

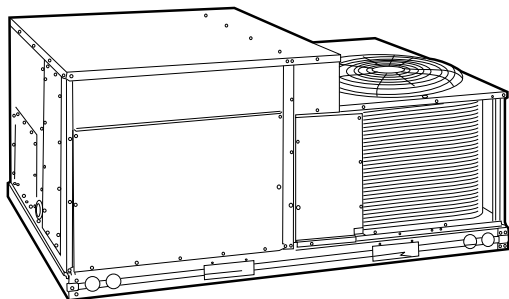


Bryant
Air Conditioning

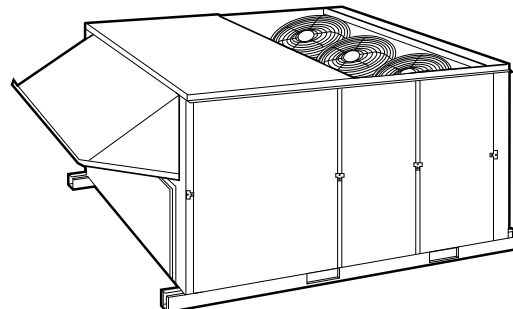
COMMERCIAL SINGLE-PACKAGE ROOFTOP ELECTRIC COOLING UNITS

Model 558D/559F Sizes 036-300

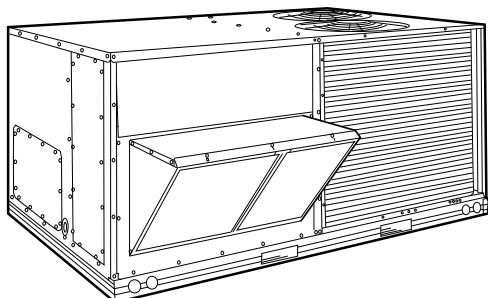
3 to 25 Tons



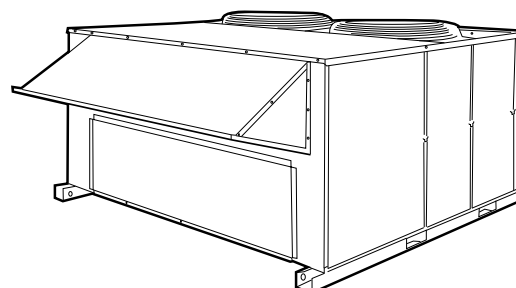
Model 558D036-072



Model 559F180,216



Model 558D090-150



Model 559F240,300

DESCRIPTION

The 558D/559F 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 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 558D/559F units are designed to be field-convertible from vertical supply/return to horizontal supply/return (180-300 units require an accessory horizontal supply curb or 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 558D/559F units are available with a range of accessory, field-installed electric 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 (ETL Testing Laboratory) and with CSA (Canadian Standards Association), UL Canada, or ETL Canada. All units are ARI (Air-Conditioning & Refrigeration Institute) approved (except the size 300, 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 energy savings. Standard units have EERs (energy efficiency ratios) of up to 9.2, and SEERs (Seasonal Energy Efficiency Ratios) of up to 10.0 (036-060 units only).

THE FACTORY-ASSEMBLED PACKAGE (036-150 Units) is a compact, fully self-contained electric cooling unit that is pre-wired, 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).

NEW TOOL-LESS FILTER ACCESS PANEL (036-150 Units) 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.

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 access filter door. 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 and freeze 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.

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 allow 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 units operate in cooling down to 25 F as shipped from the factory. The 180 units operate down to 40 F, the 216 units operate down to 35 F, and the 300 units operate down to 48 F. Low-ambient kits are not required for most applications.

HERMETICALLY-SEALED COMPRESSORS on the 036-150 units prevent contamination to help promote longer life and dependable operation. The 180-300 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 180-300 units keep the oil free of refrigerant during the off cycle for added compressor life and reliability. Crankcase heaters are not necessary on the 036-150 units due to high-side crankcase design (072,150 units) and low refrigerant charge levels (036-150 units).

POWER AND CONTROL CONNECTIONS are made on the same side of the unit to simplify installation.

STANDARD WARRANTIES include 1 year on parts, with an additional 4 years on compressors (036-180 units). Additional extended warranties are also available.

3 TO 6 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 to 25 ton units, allowing adjustment of the available static pressure to meet the job requirements of even the most demanding applications. Belt-driven evaporator-fan motors are available as a factory-installed option on the 3 to 5 ton units.

**FACTORY-INSTALLED OPTIONS
DESCRIPTION AND USAGE**

Durablade (036-150) and Standard Integrated (180-300) Economizers — 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 up to 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 Units) — 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 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.

NOTE: Indoor-air quality (IAQ) restrictions require enthalpy controls to help regulate humidity in the occupied space.

25% and 50% Manual Outdoor-Air Damper — Package consists of a damper which can be set at 25% or 50% (036-150) 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 (036-060,120,150 Units) and Drives (036-060,090,120,150 Units) — Alternate motors and/or drives 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.

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Controls Upgrade Kit (036-150 Units) — 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.

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

SUGGESTED USE:

- When unit is located in high traffic areas or could be subject to damage.
- As an alternate location for the field-supplied disconnect switch.

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 Units) — The curb is prefabricated, easily field-assembled, and permits full perimeter mounting. The curb 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 cfm's are required.

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

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.

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

SUGGESTED USE:

- When unit is located in high traffic areas or could be subject to damage.
- As an alternate location for the field-supplied disconnect switch.

25% and 50% Manual Outdoor-Air Dampers (036-150 Units) — Package consists of a damper which can be set at either 25% or 50% outdoor air (as appropriate). The package includes a rainhood, birdscreen, and a panel with a hole in it for easy installation.

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.

Two-Position Dampers — Package consists of a low-leak damper assembly and a panel with a hole in it for easy installation (036-150 units). The damper will allow either 0 or 25% or 100% (depending on accessory package) outdoor air into the unit any time the evaporator fan is running, and features close-on-power-loss. 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 air-flow applications.

Economizers — See descriptions listed under Factory-Installed Options Description and Usage section on page 2.

NOTE: When the accessory Durablade economizer is ordered for the 036-150 units, the package also contains an outdoor-air panel for easy installation.

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 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 Units) — See description listed under Factory-Installed Options Description and Usage section on page 2.

Fan/Filter Status (036-150 Units) — Provides status of indoor (evaporator) fan (ON/OFF) or filter (CLEAN/DIRTY). Status shall be displayed with a field-supplied indicator light at the thermostat.

SUGGESTED USE:

- To assist in servicing the unit.

Head Pressure Control — 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 or contact your local representative.

SUGGESTED USE:

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

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

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

SUGGESTED USE:

- Whenever cooling is required at low outdoor ambient temperatures (as low as -20 F).
- Low-ambient kit is not usually required when economizer is used.

Electric Heat Packages — Each package consists of one or more heater modules. Each module slides into keyed mounting slots in the fan discharge section.

SUGGESTED USE:

- To provide heat in the unit when required.

Single Point Packages (036-150 Units) — Each package consists of a control box, which provides a watertight and UL and UL Canada approved connection point for electric heat kits.

SUGGESTED USE:

- Required with all electric heat packages for UL and UL Canada approved single point electrical connection on 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.

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

NOTE: Optional economizer is required with this accessory.

SUGGESTED USE:

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

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

NOTE: Optional economizer is required with this accessory.

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 using 180-300 units.
- When the job requires the ability to move large quantities of air to relieve pressure in the conditioned space using 180-300 units.

Winter Start Time Delay Relay (216-300 Units) — 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 or contact your local representative.

SUGGESTED USE:

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

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

SUGGESTED USE:

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

**MODEL DESCRIPTION
(ODS Model Number)**

558D E X 090 000 C B

558D/559F — Single-Package Electric Cooling Unit

Voltage Designation

- E** — 460-3-60
- J** — 208/230-1-60
- P** — 208/230-3-60
- T** — 575-3-60

X — No Heat Installed.
(Field-installed electric heaters available.)

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

Evaporator-Fan Motor Options

- A** — Standard Motor and Drive
- B** — Alternate Motor and/or Drive

Factory-Installed Outdoor Air and Other Upgrade Options*

Electric Heaters

000 — No factory-installed electric heaters

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.

ARI* CAPACITY RATINGS

UNIT 558D	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	57,500	6.7	10.0	9.7	8.5	8.2

UNIT	NOMINAL TONS	STANDARD CFM	NET COOLING CAPACITY (Btuh)	TOTAL kW	EER	IPLV	SOUND RATING (Bels)
558D072	6	2100	70,000	7.9	8.9	**	8.4
558D090	7½	2800	86,000	9.6	8.9	9.35	8.6
558D102	8½	3000	98,000	11.0	9.0	9.00	8.6
558D120	10	4000	117,000	13.0	9.0	9.35	8.8
558D150	12½	4500	142,000	15.8	9.2	9.65	8.8
559F180	15	5250	178,000	20.7	8.6	10.70	8.8
559F216	18	6000	190,000	21.3	8.9	9.20	9.0
559F240	20	6200	222,000	25.5	8.7	8.80	9.5
559F300	25	7200	268,000	31.2	8.6	8.40	9.5

LEGEND

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

*Air Conditioning and Refrigeration Institute.
 †Applies only to units with capacity of 65,000 Btuh or less.
 **The IPLV applies only to 2-stage cooling units.

NOTES:

- Rated in accordance with ARI Standards 210/240-89 (unit sizes 036-120) or 360-86 (unit sizes 150-240) and 270-84.
- Ratings are net values, reflecting the effects of circulating fan heat. The 300 size is beyond the scope of the ARI certification program.
- 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.

Quality Assurance



Certificate No FM 22838
SIZES 036-150

Approvals:
 ISO 9002
 EN 29002
 BS5750 PART 2
 ANSI/ASQC Q92

Quality Assurance



Certificate No FM 21837
SIZES 180-300

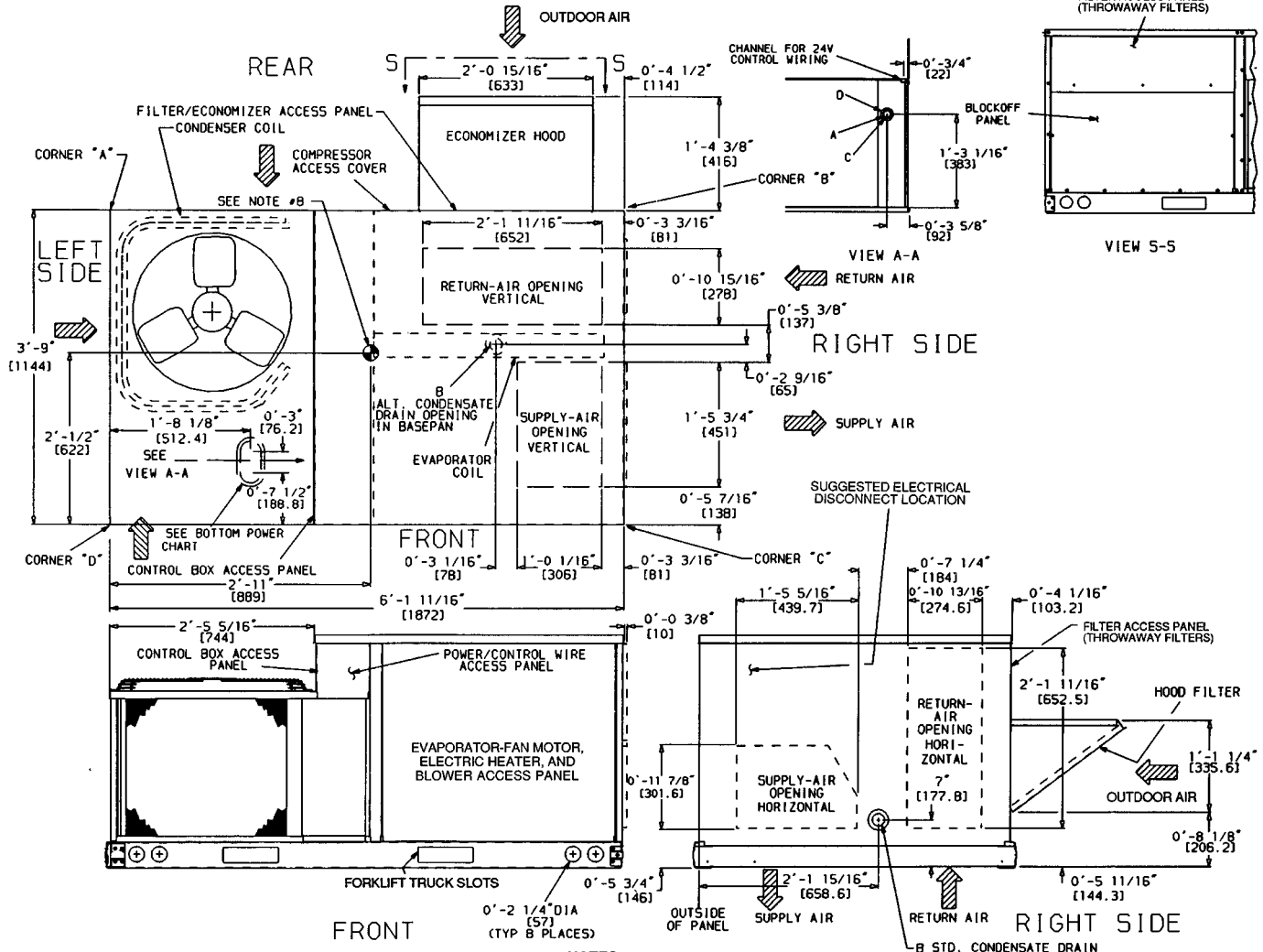
Approvals:
 ISO 9002
 EN 29002
 BS5750 PART 2
 ANSI/ASQC Q92

DIMENSIONAL DRAWING — 558D036-072

UNIT 558D	CORNER WEIGHT*							
	A		B		C		D	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg
036	126	57.2	89	40.4	111	50.3	39	17.7
048	128	58.1	90	40.8	114	51.7	43	19.5
060	132	59.9	94	42.6	120	54.4	49	22.2
072	148	67.1	103	46.7	155	70.3	64	29.0

CONNECTION SIZES	
A	1 1/8" Dia. [28.6] Field Power Supply Hole
B	3/4"-14 NPT Condensate Drain
C	1 3/8" Dia. [35] Power Supply Knockout
D	2" Dia. [50.8] Power Supply Knockout

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



NOTES:

- Dimensions in [] are in millimeters.
- Center of gravity.
- Direction of airflow.
- Ductwork to be attached to accessory roof curb only.
- Minimum clearance (local codes or jurisdiction may prevail):
 - Bottom to combustible surfaces (when not using curb) 0 inches. On horizontal discharge units with electric heat 1 in. clearance to ductwork for 1 ft.
 - 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 or combustible surfaces as stated in Notes 5a and b, 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.
- The vertical center of gravity is 1'-6 1/2" [470] up from the bottom of the base rail. Horizontal center of gravity is shown.

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

THREADED CONDUIT SIZE	WIRE SIZE	REQ'D 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]

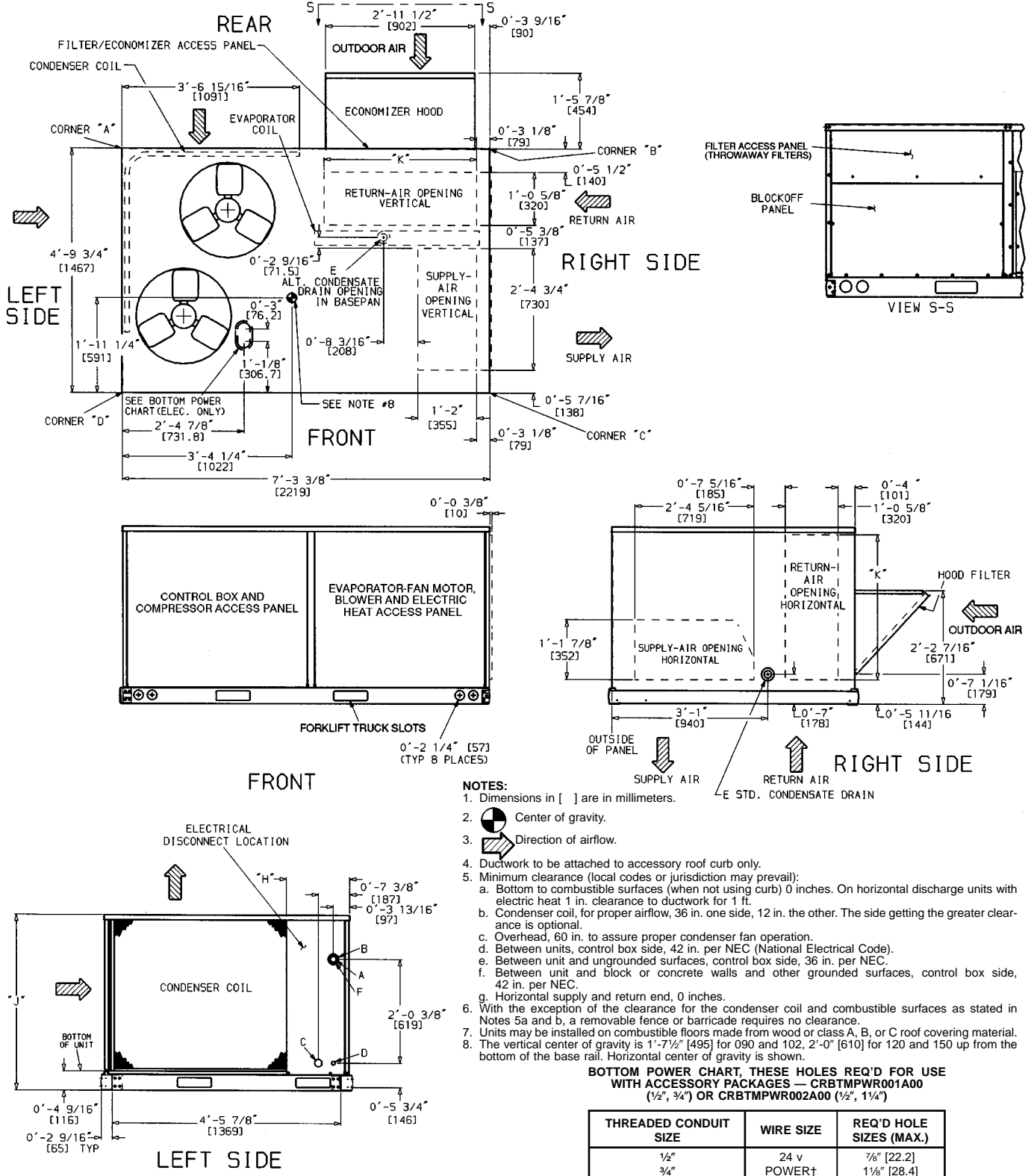
†Select either 3/4" or 1 1/4" for power, depending on wire size.

DIMENSIONAL DRAWING — 558D090-150

UNIT 558D	CORNER WEIGHT*						DIMENSIONS							
	A		B		C		D		"H"		"J"		"K"	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	Ft-in.	mm	Ft-in.	mm	Ft-in.	mm
090	164	74	140	64	208	94	243	110	1-2 ⁷ / ₈	378	3-5 ¹ / ₁₆	1050	2-9 ¹ / ₁₆	856
102	165	75	141	64	209	94	245	111	3-3 ⁷ / ₈	1013	3-5 ¹ / ₁₆	1050	2-9 ¹ / ₁₆	856
120	199	90	170	77	252	114	294	134	2-5 ⁷ / ₈	759	4-1 ¹ / ₁₆	1253	3-0 ⁹ / ₁₆	924
150	202	92	172	78	256	116	300	136	1-2 ⁷ / ₈	378	4-1 ¹ / ₁₆	1253	3-0 ⁹ / ₁₆	924

CONNECTION SIZES	
A	1 ³ / ₈ " Diameter [35] Field Power Supply Hole
B	2 ¹ / ₂ " Diameter [64] Power Supply Knockout
C	1 ³ / ₄ " Diameter [44] Charging Port Hole
D	³ / ₈ " Diameter [22] Field Control Wiring Hole
E	³ / ₄ "-14 NPT Condensate Drain
F	2" Diameter [51] Power Supply Knockout

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



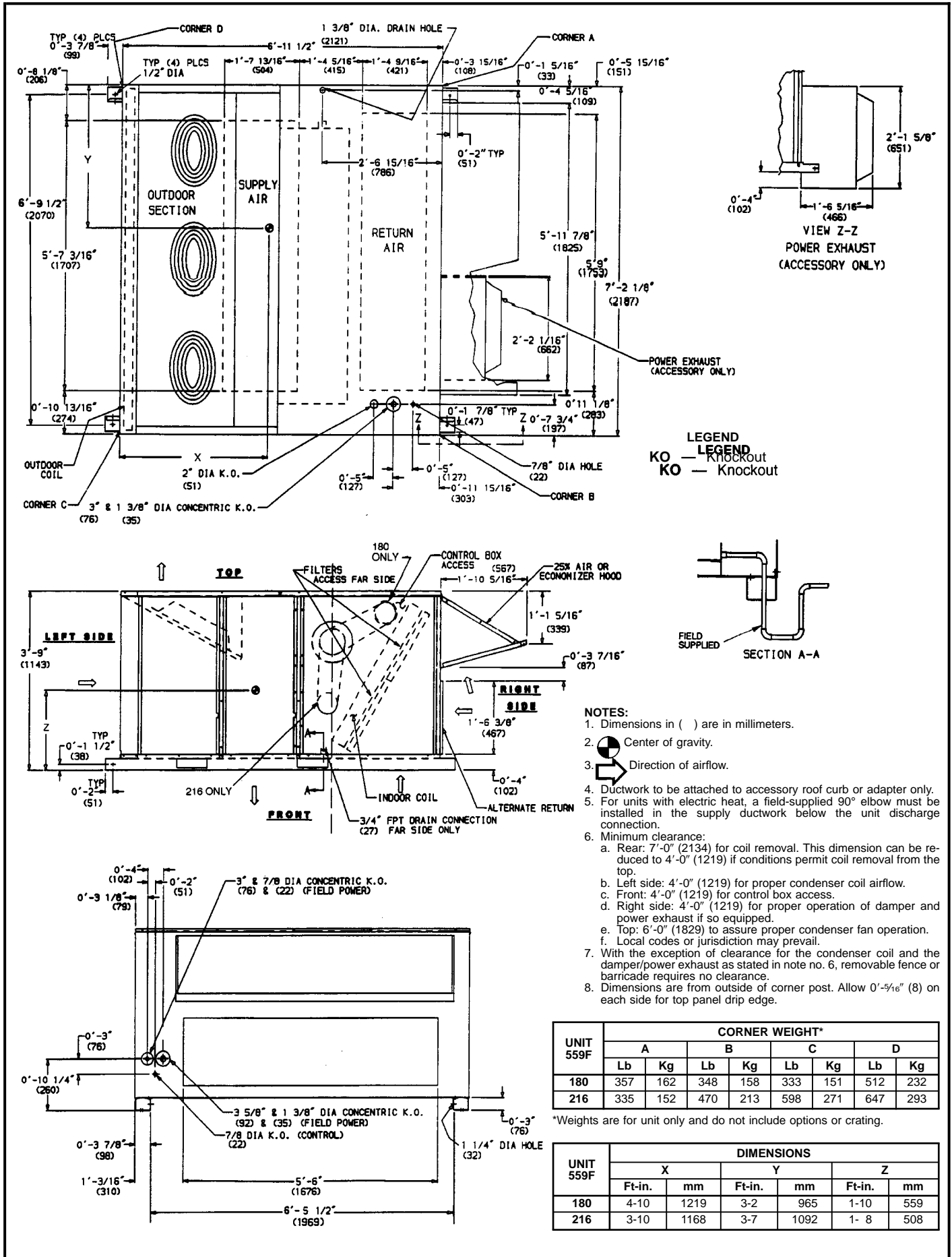
- NOTES:**
- Dimensions in [] are in millimeters.
 - Center of gravity.
 - Direction of airflow.
 - Ductwork to be attached to accessory roof curb only.
 - Minimum clearance (local codes or jurisdiction may prevail):
 - Bottom to combustible surfaces (when not using curb) 0 inches. On horizontal discharge units with electric heat 1 in. clearance to ductwork for 1 ft.
 - 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 combustible surfaces as stated in Notes 5a and b, 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.
 - The vertical center of gravity is 1'-7 1/2" [495] for 090 and 102, 2'-0" [610] for 120 and 150 up from the bottom of the base rail. Horizontal center of gravity is shown.

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

THREADED CONDUIT SIZE	WIRE SIZE	REQ'D 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 — 559F180,216



LEGEND
 KO — Knockout
 KO — Knockout

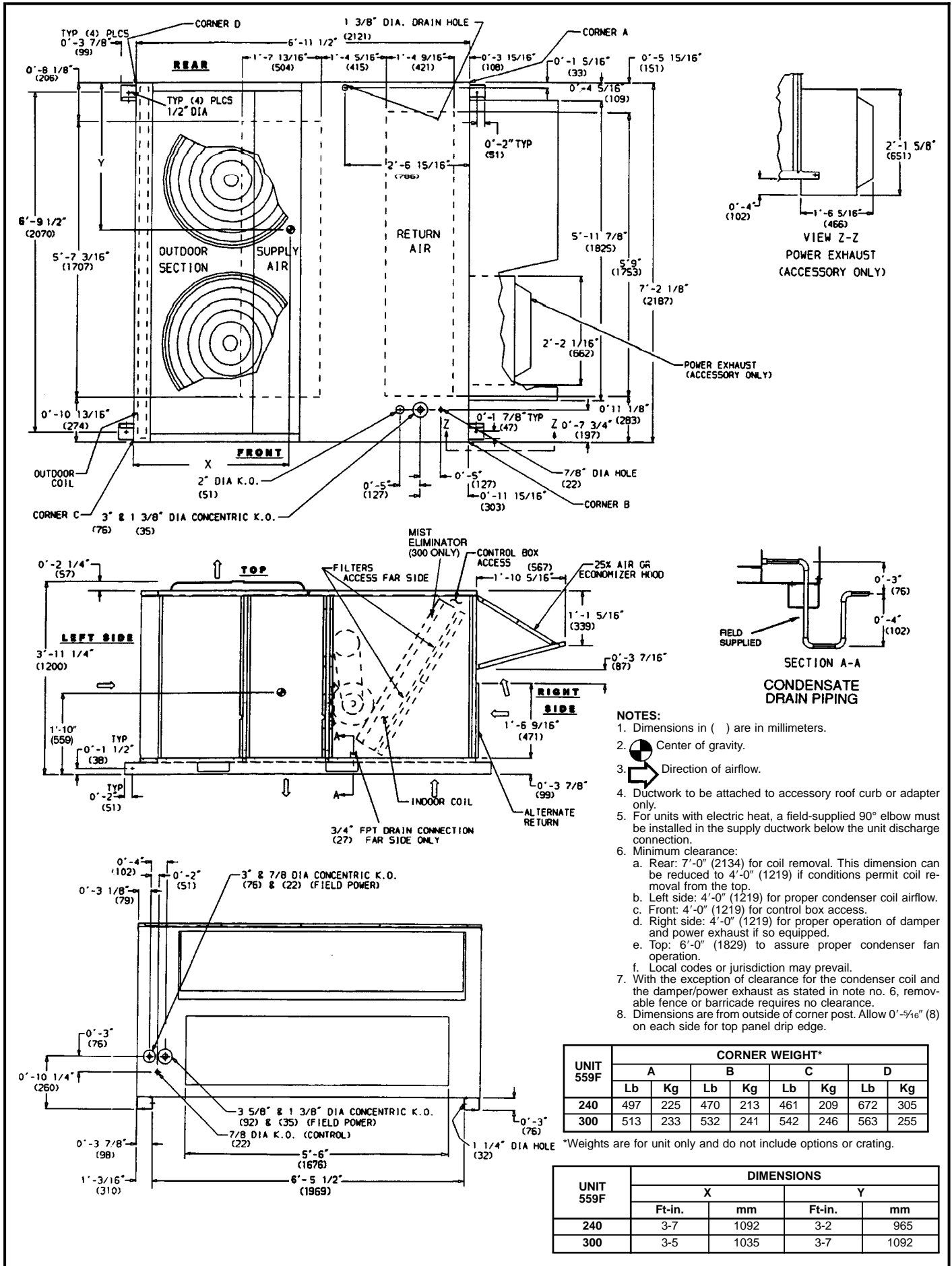
- NOTES:
- Dimensions in () are in millimeters.
 - Center of gravity.
 - Direction of airflow.
 - Ductwork to be attached to accessory roof curb or adapter only.
 - For units with electric heat, a field-supplied 90° elbow must be installed in the supply ductwork below the unit discharge connection.
 - Minimum clearance:
 - Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" (1219) if conditions permit coil removal from the top.
 - Left side: 4'-0" (1219) for proper condenser coil airflow.
 - Front: 4'-0" (1219) for control box access.
 - Right side: 4'-0" (1219) for proper operation of damper and power exhaust if so equipped.
 - Top: 6'-0" (1829) to assure proper condenser fan operation.
 - Local codes or jurisdiction may prevail.
 - With the exception of clearance for the condenser coil and the damper/power exhaust as stated in note no. 6, removable fence or barricade requires no clearance.
 - Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top panel drip edge.

UNIT 559F	CORNER WEIGHT*							
	A		B		C		D	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg
180	357	162	348	158	333	151	512	232
216	335	152	470	213	598	271	647	293

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

UNIT 559F	DIMENSIONS					
	X		Y		Z	
	Ft-in.	mm	Ft-in.	mm	Ft-in.	mm
180	4-10	1219	3-2	965	1-10	559
216	3-10	1168	3-7	1092	1-8	508

DIMENSIONAL DRAWING — 559F240,300



UNIT 559F	CORNER WEIGHT*							
	A		B		C		D	
	Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg
240	497	225	470	213	461	209	672	305
300	513	233	532	241	542	246	563	255

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

UNIT 559F	DIMENSIONS			
	X		Y	
	Ft-in.	mm	Ft-in.	mm
240	3-7	1092	3-2	965
300	3-5	1035	3-7	1092

DIMENSIONAL DRAWING — ROOF CURB, 558D036-072

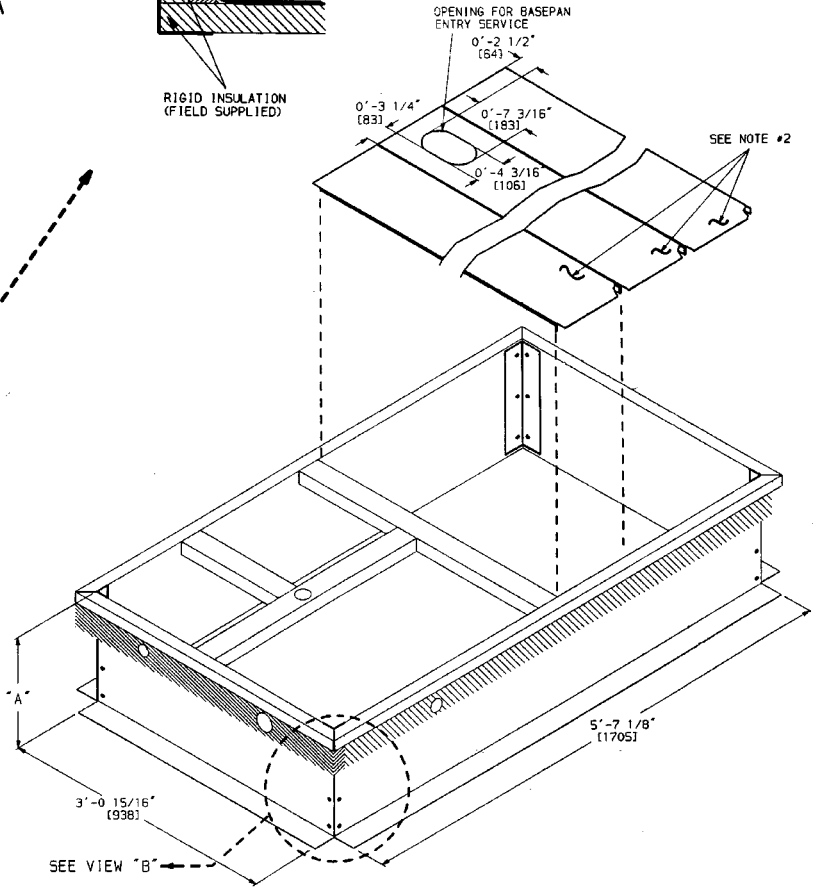
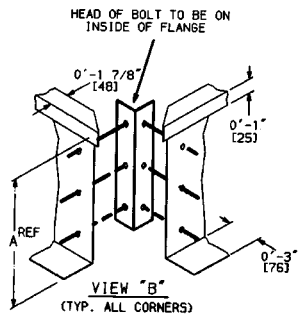
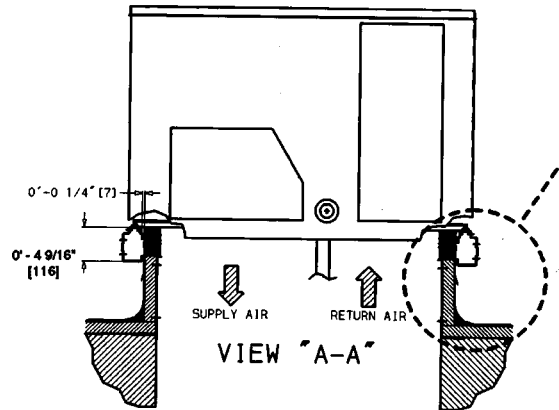
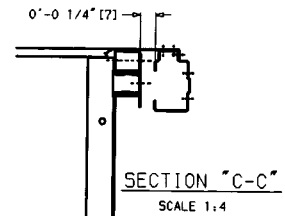
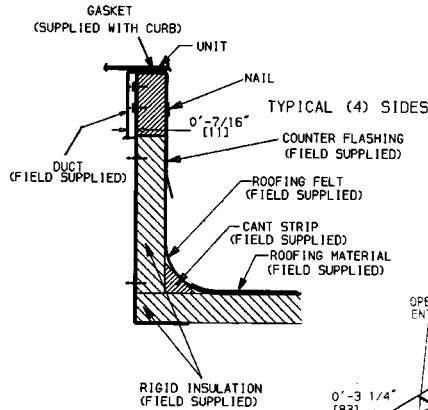
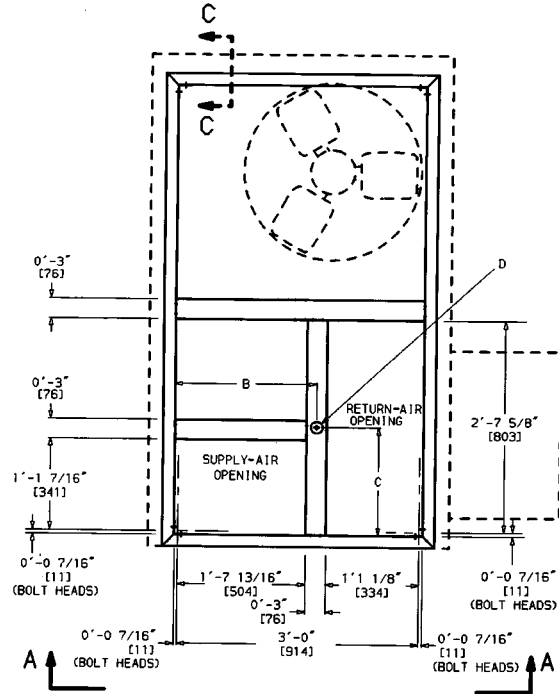
ROOF CURB ACCESSORY	"A"	UNIT SIZE 558D
CRRFCURB001A00	1'-2" [356]	036-072
CRRFCURB002A00	2'-0" [610]	

UNIT SIZE 558D	"B"	"C"	"D" ALT DRAIN HOLE	POWER	CONTROL	CONNECTOR PKG ACY
036-072	1'-9 ¹ / ₁₆ " [551]	1'-4" [406]	1 ³ / ₄ " [45]	3/4" NPT	1/2" NPT	CRBTMPWR001A00* (THRU-THE-BOTTOM)
				1 1/4" NPT	1/2" NPT	CRBTMPWR002A00* (THRU-THE-BOTTOM)

*Either connector package available for either roof curb.

NOTES:

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



DIMENSIONAL DRAWING — ROOF CURB, 558D090-150

ROOF CURB ACCESSORY	"A"	UNIT SIZE 558D
CRRFCURB003A00	1'-2" [356]	090-150
CRRFCURB004A00	2'-0" [610]	

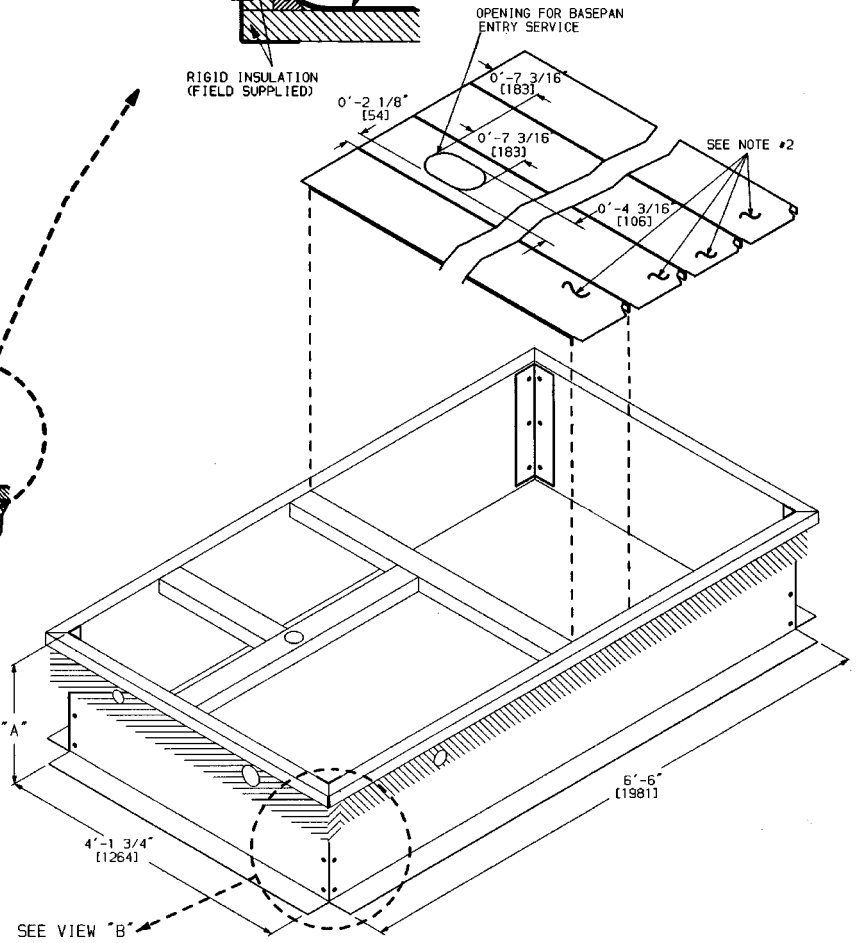
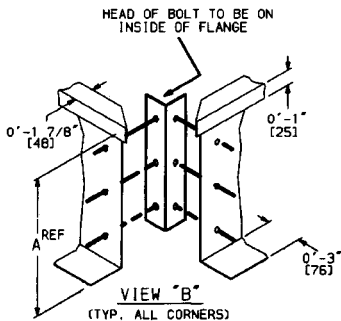
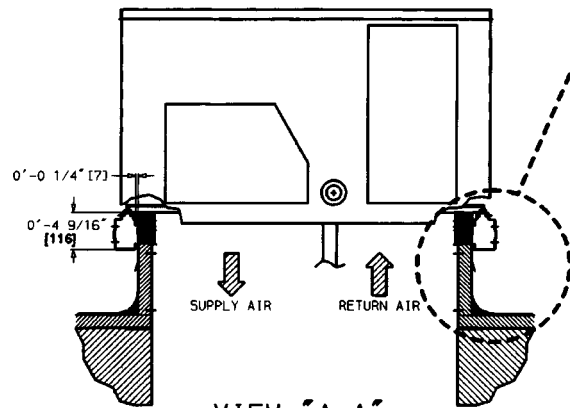
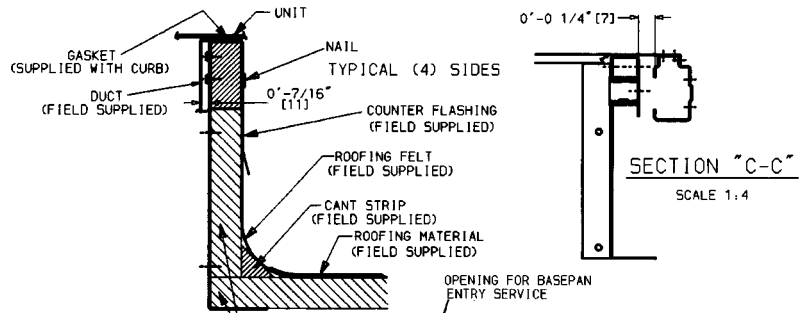
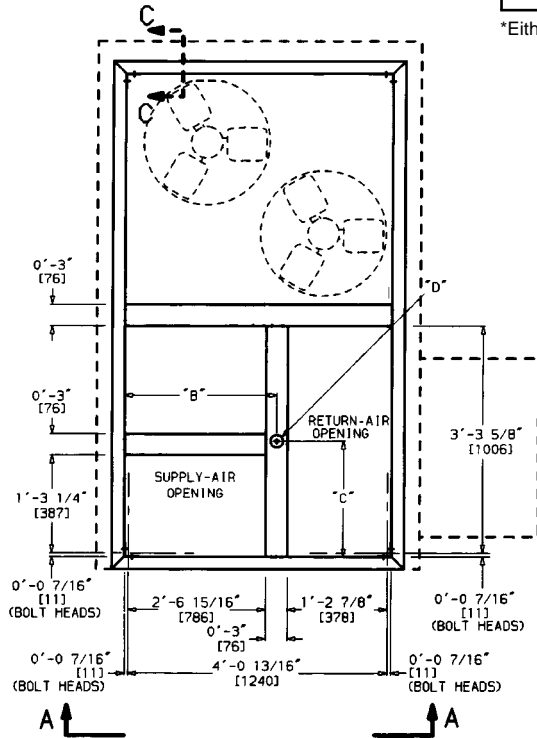
SERVICE PLATE SIZES

UNIT SIZE 558D	"B"	"C"	"D" ALT DRAIN HOLE	POWER	CONTROL	CONNECTOR PKG ACY
090-150	2'-8 ⁷ / ₁₆ " [827]	1'-10 ¹⁵ / ₁₆ " [583]	1 ³ / ₄ " [45]	3/4" NPT	1/2" NPT	CRBTMPWR001A00* (THRU-THE-BOTTOM)
				1 ¹ / ₄ " NPT	1/2" NPT	CRBTMPWR002A00* (THRU-THE-BOTTOM)

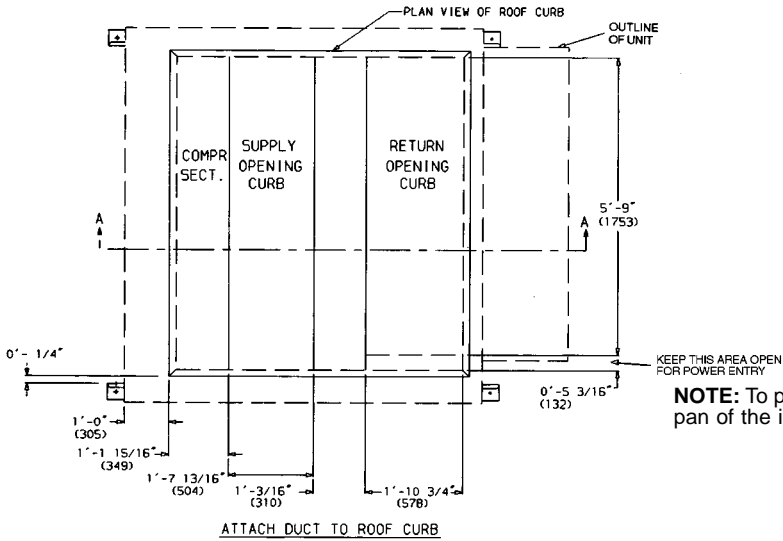
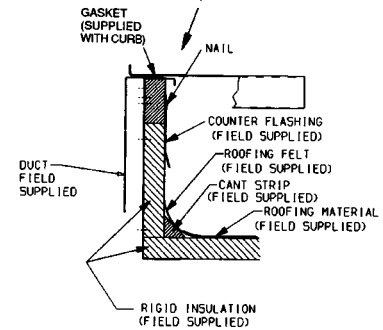
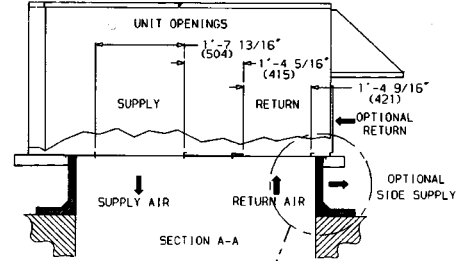
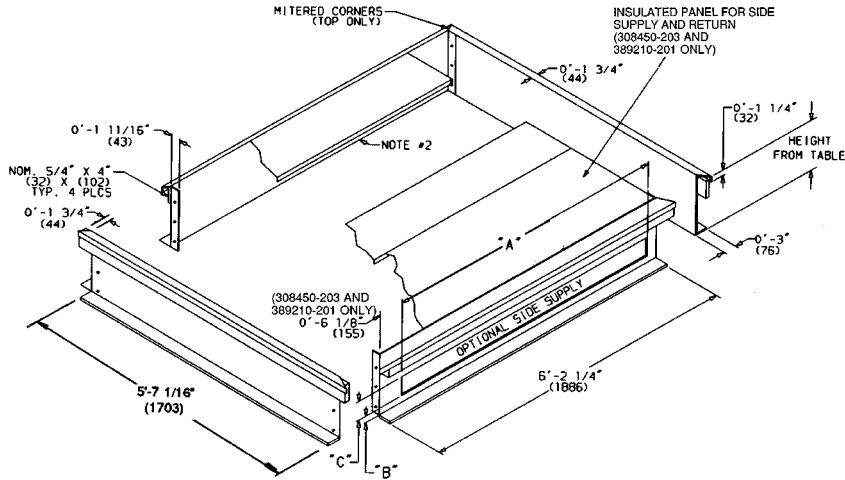
*Either connector package available for either roof curb.

NOTES:

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



DIMENSIONAL DRAWING — HORIZONTAL AND VERTICAL ROOF CURBS AND HORIZONTAL ADAPTER — 559F180-300



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.

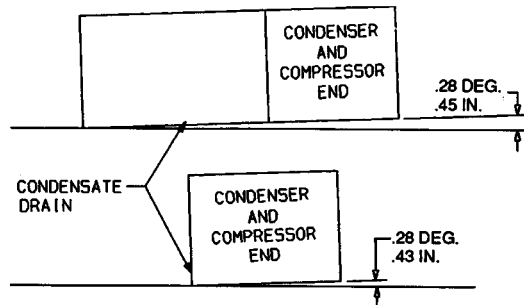
ACCESSORY PACKAGE NO.	CURB HEIGHT	DESCRIPTION	"A"	"B"	"C"
308450-201	1'-2" (305)	Standard Curb — 14" High	—	—	—
308450-202	2'-0" (610)	Standard Curb for Units Requiring High Installation	—	—	—
308450-203	2'-0" (610)	Horizontal Supply and Return Curb	5'-6" (1676)	0'-2 1/2" (64)	1'-6" (457)
389210-201	1'-11" (584)	Pre-Assembled, High-Static Horizontal Adapter	6'-2" (1880)	0'-6 1/4" (159)	1'-2 5/8" (371)

LEGEND

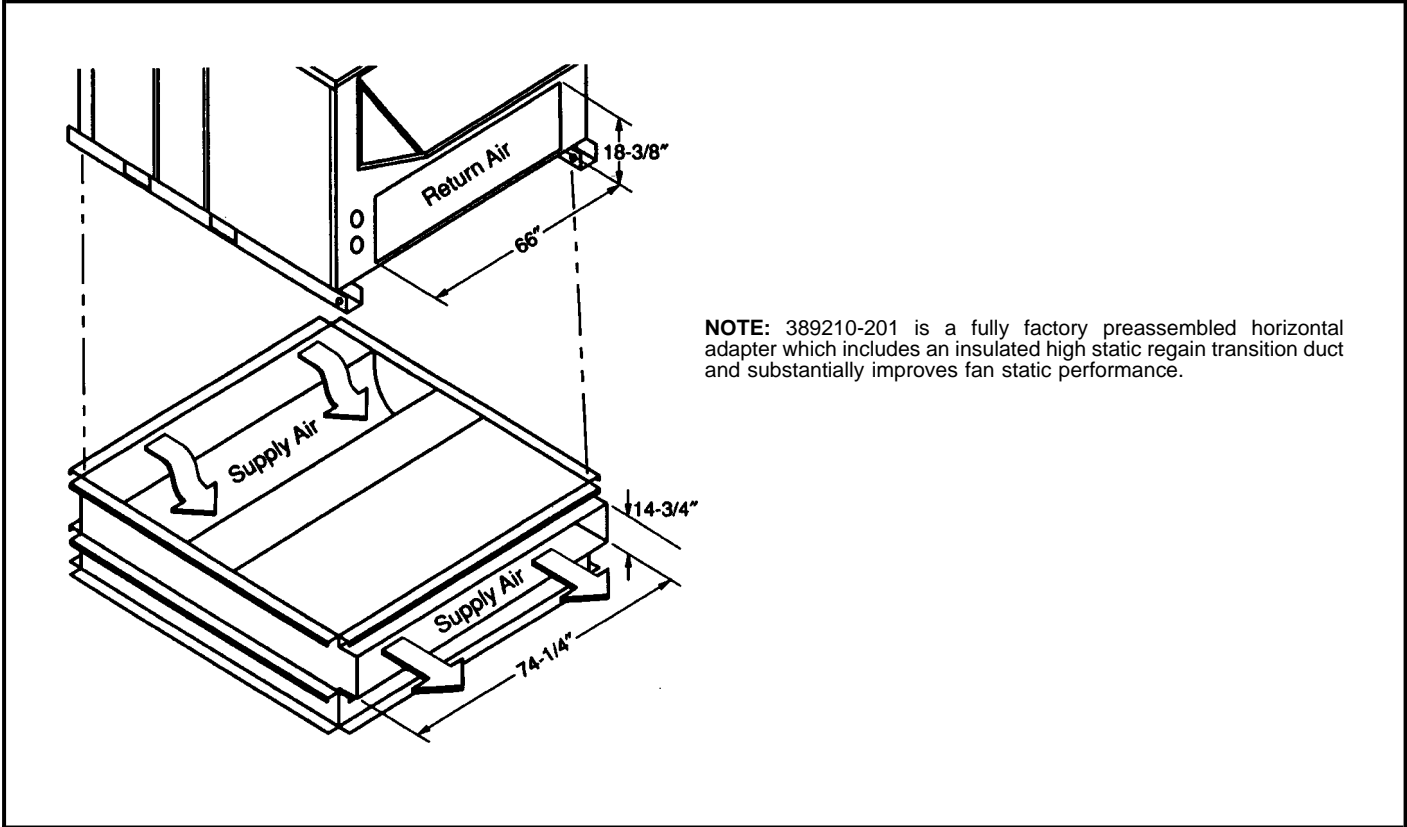
COMP SECT. — Compressor Section

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.



DIMENSIONAL DRAWING — HORIZONTAL ADAPTER INSTALLATION — 559F180-300



SPECIFICATIONS — 558D036-072

UNIT SIZE	036	048	060	072
NOMINAL CAPACITY (tons)	3	4	5	6
OPERATING WEIGHT (lb)				
Unit	365	375	395	470
AI/AI*				
Economizer				
Durablade	34	34	34	34
Parablade	42	42	42	42
Roof Curb†	115	115	115	115
COMPRESSOR				
	Hermetic			
Quantity	1	1	1	1
No. Cylinders (per circuit)	2	2	2	2
Oil (oz)	50	50	50	54
REFRIGERANT TYPE				
	R-22			
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	4100	4100	4100	4100
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			
Expansion Device		Acutrol™ Feed Device		
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.)	1...10 x 10	1...10 x 10	1...11 x 10	1...10 x 10
Std	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	.34	.75	1.20	2.40
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	Ball
Maximum Allowable Rpm	2100	2100	2100	2100
Motor Pulley Pitch Diameter A/B (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	—
Belt, Quantity...Type...Length (in.)				
Std	—	—	—	1...A...40
Alt	1...A...34	1...A...34	1...A...39	—
Pulley Center Line Distance (in.)				
Std	—	—	—	14.7-15.5
Alt	10.0-12.4	10.0-12.4	14.7-15.5	—
Speed Change per Full Turn of Movable Pulley Flange (rpm)				
Std	—	—	—	80
Alt	48	70	80	—
Movable Pulley Maximum Full Turns From Closed Position				
Std	—	—	—	5
Alt	5	5	5	—
Factory Setting				
Std	—	—	—	3
Alt	3	3	3	—
Factory Speed Setting (rpm)				
Std	—	—	—	1225
Alt	856	975	1060	—
Fan Shaft Diameter at Pulley (in.)	½	½	½	½
HIGH-PRESSURE SWITCH (psig)**				
Standard Compressor Internal Relief Cutout		450 ± 50		500 ± 50
Reset (Auto.)		428		428
		320		320
LOW-PRESSURE SWITCH (psig)**				
Cutout			7 ± 3	
Reset (Auto.)			22 ± 7	
FREEZE PROTECTION THERMOSTAT (F)**				
Opens			30 ± 5	
Closes			45 ± 5	
OUTDOOR-AIR INLET SCREENS				
			Cleanable	
Quantity...Size (in.)			1...20 x 24 x 1	
RETURN-AIR FILTERS				
			Throwaway	
Quantity...Size (in.)			2...16 x 25 x 2	

LEGEND
 AI — Aluminum
 BHP — Brake Horsepower
 FIOP — Factory-Installed Option
 TXV — Thermostatic Expansion Valve

*Evaporator coil fins/condenser coil fins.
 †Weight of 14-in. roof curb.
 **Requires the accessory controls upgrade kit.

††Circuit 1 consists of lower portion of both the condenser and evaporator coils, and Circuit 2 consists of the upper portion of both coils.
 ‡The 559F300 units require 2-in. industrial-grade filters capable of handling face velocities up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

NOTE: The 036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line. The 180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 558D090-150

UNIT SIZE	090	102	120	150
NOMINAL CAPACITY (tons)	7½	8½	10	12½
OPERATING WEIGHT (lb)				
Unit A/AI*	755	760	915	930
Economizer Durablade	44	44	44	44
Parablade	62	62	62	62
Roof Curb†	143	143	143	143
COMPRESSOR Hermetic				
Quantity	2	2	2	2
No. Cylinders (per circuit)	2	2	2	2
Oil (oz)	50 ea	50 ea	50 ea	54 ea
REFRIGERANT TYPE R-22				
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				
Expansion Device				
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 Alt 1...15 x 15	1...15 x 15	1...15 x 15 1...15 x 15	1...15 x 15 1...15 x 15
Type Drive	Std Belt Alt Belt	Belt	Belt Belt	Belt Belt
Nominal Cfm	3000	3400	4000	5000
Motor Hp	Std — Alt —	—	—	—
Maximum Continuous Bhp	Std 2.40 Alt —	2.40	2.40 2.90	4.20 5.25
Motor Frame Size	Std 56 Alt —	56	56 56	56 56
Nominal Rpm High/Low	Std — Alt —	—	—	—
Fan Rpm Range	Std 590-840 Alt 685-935	685-935	685-935 835-1085	860-1080 900-1260
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	2100	2100	2100	2100
Motor Pulley Pitch Diameter A/B (in.)	Std 2.4/3.4 Alt 2.8/3.8	2.8/3.8	2.8/3.8 3.4/4.4	4.0/5.0 3.1/4.1
Nominal Motor Shaft Diameter (in.)	Std 5/8 Alt —	5/8	5/8 7/8	7/8 7/8
Fan Pulley Pitch Diameter (in.)	Std 7.0 Alt 7.0	7.0	7.0 7.0	8.0 5.9
Belt, Quantity...Type...Length (in.)	Std 1...A...49 Alt 1...A...49	1...A...49	1...A...49 1...A...49	1...A...52 1...BX...46
Pulley Center Line Distance (in.)	Std 16.75-19.25 Alt 16.75-19.25	16.75-19.25	15.85-17.50 15.85-17.50	15.85-17.50 15.85-17.50
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std 50 Alt 50	50	50	44 50
Movable Pulley Maximum Full Turns From Closed Position	Std 5 Alt 5	5	5	5 6
Factory Setting	Std 5 Alt 5	5	5	5 5
Factory Speed Setting (rpm)	Std 590 Alt 685	685	685 835	860 960
Fan Shaft Diameter at Pulley (in.)	1	1	1	1
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 Cleanable				
Quantity...Size (in.)			1...20 x 25 x 1 1...16 x 25 x 1	
RETURN-AIR FILTERS Throwaway				
Quantity...Size (in.)	4...16 x 20 x 2	4...16 x 20 x 2	4...20 x 20 x 2	4...20 x 20 x 2

LEGEND
 AI — Aluminum
 Bhp — Brake Horsepower
 FIOF — Factory-Installed Option
 TXV — Thermostatic Expansion Valve

*Evaporator coil fins/condenser coil fins.
 †Weight of 14-in. roof curb.
 **Requires the accessory controls upgrade kit.

††Circuit 1 consists of lower portion of both the condenser and evaporator coils, and Circuit 2 consists of the upper portion of both coils.
 ‡The 559F300 units require 2-in. industrial-grade filters capable of handling face velocities up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

NOTE: The 036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line. The 180-300 units have a low-pressure switch (standard) located on the suction side.

SPECIFICATIONS — 559F180-300

UNIT SIZE	180		216	240	300
	208/230,460 V	575 V			
NOMINAL CAPACITY (tons)	15		18	20	25
OPERATING WEIGHT (lb)					
Unit	1500		2050	2100	2150
Al/Al*	110		110	110	110
Economizer	200		200	200	200
Roof Curb†					
COMPRESSOR	Semi-Hermetic				
Quantity	1		2	2	2
No. Cylinders (per circuit)	6		6	6	6
Oil (oz)	115		115,88	115 ea	128 ea
REFRIGERANT TYPE	R-22				
Operating Charge (lb-oz)	19-4		13-4	12-13	16-12
Circuit 1††	—		11-0	12-13	15-12
Circuit 2					
CONDENSER COIL	Enhanced Copper Tubes, Aluminum Lanced Fins				
Rows...Fins/in.	2...17		3...15	3...15	4...15
Total Face Area (sq ft)	22.2		22.2	22.2	22.2
CONDENSER FAN	Propeller Type				
Nominal Cfm	10,500		14,200	14,200	14,200
Quantity...Diameter (in.)	3...22		2...30	2...30	2...30
Motor Hp...Rpm	½...1050		1...1075	1...1075	1...1075
Watts Input (Total)	1100		3400	3400	3400
EVAPORATOR COIL	Copper Tubes, Aluminum or Copper Plate Fins				
Expansion Device	TXV		Acutrol™ Feed Device		
Rows...Fins/in.	2...17		3...17	3...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	5	7½	10
Maximum Continuous Bhp	4.25	3.45	5.90	8.7 [208/230,575 v] 9.5 [460 v]	10.26 [208/230,575 v] 11.80 [460 v]
Motor Frame Size	56H	56H	184T	213T	215T
Fan Rpm Range	1227-1559	1201-1462	1047-1251	1238-1494	1323-1579
Motor Bearing Type	Ball	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	1559	1550	1550	1550	1550
Motor Pulley Pitch Diameter Min/Max (in.)	3.7/4.7	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	1½	1½	1½
Fan Pulley Pitch Diameter (in.)	5.2	6.4	8.4	7.9	7.9
Belt, Quantity...Type...Length (in.)	1...BX...42	1...BX...45	1...BX...50	1...BX...50	1...BX...51
Pulley Center Line Distance (in.)	—	—	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	4	3.5	3	3	3
Factory Speed Setting (rpm)	1293	1279	1149	1366	1451
Fan Shaft Diameter at Pulley (in.)	1¾	1¾	17/16	17/16	17/16
HIGH-PRESSURE SWITCH (psig)					
Standard Compressor Internal Relief Cutout	—				
Reset (Auto.)	426 320				
LOW-PRESSURE SWITCH (psig)					
Cutout	7				
Reset (Auto.)	22				
FREEZE PROTECTION THERMOSTAT (F)					
Opens	30 ± 5				
Closes	45 ± 5				
OUTDOOR-AIR INLET SCREENS	Cleanable				
Quantity...Size (in.)	2...20 x 25 x 1 1...20 x 20 x 1				
RETURN-AIR FILTERS	Throwaway				
Quantity...Size (in.)	4...20 x 20 x 2 4...16 x 20 x 2				

LEGEND

- Al — Aluminum
- Bhp — Brake Horsepower
- FIOP — Factory-Installed Option
- TXV — Thermostatic Expansion Valve

*Evaporator coil fins/condenser coil fins.

†Weight of 14-in. roof curb.

**Requires the accessory controls upgrade kit.

††Circuit 1 consists of lower portion of both the condenser and evaporator coils, and Circuit 2 consists of the upper portion of both coils.

||The 559F300 units require 2-in. industrial-grade filters capable of handling face velocities up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

NOTE: The 036-150 units have a loss-of-charge/low-pressure switch (accessory or option) located in the liquid line. The 180-300 units have a low-pressure switch (standard) located on the suction side.

SELECTION PROCEDURE (With 559F180 Example)

I Determine cooling and heating requirements at design conditions.

Given:

Cooling Capacity Required (TC) 177,000 Btuh
 Sensible Heat Capacity (SHC) 127,000 Btuh
 Condenser Entering-Air
 Temperature 95 F Edb/78 F Ewb
 Indoor-Air Temperature 80 F Edb/67 F Ewb
 Evaporator Air Quantity 6,000 cfm
 External Static Pressure 0.66 in. wg
 Heating Capacity 76,000 Btuh
 Power Supply (V-Ph-Hz) 230-3-60

Edb — Entering dry bulb
 Ewb — Entering wet bulb

II Select unit based on required cooling capacity.

Enter Gross Cooling Capacities table on page 22 for 559F180 at condenser entering dry bulb temperature 95 F, air entering evaporator at 6000 cfm, 80 F edb and 67 F ewb. The 559F180 unit will provide a total cooling capacity of 188,000 Btuh, a sensible heating capacity of 136,000 Btuh and a total unit kW of 17.8 kW. For evaporator-air temperatures other than 80 F edb, calculate sensible heat capacity correction, as required, using the formula in the notes following the Cooling Capacities tables.

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

III Select electric heat.

Heating load required is 76,000 Btuh.

$$\frac{76,000 \text{ Btuh}}{3,412 \text{ Btu/kW}} = \text{kW of heat required}$$

$$= 22.3 \text{ kW}$$

Enter the Electric Resistance Heater Data table for the 559F180 on page 64 at 230-3-60. The 34 kW electric heater most closely satisfies the heat required.

IV Determine fan speed and motor horsepower requirements at design conditions.

Enter Accessory/FIOP Static Pressure Drop table on page 47 at selected unit size and heater kW.

Find that at given air quantity (6000 cfm), pressure loss is .09 in. wg.

Before entering the Air Delivery tables, calculate the total static pressure required based on unit components. From the given and the Accessory/FIOP Pressure table (page 47) find:

External static pressure	0.66 in. wg
34 kW Heater static pressure	<u>0.09 in. wg</u>
Total static pressure	0.75 in. wg

Enter Air Delivery table for unit 559F180 on page 42. Interpolate to see that at 6000 cfm and 0.75 in. wg external static pressure, the fan speed is 1184 rpm, the watts are 2631, and the bhp is 2.96. The standard motor with a field-supplied drive is suitable.

V Determine net cooling capacity.

Cooling capacities are gross capacities and do not include indoor (evaporator) fan motor (IFM) heat.

Use the watts input power to the motor from the Air Delivery table (calculated in Section IV above).

$$\text{IFM watts} = 2631$$

Determine net cooling capacity using the following formula:

$$\begin{aligned} \text{Net capacity} &= \text{Gross capacity} - \text{IFM heat} \\ &= 188,000 \text{ Btuh} - 2631 \text{ watts} \left(3.412 \frac{\text{Btuh}}{\text{Watts}} \right) \\ &= 188,000 \text{ Btuh} - 8977 \text{ Btuh} \\ &= 179,023 \text{ Btuh} \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 136,000 \text{ Btuh} - 8977 \text{ Btuh} \\ &= 127,023 \text{ Btuh} \end{aligned}$$

As a result of the given conditions, the 559F180 unit is the correct selection.

GROSS COOLING CAPACITIES

558D036 (3 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	75			85			95		
			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

558D036 (3 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	105			115					
			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			

558D048 (4 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	75			85			95		
			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

558D048 (4 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	105			115					
			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)

558D060 (5 TON)			Air Entering Condenser (F)								
Air Entering Evaporator			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

558D060 (5 TON) (cont)			Air Entering Condenser (F)					
Air Entering Evaporator			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

558D072 (6 TON)			Air Entering Condenser (F)								
Air Entering Evaporator			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

558D072 (6 TON) (cont)			Air Entering Condenser (F)					
Air Entering Evaporator			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)

558D090 (7½ TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	75			85			95		
			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

558D090 (7½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	105			115			Compressor kW	Compressor kW	Compressor kW
			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			

558D102 (8½ TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	75			85			95		
			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	8.54	111.2	55.0	8.99
		67	111.3	65.1	7.68	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	7.72	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	82.7	7.97	120.1	62.9	8.72	115.3	62.2	9.06
		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

558D102 (8½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	105			115			Compressor kW	Compressor kW	Compressor kW
			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			

(See Legend and Notes on page 18.)

GROSS COOLING CAPACITIES (cont)

558D120 (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

558D120 (10 TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			Compressor kW
			Total	Sensible		Total	Sensible		Total	Sensible	
3000	0.095	72	118.1	60.4	11.93	115.0	59.4	12.26			
		67	104.6	74.9	11.52	98.0	72.4	11.82			
		62	87.9	85.2	11.10	84.2	83.4	11.40			
4000	0.125	72	122.7	66.9	12.13	120.0	66.4	12.48			
		67	111.8	87.7	11.74	103.8	84.8	12.06			
		62	98.5	98.5	11.41	93.4	93.4	11.78			
5000	0.150	72	126.0	73.1	12.27	122.6	72.8	12.60			
		67	115.1	98.3	11.89	109.8	96.6	12.20			
		62	108.0	108.0	11.65	102.8	102.8	12.00			

558D150 (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

558D150 (12½ TON) (cont)											
Air Entering Evaporator			Air Entering Condenser (F)								
			105			115					
Cfm	BF	Ewb (F)	Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW			Compressor kW
			Total	Sensible		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			

(See Legend and Notes on page 22.)

GROSS COOLING CAPACITIES (cont)

559F180 (15 TON)											
Air Entering Evaporator			Air Entering Condenser (F)								
Cfm	BF	Ewb (F)	75			85			95		
			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

559F180 (15 TON) (cont)								
Air Entering Evaporator			Air Entering Condenser (F)					
Cfm	BF	Ewb (F)	105			115		
			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:

- 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.

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

GROSS COOLING CAPACITIES (cont)

559F216 (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	0.06	72	242.0	121.6	14.72	231.0	116.8	16.27	218.5	112.5	17.83	204.3	105.1	17.75
		67	219.6	151.8	14.78	208.6	146.3	16.29	196.4	141.3	17.79	187.2	135.0	17.88
		62	197.3	176.3	14.71	187.3	171.5	16.26	176.0	165.6	17.73	169.4	158.6	17.93
6000	0.075	72	242.0	125.7	14.91	232.0	121.2	16.59	220.1	116.4	18.15	203.1	108.1	17.96
		67	221.1	157.4	15.00	209.3	152.7	16.56	197.1	147.1	18.12	187.2	139.0	18.12
		62	198.4	184.1	14.97	188.1	178.6	16.50	178.2	172.7	18.08	170.9	165.4	18.27
7200	0.085	72	241.0	135.8	15.35	231.0	128.0	17.02	219.1	122.4	18.64	203.4	115.6	18.45
		67	221.0	167.7	15.43	209.5	162.9	17.05	198.2	157.6	18.71	186.5	149.2	18.62
		62	201.8	196.6	15.50	191.5	189.5	17.10	181.2	181.2	18.76	172.8	172.4	18.87
9000	0.095	72	238.0	143.5	15.94	227.0	142.8	17.63	215.3	131.8	19.37	199.8	124.9	19.17
		67	218.8	182.4	16.03	208.3	177.5	17.72	196.1	170.2	19.36	184.3	162.2	19.37
		62	203.3	203.0	16.19	194.5	193.4	17.91	185.2	183.9	19.71	174.4	174.2	19.68

559F216 (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	0.06	72	193.1	101.1	19.26	178.4	96.1	20.73
		67	175.6	129.9	19.41	163.8	124.1	20.86
		62	159.4	153.0	19.44	148.3	145.8	20.85
6000	0.075	72	190.9	102.7	19.47	179.4	99.51	21.04
		67	176.0	134.1	19.72	163.9	128.6	21.17
		62	160.4	158.4	19.75	150.2	150.1	21.33
7200	0.085	72	191.6	110.6	20.07	177.7	103.7	21.52
		67	175.3	143.7	20.25	163.9	138.5	21.82
		62	162.7	162.6	20.48	152.7	152.6	22.08
9000	0.095	72	188.1	111.6	20.81	174.5	110.8	22.29
		67	173.3	155.4	21.02	160.6	147.5	22.50
		62	165.1	164.7	21.47	154.5	154.1	23.10

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)

559F240 (20 TON)														
Air Entering Evaporator			Air Entering Condenser (F)											
Cfm	BF	Ewb (F)	75			85			95			105		
			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	0.06	72	274.0	130.4	16.92	264.0	127.6	18.54	252.0	124.4	20.20	240.0	120.0	21.8
		67	250.0	163.6	16.40	240.0	159.8	18.00	228.0	155.4	19.52	216.0	150.8	21.00
		62	226.0	194.4	15.90	216.0	189.8	17.36	204.0	184.6	18.82	190.6	178.4	20.20
7000	0.07	72	280.0	136.4	17.04	270.0	138.2	18.72	258.0	131.0	20.40	246.0	127.2	22.00
		67	256.0	175.0	16.58	244.0	172.2	18.18	234.0	167.6	19.76	222.0	163.6	21.20
		62	232.0	210.0	16.12	222.0	206.0	17.60	210.0	200.0	19.08	196.6	193.8	20.60
8000	0.08	72	284.0	144.0	17.22	276.0	141.8	18.96	262.0	138.8	20.60	250.0	135.0	22.20
		67	260.0	186.8	16.72	250.0	183.4	18.34	238.0	178.8	19.90	226.0	175.2	21.40
		62	236.0	224.0	16.22	226.0	220.0	17.74	216.0	214.0	19.28	204.0	204.0	20.80
9000	0.09	72	288.0	151.8	17.32	278.0	147.8	19.04	266.0	145.2	20.80	252.0	141.6	22.40
		67	264.0	197.0	16.84	254.0	194.6	18.46	240.0	189.8	20.00	228.0	185.4	21.60
		62	242.0	236.0	16.36	232.0	232.0	17.94	222.0	222.0	19.52	212.0	212.0	21.00
10,000	0.10	72	292.0	157.4	17.42	282.0	154.6	19.14	270.0	151.8	20.80	256.0	147.4	22.40
		67	268.0	208.0	16.92	256.0	204.0	18.56	242.0	200.0	20.20	230.0	196.2	21.60
		62	246.0	246.0	16.50	238.0	236.0	18.08	228.0	228.0	19.76	218.0	218.0	21.40

559F240 (20 TON) (cont)									
Air Entering Evaporator			Air Entering Condenser (F)						
Cfm	BF	Ewb (F)	115			125			
			Capacity MBtuh		Compressor kW	Capacity MBtuh		Compressor kW	
			Total	Sensible		Total	Sensible		
6000	0.06	72	228.0	116.0	23.40	214.0	111.0	24.80	
		67	204.0	146.2	22.40	188.8	140.8	23.80	
		62	176.6	171.8	21.60	163.2	162.8	23.00	
7000	0.07	72	232.0	123.8	23.60	218.0	118.6	25.00	
		67	208.0	158.4	22.60	194.2	153.4	24.00	
		62	184.6	184.6	22.00	174.2	174.2	23.40	
8000	0.08	72	236.0	130.4	23.80	220.0	125.8	25.20	
		67	212.0	169.6	22.80	197.6	164.8	24.20	
		62	194.2	194.2	22.40	183.4	183.4	23.80	
9000	0.09	72	238.0	137.2	23.80	224.0	132.0	25.40	
		67	214.0	180.8	23.00	199.8	175.6	24.40	
		62	202.0	202.0	22.60	190.6	190.4	24.00	
10,000	0.10	72	240.0	144.0	24.00	226.0	139.0	25.40	
		67	216.0	190.8	23.20	202.0	185.2	24.60	
		62	208.0	206.0	22.80	196.0	195.4	24.40	

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

GROSS COOLING CAPACITIES (cont)

559F300 (25 TON)			Air Entering Condenser (F)											
Air Entering Evaporator			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

559F300 (25 TON) (cont)			Air Entering Condenser (F)					
Air Entering Evaporator			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.
Correction Factor = $1.10 \times (1 - BF) \times (edb - 80)$.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS

558D036 (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	0.67	0.21	253	0.68	0.23	277	0.69	0.26	307	0.69	0.31	363
1000	0.60	0.23	270	0.61	0.25	292	0.61	0.27	321	0.63	0.32	374
1100	0.55	0.24	287	0.56	0.26	307	0.57	0.28	335	0.58	0.33	385
1200	0.51	0.26	304	0.51	0.27	323	0.52	0.29	349	0.53	0.34	397
1300	0.45	0.27	321	0.46	0.29	338	0.46	0.31	364	0.47	0.34	408
1400	0.38	0.29	338	0.41	0.30	354	0.43	0.32	378	—	—	—
1500	0.34	0.30	355	0.36	0.31	369	0.38	0.33	392	—	—	—

LEGEND

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

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your

fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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

558D036 (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

558D036 (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	0.45	448	1061	0.47	487	1083	0.53	527	1105	0.57	567
1000	992	0.44	438	1039	0.49	487	1061	0.51	507	1086	0.55	547	1111	0.59	587	1136	0.63	627
1100	1013	0.49	487	1068	0.55	547	1090	0.58	577	1109	0.61	607	1127	0.64	637	1145	0.67	666
1200	1045	0.56	557	1090	0.64	637	1109	0.64	647	1156	0.68	676	1203	0.71	706	1250	0.74	736
1300	1075	0.64	637	1122	0.70	696	1152	0.72	716	1190	0.76	756	1228	0.80	796	1266	0.84	836
1400	1110	0.73	726	1160	0.84	766	1181	0.81	806	1237	0.85	845	1293	0.89	885	1349	0.93	925
1500	1150	0.82	816	1190	1.00	855	1225	0.90	895	1271	0.95	945	1317	1.00	995	1363	1.05	1044

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
- indicates field-supplied motor and drive are required.
- _____ indicates maximum usable bhp/watts.
- Maximum usable watts input is 1000 and maximum continuous bhp is 1.00. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Motor drive range: 760 to 1000 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)

558D048 (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	0.93	0.41	458	0.94	0.45	506	0.94	0.51	572	0.99	0.56	632
1300	0.86	0.42	471	0.87	0.46	521	0.87	0.52	589	0.92	0.58	651
1400	0.78	0.45	503	0.79	0.49	556	0.79	0.54	616	0.87	0.60	681
1500	0.70	0.47	536	0.73	0.52	593	0.73	0.56	631	0.80	0.62	698
1600	0.61	0.49	557	0.64	0.54	616	0.66	0.58	654	0.76	0.64	723
1700	0.51	0.52	584	0.54	0.57	646	0.58	0.60	678	0.68	0.66	750
1800	0.40	0.54	610	0.44	0.60	674	0.51	0.62	698	0.63	0.68	772
1900	0.29	0.56	629	0.37	0.62	696	0.46	0.64	720	0.56	0.70	796
2000	0.25	0.58	651	0.30	0.64	720	0.39	0.66	744	0.50	0.73	823

LEGEND

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

NOTES:

1. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
2. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using

your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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

558D048 (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	542	0.16	168	616	0.21	221	678	0.27	278	739	0.32	336	842	0.44	462	886	0.50	525	929	0.56	588
1300	576	0.20	210	644	0.25	263	704	0.31	326	764	0.37	389	867	0.50	525	910	0.56	588	952	0.62	651
1400	610	0.24	252	673	0.30	315	732	0.36	378	791	0.42	441	889	0.55	578	933	0.62	651	976	0.69	725
1500	646	0.28	294	704	0.35	368	761	0.42	436	818	0.48	504	912	0.61	641	957	0.69	720	1001	0.76	777
1600	681	0.33	347	735	0.40	420	790	0.47	494	845	0.54	567	920	0.68	695	931	0.76	772	1023	0.83	848
1700	718	0.39	410	768	0.46	483	836	0.54	562	873	0.61	641	965	0.76	777	1005	0.84	853	1045	0.91	930
1800	754	0.45	473	801	0.53	557	851	0.61	641	900	0.69	725	992	0.84	858	1032	0.92	940	1071	1.00	1022
1900	791	0.52	546	836	0.60	630	832	0.69	720	828	0.77	809	1019	0.93	950	1058	1.02	1037	1097	1.10	1124
2000	828	0.60	630	870	0.68	714	864	0.77	809	858	0.86	904	1046	1.03	1053	1085	1.12	1139	1124	1.21	1237

558D048 (4 TON) (cont)																		
Airflow (Cfm)	Alternate Belt-Drive Motor																	
	External Static Pressure (in. wg)																	
	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
1200	1008	0.67	704	1052	0.73	762	1096	0.78	820	1134	0.89	835	1203	1.00	885	—	—	—
1300	1029	0.75	788	1065	0.81	846	1101	0.86	904	1174	1.01	1040	1229	1.15	1100	1277	1.27	1029
1400	1052	0.83	826	1087	0.90	890	1121	0.96	918	1183	1.09	1042	1255	1.22	1167	1305	1.38	1190
1500	1076	0.91	905	1111	0.99	980	1145	1.06	1014	1208	1.20	1138	1274	1.33	1272	1337	1.47	1350
1600	1100	1.00	995	1134	1.08	1069	1168	1.15	1100	1232	1.31	1253	1291	1.46	1396	1350	1.60	1558
1700	1124	1.09	1084	1158	1.17	1164	1192	1.25	1196	1255	1.42	1358	1314	1.58	1511	1370	1.77	1738
1800	1147	1.18	1174	1182	1.27	1263	1217	1.36	1301	1279	1.54	1473	1381	1.71	1635	1393	1.89	1907
1900	1169	1.27	1263	1205	1.37	1363	1240	1.47	1406	1303	1.66	1588	1408	1.85	1769	1417	2.03	2068
2000	1194	1.38	1373	1228	1.48	1472	1262	1.58	1511	1327	1.78	1702	1436	1.98	1894	1440	2.18	2229

LEGEND

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

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 7.)
2. indicates field-supplied motor and drive are required.
3. indicates maximum usable bhp/watts.
4. Maximum usable watts input is 1000 and maximum continuous bhp is 1.00. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

5. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
6. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
7. Motor drive range: 835 to 1185 rpm. All other rpms require field-supplied drive.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)

558D060 (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	0.88	0.67	750	1.20	0.71	791	1.19	0.70	782	1.36	0.76	845	1.38	0.79	875	1.44	0.85	949
1600	0.68	0.70	780	1.04	0.74	824	1.04	0.74	821	1.22	0.79	883	1.25	0.82	913	1.33	0.89	988
1700	0.51	0.73	810	0.89	0.77	857	0.89	0.77	861	1.09	0.83	921	1.13	0.85	950	1.22	0.92	1027
1800	0.35	0.75	839	0.73	0.80	891	0.74	0.81	900	0.96	0.86	959	1.00	0.89	988	1.11	0.96	1066
1900	0.26	0.78	873	0.58	0.83	924	0.59	0.84	940	0.86	0.90	997	0.88	0.92	1025	1.00	0.99	1105
2000	0.18	0.81	905	0.42	0.86	957	0.44	0.88	979	0.73	0.93	1035	0.78	0.95	1063	0.92	1.03	1144
2100	0.08	0.84	940	0.27	0.89	990	0.29	0.91	1018	0.59	0.96	1073	0.63	0.99	1101	0.81	1.06	1183
2200	—	—	—	0.19	0.92	1023	0.19	0.93	1035	0.46	1.00	1111	0.49	1.02	1138	0.69	1.10	1222
2300	—	—	—	0.11	0.95	1056	0.11	0.97	1076	0.34	1.03	1149	0.41	1.06	1176	0.59	1.13	1261
2400	—	—	—	0.03	0.98	1096	0.04	1.00	1113	0.19	1.07	1187	0.22	1.09	1213	0.43	1.17	1300
2500	—	—	—	—	—	—	—	—	—	0.09	1.10	1225	0.12	1.12	1251	0.34	1.20	1340

LEGEND

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

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using

your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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



558D060 (5 TON)																
Airflow (Cfm)	Alternate Belt-Drive Motor															
	External Static Pressure (in. wg)															
	0.1			0.2			0.4			0.6			0.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	730	0.34	347	789	0.40	409	896	0.53	542	990	0.67	685	1072	0.83	848	
1600	770	0.40	409	826	0.46	470	931	0.61	623	1020	0.75	766	1101	0.91	930	
1700	811	0.47	480	865	0.54	552	966	0.69	705	1051	0.84	858	1133	1.01	1032	
1800	852	0.55	562	905	0.62	634	1002	0.78	797	1084	0.93	950	1163	1.10	1124	
1900	894	0.54	552	945	0.72	736	1037	0.88	899	1119	1.04	1063	1194	1.21	1237	
2000	936	0.74	756	984	0.82	838	1072	0.98	1001	1154	1.16	1185	1226	1.33	1359	
2100	978	0.85	869	1024	0.93	950	1108	1.10	1124	1192	1.29	1318	1259	1.47	1502	
2200	1021	0.97	991	1064	1.05	1073	1145	1.22	1247	1225	1.43	1461	1294	1.62	1656	
2300	1064	1.10	1124	1104	1.18	1206	1183	1.36	1390	1260	1.57	1604	1330	1.78	1819	
2400	1107	1.24	1267	1145	1.32	1349	1222	1.45	1482	1296	1.73	1768	1365	1.94	1983	
2500	1150	1.39	1420	1186	1.48	1512	1262	1.68	1717	1331	1.80	1921	1400	2.12	2166	

558D060 (5 TON) (cont)																
Airflow (Cfm)	Alternate Belt-Drive Motor															
	External Static Pressure (in. wg)															
	1.0			1.2			1.4			1.6			1.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	1153	1.00	1022	1221	1.17	1196	1256	1.30	1328	1280	1.32	1349	1320	1.22	1400	
1600	1178	1.09	1114	1252	1.27	1298	1311	1.45	1482	1340	1.58	1615	1380	1.61	1645	
1700	1205	1.18	1206	1278	1.37	1400	1345	1.57	1604	1397	1.76	1799	1424	1.89	1931	
1800	1235	1.29	1318	1303	1.48	1512	1371	1.69	1727	1433	1.90	1942	1480	2.09	2136	
1900	1266	1.40	1431	1330	1.59	1625	1396	1.80	1850	1460	2.03	2074	1517	2.25	2299	
2000	1297	1.53	1564	1362	1.73	1768	1422	1.94	1983	1485	2.16	2207	1544	2.40	2453	
2100	1327	1.66	1696	1393	1.80	1911	1452	2.08	2126	1510	2.31	2361	1569	2.55	2606	
2200	1359	1.80	1850	1423	2.02	2064	1483	2.24	2289	1538	2.46	2514	1595	2.71	2769	
2300	1392	1.97	2013	1454	2.18	2228	1515	2.41	2463	1569	2.64	2698	1622	2.88	2943	
2400	1426	2.15	2197	1485	2.36	2412	1544	2.59	2647	1601	2.84	2902	1652	3.07	3137	
2500	1461	2.34	2391	1518	2.55	2606	1575	2.78	2841	1631	3.03	3096	1684	3.28	3352	

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
-  indicates field-supplied motor and drive are required.
-  indicates maximum usable bhp/watts.
- Maximum usable watts input is 1921 and maximum continuous bhp is 1.80. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Motor drive range: 900 to 1300 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)


558D072 (6 TON)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	External Static Pressure (in. wg)														
	0.1			0.2			0.4			0.6			0.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	852	0.55	562	905	0.62	615	1002	0.78	739	1084	0.93	859	1163	1.10	998
1900	894	0.64	630	945	0.72	692	1037	0.88	818	1119	1.04	948	1194	1.21	1089
2000	936	0.74	708	984	0.82	771	1072	0.98	899	1154	1.16	1047	1226	1.33	1190
2100	978	0.85	795	1024	0.93	859	1108	1.10	998	1190	1.29	1156	1259	1.47	1310
2200	1021	0.97	891	1064	1.05	956	1145	1.22	1097	1225	1.43	1275	1294	1.62	1439
2300	1064	1.10	998	1104	1.18	1064	1183	1.36	1216	1260	1.57	1396	1330	1.78	1578
2400	1107	1.24	1114	1145	1.32	1182	1222	1.52	1353	1296	1.73	1534	1365	1.94	1718
2500	1150	1.39	1241	1186	1.48	1318	1262	1.68	1491	1331	1.89	1674	1400	2.12	1875
2600	1193	1.56	1387	1228	1.65	1465	1301	1.86	1648	1367	2.07	1831	1435	2.31	2041
2700	1237	1.74	1543	1269	1.83	1621	1341	2.05	1814	1404	2.26	1997	1471	2.51	2214
2800	1280	1.94	1718	1311	2.03	1796	1381	2.25	1989	1442	2.47	2180	1506	2.72	2394
2900	1324	2.15	1901	1354	2.24	1980	1420	2.47	2180	1481	2.69	2369	1542	2.94	2579
3000	1368	2.37	2093	1396	2.46	2171	1460	2.69	2369	1521	2.93	2571	—	—	—

558D072 (6 TON) (cont)												
Airflow (Cfm)	Standard Belt-Drive Motor											
	External Static Pressure (in. wg)											
	1.0			1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1235	1.29	1156	1303	1.48	1318	1371	1.69	1499	1433	1.90	1638
1900	1266	1.40	1250	1330	1.59	1413	1396	1.81	1604	1460	2.03	1796
2000	1297	1.53	1361	1362	1.73	1534	1422	1.94	1718	1485	2.16	1910
2100	1327	1.66	1473	1393	1.87	1656	1452	2.08	1840	1510	2.31	2041
2200	1359	1.81	1604	1423	2.02	1779	1483	2.24	1980	1538	2.46	2171
2300	1392	1.97	1744	1454	2.18	1927	1515	2.41	2128	1569	2.64	2326
2400	1426	2.15	1901	1485	2.36	2084	1544	2.59	2283	1601	2.84	2459
2500	1461	2.34	2067	1518	2.55	2249	1575	2.78	2445	—	—	—
2600	1497	2.54	2240	1552	2.76	2428	—	—	—	—	—	—
2700	1532	2.75	2420	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
-  indicates field-supplied motor and drive are required.
- _____ indicates maximum usable bhp/watts.
- Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Motor drive range: 1070 to 1460 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)





558D090 (7½ 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	
2250	511	0.52	539	592	0.74	708	659	0.95	875	722	1.19	1072	778	1.43	1275	829	1.68	1491
2300	518	0.55	562	599	0.77	731	665	0.98	899	727	1.22	1097	783	1.47	1310	834	1.72	1526
2400	534	0.61	607	613	0.84	787	677	1.06	965	738	1.30	1165	794	1.55	1378	844	1.81	1604
2500	549	0.67	653	627	0.90	835	690	1.14	1031	750	1.38	1233	805	1.64	1456	855	1.91	1691
2550	557	0.71	684	633	0.94	867	697	1.18	1064	756	1.42	1267	811	1.69	1499	861	1.96	1735
2600	565	0.74	708	639	0.97	891	703	1.22	1097	761	1.46	1301	816	1.74	1543	866	2.01	1779
2700	581	0.81	763	652	1.04	948	717	1.31	1173	773	1.55	1378	827	1.83	1621	878	2.12	1875
2800	597	0.89	827	665	1.12	1014	733	1.40	1250	786	1.66	1473	839	1.93	1709	889	2.23	1971
2900	613	0.97	891	679	1.20	1081	745	1.50	1335	799	1.76	1560	850	2.04	1805	900	2.34	2067
3000	629	1.06	965	694	1.29	1156	759	1.59	1413	812	1.88	1665	862	2.15	1901	911	2.46	2171
3100	646	1.15	1039	709	1.39	1241	772	1.70	1508	825	1.99	1761	875	2.28	2015	923	2.58	2275
3200	662	1.25	1123	724	1.50	1335	785	1.80	1595	840	2.11	1866	887	2.41	2128	934	2.71	2386
3300	679	1.35	1207	740	1.61	1430	798	1.91	1691	854	2.24	1980	900	2.54	2240	946	2.85	2504
3400	696	1.46	1301	756	1.73	1534	811	2.02	1788	868	2.37	2093	914	2.69	2369	959	3.00	2629
3500	712	1.57	1396	771	1.85	1639	824	2.14	1892	881	2.50	2206	928	2.84	2495	971	3.16	2759
3600	729	1.69	1499	787	1.98	1753	839	2.21	2006	894	2.64	2326	942	2.99	2620	984	3.22	2886
3700	746	1.85	1613	803	2.12	1875	854	2.42	2136	907	2.78	2445	956	3.15	2751	997	3.49	3017
3750	755	1.89	1674	811	2.20	1945	862	2.49	2197	914	2.85	2504	963	3.23	2815	—	—	—

558D090 (7½ TON) (cont)												
Airflow (Cfm)	Standard Belt-Drive Motor											
	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	
2250	884	1.97	1744	937	2.33	2058	947	2.66	2343	1022	3.10	2710
2300	885	2.00	1770	939	2.36	2084	979	2.69	2369	1025	3.12	2727
2400	892	2.08	1840	944	2.40	2119	987	2.76	2428	1039	3.20	2791
2500	902	2.18	1927	949	2.48	2188	1002	2.84	2495	1041	3.25	2831
2550	908	2.24	1980	953	2.53	2232	1003	2.87	2521	1045	3.28	2854
2600	913	2.29	2023	957	2.58	2275	1004	2.91	2554	1050	3.31	2878
2700	924	2.40	2120	967	2.70	2377	1010	3.01	2637	1056	3.37	2925
2800	935	2.52	2223	978	2.62	2479	1019	3.13	2735	1061	3.47	3002
2900	946	2.65	2335	989	2.96	2595	1030	3.27	2847	—	—	—
3000	957	2.78	2445	1000	3.09	2702	1040	3.41	2956	—	—	—
3100	968	2.91	2554	1011	3.24	2832	—	—	—	—	—	—
3200	980	3.04	2661	1022	3.38	2933	—	—	—	—	—	—
3300	991	3.18	2775	—	—	—	—	—	—	—	—	—
3400	1003	3.32	2886	—	—	—	—	—	—	—	—	—
3500	1014	3.48	3009	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 9.)
-  indicates alternate drive is required.
-  indicates field-supplied motor and drive are required.
-  indicates maximum usable bhp/watts of standard drive.
-  indicates maximum usable bhp/watts of alternate drive.
- Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Standard drive range: 590 to 840 rpm. Alternate drive range: 685 to 935 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)

558D102 (8½ 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
2550	557	0.71	684	633	0.94	867	697	1.18	1064	756	1.42	1267	811	1.69	1499	861	1.96	1735
2600	565	0.74	708	639	0.97	891	703	1.22	1097	761	1.46	1301	816	1.74	1543	866	2.01	1779
2700	581	0.81	763	652	1.04	948	717	1.31	1173	773	1.55	1378	827	1.83	1621	878	2.12	1875
2800	597	0.89	827	665	1.12	1014	733	1.40	1250	786	1.66	1473	839	1.93	1709	889	2.23	1971
2900	613	0.97	891	679	1.20	1081	745	1.50	1335	799	1.76	1560	850	2.04	1805	900	2.34	2067
3000	629	1.06	965	694	1.29	1156	759	1.59	1413	812	1.88	1665	862	2.15	1901	911	2.46	2171
3100	646	1.15	1039	709	1.39	1241	772	1.70	1508	825	1.99	1761	875	2.28	2015	923	2.58	2275
3200	662	1.25	1123	724	1.50	1335	785	1.80	1595	840	2.11	1866	887	2.41	2128	934	2.71	2386
3300	679	1.35	1207	740	1.61	1430	798	1.91	1691	854	2.24	1980	900	2.54	2240	946	2.85	2504
3400	696	1.46	1301	756	1.73	1534	811	2.02	1788	868	2.37	2093	914	2.69	2369	959	3.00	2629
3500	712	1.57	1396	771	1.85	1639	824	2.14	1892	881	2.50	2206	928	2.84	2495	971	3.16	2759
3600	729	1.69	1499	787	1.98	1753	839	2.27	2006	894	2.64	2326	942	2.99	2620	984	3.32	2886
3700	746	1.82	1613	803	2.12	1875	854	2.42	2136	907	2.78	2445	956	3.15	2751	997	3.49	3017
3750	755	1.89	1674	811	2.20	1945	862	2.49	2197	914	2.85	2504	963	3.23	2815	—	—	—
3800	763	1.95	1726	819	2.27	2006	869	2.56	2257	920	2.92	2562	970	3.31	2878	—	—	—
3900	780	2.09	1849	835	2.42	2136	884	2.72	2394	933	3.07	2686	983	3.48	3009	—	—	—
4000	796	2.23	1971	851	2.56	2257	900	2.89	2537	946	3.23	2815	—	—	—	—	—	—
4100	813	2.39	2110	867	2.74	2411	915	3.06	2678	960	3.40	2948	—	—	—	—	—	—
4200	830	2.55	2249	883	2.91	2554	931	3.24	2823	—	—	—	—	—	—	—	—	—
4250	839	2.63	2317	892	3.00	2629	939	3.34	2902	—	—	—	—	—	—	—	—	—

558D102 (8½ TON) (cont)												
Airflow (Cfm)	Standard Belt-Drive Motor											
	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
2550	908	2.24	1980	953	2.53	2232	1003	2.87	2521	1045	3.28	2854
2600	913	2.29	2023	957	2.58	2275	1004	2.91	2554	1050	3.31	2878
2700	924	2.40	2120	967	2.70	2377	1010	3.01	2637	1056	3.37	2925
2800	935	2.52	2223	978	2.62	2479	1019	3.13	2735	1061	3.41	3002
2900	946	2.65	2335	989	2.96	2595	1030	3.27	2847	—	—	—
3000	957	2.78	2445	1000	3.09	2702	1040	3.41	2956	—	—	—
3100	968	2.91	2554	1011	3.24	2832	—	—	—	—	—	—
3200	980	3.04	2661	1022	3.38	2933	—	—	—	—	—	—
3300	991	3.18	2775	—	—	—	—	—	—	—	—	—
3400	1003	3.52	2886	—	—	—	—	—	—	—	—	—
3500	1014	3.48	3009	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—
3800	—	—	—	—	—	—	—	—	—	—	—	—
3900	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 7.)
2. indicates field-supplied motor and drive are required.
3. _____ indicates maximum usable bhp/watts.
4. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance refer to Evaporator-Fan Motor Performance table on page 62.

5. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
6. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
7. Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)

558D120 (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	532	0.64	630	605	0.81	763	670	0.97	891	725	1.12	1014	778	1.28	1148	825	1.43	1275
3100	544	0.70	677	616	0.86	803	680	1.03	940	735	1.20	1081	787	1.36	1216	835	1.52	1353
3200	557	0.75	716	628	0.93	859	690	1.10	998	746	1.28	1148	796	1.44	1284	844	1.61	1430
3300	570	0.81	763	639	0.99	907	700	1.18	1064	757	1.36	1216	805	1.52	1353	854	1.70	1508
3400	583	0.88	818	651	1.06	965	711	1.25	1123	767	1.44	1284	815	1.61	1430	863	1.79	1587
3500	596	0.94	867	663	1.14	1031	721	1.33	1190	777	1.52	1353	826	1.71	1517	871	1.88	1665
3600	609	1.01	924	674	1.22	1097	732	1.42	1267	787	1.61	1430	836	1.80	1595	880	1.98	1753
3700	622	1.09	989	686	1.30	1165	744	1.50	1335	797	1.70	1508	847	1.91	1691	890	2.09	1849
3800	635	1.16	1047	698	1.39	1241	755	1.59	1413	808	1.80	1595	857	2.01	1779	901	2.20	1945
3900	649	1.25	1123	713	1.48	1318	767	1.68	1491	818	1.90	1683	867	2.11	1866	912	2.32	2050
4000	662	1.33	1190	722	1.57	1396	778	1.78	1578	829	2.01	1779	878	2.22	1962	922	2.44	2203
4100	675	1.42	1267	734	1.67	1482	790	1.89	1674	839	2.12	1875	888	2.33	2058	933	2.56	2309
4200	689	1.52	1353	746	1.77	1569	801	1.99	1761	851	2.23	1971	898	2.45	2212	943	2.69	2424
4300	702	1.61	1430	759	1.88	1665	813	2.11	1866	862	2.34	2067	908	2.58	2326	953	2.81	2533
4400	715	1.72	1526	772	1.99	1761	825	2.22	1962	873	2.46	2221	919	2.71	2442	963	2.94	2651
4500	729	1.83	1621	785	2.10	1858	837	2.35	2076	885	2.59	2335	929	2.85	2569	973	3.08	2782
4600	742	1.94	1718	797	2.22	1962	848	2.48	2238	896	2.72	2451	940	2.98	2688	984	3.22	2914
4700	756	2.06	1823	810	2.34	2067	860	2.61	2353	908	2.86	2578	951	3.12	2727	994	3.38	3068
4800	770	2.18	1927	823	2.46	2221	872	2.75	2505	919	3.00	2707	963	3.27	2847	1003	3.43	3202
4900	783	2.31	2041	836	2.60	2344	884	2.89	2605	931	3.14	2838	974	3.41	2956	1013	3.59	3349
5000	797	2.44	2203	849	2.73	2460	897	3.04	2661	943	3.30	2870	984	3.44	3211	1023	3.75	3501

558D120 (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	874	1.60	1422	926	1.82	1613	974	2.11	1920	1012	2.41	2134
3100	880	1.68	1491	933	1.87	1656	983	2.16	1963	1017	2.44	2177
3200	888	1.77	1569	934	1.94	1718	988	2.18	1980	1025	2.47	2230
3300	897	1.86	1648	940	2.03	1853	989	2.24	2031	1032	2.53	2282
3400	907	1.97	1744	947	2.14	1946	991	2.32	2099	1038	2.57	2318
3500	916	2.07	1831	956	2.25	2039	997	2.43	2195	1043	2.64	2380
3600	926	2.18	1927	966	2.41	2134	1004	2.54	2291	1045	2.74	2478
3700	934	2.28	2015	976	2.48	2238	1013	2.66	2397	1051	2.85	2569
3800	943	2.41	2160	985	2.60	2334	1023	2.79	2514	1059	2.98	2688
3900	952	2.51	2265	994	2.72	2451	1032	2.92	2633	1068	3.12	2819
4000	962	2.63	2371	1003	2.84	2560	1042	3.06	2763	1078	3.26	2952
4100	973	2.77	2496	1011	2.97	2679	1051	3.20	2895	1087	3.41	3097
4200	983	2.91	2624	1021	3.11	2810	1060	3.34	3029	1090	3.51	3276
4300	994	3.05	2754	1031	3.25	2943	1068	3.48	3166	1097	3.70	3453
4400	1004	3.19	2885	1042	3.41	3097	1080	3.63	3388	1105	3.91	3642
4500	1015	3.33	2020	1051	3.45	3218	1090	3.75	3493	1112	4.12	3843
4600	1025	3.48	3166	1060	3.61	3369	1100	3.92	3655	1119	4.35	4057
4700	1037	3.58	3335	1070	3.84	3325	1111	4.10	3822	1126	4.59	4284
4800	1048	3.75	3494	1080	3.95	3686	1121	4.28	3995	1133	4.85	4523
4900	1060	3.92	3659	1089	4.13	3854	1132	4.48	4174	1140	5.12	4775
5000	1072	4.11	3830	1099	4.32	4027	1144	4.67	4359	1147	5.40	5040

LEGEND

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

NOTES:

1. **Boldface** indicates a field-supplied or alternate (as appropriate) drive is required. (See Note 9.)
2. indicates alternate motor and drive are required.
3. indicates field-supplied motor and drive are required.
4. indicates maximum usable bhp/watts of standard motor.
5. indicates maximum usable bhp/watts of alternate motor.
6. Maximum usable watts input is 2120 with standard motor and 2615 with alternate motor. Maximum continuous bhp is 2.40 with

- standard motor and 2.90 with 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.
7. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
8. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
9. Standard motor drive range: 685 to 935 rpm. Alternate motor drive range: 835 to 1085 rpm. All other rpms require field-supplied drive.
10. Interpolation is permissible. Do not extrapolate.
11. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 VERTICAL DISCHARGE UNITS (cont)

558D150 (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
3750	661	1.16	1097	721	1.36	1255	774	1.55	1415	821	1.72	1556	867	1.90	1709	911	2.13	1905
3800	668	1.20	1129	727	1.40	1291	780	1.60	1456	827	1.77	1598	873	1.95	1751	916	2.18	1948
3900	683	1.28	1194	741	1.49	1365	793	1.70	1540	839	1.88	1691	884	2.05	1836	927	2.28	2035
4000	697	1.37	1267	754	1.59	1448	806	1.80	1624	851	1.99	1785	895	2.16	1931	938	2.38	2123
4100	711	1.46	1340	767	1.69	1531	819	1.90	1708	864	2.10	1879	907	2.28	2035	949	2.49	2219
4200	726	1.56	1423	780	1.80	1624	832	2.01	1802	877	2.22	1983	919	2.41	2149	960	2.60	2316
4300	741	1.66	1506	794	1.91	1717	845	2.12	1897	889	2.35	2096	931	2.54	2263	971	2.72	2433
4400	755	1.77	1598	808	2.03	1819	858	2.24	2000	902	2.48	2210	943	2.68	2387	983	2.86	2548
4500	770	1.89	1700	821	2.15	1923	871	2.37	2114	915	2.61	2325	955	2.82	2512	995	3.01	2683
4600	784	2.00	1794	835	2.27	2027	884	2.49	2219	928	2.75	2450	968	2.96	2638	1006	3.17	2828
4700	799	2.13	1905	849	2.40	2140	897	2.63	2343	941	2.88	2566	981	3.11	2773	1018	3.32	2964
4800	814	2.25	2009	863	2.53	2254	910	2.77	2468	954	3.02	2692	993	3.27	2919	1030	3.48	3111
4900	829	2.39	2131	877	2.67	2378	923	2.92	2602	967	3.17	2828	1006	3.43	3065	1043	3.65	3267
5000	843	2.52	2246	892	2.81	2503	937	3.08	2746	980	3.32	2964	1019	3.60	3221	1055	3.82	3424
5100	858	2.67	2378	906	2.95	2629	950	3.24	2891	993	3.48	3111	1032	3.76	3368	1068	4.00	3590
5200	873	2.82	2512	920	3.10	2764	963	3.40	3037	1006	3.65	3267	1045	3.93	3525	1081	4.19	3767
5300	888	2.97	2647	934	3.26	2910	977	3.57	3193	1019	3.82	3424	1058	4.11	3692	1094	4.38	3943
5400	903	3.13	2792	949	3.43	3065	991	3.75	3359	1032	4.00	3590	1071	4.29	3860	1106	4.57	4120
5500	918	3.30	2946	963	3.59	3212	1004	3.92	3516	1045	4.18	3757	1084	4.47	4027	1119	4.77	4307
5600	933	3.47	3101	978	3.77	3377	1018	4.11	3692	1058	4.38	3943	1097	4.66	4204	1132	4.97	4493
5700	948	3.65	3267	992	3.95	3544	1032	4.30	3869	1072	4.58	4130	1110	4.86	4391	1145	5.18	4689
5800	963	3.83	3433	1006	4.14	3720	1046	4.50	4055	1085	4.79	4326	1123	5.07	4586	1158	5.39	4884
5900	978	4.00	3590	1021	4.34	3906	1060	4.69	4232	1098	5.01	4531	1136	5.28	4782	1171	5.60	5078
6000	993	4.22	3795	1035	4.54	4093	1074	4.91	4419	1112	5.23	4735	1149	5.50	4986	—	—	—
6100	1008	4.42	3981	1050	4.75	4288	1089	5.10	4616	1125	5.45	4939	1162	5.73	5198	—	—	—
6200	1023	4.63	4176	1065	4.96	4484	1103	5.32	4819	1139	5.68	5152	—	—	—	—	—	—
6250	1031	4.74	4279	1072	5.08	4591	1141	5.43	4921	—	—	—	—	—	—	—	—	—

558D150 (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
3750	955	2.33	2075	996	2.53	2251	1035	2.72	2419	1070	2.89	2575
3800	959	2.38	2123	1001	2.58	2299	1040	2.78	2476	1075	2.96	2638
3900	969	2.50	2228	1010	2.70	2405	1049	2.91	2593	1085	3.11	2773
4000	979	2.62	2334	1020	2.83	2521	1059	3.04	2710	1095	3.25	2901
4100	989	2.74	2441	1029	2.96	2638	1068	3.18	2837	1105	3.39	3028
4200	1000	2.86	2548	1039	3.10	2764	1077	3.31	2955	1114	3.54	3166
4300	1011	2.97	2647	1049	3.23	2882	1087	3.46	3092	1124	3.69	3304
4400	1022	3.10	2764	1059	3.37	3010	1097	3.61	3230	1133	3.84	3442
4500	1033	3.23	2882	1070	3.51	3138	1107	3.76	3368	1143	4.00	3590
4600	1044	3.37	3010	1081	3.64	3258	1117	3.92	3516	1152	4.17	3748
4700	1056	3.52	3147	1092	3.78	3387	1127	4.07	3655	1162	4.33	3897
4800	1057	3.69	3304	1103	3.93	3525	1138	4.23	3804	1172	4.50	4055
4900	1079	3.87	3470	1114	4.09	3674	1149	4.37	3934	1182	4.68	4223
5000	1091	4.05	3637	1126	4.25	3822	1160	4.53	4083	1193	4.85	4382
5100	1103	4.23	3804	1137	4.45	4009	1171	4.70	4242	1204	5.01	4531
5200	1115	4.42	3981	1149	4.65	4195	1182	4.91	4409	1215	5.18	4689
5300	1127	4.62	4167	1161	4.85	4382	1194	5.07	4586	1226	5.36	4856
5400	1139	4.82	4354	1173	5.06	4577	1205	5.29	4791	1237	5.55	5032
5500	1152	5.03	4549	1185	5.27	4772	1217	5.51	4995	1248	5.75	5216
5600	1165	5.24	4746	1197	5.49	4976	1229	5.74	5207	—	—	—
5700	1178	5.46	4949	1209	5.72	5189	—	—	—	—	—	—
5800	—	—	—	—	—	—	—	—	—	—	—	—
5900	—	—	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—
6100	—	—	—	—	—	—	—	—	—	—	—	—
6200	—	—	—	—	—	—	—	—	—	—	—	—
6250	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **boldface** indicates a field-supplied or alternate (as appropriate) drive is required. (See Note 9.)
2. indicates alternate motor and drive are required.
3. indicates field-supplied motor and drive are required.
4. indicates maximum usable bhp/watts of standard motor.
5. indicates maximum usable bhp/watts of alternate motor.
6. Maximum usable watts input is 3775 with standard motor and 4400 with alternate motor. Maximum continuous bhp is 4.20 with standard motor and 5.25

with 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

7. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
8. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
9. Standard motor drive range: 860 to 1080 rpm. Alternate motor drive range: 900 to 1260 rpm. All other rpms require field-supplied drive.
10. Interpolation is permissible. Do not extrapolate.
11. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS

558D036 (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	0.72	0.21	253	0.75	0.23	277	0.73	0.26	307	0.76	0.31	363
1000	0.67	0.23	270	0.69	0.25	292	0.70	0.27	321	0.71	0.32	374
1100	0.61	0.24	287	0.63	0.26	307	0.64	0.28	335	0.65	0.33	385
1200	0.57	0.26	304	0.58	0.27	323	0.56	0.29	349	0.59	0.34	397
1300	0.51	0.27	321	0.53	0.29	338	0.53	0.31	364	0.54	0.34	408
1400	0.44	0.29	338	0.46	0.30	354	0.47	0.32	378	—	—	—
1500	0.39	0.30	355	0.41	0.31	369	0.43	0.33	392	—	—	—

LEGEND

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

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using

your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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

558D036 (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	526	0.06	70	584	0.08	99	656	0.12	139	734	0.22	219	818	0.25	269	875	0.27	289
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

558D036 (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	Watt	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	0.49	487	1120	0.54	537
1000	936	0.35	348	977	0.39	388	1020	0.44	438	1064	0.48	477	1124	0.54	537	1185	0.60	597
1100	960	0.39	388	1005	0.43	428	1052	0.49	487	1100	0.52	527	1163	0.59	587	1225	0.65	647
1200	960	0.45	388	1038	0.50	497	1076	0.53	527	1136	0.59	577	1201	0.65	647	1266	0.72	716
1300	1012	0.51	507	1061	0.56	557	1090	0.61	607	1172	0.65	647	1239	0.72	716	1306	0.79	786
1400	1027	0.56	557	1071	0.60	597	1108	0.67	666	1208	0.70	706	1278	0.79	786	1347	0.87	865
1500	1056	0.63	627	1097	0.68	676	1117	0.70	696	1245	0.74	776	1315	0.87	865	1385	0.96	955

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 4.)
- Maximum usable watts input is 1000 and maximum continuous bhp is 1.00. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Motor drive range: 760 to 1000 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D048 (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	0.93	0.41	458	0.97	0.45	506	1.04	0.51	572	1.09	0.56	632
1300	0.86	0.42	471	0.90	0.46	521	0.96	0.52	589	1.02	0.58	651
1400	0.78	0.45	503	0.84	0.49	556	0.90	0.54	616	0.96	0.60	681
1500	0.73	0.47	536	0.76	0.52	593	0.83	0.56	631	0.89	0.62	698
1600	0.67	0.49	557	0.70	0.54	616	0.75	0.58	654	0.82	0.64	723
1700	0.60	0.52	584	0.63	0.57	646	0.67	0.60	678	0.74	0.66	750
1800	0.51	0.54	610	0.54	0.60	674	0.62	0.62	698	0.69	0.68	772
1900	0.40	0.56	629	0.45	0.62	696	0.54	0.64	720	0.62	0.70	796
2000	0.32	0.58	661	0.33	0.65	731	0.47	0.66	744	0.54	0.73	823

LEGEND

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

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using

your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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

558D048 (4 TON)																					
Airflow (Cfm)	Alternate Direct-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	514	0.15	158	590	0.20	210	657	0.25	263	723	0.30	315	828	0.42	441	876	0.49	510	924	0.55	578
1300	545	0.18	189	615	0.23	242	680	0.29	305	744	0.35	368	849	0.47	494	895	0.54	562	940	0.60	630
1400	577	0.21	221	642	0.27	284	704	0.33	347	766	0.39	410	870	0.52	546	915	0.59	620	959	0.66	693
1500	609	0.26	273	670	0.31	326	729	0.38	394	788	0.44	462	892	0.58	609	936	0.65	683	980	0.72	757
1600	642	0.30	315	699	0.36	378	755	0.43	447	811	0.49	515	913	0.64	672	957	0.72	751	1001	0.79	830
1700	675	0.36	378	728	0.42	441	782	0.49	510	836	0.55	578	935	0.71	746	979	0.79	825	1023	0.86	904
1800	709	0.41	431	759	0.48	504	810	0.55	578	860	0.62	651	957	0.78	820	1001	0.86	904	1044	0.94	988
1900	743	0.48	504	790	0.55	578	838	0.62	651	886	0.69	725	980	0.86	904	1023	0.95	993	1066	1.03	1082
2000	778	0.55	578	836	0.62	651	875	0.70	730	913	0.77	809	1004	0.94	988	1046	1.03	1082	1088	1.12	1177

558D048 (4 TON) (cont)																		
Airflow (Cfm)	Alternate Direct-Drive Motor																	
	External Static Pressure (in. wg)																	
	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
1200	999	0.66	674	1018	0.67	685	1036	0.68	695	1073	0.71	756	1109	0.75	794	1138	0.79	851
1300	1025	0.74	756	1058	0.79	807	1090	0.84	858	1121	0.87	832	1159	0.90	918	1193	0.95	976
1400	1042	0.81	828	1080	0.88	899	1118	0.95	971	1175	1.06	1014	1206	1.09	1042	1244	1.12	1138
1500	1060	0.88	899	1098	0.96	981	1136	1.04	1063	1205	1.19	1138	1258	1.30	1243	1289	1.34	1282
1600	1080	0.95	971	1117	1.04	1058	1153	1.12	1140	1224	1.29	1234	1287	1.45	1387	1337	1.56	1492
1700	1101	1.03	1053	1137	1.12	1139	1172	1.20	1226	1241	1.38	1320	1307	1.56	1492	1366	1.73	1655
1800	1122	1.11	1134	1157	1.20	1226	1192	1.29	1318	1258	1.48	1415	1323	1.67	1597	1385	1.86	1779
1900	1143	1.21	1237	1179	1.30	1328	1214	1.39	1420	1279	1.58	1511	1341	1.78	1702	1402	1.98	1894
2000	1165	1.31	1339	1200	1.40	1431	1235	1.49	1523	1300	1.69	1616	1361	1.90	1817	1419	2.10	2008

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
- indicates field-supplied motor and drive are required.
- indicates maximum usable bhp/watts.
- Maximum usable watts input is 1000 and maximum continuous bhp is 1.00. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Motor drive range: 835 to 1185 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D060 (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	1.01	0.67	750	1.25	0.71	791	1.26	0.70	782	1.46	0.76	845	1.46	0.79	875	1.52	0.85	949
1600	0.82	0.70	780	1.09	0.74	824	1.11	0.74	821	1.32	0.79	883	1.33	0.82	913	1.41	0.89	988
1700	0.64	0.73	810	0.97	0.77	857	0.99	0.77	861	1.22	0.83	921	1.24	0.85	950	1.33	0.92	1027
1800	0.44	0.75	839	0.81	0.80	891	0.84	0.80	900	1.09	0.86	959	1.11	0.89	988	1.22	0.96	1066
1900	0.32	0.78	869	0.66	0.83	924	0.69	0.83	940	0.96	0.90	997	0.99	0.92	1025	1.11	0.99	1105
2000	0.21	0.81	899	0.47	0.86	957	0.51	0.86	979	0.80	0.93	1035	0.83	0.95	1063	0.97	1.03	1144
2100	0.13	0.83	929	0.32	0.89	990	0.36	0.89	1018	0.64	0.96	1073	0.71	0.99	1101	0.86	1.06	1183
2200	0.05	0.86	959	0.19	0.92	1023	0.21	0.92	1058	0.50	1.00	1111	0.58	1.02	1138	0.75	1.10	1222
2300	—	—	—	0.08	0.95	1057	0.08	0.95	1097	0.34	1.03	1149	0.39	1.06	1176	0.57	1.13	1261
2400	—	—	—	—	—	—	—	—	—	0.24	1.07	1187	0.29	1.09	1213	0.49	1.17	1300
2500	—	—	—	—	—	—	—	—	—	0.15	1.10	1225	0.15	1.12	1251	0.34	1.20	1340

LEGEND

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

NOTES:

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using

your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

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



558D060 (5 TON)																
Airflow (Cfm)	Alternate Belt-Drive Motor															
	External Static Pressure (in. wg)															
	0.1			0.2			0.4			0.6			0.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	658	0.27	276	722	0.33	337	840	0.46	470	937	0.59	603	1027	0.74	756	
1600	693	0.32	327	754	0.38	388	867	0.52	531	963	0.65	664	1052	0.81	828	
1700	729	0.38	388	787	0.44	450	895	0.58	593	991	0.73	746	1075	0.88	899	
1800	765	0.45	460	821	0.51	521	923	0.65	664	1019	0.81	828	1099	0.96	981	
1900	802	0.52	531	854	0.58	593	953	0.73	746	1046	0.90	920	1126	1.06	1083	
2000	840	0.60	613	900	0.66	674	984	0.82	838	1073	0.99	1012	1154	1.16	1185	
2100	878	0.69	705	923	0.75	766	1015	0.91	930	1101	1.08	1104	1182	1.27	1298	
2200	916	0.78	797	958	0.85	869	1046	1.01	1032	1129	1.19	1216	1209	1.39	1420	
2300	954	0.89	910	993	0.96	981	1079	1.13	1155	1160	1.31	1339	1237	1.51	1543	
2400	993	1.00	1022	1029	1.07	1093	1112	1.25	1277	1190	1.43	1461	1264	1.63	1666	
2500	1031	1.13	1155	1066	1.20	1226	1145	1.39	1420	1220	1.57	1604	1292	1.77	1809	

558D060 (5 TON) (cont)																
Airflow (Cfm)	Alternate Belt-Drive Motor															
	External Static Pressure (in. wg)															
	1.0			1.2			1.4			1.6			1.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	1108	0.90	920	1186	1.08	1104	1263	1.30	1328	1343	1.58	1615	1431	1.79	1829	
1600	1130	0.97	991	1205	1.15	1175	1278	1.35	1380	1350	1.61	1645	1424	1.80	1921	
1700	1154	1.06	1083	1226	1.23	1257	1296	1.42	1451	1364	1.64	1676	1432	1.89	1931	
1800	1178	1.14	1165	1249	1.32	1349	1316	1.52	1553	1382	1.72	1758	1447	1.95	1993	
1900	1201	1.23	1257	1274	1.43	1461	1338	1.62	1656	1402	1.80	1870	1464	2.05	2095	
2000	1226	1.33	1359	1297	1.53	1564	1363	1.73	1768	1424	1.94	1983	1484	2.16	2207	
2100	1252	1.45	1482	1320	1.64	1676	1388	1.80	1891	1448	2.07	2115	1505	2.29	2340	
2200	1280	1.58	1615	1345	1.77	1809	1410	1.97	2013	1473	2.20	2248	1529	2.43	2483	
2300	1309	1.71	1747	1372	1.91	1952	1434	2.11	2156	1496	2.34	2391	1554	2.58	2637	
2400	1336	1.80	1891	1400	2.06	2105	1459	2.26	2310	1519	2.48	2534	1578	2.76	2820	
2500	1363	2.00	2044	1428	2.22	2269	1486	2.43	2483	1543	2.65	2708	1600	2.89	2953	

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
-  indicates field-supplied motor and drive are required.
-  indicates maximum usable bhp/watts.
- Maximum usable watts input is 1921 and maximum continuous bhp is 1.80. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Motor drive range: 900 to 1300 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)



558D072 (6 TON)															
AIRFLOW (Cfm)	Standard Belt-Drive Motor														
	External Static Pressure (in. wg)														
	0.1			0.2			0.4			0.6			0.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	765	0.45	487	821	0.51	532	923	0.65	638	1019	0.81	843	1099	0.96	883
1900	802	0.45	539	854	0.58	585	953	0.73	700	1046	0.90	835	1126	1.06	965
2000	840	0.60	600	888	0.66	646	984	0.82	771	1073	0.99	907	1154	1.16	1047
2100	878	0.69	669	923	0.75	716	1015	0.91	843	1101	1.08	981	1182	1.27	1140
2200	916	0.78	739	958	0.85	795	1046	1.01	924	1129	1.19	1072	1209	1.39	1241
2300	954	0.89	827	993	0.96	883	1079	1.13	1022	1160	1.31	1173	1237	1.51	1344
2400	993	1.00	916	1029	1.07	973	1112	1.25	1123	1190	1.43	1275	1264	1.63	1447
2500	1031	1.13	1022	1066	1.20	1081	1145	1.39	1241	1220	1.57	1396	1292	1.77	1569
2600	1070	1.26	1131	1103	1.34	1199	1179	1.52	1353	1251	1.71	1517	1322	1.92	1700
2700	1109	1.41	1258	1140	1.48	1318	1212	1.67	1482	1283	1.87	1656	1352	2.09	1849
2800	1148	1.57	1396	1177	1.64	1456	1246	1.83	1621	1316	2.04	1805	1383	2.26	1997
2900	1188	1.74	1543	1215	1.81	1604	1281	2.00	1770	1349	2.22	1962	1413	2.44	2154
3000	1227	1.92	1700	1253	2.00	1770	1316	2.19	1936	1382	2.42	2136	1444	2.63	2317

558D072 (6 TON) (cont)												
AIRFLOW (Cfm)	Standard Belt-Drive Motor											
	External Static Pressure (in. wg)											
	1.0			1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1178	1.14	1031	1249	1.32	1182	1316	1.52	1353	1382	1.72	1526
1900	1201	1.23	1106	1274	1.43	1275	1338	1.62	1439	1402	1.83	1621
2000	1226	1.33	1990	1297	1.53	1361	1363	1.73	1534	1424	1.94	1718
2100	1252	1.45	1292	1320	1.64	1456	1388	1.85	1639	1448	2.07	1831
2200	1280	1.58	1404	1345	1.77	1569	1410	1.97	1744	1473	2.20	1945
2300	1309	1.71	1517	1372	1.91	1691	1434	2.11	1866	1496	2.34	2067
2400	1336	1.85	1639	1400	2.06	1823	1459	2.26	1997	1519	2.48	2188
2500	1363	2.00	1770	1428	2.22	1962	1486	2.43	2145	1543	2.65	2335
2600	1390	2.15	1901	1456	2.38	2102	1514	2.61	2300	1569	2.83	2487
2700	1418	2.31	2041	1483	2.56	2257	1543	2.80	2462	—	—	—
2800	1446	2.48	2188	1510	2.73	2403	—	—	—	—	—	—
2900	1476	2.67	2352	1537	2.92	2562	—	—	—	—	—	—
3000	1506	2.88	2529	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates a field-supplied drive is required. (See Note 7.)
-  indicates field-supplied motor and drive are required.
-  indicates maximum usable bhp/watts.
- Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
- Standard motor drive range: 1070 to 1460 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D090 (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
2250	465	0.43	473	554	0.64	630	630	0.86	803	695	1.09	989	757	1.34	1199
2300	471	0.45	487	559	0.66	646	635	0.89	827	699	1.12	1014	760	1.37	1224
2400	482	0.50	524	569	0.71	684	645	0.95	875	708	1.18	1064	768	1.44	1284
2500	494	0.54	554	581	0.76	723	654	1.01	924	717	1.25	1123	776	1.51	1344
2550	501	0.57	577	587	0.79	747	659	1.05	956	722	1.29	1156	780	1.55	1378
2660	507	0.59	592	592	0.82	771	663	1.08	981	727	1.32	1182	784	1.58	1404
2700	520	0.65	638	604	0.89	827	672	1.14	1031	737	1.40	1250	793	1.66	1473
2800	533	0.71	684	615	0.95	875	683	1.20	1081	747	1.49	1327	802	1.75	1552
2900	546	0.77	731	626	1.02	932	693	1.27	1140	756	1.57	1396	813	1.84	1630
3000	559	0.83	779	637	1.09	989	704	1.35	1207	765	1.66	1473	823	1.94	1718
3100	572	0.90	835	648	1.17	1056	715	1.43	1275	775	1.74	1543	832	2.05	1814
3200	585	0.96	883	660	1.24	1114	727	1.52	1353	785	1.83	1621	841	2.15	1901
3300	598	1.03	940	671	1.32	1182	739	1.62	1439	795	1.91	1691	851	2.26	1997
3400	610	1.10	998	682	1.41	1258	750	1.72	1526	806	2.01	1779	860	2.36	2084
3500	623	1.17	1056	694	1.50	1335	761	1.82	1613	817	2.11	1866	870	2.47	2180
3600	636	1.25	1123	707	1.60	1422	772	1.93	1709	828	2.23	1971	880	2.57	2266
3700	649	1.33	1190	720	1.71	1517	783	2.03	1796	840	2.35	2076	890	2.69	2369
3750	655	1.37	1224	727	1.77	1569	789	2.09	1849	846	2.42	2136	896	2.75	2420

558D090 (7½ TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	810	1.62	1439	850	1.91	1691	873	2.20	1945	863	2.50	2206	855	2.78	2445
2300	816	1.65	1465	859	1.94	1718	888	2.24	1980	897	2.55	2249	887	2.85	2504
2400	824	1.72	1526	872	2.01	1779	909	2.32	2050	931	2.64	2326	935	2.96	2595
2500	832	1.79	1587	882	2.09	1849	925	2.40	2119	955	2.72	2394	972	3.06	2678
2550	836	1.83	1621	887	2.13	1884	931	2.45	2162	964	2.77	2436	986	3.11	2718
2660	839	1.87	1656	891	2.17	1919	936	2.49	2197	973	2.82	2479	999	3.16	2759
2700	846	1.95	1726	898	2.26	1997	946	2.58	2275	987	2.91	2554	1019	3.26	2839
2800	855	2.04	1805	906	2.35	2076	954	2.67	2352	997	3.01	2637	1034	3.36	2917
2900	863	2.13	1884	913	2.44	2154	961	2.77	2436	1006	3.12	2727	—	—	—
3000	872	2.22	1962	921	2.54	2240	969	2.88	2529	1014	3.22	2807	—	—	—
3100	882	2.33	2058	930	2.65	2335	976	2.99	2620	1021	3.34	2902	—	—	—
3200	892	2.45	2162	939	2.76	2428	984	3.10	2710	—	—	—	—	—	—
3300	902	2.57	2266	948	2.88	2529	993	3.21	2799	—	—	—	—	—	—
3400	912	2.69	2369	958	3.01	2637	1002	3.34	2902	—	—	—	—	—	—
3500	921	2.82	2479	968	3.15	2751	—	—	—	—	—	—	—	—	—
3600	930	2.95	2587	978	3.29	2862	—	—	—	—	—	—	—	—	—
3700	940	3.07	2686	—	—	—	—	—	—	—	—	—	—	—	—
3750	945	3.14	2743	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 9.)
2. indicates alternate drive is required.
3. indicates field-supplied motor and drive are required.
4. indicates maximum usable bhp/watts of standard drive.
5. indicates maximum usable bhp/watts of alternate drive.
6. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

7. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
8. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
9. Standard drive range: 590 to 840 rpm. Alternate drive range: 685 to 935 rpm. All other rpms require field-supplied drive.
10. Interpolation is permissible. Do not extrapolate.
11. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D102 (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	501	0.57	577	587	0.79	747	659	1.05	956	722	1.29	1156	780	1.55	1378
2660	507	0.59	592	592	0.82	771	663	1.08	981	727	1.32	1182	784	1.58	1404
2700	520	0.65	638	604	0.89	827	672	1.14	1031	737	1.40	1250	793	1.66	1473
2800	533	0.71	684	615	0.95	875	683	1.20	1081	747	1.49	1327	802	1.75	1552
2900	546	0.77	731	626	1.02	932	693	1.27	1140	756	1.57	1396	813	1.84	1630
3000	559	0.83	779	637	1.09	989	704	1.35	1207	765	1.66	1473	823	1.94	1718
3100	572	0.90	835	648	1.17	1056	715	1.43	1275	775	1.74	1543	832	2.05	1814
3200	585	0.96	883	660	1.24	1114	727	1.52	1353	785	1.83	1321	841	2.15	1901
3300	598	1.03	940	671	1.32	1182	739	1.62	1439	795	1.91	1691	851	2.26	1997
3400	610	1.10	998	682	1.41	1258	750	1.72	1526	806	2.01	1779	860	2.36	2084
3500	623	1.17	1056	694	1.50	1335	761	1.82	1613	817	2.11	1866	870	2.47	2180
3600	636	1.25	1123	707	1.60	1422	772	1.93	1709	828	2.23	1971	880	2.57	2266
3700	649	1.33	1190	720	1.71	1517	783	2.03	1796	840	2.35	2076	890	2.69	2369
3750	655	1.37	1224	727	1.77	1569	789	2.09	1849	846	2.42	2136	896	2.75	2420
3800	661	1.41	1258	733	1.82	1613	795	2.15	1901	852	2.48	2188	901	2.80	2462
3900	674	1.49	1327	746	1.93	1709	806	2.26	1997	863	2.61	2300	912	2.93	2571
4000	687	1.57	1396	759	2.05	1814	817	2.38	2102	874	2.75	2420	923	3.08	2694
4100	699	1.60	1473	772	2.17	1919	828	2.50	2206	885	2.88	2529	935	3.23	2815
4200	712	1.75	1552	785	2.30	2032	840	2.64	2326	897	3.03	2653	947	3.39	2940
4250	719	1.80	1595	792	2.37	2093	846	2.71	2386	903	3.10	2710	—	—	—

558D102 (8½ TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	836	1.83	1621	887	2.13	1884	931	2.45	2162	964	2.77	2436	986	3.11	2718
2660	839	1.87	1656	891	2.17	1919	936	2.49	2197	973	2.82	2479	999	3.16	2759
2700	846	1.95	1726	898	2.26	1997	946	2.58	2275	987	2.91	2554	1019	3.26	2839
2800	855	2.04	1805	906	2.35	2076	954	2.67	2352	997	3.01	2637	1034	3.36	2917
2900	863	2.13	1884	913	2.44	2154	961	2.77	2436	1006	3.12	2727	—	—	—
3000	872	2.22	1962	921	2.54	2240	969	2.88	2529	1014	3.22	2807	—	—	—
3100	882	2.33	2058	930	2.65	2335	976	2.99	2620	1021	3.34	2902	—	—	—
3200	892	2.45	2162	939	2.76	2428	984	3.10	2710	—	—	—	—	—	—
3300	902	2.57	2266	948	2.88	2529	993	3.21	2799	—	—	—	—	—	—
3400	912	2.69	2369	958	3.01	2637	1002	3.34	2902	—	—	—	—	—	—
3500	921	2.82	2479	968	3.15	2751	—	—	—	—	—	—	—	—	—
3600	930	2.95	2587	978	3.29	2862	—	—	—	—	—	—	—	—	—
3700	940	3.07	2686	—	—	—	—	—	—	—	—	—	—	—	—
3750	945	3.14	2743	—	—	—	—	—	—	—	—	—	—	—	—
3800	949	3.20	2781	—	—	—	—	—	—	—	—	—	—	—	—
3900	959	3.33	2894	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 7.)
2. indicates field-supplied motor and drive are required.
3. indicates maximum usable bhp/watts.
4. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40. 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. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

5. Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOP static pressure information.
6. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details.
7. Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.
8. Interpolation is permissible. Do not extrapolate.
9. Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D120 (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		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	484	0.55	562	560	0.70	677	631	0.87	810	690	1.03	940	747	1.20	1081
3100	495	0.61	607	570	0.76	723	638	0.92	851	699	1.10	998	755	1.27	1140
3200	505	0.66	646	579	0.81	763	646	0.98	899	708	1.16	1047	761	1.34	1199
3300	516	0.72	692	589	0.87	810	655	1.05	956	717	1.23	1106	767	1.40	1250
3400	527	0.78	739	599	0.93	859	664	1.11	1006	724	1.30	1165	775	1.48	1318
3500	537	0.85	795	609	0.99	907	672	1.18	1064	731	1.36	1216	784	1.56	1387
3600	548	0.92	851	619	1.05	956	680	1.24	1114	738	1.43	1275	794	1.64	1456
3700	560	1.00	916	629	1.12	1014	688	1.31	1173	747	1.51	1344	802	1.73	1534
3800	571	1.08	981	639	1.19	1072	698	1.39	1241	756	1.60	1422	810	1.81	1604
3900	582	1.16	1047	649	1.27	1140	708	1.47	1310	764	1.69	1499	816	1.89	1674
4000	593	1.25	1123	659	1.35	1207	717	1.56	1387	773	1.78	1578	823	1.98	1753
4100	605	1.35	1207	670	1.44	1284	727	1.65	1465	781	1.86	1648	832	2.08	1840
4200	616	1.45	1292	680	1.53	1361	737	1.74	1543	789	1.95	1726	841	2.18	1927
4300	628	1.56	1387	690	1.63	1447	747	1.83	1621	798	2.05	1814	849	2.30	2032
4400	639	1.67	1482	701	1.73	1534	757	1.92	1700	807	2.16	1910	858	2.41	2177
4500	651	1.78	1578	712	1.84	1630	767	2.02	1788	817	2.27	2006	866	2.51	2265
4600	662	1.91	1691	722	1.95	1726	777	2.13	1884	827	2.38	2102	874	2.62	2362
4700	674	2.03	1796	733	2.07	1831	787	2.24	1980	836	2.50	2256	882	2.73	2460
4800	686	2.17	1919	744	2.20	1945	797	2.36	2084	846	2.62	2362	891	2.85	2569
4900	698	2.31	2041	755	2.33	2058	808	2.48	2238	856	2.73	2460	900	2.99	2698
5000	710	2.45	2212	766	2.47	2230	818	2.61	2353	866	2.86	2578	910	3.12	2819

558D120 (10 TON) (cont)															
Airflow (Cfm)	Standard and Alternate Belt-Drive Motors														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	800	1.38	1233	850	1.52	1353	879	1.38	1233	925	1.81	1604	964	1.92	1761
3100	805	1.44	1284	857	1.63	1447	896	1.66	1473	935	1.93	1709	975	1.98	1811
3200	812	1.51	1344	862	1.71	1517	908	1.85	1639	944	2.01	1836	984	2.09	1903
3300	819	1.59	1413	867	1.78	1578	915	1.98	1753	952	2.11	1920	993	2.22	2014
3400	827	1.67	1482	873	1.85	1639	920	2.07	1831	963	2.21	2005	1001	2.31	2091
3500	833	1.75	1552	880	1.94	1718	926	2.15	1901	970	2.41	2134	1007	2.46	2221
3600	840	1.83	1621	888	2.04	1805	931	2.23	1971	976	2.47	2230	1017	2.62	2362
3700	847	1.92	1700	895	2.13	1884	938	2.33	2108	981	2.56	2309	1024	2.77	2496
3800	856	2.02	1788	901	2.23	1971	945	2.44	2203	986	2.65	2389	1029	2.89	2605
3900	865	2.12	1875	908	2.32	2050	953	2.55	2300	993	2.75	2478	1034	3.00	2707
4000	875	2.22	1962	915	2.42	2186	960	2.65	2389	1000	2.87	2587	1039	3.10	2800
4100	883	2.32	2050	924	2.54	2291	966	2.76	2487	1008	2.99	2698	1046	3.21	2904
4200	889	2.41	2177	934	2.65	2389	972	2.87	2587	1015	3.12	2819	1053	3.34	3029
4300	896	2.51	2265	943	2.77	2406	980	2.99	2698	1021	3.23	2923	1061	3.48	3166
4400	903	2.62	2362	951	2.89	2603	990	3.12	2819	1028	3.36	3049	1068	3.61	3241
4500	912	2.74	2469	958	3.00	2707	999	3.26	2982	1035	3.51	3161	1074	3.74	3346
4600	921	2.87	2587	965	3.11	2810	1008	3.39	3078	1041	3.68	3295	1081	3.90	3450
4700	930	3.00	2707	972	3.23	2923	1017	3.45	3224	1048	3.80	3436	1088	4.13	3552
4800	938	3.14	2838	980	3.37	3058	1025	3.55	3362	1055	3.85	3584	1095	4.30	3653
4900	946	3.27	2962	990	3.51	3149	1034	3.71	3505	1062	3.98	3741	1101	4.45	3753
5000	954	3.39	3078	998	3.62	3271	1042	3.85	3654	1068	4.08	3907	1108	4.59	3851

LEGEND

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

NOTES:

- 1.** **Boldface** indicates a field-supplied or alternate (as appropriate) drive is required. (See Note 9.)
- 2.** indicates an alternate motor and drive are required.
- 3.** indicates field-supplied motor and drive are required.
- 4.** indicates maximum usable bhp/watts of standard motor.
- 5.** indicates maximum usable bhp/watts of alternate motor.
- 6.** Maximum usable watts input is 2120 with standard motor and 2615 with alternate motor. Maximum continuous bhp is 2.40 with

- standard motor and 2.90 with 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.
- 7.** Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
 - 8.** Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.
 - 9.** Standard motor drive range: 685 to 935 rpm. Alternate motor drive range: 835 to 1085 rpm. All other rpms require field-supplied drive.
 - 10.** Interpolation is permissible. Do not extrapolate.
 - 11.** Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 558D036-150 HORIZONTAL DISCHARGE UNITS (cont)

558D150 (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		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3750	614	1.01	979	676	1.22	1142	737	1.41	1300	789	1.61	1465	838	1.78	1603
3800	621	1.05	1010	681	1.25	1170	742	1.45	1332	795	1.66	1506	842	1.82	1641
3900	636	1.13	1073	693	1.32	1226	751	1.53	1398	808	1.76	1590	851	1.92	1725
4000	650	1.21	1137	705	1.40	1291	761	1.61	1464	819	1.86	1674	861	2.02	1811
4100	665	1.30	1210	717	1.48	1357	772	1.71	1548	830	1.96	1759	871	2.13	1905
4200	680	1.39	1283	728	1.57	1431	783	1.81	1632	839	2.05	1836	883	2.25	2009
4300	696	1.49	1365	739	1.66	1506	794	1.91	1717	848	2.14	1914	896	2.38	2123
4400	711	1.60	1456	750	1.75	1582	805	2.02	1811	857	2.24	2000	908	2.51	2237
4500	727	1.70	1540	762	1.85	1666	817	2.12	1897	867	2.35	2096	919	2.63	2343
4600	742	1.82	1641	774	1.96	1759	828	2.23	1992	877	2.46	2193	929	2.75	2450
4700	758	1.94	1742	786	2.07	1854	840	2.34	2088	888	2.59	2307	938	2.87	2557
4800	773	2.06	1845	799	2.18	1948	852	2.46	2193	899	2.72	2423	947	2.98	2656
4900	789	2.19	1957	812	2.30	2053	863	2.57	2290	910	2.86	2548	957	3.11	2773
5000	805	2.32	2070	826	2.43	2166	875	2.70	2405	921	2.99	2665	966	3.24	2891
5100	821	2.47	2202	840	2.57	2290	887	2.83	2521	932	3.13	2792	976	3.38	3019
5200	837	2.61	2325	854	2.71	2414	898	2.96	2638	943	3.28	2928	987	3.53	3157
5300	853	2.76	2459	868	2.85	2539	909	3.09	2755	955	3.42	3056	998	3.69	3304
5400	869	2.92	2602	882	3.01	2683	920	3.24	2891	967	3.57	3193	1009	3.86	3461
5500	885	3.09	2755	897	3.17	2828	932	3.38	3019	978	3.72	3331	1029	4.03	3618
5600	901	3.26	2910	911	3.33	2973	943	3.54	3166	990	3.87	3470	1031	4.20	3775
5700	917	3.44	3074	926	3.50	3129	956	3.70	3313	1002	4.03	3618	1042	4.38	3943
5800	933	3.62	3239	941	3.68	3294	968	3.87	3470	1013	4.20	3775	1053	4.56	4111
5900	949	3.81	3414	956	3.87	3470	981	4.05	3637	1025	4.37	3934	1065	4.74	4279
6000	965	4.01	3600	972	4.06	3646	995	4.23	3804	1037	4.55	4102	1076	4.92	4447
6100	981	4.21	3785	987	4.26	3832	1008	4.42	3981	1042	4.73	4270	1088	5.10	4614
6200	997	4.42	3981	1002	4.46	4018	1022	4.62	4167	1058	4.91	4437	1100	5.29	4791
6250	1006	4.53	4084	1010	4.57	4121	1029	4.73	4265	1064	5.01	4531	1106	5.39	4842

558D150 (12½ TON) (cont)															
Airflow (Cfm)	Standard and Alternate Belt-Drive Motors														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3750	884	1.99	1785	931	2.21	1979	977	2.43	2167	1018	2.63	2343	1052	2.80	2495
3800	889	2.03	1819	934	2.26	2018	980	2.48	2210	1022	2.69	2396	1058	2.87	2557
3900	898	2.12	1897	942	2.36	2105	987	2.59	2307	1030	2.81	2503	1068	3.01	2683
4000	908	2.21	1974	950	2.46	2193	994	2.70	2405	1037	2.92	2602	1077	3.14	2801
4100	917	2.32	2070	960	2.55	2272	1001	2.81	2503	1045	3.04	2710	1085	3.21	2919
4200	925	2.44	2175	969	2.65	2370	1009	2.92	2602	1051	3.17	2828	1092	3.40	3037
4300	935	2.56	2281	979	2.77	2468	1018	3.03	2701	1058	3.29	2937	1100	3.53	3157
4400	945	2.68	2387	988	2.89	2575	1028	3.14	2801	1066	3.41	3047	1106	3.67	3285
4500	955	2.82	2512	996	3.02	2692	1037	3.25	2901	1074	3.54	3166	1113	3.81	3414
4600	967	2.96	2638	1005	3.16	2819	1046	3.38	3019	1084	3.66	3276	1121	3.95	3544
4700	980	3.11	2773	1015	3.30	2946	1056	3.52	3147	1093	3.79	3396	1129	4.09	3674
4800	992	3.26	2910	1025	3.45	3083	1064	3.67	3285	1103	3.92	3516	1137	4.22	3795
4900	1003	3.41	3047	1036	3.61	3230	1073	3.83	3433	1112	4.07	3655	1147	4.36	3925
5000	1014	3.56	3184	1049	3.79	3396	1083	4.00	3590	1121	4.23	3804	1157	4.50	4055
5100	1024	3.71	3322	1061	3.96	3553	1093	4.17	3748	1129	4.40	3962	1166	4.66	4202
5200	1033	3.84	3442	1073	4.14	3720	1103	4.34	3906	1138	4.58	4130	1175	4.82	4354
5300	1042	3.98	3572	1084	4.31	3878	1115	4.53	4157	1148	4.76	4326	1184	5.01	4531
5400	1051	4.14	3720	1095	4.49	4046	1128	4.74	4279	1158	4.95	4475	1193	5.20	4707
5500	1061	4.30	3818	1105	4.66	4204	1140	4.94	4465	1168	5.15	4661	1202	5.40	4893
5600	1071	4.46	4018	1114	4.81	4344	1152	5.14	4652	1180	5.36	4856	1211	5.60	5078
5700	1081	4.64	4186	1123	4.98	4503	1163	5.34	4837	1193	5.59	5069	—	—	—
5800	1092	4.84	4372	1132	5.15	4661	1174	5.54	5023	—	—	—	—	—	—
5900	1103	5.04	4558	1142	5.34	4837	1183	5.72	5189	—	—	—	—	—	—
6000	1114	5.24	4745	1152	5.53	5013	—	—	—	—	—	—	—	—	—
6100	1125	5.45	4939	1162	5.73	5198	—	—	—	—	—	—	—	—	—
6200	1136	5.66	5133	—	—	—	—	—	—	—	—	—	—	—	—
6250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- 1. Boldface** indicates a field-supplied or alternate (as appropriate) drive is required. (See Note 9.)
- ▭** indicates alternate motor and drive are required.
- ▭** indicates field-supplied motor and drive are required.
- ▭** indicates maximum usable bhp/watts of standard motor.
- ▭** indicates maximum usable bhp/watts of alternate motor.

- Maximum usable watts input is 3775 with standard motor and 4400 with alternate motor. Maximum continuous bhp is 4.20 with standard motor and 5.25 with 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.
- Values include losses for filters, unit casing, and wet coils. See page 47 for accessory/FIOF static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.
- Standard motor drive range: 860 to 1080 rpm. Alternate motor drive range: 900 to 1260 rpm. All other rpms require field-supplied drive.
- Interpolation is permissible. Do not extrapolate.
- Minimum allowable cfm is 300 cfm/ton.

AIR DELIVERY — 559F180-300 UNITS

559F180 (15 TON)																		
Airflow (Cfm)	Standard Belt-Drive Motor; 208/230-V and 460-V Units																	
	External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.1		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
4500	790	1.02	906	879	1.23	1092	960	1.43	1270	1039	1.64	1456	1114	1.85	1643	1152	1.97	1751
4800	830	1.21	1075	915	1.43	1270	993	1.64	1456	1068	1.86	1652	1140	2.09	1856	1175	2.21	1958
5100	870	1.42	1261	953	1.65	1465	1028	1.88	1670	1099	2.11	1874	1168	2.35	2087	1202	2.47	2194
5400	911	1.66	1474	991	1.90	1687	1063	2.15	1909	1131	2.39	2123	1197	2.64	2345	1230	2.77	2456
5700	952	1.92	1705	1030	2.18	1936	1099	2.44	2167	1165	2.69	2389	1228	2.95	2620	1259	3.09	2740
6000	994	2.21	1963	1069	2.48	2202	1136	2.76	2451	1200	3.03	2691	1260	3.29	2922	1290	3.43	3047
6300	1035	2.53	2247	1109	2.82	2504	1174	3.10	2753	1235	3.39	3011	1294	3.67	3259	1323	3.81	3384
6600	1078	2.88	2558	1148	3.18	2824	1213	3.48	3019	1271	3.78	3357	1329	4.07	3615	1357	4.22	3748
6900	1120	3.26	2895	1188	3.58	3179	1251	3.89	3455	1309	4.20	3730	—	—	—	—	—	—
7200	1163	3.68	3268	1229	4.01	3561	—	—	—	—	—	—	—	—	—	—	—	—
7500	1205	4.13	3668	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

559F180 (15 TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor; 208/230-V and 460-V Units														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
4500	1189	2.09	1856	1264	2.36	2096	1338	2.67	2371	1410	3.00	2664	1479	3.36	2984
4800	1210	2.32	2060	1280	2.58	2291	1351	2.88	2558	1420	3.20	2842	1488	3.55	3153
5100	1235	2.59	2300	1301	2.85	2531	1367	3.13	2780	1433	3.44	3055	1499	3.78	3357
5400	1262	2.89	2567	1325	3.15	2798	1386	3.42	3037	1449	3.72	3304	1512	4.05	3597
5700	1290	3.22	2860	1351	3.48	3091	1410	3.76	3339	1468	4.05	3597	—	—	—
6000	1320	3.57	3171	1379	3.85	3419	1436	4.13	3668	—	—	—	—	—	—
6300	1351	3.95	3508	1408	4.24	3766	—	—	—	—	—	—	—	—	—
6600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required. (See Note 2.)
2. Factory-shipped motor drive range is 1227 to 1559 rpm. Other rpms require a field-supplied drive.
3. Maximum continuous bhp is 4.25 and maximum continuous watts are 3775. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
4. Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table. See page 47 for accessory/FIOP static pressure information.

5. Interpolation is permissible. Do not extrapolate.
6. Fan performance is based on wet coils, clean filters, and casing losses.
7. Extensive motor and drive testing on these units ensures that the full horsepower and watts range of the motor can be utilized with confidence. Using your fan motors up to the watts or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
8. Minimum allowable cfm is 300 cfm/ton.
9. Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

AIR DELIVERY — 559F180-300 UNITS (cont)

559F180 (15 TON)																		
Airflow (Cfm)	Standard Belt-Drive Motor; 575-V Units																	
	External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.1		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
4500	790	1.02	906	879	1.23	1092	960	1.43	1270	1039	1.64	1456	1114	1.85	1643	1152	1.97	1751
4800	830	1.21	1075	915	1.43	1270	993	1.64	1456	1068	1.86	1652	1140	2.09	1856	1175	2.21	1958
5100	870	1.42	1261	953	1.65	1465	1028	1.88	1670	1099	2.11	1874	1168	2.35	2087	1202	2.47	2194
5400	911	1.66	1474	991	1.90	1687	1063	2.15	1909	1131	2.39	2123	1197	2.64	2345	1230	2.77	2456
5700	952	1.92	1705	1030	2.18	1936	1099	2.44	2167	1165	2.69	2389	1228	2.95	2620	1259	3.09	2740
6000	994	2.21	1963	1069	2.48	2202	1136	2.76	2451	1200	3.03	2691	1260	3.29	2922	1290	3.43	3047
6300	1035	2.53	2247	1109	2.82	2504	1174	3.10	2753	1235	3.39	3011	—	—	—	—	—	—
6600	1078	2.88	2558	1148	3.18	2824	—	—	—	—	—	—	—	—	—	—	—	—
6900	1120	3.26	2895	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

559F180 (15 TON) (cont)																
Airflow (Cfm)	Standard Belt-Drive Motor; 575-V Units															
	External Static Pressure (in. wg)															
	1.2			1.4			1.6			1.8			2.0			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
4500	1189	2.09	1856	1264	2.36	2096	1338	2.67	2371	1410	3.00	2664	1479	3.36	2984	
4800	1210	2.32	2060	1280	2.58	2291	1351	2.88	2558	1420	3.20	2842	—	—	—	
5100	1235	2.59	2300	1301	2.85	2531	1367	3.13	2780	1433	3.44	3055	—	—	—	
5400	1262	2.89	2567	1325	3.15	2798	1386	3.42	3037	—	—	—	—	—	—	
5700	1290	3.22	2860	—	—	—	—	—	—	—	—	—	—	—	—	
6000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required. (See Note 2.)
- Factory-shipped motor drive range is 1201 to 1462 rpm. Other rpms require a field-supplied drive.
- Maximum continuous bhp is 3.45 and maximum continuous watts are 3065. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
- Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table. See page 47 for accessory/FIOP static pressure information.

- Interpolation is permissible. Do not extrapolate.
- Fan performance is based on wet coils, clean filters, and casing losses.
- Extensive motor and drive testing on these units ensures that the full horsepower and watts range of the motor can be utilized with confidence. Using your fan motors up to the watts or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
- Minimum allowable cfm is 300 cfm/ton.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

AIR DELIVERY — 559F180-300 UNITS (cont)

559F216 (18 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
5400	650	1.24	1095	750	1.54	1366	844	1.84	1646	930	2.14	1942	1011	2.54	2258
5500	658	1.30	1143	757	1.60	1418	850	1.90	1701	935	2.20	2000	1015	2.60	2318
6000	702	1.60	1428	796	1.90	1723	884	2.30	2025	965	2.60	2339	1041	3.00	2669
6500	747	2.00	1757	835	2.30	2073	919	2.70	2394	997	3.10	2725	1070	3.40	3069
7000	792	2.40	2138	877	2.80	2476	957	3.20	2816	1031	3.50	3165	1102	3.90	3525
7200	856	2.60	2311	893	3.00	2657	973	3.40	3006	1045	3.74	3362	1115	4.14	3729
7500	838	2.90	2571	918	3.30	2929	996	3.70	3290	1067	4.10	3658	1135	4.50	4035
8000	885	3.40	3060	962	3.90	3440	1036	4.30	3822	1105	4.70	4209	1170	5.20	4604
8500	932	4.00	3610	1005	4.50	4011	1077	4.90	4414	1143	5.40	4821	—	—	—
9000	980	4.70	4223	1050	5.20	4647	1119	5.70	5071	—	—	—	—	—	—

559F216 (18 TON) (cont)												
Airflow (Cfm)	Standard 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
5400	1079	2.68	2597	1165	3.32	2954	1238	3.72	3332	1308	4.14	3727
5500	1093	3.00	2658	1168	3.40	3017	1240	3.80	3396	1310	4.20	3793
6000	1115	3.40	3018	1186	3.80	3385	1251	4.20	3771	1322	4.70	4175
6500	1140	3.80	3429	1208	4.30	3805	1274	4.70	4198	1338	5.20	4609
7000	1169	4.40	3898	1233	4.80	4285	1296	5.20	4687	1358	5.70	5106
7200	1181	4.60	4108	1245	5.04	4500	—	—	—	—	—	—
7500	1199	4.90	4422	1262	5.40	4822	—	—	—	—	—	—
8000	1232	5.60	5008	—	—	—	—	—	—	—	—	—
8500	—	—	—	—	—	—	—	—	—	—	—	—
9000	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required. (See Note 2.)
- Factory-shipped motor drive range is 1047 to 1251 rpm. Other rpms require a field-supplied drive.
- Maximum continuous bhp is 5.90 and maximum continuous watts are 5180. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
- Static pressure losses (i.e., economizer) must be added to external static pressure before entering Air Delivery table. See page 47 for accessory/FIOP static pressure information.

- Interpolation is permissible. Do not extrapolate.
- Fan performance is based on wet coils, clean filters, and casing losses.
- 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 or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
- Minimum allowable cfm is 300 cfm/ton.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

AIR DELIVERY — 559F180-300 UNITS (cont)

559F240 (20 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
6000	702	1.60	1428	796	1.90	1723	884	2.30	2025	965	2.60	2339	1041	3.00	2669
6500	747	2.00	1757	835	2.30	2073	919	2.70	2394	997	3.10	2725	1070	3.40	3069
7000	792	2.40	2138	877	2.80	2476	957	3.20	2816	1031	3.50	3165	1102	3.90	3525
7500	838	2.90	2571	918	3.30	2929	996	3.70	3290	1067	4.10	3658	1135	4.50	4035
8000	885	3.40	3060	962	3.90	3440	1036	4.30	3822	1105	4.70	4209	1170	5.20	4604
8500	932	4.00	3610	1005	4.50	4011	1077	4.90	4414	1143	5.40	4821	1206	5.90	5234
9000	980	4.70	4223	1050	5.20	4647	1119	5.70	5071	1183	6.20	5498	1244	6.60	5930
9500	1028	5.50	4904	1096	6.00	5350	1162	6.50	5796	1224	7.00	6243	1283	7.50	6695
10000	1077	6.30	5655	1141	6.90	6123	1205	7.40	6591	1266	7.90	7059	1323	8.40	7531

559F240 (20 TON) (cont)															
Airflow (Cfm)	Standard Belt-Drive Motor														
	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
6000	1115	3.40	3018	1186	3.80	3385	1255	4.20	3771	1322	4.70	4175	1389	5.20	4579
6500	1140	3.80	3429	1208	4.30	3805	1274	4.70	4198	1338	5.20	4609	1402	5.70	5020
7000	1169	4.40	3898	1233	4.80	4285	1296	5.20	4687	1358	5.70	5106	1420	6.20	5525
7500	1199	4.90	4422	1262	5.40	4822	1322	5.90	5235	1381	6.30	5662	1440	6.70	6089
8000	1232	5.60	5008	1292	6.10	5422	1350	6.50	5847	1407	7.00	6286	1464	7.50	6725
8500	1266	6.30	5655	1324	6.80	6085	1380	7.30	6524	1435	7.80	6975	1490	8.30	7426
9000	1302	7.10	6369	1359	7.60	6816	1413	8.10	7270	1466	8.70	7735	1519	9.30	8200
9500	1340	8.00	7152	1394	8.50	7616	1447	9.10	8088	1508	9.40	8428	—	—	—
10000	1378	9.00	8007	1431	9.50	8489	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required. (See Note 3.)
- indicates additional capability of 460 v motor.
- Factory-shipped motor drive range is 1238 to 1494 rpm. Other rpms require a field-supplied drive.
- Maximum continuous bhp is 8.7 (208/230, 575 v) or 9.5 (460 v) and maximum continuous watts are 7915 (208/230, 575 v) or 8640 (460 v). Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
- 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. See page 47 for accessory/FIOP static pressure information.
- 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 or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
- Minimum allowable cfm is 300 cfm/ton.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.

AIR DELIVERY — 559F180-300 UNITS (cont)

559F300 (25 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
7,000	832	2.49	2297	916	2.86	2634	993	3.23	2978	1065	3.62	3332	1134	4.01	3,697	1200	4.43	4,076
7,500	881	3.00	2761	961	3.39	3119	1035	3.78	3483	1104	4.19	3855	1170	4.60	4,237	1233	5.03	4,631
8,000	930	3.57	3284	1007	3.98	3664	1077	4.40	4049	1144	4.82	4440	1207	5.25	4,840	1268	5.70	5,249
8,500	980	4.20	3873	1053	4.64	4274	1121	5.08	4679	1185	5.53	5090	1246	5.98	5,508	1305	6.44	5,934
9,000	1030	4.92	4528	1100	5.38	4951	1166	5.84	5377	1228	6.31	5808	1286	6.78	6,244	1343	7.26	6,689
9,500	1081	5.70	5254	1148	6.19	5700	1211	6.67	6146	1271	7.16	6597	1328	7.66	7,053	1383	8.16	7,515
10,000	1132	6.57	6055	1197	7.08	6523	1257	7.59	6991	1315	8.10	7462	1370	8.62	7,937	1423	9.14	8,418
10,500	1183	7.53	6935	1245	8.06	7425	1304	8.59	7913	1360	9.13	8404	1413	9.66	8,899	1465	10.20	9,400
11,000	1235	8.57	7896	1295	9.13	8408	1351	9.68	8918	1405	10.24	9430	1457	10.80	9,944	1507	11.36	10,465
11,250	1261	9.13	8408	1320	9.70	8932	1375	10.26	9452	1428	10.83	9974	1479	11.40	10,499	—	—	—

559F300 (25 TON) (cont)									
Airflow (Cfm)	Standard Belt-Drive Motor								
	External Static Pressure (in. wg)								
	1.4			1.6			1.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
7,000	1263	4.85	4470	1326	5.30	4880	1386	5.76	5307
7,500	1294	5.47	5038	1353	5.93	5458	1411	6.40	5893
8,000	1327	6.16	5670	1384	6.63	6102	1440	7.11	6549
8,500	1362	6.92	6371	1416	7.40	6816	1470	7.90	7215
9,000	1398	7.75	7141	1451	8.25	7602	1503	8.77	8074
9,500	1436	8.67	7985	1487	9.19	8462	—	—	—
10,000	1475	9.67	8905	1525	10.20	9400	—	—	—
10,500	1515	10.76	9907	—	—	—	—	—	—
11,000	—	—	—	—	—	—	—	—	—
11,250	—	—	—	—	—	—	—	—	—

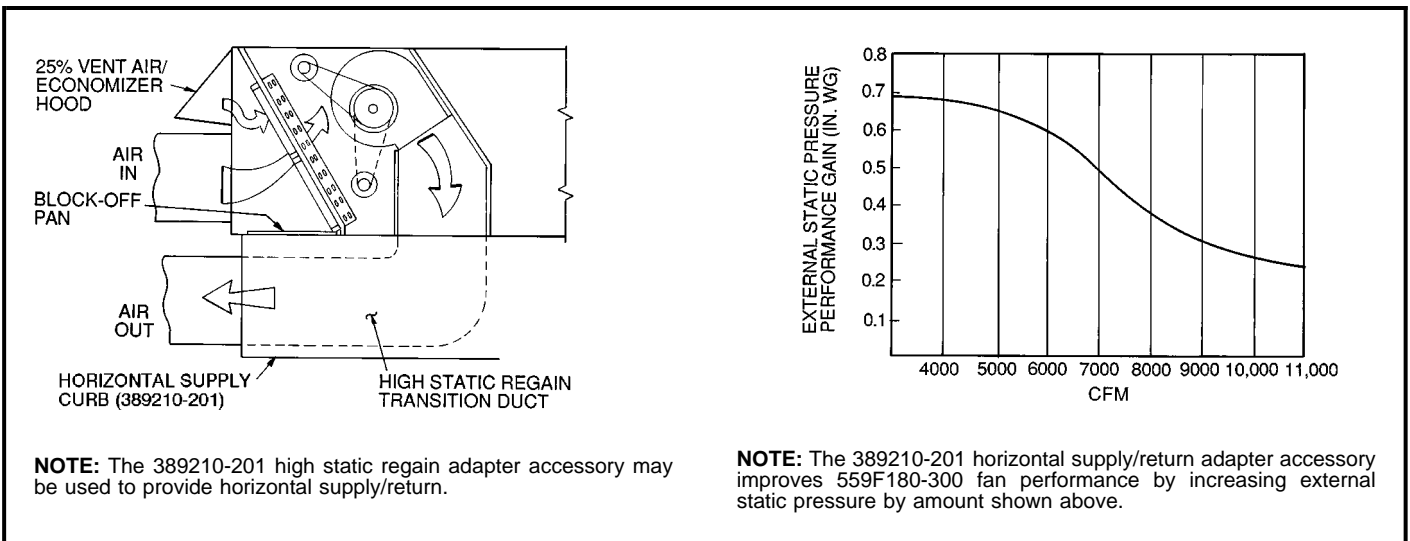
LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required. (See Note 3.)
- indicates additional capability of 460-v motor.
- Factory-shipped motor drive range is 1323 to 1579 rpm. Other rpms require a field-supplied drive.
- Maximum continuous bhp is 10.26 (208/230, 575 v) or 11.80 (460 v) and maximum continuous watts are 9510 (208/230, 575 v) or 11,000 (460 v). Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
- 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. See page 47 for accessory/FIOP static pressure information.
- Extensive motor and drive testing on these units ensures that the full horsepower and watts range of the motor can be utilized with confidence. Using your fan motors up to the watts or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
- Minimum allowable cfm is 280 cfm/ton in cooling.
- Use of a field-supplied motor may affect wire sizing. Contact your local representative for details. For additional information on motor performance, refer to Evaporator-Fan Motor Performance table on page 62.



**559F180-300 Horizontal Supply/Return Fan Performance
 With 389210-201 High Static Regain Adapter Curb**

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 558D036-072

COMPONENT	CFM									
	900	1200	1400	1600	1800	2000	2200	2400	2600	3000
1 Heater Module	0.05	0.07	0.09	0.09	0.10	0.11	0.11	0.12	0.13	0.15
2 Heater Modules	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.19
Durablade Economizer	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Parablade Economizer	0.08	0.10	0.17	0.26	0.33	0.34	0.36	0.40	0.44	–

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 558D090-150

COMPONENT	CFM									
	2250	2500	3000	3500	4000	4500	5000	5500	6000	6250
1 Heater Module	0.02	0.03	0.05	0.07	0.08	0.10	0.12	0.14	0.16	0.17
2 Heater Modules	0.03	0.05	0.07	0.09	0.12	0.14	0.16	0.19	0.21	0.20
Durablade Economizer	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.09
Parablade Economizer	0.22	0.25	0.35	0.49	0.61	–	–	–	–	–

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 559F180

COMPONENT	CFM				
	4500	5000	6000	7200	7500
Economizer	0.04	0.05	0.07	0.09	0.10
Electric Heat (kW)					
26/34	0.06	0.07	0.09	0.11	0.12
32	0.06	0.07	0.09	0.11	0.12
42/56	0.07	0.08	0.12	0.16	0.17
50	0.09	0.10	0.15	0.20	0.21
55	0.07	0.08	0.12	0.15	0.17
56/75	0.09	0.10	0.15	0.20	0.21
80	0.09	0.10	0.15	0.20	0.21

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 559F216-300

COMPONENT	CFM					
	5400	6000	7200	9000	10,000	11,250
Economizer	0.06	0.07	0.09	0.11	0.12	0.14
Electric Heat (kW)						
26/34	0.08	0.09	0.11	0.15	0.17	0.20
32	0.08	0.09	0.11	0.15	0.17	0.20
42/56	0.11	0.12	0.15	0.19	0.21	0.24
55	0.11	0.12	0.15	0.19	0.21	0.24
56/75	0.14	0.15	0.20	0.24	0.26	0.29
80	0.14	0.15	0.20	0.24	0.26	0.29

LEGEND

FIOP — Factory-Installed Option

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

FAN RPM AT MOTOR PULLEY SETTINGS*

UNIT	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
558D036†	1000	976	952	928	904	880	856	832	808	784	760	—	—
558D048†	1185	1150	1115	1080	1045	1010	975	940	905	870	835	—	—
558D060†	1300	1260	1220	1180	1140	1100	1060	1020	980	940	900	—	—
558D072**	1460	1420	1380	1345	1305	1265	1225	1185	1150	1110	1070	—	—
558D090**	840	815	790	765	740	715	690	665	635	615	590	—	—
558D090††	935	910	885	860	835	810	785	760	735	710	685	—	—
558D102**	935	910	885	860	835	810	785	760	735	710	685	—	—
558D120**	935	910	885	860	835	810	785	760	735	710	685	—	—
558D120†	1085	1060	1035	1010	985	960	935	910	885	860	835	—	—
558D150**	1080	1060	1035	1015	990	970	950	925	905	880	860	—	—
558D150†	1260	1220	1185	1155	1130	1100	1075	1045	1015	990	960	930	900
559F180, 208/230, 460 V**	1559	1524	1491	1458	1425	1392	1359	1326	1293	1260	1227	—	—
559F180, 575 V**	1462	1436	1410	1384	1358	1332	1305	1279	1253	1227	1201	—	—
559F216**	1251	1234	1217	1200	1183	1166	1149	1132	1115	1098	1081	1064	1047
559F240**	1494	1473	1451	1430	1409	1387	1366	1345	1323	1302	1281	1259	1238
559F300**			1536	1515	1494	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.

OUTDOOR SOUND DATA (Total Unit)

UNIT	SOUND RATING (Bels)	A — WEIGHTED (db)	SOUND POWER (db) Octave Bands							
			63	125	250	500	1000	2000	4000	8000
			558D036-060	8.2	80.5	56.8	75.8	72.4	72.9	74.8
558D072	8.4	82.4	56.0	69.8	72.9	75.9	78.3	76.5	72.6	67.9
558D090,102	8.6	86.4	83.2	87.4	83.5	82.8	83.0	77.7	71.8	67.0
558D120	8.8	87.6	97.6	90.4	85.7	84.8	83.9	77.5	71.3	65.8
558D150	8.8	86.4	83.7	87.2	83.4	82.8	83.0	77.7	71.8	67.0
559F180	8.8	87.3	87.1	89.9	86.4	84.0	82.7	79.0	73.9	68.6
559F216	9.0	89.5	95.7	88.9	87.2	85.2	81.9	79.5	72.7	65.0
559F240	9.5	94.1	98.7	92.3	93.8	90.9	89.6	85.9	80.3	74.3
559F300	9.5	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)

db — Decibels

ELECTRIC HEAT MULTIPLICATION FACTORS

HEATER VOLTAGE	ACTUAL HEATER VOLTAGE										
	200	208	230	240	280	440	460	480	550	575	600
240	0.694	0.751	0.918	1.000	—	—	—	—	—	—	—
480	—	—	—	—	0.626	0.840	0.918	1.000	—	—	—
575	—	—	—	—	—	—	—	—	0.915	1.000	1.089

NOTE: The following equation converts kW of heat energy to Btuh:
kW x 3.412 = Btuh.

EXAMPLE: 32.0 kW (at 240 v) heater on 208 v = 32.0 (.751 mult factor)
= 24.0 kW capacity at 208 v.

ELECTRICAL DATA — 558D036-072

UNIT 558D	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPR (each)		OFM			IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA	Quantity	Hp	FLA		FLA	Nominal kW**	FLA	MCA	MOCPT†	FLA
036 (3 Ton)	208/230-1-60	Std	187	254	16.9	86.7	1	¼	1.4	2.8	—	—	25.3/ 25.3	35/ 35	24/ 24	97/ 97
											3.3/ 4.4	15.9/18.3	25.3/ 26.4	35/ 35	24/ 24	
		4.9/ 6.5									23.8/27.3	32.8/ 37.4	35/ 40	30/ 34		
		6.5/ 8.7									31.4/36.2	42.8/ 48.8	45/ 50	39/ 45		
	Alt	4.9	7.9/10.5	37.9/43.8	50.9/ 58.2	60/ 60	47/ 54									
			9.8/13.0	47.1/54.6	62.2/ 71.2	70/ 80	57/ 66									
	208/230-3-60	Std	187	254	11.7	65.0	1	¼	1.4	2.8	—	—	18.8/ 18.8	25/ 25	18/ 18	76/ 76
											3.3/ 4.4	15.9/18.3	18.8/ 18.8	25/ 25	18/ 18	
		4.9/ 6.5									23.5/27.1	20.4/ 23.0	25/ 25	19/ 21		
		6.5/ 8.7									31.4/36.3	26.2/ 29.7	30/ 35	24/ 27		
	Alt	4.9	7.9/10.5	37.9/43.8	30.9/ 35.1	35/ 40	28/ 32									
			9.8/13.0	46.9/54.2	45.3/ 51.7	50/ 60	42/ 48									
460-3-60	Std	414	508	5.1	33.0	1	¼	0.8	1.3	—	—	8.5	15	8	38	
										6.0	7.2	10.6	15	10		
	8.8									10.6	14.9	20	14			
	11.5									13.8	18.9	20	17			
Alt	2.1	14.0	16.8	22.7	25	21										
		—	—	9.3	15	9										
575-3-60	Std	518	632	4.1	27.0	1	¼	0.8	1.3	—	—	6.8	15	7	31	
										6.0	7.2	11.6	15	10		
	8.8									10.6	15.9	20	15			
	11.5									13.8	19.9	20	18			
Alt	2.1	14.0	16.8	23.7	25	22										
		—	—	7.4	15	7										
048 (4 Ton)	208/230-1-60	Std	187	254	23.0	110	1	¼	1.4	3.5	—	—	33.7/ 33.7	40/ 40	32/ 32	122/122
											3.3/ 4.4	15.9/18.3	33.7/ 33.7	40/ 40	32/ 32	
		6.5/ 8.7									31.4/36.3	43.6/ 49.7	45/ 50	40/ 46		
		9.8/13.0									46.9/54.2	63.0/ 72.1	70/ 80	58/ 66		
	Alt	4.9	13.1/17.4	62.8/72.5	82.9/ 95.0	90/100	76/ 87									
			15.8/21.0	75.8/87.5	99.2/113.8	100/125	91/105									
	208/230-3-60	Std	187	254	15.3	92.0	1	¼	1.4	3.5	—	—	24.0/ 24.0	30/ 30	24/ 24	116/116
											4.9/ 6.5	13.6/15.6	24.0/ 24.0	30/ 30	24/ 24	
		6.5/ 8.7									18.1/20.9	27.0/ 30.5	30/ 35	27/ 30		
		12.0/16.0									33.4/38.5	46.1/ 52.5	50/ 60	45/ 51		
	Alt	4.9	15.8/21.0	43.8/50.5	59.1/ 67.5	60/ 70	58/ 64									
			—	—	25.4/ 25.4	30/ 30	25/ 25									
	460-3-60	Std	414	508	7.0	46.0	1	¼	0.8	1.8	—	—	11.4	15	11	52
											6.0	7.2	11.4	15	11	
		11.5									13.8	19.5	20	18		
		14.0									16.6	23.0	25	21		
	Alt	2.1	23.0	27.7	36.8	40	34									
			—	—	11.7	15	11									
	575-3-60	Std	518	632	5.8	44.0	1	¼	0.8	1.8	—	—	9.3	15	9	49
											6.0	7.2	11.7	15	11	
		11.5									14.0	19.9	20	18		
		14.0									16.6	23.4	25	22		
	Alt	2.1	23.0	27.7	37.2	40	34									
			—	—	9.6	15	9									

ELECTRICAL DATA — 558D036-072 (cont)

UNIT 558D	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPR (each)		OFM			IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA	Quantity	Hp	FLA		FLA	FLA	MOCPT†	FLA	LRA	
060 (5 Ton)	208/230-1-60	Std	187	254	28.3	141	1	¼	1.4	5.9	—	—	42.7/ 42.7	50/ 50	43/ 43	155/155
											4.9/ 6.5	23.5/27.1	42.7/ 42.7	50/ 50	43/ 43	
		6.5/ 8.7									31.4/36.3	46.6/ 52.7	50/ 60	46/ 49		
		9.8/13.0									46.9/54.2	66.0/ 75.1	70/ 80	64/ 69		
	Alt	8.5	13.0/17.4	62.8/72.5	85.9/ 98.0	90/100	82/ 90									
			15.8/21.0	75.8/87.5	102.2/116.8	110/125	97/107									
	208/230-3-60	Std	187	254	17.7	110	1	¼	1.4	5.9	—	—	29.4/ 29.4	35/ 35	29/ 29	124/124
											4.9/ 6.5	13.6/15.6	29.4/ 29.4	35/ 35	29/ 29	
		7.9/10.5									21.9/25.3	34.7/ 38.9	40/ 40	32/ 36		
		12.0/16.0									33.4/38.5	49.1/ 55.5	50/ 60	46/ 51		
	Alt	8.5	15.8/21.0	43.8/50.5	62.1/ 70.5	70/ 80	57/ 65									
			19.9/26.5	55.2/63.8	76.4/ 87.1	80/ 90	70/ 80									
460-3-60	Std	414	508	8.6	55	1	¼	0.8	3.2	—	—	14.8	20	15	63	
										6.0	7.2	14.8	20	15		
	11.5									13.8	21.3	25	20			
	14.0									16.8	25.0	30	23			
Alt	4.5	23.0	27.7	38.6	40	36										
		25.0	30.1	41.6	45	38										
575-3-60	Std	518	632	6.4	44	1	¼	0.8	3.2	—	—	12.0	15	12	52	
	Alt								2.6	—	—	11.4	15	12	62	
072 (6 Ton)	208/230-3-60	Std	187	254	20.9	142	1	¼	1.4	5.8	—	—	33.3/ 33.3	40/ 40	32/ 32	187/187
											4.9/ 6.5	13.6/15.6	33.3/ 33.3	40/ 40	32/ 32	
											7.9/10.5	21.9/25.3	33.3/ 38.8	40/ 40	32/ 36	
	460-3-60	Std	414	508	9.9	72	1	¼	0.8	2.6	—	—	15.6	20	15	94
											6.0	7.2	15.6	20	15	
											11.5	13.8	20.5	25	19	
575-3-60	Std	518	632	7.9	58	1	¼	0.8	2.6	14.0	16.8	24.3	25	22		
										23.0	27.8	37.8	40	35		
										25.5	30.7	41.6	45	38		

LEGEND AND NOTES FOR ELECTRICAL DATA TABLES ON PAGES 49-54

LEGEND

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

*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, 480 v, and 575 v. Heaters are rated at 240 v, 480 v, and 575 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. To determine heater capacity at actual unit voltage, multiply 240 v, 480 v, or 575 v capacity by multipliers found in Electric Heat Multiplication Factors table on page 48.

†Used to determine minimum disconnect size per NEC.

**Heaters are field installed only.

††Fuse or HACR circuit breaker.

‡Fusing in single point box provides the required branch circuit protection.

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. The 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 of voltage imbalance.

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

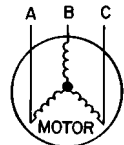
EXAMPLE: Supply voltage is 460-3-60.

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

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

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

$$= 457$$



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 of 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.

3. MCA calculation for 558F180-300 units with electric heaters over 50 kW = (1.25 x IFM amps) + (1.00 x heater FLA).



036-150 Only



036-072 Only



090-150 Only



180-300 Only



180-300 Only

ELECTRICAL DATA — 558D090-150

UNIT 558D	NOMINAL V-PH-Hz	IFM	VOLTAGE RANGE		COMPR (ea)		OFM (ea)			IFM	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA	Qty	Hp	FLA		FLA	Nom kW**	FLA	MCA	MOCPT††	FLA
090 (7½ Tons)	208/230-3-60	Std	187	254	13.6	73.4	2	¼	1.4	5.8	— 7.8/10.4 12.0/16.0 18.6/24.8 24.0/32.0 31.9/42.4	— 21.7/ 25.0 33.4/ 38.5 51.7/ 59.7 66.7/ 74.2 88.4/102.0	39.2/ 39.2 39.2/ 39.2 48.9/ 55.4 71.9/ 81.8 90.6/103.5 117.8/134.8	45/ 45 45/ 45 50/ 60 80/ 90 100/110 125/150	41/ 41 41/ 41 45/ 51 66/ 75 83/ 95 108/124	194/194
	460-3-60	Std	414	508	6.2	37.7	2	¼	0.7	2.6	— 13.9 16.5 27.8 33.0 41.7	— 16.7 19.8 33.4 39.7 50.2	18.0 24.1 28.1 45.0 52.9 65.9	25 25 30 50 60 70	19 22 26 41 49 61	99
	575-3-60	Std	518	632	4.9	31.0	2	¼	0.7	2.6	— 18.0 36.0	— 17.0 34.0	14.2 23.9 45.3	20 25 50	15 23 42	81
102 (8½ Tons)	208/230-3-60	Std	187	254	15.8	92.0	2	¼	1.4	5.8	— 7.8/10.4 12.0/16.0 18.6/24.8 24.0/32.0 31.8/42.4	— 21.7/ 25.0 33.4/ 38.5 51.7/ 59.7 66.7/ 77.0 88.4/102.0	44.2/ 44.2 44.2/ 44.2 48.9/ 55.4 71.9/ 81.8 90.6/103.5 117.7/134.8	50/ 50 50/ 50 50/ 60 80/ 90 100/110 125/150	46/ 46 46/ 46 46/ 51 66/ 75 83/ 95 108/124	231/231
	460-3-60	Std	414	508	7.4	46.0	2	¼	0.7	2.6	— 13.9 16.5 27.8 33.0 41.7	— 16.7 19.8 33.4 39.7 50.2	20.7 24.1 28.1 45.0 52.9 65.9	25 25 30 50 60 70	22 22 26 41 49 61	116
	575-3-60	Std	518	632	5.9	44.0	2	¼	0.7	2.6	— 18.0 36.0	— 17.0 34.0	16.5 23.9 45.3	20 25 50	17 23 42	107
120 (10 Tons)	208/230-3-60	Std	187	254	17.9	110	2	¼	1.4	5.8	— 7.8/10.4 12.0/16.0 24.0/32.0 31.8/42.4 37.5/50.0	— 21.7/ 25.0 33.4/ 38.5 66.7/ 77.0 88.4/102.0 104.2/120.3	48.9/ 48.9 48.9/ 48.9 48.9/ 55.4 90.6/103.5 117.7/134.8 137.5/127.5	60/ 60 60/ 60 60/ 60 100/110 125/150 150/150	51/ 51 51/ 51 51/ 51 83/ 95 108/124 127/145	267/267
		Alt									— 7.8/10.4 12.0/16.0 24.0/32.0 31.8/42.4 37.5/50.0	— 21.7/ 25.0 33.4/ 38.5 66.7/ 77.0 88.4/102.0 104.2/120.3	50.6/ 50.6 50.6/ 50.6 51.1/ 57.5 92.8/105.6 119.9/136.9 139.7/129.7	60/ 60 60/ 60 60/ 60 100/110 125/150 150/150	53/ 53 53/ 53 53/ 53 85/ 97 110/126 129/147	286/286
	460-3-60	Std	414	508	8.6	55.0	2	¼	0.7	2.6	— 16.5 27.8 33.0 41.7 50.0	— 19.8 33.4 39.7 50.2 60.1	23.4 28.1 45.0 52.9 65.9 63.4	30 30 50 60 70 70	24 26 41 49 61 72	134
		Alt									— 16.5 27.8 33.0 41.7 50.0	— 19.8 33.4 39.7 50.2 60.1	24.2 29.1 46.0 53.9 66.9 64.4	30 30 50 60 70 70	25 27 42 50 62 73	173
	575-3-60	Std	518	632	6.4	44.0	2	¼	0.7	2.6	— 18.0 36.0 54.0	— 17.0 34.0 51.0	17.6 23.8 45.1 53.6	20 25 50 60	18 22 42 61	107
		Alt									— 18.0 36.0 54.0	— 17.0 34.0 51.0	18.2 24.6 45.9 54.4	20 25 50 60	19 23 42 62	139

ELECTRICAL DATA — 558D090-150 (cont)

UNIT 558D	NOMINAL V-PH-Hz	IFM	VOLTAGE RANGE		COMPR (ea)		OFM			IFM	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†		
			Min	Max	RLA	LRA	Qty	Hp	FLA		FLA	Nom kW**	FLA	MCA	MOCPT††	FLA	LRA
150 (12½ Tons)	208/230-3-60	Std									10.6	—	—	63.6/ 63.6	70/ 70	67/ 67	375/375
												7.8/10.4	21.7/ 25.0	63.6/ 63.6	70/ 70	67/ 67	
		12.0/16.0	33.4/ 38.1	63.6/ 63.6	70/ 70	67/ 67											
		24.0/32.0	66.7/ 74.2	96.6/109.5	100/110	89/101											
	Alt	187	254	22.3	142.0	2	¼	1.4	10.6	—	—	68.0/ 68.0	80/ 80	72/ 72	398/398		
										7.8/10.4	21.7/ 25.0	68.0/ 68.0	80/ 80	72/ 72			
										12.0/16.0	33.4/ 38.1	68.0/ 68.0	80/ 80	72/ 72			
										24.0/32.0	66.7/ 74.2	102.1/115.0	110/125	94/106			
	Std	460-3-60	414	508	10.4	72.0	2	¼	0.8	—	—	29.6	40	31	190		
										16.5	19.8	30.8	40	31			
										27.8	33.4	47.8	50	44			
										33.0	39.7	55.6	60	51			
Alt	460-3-60	414	508	10.4	72.0	2	¼	0.8	—	—	68.7	70	63	201			
									41.7	50.2	68.7	70	63				
									50.0	60.1	66.1	80	75				
									32.2	34.1	45	45	34				
Std	575-3-60	518	632	9.6	58.5	2	¼	0.8	—	—	26.6	30	28	154			
									18.0	17.0	26.6	30	28				
									36.0	34.0	47.5	50	44				
									54.0	51.0	56.0	60	63				
Alt	575-3-60	518	632	9.6	58.5	2	¼	0.8	—	—	28.6	35	30	162			
									18.0	17.0	28.7	35	30				
									36.0	34.0	50.1	50	46				
									54.0	51.0	58.6	70	66				

LEGEND AND NOTES FOR ELECTRICAL DATA TABLES ON PAGES 49-54

LEGEND

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

*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, 480 v, and 575 v. Heaters are rated at 240 v, 480 v, and 575 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. To determine heater capacity at actual unit voltage, multiply 240 v, 480 v, or 575 v capacity by multipliers found in Electric Heat Multiplication Factors table on page 48.

†Used to determine minimum disconnect size per NEC.

**Heaters are field installed only.

††Fuse or HACR circuit breaker.

||Fusing in single point box provides the required branch circuit protection.

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. The 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 of voltage imbalance.

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

EXAMPLE: Supply voltage is 460-3-60.

AB = 452 v

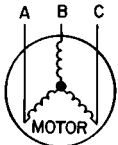
BC = 464 v

AC = 455 v

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

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

$$= 457$$



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 of 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.

3. MCA calculation for units with electric heaters over 50 kW = (1.25 x IFM amps) + (1.00 x heater FLA).



036-150 Only



036-072 Only



090-150 Only



180-300 Only



180-300 Only

ELECTRICAL DATA — 559F180-300 UNITS

UNIT 559F	NOMINAL V-PH-Hz	VOLTAGE RANGE		COMPRESSOR				OFM			IFM	POWER EXHAUST		ELECTRIC HEAT*		POWER SUPPLY	
				No. 1		No. 2											
		Min	Max	RLA	LRA	RLA	LRA	Quantity	Hp	FLA (ea)	FLA	FLA	LRA	FLA	Nom kW**	MCA	MOCP††
180	208/230-3-60	187	254	61.0	266	—	—	3	½	1.70	10.5/10.5	—	—	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	92/ 92 103/116 159/148 169/193	150/150 150/150 175/150 175/200
												4.6	18.8	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	96/ 96 109/121 165/154 175/199	150/150 150/150 175/175 175/200
	460-3-360	414	508	28.0	120	—	—	3	½	0.80	4.8	—	—	— 39 66 96	— 32 55 80	42 55 72 102	70 70 80 110
												2.3	6.0	— 39 66 96	— 32 55 80	45 58 75 105	70 70 80 110
	575-3-60	518	632	23.0	96	—	—	3	½	0.75	3.9	—	—	— 50	— 50	35 58	50 60
												2.1	4.8	— 50	— 50	37 57	60 60
216	208/230-3-60	187	254	35.6	198	28.2	160	3	½	1.70	15.8/15.8	—	—	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	94/ 94 110/122 166/155 176/200	125/125 125/125 175/175 200/200
												4.6	18.8	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	98/ 98 116/128 172/161 182/206	125/125 125/150 175/175 200/225
	460-3-60	414	508	17.8	99	14.1	80	3	½	0.80	7.9	—	—	— 39 66 96	— 32 55 80	47 59 76 106	60 60 80 110
												2.3	6.0	— 39 66 96	— 32 55 80	49 62 79 109	60 70 80 110
	575-3-60	518	632	14.3	79	11.3	64	3	½	0.75	6.0	—	—	— 50	— 50	37	50
												2.1	4.8	— 50	— 50	40	50

ELECTRICAL DATA — 559F180-300 UNITS (cont)

UNIT 559F	NOMINAL V-PH-Hz	VOLTAGE RANGE		COMPRESSOR				OFM			IFM FLA	POWER EXHAUST		ELECTRIC HEAT*		POWER SUPPLY	
		Min	Max	No. 1		No. 2		Quantity	Hp	FLA (ea)		FLA	FLA	LRA	FLA	Nom kW**	MCA
				RLA	LRA	RLA	LRA										
240	208/230-3-60	187	254	35.6	198	35.6	198	2	1	5.50	25.0/25.0	—	—	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	116/116 121/134 178/166 187/211	150/150 150/150 200/175 200/225
												4.6	18.8	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	121/121 127/140 183/172 193/217	150/150 150/150 200/175 200/225
	460-3-60	414	508	17.8	99	17.8	99	2	1	2.80	13.0	—	—	— 39 66 96	— 32 55 80	59 65 82 112	70 70 90 125
												2.3	6.0	— 39 66 96	— 32 55 80	61 68 85 115	70 70 90 125
	575-3-60	518	632	14.3	79	14.3	79	2	1	3.40	10.0	—	—	— — —	— — —	49	60
												2.1	4.8	— — —	— — —	51	60
300	208/230-3-60	187	254	43.6	228	43.6	228	2	1	5.50	28.0/28.0	—	—	—/— 72/ 82 117/135 156/180	—/— 26/34 42/56 56/75	137/137 137/138 181/170 191/215	175/175 175/175 200/175 200/225
												4.6	18.8	—/— 72/82 117/135 156/180	—/— 26/34 42/56 56/75	142/142 142/143 187/176 197/221	175/175 175/175 200/200 200/225
	460-3-60	414	508	22.1	114	22.1	114	2	1	2.80	14.6	—	—	— 39 66 96	— 32 55 80	70 70 84 114	90 90 90 125
												2.3	6.0	— 39 66 96	— 32 55 80	72 72 87 117	90 90 90 125
	575-3-60	518	632	17.9	91	17.9	91	2	1	3.40	13.0	—	—	— — —	— — —	60	70
												2.1	4.8	— — —	— — —	62	80

LEGEND AND NOTES FOR ELECTRICAL DATA TABLES ON PAGES 49-54

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

*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, 480 v, and 575 v. Heaters are rated at 240 v, 480 v, or 575 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. To determine heater capacity at actual unit voltage, multiply 240 v, 480 v, or 575 v capacity by multipliers found in Electric Heat Multiplication Factors table on page 48.

†Used to determine minimum disconnect size per NEC.

**Heaters are field installed only.

††Fuse or HACR circuit breaker.

‡Fusing in single point box provides the required branch circuit protection.

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 of 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.

3. MCA calculation for units with electric heaters over 50 kW = (1.25 x IFM amps) + (1.00 x heater FLA).

NOTES:

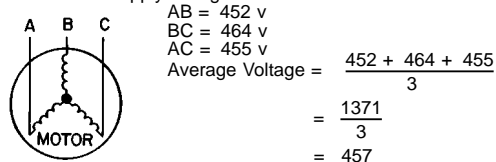
1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. The Canadian units may be fuse or circuit breaker.

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 of voltage imbalance.

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

EXAMPLE: Supply voltage is 460-3-60.



036-150 Only



036-072 Only



090-150 Only



180-300 Only



180-300 Only

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 (036-150 and 216-300) or unloaded compressor (180), and condenser fan(s) start. The condenser-fan motor runs continuously while unit is cooling. On 090-300 units, 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 (090-150 and 216-300), or compressor no. 1 runs fully loaded (180).

HEATING, UNITS WITHOUT ECONOMIZER (IF ACCESSORY OR OPTIONAL HEATER IS INSTALLED) — Upon a call for heating through terminal W1, IFC and heater contactor no. 1 (HC1) are energized. On units equipped for 2 stages of heat, when additional heat is needed, HC2 is energized through W2.

COOLING, UNITS WITH DURABLADE ECONOMIZER (036-150) — When the outdoor-air temperature is above the outdoor-air thermostat (OAT) setting and the room thermostat calls for cooling, 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 will be energized, starting compressor no. 2. After the thermostat is satisfied, the damper moves to the fully-closed position.

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 57 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.

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

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

When the first stage of cooling is satisfied, the damper will move to fully-closed position.

COOLING, UNITS WITH PARABLADE ECONOMIZER (036-072) — When the outdoor air is above the enthalpy control (EC) setting, and the room thermostat calls for cooling, 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 (090-150) — When the outdoor-air is above the enthalpy control (EC) setting, and the room thermostat calls for cooling, 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 (180-300) — Upon a call for cooling, when outdoor ambient temperature is above the temperature control setting, the evaporator and condenser fans and compressor energize. The economizer damper moves to VENT position.

Upon a first-stage call for cooling, when outdoor ambient temperature is below the temperature control setting, the evaporator fan starts and economizer damper modulates to maintain mixed-air temperature. The compressor(s) remains off.

Upon a second-stage call for cooling, compressor no. 1 (180-300) or unloaded compressor (180) is energized and mechanical cooling is integrated with economizer cooling. Compressor no. 2 is locked out. If the air temperature is above 50 F, a cooling lockout switch prevents the compressor(s) from running.

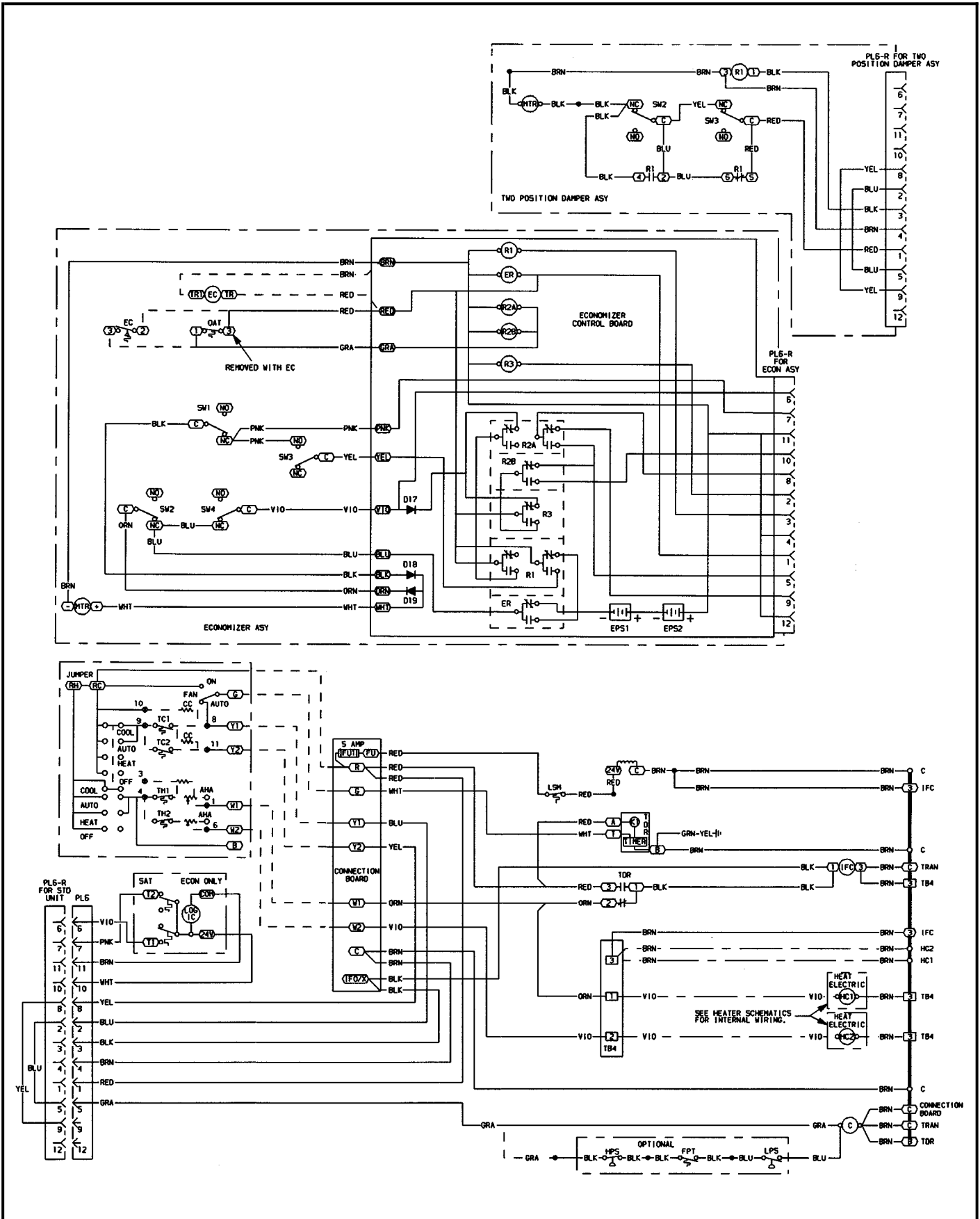
When supply-air temperature drops below a fixed set point, the economizer damper modulates to maintain the temperature at the fixed set point.

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

HEATING, UNITS WITH ECONOMIZER (036-150) (IF ACCESSORY OR OPTIONAL HEATER IS INSTALLED) — When the room thermostat calls for heat through terminal W1, the evaporator-fan contactor and heater contactor no. 1 are energized. On units equipped for 2 stages of heat, when additional heat is needed, heater contactor no. 2 is energized through W2. The economizer damper moves to the minimum position during heating. When the thermostat is satisfied, the damper moves to the fully closed position.

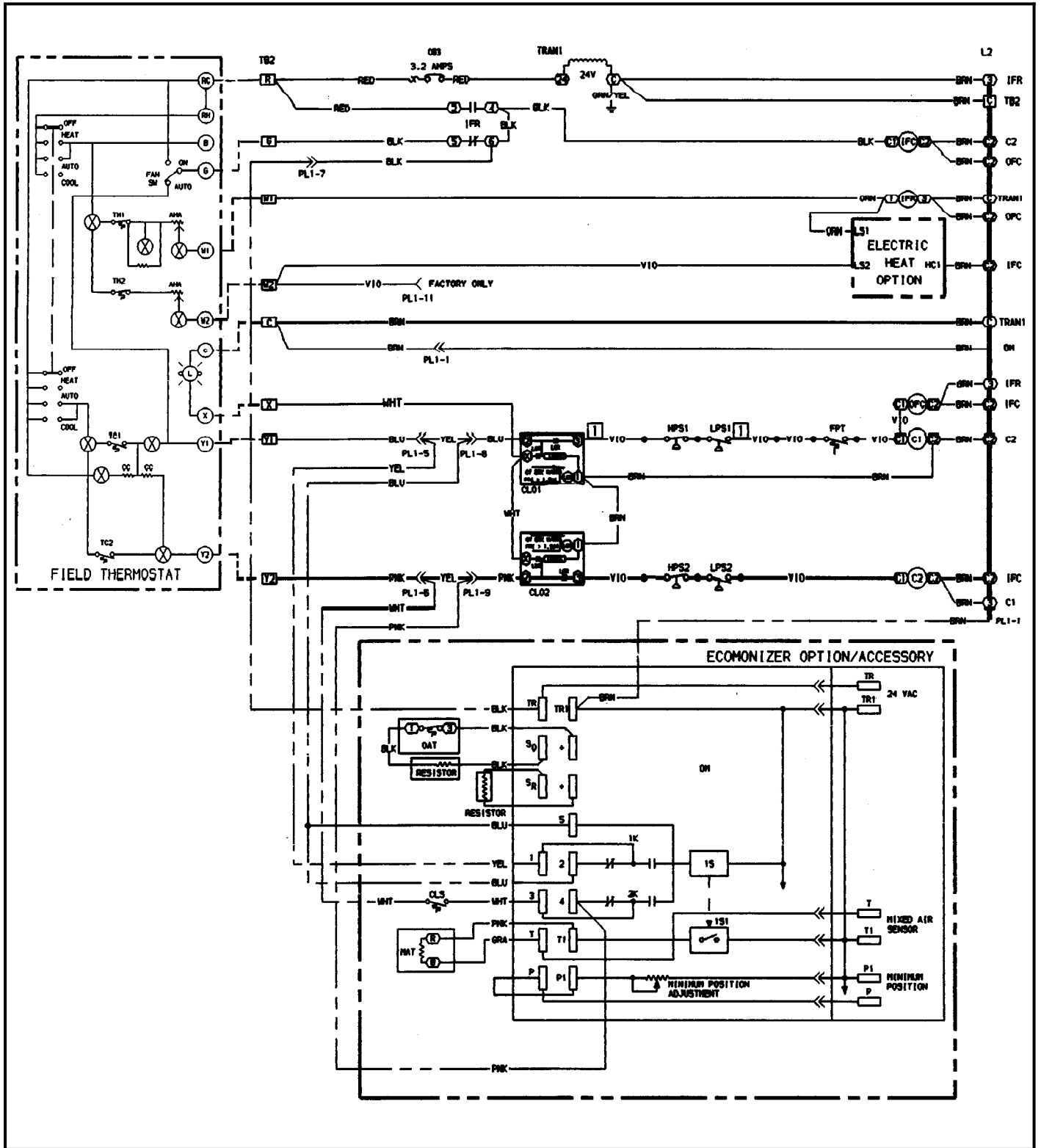
HEATING, UNITS WITH ECONOMIZER (180-300) (IF ACCESSORY OR OPTIONAL HEATER IS INSTALLED) — The outdoor-air damper stays at VENT position while the evaporator fan is operating. Refer to Heating, Units Without Economizer section, above, for remainder of operating sequence.

TYPICAL WIRING SCHEMATIC — 558D036-150

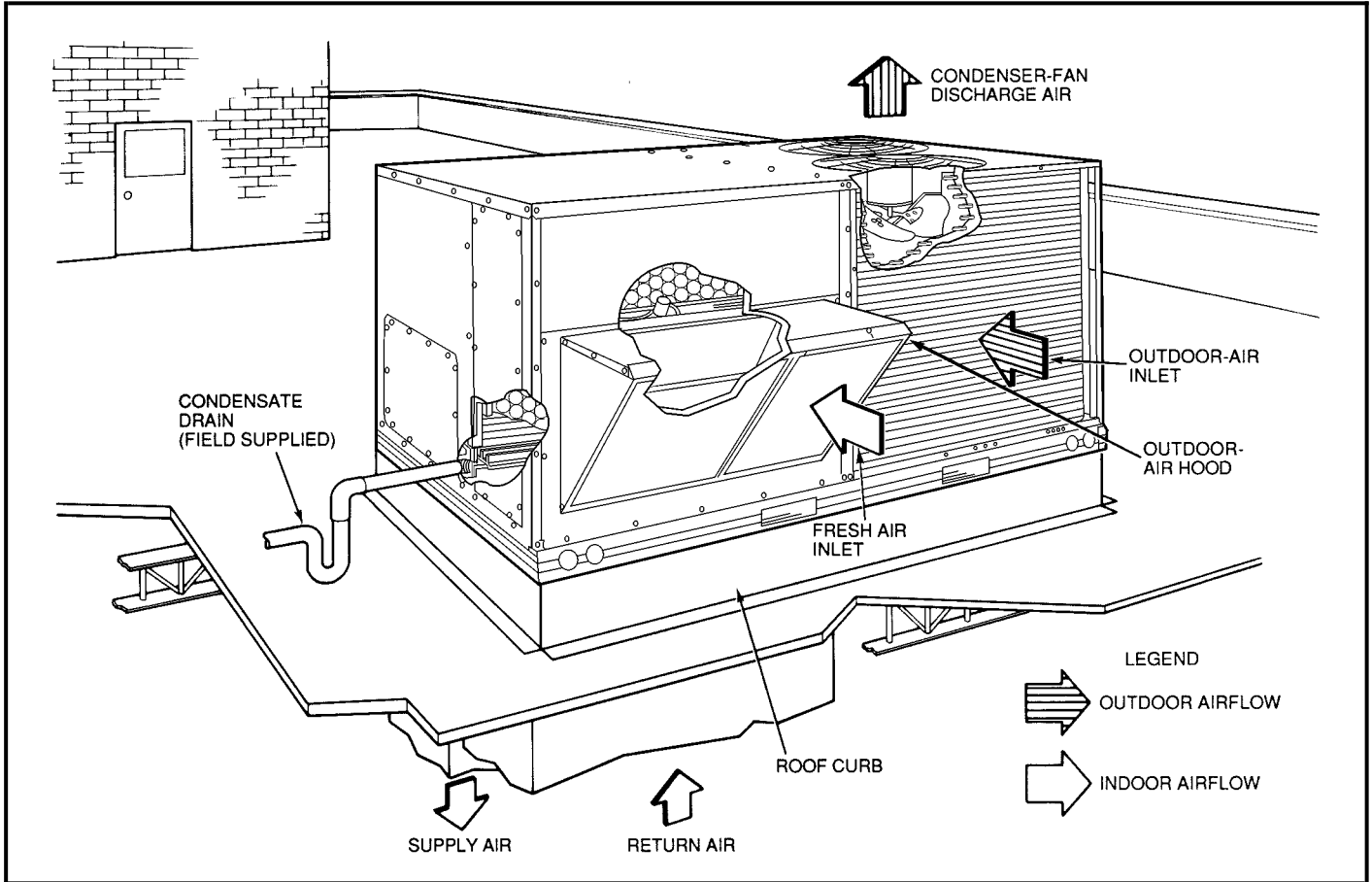


(See Legend, page 59.)

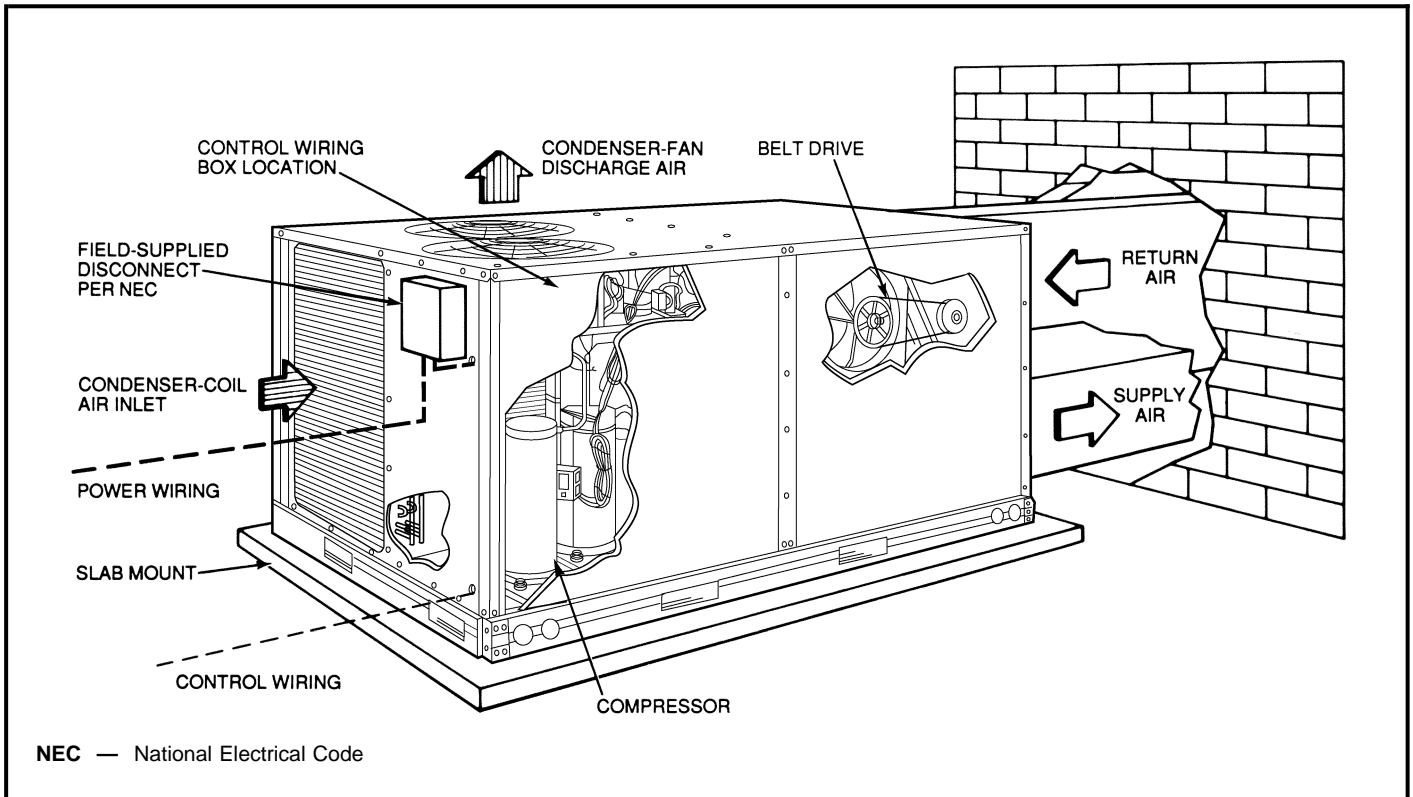
TYPICAL WIRING SCHEMATIC — 559F180-300



(See Legend, page 59.)

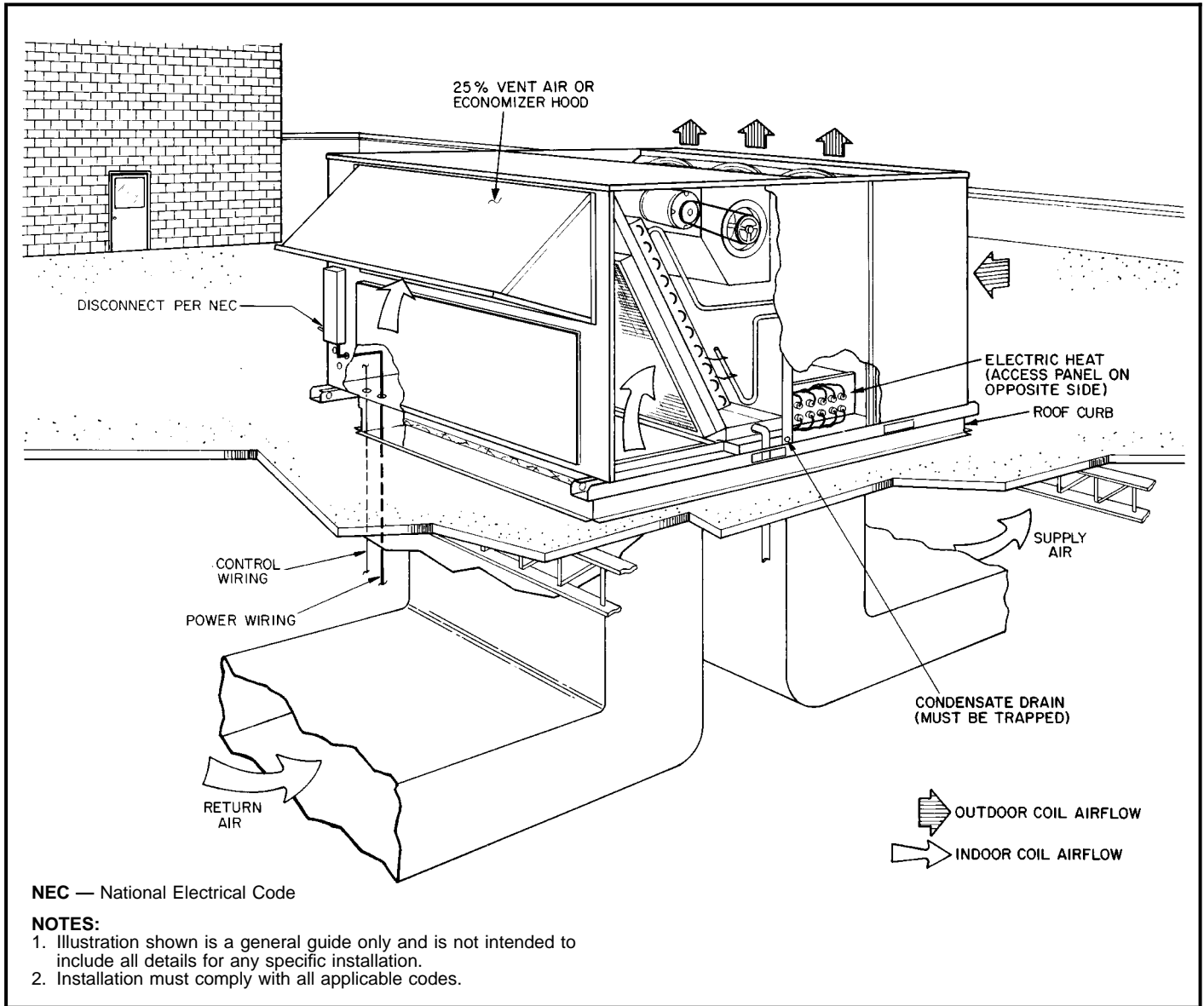


Vertical Discharge Ducting














Horizontal Discharge Ducting

TYPICAL INSTALLATION — 559F180-300



LEGEND FOR TYPICAL WIRING SCHEMATICS

AHA	— Adjustable Heat Anticipator	IFM	— Indoor (Evaporator) Fan Motor	TB	— Terminal Block
BRK W/AT	— Breaks With Amp Turns	IFR	— Indoor (Evaporator) Fan Relay	TC	— Thermostat Cooling
C	— Contactor, Compressor	IP	— Internal Protector	TH	— Thermostat Heating
CB	— Circuit Breaker	L	— Light	TRAN	— Transformer
CC	— Cooling Compensator	LOR	— Lockout Relay		Terminal (Marked)
CH	— Crankcase Heater	LPS	— Low-Pressure Switch		Terminal (Unmarked)
CLO	— Compressor Lockout	LS	— Limit Switch		Terminal Block
CLS	— Compressor Lockout Switch	MAT	— Mixed-Air Thermostat		Splice
COMP	— Compressor Motor	NC	— Normally Closed		Splice (Marked)
CT	— Current Transformer	NEUT	— Neutral		Factory Wiring
DM	— Damper Motor	NO	— Normally Open		Field Control Wiring
DU	— Dummy Terminal	OAT	— Outdoor-Air Thermostat		Field Power Wiring
EC	— Enthalpy Control	OFC	— Outdoor (Condenser) Fan Contactor		Accessory Wiring or Optional Wiring
EQUIP	— Equipment	OFM	— Outdoor (Condenser) Fan Motor		Accessory
FL	— Fuse Link	OP	— Overcurrent Protector		To indicate common potential only, not to represent wiring
FPT	— Freeze Protection Thermostat	PL	— Plug Assembly		
FU	— Fuse	PRI	— Primary		
GND	— Ground	QT	— Quadruple Terminal		
HC	— Heater Contactor	SW	— Switch		
HPS	— High-Pressure Switch	SW1	— Switch, Fully Open		
HTR	— Heater	SW2	— Switch, Fully Closed		
IFC	— Indoor (Evaporator) Fan Contactor	SW3	— Switch, Minimum Vent Position		
IFCB	— Indoor (Evaporator) Fan Circuit Breaker	SW4	— Switch, Maximum Vent Position		

APPLICATION DATA

1. Units approved for outdoor installation only.
2. Ductwork (036-150) — Secure vertical discharge ductwork to roof curb. For horizontal discharge applications, either attach ductwork to unit, or use field-supplied flanges attached to the horizontal discharge openings and attach all ductwork to flanges.
3. Ductwork (180-300) — Ductwork should be attached to the curb on all units. Interior installation may proceed before unit is set in place on roof. If ductwork is to be attached to unit, do not drill in condensate drain pan area — leaks may result. Field-fabricated concentric ductwork may be connected as shown on page 61.
4. On 180-300 size units with electric heat, a field-supplied 90° elbow must be installed in the supply ductwork below the unit discharge connection.
5. To convert from vertical discharge to horizontal discharge (036-150):
 - a. Remove Durablade economizer or two-position damper to gain access to return duct opening.
 - b. Move the horizontal-discharge duct opening covers to the vertical discharge openings.
 - c. Rotate economizer or two-position damper 90 degrees.
 - d. Rotate the barometric relief damper 90 degrees.
 - e. Install block-off plate over the opening on the access panel.

NOTE: Parablade economizer is only used for vertical discharge units.

6. Roof curb connections allow field power wires and control wires to enter through the roof curb opening.
7. Use of 2-stage heating and cooling thermostat is recommended for all units. A 2-stage cooling thermostat is required on units with accessory economizer to provide integrated cooling.
8. All units are automatic changeover from heating to cooling when automatic changeover thermostat and subbase are used.

9. Units are draw-thru on cooling and blow-thru on heating.
10. To minimize the possibility of condensate blow-off from evaporator, airflow through units should not exceed 500 cfm/ton on 036-240 units and 11,250 cfm on 300 units.
11. For cooling minimum airflow is 300 cfm/ton for 036-240 units and 280 cfm/ton on 300 units. For units with electric heating, required minimum cfm is 900 for 036; 1200 for 048; 1500 for 060; 1800 for 072; 2250 for 090; 2550 for 102; and 3000 for 120 and 150, with the following exceptions:

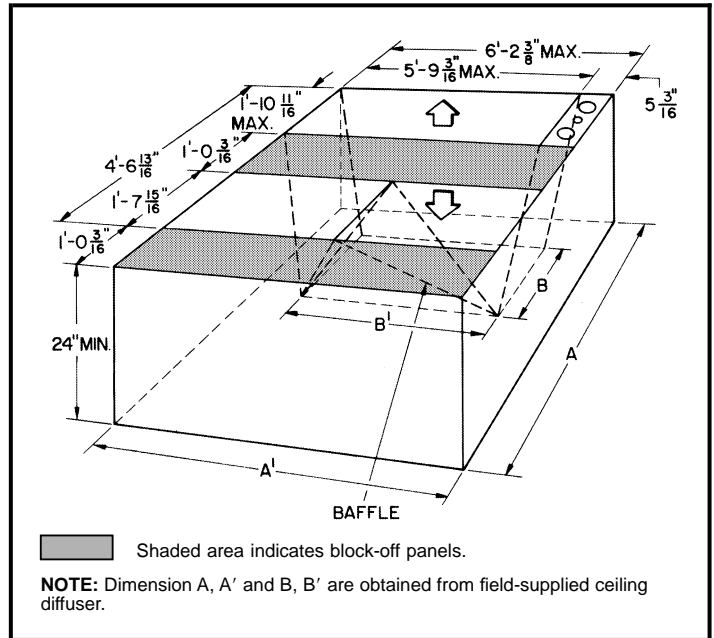
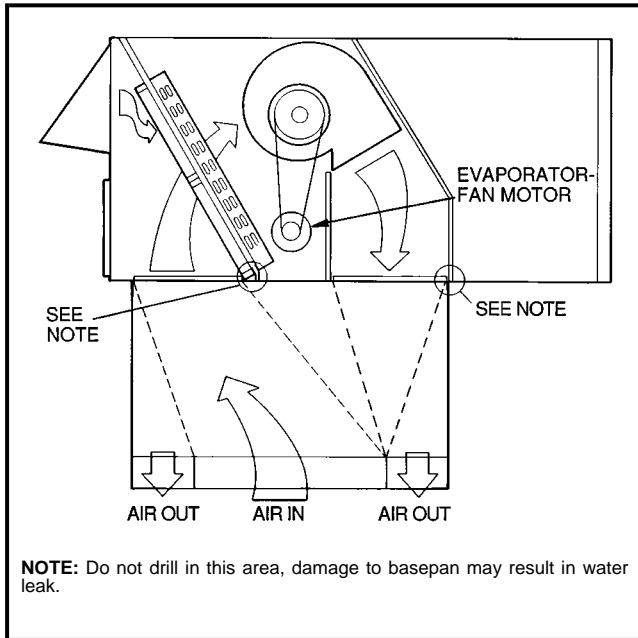
UNIT 558D	UNIT VOLTAGE	HEATER kW	UNIT CONFIGURATION	REQUIRED MINIMUM CFM
120, 150	208/230	42.4	Horizontal	3200
	208/230	50.0	Horizontal	3200
	460	50.0	Horizontal or Vertical	3200
090-150	575	18.0	Horizontal or Vertical	2800
		36.0		2350

NOTE: The 180-300 units with electric heating have a required minimum heating of 300 cfm/ton.

12. Minimum ambient cooling operating temperature (036-150) — The minimum 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.
13. Minimum ambient cooling operation temperature (180-300) — Units are designed to operate at outdoor temperatures down to 40 F for 180, 35 F for 216, 25 F for 240, and 48 F for 300. To operate at lower outdoor temperatures, see Trade Prices or contact your local representative for appropriate accessories.
14. Due to the internal unit design (draw-thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Specifications table and the notes following each Air Delivery table can be utilized with confidence.

Using 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.

APPLICATION DATA (cont)



OPTION AND ACCESSORY LIST

ITEM	OPTION*	ACCESSORY†
Durablade Economizer (036-150; Includes Hood)	X	X
Parablade Economizer (036-150)	X	
Integrated Economizer (180-300)	X	X
Manual Outdoor-Air Dampers**	X	X††
Controls Upgrade Kit (036-150)‡	X	X
Condenser Coil Grille (036-150)	X	X
Alternate Drive (090)	X	
Alternate Motor and Drive (036-060, 120, 150)	X	
Electric Heat and Single Point Kits		X¶
25% Open Two-Position Damper		X
100% Open Two-Position Damper (036-150)		X
Barometric Relief Damper (180-300)		X
Roof Curbs (Horizontal and Vertical)		X
Horizontal Adapter (180-300)		X
Thermostats and Subbases		X
Power Exhaust (180-300)		X
Head Pressure Control Device		X
Low-Ambient Kits		X
Time Guard® II Control Circuit		X
Thru-the-Bottom Power Connections Packages (036-150)		X
Solid-State Enthalpy Control (036-150)		X
Enthalpy Control Sensor		X
Condenser Coil Hail Guard Assembly (036-150)		X
Winter Start Time-Delay Relay (216-300)		X
Fan/Filter Status (036-150)		X

*Factory installed.

†Field installed.

**Factory installed on 180-300 units whenever factory-installed economizer is not selected.

††Only available as an accessory on 036-150 units.

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

¶Electric heat for 575-v units is only offered on 558D090-180 units. Electric heat is field-installed on all units.

APPLICATION DATA (cont)
EVAPORATOR-FAN MOTOR PERFORMANCE

UNIT	EVAPORATOR-FAN MOTOR	UNIT VOLTAGE	MAXIMUM ACCEPTABLE CONTINUOUS BHP*	MAXIMUM ACCEPTABLE OPERATING WATTS	MAXIMUM AMP DRAW
558D036	Standard	208/230	0.34	440	2.9
		460			1.4
		575			1.4
	Alternate	208/230	1.00	1000	5.1
		460			2.3
		575			2.3
558D048	Standard	208/230	0.75	850	3.7
		460			1.9
		575			1.9
	Alternate	208/230	1.00	1000	5.1
		460			2.3
		575			2.3
558D060	Standard	208/230	1.20	1340	6.2
		460			3.4
		575			3.4
	Alternate	208/230	1.80	1921	6.1/9.2†
		460			2.7
		575			2.7
558D072	Standard	208/230	2.40	2120	6.1
		460			2.7
		575			2.7
558D090	Standard	208/230	2.40	2120	6.1
		460			2.7
		575			2.7
558D102	Standard	208/230	2.40	2120	6.1
		460			2.7
		575			2.7
558D120	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
558D150	Standard	208/230	4.20	3775	12.6
		460			5.7
		575			5.7
	Alternate	208/230	5.25	4400	15.0
		460			7.4
		575			7.4
559F180	Standard	208/230	4.25	3775	10.5
		460	3.45	3065	4.8
		575			3.9
559F216	Standard	208/230	5.90	5180	15.8
		460			7.9
		575			6.0
559F240	Standard	208/230	8.70	7915	25.0
		460	9.50	8640	13.0
		575	8.70	7915	10.0
559F300	Standard	208/230	10.26	9510	28.0
		460	11.80	11,000	14.6
		575	10.26	9510	13.0

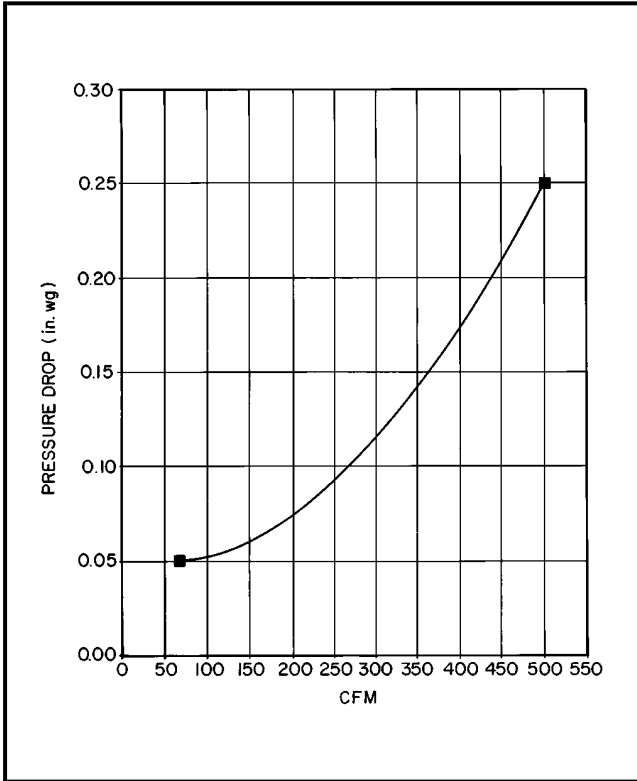
LEGEND

BHP — Brake Horsepower

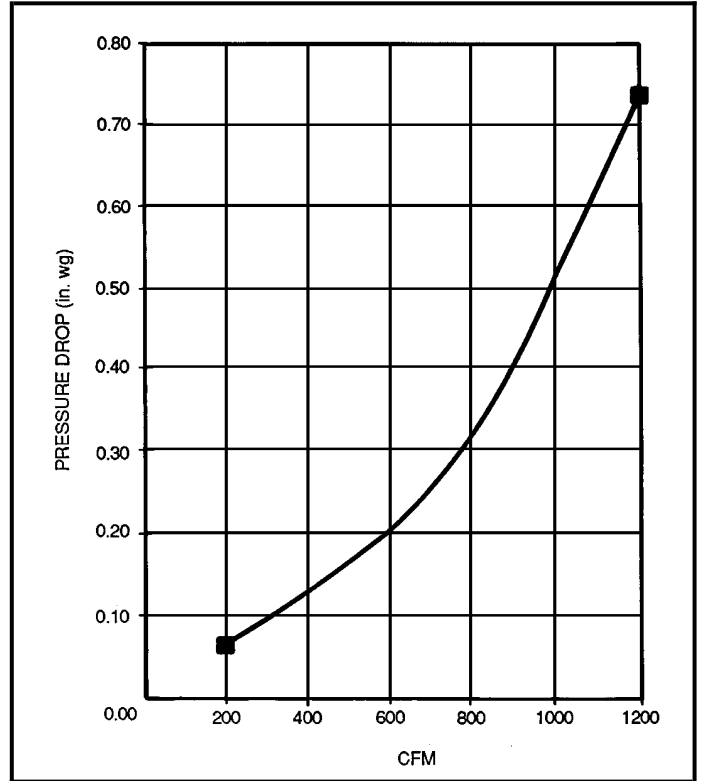
*Extensive motor and electrical testing on these units ensures that the full horsepower range of the motors can be utilized with confidence. Using your fan motors up to the horsepower ratings shown in this table will not result in nuisance tripping or premature motor failure. Unit warranty will not be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

†Single phase/3 phase.

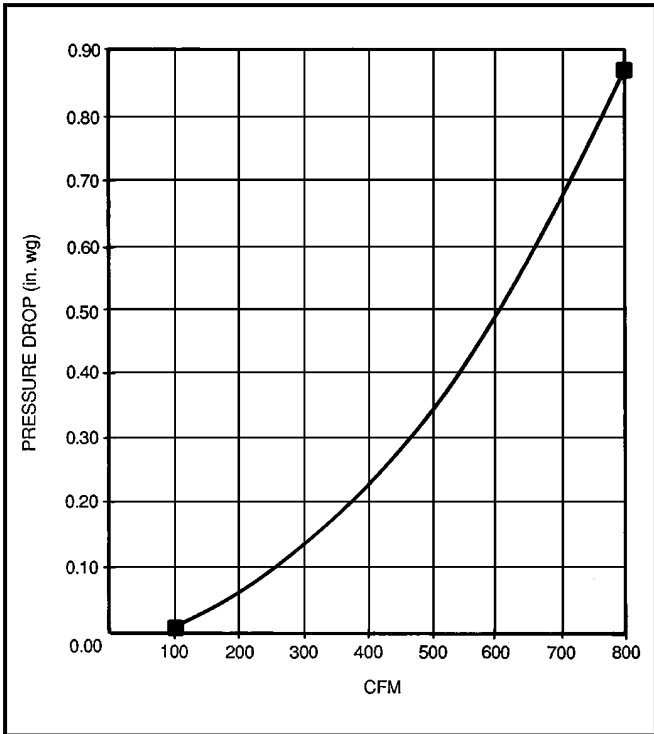
APPLICATION DATA (cont)



Durablade Economizer/Two-Position Damper Barometric Relief Damper Characteristics (558D036-150 Only)



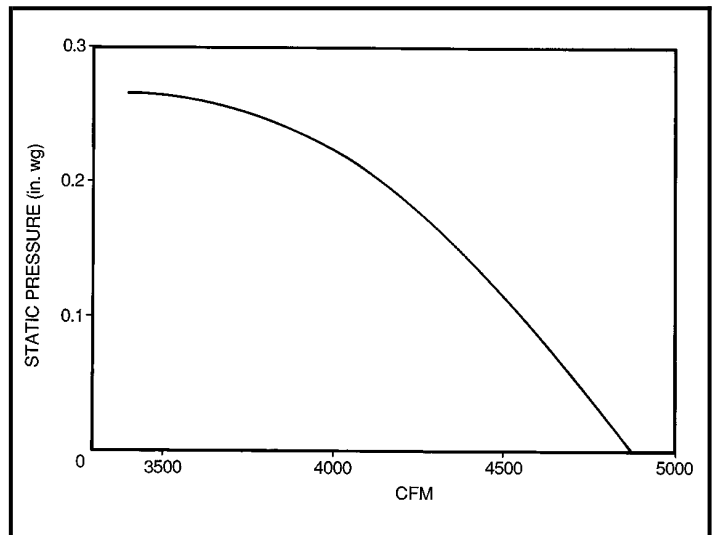
Parablade Economizer Barometric Relief Damper Characteristics — 558D090-150



Parablade Economizer Barometric Relief Damper Characteristics — 558D036-072

EVAPORATOR-FAN MOTOR EFFICIENCY

UNIT	MOTOR EFFICIENCY (%)
558D036,048	75
558D060	74
558D072	84
558D090-120	80
558D150	87
559F180	84
559F216	83
559F240	84
559F300	81



Fan Performance Using Accessory Power Exhaust (559F180-300)

ELECTRIC HEATER CAPACITIES — 558D036-150

UNIT 558D	VOLTAGE (60 Hz)	ACCESSORY kW
036	208/230 (single phase)	4.4
		6.5
		8.7
		10.5
		13.0*
	208/230 (3 phase)	4.4
		6.5
		8.7
	460 (3 phase)	10.5
16.0		
6.0		
048	208/230 (single phase)	8.8
		11.5
		14.0
		4.4
		8.7
	208/230 (3 phase)	13.0*
		17.4*
		21.0*
	460 (3 phase)	6.5
8.7		
16.0		
060	208/230 (single phase)	21.0*
		17.4*
		13.0*
		8.7
		6.5
	208/230 (3 phase)	26.5*
		21.0*
		16.0
	460 (3 phase)	10.5
11.5		
14.0		
072	208/230 (3 phase)	23.0*
		25.0*
		26.5*
	460 (3 phase)	6.0
		11.5
		14.0

**ELECTRIC HEATER CAPACITIES —
558D036-150 (cont)**

UNIT 558D	VOLTAGE (60 Hz)	ACCESSORY kW
090,102	208/230 (3 phase)	10.4
		16.0
		24.8
		32.0
	460 (3 phase)	42.4*
		13.9
120,150	208/230 (3 phase)	16.5
		16.0
	460 (3 phase)	32.0
575 (3 phase)		42.4*
	50.0*	
	18.0	
120,150	208/230 (3 phase)	36.0
		54.0*
	460 (3 phase)	16.5
575 (3 phase)		27.8
	120,150	460 (3 phase)
575 (3 phase)		
	120,150	460 (3 phase)
575 (3 phase)		
	120,150	460 (3 phase)
575 (3 phase)		

*Two heater packages required to provide kW indicated.

NOTES:

1. The kW ratings shown above are at 240, 480, and 575 v. Use the Electric Heat Multiplication Factors table on page 48 to determine heater capacity for your particular voltage.
2. Heaters are not available for size 036-072, 575-v units.

ELECTRIC RESISTANCE HEATER DATA — 559F180-300

UNIT 559F	HEATER kW				HEATER STAGES	% HEAT PER STAGE	MAXIMUM STAGES*
	Unit Voltages						
	208	230	460	575			
180	26	34	32	—	2	50/50	2
	42	56	55	—	2	33/67	3
	56	75	80	50	2	50/50	4
216-300	26	34	32	—	2	50/50	2
	42	56	55	—	2	33/67	3
	56	75	80	—	2	50/50	4

*Maximum number of stages using accessory low-ambient kit or head pressure control device and low-ambient kit.

NOTE: Heaters are rated at 240 v, 480 v, and 575 v.

ENGINEERS' SPECIFICATION GUIDE — MODELS 558D036-150 (3 TO 12½ TONS)

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

Nominal unit electrical characteristics shall be _____ v, _____ phase, 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 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.

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

COMPRESSOR: Compressor shall be of the 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 of the direct-drive 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. Bearings shall be sealed, permanently lubricated, ball-bearing type.

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.

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

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

APPROVALS: The unit shall be CSA (036-072) or UL Canada (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.

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 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 (variable sliding plate type economizer) or enthalpy (parallel-opposed blade type economizer) type. Damper shall close on power loss.

Other factory-installed options shall include: 25% and 100% manual outdoor-air dampers, controls upgrade kit, condenser coil grille, and alternate evaporator-fan motors (036-060, 120,150) and/or drives (036-060,090,120,150).

ACCESSORIES: Field-installed accessories shall include: Variable sliding plate type economizer, roof curb (14 or 24 in.), two-position dampers, 25% and 50% manual outdoor-air dampers, low ambient kit, short cycle circuit protection, thermostats and subbases, condenser coil hail guard, enthalpy control, electric resistance heaters, single point packages, controls upgrade kit, thru-the-bottom power connection package, condenser coil grille, head pressure control, fan/filter status, and enthalpy control sensor.

ENGINEERS' SPECIFICATION GUIDE — MODELS 559F180-300 (15 TO 25 TONS)

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

Nominal unit electrical characteristics shall be _____v, 3 phase, 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 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.

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 semi-hermetic type with crankcase heaters, and shall have spring vibration isolators and dual independent refrigeration circuits (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. Motor bearings shall be sealed, permanently lubricated, ball-bearing type.

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 throwaway fiberglass 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.

APPROVALS: The unit shall be ETL and ETL Canada tested and certified. All wiring shall be in accordance with NEC, and units shall meet ASHRAE Standard 62. The unit (except 300) shall be rated in accordance with ARI Standards 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.

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.

ACCESSORIES: Field-installed accessories shall include: Economizer, roof curbs (14 or 24 in.), horizontal adapter, two-position damper, low ambient kit, short cycle circuit protection, thermostats and subbases, enthalpy control sensor, winter start time-delay relay, electric resistance heaters, barometric relief damper, power exhaust, and head pressure control device.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS