

United Day Care Center HVAC Project Addendum No. 001

10/14/2020

This addendum is issued as part of the specifications and contract documents entitled:

CDBG FY2020 UNITED DAY CARE CENTER - HVAC

A. GENERAL

1. Attached find sign in sheet for pre-bid meeting.
2. Attached find the general notes for pre-bid meeting.
3. Attached find existing RTU information.

B. CHANGES TO SPECIFICATIONS

1. No change.

C. CHANGES TO BID

1. No change.

PLEASE ACKNOWLEDGE ALL ADDENDUMS ON YOUR BID FORM

Mandatory Pre-Bid Conference – General Notes

General

- Documents comprising bid: Article 3.4 in Instructions to Bidders
 - Bid Sheet, properly executed and completed
 - Request for Sub-Contractor(s), if any
 - Non-Collusion Affidavit, notarized
 - Certificate of Non-Segregated Facilities
 - Certification regarding debarment, suspension, and other responsibility matters
 - Section 3 Business Concern Contractor Verification
 - Section 3 Worksheet
 - State Board of Accounts form 96 (rev. 2000)
 - A bid of \$75,000.00 or more shall be accompanied by 5% Bid Security
 - Certificate of Insurance
 - Proof of Indiana Secretary of State filing and good standing
 - Employer Identification Number
 - DUNS Number
- Bidder to Examine Site
 - No change order on discoverable issues
- No bid bond
- Debarment (sam.gov)
- Addendum will be issued up to 3pm EST, Friday, October 16, 2020
- Davis Bacon wage schedule included.
 - Wage Interviews
- Contact Brad King 48 hours in advance of starting work.
- 30 days to complete work.
- Email Brad King for any delays due to weather or other unforeseen events.

*Send & Post to website additional information
on units.*

BK 10/14/2020



Payne
Air Conditioning

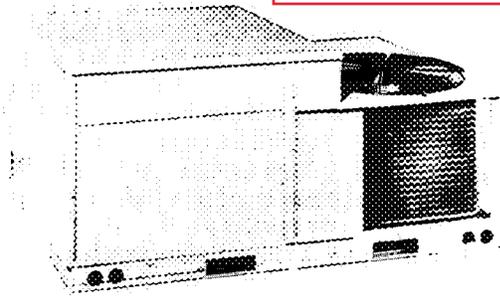
**COMMERCIAL
SINGLE PACKAGE ROOFTOP
GAS HEATING/ELECTRIC COOLING UNITS**

Model 579F/580D

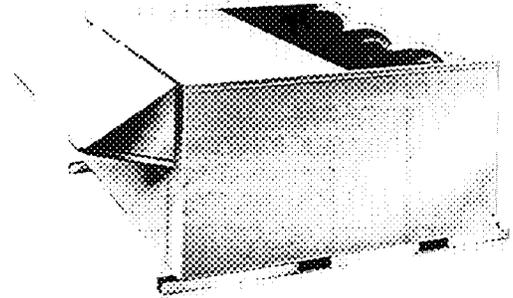
Sizes 036-300

3 to 25 Tons

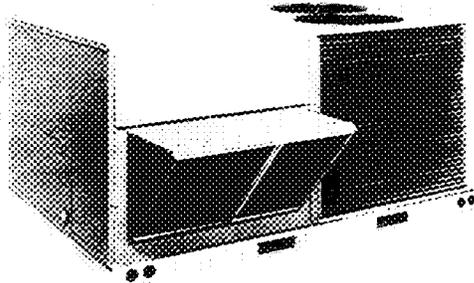
The model # 581KP05R150A1WOAC
Serial #: 2119C88872



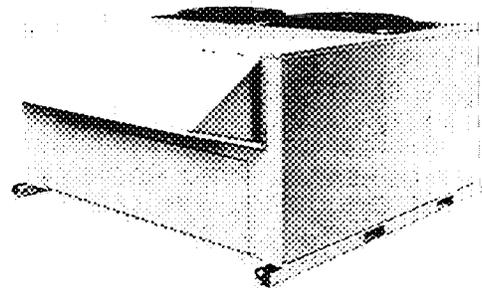
Model 580D036-072



Model 579F180,216



Model 580D090-150



Model 579F240,300

DESCRIPTION

The 579/580 gas heating/electric cooling rooftop units are designed to deliver optimum performance and reliability in a commercial rooftop unit.

The 3 to 25 ton units are one-piece gas heating, electric cooling units that are prewired and precharged with R-22 at the factory, making jobsite installation easy. Every unit is factory run-tested prior to shipment to ensure reliable installation.

The 579/580 units are designed to be field-convertible from vertical supply/return to horizontal supply/return (180-300 units require an accessory horizontal roof curb or horizontal adapter), making them easily adaptable to a wide variety of new construction and replacement applications. For vertical supply/return jobs, ductwork can be connected directly to the roof curb, allowing ductwork to be completed before unit is available for installation. All units include easily replaceable internal filters.

The 579/580 units are available in a range of heating sizes and voltage options to meet most job requirements. Low-voltage terminal blocks make wiring connections quick and simple.

All units are listed with either UL (Underwriters' Laboratories) or ETL Laboratories and with CSA (Canadian Standards Association), UL Canada, or Warnock Hersey. All units are ARI (Air-Conditioning & Refrigeration Institute) approved (except the 300 unit, which is beyond the scope of the ARI certification program) and comply with ASHRAE Standard 62 (American Society of Heating, Refrigeration, and Air Conditioning Engineers).

STANDARD FEATURES

EFFICIENT DESIGN means cooling and heating energy savings. Standard units have EERs (energy efficiency ratios) of up to 9.2 and SEERs (seasonal energy efficiency ratios) of 10.0 (036-060 belt drive units only). The 580D units have an AFUE (Annual Fuel Utilization Efficiency) rating of 80.0% with a California Seasonal Efficiency rate of 75.8% or better. All 579/580 units have a steady-state efficiency of 80.0%.

THE FACTORY-ASSEMBLED PACKAGE is a compact, fully self-contained electric cooling/gas heating unit that is prewired, prepiped, and precharged for minimum installation expense.

UNITS MAY BE CONVERTED TO HORIZONTAL DISCHARGE in the field. The units can be modified at the jobsite to fit a variety of applications (180-300 units require an accessory horizontal supply/return roof curb or a horizontal supply/return adapter).

INTERNAL RETURN-AIR FILTERS are provided. Two-in. throwaway filters are provided standard on all units, and can be easily accessed through the tool-less filter access panels. There is no need to field-fabricate filter racks or install external filter accessories.

COMPRESSOR PROTECTION is assured. The 036-150 units have an internal pressure relief valve and line break (current overload) protections, and the 180-300 units have high- and low-pressure protection external to the compressor. These protections prohibit operation under abnormal unit conditions.

DUAL COMPRESSORS AND DUAL REFRIGERATION CIRCUITS (090-150 and 216-300 units) are provided. Two compressors, each on its own independent circuit, provide standby reliability and high operating efficiency.

POWER, CONTROL, AND GAS CONNECTIONS are made on the same side of the unit to simplify installation, and the 036-150 units have thru-the-bottom power connection capability.

INDUCED-DRAFT COMBUSTION provides the exact amount of combustion air for the most efficient operation. Induced-draft combustion also eliminates the flue stack, giving the unit a low profile appearance. The draw-through design ensures safe operation under any conditions.

DIRECT-SPARK IGNITION SYSTEM (036-150) saves operating expense by eliminating inefficient standing pilot ignition and unnecessary service calls.

INTERMITTENT SPARK IGNITION (180-300) eliminates the standing pilot flame that consumes gas when the furnace is shut down. The pilot is ignited only when the thermostat calls for heat.

TUBULAR U-SHAPED CELL design of the heat exchanger provides high-efficiency heating operation. The hot gases make 2 passes over the supply-air path to enhance efficiency. In addition, the 036-150 units have a dimpled heat exchanger to maximize heat transfer.

POSITIVE-PRESSURE MECHANICAL FLUE GAS VENTING is unaffected by adverse wind conditions.

FURNACE SAFETY CONTROLS shut off gas if there is a burner (036-150) or pilot (180-300) outage, combustion-air failure, overheating of heat exchangers, or flame rollout.

TWO-STAGE HEATING WITH 2 INDEPENDENT GAS CONTROL SYSTEMS (180-300 units) minimizes heating costs. These independent gas control systems make single-stage heating possible if one stage fails.

NEW TOOL-LESS FILTER ACCESS PANEL provides easy access to filters. The new panel provides additional access space, permitting easy filter replacement in the unit, even with an outdoor-air device mounted in a horizontal position.

INTEGRATED GAS UNIT CONTROLLER BOARD on the 036-150 units makes the control of gas heating rooftop units more reliable, safe, and efficient. The board provides timed control of evaporator-fan functions and ignites the burners. The board also simplifies troubleshooting through its built-in diagnostic function which provides system status and fault notification via a light-emitting diode (LED). In addition, the board provides anti-cycle protection for gas heat operation.

ADVANCED DESIGN of evaporator and condenser coils provides optimum heat transfer and cooling efficiency. Coils are computer-designed with advanced heat transfer surfaces, and are fabricated of copper tubing with aluminum fins.

COMMERCIAL STRENGTH BASE RAILS (full-perimeter on 036-150 units) with built-in rigging capability permit easy rigging of unit.

WEATHER-RESISTANT CABINET is built for durability in any climate. The cabinet is made of pre-painted, galvanized steel for long life and high-quality appearance.

LOW-AMBIENT OPERATION is provided standard on most units. The 036-150 units and the 240 unit operate in cooling down to 25 F as shipped from the factory. The 180 and 216 units operate down to 40 F, and the 300 unit operates down to 48 F. Low-ambient kits are not required for most applications.

HERMETICALLY-SEALED COMPRESSORS on the 036-150, 216, and 240 units prevent contamination to help promote longer life and dependable operation. The 180 and 300 units have semi-hermetic compressors.

COMPRESSOR VIBRATION ISOLATION MOUNTING on all units eliminates noise-causing vibration transmission into the conditioned space.

CRANKCASE HEATERS on the 180 and 300 units keep the oil free of refrigerant during the off cycle for added compressor life and reliability. Crankcase heaters are not required on 036-150 and 216 and 240 units due to high-side crankcase design (072, 150, 216, 240) and low refrigerant charge levels (036-150).

STANDARD WARRANTIES include 1 year on parts (no labor), with an additional 4 years on compressors (036-180 units) and heat exchangers (all units). Additional extended warranties are available.

3-5 TON UNITS WEIGH LESS THAN 500 LB as standard from the factory. This can eliminate the need for structural engineering approval on replacement jobs.

BELT-DRIVEN EVAPORATOR-FAN MOTORS are standard on all 6-25 ton units and allow adjustment of the available static pressure to meet the job requirements of even the most demanding applications. Belt-driven evaporator-fan motors are available on 3-5 ton units as a factory-installed option.

NON-CORROSIVE, SLOPED, CONDENSATE DRAIN 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 also require an external, field-supplied P-trap.

CONTENTS

	Page
Model Description	5
Heating Capacities and Efficiencies	5
Capacity Ratings	6
Dimensional Drawings	7-14
Specifications	15-20
Selection Procedure	21
Gross Cooling Capacities	22-29
Air Delivery	30-48
Electrical Data	51,52
Operating Sequence	52,53
Typical Wiring Schematic	54,55
Typical Installation	56,57
Application Data	58-62
Engineers' Specification Guide	63,64

FACTORY-INSTALLED OPTIONS DESCRIPTION AND USAGE

Varislide™ and Standard Integrated Economizer — The economizer will allow a fixed percentage (between 0 and 100%) outdoor ventilation air into the unit any time the evaporator fan is running. A dry-bulb thermostat placed outdoors will bring in 100% outdoor air whenever the temperature of the outdoor air alone will adequately provide cooling. If the economizer alone cannot provide enough cooling, then simultaneous economizer and compressor operation will provide the most economical operation.

SUGGESTED USE:

- To allow a fixed percentage of outdoor air any time the evaporator fan is on, or operates in economizer mode if outdoor air can provide cooling, but closes when the evaporator fan is off to prevent cold backdrafts and wasted energy.
- To reduce energy usage. Use whenever the number of hours of operation at below 55 F is significant.
- The damper may be used on either vertical or horizontal applications.

Parablade Economizer (036-150) — The unique design of the Parablade economizer saves energy while providing economical and reliable cooling. The new design uses a parallel-opposed blade damper to permit outdoor ventilation air to enter the unit any time the evaporator fan is running. The economizer will permit cooling using 100% outdoor air whenever outdoor air alone will provide adequate cooling. If the economizer alone cannot provide enough cooling, then simultaneous economizer and compressor operations will provide the most economical operation. The economizer also has built-in spring return for reliable close-on-power loss. The Parablade design incorporates standard enthalpy controls.

SUGGESTED USE:

- To allow a fixed percentage of outdoor air on vertical applications any time the evaporator fan is on, or to operate in economizer mode if outdoor air can provide cooling, but

FIELD-INSTALLED ACCESSORY DESCRIPTION AND USAGE

Roof Curbs (Vertical and Horizontal) — Full-perimeter galvanized steel support frame in 14- and 24-in. high designs provides wood nailer to attach roof counter flashing. Insulated basepans in curb are provided to prevent condensation. Ductwork attaches to rails provided in the roof curb. A gasket is provided to form an air- and watertight seal between unit and curb. The gasket meets the standards of the NRCA (National Roofing Contractors' Association).

SUGGESTED USE:

- Rooftop application for vertical discharge.
- Slab-mounted applications when elevation of the unit is necessary.

Horizontal Adapter (180-300) — The adapter is prefabricated, easily field-assembled, and permits full perimeter mounting. The adapter also improves unit static performance by up to 0.6 in wg.

SUGGESTED USE:

- Rooftop application for horizontal discharge on 180-300 units.
- Rooftop applications for horizontal discharge on 180-300 units where high air delivery cfms are required.

Utility Connection Package (036-150) — Connection plates for gas, power, and control wires which attach to the roof curb, allowing the gas, power, and control wires to be routed through the roof curb.

SUGGESTED USE:

- To minimize the number of roof penetrations when using 036-150 units.

NOTE: Utility connection plates are not required on 180-300 units.

Condenser Coil Hail Guard (036-150) — Package consists of a hood and coil grille which attach to the condenser coil.

closes when the evaporator fan is off to prevent cold backdrafts and wasted energy.

- To reduce energy usage. Use whenever the number of hours of operation at below 55 F is significant.

Manual Outdoor-Air Dampers — Package consists of a damper which can be set at 25% (180-300 only) or 50% (036-150 only) outdoor air. The package includes a rainhood and birdscreen.

SUGGESTED USE

- To allow a fixed percentage of outdoor air for ventilation under all conditions.
- The damper may be used on either vertical or horizontal applications.

NOTE: The 25% manual outdoor-air damper will be factory installed whenever the factory-installed economizer is not chosen on the 180-300 units.

Alternate Evaporator-Fan Motors and Drives — Alternate motors and/or drives on 036-060, 090, 120, and 150 units allow operation of the evaporator fan at conditions outside the range of the standard factory motor and drive combination.

SUGGESTED USE:

- When higher static/airflow is required to meet job conditions.

Controls Upgrade Kit (036-150) — The controls kit includes high pressure, loss-of-charge/low-pressure, and freeze protection cutout switches. The high-pressure and loss-of-charge/low-pressure switches can be easily added by screwing the switches onto Schrader-type fittings provided on the refrigerant lines.

SUGGESTED USE:

- Kit provides additional protection against system high-pressure, loss-of-charge/low-pressure, and evaporator coil frost build-up for 036-150 units.

NOTE: These switches are standard on the 180-300 units.

SUGGESTED USE:

- To protect the condenser coil from hail and other debris on 036-150 units.
- As an alternate location for field-installed disconnect switch.

Manual Outdoor-Air Dampers (036-150) — See description listed under Factory-Installed Options Description and Usage section above.

NOTE: When an accessory manual outdoor-air damper is ordered for the 036-150 units, the package also contains a panel with a hole in it for easy installation.

Two-Position Damper — Package consists of a low-leak damper assembly and a panel with a hole in it (036-150) for easy installation. The damper will allow either 0, 25%, or 100% (depending on accessory package) outdoor air into the unit any time the evaporator fan is running. When the evaporator fan is off, the damper will be closed.

SUGGESTED USE:

- Allows a fixed percentage of outdoor air any time the evaporator fan is on, but closes when the evaporator fan is off to prevent cold backdrafts and wasted energy.
- The damper may be used on either vertical or horizontal airflow applications.

Varislide and Standard Integrated Economizers — See description(s) listed under Factory-Installed Options Description and Usage section above.

NOTES:

1. When an accessory Varislide economizer is ordered for the 036-150 units, the package also contains a panel with a hole in it for easy installation.
2. The Parablade economizer is not available as an accessory. It is factory-installed only.

FIELD-INSTALLED ACCESSORY DESCRIPTION AND USAGE (cont)

LP (Liquid Propane) Kit (036-150) — Kit consists of gas orifices to convert the unit for use with LP gas. No gas valve modification is required.

SUGGESTED USE:

- When natural gas cannot be obtained for 036-150 units.

Thermostats and Subbases — Provide staged cooling and heating, automatic (or manual) changeover, fan control, and indicator light.

SUGGESTED USE:

- To control unit operations.

Solid-State Enthalpy Control (036-150 units) — Package consists of a solid-state control and sensor which is capable of sensing outdoor-air heat content (temperature and humidity) and controlling economizer cut-in point to have minimum heat content air passing over the evaporator coil. The solid-state enthalpy control replaces the standard dry-bulb thermostat in the economizer.

SUGGESTED USE:

- To enhance economizer operation for additional energy savings.

Enthalpy Control Sensor — Package consists of a solid-state sensor to be used in conjunction with the solid-state enthalpy control (036-150 units) or paired with a second enthalpy sensor (180-300 units) for differential enthalpy control. This sensor is mounted on the economizer assembly so that it can sense building return-air temperature. The 2 sensors will determine which combination of outdoor and return air will provide the greatest energy savings.

SUGGESTED USE:

- To enhance economizer operation for maximum energy savings.

NOTE: On 180-300 units, a single sensor may be used for single-sensor, outdoor-air, enthalpy control if desired.

Time Guard® II Device — Package consists of a control to be field wired into the unit controls, and provides a 5-minute delay in compressor operation between cooling cycles.

SUGGESTED USE:

- Prevents compressor short cycling when rapid compressor cycles may be a problem.

Controls Upgrade Kit (036-150) — See description listed under Factory-Installed Options Description and Usage section on page 3.

Head Pressure Control Device — Kit consists of an outdoor-air thermostat that permits adequate head pressure control during cooling operation at low outdoor-ambient temperatures. Refer to Trade Prices for more details.

NOTE: The head pressure control device is not necessary for 036-150 units to allow cooling operation down to 25 F.

SUGGESTED USE:

- When cooling at low-ambient outdoor temperatures is desired.

Low-Ambient Kit — Kit consists of a solid-state control and condenser coil temperature sensor to modulate the condenser-fan motors in order to maintain condenser-coil head pressure for proper cooling operation. Refer to Trade Prices or contact your local representative for more details.

SUGGESTED USE:

- Whenever cooling is required at low outdoor ambient temperatures (as low as -20 F).

NO_x Reduction Kit (036-150) — Consists of baffles to be inserted in the heat exchanger tubes to reduce the level of nitrous oxide emissions to 40 nanograms per joule.

SUGGESTED USE:

- To meet local NO_x emission standards for 036-150 units.

Flue Hood Protector (036-150) — Consists of a sheet metal shield to go over the gas flue exhaust.

SUGGESTED USE:

- If additional protection from hot flue hood is required — for example, if 036-150 unit is slab mounted near a driveway.

Condenser Coil Grille (036-150) — The grille protects the condenser coil from damage and requires no additional clearance.

SUGGESTED USE:

- When 036-150 unit is located in high traffic areas or could be subject to damage.
- As an alternate location for the field-installed disconnect switch (036-072 only).

Barometric Relief Package (180-300) — This package is useful when it is necessary to remove excess pressure from the conditioned space.

NOTE: Optional economizer is required.

SUGGESTED USE:

- When the job requires the ability to relieve internal building pressure on 180-300 units.

Power Exhaust Package (180-300) — This package is useful when it is necessary to remove excess pressure from the conditioned space.

NOTE: Optional economizer is required.

SUGGESTED USE:

- When the job requires the ability to relieve internal building pressure and pressure losses through the return-air ductwork are greater than 0.20 in. wg on 180-300 units.
- When the job requires the ability to move large quantities of air to relieve pressure in the conditioned space on 180-300 units.

Winter Start Time Delay Relay (180-300) — Used in conjunction with accessory low-ambient kit or head pressure control device, permits operation in cooling at lower outdoor ambient temperatures. See Trade Prices for more details.

SUGGESTED USE:

- When job requires the ability to operate in cooling at low outdoor-ambient temperatures.

Thru-The-Bottom Power Connection (036-150) — Used to make power and control connections through the bottom of the unit.

SUGGESTED USE:

- When utility connections need to be made through the bottom of the unit.

Hail Guard (036-150) — This accessory protects the coils against damage from hail and other airborne debris.

SUGGESTED USE:

- Applications where wind may cause damage to the unit coils.

Condenser Coil Salt Spray Protector (036-150) — The condenser coil salt spray protector prevents coil damage due to salt-spray induced corrosion in coastal areas. The protector utilizes a replaceable and washable filter.

SUGGESTED USE:

- Coastal area applications.

Fan/Filter Status Switch — The switch provides the status of the evaporator fan (on or off) or filter (clean or dirty). The status is displayed by an indicator light at the thermostat.

SUGGESTED USE:

- To assist in servicing the unit.

Flue Discharge Deflector (036-150) — This accessory directs unit exhaust vertically instead of horizontally, reducing the space required between units and combustible surfaces and materials.

SUGGESTED USE:

- When there is limited space for locating units.

**MODEL DESCRIPTION
(ODS Model Number)**

<p>579F/580D — Single Package High-Efficiency Gas/Electric Unit</p> <p>Voltage Designation E — 460-3-60 J — 208/230-1-60 P — 208/230-3-60 T — 575-3-60</p> <p>Fuel and Control Type V — Natural Gas/Direct Spark Ignition W — Natural Gas/Electric Relight Pilot</p> <p>Nominal Tons 036 — 3 090 — 7 1/2 180 — 15 048 — 4 102 — 8 1/2 216 — 18 060 — 5 120 — 10 240 — 20 072 — 6 150 — 12 1/2 300 — 25</p>	580D E V 090 180 — B	<p>Evaporator-Fan Motor Options A — Standard Motor and Drive B — Alternate Motor and/or Drive</p> <p>Factory-Installed Outdoor-Air and Other Upgrade Options*</p> <p>Gas Heat Input (Btuh) 074 — 72,000 224 — 224,000 115 — 115,000 231 — 231,000 125 — 125,000 250 — 250,000 150 — 150,000 270 — 270,000 180 — 180,000 485 — 485,000</p>
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LEGEND

ODS — Order Distribution System

*Refer to Trade Price Sheets or contact your local representative for specific information regarding which options are available on which units.

HEATING CAPACITIES AND EFFICIENCIES, 036-150 UNITS

UNIT 580D	HEATING INPUT (Btuh) Stage 2/Stage 1	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE (F)	AFUE (%)	STEADY-STATE EFFICIENCY (%)	CALIFORNIA SEASONAL EFFICIENCY (%)
036 072	—/ 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
048 072	—/ 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
060 072	—/ 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
072 072	—/ 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
102 180	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 with the accessory NO_x reduction kit (036-150).

HEATING CAPACITIES AND EFFICIENCIES, 180-300 UNITS

UNIT 579F	HEATING INPUT (Btuh) Stage 2/Stage 1*	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE (F)	STEADY-STATE EFFICIENCY (%)	MINIMUM HEATING CFM
180 231	231,000/115,500	185,000	25-55	80.0	3057
180 270	270,000/115,500	216,000	25-55	80.0	3570
216 270/240 270	270,000/115,500	216,000	15-45	80.0	4364
240 485	485,000/242,500	388,000	35-65	80.0	5427
300 270	270,000/115,500	216,000	15-45	80.0	4364
300 485	485,000/242,500	388,000	35-65	80.0	5427

*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

CAPACITY RATINGS

UNIT 580D	NOMINAL TONS	STANDARD CFM	NET COOLING CAPACITY (Btuh)	TOTAL kW	SEER*		EER	SOUND RATING (Bels)
					Belt Drive	Direct Drive		
036	3	1200	35,000	4.0	10.0	9.7	8.7	8.2
048	4	1600	47,000	5.5	10.0	9.7	8.6	8.2
060	5	2000	57,000	6.7	10.0	9.7	8.5	8.2

UNIT 580D	NOMINAL TONS	STANDARD CFM	NET COOLING CAPACITY (Btuh)	TOTAL kW	EER	SOUND RATING (Bels)	IPLV
072	6	2100	70,000	7.9	8.9	8.4	†
090	7½	2800	85,000	9.6	8.9	8.6	9.35
102	8½	3000	99,000	11.0	9.0	8.6	9.00
120	10	4000	117,000	13.0	9.0	8.8	9.35
150	12½	4500	145,000	15.8	9.2	8.8	9.65

UNIT 579F	NOMINAL TONS	NET COOLING CAPACITY (Btuh)	TOTAL kW	EER	SOUND RATING (Bels)	IPLV
180	15	178,000	20.7	8.6	8.8	10.70
216	18	190,000	20.9	9.1	8.8	9.50
240	20	220,000	25.9	8.5	9.4	8.30
300	25	268,000	31.2	8.5	9.5	8.40

LEGEND

- ARI** — Air Conditioning and Refrigeration Institute
- Bels** — Sound Levels (1 bel = 10 decibels)
- EER** — Energy Efficiency Ratio
- IPLV** — Integrated Part-Load Values
- SEER** — Seasonal Energy Efficiency Ratio

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

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

NOTES:

Rated in accordance with ARI Standards 210/240-89 or 360-86 (for 150-240 units) and 270-84.

