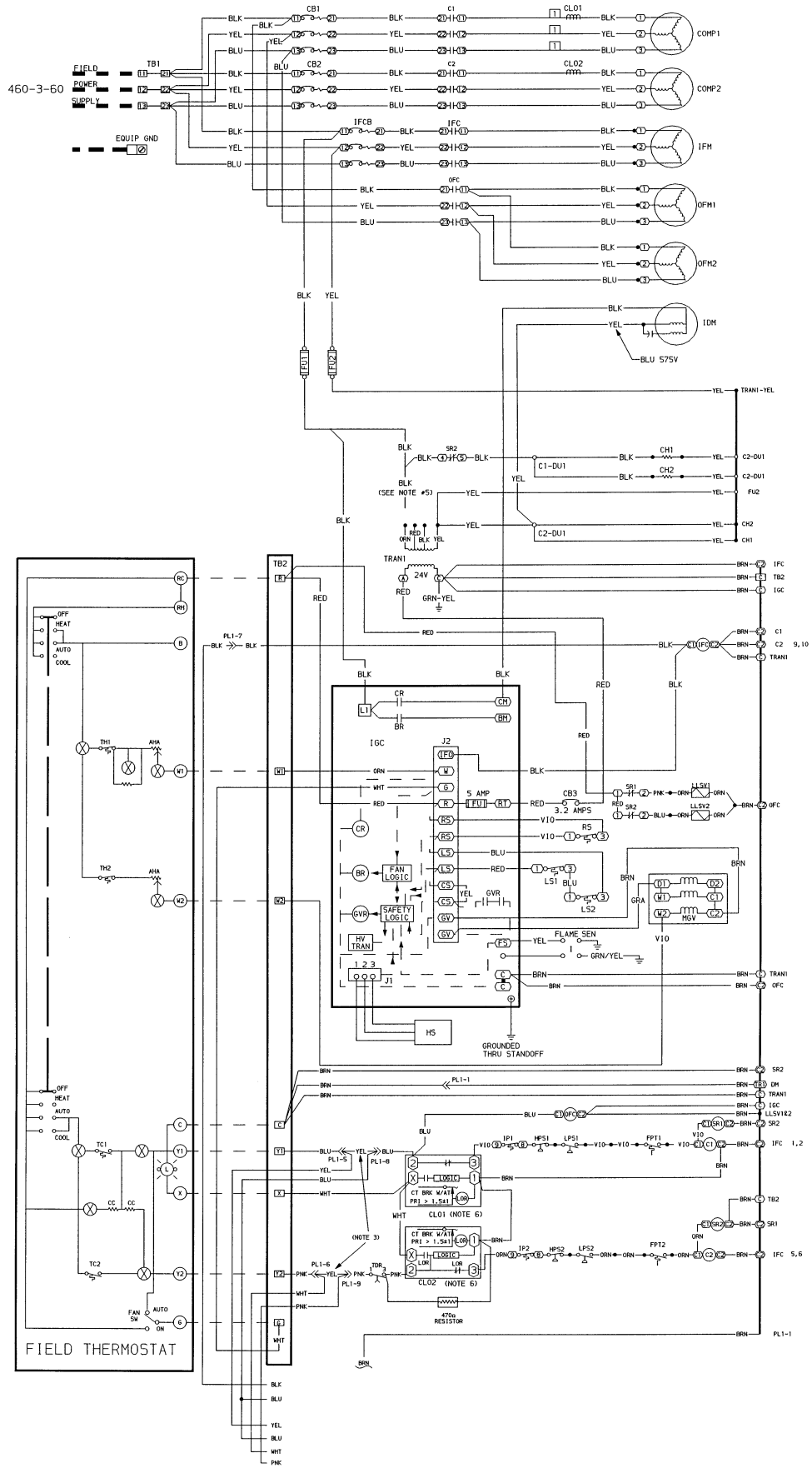
TYPICAL WIRING SCHEMATIC — 580D036-150

| CIRCUIT BREAKER | VOLTS | MFG. PT. NO. | MUST TRIP |
|-----------------|-------|--|-----------|
| CB | 24V | FUTURES & BRN/BLU P272-1882, 1883, 1884 | YES |

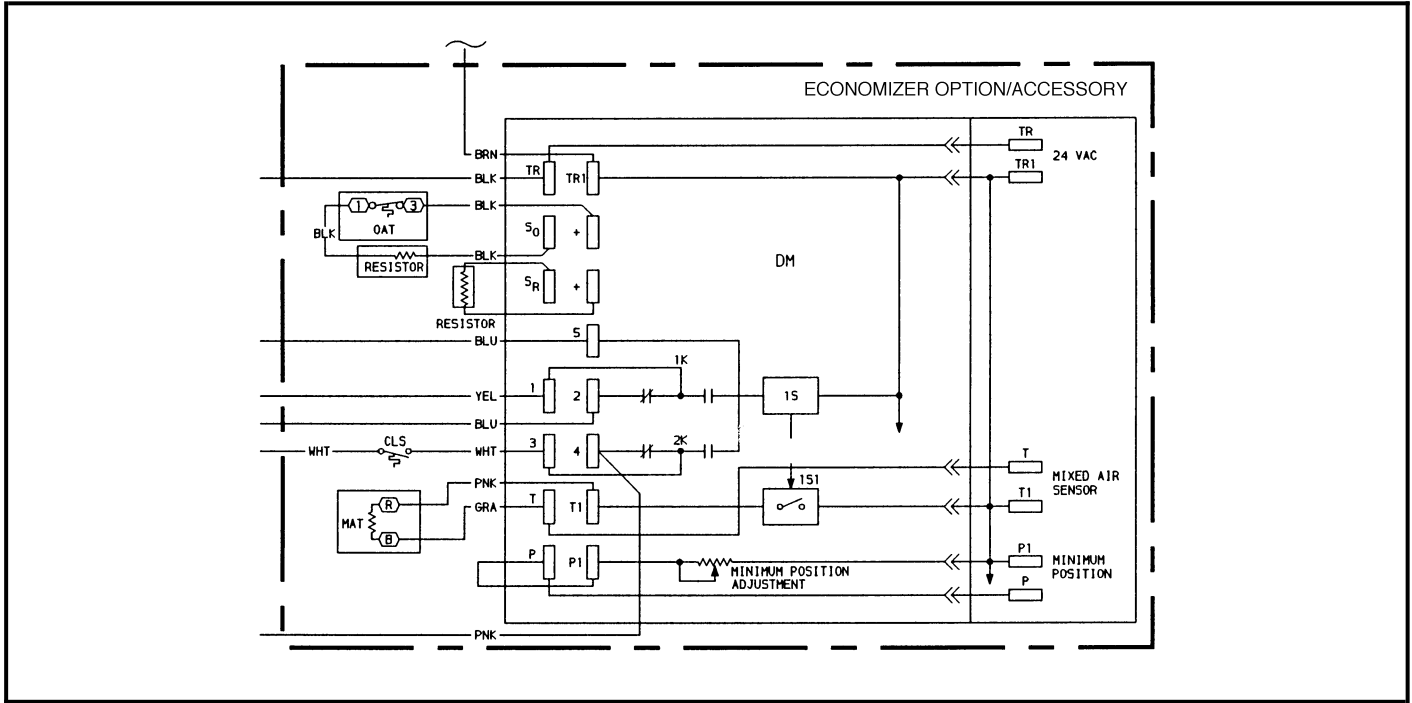


- NOTES FOR 580D036-150 UNITS:**
1. If any of the original wire furnished must be replaced, it must be replaced with Type 90 C wire or its equivalent.
 2. Three-phase motors are protected under primary single phasing conditions.
 3. Thermostat: HH07AT170, 172, 174 and P272-2783
Subbase: HH93AZ176, 178 and P272-1882, 1883
 4. Set heat anticipator for first stage at 0.14 amp, second stage at 0.2 amp.
 5. Use copper conductors only.
 6. TRAN is wired for 230 v unit. If unit is to be run with 208 v power supply, disconnect BLK wire from 230 v tap (RED) and connect to 200 v tap (BLU). Insulate end of 230 v tap.
 7. When ECON assembly is installed move GRA wire from connection board (Y1) to GRA wire from PL6.5. Move ORN wire from connection board (Y2) to ORN wire from PL6,9 on ECON assembly.

TYPICAL WIRING SCHEMATIC (579F240-300, 460-v shown)



TYPICAL WIRING SCHEMATIC (579F240-300, 460-v shown) (cont)



LEGEND FOR TYPICAL WIRING SCHEMATICS

| | |
|-----------------|--|
| AHA | — Adjustable Heat Anticipator |
| BKR W/AT | — Breaks with Amp Turns |
| BR | — Burner Relay |
| C | — Contactor, Compressor |
| CAP | — Capacitor |
| CB | — Circuit Breaker |
| CC | — Cooling Compensator |
| CH | — Crankcase Heater |
| CLO | — Compressor Lockout |
| COMP | — Compressor Motor |
| CR | — Control Relay |
| CT | — Current Transformer |
| DM | — Damper Motor |
| DU | — Dummy Terminal |
| EC | — Enthalpy Control |
| ER | — Economizer Relay |
| EQUIP | — Equipment |
| EPS | — Emergency Power Supply (9 v Battery) |
| FPT | — Freeze Protection Thermostat |
| FU | — Fuse |
| GND | — Ground |
| GVR | — Gas Valve Relay |
| HPS | — High-Pressure Switch |
| HS | — Hall Effect Sensor |

| | |
|-------------|---|
| HV | — High Voltage |
| I | — Ignitor |
| IDM | — Induced-Draft Motor |
| IFC | — Indoor (Evaporator) Fan Contactor |
| IFCB | — Indoor (Evaporator) Fan Circuit Breaker |
| IFM | — Indoor (Evaporator) Fan Motor |
| IGC | — Integrated Gas Unit Controller |
| IP | — Internal Protector |
| L | — Light |
| LLSV | — Liquid Line Solenoid Valve |
| LOR | — Lockout Relay |
| LPS | — Low-Pressure Switch |
| LS | — Limit Switch |
| MAT | — Mixed-Air Thermostat |
| MGV | — Main Gas Valve |
| MTR | — Motor |
| OAT | — Outdoor-Air Thermostat |
| OFC | — Outdoor (Condenser) Fan Contactor |
| OFM | — Outdoor (Condenser) Fan Motor |
| PL | — Plug Assembly |

| | |
|---------------|--|
| PRI | — Primary |
| QT | — Quadruple Terminal |
| R | — Relay |
| RS | — Rollout Switch |
| SR | — Solenoid Relay |
| SEN,SN | — Sensor |
| SW | — Switch |
| TB | — Terminal Block |
| TC | — Thermostat Cooling |
| TDR | — Time-Delay Relay |
| TH | — Thermostat Heating |
| TRAN | — Transformer |
| | Terminal (Marked) |
| | Terminal (Unmarked) |
| | Terminal Block |
| | Splice |
| | Factory Wiring |
| | Field Wiring |
| | To Indicate Common Potential Only, Not To Represent Wiring |

NOTES FOR 579F240-300 UNITS:

1. Compressor and fan motors thermally protected; 3-phase motors protected against primary single-phasing conditions.
2. If any of the original wire furnished must be replaced, it must be replaced with type 90 C wire or its equivalent.
3. Jumpers are omitted when unit is equipped with economizer.
4. IFCB must trip amps is equal to or less than 140% full load amps, and CB1 and CB2 (156%).
5. On TRAN1 use BLK lead for 460-v power supply.

6. The CLO locks out the compressor to prevent short cycling on compressor overload and safety devices. Before replacing CLO, check these devices.
7. Number(s) indicates the line location of used contacts. A bracket over (2) numbers signifies a single-pole, double-throw contact. An underlined number signifies a normally closed contact. A plain (no line) number signifies a normally open contact.
8. TDR switches 1 and 2 to be set to ON for a 3-second delay.

CONTROLS

OPERATING SEQUENCE

Cooling, Units Without Economizer — When thermostat calls for cooling, terminals G and Y1 are energized. The indoor (evaporator) fan contactor (IFC) and compressor contactor no. 1 (C1) are energized, and evaporator-fan motor (IFM), compressor no. 1 (580D036-150 and 579F216-300) or unloaded compressor (579F180), and condenser fan(s) start. The liquid line solenoid valve for compressor no. 1 is deenergized open. The condenser-fan motor(s) runs continuously while unit is cooling. For units with 2 stages of cooling, if the thermostat calls for a second stage of cooling by energizing Y2, compressor contactor no. 2 (C2) is energized and compressor no. 2 starts (580D090-150 and 579F216-300), or compressor no. 1 runs fully loaded (579F180). The liquid line solenoid valve for compressor no. 2 (579F180 and 240) is deenergized to open.

Heating, Units Without Economizer (580D036-150) — When the thermostat calls for heating, terminal W1 is energized. In order to prevent thermostat short-cycling, the unit is locked into the Heating mode for at least 1 minute when W1 is energized. The induced-draft motor (IDM) is then energized and the burner ignition sequence begins. The indoor (evaporator) fan motor (IFM) is energized 45 seconds after a flame is ignited. On units equipped for two stages of heat, when additional heat is needed, W2 is energized and the high-fire solenoid on the main gas valve (MGV) is energized. When the thermostat is satisfied and W1 is deenergized, the IFM stops after a 45-second time-off delay.

Heating, Units Without Economizer (579F180-300)

NOTE: The 579F180-300 units have 2 stages of heat.

When the thermostat calls for heating, power is sent to W on the IGC (integrated gas unit controller) board. An LED (light-emitting diode) on the IGC board will be on during normal operation. A check is made to ensure that the rollout switch and limit switch are closed. The induced-draft motor is then energized, and when speed is proven with the hall effect sensor on the motor, the ignition activation period begins. The burners will ignite within 5 seconds.

If the burners do not light, there is a 22-second delay before another 5-second attempt. If the burners still do not light, this sequence is repeated for 15 minutes. After the 15 minutes have elapsed, if the burners still have not lighted, heating is locked out. To reset the control, break 24-v power to the thermostat.

When ignition occurs the IGC board will continue to monitor the condition of the rollout and limit switches, the hall effect sensor, as well as the flame sensor. If the unit is controlled through a room thermostat set for fan auto., 45 seconds after ignition occurs, the indoor-fan motor will be energized. If for some reason the overtemperature limit opens prior to the start of the indoor fan blower, on the next attempt, the 45-second delay will be shortened to 5 seconds less than the time from initiation of heat to when the limit tripped. Gas will not be interrupted to the burners and heating will continue. Once modified, the fan on delay will not change back to 45 seconds unless power is reset to the control.

When additional heat is required, W2 closes and initiates power to the second stage of the main gas valve. When the thermostat is satisfied, W1 and W2 open and the gas valve closes, interrupting the flow of gas to the main burners. If the call for W1 lasted less than 1 minute, the heating cycle will not terminate until 1 minute after W1 became active. If the unit is controlled through a room thermostat set for fan auto., the indoor-fan motor will continue to operate for an additional 45 seconds then stop. If the overtemperature limit opens after the indoor motor is stopped within 10 minutes of W1 becoming inactive, on the next cycle the time will be extended by 15 seconds. The maximum delay is 3 minutes. Once modified, the fan off delay will not change back to 45 seconds unless power is reset to the control.

A LED indicator is provided on the IGC to monitor operation. The IGC is located by removing the side panel and viewing the IGC through the view port located in the control box access panel. During normal operation, the LED is continuously on.

Cooling, Units With Durablade Economizer (580D036-150)

— When the outdoor-air temperature is above the OAT (outdoor-air thermostat) setting and the room thermostat calls for cooling, compressor contactor no. 1 is energized to start compressor no. 1 and the outdoor (condenser) fan motor (OFM). The indoor (evaporator) fan motor (IFM) is energized and the economizer damper moves to the minimum position. Upon a further call for cooling, compressor contactor no. 2 will be energized, starting compressor no. 2 (090-150 only). After the thermostat is satisfied, the damper moves to the fully closed position when using an auto fan or to the minimum position when using a continuous fan.

When the outdoor-air temperature is below the OAT setting and the thermostat calls for cooling, the economizer dampers move to the minimum position. If the supply-air temperature is above 57 F, the damper continues to open until it reaches the fully open position or until the supply-air temperature drops below 52 F.

When the supply-air temperature falls to between 57 F and 52 F, the damper will remain at an intermediate open position. If the supply-air temperature falls below 52 F, the damper will modulate closed until it reaches the minimum position or until the supply-air temperature is above 52 F. When the thermostat is satisfied, the damper will move to the fully closed position when using an auto fan or to the minimum position when using a continuous fan.

If the outdoor air alone cannot satisfy the cooling requirements of the conditioned space, economizer cooling is integrated with mechanical cooling, providing second-stage cooling. Compressor no. 1 and the condenser fan will be energized and the position of the economizer damper will be determined by the supply-air temperature. Compressor no. 2 is locked out.

When the second stage of cooling is satisfied, the compressor and OFM will be deenergized. The damper position will be determined by the supply-air temperature.

After a 30-second delay, the IFM shuts off. If the thermostat fan selector switch is in the ON position, the IFM will run continuously.

CONTROLS (cont)

Cooling, Units With Parablade Economizer (580D036-072)

— When the outdoor air is above the enthalpy control (EC) setting, and the room thermostat calls for cooling, and the compressor contactor is energized to start the compressor and the condenser-fan motor. The evaporator-fan motor is energized and the economizer damper moves to the minimum position. After the room thermostat is satisfied, the damper will spring return to the fully closed position.

When the outdoor air is below the (EC) setting and the thermostat calls for cooling, the economizer outdoor-air damper is opened proportionally to maintain between 50 and 56 F at the mixed-air sensor. If outdoor air alone cannot satisfy the cooling requirements, economizer cooling is integrated with mechanical cooling. When the room thermostat is satisfied, the damper will spring return to the fully closed position.

Cooling, Units With Parablade Economizer (580D090-150)

— When the outdoor air is above the enthalpy control (EC) setting, and the room thermostat calls for cooling, and compressor contactor no. 1 is energized to start compressor no. 1 and the condenser-fan motor. The evaporator-fan motor is energized and the economizer damper moves to the minimum position. Upon a further call for cooling, compressor contactor no. 2 is energized, starting compressor no. 2. After the room thermostat is satisfied, the damper will spring return to the fully closed position.

When the outdoor-air temperature is below the EC setting and the thermostat calls for cooling, the economizer outdoor-air damper is opened proportionally to maintain between 50 and 56 F at the mixed-air sensor. If outdoor-air alone cannot satisfy the cooling requirements, economizer cooling is integrated with mechanical cooling, and the second compressor is locked out. When the room thermostat is satisfied, the damper will spring return to the fully closed position.

Cooling, Units With Economizer (579F180-300) — Upon a call for cooling, when outdoor ambient is above the temperature control setting, the economizer damper moves to VENT position. The compressors and evaporator and condenser fans energize.

Upon a first call for cooling, when outdoor ambient is below the temperature control setting, the evaporator fan starts and the economizer opens to maintain 53 F leaving-air temperature. The compressors remain off.

Upon a second-stage call for cooling, compressor no. 1 is energized and mechanical cooling is integrated with economizer cooling. If the outdoor-air temperature drops below 50 F, a cooling lockout switch prevents the compressors from running.

When supply-air temperature drops below a fixed set point, the economizer damper modulates to maintain the temperature at the fixed set point.

A freeze protection thermostat (FPT) is located on the evaporator coil. It detects frost build-up and turns off the compressors, allowing the coil to clear. Once frost has melted, the compressors can be reenergized.

Heating, Units With Economizer (580D036-150) — When the thermostat calls for heating, terminal W1 is energized. In order to prevent thermostat short-cycling, the unit is locked into the Heating mode for at least 1 minute when W1 is energized. The induced-draft motor is then energized and the burner ignition sequence begins. The indoor (evaporator) fan motor (IFM) is energized 45 seconds after a flame is ignited and the damper moves to the minimum position. On units equipped for two stages of heat, when additional heat is needed, W2 is energized and the high-fire solenoid on the main gas valve (MGV) is energized. When the thermostat is satisfied and W1 is deenergized, the IFM stops after a 45 second time-off delay. The economizer damper then moves to the fully closed position. When using continuous fan, the damper will remain in the minimum position.

Heating, Units With Economizer (579F180-300) — Outdoor-air damper stays at VENT position while evaporator fan is operating. Refer to Heating, units without economizer section on page 63 for remainder of operating sequence.

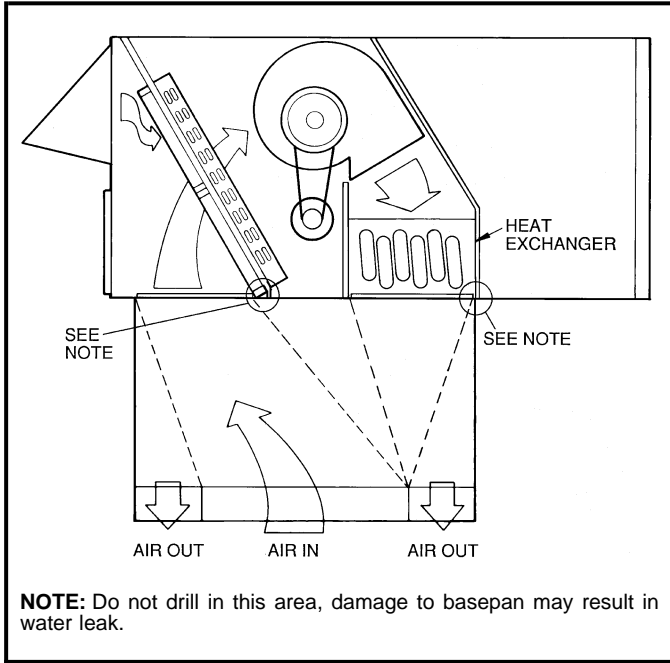
APPLICATION DATA

- DUCTWORK (580D036-150)** — Secure vertical discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit, or field-supplied flanges can be attached to horizontal discharge openings and all ductwork attached to flanges.
- DUCTWORK (579F180-300)** — Ductwork should be attached to the curb on all units. Interior installation may proceed before unit is set in place on roof. If ductwork will be attached to the unit, do not drill in condensate drain pan area — leaks may result. See figures on page 66 for information on field-installed concentric ductwork when applicable.
- TO CONVERT DURABLADE ECONOMIZER FROM VERTICAL DISCHARGE TO HORIZONTAL DISCHARGE (580D036-150):**
 - Remove economizer to gain access to return duct opening.
 - Move the horizontal discharge duct opening covers to the vertical discharge openings.
 - Rotate economizer 90 degrees (until the economizer motor faces the condenser section).
 - Rotate the barometric relief damper 90 degrees (economizer only).
 - Install block-off plate over the opening on the access panel.

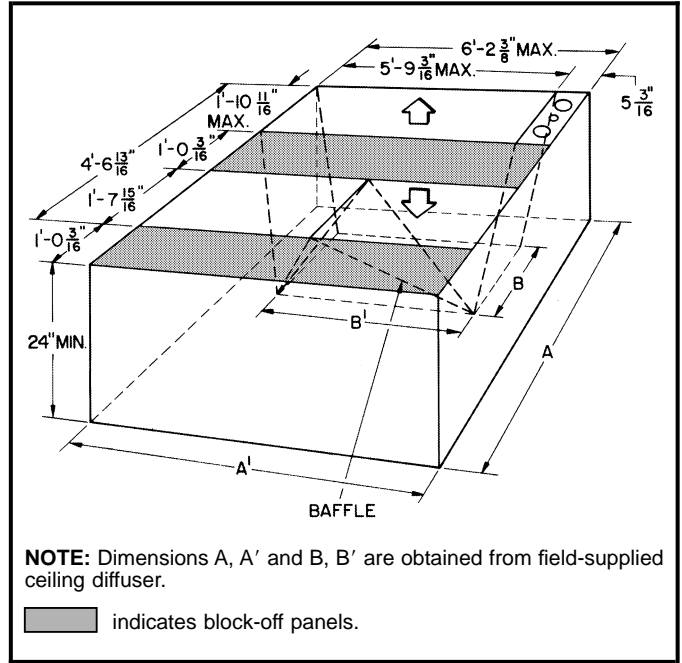
NOTE: Parablade economizer is for vertical discharge units only.
- THRU-THE-CURB SERVICE CONNECTIONS (579F180-300)** — Roof curb connections allow field power wires, control wires, and gas supply to enter through the roof curb opening.
- THRU-THE-BOTTOM SERVICE CONNECTIONS (580D036-150)** — An accessory kit is required for proper installation of thru-the-bottom connections.
- THERMOSTAT** — Use of 2-stage cooling thermostat is recommended for all units. A 2-stage cooling thermostat is required on units with accessory economizer to provide integrated cooling.
- HEATING-TO-COOLING CHANGEOVER** — All units are automatic changeover from heating to cooling when automatic changeover thermostat and subbase are used.
- AIRFLOW** — Units are draw-thru on cooling and blow-thru on heating.
- MAXIMUM AIRFLOW** — To minimize the possibility of condensate blow-off from evaporator, airflow through units should not exceed 500 cfm/ton on size 036-240 units, and 11,250 cfm on size 028 units.
- MINIMUM AIRFLOW** — The minimum airflow for cooling is 300 cfm/ton on size 036-240 units and 280 cfm/ton on size 300 units. Refer to Heating Capacities and Efficiencies table on page 7 for minimum airflow cfm for heating on size 180-300 units.
- MINIMUM AMBIENT COOLING OPERATION TEMPERATURE (580D036-150)** — The cooling temperature for size 036-150 standard units is 25 F. With accessory Motor-master® control units can operate at outdoor temperatures down to -20 F.
- MINIMUM AMBIENT COOLING OPERATION TEMPERATURE (579F180-300)** — Units are designed to operate at outdoor temperatures down to 40 F for 579F180, 35 F for 579F216 25 F for 579F240, and 48 F for 579F300. To operate at lower outdoor-air temperatures, see Price Pages or contact your local representative for appropriate accessory combinations for specific applications.
- MAXIMUM OPERATING OUTDOOR-AIR TEMPERATURE** — For cooling, this temperature is 115 F on size 036-180 units, 125 F on size 216-300 units.
- HIGH ALTITUDE** — A change to the gas orifice may be required at high altitudes. Refer to Altitude Compensation charts on pages 53 and 54.
- MINIMUM TEMPERATURE** — Air entering the heat exchanger in heating must be a minimum of 50 F continuous and 45 F intermittent.
- INTERNAL UNIT DESIGN** — Due to the internal unit design (draw-thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Physical Data table and the notes following each Fan Performance table can be utilized with extreme confidence.

Using motors with the values listed in the Physical and Fan Performance Data tables *will not* result in nuisance tripping or premature motor failure. The unit warranty will not be affected.

APPLICATION DATA (cont)



**Concentric Duct Air Distribution
579F180-300 Only**



**Concentric Duct Details
579F180-300 Only**

**PACKAGED ROOFTOP ELECTRIC COOLING UNIT
WITH GAS HEAT — CONSTANT VOLUME APPLICATION****HVAC GUIDE SPECIFICATIONS**

SIZE RANGE: **3 to 12½ TONS, NOMINAL (COOLING)
72,000 TO 250,000 BTUH, NOMINAL
(INPUT HEATING)**

MODEL NUMBER: **580D**

Part 1 — General**1.01 SYSTEM DESCRIPTION**

Outdoor rooftop mounted, electrically-controlled heating and cooling unit utilizing a hermetic compressor(s) for cooling duty and gas combustion for heating duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with ARI Standards 210/240 or 360 and 270. Designed in accordance with UL Standard 1995.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision.
- C. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL listed and certified under Canadian standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- G. Unit shall be designed in accordance with ISO 9001, and shall be manufactured in a facility registered to ISO 9002/BS5750, Part 2.
- H. Each 580D unit is subjected to completely automated run testing on the assembly line. Each unit contains a factory-supplied printout indicating tested pressures, amperages, data, and inspectors; providing certification of the unit status at the time of manufacture.

1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products**2.01 EQUIPMENT (STANDARD)****A. General:**

Factory assembled, single-piece heating and cooling unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22), and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a prepainted baked enamel finish on all externally exposed surfaces.
2. Evaporator fan compartment interior cabinet surfaces shall be insulated with a minimum ½-in. thick, flexible fiberglass insulation, coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
3. Cabinet panels shall be easily removable for servicing.

4. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
5. Unit shall have a factory-installed, sloped condensate drain pan made of a non-corrosive material, providing a minimum ¾-in. connection with both vertical and horizontal drains, and shall comply with ASHRAE Standard 62.
6. Unit shall have a factory-installed filter access panel to provide filter access with tool-less removal.
7. Unit shall have standard thru-the-bottom power connection capability.

C. Fans:**1. Evaporator Fan:**

- a. Fan shall be direct or belt driven as shown on the equipment drawings. Belt drive shall include an adjustable-pitch motor pulley.
 - b. Fan wheel shall be double-inlet type with forward-curved blades.
 - c. Bearings shall be sealed, permanently lubricated ball-bearing type for longer life and lower maintenance.
2. Evaporator fan shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.
 3. Condenser fan shall be of the direct-driven propeller type and shall discharge air vertically.
 4. Condenser fan shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.
 5. Induced-draft blower shall be of the direct-driven, single inlet, forward-curved centrifugal type, made from steel with a corrosion-resistant finish and shall be dynamically balanced.

D. Compressor(s):

1. Fully hermetic type, internally protected.
2. Factory spring-shock mounted and internally spring mounted for vibration isolation.
3. On independent mounting circuits (090-150).

E. Coils:

1. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to copper tubes with all joints brazed.
2. Tube sheet openings shall be belled to prevent tube wear.
3. Evaporator coil shall be of the face-split design which proves effective in removing additional moisture from the supply air.

F. Heating Section:

1. Induced-draft combustion type with energy saving direct-spark ignition system and redundant main gas valve.
2. The heat exchanger shall be of the tubular-section type constructed of a minimum of 20-gage steel coated with a nominal 1.2 mil aluminum-silicone alloy for corrosion resistance.
3. Burners shall be of the in-shot type constructed of aluminum-coated steel.
4. All gas piping shall enter the unit cabinet at a single location.

5. The integrated gas controller (IGC) board shall include gas heat operation fault notification using an LED (light-emitting diode).
 6. Unit shall be equipped with anti-cycle protection with one short cycle on unit flame rollout switch or 4 continuous short cycles on the high-temperature limit switch. Fault indication shall be made using an LED.
 7. The IGC board shall contain algorithms that modify evaporator-fan operation to prevent future cycling on high-temperature limit switch.
 8. The LED shall be visible without removal of control box access panel.
- G. Refrigerant Components:
Refrigerant circuit components shall include:
1. Fixed orifice feed system.
 2. Refrigerant strainer.
 3. Service gage connections on suction, discharge, and liquid lines.
- H. Filter Section:
1. Standard filter section shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
 2. Filter face velocity shall not exceed 320 fpm at nominal airflows.
 3. Filter section should use only one size filter.
 4. Filters shall be accessible through an access panel with "no-tool" removal.
- I. Controls and Safeties:
1. Unit Controls:
Unit shall be complete with self-contained low-voltage control circuit protected by an auto-reset device.
 2. Safeties:
 - a. Unit shall incorporate compressor overtemperature and overcurrent safety devices to shut off compressor.
 - b. Heating section shall be provided with the following minimum protections:
 - 1) High-temperature limit switch.
 - 2) Induced-draft motor speed sensor.
 - 3) Flame rollout switch.
 - 4) Flame proving controls.
- J. Operating Characteristics:
1. Unit shall be capable of starting and running at 115 F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/240 or 360.
 2. Compressor with standard controls shall be capable of operation down to 25 F ambient outdoor temperature.
- K. Electrical Requirements:
All unit power wiring shall enter unit cabinet at a single factory-predrilled location.
- L. Motors:
1. Compressor motors shall be cooled by refrigerant gas passing through motor windings and shall have line break thermal and current overload protection.
 2. Evaporator-fan motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.
 3. Totally enclosed condenser-fan motor shall have permanently lubricated bearings, and inherent automatic-reset thermal overload protection.
 4. Induced-draft motor shall have permanently lubricated sealed bearings and inherent automatic-reset thermal overload protection.
- M. Special Features:
Certain features are not applicable when the features designated * are specified. For assistance in amending the specifications, contact your local sales office.
1. Roof Curbs (Horizontal and Vertical):
 - a. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
 - b. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
 - * 2. Integrated Economizers:
 - a. Integrated integral modulating type capable of simultaneous economizer and compressor operation.
 - b. Includes all hardware and controls to provide cooling with outdoor air.
 - c. Equipped with low-leakage dampers, not to exceed 3% leakage at 1 in. wg pressure differential (variable sliding plate economizer only) or parallel blade design.
 - d. Capable of introducing up to 100% outdoor air.
 - e. Parallel opposed blade economizer shall be equipped with a barometric relief damper with up to 30% of return air (036-072) or 45% of return air (090-150) relief. The variable sliding plate economizer is equipped with 30% of return-air relief (036-150).
 - f. Designed to close damper during loss-of-power situations with emergency power supply (variable sliding plate economizer) or spring return built into motor (parallel opposed blade economizer).
 - g. Dry bulb outdoor-air thermostat (variable sliding plate economizer) or enthalpy (parallel opposed blade economizer) protection shall be provided as standard.
 - h. Variable sliding plate economizer is a guillotine-style damper, and the parallel opposed blade economizer is a parallel blade design.
 - i. Parallel opposed blade economizer shall provide control of internal building pressure through its inherent power exhaust function.
 - j. Parallel opposed blade economizer shall be capable of exhausting up to 100% outdoor air.
NOTE: Parallel opposed blade type economizer shall also be available with power exhaust.
 - * 3. Manual Outdoor-Air Damper:
Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 50% outdoor air for year round ventilation.
 - * 4. 100% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper and motor. Admits up to 100% outdoor air.

GUIDE SPECIFICATIONS — 580D036-150 (cont)

- b. Damper shall close upon indoor (evaporator) fan shutoff.
- c. Designed to close damper during loss of power situations.
- d. Equipped with 15% barometric relief damper.
- * 5. 25% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper and motor. Admits up to 25% outdoor air.
 - b. Damper shall close upon indoor (evaporator) fan shutoff.
 - c. Designed to close damper during loss of power situations.
 - d. Equipped with barometric relief damper.
- * 6. Solid-State Enthalpy Control:
 - a. For use with variable sliding plate economizer package only.
 - b. Capable of sensing outdoor-air heat content (temperature and humidity) and control economizer cut-in point to have minimum heat content air passing over the evaporator coil for most efficient system operation.
- * 7. Differential Enthalpy Sensor:
 - a. For use with economizer only.
 - b. Capable of comparing heat content (temperature and humidity) of outdoor air and return air and controlling economizer cut-in point at the most economical level.
- * 8. Head Pressure Control Package:

Consists of solid-state control and condenser-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling.
- 9. LP (Liquid Propane) Gas Conversion Kit:

Package shall contain all the necessary hardware and instructions to convert a standard natural gas unit for use with liquefied propane gas.
- * 10. Commercial Programmable Thermostat:

Seven-day commercial programmable thermostat shall be capable of auto-changeover, F/C, 3-stage heating and 2-stage cabling. Thermostat shall also be equipped with complete system status display.
- * 11. Flue Shield:

Provides protection from the hot sides of the gas flue hood.
- * 12. Thermostat and Subbase:

Provides staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.
- * 13. Condenser Coil Hail Guard Assembly:

Hail guard shall protect against damage from hail and flying debris.
- 14. NO_x Reduction Kit:

Package shall contain all necessary hardware and instructions to convert a standard natural gas unit to reduce the nitrous oxide (NO_x) emissions to a level of 40 nanograms/joule or less for unit sizes 036-060 being installed in California Air Quality Management Districts.
- 15. Controls Upgrade Kit:

Kit shall contain high-pressure, loss-of-charge/low-pressure, and freeze protection switches. It shall mount on factory-installed Schrader fittings.
- 16. Alternate Motor(s) and/or Drive(s) (036-060, 090, 120, 150):

Alternate motor(s) and drive(s) shall be factory-installed to provide additional performance range.
- 17. Flue Discharge Deflector:

Flue discharge deflector directs unit exhaust vertically instead of horizontally.
- * 18. Condenser Coil Grille:

The grille protects the condenser coil from damage by large objects without increasing unit clearances.
- 19. Compressor Cycle Delay:

Unit shall be prevented from restarting for minimum of 5 min. after shutdown.
- 20. Thru-the-Bottom Service Connectors:

Kit shall provide connectors to permit gas and electrical connections to be brought to the unit through the basepan.
- 21. Fan/Filter Status Switch:

Provides status of indoor (evaporator) fan (ON/OFF) or filter (CLEAN/DIRTY). Status shall be displayed over communication bus when used with direct digital controls or with an indicator light at the thermostat.

PACKAGED ROOFTOP ELECTRIC COOLING UNIT WITH GAS HEAT — CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: **15 TO 25 TONS, NOMINAL (COOLING)
172,000 to 360,000 BTUH, NOMINAL
(INPUT HEATING)**

MODEL NUMBER: **579F**

Part 1 — General

1.01 SYSTEM DESCRIPTION

Unit is an outdoor rooftop mounted, electrically controlled heating and cooling unit utilizing a reciprocating semi-hermetic compressor(s) for cooling duty and gas combustion for heating duty. Supply air shall be discharged downward or horizontally (with horizontal supply/return curb adapter assembly), as shown on contract drawings. Standard unit shall include a manual outdoor-air inlet.

1.02 QUALITY ASSURANCE

A. Unit (180-290) shall be rated in accordance with ARI Standards 270 and 360 and all units shall be designed in accordance with UL Standard 1995.

NOTE: The 579F300 is beyond the scope of the ARI certification program.

B. Unit shall be designed to conform to ASHRAE 15.

C. Unit shall be ETL and ETL, Canada tested and certified in accordance with ANSI Z21.47 Standards as a total package.

D. Roof curb shall be designed to conform to NRCA Standards.

E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).

G. Unit shall be manufactured in a facility registered to ISO 9002/BS5750, Part 2.

1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products

2.01 EQUIPMENT (STANDARD)

A. General:

The 579F unit shall be a factory assembled, single-piece heating and cooling unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22), and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a prepainted baked enamel finish.
2. Indoor blower compartment interior surfaces shall be insulated with a minimum 1/2-in. thick, 1 lb density neoprene cooled, fiberglass insulation coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
3. Cabinet panels shall be easily removable for servicing.
4. Filters shall be accessible through an access panel.

5. Holes shall be provided in the base rails for rigging shackles to facilitate overhead rigging.
6. Unit shall have a factory-installed internal condensate drain connection and a sloped condensate pan.

C. Fans:

1. Indoor blower (evaporator fan):
 - a. Fan shall be belt driven. Belt drive shall include an adjustable pulley. The standard fan drive shall have a factory-installed low-medium static pressure fan drive. The alternate fan drive option shall have a factory-installed high static pressure fan drive.
 - b. Fan wheel shall be made from steel with a corrosion resistant finish. It shall be a dynamically balanced, double-inlet type with forward-curved blades.
2. Condenser fans shall be of the direct-driven propeller type, with corrosion-resistant blades riveted to corrosion-resistant steel supports. They shall be dynamically balanced and discharge air upwards.
3. Induced-draft blower shall be of the direct-driven, single inlet, forward-curved, centrifugal type. It shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.

D. Compressor(s):

1. The reciprocating semi-hermetic compressor(s) has factory-installed external spring vibration isolation.
2. Factory-installed crankcase heater prevents refrigerant dilution of oil.
3. The 180 size semi-hermetic compressor shall be equipped with an electric unloader for capacity control. Additional field-supplied unloaders are not recommended on any 180-300 sizes.
4. Compressors shall be on mechanically and electrically independent circuits (216-300 sizes).

E. Coils:

1. Standard evaporator and condenser coils shall have copper or aluminum plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
2. Optional precoated coils shall be coated with a baked-on organic, epoxy, phenolic coating.

F. Heating Section:

1. Induced-draft combustion type with energy saving direct-spark ignition system and redundant main gas valve.
2. The heat exchanger shall be of the tubular-section type constructed of a minimum of 20-gage steel coated with a nominal 1.2 mil aluminum-silicone alloy for corrosion resistance.
3. Burners shall be of the in-shot type constructed of aluminum-coated steel.
4. All gas piping shall enter the unit at a single location.

G. Refrigerant Components:

Refrigerant circuit components shall include:

1. Fixed expansion device with filter driers.
2. Service valve gage and connections on suction, discharge, and liquid lines.
3. Thermostatic expansion valve (size 180) or fixed orifice feed system (sizes 216-300).

H. Filter Section:

Standard filter section shall consist of 2 sizes of factory-installed 2-in. thick throwaway fiberglass filters of commercially available sizes.

I. Controls and Safeties:

1. Unit Controls:

- a. Economizer control (optional)
- b. Capacity control (2-step)
- c. Unit shall be complete with self-contained low-voltage control circuit.

2. Safeties:

- a. Unit shall incorporate a solid-state compressor lockout which provides reset capability at the space thermostat, should any of the following safety devices trip and shut off compressor:
 - 1) Compressor overtemperature, overcurrent.
 - 2) Low-pressure switch.
 - 3) Freezestats (evaporator coil).
 - 4) High-pressure switch.
- b. Supply-air thermostat shall be located in the unit.
- c. Heating section shall be provided with the following minimum protections:
 - 1) High-temperature limit switch.
 - 2) Induced-draft motor speed sensor.
 - 3) Flame rollout switch.
 - 4) Flame proving controls.
 - 5) Redundant gas valve.

J. Operating Characteristics:

- 1. Unit shall be capable of starting and running at 115 F ambient outdoor temperature per maximum load criteria of ARI Standard 360.
- 2. Unit with standard controls will operate in cooling down to an outdoor ambient temperature of 40 F on 579F180 units, to 35 F on 216 units, to 25 F ambient on 240 units, and to 48 F ambient on 300 units.
- 3. Unit shall be provided with fan time delay to prevent cold air delivery.

K. Electrical Requirements:

All unit power wiring shall enter unit cabinet at a single location.

L. Motors:

- 1. All compressor motors shall be of the refrigerant cooled type with thermal and calibrated circuit breaker overload protection.
- 2. All fan motors shall have permanently lubricated, sealed bearings and inherent automatic-reset thermal overload protection or manual reset calibrated circuit breakers.
- 3. All indoor-fan motors 5 hp and larger shall meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.

M. Special Features:

Certain features are not applicable when the features designated * are specified. For assistance in amending the specifications, contact your local sales office.

1. Roof Curbs (Horizontal and Vertical):

- a. Formed of 18-gage galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
- b. Permits installing and securing ductwork to curb prior to mounting unit on the curb.

2. Horizontal Adapter Roof Curb:

Includes factory-assembled adapter and duct and substantially improves evaporator fan static performance.

* 3. Integrated Economizer:

- a. Integrated type capable of simultaneous economizer and compressor operation to provide cooling with outdoor air.
- b. Equipped with low-leakage dampers not to exceed 3% leakage, at 1.0 in. wg pressure differential.
- c. Capable of introducing up to 100% outdoor air.
- d. Equipped with dry-bulb temperature control to govern economizer changeover.
- e. Equipped with a mixed-air sensor that controls the economizer to a 55 F control point.

4. Two-Position Damper:

Two-position damper package shall include single blade damper and motor. Admits up to 25% outdoor air, and shall close upon unit shutoff.

5. Accessory Compressor Cycle Delay:

Compressor shall be prevented from restarting for a minimum of 5 minutes after shutdown.

* 6. Thermostats and Subbases:

To provide staged heating and cooling in addition to automatic (or manual) changeover and fan control.

* 7. Barometric Relief Damper Package:

- a. Package shall include damper, seals, hardware, and hoods to relieve excess internal pressure.
- b. Damper shall close due to gravity upon unit shutdown.

* 8. Power Exhaust:

Package shall include an exhaust (propeller style) fan, ½ Hp 208-230, 460 v (factory-wired for 460 v) motor, and damper for vertical flow units with economizer to control overpressurization of building.

* 9. Head Pressure Control Package:

Consists of an accessory outdoor-air package and a solid-state control with condenser coil temperature sensor for controlling condenser-fan motor speed to maintain condensing temperature between 90 F and 100 F at outdoor ambient temperature down to -20 F.

10. Low-Ambient Kits:

When used, allows units to operate at lower outdoor ambient temperatures. See trade prices for more information.

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- * 11. Enthalpy Sensor:
 - a. For use with economizer only.
 - b. Capable of comparing heat content (temperature and humidity) of outdoor air and indoor air and controlling economizer cut-in point at the most economical level.
NOTE: Two accessory enthalpy sensors are required for differential enthalpy control.
- * 12. Commercial Programmable Thermostat:
Seven-day commercial programmable thermostat shall be capable of auto-changeover, F/C, 3-stage heating and 2-stage cooling. Thermostat shall also be equipped with complete system status display.
- 13. Winter Start Time-Delay Relay:
Used in conjunction with the accessory low-ambient kit or head pressure control device, permits operation in cooling at lower outdoor ambient temperatures. See price pages for more information.
- 14. Liquid Propane Conversion Kit:
Kit shall contain all the necessary hardware and instructions to convert a standard natural gas unit for use with liquified propane gas.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