Ratings are net values, reflecting the effects of circulating fan heat.

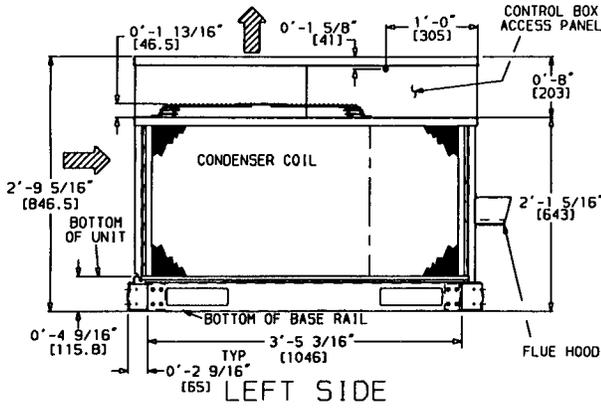
Ratings are based on:



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.

DIMENSIONAL DRAWING — 580D036-072

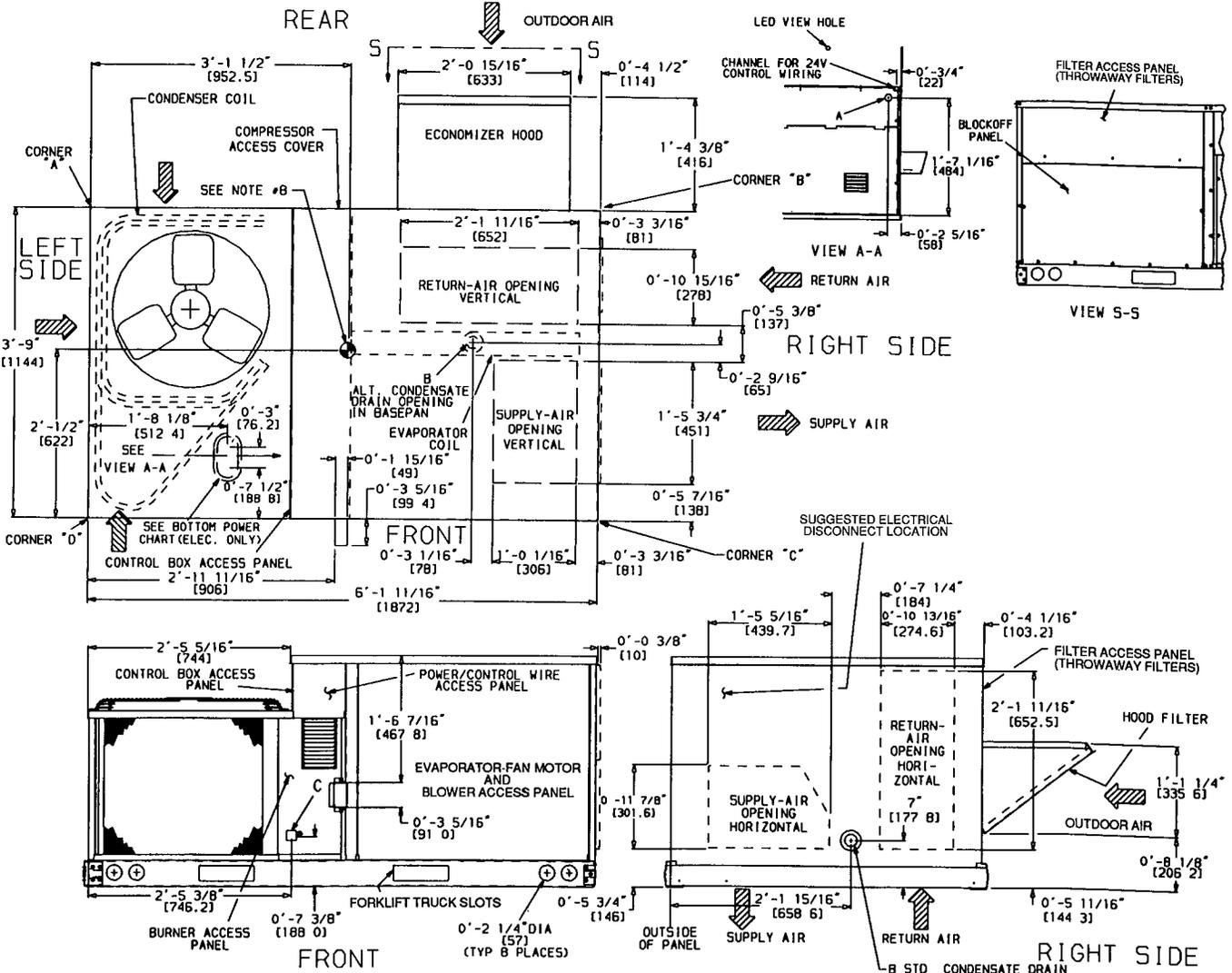


UNIT 580D	STANDARD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg
036	460	209	140	63.5	105	47.6	159	72.1	56	25.4
048	470	213	142	64.4	106	48.1	162	73.5	60	27.2
060	490	222	150	68.0	115	52.2	160	72.6	65	29.5
072	565	256	165	74.8	136	61.7	200	90.7	64	29.0

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")

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



- NOTES:**
- 1 Dimensions in [] are in millimeters
 - 2 Center of gravity
 - 3 Direction of airflow
 - 4 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.
 - 5 Minimum clearance (local codes or jurisdiction may prevail):
 - a Between unit, flue side and combustible surfaces, 36 inches. With accessory flue discharge deflector, this is reduced to 18 inches.
 - b 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.

- c Condenser coil, for proper airflow, 36 in one side, 12 in the other. The side getting the greater clearance is optional.
- d Overhead, 60 in to assure proper condenser fan operation.
- e Between units, control box side, 42 in per NEC (National Electrical Code).
- f Between unit and ungrounded surfaces, control box side, 36 in per NEC.
- g Between unit and block or concrete walls and other grounded surfaces, control box side, 42 in per NEC.
- h Horizontal supply and return end, 0 inches.
- 6 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.
- 7 Units may be installed on combustible floors made from wood or Class A, B, or C roof covering material if set on baserail.
- 8 The vertical center of gravity is 1'-6" [457] up from the bottom of the base rail. Horizontal center of gravity is shown.

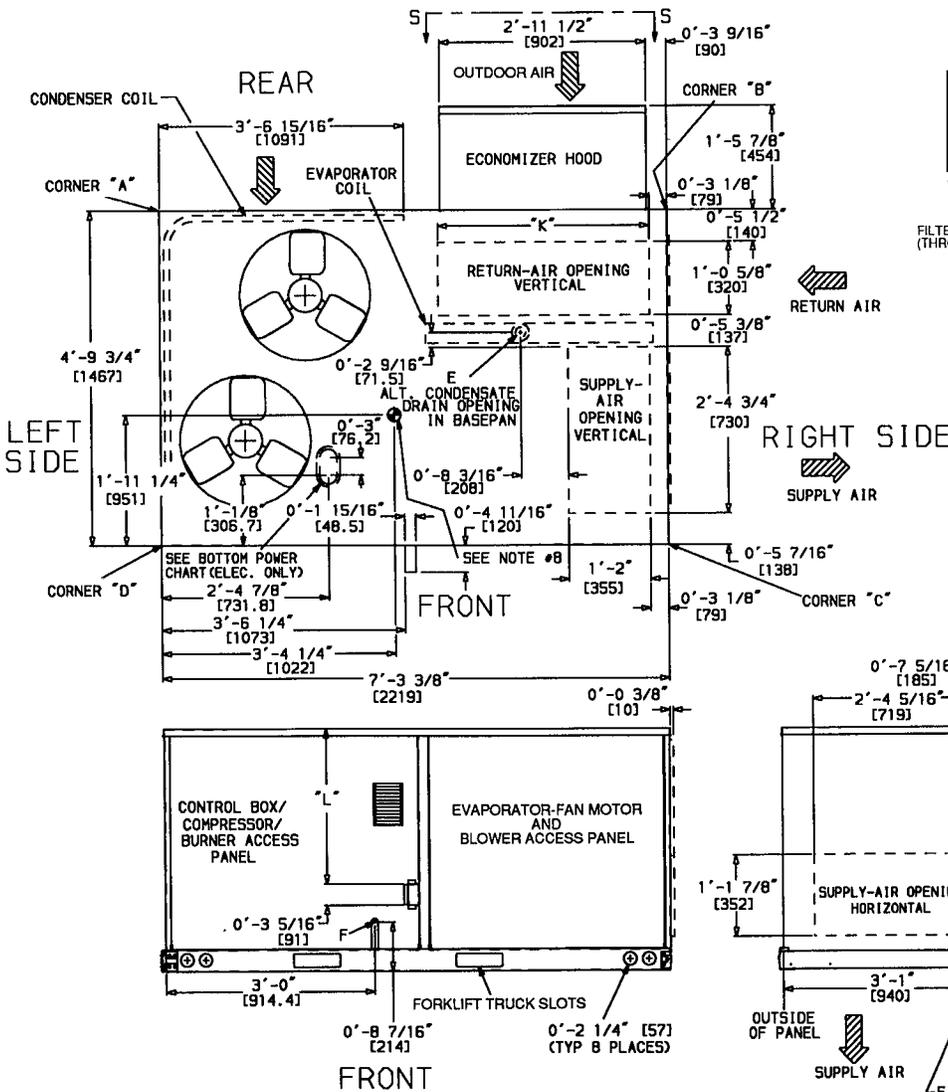
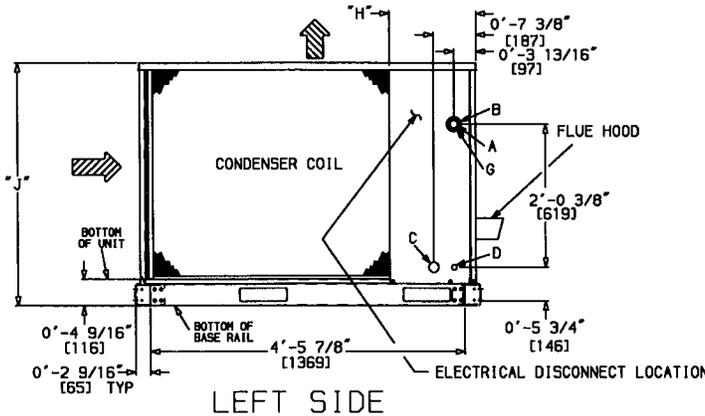
DIMENSIONAL DRAWING — 580D090-150

UNIT 580D	STANDARD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		"H"		"J"		"K"		"L"	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	Ft.-In.	mm	Ft.-In.	mm	Ft.-In.	mm	Ft.-In.	mm
090	870	395	189	86	161	73	239	109	280	127	1-2 ⁷ / ₈	378	3-5 ¹ / ₁₆	1050	2-9 ¹ / ₁₆	856	2- 2 ⁷ / ₁₆	672
102	880	399	191	87	163	74	242	110	284	129	3-3 ⁷ / ₈	1013	3-5 ¹ / ₁₆	1050	2-9 ¹ / ₁₆	856	2- 2 ⁷ / ₁₆	672
120	1035	469	225	102	192	87	285	129	333	151	2-5 ⁷ / ₈	759	4-1 ¹ / ₁₆	1253	3-0 ⁹ / ₁₆	924	2-10 ⁷ / ₁₆	875
150	1050	476	228	103	195	88	289	131	338	153	1-2 ⁷ / ₈	378	4-1 ¹ / ₁₆	1253	3-0 ⁹ / ₁₆	924	2-10 ⁷ / ₁₆	875

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

NOTES:

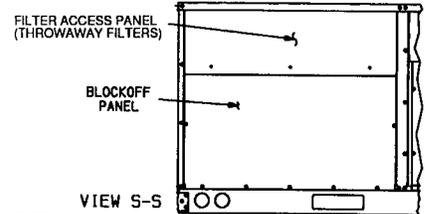
- Dimensions in [] are in millimeters
- Center of gravity
- Direction of airflow
- On vertical discharge units, ductwork to be attached to accessory roof curb only. For horizontal discharge units field-supplied flanges should be attached to horizontal discharge openings, and all ductwork should be attached to the flanges
- Minimum clearance (local codes or jurisdiction may prevail):
 - Between unit (flue side) and combustible surfaces, 48 inches. When using accessory flue discharge deflector, this is reduced to 18 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



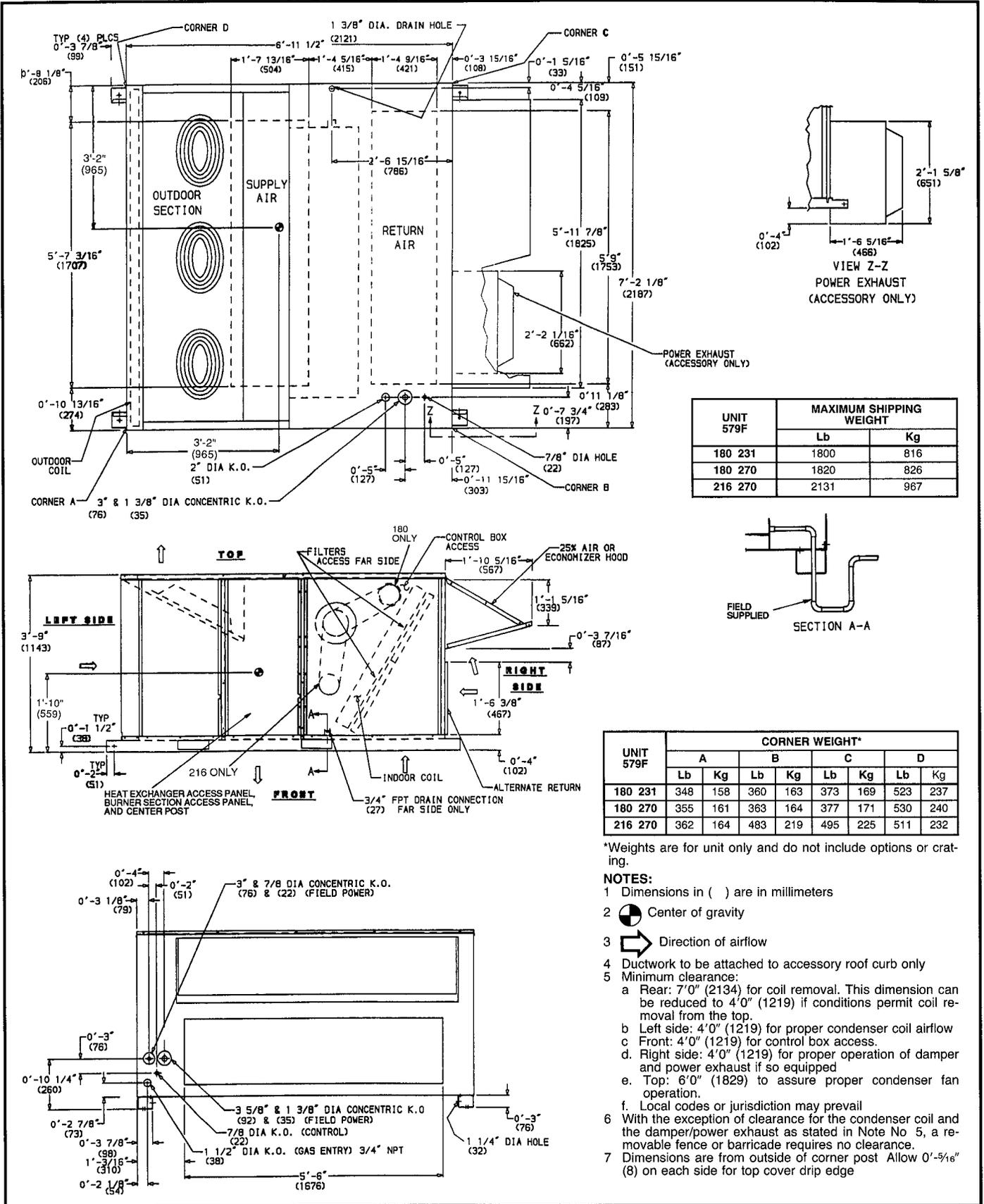
BOTTOM POWER CHART, THESE HOLES REQUIRED FOR USE WITH ACCESSORY PACKAGES — CRBTMPWR001A00 (1/2", 3/4") OR CRBTMPWR002A00 (1/2", 1/4")

THREADED CONDUIT SIZE	WIRE SIZE	REQUIRED HOLE SIZES (MAX)
1/2"	24 V	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



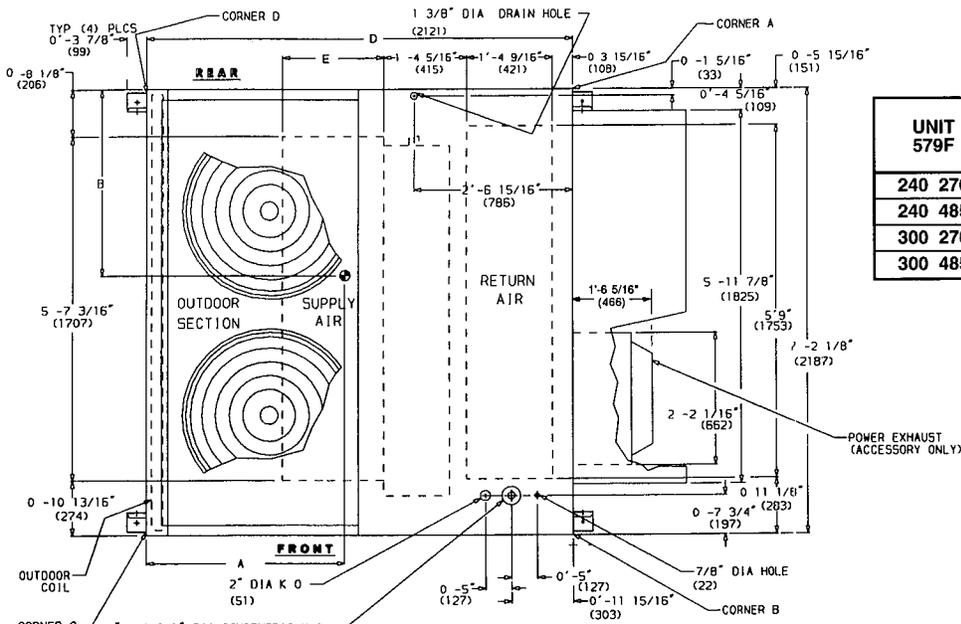
DIMENSIONAL DRAWING – 579F180,216



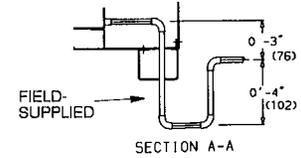
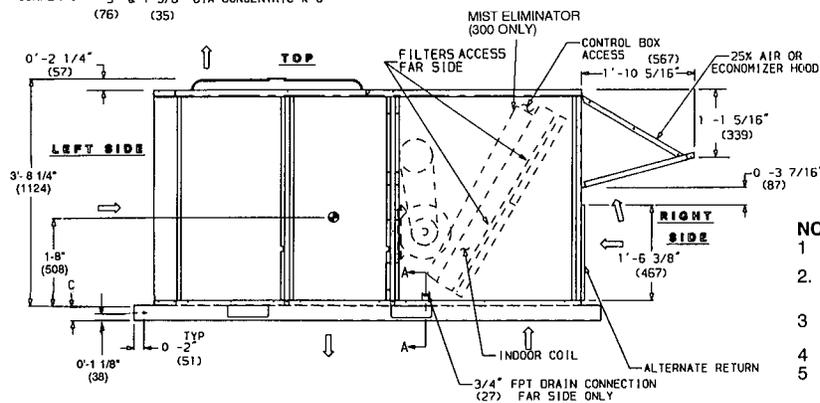
DIMENSIONAL DRAWING — 579F240,300

UNIT 579F	CORNER WEIGHT*								DIMENSIONS									
	A		B		C		D		A		B		C		D		E	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	Ft.-in.	mm	Ft.-in.	mm	Ft.-in.	mm	Ft.-in.	mm	Ft.-in.	mm
240 270	495	225	483	219	362	164	511	232	3-3	991	3-7	1092	0-3	76	6-11½	2121	1-7 ¹³ / ₁₆	504
240 485	431	196	421	191	494	224	685	311	4-2	1270	3-4	1016	0-4½	114	8- 7¼	2623	3-3 ⁵ / ₈	1006
300 270	523	237	541	245	574	260	596	270	3-3	991	3-7	1092	0-3	76	6-11½	2121	1-7 ¹³ / ₁₆	504
300 485	465	211	486	220	725	329	737	334	4-2	1270	3-5	1041	0-4½	114	8- 7¼	2623	3-3 ⁵ / ₈	1006

*Weights are for unit only and do not include options or crating

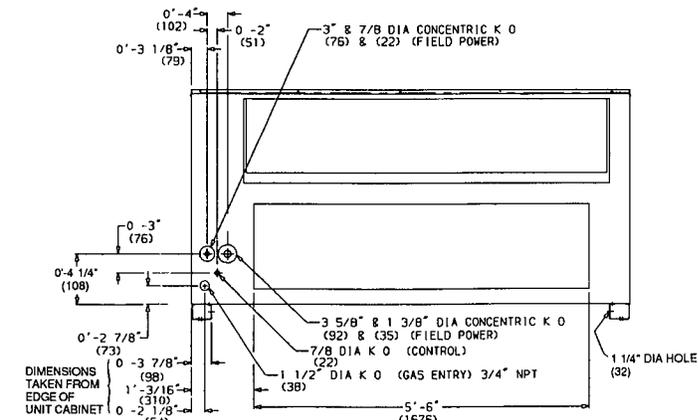


UNIT 579F	MAXIMUM SHIPPING WEIGHT	
	Lb	Kg
240 270	2131	967
240 485	2311	1048
300 270	2514	1140
300 485	2693	1222



NOTES:

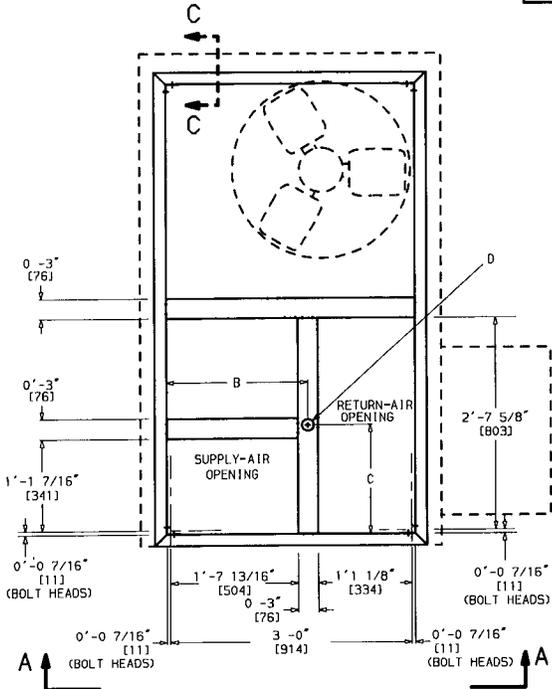
- 1 Dimensions in () are in millimeters
- 2 Center of gravity
- 3 Direction of airflow
- 4 Ductwork to be attached to accessory roof curb only
- 5 Minimum clearance:
 - a Rear: 7'0" (2134) for coil removal. This dimension can be reduced to 4'0" (1219) if conditions permit coil removal from the top
 - b 4'0" (1219) to combustible surfaces, all four sides (includes between units).
 - c Left side: 4'0" (1219) for proper condenser coil airflow.
 - d Front: 4'0" (1219) for control box access.
 - e. Right side: 4'0" (1219) for proper operation of damper and power exhaust (if so equipped)
 - f Top: 6'0" (1829) to assure proper condenser fan operation.
 - g Bottom: 14" (356) to combustible surfaces (when not using curb)
 - h. Control box side: 3'0" (914) to ungrounded surfaces (non-combustible)
 - i. Control box side: 3'6" (1067) to block or concrete walls, or other grounded surfaces
 - j. Local codes or jurisdiction may prevail
- 6 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
- 7 Dimensions are from outside of corner post. Allow 0'-9/16" (8) on each side for top cover drip edge



DIMENSIONAL DRAWING — ROOF CURB, 580D036-072

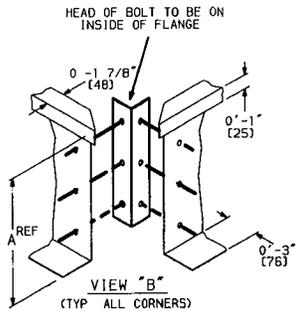
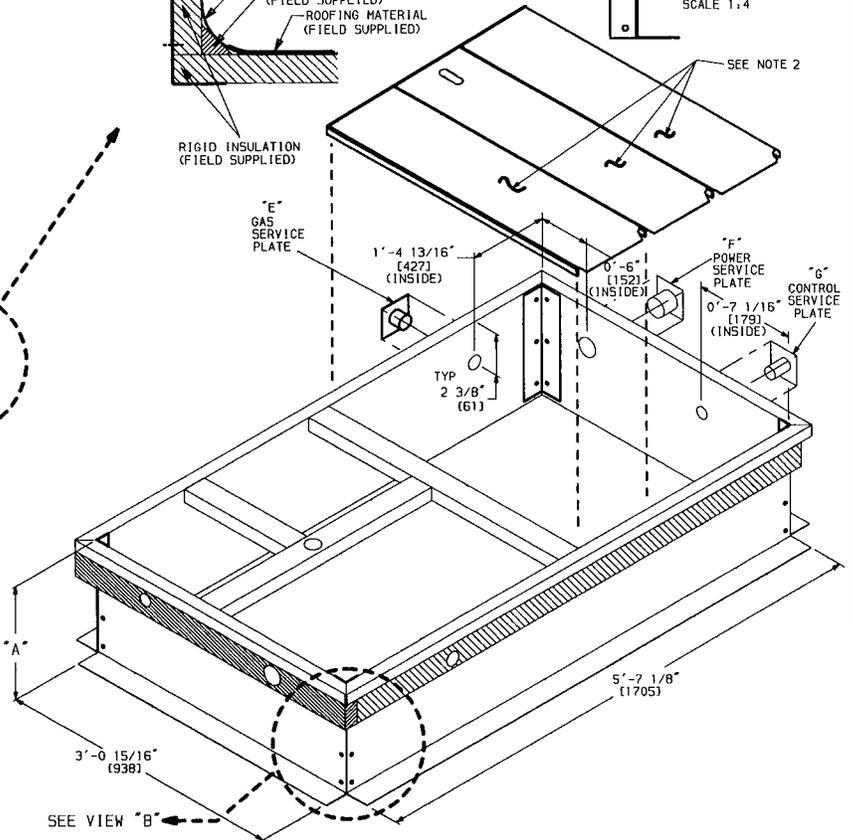
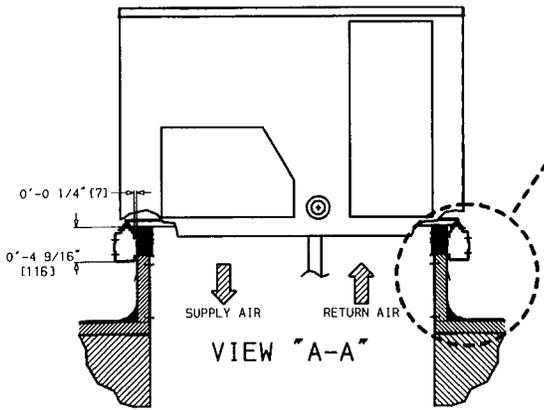
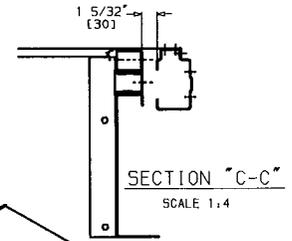
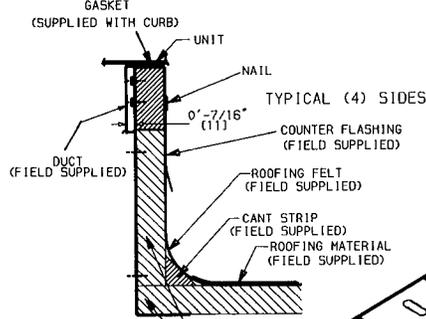
ROOF CURB ACCESSORY	"A"	UNIT SIZE 580D
CRRFCURB001A00	1'-2" [356]	036-072
CRRFCURB002A00	2'-0" [610]	

UNIT SIZE 580D	"B"	"C"	"D" ALT DRAIN HOLE	"E" GAS	"F" POWER	"G" CONTROL	CONNECTOR PACKAGE ACCESSORY
036-072	1-9 1/16" [551]	1-4" [406]	1-3/4" [45]	3/4" NPT	3/4" NPT	3/4" NPT	50DJ900791 (THRU-THE-CURB CONNECTIONS)
				3/4" NPT	3/4" NPT	1/2" NPT	CRBTMPWR001A00 (THRU-THE-BOTTOM CONNECTIONS)



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



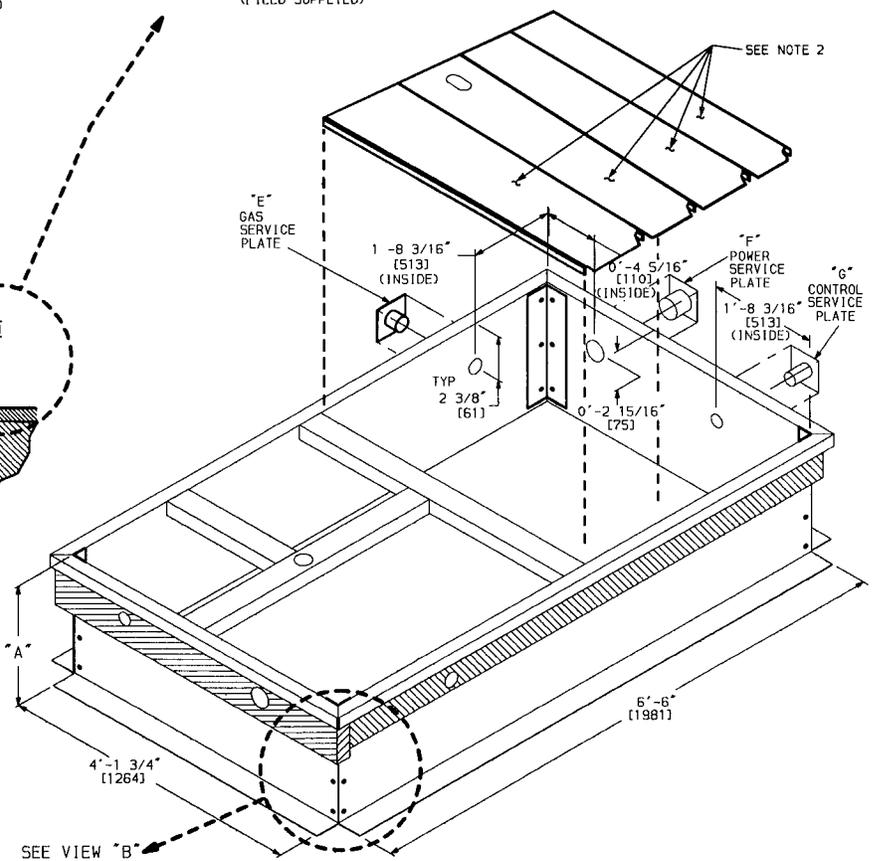
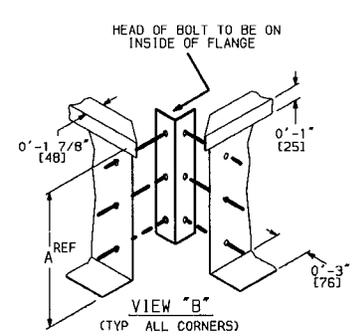
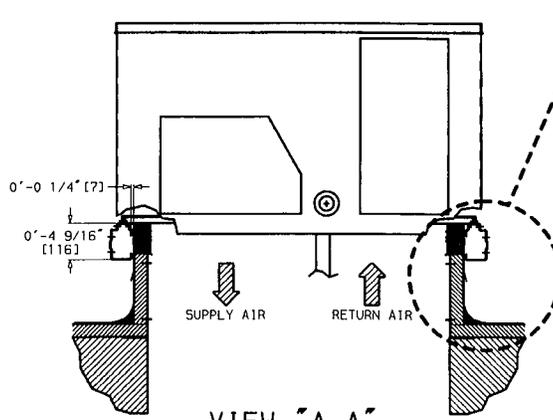
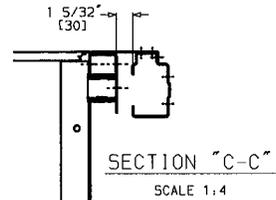
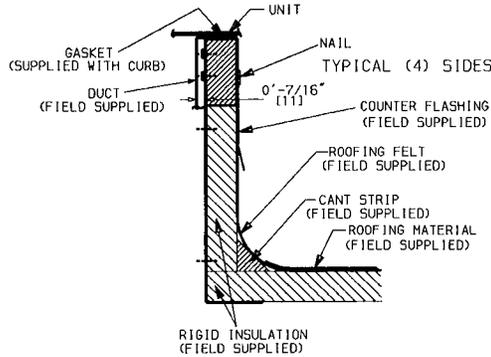
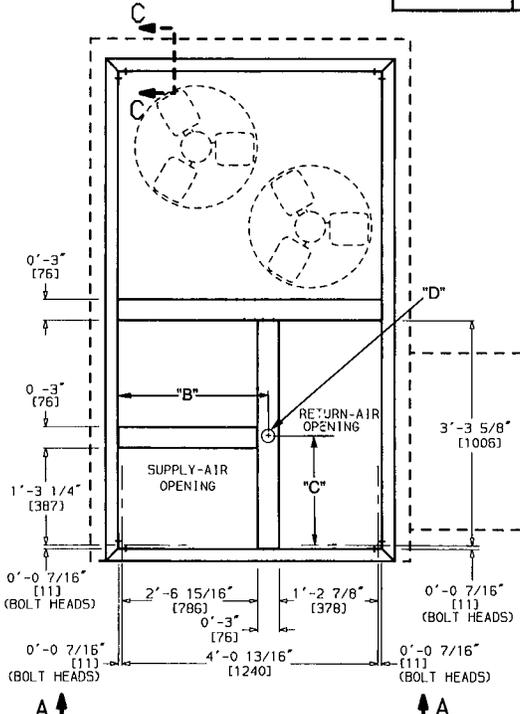
DIMENSIONAL DRAWING — ROOF CURB, 580D090-150

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

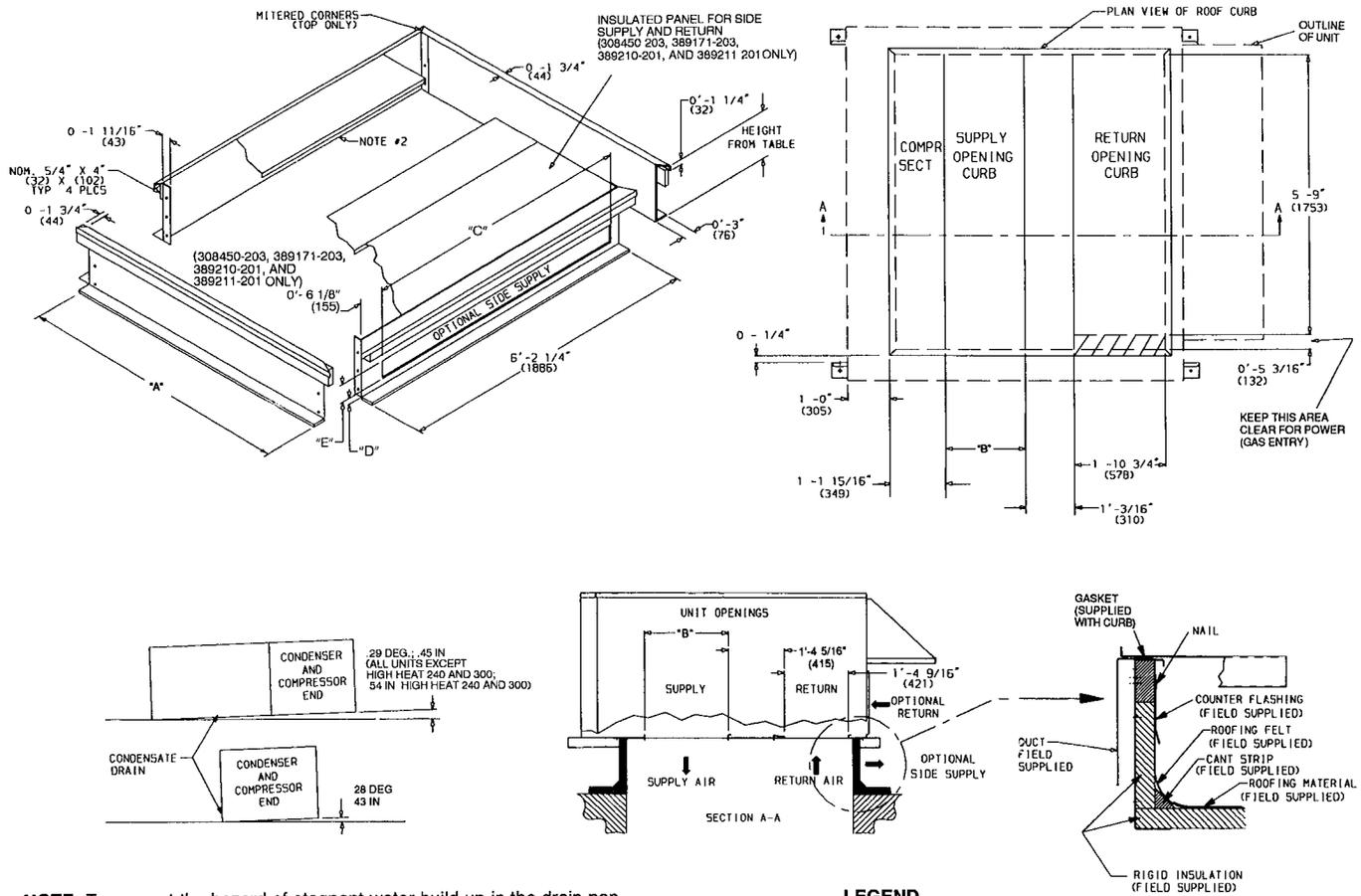
UNIT SIZE 580D	"B"	"C"	"D" ALT DRAIN HOLE	"E" GAS	"F" POWER	"G" CONTROL	CONNECTOR PACKAGE ACCESSORY
090-150	2'-8 7/16" [827]	1'-10 15/16" [583]	1 3/4" [45]	3/4" NPT	1" NPT	3/4" NPT	50DJ901551 (THRU-THE-CURB CONNECTIONS)
				3/4" NPT	3/4" NPT	1/2" NPT	CRBTMPWR001A00 (THRU-THE-BOTTOM CONNECTIONS)
				3/4" NPT	1 1/4" NPT	1/2" NPT	CRBTMPWR002A00 (THRU-THE-BOTTOM CONNECTIONS)

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



DIMENSIONAL DRAWING — HORIZONTAL AND VERTICAL ROOF CURBS AND HORIZONTAL ADAPTER, 579F180-300



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

LEGEND

COMPR SECT. — Compressor Section

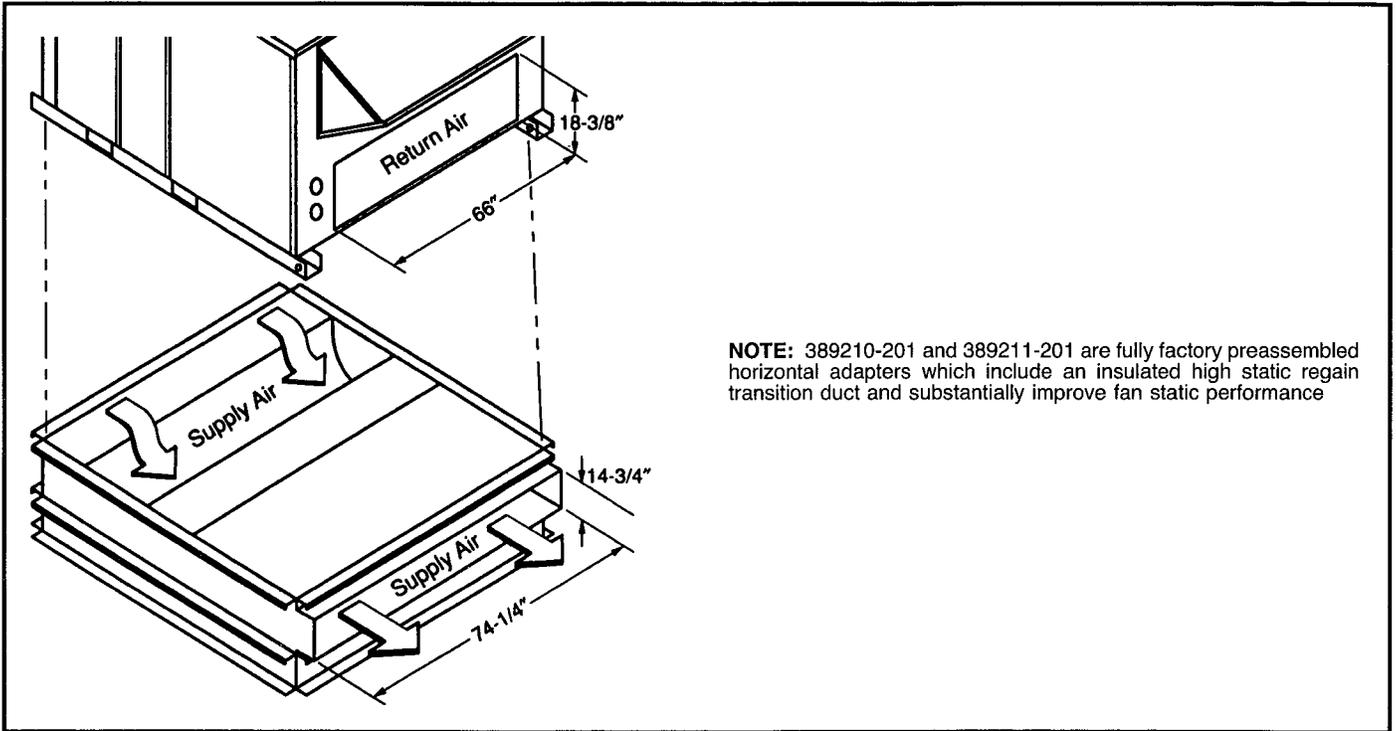
NOTES:

- 1 Roof curb accessory is shipped unassembled
- 2 Insulated panels, 1/2-in. thick neoprene-coated, 2 lb density
- 3 Dimensions in () are in millimeters.
- 4 Direction of airflow.
- 5 Roof curb: 18 gage steel
- 6 Attach all ductwork to roof curb.
- 7 Field installation of sidewall insulation is mandatory

ACCESSORY PACKAGE NO.	CURB HEIGHT	DESCRIPTION	"A"	"B"	"C"	"D"	"E"
308450-201	1'-2" (355)	Standard Curb — 14" High	5'-7 1/16" (1703)	1'-7 3/16" (503)	—	—	—
308450-202	2'-0" (610)	Standard Curb for Units Requiring High Installation	5'-7 1/16" (1703)	1'-7 3/16" (503)	—	—	—
308450-203	2'-0" (610)	Horizontal Supply and Return Curb	5'-7 1/16" (1703)	1'-7 3/16" (503)	5'-6" (1676)	0'-2 1/2" (64)	1'-6" (457)
389210-201	1'-11" (584)	Pre-Assembled, High-Static, Horizontal Adapter	5'-7 1/16" (1703)	1'-7 3/16" (503)	6'-2" (1880)	0'-6 1/4" (159)	1'-2 5/8" (371)
389171-201*	1'-2" (355)	Standard Curb — 14" High	7'-2 13/16" (2205)	3'-3 5/8" (1006)	—	—	—
389171-202*	2'-0" (610)	Standard Curb for Units Requiring High Installation	7'-2 13/16" (2205)	3'-3 5/8" (1006)	—	—	—
389171-203*	2'-0" (610)	Horizontal Supply and Return Curb	7'-2 13/16" (2205)	3'-3 5/8" (1006)	5'-6" (1676)	0'-2 1/2" (64)	1'-6" (457)
389211-201*	1'-11" (584)	Pre-Assembled, High-Static, Horizontal Adapter	7'-2 13/16" (2205)	3'-3 5/8" (1006)	6'-2" (1880)	0'-6 1/4" (159)	1'-2 5/8" (371)

*For high-heat applications.

DIMENSIONAL DRAWING — HORIZONTAL ADAPTER INSTALLATION — 579F216-300



NOTE: 389210-201 and 389211-201 are fully factory preassembled horizontal adapters which include an insulated high static regain transition duct and substantially improve fan static performance

SPECIFICATIONS — 580D036-072

UNIT SIZE		036	048	060	072
NOMINAL CAPACITY (tons)		3	4	5	6
OPERATING WEIGHT (lb)					
Unit					
AI/AI*		460	470	490	565
Economizer					
Varislide™		34	34	34	34
Parablade		42	42	42	42
Roof Curb		115	115	115	115
COMPRESSOR				Hermetic	
Quantity		1	1	1	1
Oil (oz)		50	50	50	54
REFRIGERANT TYPE				R-22	
Operating Charge (lb-oz)					
Circuit 1		3-6	4-11	5-13	7-10
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...34	—
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

(Table continued on next page.)

LEGEND

- AI — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material
 †Rollout switch is manual reset.
 **Requires the accessory controls upgrade kit.
 ††Weight of 14-in. roof curb
 ||Low-heat weight/high-heat weight
 †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.
 ***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 580D036-072 (cont)

UNIT SIZE	036		048			060			072		
FURNACE SECTION	Medium Heat	High Heat	Low Heat	Medium Heat	High Heat	Low Heat	Medium Heat	High Heat	Low Heat	Medium Heat	High Heat
Rollout Switch Cutout Temp (F)†	195	195	195	195	195	195	195	195	195	195	195
Burner Orifice Diameter (in. ...drill size)											
Natural Gas	Std .113...33	.113...33	.113...33	113. 33	.129...30	.113...33	.113.. 33	.129...30	.113.. 33	113. 33	.129...30
Liquid Propane	Alt .089...43	.089...43	.089...43	.089...43	.102...38	.089...43	.089.. 43	.102...38	.089...43	.089. 43	.102...38
Pilot Orifice Diameter (in. ...drill size)											
Natural Gas	Std —	—	—	—	—	—	—	—	—	—	—
Liquid Propane	Alt —	—	—	—	—	—	—	—	—	—	—
Thermostat Heat Anticipator Setting (amps)											
208/230, 575 v Stage 1	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14
Stage 2	—	.14	—	—	.14	—	—	.14	—	—	.14
460 v Stage 1	.14	.14	.14	.14	.14	.14	.14	.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	80	80	80	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	Std 3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Liquid Propane	Alt 3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Gas Valve Quantity	1	1	1	1	1	1	1	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	0.180-0.487	0.180-0.487	0.180-0.487	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	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5
Field Gas Connection Size (in.)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
HIGH-PRESSURE SWITCH (psig)**											
Standard Compressor Internal Relief	450 ± 50						500 ± 50				
Cutout	428						428				
Reset (Auto.)	320						320				
LOW-PRESSURE SWITCH (psig)**											
Cutout	7 ± 3						22 ± 7				
Reset (Auto.)											
FREEZE PROTECTION THERMOSTAT (F)**											
Opens	30 ± 5						45 ± 5				
Closes											
OUTDOOR-AIR INLET SCREENS											
Quantity...Size (in.)	Cleanable						1...20 x 24 x 1				
RETURN-AIR FILTERS											
Quantity...Size (in.)	Throwaway						2...16 x 25 x 2				

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material.

†Rollout switch is manual reset.

**Requires the accessory controls upgrade kit.

††Weight of 14-in roof curb.

||Low-heat weight/high-heat weight.

¶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.

***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 580D090-150

UNIT SIZE		090	102	120	150
NOMINAL CAPACITY (tons)		7½	8½	10	12½
OPERATING WEIGHT (lb)					
Unit					
Al/Al*		870	880	1035	1050
Economizer					
Varislide™		44	44	44	44
Parablade		62	62	62	62
Roof Curb††		143	143	143	143
COMPRESSOR					
		Hermetic			
Quantity		2	2	2	2
Oil (oz)		50 ea	50 ea	50 ea	54 ea
REFRIGERANT TYPE					
		R-22			
Operating Charge (lb-oz)					
Circuit 1		4-13	6-14	5-13	9-6
Circuit 2		4-14	6-3	5-14	9-0
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
	Alt	1..15 x 15	—	1...15 x 15	1...15 x 15
Type Drive	Std	—	Belt	Belt	Belt
	Alt	—	—	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	Std	—	—	—	—
	Alt	—	—	—	—
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	¾	¾	¾	¾
	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...51	1...A..48	1..A..51	1..A..51
	Alt	1..A...51	—	1..A..57	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	Std	5	5	5	5
From Closed Position	Alt	5	—	5	6
Factory Setting	Std	5	5	5	5
	Alt	5	—	5	6
Factory Speed Setting (rpm)	Std	590	685	685	860
	Alt	685	—	835	960
Fan Shaft Diameter at Pulley (in.)		1	1	1	1

(Table continued on next page)

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material.
 †Rollout switch is manual reset
 **Requires the accessory controls upgrade kit
 ††Weight of 14-in roof curb.
 ‖Low-heat weight/high-heat weight.
 ¶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
 ***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 580D090-150 (cont)

UNIT SIZE	090			102			120			150	
FURNACE SECTION	Low Heat	Medium Heat	High Heat	Low Heat	Medium Heat	High Heat	Low Heat	Medium Heat	High Heat	Low Heat	Medium Heat
Rollout Switch Cutout Temp (F)†	195	195	195	195	195	195	195	195	195	195	195
Burner Orifice Diameter (in. ...drill size)											
Natural Gas	Std 120 31	120...31	.120. 31	.120...31	.120.. 31	120 31	.120. 31	.120...31	.129 30	.120.. 31	.129 .30
Liquid Propane	Alt .096 .41	096.. 41	.096...41	.096...41	.096...41	.096 .41	.096...41	.096. 41	.102 38	.096.. 41	102..38
Pilot Orifice Diameter (in. ...drill size)											
Natural Gas	Std —	—	—	—	—	—	—	—	—	—	—
Liquid Propane	Alt —	—	—	—	—	—	—	—	—	—	—
Thermostat Heat Anticipator Setting (amps)											
208/230, 575 v Stage 1	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14
Stage 2	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
460 v Stage 1	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14
Stage 2	.20	.20	.20	.20	.20	.20	.20	.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	80	80	80	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	Std 3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Liquid Propane	Alt 3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Gas Valve Quantity	1	1	1	1	1	1	1	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	0.180-0.487	0.180-0.487	0.180-0.487	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	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5	5.0-13.5
Field Gas Connection Size (in.)	½	¾	¾	½	¾	¾	¾	¾	¾	¾	¾
HIGH-PRESSURE SWITCH (psig)**											
Standard Compressor Internal Relief	450 ± 50									500 ± 50	
Cutout	428									428	
Reset (Auto.)	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											
Quantity...Size (in.)	Cleanable										
	1...20 x 25 x 1										
	1...16 x 25 x 1										
RETURN-AIR FILTERS											
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
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material.

†Rollout switch is manual reset.

**Requires the accessory controls upgrade kit.

††Weight of 14-in. roof curb

‖Low-heat weight/high-heat weight.

¶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

***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 579F180-300

UNIT SIZE	180		216	240	300
	208/230, 460 v	575 v			
NOMINAL CAPACITY (tons)	15		18	20	25
OPERATING WEIGHT (lb)					
Unit	1604/1624		1850	1850/2031	2234/2413
AI/AI*	110		110	110	110
Economizer	200		200	200/213	200/213
Roof Curb††					
COMPRESSOR					
	Semi-Hermetic			Hermetic	Semi-Hermetic
Quantity	1		2	2	2
Oil (oz)	115		65 ea	65 ea	152 ea
REFRIGERANT TYPE					
	R-22				
Operating Charge (lb-oz)‡	19-4		15-4	15-8	16-12
Circuit 1	—		12-6	15-8	15-12
Circuit 2					
CONDENSER COIL					
	Enhanced Copper Tubes, Aluminum Lanced Fins				
Rows...Fins/in.	2...17		3...15	4...15	4...15
Total Face Area (sq ft)	17.9		22.2	22.2	22.2
CONDENSER FAN					
	Propeller Type				
Nominal Cfm	10,500			14,200	14,200
Quantity...Diameter (in.)	3...22			2...30	2...30
Motor Hp...Rpm	1/2...1050			1...1075	1...1075
Watts Input (Total)	1100			3400	3400
EVAPORATOR COIL					
	Copper Tubes, Aluminum or Copper Plate Fins				
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.. 10 x 10	2.. 12 x 12	2.. 12 x 12	2.. 12 x 12
Type Drive	Belt	Belt	Belt	Belt	Belt
Nominal Cfm	6000	6000	7200	8000	10,000
Motor Hp	3.7	3.0	5	7 1/2	10
Maximum Continuous Bhp	4.25	3.45	5.90	8.7 [208/230,575 v] 9.5 [460 v]	10.2 [208/230,575 v] 11.8 [460 v]
Motor Frame Size	56H	56H	184T	213T	215T
Fan Rpm Range	1194-1526	1201-1462	1047-1251	1238-1494	1323-1579
Motor Bearing Type	Ball	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	1550	1550	1550	1550	1550
Motor Pulley Pitch Diameter Min/Max (in.)	3 4/4.4	4.3/5.3	4.9/5.9	5 4/6 4	5 8/7 0
Nominal Motor Shaft Diameter (in.)	7/8	7/8	1 1/8	1 3/8	1 3/8
Fan Pulley Pitch Diameter (in.)	5.0	6 4	8.4	7 9	7 9
Nominal Fan Shaft Diameter (in.)	1 9/16	1 9/16	1 7/16	1 7/16	1 7/16
Belt, Quantity...Type...Length (in.)	1.. AX...42	1.. BX...45	1.. BX...50	1...BX...50	1.. BX...51
Pulley Center Line Distance (in.)	13 5-15.5	13.5-15.5	13 3-14 8	14.6-15 4	14.6-15.4
Speed Change per Full Turn of Movable Pulley Flange (rpm)	66	52	34	43	43
Movable Pulley Maximum Full Turns From Closed Position	5	5	6	6	6
Factory Setting	3 5	3.5	3	3	3
Factory Speed Setting (rpm)	1294	1279	1149	1366	1451
Fan Shaft Diameter at Pulley (in.)	1 3/16	1 3/16	1 7/16	1 7/16	1 7/16

(Table continued on next page)

LEGEND

- AI — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material.

†Rollout switch is manual reset

**Requires the accessory controls upgrade kit.

††Weight of 14-in. roof curb.

||Low-heat weight/high-heat weight.

‡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.

***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side

SPECIFICATIONS — 579F180-300 (cont)

UNIT SIZE	180		216	240		300	
FURNACE SECTION	Low Heat	High Heat	Low Heat	Low Heat	High Heat	Low Heat	High Heat
Rollout Switch Cutout Temp (F)†	190	190	190	190	190	190	190
Burner Orifice Diameter (in. ...drill size)							
Natural Gas	Std .113 .33	.113...33	113...33	.113...33	.113...33	.113 .33	.113 .33
Liquid Propane	Alt —	—	—	—	—	—	—
Pilot Orifice Diameter (in. ...drill size)							
Natural Gas	Std 0.55 .54	.055...54, .041...59	.055...54, .041...59	.055...54, .041...59	.070 .50(2)	.055...54, .041...59	070...50(2)
Liquid Propane	Alt —	—	—	—	—	—	—
Thermostat Heat Anticipator Setting (amps)							
Stage 1	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Stage 2	0.60	—	0.60	0.60	0.60	0.60	0.60
Gas Input (Btuh)							
Stage 1	115,500	115,500	115,500	115,500	242,500	115,500	242,500
Stage 2	231,000	270,000	270,000	270,000	485,000	270,000	485,000
Efficiency (Steady State) (%)	80	80	80	80	80	80	80
Temperature Rise Range	25-55	25-55	15-45	15-45	35-65	15-45	35-65
Manifold Pressure (in. wg)							
Natural Gas	Std 3.5	3.5	3.5	3.5	3.5	3.5	3.5
Liquid Propane	Alt —	—	—	—	—	—	—
Gas Valve Quantity	2	2	2	2	2	2	2
Gas Valve Pressure Range							
Psig	0.180-0.487	0.180-0.487	0.180-0.487	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	5.0-13.5	5.0-13.5	5.0-13.5
Field Gas Connection Size (in.)	¾	¾	¾	¾	¾	¾	¾
HIGH-PRESSURE SWITCH (psig)							
Standard Compressor Internal Relief Cutout Reset (Auto.)				—	426		
					320		
LOW-PRESSURE SWITCH (psig)							
Cutout Reset (Auto.)				7			
				22			
FREEZE PROTECTION THERMOSTAT (F)							
Opens Closes				30 ± 5			
				45 ± 5			
OUTDOOR-AIR INLET SCREENS							
Quantity...Size (in.)				Cleanable			
				2.. 20 x 25 x 1			
				1...20 x 20 x 1			
RETURN-AIR FILTERS							
Quantity...Size (in.)				Throwaway***			
				4...20 x 20 x 2			
				4.. 16 x 20 x 2			

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option

*Evaporator coil fin material/condenser coil fin material.

†Rollout switch is manual reset.

**Requires the accessory controls upgrade kit.

††Weight of 14-in. roof curb.

‖Low-heat weight/high-heat weight.

¶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.

***The 579F300 unit requires 2-in. industrial-grade filters capable of handling face velocities of up to 625 ft/min.

NOTE: The 580D036-150 units have a loss-of-charge/low-pressure switch (accessory) located in the liquid line. The 579F180-300 units have a low-pressure switch (standard) located on the suction side.

GROSS COOLING CAPACITIES

580D036 (3 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
900	0.11	72	42.8	20.0	2.91	40.8	19.4	3.14	38.7	18.6	3.35
		67	38.9	24.5	2.81	36.9	23.7	3.01	34.9	22.9	3.21
		62	35.0	28.7	2.70	33.3	27.9	2.90	31.4	27.0	3.09
1200	0.14	72	44.8	21.8	2.99	42.5	21.0	3.20	40.4	20.3	3.42
		67	40.8	27.5	2.88	38.7	26.8	3.08	36.6	26.0	3.29
		62	37.0	32.8	2.78	35.0	31.8	2.97	33.0	30.9	3.16
1500	0.17	72	45.8	23.0	3.02	43.6	22.6	3.24	41.4	22.0	3.47
		67	41.9	30.0	2.92	39.9	29.7	3.14	37.6	28.8	3.35
		62	38.2	36.0	2.82	36.1	35.1	3.02	34.1	34.0	3.22

580D036 (3 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
900	0.11	72	36.5	17.8	3.55	34.3	17.0	3.76			
		67	32.8	22.1	3.41	30.7	21.3	3.60			
		62	29.2	25.9	3.27	26.9	24.8	3.45			
1200	0.14	72	38.1	19.6	3.63	35.7	19.0	3.84			
		67	34.3	25.2	3.49	32.1	24.4	3.68			
		62	30.9	29.8	3.35	28.8	28.8	3.54			
1500	0.17	72	39.0	21.2	3.68	36.5	20.5	3.88			
		67	35.2	28.0	3.54	32.9	27.1	3.74			
		62	32.4	32.3	3.43	30.6	30.6	3.64			

580D048 (4 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
1200	0.12	72	57.9	27.2	4.07	55.7	26.4	4.40	52.9	25.5	4.70
		67	53.1	33.3	3.93	50.8	32.5	4.24	48.1	31.5	4.54
		62	48.3	39.2	3.79	45.3	37.8	4.08	42.5	36.4	4.36
1600	0.15	72	60.4	29.4	4.17	57.7	28.4	4.47	55.2	27.6	4.78
		67	55.9	37.2	4.03	53.4	36.7	4.35	50.5	35.6	4.63
		62	51.3	44.8	3.90	48.5	43.6	4.20	45.7	42.2	4.47
2000	0.18	72	62.2	31.4	4.24	59.4	30.5	4.54	56.7	29.7	4.87
		67	57.3	40.3	4.08	55.0	40.3	4.42	52.0	39.2	4.70
		62	52.9	49.1	3.96	50.2	47.9	4.25	47.4	46.7	4.56

580D048 (4 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
1200	0.12	72	50.1	24.4	5.00	47.3	23.4	5.30			
		67	45.3	30.3	4.81	42.6	29.2	5.07			
		62	39.8	35.1	4.62	37.2	33.7	4.88			
1600	0.15	72	52.3	26.7	5.10	49.3	25.9	5.42			
		67	47.6	34.5	4.91	44.6	33.3	5.19			
		62	42.8	40.7	4.73	40.0	39.3	4.99			
2000	0.18	72	53.6	28.8	5.17	50.5	27.8	5.48			
		67	48.9	38.1	4.99	45.9	37.1	5.28			
		62	44.9	44.6	4.84	42.4	42.4	5.12			

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

- 3 The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity. Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity.
Correction Factor = $1.10 \times (1 - BF) \times (edb - 80)$

GROSS COOLING CAPACITIES (cont)

580D060 (5 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
1500	0.07	72	71.0	33.9	5.04	69.2	33.4	5.50	65.5	32.1	5.88
		67	63.8	41.5	4.82	61.0	40.5	5.27	56.6	38.8	5.62
		62	55.4	47.9	4.62	54.2	47.3	5.02	50.4	45.6	5.37
2000	0.09	72	74.5	37.4	5.20	72.9	37.0	5.66	69.4	35.8	6.01
		67	67.2	47.4	4.97	65.6	46.9	5.41	60.9	45.3	5.76
		62	59.2	55.8	4.76	57.2	54.9	5.18	53.1	52.6	5.53
2500	0.12	72	76.5	40.6	5.29	75.2	40.1	5.75	71.2	39.1	6.12
		67	69.7	52.8	5.06	68.1	52.3	5.50	63.3	50.9	5.87
		62	62.1	61.8	4.87	61.5	61.3	5.29	57.8	57.8	5.67

580D060 (5 TON) (cont)									
Air Entering Evaporator			Air Entering Condenser (F)						
			105				115		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	
			Total	Sensible		Total	Sensible		
1500	0.07	72	61.9	30.8	6.25	58.2	29.5	6.63	
		67	53.1	37.5	5.99	49.7	36.1	6.35	
		62	47.1	44.1	5.72	43.7	42.5	6.08	
2000	0.09	72	65.4	34.5	6.38	61.4	33.2	6.75	
		67	56.6	43.7	6.13	52.3	42.1	6.49	
		62	50.5	50.2	5.91	47.8	47.8	6.29	
2500	0.12	72	67.1	37.9	6.50	63.0	36.7	6.88	
		67	58.8	49.3	6.23	54.3	47.6	6.59	
		62	54.5	54.5	6.06	51.2	51.2	6.46	

580D072 (6 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
1800	0.06	72	86.6	42.2	5.48	84.1	41.1	6.17	81.6	40.6	6.86
		67	80.0	52.3	5.33	77.4	51.3	6.00	74.7	50.3	6.67
		62	73.6	62.2	5.21	71.0	61.1	5.85	68.5	60.0	6.49
2100	0.08	72	87.8	43.0	5.69	84.0	41.7	6.21	81.0	40.8	6.78
		67	80.3	53.9	5.50	77.2	53.1	6.04	73.5	51.8	6.54
		62	73.3	64.8	5.35	70.2	63.7	5.85	66.6	62.2	6.33
2400	0.09	72	90.8	46.5	5.59	87.8	45.5	6.27	84.8	44.6	6.95
		67	84.1	59.6	5.44	81.2	58.6	6.11	78.2	57.6	6.77
		62	77.2	71.6	5.29	74.5	70.3	5.94	71.8	69.1	6.59
3000	0.11	72	93.2	50.1	5.66	90.1	49.4	6.35	87.0	48.7	7.03
		67	86.6	66.4	5.51	83.5	65.4	6.19	80.4	64.5	6.86
		62	79.7	78.7	5.35	77.3	76.7	6.02	74.8	74.7	6.69

580D072 (6 TON) (cont)									
Air Entering Evaporator			Air Entering Condenser (F)						
			105				115		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	
			Total	Sensible		Total	Sensible		
1800	0.06	72	78.4	39.4	7.60	75.1	38.1	8.36	
		67	71.8	49.2	7.39	68.7	47.9	8.14	
		62	65.6	58.7	7.20	62.5	57.2	7.93	
2100	0.08	72	76.8	39.4	7.30	72.5	37.9	7.81	
		67	69.7	50.3	7.05	65.5	48.7	7.53	
		62	63.0	60.3	6.80	59.4	58.4	7.26	
2400	0.09	72	81.6	43.5	7.72	78.0	42.3	8.49	
		67	74.9	56.4	7.50	71.5	55.1	8.25	
		62	68.9	67.4	7.31	66.1	65.5	8.06	
3000	0.11	72	83.3	47.4	7.77	79.5	46.3	8.55	
		67	76.9	63.1	7.59	73.3	61.6	8.33	
		62	72.1	72.0	7.41	69.3	69.2	8.18	

GROSS COOLING CAPACITIES (cont)

580D090 (7½ TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
2250	0.07	72	102.8	49.4	7.14	98.6	48.0	7.66	93.8	46.4	8.18
		67	94.8	61.8	6.82	90.2	60.2	7.34	85.2	58.2	7.84
		62	86.2	73.2	6.50	81.6	71.2	7.00	76.6	68.8	7.48
2800	0.09	72	105.8	52.6	7.28	101.8	51.6	7.82	97.0	50.2	8.36
		67	98.2	67.8	6.98	93.6	66.4	7.50	88.4	64.6	8.00
		62	90.0	81.6	6.68	85.2	79.6	7.18	80.0	77.2	7.64
3000	0.10	72	106.4	53.6	7.32	102.6	52.8	7.86	97.6	51.4	8.40
		67	99.0	69.8	7.04	94.4	68.6	7.54	89.0	66.8	8.04
		62	90.8	84.0	6.72	86.0	82.0	7.22	81.2	79.0	7.70
3750	0.12	72	109.2	58.2	7.46	104.6	56.8	7.98	99.4	55.6	8.50
		67	101.6	77.4	7.18	96.8	76.0	7.68	91.2	74.4	8.16
		62	93.6	92.2	6.86	89.6	89.4	7.40	85.2	85.2	7.92

580D090 (7½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
2250	0.07	72	88.4	44.6	8.68	82.8	42.6	9.16			
		67	79.8	56.2	8.30	73.8	53.8	8.78			
		62	70.8	66.0	7.98	66.0	63.2	8.42			
2800	0.09	72	91.0	48.2	8.80	85.2	46.4	9.30			
		67	82.8	62.6	8.46	76.8	60.4	8.92			
		62	74.6	74.2	8.14	69.6	69.6	8.64			
3000	0.10	72	91.6	49.4	8.86	85.6	47.8	9.34			
		67	83.4	64.8	8.50	77.4	62.6	8.96			
		62	76.0	75.6	8.20	71.0	71.0	8.72			
3750	0.12	72	93.8	54.2	8.98	87.6	52.8	9.48			
		67	85.4	72.4	8.64	79.4	70.4	9.10			
		62	80.6	80.6	8.42	76.0	75.8	8.94			

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

3. The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity. Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity. Correction Factor = $1.10 \times (1 - BF) \times (edb - 80)$.

GROSS COOLING CAPACITIES (cont)

580D102 (8½ TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
2550	0.080	72	116.6	71.9	7.77	113.3	54.0	8.46	109.1	77.4	8.90
		67	108.4	61.9	7.57	104.2	67.7	8.22	99.3	65.9	8.97
		62	99.0	75.9	7.38	94.0	80.4	7.96	87.3	52.6	8.68
3000	0.10	72	119.2	75.2	7.86	115.7	56.3	5.54	111.2	55.0	8.99
		67	111.3	65.1	10.68	106.9	72.5	8.31	102.0	70.9	9.06
		62	101.8	81.4	7.44	97.0	87.1	8.04	91.4	84.9	8.79
3400	0.110	72	120.1	80.5	7.89	117.2	58.2	8.60	112.5	57.1	9.06
		67	112.8	68.0	6.72	108.7	76.4	8.38	103.6	75.1	9.12
		62	103.6	85.6	7.51	98.8	92.5	8.12	93.7	90.3	8.86
4250	0.135	72	122.3	32.7	7.97	120.1	62.9	8.72	115.3	62.2	4.76
		67	114.8	73.9	7.80	111.0	84.2	8.48	105.8	83.2	9.24
		62	106.3	94.4	7.60	101.8	101.0	8.23	107.4	97.3	9.00

580D102 (8½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
2550	0.080	72	103.3	50.5	9.74	97.7	48.7	10.33			
		67	94.0	54.0	9.43	87.9	61.7	9.97			
		62	81.4	74.5	9.08	75.9	71.9	9.61			
3000	0.10	72	105.9	53.5	9.85	99.9	51.8	10.46			
		67	96.3	69.1	9.54	90.4	66.9	10.10			
		62	84.6	81.4	9.21	78.8	78.1	9.75			
3400	0.110	72	107.4	55.8	9.92	101.3	54.0	10.54			
		67	97.7	73.1	9.60	91.8	71.2	10.18			
		62	87.9	86.6	9.29	82.4	82.3	9.88			
4250	0.135	72	109.4	60.4	10.03	102.9	58.5	10.61			
		67	99.9	81.4	9.72	93.8	79.4	10.30			
		62	92.8	92.8	9.48	88.3	88.2	10.10			

580D120 (10 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
3000	0.095	72	135.8	66.8	9.76	130.0	64.3	10.41	124.1	62.2	11.13
		67	124.8	82.6	9.41	119.6	80.5	10.07	113.7	78.4	10.78
		62	112.0	97.4	9.10	104.0	93.8	9.74	96.7	90.0	10.40
4000	0.125	72	142.4	73.2	10.00	136.0	71.1	10.67	129.5	69.1	11.38
		67	130.6	93.4	9.61	125.0	91.7	10.28	118.9	89.8	10.99
		62	119.8	112.7	9.27	114.5	110.2	9.94	106.9	105.9	10.63
5000	0.150	72	146.5	79.7	10.17	140.0	77.5	10.84	132.8	74.9	11.52
		67	134.2	104.4	9.75	127.9	101.8	10.41	122.0	100.1	11.14
		62	123.7	123.1	9.41	118.8	118.7	10.09	114.1	114.0	10.83

580D120 (10 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
3000	0.095	72	118.1	60.4	11.93	57.5	29.7	6.13			
		67	104.6	74.9	11.52	49.0	36.2	5.91			
		62	87.9	85.2	11.10	42.1	41.7	5.70			
4000	0.125	72	122.7	66.9	12.13	60.0	33.2	6.24			
		67	111.8	87.7	11.74	51.9	42.4	6.03			
		62	98.5	98.5	11.41	46.7	46.7	5.89			
5000	0.150	72	126.0	73.1	12.27	61.3	36.4	6.30			
		67	115.1	98.3	11.89	54.9	48.3	6.10			
		62	108.0	108.0	11.65	51.4	51.4	6.00			

GROSS COOLING CAPACITIES (cont)

580D150 (12½ TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
3750	0.08	72	175.6	85.7	11.16	169.3	83.9	12.15	161.9	81.4	13.12
		67	162.2	107.3	10.85	155.7	104.8	11.78	148.9	102.0	12.72
		62	149.2	128.0	10.57	140.6	124.0	11.42	132.0	119.8	12.28
4500	0.09	72	181.0	91.4	11.32	174.2	89.6	12.31	166.8	87.0	13.30
		67	167.5	116.2	11.00	160.7	113.9	11.94	153.5	111.1	12.89
		62	154.2	140.3	10.69	147.0	137.0	11.58	139.1	133.2	12.46
5000	0.10	72	182.9	94.2	11.37	176.9	92.7	12.39	169.5	90.7	13.40
		67	170.2	122.2	11.07	163.0	119.7	12.01	155.7	117.3	12.97
		62	156.4	146.5	10.73	149.7	143.6	11.63	142.8	140.2	12.56
6250	0.12	72	187.2	102.1	11.49	181.5	100.9	12.52	173.2	98.3	13.54
		67	174.7	135.3	11.19	167.3	133.4	12.14	159.5	130.8	13.11
		62	161.8	160.7	10.87	155.8	155.6	11.82	149.6	149.6	12.78

580D150 (12½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
3750	0.08	72	154.9	79.0	14.16	146.2	76.1	15.09			
		67	141.3	99.2	13.66	132.2	95.7	14.57			
		62	123.0	115.5	13.17	113.1	110.3	14.07			
4500	0.09	72	158.8	84.5	14.31	150.5	81.7	15.30			
		67	145.4	108.2	13.82	137.0	105.2	14.76			
		62	130.2	128.1	13.35	122.4	122.3	14.25			
5000	0.10	72	160.9	87.8	14.38	152.3	85.0	15.37			
		67	147.6	114.3	13.91	139.4	111.6	14.87			
		62	135.0	134.9	13.48	127.8	127.7	14.43			
6250	0.12	72	165.3	96.6	14.58	155.2	92.9	15.49			
		67	151.2	127.8	14.07	142.7	125.0	15.02			
		62	143.2	143.1	13.77	136.0	135.8	14.73			

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

- 3 The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity. Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity.

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

GROSS COOLING CAPACITIES (cont)

579F180 (15 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
			75			85			95		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
4500	0.08	72	212.0	101.0	15.20	205.0	98.5	16.60	197.0	95.8	18.00
		67	195.0	126.0	14.70	188.0	123.0	16.10	180.2	120.0	17.40
		62	179.0	148.0	14.20	171.0	145.0	15.50	162.0	141.0	16.70
5250	0.10	72	216.0	105.0	15.40	210.0	103.0	16.80	202.0	101.0	18.20
		67	200.0	133.0	14.90	193.0	131.0	16.30	184.0	128.0	17.60
		62	183.0	161.0	14.90	176.0	156.0	15.70	167.0	152.0	16.90
6000	0.11	72	219.0	109.0	15.50	212.0	108.0	16.90	205.0	105.0	18.40
		67	204.0	141.0	15.10	196.0	138.0	16.40	188.0	136.0	17.80
		62	187.0	170.0	14.60	179.0	167.0	15.90	171.0	164.0	17.10
6750	0.12	72	223.0	115.0	15.70	215.0	113.0	17.10	206.0	110.0	18.40
		67	205.0	152.0	15.10	199.0	145.0	16.50	191.0	143.0	17.90
		62	189.0	179.0	14.70	182.0	176.0	16.00	174.0	172.0	17.30
7500	0.14	72	224.0	118.0	15.70	216.0	116.0	17.10	209.0	115.0	18.60
		67	207.0	157.0	15.20	199.0	154.0	16.60	193.0	150.0	18.00
		62	193.0	187.0	14.80	185.0	184.0	16.10	178.0	178.0	17.50

579F180 (15 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			
			Total	Sensible		Total	Sensible				
4500	0.08	72	190.0	93.3	19.40	180.0	90.0	20.80			
		67	172.0	117.0	18.70	161.0	112.0	19.90			
		62	152.0	136.0	17.90	142.0	131.0	19.10			
5250	0.10	72	194.0	98.0	19.60	185.0	95.4	21.00			
		67	176.0	125.0	18.90	166.0	121.0	20.10			
		62	157.0	148.0	18.10	146.0	142.0	19.30			
6000	0.11	72	197.0	103.0	19.80	187.0	100.0	21.20			
		67	179.0	133.0	19.10	170.0	130.0	20.30			
		62	161.0	158.0	18.40	151.0	151.0	19.60			
6750	0.12	72	199.0	107.0	19.90	190.0	105.0	21.40			
		67	182.0	140.0	19.20	172.0	137.0	20.50			
		62	166.0	166.0	18.60	158.0	158.0	19.90			
7500	0.14	72	200.0	112.0	20.00	191.0	109.0	21.50			
		67	183.0	148.0	19.30	173.0	144.0	20.60			
		62	171.0	171.0	18.80	163.0	163.0	20.10			

LEGEND

BF — Bypass Factor
Edb — Entering Dry Bulb
Ewb — Entering Wet Bulb
kW — Compressor Motor Power Input
MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

- 3 The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity. Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity.

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

GROSS COOLING CAPACITIES (cont)

579F216 (18 TON)														
Air Entering Evaporator			Air Entering Condenser (F)											
			75			85			95			105		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible		Total	Sensible	
5400	0.035	72	233.0	116.7	15.42	226.0	115.2	16.88	217.0	112.4	18.25	206.7	109.0	19.54
		67	215.0	148.3	14.99	208.9	145.7	16.35	200.0	142.3	17.66	188.3	138.2	18.94
		62	198.8	178.0	14.54	191.1	174.5	15.80	181.3	170.0	17.04	170.3	164.3	18.25
6300	0.045	72	237.0	123.8	15.57	230.0	120.9	16.99	221.0	119.0	18.40	210.9	115.6	19.75
		67	221.0	159.2	15.15	212.7	156.6	16.52	204.3	153.3	17.86	193.4	149.7	19.05
		62	204.5	193.0	14.73	196.6	189.1	16.03	187.5	184.3	17.31	176.9	176.7	18.57
7200	0.055	72	240.0	132.9	15.66	234.0	126.8	17.13	224.0	125.3	18.55	213.4	122.6	19.94
		67	223.0	170.1	15.26	216.0	167.2	16.65	207.8	164.2	18.00	196.8	160.2	19.22
		62	209.6	206.1	14.90	202.0	201.2	16.24	194.2	194.0	17.54	185.7	185.6	18.83
8100	0.065	72	239.0	141.6	15.65	236.0	133.0	17.21	227.0	131.4	19.67	216.0	128.7	20.01
		67	227.0	180.3	15.36	219.0	176.9	16.73	209.3	174.2	18.07	199.0	170.6	19.38
		62	214.6	214.4	15.04	207.6	207.4	16.41	199.8	199.8	17.74	191.0	190.9	19.03
9000	0.075	72	241.0	148.1	15.75	237.0	139.6	17.24	229.0	136.5	18.74	217.0	133.9	20.01
		67	227.0	191.2	15.38	221.0	186.9	16.80	211.3	183.7	18.14	200.7	180.0	19.42
		62	217.0	217.0	15.12	212.4	211.1	16.55	204.0	203.9	17.91	195.1	195.0	19.22

579F216 (18 TON) (cont)								
Air Entering Evaporator			Air Entering Condenser (F)					
			115			125		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible	
5400	0.035	72	195.4	104.8	20.77	183.9	100.8	21.80
		67	178.7	134.2	20.10	167.2	129.8	21.25
		62	159.1	157.9	19.40	151.1	151.1	20.61
6300	0.045	72	199.7	111.8	20.95	187.1	107.6	22.10
		67	183.0	145.7	20.31	171.8	141.4	21.50
		62	169.0	168.9	19.74	160.2	160.1	21.02
7200	0.055	72	203.3	119.3	21.25	189.5	114.3	22.30
		67	185.9	156.3	20.48	174.4	152.1	21.60
		62	176.3	176.3	20.09	167.6	167.5	21.25
8100	0.065	72	204.1	124.9	21.27	191.5	120.6	22.40
		67	187.9	166.4	20.55	176.9	161.6	21.70
		62	182.0	182.0	20.30	172.7	172.6	21.60
9000	0.075	72	206.1	131.3	21.40	193.4	127.0	22.60
		67	189.8	175.8	20.71	178.9	169.9	21.90
		62	186.1	186.0	20.50	176.3	176.3	21.70

LEGEND

BF — Bypass Factor
Edb — Entering Dry Bulb
Ewb — Entering Wet Bulb
kW — Compressor Motor Power Input
MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

- The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity. Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity.

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

GROSS COOLING CAPACITIES (cont)

579F240 (20 TON)														
Air Entering Evaporator			Air Entering Condenser (F)											
			75			85			95			105		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible		Total	Sensible	
6000	0.060	72	266.0	127.5	17.55	259.0	125.5	19.21	250.0	123.1	21.01	238.0	119.3	22.70
		67	244.0	161.0	17.20	236.0	157.7	18.82	227.0	154.5	20.48	216.0	150.4	22.10
		62	223.0	192.6	16.79	213.0	187.7	18.28	203.1	183.7	19.79	189.7	177.5	21.30
7000	0.075	72	228.0	207.9	16.94	263.0	131.4	19.36	255.0	129.9	21.19	243.0	126.6	22.90
		67	250.0	171.8	17.30	241.0	169.5	19.00	231.0	166.2	20.63	221.0	162.5	22.30
		62	271.0	133.8	17.68	219.0	203.9	18.47	208.9	198.9	20.00	195.3	192.7	21.62
8000	0.085	72	276.0	140.7	17.80	266.0	138.0	19.49	259.0	136.8	21.35	248.0	133.7	23.00
		67	254.0	182.4	17.42	248.0	183.0	19.06	240.0	180.0	20.69	224.0	174.1	22.50
		62	232.0	221.0	17.04	224.0	217.3	18.64	214.3	212.3	20.19	202.9	202.9	21.93
9000	0.095	72	236.0	233.0	17.14	269.0	145.0	19.56	262.0	142.7	21.48	250.0	140.0	23.20
		67	257.0	192.0	17.50	252.0	193.0	19.17	246.0	189.0	20.82	226.0	184.8	21.60
		62	276.0	147.3	17.80	229.0	227.0	18.81	220.0	220.0	20.48	210.9	210.9	22.12

579F240 (20 TON) (cont)								
Air Entering Evaporator			Air Entering Condenser (F)					
			115			125		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible	
6000	0.060	72	227.0	115.4	24.30	214.3	111.0	25.80
		67	201.6	145.3	23.60	190.5	141.0	25.00
		62	175.6	170.5	22.90	164.2	163.8	24.40
7000	0.075	72	231.0	122.8	24.60	218.0	117.9	26.00
		67	207.6	157.8	23.90	196.2	153.2	25.20
		62	182.8	182.6	23.30	173.6	173.6	24.80
8000	0.085	72	234.0	129.8	24.70	221.0	125.4	26.20
		67	211.4	169.6	24.10	198.8	164.4	25.40
		62	191.9	191.9	23.60	184.0	184.0	25.00
9000	0.095	72	237.0	136.5	24.90	223.0	131.6	26.84
		67	214.6	180.2	24.10	200.7	174.9	25.50
		62	200.1	200.1	23.80	191.0	191.0	25.30

579F300 (25 TON)														
Air Entering Evaporator			Air Entering Condenser (F)											
			75			85			95			105		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible		Total	Sensible	
7,000	0.03	72	323.9	159.4	21.10	315.3	156.3	22.70	304.1	152.0	24.80	291.2	147.2	26.90
		67	299.4	195.2	20.50	290.4	191.7	22.10	277.4	186.5	24.00	261.4	179.7	25.80
		62	275.8	230.6	19.90	264.3	224.9	21.30	243.1	215.2	23.20	224.8	206.6	25.00
8,750	0.05	72	331.3	170.1	21.30	326.9	168.4	23.10	315.3	165.0	25.20	300.9	159.9	27.20
		67	312.7	216.5	20.90	303.2	213.2	22.50	290.1	208.5	24.50	274.2	201.8	26.30
		62	288.4	259.1	20.20	278.0	254.9	21.80	263.8	248.0	23.50	242.1	237.3	25.40
10,000	0.07	72	336.1	177.6	21.50	333.7	177.5	23.30	320.4	173.0	25.40	305.7	168.3	27.40
		67	319.8	231.1	21.10	309.1	226.9	22.70	295.6	222.4	24.60	283.3	216.8	26.60
		62	294.7	276.6	20.40	285.0	273.8	22.00	271.1	266.4	23.80	252.3	252.3	25.80
11,250	0.09	72	342.6	186.6	21.70	335.1	184.4	23.30	324.1	181.6	25.50	309.8	176.8	27.60
		67	322.5	242.9	21.20	314.2	240.7	22.80	300.6	236.5	24.80	284.8	231.1	26.80
		62	300.0	292.6	20.50	291.1	288.4	22.20	279.4	279.4	24.10	266.3	266.3	26.00

579F300 (25 TON) (cont)								
Air Entering Evaporator			Air Entering Condenser (F)					
			115			125		
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW
			Total	Sensible		Total	Sensible	
7,000	0.03	72	274.6	140.9	28.80	254.5	133.3	30.90
		67	237.9	170.0	27.80	214.9	160.8	29.90
		62	207.6	198.6	26.80	184.3	194.3	28.90
8,750	0.05	72	286.9	154.9	29.40	266.7	148.0	31.40
		67	251.5	193.2	28.20	230.9	185.1	30.20
		62	222.6	222.6	27.40	206.7	206.7	29.60
10,000	0.07	72	291.3	164.1	29.60	272.0	157.5	31.70
		67	258.4	208.7	28.50	236.0	200.2	30.50
		62	237.7	237.7	27.70	220.8	220.8	29.90
11,250	0.09	72	293.9	163.0	29.70	276.1	166.6	31.90
		67	267.5	224.3	28.50	240.0	214.4	30.80
		62	247.1	247.1	28.10	231.1	231.1	30.30

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- MBtuh — Btuh in thousands

NOTES:

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

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (1000 x MBtuh)}}{1.10 \times \text{cfm}}$$

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

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (1000 x MBtuh)}}{4.5 \times \text{cfm}}$$

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

3. The sensible heat capacity is based on 80 F entering dry-bulb (edb) temperature of air entering evaporator coil.

Below 80 F edb, subtract (corr factor x cfm) from the sensible heat capacity.

Above 80 F edb, add (corr factor x cfm) to the sensible heat capacity.

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

AIR DELIVERY — VERTICAL DISCHARGE UNITS

580D036 (3 TON)												
Airflow (Cfm)	Standard Direct Drive Motor											
	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)

NOTES:

- Values include losses for filters, unit casing, and wet coils
- 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 60 for additional information.

- Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- Minimum allowable cfm is 300 cfm/ton.

580D036 (3 TON)																		
Airflow (Cfm)	Alternate Belt Drive Motor																	
	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 TON) (cont)																		
Airflow (Cfm)	Alternate Belt Drive Motor																	
	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	1.06	1044

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 4.)
- Shading** indicates field-supplied motor and drive are required.
- _____ indicates maximum usable bhp/watts.
- Alternate motor drive range is 760 to 1000 rpm. All other rpms require a field-supplied drive.
- Values include losses for filters, unit casing, and wet coils.

6 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 60 for additional information.

- Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY – VERTICAL DISCHARGE UNITS (cont)

580D048 (4 TON)												
Airflow (Cfm)	Standard Direct Drive Motor											
	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)

NOTES:

- Values include losses for filters, unit casing, and wet coils
- 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 60 for additional information.

- Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- Minimum allowable cfm is 300 cfm/ton.

580D048 (4 TON)																					
Airflow (Cfm)	Alternate Belt Drive Motor																				
	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	1053
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	1122	1.14	1165
1900	872	0.67	704	919	0.75	788	965	0.84	877	1011	0.92	967	1093	1.06	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	1.20	1325	1185	1.28	1410

580D048 (4 TON) (cont)																					
Airflow (Cfm)	Alternate Belt Drive Motor																				
	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	1258	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	1309	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	1272	1295	1.37	1310	1296	1.53	1463	1354	1.70	1605	1407	1.84	1736
1800	1167	1.23	1239	1202	1.32	1313	1233	1.41	1398	1363	1.49	1425	1323	1.67	1587	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	2.06	1889	1463	2.19	2069
2000	1229	1.48	1491	1262	1.58	1572	1294	1.68	1671	1325	1.78	1762	1362	1.87	1884	1436	2.16	2040	1489	2.36	2229

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- Boldface** indicates field-supplied drive is required (See Note 4)
- Shading** indicates field-supplied motor and drive required
- indicates maximum usable bhp/watts
- Alternate motor drive range is 835 to 1185 rpm. All other rpms require a field-supplied drive.
- Values include losses for filters, unit casing, and wet coils

6 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 60 for additional information.

- Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY – VERTICAL DISCHARGE UNITS (cont)

580D060 (5 TON)																		
Airflow (Cfm)	Standard Direct Drive Motor																	
	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)

NOTES:

- 1 Values include losses for filters, unit casing, and wet coils
- 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 failure. Unit warranty will not be affected. See Evaporator-Fan Motor Performance table on page 60 for additional information.

- 3 Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- 4 Minimum allowable cfm is 300 cfm/ton

580D060 (5 TON)																		
Airflow (Cfm)	Alternate Belt Drive Motor																	
	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	1831
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	1383	2.03	2074	1356	2.26	2210
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 TON) (cont)									
Airflow (Cfm)	Alternate Belt Drive Motor								
	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	1126	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	1434	1.91	1953
1900	1343	1.64	1676	1415	1.80	1891	1478	2.05	2105
2000	1374	1.77	1809	1498	2.19	2304	1516	2.23	2256
2100	1403	1.91	1952	1425	2.14	2167	—	—	—
2200	1442	2.06	2125	1458	2.28	2350	—	—	—
2300	1478	2.24	2310	—	—	—	—	—	—
2400	1525	2.43	2524	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates field-supplied drive is required (See Note 4)
- 2 indicates field-supplied motor and drive required
- 3 indicates maximum usable bhp/watts.
- 4 Alternate motor drive range is 900 to 1300 rpm. All other rpms require a field-supplied drive.
- 5 Values include losses for filters, unit casing, and wet coils

- 6 Maximum continuous bhp is 180 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 60 for additional information.
- 7 Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- 8 Interpolation is permissible. Do not extrapolate.
- 9 Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — VERTICAL DISCHARGE UNITS (cont)

580D072 (6 TON)																		
Airflow (Cfm)	Standard Belt Drive Motor																	
	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	1582	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	1656	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	1525	2.52	2223	1598	2.73	2444	—	—	—	—	—	—

580D072 (6 TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	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	2536	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive is required. (See Note 4)
2. **Shaded** indicates field-supplied motor and drive required
3. **—** indicates maximum usable bhp/watts
4. Standard motor drive range is 1070 to 1460 rpm. All other rpms require a field-supplied drive
5. Values include losses for filters, unit casing, and wet coils

6. 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 60 for additional information.
7. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY – VERTICAL DISCHARGE UNITS (cont)

580D090 (7½ TON)															
Airflow (Cfm)	Standard Belt Drive Motor														
	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
2200	506	0.52	539	586	0.72	692	656	0.95	875	718	1.18	1064	776	1.43	1275
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	2182
3300	679	1.36	1216	744	1.66	1473	801	1.98	1753	854	2.29	2023	904	2.61	2290
3400	695	1.47	1310	759	1.78	1578	816	2.10	1858	867	2.42	2136	917	2.75	2400
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	945	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	953	3.30	2870

580D090 (7½ TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	External Static Pressure (in. wg)								
	1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2200	838	1.78	1578	898	2.21	1954	935	2.58	2275
2250	841	1.81	1604	902	2.25	1989	939	2.60	2290
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	962	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
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 6)
2. **Shading** indicates alternate drive required
3. **Shading** indicates field-supplied motor and drive required
4. **—** indicates maximum usable bhp/watts of standard drive
5. **---** indicates maximum usable bhp/watts of alternate drive.
6. Standard drive range is 590 to 840 rpm. Alternate drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.
7. Values include losses for filters, unit casing, and wet coils
8. 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 60 for additional information.
9. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
10. Interpolation is permissible. Do not extrapolate.
11. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — VERTICAL DISCHARGE UNITS (cont)

580D102 (8½ TON)															
Airflow (Cfm)	Standard Belt Drive Motor														
	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	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	2198
3300	679	1.36	1216	744	1.66	1473	801	1.98	1753	854	2.29	2023	904	2.61	2303
3400	695	1.47	1310	759	1.78	1578	816	2.10	1858	867	2.42	2136	917	2.75	2429
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	2263	917	2.95	2567	962	3.30	2870
3800	762	1.98	1753	821	2.31	2041	875	2.66	2303	924	3.03	2613	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	2642	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	—	—	—	—	—	—	—	—	—
4300	847	2.76	2428	900	3.13	2735	—	—	—	—	—	—	—	—	—

580D102 (8½ TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	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	2.61	2479
2600	869	2.06	1823	918	2.37	2093	973	2.64	2487
2700	880	2.17	1919	927	2.47	2180	975	2.64	2495
2800	892	2.29	2023	938	2.59	2275	983	2.92	2552
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	2997	—	—	—
3500	976	3.25	2831	—	—	—	—	—	—
3600	985	3.41	2956	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—
3800	—	—	—	—	—	—	—	—	—
3900	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—
4300	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates field-supplied drive required (See Note 4)
- 2 **Shading** indicates field-supplied motor and drive required
- 3 **—** indicates maximum usable bhp/watts.
- 4 Standard drive range is 685 to 935 rpm. All other rpms require a field-supplied drive
- 5 Values include losses for filters, unit casing, and wet coils

- 6 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 60 for additional information.
- 7 Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- 8 Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY — VERTICAL DISCHARGE UNITS (cont)

580D120 (10 TON)																		
Airflow (Cfm)	Standard and Alternate Belt Drive Motors																	
	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	1015	3.03	2735
4300	794	2.00	1770	846	2.23	1971	900	2.50	2256	943	2.73	2460	985	2.93	2644	1025	3.17	2866
4400	810	2.13	1884	861	2.37	2093	913	2.64	2380	958	2.89	2605	999	3.08	2791	1040	3.32	3019
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	2638	987	3.21	2804	—	—	—	—	—	—
4700	858	2.55	2300	907	2.83	2551	954	3.08	2782	1002	3.38	3069	—	—	—	—	—	—
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 TON) (cont)												
Airflow (Cfm)	Standard and Alternate Belt Drive Motors											
	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	1735	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	978	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	1095	2.98	2682
3700	998	2.54	2291	1039	2.74	2469	1077	2.94	2651	1107	3.13	2809
3800	1010	2.67	2406	1049	2.87	2587	1087	3.08	2782	1126	3.29	2941
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	3066	—	—	—
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
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 6)
2. **Shading** indicates alternate motor and/or drive required.
3. **Shading** indicates field-supplied motor and drive required
4. **Shading** indicates maximum usable bhp/watts of standard motor and drive.
5. **Shading** indicates maximum usable bhp/watts of alternate motor and/or drive
6. Standard drive range is 685 to 935 rpm. Alternate drive range is 835 to 1085 rpm. All other rpms require a field-supplied drive
7. Values include losses for filters, unit casing, and wet coils

8. 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 60 for additional information
9. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify
10. Interpolation is permissible. Do not extrapolate
11. Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY – VERTICAL DISCHARGE UNITS (cont)

580D150 (12½ TON)																		
Airflow (Cfm)	Standard and Alternate Belt Drive Motors																	
	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
3700	729	1.36	1259	790	1.58	1440	847	1.79	1615	902	2.06	1845	955	2.29	2044	1008	2.55	2772
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	1221	5.41	4902
5500	1027	4.07	3655	1073	4.39	3953	1118	4.76	4296	1157	5.07	4566	1197	5.36	4856	1235	5.64	5115
5600	1043	4.29	3860	1090	4.61	4158	1133	4.99	4512	1173	5.31	4810	1213	5.61	5087	—	—	—
5700	1060	4.51	4065	1106	4.83	4363	1149	5.22	4726	1189	5.56	5022	—	—	—	—	—	—
5800	1077	4.74	4279	1122	5.07	4589	1165	5.45	4936	—	—	—	—	—	—	—	—	—
5900	1094	4.98	4503	1139	5.21	4810	1181	5.70	5170	—	—	—	—	—	—	—	—	—
6000	1111	5.22	4735	1155	5.45	5032	—	—	—	—	—	—	—	—	—	—	—	—
6100	1128	5.46	4967	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6200	1145	5.74	5207	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

580D150 (12½ TON) (cont)												
Airflow (Cfm)	Standard and Alternate Belt Drive Motors											
	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
3700	1060	2.80	2494	1108	3.05	2719	1152	3.27	2919	1190	3.46	3092
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	4.92	4455
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	1294	5.33	4829
4800	1181	4.58	4130	1222	4.87	4400	1263	5.20	4707	—	—	—
4900	1194	4.77	4307	1234	5.08	4605	1274	5.40	4893	—	—	—
5000	1207	4.98	4493	1247	5.30	4800	1285	5.62	5097	—	—	—
5100	1220	5.19	4689	1259	5.52	5004	—	—	—	—	—	—
5200	1233	5.40	4874	1272	5.74	5217	—	—	—	—	—	—
5300	1246	5.66	5060	—	—	—	—	—	—	—	—	—
5400	—	—	—	—	—	—	—	—	—	—	—	—
5500	—	—	—	—	—	—	—	—	—	—	—	—
5600	—	—	—	—	—	—	—	—	—	—	—	—
5700	—	—	—	—	—	—	—	—	—	—	—	—
5800	—	—	—	—	—	—	—	—	—	—	—	—
5900	—	—	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—
6100	—	—	—	—	—	—	—	—	—	—	—	—
6200	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- Boldface** indicates field-supplied drive required (See Note 6.)
- Shading** indicates alternate motor and/or drive required
- Shading** indicates field-supplied motor and drive required
- indicates maximum usable bhp/watts of standard motor and drive
- indicates maximum usable bhp/watts of alternate motor and/or drive
- Standard drive range is 860 to 1080 rpm. Alternate drive range is 900 to 1260 rpm. All other rpms require a field-supplied drive

- Values include losses for filters, unit casing, and wet coils
- 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 60 for additional information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- Interpolation is permissible. Do not extrapolate
- Minimum allowable cfm is 300 cfm/ton

NOTE: FAN PERFORMANCE DATA TABLES FOR 180-300 UNITS ARE ON PAGES 46-48.

AIR DELIVERY — HORIZONTAL DISCHARGE UNITS

580D036 (3 TON)												
Standard Direct Drive Motor												
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)

NOTES:

- 1 Values include losses for filters, unit casing, and wet coils
- 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 60 for additional information
- 3 Use of a field-supplied motor may affect wire sizing Contact your local representative to verify
 - 4 Minimum allowable cfm is 300 cfm/ton

580D036 (3 TON)																		
Alternate Belt Drive Motor																		
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 TON) (cont)																		
Alternate Belt Drive Motor																		
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
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates field-supplied drive required (See Note 2)
- 2 Alternate motor drive range is 760 to 1000 rpm All other rpms require field-supplied drive
- 3 Values include losses for filters, unit casing, and wet coils
- 4 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 60 for additional information
- 5 Use of a field-supplied motor may affect wire sizing Contact your local representative to verify
 - 6 Interpolation is permissible. Do not extrapolate
 - 7 Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY – HORIZONTAL DISCHARGE UNITS (cont)

580D048 (4 TON)												
Airflow (Cfm)	Standard Direct Drive Motor											
	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)

NOTES:

1. Values include losses for filters, unit casing, and wet coils
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 60 for additional information.

3. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
4. Minimum allowable cfm is 300 cfm/ton

580D048 (4 TON)																					
Airflow (Cfm)	Alternate Belt Drive Motor																				
	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	1020
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	1055	1.01	1061	1094	1.10	1151	1192	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	1362	1.30	1365

580D048 (4 TON) (cont)																					
Airflow (Cfm)	Alternate Belt Drive Motor																				
	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	1192	1.12	1138	1245	1.21	1358
1300	1006	0.71	709	1044	0.77	736	1086	0.84	833	1128	0.91	930	1189	1.10	1052	1226	1.23	1215	1297	1.35	1406
1400	1033	0.79	797	1069	0.86	838	1104	0.93	925	1128	1.01	1032	1218	1.14	1090	1258	1.34	1282	1320	1.48	1463
1500	1060	0.88	891	1095	0.95	930	1129	1.02	1022	1182	1.09	1118	1228	1.24	1186	1303	1.40	1339	1342	1.60	1580
1600	1087	1.03	1003	1123	1.05	1073	1156	1.13	1150	1195	1.20	1226	1290	1.35	1291	1313	1.51	1444	1362	1.68	1607
1700	1114	1.07	1106	1151	1.15	1185	1169	1.23	1252	1245	1.31	1308	1276	1.48	1415	1354	1.64	1568	1398	1.80	1722
1800	1141	1.17	1221	1179	1.25	1318	1214	1.35	1390	1243	1.45	1467	1303	1.61	1540	1359	1.79	1702	1412	1.95	1865
1900	1168	1.28	1371	1204	1.37	1502	1236	1.47	1546	1271	1.56	1584	1330	1.74	1664	1395	1.93	1846	1439	2.13	2018
2000	1197	1.39	1485	1231	1.48	1604	1265	1.59	1666	1298	1.68	1727	1358	1.90	1808	1413	2.08	1969	1468	2.27	2177

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 4)
2. **Shading** indicates field-supplied motor and drive required.
3. **—** indicates maximum usable bhp/watts
4. Alternate motor drive range: 835 to 1185 rpm. All other rpms require a field-supplied drive.
5. Values include losses for filters, unit casing, and wet coils

6. 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 60 for additional information.

7. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY – HORIZONTAL DISCHARGE UNITS (cont)

580D060 (5 TON)																		
Airflow (Cfm)	Standard Direct-Drive Motor																	
	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)

NOTES:

1. Values include losses for filters, unit casing, and wet coils
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 60 for additional information.
3. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
4. Minimum allowable cfm is 3000 cfm/ton.

580D060 (5 TON)																		
Airflow (Cfm)	Alternate Belt Drive Motor																	
	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	1382	1.99	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	1966	1400	2.12	2227	1461	2.34	2458

580D060 (5 TON) (cont)												
Airflow (Cfm)	Alternate Belt Drive Motor											
	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	1460	2.09	2156
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	1495	2.16	2270	1544	2.40	2522
2100	1393	1.87	1965	1452	2.08	2195	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	1516	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	1632	3.03	3134	1692	3.28	3345

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required. (See Note 4.)
2. **Shading** indicates field-supplied motor and drive required.
3. **—** indicates maximum usable bhp/watts.
4. Alternate motor drive range: 900 to 1300 rpm. All other rpms require a field-supplied drive.
5. Values include losses for filters, unit casing, and wet coils.

6. 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 60 for additional information.
7. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY – HORIZONTAL DISCHARGE UNITS (cont)

580D072 (6 TON)																		
Airflow (Cfm)	Standard Belt Drive Motor																	
	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 TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	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	1632	2.60	2292
2600	1552	2.40	2119	1616	2.63	2317	1674	2.80	2462
2700	1594	2.51	2300	1645	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
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 4)
2. **Shading** indicates field-supplied motor and drive required
3. **—** indicates maximum usable bhp/watts
4. Standard motor drive range: 1070 to 1460 rpm. All other rpms require a field-supplied drive
5. Values include losses for filters, unit casing, and wet coils

6. 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 60 for additional information.
7. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — HORIZONTAL DISCHARGE UNITS (cont)

580D090 (7½ TON)																		
Airflow (Cfm)	Standard Belt Drive Motor																	
	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
2200	499	0.50	524	580	0.70	677	652	0.94	867	717	1.17	1056	748	1.30	1165	779	1.43	1275
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	899	2.54	2242
3400	684	1.41	1258	747	1.70	1508	807	2.04	1805	857	2.35	2076	882	2.51	2206	907	2.68	2348
3500	701	1.53	1361	762	1.82	1613	821	2.16	1910	871	2.46	2198	895	2.64	2326	925	2.80	2462
3600	717	1.65	1465	777	1.94	1718	835	2.29	2023	885	2.62	2317	908	2.75	2453	922	2.95	2587
3700	733	1.77	1569	792	2.07	1831	849	2.42	2136	899	2.78	2445	922	2.95	2578	945	3.11	2718
3750	742	1.84	1630	800	2.14	1892	856	2.48	2187	907	2.86	2512	939	3.03	2653	952	3.20	2798

580D090 (7½ TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	External Static Pressure (in. wg)								
	1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2200	839	1.78	1578	905	2.21	1954	959	2.57	2266
2250	843	1.81	1604	908	2.25	1989	955	2.52	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	978	2.78	2445
2700	878	2.16	1910	928	2.45	2162	983	2.98	2529
2800	889	2.29	2023	937	2.57	2266	986	2.91	2554
2900	900	2.41	2128	947	2.70	2377	990	3.01	2637
3000	910	2.52	2223	958	2.85	2504	1002	3.15	2751
3100	920	2.64	2326	966	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	3257
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	3608

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates field-supplied drive required (See Note 6)
- 2 **Shading** indicates alternate drive required
- 3 **Shading** indicates field-supplied motor and drive required
- 4 _____ indicates maximum usable bhp/watts of standard drive
- 5 - - - - - indicates maximum usable bhp/watts of alternate drive.
- 6 Standard drive range is 590 to 840 rpm. Alternate drive range is 685 to 935 rpm. All other rpms require a field-supplied drive

- 7 Values include losses for filters, unit casing, and wet coils
- 8 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 60 for additional information.
- 9 Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
- 10 Interpolation is permissible. Do not extrapolate.
- 11 Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY – HORIZONTAL DISCHARGE UNITS (cont)

580D102 (8½ TON)																		
Airflow (Cfm)	Standard Belt Drive Motor																	
	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	2.52	2232
3400	684	1.41	1258	747	1.70	1508	807	2.04	1805	857	2.35	2076	882	2.51	2206	907	2.65	2343
3500	701	1.53	1361	762	1.82	1613	821	2.16	1910	871	2.44	2186	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	2652	952	3.20	2793
3800	750	1.90	1683	807	2.21	1954	865	2.56	2257	914	2.93	2571	936	3.11	2647	958	3.28	2854
3900	767	2.04	1805	822	2.35	2076	877	2.71	2385	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	3.44	2971	978	3.62	3244	1000	3.81	3251
4200	817	2.49	2197	869	2.82	2479	920	3.18	2783	970	3.60	3099	992	3.80	3252	1015	4.00	3380
4250	826	2.56	2275	877	2.81	2554	926	3.26	2854	977	3.68	3165	999	3.88	3306	1022	4.10	3445
4300	834	2.66	2343	885	3.00	2629	935	3.37	2925	984	3.76	3230	1006	3.99	3313	1029	4.20	3506

580D102 (8½ TON) (cont)									
Airflow (Cfm)	Standard Belt Drive Motor								
	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	996	2.91	2554
2900	900	2.41	2128	947	2.70	2377	995	3.01	2637
3000	910	2.52	2223	958	2.85	2504	1002	3.15	2751
3100	920	2.64	2320	969	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	2859	1034	3.63	3121
3400	954	3.02	2645	1000	3.40	2948	1044	3.79	3237
3500	965	3.15	2751	1011	3.55	3062	1054	3.94	3349
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	3.90	3303	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	1022	3.89	3273	1070	4.36	3603	1110	4.78	3820
4100	1042	4.18	3435	1082	4.56	3713	1122	4.97	3902
4200	1055	4.38	3614	1095	4.76	3811	1134	5.18	3971
4250	1062	4.49	3676	1102	4.87	3860	1140	5.27	4006
4300	1069	4.59	3728	1108	4.98	3906	1147	5.38	4036

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 4)
2. **Shading** indicates field-supplied motor and drive required
3. **_____** indicates maximum usable bhp/watts.
4. Standard drive range is 685 to 935 rpm. All other rpms require a field-supplied drive.

5. Values include losses for filters, unit casing, and wet coils
6. 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 60 for additional information.
7. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — HORIZONTAL DISCHARGE UNITS (cont)

580D120 (10 TON)																		
Standard and Alternate Belt Drive Motors																		
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	2748
4400	752	2.08	1840	800	2.21	1875	860	2.39	2110	912	2.65	2397	962	2.92	2642	1008	3.18	2885
4500	768	2.24	1980	814	2.35	1989	871	2.51	2265	924	2.80	2523	973	3.07	2772	1019	3.33	3029
4600	783	2.40	2119	827	2.50	2121	883	2.64	2390	937	2.95	2661	984	3.21	2904	—	—	—
4700	799	2.58	2309	841	2.64	2291	894	2.77	2496	949	3.10	2800	994	3.36	3043	—	—	—
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	3089	—	—	—	—	—	—
5000	—	—	—	883	3.10	2735	931	3.21	2904	—	—	—	—	—	—	—	—	—

580D120 (10 TON) (cont)												
Standard and Alternate Belt Drive Motors												
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	2595
3700	980	2.45	2212	1024	2.64	2380	1069	2.87	2587	1109	3.02	2725
3800	989	2.58	2326	1033	2.76	2487	1077	2.95	2630	1118	3.10	2855
3900	1000	2.73	2460	1042	2.87	2624	1085	3.10	2849	1127	3.26	3002
4000	1010	2.87	2587	1052	3.05	2763	1093	3.24	2933	—	—	—
4100	1021	3.07	2725	1062	3.22	2914	1102	3.41	3087	—	—	—
4200	1032	3.17	2865	1072	3.36	2971	—	—	—	—	—	—
4300	1042	3.32	3010	—	—	—	—	—	—	—	—	—
4400	—	—	—	—	—	—	—	—	—	—	—	—
4500	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—
4700	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—
4900	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

1. **Boldface** indicates field-supplied drive required (See Note 6)
2. **Shading** indicates alternate motor and/or drive required
3. **Shading** indicates field-supplied motor and drive required.
4. **---** indicates maximum usable bhp/watts of standard motor and drive
5. **---** indicates maximum usable bhp/watts of alternate motor and/or drive.
6. Standard drive range is 685 to 935 rpm. Alternate drive range is 835 to 1085 rpm. All other rpms require a field-supplied drive
7. Values include losses for filters, unit casing, and wet coils
8. 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 60 for additional information
9. Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
10. Interpolation is permissible. Do not extrapolate
11. Minimum allowable cfm is 300 cfm/ton

AIR DELIVERY — HORIZONTAL DISCHARGE UNITS (cont)

580D150 (12½ TON)																		
Airflow (Cfm)	Standard and Alternate Belt Drive Motors																	
	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
3700	677	1.20	1129	748	1.43	1316	810	1.65	1498	869	1.89	1700	928	2.17	1940	984	2.43	2166
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	3915	1124	4.70	4270	1166	5.01	4551
5500	940	3.44	3074	995	3.86	3461	1044	4.17	3748	1092	4.54	4093	1137	4.91	4437	1178	5.22	4725
5600	955	3.62	3239	1010	4.04	3627	1058	4.38	3943	1105	4.73	4270	1150	5.12	4633	1190	5.44	4900
5700	970	3.80	3405	1024	4.23	3804	1072	4.59	4139	1118	4.92	4456	1163	5.34	4837	1203	5.67	5143
5800	985	3.99	3581	1039	4.42	3981	1086	4.80	4335	1131	5.14	4652	1176	5.56	5041	—	—	—
5900	1000	4.18	3757	1053	4.62	4167	1100	5.02	4540	1144	5.36	4856	—	—	—	—	—	—
6000	1015	4.39	3953	1068	4.83	4363	1114	5.25	4754	1158	5.58	5060	—	—	—	—	—	—
6100	1030	4.59	4139	1083	5.04	4558	1128	5.48	4967	—	—	—	—	—	—	—	—	—
6200	1046	4.81	4344	1097	5.26	4753	1142	5.71	5180	—	—	—	—	—	—	—	—	—

580D150 (12½ TON) (cont)												
Airflow (Cfm)	Standard and Alternate Belt Drive Motors											
	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
3700	1036	2.68	2387	1080	2.90	2548	1114	3.07	2737	1135	3.17	2828
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	1256	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	1273	5.26	4782
4900	1150	4.39	3943	1194	4.77	4307	1239	5.12	4633	1282	5.47	4959
5000	1161	4.54	4093	1204	4.95	4475	1248	5.31	4810	1291	5.66	5133
5100	1172	4.71	4251	1214	5.13	4642	1257	5.51	4995	—	—	—
5200	1183	4.89	4419	1225	5.29	4791	1267	5.70	5170	—	—	—
5300	1194	5.08	4596	1236	5.47	4956	—	—	—	—	—	—
5400	1206	5.26	4781	1247	5.65	5124	—	—	—	—	—	—
5500	1218	5.42	4959	—	—	—	—	—	—	—	—	—
5600	1230	5.57	5124	—	—	—	—	—	—	—	—	—
5700	—	—	—	—	—	—	—	—	—	—	—	—
5800	—	—	—	—	—	—	—	—	—	—	—	—
5900	—	—	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—
6100	—	—	—	—	—	—	—	—	—	—	—	—
6200	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates field-supplied drive required (See Note 6.)
- 2 **Shading** indicates alternate motor and/or drive required
- 3 **Shading** indicates field-supplied motor and drive required
- 4 **---** indicates maximum usable bhp/watts of standard motor and drive
- 5 **---** indicates maximum usable bhp/watts of alternate motor and/or drive
- 6 Standard drive range is 860 to 1080 rpm Alternate drive range is 900 to 1260 rpm All other rpms require a field-supplied drive
- 7 Values include losses for filters, unit casing, and wet coils

- 8 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 60 for additional information.
- 9 Use of a field-supplied motor may affect wire sizing. Contact your local representative to verify.
10. Interpolation is permissible. Do not extrapolate.
- 11 Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 579F180-300 UNITS

579F180 (15 TON)																		
Standard Belt-Drive Motor; 208/230-V and 460 V Units																		
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	—	—	—
6900	1150	3 35	2975	1218	3 67	3259	1281	3 98	3535	—	—	—	—	—	—	—	—	—
7200	1194	3 77	3348	1260	4 10	3641	—	—	—	—	—	—	—	—	—	—	—	—
7500	1238	4 23	3758	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

579F180 (15 TON) (cont)												
Standard Belt-Drive Motor; 208/230-V and 460-V Units												
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	—	—	—	—	—	—
6300	—	—	—	—	—	—	—	—	—	—	—	—
6600	—	—	—	—	—	—	—	—	—	—	—	—
6900	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—
7500	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 Factory shipped motor drive range is 1194 to 1526 rpm Other rpms require a field-supplied drive.
- 2 Static pressure losses (i e., economizer) must be added to external static pressure before entering Air Delivery table

3 Interpolation is permissible Do not extrapolate

4 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

579F180 (15 TON)																		
Standard Belt-Drive Motor; 575-V Units																		
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	—	—	—
6300	1059	2 60	2309	1133	2 89	2567	1198	3 17	2815	—	—	—	—	—	—	—	—	—
6600	1104	2 96	2629	1174	3 26	2895	—	—	—	—	—	—	—	—	—	—	—	—
6900	1150	3 35	2975	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

579F180 (15 TON) (cont)												
Standard Belt-Drive Motor; 575-V Units												
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	—	—	—
5100	1316	2 90	2575	1382	3 18	2824	—	—	—	—	—	—
5400	1342	3 20	2842	—	—	—	—	—	—	—	—	—
5700	—	—	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—
6300	—	—	—	—	—	—	—	—	—	—	—	—
6600	—	—	—	—	—	—	—	—	—	—	—	—
6900	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—
7500	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- 1 Factory shipped motor drive range is 1201 to 1462 rpm Other rpms require a field-supplied drive.
- 2 Static pressure losses (i e., economizer) must be added to external static pressure before entering Air Delivery table

3. Interpolation is permissible Do not extrapolate

4 Maximum continuous bhp is 3 45 and the maximum continuous watts are 3065 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

AIR DELIVERY — 579F180-300 UNITS (cont)

579F216 (18 TON)																		
Airflow (Cfm)	Standard Belt-Drive Motor																	
	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 TON) (cont)												
Airflow (Cfm)	Standard Belt-Drive Motor											
	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
Watts — Input Watts to Motor

NOTES:

- 1 Factory shipped motor drive range is 1047 to 1251 rpm Other rpms require a field-supplied drive
- 2 Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table.

3 Interpolation is permissible Do not extrapolate

4 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.

579F240 (20 TON)																		
Airflow (Cfm)	Standard Belt-Drive Motor																	
	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 TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	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
Watts — Input Watts to Motor

NOTES:

- 1 **Boldface** indicates additional capability of the 460-v motor.
- 2 Factory shipped motor drive range is 1238 to 1494 rpm Other rpms require a field-supplied drive
- 3 Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table

4 Interpolation is permissible Do not extrapolate

5 Maximum continuous bhp is 8.7 for 208/230 and 575-v units and 9.5 for 460-v units. The maximum continuous watts are 7915 for the 208/230 and 575-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.

AIR DELIVERY — 579F180-300 UNITS (cont)

579F300 (25 TON)																		
Airflow (Cfm)	Standard Belt-Drive Motor																	
	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	3,507	1111	4.23	3,895	1179	4.66	4,295	1212	4.89	4503	1245	5.11	4710
8,000	1017	4.04	3717	1091	4.48	4,126	1160	4.93	4,536	1225	5.38	4,954	1256	5.62	5170	1287	5.85	5386
8,500	1072	4.76	4385	1143	5.23	4,818	1209	5.70	5,250	1271	6.18	5,688	1302	6.42	5913	1332	6.66	6137
9,000	1128	5.57	5129	1196	6.07	5,587	1260	6.56	6,042	1320	7.06	6,501	1348	7.32	6735	1377	7.57	6968
9,500	1185	6.47	5955	1250	6.99	6,437	1311	7.51	6,915	1369	8.03	7,395	1396	8.30	7638	1424	8.56	7881
10,000	1241	7.45	6865	1304	8.00	7,372	1363	8.55	7,873	1419	9.09	8,376	1445	9.37	8629	1472	9.64	8882
10,500	1298	8.54	7865	1359	9.12	8,396	1415	9.69	8,921	1469	10.26	9,446	1495	10.55	9710	1521	10.83	9973
11,000	1355	9.72	8956	1414	10.33	9,512	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 TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	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

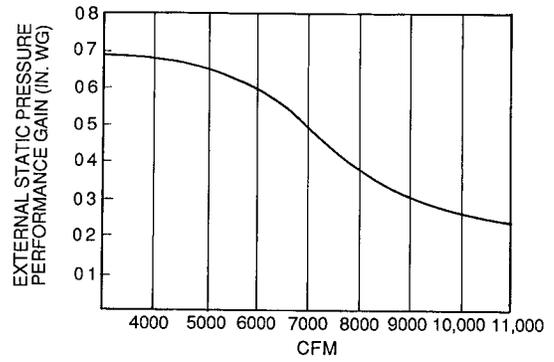
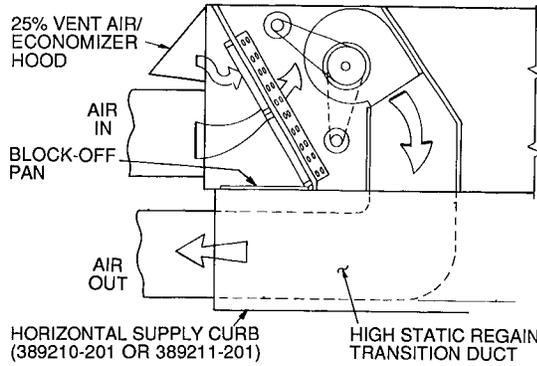
Bhp — Brake Horsepower Input to Fan
Watts — Input Watts to Motor

NOTES:

- Boldface** indicates additional capability of the 460-v motor
- Factory shipped motor drive range is 1323 to 1579 rpm. Other rpms require a field-supplied drive.
- Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table

- Interpolation is permissible. Do not extrapolate.
- Fan performance is based on wet coils, clean filters, and casing losses.
- Maximum continuous bhp is 10.2 for 208/230 and 575-v units and 11.8 for 460-v units. The maximum continuous watts are 9510 for the 208/230 and 575-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.

**579F180-300 HORIZONTAL SUPPLY/RETURN FAN PERFORMANCE
WITH 389210-201 OR 389211-201 HIGH STATIC REGAIN ADAPTER**



NOTE: The 389210-201 or 389211-201 high static regain adapter accessory may be used to provide horizontal supply/return.

NOTE: The 389210-201 or 389211-201 horizontal supply/return adapter accessory improves 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	7500	11,250

SOUND POWER (Total Unit)

UNIT	SOUND RATING (60 Hz)	A-WEIGHTED (dB)	OCTAVE BANDS							
			63	125	250	500	1000	2000	4000	8000
580D036-060	8.2 Bels	80.5	56.8	75.8	72.4	72.9	74.8	75.4	71.3	69.1
580D072	8.4 Bels	82.4	56.0	69.8	72.9	75.9	78.3	76.5	72.6	67.9
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
579D180	8.8 Bels	87.3	87.1	89.9	86.4	84.0	82.7	79.0	73.9	68.6
579D216	8.8 Bels	87.2	91.1	88.1	89.0	84.7	82.0	76.9	74.1	68.2
579D240	9.4 Bels	94.3	99.6	92.8	94.2	91.8	89.8	85.5	81.0	75.2
579D300	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)

ACCESSORY/FIOP ECONOMIZER STATIC PRESSURE DROP (in. wg)

UNIT	UNIT VOLTAGE	CFM	VARISLIDE™ ECONOMIZER PRESSURE DROP	PARABLADE ECONOMIZER PRESSURE DROP
580D036-072	All	900	.05	.08
		1,200	.05	.10
		1,400	.05	.17
		1,600	.05	.26
		1,800	.05	.33
		2,000	.05	.34
		2,200	.05	.36
		2,400	.05	.40
580D090-150	All	2,200	.02	.21
		2,500	.02	.25
		3,000	.03	.35
		3,500	.04	.49
		4,000	.05	.61
		4,500	.06	—
		5,000	.07	—
		5,500	.08	—
579F180	All	4,000	.03	—
		5,000	.05	—
		6,000	.07	—
		7,500	.10	—
579F216-300	All	6,000	.07	—
		7,200	.09	—
		9,000	.11	—
		10,000	.12	—
		11,250	.13	—

FIOP — Factory-Installed Option

FAN RPM AT MOTOR PULLEY SETTINGS*

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 (208/230,460 v)**	1526	1493	1460	1426	1393	1360	1327	1294	1260	1227	1194	—	—
579F180 (575 v)**	1462	1436	1410	1384	1358	1332	1305	1279	1253	1227	1201	—	—
579F216**	1251	1234	1217	1200	1183	1166	1149	1132	1115	1098	1081	1064	1047
579F240**	1494	1472	1451	1430	1408	1387	1366	1345	1323	1302	1281	1259	1238
579F300**			1536	1515	1493	1472	1451	1430	1408	1387	1366	1344	1323

*Approximate fan rpm shown.

†Indicates alternate motor and drive package

**Indicates standard motor and drive package.

††Indicates alternate drive package only

|| Do not run this fan at less than 1 full turn open, as it will exceed the maximum allowable rpm of 1550

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	16.9	86.7	¼	1.4	2.8	.57	25.3/25.3	35/35	24/24	97/97
		Alt												
	208/230 (3 phase)	Std	187	254	11.7	65.1	¼	1.4	2.8	57	18.8/18.8	25/25	18/18	76/76
		Alt												
	460 (3 phase)	Std	414	508	5.1	32.8	¼	0.8	1.3	.30	8.5	15	8	38
		Alt												
	575 (3 phase)	Std	518	632	4.1	37.0	¼	0.8	1.3	.30	6.4	15	6	32
		Alt												
048 (4 Tons)	208/230 (single phase)	Std	187	254	23.0	110.0	¼	1.4	3.5	57	33.7/33.7	40/40	32/32	122/122
		Alt												
	208/230 (3 phase)	Std	187	254	15.3	92.0	¼	1.4	3.5	.57	24.0/24.0	30/30	23/23	104/104
		Alt												
	460 (3 phase)	Std	414	508	7.0	46.0	¼	0.8	1.8	.30	11.4	15	11	52
		Alt												
	575 (3 phase)	Std	518	632	5.8	44.0	¼	0.8	1.8	.30	9.3	15	9	49
		Alt												
060 (5 Tons)	208/230 (single phase)	Std	187	254	28.3	141.0	¼	1.4	5.9	57	42.7/42.7	50/50	41/41	155/155
		Alt												
	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												
	460 (3 phase)	Std	414	508	8.6	55.0	¼	0.8	3.2	.30	14.8	20	15	63
		Alt												
	575 (3 phase)	Std	518	632	6.4	44.0	¼	0.8	3.2	30	11.2	15	11	50
		Alt												
072 (6 Tons)	208/230 (3 phase)	Std	187	254	22.3	146.0	¼	1.4	5.8	.57	35.1/35.1	40/40	34/34	190/190
	460 (3 phase)	Std	414	508	11.2	73.0	¼	0.8	2.6	.30	17.4	20	17	95
	575 (3 phase)	Std	518	632	8.9	62.0	¼	0.8	2.6	30	13.8	15	13	80
090 (7½ Tons)	208/230 (3 phase)	Std	187	254	13.6	73.4	¼	1.4	5.8	.57	39.2/39.2	45/45	41/41	194/194
	460 (3 phase)	Std	414	508	6.2	37.7	¼	0.8	2.6	.30	18.0	25	19	99
	575 (3 phase)	Std	518	632	4.9	31.0	¼	0.8	2.6	.30	14.2	20	15	81
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	0.8	2.6	.30	20.7	25	22	116
	575 (3 phase)	Std	518	632	5.9	44.0	¼	0.8	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												
	460 (3 phase)	Std	414	508	8.6	55.0	¼	0.8	2.6	.30	23.4	30	24	134
		Alt												
	575 (3 phase)	Std	518	632	6.4	44.0	¼	0.8	2.6	.30	17.6	20	18	107
		Alt												
150 (12½ Tons)	208/230 (3 phase)	Std	187	254	22.9	146.0	¼	1.4	10.6	.57	63.6/63.6	70/70	67/67	375/375
		Alt												
	460 (3 phase)	Std	414	508	11.9	73.0	¼	0.8	4.8	.30	29.6	35	31	190
		Alt												
	575 (3 phase)	Std	518	632	9.5	62.0	¼	0.8	4.8	.30	26.6	30	28	154
		Alt												

See Legend and Notes on page 52.

ELECTRICAL DATA — 579F180-300

UNIT 579F	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	FLA	LRA	FLA	MCA	MOCP†
		Min	Max	RLA	LRA	RLA	LRA										
180 (15 Tons)	208/230 (3 phase)	187	254	61.0	266	—	—	3	½	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	½	0.08	4.8	—	—	0.30	42	70	
				2.3	6.0	0.30	45					70					
	575 (3 phase)	518	632	23.0	96	—	—	3	½	0.75	3.9	—	—	0.57	35	50	
				2.1	4.8	0.57	37					60					
216 (18 Tons)	208/230 (3 phase)	187	254	28.3	205	25.0	185	3	½	1.70	15.8/15.8	—	—	0.57	81/81	100/100	
				4.6	18.8	0.57	86/86					110/110					
	460 (3 phase)	414	508	14.4	104	12.4	89	3	½	0.80	7.9	—	—	0.30	41	50	
				2.3	6.0	0.30	43					50					
	575 (3 phase)	518	632	11.4	78	10.4	78	3	½	0.75	6.0	—	—	0.57	33	40	
				2.1	4.8	0.57	35					45					
240 (20 Tons)	208/230 (3 phase)	187	254	34.5	239	28.3	205	2	1	5.50	25.0/25.0	—	—	0.57	107/107	125/125	
				4.6	18.8	0.57	112/112					125/125					
	460 (3 phase)	414	508	17.0	119	14.4	104	2	1	2.80	13.0	—	—	0.30	54	70	
				2.3	6.0	0.30	57					70					
	575 (3 phase)	518	632	15.2	111	11.4	78	2	1	3.40	10.0	—	—	0.57	47	60	
				2.1	4.8	0.57	49					60					
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					
	575 (3 phase)	518	632	17.9	91	17.9	91	2	1	3.40	13.0	—	—	0.57	60	70	
				2.1	4.8	0.57	62					80					

LEGEND

- CSA — Canadian Standards Association
- CUL — Underwriters' Laboratory Canada
- 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

**The 579F240 and 300 high-heat units have 2 combustion-fan motors



036-150 Only



180-300 Only



180-300 Only



036-072 Only



090-150 Only

NOTES:

- 1 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.

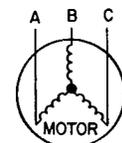
2 Unbalanced 3-Phase Supply Voltage

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.

% 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

$$\text{Average Voltage} = \frac{452 + 464 + 455}{3}$$

$$\frac{1371}{3} = 457$$

NOTE: The 575-v 580D036-150 units are CSA or CUL only

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

$$\% \text{ Voltage Imbalance} = 100 \times \frac{7}{457} = 1.53\%$$

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.

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, compressor no. 1 (580D036-150 and 579F216-300) or unloaded compressor (579F180), and condenser fan(s) start. 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).

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.

Set thermostat system switch at HEAT or AUTO. position and set fan switch to AUTO. position for heating.

OPERATING SEQUENCE (cont)

When first-stage thermostat calls for heat, time-delay relay for evaporator fan begins timer sequence. Induced-draft relay closes, and induced-draft motor starts.

Pressure switch closes and pilot valve no. 1 opens, allowing gas to flow to the first-stage pilot. Spark ignitor ignites pilot flame. Sensor detects flame and the main gas valve no. 1 opens. Gas flows to main burners and first-stage burners ignite. Spark ignitor turns off.

When sequence is complete, time-delay relay closes and evaporator fans start.

Second Stage — 579F180-300 Low-Heat and 579F180 High-Heat Units — With an additional heating call, the second-stage thermostat closes. (The control relay closes during the first stage of operation.) Pilot valve no. 2 opens, and the spark ignitor ignites pilot. The sensor detects a flame and energizes main gas valve coil no. 2, opening main gas valve no. 2. Gas flows to the main burners, and the second stage burners ignite. The spark ignitor turns off.

When the second-stage thermostat is satisfied, the second-stage gas valve closes.

When the first-stage thermostat is satisfied, the first-stage gas valve closes. The induced-draft motor turns off, the time relay opens, and the timer sequence begins. When the sequence is complete, the evaporator-fan motor turns off.

Second Stage — 579F240,300 High-Heat Units — With an additional heating call, the second-stage thermostat closes. (The control relay closes during the first stage of operation.) The second-stage induced-draft relay closes, and the second-stage induced-draft motor starts.

The second-stage pressure switch closes and pilot valve no. 2 opens, allowing gas to flow to the second-stage pilot. Spark ignitor ignites pilot flame. The sensor detects the flame, and main gas valve no. 2 opens. Gas flows to main burners and second-stage burners ignite. Spark ignitor turns off.

When the second-stage thermostat is satisfied, the second-stage gas valve closes and the second-stage induced-draft motor turns off.

When the first-stage thermostat is satisfied, the first-stage gas valve closes. The first-stage induced-draft motor turns off, the time relay opens, and the timer sequence begins. When the sequence is complete, the evaporator-fan motor turns off.

COOLING, UNITS WITH VARISLIDE™ 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(s) (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). 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(s) 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.

COOLING, UNITS WITH PARABLADE ECONOMIZER (580D036-060) — 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 (580D072-150) — 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 enthalpy control setting, the economizer damper moves to VENT position. The compressor(s) and evaporator and condenser fans energize.

Upon a first call for cooling, when outdoor ambient is below the enthalpy control setting, the evaporator fan starts and the economizer is fully open. The compressor(s) remains 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.

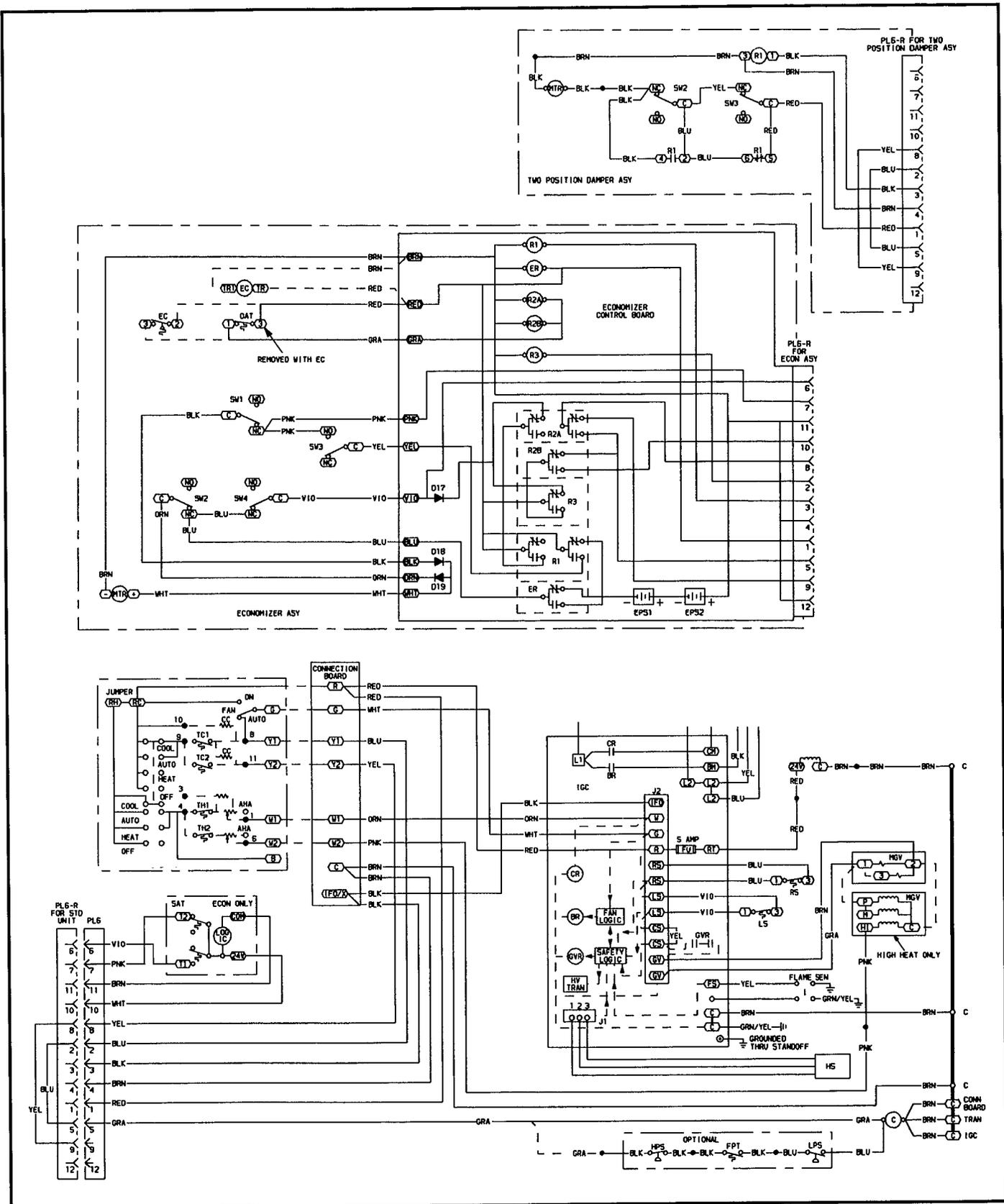
When supply-air temperature drops below a fixed set point, the economizer damper modulates to maintain the temperature at the fixed set point.

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.

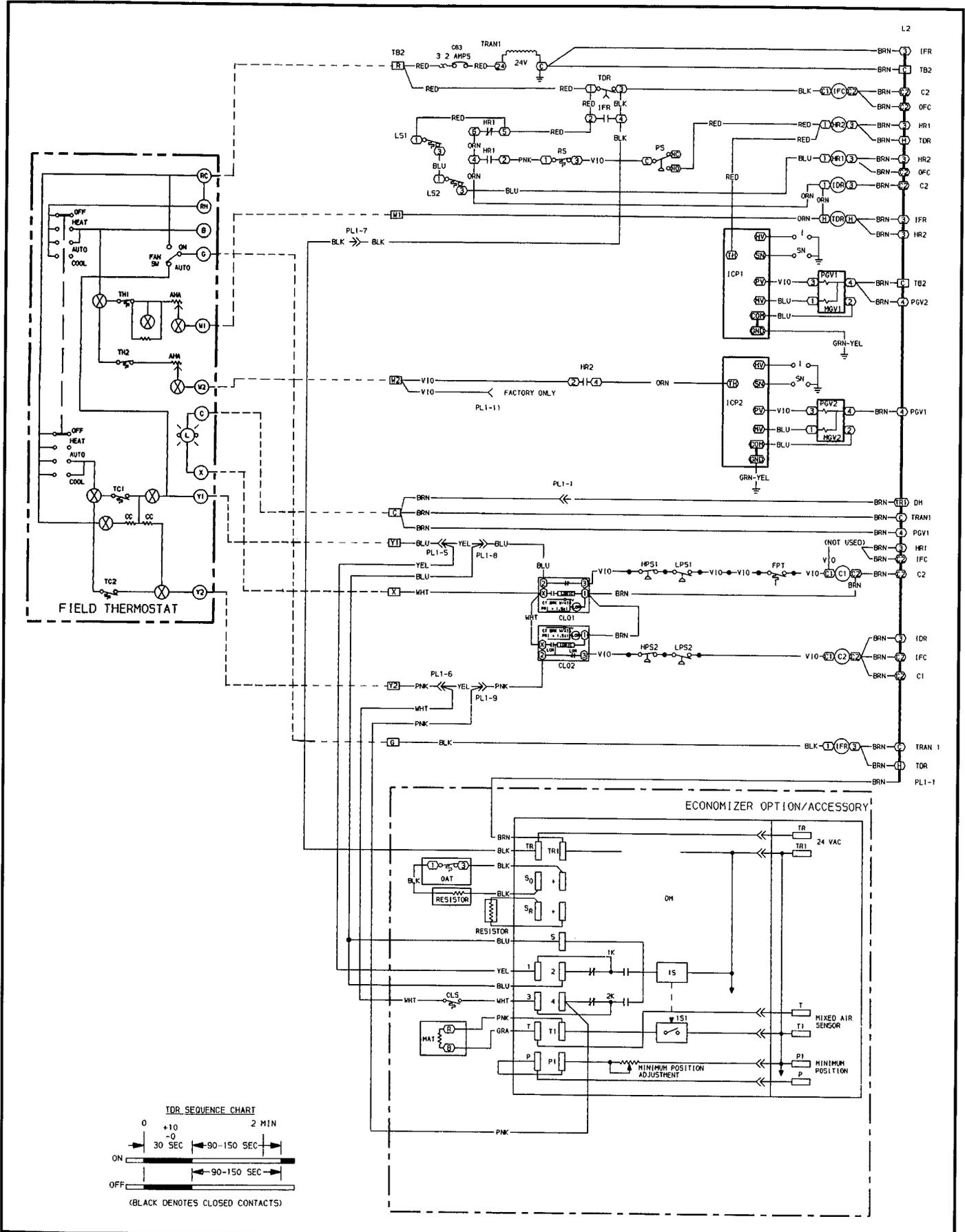
HEATING, UNITS WITH ECONOMIZER (579F180-300) — Outdoor-air damper stays at VENT position while evaporator fan is operating. Refer to Heating, Units Without Economizer (579F180-300) section above for remainder of operating sequence.

TYPICAL WIRING SCHEMATIC — 580D036-150



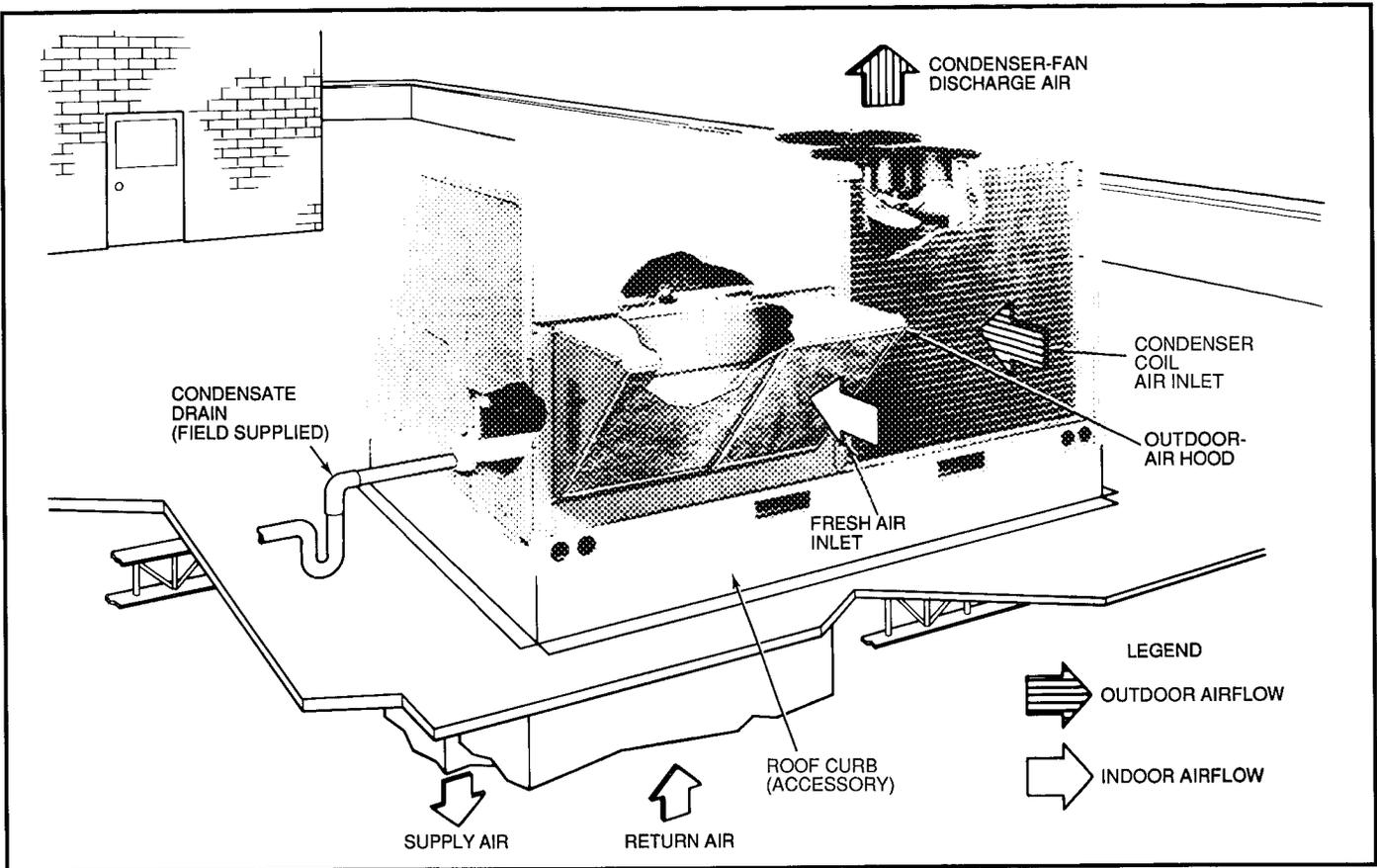
See Legend on page 57.

TYPICAL WIRING SCHEMATIC — 579F180-300

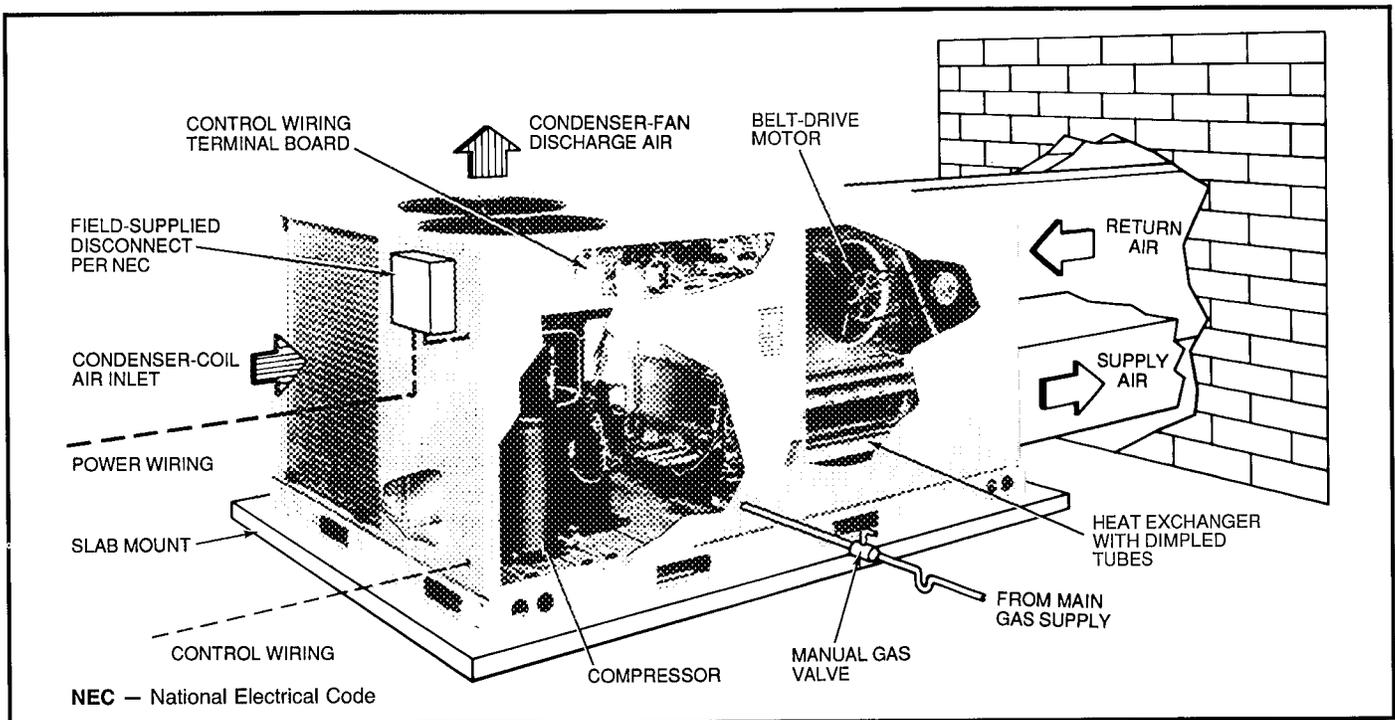


See Legend on page 57

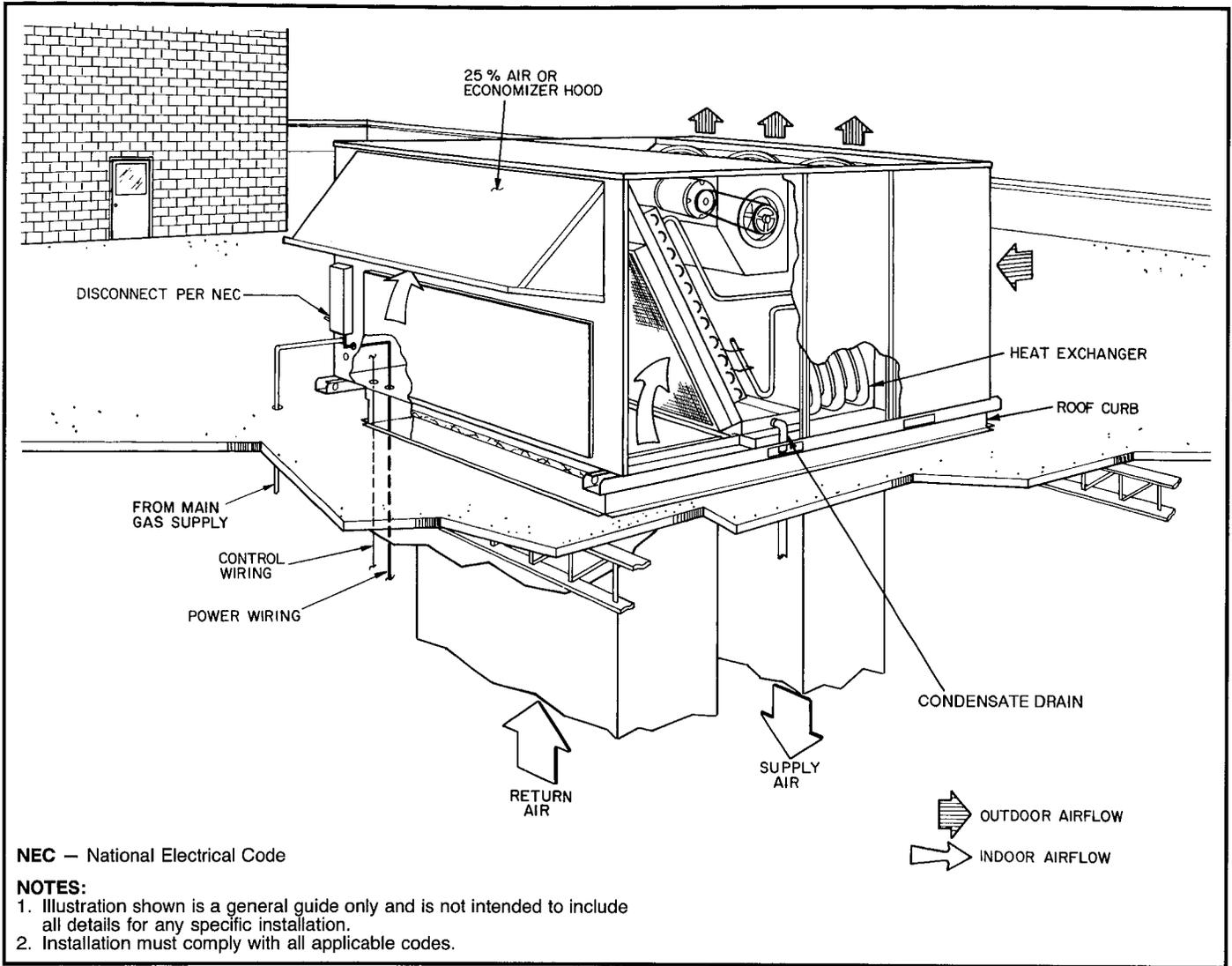
TYPICAL INSTALLATION — 580D090-150



Vertical Discharge Ducting



TYPICAL INSTALLATION — 579F180-300



LEGEND FOR TYPICAL WIRING SCHEMATICS

AHA	— Adjustable Heat Anticipator	IFM	— Indoor (Evaporator) Fan Motor	SW4	— Switch, Maximum Vent Position
BKR W/AT	— Breaks with Amp Turns	IFR	— Indoor (Evaporator) Fan Relay	TB	— Terminal Block
C	— Contactor, Compressor	IGC	— Integrated Gas Unit Controller	TC	— Thermostat Cooling
CB	— Circuit Breaker	IP	— Internal Protector	TDR	— Time-Delay Relay
CC	— Cooling Compensator	L	— Light	TH	— Thermostat Heating
CH	— Crankcase Heater	LOR	— Lockout Relay	TRAN	— Transformer
CLO	— Compressor Lockout	LPS	— Loss-of-Charge/ Low-Pressure Switch		Terminal (Marked)
CLS	— Compressor Lockout Switch	LS	— Limit Switch		Terminal (Unmarked)
COMP	— Compressor Motor	MAT	— Mixed-Air Thermostat		Terminal Block
CR	— Control Relay	MGV	— Main Gas Valve		Splice
CT	— Current Transformer	NC	— Normally Closed		Splice (Marked)
DM	— Damper Motor	NO	— Normally Open		Factory Wiring
DU	— Dummy Terminal	OAT	— Outdoor-Air Thermostat		Field Control Wiring
EC	— Enthalpy Control	OFC	— Outdoor (Condenser) Fan Contactor		Field Power Wiring
EQUIP	— Equipment	OFM	— Outdoor (Condenser) Fan Motor		Accessory or Optional Wiring
FPT	— Freeze Protection Thermostat	OFM	— Outdoor (Condenser) Fan Motor		To Indicate Common Potential Only, Not To Represent Wiring
FU	— Fuse	PGV	— Pilot Gas Valve		
GND	— Ground	PL	— Plug		
HPS	— High-Pressure Switch	PRI	— Primary		
HR	— Heat Relay	PS	— Pressure Switch		
HV	— High Voltage	QT	— Quadruple Terminal		
I	— Ignitor	R	— Relay		
ICP	— Ignitor Control Pack	RS	— Rollout Switch		
IDM	— Induced-Draft Motor	SN	— Sensor		
IDR	— Induced-Draft Relay	SW	— Switch		
IFC	— Indoor (Evaporator) Fan Contactor	SW1	— Switch, Fully Open		
IFCB	— Indoor (Evaporator) Fan Circuit Breaker	SW2	— Switch, Fully Closed		
		SW3	— Switch, Minimum Vent Position		

APPLICATION DATA

1. 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.
2. 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 59 for information on field-installed concentric ductwork when applicable.
3. To Convert from Vertical Discharge to Horizontal Discharge (580D036-150):
 - A. Remove Varislide™ economizer to gain access to return duct opening.
 - B. Move the horizontal discharge duct opening covers to the vertical discharge openings.
 - C. Rotate Varislide economizer 90 degrees (until the economizer motor faces the condenser section).
 - D. Rotate the barometric relief damper 90 degrees (economizer only).
 - E. Install block-off plate over the opening on the access panel.

NOTE: Parablade economizer is vertical discharge only.
4. Thru-The-Curb Service Connections — Roof curb connections allow field power wires, control wires, and gas supply to enter through the roof curb opening.
5. Thru-The-Bottom Electric Service Connections — The accessory connection kit must be used to allow field power and control wires to enter from the bottom of the unit to ensure a watertight seal.
6. 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.
7. Heating-to-Cooling Changeover — All units are automatic changeover from heating to cooling when automatic changeover thermostat and subbase are used.
8. Airflow — Units are draw-thru on cooling and blow-thru on heating.
9. 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 300 units.
10. Minimum Airflow — The minimum airflow for cooling is 300 cfm/ton.
11. Minimum Ambient Cooling Operation Temperature (580D036-150) — The cooling temperature for size 036-150 standard units is 25 F. With accessory low-ambient kit, units can operate at outdoor temperatures down to -20 F.
12. Minimum Ambient Cooling Operation Temperature (579F180-300) — Units are designed to operate at outdoor temperatures down to 40 F for 579F180 and 216, 25 F for 579F240, and 48 F for 579F300. To operate at lower outdoor-air temperatures, see Trade Prices or contact your local representative for appropriate accessories.
13. Maximum Operating Outdoor-Air Temperature — For cooling, this temperature is 115 F on size 036-150 units and 125 F on size 180-300 units.

14. High Altitude — A change to the gas orifice may be required at high altitudes. Refer to Altitude Compensation charts on page 61.
15. Minimum Temperature — Air entering the heat exchanger in heating is 50 F continuous and 45 F intermittent.
16. Internal Unit Design — Due to the internal design (draw-thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Specifications table and the notes following each Air Delivery table can be utilized with extreme confidence.

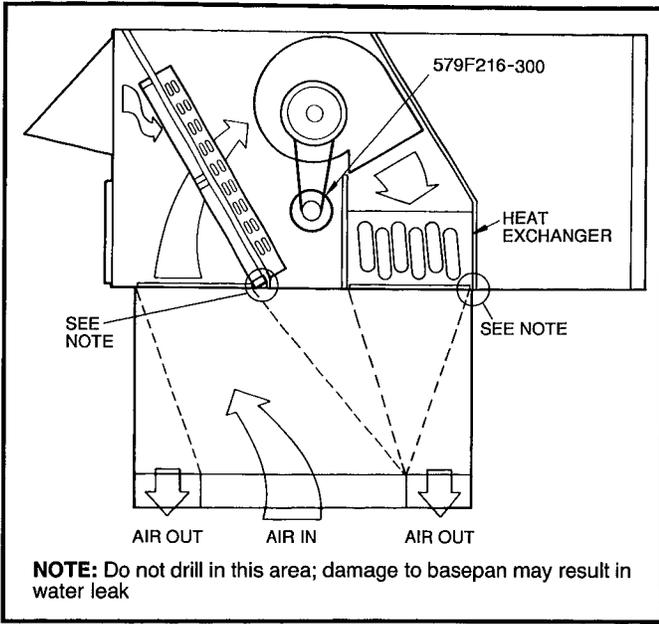
Using the motors with the values listed in the Specifications table *will not* result in nuisance tripping or premature motor failure. The unit warranty will not be affected.

OPTION AND ACCESSORY LIST

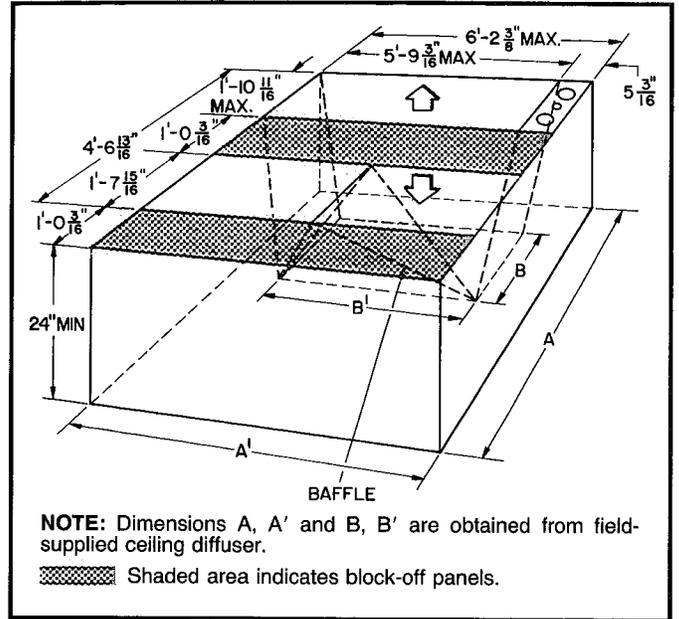
ITEM	FACTORY-INSTALLED OPTION	FIELD-INSTALLED ACCESSORY
Varislide™ and Standard Integrated Economizer	X	X
Parablade Economizer (036-150)	X	
Manual Outdoor-Air Dampers	X	X*
Controls Upgrade Kit (036-150)†	X	X
Alternate Drive (090)	X	
Alternate Motor and Drive (036-060, 120, 150)	X	
Condenser Coil Grille (036-150)†		X
Two-Position Damper		X
Barometric Relief Damper (180-300)		X
Roof Curbs (Vertical and Horizontal)		X
Horizontal Adapter (180-300)		X
Thermostats and Subbases		X
Power Exhaust (180-300)		X
Head Pressure Control Device		X
Low-Ambient Kit		X
Time Guard® II Control Circuit		X
Utility Connection Package (036-150)		X
Enthalpy Control (036-150)		X
Enthalpy Control Sensor		X
Condenser Coil Hail Guard Assembly (036-150)		X
LP (Liquid Propane) Conversion Kit (036-150)		X
Flue Hood Protector (036-150)		X
NO _x Reduction Kit (036-150)		X
Winter Start Time-Delay Relay (180-300)		X
Fan/Filter Status Switch		X
Thru-the-Bottom Service Connectors (036-150)		X
Condenser Coil Salt Spray Protector (090-150)		X
Hail Guard (036-150)		X
Flue Discharge Deflector (036-150)		X

*Available as an accessory on 580D036-150 only
 †Only available as part of an options package.

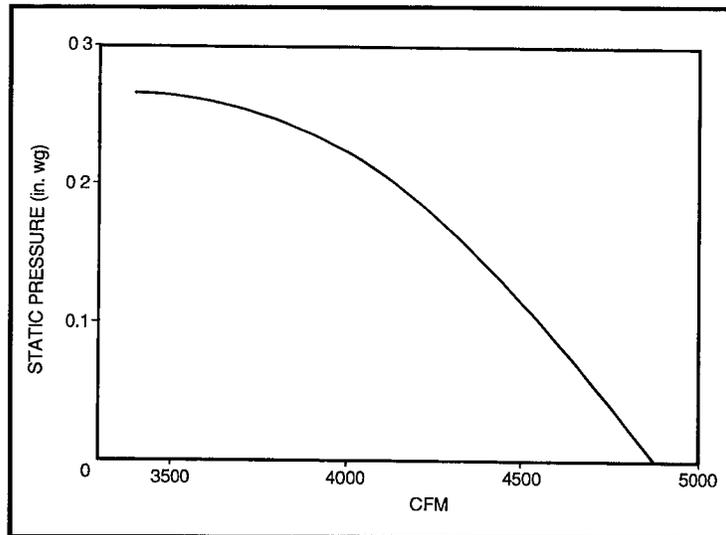
APPLICATION DATA (cont)



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



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



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

APPLICATION DATA (cont)
EVAPORATOR-FAN MOTOR PERFORMANCE

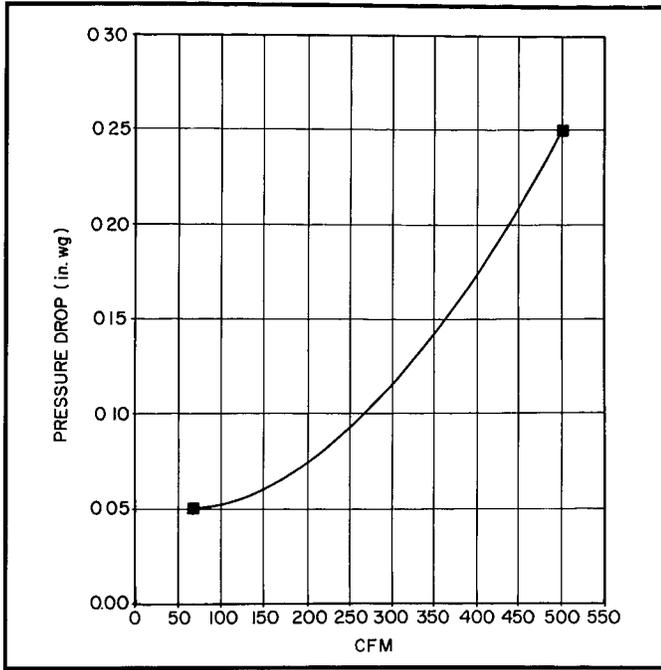
UNIT	EVAPORATOR-FAN MOTOR	UNIT VOLTAGE	MAXIMUM ACCEPTABLE CONTINUOUS BHP*	MAXIMUM ACCEPTABLE OPERATING WATTS	MAXIMUM AMP DRAW
580D036	Standard	208/230	0.34	440	2.9
		460			1.4
		575			1.4
	Alternate	208/230	1.00	1000	5.4
		460			2.3
		575			2.3
580D048	Standard	208/230	0.75	850	3.5
		460			1.8
		575			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	3.45	3065	4.8
		575			3.9
579F216	Standard	208/230	5.90	5180	15.8
		460			7.9
		575			6.0
579F240	Standard	208/230	8.70	7915	22.0
		460	9.50	8640	13.0
		575	8.70	7915	10.0
579F300	Standard	208/230	10.20	9510	28.0
		460	11.80	11,000	14.6
		575	10.20	9510	13.0

LEGEND

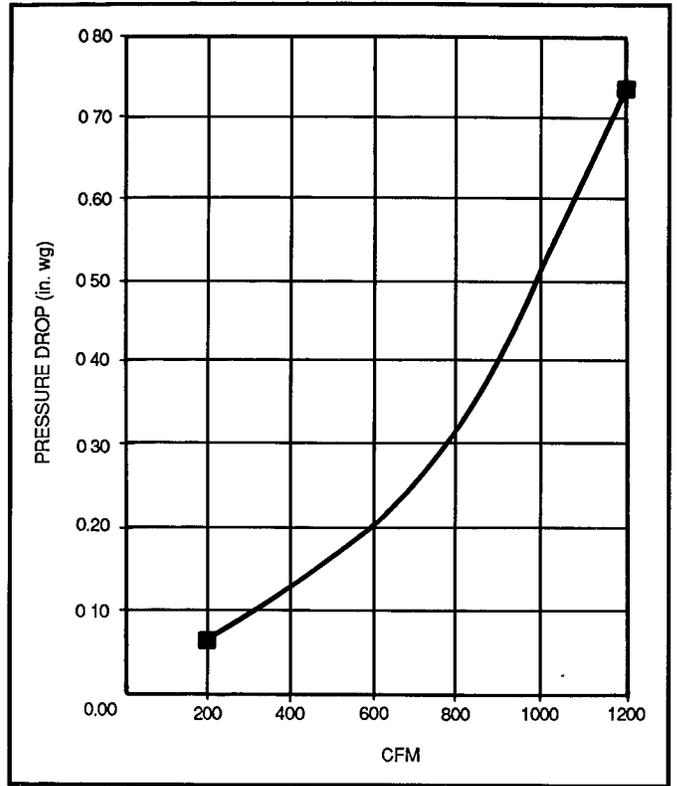
BHP — Brake Horsepower

*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.

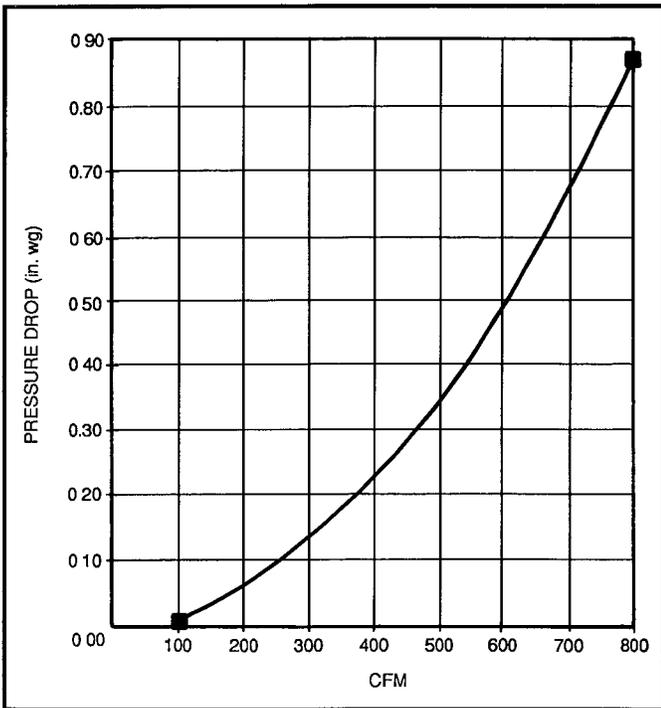
APPLICATION DATA (cont)



Varislide™ 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* – 036-072 UNITS

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.

APPLICATION DATA (cont)

ALTITUDE COMPENSATION* — 090-150 UNITS

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

ALTITUDE COMPENSATION* — 180-300 UNITS

ELEVATION (Ft)	NATURAL GAS Orifice Size†
0-2,000	33
2,000	35
3,000	35
4,000	36
5,000	36
6,000	37
7,000	38
8,000	38
9,000	40
10,000	41
11,000	43
12,000	44
13,000	44
14,000	45

*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.

ENGINEERS' SPECIFICATION GUIDE — MODELS 580D036-150 (3 TO 12½ TONS)

GENERAL: Furnish and install single-package, outdoor rooftop-mounted, electrically controlled, heating and cooling unit utilizing a reciprocating compressor(s) for cooling and gas combustion for heating duty. Unit shall discharge supply air vertically or horizontally as shown on the contract drawings.

Nominal unit electrical characteristics shall be _____ v, _____ ph, 60 Hz. The unit shall be capable of satisfactory operation within voltage limits of _____ v to _____ v.

COOLING CAPACITY: Total cooling capacity of the unit shall be _____ Btuh or greater, and sensible capacity shall be _____ Btuh or greater at conditions of _____ cfm evaporator air entering at unit at _____ F dry bulb, _____ F wet bulb and condenser entering air of _____ F dry bulb. Total design conditions shall be a minimum of _____ Btuh/Watt. The unit shall be capable of cooling operation down to 25 F.

HEATING CAPACITY: Total heating capacity of the unit shall be _____ Btuh or greater with a gas input of _____ Btuh.

CABINET: The cabinet shall be constructed of galvanized steel, bonderized and coated with a repainted, baked enamel finish.

COMPRESSOR: Compressor shall be fully-hermetic type with suitable vibration isolators.

CONDENSER SECTION: The condenser coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Condenser fan shall be direct-driven propeller type and shall discharge air vertically. Fan shall have permanently lubricated bearings.

EVAPORATOR SECTION: Evaporator coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Evaporator fan shall be direct drive with 2 or 3 speeds, or belt drive as shown on the equipment drawings. Belt drive shall include an adjustable-pitch motor pulley. Motor bearings shall be sealed, permanently lubricated, ball-bearing type.

HEATING SECTION: The unit shall be equipped with an induced-draft combustion system with energy saving direct spark ignition and redundant main gas valve. 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. Burners shall be of the in-shot type constructed of aluminum coated steel.

REFRIGERANT SYSTEM: Refrigerant system shall include strainer assembly, fixed orifice feed system, and service gage connections on suction line, liquid line, and compressor discharge line, as well as internal high-pressure relief.

FILTER SECTION: Filter section shall consist of factory-installed low velocity, 2-in. thick fiberglass throwaway filters of commercially available sizes. Filter access panel shall be easy, tool-less access.

CONTROLS: Unit shall be complete with self-contained low-voltage control circuit. Safeties shall include compressor over-temperature and overcurrent.

Heating section shall be provided with the following minimum protection: High temperature limit switch, induced-draft motor speed sensor, flame rollout switch, and flame proving controls.

OPTIONS: Factory-installed integrated economizer shall include all hardware and controls to provide cooling using outdoor air alone or in conjunction with mechanical cooling. Varislide™ dampers shall be low leakage type, not to exceed 3% leakage at 1.0 in. wg pressure differential. Economizer shall be capable of introducing up to 100% outdoor air and shall be equipped with a barometric relief damper. Economizer controls shall be dry-bulb (Varislide) or enthalpy (Parablade) type. Damper shall close on power loss.

Other factory-installed options shall include. 50% manual outdoor-air damper, controls upgrade kit, and alternate high-static evaporator-fan motors and/or drives.

APPROVALS: The unit shall be CSA (036-072) or CUL (090-150) design certified and UL tested and certified. All wiring shall be in accordance with NEC and units shall meet ASHRAE standard 62. The unit shall be rated in accordance with ARI Standards 210/240 or 360 and 270. Units shall be designed to conform to NRCA standards. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

ACCESSORIES: Field-installed accessories shall include: Roof curb (14 in. or 24 in.), roof curb electrical and gas utility connections package, Varislide economizer, manual damper, 25% and 100% two-position outdoor-air dampers, low ambient kit, Time Guard® II short-cycle circuit protection, LP (liquid propane) conversion kit, thermostats and subbases, flue hood protector, condenser coil hail guard, NO_x reduction kit, controls upgrade kit, condenser coil grille, head pressure control, thru-the-bottom service connectors, condenser coil salt spray protector, hail guard, fan/filter status switch, flue discharge deflector, enthalpy control sensor, and enthalpy control.

ENGINEERS' SPECIFICATION GUIDE — MODELS 579F180-300 (15 TO 25 TONS)

GENERAL: Furnish and install single-package, outdoor rooftop-mounted, electrically controlled, heating and cooling unit utilizing reciprocating compressor(s) for cooling and gas combustion for heating duty. Unit shall discharge supply air vertically or horizontally as shown on the contract drawings.

Nominal unit electrical characteristics shall be _____ v, 3 ph, 60 Hz. The unit shall be capable of satisfactory operation within voltage limits of _____ v to _____ v.

COOLING CAPACITY: Total cooling capacity of the unit shall be _____ Btuh or greater, and sensible capacity shall be _____ Btuh or greater at conditions of _____ cfm evaporator air entering at unit at _____ F dry bulb, _____ F wet bulb and condenser entering air of _____ F dry bulb. Total design conditions shall be a minimum of _____ Btuh/Watt.

HEATING CAPACITY: Total heating capacity of the unit shall be _____ Btuh or greater with a gas input of _____ Btuh.

CABINET: The cabinet shall be constructed of galvanized steel, bonderized and coated with a prepainted, baked enamel finish.

COMPRESSOR: Compressor(s) shall be of the fully- or semi-hermetic type with crankcase heaters (180 and 300) and suitable vibration isolators and dual independent refrigeration circuits shall be supplied (216-300).

CONDENSER SECTION: The condenser coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Condenser fan shall be of the direct-driven propeller type and shall discharge air vertically. Fan shall have permanently lubricated bearings.

EVAPORATOR SECTION: Evaporator coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Evaporator fan shall be belt driven as shown on the equipment drawings. Bearings shall be sealed, permanently lubricated, ball-bearing type.

HEATING SECTION: The unit shall be equipped with an induced-draft combustion system with energy saving intermittent spark ignition and redundant main gas valve. 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. Burners shall be of the in-shot type constructed of aluminum coated steel.

REFRIGERANT SYSTEM: Refrigerant system shall include filter drier, fixed orifice feed system, and service gage connections on suction line, liquid line, and compressor discharge line, as well as low-pressure and high-pressure protection.

FILTER SECTION: Filter section shall consist of factory-installed low velocity, 2-in. thick fiberglass throwaway filters of commercially available sizes. Filter access panel shall be easy access.

CONTROLS: Unit shall be complete with self-contained low-voltage control circuit. Safeties shall include compressor over-temperature and overcurrent.

Heating section shall be provided with the following minimum protection: High temperature limit switch, induced-draft pressure switch, manual reset flame rollout switch and flame proving controls.

OPTIONS: Factory-installed integrated economizer shall include all hardware and controls to provide cooling using outdoor air alone or in conjunction with mechanical cooling. Dampers shall be low leakage type, not to exceed 2% leakage at 1.0 in. wg pressure differential. Economizer shall be capable of introducing up to 100% outdoor air and shall be equipped with a gravity relief damper. Economizer controls shall be dry-bulb type.

On all units where the factory-installed economizer is not chosen, the factory-installed manual outdoor-air damper shall be included.

APPROVALS: The unit shall be Warnock Hersey design certified and ETL tested and certified. All wiring shall be in accordance with NEC and units shall meet ASHRAE Standard 62. The unit shall be rated in accordance with ARI Standards 360 and 270. Units shall be designed to conform to NFCA standards. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

ACCESSORIES: Field-installed accessories shall include: Roof curb (14 in. or 24 in.), horizontal adapter, economizer, two-position damper, low-ambient kit, Time Guard® II short-cycle circuit protection, thermostat and subbase, barometric relief damper, power exhaust, head pressure control device, winter start time-delay relay, fan/filter status switch, and enthalpy control sensor.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS