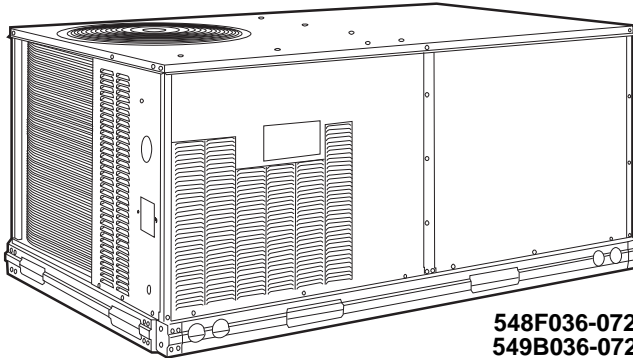


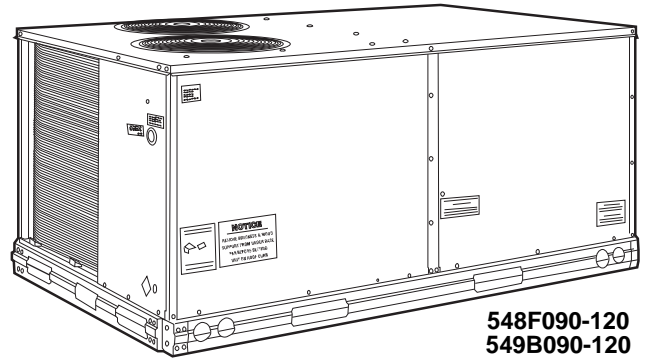


**COMMERCIAL
SINGLE PACKAGE ROOFTOP
STANDARD AND HIGH EFFICIENCY
HEAT PUMP UNITS**

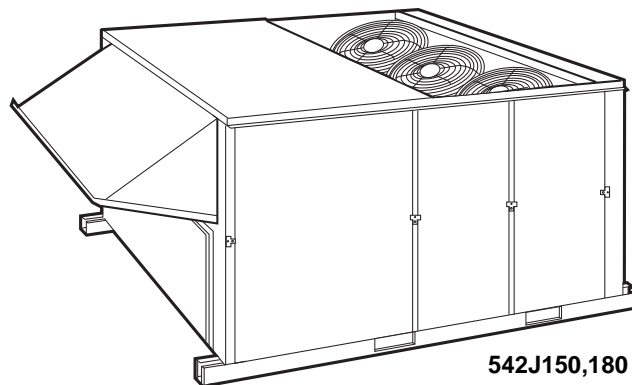
Models 542J, 548F, 549B, 549C
Sizes 024-180
DuraPac and DuraPac Plus
2 to 15 Tons



**548F036-072
549B036-072
549C024-060**



**548F090-120
549B090-120**



542J150,180

Standard-Efficiency (548F), and High-Efficiency (549B, 549C, 542J) heat pump units offer:

- Pre-painted galvanized steel cabinet for long life and quality appearance
- Commercial strength base rails with built-in rigging capability
- Convertible design for vertical or horizontal supply/return
- Non-corrosive, sloped condensate drain pan, meets ASHRAE 62 (IAQ)
- Two-inch return-air filters
- A wide assortment of factory-installed options available, including high-static drives that provide additional performance range
- Factory-installed optional gear driven EconoMi\$erIV (vertical return for sizes 024-120 only) for use with standard rooftop unit controls (includes CO₂ sensor control capability)
- Factory-installed optional gear driven EconoMi\$er2 (vertical return only) for use with third party controls (includes 4 to 20 mA actuator for demand control ventilation)
- State-of-the-art defrost system
- Dependable 4-way valve operation

Heat Options

- Field-installed electric heat available
- Glycol hydronic coils

FEATURES/BENEFITS

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

QUIET, EFFICIENT OPERATION AND DEPENDABLE PERFORMANCE — Compressors have vibration isolators for quiet operation. Efficient fan and motor design permits operation at low sound levels.

Unit sizes 090-180 offer lower utility costs through part-load operation using 2 stages of cooling.

Quiet and efficient operation is provided by belt-driven indoor fans (standard on all units over 5 tons). The belt-driven indoor fan is equipped with variable-pitch pulleys which allow adjustment within the rpm ranges of the factory-supplied pulleys. Increased operating efficiency is achieved through computer-designed coils featuring staggered internally enhanced copper tubes. Fins are ripple-edged for strength, lanced, and double waved for higher heat transfer.

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

In addition, all size 024-120 units are designed with a single, continuous top piece to eliminate any possible leaks. Totally enclosed outdoor-fan motors and permanently lubricated bearings provide additional unit dependability.

Patented State-of-the-Art Chronotemp™ Defrost System uses time and temperature to keep the outdoor coil frost-free for economical, dependable operation. The Chronotemp defrost board can be easily configured for defrost cycles every 30, 50, or 90 minutes.

Dependable 4-Way Valve Operation safely and efficiently accomplishes cycle reversals, defrost, and normal operation.

EASY INSTALLATION AND CONVERSION

All Units are Shipped in the Vertical Duct Configuration for fit-up to standard roof curbs. (3 different curb sizes fit unit sizes 024-072, 090-120, and 150,180 respectively.) The contractor

can order and install the roof curb early in the construction stage, before decisions on size requirements are made.

All units feature a base rail design with forklift slots and rigging holes for easier maneuvering. Durable packaging protects all units during shipment and storage.

The units can be easily converted from a vertical to a horizontal duct configuration by relocating the panels supplied with the unit.

To Convert 024-120 Units from vertical to horizontal discharge, simply relocate 2 panels. The same basic unit can be used for a variety of applications and can be quickly modified at the jobsite.

To Convert Size 150 and 180 Units from vertical to horizontal discharge, use the optional horizontal supply/return adapter roof curb.

Convenient Duct Openings in the unit basepans permit side-by-side or concentric duct connections (see Application Data section) without requiring internal unit modification (size 150,180 only).

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

Thru-the-bottom service connection capability comes standard with the rooftop unit to allow power and control wiring to be routed through the unit's basepan, thereby minimizing roof penetrations (to prevent water leaks). Power and control connections are made on the same side of the unit to simplify installation.

The Non-Corrosive Sloped Condensate Drain Pan permits either an external horizontal side condensate drain (outside the roof curb) or an internal vertical bottom drain (inside the roof curb). Both options require an external, field-supplied P-trap.

Standard 2-in. Throwaway Filters are easily accessed through a removable panel located above the air intake hood. No tools are required to change unit filters.

All 024-120 Units are Designed With a Single, Continuous Top Piece to eliminate leaking at the seams or gasketing.

Belt-Driven Indoor-Fan Motors allow maximum on-site flexibility without changing motors or drives.

Field-Installed Accessory Electric heaters are available in a wide range of capacities. An available single-point wiring kit makes installation simple.

Low Voltage Wiring Connections are easily made due to the large terminal board which is located for quick, convenient access.

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

PROVEN COMPRESSOR RELIABILITY

Design techniques feature computer-programmed balance between compressor, condenser, and evaporator. Bryant-specified hermetic compressors are equipped with compressor overcurrent and overtemperature protection to ensure dependability.

All units have a fixed orifice metering device which precisely controls refrigerant flow, preventing slugging and flood-back, while maintaining optimum unit performance. Refrigerant filter driers are standard.

Standard Low Ambient Cooling Operation to 25 F; optional head pressure control kit available for outdoor ambient conditions to -20 F.

INTEGRATED ECONOMIZERS AND OUTDOOR-AIR DAMPERS

Available as options or accessories, economizers and manual outdoor-air dampers introduce outdoor air which mixes with the conditioned air, improving indoor-air quality and often reducing energy consumption.

During a first stage call for cooling, if the outdoor-air temperature is below the economizer control changeover set point, the mixed-air sensor modulates the economizer outdoor-air damper open to take advantage of free cooling provided by the outside air. When second-stage cooling is called for, the compressor is energized in addition to the economizer. If the outdoor-air temperature is above the changeover set point, the first stage of compression is activated and the economizer damper stays at minimum position.

Accessory upgrade kits allow for control by differential dry-bulb temperature (outdoor vs return), outdoor air enthalpy changeover, or more precise differential enthalpy control.

Units can be equipped with different economizer options to meet specific controls applications. The factory-installed or field-installed EconoMiSerIV and EconoMiSer2 are available. The EconoMiSerIV is used with the standard rooftop unit controls and includes an industry standard, stand-alone, solid-state control. The control can be used with a CO₂ sensor for DCV (demand control ventilation) operation. For direct digital control (DDC) applications, the EconoMiSer2 can be operated using a third party controller. The EconoMiSer2 includes 4 to 20 mA actuator capability for demand control ventilation applications.

All economizers incorporate a parallel blade, gear driven damper system for efficient air mixing and reliable control. In addition, the standard damper actuator includes a spring return to provide reliable closure on power loss. The economizers for sizes 024-120 are equipped with up to 100% barometric relief capability for high outdoor airflow operations. Economizers for unit sizes 024-120 are available, factory-installed, for vertical return only. Economizers for unit sizes 150 and 180 are compatible for vertical or horizontal return. An optional field-installed barometric relief package is available for 150 and 180 size units.

In addition, single-stage power exhaust is available as a field-installed accessory for EconoMiSerIV to help maintain proper building pressure.

For units without economizer, year-round ventilation is enhanced by a manual outdoor-air damper. On size 024-120 units, a 25% or 50% manual damper is available as a field-installed accessory. Unit sizes 150 and 180 are equipped with a manual 25% damper.

SERVICE OPTIONS

Servicing a rooftop unit has never been easier with the new factory-installed service options for these rooftop units. These options include the following:

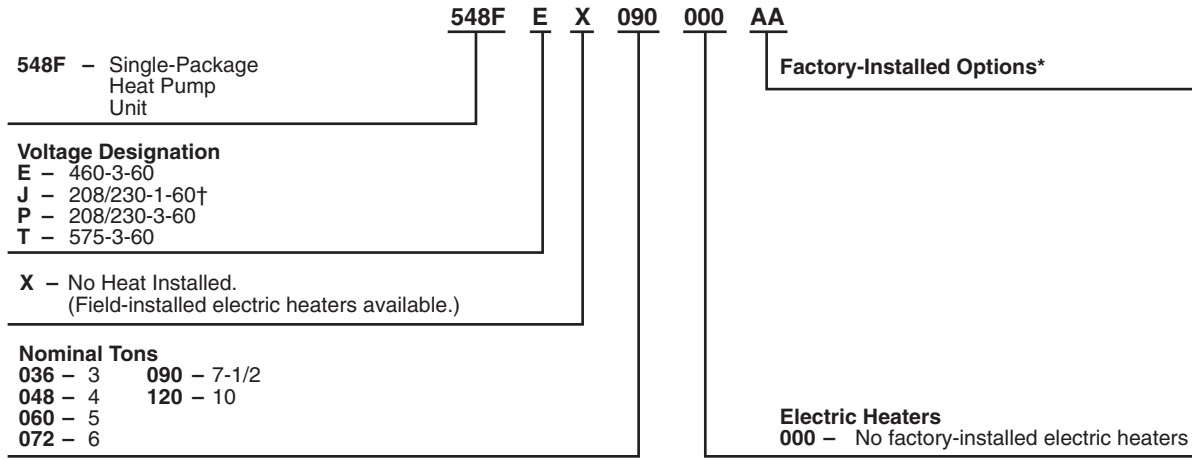
- Hinged access panels (549B, 549C and 542J only) are provided for the filter/indoor-fan motor, compressors, indoor fan, and control box areas. Quick access to major components is accomplished by simply unlatching and swinging open the various panels. Each hinged panel is permanently mounted to the unit, thereby eliminating the concern of a dropped or wind-blown panel puncturing delicate roof materials. The 4 extended access panels are also equipped with "tie back" retaining devices to hold the door in the open position while servicing the unit.
- An external, covered, 115-v Ground Fault Interrupt (GFI) receptacle is provided as a convenient power source for drills, lights, refrigerant recovery units, or other electrical service tools. Simply connect the outlet to a field-supplied and properly fused branch circuit power supply.
- An integral non-fused disconnect switch within the rooftop unit reduces installation time, labor and material costs. Safety is assured by an interlock which prevents access to the control box unless the switch is in the OFF position. In addition, the externally mounted handle incorporates power lockout capability to further protect service personnel.

INDOOR-AIR QUALITY BEGINS WITH BRYANT ROOFTOPS

Sloped condensate pans minimize biological growth in rooftop units in accordance with ASHRAE Standard 62. Two-inch filters with optional dirty filter indicator switch provide for greater particle reduction in the return air. The face-split evaporator coils improve the dehumidification capability of standard units, maximize building humidity control.

Optional proportional reacting CO₂ sensor is available with the EconoMiSerIV outdoor air damper option/accessory to aid the IAQ benefits.

**MODEL NUMBER NOMENCLATURE — 548F UNITS
(ODS Model Number)**



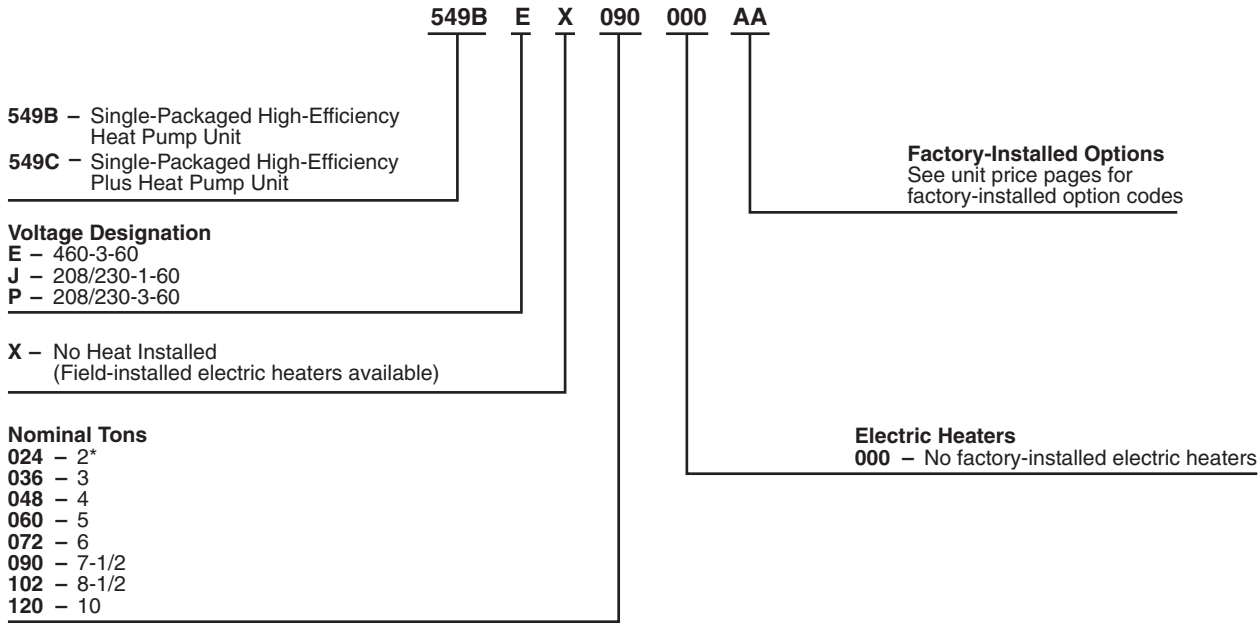
LEGEND
ODS — Order Distribution System

*Refer to Trade Price Sheets or contact your local representative for specific information regarding which options are available on which units.
 †Single-phase is only available on 036-060 size units.

NOTE: The example model number 548FEX090000AA designates a 7 1/2 ton 460-3-60 volt electric heat pump unit with factory-installed economizer.

Quality Assurance
 Certified to ISO 9001:2000

**MODEL NUMBER NOMENCLATURE — 549B AND 549C UNITS
(ODS Model Number)**

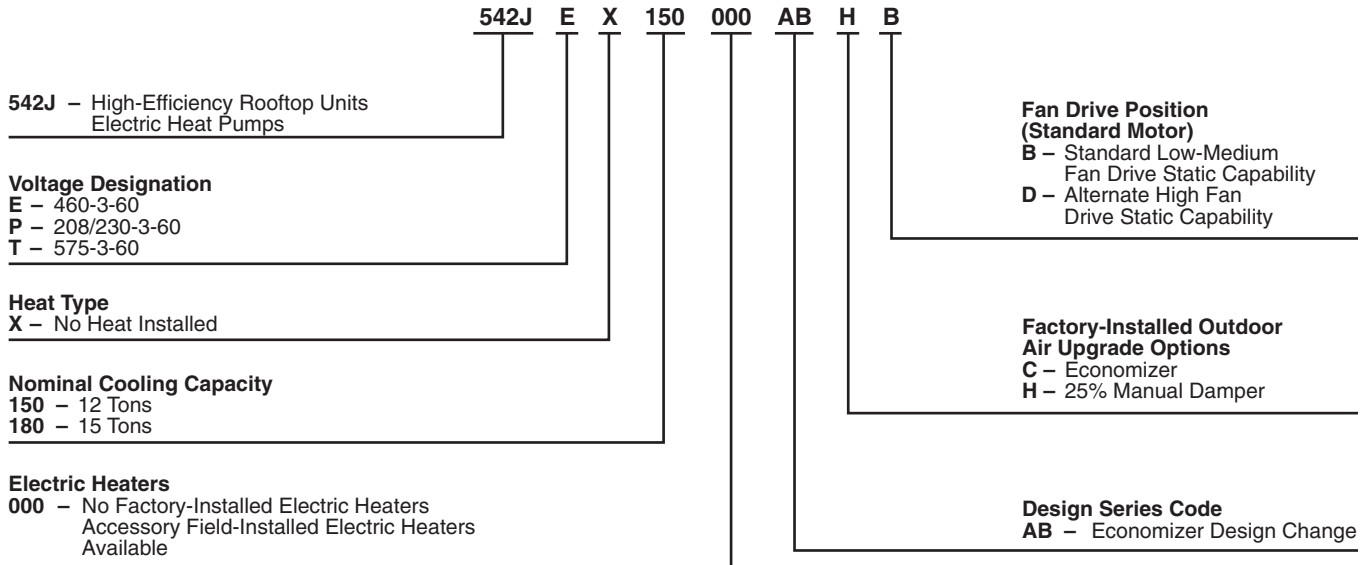


LEGEND
ODS — Order Distribution System

*Available on 549C units only.

Quality Assurance
 Certified to ISO 9001:2000

MODEL NUMBER NOMENCLATURE — 542J150,180 UNITS



Quality Assurance

Certified to ISO 9001:2000

ARI* CAPACITY RATINGS

548F036-060

UNIT 548F	NOMINAL TONS	COOLING			HEATING (High Temp)		SOUND RATING (decibels)
		Net Capacity (Btuh)	SEER†		Capacity (Btuh)	HSPF	
			Belt Drive	Direct Drive			
036	3	35,600	10.20	10.00	34,400	6.7	84
048	4	46,500	10.00	9.70	46,500	7.0	80
060	5	57,000	10.00	9.90	57,000	7.5	82

548F072-120

UNIT 548F	NOMINAL TONS	COOLING		HEATING (High)		HEATING (Low)		IPLV**	SOUND RATING (decibels)
		Net Capacity (Btuh)	EER	Capacity (Btuh)	COP	Capacity (Btuh)	COP		
072	6	70,000	9.05	72,400	3.20	42,000	2.14	—	82
090	7½	86,000	9.00	78,000	3.00	39,000	1.80	9.3	86
120	10	112,000	9.00	105,000	3.10	59,000	2.00	9.0	84

LEGEND

- COP** — Coefficient of Performance
- db** — dry bulb
- EER** — Energy Efficiency Ratio
- HSPF** — Heating Seasonal Performance Factor
- IPLV** — Integrated Part-Load Values
- SEER** — Seasonal Energy Efficiency Ratio
- wb** — wet bulb

4. Ratings are based on:



**ARI Standard
210/240 UHP**



*Air Conditioning and Refrigeration Institute.
 †Applies only to units with capacity of 60,000 Btuh or less.
 **The IPLV applies only to 2-stage cooling heat pump units.

NOTES:

1. Rated in accordance with ARI Standards 210/240-95 and 270-95.
2. Ratings are net values, reflecting the effects of circulating fan heat.
3. ALL the 548F036-060 units are in compliance with ASHRAE 90.1 2001 Energy Standard for minimum SEER and EER requirements. Refer to state and local codes or visit the following website: <http://solstice.crest.org/efficiency/bcap> to determine if compliance with this standard pertains to a given geographical area of the United States.

- 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.
- High-Temp Heating Standard:** 70 F db indoor entering-air temperature and 47 F db, 43 F wb outdoor entering-air temperature.
- Low-Temp Heating Standard:** 70 F db indoor entering-air temperature and 17 F db, 15 F wb outdoor entering-air temperature.

ARI* CAPACITY RATINGS (cont)

549C024-060

UNIT 549C	NOMINAL TONS	COOLING		HEATING (High Temp)		SOUND RATING (decibels)
		Net Cap. (Btuh)	SEER†	Cap. (Btuh)	HSPF†	
024	2	24,000	14.0	23,600	8.10	76
036	3	37,000	14.0	36,000	8.10	76
048	4	46,000	14.0	46,000	8.00	76
060	5	58,500	14.0	58,000	8.00	80

549B036-060

UNIT 549B	NOMINAL TONS	COOLING		HEATING (High Temp)		SOUND RATING (decibels)
		Net Cap. (Btuh)	SEER†	Cap. (Btuh)	HSPF†	
036	3	35,600	13.1	34,800	7.7	76
048	4	45,000	13.0	45,000	7.8	76
060	5	58,000	13.0	55,000	7.7	80

549B072-120

UNIT 549B	NOMINAL TONS	COOLING		HEATING (High)		HEATING (Low)		SOUND RATING (decibels)	IPLV
		Net Cap. (Btuh)	EER	Cap. (Btuh)	COP	Cap. (Btuh)	COP		
072	6	71,000	10.5	69,000	3.4	37,000	2.2	80	—
090	7½	88,000	10.3	85,000	3.3	48,000	2.2	82	10.5
102	8½	98,000	10.3	96,000	3.3	52,000	2.2	110	12.7 (100%) 10.4 (50%)
120	10	116,000	10.3	103,000	3.3	64,000	2.2	84	10.4

LEGEND

- Cap. — Net Capacity (Btuh)
- COP — Coefficient of Performance
- EER — Energy Efficiency Ratio
- HSPF — Heating Seasonal Performance Factor
- IPLV — Integrated Part-Load Values
- SEER — Seasonal Energy Efficiency Ratio

*Air Conditioning and Refrigeration Institute.
†Applies only to units with capacity of 60,000 Btuh or less.

NOTE: Rated in accordance with ARI Standard 210/240-94 and 270-95. Ratings are net values, reflecting effects of circulating fan heat. Supplementary electric heat is not included. Ratings based on:

Cooling Standard: 80 F db (dry bulb), 67 F wb (wet bulb) indoor entering-air temperature and 95 F db outdoor entering-air temperature.

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

High-Temp Heating Standard: 70 F db indoor entering-air temperature and 47 F db, 43 F wb outdoor entering-air temperature.

Low-Temp Heating Standard: 70 F db indoor entering-air temperature and 17 F db, 15 F wb outdoor entering-air temperature.

ALL the 549B units are in compliance with ASHRAE 90.1 2001 Energy Standard for minimum SEER and EER requirements. Refer to state and local codes or visit the following website: <http://solstice.crest.org/efficiency/bcap> to determine if compliance with this standard pertains to a given geographical area of the United States.



542J150,180 UNITS

UNIT 542J	COOLING					HEATING-HIGH TEMP			HEATING-LOW TEMP			SOUND RATING (decibels)
	Total kW	Net Capacity (Btuh)	Cfm	IPLV	EER	Total Capacity (Btuh)	Total kW	COP	Total Capacity (Btuh)	Total kW	COP	
150	14.3	140,000	4500	12.4	9.8	136,000	12.4	3.2	72,000	10.0	2.1	87
180	18.5	172,000	5200	9.7	9.3	172,000	15.3	3.3	90,000	12.5	2.2	88

LEGEND

- COP — Coefficient of Performance
- db — Dry Bulb
- EER — Energy Efficiency Ratio
- ESP — External Static Pressure
- IPLV — Integrated Part-Load Value
- wb — Wet Bulb

*Air-Conditioning and Refrigeration Institute.

NOTE: 50HJQ units are rated in accordance with ARI Standard 340-93.

Cooling ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:
ESP: -.35 in. wg

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

High-Temp Heating Standard: 70 F db indoor coil entering-air temperature and 47 F db, 43 F wb outdoor coil entering-air temperature.

Low-Temp Heating Standard: 70 F db indoor coil entering-air temperature and 17 F db, 15 F wb outdoor coil entering-air temperature.



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

ALL the 542J units are in compliance with ASHRAE 90.1 2001 Energy Standard for minimum SEER and EER requirements. Refer to state and local codes or visit the following website: <http://solstice.crest.org/efficiency/bcap> to determine if compliance with this standard pertains to a given geographical area of the United States.



OPTIONS AND ACCESSORIES

548F036-120

ITEM	OPTION*	ACCESSORY†
100% Open Two-Position Damper		X
25% Open Two-Position Damper		X
Alternate Motors and Drives	X	X
Convenience Outlet (Load Side)	X	
Copper Fins Indoor and Outdoor Coil	X	
Copper Fins Outdoor Coil	X	
E-Coat Outdoor Coil (Aluminum)	X	
E-Coat Outdoor Coil (Copper)	X	
EconoMi\$erIV with Controller	X	X
EconoMi\$er2 (without Controller)	X	X
Electric Heat		X
Electronic Programmable Thermostat		X
Emergency Heat Package		X
Enthalpy or Differential Enthalpy Sensor		X
Fan/Filter Status		X
High-Static Motor and Drive	X	
Hinged Panel Kit for Economizer		X
Indoor Air Quality (CO ₂) Sensor		X
Louvered Hail Guard		X
Manual Outdoor-Air Damper (50% or 100%)		X
Motormaster® I, II Head Pressure Control (Low Ambient Kit)		X
Outdoor Air Enthalpy Sensor		X
Outdoor Air/Return Air Temperature Sensor		X
Outdoor Coil Grille		X
Outdoor Coil Hail Guard Assembly		X
Power Exhaust with Barometric Relief		X
Pre-coat Aluminum Fins on Outdoor Coil	X	
Return Air Enthalpy Sensor		X
Return Air Temperature Sensor		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Thermostats and Subbases		X
Thru-the-Bottom Utility Connections		X
Time Guard II Control Circuit (Compressor Cycle Delay)		X
Unit-Mounted Non-Fused Disconnect	X	

*Factory-installed.

†Field-installed.

NOTES:

1. Refer to unit guide specifications, price pages, or contact your local representative for accessory and option package information.
2. Some options may increase product lead times.

OPTIONS AND ACCESSORIES (cont)

549B036-120, 549C024-060

ITEM	OPTION*	ACCESSORY†
100% Open Two-Position Damper		X
25% Open Two-Position Damper		X
Alternate Motors and Drives	X	X
Convenience Outlet (Load Side)	X	
Copper Fins Indoor and Outdoor Coil	X	
Copper Fins Outdoor Coil	X	
E-Coat Outdoor Coil (Aluminum)	X	
E-Coat Outdoor Coil (Copper)	X	
EconoMi\$erIV with Controller	X	X
EconoMi\$er2 (without Controller)	X	X
Electric Heat		X
Electronic Programmable Thermostat		X
Emergency Heat Package		X
Fan/Filter Status		X
Hinged Access Panels	X	
Hinged Panel Kit for Economizer		X
Indoor Air Quality (CO ₂) Sensor		X
Louvered Hail Guard		X
Manual Outdoor-Air Damper		X
Motormaster® I, II Head Pressure Control (Low Ambient Kit)		X
Outdoor Air Enthalpy Sensor		X
Outdoor Coil Grille		X
Outdoor Coil Hail Guard Assembly		X
Outdoor Air/Return Air Temperature Sensor		X
Power Exhaust with Barometric Relief		X
Pre-coat Aluminum Fins on Outdoor Coil	X	
Return Air Enthalpy Sensor		X
Return Air Temperature Sensor		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Thermostats and Subbases		X
Thru-the-Bottom Utility Connections		X
Time Guard II Control Circuit (Compressor Cycle Delay)		X
Unit-Mounted Non-Fused Disconnect	X	

*Factory-installed.

†Field-installed.

NOTES:

1. Refer to unit guide specifications, price pages, or contact your local representative for accessory and option package information.
2. Some options may increase product lead times.

OPTIONS AND ACCESSORIES (cont)

542J150,180

ITEM	OPTION*	ACCESSORY†
25% Open Two-Position Damper		X
Alternate Motors and Drives	X	X
Barometric Relief Damper (Not for use with horizontal roof curb)		X
Convenience Outlet (Load Side)	X	
Copper Fins Indoor and Outdoor Coil	X	
Copper Fins Outdoor Coil	X	
E-Coat Outdoor Coil (Aluminum)	X	
E-Coat Outdoor Coil (Copper)	X	
EconoMi\$erIV with Controller	X	X
EconoMi\$er2 (without Controller)		X
Electric Heat		X
Electronic Programmable Thermostat		X
Emergency Heat Package		X
Fan/Filter Status		X
Hinged Access Panels	X	
Horizontal Adapter Curb		X
Hydronic Glycol Coil		X
Indoor Air Quality (CO ₂) Sensor		X
Manual Outdoor-Air Damper		X
Motormaster® V Head Pressure Control (Low Ambient Kit)		X
Outdoor Air Enthalpy Sensor		X
Power Exhaust without Barometric Relief		X
Pre-coat Aluminum Fins on Outdoor Coil	X	
Return Air Enthalpy Sensor		X
Return Air Temperature Sensor		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Thermostats and Subbases		X
Time Guard II Control Circuit (Compressor Cycle Delay)		X
Winter Start Time Delay		X

*Factory-installed.

†Field-installed.

NOTES:

1. Refer to unit price pages or contact your local representative for accessory and option package information.
2. Some options may increase product lead times.

OPTIONS AND ACCESSORIES (cont)

Roof Curbs (Horizontal and Vertical) permit installation and securing of ductwork to curb prior to mounting unit on the curb. Both 14-in. and 24-in. roof curbs are available as field-installed accessories.

EconoMi\$erIV is available as a factory-installed option in vertical supply/return configuration only for unit sizes 036-120. Vertical or horizontal configuration is available for unit sizes 150 and 180. (EconoMi\$erIV is available as a field-installed accessory for horizontal and/or vertical supply return configurations.) The EconoMi\$erIV is provided with an industry standard, standalone, solid-state controller that is easy to configure and troubleshoot. The EconoMi\$erIV is compatible with non-DDC applications. EconoMi\$erIV is equipped with a barometric relief damper capable of relieving up to 100% return air. Dry bulb outdoor-air temperature sensor is provided as standard. The return air sensor, indoor enthalpy sensor, and outdoor enthalpy sensor are provided as field-installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control.

EconoMi\$er2 is available as a factory-installed option in vertical supply/return configuration only. (EconoMi\$er2 is available as a field-installed accessory for horizontal and/or vertical supply return configurations.) The EconoMi\$er2 is provided without a controller for use with field-installed third-party controls. EconoMi\$er2 is equipped with a barometric relief damper capable of relieving up to 100% return air. Dry bulb outdoor-air temperature sensor is provided as standard. The enthalpy, differential temperature (adjustable), and differential enthalpy control are provided as field-installed accessories. The EconoMi\$er2 is capable of control from a 4 to 20 mA signal through optional 4 to 20 mA design without microprocessor control (required for third party control interface).

Manual Outdoor-Air Damper accessory can be preset to admit up to 50% outdoor air for year round ventilation.

Two-Position Damper package is available as an accessory. Both 25% or 100% outdoor air dampers are available.

Head Pressure Control (Motormaster) accessory package maintains condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling and wind baffles.

Electric Resistance Heaters are UL listed and available to match heating requirements. Single point kits available for each heater when required. Heaters are field-installed accessories.

Unit-Mounted, Non-Fused Disconnect Switch provides unit power shutoff. The switch is accessible from outside the unit and provides power off lockout capability and is available as factory-installed option.

Convenience Outlet is factory-installed and internally mounted with easily accessible 115-v female receptacle.

Compressor Cycle Delay (Time Guard II) prevents unit from restarting for minimum of 5 minutes after shutdown.

Thru-the-Bottom Utility Connectors permit electrical connections to be brought to the unit through the basepan. Connectors are a field-installed accessory.

Fan/Filter Status Switch accessory provides status of indoor (evaporator) fan (ON/ OFF) or filter (CLEAN/DIRTY).

Power Exhaust accessory will provide system exhaust of up to 100% of return air (vertical only). The power exhaust is a field-installed accessory (separate vertical and horizontal design).

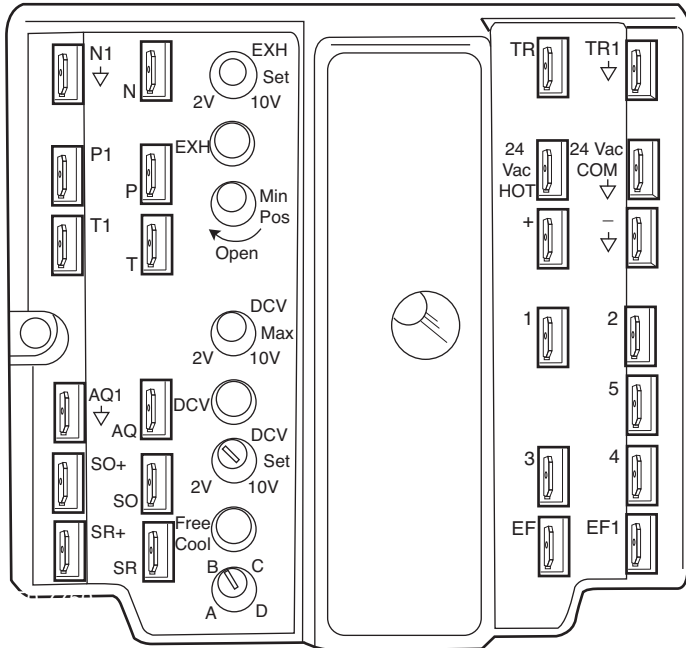
Ultra-Violet Germicidal Lamps eliminate odor causing mold and fungus that may develop in the wet area of the evaporator section of the unit. The high output, low temperature germicidal lamps are field installed in the evaporator section of the unit, aimed at the evaporator coil and condensate pan.

Hinged Panel Option provides hinged access panels for the filter, compressor, evaporator fan, and control box areas. Filter hinged panels permit tool-less entry for changing filters. Each hinged panel is permanently attached to the rooftop unit and is a factory-installed option.

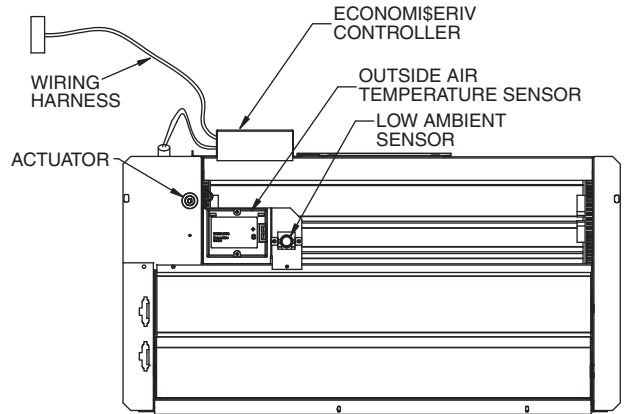
Emergency Heat Control Package accessory activates auxiliary heat when necessary if mechanical heating is locked out.

OPTIONS AND ACCESSORIES (cont)

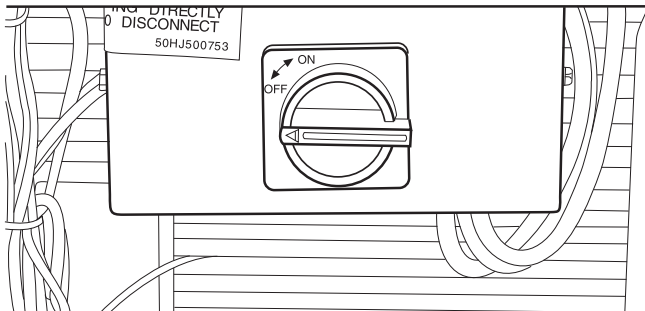
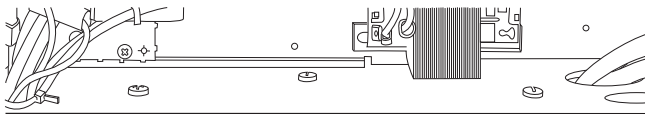
ECONOMISERV CONTROL



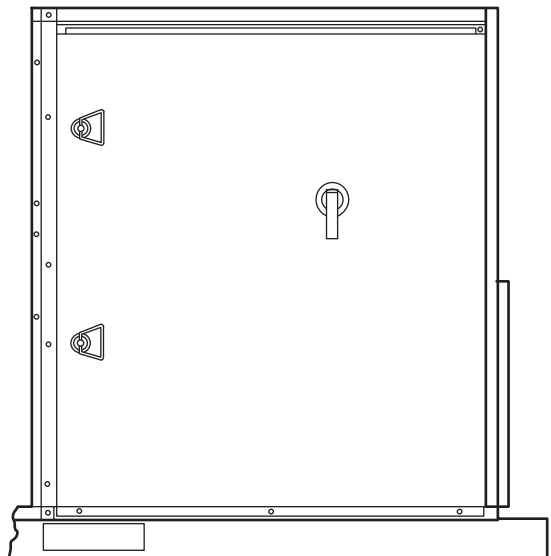
GEAR-DRIVEN ECONOMISERV COMPONENT PARTS (3 to 6 Ton Unit Shown)



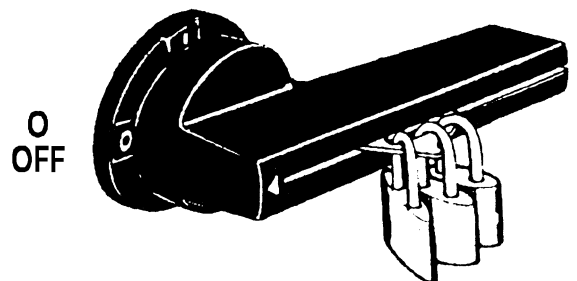
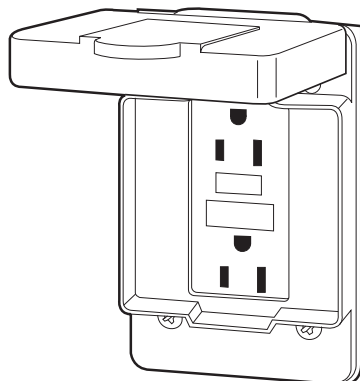
UNIT-MOUNTED DISCONNECT (Sizes 024-120)



UNIT-MOUNTED DISCONNECT (Sizes 150,180)

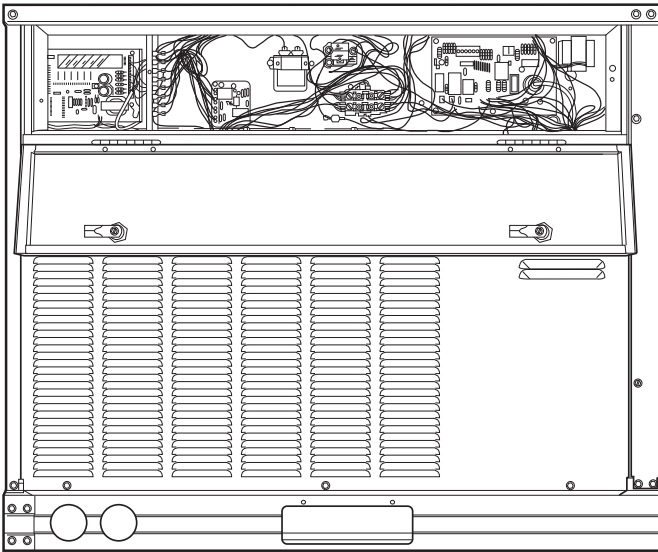


CONVENIENCE OUTLET

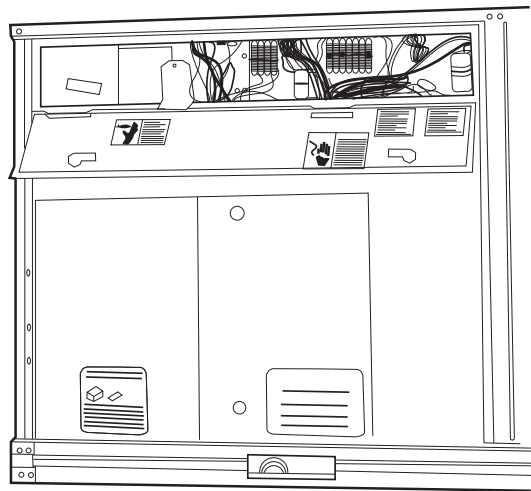


OPTIONS AND ACCESSORIES (cont)

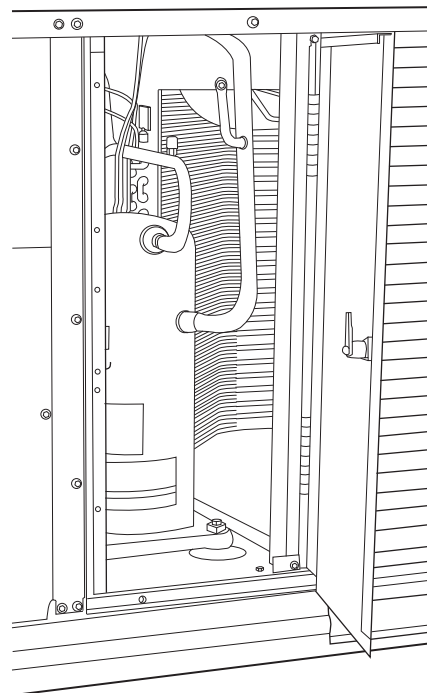
**CONTROL BOX HINGED PANEL OPTION,
549B036-072 UNITS SHOWN**



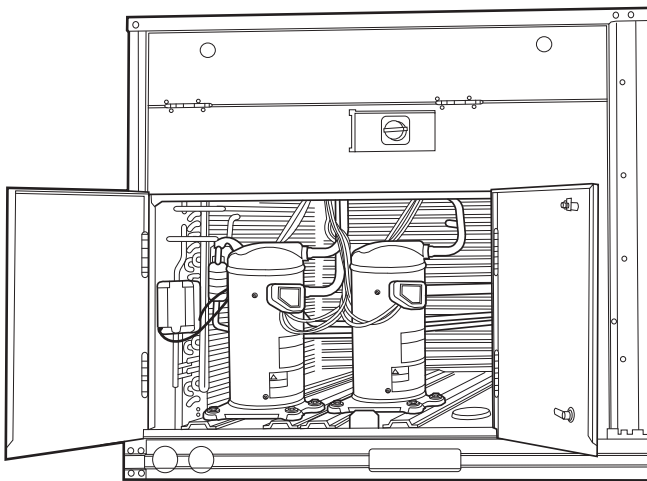
**CONTROL BOX HINGED PANEL OPTION,
549B090-120 UNITS SHOWN**



**COMPRESSOR HINGED PANEL OPTION,
549B036-060 UNITS SHOWN**



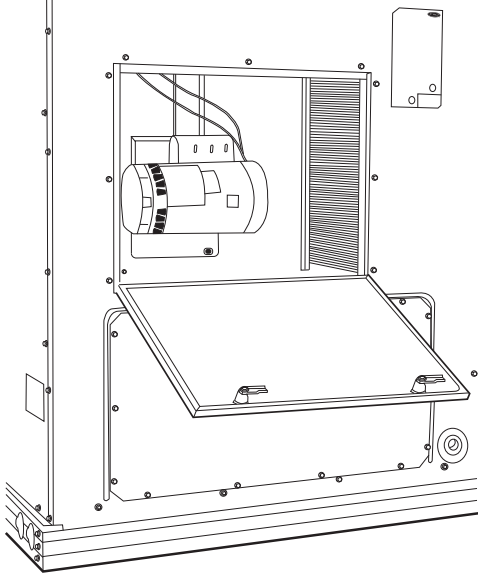
**COMPRESSOR HINGED PANEL OPTION,
549B090-120 UNITS SHOWN**



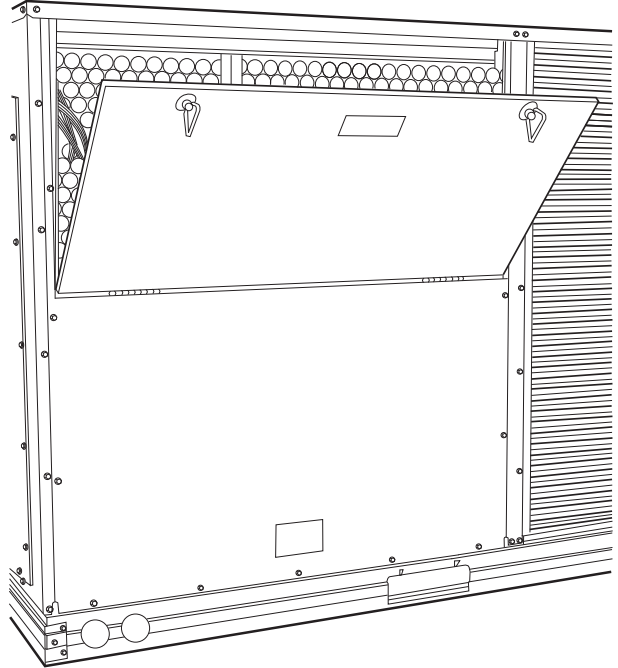
NOTE: Hinged access panels are not available on 548F units.

OPTIONS AND ACCESSORIES (cont)

EVAPORATOR-FAN HINGED PANEL OPTION

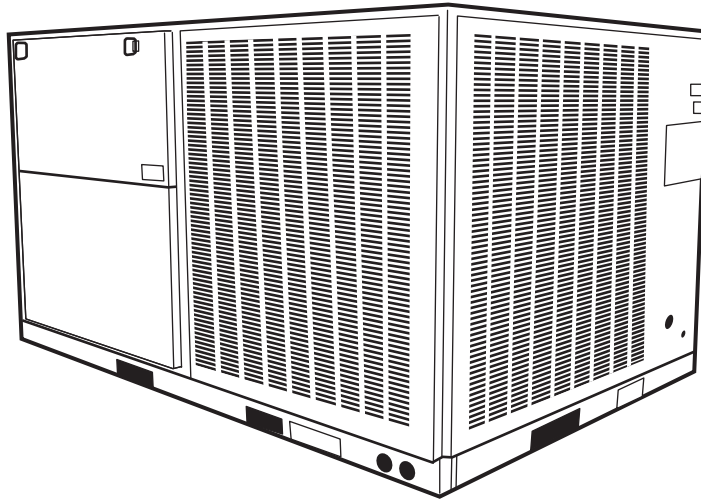


FILTER HINGED PANEL OPTION



NOTE: Hinged access panels are not available on 548F units.

LOUVERED HAIL GUARD OPTION (024-120 only)



PHYSICAL DATA

548F036-072

548F

UNIT SIZE 548F	036	048	060	072
NOMINAL CAPACITY (tons)	3	4	5	6
OPERATING WEIGHT (lb)				
Unit Economizer	500	520	550	590
Economizer	50	50	50	50
Economizer 1 or 2	115	115	115	115
Roof Curb*				
COMPRESSOR	Hermetic			
Quantity	1	1	1	1
Oil (oz)	45	54	50	54
REFRIGERANT TYPE	R-22			
Operating Charge (lb-oz)				
Circuit 1	5-1	6-0	8-0	11-2
Circuit 2	—	—	—	—
OUTDOOR COIL	3/8-in. OD Enhanced Copper Tubes, Aluminum Lanced Fins, Fixed Orifice Metering Device			
Rows...Fins/in.	1...17	1...17	2...17	2...17
Total Face Area (sq ft)	10.31	14.58	12.25	16.53
OUTDOOR FAN	Propeller Type			
Nominal Cfm	4000	4000	4000	4000
Quantity...Diameter (in.)	1...22.0	1...22.0	1...22.0	1...22.0
Motor Hp...Rpm	1/4...1100	1/4...1100	1/4...1100	1/4...1100
Watts Input (Total)	325	325	325	325
INDOOR COIL	3/8-in. OD Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device			
Rows...Fins/in.	2...15	2...15	3...15	3...15
Total Face Area (sq ft)	4.2	4.2	5.5	5.5
INDOOR FAN	Centrifugal Type			
Quantity...Size (in.)	Std 1...10 x 10 Alt 1...10 x 10 High-Static 1...10 x 10	Std 1...10 x 10 Alt 1...10 x 10 High-Static 1...10 x 10	Std 1...11 x 10 Alt 1...10 x 10 High-Static 1...10 x 10	Std 1...10 x 10 Alt — High-Static 1...10 x 10
Type Drive	Std Direct Alt Belt High-Static Belt	Std Direct Alt Belt High-Static Belt	Std Direct Alt Belt High-Static Belt	Std Belt Alt — High-Static Belt
Nominal Cfm	1200	1600	2000	2400
Maximum Continuous Bhp	Std .34 Alt 1.00 High-Static 2.40	Std .75 Alt 1.00 High-Static 2.40	Std 1.20 Alt 1.30/2.40† High-Static 2.90	Std 2.40 Alt — High-Static 2.90
Motor Frame Size	Std 48 Alt 48 High-Static 56	Std 48 Alt 48 High-Static 56	Std 48 Alt 56 High-Static 56	Std 56 Alt — High-Static 56
Nominal Rpm High/Low	Std 860/800 Alt 1620 High-Static 1725	Std 1075/970 Alt 1620 High-Static 1725	Std 1075/970 Alt 1725 High-Static 1725	Std — Alt 1725 High-Static 1725
Fan Rpm Range	Std 760-1000 Alt 1075-1455 High-Static —	Std 770-1175 Alt 1075-1455 High-Static —	Std 878-1192 Alt 1300-1685 High-Static —	Std — Alt 1300-1685 High-Static —
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	2100	2100	2100	2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std — Alt 1.9/2.9 High-Static 2.8/3.8	Std — Alt 1.9/2.9 High-Static 2.8/3.8	Std — Alt 2.4/3.4 High-Static 3.4/4.4	Std 2.8/3.8 Alt — High-Static 3.4/4.4
Nominal Motor Shaft Diameter (in.)	Std 1/2 Alt 1/2 High-Static 5/8	Std 1/2 Alt 1/2 High-Static 5/8	Std 1/2 Alt 5/8 High-Static 5/8	Std — Alt 5/8 High-Static 5/8
Fan Pulley Pitch Diameter (in.)	Std — Alt 4.5 High-Static 4.5	Std — Alt 4.0 High-Static 4.5	Std — Alt 4.5 High-Static 4.5	Std — Alt — High-Static 4.5
Belt, Quantity...Type...Length (in.)	Std — Alt 1...A...34 High-Static 1...A...39	Std — Alt 1...A...34 High-Static 1...A...39	Std — Alt 1...A...39 High-Static 1...A...40	Std — Alt — High-Static 1...A...40
Pulley Center Line Distance (in.)	Std — Alt 10.0-12.4 High-Static 10.0-12.4	Std — Alt 10.0-12.4 High-Static 10.0-12.4	Std — Alt 14.7-15.5 High-Static 14.7-15.5	Std — Alt — High-Static 14.7-15.5
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std — Alt 48 High-Static 65	Std — Alt 70 High-Static 65	Std — Alt 80 High-Static 60	Std 80 Alt — High-Static 60
Movable Pulley Maximum Full Turns From Closed Position	Std — Alt 5 High-Static 6	Std — Alt 5 High-Static 6	Std — Alt 6 High-Static 5	Std 5 Alt — High-Static 5
Factory Setting	Std — Alt 3 High-Static 3 1/2	Std — Alt 3 High-Static 3 1/2	Std — Alt 3 High-Static 3 1/2	Std — Alt — High-Static 3 1/2
Factory Speed Setting (rpm)	Std — Alt 856 High-Static 1233	Std — Alt 932 High-Static 1233	Std — Alt 1035 High-Static 1416	Std 1225 Alt — High-Static 1416
Fan Shaft Diameter at Pulley (in.)	5/8	5/8	5/8	5/8
HIGH-PRESSURE SWITCH (psig)				
Standard Compressor Internal Relief (Differential)			450 ± 50	
Cutout			428	
Reset (Auto.)			320	
LOSS-OF-CHARGE 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 and size depend on options selected.			
RETURN-AIR FILTERS	Throwaway			
Quantity...Size (in.)	2...16 x 25 x 2			

LEGEND

Bhp — Brake Horsepower

*Weight of 14-in. roof curb.

†Single phase/three phase.

NOTE: The 548F units have a loss-of-charge switch located in the liquid line.

PHYSICAL DATA

548F090-120

UNIT SIZE 548F		090	120
NOMINAL CAPACITY (tons)		7 ¹ / ₂	10
OPERATING WEIGHT (lb)			
Unit		940	1015
Economizer		75	75
EconoMi\$erIV or EconoMi\$er2		143	143
Roof Curb*			
COMPRESSOR (Hermetic)		Reciprocating	Scroll
Quantity		2	2
Oil (oz)		45 ea	54 ea
REFRIGERANT TYPE		R-22	
Operating Charge (lb-oz)			
Circuit 1		5-14	7-14
Circuit 2		5-13	8- 3
OUTDOOR COIL		³ / ₈ -in. OD Enhanced Copper Tubes, Aluminum Lanced Fins, Fixed Orifice Metering Device	
Rows...Fins/in.		1...17	2...17
Total Face Area (sq ft)		20.50	18.30
OUTDOOR FAN		Propeller Type	
Nominal Cfm		6500	6500
Quantity...Diameter (in.)		2...22	2...22
Motor Hp...Rpm		¹ / ₄ ...1100	¹ / ₄ ...1100
Watts Input (Total)		500	500
INDOOR COIL		³ / ₈ -in. OD Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device	
Rows...Fins/in.		3...15	3...15
Total Face Area (sq ft)		8.0	11.1
INDOOR FAN		Centrifugal Type	
Quantity...Size (in.)	Std	1...15 x 15	1...15 x 15
	Alt	1...15 x 15	1...15 x 15
	High-Static	1...15 x 15	1...15 x 15
Type Drive	Std	Belt	Belt
	Alt	Belt	Belt
	High-Static	Belt	Belt
Nominal Cfm		3000	4000
Maximum Continuous Bhp	Std	2.40	2.40
	Alt	2.40	2.90
	High-Static	3.70	5.25
Motor Frame Size	Std	56	56
	Alt	56	56
	High-Static	56	56
Nominal Rpm	Std	—	—
	Alt	—	—
	High-Static	1725	1725
Fan Rpm Range	Std	590- 840	685- 935
	Alt	685- 935	835-1085
	High-Static	860-1080	830-1130
Motor Bearing Type		Ball	Ball
Maximum Allowable Rpm		2100	2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std	2.4/3.4	2.8/3.8
	Alt	2.8/3.8	3.4/4.4
	High-Static	4.0/5.0	2.8/3.8
Nominal Motor Shaft Diameter (in.)	Std	⁵ / ₈	⁵ / ₈
	Alt	⁵ / ₈	⁷ / ₈
	High-Static	⁷ / ₈	⁷ / ₈
Fan Pulley Pitch Diameter (in.)	Std	7.0	7.0
	Alt	7.0	7.0
	High-Static	8.0	5.8
Belt, Quantity...Type...Length (in.)	Std	1...A...53	1...A...49
	Alt	1...A...49	1...A...51
	High-Static	1...A...65	1...BX...48
Pulley Center Line Distance (in.)	Std	16.75-19.25	15.85-17.50
	Alt	16.75-19.25	15.85-17.50
	High-Static	16.75-19.25	15.85-17.50
Speed Change per Full Turn of Moveable Pulley Flange (rpm)	Std	50	50
	Alt	50	50
	High-Static	60	60
Moveable Pulley Maximum Full Turns From Closed Position	Std	5	5
	Alt	5	5
	High-Static	5	6
Factory Setting	Std	5	5
	Alt	5	5
	High-Static	5	5
Factory Speed Setting (rpm)	Std	590	685
	Alt	685	835
	High-Static	860	887
Fan Shaft Diameter at Pulley (in.)		1	1
HIGH-PRESSURE SWITCH (psig)			
Standard Compressor Internal Relief (Differential)		450 ± 50	
Cutout		428	
Reset (Auto.)		320	
LOSS-OF-CHARGE (LOW-PRESSURE) SWITCH (psig)			
Cutout		7 ± 3	
Reset (Auto.)		22 ± 5	
FREEZE PROTECTION THERMOSTAT (F)			
Opens		30 ± 5	
Closes		45 ± 5	
OUTDOOR-AIR INLET SCREENS		Cleanable.	
		Screen quantity and size vary based on options selected.	
RETURN-AIR FILTERS		Throwaway	
Quantity...Size (in.)		4...16 x 20 x 2	4...20 x 20 x 2

548F

LEGEND
Bhp — Brake Horsepower

*Weight of 14-in. roof curb.

BASE UNIT DIMENSIONS

CONNECTION SIZES

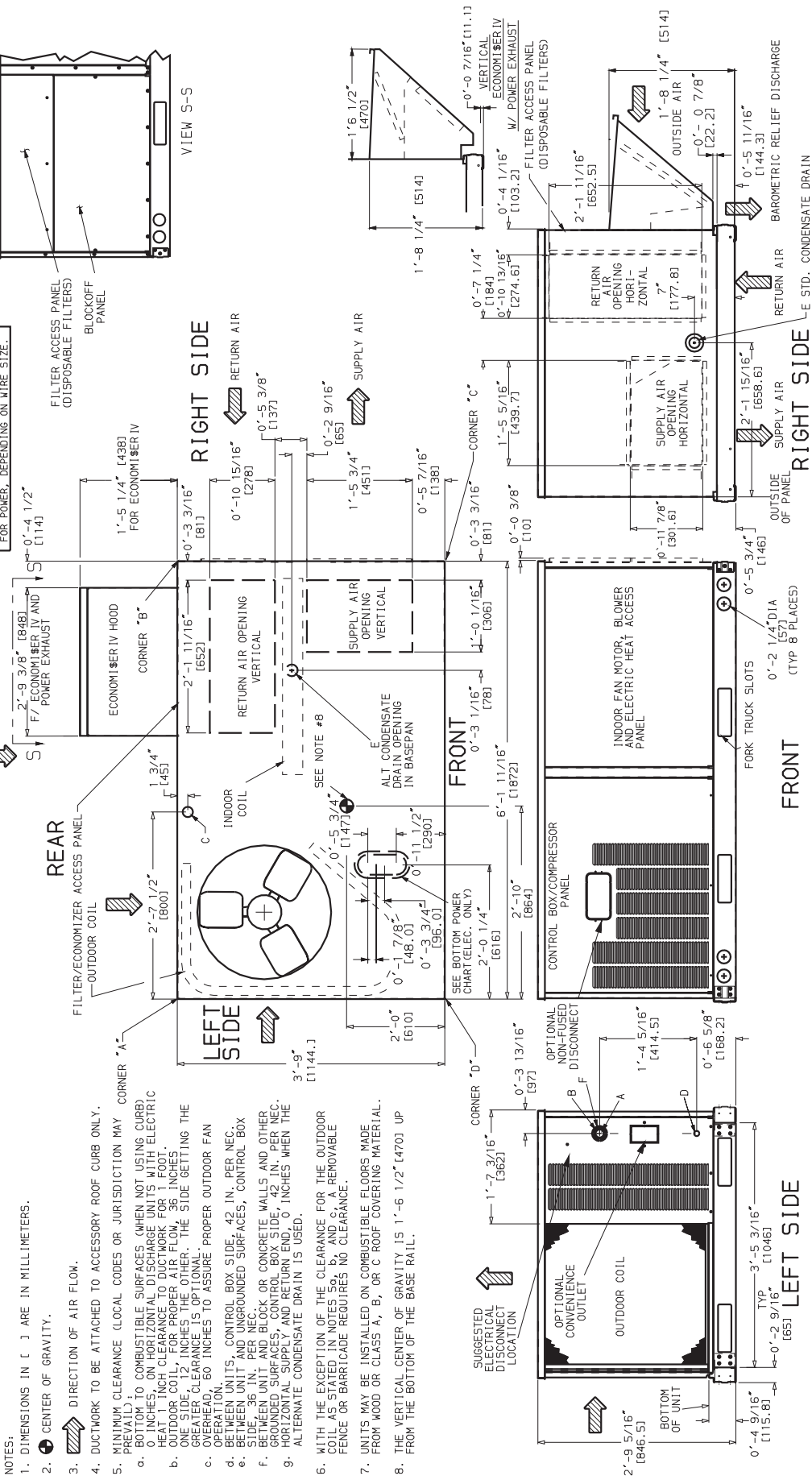
A	1 3/8" DIA.	[35]	FIELD POWER SUPPLY HOLE
B	2" DIA.	[51]	POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA.	[44]	CHARGING PORT HOLE
D	7/8" DIA.	[22]	FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT		CONDENSATE DRAIN
F	2 1/2" DIA.	[64]	POWER SUPPLY KNOCK-OUT

BOTTOM POWER CHART:
THESE HOLES REQUIRED FOR USE WITH CERTAIN WIRING PACKAGES -

THREADED WIRE USE SIZES (MAX.)	WIRE SIZE (MAX.)	USE SIZES (MAX.)
1/2"	7/8" (22.2)	24V POWER (1 1/8" (28.4))
3/4"	1 1/8" (28.4)	24V POWER (1 3/4" (44.4))
1 1/4"	(002)	POWER (1 3/4" (44.4))

* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.

UNIT WEIGHT	ECONOMIZER		VERT. ECONO		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)	
	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG
036	500	227	50	22.7	90	40.9	123	57	120	54	125	57
048	520	236	50	22.7	90	40.9	130	59	125	57	130	59
060	550	249	60	27.2	138	63	132	60	138	62	142	64
072	590	268	60	27.2	138	63	142	64	148	67	152	69



NOTES:

1. DIMENSIONS IN [] ARE IN MILLIMETERS.
2. [] CENTER OF GRAVITY.
3. [] DIRECTION OF AIR FLOW.
4. DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
5. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY VARY):
 - a. BOTTOM TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 0 INCHES, ON HORIZONTAL DISCHARGE UNITS WITH ELECTRIC HEAT 1 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.
 - b. OUTDOOR COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE BETTING THE GREATER CLEARANCE IS OPTIONAL.
 - c. OVERHEAD, 60 INCHES TO ASSURE PROPER OUTDOOR FAN OPERATION.
 - d. BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC.
 - e. BETWEEN UNIT AND UNGROUNDED SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
 - f. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
 - g. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES WHEN THE ALTERNATE CONDENSATE DRAIN IS USED.
6. WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTES 5c AND 5e, A REMOVABLE FENCE OR BARRIER REQUIRED NO CLEARANCE.
7. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL.
8. THE VERTICAL CENTER OF GRAVITY IS 1'-6 1/2" (470) UP FROM THE BOTTOM OF THE BASE RAIL.

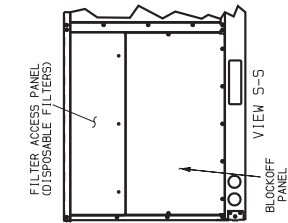
BASE UNIT DIMENSIONS (cont)

UNIT 548F	STD. UNIT WEIGHT		ECONOMIZER IV WEIGHT		VERT. ECON. IV W/ P.E. WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		H		J		K				
	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	FT	IN.	MM	FT	IN.	MM	FT	IN.	MM
090	940	426	75	34.1	145	65.9	207	94	178	81	254	115	301	136	2'-0	7/8"	632	3'-5	5/16"	1050	2'-9	11/16"	856
120	1015	460	→	→	→	→	223	101	193	88	274	124	325	147	2'-10	7/8"	885	4'-1	5/16"	1253	3'-0	3/8"	924

CONDUIT SIZE

CONDUIT SIZE	USE	MAX. SIZE
1/2"	ACC.	7/8" (22.2)
3/4"	24V	1 1/8" (28.3)
1"	POWER	1 1/4" (31.8)
1 1/4"	POWER	1 3/4" (44.4)

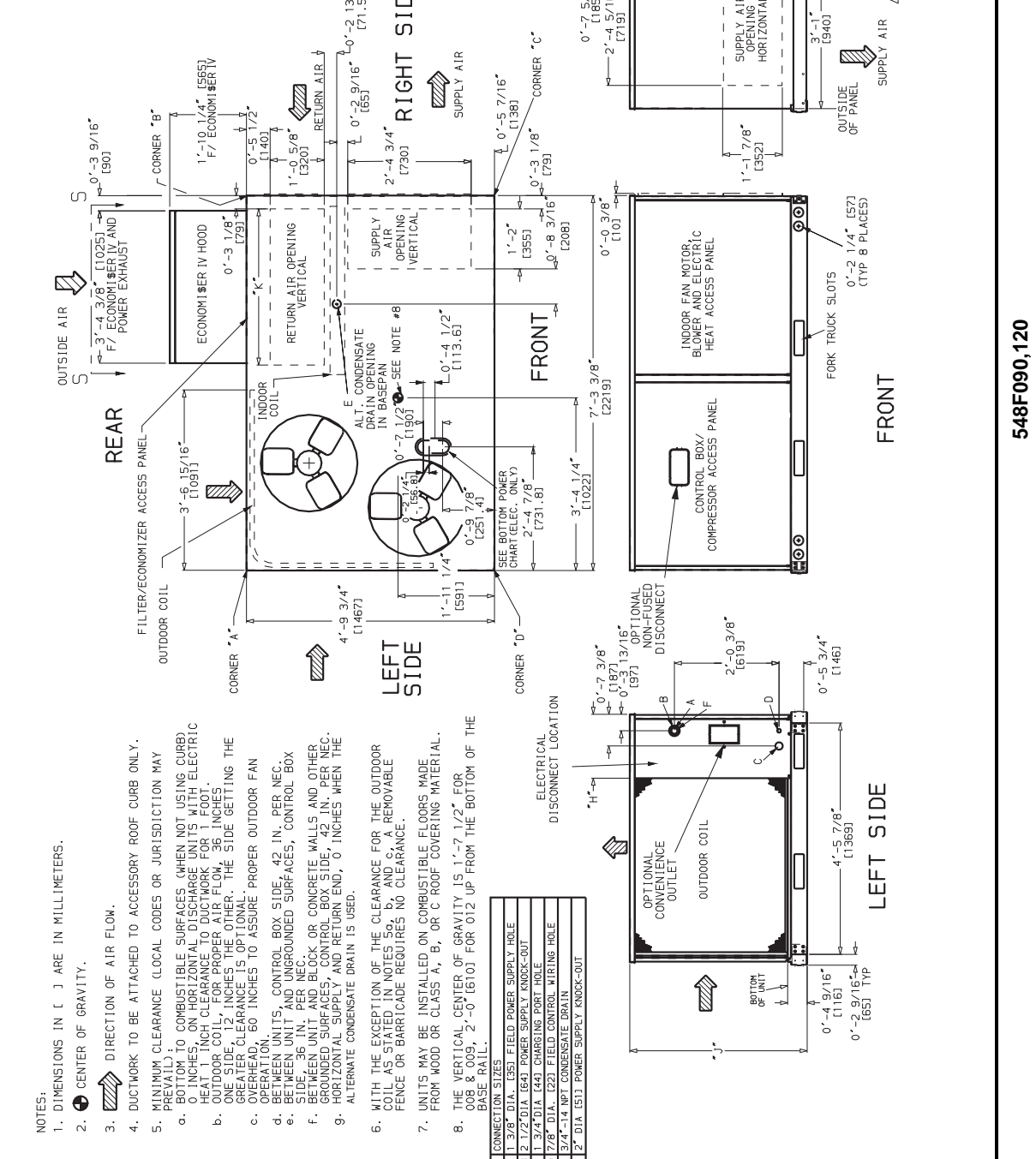
* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.



BOTTOM POWER CHART USE WITH ACCESSORY PACKAGES - CRPFRP00101, 201

CONDUIT SIZE	USE	MAX. SIZE
1/2"	ACC.	7/8" (22.2)
3/4"	24V	1 1/8" (28.3)
1"	POWER	1 1/4" (31.8)
1 1/4"	POWER	1 3/4" (44.4)

* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.



CONNECTION SIZES

A	1 3/8" DIA. (35) FIELD POWER SUPPLY HOLE
B	2 1/2" DIA. (64) POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. (44) CHARGING PORT HOLE
D	7/8" DIA. (22) FIELD CONTROL WIRING HOLE
E	3/4" - 1 1/4" RPT. CONDENSATE DRAIN
F	2" DIA. (51) POWER SUPPLY KNOCK-OUT

548F

548F090,120

ACCESSORY DIMENSIONS

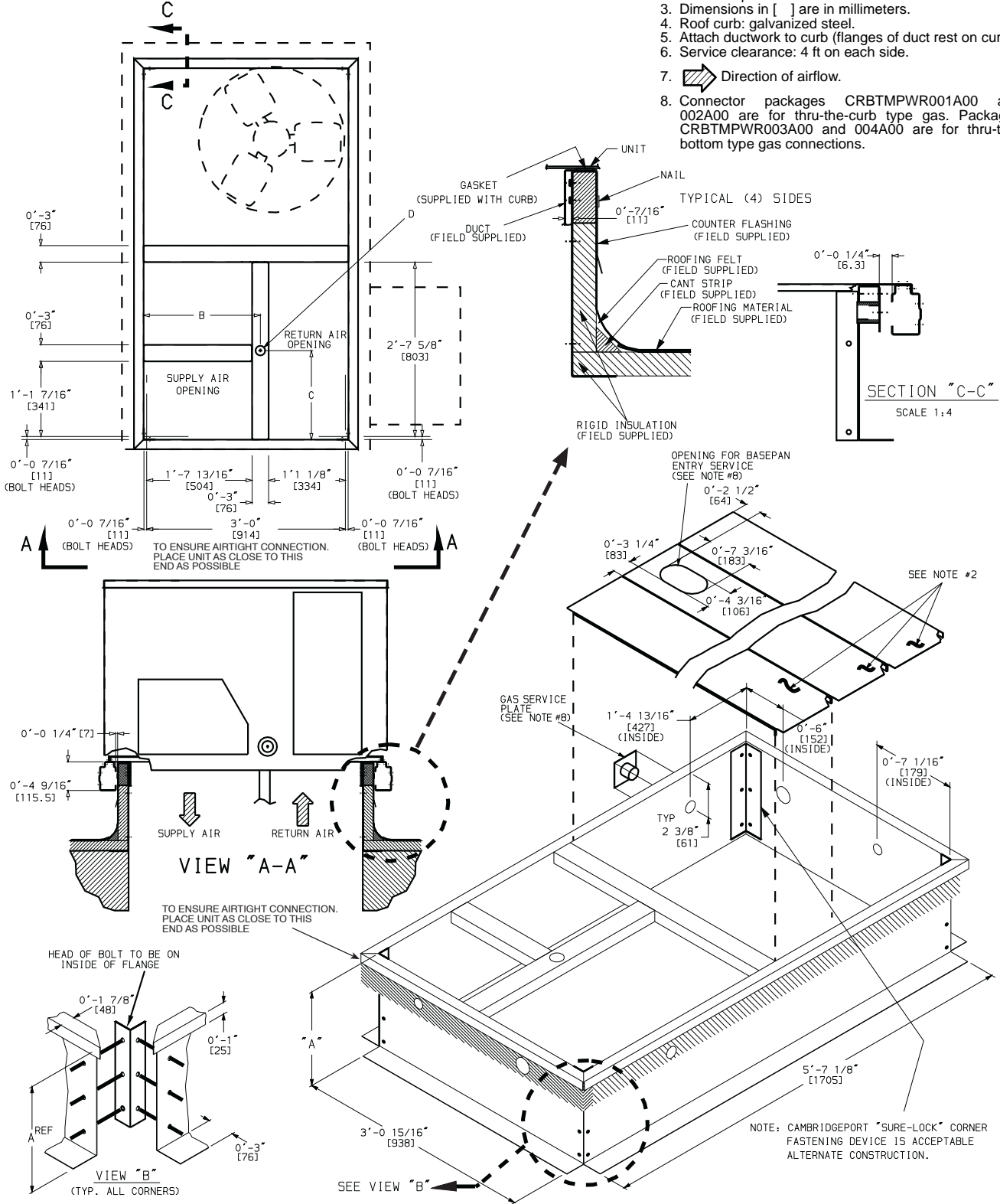
548F

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL
CRBTMPWR001A00	1'-9 11/16" [551]	1'-4" [406]	1 3/4" [44.5]	3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7]
CRBTMPWR002A00				1 1/4" [31.7]		
CRBTMPWR003A00	1'-9 11/16" [551]	1'-4" [406]	1 3/4" [44.5]	1/2" [12.7] NPT	3/4" [19] NPT	1/2" [12.7]
CRBTMPWR004A00				3/4" [19] NPT	1 1/4" [31.7]	

ROOF CURB ACCESSORY	A	UNIT SIZE
CRRFCURB001A00	1'-2" [356]	548F036-072
CRRFCURB002A00	2'-0" [610]	

NOTES:

1. Roof curb accessory is shipped disassembled.
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.
8. Connector packages CRBTMPWR001A00 and 002A00 are for thru-the-curb type gas. Packages CRBTMPWR003A00 and 004A00 are for thru-the-bottom type gas connections.



548F036-072

ACCESSORY DIMENSIONS (cont)

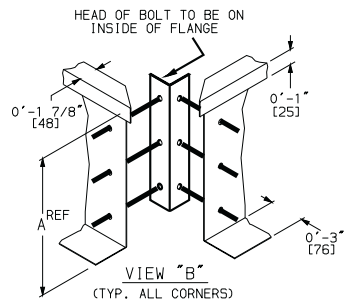
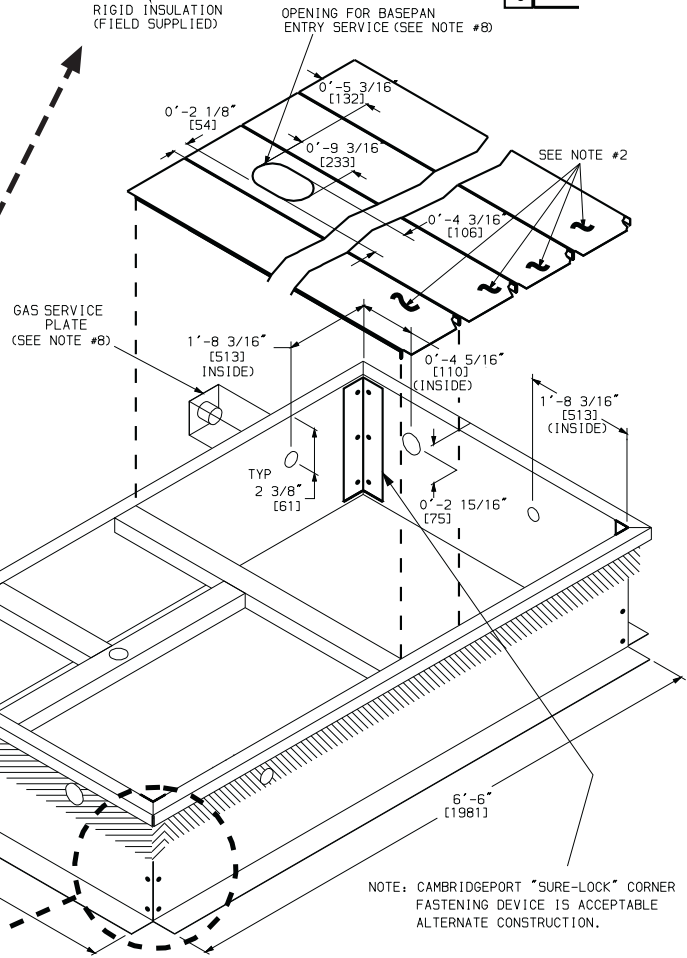
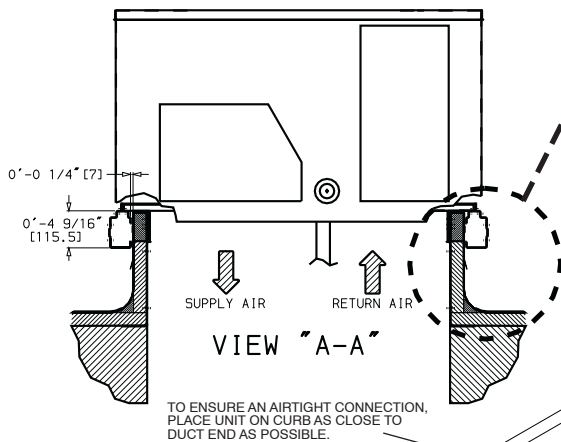
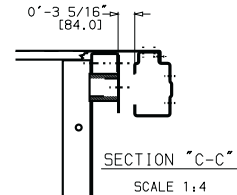
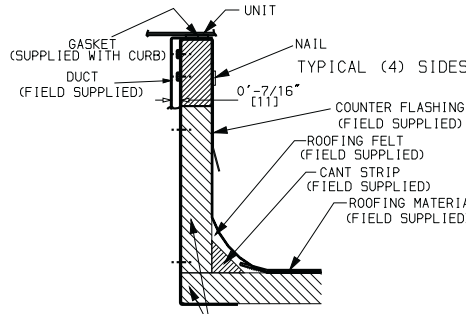
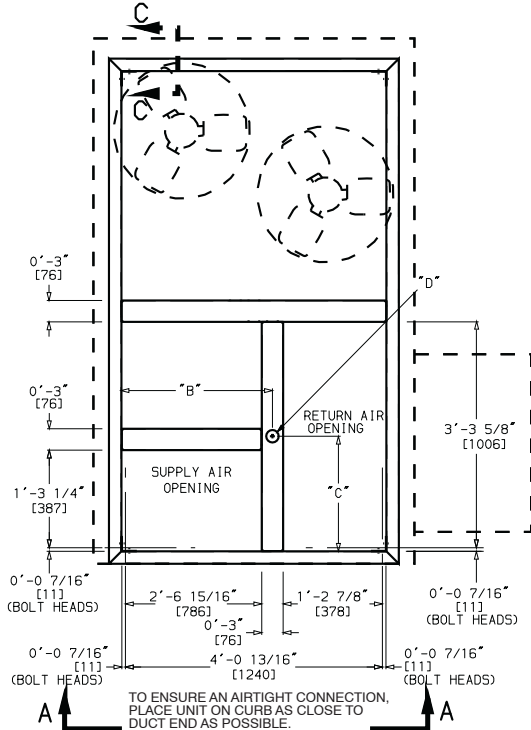
CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL
CRBTMPWR001A00	2'-87/16" [827]	1'-10 ¹⁵ / ₁₆ " [583]	1 ³ / ₄ " [44.5]	3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7] NPT
CRBTMPWR002A00				1/2" [12.7] NPT	1 1/4" [31.7]	1/2" [12.7] NPT
CRBTMPWR003A00				3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7] NPT
CRBTMPWR004A00				3/4" [19] NPT	1 1/4" [31.7]	1/2" [12.7] NPT

ROOF CURB ACCESSORY	"A"	UNIT SIZE 548F
CRRFCURB003A00	1'-2" [356]	090,120
CRRFCURB004A00	2'-0" [610]	

NOTES:

1. Roof curb accessory is shipped disassembled.
2. Insulated panels: 1-in. thick polyurethane foam, 1³/₄ lb density.
3. Dimensions in [] are in millimeters.
4. Roof curb: 16-gage steel.
5. Attach ductwork to curb (flanges of duct rest on curb).
6. Service clearance 4 ft on each side.
7. Direction of airflow.
8. Connector packages CRBTMPWR001A00 and 2A00 are for thru-the-curb gas type. Packages CRBTMPWR003A00 and 4A00 are for thru-the-bottom type gas connections.

548F



548F090,120

SELECTION PROCEDURE (WITH 548F048 EXAMPLE)

548F

I DETERMINE COOLING AND HEATING LOADS AT DESIGN CONDITIONS.

Given:

- Required Cooling Capacity (TC) 38,000 Btuh
- Sensible Heat Capacity (SHC) 24,000 Btuh
- Required Heating Capacity 35,000 Btuh
- Outdoor Entering-Air Temperature db. 95 F
- Outdoor-Air Winter Design Temperature 0° F
- Indoor-Air Winter Design Temperature 70 F
- Indoor-Air Temperature 80 F edb (entering air, dry bulb)
67 F ewb (entering air, wet bulb)
- Indoor-Air Quantity 1600 cfm
- External Static Pressure 0.45 in. wg
- Electrical Characteristics (V-Ph-Hz) 230-3-60

II SELECT UNIT BASED ON REQUIRED COOLING CAPACITY.

Enter Cooling Capacities table at outdoor entering temperature of 95 F, indoor air entering at 1600 cfm and 67 F ewb. The 548F048 unit will provide a total cooling capacity of 49,900 Btuh and a sensible heat capacity of 33,900 Btuh.

For indoor-air temperature other than 80 F edb, calculate sensible heat capacity correction, as required, using the formula found in Note 3 following the cooling capacities tables.

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

III SELECT ELECTRIC HEAT.

Enter the Instantaneous and Integrated Heating Ratings table at 1600 cfm. At 70 F return indoor air and 0° F air entering outdoor coil, the integrated heating capacity is 18,000 Btuh. (Select integrated heating capacity value since deductions for outdoor-coil frost and defrosting have already been made. No correction is required.)

The required heating capacity is 35,000 Btuh. Therefore, 17,000 Btuh (35,000 – 18,000) additional electric heat is required.

Determine additional electric heat capacity in kW.

$$\frac{17,000 \text{ Btuh}}{3413 \text{ Btuh/kW}} = 5.0 \text{ kW of heat required.}$$

Enter the Electric Heating Capacities table (page 52) for 548F048 at 208/230, 3 phase. The 6.5-kW heater at 240 v most closely satisfies the heating required. To calculate kW at 230 v, use the Multiplication Factors table.

$$6.5 \text{ kW} \times .92 = 5.98 \text{ kW}$$

$$6.5 \text{ kW} \times .92 \times 3413 = 20,410 \text{ Btuh}$$

Total unit heating capacity is 38,410 Btuh (18,000 + 20,410).

IV DETERMINE FAN SPEED AND POWER REQUIREMENTS AT DESIGN CONDITIONS.

Before entering Fan Performance tables, calculate the total static pressure required based on unit components. From the given and the Pressure Drop tables, find:

External static pressure	.45 in. wg
EconoMi\$erIV	.07 in. wg
Electric heat	<u>.09 in. wg</u>
Total static pressure	.61 in. wg

Enter the Fan Performance table for 548F048 vertical discharge. At 1600 cfm and 230-v high speed, the standard motor will deliver 0.76 in. wg static pressure, 723 watts, and 0.64 brake horsepower (bhp). This will adequately handle job requirements.

V DETERMINE NET CAPACITIES.

Capacities are gross and do not include the effect of indoor-fan motor (IFM) heat.

Determine net cooling capacity as follows:

$$\begin{aligned} \text{Net capacity} &= \text{Total capacity} - \text{IFM heat} \\ &= 49,900 \text{ Btuh} - (723 \text{ Watts} \times 3.413 \text{ Btuh/Watts}) \\ &= 49,900 \text{ Btuh} - 2468 \text{ Btuh} \\ &= 47,432 \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 33,900 \text{ Btuh} - 2468 \text{ Btuh} \\ &= 31,432 \text{ Btuh} \end{aligned}$$

Integrated heating capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it. Therefore, net capacity is equal to 38,410 Btuh, the total heating capacity determined in Step III.

PERFORMANCE DATA — 548F

COOLING CAPACITIES

LEGEND

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

NOTES:

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

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

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

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

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

- The SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

548F

548F036 (3 TONS)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		900/0.10			1200/0.15			1500/0.21		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	42.4	39.9	36.5	43.0	41.2	38.7	45.1	42.8	40.3
	SHC	16.7	22.0	26.8	17.5	24.2	30.9	19.3	26.9	34.1
	kW	2.77	2.71	2.62	2.78	2.74	2.68	2.85	2.79	2.73
85	TC	41.5	38.4	34.8	43.3	40.4	37.0	44.0	41.7	38.7
	SHC	16.6	21.6	26.2	18.2	24.6	30.3	19.3	27.2	33.7
	kW	3.01	2.92	2.80	3.07	2.98	2.88	3.09	3.03	2.94
95	TC	40.0	36.3	33.0	42.3	38.5	35.2	43.4	40.0	36.7
	SHC	16.2	20.9	25.7	18.2	24.2	29.8	19.7	27.2	32.7
	kW	3.24	3.10	2.99	3.32	3.19	3.07	3.36	3.24	3.13
105	TC	38.4	34.7	31.0	40.0	36.7	33.1	41.2	37.7	35.2
	SHC	15.7	20.5	24.8	17.5	23.9	28.8	19.3	26.6	31.7
	kW	3.47	3.32	3.16	3.53	3.41	3.26	3.58	3.44	3.35
115	TC	36.1	32.5	28.9	38.1	34.3	31.1	39.3	35.5	33.2
	SHC	15.1	19.8	23.9	17.2	23.2	27.8	19.1	26.2	30.2
	kW	3.66	3.50	3.32	3.76	3.59	3.44	3.81	3.65	3.54
125	TC	34.2	30.5	26.8	35.9	32.0	29.3	36.8	33.0	31.3
	SHC	14.6	19.2	22.9	16.7	22.6	26.3	18.5	25.5	28.4
	kW	3.88	3.68	3.49	3.97	3.77	3.62	4.02	3.83	3.74

548F048 (4 TONS)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		1200/0.11			1600/0.15			2000/0.22		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	55.5	51.9	47.4	56.9	54.6	50.3	59.3	56.5	52.1
	SHC	24.5	31.2	37.4	26.0	35.2	43.4	28.4	39.0	47.6
	kW	3.80	3.70	3.55	3.84	3.79	3.66	3.93	3.86	3.71
85	TC	53.4	49.7	45.3	56.3	52.6	47.8	57.5	54.1	49.8
	SHC	23.8	30.4	36.7	26.3	34.9	42.6	28.3	38.6	46.9
	kW	4.10	3.99	3.84	4.23	4.11	3.94	4.27	4.16	4.01
95	TC	52.0	47.4	43.0	53.7	49.9	45.5	54.5	51.6	47.4
	SHC	23.4	29.6	35.8	25.5	33.9	41.6	27.3	38.2	45.2
	kW	4.47	4.28	4.11	4.53	4.39	4.23	4.56	4.48	4.29
105	TC	49.3	45.0	40.6	51.8	47.2	43.0	52.6	48.7	45.4
	SHC	22.5	28.8	34.7	25.3	33.0	40.3	27.1	37.1	43.3
	kW	4.77	4.59	4.39	4.90	4.68	4.52	4.92	4.76	4.63
115	TC	46.6	42.4	38.0	48.8	44.6	40.6	50.2	45.8	43.2
	SHC	21.7	27.9	33.6	24.3	32.4	38.7	26.8	36.1	41.2
	kW	5.08	4.90	4.66	5.21	5.01	4.81	5.29	5.06	4.96
125	TC	44.0	39.6	35.4	45.6	41.6	38.3	47.0	42.9	40.9
	SHC	20.9	26.9	32.4	23.3	31.6	36.5	25.9	35.6	39.0
	kW	5.45	5.21	4.96	5.51	5.34	5.14	5.60	5.41	5.30

548F060 (5 TONS)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		1500/0.05			2000/0.08			2500/0.14		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	69.3	64.5	59.3	70.8	67.9	62.8	72.9	69.3	65.4
	SHC	30.9	39.2	47.4	33.1	44.9	55.4	35.8	49.4	61.4
	kW	4.28	4.15	4.03	4.32	4.25	4.12	4.38	4.29	4.19
85	TC	67.7	62.4	56.8	69.1	65.7	60.2	71.1	67.7	63.2
	SHC	30.4	38.6	46.5	32.8	44.6	54.4	35.8	50.0	59.8
	kW	4.76	4.61	4.49	4.79	4.72	4.56	4.86	4.78	4.65
95	TC	65.2	59.8	54.4	67.7	62.9	57.6	69.1	64.8	60.7
	SHC	29.6	37.6	45.5	32.8	43.6	53.2	35.6	49.3	57.7
	kW	5.27	5.10	4.97	5.35	5.20	5.07	5.39	5.27	5.14
105	TC	62.3	57.2	51.8	65.1	59.6	54.9	66.8	61.7	58.3
	SHC	28.6	33.8	44.4	32.1	42.6	51.6	35.4	48.2	55.5
	kW	5.79	5.66	5.50	5.90	5.73	5.61	5.97	5.79	5.68
115	TC	59.7	54.2	49.0	61.7	57.0	52.5	63.2	58.4	55.8
	SHC	27.6	35.8	43.2	31.1	41.9	49.6	34.3	47.0	53.2
	kW	6.37	6.24	6.06	6.47	6.34	6.20	6.53	6.36	6.31
125	TC	56.5	51.0	46.0	58.2	53.5	49.8	59.4	55.1	53.0
	SHC	26.8	34.7	41.9	30.0	40.8	47.3	33.0	46.5	50.5
	kW	7.03	6.87	6.65	7.07	6.96	6.82	7.13	7.03	6.96

PERFORMANCE DATA — 548F (cont)

COOLING CAPACITIES (cont)

548F

548F072 (6 TONS)											
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF									
		1800/0.10			2400/0.13			3000/0.19			
		Indoor Entering Air — Ewb (F)									
		72	67	62	72	67	62	72	67	62	
75	TC	81.1	77.6	72.1	84.0	80.3	75.2	84.2	81.1	77.8	
	SHC	36.2	46.9	57.0	39.1	52.4	65.4	40.8	56.2	72.2	
	kW	5.16	5.11	5.01	5.23	5.16	5.06	5.23	5.17	5.11	
85	TC	80.7	75.8	70.0	83.9	79.3	73.4	84.1	80.8	76.2	
	SHC	36.1	46.5	56.4	39.7	52.9	65.2	41.6	58.3	71.9	
	kW	5.83	5.74	5.65	5.90	5.81	5.69	5.90	5.84	5.76	
95	TC	79.3	73.0	67.3	82.0	76.7	70.8	83.0	79.1	73.5	
	SHC	35.8	45.4	55.3	39.3	52.3	64.3	42.2	58.9	69.7	
	kW	6.54	6.37	6.28	6.60	6.47	6.37	6.62	6.55	6.40	
105	TC	76.0	70.6	64.3	79.6	73.4	67.9	80.7	75.5	71.3	
	SHC	34.6	44.8	54.1	38.8	51.2	62.9	42.0	57.6	67.8	
	kW	7.21	7.12	6.94	7.34	7.15	7.06	7.36	7.22	7.14	
115	TC	72.7	67.5	61.1	75.8	70.6	64.7	77.9	71.8	68.5	
	SHC	33.6	43.7	52.7	37.6	50.7	60.9	41.5	56.4	65.2	
	kW	7.95	7.86	7.63	8.06	7.95	7.77	8.14	7.94	7.90	
125	TC	70.1	63.9	57.6	71.8	66.9	61.6	73.5	68.6	65.4	
	SHC	32.9	42.4	51.2	36.4	49.5	58.4	40.2	56.1	62.3	
	kW	8.82	8.62	8.37	8.83	8.73	8.54	8.89	8.79	8.69	

LEGEND

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

NOTES:

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

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

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

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

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

3. The SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

548F090 (7 1/2 TONS)													
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF											
		2250/0.04			3000/0.06			3200/0.08			3750/0.11		
		Indoor Entering Air — Ewb (F)											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	109.8	101.4	92.2	116.2	107.0	98.0	117.6	108.8	100.2	118.8	110.4	102.4
	SHC	44.2	57.4	69.4	49.6	66.0	82.0	51.8	69.8	87.0	54.0	74.0	92.0
	kW	6.66	6.44	6.18	6.86	6.60	6.36	6.92	6.66	6.42	6.94	6.70	6.48
85	TC	105.2	96.4	87.0	111.4	102.2	92.6	113.0	104.0	95.0	114.6	105.8	97.6
	SHC	42.8	55.6	67.6	48.4	65.0	80.0	50.8	69.0	84.4	53.4	73.8	88.8
	kW	7.20	6.94	6.64	7.42	7.14	6.82	7.48	7.20	6.90	7.54	7.28	7.00
95	TC	100.6	91.0	82.0	105.6	96.2	87.4	107.2	98.0	89.8	108.6	99.6	92.8
	SHC	41.6	54.0	65.8	47.0	63.2	77.8	49.4	67.4	81.4	52.0	72.2	84.6
	kW	7.78	7.42	7.08	7.96	7.62	7.30	8.00	7.70	7.40	8.06	7.76	7.50
105	TC	94.8	85.4	76.8	99.8	90.2	82.2	101.4	91.6	85.0	103.2	93.2	88.0
	SHC	40.0	52.2	63.8	45.6	61.6	74.6	48.2	65.8	77.6	51.2	70.4	80.4
	kW	8.26	7.88	7.50	8.48	8.10	7.76	8.56	8.18	7.88	8.64	8.24	8.02
115	TC	88.8	79.9	71.4	93.4	84.0	77.6	94.8	85.4	80.0	96.0	86.6	83.0
	SHC	38.4	50.4	61.6	44.2	59.8	70.6	46.6	64.0	73.2	49.4	68.6	75.8
	kW	8.76	8.32	7.90	8.98	8.54	8.22	9.04	8.62	8.36	9.10	8.70	8.50
125	TC	82.6	73.8	65.8	86.6	77.4	74.4	88.0	78.8	75.0	89.2	80.0	77.6
	SHC	36.8	48.6	59.2	42.2	57.8	66.2	45.2	62.0	68.6	48.2	66.6	71.0
	kW	9.20	8.74	8.30	9.44	8.96	8.68	9.52	9.02	8.82	9.60	9.12	8.98

PERFORMANCE DATA — 548F (cont)

COOLING CAPACITIES (cont)

548F120 (10 TONS)													
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF											
		2800/0.11			3750/0.16			4100/0.18			4700/0.21		
		Indoor Entering Air — Ewb (F)											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	127.4	120.4	110.6	134.2	126.2	116.2	135.6	127.4	117.8	137.0	129.0	120.6
	SHC	60.0	76.4	91.0	66.2	86.0	104.4	67.8	89.0	108.8	70.2	93.4	115.6
	kW	8.30	8.18	7.88	8.54	8.34	8.04	8.60	8.36	8.10	8.64	8.38	8.20
85	TC	124.6	116.2	106.4	131.0	122.0	112.4	132.4	123.6	114.0	133.8	126.0	116.4
	SHC	59.2	74.6	89.4	65.4	84.8	103.6	67.4	88.4	107.4	70.0	94.2	112.8
	kW	9.24	9.04	8.74	9.50	9.24	8.98	9.54	9.28	9.02	9.60	9.36	9.08
95	TC	121.8	112.0	102.2	126.2	117.4	107.4	127.8	119.0	109.4	130.0	121.2	112.6
	SHC	58.4	73.2	87.4	63.8	83.4	101.0	66.0	87.2	104.8	69.6	93.4	110.2
	kW	10.34	10.04	9.66	10.46	10.18	9.90	10.52	10.26	9.96	10.62	10.36	10.08
105	TC	116.9	107.2	97.6	122.4	112.4	102.8	123.6	113.8	105.0	124.6	115.6	108.4
	SHC	56.6	71.4	85.4	63.0	82.0	98.4	65.0	85.8	101.8	67.8	91.4	106.2
	kW	11.38	11.08	10.66	11.64	11.28	10.90	11.68	11.32	11.00	11.68	11.38	11.16
115	TC	112.0	102.0	92.8	116.6	107.0	98.0	118.0	108.2	100.2	120.0	110.0	103.8
	SHC	55.0	69.6	83.2	61.2	80.2	95.2	63.6	84.2	98.0	67.4	90.2	101.8
	kW	12.58	12.18	11.74	12.78	11.42	12.00	12.84	12.48	12.12	12.96	12.56	12.30
125	TC	106.4	96.8	87.8	110.4	101.2	93.6	111.6	102.2	95.8	113.6	103.8	99.0
	SHC	53.2	67.4	80.8	59.2	78.4	91.4	61.4	82.2	94.0	65.4	88.0	97.2
	kW	13.84	13.36	12.90	13.96	13.62	13.22	14.02	13.68	13.34	14.14	13.76	13.54

548F

LEGEND

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

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

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

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

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

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

NOTES:

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

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

INSTANTANEOUS AND INTEGRATED HEATING RATINGS

548F036																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	900	Cap.	15.4	13.1	19.2	17.6	21.7	19.8	27.4	24.0	31.9	31.9	35.3	35.3	36.9	36.9	41.4	41.4
		kW	2.25		2.44		2.57		2.86		3.10		3.29		3.38		3.64	
	1200	Cap.	15.9	13.5	19.4	17.8	22.5	20.5	28.3	24.8	32.9	32.9	35.8	35.8	37.0	37.0	40.1	40.1
		kW	2.24		2.40		2.54		2.80		3.02		3.15		3.21		3.35	
	1500	Cap.	16.2	13.8	19.8	18.2	22.9	20.9	28.8	25.2	33.1	33.1	35.3	35.3	36.5	36.5	38.6	38.6
		kW	2.23		2.38		2.52		2.76		2.94		3.03		3.08		3.17	
70	900	Cap.	13.2	11.2	17.1	15.7	20.0	18.2	25.4	22.2	29.8	29.8	33.2	33.2	34.7	34.7	40.1	40.1
		kW	2.29		2.50		2.67		2.98		3.24		3.45		3.55		3.91	
	1200	Cap.	13.7	11.6	17.7	16.3	20.3	18.5	26.3	23.1	30.8	30.8	34.4	34.4	36.0	36.0	40.9	40.9
		kW	2.28		2.49		2.62		2.93		3.17		3.36		3.45		3.72	
	1500	Cap.	14.0	11.9	18.1	16.6	20.7	18.9	26.9	23.6	31.6	31.6	35.1	35.1	36.9	36.9	40.2	40.2
		kW	2.27		2.47		2.60		2.89		3.12		3.30		3.38		3.54	
80	900	Cap.	11.5	9.8	15.5	14.2	18.4	16.8	23.7	20.8	28.1	28.1	31.7	31.7	33.2	33.2	38.5	38.5
		kW	2.30		2.54		2.71		3.04		3.32		3.55		3.65		4.03	
	1200	Cap.	12.0	10.2	16.2	14.8	19.2	17.5	24.7	21.6	29.3	29.3	33.0	33.0	34.5	34.5	40.2	40.2
		kW	2.30		2.52		2.69		2.99		3.26		3.47		3.56		3.91	
	1500	Cap.	12.3	10.5	16.6	15.2	19.7	18.0	25.4	22.3	30.1	30.1	33.7	33.7	35.3	35.3	39.2	39.2
		kW	2.29		2.51		2.68		2.97		3.22		3.41		3.50		3.70	

LEGEND

- Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
- db — dry bulb
- kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA — 548F (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

548F

548F048																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	1200	Cap.	22.7	19.3	26.6	24.4	30.2	27.6	37.4	32.7	43.1	43.1	47.6	47.6	49.8	49.8	57.2	57.2
		kW	2.91		3.14		3.35		3.77		4.12		4.40		4.54		5.04	
	1600	Cap.	23.1	19.7	27.2	25.0	30.8	28.1	38.2	33.5	44.1	44.1	48.9	48.9	51.1	51.1	59.0	59.0
		kW	2.87		3.09		3.28		3.66		3.97		4.23		4.34		4.80	
	2000	Cap.	23.4	19.9	27.4	25.2	31.2	28.4	38.7	33.9	44.8	44.8	49.7	49.7	52.0	52.0	60.2	60.2
		kW	2.85		3.05		3.23		3.59		3.88		4.11		4.23		4.65	
70	1200	Cap.	20.6	17.5	25.5	23.4	28.4	25.9	35.6	31.2	41.0	41.0	45.5	45.5	47.5	47.5	54.9	54.9
		kW	3.00		3.33		3.52		4.01		4.39		4.71		4.85		5.40	
	1600	Cap.	21.2	18.0	25.6	23.5	29.1	26.6	36.3	31.8	42.1	42.1	46.8	46.8	48.9	48.9	56.5	56.5
		kW	2.99		3.25		3.47		3.90		4.25		4.54		4.67		5.15	
	2000	Cap.	21.6	18.3	25.9	23.8	29.5	26.9	36.9	32.3	42.8	42.8	47.5	47.5	49.7	49.7	57.6	57.6
		kW	2.97		3.22		3.43		3.84		4.16		4.42		4.55		5.00	
80	1200	Cap.	18.6	15.8	23.9	21.9	27.1	24.7	34.2	29.9	39.7	39.7	44.1	44.1	46.1	46.1	53.2	53.2
		kW	3.01		3.40		3.62		4.15		4.56		4.90		5.06		5.63	
	1600	Cap.	19.4	16.4	24.7	22.6	27.8	25.4	35.1	30.8	40.7	40.7	45.3	45.3	47.3	47.3	54.9	54.9
		kW	3.01		3.37		3.58		4.06		4.43		4.74		4.88		5.39	
	2000	Cap.	19.8	16.8	25.1	23.1	28.2	25.7	35.7	31.3	41.5	41.5	46.0	46.0	48.2	48.2	55.8	55.8
		kW	3.01		3.35		3.54		4.00		4.35		4.63		4.76		5.24	

548F060																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	1500	Cap.	29.7	25.2	34.5	31.7	38.4	35.0	46.0	40.3	52.4	52.4	57.2	57.2	59.6	59.6	67.9	67.9
		kW	3.96		4.14		4.30		4.62		4.90		5.14		5.25		5.67	
	2000	Cap.	29.8	25.4	34.7	31.8	38.6	35.2	46.3	40.6	52.9	52.9	57.7	57.7	60.1	60.1	68.7	68.7
		kW	3.83		3.98		4.12		4.38		4.63		4.82		4.91		5.25	
	2500	Cap.	29.8	25.4	34.8	31.9	38.7	35.3	46.6	40.8	53.1	53.1	58.0	58.0	60.4	60.4	68.4	68.4
		kW	3.76		3.89		4.01		4.26		4.47		4.63		4.72		4.99	
70	1500	Cap.	28.7	24.4	33.8	31.0	37.8	34.4	45.4	39.8	51.5	51.5	56.2	56.2	58.4	58.4	66.5	66.5
		kW	4.43		4.66		4.84		5.21		5.53		5.79		5.91		6.39	
	2000	Cap.	29.0	24.7	34.0	31.2	38.0	34.7	45.7	40.1	51.9	51.9	56.7	56.7	59.0	59.0	67.4	67.4
		kW	4.30		4.48		4.63		4.94		5.20		5.41		5.52		5.91	
	2500	Cap.	29.2	24.8	34.2	31.4	38.2	34.8	45.8	40.2	52.2	52.2	57.1	57.1	59.4	59.4	67.9	67.9
		kW	4.22		4.38		4.51		4.78		5.01		5.21		5.30		5.63	
80	1500	Cap.	28.1	23.8	33.1	30.4	37.2	33.9	44.9	39.3	51.0	51.0	55.6	55.6	57.8	57.8	65.7	65.7
		kW	4.77		5.03		5.23		5.64		5.99		6.27		6.41		6.92	
	2000	Cap.	28.4	24.2	33.5	30.7	37.6	34.2	45.3	39.7	51.4	51.4	56.1	56.1	58.3	58.3	66.5	66.5
		kW	4.63		4.84		5.01		5.34		5.63		5.86		5.97		6.39	
	2500	Cap.	28.6	24.3	33.7	30.9	37.7	34.4	45.5	39.8	51.6	51.6	56.4	56.4	58.7	58.7	67.0	67.0
		kW	4.55		4.73		4.88		5.17		5.42		5.62		5.72		6.09	

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
db — dry bulb
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA — 548F (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

548F072																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	1800	Cap.	37.8	32.2	43.9	40.3	48.3	44.1	58.0	50.8	66.2	66.2	72.3	72.3	75.2	75.2	86.0	86.0
		kW	4.72		4.97		5.16		5.58		5.96		6.25		6.40		6.95	
	2400	Cap.	37.9	32.2	44.0	40.4	48.5	44.2	58.4	51.2	66.6	66.6	72.8	72.8	75.9	75.9	87.0	87.0
		kW	4.55		4.76		4.92		5.28		5.57		5.81		5.93		6.38	
	3000	Cap.	38.0	32.3	44.0	40.4	48.5	44.3	58.5	51.3	66.9	66.9	73.1	73.1	76.2	76.2	87.5	87.5
		kW	4.46		4.64		4.78		5.09		5.35		5.56		5.67		6.07	
70	1800	Cap.	37.3	31.7	43.6	40.0	48.1	43.9	57.5	50.4	65.2	65.2	71.1	71.1	74.0	74.0	84.6	84.6
		kW	5.32		5.61		5.84		6.33		6.75		7.10		7.27		7.91	
	2400	Cap.	37.5	31.9	43.8	40.2	48.2	43.9	57.7	50.5	65.6	65.6	71.8	71.8	74.7	74.7	85.4	85.4
		kW	5.13		5.38		5.57		5.97		6.32		6.61		6.74		7.25	
	3000	Cap.	37.6	32.0	43.9	40.3	48.3	44.0	57.8	50.7	66.0	66.0	72.1	72.1	75.0	75.0	86.0	86.0
		kW	5.03		5.25		5.41		5.76		6.08		6.32		6.44		6.89	
80	1800	Cap.	36.8	31.3	43.1	39.6	47.9	43.7	57.1	50.1	64.8	64.8	70.5	70.5	73.4	73.4	83.6	83.6
		kW	5.75		6.09		6.34		6.88		7.35		7.72		7.90		8.58	
	2400	Cap.	37.0	31.4	43.4	39.8	48.0	43.8	57.4	50.3	65.1	65.1	71.1	71.1	73.9	73.9	84.5	84.5
		kW	5.55		5.83		6.04		6.49		6.87		7.18		7.33		7.89	
	3000	Cap.	37.1	31.5	43.5	39.9	48.1	43.9	57.5	50.4	65.3	65.3	71.5	71.5	74.4	74.4	85.0	85.0
		kW	5.44		5.68		5.87		6.26		6.60		6.88		7.01		7.49	

548F

548F090																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	2000	Cap.	36.6	31.2	44.0	40.4	49.8	45.4	61.4	53.8	70.4	70.4	77.4	77.4	80.6	80.6	91.8	91.8
		kW	5.24		5.64		5.94		6.58		7.08		7.50		7.68		8.32	
	2600	Cap.	37.6	32.0	45.2	41.4	51.2	46.6	63.0	55.2	72.4	72.4	79.6	79.6	83.0	83.0	92.4	92.4
		kW	5.18		5.56		5.82		6.40		6.84		7.20		7.36		7.78	
	3200	Cap.	38.2	32.4	45.8	42.0	51.8	47.2	63.8	55.8	73.6	73.6	81.0	81.0	83.8	83.8	91.2	91.2
		kW	5.16		5.50		5.74		6.28		6.70		7.02		7.12		7.40	
70	2000	Cap.	32.4	27.6	40.4	37.2	46.0	41.8	57.8	50.6	66.8	66.8	73.6	73.6	76.6	76.6	87.8	87.8
		kW	5.42		5.90		6.22		6.92		7.48		7.94		8.16		8.90	
	2600	Cap.	33.4	28.4	41.8	38.2	47.4	43.2	59.6	52.2	68.8	68.8	75.8	75.8	79.0	79.0	90.4	90.4
		kW	5.38		5.82		6.12		6.76		7.28		7.68		7.86		8.48	
	3200	Cap.	34.2	29.0	42.2	38.6	48.4	44.0	60.6	53.0	70.0	70.0	77.2	77.2	80.6	80.6	91.0	91.0
		kW	5.36		5.76		6.06		6.66		7.14		7.50		7.68		8.16	
80	2000	Cap.	29.2	24.8	37.4	34.4	43.4	39.6	54.8	48.0	64.0	64.0	70.8	70.8	73.8	73.8	84.8	84.8
		kW	5.52		6.02		6.40		7.12		7.72		8.22		8.44		9.24	
	2600	Cap.	30.2	25.8	38.8	35.6	44.6	40.6	56.8	49.8	66.2	66.2	73.2	73.2	76.4	76.4	87.8	87.8
		kW	5.48		5.96		6.30		6.98		7.54		7.98		8.18		8.88	
	3200	Cap.	31.0	26.4	39.6	36.4	45.4	41.4	58.0	50.8	67.4	67.4	74.6	74.6	78.0	78.0	89.0	89.0
		kW	5.46		5.92		6.24		6.90		7.42		7.82		8.00		8.58	

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
db — dry bulb
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA — 548F (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

548F120																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	2650	Cap.	52.2	44.4	62.2	57.0	69.6	63.4	84.2	73.8	96.0	96.0	104.6	104.6	108.8	108.8	123.6	123.6
		kW	7.20		7.58		7.86		8.46		9.00		9.42		9.62		10.38	
	3500	Cap.	52.7	44.8	62.8	57.6	70.2	64.0	85.0	74.4	96.8	96.8	105.8	105.8	109.8	109.8	125.4	125.4
		kW	6.98		7.30		7.52		8.02		8.46		8.80		8.96		9.62	
	4100	Cap.	53.2	45.2	63.0	58.0	70.4	64.2	85.2	74.8	97.2	97.2	105.8	105.8	110.2	110.2	126.0	126.0
		kW	6.88		7.16		7.38		7.82		8.22		8.54		8.68		9.28	
	4400	Cap.	53.2	45.2	63.2	58.0	70.6	64.4	85.4	74.8	97.4	97.4	106.0	106.0	110.4	110.4	126.4	126.4
		kW	6.84		7.12		7.32		7.74		8.14		8.44		8.58		9.14	
70	2650	Cap.	49.8	42.2	59.2	54.4	67.0	61.2	82.0	72.0	94.0	94.0	102.6	102.6	106.8	106.8	121.2	121.2
		kW	8.08		8.50		8.86		9.56		10.14		10.62		10.86		11.72	
	3500	Cap.	50.6	43.0	60.2	55.2	63.2	62.2	83.2	72.8	95.2	95.2	103.8	103.8	108.0	108.0	122.8	122.8
		kW	7.86		8.20		8.50		9.04		9.52		9.92		10.10		10.80	
	4100	Cap.	51.0	43.2	60.6	55.6	68.6	62.6	83.6	73.2	95.6	95.6	104.2	104.2	108.4	108.4	123.4	123.4
		kW	7.74		8.06		8.32		8.82		9.26		9.62		9.78		10.40	
	4400	Cap.	51.0	43.4	60.8	55.8	68.8	62.6	83.8	73.4	95.8	95.8	104.4	104.4	108.6	108.6	123.8	123.8
		kW	7.70		8.02		8.26		8.74		9.16		9.50		9.66		10.26	
80	2650	Cap.	47.6	40.6	57.6	52.8	64.6	58.8	80.2	70.4	92.0	92.0	101.0	101.0	105.2	105.2	119.8	119.8
		kW	8.72		9.20		9.56		10.36		11.00		11.52		11.76		12.70	
	3500	Cap.	48.6	41.4	58.6	53.8	66.0	60.2	81.6	71.4	93.6	93.6	102.4	102.4	106.6	106.6	121.2	121.2
		kW	8.48		8.88		9.18		9.82		10.34		10.74		10.96		11.70	
	4100	Cap.	49.0	41.8	58.6	53.8	66.6	60.8	82.0	71.8	94.2	94.2	103.0	103.0	107.2	107.2	121.8	121.8
		kW	8.36		8.72		9.02		9.58		10.04		10.42		10.60		11.28	
	4400	Cap.	49.2	41.8	58.8	54.0	66.8	61.0	82.2	72.2	94.4	94.4	103.2	103.2	107.4	107.4	122.2	122.2
		kW	8.32		8.66		8.94		9.48		9.92		10.28		10.46		11.10	

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
db — dry bulb
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

548F

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS

548F036 (3 TONS) — STANDARD MOTOR (DIRECT DRIVE)												
Airflow (Cfm)	Low Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
900	0.67	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

See General Fan Performance notes below.

Bhp — Brake Horsepower Input to Fan
ESP — External Static Pressure (in. wg)
Watts — Input Watts to Motor

548F

548F036 (3 TONS) — ALTERNATE MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	643	0.15	152	768	0.22	222	870	0.30	296	958	0.37	373	1037	0.46	454
1000	683	0.19	191	804	0.27	268	904	0.35	348	991	0.43	430	1069	0.52	517
1100	725	0.24	237	842	0.32	321	939	0.41	407	1025	0.50	496	1102	0.59	588
1200	767	0.29	291	880	0.38	382	976	0.48	474	1060	0.57	570	1136	0.67	668
1300	811	0.35	352	920	0.45	451	1013	0.55	550	1095	0.66	652	1170	0.76	756
1400	855	0.43	423	960	0.53	529	1051	0.64	636	1132	0.75	744	1205	0.86	855
1500	900	0.51	504	1002	0.62	617	1090	0.74	731	1169	0.85	846	1242	0.97	963

548F036 (3 TONS) — ALTERNATE MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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
900	1110	0.54	538	1177	0.63	627	1239	0.72	718	1298	0.82	813	1355	0.92	911
1000	1141	0.61	607	1207	0.70	700	1269	0.80	796	1328	0.90	895	1384	1.00	998
1100	1173	0.69	683	1238	0.79	781	1300	0.89	883	1358	0.99	987	—	—	—
1200	1205	0.77	768	1270	0.88	872	1332	0.98	979	—	—	—	—	—	—
1300	1239	0.87	863	1303	0.98	972	—	—	—	—	—	—	—	—	—
1400	1273	0.97	967	—	—	—	—	—	—	—	—	—	—	—	—
1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

See General Fan Performance notes below.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.00.

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

GENERAL FAN PERFORMANCE NOTES

1. 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 Indoor Fan Motor Performance table on page 54.
2. Values include losses for filters, unit casing, and wet coils. See Accessory/FIOP Static Pressure tables on page 50 for accessory static pressure information.
3. Use of a field-supplied motor may affect wire sizing. Contact your Bryant representative for details.
4. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F036 (3 TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	643	0.15	152	768	0.22	222	870	0.30	296	958	0.37	373	1037	0.46	454
1000	683	0.19	191	804	0.27	268	904	0.35	348	991	0.43	430	1069	0.52	517
1100	725	0.24	237	842	0.32	321	939	0.41	407	1025	0.50	496	1102	0.59	588
1200	767	0.29	291	880	0.38	382	976	0.48	474	1060	0.57	570	1136	0.67	668
1300	811	0.35	352	920	0.45	451	1013	0.55	550	1095	0.66	652	1170	0.76	756
1400	855	0.43	423	960	0.53	529	1051	0.64	636	1132	0.75	744	1205	0.86	855
1500	900	0.51	504	1002	0.62	617	1090	0.74	731	1169	0.85	846	1242	0.97	963

548F036 (3 TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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
900	1110	0.54	538	1177	0.63	627	1239	0.72	718	1298	0.82	813	1355	0.92	911
1000	1141	0.61	607	1207	0.70	700	1269	0.80	796	1328	0.90	895	1384	1.00	998
1100	1173	0.69	683	1238	0.79	781	1300	0.89	883	1358	0.99	987	1414	1.10	1094
1200	1205	0.77	768	1270	0.88	872	1332	0.98	979	1389	1.09	1088	1444	1.21	1200
1300	1239	0.87	863	1303	0.98	972	1364	1.09	1084	1421	1.21	1199	1475	1.32	1316
1400	1273	0.97	967	1337	1.09	1082	1397	1.21	1200	1453	1.33	1320	1507	1.45	1443
1500	1309	1.09	1082	1371	1.21	1204	1430	1.33	1327	1486	1.46	1453	1540	1.59	1581

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

*Motor drive range: 1075 to 1455 rpm. All other rpms require a field-supplied drive.

548F048 (4 TONS) — STANDARD MOTOR (DIRECT DRIVE)												
Airflow (Cfm)	Low Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
1200	0.93	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)
Watts — Input Watts to Motor

See General Fan Performance notes on page 27.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F048 (4 TONS) — ALTERNATE MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	767	0.29	291	880	0.38	382	976	0.48	474	1060	0.57	570	1136	0.67	668
1300	811	0.35	352	920	0.45	451	1013	0.55	550	1095	0.66	652	1170	0.76	756
1400	855	0.43	423	960	0.53	529	1051	0.64	636	1132	0.75	744	1205	0.86	855
1500	900	0.51	504	1002	0.62	617	1090	0.74	731	1169	0.85	846	1242	0.97	963
1600	945	0.60	594	1044	0.72	716	1130	0.84	837	1207	0.96	959	—	—	—
1700	991	0.70	696	1086	0.83	825	1170	0.96	954	—	—	—	—	—	—
1800	1038	0.81	810	1130	0.95	947	—	—	—	—	—	—	—	—	—
1900	1085	0.94	936	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

548F

548F048 (4 TONS) — ALTERNATE MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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
1200	1205	0.77	768	1270	0.88	872	1332	0.98	979	—	—	—	—	—	—
1300	1239	0.87	863	1303	0.98	972	—	—	—	—	—	—	—	—	—
1400	1273	0.97	967	—	—	—	—	—	—	—	—	—	—	—	—
1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 1.00.

*Motor drive range: 770 to 1175 rpm. All other rpms require a field-supplied drive.

548F048 (4 TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	767	0.29	291	880	0.38	382	976	0.48	474	1060	0.57	570	1136	0.67	668
1300	811	0.35	352	920	0.45	451	1013	0.55	550	1095	0.66	652	1170	0.76	756
1400	855	0.43	423	960	0.53	529	1051	0.64	636	1132	0.75	744	1205	0.86	855
1500	900	0.51	504	1002	0.62	617	1090	0.74	731	1169	0.85	846	1242	0.97	963
1600	945	0.60	594	1044	0.72	716	1130	0.84	837	1207	0.96	959	1278	1.09	1083
1700	991	0.70	696	1086	0.83	825	1170	0.96	954	1246	1.09	1083	1316	1.22	1214
1800	1038	0.81	810	1130	0.95	947	1211	1.09	1083	1286	1.23	1219	1354	1.36	1357
1900	1085	0.94	936	1174	1.09	1081	1253	1.23	1224	1326	1.38	1368	1393	1.52	1513
2000	1132	1.08	1075	1218	1.23	1228	1296	1.39	1379	1367	1.54	1531	1432	1.69	1682

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.

*Motor drive range: 1075 to 1455 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F060 (5 TONS) — STANDARD MOTOR (DIRECT DRIVE)																		
Airflow (Cfm)	Low Speed						Medium Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
1500	0.88	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

See General Fan Performance notes on page 27.

Bhp — Brake Horsepower Input to Fan
ESP — External Static Pressure (in. wg)
Watts — Input Watts to Motor

548F060 (5 TONS) — ALTERNATE MOTOR AND BELT DRIVE*																
Airflow (Cfm)	External Static Pressure (in. wg)															
	0.2			0.4			0.6			0.8			1.0			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	807	0.42	369	913	0.56	489	1011	0.71	621	1103	0.87	766	1188	1.05	923	
1600	847	0.49	432	948	0.63	557	1042	0.79	694	1130	0.96	843	1213	1.14	1003	
1700	887	0.57	501	983	0.72	632	1073	0.88	774	1158	1.06	928	1239	1.24	1092	
1800	928	0.66	579	1020	0.82	715	1106	0.98	863	1188	1.16	1021	1266	1.35	1189	
1900	969	0.76	666	1057	0.92	808	1140	1.09	960	1219	1.28	1123	1295	1.48	1296	
2000	1010	0.87	761	1095	1.04	909	1175	1.21	1066	1251	1.41	1234	1325	1.61	1411	
2100	1052	0.99	866	1133	1.16	1019	1211	1.35	1182	1285	1.54	1355	1355	1.75	1537	
2200	1095	1.12	981	1173	1.30	1140	1247	1.49	1308	1319	1.69	1486	1387	1.91	1673	
2300	1137	1.26	1105	1212	1.45	1271	1284	1.65	1445	1353	1.85	1628	1420	2.07	1820	
2400	1180	1.41	1241	1252	1.61	1412	1322	1.81	1592	1389	2.03	1781	1454	2.25	1977	
2500	1223	1.58	1388	1293	1.78	1565	1360	1.99	1751	1425	2.22	1945	—	—	—	

548F060 (5 TONS) — ALTERNATE MOTOR AND BELT DRIVE* (cont)																
Airflow (Cfm)	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	
1500	1270	1.24	1091	1347	1.45	1269	1421	1.66	1458	1492	1.89	1657	1561	2.13	1865	
1600	1292	1.34	1174	1367	1.54	1356	1440	1.76	1547	1509	1.99	1748	1576	2.23	1959	
1700	1315	1.44	1267	1389	1.65	1451	1459	1.88	1646	1527	2.11	1849	1593	2.35	2062	
1800	1341	1.56	1368	1412	1.77	1556	1481	2.00	1753	1547	2.23	1960	—	—	—	
1900	1367	1.68	1478	1437	1.90	1670	1504	2.13	1871	1569	2.37	2080	—	—	—	
2000	1395	1.82	1598	1463	2.04	1794	1528	2.28	1998	—	—	—	—	—	—	
2100	1424	1.97	1728	1490	2.20	1928	—	—	—	—	—	—	—	—	—	
2200	1454	2.13	1869	1518	2.36	2073	—	—	—	—	—	—	—	—	—	
2300	1485	2.30	2020	—	—	—	—	—	—	—	—	—	—	—	—	
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

LEGEND

See General Fan Performance notes on page 27.

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 1.30 for single-phase units and 2.40 for three-phase units.

*Motor drive range: 878 to 1192 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F060 (5 TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	807	0.42	369	913	0.56	489	1011	0.71	621	1103	0.87	766	1188	1.05	923
1600	847	0.49	432	948	0.63	557	1042	0.79	694	1130	0.96	843	1213	1.14	1003
1700	887	0.57	501	983	0.72	632	1073	0.88	774	1158	1.06	928	1239	1.24	1092
1800	928	0.66	579	1020	0.82	715	1106	0.98	863	1188	1.16	1021	1266	1.35	1189
1900	969	0.76	666	1057	0.92	808	1140	1.09	960	1219	1.28	1123	1295	1.48	1296
2000	1010	0.87	761	1095	1.04	909	1175	1.21	1066	1251	1.41	1234	1325	1.61	1411
2100	1052	0.99	866	1133	1.16	1019	1211	1.35	1182	1285	1.54	1355	1355	1.75	1537
2200	1095	1.12	981	1173	1.30	1140	1247	1.49	1308	1319	1.69	1486	1387	1.91	1673
2300	1137	1.26	1105	1212	1.45	1271	1284	1.65	1445	1353	1.85	1628	1420	2.07	1820
2400	1180	1.41	1241	1252	1.61	1412	1322	1.81	1592	1389	2.03	1781	1454	2.25	1977
2500	1223	1.58	1388	1293	1.78	1565	1360	1.99	1751	1425	2.22	1945	1488	2.45	2147

548F

548F060 (5 TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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
1500	1270	1.24	1091	1347	1.45	1269	1421	1.66	1458	1492	1.89	1657	1561	2.13	1865
1600	1292	1.34	1174	1367	1.54	1356	1440	1.76	1547	1509	1.99	1748	1576	2.23	1959
1700	1315	1.44	1267	1389	1.65	1451	1459	1.88	1646	1527	2.11	1849	1593	2.35	2062
1800	1341	1.56	1368	1412	1.77	1556	1481	2.00	1753	1547	2.23	1960	1612	2.48	2175
1900	1367	1.68	1478	1437	1.90	1670	1504	2.13	1871	1569	2.37	2080	1632	2.62	2299
2000	1395	1.82	1598	1463	2.04	1794	1528	2.28	1998	1591	2.52	2212	1653	2.77	2433
2100	1424	1.97	1728	1490	2.20	1928	1554	2.43	2136	1615	2.68	2353	—	—	—
2200	1454	2.13	1869	1518	2.36	2073	1580	2.60	2285	1641	2.85	2505	—	—	—
2300	1485	2.30	2020	1547	2.54	2228	1608	2.79	2445	—	—	—	—	—	—
2400	1516	2.49	2182	1577	2.73	2395	—	—	—	—	—	—	—	—	—
2500	1549	2.69	2357	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.

*Motor drive range: 1300 to 1685 rpm. All other rpms require a field-supplied drive.

548F072 (6 TONS) — STANDARD MOTOR AND BELT DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	928	0.66	579	1020	0.82	715	1106	0.98	863	1188	1.16	1021	1266	1.35	1189
1900	969	0.76	666	1057	0.92	808	1140	1.09	960	1219	1.28	1123	1295	1.48	1296
2000	1010	0.87	761	1095	1.04	909	1175	1.21	1066	1251	1.41	1234	1325	1.61	1411
2100	1052	0.99	866	1133	1.16	1019	1211	1.35	1182	1285	1.54	1355	1355	1.75	1537
2200	1095	1.12	981	1173	1.30	1140	1247	1.49	1308	1319	1.69	1486	1387	1.91	1673
2300	1137	1.26	1105	1212	1.45	1271	1284	1.65	1445	1353	1.85	1628	1420	2.07	1820
2400	1180	1.41	1241	1252	1.61	1412	1322	1.81	1592	1389	2.03	1781	1454	2.25	1977
2500	1223	1.58	1388	1293	1.78	1565	1360	1.99	1751	1425	2.22	1945	—	—	—
2600	1267	1.76	1546	1334	1.97	1730	1399	2.19	1921	—	—	—	—	—	—
2700	1310	1.96	1717	1375	2.17	1907	1438	2.40	2104	—	—	—	—	—	—
2800	1354	2.17	1901	1417	2.39	2096	—	—	—	—	—	—	—	—	—
2900	1398	2.39	2098	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

548F072 (6 TONS) — STANDARD MOTOR AND BELT DRIVE* (cont)															
Airflow (Cfm)	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
1800	1341	1.56	1368	1412	1.77	1556	1481	2.00	1753	1547	2.23	1960	—	—	—
1900	1367	1.68	1478	1437	1.90	1670	1504	2.13	1871	1569	2.37	2080	—	—	—
2000	1395	1.82	1598	1463	2.04	1794	1528	2.28	1998	—	—	—	—	—	—
2100	1424	1.97	1728	1490	2.20	1928	—	—	—	—	—	—	—	—	—
2200	1454	2.13	1869	1518	2.36	2073	—	—	—	—	—	—	—	—	—
2300	1485	2.30	2020	—	—	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

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

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F072 (6 TONS) — HIGH-STATIC MOTOR AND BELT DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	928	0.66	579	1020	0.82	715	1106	0.98	863	1188	1.16	1021	1266	1.35	1189
1900	969	0.76	666	1057	0.92	808	1140	1.09	960	1219	1.28	1123	1295	1.48	1296
2000	1010	0.87	761	1095	1.04	909	1175	1.21	1066	1251	1.41	1234	1325	1.61	1411
2100	1052	0.99	866	1133	1.16	1019	1211	1.35	1182	1285	1.54	1355	1355	1.75	1537
2200	1095	1.12	981	1173	1.30	1140	1247	1.49	1308	1319	1.69	1486	1387	1.91	1673
2300	1137	1.26	1105	1212	1.45	1271	1284	1.65	1445	1353	1.85	1628	1420	2.07	1820
2400	1180	1.41	1241	1252	1.61	1412	1322	1.81	1592	1389	2.03	1781	1454	2.25	1977
2500	1223	1.58	1388	1293	1.78	1565	1360	1.99	1751	1425	2.22	1945	1488	2.45	2147
2600	1267	1.76	1546	1334	1.97	1730	1399	2.19	1921	1462	2.42	2121	1523	2.65	2328
2700	1310	1.96	1717	1375	2.17	1907	1438	2.40	2104	1499	2.63	2309	1559	2.87	2522
2800	1354	2.17	1901	1417	2.39	2096	1478	2.62	2300	1537	2.86	2510	—	—	—
2900	1398	2.39	2098	1459	2.62	2299	1518	2.86	2508	—	—	—	—	—	—
3000	1442	2.63	2308	1501	2.87	2516	—	—	—	—	—	—	—	—	—

548F072 (6 TONS) — HIGH-STATIC MOTOR AND BELT DRIVE* (cont)															
Airflow (Cfm)	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
1800	1341	1.56	1368	1412	1.77	1556	1481	2.00	1753	1547	2.23	1960	1612	2.48	2175
1900	1367	1.68	1478	1437	1.90	1670	1504	2.13	1871	1569	2.37	2080	1632	2.62	2299
2000	1395	1.82	1598	1463	2.04	1794	1528	2.28	1998	1591	2.52	2212	1653	2.77	2433
2100	1424	1.97	1728	1490	2.20	1928	1554	2.43	2136	1615	2.68	2353	—	—	—
2200	1454	2.13	1869	1518	2.36	2073	1580	2.60	2285	1641	2.85	2505	—	—	—
2300	1485	2.30	2020	1547	2.54	2228	1608	2.79	2445	—	—	—	—	—	—
2400	1516	2.49	2182	1577	2.73	2395	—	—	—	—	—	—	—	—	—
2500	1549	2.69	2357	—	—	—	—	—	—	—	—	—	—	—	—
2600	1583	2.90	2543	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.

*Motor drive range: 1300 to 1685 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.58	538	591	0.75	697	660	0.93	864	722	1.12	1041	779	1.32	1228
2300	519	0.61	567	597	0.78	729	666	0.97	900	727	1.16	1079	784	1.36	1268
2400	534	0.68	630	611	0.86	798	678	1.04	974	739	1.24	1158	794	1.45	1352
2500	550	0.75	698	624	0.93	872	690	1.13	1053	750	1.33	1243	805	1.55	1441
2550	557	0.79	733	631	0.98	910	697	1.17	1095	756	1.38	1287	811	1.60	1488
2600	565	0.83	770	638	1.02	950	703	1.22	1138	762	1.43	1333	816	1.65	1536
2700	581	0.91	848	652	1.11	1034	716	1.32	1228	774	1.53	1428	828	1.75	1636
2800	597	1.00	932	667	1.21	1124	729	1.42	1323	786	1.64	1529	839	1.87	1742
2900	613	1.09	1020	681	1.31	1220	743	1.53	1425	799	1.75	1636	851	1.99	1855
3000	629	1.20	1115	696	1.42	1321	756	1.64	1532	812	1.88	1749	863	2.12	1973
3100	646	1.30	1217	711	1.53	1428	770	1.76	1645	825	2.00	1869	875	2.25	2098
3200	662	1.42	1324	726	1.65	1542	784	1.89	1765	838	2.14	1994	888	2.39	2229
3300	679	1.54	1438	741	1.78	1663	798	2.03	1892	851	2.28	2126	—	—	—
3400	695	1.67	1558	756	1.92	1790	812	2.17	2025	—	—	—	—	—	—
3500	712	1.81	1686	772	2.06	1923	827	2.32	2165	—	—	—	—	—	—
3600	729	1.95	1820	787	2.21	2065	—	—	—	—	—	—	—	—	—
3700	746	2.10	1962	803	2.37	2213	—	—	—	—	—	—	—	—	—
3750	754	2.18	2036	—	—	—	—	—	—	—	—	—	—	—	—

548F

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	831	1.53	1423	880	1.74	1627	927	1.97	1840	971	2.21	2061	—	—	—
2300	836	1.57	1465	885	1.79	1671	931	2.02	1886	975	2.26	2109	—	—	—
2400	846	1.67	1554	895	1.89	1764	941	2.13	1982	984	2.37	2209	—	—	—
2500	856	1.77	1647	905	2.00	1862	950	2.24	2085	—	—	—	—	—	—
2550	862	1.82	1697	910	2.05	1913	955	2.29	2138	—	—	—	—	—	—
2600	867	1.87	1747	915	2.11	1966	960	2.35	2193	—	—	—	—	—	—
2700	878	1.99	1852	925	2.23	2076	—	—	—	—	—	—	—	—	—
2800	889	2.11	1963	936	2.35	2192	—	—	—	—	—	—	—	—	—
2900	900	2.23	2080	—	—	—	—	—	—	—	—	—	—	—	—
3000	912	2.36	2204	—	—	—	—	—	—	—	—	—	—	—	—
3100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Motor drive range: 590 to 840 rpm. All other rpms require field-supplied drive.

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F090 (7½ TONS) — ALTERNATE DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.58	538	591	0.75	697	660	0.93	864	722	1.12	1041	779	1.32	1228
2300	519	0.61	567	597	0.78	729	666	0.97	900	727	1.16	1079	784	1.36	1268
2400	534	0.68	630	611	0.86	798	678	1.04	974	739	1.24	1158	794	1.45	1352
2500	550	0.75	698	624	0.93	872	690	1.13	1053	750	1.33	1243	805	1.55	1441
2550	557	0.79	733	631	0.98	910	697	1.17	1095	756	1.38	1287	811	1.60	1488
2600	565	0.83	770	638	1.02	950	703	1.22	1138	762	1.43	1333	816	1.65	1536
2700	581	0.91	848	652	1.11	1034	716	1.32	1228	774	1.53	1428	828	1.75	1636
2800	597	1.00	932	667	1.21	1124	729	1.42	1323	786	1.64	1529	839	1.87	1742
2900	613	1.09	1020	681	1.31	1220	743	1.53	1425	799	1.75	1636	851	1.99	1855
3000	629	1.20	1115	696	1.42	1321	756	1.64	1532	812	1.88	1749	863	2.12	1973
3100	646	1.30	1217	711	1.53	1428	770	1.76	1645	825	2.00	1869	875	2.25	2098
3200	662	1.42	1324	726	1.65	1542	784	1.89	1765	838	2.14	1994	888	2.39	2229
3300	679	1.54	1438	741	1.78	1663	798	2.03	1892	851	2.28	2126	—	—	—
3400	695	1.67	1558	756	1.92	1790	812	2.17	2025	—	—	—	—	—	—
3500	712	1.81	1686	772	2.06	1923	827	2.32	2165	—	—	—	—	—	—
3600	729	1.95	1820	787	2.21	2065	—	—	—	—	—	—	—	—	—
3700	746	2.10	1962	803	2.37	2213	—	—	—	—	—	—	—	—	—
3750	754	2.18	2036	—	—	—	—	—	—	—	—	—	—	—	—

548F090 (7½ TONS) — ALTERNATE DRIVE* (cont)															
Airflow (Cfm)	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	831	1.53	1423	880	1.74	1627	927	1.97	1840	971	2.21	2061	—	—	—
2300	836	1.57	1465	885	1.79	1671	931	2.02	1886	975	2.26	2109	—	—	—
2400	846	1.67	1554	895	1.89	1764	941	2.13	1982	984	2.37	2209	—	—	—
2500	856	1.77	1647	905	2.00	1862	950	2.24	2085	—	—	—	—	—	—
2550	862	1.82	1697	910	2.05	1913	955	2.29	2138	—	—	—	—	—	—
2600	867	1.87	1747	915	2.11	1966	960	2.35	2193	—	—	—	—	—	—
2700	878	1.99	1852	925	2.23	2076	—	—	—	—	—	—	—	—	—
2800	889	2.11	1963	936	2.35	2192	—	—	—	—	—	—	—	—	—
2900	900	2.23	2080	—	—	—	—	—	—	—	—	—	—	—	—
3000	912	2.36	2204	—	—	—	—	—	—	—	—	—	—	—	—
3100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

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

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F090 (7½ TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.58	538	591	0.75	697	660	0.93	864	722	1.12	1041	779	1.32	1228
2300	519	0.61	567	597	0.78	729	666	0.97	900	727	1.16	1079	784	1.36	1268
2400	534	0.68	630	611	0.86	798	678	1.04	974	739	1.24	1158	794	1.45	1352
2500	550	0.75	698	624	0.93	872	690	1.13	1053	750	1.33	1243	805	1.55	1441
2550	557	0.79	733	631	0.98	910	697	1.17	1095	756	1.38	1287	811	1.60	1488
2600	565	0.83	770	638	1.02	950	703	1.22	1138	762	1.43	1333	816	1.65	1536
2700	581	0.91	848	652	1.11	1034	716	1.32	1228	774	1.53	1428	828	1.75	1636
2800	597	1.00	932	667	1.21	1124	729	1.42	1323	786	1.64	1529	839	1.87	1742
2900	613	1.09	1020	681	1.31	1220	743	1.53	1425	799	1.75	1636	851	1.99	1855
3000	629	1.20	1115	696	1.42	1321	756	1.64	1532	812	1.88	1749	863	2.12	1973
3100	646	1.30	1217	711	1.53	1428	770	1.76	1645	825	2.00	1869	875	2.25	2098
3200	662	1.42	1324	726	1.65	1542	784	1.89	1765	838	2.14	1994	888	2.39	2229
3300	679	1.54	1438	741	1.78	1663	798	2.03	1892	851	2.28	2126	901	2.54	2367
3400	695	1.67	1558	756	1.92	1790	812	2.17	2025	865	2.43	2266	913	2.69	2512
3500	712	1.81	1686	772	2.06	1923	827	2.32	2165	878	2.59	2412	926	2.86	2664
3600	729	1.95	1820	787	2.21	2065	841	2.48	2312	892	2.75	2565	940	3.03	2823
3700	746	2.10	1962	803	2.37	2213	856	2.65	2467	906	2.92	2726	953	3.21	2990
3750	754	2.18	2036	811	2.46	2290	864	2.73	2548	913	3.01	2809	960	3.30	3076

548F

548F090 (7½ TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	831	1.53	1423	880	1.74	1627	927	1.97	1840	971	2.21	2061	1013	2.46	2289
2300	836	1.57	1465	885	1.79	1671	931	2.02	1886	975	2.26	2109	1017	2.51	2340
2400	846	1.67	1554	895	1.89	1764	941	2.13	1982	984	2.37	2209	1026	2.62	2443
2500	856	1.77	1647	905	2.00	1862	950	2.24	2085	993	2.48	2315	1035	2.74	2553
2550	862	1.82	1697	910	2.05	1913	955	2.29	2138	998	2.54	2370	1039	2.80	2611
2600	867	1.87	1747	915	2.11	1966	960	2.35	2193	1003	2.60	2427	1044	2.86	2669
2700	878	1.99	1852	925	2.23	2076	970	2.47	2307	1012	2.73	2545	1053	2.99	2791
2800	889	2.11	1963	936	2.35	2192	980	2.60	2427	1022	2.86	2670	1063	3.13	2920
2900	900	2.23	2080	946	2.48	2314	990	2.74	2554	1032	3.00	2800	1072	3.28	3055
3000	912	2.36	2204	957	2.62	2442	1001	2.88	2687	1043	3.15	2938	1082	3.43	3196
3100	923	2.50	2334	969	2.76	2577	1012	3.03	2826	1053	3.31	3082	1093	3.59	3345
3200	935	2.65	2471	980	2.92	2718	1023	3.19	2973	1064	3.47	3233	—	—	—
3300	947	2.80	2613	992	3.07	2867	1034	3.35	3126	1074	3.64	3391	—	—	—
3400	960	2.96	2764	1003	3.24	3022	1045	3.52	3286	—	—	—	—	—	—
3500	972	3.13	2921	1015	3.42	3185	1057	3.70	3454	—	—	—	—	—	—
3600	985	3.31	3086	1028	3.60	3355	—	—	—	—	—	—	—	—	—
3700	997	3.49	3259	—	—	—	—	—	—	—	—	—	—	—	—
3750	1004	3.59	3347	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F120 (10 TONS) — STANDARD MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	—	—	—
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	—	—	—
4400	755	1.78	1660	807	2.01	1873	856	2.23	2084	—	—	—	—	—	—
4500	770	1.89	1766	821	2.13	1984	869	2.36	2200	—	—	—	—	—	—
4600	785	2.01	1876	835	2.25	2099	—	—	—	—	—	—	—	—	—
4700	800	2.14	1991	849	2.38	2219	—	—	—	—	—	—	—	—	—
4800	815	2.26	2111	—	—	—	—	—	—	—	—	—	—	—	—
4900	829	2.40	2235	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

548F120 (10 TONS) — STANDARD MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	—	—	—
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	—	—	—
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	—	—	—	—	—	—
3700	907	2.06	1924	949	2.25	2101	—	—	—	—	—	—	—	—	—
3800	918	2.17	2025	959	2.37	2207	—	—	—	—	—	—	—	—	—
3900	929	2.28	2130	—	—	—	—	—	—	—	—	—	—	—	—
4000	940	2.40	2238	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.

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

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F120 (10 TONS) — ALTERNATE MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384
4400	755	1.78	1660	807	2.01	1873	856	2.23	2084	901	2.46	2295	944	2.69	2505
4500	770	1.89	1766	821	2.13	1984	869	2.36	2200	914	2.59	2415	956	2.82	2630
4600	785	2.01	1876	835	2.25	2099	882	2.49	2320	926	2.72	2541	—	—	—
4700	800	2.14	1991	849	2.38	2219	895	2.62	2445	939	2.86	2670	—	—	—
4800	815	2.26	2111	863	2.51	2344	909	2.76	2575	—	—	—	—	—	—
4900	829	2.40	2235	877	2.65	2473	—	—	—	—	—	—	—	—	—
5000	844	2.54	2365	891	2.80	2608	—	—	—	—	—	—	—	—	—

548F

548F120 (10 TONS) — ALTERNATE MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	—	—	—
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	—	—	—
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	—	—	—	—	—	—
4100	951	2.52	2351	991	2.73	2547	—	—	—	—	—	—	—	—	—
4200	962	2.65	2468	1002	2.86	2668	—	—	—	—	—	—	—	—	—
4300	973	2.78	2589	—	—	—	—	—	—	—	—	—	—	—	—
4400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.

*Motor drive range: 835 to 1085 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F

548F120 (10 TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384
4400	755	1.78	1660	807	2.01	1873	856	2.23	2084	901	2.46	2295	944	2.69	2505
4500	770	1.89	1766	821	2.13	1984	869	2.36	2200	914	2.59	2415	956	2.82	2630
4600	785	2.01	1876	835	2.25	2099	882	2.49	2320	926	2.72	2541	968	2.96	2760
4700	800	2.14	1991	849	2.38	2219	895	2.62	2445	939	2.86	2670	980	3.10	2895
4800	815	2.26	2111	863	2.51	2344	909	2.76	2575	952	3.01	2805	993	3.25	3034
4900	829	2.40	2235	877	2.65	2473	922	2.91	2709	965	3.16	2944	1005	3.41	3178
5000	844	2.54	2365	891	2.80	2608	936	3.06	2849	978	3.31	3089	1018	3.57	3328

548F120 (10 TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	1073	2.95	2755
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	1082	3.09	2877
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	1056	3.02	2812	1092	3.22	3004
4100	951	2.52	2351	991	2.73	2547	1029	2.94	2743	1066	3.15	2939	1102	3.36	3136
4200	962	2.65	2468	1002	2.86	2668	1040	3.08	2869	1076	3.29	3070	1112	3.51	3271
4300	973	2.78	2589	1013	3.00	2794	1050	3.22	2999	1087	3.44	3205	1122	3.66	3411
4400	985	2.91	2715	1024	3.14	2924	1061	3.36	3134	1097	3.59	3345	1132	3.81	3555
4500	996	3.05	2845	1035	3.28	3059	1072	3.51	3274	1108	3.74	3489	1142	3.97	3704
4600	1008	3.20	2979	1046	3.43	3199	1083	3.67	3418	1118	3.90	3638	1152	4.14	3857
4700	1020	3.34	3119	1058	3.58	3343	1094	3.83	3567	1129	4.07	3792	1163	4.31	4016
4800	1032	3.50	3263	1069	3.74	3492	1105	3.99	3721	1140	4.24	3950	1174	4.48	4179
4900	1044	3.66	3413	1081	3.91	3646	1117	4.16	3880	1151	4.41	4113	1184	4.66	4347
5000	1056	3.82	3566	1093	4.08	3805	1128	4.34	4044	1162	4.59	4282	1195	4.85	4520

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 5.25.

*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS

548F

548F036 (3 TONS) — STANDARD MOTOR (DIRECT DRIVE)												
Airflow (Cfm)	Low Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
900	0.72	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

See General Fan Performance notes on page 27.

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

548F036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	607	0.14	142	745	0.22	221	856	0.31	304	952	0.39	393	1037	0.49	485
1000	640	0.18	174	775	0.26	261	884	0.35	351	978	0.45	446	1062	0.55	545
1100	674	0.21	212	805	0.31	307	912	0.41	404	1005	0.51	506	1089	0.61	611
1200	708	0.26	256	836	0.36	359	941	0.47	464	1033	0.57	572	1116	0.69	683
1300	743	0.31	307	868	0.42	417	971	0.53	530	1062	0.65	645	1143	0.77	764
1400	780	0.37	364	900	0.49	483	1002	0.61	603	1091	0.73	726	1172	0.86	851
1500	816	0.43	428	934	0.56	556	1033	0.69	685	1121	0.82	815	1201	0.95	947

548F036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
900	1114	0.59	582	1186	0.69	684	1253	0.79	789	1316	0.90	898	—	—	—
1000	1139	0.65	648	1210	0.76	754	1277	0.87	865	1340	0.98	979	—	—	—
1100	1165	0.72	720	1236	0.84	832	1302	0.95	948	—	—	—	—	—	—
1200	1191	0.80	799	1261	0.92	917	—	—	—	—	—	—	—	—	—
1300	1218	0.89	885	—	—	—	—	—	—	—	—	—	—	—	—
1400	1246	0.99	980	—	—	—	—	—	—	—	—	—	—	—	—
1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

See General Fan Performance notes on page 27.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.00.

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

548F036 (3 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	607	0.14	142	745	0.22	221	856	0.31	304	952	0.39	393	1037	0.49	485
1000	640	0.18	174	775	0.26	261	884	0.35	351	978	0.45	446	1062	0.55	545
1100	674	0.21	212	805	0.31	307	912	0.41	404	1005	0.51	506	1089	0.61	611
1200	708	0.26	256	836	0.36	359	941	0.47	464	1033	0.57	572	1116	0.69	683
1300	743	0.31	307	868	0.42	417	971	0.53	530	1062	0.65	645	1143	0.77	764
1400	780	0.37	364	900	0.49	483	1002	0.61	603	1091	0.73	726	1172	0.86	851
1500	816	0.43	428	934	0.56	556	1033	0.69	685	1121	0.82	815	1201	0.95	947

548F036 (3 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
900	1114	0.59	582	1186	0.69	684	1253	0.79	789	1316	0.90	898	1375	1.02	1010
1000	1139	0.65	648	1210	0.76	754	1277	0.87	865	1340	0.98	979	1399	1.10	1097
1100	1165	0.72	720	1236	0.84	832	1302	0.95	948	1364	1.07	1068	1423	1.20	1191
1200	1191	0.80	799	1261	0.92	917	1327	1.04	1039	1389	1.17	1165	1448	1.30	1293
1300	1218	0.89	885	1288	1.02	1010	1353	1.14	1138	1414	1.28	1270	1473	1.41	1404
1400	1246	0.99	980	1315	1.12	1111	1379	1.25	1246	1440	1.39	1383	1499	1.53	1523
1500	1274	1.09	1083	1342	1.23	1221	1406	1.37	1362	1467	1.51	1505	1525	1.66	1652

LEGEND

See General Fan Performance notes on page 27.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

*Motor drive range: 1075 to 1455 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F

548F048 (4 TONS) — STANDARD MOTOR (DIRECT DRIVE)*												
Airflow (Cfm)	Low Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
1200	0.93	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

See General Fan Performance notes on page 27.

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

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	708	0.26	256	836	0.36	359	941	0.47	464	1033	0.57	572	1116	0.69	683
1300	743	0.31	307	868	0.42	417	971	0.53	530	1062	0.65	645	1143	0.77	764
1400	780	0.37	364	900	0.49	483	1002	0.61	603	1091	0.73	726	1172	0.86	851
1500	816	0.43	428	934	0.56	556	1033	0.69	685	1121	0.82	815	1201	0.95	947
1600	854	0.50	501	968	0.64	638	1065	0.78	774	1152	0.92	912	—	—	—
1700	892	0.59	582	1002	0.73	728	1098	0.88	872	—	—	—	—	—	—
1800	930	0.68	672	1038	0.83	826	1131	0.99	980	—	—	—	—	—	—
1900	969	0.78	772	1073	0.94	935	—	—	—	—	—	—	—	—	—
2000	1008	0.89	881	—	—	—	—	—	—	—	—	—	—	—	—

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1191	0.80	799	1261	0.92	917	—	—	—	—	—	—	—	—	—
1300	1218	0.89	885	—	—	—	—	—	—	—	—	—	—	—	—
1400	1246	0.99	980	—	—	—	—	—	—	—	—	—	—	—	—
1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

See General Fan Performance notes on page 27.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.00.

*Motor drive range: 770 to 1175 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F048 (4 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	708	0.26	256	836	0.36	359	941	0.47	464	1033	0.57	572	1116	0.69	683
1300	743	0.31	307	868	0.42	417	971	0.53	530	1062	0.65	645	1143	0.77	764
1400	780	0.37	364	900	0.49	483	1002	0.61	603	1091	0.73	726	1172	0.86	851
1500	816	0.43	428	934	0.56	556	1033	0.69	685	1121	0.82	815	1201	0.95	947
1600	854	0.50	501	968	0.64	638	1065	0.78	774	1152	0.92	912	1230	1.06	1052
1700	892	0.59	582	1002	0.73	728	1098	0.88	872	1183	1.02	1018	1260	1.17	1166
1800	930	0.68	672	1038	0.83	826	1131	0.99	980	1215	1.14	1134	1291	1.30	1289
1900	969	0.78	772	1073	0.94	935	1165	1.10	1097	1247	1.27	1259	1322	1.43	1422
2000	1008	0.89	881	1110	1.06	1054	1199	1.23	1224	1280	1.40	1395	1354	1.57	1566

548F

548F048 (4 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1191	0.80	799	1261	0.92	917	1327	1.04	1039	1389	1.17	1165	1448	1.30	1293
1300	1218	0.89	885	1288	1.02	1010	1353	1.14	1138	1414	1.28	1270	1473	1.41	1404
1400	1246	0.99	980	1315	1.12	1111	1379	1.25	1246	1440	1.39	1383	1499	1.53	1523
1500	1274	1.09	1083	1342	1.23	1221	1406	1.37	1362	1467	1.51	1505	1525	1.66	1652
1600	1303	1.20	1194	1370	1.35	1339	1434	1.49	1487	1494	1.65	1637	1551	1.80	1790
1700	1332	1.32	1315	1399	1.48	1467	1462	1.63	1622	1522	1.79	1778	1579	1.95	1938
1800	1362	1.45	1446	1428	1.61	1605	1490	1.78	1767	1550	1.94	1930	1606	2.11	2096
1900	1392	1.60	1587	1458	1.76	1753	1519	1.93	1922	1578	2.10	2092	1634	2.28	2265
2000	1423	1.75	1738	1488	1.92	1912	1549	2.10	2088	1607	2.28	2266	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

*Motor drive range: 1075 to 1455 rpm. All other rpms require a field-supplied drive.

548F060 (5 TONS) — STANDARD MOTOR (DIRECT DRIVE)*																		
Airflow (Cfm)	Low Speed						Medium Speed						High Speed					
	208 v			230, 460, 575 v			208 v			230, 460, 575 v			208 v			230, 460, 575 v		
	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts	ESP	Bhp	Watts
1500	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)
Watts — Input Watts to Motor

See General Fan Performance notes on page 27.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	776	0.38	340	883	0.51	454	977	0.65	579	1061	0.80	715	1138	0.97	860
1600	813	0.45	397	916	0.58	517	1007	0.73	646	1089	0.89	786	1165	1.05	935
1700	851	0.52	461	949	0.66	586	1038	0.81	721	1118	0.97	865	1192	1.15	1018
1800	888	0.60	532	984	0.75	662	1069	0.90	802	1148	1.07	951	1221	1.25	1109
1900	927	0.69	610	1019	0.84	747	1102	1.00	892	1179	1.18	1046	1250	1.36	1208
2000	965	0.78	697	1054	0.94	839	1135	1.11	990	1210	1.29	1149	1280	1.48	1316
2100	1004	0.89	792	1090	1.06	940	1169	1.23	1096	1242	1.42	1260	1310	1.61	1432
2200	1044	1.01	896	1127	1.18	1050	1203	1.36	1211	1274	1.55	1381	1341	1.75	1557
2300	1084	1.14	1009	1164	1.32	1169	1238	1.50	1336	1308	1.70	1511	1373	1.91	1693
2400	1123	1.27	1132	1201	1.46	1298	1273	1.66	1471	1341	1.86	1651	1405	2.07	1838
2500	1164	1.42	1265	1239	1.62	1437	1309	1.82	1616	1375	2.03	1801	1438	2.24	1994

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1500	1210	1.14	1014	1278	1.33	1178	1342	1.52	1350	1403	1.72	1530	1461	1.93	1717
1600	1236	1.23	1094	1302	1.42	1261	1365	1.62	1436	1425	1.82	1618	1483	2.04	1809
1700	1262	1.33	1181	1328	1.52	1351	1390	1.72	1530	1449	1.93	1716	1505	2.15	1910
1800	1289	1.44	1276	1354	1.63	1450	1415	1.84	1632	1473	2.05	1822	1529	2.27	2019
1900	1317	1.55	1379	1380	1.75	1557	1441	1.96	1743	1498	2.18	1937	—	—	—
2000	1345	1.68	1491	1408	1.88	1673	1467	2.10	1863	1524	2.32	2060	—	—	—
2100	1375	1.81	1611	1436	2.03	1798	1494	2.24	1993	—	—	—	—	—	—
2200	1405	1.96	1742	1465	2.18	1933	1522	2.40	2132	—	—	—	—	—	—
2300	1435	2.12	1882	1494	2.34	2078	—	—	—	—	—	—	—	—	—
2400	1466	2.29	2032	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Motor drive range: 878 to 1192 rpm. All other rpms require a field-supplied drive.

See General Fan Performance notes on page 27.

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 1.30 for single phase units and 2.40 for three-phase units.

548F060 (5 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	776	0.38	340	883	0.51	454	977	0.65	579	1061	0.80	715	1138	0.97	860
1600	813	0.45	397	916	0.58	517	1007	0.73	646	1089	0.89	786	1165	1.05	935
1700	851	0.52	461	949	0.66	586	1038	0.81	721	1118	0.97	865	1192	1.15	1018
1800	888	0.60	532	984	0.75	662	1069	0.90	802	1148	1.07	951	1221	1.25	1109
1900	927	0.69	610	1019	0.84	747	1102	1.00	892	1179	1.18	1046	1250	1.36	1208
2000	965	0.78	697	1054	0.94	839	1135	1.11	990	1210	1.29	1149	1280	1.48	1316
2100	1004	0.89	792	1090	1.06	940	1169	1.23	1096	1242	1.42	1260	1310	1.61	1432
2200	1044	1.01	896	1127	1.18	1050	1203	1.36	1211	1274	1.55	1381	1341	1.75	1557
2300	1084	1.14	1009	1164	1.32	1169	1238	1.50	1336	1308	1.70	1511	1373	1.91	1693
2400	1123	1.27	1132	1201	1.46	1298	1273	1.66	1471	1341	1.86	1651	1405	2.07	1838
2500	1164	1.42	1265	1239	1.62	1437	1309	1.82	1616	1375	2.03	1801	1438	2.24	1994

LEGEND

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

*Motor drive range: 1300 to 1685 rpm. All other rpms require a field-supplied drive.

See General Fan Performance notes on page 27.

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.90.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	888	0.60	532	984	0.75	662	1069	0.90	802	1148	1.07	951	1221	1.25	1109
1900	927	0.69	610	1019	0.84	747	1102	1.00	892	1179	1.18	1046	1250	1.36	1208
2000	965	0.78	697	1054	0.94	839	1135	1.11	990	1210	1.29	1149	1280	1.48	1316
2100	1004	0.89	792	1090	1.06	940	1169	1.23	1096	1242	1.42	1260	1310	1.61	1432
2200	1044	1.01	896	1127	1.18	1050	1203	1.36	1211	1274	1.55	1381	1341	1.75	1557
2300	1084	1.14	1009	1164	1.32	1169	1238	1.50	1336	1308	1.70	1511	1373	1.91	1693
2400	1123	1.27	1132	1201	1.46	1298	1273	1.66	1471	1341	1.86	1651	1405	2.07	1838
2500	1164	1.42	1265	1239	1.62	1437	1309	1.82	1616	1375	2.03	1801	1438	2.24	1994
2600	1204	1.59	1409	1277	1.79	1586	1345	1.99	1771	1410	2.21	1962	—	—	—
2700	1244	1.76	1563	1315	1.97	1747	1382	2.18	1938	1445	2.40	2135	—	—	—
2800	1285	1.95	1729	1354	2.16	1919	1419	2.38	2116	—	—	—	—	—	—
2900	1326	2.15	1907	1393	2.37	2104	—	—	—	—	—	—	—	—	—
3000	1367	2.36	2097	—	—	—	—	—	—	—	—	—	—	—	—

548F

548F072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1289	1.44	1276	1354	1.63	1450	1415	1.84	1632	1473	2.05	1822	1529	2.27	2019
1900	1317	1.55	1379	1380	1.75	1557	1441	1.96	1743	1498	2.18	1937	—	—	—
2000	1345	1.68	1491	1408	1.88	1673	1467	2.10	1863	1524	2.32	2060	—	—	—
2100	1375	1.81	1611	1436	2.03	1798	1494	2.24	1993	—	—	—	—	—	—
2200	1405	1.96	1742	1465	2.18	1933	1522	2.40	2132	—	—	—	—	—	—
2300	1435	2.12	1882	1494	2.34	2078	—	—	—	—	—	—	—	—	—
2400	1466	2.29	2032	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

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

548F072 (6 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	888	0.60	532	984	0.75	662	1069	0.90	802	1148	1.07	951	1221	1.25	1109
1900	927	0.69	610	1019	0.84	747	1102	1.00	892	1179	1.18	1046	1250	1.36	1208
2000	965	0.78	697	1054	0.94	839	1135	1.11	990	1210	1.29	1149	1280	1.48	1316
2100	1004	0.89	792	1090	1.06	940	1169	1.23	1096	1242	1.42	1260	1310	1.61	1432
2200	1044	1.01	896	1127	1.18	1050	1203	1.36	1211	1274	1.55	1381	1341	1.75	1557
2300	1084	1.14	1009	1164	1.32	1169	1238	1.50	1336	1308	1.70	1511	1373	1.91	1693
2400	1123	1.27	1132	1201	1.46	1298	1273	1.66	1471	1341	1.86	1651	1405	2.07	1838
2500	1164	1.42	1265	1239	1.62	1437	1309	1.82	1616	1375	2.03	1801	1438	2.24	1994
2600	1204	1.59	1409	1277	1.79	1586	1345	1.99	1771	1410	2.21	1962	1471	2.43	2160
2700	1244	1.76	1563	1315	1.97	1747	1382	2.18	1938	1445	2.40	2135	1505	2.63	2338
2800	1285	1.95	1729	1354	2.16	1919	1419	2.38	2116	1481	2.61	2319	1539	2.85	2527
2900	1326	2.15	1907	1393	2.37	2104	1456	2.60	2306	1517	2.83	2514	—	—	—
3000	1367	2.36	2097	1432	2.59	2300	1494	2.82	2508	—	—	—	—	—	—

548F072 (6 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1289	1.44	1276	1354	1.63	1450	1415	1.84	1632	1473	2.05	1822	1529	2.27	2019
1900	1317	1.55	1379	1380	1.75	1557	1441	1.96	1743	1498	2.18	1937	1553	2.41	2137
2000	1345	1.68	1491	1408	1.88	1673	1467	2.10	1863	1524	2.32	2060	1579	2.55	2264
2100	1375	1.81	1611	1436	2.03	1798	1494	2.24	1993	1550	2.47	2194	1604	2.70	2401
2200	1405	1.96	1742	1465	2.18	1933	1522	2.40	2132	1578	2.63	2337	1631	2.87	2548
2300	1435	2.12	1882	1494	2.34	2078	1551	2.57	2280	1605	2.80	2490	—	—	—
2400	1466	2.29	2032	1524	2.51	2232	1580	2.75	2440	—	—	—	—	—	—
2500	1498	2.47	2193	1555	2.70	2398	—	—	—	—	—	—	—	—	—
2600	1530	2.66	2364	1586	2.90	2574	—	—	—	—	—	—	—	—	—
2700	1563	2.87	2547	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

See General Fan Performance notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.

*Motor drive range: 1300 to 1685 rpm. All other rpms require a field-supplied drive.

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	465	0.49	459	555	0.67	621	629	0.84	786	694	1.03	959	752	1.22	1138
2300	471	0.52	483	560	0.69	648	634	0.88	817	698	1.06	992	757	1.26	1174
2400	483	0.57	534	570	0.76	705	644	0.94	880	708	1.14	1061	765	1.34	1248
2500	495	0.63	588	581	0.82	767	653	1.02	948	717	1.22	1134	774	1.42	1327
2550	501	0.66	617	586	0.86	799	658	1.05	983	722	1.26	1173	779	1.47	1368
2600	507	0.69	647	592	0.89	832	663	1.09	1020	727	1.30	1212	784	1.51	1410
2700	519	0.76	709	603	0.97	902	674	1.18	1096	736	1.39	1294	793	1.61	1498
2800	532	0.83	775	614	1.05	976	684	1.26	1176	746	1.48	1381	802	1.71	1590
2900	544	0.91	846	625	1.13	1054	694	1.35	1261	756	1.58	1472	812	1.81	1687
3000	557	0.99	922	637	1.22	1137	705	1.45	1351	766	1.68	1568	821	1.92	1789
3100	570	1.07	1002	648	1.31	1224	716	1.55	1445	776	1.79	1669	831	2.03	1896
3200	582	1.17	1087	660	1.41	1317	727	1.66	1545	786	1.90	1774	841	2.15	2008
3300	595	1.26	1177	671	1.52	1414	738	1.77	1649	797	2.02	1885	851	2.28	2125
3400	608	1.36	1271	683	1.63	1517	749	1.89	1759	807	2.15	2002	—	—	—
3500	622	1.47	1372	695	1.74	1625	760	2.01	1874	818	2.28	2124	—	—	—
3600	635	1.58	1477	707	1.86	1738	771	2.14	1995	—	—	—	—	—	—
3700	648	1.70	1588	720	1.99	1857	783	2.27	2121	—	—	—	—	—	—
3750	655	1.77	1646	726	2.06	1918	788	2.34	2187	—	—	—	—	—	—

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	806	1.42	1326	855	1.63	1521	902	1.85	1723	946	2.07	1932	988	2.30	2148
2300	810	1.46	1363	859	1.67	1561	906	1.89	1765	950	2.12	1976	991	2.35	2194
2400	818	1.55	1443	868	1.76	1644	914	1.99	1853	958	2.22	2068	—	—	—
2500	827	1.64	1527	876	1.86	1733	922	2.09	1946	966	2.32	2165	—	—	—
2550	832	1.68	1570	880	1.91	1779	926	2.14	1994	970	2.38	2215	—	—	—
2600	836	1.73	1615	885	1.96	1826	931	2.19	2043	—	—	—	—	—	—
2700	845	1.83	1708	893	2.06	1923	939	2.30	2146	—	—	—	—	—	—
2800	854	1.94	1805	902	2.17	2026	—	—	—	—	—	—	—	—	—
2900	863	2.05	1907	911	2.29	2134	—	—	—	—	—	—	—	—	—
3000	872	2.16	2015	—	—	—	—	—	—	—	—	—	—	—	—
3100	882	2.28	2127	—	—	—	—	—	—	—	—	—	—	—	—
3200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

*Motor drive range: 590 to 840 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F090 (7½ TONS) — ALTERNATE DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	465	0.49	459	555	0.67	621	629	0.84	786	694	1.03	959	752	1.22	1138
2300	471	0.52	483	560	0.69	648	634	0.88	817	698	1.06	992	757	1.26	1174
2400	483	0.57	534	570	0.76	705	644	0.94	880	708	1.14	1061	765	1.34	1248
2500	495	0.63	588	581	0.82	767	653	1.02	948	717	1.22	1134	774	1.42	1327
2550	501	0.66	617	586	0.86	799	658	1.05	983	722	1.26	1173	779	1.47	1368
2600	507	0.69	647	592	0.89	832	663	1.09	1020	727	1.30	1212	784	1.51	1410
2700	519	0.76	709	603	0.97	902	674	1.18	1096	736	1.39	1294	793	1.61	1498
2800	532	0.83	775	614	1.05	976	684	1.26	1176	746	1.48	1381	802	1.71	1590
2900	544	0.91	846	625	1.13	1054	694	1.35	1261	756	1.58	1472	812	1.81	1687
3000	557	0.99	922	637	1.22	1137	705	1.45	1351	766	1.68	1568	821	1.92	1789
3100	570	1.07	1002	648	1.31	1224	716	1.55	1445	776	1.79	1669	831	2.03	1896
3200	582	1.17	1087	660	1.41	1317	727	1.66	1545	786	1.90	1774	841	2.15	2008
3300	595	1.26	1177	671	1.52	1414	738	1.77	1649	797	2.02	1885	851	2.28	2125
3400	608	1.36	1271	683	1.63	1517	749	1.89	1759	807	2.15	2002	—	—	—
3500	622	1.47	1372	695	1.74	1625	760	2.01	1874	818	2.28	2124	—	—	—
3600	635	1.58	1477	707	1.86	1738	771	2.14	1995	—	—	—	—	—	—
3700	648	1.70	1588	720	1.99	1857	783	2.27	2121	—	—	—	—	—	—
3750	655	1.77	1646	726	2.06	1918	788	2.34	2187	—	—	—	—	—	—

548F

548F090 (7½ TONS) — ALTERNATE DRIVE* (cont)															
Airflow (Cfm)	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	806	1.42	1326	855	1.63	1521	902	1.85	1723	946	2.07	1932	988	2.30	2148
2300	810	1.46	1363	859	1.67	1561	906	1.89	1765	950	2.12	1976	991	2.35	2194
2400	818	1.55	1443	868	1.76	1644	914	1.99	1853	958	2.22	2068	—	—	—
2500	827	1.64	1527	876	1.86	1733	922	2.09	1946	966	2.32	2165	—	—	—
2550	832	1.68	1570	880	1.91	1779	926	2.14	1994	970	2.38	2215	—	—	—
2600	836	1.73	1615	885	1.96	1826	931	2.19	2043	—	—	—	—	—	—
2700	845	1.83	1708	893	2.06	1923	939	2.30	2146	—	—	—	—	—	—
2800	854	1.94	1805	902	2.17	2026	—	—	—	—	—	—	—	—	—
2900	863	2.05	1907	911	2.29	2134	—	—	—	—	—	—	—	—	—
3000	872	2.16	2015	—	—	—	—	—	—	—	—	—	—	—	—
3100	882	2.28	2127	—	—	—	—	—	—	—	—	—	—	—	—
3200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.

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

PERFORMANCE DATA — 548F (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F

548F090 (7½ TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	465	0.49	459	555	0.67	621	629	0.84	786	694	1.03	959	752	1.22	1138
2300	471	0.52	483	560	0.69	648	634	0.88	817	698	1.06	992	757	1.26	1174
2400	483	0.57	534	570	0.76	705	644	0.94	880	708	1.14	1061	765	1.34	1248
2500	495	0.63	588	581	0.82	767	653	1.02	948	717	1.22	1134	774	1.42	1327
2550	501	0.66	617	586	0.86	799	658	1.05	983	722	1.26	1173	779	1.47	1368
2600	507	0.69	647	592	0.89	832	663	1.09	1020	727	1.30	1212	784	1.51	1410
2700	519	0.76	709	603	0.97	902	674	1.18	1096	736	1.39	1294	793	1.61	1498
2800	532	0.83	775	614	1.05	976	684	1.26	1176	746	1.48	1381	802	1.71	1590
2900	544	0.91	846	625	1.13	1054	694	1.35	1261	756	1.58	1472	812	1.81	1687
3000	557	0.99	922	637	1.22	1137	705	1.45	1351	766	1.68	1568	821	1.92	1789
3100	570	1.07	1002	648	1.31	1224	716	1.55	1445	776	1.79	1669	831	2.03	1896
3200	582	1.17	1087	660	1.41	1317	727	1.66	1545	786	1.90	1774	841	2.15	2008
3300	595	1.26	1177	671	1.52	1414	738	1.77	1649	797	2.02	1885	851	2.28	2125
3400	608	1.36	1271	683	1.63	1517	749	1.89	1759	807	2.15	2002	861	2.41	2248
3500	622	1.47	1372	695	1.74	1625	760	2.01	1874	818	2.28	2124	871	2.55	2376
3600	635	1.58	1477	707	1.86	1738	771	2.14	1995	829	2.41	2252	881	2.69	2510
3700	648	1.70	1588	720	1.99	1857	783	2.27	2121	839	2.56	2385	892	2.84	2650
3750	655	1.77	1646	726	2.06	1918	788	2.34	2187	845	2.63	2454	897	2.92	2722

548F090 (7½ TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	806	1.42	1326	855	1.63	1521	902	1.85	1723	946	2.07	1932	988	2.30	2148
2300	810	1.46	1363	859	1.67	1561	906	1.89	1765	950	2.12	1976	991	2.35	2194
2400	818	1.55	1443	868	1.76	1644	914	1.99	1853	958	2.22	2068	999	2.46	2290
2500	827	1.64	1527	876	1.86	1733	922	2.09	1946	966	2.32	2165	1007	2.56	2391
2550	832	1.68	1570	880	1.91	1779	926	2.14	1994	970	2.38	2215	1011	2.62	2444
2600	836	1.73	1615	885	1.96	1826	931	2.19	2043	974	2.43	2267	1015	2.68	2497
2700	845	1.83	1708	893	2.06	1923	939	2.30	2146	982	2.55	2374	1023	2.80	2609
2800	854	1.94	1805	902	2.17	2026	948	2.42	2253	991	2.67	2486	1031	2.92	2725
2900	863	2.05	1907	911	2.29	2134	956	2.54	2366	999	2.79	2603	1040	3.05	2847
3000	872	2.16	2015	920	2.41	2246	965	2.66	2483	1008	2.92	2726	1048	3.19	2974
3100	882	2.28	2127	929	2.54	2365	974	2.80	2607	1016	3.06	2854	1057	3.33	3107
3200	891	2.41	2245	938	2.67	2488	983	2.93	2735	1025	3.20	2988	1065	3.48	3246
3300	901	2.54	2369	948	2.81	2617	992	3.08	2869	1034	3.35	3127	1074	3.64	3390
3400	911	2.68	2497	957	2.95	2751	1001	3.23	3010	1043	3.51	3273	—	—	—
3500	921	2.82	2632	967	3.10	2891	1011	3.38	3155	1052	3.67	3424	—	—	—
3600	930	2.97	2772	977	3.26	3038	1020	3.55	3307	—	—	—	—	—	—
3700	941	3.13	2918	986	3.42	3190	1030	3.72	3465	—	—	—	—	—	—
3750	946	3.21	2994	991	3.50	3268	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F120 (10 TONS) — STANDARD MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184
4400	710	1.59	1482	760	1.80	1677	808	2.01	1876	855	2.23	2081	—	—	—
4500	723	1.69	1577	773	1.90	1775	820	2.12	1978	866	2.35	2187	—	—	—
4600	737	1.80	1675	785	2.01	1877	832	2.24	2085	—	—	—	—	—	—
4700	751	1.91	1778	798	2.13	1984	844	2.35	2195	—	—	—	—	—	—
4800	765	2.02	1885	812	2.25	2095	—	—	—	—	—	—	—	—	—
4900	779	2.14	1996	825	2.37	2210	—	—	—	—	—	—	—	—	—
5000	793	2.26	2112	—	—	—	—	—	—	—	—	—	—	—	—

548F

548F120 (10 TONS) — STANDARD MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	—	—	—
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	—	—	—
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	—	—	—	—	—	—
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	—	—	—	—	—	—
3800	889	2.04	1904	936	2.25	2100	—	—	—	—	—	—	—	—	—
3900	898	2.14	1995	944	2.35	2195	—	—	—	—	—	—	—	—	—
4000	907	2.24	2089	—	—	—	—	—	—	—	—	—	—	—	—
4100	916	2.35	2187	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.

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

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F

548F120 (10 TONS) — ALTERNATE MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184
4400	710	1.59	1482	760	1.80	1677	808	2.01	1876	855	2.23	2081	900	2.46	2290
4500	723	1.69	1577	773	1.90	1775	820	2.12	1978	866	2.35	2187	910	2.57	2400
4600	737	1.80	1675	785	2.01	1877	832	2.24	2085	877	2.46	2297	921	2.70	2514
4700	751	1.91	1778	798	2.13	1984	844	2.35	2195	889	2.59	2412	932	2.82	2633
4800	765	2.02	1885	812	2.25	2095	856	2.48	2310	900	2.71	2531	—	—	—
4900	779	2.14	1996	825	2.37	2210	869	2.61	2430	912	2.85	2654	—	—	—
5000	793	2.26	2112	838	2.50	2330	881	2.74	2554	—	—	—	—	—	—

548F120 (10 TONS) — ALTERNATE MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	—	—	—
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	—	—	—
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	—	—	—	—	—	—
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	—	—	—	—	—	—
4200	925	2.45	2289	969	2.68	2500	—	—	—	—	—	—	—	—	—
4300	934	2.57	2395	978	2.80	2610	—	—	—	—	—	—	—	—	—
4400	944	2.69	2504	—	—	—	—	—	—	—	—	—	—	—	—
4500	954	2.81	2618	—	—	—	—	—	—	—	—	—	—	—	—
4600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

Refer to page 27 General Fan Performance Notes.

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.90.

*Motor drive range: 835 to 1085 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F120 (10 TONS) — HIGH-STATIC MOTOR AND DRIVE*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184
4400	710	1.59	1482	760	1.80	1677	808	2.01	1876	855	2.23	2081	900	2.46	2290
4500	723	1.69	1577	773	1.90	1775	820	2.12	1978	866	2.35	2187	910	2.57	2400
4600	737	1.80	1675	785	2.01	1877	832	2.24	2085	877	2.46	2297	921	2.70	2514
4700	751	1.91	1778	798	2.13	1984	844	2.35	2195	889	2.59	2412	932	2.82	2633
4800	765	2.02	1885	812	2.25	2095	856	2.48	2310	900	2.71	2531	942	2.95	2756
4900	779	2.14	1996	825	2.37	2210	869	2.61	2430	912	2.85	2654	953	3.09	2883
5000	793	2.26	2112	838	2.50	2330	881	2.74	2554	923	2.98	2782	965	3.23	3014

548F

548F120 (10 TONS) — HIGH-STATIC MOTOR AND DRIVE* (cont)															
Airflow (Cfm)	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	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	1068	2.91	2716
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	1074	3.03	2821
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	1038	2.91	2713	1080	3.14	2930
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	1046	3.03	2822	1087	3.26	3042
4200	925	2.45	2289	969	2.68	2500	1011	2.91	2716	1053	3.15	2935	1094	3.39	3159
4300	934	2.57	2395	978	2.80	2610	1020	3.03	2828	1061	3.27	3052	1101	3.52	3279
4400	944	2.69	2504	986	2.92	2723	1028	3.16	2946	1068	3.40	3173	1108	3.65	3403
4500	954	2.81	2618	996	3.05	2840	1037	3.29	3067	1076	3.54	3297	1115	3.79	3531
4600	963	2.93	2736	1005	3.18	2962	1045	3.42	3192	1085	3.67	3426	1123	3.93	3664
4700	974	3.07	2858	1014	3.31	3088	1054	3.56	3322	1093	3.82	3560	1131	4.08	3801
4800	984	3.20	2985	1024	3.45	3219	1063	3.71	3456	1102	3.96	3697	1139	4.23	3943
4900	994	3.34	3116	1034	3.60	3353	1073	3.85	3594	1111	4.12	3839	1148	4.38	4088
5000	1005	3.49	3251	1044	3.74	3492	1082	4.01	3737	1119	4.27	3986	1156	4.55	4238

LEGEND

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

Refer to General Fan Performance Notes on page 27.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 5.25.

*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 548F (cont)
FAN RPM AT MOTOR PULLEY SETTINGS* — 548F036-120

548F

UNIT 548F	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
036†	1000	976	952	928	904	880	856	832	808	784	760	—	—
036**	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
048†	1175	1135	1094	1054	1013	973	932	892	851	811	770	—	—
048**	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
060†	1192	1166	1140	1114	1087	1061	1035	1009	983	957	930	904	878
060**	1685	1647	1608	1570	1531	1493	1454	1416	1377	1339	1300	—	—
072††	1460	1420	1380	1345	1305	1265	1225	1185	1150	1110	1070	—	—
072**	1685	1647	1608	1570	1531	1493	1454	1416	1377	1339	1300	—	—
090††	840	815	790	765	740	715	690	665	635	615	590	—	—
090***	935	910	885	860	835	810	785	760	735	710	685	—	—
090**	1080	1025	1007	988	970	952	933	915	897	878	860	—	—
120††	935	910	885	860	835	810	785	760	735	710	685	—	—
120†	1085	1060	1035	1010	985	960	935	910	885	860	835	—	—
120**	1130	1112	1087	1062	1037	1012	987	962	937	912	887	862	830

*Approximate fan rpm shown.

†Indicates alternate motor and drive package.

**Indicates high-static motor and drive package.

††Indicates standard motor and drive package.

***Indicates alternate drive package only.

ACCESSORY/HEATER STATIC PRESSURE* (in. wg) — 548F036-072

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

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

ACCESSORY/HEATER STATIC PRESSURE* (in. wg) — 548F090-120

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

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

ACCESSORY/FIOP STATIC PRESSURE* (in wg) — 548F036-072

COMPONENT	CFM							
	1250	1500	1750	2000	2250	2500	2750	3000
Vertical EconoMi\$erIV and EconoMi\$er2	0.045	0.065	0.08	0.12	0.145	0.175	0.22	0.255
Horizontal EconoMi\$erIV and EconoMi\$er2	—	—	0.1	0.125	0.15	0.18	0.225	0.275

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP STATIC PRESSURE* (in wg) — 548F090-120

COMPONENT	CFM													
	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	6250
Vertical EconoMi\$erIV and EconoMi\$er2	0.06	0.075	0.09	0.115	0.13	0.15	0.17	0.195	0.22	0.25	0.285	0.325	0.36	—
Horizontal EconoMi\$erIV and EconoMi\$er2	—	0.1	0.125	0.15	0.18	0.21	0.25	0.275	0.3	0.34	0.388	—	—	—

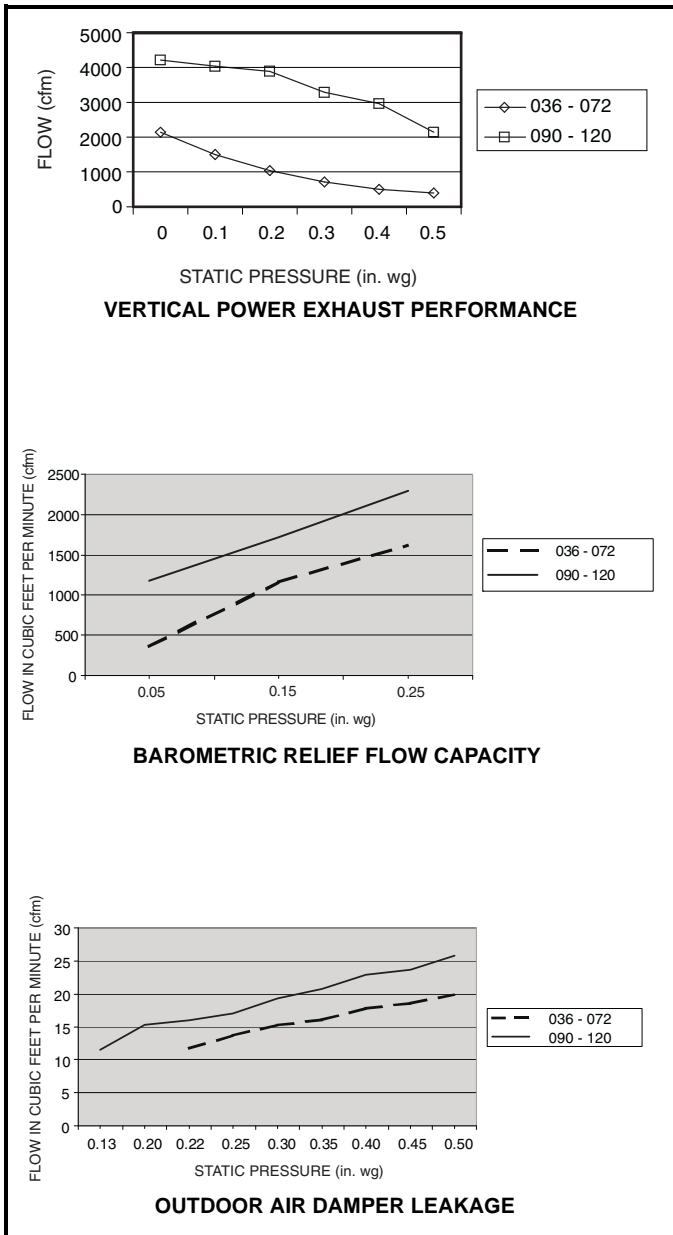
LEGEND

FIOP — Factory-Installed Option

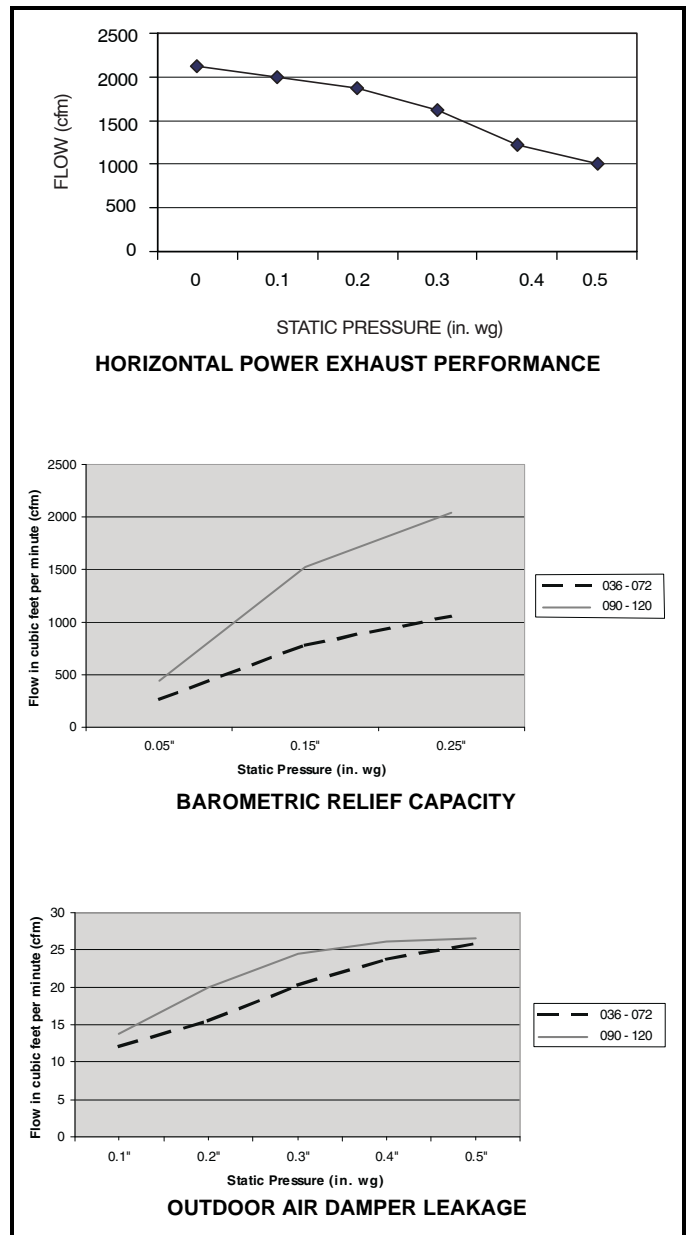
*The static pressure must be added to external static pressure. The sum and the evaporator entering-air cfm should then be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

PERFORMANCE DATA — 548F (cont)

548F



Vertical EconoMi\$erIV and EconoMi\$er2 Performance Data (548F036-120)



Horizontal EconoMi\$erIV and EconoMi\$er2 Performance Data (548F036-120)

PERFORMANCE DATA — 548F (cont)
ELECTRIC HEATING CAPACITIES — 548F036-072

548F

UNIT 548F	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER --- A00	SINGLE POINT BOX PACKAGE NO. CRSINGLE---A00
036	208/230/240 (single phase)	3.3/ 4.0/ 4.4 4.9/ 6.0/ 6.5 6.5/ 8.0/ 8.7 7.9/ 9.6/10.5 9.8/12.0/13.0*	001 002 003 004 002 & 002	— —† 004 004 005
	208/230/240 (3 phase)	3.3/ 4.0/ 4.4 4.9/ 6.0/ 6.5 6.5/ 8.0/ 8.7 7.9/ 9.6/10.5 12.0/14.7/16.0	001 002 003 004 005	— — — — 002
	460/480 (3 phase)	5.5/ 6.0 8.1/ 8.8 10.6/11.5 12.9/14.0	006 007 008 009	— — — —
048	208/230/240 (single phase)	3.3/ 4.0/ 4.4 6.5/ 8.0/ 8.7 9.8/12.0/13.0* 13.1/16.0/17.4* 15.8/19.3/21.0*	001 003 002 & 002 003 & 003 004 & 004	—† 004 005 005 005
	208/230/240 (3 phase)	4.9/ 6.0/ 6.5 6.5/ 8.0/ 8.7 12.0/14.7/16.0 15.8/19.3/21.0*	002 003 005 004 & 004	— — 002 003
	460/480 (3 phase)	5.5/ 6.0 10.6/11.5 12.9/14.0 21.1/23.0*	006 008 009 008 & 008	— — — —
060	208/230/240 (single phase)	4.9/ 6.0/ 6.5 6.5/ 8.0/ 8.7 9.8/12.0/13.0* 13.1/16.0/17.4* 15.8/19.3/21.0*	002 003 002 & 002 003 & 003 004 & 004	004 004 005 005 005
	208/230/240 (3 phase)	4.9/ 6.0/ 6.5 7.9/ 9.6/10.5 12.0/14.7/16.0 15.8/19.3/21.0* 19.9/24.3/26.5*	002 004 005 004 & 004 004 & 005	— —** 002 003 003
	460/480 (3 phase)	5.5/ 6.0 10.6/11.5 12.9/14.0 21.1/23.0* 23.4/25.5*	006 008 009 008 & 008 008 & 009	— — — — —
072	208/230/240 (3 phase)	4.9/ 6.0/ 6.5 7.9/ 9.6/10.5 12.0/14.7/16.0 15.8/19.3/21.0* 19.9/24.3/26.5*	002 004 005 004 & 004 004 & 006	—†† 002 002 003 003
	460/480 (3 phase)	5.5/ 6.0 10.6/11.5 12.9/14.0 21.1/23.0* 23.4/25.5*	006 008 009 008 & 008 008 & 009	— — — — —

*Two heater packages required to provide kW indicated.
†Use CRSINGLE004A00 for units with convenience outlet.
**Use CRSINGLE002A00 for units with convenience outlet.
††Use CRSINGLE002A00 for units with high-static motor *and* convenience outlet.

NOTES:

- The rated heater voltage is 240, 480, and 575 v. If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly.
- To determine heater kW at voltages other than those shown in table, use the following formula:
Heater kW new = Heater kW rated x (unit power distribution voltage/rated heater voltage)²

As an example:

For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v

kW new = 16 kW (215/240)²

kW new = 12.8 kW (rating at 215 v)

PERFORMANCE DATA — 548F (cont)
ELECTRIC HEATING CAPACITIES — 548F090-120

UNIT 548F	UNIT VOLTAGE (60 Hz)	ACCESSORY kW	ELECTRIC HEATER PART NUMBER CRHEATER---A00	SINGLE POINT BOX PACKAGE NO. CRSINGLE---A00
090	208/230/240 (3 phase)	7.8/ 9.6/10.4 12.0/14.7/16.0 18.6/22.8/24.8 24.0/29.4/32.0 31.8/39.0/42.4*	017 010 011 012 012 and 017	007 007 009 009 013
	460/480 (3 phase)	12.8/13.9 15.2/16.5 25.6/27.8 30.4/33.0 38.4/41.7*	016 013 014 015 014 and 016	006 006 008 008 010
	575 (3 phase)	17.0 34.0	018 019	006 006
120	208/230/240 (3 phase)	7.8/ 9.6/10.4 12.0/14.7/16.0 24.0/29.4/32.0 31.8/39.0/42.4* 37.6/46.2/50.0*	017 010 012 012 and 017 010 and 012	012 012 015 017 017
	460/480 (3 phase)	15.2/16.5 25.6/27.8 30.4/33.0 38.4/41.7* 45.9/50.0*	013 014 015 014 and 016 013 and 015	011 014 014 016 016
	575 (3 phase)	17.0 34.0 51.0*	018 019 018 and 019	011 014 016

548F

*Two heater packages required to provide kW indicated.

NOTES:

- The rated heater voltage is 240, 480, and 575 v. If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly.
- To determine heater kW at voltages other than those shown in table, use the following formula:
Heater kW new = Heater kW rated x (unit power distribution voltage/rated heater voltage)²

As an example:

For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v

kW new = 16 kW (215/240)²

kW new = 12.8 kW (rating at 215 v)

PERFORMANCE DATA — 548F (cont)
INDOOR-FAN MOTOR PERFORMANCE — 548F036-120 UNITS

548F

UNIT 548F	INDOOR-FAN MOTOR	UNIT VOLTAGE	MAXIMUM ACCEPTABLE CONTINUOUS BHP*	MAXIMUM ACCEPTABLE OPERATING WATTS	MAXIMUM AMP DRAW	MOTOR EFFICIENCY (%)
036	Standard	208/230	0.34	440	2.8	75
		460			1.3	
		575			1.3	
	Alternate	208/230	1.00	1000	4.9	
		460			2.1	
		575			2.1	
	High Static	208/230	2.40	2120	6.0	
		460			3.0	
		575			3.0	
048	Standard	208/230	0.75	850	3.5	75
		460			1.8	
		575			1.8	
	Alternate	208/230	1.00	1000	4.9	
		460			2.1	
		575			2.1	
	High Static	208/230	2.40	2120	6.0	
		460			3.0	
		575			3.0	
060	Standard	208/230	1.20	1340	5.9	74
		460			3.2	
		575			3.2	
	Alternate	208/230	1.30/2.40†	2120	7.6/6.0†	
		460			3.0	
		575			3.0	
	High Static	208/230	2.90	2562	8.6	
		460			3.9	
		575			3.9	
072	Standard	208/230	2.40	2120	6.0	84
		460			3.0	
		575			3.0	
	High Static	208/230	2.90	2562	8.6	
		460			3.9	
		575			3.9	
090	Standard, Alternate	208/230	2.40	2120	6.0	80
		460			3.0	
		575			3.0	
	High Static	208/230	3.70	3313	11.7	
		460			5.5	
		575			5.5	
120	Standard	208/230	2.40	2120	6.0	80
		460			3.0	
		575			3.0	
	Alternate	208/230	2.90	2615	8.6	
		460			3.9	
		575			3.9	
	High Static	208/230	5.25	4400	17.3	
		460			8.5	
		575			8.5	

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/three-phase.

NOTES:

1. All indoor-fan motors 5 hp and larger meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.
2. High-static motor not available on single-phase units.

ELECTRICAL DATA — 548F

548F036-120 (UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†		
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA	
036 (3 Tons)	208/230-1-60	STD	187	254	16.4	96.0	1.5	3.1	—	—	25.5/ 25.5	30/ 30††	25/ 25	107/107	
									3.3/ 4.4	15.9/18.3	45.4/ 48.4	50/ 50††	43/ 46	123/125	
									4.9/ 6.5	23.6/27.1	55.0/ 59.4	60/ 60††	52/ 56	131/134	
									6.5/ 8.7	31.3/36.3	64.6/ 70.9	70/ 80	61/ 66	138/143	
									7.9/10.5	38.0/43.8	73.0/ 80.3	80/ 90	68/ 75	145/151	
									9.8/13.0	47.1/54.2	84.4/ 93.3	90/100	79/ 87	154/161***	
	208/230-3-60	ALT	187	254	16.4	96.0	1.5	4.9	—	—	26.9/ 26.9	30/ 30††	26/ 26	111/111	
									3.3/ 4.4	15.9/18.3	46.8/ 49.8	50/ 50††	45/ 47	127/130	
									4.9/ 6.5	23.6/27.1	56.4/ 60.8	60/ 70	53/ 57	135/138	
									6.5/ 8.7	31.3/36.3	66.0/ 72.3	70/ 80	62/ 68	143/148	
									7.9/10.5	38.0/43.8	74.4/ 81.7	80/ 90	70/ 77	149/155	
									9.8/13.0	47.1/54.2	85.8/ 94.7	90/100	80/ 89	158/166***	
	208/230-3-60	STD	187	254	10.2	75.0	1.5	3.1	—	—	17.8/ 17.8	20/ 20††	17/ 17	86/ 86	
									3.3/ 4.4	9.2/10.6	29.3/ 31.0	30/ 35††	28/ 30	95/ 97	
									4.9/ 6.5	13.6/15.6	34.8/ 37.3	35/ 40††	33/ 35	100/102	
									6.5/ 8.7	18.0/20.9	40.3/ 43.9	45/ 45††	38/ 42	104/107	
									7.9/10.5	21.9/25.3	45.1/ 49.4	50/ 50††	43/ 47	108/111	
									12.0/16.0	33.3/38.5	59.4/ 65.9	60/ 70	56/ 62	119/124	
		208/230-3-60	ALT	187	254	10.2	75.0	1.5	4.9	—	—	19.2/ 19.2	20/ 20††	19/ 19	90/ 90
										3.3/ 4.4	9.2/10.6	30.7/ 32.4	35/ 35††	30/ 31	100/101
										4.9/ 6.5	13.6/15.6	36.2/ 38.7	40/ 40††	35/ 37	104/106
										6.5/ 8.7	18.0/20.9	41.7/ 45.3	45/ 50††	40/ 43	108/111
										7.9/10.5	21.9/25.3	46.5/ 50.8	50/ 60††	44/ 48	112/116
										12.0/16.0	33.3/38.5	60.8/ 67.3	70/ 70	57/ 63	124/129
208/230-3-60	HIGH-STATIC	187	254	10.2	75.0	1.5	5.8	—	—	20.1/ 20.1	25/ 25††	20/ 20	120/120		
								3.3/ 4.4	9.2/10.6	31.6/ 33.3	35/ 35††	31/ 32	129/130		
								4.9/ 6.5	13.6/15.6	37.1/ 39.6	40/ 40††	36/ 38	133/135		
								6.5/ 8.7	18.0/20.9	42.6/ 46.2	45/ 50††	41/ 44	138/141		
								7.9/10.5	21.9/25.3	47.4/ 51.7	50/ 60††	45/ 49	142/145		
								12.0/16.0	33.3/38.5	61.7/ 68.2	70/ 70	58/ 64	153/158		
460-3-60	STD	414	508	4.8	40.0	0.8	1.7	—	—	8.1	15††	8	45		
								6.0	7.2	17.1	20††	16	52		
								8.8	10.6	21.4	25††	20	55		
								11.5	13.8	25.4	30††	24	59		
	460-3-60	ALT	414	508	4.8	40.0	0.8	2.1	—	—	8.9	15††	9	48	
									6.0	7.2	17.9	20††	17	55	
									8.8	10.6	22.2	25††	21	59	
									11.5	13.8	26.2	30††	25	62	
	460-3-60	HIGH-STATIC	414	508	4.8	40.0	0.8	2.6	—	—	9.4	15††	9	62	
									6.0	7.2	18.4	20††	18	70	
									8.8	10.6	22.7	25††	22	73	
									11.5	13.8	26.7	30††	25	76	
575-3-60	STD	518	632	3.8	31.0	0.8	1.7	—	—	6.4	15††	6	35		
	ALT	518	632	3.8	31.0	0.8	2.1	—	—	7.1	15††	7	37		
	HIGH-STATIC	518	632	3.8	31.0	0.8	2.6	—	—	7.5	15††	7	49		
048 (4 Tons)	208/230-1-60	STD	187	254	29.1	132.0	1.5	3.5	—	—	41.4/ 41.4	45/ 45††	39/ 39	143/143	
									3.3/ 4.4	15.9/18.3	61.3/ 64.3	70/ 70	58/ 60	159/161	
									6.5/ 8.7	31.3/36.3	80.5/ 86.8	90/ 90	75/ 81	174/179	
									9.8/13.0	47.1/54.2	100.3/109.1	110/110	93/102	190/197	
									13.1/17.4	63.0/72.5	120.1/132.0	125/150	112/123	206/215	
									15.8/21.0	76.0/87.5	136.4/150.8	150/175	127/140	219/230	
	208/230-1-60	ALT	187	254	29.1	132.0	1.5	4.9	—	—	42.8/ 42.8	45/ 45††	41/ 41	147/147	
									3.3/ 4.4	15.9/18.3	62.7/ 65.7	70/ 70	59/ 62	163/166	
									6.5/ 8.7	31.3/36.3	81.9/ 88.2	90/ 90	77/ 83	179/184	
									9.8/13.0	47.1/54.2	107.7/110.5	110/125	95/103	194/202	
									13.1/17.4	63.0/72.5	121.5/133.4	125/150	113/124	210/220	
									15.8/21.0	76.0/87.5	137.8/152.2	150/175	128/141	223/235	
	208/230-3-60	STD	187	254	16.8	91.0	1.5	3.5	—	—	26.0/ 26.0	30/ 30††	25/ 25	102/102	
									4.9/ 6.5	13.6/15.6	43.0/ 45.5	45/ 50††	41/ 43	115/117	
									6.5/ 8.7	18.0/20.9	48.5/ 52.1	50/ 60††	46/ 49	120/123	
									12.0/16.0	33.3/38.5	67.6/ 74.1	70/ 80	63/ 69	135/140	
									15.8/21.0	43.9/50.5	80.9/ 89.1	90/ 90	76/ 83	146/152	
		208/230-3-60	ALT	187	254	16.8	91.0	1.5	4.9	—	—	27.4/ 27.4	30/ 30††	27/ 27	106/106
										4.9/ 6.5	13.6/15.6	44.4/ 46.9	45/ 50††	42/ 45	120/122
										6.5/ 8.7	18.0/20.9	49.9/ 53.5	50/ 60††	47/ 51	124/127
										12.0/16.0	33.3/38.5	69.0/ 75.5	70/ 80	65/ 71	140/145
										15.8/21.0	43.9/50.5	82.3/ 90.5	90/100	77/ 85	150/157
208/230-3-60	HIGH-STATIC	187	254	16.8	91.0	1.5	5.8	—	—	28.3/ 28.3	30/ 30††	28/ 28	136/136		
								4.9/ 6.5	13.6/15.6	45.3/ 47.8	50/ 50††	43/ 46	149/151		
								6.5/ 8.7	18.0/20.9	50.8/ 54.4	60/ 60††	48/ 52	154/157		
								12.0/16.0	33.3/38.5	69.9/ 76.4	70/ 80	66/ 72	169/174		
								15.8/21.0	43.9/50.5	83.2/ 91.4	90/100	78/ 86	180/186***		

548F

NOTE: Legend and Notes for Electrical Data are on page 57.

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
048 (4 Tons) (cont)	460-3-60	STD	414	508	8.4	50.0	0.8	1.8	—	—	13.1	15††	13	56
									6.0	7.2	22.1	25††	21	63
									11.5	13.8	30.4	35††	29	70
									14.0	16.8	34.1	35††	32	73
									23.0	27.7	47.7	50††	45	84
		ALT	414	508	8.4	50.0	0.8	2.1	—	—	13.4	15††	13	58
									6.0	7.2	22.4	25††	21	65
									11.5	13.8	30.7	35††	29	72
									14.0	16.8	34.4	35††	32	75
									23.0	27.7	48.0	50††	45	86
		HIGH-STATIC	414	508	8.4	50.0	0.8	2.6	—	—	13.9	15††	14	72
									6.0	7.2	22.9	25††	22	80
	11.5								13.8	31.2	35††	29	86	
	14.0								16.8	34.9	35††	33	89	
	23.0								27.7	48.5	50††	45	100	
575-3-60	STD	518	632	6.7	37.0	0.8	1.8	—	—	10.5	15††	10	42	
	ALT	518	632	6.7	37.0	0.8	2.1	—	—	10.7	15††	10	43	
	HIGH-STATIC	518	632	6.7	37.0	0.8	2.6	—	—	11.1	15††	11	55	
060 (5 Tons)	208/230-1-60	STD	187	254	26.7	170.0	1.5	5.9	—	—	40.8/ 40.8	45/ 45††	39/ 39	184/184
									4.9/ 6.5	23.6/27.1	70.3/ 74.7	80/ 80	66/ 70	208/211
									6.5/ 8.7	31.3/36.3	79.9/ 86.2	80/ 90	75/ 81	215/220***
									9.8/13.0	47.1/54.2	99.7/108.5	100/110	93/102	231/238***
									13.1/17.4	63.0/72.5	119.5/131.4	125/150	112/123	247/257***
									15.8/21.0	76.0/87.5	135.8/150.2	150/175	127/140	260/272***
		ALT	187	254	26.7	170.0	1.5	8.8	—	—	48.5/ 48.5	50/ 50††	48/ 48	222/222
									4.9/ 6.5	23.6/27.1	78.0/ 82.4	80/ 90	75/ 79	246/249
									6.5/ 8.7	31.3/36.3	87.6/ 93.9	90/100	84/ 90	253/258***
									9.8/13.0	47.1/54.2	107.4/116.2	110/125	102/110	269/276***
									13.1/17.4	63.0/72.5	127.2/139.1	150/150	121/131	285/294***
									15.8/21.0	76.0/87.5	143.5/157.9	150/175	135/149	298/309***
	208/230-3-60	STD	187	254	15.4	124.0	1.5	5.9	—	—	26.7/ 26.7	30/ 30††	26/ 26	138/138
									4.9/ 6.5	13.6/15.6	43.7/ 46.2	45/ 50††	42/ 44	152/154
									7.9/10.5	21.9/25.3	54.0/ 58.3	60/ 60††	51/ 55	160/163
									12.0/16.0	33.3/38.5	68.3/ 74.8	70/ 80	65/ 70	171/177
									15.8/21.0	43.9/50.5	81.5/ 89.8	90/ 90	77/ 84	182/189***
									19.9/26.5	55.2/63.8	95.7/106.4	100/110	90/100	193/202***
		ALT	187	254	15.4	124.0	1.5	5.8	—	—	26.6/ 26.6	30/ 30††	26/ 26	169/169
									4.9/ 6.5	13.6/15.6	43.6/ 46.1	45/ 50††	42/ 44	182/184
									7.9/10.5	21.9/25.3	53.9/ 58.2	60/ 60	51/ 55	191/194
									12.0/16.0	33.3/38.5	68.2/ 74.7	70/ 80	64/ 70	202/207
									15.8/21.0	43.9/50.5	81.4/ 89.7	90/ 90	77/ 84	213/219***
									19.9/26.5	55.2/63.8	95.6/106.3	100/110	90/ 99	224/233***
	HIGH-STATIC	187	254	15.4	124.0	1.5	7.5	—	—	28.3/ 28.3	30/ 30††	28/ 28	188/188	
								4.9/ 6.5	13.6/15.6	45.3/ 47.8	50/ 50††	44/ 46	201/203	
								7.9/10.5	21.9/25.3	55.6/ 59.9	60/ 60††	53/ 57	210/213	
								12.0/16.0	33.3/38.5	69.9/ 76.4	70/ 80	66/ 72	221/226	
								15.8/21.0	43.9/50.5	83.1/ 91.4	90/100	79/ 86	232/238***	
								19.9/26.5	55.2/63.8	97.3/108.0	100/110	92/101	243/252***	
	460-3-60	STD	414	508	7.7	59.6	0.8	3.2	—	—	13.6	15††	13	67
									6.0	7.2	22.6	25††	22	75
									11.5	13.8	30.9	35††	29	81
									14.0	16.8	34.6	35††	33	84
									23.0	27.7	48.3	50††	45	95
									25.5	30.7	52.0	60††	49	98
ALT		414	508	7.7	59.6	0.8	2.6	—	—	13.0	15††	13	82	
								6.0	7.2	22.0	25††	21	89	
								11.5	13.8	30.3	35††	29	96	
								14.0	16.8	34.0	35††	32	99	
								23.0	27.7	47.7	50††	45	110	
								25.5	30.7	51.4	60††	48	113	
HIGH-STATIC		414	508	7.7	59.6	0.8	3.4	—	—	13.8	15††	14	92	
								6.0	7.2	22.8	25††	22	99	
								11.5	13.8	31.1	35††	30	105	
								14.0	16.8	34.8	35††	33	108	
								23.0	27.7	48.5	50††	46	119	
								25.5	30.7	52.2	60††	49	122	
575-3-60	STD	518	632	6.2	49.4	0.8	3.2	—	—	11.0	15††	11	56	
	ALT	518	632	6.2	49.4	0.8	2.6	—	—	10.5	15††	10	67	
	HIGH-STATIC	518	632	6.2	49.4	0.8	3.4	—	—	11.1	15††	11	75	

NOTE: Legend and Notes for Electrical Data are on page 57.

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†				
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA			
															34/ 34	190/190	
072 (6 Tons)	208/230-3-60	STD								—	—	35.6/ 35.6	40/ 40††	34/ 34	190/190		
										4.9/ 6.5	13.6/15.6	52.6/ 55.1	60/ 60††	50/ 52	204/206		
										7.9/10.5	21.9/25.3	63.0/ 67.2	70/ 70	60/ 63	212/215		
										12.0/16.0	33.3/38.5	77.2/ 83.7	80/ 90	73/ 79	223/229		
										15.8/21.0	43.9/50.5	90.5/ 98.7	100/100	85/ 92	234/241***		
		19.9/26.5	55.2/63.8	104.6/115.3	110/125	98/108	245/254***										
		HIGH-STATIC										—	—	37.3/ 37.3	40/ 40††	36/ 36	209/209
												4.9/ 6.5	13.6/15.6	54.3/ 56.8	60/ 60††	52/ 54	223/225
												7.9/10.5	21.9/25.3	64.7/ 68.9	70/ 70	62/ 65	231/234
												12.0/16.0	33.3/38.5	78.9/ 85.4	80/ 90	75/ 81	242/248***
	15.8/21.0											43.9/50.5	92.2/100.4	100/110	87/ 94	253/260***	
	19.9/26.5	55.2/63.8	106.3/117.0	110/125	100/110	264/273***											
	460-3-60	STD									—	—	17.6	20††	17	95	
											6.0	7.2	26.6	30††	25	102	
											11.5	13.8	34.8	35††	33	109	
											14.0	16.8	38.6	40††	36	112	
											23.0	27.7	52.2	60††	49	123	
											25.5	30.7	55.9	60††	52	126	
											—	—	18.4	20††	18	105	
		HIGH-STATIC										6.0	7.2	27.4	30††	26	112
												11.5	13.8	35.6	40††	34	118
												14.0	16.8	39.4	40††	37	121
												23.0	27.7	53.0	60††	50	132
												25.5	30.7	56.7	60††	53	135
—												—	14.0	15††	14	76	
—												—	14.7	15††	14	84	
575-3-60	STD	518	632	9.1	58.4	0.7	2.6	—	—	14.0	15††	14	76				
	HIGH-STATIC	518	632	9.1	58.4	0.7	3.4	—	—	14.7	15††	14	84				

548F

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:
MCA New = MCA unit only + MCA of Power Exhaust

For example, using a 548F060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

MCA New = 35.6 amps + 1.6 amps = 37.2 amps
If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.



*Heaters are field installed only.

†Used to determine minimum disconnect size per NEC.

**Heater capacity (kW) is based on heater voltage of 208 v, 240 v and 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

††Fuse or HACR circuit breaker.

***Optional disconnect switch is unavailable.

NOTES:

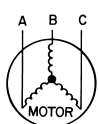
1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker.

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

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

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

$$= 457$$

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	STD	187	254	13.4	91.0	1.4	5.8	—	—	38.8/ 38.8	40/ 40††	41/ 41	229/229
									7.8/10.4	21.7/ 25.0	65.9/ 70.0	70/ 70	66/ 69	251/254
									12.0/16.0	33.3/ 38.5	80.4/ 86.9	90/ 90	79/ 85	262/268***
									18.6/24.8	51.6/ 59.7	103.3/113.4	110/125	100/109	281/289***
									24.0/32.0	66.6/ 77.0	122.0/135.0	125/150	117/129	296/306***
									31.8/42.4	88.3/102.0	149.1/166.3	150/175	142/158	317/331***
		HIGH-STATIC	187	254	13.4	91.0	1.4	10.6	—	—	43.6/ 43.6	45/ 45††	46/ 46	273/273
									7.8/10.4	21.7/ 25.0	70.7/ 74.8	80/ 80	71/ 75	294/298
									12.0/16.0	33.3/ 38.5	85.2/ 91.7	90/100	85/ 91	306/311***
									18.6/24.8	51.6/ 59.7	108.1/118.2	110/125	106/115	324/332***
	460-3-60	STD	414	508	6.7	42.0	0.7	2.6	—	—	19.1	20††	20	108
									13.9	16.7	40.0	40††	39	124
									16.5	19.8	43.8	45††	43	128
									27.8	33.4	60.8	70	58	141
									33.0	39.7	68.7	70	66	147
									41.7	50.2	81.8	90	78	158
									—	—	21.3	25††	23	130
		HIGH-STATIC	414	508	6.7	42.0	0.7	4.8	13.9	16.7	42.2	45††	42	146
									16.5	19.8	46.0	50††	45	149
									27.8	33.4	63.0	70	61	163
									33.0	39.7	70.9	80	68	169
									41.7	50.2	84.0	90	80	180***
									—	—	15.4	20††	16	97
									575-3-60	STD	518	632	5.4	39.0
34.0	34.1	58.0	60††	55	131									
—	—	17.1	20††	18	114									
HIGH-STATIC	518	632	5.4	39.0	0.7	4.8	17.0	17.1		38.5	40††	38	132	
							34.0	34.1		59.7	60††	57	149	
							—	—		—	—	—	—	

NOTE: Legend and Notes for Electrical Data are on page 57.

548F

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
120 (10 Tons)	208/230-3-60	STD	187	254	17.2	124.0	1.4	5.8	—	—	47.3/ 47.3	50/ 50††	49/ 49	295/295
									7.8/10.4	21.7/ 25.0	74.4/ 78.6	80/ 80	74/ 78	317/320
									12.0/16.0	33.3/ 38.5	88.9/ 95.4	90/100	88/ 94	328/334***
									24.0/32.0	66.6/ 77.0	130.6/143.6	150/150	126/138	362/372***
									31.8/42.4	88.3/102.0	157.7/174.8	175/175	151/167	383/397***
		37.6/50.0	104.4/120.3	177.8/167.6	200/175	170/188	399/415***							
		ALT	187	254	17.2	124.0	1.4	7.5	—	—	49.0/ 49.0	50/ 50††	51/ 51	314/314
									7.8/10.4	21.7/ 25.0	76.1/ 80.8	80/ 90	76/ 80	336/389***
									12.0/16.0	33.3/ 38.5	90.6/ 97.1	100/100	90/ 96	347/353***
									24.0/32.0	66.6/ 77.0	132.3/145.3	150/150	128/140	381/391***
									31.8/42.4	88.3/102.0	159.4/176.5	175/200	153/169	402/416***
		37.6/50.0	104.4/120.3	179.5/169.3	200/200	171/190	418/434***							
		HIGH-STATIC	187	254	17.2	124.0	1.4	15.0	—	—	56.5/ 56.5	60/ 60††	60/ 60	362/362
									7.8/10.4	21.7/ 25.0	83.6/ 87.8	90/ 90	85/ 89	384/387***
									12.0/16.0	33.3/ 38.5	98.1/104.6	100/110	98/104	395/401***
	24.0/32.0								66.6/ 77.0	139.8/152.8	150/175	137/149	429/439***	
	31.8/42.4								88.3/102.0	166.9/184.0	175/200	162/177	450/464***	
	37.6/50.0	104.4/120.3	187.0/176.8	200/200	180/198	466/482***								
	460-3-60	STD	414	508	8.6	59.6	0.7	2.6	—	—	23.4	25††	24	143
									16.5	19.8	48.1	50††	47	163
									27.8	33.4	65.1	70	63	176
									33.0	39.7	73.0	80	70	183
									41.7	50.2	86.1	90	82	193***
		50.0	60.1	83.5	90	93	203***							
		ALT	414	508	8.6	59.6	0.7	3.4	—	—	24.2	25††	25	182
									16.5	19.8	48.9	50††	48	202
									27.8	33.4	65.9	70	64	216
									33.0	39.7	73.8	80	71	222
									41.7	50.2	86.9	90	83	233***
		50.0	60.1	84.3	90	94	243***							
		HIGH-STATIC	414	508	8.6	59.6	0.7	7.4	—	—	28.2	30††	30	176
									16.5	19.8	52.9	60††	53	196
									27.8	33.4	69.9	70	68	210
	33.0								39.7	77.8	80	76	216	
	41.7								50.2	90.9	100	88	227***	
	50.0	60.1	88.3	100	99	237***								
	575-3-60	STD	518	632	6.9	49.4	0.7	2.6	—	—	18.7	20††	20	118
									17.0	17.1	40.1	45††	39	135
									34.0	34.1	61.4	70	59	152
									51.0	51.2	69.9	70	78	169
									—	—	19.4	20††	20	149
		ALT	518	632	6.9	49.4	0.7	3.4	17.0	17.1	40.7	45††	40	166
									34.0	34.1	62.0	70	60	183
									51.0	51.2	70.6	80	79	201***
									—	—	22.6	25††	24	145
									17.0	17.1	43.9	45††	44	162
		34.0	34.1	65.2	70	63	179							
		HIGH-STATIC	518	632	6.9	49.4	0.7	7.4	51.0	51.2	73.8	80	83	196***

548F

NOTE: Legend and Notes for Electrical Data are on page 57.

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITH ELECTRICAL CONVENIENCE OUTLET)

548F

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCPP	FLA	LRA
036 (3 Tons)	208/230-1-60	STD	187	254	16.4	96.0	1.5	3.1	—	—	30.3/ 30.3	35/ 35††	30/ 30	112/112
									3.3/ 4.4	15.9/18.3	50.2/ 53.2	60/ 60††	48/ 51	128/130
									4.9/ 6.5	23.6/27.1	59.8/ 64.2	60/ 70	57/ 61	135/139
									6.5/ 8.7	31.3/36.3	69.4/ 75.7	70/ 80	66/ 72	143/148
									7.9/10.5	38.0/43.8	77.8/ 85.1	80/ 90	74/ 81	150/156***
									9.8/13.0	47.1/54.2	89.2/ 98.1	90/100	84/ 92	159/166***
		ALT	187	254	16.4	96.0	1.5	4.9	—	—	31.7/ 31.7	35/ 35††	32/ 32	116/116
									3.3/ 4.4	15.9/18.3	51.6/ 54.6	60/ 60††	50/ 53	132/134
									4.9/ 6.5	23.6/27.1	61.2/ 65.6	70/ 70	59/ 63	140/143
									6.5/ 8.7	31.3/36.3	70.8/ 77.1	80/ 80	68/ 73	147/152
									7.9/10.5	38.0/43.8	79.2/ 86.5	80/ 90	75/ 82	154/160***
									9.8/13.0	47.1/54.2	90.6/ 99.5	100/110	86/ 94	163/170***
	208/230-3-60	STD	187	254	10.2	75.0	1.5	3.1	—	—	22.6/ 22.6	25/ 25††	23/ 23	91/ 91
									3.3/ 4.4	9.2/10.6	34.1/ 35.8	35/ 40††	34/ 35	100/101
									4.9/ 6.5	13.6/15.6	39.6/ 42.1	40/ 45††	39/ 41	104/106
									8.5/ 8.7	18.0/20.9	45.1/ 48.7	50/ 50††	44/ 47	109/112
									7.9/10.5	21.9/25.3	49.9/ 54.2	50/ 60††	48/ 52	113/116
									12.0/16.0	33.3/38.5	64.2/ 70.7	70/ 80††	61/ 67	124/129
		ALT	187	254	10.2	75.0	1.5	4.9	—	—	24.0/ 24.0	30/ 30††	25/ 25	95/ 95
									3.3/ 4.4	9.2/10.6	35.5/ 37.2	40/ 40††	35/ 37	104/106
									4.9/ 6.5	13.6/15.6	41.0/ 43.5	45/ 45††	40/ 43	109/111
									6.5/ 8.7	18.0/20.9	46.5/ 50.1	50/ 60††	45/ 49	113/116
									7.9/10.5	21.9/25.3	51.3/ 55.6	60/ 60††	50/ 54	117/120
									12.0/16.0	33.3/38.5	65.6/ 72.1	70/ 80	63/ 69	128/134
		HIGH-STATIC	187	254	10.2	75.0	1.5	5.8	—	—	24.9/ 24.9	25/ 25††	26/ 26	125/125
									3.3/ 4.4	9.2/10.6	36.4/ 38.1	40/ 40††	36/ 38	134/135
									4.9/ 6.5	13.6/15.6	41.9/ 44.4	45/ 45††	41/ 44	138/140
									6.5/ 8.7	18.0/20.9	47.4/ 51.0	50/ 60††	46/ 50	143/145
									7.9/10.5	21.9/25.3	52.2/ 56.5	60/ 60††	51/ 55	146/150
									12.0/16.0	33.3/38.5	66.5/ 73.0	70/ 80	64/ 70	158/163
	460-3-60	STD	414	508	4.8	40.0	0.8	1.7	—	—	10.3	15††	10	47
									6.0	7.2	19.3	20††	19	54
									8.8	10.6	23.5	25††	23	58
									11.5	13.8	27.5	30††	26	61
									14.0	16.8	31.3	35††	30	64
									—	—	11.1	15††	11	50
ALT		414	508	4.8	40.0	0.8	2.1	6.0	7.2	20.1	25††	20	57	
								8.8	10.6	24.3	25††	24	61	
								11.5	13.8	28.3	30††	27	64	
								14.0	16.8	32.1	35††	31	67	
								—	—	11.6	15††	12	65	
								6.0	7.2	20.6	25††	20	72	
HIGH-STATIC		414	508	4.8	40.0	0.8	2.6	8.8	10.6	24.8	25††	24	75	
								11.5	13.8	28.8	30††	28	78	
								14.0	16.8	32.6	35††	31	81	
								—	—	11.6	15††	12	65	
								6.0	7.2	20.6	25††	20	72	
								8.8	10.6	24.8	25††	24	75	
575-3-60	STD	518	632	3.8	31.0	0.8	1.7	—	—	8.2	15††	8	37	
	ALT	518	632	3.8	31.0	0.8	2.1	—	—	8.8	15††	9	39	
	HIGH-STATIC	518	632	3.8	31.0	0.8	2.6	—	—	9.2	15††	9	51	
	—	—	—	—	—	—	—	—	—	46.2/ 46.2	50/ 50††	45/ 45	148/148	
	3.3/ 4.4	15.9/18.3	66.1/ 69.1	70/ 70	63/ 66	163/166								
	6.5/ 8.7	31.3/36.3	85.3/ 91.6	90/100	81/ 86	179/184								
048 (4 Tons)	208/230-1-60	STD	187	254	29.1	132.0	1.5	3.5	—	—	105.1/113.9	110/125	99/107	195/202
									3.3/ 4.4	15.9/18.3	66.1/ 69.1	70/ 70	63/ 66	163/166
									6.5/ 8.7	31.3/36.3	85.3/ 91.6	90/100	81/ 86	179/184
									9.8/13.0	47.1/54.2	105.1/113.9	110/125	99/107	195/202
									13.1/17.4	63.0/72.5	124.1/136.8	125/150	117/128	211/220
									15.8/21.0	76.0/87.5	141.2/155.6	150/175	132/145	224/235
		ALT	187	254	29.1	132.0	1.5	4.9	—	—	47.6/ 47.6	50/ 50††	46/ 46	152/152
									3.3/ 4.4	15.9/18.3	67.5/ 70.5	70/ 80	65/ 67	168/170
									6.5/ 8.7	31.3/36.3	86.7/ 93.0	90/100	82/ 88	183/188
									9.8/13.0	47.1/54.2	106.5/115.3	110/125	101/109	199/206
									13.1/17.4	63.0/72.5	126.3/138.2	150/150	119/130	215/225
									15.8/21.0	76.0/87.5	142.6/157.0	150/175	134/147	228/240
	208/230-3-60	STD	187	254	16.8	91.0	1.5	3.5	—	—	30.8/ 30.8	35/ 35††	31/ 31	107/107
									4.9/ 6.5	13.6/15.6	47.8/ 50.3	50/ 60††	46/ 49	120/122
									6.5/ 8.7	18.0/20.9	53.3/ 56.9	60/ 60††	51/ 55	125/127
									12.0/16.0	33.3/38.5	72.4/ 78.9	80/ 80	69/ 75	140/145
									15.8/21.0	43.9/50.5	85.7/ 93.9	90/100	81/ 89	150/157
									—	—	32.2/ 32.2	35/ 35††	32/ 32	111/111
		ALT	187	254	16.8	91.0	1.5	4.9	4.9/ 6.5	13.6/15.6	49.2/ 51.7	50/ 60††	48/ 50	125/127
									6.5/ 8.7	18.0/20.9	54.7/ 58.3	60/ 60††	53/ 56	129/132
									12.0/16.0	33.3/38.5	73.8/ 80.3	80/ 90	71/ 76	144/150
									15.8/21.0	43.9/50.5	87.1/ 95.3	90/100	83/ 90	155/162
									—	—	33.1/ 33.1	35/ 35††	33/ 33	141/141
									4.9/ 6.5	13.6/15.6	50.1/ 52.6	60/ 60††	49/ 51	154/156
HIGH-STATIC	187	254	16.8	91.0	1.5	5.8	6.5/ 8.7	18.0/20.9	55.6/ 59.2	60/ 60††	54/ 57	159/161		
							12.0/16.0	33.3/38.5	74.7/ 81.2	80/ 90	72/ 78	174/179		
							15.8/21.0	43.9/50.5	88.0/ 96.2	90/100	84/ 91	184/191***		

NOTE: Legend and Notes for Electrical Data are on page 62.

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITH ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†								
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA							
048 (4 Tons) (cont)	460-3-60	STD	414	508	8.4	50.0	0.8	1.8	—	—	15.3	20††	15	58							
									6.0	7.2	24.3	25††	23	66							
									11.5	13.8	32.5	35††	31	72							
									14.0	16.8	36.3	40††	34	75							
									23.0	27.7	49.9	50††	47	86							
		ALT	414	508	8.4	50.0	0.8	2.1	—	—	15.6	20††	15	60							
									6.0	7.2	24.6	25††	24	67							
									11.5	13.8	32.8	35††	31	74							
									14.0	16.8	36.6	40††	35	77							
									23.0	27.7	50.2	60††	47	88							
		HIGH-STATIC	414	508	8.4	50.0	0.8	2.6	—	—	16.1	20††	16	75							
									6.0	7.2	25.1	30††	24	82							
	575-3-60	STD	518	632	6.7	37.0	0.8	1.8	—	—	12.2	15††	12	44							
									—	—	12.4	15††	12	45							
									—	—	12.8	15††	13	57							
060 (5 Tons)	208/230-1-60	STD	187	254	26.7	170.0	1.5	5.9	—	—	45.6/ 45.6	50/ 50††	45/ 45	189/189							
									4.9/ 6.5	23.6/27.1	75.1/ 79.5	80/ 80	72/ 76	213/216							
									6.5/ 8.7	31.3/36.3	84.7/ 91.0	90/100	81/ 86	220/225***							
									9.8/13.0	47.1/54.2	104.3/113.3	110/125	99/107	236/243***							
									13.1/17.4	63.0/72.5	124.3/136.2	125/150	117/128	252/261***							
									15.8/21.0	76.0/87.5	140.6/155.0	150/175	132/145	265/276***							
		ALT	187	254	26.7	170.0	1.5	8.8	—	—	48.5/ 48.5	50/ 50††	48/ 48	222/222							
									4.9/ 6.5	23.6/27.1	78.0/ 82.4	80/ 90	75/ 79	246/249							
									6.5/ 8.7	31.3/36.3	87.6/ 93.9	90/100	84/ 90	253/258***							
									9.8/13.0	47.1/54.2	107.4/116.2	110/125	102/110	269/276***							
									13.1/17.4	63.0/72.5	127.2/139.1	150/150	121/131	285/294***							
									15.8/21.0	76.0/87.5	143.5/157.9	150/175	135/149	298/309***							
	208/230-3-60	STD	187	254	15.4	124.0	1.5	5.9	—	—	31.5/ 31.5	35/ 40††	32/ 32	143/143							
									4.9/ 6.5	13.6/15.6	48.5/ 51.0	50/ 60††	47/ 50	157/159							
									7.9/10.5	21.9/25.3	58.8/ 63.1	60/ 70	57/ 61	165/168							
									12.0/16.0	33.3/38.5	73.1/ 79.6	80/ 90	70/ 76	176/181							
									15.8/21.0	43.9/50.5	86.3/ 94.6	90/100	82/ 90	187/193***							
									19.9/26.5	55.2/63.8	100.5/111.2	110/125	95/105	198/207***							
		ALT	187	254	15.4	124.0	1.5	5.8	—	—	31.4/ 31.4	35/ 35††	32/ 32	174/174							
									4.9/ 6.5	13.6/15.6	48.4/ 50.9	50/ 60††	47/ 50	187/189							
									7.9/10.5	21.9/25.3	58.7/ 63.0	60/ 70	57/ 61	195/199							
									12.0/16.0	33.3/38.5	73.0/ 79.5	80/ 80	70/ 76	207/212							
									15.8/21.0	43.9/50.5	86.2/ 94.5	90/100	82/ 90	217/224***							
									19.9/26.5	55.2/63.8	100.4/111.1	110/125	95/105	229/237***							
	HIGH-STATIC	187	254	15.4	124.0	1.5	7.5	—	—	33.1/ 33.1	35/ 35††	34/ 34	193/193								
								4.9/ 6.5	13.6/15.6	50.1/ 52.6	60/ 60††	49/ 52	206/208								
								7.9/10.5	21.9/25.3	60.4/ 64.7	70/ 70	59/ 63	214/218								
								12.0/16.0	33.3/38.5	74.7/ 81.2	80/ 80	72/ 78	226/231								
								15.8/21.0	43.9/50.5	87.9/ 96.2	90/100	84/ 92	236/243***								
								19.9/26.5	55.2/63.8	102.1/112.8	110/125	97/107	248/256***								
	460-3-60	STD	414	508	7.7	59.6	0.8	3.2	—	—	15.8	20††	16	70							
									6.0	7.2	24.8	25††	24	77							
									11.5	13.8	33.1	35††	32	83							
									14.0	16.8	36.8	40††	35	86							
									23.0	27.7	50.4	60††	48	97							
									25.5	30.7	54.2	60††	51	100							
									ALT	414	508	7.7	59.6	0.8	2.6	—	—	15.2	20††	15	84
																6.0	7.2	24.2	25††	24	91
		11.5	13.8	32.5	35††	31	98														
		14.0	16.8	36.2	40††	35	101														
		23.0	27.7	49.8	60††	47	112														
		25.5	30.7	53.6	60††	51	115														
		HIGH-STATIC	414	508	7.7	59.6	0.8	3.4								—	—	16.0	20††	16	94
																6.0	7.2	25.0	25††	24	101
									11.5	13.8	33.3	35††	32	107							
									14.0	16.8	37.0	40††	36	110							
									23.0	27.7	50.6	60††	48	121							
									25.5	30.7	54.4	60††	51	124							
575-3-60									STD	518	632	6.2	49.4	0.8	3.2	—	—	12.7	15††	13	57
																—	—	12.2	15††	12	69
		—	—	12.9	15††	13	77														

NOTE: Legend and Notes for Electrical Data are on page 62.

548F

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITH ELECTRICAL CONVENIENCE OUTLET) (cont)

548F

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
072 (6 Tons)	208/230-3-60	STD	187	254	22.7	146.0	1.4	5.8	—	—	40.4/ 40.4	45/ 45††	40/ 40	195/195
									4.9/ 6.5	13.6/15.6	57.4/ 59.9	60/ 60††	56/ 58	208/211
									7.9/10.5	21.9/25.3	67.8/ 72.0	70/ 80	65/ 69	217/220
									12.0/16.0	33.3/38.5	82.0/ 88.5	90/ 90	78/ 84	228/233***
									15.8/21.0	43.9/50.5	95.3/103.5	100/110	90/ 98	239/245***
		19.9/26.5	55.2/63.8	109.4/120.1	110/125	103/113	250/259***							
		HIGH-STATIC	187	254	22.7	146.0	1.4	7.5	—	—	42.1/ 42.1	45/ 45††	42/ 42	214/214
									4.9/ 6.5	13.6/15.6	59.1/ 61.6	60/ 70	58/ 60	227/229
									7.9/10.5	21.9/25.3	69.5/ 73.7	70/ 80	67/ 71	236/239
									12.0/16.0	33.3/38.5	83.7/ 90.2	90/100	80/ 86	247/252***
	15.8/21.0								43.9/50.5	97.0/105.2	100/110	92/100	258/264***	
	19.9/26.5	55.2/63.8	111.1/121.8	125/125	105/115	269/278***								
	460-3-60	STD	414	508	11.4	73.0	0.7	2.6	—	—	19.7	20††	19	97
									6.0	7.2	28.7	30††	28	104
									11.5	13.8	37.0	40††	35	111
									14.0	16.8	40.7	45††	39	114
									23.0	27.7	54.4	60††	51	125
									25.5	30.7	58.1	60††	55	128
									—	—	20.5	25††	20	107
		HIGH-STATIC	414	508	11.4	73.0	0.7	3.4	6.0	7.2	29.5	30††	29	114
									11.5	13.8	37.8	40††	36	121
									14.0	16.8	41.5	45††	40	124
									23.0	27.7	55.2	60††	52	134
									25.5	30.7	58.9	60††	56	137
—									—	15.8	20††	16	78	
—									—	16.4	20††	16	85	
575-3-60	STD	518	632	9.1	58.4	0.7	2.6	—	—	15.8	20††	16	78	
	HIGH-STATIC	518	632	9.1	58.4	0.7	3.4	—	—	16.4	20††	16	85	

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

For example, using a 548F060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

$$\text{MCA New} = 35.6 \text{ amps} + 1.6 \text{ amps} = 37.2 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

*Heaters are field installed only.

†Used to determine minimum disconnect size per NEC.

**Heater capacity (kW) is based on heater voltage of 208 v, 240 v and 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

††Fuse or HACR circuit breaker.

***Optional disconnect switch is unavailable.

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.

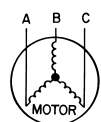
2. Unbalanced 3-Phase Supply Voltage

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.

% 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

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

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

$$= 457$$

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITH ELECTRICAL CONVENIENCE OUTLET) (cont)

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	STD	187	254	13.4	91.0	1.4	5.8	—	—	43.6/ 43.6	45/ 45††	46/ 46	234/234
									7.8/10.4	21.7/ 25.0	70.7/ 74.8	80/ 80	71/ 75	256/259
									12.0/16.0	33.3/ 38.5	85.2/ 91.7	90/100	85/ 91	267/272***
									18.6/24.8	51.6/ 59.7	108.1/118.2	110/125	106/115	285/294***
									24.0/32.0	66.6/ 77.0	126.8/139.8	150/150	123/135	300/311***
									31.8/42.4	88.3/102.0	153.9/171.1	175/175	148/164	322/336***
	HIGH-STATIC	187	254	13.4	91.0	1.4	10.6	—	—	48.4/ 48.4	50/ 50††	52/ 52	277/277	
								7.8/10.4	21.7/ 25.0	75.5/ 79.6	80/ 80	77/ 81	299/302***	
								12.0/16.0	33.3/ 38.5	90.0/ 96.5	90/100	90/ 96	311/316***	
								18.6/24.8	51.6/ 59.7	112.9/123.0	125/125	111/120	329/337***	
								24.0/32.0	66.6/ 77.0	131.6/144.6	150/150	128/140	344/354***	
								31.8/42.4	88.3/102.0	158.7/175.9	175/200	153/169	366/379***	
	460-3-60	STD	414	508	6.7	42.0	0.7	2.6	—	—	21.3	25††	23	110
									13.9	16.7	42.1	45††	42	127
									16.5	19.8	46.0	50††	45	130
									27.8	33.4	63.0	70	61	143
									33.0	39.7	70.9	80	68	150
									41.7	50.2	84.0	90	80	160***
	HIGH-STATIC	414	508	6.7	42.0	0.7	4.8	—	—	23.5	25††	25	132	
								13.9	16.7	44.3	45††	44	148	
								16.5	19.8	48.2	50††	48	151	
								27.8	33.4	65.2	70	63	165	
								33.0	39.7	73.1	80	71	171	
								41.7	50.2	86.2	90	83	182***	
575-3-60	STD	518	632	5.4	39.0	0.7	2.6	—	—	17.1	20††	18	99	
								17.0	17.1	38.5	40††	38	116	
								34.0	34.1	59.7	60††	57	133	
								—	—	18.9	20††	20	116	
								17.0	17.1	40.2	45††	40	133	
								34.0	34.1	61.5	70	59	150	
120 (10 Tons)	208/230-3-60	STD	187	254	17.2	124.0	1.4	5.8	—	—	52.1/ 52.1	60/ 60††	55/ 55	300/300
									7.8/10.4	21.7/ 25.0	79.2/ 83.4	80/ 90	80/ 84	322/325***
									12.0/16.0	33.3/ 38.5	93.7/100.2	100/110	93/ 99	333/338***
									24.0/32.0	66.6/ 77.0	135.4/148.4	150/150	132/144	366/377***
									31.8/42.4	88.3/102.0	162.5/179.6	175/200	157/172	388/402***
									37.6/50.0	104.4/120.3	182.6/172.4	200/200	175/193	404/420***
	ALT	187	254	17.2	124.0	1.4	7.5	—	—	53.8/ 53.8	60/ 60††	57/ 57	319/319	
								7.8/10.4	21.7/ 25.0	80.9/ 85.1	90/ 90	82/ 86	341/344***	
								12.0/16.0	33.3/ 38.5	95.4/101.9	100/110	95/101	352/357***	
								24.0/32.0	66.6/ 77.0	137.1/150.1	150/175	134/145	385/396***	
								31.8/42.4	88.3/102.0	164.2/181.3	175/200	158/174	407/421***	
								37.6/50.0	104.4/120.3	184.3/174.1	200/200	177/195	423/439***	
	HIGH-STATIC	187	254	17.2	124.0	1.4	15.0	—	—	61.3/ 61.3	70/ 70	66/ 66	367/367	
								7.8/10.4	21.7/ 25.0	88.4/ 92.6	90/100	91/ 94	389/392***	
								12.0/16.0	33.3/ 38.5	102.9/109.4	110/110	104/110	400/405***	
								24.0/32.0	66.6/ 77.0	144.6/157.6	150/175	142/154	433/444***	
								31.8/42.4	88.3/102.0	171.7/188.8	175/200	167/183	455/459***	
								37.6/50.0	104.4/120.3	191.8/181.6	200/200	186/204	471/487***	

548F

NOTE: Legend and Notes for Electrical Data are on page 64.

ELECTRICAL DATA — 548F (cont)

548F036-120 (UNITS WITH ELECTRICAL CONVENIENCE OUTLET) (cont)

548F

UNIT 548F	NOMINAL V-PH-Hz	IFM TYPE	VOLTAGE RANGE		COMPRESSOR (each)		OFM FLA	IFM FLA	ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZE†	
			Min	Max	RLA	LRA			Nominal kW**	FLA	MCA	MOCP	FLA	LRA
120 (10 Tons)	460-3-60	STD	414	508	8.6	59.6	0.7	2.6	—	—	25.5	30††	27	145
									16.5	19.8	50.3	60††	50	165
									27.8	33.4	67.3	70	65	178
									33.0	39.7	75.2	80	73	185
									41.7	50.2	88.3	90	85	195***
									50.0	60.1	85.6	90	96	205***
		ALT	414	508	8.6	59.6	0.7	3.4	—	—	26.3	30††	28	185
									16.5	19.8	51.1	60††	51	204
									27.8	33.4	68.1	70	66	218
									33.0	39.7	76.0	80	73	224
									41.7	50.2	89.1	90	86	235***
									50.0	60.1	86.4	90	97	245***
	HIGH-STATIC	414	508	8.6	59.6	0.7	7.4	—	—	30.3	35††	32	179	
								16.5	19.8	55.1	60††	55	198	
								27.8	33.4	72.1	80	71	212	
								33.0	39.7	80.0	80	78	218	
								41.7	50.2	93.1	100	90	229***	
								50.0	60.1	90.4	100	102	239***	
	575-3-60	STD	518	632	6.9	49.4	0.7	2.6	—	—	20.5	25††	22	120
									17.0	17.1	41.8	45††	41	137
									34.0	34.1	63.1	70	61	154
									51.0	51.2	71.7	80	80	171***
									—	—	21.1	25††	22	151
									17.0	17.1	42.5	45††	42	168
		ALT	518	632	6.9	49.4	0.7	3.4	34.0	34.1	63.7	70	62	185
									51.0	51.2	72.3	80	81	202***
									—	—	24.3	25††	26	146
									17.0	17.1	45.7	50††	46	163
									34.0	34.1	66.9	70	65	180
									51.0	51.2	75.5	80	85	198***

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

For example, using a 548F060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

$$\text{MCA New} = 35.6 \text{ amps} + 1.6 \text{ amps} = 37.2 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.



*Heaters are field installed only.

†Used to determine minimum disconnect size per NEC.

**Heater capacity (kW) is based on heater voltage of 208 v, 240 v, 480 v, and 575 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

††Fuse or HACR circuit breaker.

***Optional disconnect switch is unavailable.

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.

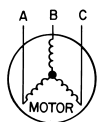
2. Unbalanced 3-Phase Supply Voltage

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.

% 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

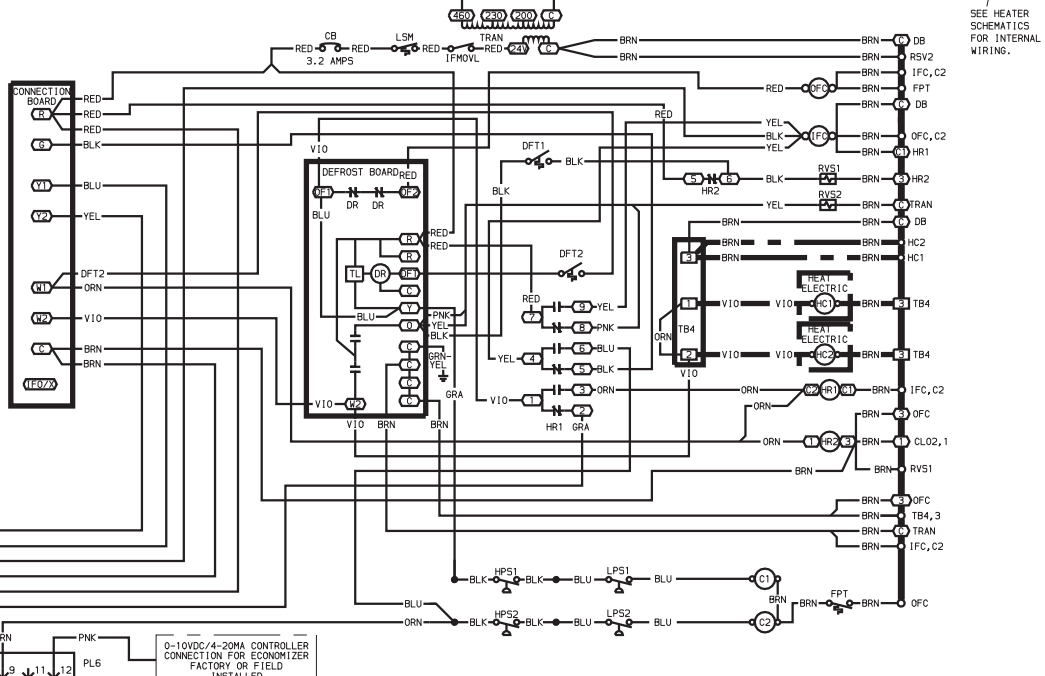
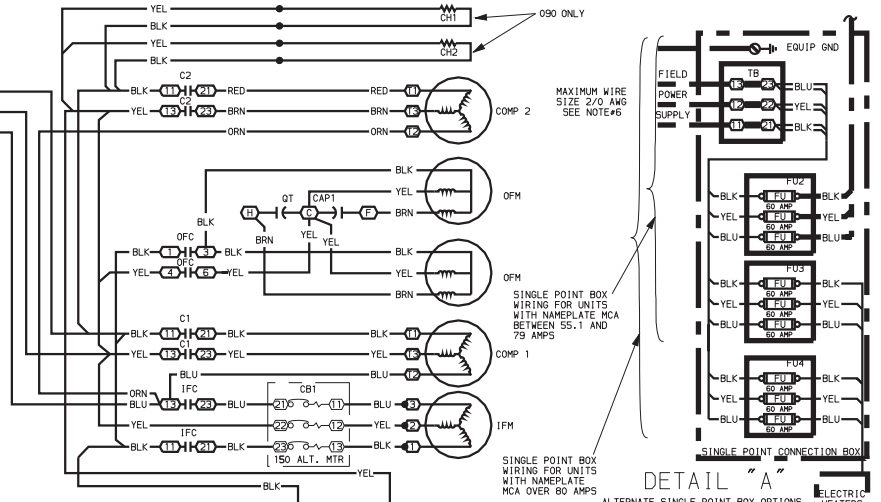
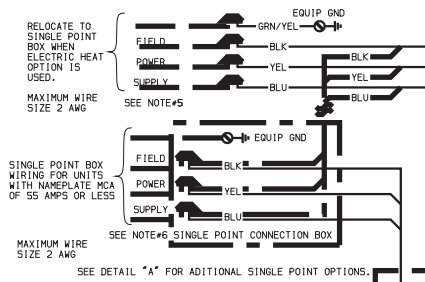
$$\text{Average Voltage} = \frac{452 + 464 + 455}{3}$$

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

$$= 457$$

TYPICAL WIRING SCHEMATICS — 548F

SCHEMATIC 460-3-60



NOTES

1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90°C WIRE OR ITS EQUIVALENT.
2. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS.
3. USE COPPER CONDUCTORS ONLY.
4. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
5. VOLTAGE: CB, MUST; PAT'NG, MFG. PT. NO., POTTER & BRUMFIELD, TRIP AMPS; W28X-1024-3,2 3,2

LEGEND

- AWG** — American Wire Gage
- C** — Contactor, Compressor
- CAP** — Capacitor
- CB** — Circuit Breaker
- CH** — Crankcase Heater
- COMP** — Compressor Motor
- DB** — Defrost Board
- DFT** — Defrost Thermostat
- EQUIP** — Equipment
- FPT** — Freeze Protection Thermostat
- GND** — Ground
- HC** — Heater Contactor
- HPS** — High-Pressure Switch
- HR** — Heater Relay
- IFC** — Indoor Fan Contactor
- IFM** — Indoor Fan Motor
- IFMOVL** — Indoor Fan Motor Overload

- LPS** — Low-Pressure Switch
- LSM** — Limit Switch (Manual Reset)
- OFC** — Outdoor Fan Contactor
- OFM** — Outdoor Fan Motor
- P** — Plug
- PL** — Plug Assembly
- QT** — Quadruple Terminal
- RSV** — Reversing Valve
- SAT** — Supply-Air Thermostat
- TB** — Terminal Block
- TRAN** — Transformer
- Field Splice
- Marked Wire
- Terminal (Marked)

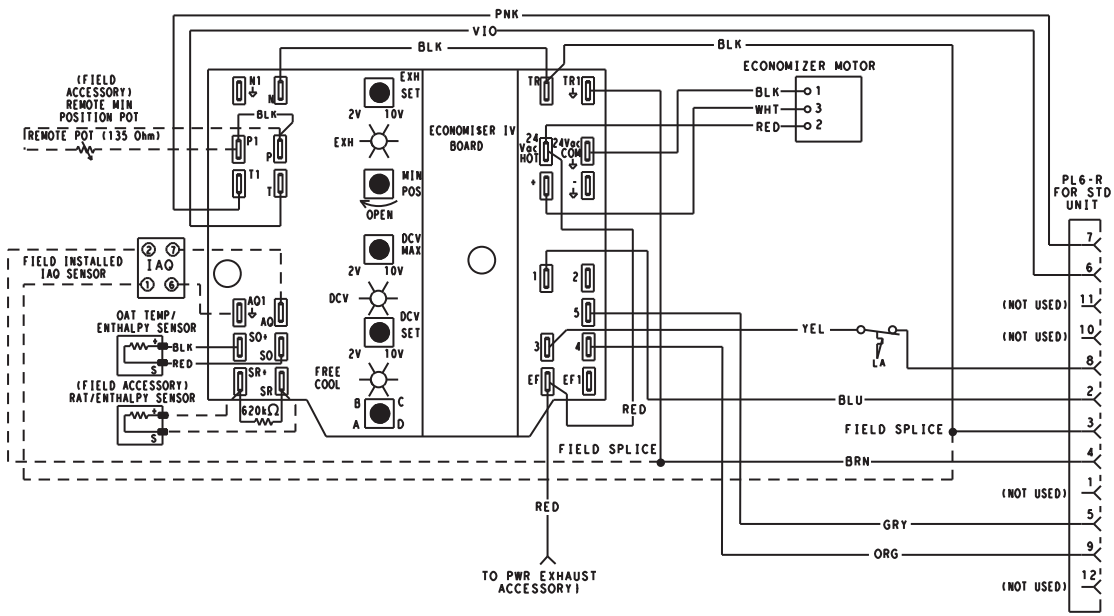
- Terminal (Unmarked)
- Terminal Block
- Splice
- Splice (Marked)
- Factory Wiring
- Field Control Wiring
- Field Power Wiring
- Accessory or Optional Wiring
- To indicate common potential only. Not to represent wiring.

548F

548F090-120 — 460 v Shown

TYPICAL WIRING SCHEMATICS — 548F (cont)

548F



LEGEND

- IAQ — Indoor Air Quality
- LA — Low Ambient Lockout Device
- POT — Potentiometer
- OAT — Outdoor-Air Temperature
- RAT — Return-Air Temperature

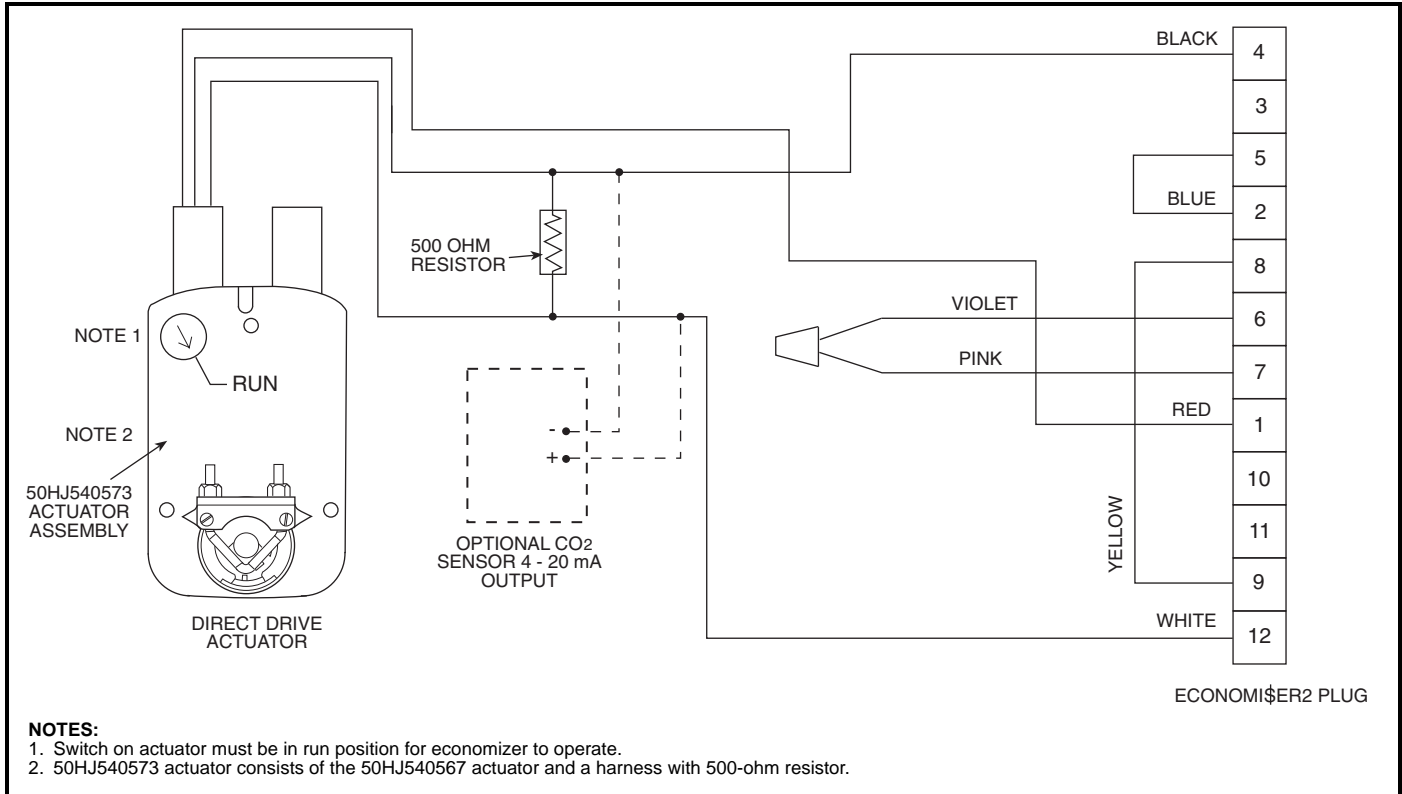
NOTE:

- Potentiometer Defaults Settings:
- Power Exhaust Middle
 - Minimum Pos. Fully Closed
 - DCV Max. Middle
 - DCV Set Middle
 - Enthalpy C Setting

NOTES:

1. 620 ohm, 1 watt 5% resistor should be removed only when using differential enthalpy or dry bulb.
2. If a separate field-supplied 24v transformer is used for the IAQ sensor power supply, it cannot have the secondary of the transformer grounded.
3. For field-installed remote minimum position POT, remove black wire jumper between P and P1 and set control minimum position POT to the minimum position.

EconoMi\$erIV Wiring

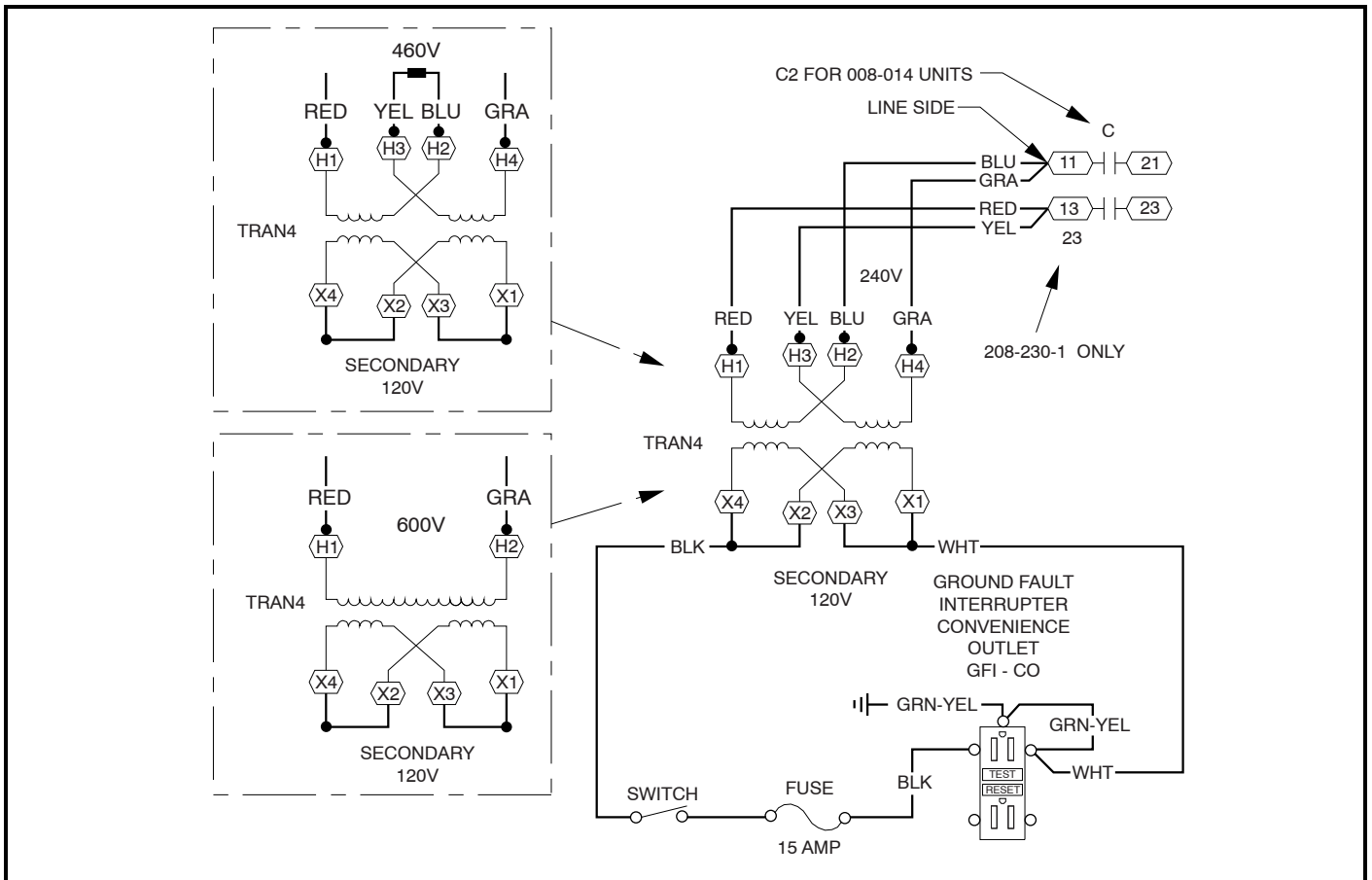


NOTES:

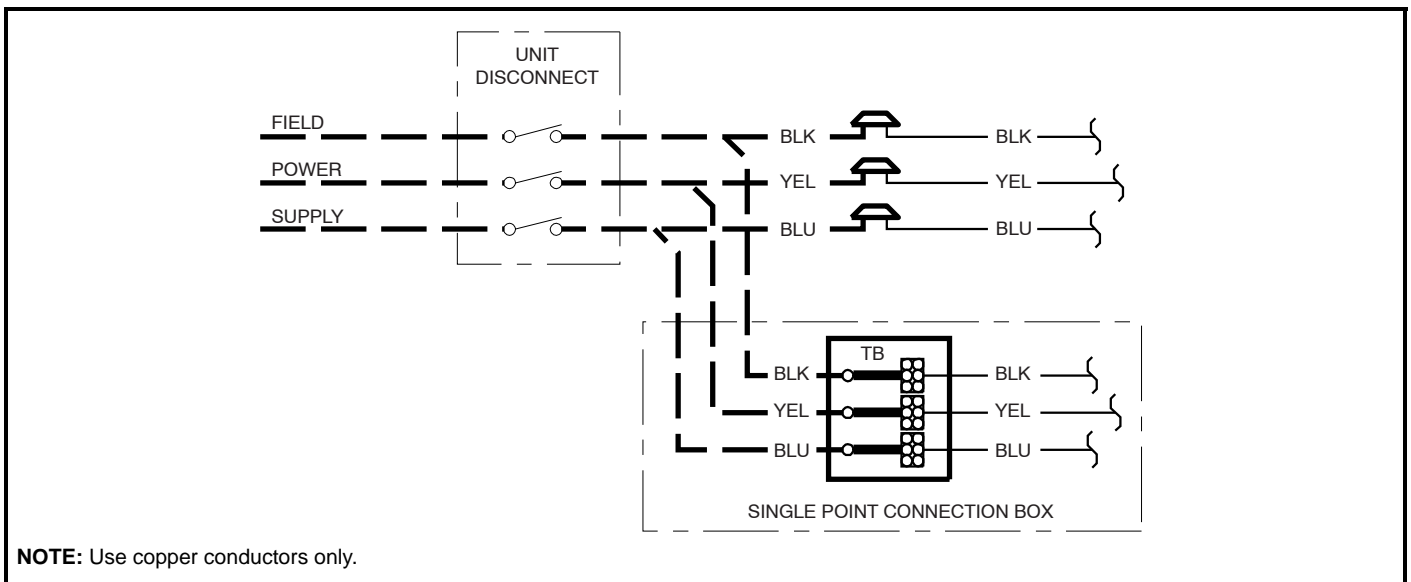
1. Switch on actuator must be in run position for economizer to operate.
2. 50HJ540573 actuator consists of the 50HJ540567 actuator and a harness with 500-ohm resistor.

EconoMi\$er2 Wiring

TYPICAL WIRING SCHEMATICS — 548F (cont)



Convenience Outlet (Optional) — 548F036-120



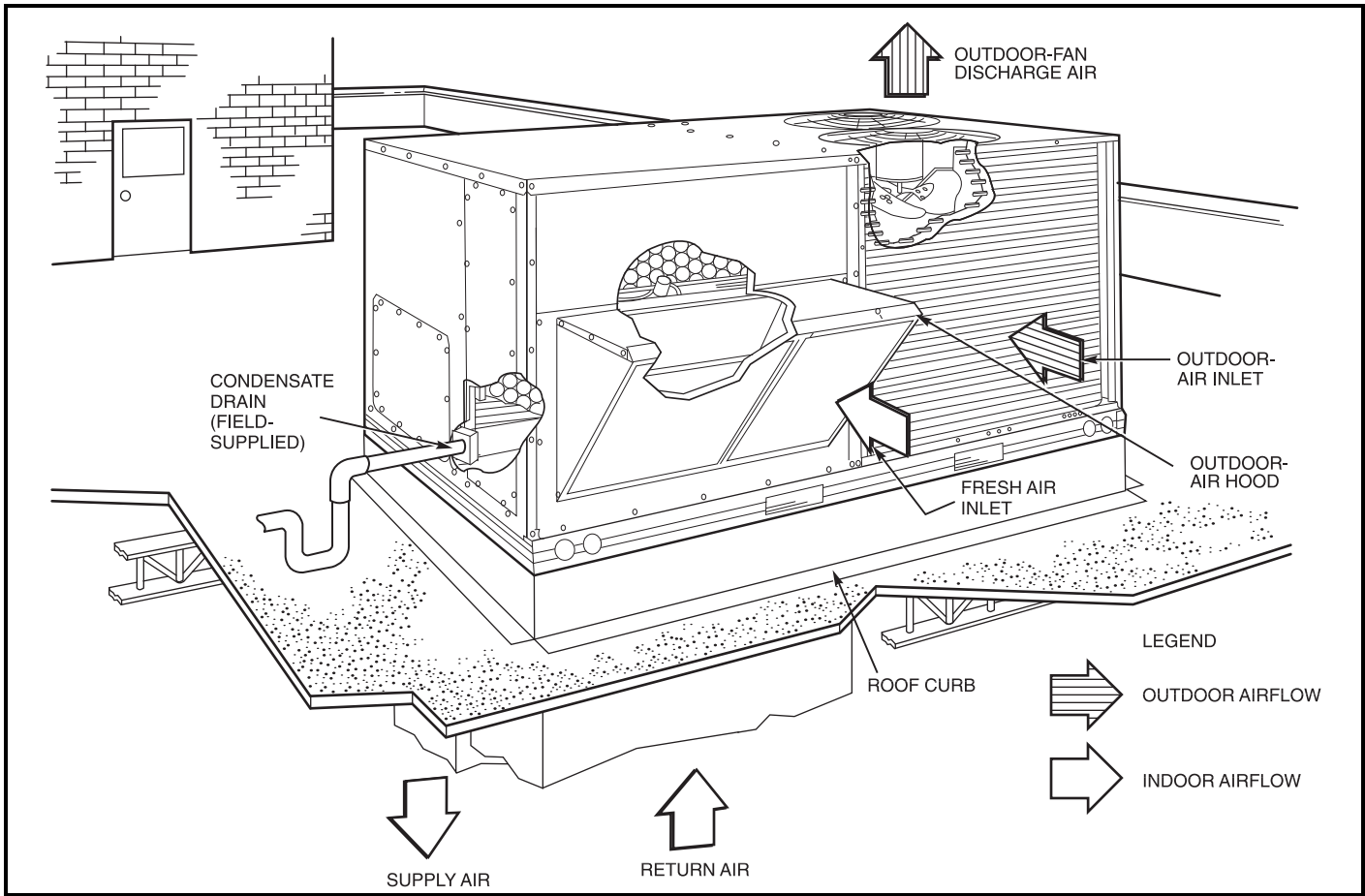
NOTE: Use copper conductors only.

Non-Fused Disconnect (Optional) — 548F036-120

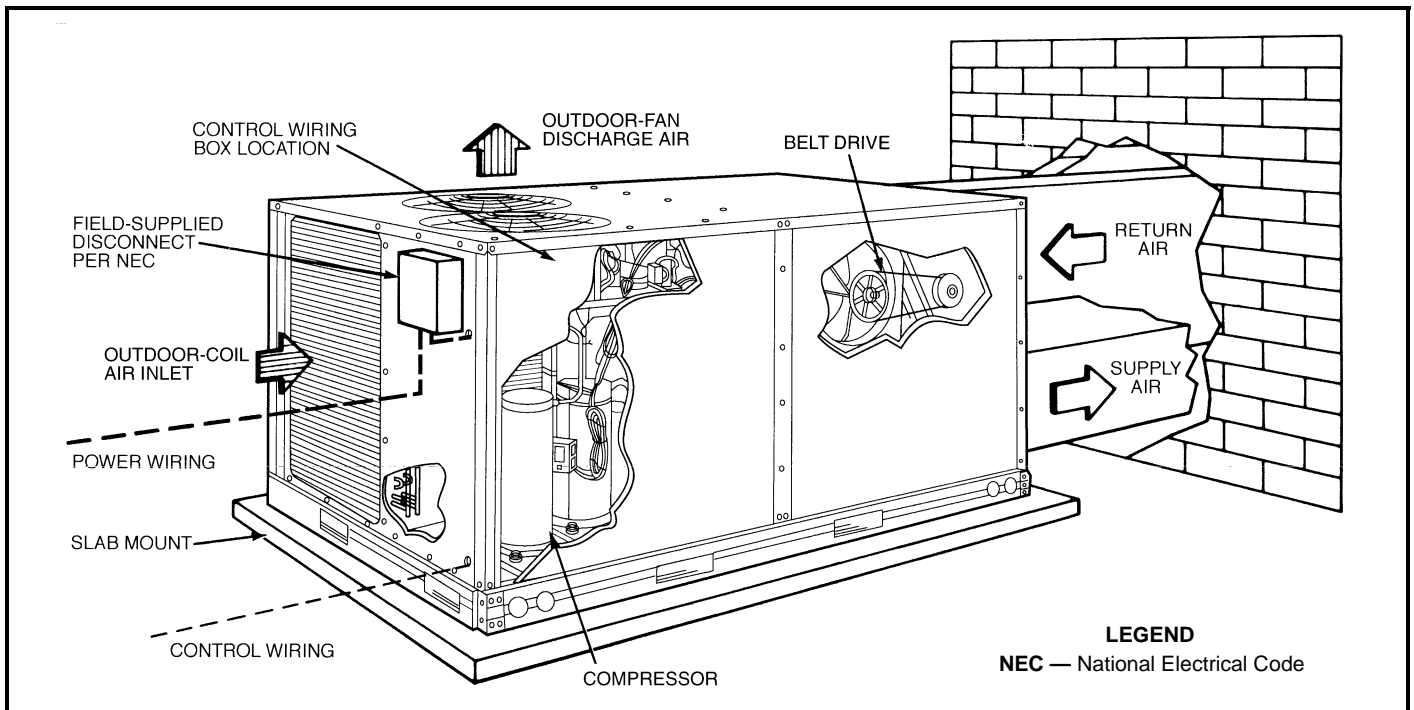
548F

TYPICAL PIPING AND WIRING — 548F

548F



Vertical Discharge Ducting



Horizontal Discharge Ducting

**PACKAGED ROOFTOP AIR-TO-AIR HEAT PUMP WITH
ELECTRIC HEAT OPTION — CONSTANT VOLUME
APPLICATION**

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 3 TO 10 TONS, NOMINAL (COOLING)
34,400 TO 105,000 BTUH,
NOMINAL (HEATING)
4 TO 50 KW NOMINAL (ELECTRIC HEATING)

BRYANT MODEL NUMBER: 548F

PART 1 — GENERAL

1.01 SYSTEM DESCRIPTION

Outdoor rooftop-mounted or slab-mounted, electrically controlled air-to-air heat pump utilizing a hermetic compressor for heating and cooling duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with ARI Standards 210/240 and 270.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision, and in accordance with UL 1995.
- C. Unit shall be UL tested and certified in accordance with ANSI Z21.47 Standard and UL listed and certified under Canadian Standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hour salt spray test.

1.03 DELIVERY, STORAGE, AND HANDLING

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

PART 2 — PRODUCTS

2.01 EQUIPMENT (STANDARD)

A. General:

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

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a baked enamel finish on all externally exposed surfaces with primer coated internal panels.
2. Indoor fan cabinet interior shall be insulated with a minimum 1/2-in. thick flexible fiberglass insulation coated on the air side.
3. Cabinet panels shall be easily removable for servicing.
4. Holes shall be provided in the base rails for rigging shackles to facilitate overhead rigging, and forklift slots shall be provided to facilitate maneuvering.
5. Unit shall have a factory-installed, sloped condensate drain pan made of a non-corrosive material, providing a minimum 3/4-in. connection with both vertical and horizontal drains and shall comply with ASHRAE 62.

6. Unit shall have factory-installed filter access panel to provide filter access with tool-less removal.
7. Unit shall have standard thru-the-bottom power connection capability.

C. Fans:

1. Indoor blower shall be of the direct-driven or belt-driven, double inlet, forward-curved centrifugal type. Belt drive shall include an adjustable-pitch motor pulley.
2. Indoor blower shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.
3. Bearings shall be of the sealed, permanently lubricated, ball-bearing type for longer life and lower maintenance.
4. Outdoor fan shall be of the direct-driven propeller type and shall discharge air vertically.
5. Outdoor fan shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

D. Compressor(s):

1. Fully hermetic type, internally protected.
2. Factory rubber shock-mounted and internally spring mounted for vibration isolation.

E. Coils:

1. Outdoor and indoor coils shall have aluminum plate fins mechanically bonded to enhanced copper tubes with all joints brazed.
2. Tube sheet openings shall be belled to prevent tube wear.
3. Indoor coil shall be of the face split design.
4. Coils:
 - a. Copper-fin coils shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan. All copper construction shall provide protection in moderate coastal environments.
 - b. E-Coated aluminum-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in./lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be aluminum fins mechanically bonded to copper tubes.

GUIDE SPECIFICATIONS — 548F036-120 (cont)

- c. E-Coated copper-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in./lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be copper fins mechanically bonded to copper tubes with copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting sheet metal coil pan to maintain coating integrity and minimize corrosion potential between coil and pan.
- d. Optional pre-coated aluminum-fin coils shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
- F. Refrigerant Components: Refrigerant circuit components shall include:
1. Fixed orifice multiple independent circuit metering system.
 2. Service gage connections on suction, discharge, and liquid line to charge, evacuate, and contain refrigerant.
 3. Accumulator.
 4. Reversing valve.
- G. Filter Section:
1. Standard filter section shall consist of factory-installed low-velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
 2. Filter face velocity shall not exceed 300 fpm at nominal airflows.
 3. Filter section shall use only one size filter.
 4. Filters shall be accessible through an access panel with "no-tool" removal.
- H. Controls and Safeties:
1. Unit Controls:
 - a. Unit shall be complete with self-contained low-voltage control circuit.
 - b. Unit shall incorporate an outdoor coil defrost system to prevent excessive frost accumulation during heating duty, and shall be controlled as follows:
 - 1) Defrost shall be initiated on the basis of time and coil temperature.
 - 2) A 30/50/90-minute timer shall activate defrost cycle only if coil temperature is low enough to indicate a heavy frost condition.
 - 3) Defrost cycle shall terminate when defrost thermostat is satisfied and shall have a positive termination time of 10 minutes.
 2. Standard Safeties:

Unit shall incorporate compressor overtemperature and overcurrent safety devices to shut off compressor.
 - I. Operating Characteristics:
 1. Unit shall be capable of starting and running in cooling at 115 F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/240 at ±10% voltage.
 2. Compressor with standard controls shall be capable of cooling operation down to 25 F ambient outdoor temperature.
 3. Compressor shall be capable of operation in heating duty down to -10 F ambient outdoor-air temperature.
 4. Unit shall be capable of simultaneous heating duty and defrost cycle operation when using electric heaters indicated in Section L, Special Features.
 - J. Electrical Requirements:

All unit power wiring shall enter unit cabinet at a single factory-predrilled location.
 - K. Motors:
 1. Compressor motors shall be cooled by refrigerant passing through motor windings and shall have line break thermal and current overload protection.
 2. Indoor blower motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.
 3. Totally enclosed outdoor-fan motor shall have permanently lubricated bearings, and inherent automatic-reset thermal overload protection.
 - L. Special Features:

Certain features are not applicable when the features designated by * are specified. For assistance in amending the specifications, your local Bryant Sales Office should be contacted.

 1. Roof Curbs:
 - a. Formed galvanized steel with wood nailer strip and capable of supporting entire unit weight.
 - b. Allows for installing and securing ductwork to curb prior to mounting unit on the curb.
 - * 2. Integrated Economizers:
 - a. Integrated integral modulating type capable of simultaneous economizer and compressor operation. During economizer operation, up to two compressors on sizes 090-120 will operate.
 - b. Available as a factory-installed option in vertical supply/return configuration only. (Available as a field-installed accessory for dedicated horizontal and/or vertical supply return configurations.)
 - c. Includes all hardware and controls to provide cooling with outdoor air.
 - d. Equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
 - e. Capable of introducing up to 100% outdoor air.

GUIDE SPECIFICATIONS — 548F036-120 (cont)

- f. EconoMi\$erIV and EconoMi\$er2 shall be equipped with a barometric relief damper capable of relieving up to 100% return air.
 - g. Designed to close damper(s) during loss-of-power situations with spring return built into motor.
 - h. Dry bulb outdoor-air temperature sensor shall be provided as standard. Outdoor air sensor set point is adjustable and shall range from 40 to 100 F. For the EconoMi\$erIV, the return air sensor, indoor enthalpy sensor, and outdoor enthalpy sensor shall be provided as field-installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control. For the EconoMi\$er2, the enthalpy, differential temperature (adjustable), and differential enthalpy control shall be provided as field-installed accessories.
 - i. The EconoMi\$erIV and EconoMi\$er2 shall have a gear-driven parallel blade design.
 - j. EconoMi\$erIV microprocessor control shall provide control of internal building pressure through its accessory power exhaust function. Factory set at 100%, with a range of 0% to 100%.
 - k. EconoMi\$er2 shall be capable of control from a 4 to 20 mA signal through optional 4 to 20 mA design without microprocessor control (required for third party control interface).
 - l. EconoMi\$erIV Microprocessor Occupied Minimum Damper Position Setting maintains the minimum airflow into the building during occupied period providing design ventilation rate for full occupancy (damper position during heating). A remote potentiometer may be used to override the set point.
 - m. EconoMi\$erIV Microprocessor Unoccupied Minimum Damper Position Setting — The EconoMi\$erIV damper shall be completely closed when the unit is in the occupied mode.
 - n. EconoMi\$erIV Microprocessor IAQ/DCV Maximum Damper Position Setting — Setting the maximum position of the damper prevents the introduction of large amounts of hot or cold air into the space. This position is intended to satisfy the base minimum ventilation rate.
 - o. EconoMi\$erIV Microprocessor IAQ/DCV control modulates the outdoor-air damper to provide ventilation based on the optional 2 to 10 vdc CO₂ sensor input.
 - p. Compressor lockout sensor (opens at 35 F, closes at 50 F).
 - q. Actuator shall be direct coupled to economizer gear, eliminating linkage arms and rods.
 - r. Control LEDs:
 - 1) When the outdoor-air damper is capable of providing free cooling, the "Free Cool" LED shall illuminate.
 - 2) The IAQ LED indicates when the module is on the DCV mode.
 - 3) The EXH LED indicates when the exhaust fan contact is closed.
 - s. Remote Minimum Position Control — A field-installed accessory remote potentiometer shall allow the outdoor-air damper to be opened or closed beyond the minimum position in the occupied mode for modified ventilation.
- 3. 50% Manual Outdoor-Air Damper:

Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 50% outdoor air for year-round ventilation.
 - 4. 100% Manual Outdoor-Air Damper:

Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 100% outdoor air for year-round ventilation.
 - * 5. 100% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper. Admits up to 100% outdoor air.
 - b. Damper shall close upon indoor fan shutoff.
 - c. Designed to close damper during loss of power situations.
 - d. Equipped with barometric relief damper.
 - * 6. 25% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper and motor. Admits up to 25% outdoor air.
 - b. Damper shall close upon indoor fan shutoff.
 - * 7. Electric Resistance Heaters:
 - a. Open wire nichrome elements with all necessary safety operating controls.
 - b. UL listed and indicated on basic unit informative plate.
 - c. Available in multiples to match heating requirements.
 - d. Single point kits available for each heater when required.
 - * 8. Head Pressure Control Packages:

Package shall consist of solid-state control and outdoor-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by outdoor fan speed modulation or outdoor fan cycling.
 - * 9. Thermostat and Subbase:

Thermostat and subbase provide staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.
 - 10. Thru-The-Bottom Utility Connections:

Kit shall provide connectors to permit electrical connections to be brought to the unit through the basepan.
 - * 11. Electronic Programmable Thermostat:

Unit shall be capable of using deluxe full-featured electronic thermostat. Thermostat shall use built-in compressor cycle delay control for both heating and cooling duty. Thermostat shall be capable of working with third party direct digital controls.

GUIDE SPECIFICATIONS — 548F036-120 (cont)

12. Power Exhaust Accessory for EconoMi\$erIV or EconoMi\$er2:
Power exhaust shall be used in conjunction with EconoMi\$erIV or EconoMi\$er2 to provide system exhaust of up to 100% of return air (vertical only). The power exhaust is a field-installed accessory (separate vertical and horizontal design).
NOTE: Horizontal power exhaust is intended to mount in return ductwork.
As the outdoor-air damper opens and closes, *both* propeller fans are energized and deenergized through the EconoMi\$erIV controller. The set point is factory set at 100% of outdoor-air, and is adjustable 0 to 100% to meet specific job requirements. Available in 208/230-1-60 v or 460-3-60 v. An LED light on the controller indicates when the power exhaust is operating.
For the EconoMi\$er2, the power exhaust shall be controlled by the third party controls.
13. Outdoor Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):
The outdoor air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.
14. Return Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):
The return air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with an outdoor air enthalpy sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential enthalpy control.
15. Return Air Temperature Sensor (EconoMi\$erIV or EconoMi\$er2):
The return air temperature sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with the standard outdoor air temperature sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential temperature control.
16. Outdoor Air/Return Air Temperature Sensor (adjustable) (EconoMi\$er2):
Optional sensor uses the third party control to control outdoor air damper and compressor operation.
17. Indoor Air Quality (CO₂) Sensor:
a. Sensor shall have the ability to provide demand ventilation indoor air quality (IAQ) control through the EconoMi\$er2 with an IAQ sensor.
b. The IAQ sensor shall be available in duct mount, wall mount, and wall mount with LED display. The set point shall have adjustment capability.
c. Requires EconoMi\$er2 third party control options.
18. Outdoor Coil Hail Guard Assembly:
Hail guard shall protect against damage from hail and flying debris.
19. Indoor Air Quality (CO₂) Room Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be wall mounted with an LED display in parts per million. The set point shall have adjustment capability.
20. Return Air CO₂ Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be duct mounted. The set point shall have adjustment capability.
21. Alternate Motors and/or Drives (036-060,090,120):
Alternate motors and drives shall be factory-installed to provide additional performance range.
22. High-Static Motor(s) and Drive(s):
High-static motor(s) and drive(s) shall be factory-installed to provide an additional performance range.
23. Outdoor Coil Grille:
The grille protects the outdoor coil from damage by large objects without increasing unit clearances.
24. Compressor Cycle Delay:
Unit shall be prevented from restarting for a minimum of 5 min. after shutdown.
25. Louvered Hail Guard:
The hail guard shall protect the entire outdoor coil surface from direct or indirect (from adjacent surfaces) hail damage. Hail guard shall have a pressure drop of 2%.
26. Fan/Filter Status Switch:
Switch shall provide status of evaporator fan (ON/OFF) or filter (CLEAN/DIRTY). Status shall be displayed over communication bus when used with direct digital controls or with an indicator light at the thermostat.
27. Unit-Mounted Disconnect Switch:
Switch shall be factory-installed. Internally mounted, NEC and UL approved non-fused switch provides unit power shutoff. Switch shall be accessible from outside the unit.
28. Convenience Outlet:
Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. Outlet shall include 15 amp GFI receptacle with independent fuse protection. Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer. Outlet shall be accessible from outside the unit.
NOTE: Convenience outlet shall be designed for short duration electrical maintenance loads and is not designed for long term electrical supply.
29. Emergency Heat Package:
When mechanical heating is locked out, auxiliary heat shall be activated when necessary.
30. Ultra-Violet Germicidal Lamps:
Ultra-violet germicidal lamps are designed to eliminate odor causing mold and fungus that may develop in the wet area of the indoor section of the unit. The high output, low temperature germicidal lamps are field installed in the indoor section of the unit, aimed at the indoor coil and condensate pan. The short wavelength ultra-violet light inhibits and kills mold, fungus and microbial growth. The lamps have an output rating at 45 F in 400 fpm airflow of 120 microwatts/cm² at 1 meter.

PHYSICAL DATA — 549B036-072

UNIT SIZE 549B	036	048	060	072
NOMINAL CAPACITY (tons)	3	4	5	6
OPERATING WEIGHT (lb)				
Unit	550	560	630	630
EconoMi\$erIV	50	50	50	50
Roof Curb	115	115	115	115
COMPRESSOR Scroll				
Quantity	1	1	1	1
Oil (oz)	42	42	53	80
REFRIGERANT TYPE R-22				
Operating Charge (lb)	12.0	12.0	18.3	17.7
OUTDOOR COIL Enhanced Copper Tubes, Aluminum Fins, Fixed Orifice Metering Device				
Rows...Fins/in.	2...17	2...17	2...17	2...17
Total Face Area (sq ft)	16.53	16.53	21.25	21.25
OUTDOOR FAN Propeller Type				
Quantity...Diameter (in.)	1...22	1...22	1...22	1...22
Nominal Cfm	3500	3500	3500	3500
Motor Hp...Rpm	1/8...825	1/8...825	1/4...1100	1/4...1100
INDOOR COIL Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device				
Rows...Fins/in.	2...15	3...15	4...15	4...15
Total Face Area (sq ft)	5.5	5.5	7.33	7.33
INDOOR FAN Centrifugal Type				
Quantity...Size (in.)	Std 1...10 x 10	1...10 x 10	1...10 x 10	1...10 x 10
Type Drive	High-Static 1...10 x 10	1...10 x 10	1...10 x 10	1...10 x 10
	Std Belt	Belt	Belt	Belt
	High-Static Belt	Belt	Belt	Belt
Nominal Cfm	1200	1600	2000	2400
Maximum Continuous Bhp	Std 1.20	1.20	1.30/2.40*	2.40
	High-Static 2.40	2.40	2.90	2.90
Motor Frame Size	Std 48	48	56	56
	High-Static 56	56	56	56
Nominal Rpm High/Low	Std 1620	1620	1725	—
	High-Static 1725	1725	1725	1725
Fan Rpm Range	Std 680-1044	770-1185	1035-1460	1119-1585
	High-Static 1075-1455	1075-1455	1300-1685	1300-1685
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	2100	2100	2100	2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std 1.9/2.9	1.9/2.9	2.4/3.4	2.4/3.4
	High-Static 2.8/3.8	2.8/3.8	3.4/4.4	3.4/4.4
Nominal Motor Shaft Diameter (in.)	Std 1/2	1/2	5/8	5/8
	High-Static 5/8	5/8	5/8	5/8
Fan Pulley Pitch Diameter (in.)	Std 4.5	4.0	4.5	3.7
	High-Static 4.5	4.5	4.5	4.5
Belt, Quantity...Type...Length (in.)	Std 1...A...34	1...A...34	1...A...39	1...A...40
	High-Static 1...A...39	1...A...39	1...A...40	1...A...40
Pulley Center Line Distance (in.)	Std 10.0-12.4	10.0-12.4	14.7-15.5	14.7-15.5
	High-Static 10.0-12.4	10.0-12.4	14.7-15.5	14.7-15.5
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std 48	70	80	80
	High-Static 65	65	60	60
Movable Pulley Maximum Full Turns From Closed Position	Std 5	5	6	5
	High-Static 6	6	5	5
Factory Setting	Std 3	3	3	3
	High-Static 3 1/2	3 1/2	3 1/2	3 1/2
Factory Speed Setting (rpm)	Std 826	936	1249	1305
	High-Static 1233	1233	1416	1416
Fan Shaft Diameter at Pulley (in.)	5/8	5/8	5/8	5/8
HIGH-PRESSURE SWITCH (psig)				
Standard Compressor Internal Relief Cutout			625	
Reset (Auto.)			428	
			320	
LOSS OF CHARGE (Low-Pressure Switch) (Liquid Line) (psig)				
Cutout			7 ± 3	
Reset (Auto.)			22 ± 5	
FREEZE PROTECTION THERMOSTAT				
Opens (F)			30	
Closes (F)			45	
OUTDOOR-AIR INLET SCREENS Cleanable.				
			Screen quantity and size varies with option selected.	
RETURN-AIR FILTERS Throwaway				
Quantity...Size (in.)			2...16 x 25 x 2	

LEGEND

Bhp — Brake Horsepower

*Single phase/three phase.

549B, 549C

PHYSICAL DATA — 549B090-120

BASE UNIT 549B	090	102	120
NOMINAL CAPACITY (tons)	7½	8½	10
OPERATING WEIGHT (lb)			
Unit	870	1000	1000
Economy	75	75	75
Roof Curb	223	223	223
COMPRESSOR Scroll			
Quantity	2	2	2
Oil (oz) (each compr)	57	70	57
REFRIGERANT TYPE R-22			
Operating Charge (lb)			
Circuit 1	9.5	11.0	10.7
Circuit 2	9.5	11.0	10.8
OUTDOOR COIL Enhanced Copper Tubes, Aluminum Fins, Fixed Orifice Metering Device			
Rows...Fins/in.	2...17	2...17	2...17
Total Face Area (sq ft)	20.5	25.1	25.1
OUTDOOR FAN Propeller			
Quantity...Diameter (in.)	2...22	2...22	2...22
Nominal Cfm	6500	6500	6500
Motor Hp...Rpm	¼...1100	¼...1100	¼...1100
INDOOR COIL Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device			
Rows...Fins/in.	3...15	4...15	4...15
Total Face Area (sq ft)	8.9	11.1	11.1
INDOOR FAN Centrifugal Type			
Quantity...Size (in.)	Standard 1...15 x 15	Standard 1...15 x 15	Standard 1...15 x 15
Type Drive	High-Static Belt	High-Static Belt	High-Static Belt
Nominal Cfm	Standard 3000	Standard 3400	Standard 4000
Maximum Continuous Bhp	High-Static 2.90	High-Static 2.90	High-Static 3.70
Motor Frame Size	Standard 56	Standard 56	Standard 56
Nominal Rpm	High-Static 56	High-Static 56	High-Static 56
Fan Rpm Range	Standard 1725	Standard 1725	Standard 1725
Motor Bearing Type	High-Static 1725	High-Static 1725	High-Static 1725
Maximum Allowable Rpm	Standard 730-950	Standard 840-1085	Standard 860-1080
Motor Pulley Pitch Diameter Min/Max (in.)	High-Static 860-1080	High-Static 860-1080	High-Static 922-1219
Nominal Motor Shaft Diameter (in.)	Standard Ball	Standard Ball	Standard Ball
Fan Pulley Pitch Diameter (in.)	High-Static 2100	High-Static 2100	High-Static 2100
Belt, Quantity...Type...Length (in.)	Standard 3.4/4.4	Standard 3.4/4.4	Standard 4.0/5.0
Pulley Center Line Distance (in.)	High-Static 4.0/5.0	High-Static 4.0/5.0	High-Static 3.1/4.1
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Standard 7/8	Standard 7/8	Standard 7/8
Movable Pulley Maximum Full Turns from Closed Position	High-Static 8.0	High-Static 7.0	High-Static 8.0
Factory Setting	High-Static 8.0	High-Static 8.0	High-Static 5.8
Factory Speed Setting (rpm)	Standard 1...A...51	Standard 1...A...51	Standard 1...A...53
Fan Shaft Diameter at Pulley (in.)	High-Static 1...A...53	High-Static 1...A...53	High-Static 1...BX...48
HIGH-PRESSURE SWITCH (psig)			
Standard Compressor Internal Relief		625	
Cutout		428	
Reset (Auto.)		320	
LOSS-OF-CHARGE/LOW-PRESSURE SWITCH (Liquid Line) (psig)			
Cutout		7 ± 3	
Reset (Auto.)		22 ± 5	
FREEZE PROTECTION THERMOSTAT			
Opens (F)		30	
Closes (F)		45	
OUTDOOR-AIR INLET SCREENS Cleanable.			
Screen quantity and size varies with option selected.			
OUTDOOR-AIR INLET SCREENS Cleanable.			
Quantity...Size (in.)	4...16 x 20 x 2	4...20 x 20 x 2	4...20 x 20 x 2

LEGEND

Bhp — Brake Horsepower

549B, 549C

PHYSICAL DATA — 549C024-060

UNIT SIZE 549C		024	036	048	060
NOMINAL CAPACITY (tons)		2	3	4	5
OPERATING WEIGHT (lb)					
Unit		550	550	560	630
EconoMi\$erIV		50	50	50	50
Roof Curb		115	115	115	115
COMPRESSOR				Scroll	
Quantity		1	1	1	1
Oil (oz)		80	42	42	53
REFRIGERANT TYPE				R-22	
Operating Charge (lb)		5.2	12.0	12.0	18.3
OUTDOOR FAN				Propeller Type	
Quantity...Diameter (in.)		1...22	1...22	1...22	1...22
Nominal Cfm		3000	3500	3500	3500
Motor Hp...Rpm		1/8...760	1/8...825	1/8...825	1/4...1100
OUTDOOR COIL					
Enhanced Copper Tubes, Aluminum Fins, Fixed Orifice Metering Device					
Rows...Fins/in.		1...17	2...17	2...17	2...17
Total Face Area (sq ft)		14.58	16.53	16.53	21.25
INDOOR FAN				Centrifugal Type	
Quantity...Size (in.)	Std	1...10 x 10	1...10 x 10	1...10 x 10	1...10 x 10
	High-Static	—	1...10 x 10	1...10 x 10	1...10 x 10
Type Drive	Std	Belt	Belt	Belt	Belt
	High-Static	—	Belt	Belt	Belt
Nominal Cfm		800	1200	1600	2000
Maximum Continuous Bhp	Std	0.58	1.20	1.20	1.30/2.40*
	High-Static	—	2.40	2.40	2.90
Motor Frame Size	Std	39	48	48	56
	High-Static	—	56	56	56
Nominal Rpm High/Low	Std	1620	1620	1620	1725
	High-Static	—	1725	1725	1725
Fan Rpm Range	Std	639-936	680-1044	770-1185	1035-1460
	High-Static	—	1075-1455	1075-1455	1300-1685
Motor Bearing Type		Ball	Ball	Ball	Ball
Maximum Allowable Rpm		2100	2100	2100	2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std	1.9/2.9	1.9/2.9	1.9/2.9	2.4/3.4
	High-Static	—	2.8/3.8	2.8/3.8	3.4/4.4
Nominal Motor Shaft Diameter (in.)	Std	1/2	1/2	1/2	5/8
	High-Static	—	5/8	5/8	5/8
Fan Pulley Pitch Diameter (in.)	Std	5.2	4.5	4.0	4.5
	High-Static	—	4.5	4.5	4.5
Belt, Quantity...Type...Length (in.)	Std	1...A...36	1...A...34	1...A...34	1...A...39
	High-Static	—	1...A...39	1...A...39	1...A...40
Pulley Center Line Distance (in.)	Std	10.0-12.4	10.0-12.4	10.0-12.4	14.7-15.5
	High-Static	—	10.0-12.4	10.0-12.4	14.7-15.5
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std	60	48	70	80
	High-Static	—	65	65	60
Movable Pulley Maximum Full Turns From Closed Position	Std	5	5	5	6
	High-Static	—	6	6	5
Factory Setting	Std	3	3	3	3
	High-Static	—	3 1/2	3 1/2	3 1/2
Factory Speed Setting (rpm)	Std	758	826	936	1249
	High-Static	—	1233	1233	1416
Fan Shaft Diameter at Pulley (in.)		5/8	5/8	5/8	5/8
INDOOR COIL					
Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device					
Rows...Fins/in.		2...15	2...15	3...15	4...15
Total Face Area (sq ft)		5.5	5.5	5.5	7.33
HIGH-PRESSURE SWITCH (psig)					
Standard Compressor Internal Relief				625	
Cutout				428	
Reset (Auto.)				320	
LOSS OF CHARGE					
(Liquid Line) (psig)					
Cutout				7 ± 3	
Reset (Auto.)				22 ± 5	
FREEZE PROTECTION THERMOSTAT					
Opens (F)				30	
Closes (F)				45	
OUTDOOR-AIR INLET SCREENS				Cleanable	
Screen quantity and size varies with option selected					
RETURN-AIR FILTERS					
Throwaway					
Quantity...Size (in.)		2...16 x 25 x 2			

LEGEND

Bhp — Brake Horsepower

*Single phase/three phase.

549B, 549C

BASE UNIT DIMENSIONS

549B, 549C

CONNECTION SIZES

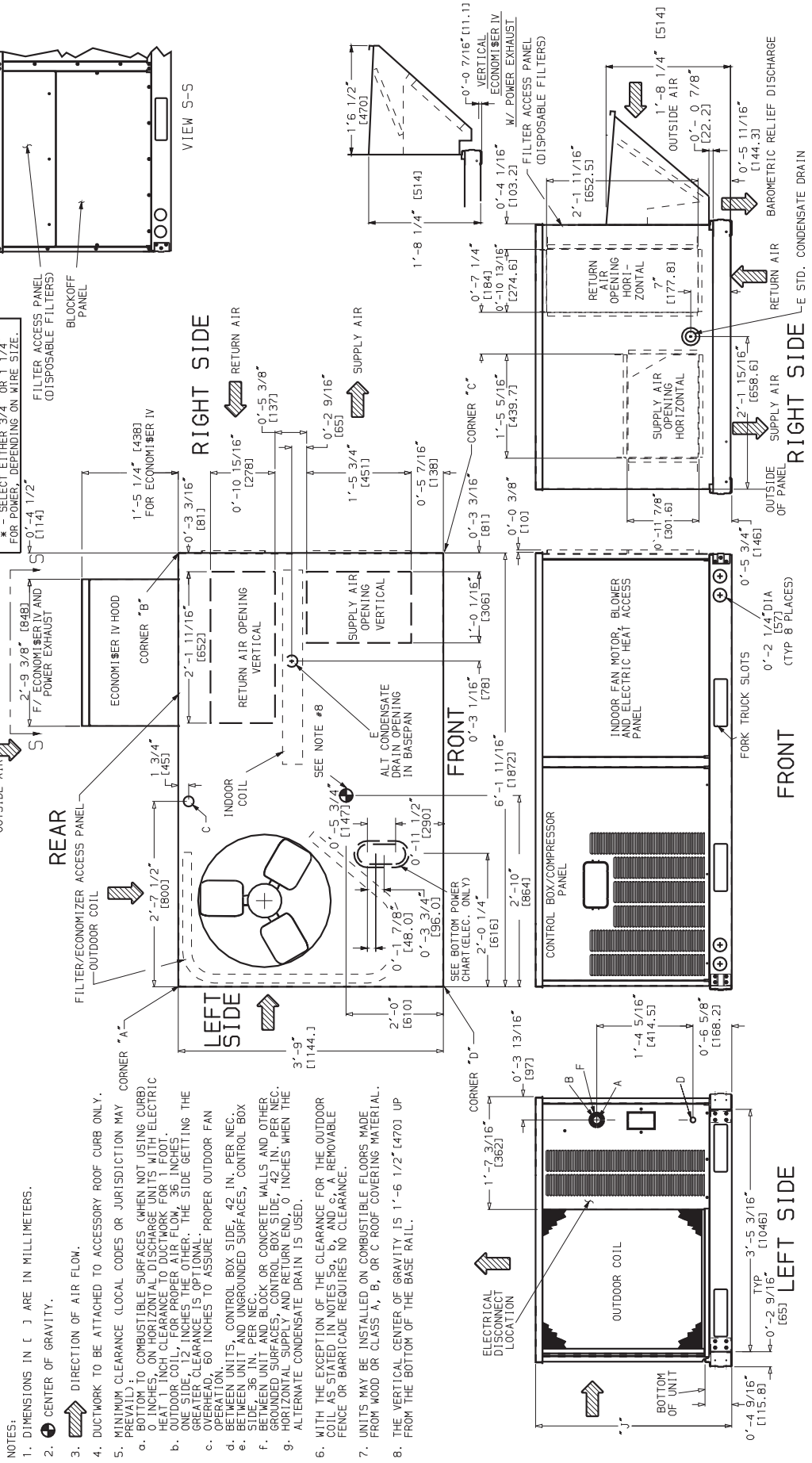
A	1 3/8" DIA. [35]	FIELD POWER SUPPLY HOLE
B	2" DIA. [51]	POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. [44]	CHARGING PORT HOLE
D	7/8" DIA. [22]	FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT	CONDENSATE DRAIN
F	2 1/2" DIA. [64]	POWER SUPPLY KNOCK-OUT

BOTTOM POWER CHART:
THESE HOLES REQ'D FOR USE WITH ACCESSORY PACKAGES - CRBIMP001A01, 2A01

THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZE (MAX.)
1/2"	ACC. 7/8" [22.2]	7/8" [22.2]
3/4"	24V POWER# 1 1/8" [28.4]	7/8" [22.2]
1 1/4"	POWER# 1 3/4" [44.4]	1 1/8" [28.4]

* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.

UNIT S49B	ECONOMIZER WEIGHT (D)		VERT. ECON IV W/P.E. WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (J)	
	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG	LB	KG
036	550	249	50	22.7	90	40.9	135	61	140	63	62	27.9
048	560	254	50	22.7	90	40.9	137	62	143	64	63	28.5
060	530	286	70	31.8	155	70	160	73	159	72	156	71
072	630	286	70	31.8	155	70	160	73	159	72	156	71



- NOTES:
1. DIMENSIONS IN [] ARE IN MILLIMETERS.
 2. CENTER OF GRAVITY.
 3. DIRECTION OF AIR FLOW.
 4. DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
 5. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
 - a. BOTTOM TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 6 INCHES ON HORIZONTAL DISCHARGE UNITS WITH ELECTRIC OUTDOOR COIL FOR PROPER AIR FLOW PER INCHES.
 - b. ONE SIDE 12 INCHES THE OTHER, THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
 - c. OVERHEAD, 60 INCHES TO ASSURE PROPER OUTDOOR FAN OPERATION.
 - d. BETWEEN UNITS, CONTROL BOX SIDE 42 IN. PER NEC. BETWEEN UNIT AND UNGROUNDED SURFACES, CONTROL BOX DECKING UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES CONTROL BOX SIDE 42 IN. PER NEC.
 - f. GROUND SUPPLY AND RETURN END, 0 INCHES WHEN THE HORIZONTAL SUPPLY AND RETURN END, 0 INCHES WHEN THE ALTERNATE CONDENSATE DRAIN IS USED.
 6. WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTES 5a, b, and c, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
 7. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL.
 8. THE VERTICAL CENTER OF GRAVITY IS 1'-6 1/2" [470] UP FROM THE BOTTOM OF THE BASE RAIL.

549B036-072

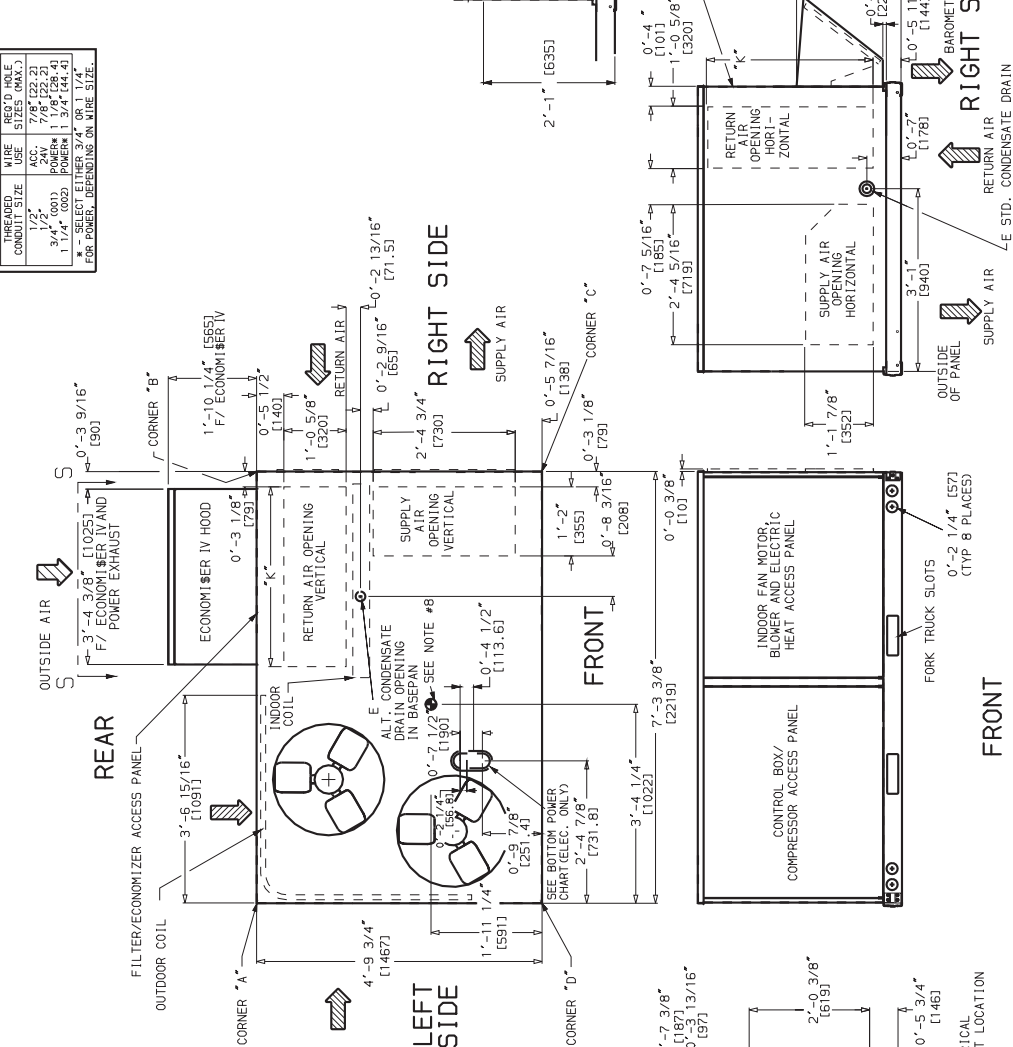
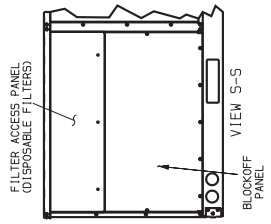
BASE UNIT DIMENSIONS (cont)

UNIT	STD. UNIT WEIGHT LB	ECONOMIZER IV WEIGHT LB	VERT. ECON IV W/ P.E. WEIGHT LB	CORNER WEIGHT (A) LB	CORNER WEIGHT (B) LB	CORNER WEIGHT (C) LB	CORNER WEIGHT (D) LB	"H" FT - IN.	"J" FT - IN.	"K" FT - IN.
549B	870	395	75	34.1	145	65.9	90	183	83	105
090	1000	454	1000	454	1000	454	1000	454	1000	454
102, 120	1000	454	1000	454	1000	454	1000	454	1000	454

BOTTOM POWER CHART
 THESE HOLES REQUIRED FOR USE WITH ACCESSORY PACKAGES -
 (SEE DIMENSIONS)

THREADED WIRE CONDUIT SIZE	RECTO HOLE SIZE (MAX.)
1/2"	7/8" (22.2)
3/4"	1" (25.4)
1 1/4"	1 7/8" (47.6)
1 3/4"	2 1/4" (60.3)

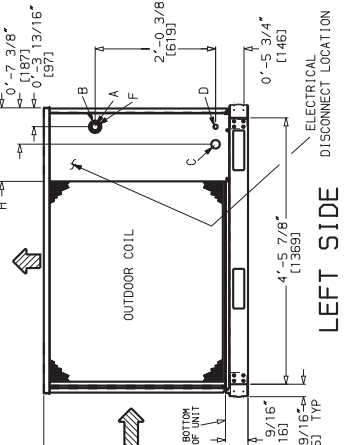
SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.



- NOTES:**
- DIMENSIONS IN [] ARE IN MILLIMETERS.
 - CENTER OF GRAVITY.
 - DIRECTION OF AIR FLOW.
 - 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 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.
 - OUTDOOR COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE CLEARANCE TO THE OTHER. THE SIDE GETTING THE OVERHEAD CLEARANCE IS TO ASSURE PROPER OUTDOOR FAN OPERATION.
 - BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC.
 - BETWEEN UNIT AND UNGROUND SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
 - BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER SURFACES, 36 IN. PER NEC.
 - HORIZONTAL SUPPLY AND RETURN END, 0 INCHES WHEN THE ALTERNATE CONDENSATE DRAIN IS USED.
 - WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL, ALL SURFACES, TOP, BOTTOM, AND SIDE, ARE 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" FOR 090 AND 012 UP FROM THE BOTTOM OF THE BASE RAIL.

CONNECTION SIZES

A	1 3/8" DIA. (35)	FIELD POWER SUPPLY HOLE
B	2 1/2" DIA. (64)	POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. (44)	CHARGING PORT HOLE
D	7/8" DIA. (22)	FIELD CONTROL WIRING HOLE
E	3/4" - 1/4 NPT	CONDENSATE DRAIN
F	2" DIA. (51)	POWER SUPPLY KNOCK-OUT



549B, 549C
 549B090-120

BASE UNIT DIMENSIONS (cont)

549B, 549C

CONNECTION SIZES	
A	1 3/8" DIA. [35] FIELD POWER SUPPLY HOLE
B	2" DIA. [51] POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. [44] CHARGING PORT HOLE
D	7/8" DIA. [22] FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	2 1/2" DIA. [64] POWER SUPPLY KNOCK-OUT

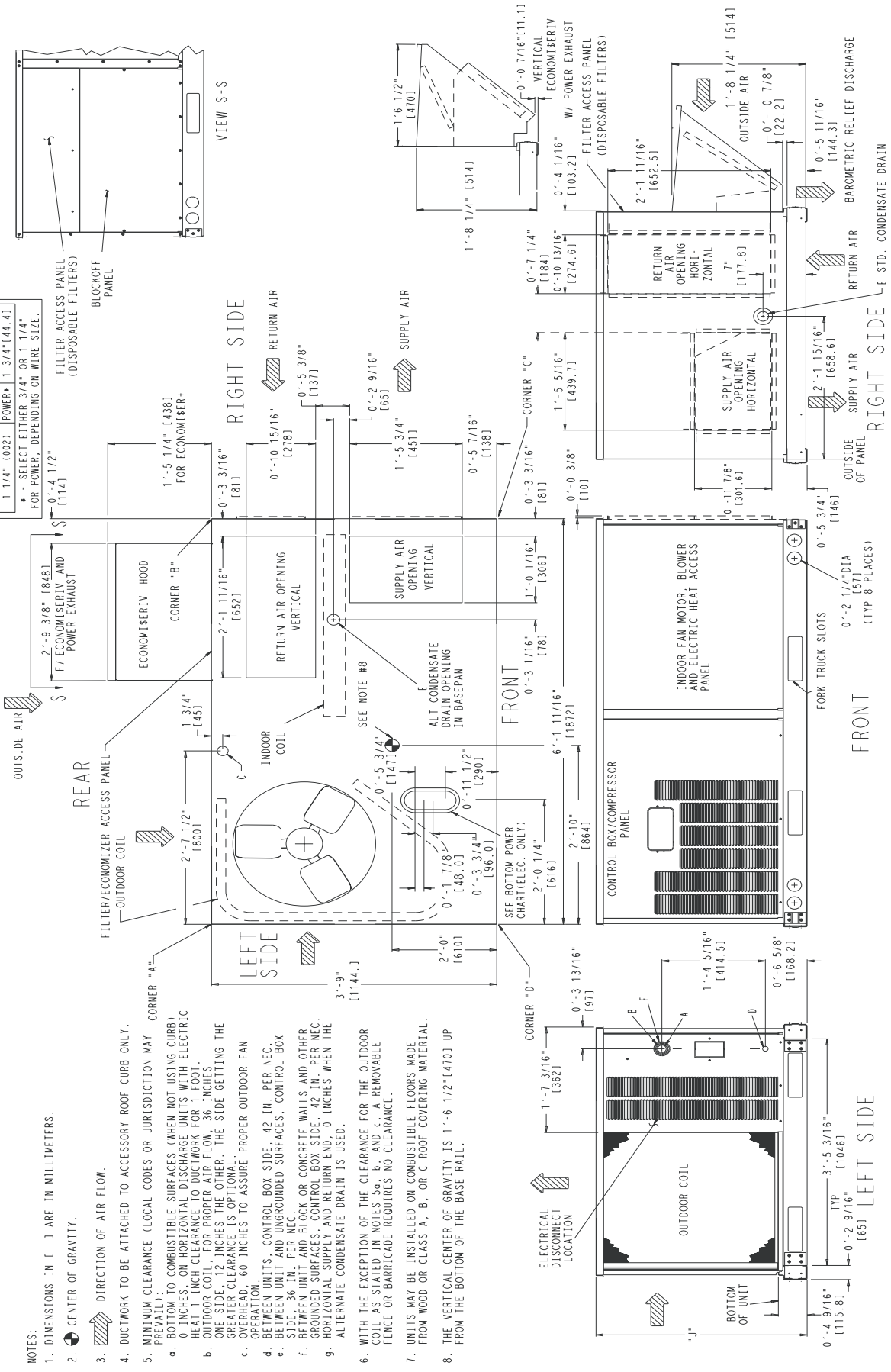
BOTTOM POWER CHART:	
THESE HOLES ARE TO BE USED FOR USE WITH ACCESSORY PACKAGES - CRBIMPWROTAAD, ZADT	
THREADED CONDUIT SIZE	REQ'D HOLE USE SIZES (MAX.)
1/2"	7/8" [22.2]
3/4" (001)	1 1/8" [28.4]
1 1/4" (002)	1 7/8" [44.4]

* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.

UNIT WEIGHT	CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		"J"		
	LB	KG	LB	KG	LB	KG	LB	KG	FT.	MM	
024	550	249	50	22.7	90	40.9	135	61	140	64	2'-9 5/16" [846.5]
036	550	249	50	22.7	90	40.9	135	61	140	64	2'-9 5/16" [846.5]
048	560	254	50	22.7	90	40.9	135	61	140	64	2'-9 5/16" [846.5]
060	630	286	50	22.7	90	40.9	135	61	140	64	2'-9 5/16" [846.5]

NOTES:

- DIMENSIONS IN () ARE IN MILLIMETERS.
- CENTER OF GRAVITY.
- DIRECTION OF AIR FLOW.
- 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 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.
 - OUTDOOR COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
 - OVERHEAD, 60 INCHES TO ASSURE PROPER OUTDOOR FAN OPERATION.
 - BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC.
 - 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 WHEN THE ALTERNATE CONDENSATE DRAIN IS USED.
- WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTES 5g, b, AND c, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
- UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL.
- THE VERTICAL CENTER OF GRAVITY IS 1'-6 1/2" [470] UP FROM THE BOTTOM OF THE BASE RAIL.



549C024-060

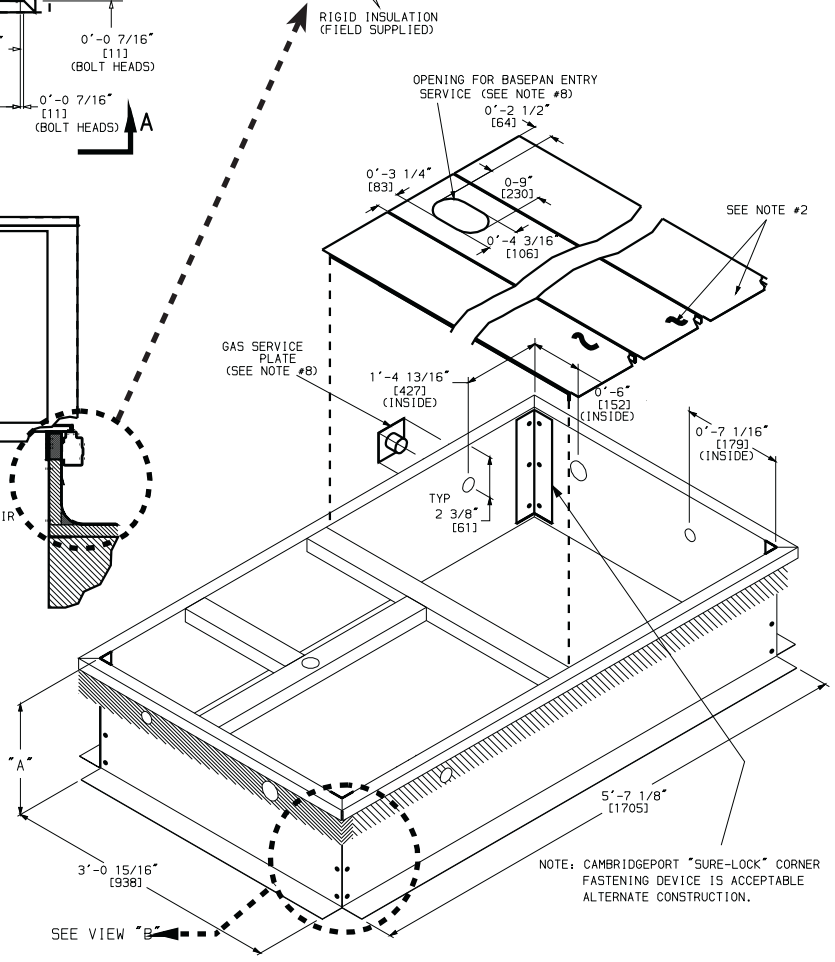
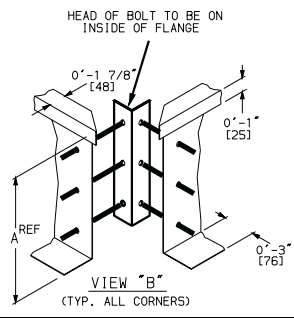
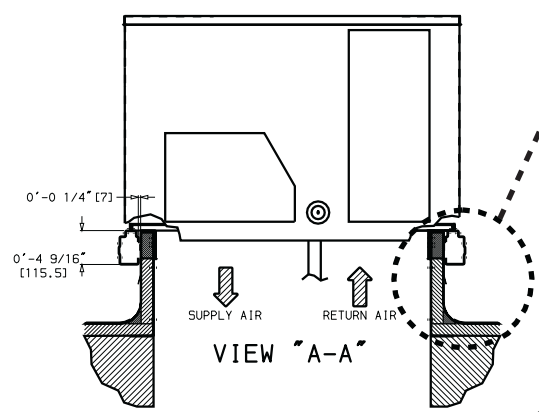
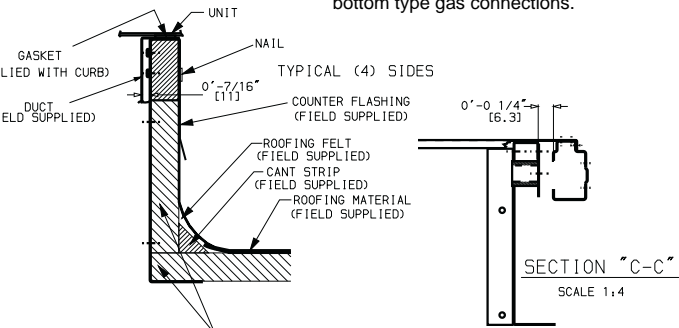
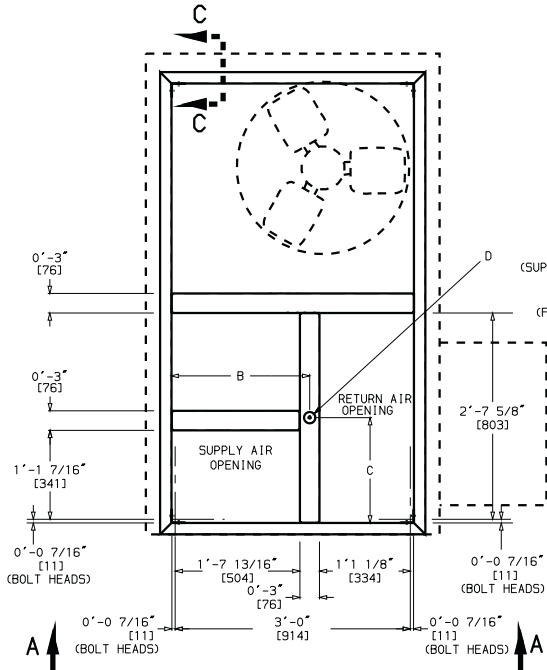
ACCESSORY DIMENSIONS

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL	ACCESSORY POWER
CRBTMPWR001A01	1'-9 11/16" [551]	1'-4" [406]	1 3/4" [44.5]	3/4" [19] NPT	3/4" [19] NPT	1/2" [12.7] NPT	1/2" [12.7] NPT
CRBTMPWR002A01				1 1/2" [38.1]			
CRBTMPWR003A01				3/4" [19] NPT	3/4" [19] NPT		
CRBTMPWR004A01				3/4" [19] NPT	1 1/4" [31.7]		

ROOF CURB ACCESSORY	A	UNIT SIZE
CRRFCURB001A01	1'-2" [356]	549B, 549C 024-072
CRRFCURB002A01	2'-0" [610]	

NOTES:

1. Roof curb accessory is shipped disassembled.
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.
8. Connector packages CRBTMPWR001A01 and 002A01 are for thru-the-curb type gas. Packages CRBTMPWR003A01 and 004A01 are for thru-the-bottom type gas connections.



549B, 549C

549B036-072 AND 549C024-060

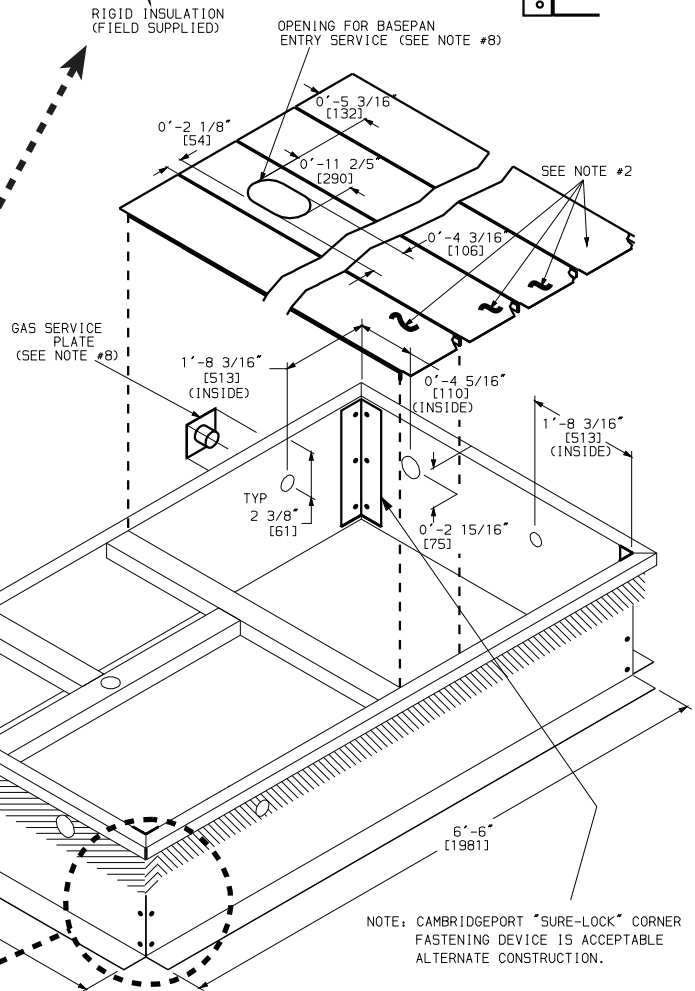
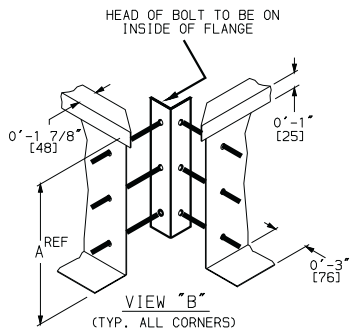
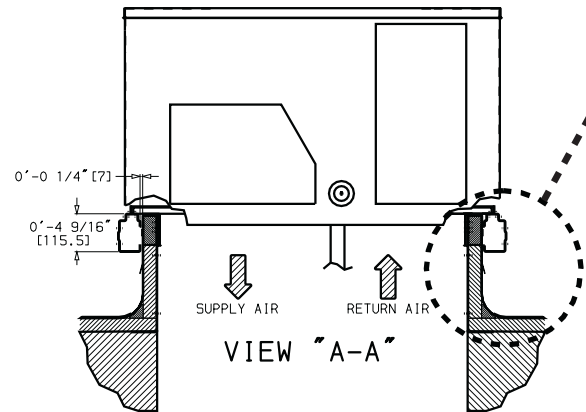
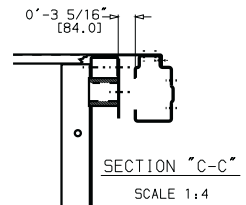
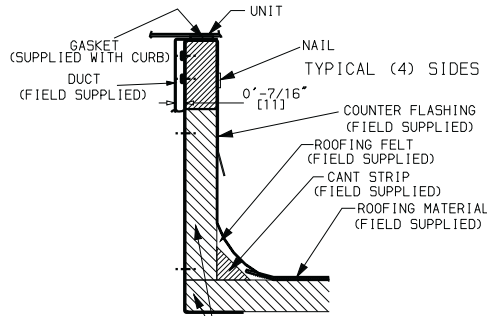
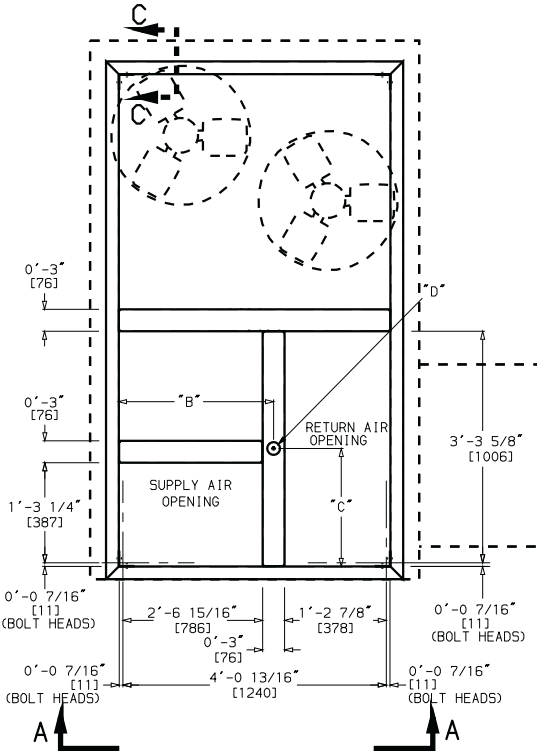
ACCESSORY DIMENSIONS (cont)

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL	ACCESSORY POWER
CRBTMPWR001A01				3/4"	3/4" [19] NPT		
CRBTMPWR002A01				[19] NPT	1 1/4" [31.7]		
CRBTMPWR003A01	2'-8 7/16" [827]	1'-10 15/16" [583]	1 3/4" [44.5]	1/2" [12.7] NPT	3/4" [19] NPT	1/2" [12.7] NPT	1/2" [12.7] NPT
CRBTMPWR004A01				3/4" [19] NPT	1 1/4" [31.7]		

ROOF CURB ACCESSORY	"A"	UNIT SIZE
CRRFCURB003A01	1'-2" [356]	549B090-120
CRRFCURB004A01	2'-0" [610]	

NOTES:

1. Roof curb accessory is shipped disassembled.
2. Insulated panels: 1-in. thick polyurethane foam, 1 3/4 lb density.
3. Dimensions in [] are in millimeters.
4. Roof curb: 16-gage steel.
5. Attach ductwork to curb (flanges of duct rest on curb).
6. Service clearance 4 ft on each side.
7. Direction of airflow.
8. Connector packages CRBTMPWR001A01 and 2A01 are for thru-the-curb gas type. Packages CRBTMPWR003A01 and 4A01 are for the thru-the-bottom type gas connections.



549B, 549C

549B090-120

SELECTION PROCEDURE (WITH 549B048 EXAMPLE)

I DETERMINE COOLING AND HEATING REQUIREMENTS AT DESIGN CONDITIONS:

Given:

Required Cooling Capacity (TC)	38,000 Btuh
Sensible Heat Capacity (SHC).	24,000 Btuh
Required Heating Capacity	35,000 Btuh
Outdoor Entering-Air Temperature.	95 F
Outdoor-Air Winter Design Temperature	0° F
Indoor-Air Winter Design Temperature	70 F
Indoor Entering-Air Temperature	80 F edb (entering air, dry bulb), 67 F ewb (entering air, wet bulb)
Indoor-Air Quantity.	1600 cfm
External Static Pressure.	0.45 in. wg
Electrical Characteristics (V-Ph-Hz).	230-3-60

II SELECT UNIT BASED ON REQUIRED COOLING CAPACITY.

Enter Cooling Capacities table at outdoor entering temperature of 95 F, indoor air entering at 1600 cfm and 67 F ewb. The 549B048 unit will provide a total cooling capacity of 46,300 Btuh and a sensible heat capacity of 35,600 Btuh.

For indoor-air temperature other than 80 F edb, calculate sensible heat capacity correction, as required, using the formula found in Note 3 following the cooling capacities tables.

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

III SELECT ELECTRIC HEAT.

Enter the Instantaneous and Integrated Heating Ratings table at 1600 cfm. At 70 F return indoor air and 0° F air entering outdoor coil, the integrated heating capacity is 22,400 Btuh. (Select integrated heating capacity value since deductions for outdoor-coil frost and defrosting have already been made. No correction is required.)

The required heating capacity is 35,000 Btuh. Therefore, 12,600 Btuh (35,000 – 22,400) additional electric heat is required.

Determine additional electric heat capacity in kW.

$$\frac{12,600 \text{ Btuh}}{3413 \text{ Btuh/kW}} = 3.7 \text{ kW of heat required.}$$

Enter the Electric Heating Capacities table for 549B048 at 208/230, 3 phase. The 6.5-kW heater at 240 v most closely satisfies the heating required. To calculate kW at 230 v, use the Multiplication Factors table.

$$6.5 \text{ kW} \times .92 = 5.98 \text{ kW}$$

$$6.5 \text{ kW} \times .92 \times 3413 = 20,410 \text{ Btuh}$$

Total unit heating capacity is 42,810 Btuh (22,400 + 20,410).

IV DETERMINE FAN SPEED AND POWER REQUIREMENTS AT DESIGN CONDITIONS.

Before entering Fan Performance tables, calculate the total static pressure required based on unit components. From the given and the Pressure Drop tables, find:

External static pressure	.45 in. wg
EconoMi\$erIV	.07 in. wg
Electric heat	<u>.09 in. wg</u>
Total static pressure	.61 in. wg

Enter the Fan Performance table for 549B048 vertical discharge at 1600 cfm and .61 in. wg static pressure. The bhp is 0.79 and the watts are 781. The rpm is 997. The standard motor will adequately handle job requirements.

V DETERMINE NET CAPACITIES.

Capacities are gross and do not include the effect of indoor-fan motor (IFM) heat.

Determine net cooling capacity as follows:

$$\begin{aligned} \text{Net capacity} &= \text{Total capacity} - \text{IFM heat} \\ &= 46,300 \text{ Btuh} - (781 \text{ Watts} \times 3.413 \\ &\quad \text{Btuh/Watts}) \\ &= 46,300 \text{ Btuh} - 2665 \text{ Btuh} \\ &= 43,635 \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 35,600 \text{ Btuh} - 2665 \text{ Btuh} \\ &= 32,935 \text{ Btuh} \end{aligned}$$

Integrated heating capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it. Therefore, net capacity is equal to 42,810 Btuh, the total heating capacity determined in Step III.

549B, 549C

PERFORMANCE DATA — 549B, 549C

COOLING CAPACITIES

549B036 (3 Tons)

Temp (F) Outdoor Entering Air (Edb)	Indoor Entering Air — Cfм/BF									
	900/0.12			1200/0.15			1500/0.18			
	Indoor Entering Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
75	TC	41.2	37.8	34.4	42.9	39.6	36.3	43.6	40.6	37.5
	SHC	19.8	24.5	28.8	21.5	27.6	32.9	22.5	30.1	36.3
	kW	2.11	2.08	2.05	2.12	2.10	2.07	2.12	2.10	2.08
85	TC	39.9	36.5	33.1	41.9	38.2	34.9	42.5	39.2	36.1
	SHC	19.4	24.0	28.2	21.2	27.2	32.4	22.6	29.8	35.9
	kW	2.36	2.34	2.31	2.38	2.35	2.33	2.38	2.36	2.35
95	TC	38.6	35.0	31.7	40.4	36.7	33.4	41.3	37.6	34.8
	SHC	18.9	23.4	27.4	20.8	26.6	31.6	22.4	29.2	34.7
	kW	2.65	2.62	2.58	2.66	2.63	2.61	2.67	2.64	2.63
105	TC	37.1	33.2	30.0	38.7	35.0	31.5	39.3	36.0	33.2
	SHC	18.3	22.7	26.6	20.3	26.1	30.7	21.7	29.0	33.2
	kW	2.96	2.92	2.88	2.98	2.95	2.90	2.97	2.96	2.93
115	TC	35.1	31.4	28.0	36.7	32.8	29.7	37.7	33.8	31.6
	SHC	17.6	21.9	25.6	19.7	25.2	29.6	21.5	28.1	31.6
	kW	3.29	3.25	3.20	3.31	3.27	3.23	3.32	3.29	3.26
125	TC	33.0	29.0	25.7	34.4	30.6	27.8	35.4	31.5	29.8
	SHC	16.9	21.0	24.5	19.0	24.3	27.8	20.9	27.1	29.7
	kW	3.65	3.59	3.53	3.68	3.62	3.57	3.69	3.64	3.61

Standard Ratings

LEGEND

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

NOTES:

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

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

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

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

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

3. The SHC is based on 80 F edb temperature of air entering evaporator coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

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

Interpolation is permissible.

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

549B048 (4 Tons)

Temp (F) Outdoor Entering Air (Edb)	Indoor Entering Air — Cfм/BF									
	1200/0.1			1600/0.12			2000/0.15			
	Indoor Entering Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
75	TC	51.0	48.9	43.9	52.3	50.2	46.0	53.7	51.5	48.1
	SHC	24.1	33.1	40.3	26.0	37.0	44.2	27.8	40.9	48.0
	kW	2.65	2.64	2.60	2.66	2.65	2.61	2.67	2.66	2.63
85	TC	48.9	47.1	41.9	50.7	48.4	44.2	52.6	49.8	46.6
	SHC	22.9	32.2	40.2	25.4	36.4	43.4	27.9	40.6	46.6
	kW	2.99	2.98	2.94	3.01	3.00	2.96	3.03	3.01	2.99
95	TC	47.1	45.1	39.2	49.0	46.3	42.1	50.8	47.6	44.9
	SHC	22.3	31.5	39.2	24.9	35.6	42.1	27.4	39.8	44.9
	kW	3.37	3.37	3.31	3.40	3.38	3.34	3.42	3.39	3.37
105	TC	44.9	42.9	37.5	46.8	44.1	40.3	48.7	45.4	43.2
	SHC	21.3	30.7	37.5	24.1	34.8	40.3	26.9	39.0	43.1
	kW	3.79	3.78	3.71	3.82	3.80	3.75	3.84	3.81	3.79
115	TC	42.9	40.8	35.2	44.6	41.9	38.3	46.3	43.0	41.3
	SHC	20.4	30.1	35.2	23.3	34.0	38.3	26.1	37.9	41.3
	kW	4.24	4.23	4.15	4.26	4.24	4.19	4.29	4.25	4.23
125	TC	40.9	38.2	32.9	42.2	39.3	36.1	43.5	40.5	39.3
	SHC	19.8	29.1	32.9	22.4	33.0	36.1	25.1	36.9	39.3
	kW	4.72	4.70	4.62	4.73	4.71	4.66	4.74	4.72	4.71

549B060 (5 Tons)

Temp (F) Outdoor Entering Air (Edb)	Indoor Entering Air — Cfм/BF																
	1500/0.17				1750/0.25				2000/0.31				2500/0.42				
	Indoor Entering Air — Ewb (F)																
	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	
75	TC	70.2	65.3	59.9	56.6	71.7	66.8	61.9	59.7	72.8	67.8	63.4	62.4	74.1	69.9	65.8	65.8
	SHC	31.6	40.6	49.2	54.1	33.3	43.5	53.8	57.0	34.8	46.0	57.8	59.6	37.5	51.8	62.9	62.9
	kW	3.51	3.47	3.45	3.43	3.52	3.48	3.46	3.44	3.45	3.49	3.47	3.46	3.55	3.51	3.48	3.48
85	TC	68.7	63.3	57.4	54.2	70.3	65.1	59.3	57.8	71.8	66.3	60.9	60.5	73.2	68.5	64.5	64.4
	SHC	31.3	40.0	48.3	51.8	33.1	43.2	52.8	55.2	34.9	46.2	56.8	57.7	38.0	52.5	61.6	61.5
	kW	3.95	3.91	3.89	3.87	3.96	3.92	3.89	3.89	3.98	3.93	3.91	3.91	4.00	3.96	3.93	3.92
95	TC	66.7	60.6	52.0	50.1	68.4	62.4	55.5	54.7	69.1	63.8	58.2	58.2	71.2	65.6	62.2	62.2
	SHC	30.7	39.1	46.2	47.8	32.7	42.5	51.3	52.3	34.2	45.8	55.5	55.5	38.0	51.6	59.4	59.4
	kW	4.43	4.39	4.34	4.32	4.45	4.41	4.37	4.37	4.46	4.43	4.39	4.40	4.48	4.43	4.42	4.42
105	TC	63.7	55.4	45.8	45.8	65.6	58.6	50.2	50.1	66.9	60.5	53.3	53.6	68.2	62.4	59.5	59.5
	SHC	29.8	37.4	43.5	43.7	31.9	41.3	47.9	47.9	33.9	44.8	50.9	51.2	37.3	51.1	56.8	56.8
	kW	4.96	4.91	4.81	4.81	4.99	4.94	4.86	4.86	5.00	4.96	4.90	4.90	5.00	4.97	4.95	4.95
115	TC	60.2	47.9	41.2	41.2	62.0	50.9	45.2	45.2	63.3	52.8	48.2	48.2	65.1	56.2	54.2	54.1
	SHC	28.8	34.8	39.3	39.3	30.9	38.8	43.1	43.2	32.9	42.4	46.1	46.0	36.8	49.2	51.8	51.7
	kW	5.55	5.43	5.33	5.33	5.57	5.46	5.40	5.40	5.58	5.49	5.44	5.44	5.59	5.53	5.50	5.50

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

COOLING CAPACITIES (cont)

549B072 (6 Tons)																	
Temp (F) Outdoor Entering Air (Edb)	TC SHC kW	Indoor Entering Air — Cfm/BF															
		1800/0.06				2100/0.066				2400/0.071				3000/0.088			
		Indoor Entering Air — Ewb (F)															
		72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
75	TC SHC kW	83.2 39.7 4.90	77.6 50.4 4.78	71.6 60.6 4.69	67.9 66.6 4.63	84.7 41.6 4.94	79.8 54.3 4.84	73.6 65.9 4.71	71.5 70.1 4.69	85.9 43.4 4.97	81.0 57.6 4.86	75.0 70.6 4.74	74.3 47.2 4.73	88.4 63.9 5.04	82.9 76.9 4.91	78.4 76.8 4.81	78.3 76.8 4.81
85	TC SHC kW	81.5 39.2 5.45	75.5 49.8 5.34	69.0 59.6 5.23	64.8 63.6 5.16	83.2 41.4 5.49	77.3 53.5 5.36	71.1 65.0 5.27	69.4 68.0 5.23	84.5 43.3 5.52	78.5 56.9 5.38	72.7 69.7 5.29	72.2 70.8 5.27	86.2 47.1 5.57	80.8 64.1 5.45	76.5 75.0 5.36	76.5 75.0 5.36
95	TC SHC kW	78.8 39.2 6.03	72.5 49.8 5.91	64.1 57.4 5.79	61.8 60.6 5.73	80.9 40.8 6.09	74.5 52.6 5.96	67.0 63.2 5.84	66.1 64.8 5.82	82.0 42.8 6.11	76.0 56.4 6.00	69.9 68.3 5.89	69.9 68.5 5.89	83.7 46.8 6.16	78.1 62.5 6.05	74.2 72.7 5.96	74.1 72.7 5.96
105	TC SHC kW	76.2 37.6 6.69	69.5 47.4 6.56	58.6 55.0 6.40	57.8 56.6 6.38	77.9 39.9 6.73	71.3 51.4 6.61	63.4 61.4 6.45	63.1 61.9 6.44	79.3 42.2 6.77	72.7 55.3 6.64	67.2 65.9 6.51	67.2 65.9 6.51	81.1 46.5 6.82	74.5 62.5 6.67	71.3 69.9 6.57	71.2 69.9 6.57
115	TC SHC kW	72.5 36.3 7.37	65.1 45.8 7.24	54.8 53.2 7.08	54.7 53.6 7.07	74.3 38.7 7.43	67.8 50.2 7.30	58.6 57.4 7.16	58.6 57.5 7.16	75.6 41.1 7.48	69.1 54.0 7.34	63.2 62.0 7.21	63.2 62.0 7.21	77.3 45.5 7.52	70.9 61.3 7.38	68.4 67.1 7.32	68.4 67.1 7.32

549B090 (7 1/2 Tons)										
Temp (F) Outdoor Entering Air (Edb)	TC SHC kW	Indoor Entering Air — Cfm/BF								
		2250/0.12			3000/0.15			3750/0.18		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC SHC kW	97.6 47.7 5.80	92.5 61.0 5.76	84.3 72.7 5.73	100.8 51.5 5.86	95.6 67.3 5.78	89.9 83.8 5.78	101.6 55.0 5.86	97.8 74.4 5.82	91.7 89.7 5.73
85	TC SHC kW	97.2 48.1 6.61	89.9 60.2 6.50	79.8 70.5 6.43	100.0 51.7 6.65	94.1 68.1 6.56	86.7 82.4 6.62	102.4 55.8 6.69	96.0 74.1 6.58	89.9 89.3 6.50
95	TC SHC kW	94.4 47.3 7.43	86.9 59.2 7.37	75.0 68.1 7.19	98.2 51.7 7.50	91.3 67.5 7.41	81.8 79.8 7.30	99.6 55.0 7.50	93.7 74.8 7.43	87.3 87.3 7.35
105	TC SHC kW	91.7 46.3 8.37	82.2 57.4 8.22	70.7 65.9 8.04	94.8 50.9 8.39	87.3 66.3 8.33	76.6 76.4 8.15	97.0 54.8 8.44	90.1 74.1 8.35	83.4 83.4 8.26
115	TC SHC kW	87.7 44.9 9.33	77.4 55.4 9.16	66.9 64.0 8.98	91.7 50.3 9.44	81.6 64.2 9.27	72.5 72.5 9.11	93.9 55.0 9.48	85.3 72.5 9.33	78.8 78.6 9.22
125	TC SHC kW	83.6 43.6 10.38	73.3 53.9 10.16	66.7 63.8 9.94	87.1 48.7 10.49	76.0 62.0 10.27	69.1 69.1 10.14	89.5 53.7 10.53	79.0 70.1 10.36	74.4 74.4 10.25

549B102 (8 1/2 Tons)										
Temp (F) Outdoor Entering Air (Edb)	TC SHC kW	Indoor Entering Air — Cfm/BF								
		2550/0.03			3400/0.04			4250/0.05		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC SHC kW	116.4 55.7 6.01	105.6 69.2 5.89	94.8 82.0 5.8	118.9 58.6 6.04	110.4 79.7 5.97	99.4 95.8 5.87	120.4 61.6 6.07	112.9 89.2 6.01	104.3 104.2 5.93
85	TC SHC kW	117.6 58.4 6.47	102.1 67.9 6.72	91.1 80.4 6.61	121.0 64.1 6.52	106.7 78.6 6.80	95.6 93.9 6.69	117.5 61.0 6.91	109.3 88.4 6.85	101.3 101.2 6.77
95	TC SHC kW	113.7 57.4 7.34	98.0 66.5 7.63	86.1 78.2 7.49	117.4 63.5 7.40	102.3 77.2 7.72	91.3 91.1 7.60	113.4 59.9 7.82	104.7 87.2 7.77	97.9 97.8 7.69
105	TC SHC kW	109.8 56.2 8.28	93.0 64.6 8.59	78.7 75.0 8.42	113.2 62.4 8.36	97.3 75.5 8.71	85.9 85.9 8.57	108.9 58.7 8.81	99.9 85.5 8.74	93.7 93.6 8.68
115	TC SHC kW	100.2 50.4 9.79	86.4 62.1 9.60	72.7 71.9 9.40	104.5 57.2 9.91	90.0 73.0 9.71	80.8 80.8 9.59	106.0 63.4 9.95	93.2 83.2 9.79	88.0 88.0 9.71
125	TC SHC kW	94.0 48.3 10.91	76.6 58.5 10.65	63.1 63.1 10.45	98.8 55.4 11.03	80.1 69.2 10.78	68.1 68.1 10.61	101.0 61.9 11.1	84.4 79.8 10.86	75.1 75.1 10.73

Standard Ratings

LEGEND

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

NOTES:

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

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

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

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

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

3. The SHC is based on 80 F edb temperature of air entering evaporator coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC. Correction Factor = 1.10 x (1 - BF) x (edb - 80).

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

Interpolation is permissible.

- Correction Factor = 1.10 x (1 - BF) x (edb - 80).

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

COOLING CAPACITIES (cont)

549B120 (10 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		3000/0.03			4000/0.04			5000/0.06		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	136.0	124.0	111.4	141.2	129.0	116.6	145.6	132.0	121.2
	SHC	64.6	80.8	96.0	71.2	92.4	111.8	78.6	103.2	121.0
	kW	7.51	7.35	7.20	7.61	7.45	7.29	7.72	7.53	7.39
85	TC	132.6	119.6	106.6	137.6	124.4	112.0	140.4	127.4	118.0
	SHC	63.6	79.2	94.0	70.6	91.4	110.0	77.0	102.6	118.0
	kW	8.40	8.23	8.09	8.50	8.33	8.17	8.58	8.40	8.27
95	TC	127.8	114.6	99.4	133.2	119.4	107.2	136.2	121.8	114.2
	SHC	62.2	77.6	90.8	69.6	89.8	107.0	76.8	101.2	113.8
	kW	9.36	9.18	9.01	9.48	9.30	9.15	9.56	9.36	9.24
105	TC	122.4	108.8	92.0	127.4	113.6	101.4	130.4	116.0	109.6
	SHC	60.4	75.4	87.4	68.0	88.0	101.4	75.4	99.4	109.4
	kW	10.41	10.26	10.02	10.53	10.35	10.22	10.63	10.43	10.35
115	TC	116.8	101.8	86.6	121.2	106.6	94.8	123.6	109.2	104.6
	SHC	58.6	72.8	84.6	66.0	85.4	94.8	73.4	97.0	104.6
	kW	11.58	11.37	11.15	11.68	11.51	11.35	11.76	11.60	11.51
125	TC	110.6	95.8	84.6	114.6	98.4	88.8	117.0	100.8	96.4
	SHC	56.4	70.6	83.4	64.4	82.4	88.8	71.4	93.8	96.4
	kW	12.87	12.62	12.36	12.97	12.73	12.60	13.03	12.83	12.77

549C024 (2 Tons)										
Temp (F) Air Ent Condenser (Edb)		Air Entering Evaporator — Cfm/BF								
		600/0.11			800/0.13			1000/0.16		
		Air Entering Evaporator — Ewb (F)								
		62	67	72	62	67	72	62	67	72
75	TC	23.7	26	28.5	25.1	27.4	29.8	26.2	28.4	30.4
	SHC	19.1	15.9	12.6	22.5	18.2	13.9	24.9	20.4	14.9
	kW	1.22	1.23	1.25	1.23	1.24	1.26	1.23	1.25	1.26
85	TC	22.2	25.1	27.5	24	26.4	28.9	25.3	27.3	29.6
	SHC	18.5	15.6	12.3	22	18	13.7	24.1	20.1	14.8
	kW	1.4	1.42	1.43	1.42	1.43	1.45	1.42	1.43	1.45
95	TC	20	23.9	26.4	22.4	25.2	27.7	24.3	26	28.5
	SHC	17.6	15.2	11.9	21.3	17.6	13.4	23.2	19.9	14.7
	kW	1.6	1.63	1.64	1.62	1.63	1.65	1.63	1.64	1.66
105	TC	18.1	21.7	25.2	20.6	23.9	26.5	23	24.6	27.2
	SHC	16.9	14.4	11.5	19.6	17.2	13.1	21.9	19.5	14.4
	kW	1.81	1.85	1.87	1.84	1.86	1.88	1.86	1.87	1.89
115	TC	16.4	19.5	23.7	19.1	21.1	25	21	22.7	25.6
	SHC	15.6	13.6	11.1	18.1	16.3	12.6	20	18.9	14
	kW	2.05	2.09	2.12	2.08	2.1	2.13	2.1	2.11	2.14
125	TC	14.7	17	21.1	17.3	18.6	23.3	19.1	19.3	23.9
	SHC	14	12.8	10.3	16.4	15.5	12.1	18.1	17.8	13.6
	kW	2.3	2.34	2.38	2.34	2.35	2.4	2.36	2.36	2.41

LEGEND

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

NOTES:

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

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

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

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

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

- SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

Interpolation is permissible.
Correction Factor = 1.10 x (1 - BF) x (edb - 80).

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

COOLING CAPACITIES (cont)

549C036 (3 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		900/0.05			1200/0.07			1500/0.09		
		Indoor Entering Air — Ewb (F)								
		62	67	72	62	67	72	62	67	72
75	TC	36.4	39.9	43.5	38.5	42.1	45.4	40.1	43.2	46.1
	SHC	31.0	26.2	21.2	36.0	29.9	23.1	40.0	33.1	24.6
	kW	2.08	2.09	2.12	2.09	2.11	2.14	2.10	2.13	2.15
85	TC	34.9	38.7	42.2	37.0	40.6	44.1	38.8	41.8	45.3
	SHC	30.3	25.8	20.7	35.3	29.5	22.8	38.8	32.9	24.7
	kW	2.34	2.36	2.38	2.35	2.37	2.40	2.37	2.39	2.42
95	TC	31.3	36.9	40.9	33.6	38.8	42.6	37.3	40.1	43.7
	SHC	28.6	25.1	20.3	33.6	29.0	22.5	37.3	32.5	24.4
	kW	2.62	2.65	2.67	2.64	2.67	2.69	2.67	2.68	2.70
105	TC	27.1	33.0	39.1	30.3	35.5	41.0	34.3	37.3	42.1
	SHC	26.5	23.5	19.6	30.3	27.7	22.1	34.2	31.5	24.2
	kW	2.92	2.96	3.01	2.95	2.99	3.02	2.98	3.01	3.02
115	TC	23.9	27.9	34.7	27.5	30.1	38.1	30.6	32.2	39.7
	SHC	23.9	21.5	18.1	27.5	25.6	21.2	30.6	29.5	23.6
	kW	3.23	3.29	3.35	3.29	3.32	3.37	3.32	3.33	3.38
125	TC	21.4	23.7	31.8	24.4	25.6	33.2	27.2	27.2	34.5
	SHC	21.4	19.9	17.1	24.4	23.7	19.6	27.1	27.2	22.0
	kW	3.59	3.63	3.71	3.65	3.67	3.73	3.69	3.69	3.75

549C048 (4 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF								
		1200/0.03			1600/0.04			2000/0.06		
		Indoor Entering Air — Ewb (F)								
		62	67	72	62	67	72	62	67	72
75	TC	44.5	49.6	54.8	46.7	51.8	56.8	48.6	52.9	58.2
	SHC	38.5	32.5	26.2	45	37.4	28.8	48.6	41.6	31.3
	kW	2.41	2.42	2.44	2.41	2.43	2.45	2.42	2.44	2.46
85	TC	42.2	47.6	52.7	44.6	49.8	54.8	47.3	51	56.2
	SHC	37.6	31.8	25.5	44	36.7	28.2	47.3	41.2	30.8
	kW	2.76	2.77	2.79	2.77	2.78	2.8	2.77	2.79	2.81
95	TC	39.1	45.2	50.8	41.8	47.3	53.1	45.4	48.5	54.3
	SHC	36.2	30.9	24.9	41.7	35.9	27.9	45.4	40.6	30.7
	kW	3.13	3.16	3.18	3.15	3.18	3.19	3.17	3.18	3.2
105	TC	36.4	41.5	48.1	38.5	43.3	50.4	42.6	45	51.6
	SHC	34.9	29.5	24	38.4	34.5	27.2	42.6	39.4	30
	kW	3.53	3.57	3.6	3.56	3.59	3.62	3.59	3.61	3.62
115	TC	32.4	36.7	44.6	34.7	38.1	47	38.1	39.3	48.3
	SHC	32.4	27.7	22.8	34.7	32.7	26.2	38.1	37.3	29.2
	kW	3.96	4	4.06	4	4.02	4.08	4.03	4.04	4.09
125	TC	29.9	33.2	36.4	31.1	32.2	33.4	34.2	34	33.7
	SHC	29.9	26.4	22.9	31.1	30.4	29.8	34.2	33.9	33.6
	kW	4.43	4.46	4.5	4.47	4.48	4.49	4.5	4.5	4.5

LEGEND

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

NOTES:

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

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

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

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

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

- SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

Interpolation is permissible.

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

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

COOLING CAPACITIES (cont)

549C060 (5 Tons)																	
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF															
		1500/0.05				1750/.05				2000/.07				2500/.08			
		Indoor Entering Air — Ewb (F)															
		57	62	67	72	57	62	67	72	57	62	67	72	57	62	67	72
75	TC	56.2	59.2	65	70.3	59.5	61.3	66.9	71.5	62.2	62.9	68.2	72.9	66.1	66.1	70	74.1
	SHC	54	49.5	41.1	32.3	57.1	54.2	44.4	33.8	59.8	58.4	47.4	35.6	63.5	63.5	53.3	38.4
	kW	3.17	3.19	3.19	3.22	3.18	3.18	3.2	3.23	3.19	3.19	3.21	3.24	3.2	3.2	3.22	3.25
85	TC	53.3	56	62.6	68.5	57.2	58.4	64.5	69.9	59.9	60.1	66	70.9	64.1	64.1	67.8	72.6
	SHC	51.2	48.3	40.4	31.8	55	53.1	43.8	33.6	57.6	57.2	47.1	35.3	61.6	61.6	53.2	38.6
	kW	3.59	3.6	3.62	3.64	3.61	3.61	3.63	3.65	3.61	3.61	3.63	3.66	3.62	3.62	3.64	3.67
95	TC	49.1	50.5	59.4	65.8	53.6	53.7	61.3	67.7	56.8	56.8	62.7	68.7	61.5	61.5	64.8	70.5
	SHC	47.1	46.1	39.3	30.9	51.6	51.1	42.7	33.1	54.7	54.6	46.1	34.8	59.1	59.1	52.6	38.6
	kW	4.02	4.03	4.08	4.1	4.05	4.05	4.09	4.12	4.08	4.07	4.1	4.12	4.09	4.09	4.11	4.14
105	TC	44.7	44.6	52.9	62.4	48.8	48.9	55.4	64.2	51.5	51.5	58	65.6	57.8	57.8	60.8	67.3
	SHC	42.9	42.9	37	29.9	46.9	47	40.8	32.1	49.5	49.5	44.6	34.1	55.6	55.6	51.5	37.9
	kW	4.49	4.49	4.56	4.61	4.53	4.53	4.58	4.63	4.55	4.55	4.6	4.64	4.6	4.6	4.62	4.64
115	TC	39.9	40	45.2	56.4	43.9	43.9	47.2	59.5	46	46.2	49.8	61.4	52	51.9	52.6	63.3
	SHC	38.4	38.4	34.3	28.1	42.2	42.2	38	30.7	44.3	44.4	41.9	33	50	50	48.8	37.1
	kW	4.98	4.98	5.06	5.16	5.05	5.05	5.08	5.18	5.07	5.07	5.11	5.2	5.13	5.13	5.13	5.21
125	TC	35.9	35.9	38.4	49	38.6	38.5	39.7	50.9	41.1	41	41.3	52.8	45.1	45.2	45.3	55.6
	SHC	34.5	34.5	32.1	25.8	37.1	37.1	35.5	28.1	39.5	39.5	39	30.5	43.4	43.5	43.6	35
	kW	5.53	5.53	5.57	5.7	5.58	5.58	5.59	5.72	5.62	5.62	5.62	5.74	5.68	5.67	5.68	5.77

LEGEND

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

NOTES:

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

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

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

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

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

3. SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

Interpolation is permissible.

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

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS

549B036 (3 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	900	Cap.	10.3	9.47	13.7	12.6	16.8	15.4	20.1	18.5	23.5	21.3	27.6	24.2	31.9	31.9	35.1	35.1	36.3	36.3	40.3	40.3
		kW	1.48		1.58		1.66		1.75		1.85		1.97		2.11		2.22		2.27		2.41	
	1200	Cap.	10.8	9.92	14.2	13.0	17.3	15.9	20.7	19.0	24.0	21.7	28.3	24.8	32.8	32.8	36.2	36.2	37.4	37.4	41.5	41.5
		kW	1.45		1.52		1.59		1.66		1.73		1.82		1.94		2.03		2.06		2.18	
	1500	Cap.	11.1	10.2	14.6	13.4	17.6	16.2	21.2	19.4	24.4	22.1	28.9	25.3	33.5	33.5	36.5	36.5	37.7	37.7	41.2	41.2
		kW	1.43		1.49		1.54		1.60		1.66		1.74		1.83		1.90		1.92		2.00	
70	900	Cap.	8.67	7.97	11.9	10.9	15.1	13.9	18.6	17.1	22.2	20.2	26.4	23.1	30.5	30.5	33.6	33.6	34.7	34.7	39.0	39.0
		kW	1.69		1.83		1.95		2.08		2.21		2.38		2.54		2.67		2.72		2.92	
	1200	Cap.	9.15	8.42	12.4	11.4	15.7	14.5	19.3	17.7	22.9	20.7	27.1	23.8	31.4	31.4	34.6	34.6	35.8	35.8	40.0	40.0
		kW	1.67		1.78		1.88		1.99		2.09		2.22		2.35		2.45		2.49		2.64	
	1500	Cap.	9.55	8.78	12.8	11.8	16.2	14.9	19.8	18.2	23.3	21.1	27.7	24.3	32.0	32.0	35.2	35.2	36.4	36.4	40.2	40.2
		kW	1.65		1.75		1.84		1.93		2.02		2.12		2.23		2.32		2.35		2.46	
80	900	Cap.	7.32	6.73	10.6	9.79	14.1	12.9	17.7	16.2	21.4	19.4	25.6	22.4	29.5	29.5	32.5	32.5	33.7	33.7	38.1	38.1
		kW	1.83		1.99		2.14		2.30		2.45		2.64		2.82		2.97		3.02		3.25	
	1200	Cap.	7.80	7.17	11.2	10.3	14.7	13.5	18.4	16.8	22.1	20.1	26.3	23.1	30.4	30.4	33.6	33.6	34.7	34.7	39.0	39.0
		kW	1.81		1.95		2.08		2.20		2.33		2.48		2.62		2.73		2.78		2.94	
	1500	Cap.	8.22	7.56	11.7	10.7	15.2	14.0	18.8	17.3	22.6	20.5	26.9	23.5	31.1	31.1	34.3	34.3	35.5	35.5	39.6	39.6
		kW	1.79		1.92		2.04		2.15		2.25		2.38		2.50		2.60		2.63		2.76	

549B048 (4 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		20		30		40		47		50		60		
55	1200	Cap.	14.0	12.9	17.7	17.7	21.7	21.7	26.0	26.0	30.4	30.4	35.9	31.5	41.4	41.4	45.4	45.4	46.9	46.9	52.3	52.3
		kW	1.83		1.96		2.08		2.20		2.32		2.48		2.65		2.78		2.83		3.02	
	1600	Cap.	1.46	13.4	18.3	18.3	22.4	22.4	26.6	26.6	31.0	31.0	36.7	32.1	42.3	42.3	46.5	46.5	48.0	48.0	53.4	53.4
		kW	1.79		1.90		1.99		2.09		2.18		2.31		2.44		2.55		2.59		2.74	
	2000	Cap.	15.1	13.9	18.8	18.8	22.9	22.9	27.0	27.0	31.5	31.5	37.2	32.6	43.0	43.0	47.2	47.2	48.8	48.8	54.2	54.2
		kW	1.77		1.86		1.94		2.02		2.10		2.21		2.32		2.42		2.45		2.59	
70	1200	Cap.	11.9	11.0	17.7	17.7	21.7	21.7	26.0	26.0	30.4	30.4	35.9	31.5	41.4	41.4	45.4	45.4	46.9	46.9	52.3	52.3
		kW	2.08		1.96		2.08		2.20		2.32		2.48		2.65		2.78		2.83		3.02	
	1600	Cap.	12.6	11.6	18.3	18.3	22.4	22.4	26.6	26.6	31.0	31.0	36.7	32.1	42.3	42.3	46.5	46.5	48.0	48.0	53.4	53.4
		kW	2.05		1.90		1.99		2.09		2.18		2.31		2.44		2.55		2.59		2.74	
	2000	Cap.	13.1	12.0	18.8	18.8	22.9	22.9	27.0	27.0	31.5	31.5	37.2	32.6	43.0	43.0	47.2	47.2	48.8	48.8	54.2	54.2
		kW	2.02		1.86		1.94		2.02		2.10		2.21		2.32		2.42		2.45		2.59	
80	1200	Cap.	10.1	9.3	17.7	17.7	21.7	21.7	26.0	26.0	30.4	30.4	35.9	31.5	41.4	41.4	45.4	45.4	46.9	46.9	52.3	52.3
		kW	2.22		1.96		2.08		2.20		2.32		2.48		2.65		2.78		2.83		3.02	
	1600	Cap.	10.7	9.9	18.3	18.3	22.4	22.4	26.6	26.6	31.0	31.0	36.7	32.1	42.3	42.3	46.5	46.5	48.0	48.0	53.4	53.4
		kW	2.20		1.90		1.99		2.09		2.18		2.31		2.44		2.55		2.59		2.74	
	2000	Cap.	11.3	10.4	18.8	18.8	22.9	22.9	27.0	27.0	31.5	31.5	37.2	32.6	43.0	43.0	47.2	47.2	48.8	48.8	54.2	54.2
		kW	2.18		1.86		1.94		2.02		2.10		2.21		2.32		2.42		2.45		2.59	

LEGEND

- Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
- kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
- rh — Relative Humidity

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

549B060 (5 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	1500	Cap.	15.6	14.3	20.5	18.8	25.6	21.8	35.4	32.3	35.4	32.3	43.6	38.2	50.7	50.7	56.2	56.2	63.3	63.3	63.0	63.0
		kW	3.16		3.26		3.36		3.54		3.54		3.72		3.88		4.01		4.20		4.18	
	1750	Cap.	16.0	14.7	20.9	19.2	26.0	22.1	35.8	32.7	35.8	32.7	44.6	39.1	51.3	51.3	56.4	56.4	62.9	62.9	63.0	63.0
		kW	3.19		3.28		3.36		3.52		3.52		3.67		3.80		3.90		4.04		4.04	
	2000	Cap.	16.9	15.6	21.9	20.2	27.0	23.0	36.9	33.7	36.9	33.7	45.6	40.1	52.3	52.3	56.7	56.7	62.8	62.8	62.6	62.6
		kW	3.41		3.49		3.56		3.69		3.69		3.83		3.93		4.01		4.12		4.11	
	2500	Cap.	18.9	17.6	23.9	22.1	29.1	25.0	38.9	35.7	38.9	35.7	47.8	42.1	53.5	53.5	56.9	56.9	62.2	62.2	62.5	62.5
		kW	3.92		3.99		4.04		4.15		4.15		4.25		4.32		4.37		4.45		4.45	
70	1500	Cap.	12.5	11.5	17.9	16.5	23.4	19.9	33.2	30.2	33.2	30.2	41.7	36.5	48.8	48.8	54.2	54.2	62.7	62.7	62.7	62.7
		kW	3.46		3.63		3.78		4.01		4.01		4.23		4.44		4.60		4.86		4.85	
	1750	Cap.	13.0	11.9	18.4	16.9	23.9	20.3	33.8	30.8	33.8	30.8	42.3	37.1	49.5	49.5	55.0	55.0	62.1	62.1	63.1	63.1
		kW	3.5		3.65		3.78		3.98		3.98		4.17		4.34		4.48		4.66		4.68	
	2000	Cap.	13.9	12.9	19.4	17.9	24.9	21.3	34.9	31.8	34.9	31.8	43.5	38.2	50.6	50.6	56.2	56.2	63.0	63.0	63.2	63.2
		kW	3.73		3.87		3.98		4.15		4.15		4.32		4.47		4.58		4.73		4.73	
	2500	Cap.	16.0	14.9	21.5	19.9	27.0	23.3	37.1	34.0	37.1	34.0	45.8	40.4	52.9	52.9	57.7	57.7	63.3	63.3	63.1	63.1
		kW	4.24		4.37		4.46		4.60		4.60		4.74		4.85		4.92		5.03		5.01	
80	1500	Cap.	9.93	9.14	15.7	14.5	21.5	18.2	31.6	28.8	31.6	28.8	39.9	35.0	46.9	46.9	52.8	52.8	61.9	61.9	62.1	62.1
		kW	3.65		3.87		4.06		4.36		4.36		4.59		4.82		5.02		5.35		5.35	
	1750	Cap.	10.3	9.51	16.2	14.9	22.0	18.7	32.2	29.4	32.2	29.4	40.7	35.7	47.7	47.7	53.6	53.6	62.1	62.1	62.5	62.5
		kW	3.70		3.90		4.07		4.33		4.33		4.53		4.73		4.89		5.14		5.14	
	2000	Cap.	11.3	10.5	17.2	15.9	23.1	19.7	33.3	30.4	33.3	30.4	42.1	37.0	49.0	49.0	54.9	54.9	63.0	63.0	62.7	62.7
		kW	3.92		4.11		4.27		4.50		4.50		4.67		4.85		4.99		5.19		5.18	
	2500	Cap.	13.4	12.5	19.4	18.0	25.3	21.8	35.6	32.6	35.6	32.6	44.4	39.2	51.7	51.7	57.0	57.0	63.8	63.8	63.8	63.8
		kW	4.45		4.62		4.75		4.94		4.94		5.09		5.23		5.32		5.46		5.45	

549B072 (6 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	1800	Cap.	16.5	15.2	20.8	19.1	26.4	22.4	33.6	30.8	41.0	37.6	51.3	44.9	61.9	61.9	69.5	69.5	78.0	78.0	77.9	77.9
		kW	3.50		3.63		3.79		4.01		4.18		4.57		4.94		5.22		5.57		5.55	
	2100	Cap.	16.9	15.5	21.2	19.5	27.2	23.1	34.9	32.0	41.8	38.3	52.2	45.8	63.2	63.2	69.6	69.6	75.7	75.7	76.5	76.5
		kW	3.56		3.68		3.84		4.04		4.18		4.54		4.86		5.07		5.30		5.32	
	2400	Cap.	17.2	15.9	21.8	20.0	28.0	23.8	35.6	32.6	43.1	39.5	53.8	47.2	64.1	64.1	69.0	69.0	74.8	74.8	74.3	74.3
		kW	3.64		3.75		3.89		4.08		4.21		4.54		4.82		4.97		5.18		5.15	
	3000	Cap.	18	16.5	23.0	21.1	29.4	25.0	37.4	34.4	45.2	41.4	56.6	49.6	63.2	63.2	65.5	65.5	69.8	69.8	70.6	70.6
		kW	3.79		3.90		4.03		4.19		4.32		4.61		4.77		4.84		4.98		4.99	
70	1800	Cap.	15.2	14.0	18.2	16.7	24.1	20.5	31.1	28.5	38.0	34.8	47.7	41.8	58.4	58.4	67.1	67.1	78.0	78.0	77.9	77.9
		kW	3.97		4.12		4.33		4.57		4.75		5.19		5.59		5.94		6.43		6.41	
	2100	Cap.	15.6	14.4	18.6	17.1	24.8	21.1	32.0	29.4	39.1	35.9	49.1	43.1	59.7	59.7	68.5	68.5	77.3	77.3	76.7	76.7
		kW	4.04		4.18		4.37		4.59		4.76		5.15		5.51		5.81		6.17		6.13	
	2400	Cap.	16.1	14.8	19.0	17.5	25.9	22.0	32.7	30.0	39.9	36.6	51.1	44.7	61.3	61.3	69.0	69.0	75.6	75.6	76.3	76.3
		kW	4.11		4.24		4.43		4.63		4.79		5.17		5.48		5.73		5.97		5.99	
	3000	Cap.	16.8	15.5	19.7	18.1	26.7	22.7	34.3	31.5	41.8	38.3	53.5	46.8	63.7	63.7	68.3	68.3	73.0	73.0	73.8	73.8
		kW	4.28		4.39		4.56		4.75		4.89		5.22		5.49		5.63		5.80		5.82	
80	1800	Cap.	13.6	12.5	17.1	15.7	21.7	18.4	29.2	26.8	36.5	33.4	45.6	40.0	55.3	55.3	64.2	64.2	77.2	77.2	76.9	76.9
		kW	4.20		4.46		4.67		4.95		5.16		5.62		6.02		6.40		7.00		6.98	
	2100	Cap.	14.1	13.0	17.6	16.2	22.6	19.2	30.1	27.6	37.1	34.0	46.9	41.1	57.0	57.0	66.4	66.4	76.3	76.3	77.2	77.2
		kW	4.28		4.52		4.72		4.98		5.16		5.58		5.95		6.30		6.71		6.74	
	2400	Cap.	14.5	13.4	18.0	16.6	23.1	19.6	31.2	28.7	37.9	32.7	48.5	42.5	58.7	58.7	67.7	67.7	76.3	76.3	75.9	75.9
		kW	4.37		4.59		4.77		5.03		5.19		5.59		5.93		6.23		6.57		6.54	
	3000	Cap.	15.4	14.1	18.8	17.3	24.1	20.5	32.2	29.6	39.6	36.3	50.4	44.2	61.6	61.6	68.9	68.9	74.3	74.3	74.5	74.5
		kW	4.54		4.74		4.91		5.14		5.29		5.64		5.95		6.17		6.37		6.36	

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
rh — Relative Humidity

NOTES:

1. [Shaded] indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

549B090 (7½ Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	2250	Cap.	31.4	28.8	37.8	34.9	44.5	41.0	52.1	47.8	57.6	52.5	70.2	61.5	79.9	79.9	87.9	87.9	91.6	91.6	105.9	105.9
		kW	5.32	5.47	5.61	5.74	5.84	6.09	6.72	6.92	7.02	7.48										
	3000	Cap.	33.3	30.6	39.6	36.5	46.3	42.5	53.9	49.4	59.6	54.3	72.1	63.1	81.9	81.9	90.0	90.0	93.9	93.9	105.1	105.1
		kW	5.76	5.90	6.01	6.13	6.23	6.44	7.05	7.25	7.35	7.64										
	3750	Cap.	35.1	32.1	41.4	38.2	48.0	44.1	55.7	51.0	61.3	56.1	73.9	64.7	83.6	83.6	91.8	91.8	94.7	94.7	103.4	103.4
		kW	6.23	6.34	6.44	6.56	6.63	6.85	7.48	7.68	7.75	7.93										
70	2250	Cap.	28.8	26.5	35.9	32.9	43.1	39.8	50.8	46.6	56.4	51.4	68.4	60.0	77.8	77.8	85.6	85.6	89.2	89.2	103.2	103.2
		kW	5.76	5.99	6.21	6.40	6.54	6.85	7.54	7.77	7.89	8.36										
	3000	Cap.	30.6	28.2	37.8	34.7	45.1	41.6	52.5	48.2	58.2	53.1	70.2	61.5	79.7	79.7	87.5	87.5	91.4	91.4	105.3	105.3
		kW	6.19	6.40	6.60	6.77	6.89	7.14	7.83	8.03	8.16	8.61										
	3750	Cap.	32.3	29.8	39.4	36.3	46.8	43.8	54.3	49.8	60.0	54.7	72.1	63.3	81.7	81.7	89.6	89.6	93.3	93.3	105.5	105.5
		kW	6.63	6.85	7.00	7.18	7.28	7.53	8.22	8.43	8.53	8.88										
80	2250	Cap.	26.3	24.1	33.9	31.2	41.7	38.4	49.6	45.7	55.5	50.6	67.2	58.8	76.4	76.4	84.0	84.0	87.7	87.7	101.1	101.1
		kW	6.01	6.34	6.62	6.87	7.06	7.39	8.18	8.43	8.55	9.06										
	3000	Cap.	28.0	25.9	35.9	33.1	43.7	40.2	51.3	47.2	57.2	52.3	69.0	60.6	78.4	78.4	86.1	86.1	89.8	89.8	103.4	103.4
		kW	6.44	6.75	7.00	7.22	7.37	7.68	8.43	8.65	8.78	9.25										
	3750	Cap.	29.8	27.4	37.8	34.7	45.5	41.9	53.3	48.8	59.0	53.9	71.0	62.1	80.1	80.1	88.1	88.1	91.8	91.8	105.3	105.3
		kW	6.89	7.18	7.41	7.60	7.76	8.03	8.80	9.00	9.13	9.58										

549B102 (8½ Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		20		30		40		47		50		60		
55	2550	Cap.	31.6	29.1	39.1	36.0	47.2	43.5	56.3	51.8	65.4	59.3	75.3	66.0	86.1	86.1	97.9	97.9	108.0	108.0	113.5	113.5
		kW	3.73	4.01	4.30	4.66	5.01	5.37	5.79	6.23	6.52	6.80										
	3400	Cap.	32.9	30.2	40.5	37.2	48.3	44.5	57.5	52.7	66.5	60.3	76.5	67.1	87.5	87.5	97.4	97.4	106.1	106.1	109.9	109.9
		kW	3.62	3.86	4.10	4.39	4.67	4.96	5.29	5.54	5.71	5.89										
	4250	Cap.	33.9	31.2	41.5	38.1	49.3	45.4	58.5	53.6	67.5	61.2	77.6	67.9	86.6	86.6	94.6	94.6	102.5	102.5	105.6	105.6
		kW	3.55	3.77	3.98	4.23	4.47	4.72	4.92	5.09	5.21	5.33										
70	2550	Cap.	28.9	26.6	36.9	34.0	45.5	41.8	55.0	50.5	64.4	58.4	74.2	65.0	84.5	84.5	95.8	95.8	107.1	107.1	114.3	114.3
		kW	4.38	4.76	5.14	5.54	5.98	6.45	6.92	7.41	7.82	8.26										
	3400	Cap.	30.2	27.8	38.4	35.3	46.9	43.0	56.4	51.8	65.6	59.5	75.4	66.1	86.0	86.0	97.4	97.4	107.3	107.3	111.9	111.9
		kW	4.27	4.61	4.91	5.25	5.61	5.98	6.36	6.74	6.98	7.20										
	4250	Cap.	31.4	28.8	39.5	36.4	47.9	44.2	57.5	52.7	66.6	60.4	76.4	67.0	87.1	87.1	97.2	97.2	106.3	106.3	109.1	109.1
		kW	4.21	4.51	4.79	5.09	5.40	5.70	6.03	6.28	6.46	6.60										
80	2550	Cap.	26.3	24.2	34.9	32.1	43.8	40.3	53.6	49.2	63.3	57.4	73.4	64.3	83.7	83.7	94.4	94.4	106.5	106.5	112.5	112.5
		kW	4.82	5.27	5.72	6.19	6.66	7.21	7.76	8.29	8.79	9.23										
	3400	Cap.	27.8	25.5	36.4	33.5	45.3	41.7	55.1	50.6	64.7	58.7	74.7	65.4	85.0	85.0	96.2	96.2	107.1	107.1	110.0	110.0
		kW	4.72	5.11	5.49	5.88	6.28	6.72	7.14	7.57	7.90	8.06										
	4250	Cap.	29.0	26.7	37.6	34.7	46.4	42.7	56.5	51.8	65.9	59.6	75.7	66.4	86.2	86.2	96.9	96.9	106.2	106.2	110.8	110.8
		kW	4.66	5.02	5.35	5.70	6.05	6.42	6.79	7.11	7.34	7.54										

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
rh — Relative Humidity

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

549B120 (10 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db at 70% rh)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	3000	Cap.	37.7	34.6	45.5	41.9	53.5	49.2	62.6	57.5	69.2	63.1	84.3	74.0	101.3	101.3	111.3	111.3	116.0	116.0	134.2	134.2
		kW	6.87	7.07	7.25	7.43	7.55	7.88	8.26	8.52	8.64	9.20										
	4000	Cap.	40.0	36.7	47.6	43.8	55.6	51.1	64.8	59.4	71.6	65.2	86.7	75.8	103.7	103.7	114.0	114.0	118.9	118.9	133.2	133.2
		kW	7.45	7.63	7.78	7.93	8.05	8.33	8.67	8.92	9.05	9.40										
	5000	Cap.	42.2	38.6	49.7	45.9	57.7	53.0	66.9	61.2	73.7	67.4	88.8	77.7	105.9	105.9	116.2	116.2	119.9	119.9	131.0	131.0
		kW	8.05	8.20	8.33	8.48	8.58	8.86	9.20	9.45	9.53	9.76										
70	3000	Cap.	34.6	31.8	43.1	39.6	51.8	47.8	61.0	56.1	67.8	61.7	82.2	72.1	98.5	98.5	108.4	108.4	113.0	113.0	130.7	130.7
		kW	7.45	7.75	8.03	8.28	8.45	8.86	9.28	9.55	9.71	10.29										
	4000	Cap.	36.7	33.9	45.5	41.7	54.2	49.9	63.1	57.9	69.9	63.8	84.3	74.0	101.0	101.0	110.8	110.8	115.8	115.8	133.4	133.4
		kW	8.00	8.28	8.53	8.76	8.91	9.23	9.63	9.88	10.04	10.59										
	5000	Cap.	38.9	35.8	47.3	43.6	56.3	51.8	65.2	59.8	72.1	65.7	86.7	76.1	103.5	103.5	113.5	113.5	118.2	118.2	133.7	133.7
		kW	8.58	8.86	9.06	9.28	9.41	9.73	10.11	10.37	10.49	10.92										
80	3000	Cap.	31.6	29.0	40.7	37.4	50.2	46.2	59.6	54.9	66.7	60.8	80.8	70.7	96.8	96.8	106.4	106.4	111.1	111.1	128.0	128.0
		kW	7.78	8.20	8.56	8.88	9.13	9.56	10.06	10.37	10.52	11.15										
	4000	Cap.	33.7	31.1	43.1	39.8	52.5	48.3	61.9	56.8	68.8	62.9	82.9	72.8	99.3	99.3	109.1	109.1	113.8	113.8	131.0	131.0
		kW	8.33	8.73	9.06	9.33	9.53	9.93	10.37	10.64	10.80	11.38										
	5000	Cap.	35.8	33.0	45.5	41.7	54.6	50.4	64.1	58.6	70.9	64.8	85.3	74.7	101.5	101.5	111.6	111.6	116.2	116.2	133.4	133.4
		kW	8.91	9.28	9.58	9.83	10.04	10.39	10.82	11.08	11.23	11.78										

549C024 (2 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	600	Cap.	6.73	6.19	8.76	8.06	11	9.31	13.2	12.1	15.2	13.8	18.4	16.1	21.3	21.3	23.4	23.4	25.2	25.2	26.8	26.8
		kW	1.18	1.24	1.31	1.37	1.43	1.52	1.61	1.69	1.75	1.8										
	800	Cap.	6.96	6.4	8.99	8.27	11.2	9.56	13.4	12.3	15.4	14.1	18.7	16.4	21.6	21.6	23.9	23.9	25.2	25.2	26.6	26.6
		kW	1.19	1.24	1.29	1.34	1.38	1.45	1.52	1.57	1.61	1.64										
	1000	Cap.	7.15	6.58	9.19	8.45	11.4	9.7	13.6	12.5	15.8	14.4	18.9	16.6	21.9	21.9	23.9	23.9	25	25	26.4	26.4
		kW	1.21	1.26	1.3	1.33	1.37	1.42	1.48	1.52	1.54	1.57										
70	600	Cap.	5.88	5.41	8.06	7.42	10.3	8.79	12.8	11.7	14.8	13.5	18	15.8	20.8	20.8	22.8	22.8	24.7	24.7	26.8	26.8
		kW	1.34	1.43	1.52	1.61	1.68	1.8	1.91	1.99	2.07	2.16										
	800	Cap.	6.15	5.65	8.34	7.67	10.6	9.03	13.1	12	15.1	13.8	18.3	16	21.2	21.2	23.3	23.3	24.9	24.9	26.4	26.4
		kW	1.36	1.43	1.5	1.57	1.62	1.71	1.79	1.86	1.91	1.95										
	1000	Cap.	6.35	5.84	8.56	7.88	10.9	9.22	13.3	12.2	15.3	13.9	18.5	16.2	21.4	21.4	23.6	23.6	24.9	24.9	26.5	26.5
		kW	1.38	1.45	1.51	1.56	1.61	1.68	1.74	1.8	1.83	1.87										
80	600	Cap.	5.11	4.7	7.46	6.86	9.83	8.36	12.3	11.3	14.4	13.1	17.8	15.6	20.5	20.5	22.5	22.5	24.4	24.4	26.5	26.5
		kW	1.44	1.55	1.66	1.77	1.86	2	2.13	2.22	2.31	2.41										
	800	Cap.	5.39	4.96	7.76	7.13	10.2	8.64	12.7	11.6	14.7	13.4	18.1	15.9	20.9	20.9	22.9	22.9	24.6	24.6	26.6	26.6
		kW	1.46	1.56	1.65	1.73	1.8	1.91	2	2.07	2.13	2.2										
	1000	Cap.	5.61	5.16	7.99	7.35	10.4	8.84	12.9	11.8	15	13.7	18.3	16	21.1	21.1	23.2	23.2	24.9	24.9	26.5	26.5
		kW	1.48	1.58	1.65	1.73	1.78	1.86	1.94	2	2.04	2.09										

549B, 549C

LEGEND

- Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
- kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
- rh — Relative Humidity

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

549C036 (3 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	900	Cap.	9.8	9.0	13.1	12.0	16.6	15.2	20.2	18.6	23.0	20.9	28.4	24.9	32.7	32.7	36.5	36.5	37.2	37.2	41.5	41.5
		kW	1.92	2.01	2.09	2.18	2.25	2.40	2.52	2.63	2.66	2.79										
	1200	Cap.	10.4	9.5	13.7	12.6	17.2	15.8	20.9	19.2	23.7	21.6	29.0	25.4	33.5	33.5	37.2	37.2	37.9	37.9	42.2	42.2
		kW	1.62	2.03	2.10	2.17	2.22	2.33	2.42	2.50	2.52	2.61										
	1500	Cap.	10.7	9.9	14.1	13.0	17.6	16.2	21.4	19.6	24.2	22.0	29.6	25.9	34.0	34.0	37.7	37.7	38.4	38.4	42.4	42.4
		kW	2.02	2.07	2.13	2.19	2.23	2.32	2.39	2.45	2.47	2.54										
70	900	Cap.	7.6	6.9	11.1	10.2	14.8	13.6	18.6	17.1	21.4	19.6	27.0	23.6	31.4	31.4	35.2	35.2	36.1	36.1	40.3	40.3
		kW	2.12	2.24	2.36	2.48	2.57	2.75	2.90	3.03	3.06	3.22										
	1200	Cap.	8.1	7.4	11.7	10.8	15.5	14.2	19.4	17.8	22.3	20.3	27.8	24.4	32.4	32.4	36.2	36.2	37.1	37.1	41.2	41.2
		kW	2.17	2.27	2.36	2.46	2.53	2.66	2.77	2.87	2.90	3.00										
	1500	Cap.	8.5	7.8	12.2	11.2	16.0	14.7	20.0	18.3	22.8	20.8	28.5	24.9	32.9	32.9	36.7	36.7	37.4	37.4	41.5	41.5
		kW	2.23	2.31	2.40	2.47	2.53	2.64	2.73	2.80	2.82	2.91										
80	900	Cap.	8.7	6.6	12.2	11.2	15.7	14.5	19.5	17.9	22.3	20.3	27.7	24.3	32.2	32.2	36.0	36.0	36.7	36.7	40.7	40.7
		kW	2.01	2.13	2.23	2.34	2.42	2.58	2.72	2.84	2.86	3.00										
	1200	Cap.	9.3	7.1	12.8	11.8	16.4	15.1	20.3	18.6	23.1	21.0	28.5	25.0	33.0	33.0	36.8	36.8	37.6	37.6	41.6	41.6
		kW	2.08	2.16	2.24	2.32	2.38	2.50	2.60	2.69	2.71	2.80										
	1500	Cap.	10.0	7.7	13.3	12.2	16.9	15.6	20.8	19.1	23.6	21.5	29.1	25.5	33.4	33.4	37.2	37.2	37.7	37.7	41.8	41.8
		kW	2.14	2.20	2.27	2.33	2.38	2.48	2.56	2.62	2.64	2.72										

549C048 (4 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db)																				
		-20		-10		0		10		20		30		40		47		50		60		
55	1200	Cap.	15.2	14	18.9	17.4	22.8	21	27	24.7	31.6	28.7	36.8	32.2	42.5	42.5	47.5	47.5	49	49	54.5	54.5
		kW	2.56	2.65	2.75	2.84	2.95	3.07	3.22	3.36	3.41	3.57										
	1600	Cap.	15.8	14.5	19.5	17.9	23.3	21.5	27.5	25.3	32.3	29.3	37.5	32.9	43.1	43.1	46.8	46.8	47.4	47.4	51.1	51.1
		kW	2.62	2.69	2.77	2.84	2.92	3.01	3.13	3.2	3.22	3.3										
	2000	Cap.	16.3	15	20	18.4	23.8	21.9	28	25.7	32.8	29.8	37.9	33.2	41.4	41.4	44.3	44.3	44.8	44.8	47.3	47.3
		kW	2.7	2.77	2.83	2.89	2.96	3.04	3.09	3.14	3.15	3.19										
70	1200	Cap.	13.5	12.4	17.6	16.2	21.9	20.1	26.2	24	30.7	27.9	35.7	31.3	41.3	41.3	45.9	45.9	47.5	47.5	53.9	53.9
		kW	2.8	2.96	3.1	3.24	3.38	3.53	3.71	3.86	3.92	4.16										
	1600	Cap.	14.2	13	18.3	16.8	22.5	20.7	26.8	24.6	31.4	28.4	36.5	31.9	42.2	42.2	46.8	46.8	48.1	48.1	52.6	52.6
		kW	2.87	3.01	3.11	3.23	3.33	3.44	3.58	3.7	3.73	3.85										
	2000	Cap.	14.7	13.5	18.8	17.3	23	21.2	27.3	25	31.9	28.9	37	32.4	42.6	42.6	45.6	45.6	46.8	46.8	50	50
		kW	2.96	3.07	3.17	3.26	3.34	3.44	3.56	3.62	3.64	3.71										
80	1200	Cap.	11.9	10.9	16.3	15	20.9	19.2	25.5	23.4	30.1	27.3	35	30.7	40.5	40.5	44.8	44.8	46.5	46.5	53.2	53.2
		kW	2.95	3.16	3.34	3.51	3.7	3.87	4.07	4.23	4.3	4.58										
	1600	Cap.	12.6	11.6	17.1	15.7	21.6	19.9	26.2	24	30.8	27.9	35.8	31.4	41.4	41.4	46	46	47.6	47.6	53.2	53.2
		kW	3.02	3.21	3.36	3.5	3.63	3.76	3.92	4.05	4.1	4.27										
	2000	Cap.	13.2	12.1	17.7	16.3	22.2	20.4	26.7	24.5	31.3	28.4	36.3	31.8	42	42	46.3	46.3	46.9	46.9	51.1	51.1
		kW	3.11	3.28	3.41	3.53	3.64	3.75	3.88	3.98	4	4.1										

549B, 549C

LEGEND

- Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
- kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
- rh — Relative Humidity

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA — 549B, 549C (cont)
INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

549C060 (5 Tons)																						
Return Air (F db)	Cfm (Standard Air)	Temperature Air Entering Outdoor Coil (F db)																				
		-20		-10		0		10		17		30		40		47		50		60		
55	1500	Cap.	16.9	15.6	22.1	20.3	27.5	23.4	33.3	30.6	38.5	35.1	46.3	40.6	53.7	53.7	59.6	59.6	63.5	63.5	67.8	67.8
		kW	3.15		3.26		3.36		3.47		3.56		3.74		3.9		4.04		4.14		4.25	
	1750	Cap.	17.4	16	22.6	20.8	28	23.8	33.9	31.1	39.1	35.7	46.9	41.1	54.4	54.4	59.9	59.9	63.4	63.4	67.2	67.2
		kW	3.19		3.29		3.38		3.47		3.55		3.69		3.83		3.94		4.01		4.09	
	2000	Cap.	17.8	16.4	23	21.2	28.4	24.1	34.4	31.6	39.6	36.1	47.9	42	54.9	54.9	59.9	59.9	62.7	62.7	66.9	66.9
		kW	3.25		3.33		3.41		3.48		3.56		3.69		3.8		3.88		3.93		4.01	
	2500	Cap.	18.5	17	23.7	21.8	29.2	24.8	35.2	32.3	40.4	36.9	48.7	42.7	55.2	55.2	59.0	59.0	62.0	62.0	65.5	65.5
		kW	3.36		3.43		3.49		3.55		3.61		3.71		3.79		3.85		3.89		3.94	
70	1500	Cap.	13.8	12.7	19.5	17.9	25.2	21.5	31.2	28.7	36.2	33	44.4	38.9	51.5	51.5	57.6	57.6	62.1	62.1	67.2	67.2
		kW	3.45		3.62		3.77		3.92		4.04		4.24		4.45		4.63		4.76		4.91	
	1750	Cap.	14.3	13.2	20	18.4	25.8	21.9	31.8	29.2	36.9	33.6	45.1	39.5	52.6	52.6	58.4	58.4	62.8	62.8	67.3	67.3
		kW	3.5		3.65		3.79		3.92		4.02		4.19		4.37		4.51		4.62		4.74	
	2000	Cap.	14.8	13.6	20.5	18.8	26.3	22.4	32.4	29.7	37.5	34.2	45.7	40	53.2	53.2	59.1	59.1	62.9	62.9	67.2	67.2
		kW	3.55		3.7		3.82		3.93		4.02		4.17		4.33		4.45		4.53		4.63	
	2500	Cap.	15.5	14.3	21.3	19.6	27.1	23.1	33.2	30.5	38.4	35	46.7	40.9	54.1	54.1	59.9	59.9	63	63	66.3	66.3
		kW	3.67		3.8		3.9		3.99		4.06		4.19		4.31		4.4		4.46		4.51	
80	1500	Cap.	11.2	10.3	17.2	15.8	23.3	19.8	29.5	27.1	34.6	31.5	42.6	37.4	50	50	56.2	56.2	60.6	60.6	65.7	65.7
		kW	3.63		3.85		4.05		4.24		4.38		4.61		4.84		5.05		5.2		5.37	
	1750	Cap.	11.6	10.7	17.8	16.4	23.9	20.3	30.2	27.7	35.3	32.2	43.4	38.1	50.8	50.8	57.1	57.1	61.5	61.5	66.8	66.8
		kW	3.68		3.89		4.07		4.23		4.36		4.55		4.75		4.93		5.06		5.2	
	2000	Cap.	12.1	11.1	18.3	16.8	24.5	20.8	30.7	28.2	35.9	32.7	44.1	38.7	51.6	51.6	57.8	57.8	62.1	62.1	66.9	66.9
		kW	3.74		3.94		4.1		4.25		4.36		4.52		4.71		4.86		4.96		5.07	
	2500	Cap.	12.8	11.8	19.1	17.6	25.4	21.6	31.7	29.1	36.8	33.6	45.3	39.7	53	53	58.9	58.9	62.8	62.8	66.9	66.9
		kW	3.87		4.04		4.19		4.31		4.4		4.53		4.69		4.8		4.87		4.95	

LEGEND

Cap. — Heating Capacity (1000 Btuh) (includes indoor-fan motor heat)
kW — Total Power Input (includes compressor motor power input, outdoor-fan motor input, and indoor-fan motor input)
rh — Relative Humidity

NOTES:

1. indicates integrated ratings.
2. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS

549C024 (2 TONS) STANDARD MOTOR (BELT DRIVE)*												
Airflow (Cfm)	External Static Pressure (in. wg)											
	0.1		0.2		0.4		0.6		0.8		1.0	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
600	500	0.08	531	0.08	607	0.14	713	0.21	788	0.29	878	0.37
700	529	0.09	567	0.09	633	0.16	739	0.24	816	0.32	902	0.41
800	547	0.1	592	0.12	660	0.19	761	0.27	845	0.37	937	0.47
900	570	0.13	620	0.14	691	0.22	793	0.32	870	0.42	957	0.53
1000	599	0.15	650	0.16	717	0.26	818	0.36	894	0.47	981	0.58

LEGEND

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

*Motor drive range: 639 to 936 rpm. All other rpms require field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 0.58.
3. See page 103 for General Fan Performance Notes.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B036 AND 549C036 (3 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	566	0.14	142	690	0.23	228	791	0.32	320	879	0.42	418	957	0.52	522
1000	598	0.17	173	718	0.27	267	817	0.37	366	903	0.47	471	981	0.58	581
1100	632	0.21	210	748	0.31	311	844	0.42	418	929	0.53	530	1006	0.65	646
1200	666	0.25	252	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	701	0.30	300	809	0.42	418	902	0.54	540	983	0.67	665	1057	0.80	796
1400	737	0.36	355	842	0.48	481	932	0.61	610	1012	0.75	744	1085	0.89	881
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	1112	0.98	974

549B036 AND 549C036 (3 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
900	1029	0.63	630	1095	0.75	742	1157	0.86	859	1216	0.99	980	1272	1.11	1105
1000	1052	0.70	695	1118	0.82	814	1179	0.94	937	1237	1.07	1064	1293	1.20	1195
1100	1076	0.77	767	1141	0.90	892	1202	1.03	1021	1260	1.16	1154	—	—	—
1200	1100	0.85	845	1165	0.98	977	1225	1.12	1112	—	—	—	—	—	—
1300	1126	0.94	930	1189	1.07	1069	—	—	—	—	—	—	—	—	—
1400	1152	1.03	1023	1215	1.17	1168	—	—	—	—	—	—	—	—	—
1500	1179	1.13	1123	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.20.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 680 to 1044 rpm. All other rpms require field-supplied drive.

549B036 AND 549C036 (3 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	566	0.14	142	690	0.23	228	791	0.32	320	879	0.42	418	957	0.52	522
1000	598	0.17	173	718	0.27	267	817	0.37	366	903	0.47	471	981	0.58	581
1100	632	0.21	210	748	0.31	311	844	0.42	418	929	0.53	530	1006	0.65	646
1200	666	0.25	252	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	701	0.30	300	809	0.42	418	902	0.54	540	983	0.67	665	1057	0.80	796
1400	737	0.36	355	842	0.48	481	932	0.61	610	1012	0.75	744	1085	0.89	881
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	1112	0.98	974

549B036 AND 549C036 (3 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
900	1029	0.63	630	1095	0.75	742	1157	0.86	859	1216	0.99	980	1272	1.11	1105
1000	1052	0.70	695	1118	0.82	814	1179	0.94	937	1237	1.07	1064	1293	1.20	1195
1100	1076	0.77	767	1141	0.90	892	1202	1.03	1021	1260	1.16	1154	1314	1.30	1291
1200	1100	0.85	845	1165	0.98	977	1225	1.12	1112	1282	1.26	1252	1337	1.40	1395
1300	1126	0.94	930	1189	1.07	1069	1249	1.22	1211	1306	1.36	1356	1360	1.51	1506
1400	1152	1.03	1023	1215	1.17	1168	1274	1.32	1317	1330	1.48	1469	1384	1.63	1625
1500	1179	1.13	1123	1241	1.28	1275	1300	1.44	1431	1355	1.60	1590	1408	1.76	1752

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1075 to 1455 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B048 AND 549C048 (4 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	666	0.25	252	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	701	0.30	300	809	0.42	418	902	0.54	540	983	0.67	665	1057	0.80	796
1400	737	0.36	355	842	0.48	481	932	0.61	610	1012	0.75	744	1085	0.89	881
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	1112	0.98	974
1600	811	0.49	487	909	0.63	629	994	0.78	774	1071	0.93	923	1141	1.08	1076
1700	849	0.57	565	943	0.72	715	1026	0.87	869	1101	1.03	1025	1170	1.19	1185
1800	887	0.65	651	978	0.81	810	1059	0.98	972	1133	1.14	1136	—	—	—
1900	926	0.75	746	1014	0.92	914	1092	1.09	1084	—	—	—	—	—	—
2000	965	0.86	852	1050	1.03	1028	—	—	—	—	—	—	—	—	—

549B048 AND 549C048 (4 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1100	0.85	845	1165	0.98	977	1225	1.12	1112	—	—	—	—	—	—
1300	1126	0.94	930	1189	1.07	1069	—	—	—	—	—	—	—	—	—
1400	1152	1.03	1023	1215	1.17	1168	—	—	—	—	—	—	—	—	—
1500	1179	1.13	1123	—	—	—	—	—	—	—	—	—	—	—	—
1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 1.20.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 770 to 1185 rpm. All other rpms require field-supplied drive.

549B, 549C

549B048 AND 549C048 (4 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	666	0.25	252	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	701	0.30	300	809	0.42	418	902	0.54	540	983	0.67	665	1057	0.80	796
1400	737	0.36	355	842	0.48	481	932	0.61	610	1012	0.75	744	1085	0.89	881
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	1112	0.98	974
1600	811	0.49	487	909	0.63	629	994	0.78	774	1071	0.93	923	1141	1.08	1076
1700	849	0.57	565	943	0.72	715	1026	0.87	869	1101	1.03	1025	1170	1.19	1185
1800	887	0.65	651	978	0.81	810	1059	0.98	972	1133	1.14	1136	1200	1.31	1304
1900	926	0.75	746	1014	0.92	914	1092	1.09	1084	1164	1.26	1257	1231	1.44	1432
2000	965	0.86	852	1050	1.03	1028	1127	1.21	1206	1197	1.39	1387	1262	1.58	1570

549B048 AND 549C048 (4 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1100	0.85	845	1165	0.98	977	1225	1.12	1112	1282	1.26	1252	1337	1.40	1395
1300	1126	0.94	930	1189	1.07	1069	1249	1.22	1211	1306	1.36	1356	1360	1.51	1506
1400	1152	1.03	1023	1215	1.17	1168	1274	1.32	1317	1330	1.48	1469	1384	1.63	1625
1500	1179	1.13	1123	1241	1.28	1275	1300	1.44	1431	1355	1.60	1590	1408	1.76	1752
1600	1206	1.24	1231	1268	1.40	1391	1326	1.56	1553	1381	1.73	1719	1433	1.90	1888
1700	1235	1.36	1349	1295	1.52	1515	1352	1.69	1685	1407	1.87	1858	1459	2.04	2034
1800	1264	1.48	1475	1323	1.66	1649	1380	1.84	1826	1434	2.02	2006	1485	2.20	2189
1900	1293	1.62	1611	1352	1.80	1792	1408	1.99	1976	1461	2.17	2163	1512	2.37	2353
2000	1324	1.77	1756	1381	1.96	1945	1436	2.15	2137	1489	2.34	2332	—	—	—

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 1075 to 1455 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — SINGLE-PHASE UNITS															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	790	0.40	353	897	0.53	471	991	0.68	600	1075	0.83	739	1152	1.00	888
1600	828	0.46	412	931	0.60	536	1022	0.75	670	1104	0.92	813	1180	1.09	966
1700	866	0.54	478	966	0.68	608	1054	0.84	747	1134	1.01	895	1208	1.19	1053
1800	905	0.62	551	1001	0.77	687	1087	0.94	832	1165	1.11	985	1238	1.29	1148
1900	944	0.71	633	1037	0.87	774	1120	1.04	925	1197	1.22	1084	—	—	—
2000	983	0.81	723	1073	0.98	870	1154	1.16	1026	—	—	—	—	—	—
2100	1023	0.92	821	1110	1.10	975	1189	1.28	1137	—	—	—	—	—	—
2200	1063	1.05	929	1147	1.23	1089	—	—	—	—	—	—	—	—	—
2300	1104	1.18	1046	—	—	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — SINGLE-PHASE UNITS (cont)															
Airflow (Cfm)	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
1500	1224	1.18	1045	—	—	—	—	—	—	—	—	—	—	—	—
1600	1250	1.27	1128	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.30.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — THREE-PHASE UNITS															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	790	0.40	353	897	0.53	471	991	0.68	600	1075	0.83	739	1152	1.00	888
1600	828	0.46	412	931	0.60	536	1022	0.75	670	1104	0.92	813	1180	1.09	966
1700	866	0.54	478	966	0.68	608	1054	0.84	747	1134	1.01	895	1208	1.19	1053
1800	905	0.62	551	1001	0.77	687	1087	0.94	832	1165	1.11	985	1238	1.29	1148
1900	944	0.71	633	1037	0.87	774	1120	1.04	925	1197	1.22	1084	1268	1.41	1251
2000	983	0.81	723	1073	0.98	870	1154	1.16	1026	1229	1.34	1190	1299	1.53	1362
2100	1023	0.92	821	1110	1.10	975	1189	1.28	1137	1262	1.47	1306	1330	1.67	1483
2200	1063	1.05	929	1147	1.23	1089	1224	1.41	1256	1295	1.61	1431	1362	1.82	1614
2300	1104	1.18	1046	1185	1.37	1212	1260	1.56	1386	1329	1.76	1567	1395	1.98	1754
2400	1145	1.32	1174	1223	1.52	1346	1296	1.72	1526	1364	1.93	1712	1428	2.15	1905
2500	1185	1.48	1311	1262	1.68	1490	1333	1.89	1676	1399	2.10	1868	1462	2.33	2067

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — THREE-PHASE UNITS (cont)															
Airflow (Cfm)	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
1500	1224	1.18	1045	1291	1.36	1212	1354	1.56	1387	1414	1.77	1570	1472	1.98	1761
1600	1250	1.27	1128	1316	1.46	1299	1379	1.66	1478	1438	1.87	1664	1495	2.09	1858
1700	1278	1.37	1219	1343	1.57	1394	1405	1.77	1576	1463	1.99	1766	1520	2.21	1964
1800	1306	1.48	1318	1370	1.69	1497	1431	1.90	1683	1489	2.11	1877	1545	2.34	2078
1900	1335	1.61	1426	1398	1.81	1609	1458	2.03	1799	1515	2.25	1997	—	—	—
2000	1364	1.74	1542	1427	1.95	1730	1486	2.17	1925	1542	2.39	2126	—	—	—
2100	1395	1.88	1668	1456	2.09	1860	1514	2.32	2060	—	—	—	—	—	—
2200	1426	2.03	1804	1486	2.25	2001	—	—	—	—	—	—	—	—	—
2300	1457	2.19	1949	—	—	—	—	—	—	—	—	—	—	—	—
2400	1489	2.37	2106	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B060 AND 549C060 (5 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	790	0.40	353	897	0.53	471	991	0.68	600	1075	0.83	739	1152	1.00	888
1600	828	0.46	412	931	0.60	536	1022	0.75	670	1104	0.92	813	1180	1.09	966
1700	866	0.54	478	966	0.68	608	1054	0.84	747	1134	1.01	895	1208	1.19	1053
1800	905	0.62	551	1001	0.77	687	1087	0.94	832	1165	1.11	985	1238	1.29	1148
1900	944	0.71	633	1037	0.87	774	1120	1.04	925	1197	1.22	1084	1268	1.41	1251
2000	983	0.81	723	1073	0.98	870	1154	1.16	1026	1229	1.34	1190	1299	1.53	1362
2100	1023	0.92	821	1110	1.10	975	1189	1.28	1137	1262	1.47	1306	1330	1.67	1483
2200	1063	1.05	929	1147	1.23	1089	1224	1.41	1256	1295	1.61	1431	1362	1.82	1614
2300	1104	1.18	1046	1185	1.37	1212	1260	1.56	1386	1329	1.76	1567	1395	1.98	1754
2400	1145	1.32	1174	1223	1.52	1346	1296	1.72	1526	1364	1.93	1712	1428	2.15	1905
2500	1185	1.48	1311	1262	1.68	1490	1333	1.89	1676	1399	2.10	1868	1462	2.33	2067

549B060 AND 549C060 (5 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1500	1224	1.18	1045	1291	1.36	1212	1354	1.56	1387	1414	1.77	1570	1472	1.98	1761
1600	1250	1.27	1128	1316	1.46	1299	1379	1.66	1478	1438	1.87	1664	1495	2.09	1858
1700	1278	1.37	1219	1343	1.57	1394	1405	1.77	1576	1463	1.99	1766	1520	2.21	1964
1800	1306	1.48	1318	1370	1.69	1497	1431	1.90	1683	1489	2.11	1877	1545	2.34	2078
1900	1335	1.61	1426	1398	1.81	1609	1458	2.03	1799	1515	2.25	1997	1570	2.48	2202
2000	1364	1.74	1542	1427	1.95	1730	1486	2.17	1925	1542	2.39	2126	1596	2.63	2335
2100	1395	1.88	1668	1456	2.09	1860	1514	2.32	2060	1570	2.55	2265	1623	2.79	2478
2200	1426	2.03	1804	1486	2.25	2001	1543	2.48	2204	1598	2.72	2415	—	—	—
2300	1457	2.19	1949	1516	2.42	2151	1573	2.66	2360	1627	2.90	2574	—	—	—
2400	1489	2.37	2106	1547	2.60	2312	1603	2.84	2526	—	—	—	—	—	—
2500	1522	2.56	2272	1579	2.80	2484	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

549B072 (6 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	907	0.63	558	1006	0.80	708	1092	0.97	860	1169	1.14	1015	1239	1.32	1174
1900	945	0.72	638	1042	0.90	796	1126	1.08	956	1201	1.26	1119	1271	1.45	1285
2000	984	0.82	727	1078	1.00	892	1160	1.19	1060	1235	1.39	1230	1303	1.58	1403
2100	1024	0.93	823	1115	1.12	997	1195	1.32	1173	1268	1.52	1350	1335	1.72	1531
2200	1063	1.05	929	1152	1.25	1111	1230	1.46	1294	1302	1.67	1480	1368	1.88	1668
2300	1103	1.18	1044	1189	1.39	1234	1266	1.60	1425	1337	1.82	1618	1402	2.04	1814
2400	1143	1.32	1168	1227	1.54	1367	1302	1.76	1566	1371	1.99	1767	1435	2.22	1970
2500	1183	1.47	1303	1265	1.70	1510	1339	1.93	1717	1406	2.17	1926	—	—	—
2600	1224	1.63	1448	1303	1.87	1663	1375	2.12	1878	1442	2.36	2095	—	—	—
2700	1264	1.81	1604	1342	2.06	1828	1412	2.31	2051	—	—	—	—	—	—
2800	1305	1.99	1772	1381	2.26	2003	—	—	—	—	—	—	—	—	—
2900	1346	2.20	1951	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

549B072 (6 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1304	1.51	1337	1365	1.69	1503	1422	1.88	1674	1477	2.08	1848	1528	2.28	2025
1900	1335	1.64	1454	1395	1.83	1627	1452	2.03	1804	1506	2.23	1984	—	—	—
2000	1366	1.78	1580	1426	1.98	1760	1482	2.19	1943	1535	2.40	2130	—	—	—
2100	1398	1.93	1715	1457	2.14	1901	1512	2.35	2091	—	—	—	—	—	—
2200	1430	2.09	1858	1488	2.31	2052	—	—	—	—	—	—	—	—	—
2300	1462	2.27	2012	—	—	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1119 to 1585 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B072 (6 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	907	0.63	558	1006	0.80	708	1092	0.97	860	1169	1.14	1015	1239	1.32	1174
1900	945	0.72	638	1042	0.90	796	1126	1.08	956	1201	1.26	1119	1271	1.45	1285
2000	984	0.82	727	1078	1.00	892	1160	1.19	1060	1235	1.39	1230	1303	1.58	1403
2100	1024	0.93	823	1115	1.12	997	1195	1.32	1173	1268	1.52	1350	1335	1.72	1531
2200	1063	1.05	929	1152	1.25	1111	1230	1.46	1294	1302	1.67	1480	1368	1.88	1668
2300	1103	1.18	1044	1189	1.39	1234	1266	1.60	1425	1337	1.82	1618	1402	2.04	1814
2400	1143	1.32	1168	1227	1.54	1367	1302	1.76	1566	1371	1.99	1767	1435	2.22	1970
2500	1183	1.47	1303	1265	1.70	1510	1339	1.93	1717	1406	2.17	1926	1470	2.41	2136
2600	1224	1.63	1448	1303	1.87	1663	1375	2.12	1878	1442	2.36	2095	1504	2.60	2313
2700	1264	1.81	1604	1342	2.06	1828	1412	2.31	2051	1478	2.56	2275	1539	2.82	2501
2800	1305	1.99	1772	1381	2.26	2003	1450	2.52	2235	1514	2.78	2467	—	—	—
2900	1346	2.20	1951	1420	2.47	2191	1488	2.74	2431	—	—	—	—	—	—
3000	1387	2.41	2142	1459	2.69	2391	—	—	—	—	—	—	—	—	—

549B072 (6 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1304	1.51	1337	1365	1.69	1503	1422	1.88	1674	1477	2.08	1848	1528	2.28	2025
1900	1335	1.64	1454	1395	1.83	1627	1452	2.03	1804	1506	2.23	1984	1557	2.44	2168
2000	1366	1.78	1580	1426	1.98	1760	1482	2.19	1943	1535	2.40	2130	1586	2.61	2319
2100	1398	1.93	1715	1457	2.14	1901	1512	2.35	2091	1565	2.57	2284	1616	2.79	2481
2200	1430	2.09	1858	1488	2.31	2052	1543	2.53	2249	1596	2.76	2449	—	—	—
2300	1462	2.27	2012	1520	2.49	2212	1574	2.72	2416	—	—	—	—	—	—
2400	1495	2.45	2175	1552	2.68	2383	—	—	—	—	—	—	—	—	—
2500	1529	2.64	2349	1585	2.89	2564	—	—	—	—	—	—	—	—	—
2600	1562	2.85	2533	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B090 (7½ TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.53	492	591	0.73	680	660	0.95	885	722	1.19	1106	779	1.44	1342
2300	519	0.56	518	597	0.76	709	666	0.98	916	727	1.22	1140	784	1.48	1378
2400	534	0.61	571	611	0.82	768	678	1.05	982	739	1.30	1210	795	1.56	1453
2500	550	0.67	629	624	0.89	832	690	1.13	1051	750	1.38	1285	805	1.64	1533
2550	558	0.71	660	631	0.93	866	697	1.17	1088	756	1.42	1324	811	1.69	1574
2600	565	0.74	691	638	0.97	901	703	1.21	1125	762	1.46	1365	816	1.73	1617
2700	581	0.81	758	652	1.04	974	716	1.29	1204	774	1.55	1449	828	1.83	1707
2800	597	0.89	829	667	1.13	1051	729	1.38	1287	786	1.65	1538	839	1.93	1801
2900	613	0.97	905	681	1.22	1133	742	1.48	1376	799	1.75	1632	851	2.04	1900
3000	630	1.06	985	696	1.31	1220	756	1.58	1469	811	1.86	1731	863	2.15	2004
3100	646	1.15	1071	711	1.41	1313	770	1.68	1568	824	1.97	1835	875	2.27	2114
3200	663	1.25	1162	726	1.51	1411	784	1.79	1672	837	2.09	1944	888	2.39	2229
3300	679	1.35	1259	741	1.62	1514	798	1.91	1781	851	2.21	2060	900	2.52	2351
3400	696	1.46	1361	756	1.74	1623	812	2.03	1896	864	2.34	2181	913	2.66	2478
3500	713	1.58	1469	772	1.86	1737	827	2.16	2017	878	2.48	2308	926	2.80	2610
3600	729	1.70	1583	787	1.99	1857	841	2.30	2144	892	2.62	2441	—	—	—
3700	746	1.83	1703	803	2.13	1985	856	2.44	2277	906	2.77	2580	—	—	—
3750	755	1.89	1766	811	2.20	2051	864	2.52	2346	913	2.84	2653	—	—	—

549B090 (7½ TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	832	1.71	1592	882	1.99	1855	928	2.29	2131	973	2.59	2420	—	—	—
2300	837	1.75	1630	886	2.03	1896	933	2.33	2174	977	2.64	2463	—	—	—
2400	847	1.83	1710	896	2.12	1980	942	2.43	2262	986	2.74	2556	—	—	—
2500	857	1.92	1794	905	2.22	2069	951	2.52	2355	995	2.84	2653	—	—	—
2550	862	1.97	1838	910	2.27	2114	956	2.58	2403	999	2.90	2704	—	—	—
2600	867	2.02	1884	915	2.32	2162	961	2.63	2453	—	—	—	—	—	—
2700	878	2.12	1978	926	2.42	2261	971	2.74	2556	—	—	—	—	—	—
2800	889	2.23	2077	936	2.54	2365	981	2.86	2664	—	—	—	—	—	—
2900	900	2.34	2181	947	2.65	2474	—	—	—	—	—	—	—	—	—
3000	912	2.46	2290	958	2.78	2588	—	—	—	—	—	—	—	—	—
3100	923	2.58	2406	969	2.90	2708	—	—	—	—	—	—	—	—	—
3200	935	2.71	2526	—	—	—	—	—	—	—	—	—	—	—	—
3300	947	2.84	2652	—	—	—	—	—	—	—	—	—	—	—	—
3400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

549B, 549C

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 730 to 950 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B090 (7½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.53	492	591	0.73	680	660	0.95	885	722	1.19	1106	779	1.44	1342
2300	519	0.56	518	597	0.76	709	666	0.98	916	727	1.22	1140	784	1.48	1378
2400	534	0.61	571	611	0.82	768	678	1.05	982	739	1.30	1210	795	1.56	1453
2500	550	0.67	629	624	0.89	832	690	1.13	1051	750	1.38	1285	805	1.64	1533
2550	558	0.71	660	631	0.93	866	697	1.17	1088	756	1.42	1324	811	1.69	1574
2600	565	0.74	691	638	0.97	901	703	1.21	1125	762	1.46	1365	816	1.73	1617
2700	581	0.81	758	652	1.04	974	716	1.29	1204	774	1.55	1449	828	1.83	1707
2800	597	0.89	829	667	1.13	1051	729	1.38	1287	786	1.65	1538	839	1.93	1801
2900	613	0.97	905	681	1.22	1133	742	1.48	1376	799	1.75	1632	851	2.04	1900
3000	630	1.06	985	696	1.31	1220	756	1.58	1469	811	1.86	1731	863	2.15	2004
3100	646	1.15	1071	711	1.41	1313	770	1.68	1568	824	1.97	1835	875	2.27	2114
3200	663	1.25	1162	726	1.51	1411	784	1.79	1672	837	2.09	1944	888	2.39	2229
3300	679	1.35	1259	741	1.62	1514	798	1.91	1781	851	2.21	2060	900	2.52	2351
3400	696	1.46	1361	756	1.74	1623	812	2.03	1896	864	2.34	2181	913	2.66	2478
3500	713	1.58	1469	772	1.86	1737	827	2.16	2017	878	2.48	2308	926	2.80	2610
3600	729	1.70	1583	787	1.99	1857	841	2.30	2144	892	2.62	2441	939	2.95	2749
3700	746	1.83	1703	803	2.13	1985	856	2.44	2277	906	2.77	2580	953	3.10	2894
3750	755	1.89	1766	811	2.20	2051	864	2.52	2346	913	2.84	2653	959	3.18	2969

549B090 (7½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	832	1.71	1592	882	1.99	1855	928	2.29	2131	973	2.59	2420	1015	2.92	2720
2300	837	1.75	1630	886	2.03	1896	933	2.33	2174	977	2.64	2463	1020	2.97	2766
2400	847	1.83	1710	896	2.12	1980	942	2.43	2262	986	2.74	2556	1028	3.07	2861
2500	857	1.92	1794	905	2.22	2069	951	2.52	2355	995	2.84	2653	1037	3.18	2962
2550	862	1.97	1838	910	2.27	2114	956	2.58	2403	999	2.90	2704	1041	3.23	3014
2600	867	2.02	1884	915	2.32	2162	961	2.63	2453	1004	2.95	2755	1045	3.29	3068
2700	878	2.12	1978	926	2.42	2261	971	2.74	2556	1013	3.07	2862	1055	3.41	3180
2800	889	2.23	2077	936	2.54	2365	981	2.86	2664	1023	3.19	2975	1064	3.54	3297
2900	900	2.34	2181	947	2.65	2474	991	2.98	2778	1033	3.32	3094	1073	3.67	3419
3000	912	2.46	2290	958	2.78	2588	1001	3.11	2897	1043	3.45	3217	1083	3.80	3547
3100	923	2.58	2406	969	2.90	2708	1012	3.24	3022	1053	3.59	3347	1093	3.95	3682
3200	935	2.71	2526	980	3.04	2834	1023	3.38	3152	1064	3.73	3482	1103	4.10	3821
3300	947	2.84	2652	992	3.18	2966	1034	3.53	3289	1075	3.89	3623	—	—	—
3400	959	2.99	2785	1003	3.33	3103	1045	3.68	3432	1086	4.04	3771	—	—	—
3500	972	3.13	2923	1015	3.48	3246	1057	3.84	3581	—	—	—	—	—	—
3600	984	3.29	3068	1027	3.64	3396	1068	4.01	3736	—	—	—	—	—	—
3700	997	3.45	3218	1040	3.81	3553	1080	4.18	3897	—	—	—	—	—	—
3750	1004	3.54	3296	1046	3.90	3633	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B102 (8½ TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2500	489	0.41	386	564	0.54	506	629	0.67	625	688	0.80	745	741	0.93	866
2600	502	0.45	424	576	0.59	548	640	0.72	672	697	0.85	797	750	0.99	923
2700	515	0.50	465	587	0.64	594	650	0.77	723	707	0.91	852	760	1.05	982
2800	529	0.55	508	599	0.69	642	661	0.83	776	718	0.98	910	769	1.12	1044
2900	542	0.59	555	611	0.74	693	672	0.89	832	728	1.04	970	779	1.19	1109
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384

549B102 (8½ TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
2500	791	1.06	988	837	1.19	1112	881	1.33	1236	922	1.46	1362	962	1.60	1490
2600	799	1.12	1049	845	1.26	1177	889	1.40	1306	930	1.54	1436	969	1.68	1568
2700	808	1.19	1113	854	1.34	1245	897	1.48	1378	938	1.62	1513	977	1.77	1648
2800	817	1.26	1179	863	1.41	1316	905	1.56	1454	946	1.71	1592	985	1.86	1732
2900	827	1.34	1249	872	1.49	1390	914	1.64	1532	954	1.80	1675	993	1.95	1819
3000	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	—	—	—
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	—	—	—
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	—	—	—	—	—	—
4100	951	2.52	2351	991	2.73	2547	—	—	—	—	—	—	—	—	—
4200	962	2.65	2468	1002	2.86	2668	—	—	—	—	—	—	—	—	—
4300	973	2.78	2589	—	—	—	—	—	—	—	—	—	—	—	—

549B, 549C

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.90.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 840 to 1085 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B102 (8½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2500	489	0.41	386	564	0.54	506	629	0.67	625	688	0.80	745	741	0.93	866
2600	502	0.45	424	576	0.59	548	640	0.72	672	697	0.85	797	750	0.99	923
2700	515	0.50	465	587	0.64	594	650	0.77	723	707	0.91	852	760	1.05	982
2800	529	0.55	508	599	0.69	642	661	0.83	776	718	0.98	910	769	1.12	1044
2900	542	0.59	555	611	0.74	693	672	0.89	832	728	1.04	970	779	1.19	1109
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384

549B102 (8½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
2500	791	1.06	988	837	1.19	1112	881	1.33	1236	922	1.46	1362	962	1.60	1490
2600	799	1.12	1049	845	1.26	1177	889	1.40	1306	930	1.54	1436	969	1.68	1568
2700	808	1.19	1113	854	1.34	1245	897	1.48	1378	938	1.62	1513	977	1.77	1648
2800	817	1.26	1179	863	1.41	1316	905	1.56	1454	946	1.71	1592	985	1.86	1732
2900	827	1.34	1249	872	1.49	1390	914	1.64	1532	954	1.80	1675	993	1.95	1819
3000	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	1073	2.95	2755
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	1082	3.09	2877
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	1056	3.02	2812	1092	3.22	3004
4100	951	2.52	2351	991	2.73	2547	1029	2.94	2743	1066	3.15	2939	1102	3.36	3136
4200	962	2.65	2468	1002	2.86	2668	1040	3.08	2869	1076	3.29	3070	1112	3.51	3271
4300	973	2.78	2589	1013	3.00	2794	1050	3.22	2999	1087	3.44	3205	1122	3.66	3411

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B120 (10 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384
4400	755	1.78	1660	807	2.01	1873	856	2.23	2084	901	2.46	2295	944	2.69	2505
4500	770	1.89	1766	821	2.13	1984	869	2.36	2200	914	2.59	2415	956	2.82	2630
4600	785	2.01	1876	835	2.25	2099	882	2.49	2320	926	2.72	2541	968	2.96	2760
4700	800	2.14	1991	849	2.38	2219	895	2.62	2445	939	2.86	2670	980	3.10	2895
4800	815	2.26	2111	863	2.51	2344	909	2.76	2575	952	3.01	2805	993	3.25	3034
4900	829	2.40	2235	877	2.65	2473	922	2.91	2709	965	3.16	2944	1005	3.41	3178
5000	844	2.54	2365	891	2.80	2608	936	3.06	2849	978	3.31	3089	1018	3.57	3328

549B120 (10 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	1073	2.95	2755
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	1082	3.09	2877
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	1056	3.02	2812	1092	3.22	3004
4100	951	2.52	2351	991	2.73	2547	1029	2.94	2743	1066	3.15	2939	1102	3.36	3136
4200	962	2.65	2468	1002	2.86	2668	1040	3.08	2869	1076	3.29	3070	1112	3.51	3271
4300	973	2.78	2589	1013	3.00	2794	1050	3.22	2999	1087	3.44	3205	1122	3.66	3411
4400	985	2.91	2715	1024	3.14	2924	1061	3.36	3134	1097	3.59	3345	—	—	—
4500	996	3.05	2845	1035	3.28	3059	1072	3.51	3274	—	—	—	—	—	—
4600	1008	3.20	2979	1046	3.43	3199	1083	3.67	3418	—	—	—	—	—	—
4700	1020	3.34	3119	1058	3.58	3343	—	—	—	—	—	—	—	—	—
4800	1032	3.50	3263	—	—	—	—	—	—	—	—	—	—	—	—
4900	1044	3.66	3413	—	—	—	—	—	—	—	—	—	—	—	—
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

549B, 549C

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 3.70.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B120 (10 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	556	0.65	604	623	0.80	748	684	0.95	891	738	1.11	1034	789	1.26	1177
3100	569	0.70	656	636	0.86	805	695	1.02	953	749	1.18	1100	799	1.34	1249
3200	583	0.76	712	648	0.93	865	707	1.09	1018	760	1.26	1170	809	1.42	1323
3300	597	0.83	770	661	1.00	929	718	1.17	1086	771	1.33	1244	820	1.50	1401
3400	611	0.89	832	674	1.07	996	730	1.24	1158	782	1.42	1320	831	1.59	1483
3500	625	0.96	898	687	1.14	1066	742	1.32	1233	794	1.50	1400	841	1.68	1567
3600	639	1.04	967	700	1.22	1140	754	1.41	1312	805	1.59	1484	852	1.78	1656
3700	654	1.11	1040	713	1.31	1218	767	1.50	1395	817	1.69	1571	863	1.87	1748
3800	668	1.20	1116	726	1.39	1299	779	1.59	1481	828	1.78	1662	874	1.98	1844
3900	683	1.28	1197	739	1.48	1385	792	1.69	1572	840	1.88	1758	886	2.08	1943
4000	697	1.37	1281	753	1.58	1474	804	1.79	1666	852	1.99	1857	897	2.20	2048
4100	712	1.47	1370	766	1.68	1567	817	1.89	1764	864	2.10	1960	909	2.31	2155
4200	726	1.57	1462	780	1.79	1665	830	2.00	1866	876	2.22	2067	920	2.43	2268
4300	741	1.67	1559	794	1.89	1767	843	2.12	1973	889	2.34	2179	932	2.56	2384
4400	755	1.78	1660	807	2.01	1873	856	2.23	2084	901	2.46	2295	944	2.69	2505
4500	770	1.89	1766	821	2.13	1984	869	2.36	2200	914	2.59	2415	956	2.82	2630
4600	785	2.01	1876	835	2.25	2099	882	2.49	2320	926	2.72	2541	968	2.96	2760
4700	800	2.14	1991	849	2.38	2219	895	2.62	2445	939	2.86	2670	980	3.10	2895
4800	815	2.26	2111	863	2.51	2344	909	2.76	2575	952	3.01	2805	993	3.25	3034
4900	829	2.40	2235	877	2.65	2473	922	2.91	2709	965	3.16	2944	1005	3.41	3178
5000	844	2.54	2365	891	2.80	2608	936	3.06	2849	978	3.31	3089	1018	3.57	3328

549B120 (10 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	836	1.42	1322	881	1.57	1467	923	1.73	1613	963	1.89	1761	1001	2.05	1909
3100	846	1.50	1398	890	1.66	1547	932	1.82	1698	972	1.98	1849	1010	2.15	2002
3200	856	1.58	1477	899	1.75	1631	941	1.92	1786	980	2.08	1942	1018	2.25	2099
3300	866	1.67	1559	909	1.84	1718	950	2.01	1878	989	2.19	2038	1027	2.36	2199
3400	876	1.76	1645	919	1.94	1808	960	2.12	1972	998	2.29	2137	1036	2.47	2303
3500	886	1.86	1734	929	2.04	1902	969	2.22	2071	1008	2.40	2240	1045	2.58	2410
3600	897	1.96	1827	939	2.14	2000	979	2.33	2173	1017	2.52	2347	1054	2.70	2521
3700	907	2.06	1924	949	2.25	2101	989	2.44	2279	1027	2.63	2457	1063	2.83	2636
3800	918	2.17	2025	959	2.37	2207	999	2.56	2389	1036	2.76	2571	1073	2.95	2755
3900	929	2.28	2130	970	2.48	2316	1009	2.68	2502	1046	2.88	2690	1082	3.09	2877
4000	940	2.40	2238	980	2.61	2429	1019	2.81	2620	1056	3.02	2812	1092	3.22	3004
4100	951	2.52	2351	991	2.73	2547	1029	2.94	2743	1066	3.15	2939	1102	3.36	3136
4200	962	2.65	2468	1002	2.86	2668	1040	3.08	2869	1076	3.29	3070	1112	3.51	3271
4300	973	2.78	2589	1013	3.00	2794	1050	3.22	2999	1087	3.44	3205	1122	3.66	3411
4400	985	2.91	2715	1024	3.14	2924	1061	3.36	3134	1097	3.59	3345	1132	3.81	3555
4500	996	3.05	2845	1035	3.28	3059	1072	3.51	3274	1108	3.74	3489	1142	3.97	3704
4600	1008	3.20	2979	1046	3.43	3199	1083	3.67	3418	1118	3.90	3638	1152	4.14	3857
4700	1020	3.34	3119	1058	3.58	3343	1094	3.83	3567	1129	4.07	3792	1163	4.31	4016
4800	1032	3.50	3263	1069	3.74	3492	1105	3.99	3721	1140	4.24	3950	1174	4.48	4179
4900	1044	3.66	3413	1081	3.91	3646	1117	4.16	3880	1151	4.41	4113	1184	4.66	4347
5000	1056	3.82	3566	1093	4.08	3805	1128	4.34	4044	1162	4.59	4282	1195	4.85	4520

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 5.25.
- See below for General Fan Performance Notes.

*Motor drive range: 922 to 1219 rpm. All other rpms require field-supplied drive.

GENERAL NOTES FOR FAN PERFORMANCE TABLES

- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using the 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 Indoor-Fan Motor Performance table on page 115.
- Values include losses for filters, unit casing, and wet coils. See page 116 for accessory/FIOP static pressure information.
- Use of a field-supplied motor may affect wire sizing. Contact your Bryant representative for details.
- Interpolation is permissible. Do not extrapolate.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS

549C024 (2 TONS) STANDARD MOTOR (BELT DRIVE)*												
Airflow (Cfm)	External Static Pressure (in. wg)											
	0.1		0.2		0.4		0.6		0.8		1.0	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
600	490	0.08	521	0.08	597	0.14	703	0.21	788	0.29	868	0.37
700	519	0.09	557	0.09	623	0.16	729	0.24	816	0.32	892	0.41
800	537	0.1	582	0.12	650	0.19	751	0.27	845	0.37	927	0.47
900	560	0.13	610	0.14	681	0.22	783	0.32	870	0.42	947	0.53
1000	589	0.15	640	0.16	707	0.26	808	0.36	894	0.47	971	0.58

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 0.58.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 639 to 936 rpm. All other rpms require field-supplied drive.

549B036 AND 549C036 (3 TONS) STANDARD MOTOR (BELT DRIVE)*																
Airflow (Cfm)	External Static Pressure (in. wg)															
	0.2			0.4			0.6			0.8			1.0			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
900	554	0.14	134	681	0.22	222	783	0.32	316	870	0.42	416	947	0.53	523	
1000	583	0.16	163	707	0.26	257	808	0.36	358	894	0.47	465	971	0.58	578	
1100	612	0.20	195	735	0.30	298	834	0.41	406	919	0.52	519	995	0.64	638	
1200	643	0.23	233	762	0.35	344	860	0.46	459	944	0.58	579	1020	0.71	705	
1300	674	0.28	276	791	0.40	395	887	0.52	517	970	0.65	645	1045	0.78	777	
1400	706	0.33	324	820	0.45	451	914	0.59	582	997	0.72	717	1071	0.86	857	
1500	738	0.38	379	849	0.52	515	942	0.66	653	1024	0.80	796	1097	0.95	942	

549B036 AND 549C036 (3 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)

Airflow (Cfm)	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
900	1017	0.64	635	1082	0.76	753	1143	0.88	876	1200	1.01	1004	1254	1.14	1136
1000	1041	0.70	696	1105	0.82	820	1166	0.95	948	1223	1.09	1081	—	—	—
1100	1065	0.77	763	1129	0.90	892	1189	1.03	1026	1245	1.17	1165	—	—	—
1200	1089	0.84	835	1153	0.98	971	1212	1.12	1111	—	—	—	—	—	—
1300	1114	0.92	915	1177	1.06	1056	—	—	—	—	—	—	—	—	—
1400	1139	1.01	1000	1202	1.15	1149	—	—	—	—	—	—	—	—	—
1500	1164	1.10	1093	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 1.20.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 680 to 1044 rpm. All other rpms require field-supplied drive.

549B036 AND 549C036 (3 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*																
Airflow (Cfm)	External Static Pressure (in. wg)															
	0.2			0.4			0.6			0.8			1.0			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
900	554	0.14	134	681	0.22	222	783	0.32	316	870	0.42	416	947	0.53	523	
1000	583	0.16	163	707	0.26	257	808	0.36	358	894	0.47	465	971	0.58	578	
1100	612	0.20	195	735	0.30	298	834	0.41	406	919	0.52	519	995	0.64	638	
1200	643	0.23	233	762	0.35	344	860	0.46	459	944	0.58	579	1020	0.71	705	
1300	674	0.28	276	791	0.40	395	887	0.52	517	970	0.65	645	1045	0.78	777	
1400	706	0.33	324	820	0.45	451	914	0.59	582	997	0.72	717	1071	0.86	857	
1500	738	0.38	379	849	0.52	515	942	0.66	653	1024	0.80	796	1097	0.95	942	

549B036 AND 549C036 (3 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)

Airflow (Cfm)	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
900	1017	0.64	635	1082	0.76	753	1143	0.88	876	1200	1.01	1004	1254	1.14	1136
1000	1041	0.70	696	1105	0.82	820	1166	0.95	948	1223	1.09	1081	1276	1.23	1219
1100	1065	0.77	763	1129	0.90	892	1189	1.03	1026	1245	1.17	1165	1299	1.32	1308
1200	1089	0.84	835	1153	0.98	971	1212	1.12	1111	1269	1.26	1256	1322	1.41	1404
1300	1114	0.92	915	1177	1.06	1056	1236	1.21	1202	1292	1.36	1353	1346	1.52	1508
1400	1139	1.01	1000	1202	1.15	1149	1261	1.31	1301	1316	1.47	1457	1369	1.63	1618
1500	1164	1.10	1093	1227	1.25	1248	1285	1.41	1407	1341	1.58	1570	1394	1.75	1736

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 1075 to 1455 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B048 AND 549C048 (4 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	643	0.23	233	762	0.35	344	860	0.46	459	944	0.58	579	1020	0.71	705
1300	674	0.28	276	791	0.40	395	887	0.52	517	970	0.65	645	1045	0.78	777
1400	706	0.33	324	820	0.45	451	914	0.59	582	997	0.72	717	1071	0.86	857
1500	738	0.38	379	849	0.52	515	942	0.66	653	1024	0.80	796	1097	0.95	942
1600	771	0.44	440	879	0.59	584	971	0.74	731	1051	0.89	881	1124	1.04	1035
1700	804	0.51	507	910	0.66	661	1000	0.82	816	1079	0.98	974	1151	1.14	1136
1800	837	0.59	582	941	0.75	745	1029	0.91	909	1107	1.08	1075	—	—	—
1900	871	0.67	665	972	0.84	837	1059	1.02	1010	1136	1.19	1184	—	—	—
2000	906	0.76	756	1004	0.94	938	1089	1.12	1119	—	—	—	—	—	—

549B048 AND 549C048 (4 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1089	0.84	835	1153	0.98	971	1212	1.12	1111	—	—	—	—	—	—
1300	1114	0.92	915	1177	1.06	1056	—	—	—	—	—	—	—	—	—
1400	1139	1.01	1000	1202	1.15	1149	—	—	—	—	—	—	—	—	—
1500	1164	1.10	1093	—	—	—	—	—	—	—	—	—	—	—	—
1600	1190	1.20	1193	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.20.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 770 to 1185 rpm. All other rpms require field-supplied drive.

549B048 AND 549C048 (4 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	643	0.23	233	762	0.35	344	860	0.46	459	944	0.58	579	1020	0.71	705
1300	674	0.28	276	791	0.40	395	887	0.52	517	970	0.65	645	1045	0.78	777
1400	706	0.33	324	820	0.45	451	914	0.59	582	997	0.72	717	1071	0.86	857
1500	738	0.38	379	849	0.52	515	942	0.66	653	1024	0.80	796	1097	0.95	942
1600	771	0.44	440	879	0.59	584	971	0.74	731	1051	0.89	881	1124	1.04	1035
1700	804	0.51	507	910	0.66	661	1000	0.82	816	1079	0.98	974	1151	1.14	1136
1800	837	0.59	582	941	0.75	745	1029	0.91	909	1107	1.08	1075	1178	1.25	1244
1900	871	0.67	665	972	0.84	837	1059	1.02	1010	1136	1.19	1184	1206	1.37	1361
2000	906	0.76	756	1004	0.94	938	1089	1.12	1119	1165	1.31	1301	1234	1.49	1486

549B048 AND 549C048 (4 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1200	1089	0.84	835	1153	0.98	971	1212	1.12	1111	1269	1.26	1256	1322	1.41	1404
1300	1114	0.92	915	1177	1.06	1056	1236	1.21	1202	1292	1.36	1353	1346	1.52	1508
1400	1139	1.01	1000	1202	1.15	1149	1261	1.31	1301	1316	1.47	1457	1369	1.63	1618
1500	1164	1.10	1093	1227	1.25	1248	1285	1.41	1407	1341	1.58	1570	1394	1.75	1736
1600	1190	1.20	1193	1252	1.36	1355	1311	1.53	1520	1366	1.70	1690	1418	1.87	1863
1700	1217	1.31	1301	1278	1.48	1470	1336	1.65	1642	1391	1.83	1818	1443	2.01	1998
1800	1244	1.42	1417	1305	1.60	1593	1362	1.78	1772	1416	1.97	1955	1468	2.15	2141
1900	1271	1.55	1541	1331	1.73	1724	1388	1.92	1911	1442	2.11	2101	1494	2.31	2294
2000	1298	1.68	1674	1358	1.87	1865	1415	2.07	2059	1468	2.27	2256	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1075 to 1455 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — SINGLE-PHASE UNITS															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	724	0.33	295	837	0.45	402	937	0.59	524	1028	0.74	660	1111	0.91	808
1600	757	0.39	343	866	0.51	455	962	0.65	580	1050	0.81	719	1132	0.98	870
1700	790	0.45	398	894	0.58	514	988	0.72	643	1074	0.88	784	1154	1.06	938
1800	823	0.52	458	924	0.65	579	1015	0.80	712	1099	0.96	857	1177	1.14	1013
1900	857	0.59	525	955	0.73	650	1043	0.89	787	1125	1.05	936	1201	1.23	1096
2000	892	0.67	599	986	0.82	729	1072	0.98	870	1151	1.15	1022	—	—	—
2100	927	0.77	680	1017	0.92	815	1101	1.08	960	1178	1.26	1116	—	—	—
2200	962	0.87	769	1050	1.02	909	1131	1.19	1059	—	—	—	—	—	—
2300	997	0.97	865	1082	1.14	1010	—	—	—	—	—	—	—	—	—
2400	1033	1.09	970	1115	1.26	1120	—	—	—	—	—	—	—	—	—
2500	1069	1.22	1084	—	—	—	—	—	—	—	—	—	—	—	—

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — SINGLE-PHASE UNITS (cont)															
Airflow (Cfm)	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
1500	1188	1.09	970	1261	1.29	1143	—	—	—	—	—	—	—	—	—
1600	1208	1.16	1033	—	—	—	—	—	—	—	—	—	—	—	—
1700	1229	1.24	1103	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 1.30.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

549B, 549C

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — THREE-PHASE UNITS															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	724	0.33	295	837	0.45	402	937	0.59	524	1028	0.74	660	1111	0.91	808
1600	757	0.39	343	866	0.51	455	962	0.65	580	1050	0.81	719	1132	0.98	870
1700	790	0.45	398	894	0.58	514	988	0.72	643	1074	0.88	784	1154	1.06	938
1800	823	0.52	458	924	0.65	579	1015	0.80	712	1099	0.96	857	1177	1.14	1013
1900	857	0.59	525	955	0.73	650	1043	0.89	787	1125	1.05	936	1201	1.23	1096
2000	892	0.67	599	986	0.82	729	1072	0.98	870	1151	1.15	1022	1226	1.33	1185
2100	927	0.77	680	1017	0.92	815	1101	1.08	960	1178	1.26	1116	1251	1.44	1283
2200	962	0.87	769	1050	1.02	909	1131	1.19	1059	1206	1.37	1218	1277	1.56	1389
2300	997	0.97	865	1082	1.14	1010	1161	1.31	1165	1235	1.50	1329	1304	1.69	1503
2400	1033	1.09	970	1115	1.26	1120	1192	1.44	1279	1264	1.63	1448	1332	1.83	1625
2500	1069	1.22	1084	1149	1.39	1239	1223	1.58	1403	1293	1.77	1576	1360	1.98	1757

549B060 AND 549C060 (5 TONS) STANDARD MOTOR (BELT DRIVE)* — THREE-PHASE UNITS (cont)															
Airflow (Cfm)	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
1500	1188	1.09	970	1261	1.29	1143	1330	1.49	1327	1395	1.71	1523	1457	1.95	1729
1600	1208	1.16	1033	1279	1.36	1208	1347	1.57	1394	1412	1.79	1590	1474	2.02	1797
1700	1229	1.24	1103	1299	1.44	1280	1366	1.65	1468	1429	1.88	1665	1490	2.11	1873
1800	1250	1.33	1181	1319	1.53	1360	1385	1.74	1549	1448	1.97	1748	1508	2.20	1957
1900	1273	1.43	1266	1341	1.63	1447	1405	1.84	1638	1467	2.07	1839	1527	2.31	2050
2000	1296	1.53	1359	1363	1.74	1542	1427	1.95	1736	1488	2.18	1939	—	—	—
2100	1320	1.64	1459	1386	1.85	1646	1448	2.07	1842	1508	2.30	2047	—	—	—
2200	1345	1.77	1568	1409	1.98	1758	1471	2.20	1956	—	—	—	—	—	—
2300	1371	1.90	1686	1434	2.11	1878	1494	2.34	2080	—	—	—	—	—	—
2400	1397	2.04	1812	1459	2.26	2008	—	—	—	—	—	—	—	—	—
2500	1424	2.19	1948	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B060 AND 549C060 (5 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	724	0.33	295	837	0.45	402	937	0.59	524	1028	0.74	660	1111	0.91	808
1600	757	0.39	343	866	0.51	455	962	0.65	580	1050	0.81	719	1132	0.98	870
1700	790	0.45	398	894	0.58	514	988	0.72	643	1074	0.88	784	1154	1.06	938
1800	823	0.52	458	924	0.65	579	1015	0.80	712	1099	0.96	857	1177	1.14	1013
1900	857	0.59	525	955	0.73	650	1043	0.89	787	1125	1.05	936	1201	1.23	1096
2000	892	0.67	599	986	0.82	729	1072	0.98	870	1151	1.15	1022	1226	1.33	1185
2100	927	0.77	680	1017	0.92	815	1101	1.08	960	1178	1.26	1116	1251	1.44	1283
2200	962	0.87	769	1050	1.02	909	1131	1.19	1059	1206	1.37	1218	1277	1.56	1389
2300	997	0.97	865	1082	1.14	1010	1161	1.31	1165	1235	1.50	1329	1304	1.69	1503
2400	1033	1.09	970	1115	1.26	1120	1192	1.44	1279	1264	1.63	1448	1332	1.83	1625
2500	1069	1.22	1084	1149	1.39	1239	1223	1.58	1403	1293	1.77	1576	1360	1.98	1757

549B060 AND 549C060 (5 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1500	1188	1.09	970	1261	1.29	1143	1330	1.49	1327	1395	1.71	1523	1457	1.95	1729
1600	1208	1.16	1033	1279	1.36	1208	1347	1.57	1394	1412	1.79	1590	1474	2.02	1797
1700	1229	1.24	1103	1299	1.44	1280	1366	1.65	1468	1429	1.88	1665	1490	2.11	1873
1800	1250	1.33	1181	1319	1.53	1360	1385	1.74	1549	1448	1.97	1748	1508	2.20	1957
1900	1273	1.43	1266	1341	1.63	1447	1405	1.84	1638	1467	2.07	1839	1527	2.31	2050
2000	1296	1.53	1359	1363	1.74	1542	1427	1.95	1736	1488	2.18	1939	1546	2.42	2151
2100	1320	1.64	1459	1386	1.85	1646	1448	2.07	1842	1508	2.30	2047	1566	2.55	2262
2200	1345	1.77	1568	1409	1.98	1758	1471	2.20	1956	1530	2.44	2164	1587	2.68	2380
2300	1371	1.90	1686	1434	2.11	1878	1494	2.34	2080	1553	2.58	2290	1609	2.83	2509
2400	1397	2.04	1812	1459	2.26	2008	1518	2.49	2213	1576	2.73	2425	—	—	—
2500	1424	2.19	1948	1484	2.42	2147	1543	2.65	2355	1599	2.89	2571	—	—	—

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.90.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

549B072 (6 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	822	0.51	455	927	0.66	589	1018	0.82	728	1100	0.98	873	1174	1.15	1024
1900	855	0.59	520	957	0.74	659	1046	0.91	805	1127	1.08	956	1200	1.25	1113
2000	889	0.66	591	988	0.83	737	1075	1.00	888	1154	1.18	1045	1226	1.36	1208
2100	923	0.75	668	1019	0.92	821	1104	1.10	979	1182	1.29	1142	1253	1.48	1310
2200	957	0.85	753	1051	1.03	912	1134	1.21	1077	1210	1.40	1245	1280	1.60	1419
2300	992	0.95	845	1083	1.14	1011	1164	1.33	1182	1239	1.53	1357	1308	1.73	1537
2400	1026	1.06	945	1115	1.26	1118	1195	1.46	1295	1268	1.66	1476	1336	1.87	1662
2500	1061	1.19	1053	1148	1.39	1233	1226	1.59	1416	1297	1.81	1604	1364	2.02	1796
2600	1097	1.32	1169	1181	1.53	1356	1257	1.74	1546	1327	1.96	1740	1393	2.18	1938
2700	1132	1.46	1294	1214	1.67	1487	1289	1.90	1684	1358	2.12	1885	1422	2.35	2089
2800	1168	1.61	1428	1247	1.83	1629	1320	2.06	1832	1388	2.30	2039	—	—	—
2900	1204	1.77	1572	1281	2.00	1779	1353	2.24	1989	—	—	—	—	—	—
3000	1240	1.94	1725	1315	2.18	1939	—	—	—	—	—	—	—	—	—

549B072 (6 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1244	1.33	1182	1308	1.51	1345	1369	1.70	1513	1427	1.90	1687	1483	2.10	1867
1900	1268	1.44	1275	1332	1.63	1443	1393	1.82	1617	1450	2.02	1796	1505	2.23	1979
2000	1294	1.55	1376	1357	1.74	1549	1417	1.95	1727	1474	2.15	1911	1528	2.36	2100
2100	1320	1.67	1483	1382	1.87	1662	1441	2.08	1845	1498	2.29	2034	—	—	—
2200	1346	1.80	1598	1408	2.01	1782	1466	2.22	1971	—	—	—	—	—	—
2300	1372	1.94	1721	1434	2.15	1911	1491	2.37	2105	—	—	—	—	—	—
2400	1400	2.09	1852	1460	2.31	2047	—	—	—	—	—	—	—	—	—
2500	1427	2.24	1992	—	—	—	—	—	—	—	—	—	—	—	—
2600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- 1. Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 2.40.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 1119 to 1585 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B072 (6 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	822	0.51	455	927	0.66	589	1018	0.82	728	1100	0.98	873	1174	1.15	1024
1900	855	0.59	520	957	0.74	659	1046	0.91	805	1127	1.08	956	1200	1.25	1113
2000	889	0.66	591	988	0.83	737	1075	1.00	888	1154	1.18	1045	1226	1.36	1208
2100	923	0.75	668	1019	0.92	821	1104	1.10	979	1182	1.29	1142	1253	1.48	1310
2200	957	0.85	753	1051	1.03	912	1134	1.21	1077	1210	1.40	1245	1280	1.60	1419
2300	992	0.95	845	1083	1.14	1011	1164	1.33	1182	1239	1.53	1357	1308	1.73	1537
2400	1026	1.06	945	1115	1.26	1118	1195	1.46	1295	1268	1.66	1476	1336	1.87	1662
2500	1061	1.19	1053	1148	1.39	1233	1226	1.59	1416	1297	1.81	1604	1364	2.02	1796
2600	1097	1.32	1169	1181	1.53	1356	1257	1.74	1546	1327	1.96	1740	1393	2.18	1938
2700	1132	1.46	1294	1214	1.67	1487	1289	1.90	1684	1358	2.12	1885	1422	2.35	2089
2800	1168	1.61	1428	1247	1.83	1629	1320	2.06	1832	1388	2.30	2039	1452	2.53	2249
2900	1204	1.77	1572	1281	2.00	1779	1353	2.24	1989	1419	2.48	2202	1482	2.72	2419
3000	1240	1.94	1725	1315	2.18	1939	1385	2.43	2156	1451	2.68	2376	—	—	—

549B072 (6 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
1800	1244	1.33	1182	1308	1.51	1345	1369	1.70	1513	1427	1.90	1687	1483	2.10	1867
1900	1268	1.44	1275	1332	1.63	1443	1393	1.82	1617	1450	2.02	1796	1505	2.23	1979
2000	1294	1.55	1376	1357	1.74	1549	1417	1.95	1727	1474	2.15	1911	1528	2.36	2100
2100	1320	1.67	1483	1382	1.87	1662	1441	2.08	1845	1498	2.29	2034	1552	2.51	2227
2200	1346	1.80	1598	1408	2.01	1782	1466	2.22	1971	1522	2.44	2165	1575	2.66	2363
2300	1372	1.94	1721	1434	2.15	1911	1491	2.37	2105	1547	2.59	2304	1600	2.82	2507
2400	1400	2.09	1852	1460	2.31	2047	1517	2.53	2247	1572	2.76	2451	—	—	—
2500	1427	2.24	1992	1487	2.47	2192	1543	2.70	2398	—	—	—	—	—	—
2600	1455	2.41	2140	1514	2.64	2346	1570	2.88	2557	—	—	—	—	—	—
2700	1483	2.59	2297	1541	2.83	2509	—	—	—	—	—	—	—	—	—
2800	1512	2.77	2463	—	—	—	—	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B090 (7½ TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	465	0.43	402	555	0.64	596	629	0.86	802	694	1.10	1021	753	1.34	1252
2300	471	0.45	421	560	0.66	618	634	0.89	828	699	1.13	1050	757	1.38	1283
2400	483	0.49	461	571	0.71	665	644	0.94	881	708	1.19	1109	766	1.45	1348
2500	495	0.54	503	581	0.77	715	654	1.01	937	717	1.26	1171	775	1.52	1416
2550	501	0.56	526	587	0.79	740	659	1.04	967	722	1.29	1204	779	1.56	1452
2600	507	0.59	549	592	0.82	767	664	1.07	996	727	1.33	1237	784	1.60	1488
2700	519	0.64	597	603	0.88	823	674	1.14	1059	737	1.40	1306	793	1.68	1563
2800	532	0.70	649	614	0.95	882	684	1.21	1125	746	1.48	1378	803	1.76	1641
2900	544	0.75	703	625	1.01	944	695	1.28	1194	756	1.56	1453	812	1.85	1723
3000	557	0.82	761	637	1.08	1009	705	1.36	1266	766	1.64	1533	822	1.94	1808
3100	570	0.88	823	648	1.16	1079	716	1.44	1342	776	1.73	1615	831	2.03	1897
3200	583	0.95	888	660	1.23	1151	727	1.53	1422	787	1.82	1702	841	2.13	1991
3300	596	1.03	957	672	1.32	1228	738	1.61	1506	797	1.92	1792	851	2.24	2088
3400	609	1.10	1030	684	1.40	1308	749	1.71	1593	808	2.02	1887	861	2.35	2188
3500	622	1.19	1106	696	1.49	1392	760	1.81	1685	818	2.13	1985	872	2.46	2294
3600	635	1.27	1187	708	1.59	1481	771	1.91	1781	829	2.24	2088	882	2.58	2403
3700	649	1.36	1272	720	1.69	1573	783	2.02	1881	840	2.35	2195	892	2.70	2517
3750	655	1.41	1316	726	1.74	1621	789	2.07	1932	845	2.41	2250	897	2.76	2575

549B090 (7½ TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	806	1.60	1494	856	1.87	1747	903	2.15	2009	947	2.45	2282	988	2.75	2564
2300	811	1.64	1528	860	1.91	1784	907	2.20	2048	950	2.49	2323	992	2.80	2607
2400	819	1.71	1599	868	1.99	1859	915	2.28	2129	958	2.58	2410	1000	2.89	2698
2500	828	1.79	1672	877	2.08	1938	923	2.37	2214	966	2.68	2499	—	—	—
2550	832	1.83	1710	881	2.12	1979	927	2.42	2258	971	2.73	2545	—	—	—
2600	836	1.88	1749	885	2.17	2021	931	2.47	2302	975	2.78	2592	—	—	—
2700	845	1.96	1830	894	2.26	2107	940	2.57	2394	983	2.88	2689	—	—	—
2800	854	2.05	1914	903	2.36	2197	948	2.67	2488	—	—	—	—	—	—
2900	864	2.15	2002	912	2.46	2290	957	2.77	2587	—	—	—	—	—	—
3000	873	2.24	2093	921	2.56	2388	966	2.89	2691	—	—	—	—	—	—
3100	882	2.35	2189	930	2.67	2489	—	—	—	—	—	—	—	—	—
3200	892	2.45	2288	939	2.78	2595	—	—	—	—	—	—	—	—	—
3300	901	2.56	2391	948	2.90	2704	—	—	—	—	—	—	—	—	—
3400	911	2.68	2499	—	—	—	—	—	—	—	—	—	—	—	—
3500	921	2.80	2610	—	—	—	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 730 to 950 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B090 (7½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	465	0.43	402	555	0.64	596	629	0.86	802	694	1.10	1021	753	1.34	1252
2300	471	0.45	421	560	0.66	618	634	0.89	828	699	1.13	1050	757	1.38	1283
2400	483	0.49	461	571	0.71	665	644	0.94	881	708	1.19	1109	766	1.45	1348
2500	495	0.54	503	581	0.77	715	654	1.01	937	717	1.26	1171	775	1.52	1416
2550	501	0.56	526	587	0.79	740	659	1.04	967	722	1.29	1204	779	1.56	1452
2600	507	0.59	549	592	0.82	767	664	1.07	996	727	1.33	1237	784	1.60	1488
2700	519	0.64	597	603	0.88	823	674	1.14	1059	737	1.40	1306	793	1.68	1563
2800	532	0.70	649	614	0.95	882	684	1.21	1125	746	1.48	1378	803	1.76	1641
2900	544	0.75	703	625	1.01	944	695	1.28	1194	756	1.56	1453	812	1.85	1723
3000	557	0.82	761	637	1.08	1009	705	1.36	1266	766	1.64	1533	822	1.94	1808
3100	570	0.88	823	648	1.16	1079	716	1.44	1342	776	1.73	1615	831	2.03	1897
3200	583	0.95	888	660	1.23	1151	727	1.53	1422	787	1.82	1702	841	2.13	1991
3300	596	1.03	957	672	1.32	1228	738	1.61	1506	797	1.92	1792	851	2.24	2088
3400	609	1.10	1030	684	1.40	1308	749	1.71	1593	808	2.02	1887	861	2.35	2188
3500	622	1.19	1106	696	1.49	1392	760	1.81	1685	818	2.13	1985	872	2.46	2294
3600	635	1.27	1187	708	1.59	1481	771	1.91	1781	829	2.24	2088	882	2.58	2403
3700	649	1.36	1272	720	1.69	1573	783	2.02	1881	840	2.35	2195	892	2.70	2517
3750	655	1.41	1316	726	1.74	1621	789	2.07	1932	845	2.41	2250	897	2.76	2575

549B090 (7½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	806	1.60	1494	856	1.87	1747	903	2.15	2009	947	2.45	2282	988	2.75	2564
2300	811	1.64	1528	860	1.91	1784	907	2.20	2048	950	2.49	2323	992	2.80	2607
2400	819	1.71	1599	868	1.99	1859	915	2.28	2129	958	2.58	2410	1000	2.89	2698
2500	828	1.79	1672	877	2.08	1938	923	2.37	2214	966	2.68	2499	1008	3.00	2793
2550	832	1.83	1710	881	2.12	1979	927	2.42	2258	971	2.73	2545	1012	3.05	2842
2600	836	1.88	1749	885	2.17	2021	931	2.47	2302	975	2.78	2592	1016	3.10	2891
2700	845	1.96	1830	894	2.26	2107	940	2.57	2394	983	2.88	2689	1024	3.21	2993
2800	854	2.05	1914	903	2.36	2197	948	2.67	2488	991	2.99	2790	1032	3.32	3099
2900	864	2.15	2002	912	2.46	2290	957	2.77	2587	1000	3.10	2894	1041	3.44	3209
3000	873	2.24	2093	921	2.56	2388	966	2.89	2691	1008	3.22	3003	1049	3.56	3323
3100	882	2.35	2189	930	2.67	2489	975	3.00	2798	1017	3.34	3115	1057	3.69	3441
3200	892	2.45	2288	939	2.78	2595	984	3.12	2909	1026	3.47	3233	1066	3.82	3564
3300	901	2.56	2391	948	2.90	2704	993	3.24	3024	1035	3.60	3353	1075	3.96	3690
3400	911	2.68	2499	958	3.02	2817	1002	3.37	3144	1044	3.73	3479	1084	4.10	3821
3500	921	2.80	2610	967	3.15	2935	1011	3.50	3268	1053	3.87	3608	—	—	—
3600	931	2.92	2726	977	3.28	3057	1021	3.64	3396	1062	4.01	3743	—	—	—
3700	941	3.05	2847	987	3.41	3184	1030	3.78	3529	1071	4.16	3882	—	—	—
3750	946	3.12	2908	992	3.48	3249	1035	3.86	3597	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B102 (8½ TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2500	462	0.37	348	541	0.50	467	614	0.64	594	681	0.78	728	744	0.93	868
2600	474	0.41	381	551	0.54	505	622	0.68	635	688	0.83	773	750	0.98	916
2700	486	0.45	417	561	0.58	545	630	0.73	679	695	0.88	820	756	1.04	967
2800	498	0.49	456	571	0.63	587	639	0.78	725	702	0.93	870	762	1.09	1020
2900	510	0.53	497	581	0.68	632	648	0.83	774	710	0.99	922	768	1.15	1076
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184

549B102 (8½ TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
2500	804	1.09	1013	861	1.25	1164	915	1.41	1319	967	1.59	1479	1017	1.76	1642
2600	809	1.14	1065	864	1.31	1219	918	1.48	1378	969	1.65	1541	1018	1.83	1708
2700	813	1.20	1119	869	1.37	1277	921	1.54	1439	972	1.72	1606	1021	1.90	1776
2800	819	1.26	1176	873	1.43	1337	925	1.61	1503	975	1.79	1673	1023	1.98	1847
2900	824	1.32	1235	878	1.50	1400	929	1.68	1569	978	1.87	1742	1026	2.06	1920
3000	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	—	—	—
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	—	—	—
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	—	—	—	—	—	—
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	—	—	—	—	—	—
4200	925	2.45	2289	969	2.68	2500	—	—	—	—	—	—	—	—	—
4300	934	2.57	2395	978	2.80	2610	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.90.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 840 to 1085 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B102 (8½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2500	462	0.37	348	541	0.50	467	614	0.64	594	681	0.78	728	744	0.93	868
2600	474	0.41	381	551	0.54	505	622	0.68	635	688	0.83	773	750	0.98	916
2700	486	0.45	417	561	0.58	545	630	0.73	679	695	0.88	820	756	1.04	967
2800	498	0.49	456	571	0.63	587	639	0.78	725	702	0.93	870	762	1.09	1020
2900	510	0.53	497	581	0.68	632	648	0.83	774	710	0.99	922	768	1.15	1076
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184

549B102 (8½ TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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
2500	804	1.09	1013	861	1.25	1164	915	1.41	1319	967	1.59	1479	1017	1.76	1642
2600	809	1.14	1065	864	1.31	1219	918	1.48	1378	969	1.65	1541	1018	1.83	1708
2700	813	1.20	1119	869	1.37	1277	921	1.54	1439	972	1.72	1606	1021	1.90	1776
2800	819	1.26	1176	873	1.43	1337	925	1.61	1503	975	1.79	1673	1023	1.98	1847
2900	824	1.32	1235	878	1.50	1400	929	1.68	1569	978	1.87	1742	1026	2.06	1920
3000	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	1068	2.91	2716
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	1074	3.03	2821
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	1038	2.91	2713	1080	3.14	2930
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	1046	3.03	2822	1087	3.26	3042
4200	925	2.45	2289	969	2.68	2500	1011	2.91	2716	1053	3.15	2935	1094	3.39	3159
4300	934	2.57	2395	978	2.80	2610	1020	3.03	2828	1061	3.27	3052	1101	3.52	3279

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 3.70.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B120 (10 TONS) STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184
4400	710	1.59	1482	760	1.80	1677	808	2.01	1876	855	2.23	2081	900	2.46	2290
4500	723	1.69	1577	773	1.90	1775	820	2.12	1978	866	2.35	2187	910	2.57	2400
4600	737	1.80	1675	785	2.01	1877	832	2.24	2085	877	2.46	2297	921	2.70	2514
4700	751	1.91	1778	798	2.13	1984	844	2.35	2195	889	2.59	2412	932	2.82	2633
4800	765	2.02	1885	812	2.25	2095	856	2.48	2310	900	2.71	2531	942	2.95	2756
4900	779	2.14	1996	825	2.37	2210	869	2.61	2430	912	2.85	2654	953	3.09	2883
5000	793	2.26	2112	838	2.50	2330	881	2.74	2554	923	2.98	2782	965	3.23	3014

549B120 (10 TONS) STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	1068	2.91	2716
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	1074	3.03	2821
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	1038	2.91	2713	1080	3.14	2930
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	1046	3.03	2822	1087	3.26	3042
4200	925	2.45	2289	969	2.68	2500	1011	2.91	2716	1053	3.15	2935	1094	3.39	3159
4300	934	2.57	2395	978	2.80	2610	1020	3.03	2828	1061	3.27	3052	1101	3.52	3279
4400	944	2.69	2504	986	2.92	2723	1028	3.16	2946	1068	3.40	3173	1108	3.65	3403
4500	954	2.81	2618	996	3.05	2840	1037	3.29	3067	1076	3.54	3297	—	—	—
4600	963	2.93	2736	1005	3.18	2962	1045	3.42	3192	1085	3.67	3426	—	—	—
4700	974	3.07	2858	1014	3.31	3088	1054	3.56	3322	—	—	—	—	—	—
4800	984	3.20	2985	1024	3.45	3219	—	—	—	—	—	—	—	—	—
4900	994	3.34	3116	1034	3.60	3353	—	—	—	—	—	—	—	—	—
5000	1005	3.49	3251	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

- Boldface** indicates field-supplied drive is required.
- Maximum continuous bhp is 3.70.
- See page 103 for General Fan Performance Notes.

*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B120 (10 TONS) HIGH-STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	523	0.58	541	592	0.73	680	657	0.88	825	718	1.05	977	775	1.22	1135
3100	536	0.63	587	603	0.78	730	666	0.94	879	726	1.11	1035	783	1.28	1196
3200	549	0.68	637	614	0.84	783	676	1.00	936	735	1.17	1096	790	1.35	1260
3300	562	0.74	689	626	0.90	839	686	1.07	996	743	1.24	1159	798	1.42	1328
3400	575	0.80	744	637	0.96	898	696	1.14	1059	752	1.31	1226	806	1.50	1398
3500	588	0.86	802	649	1.03	961	707	1.21	1125	762	1.39	1296	815	1.58	1472
3600	601	0.93	864	661	1.10	1026	717	1.28	1194	771	1.47	1369	823	1.66	1548
3700	614	1.00	929	673	1.17	1095	728	1.36	1267	781	1.55	1445	832	1.75	1629
3800	628	1.07	997	685	1.25	1167	739	1.44	1343	791	1.64	1525	841	1.84	1712
3900	641	1.15	1069	697	1.33	1243	750	1.53	1423	801	1.72	1608	850	1.93	1799
4000	655	1.23	1144	709	1.42	1322	761	1.61	1506	812	1.82	1695	860	2.03	1890
4100	668	1.31	1223	722	1.51	1405	773	1.71	1593	822	1.92	1786	870	2.13	1984
4200	682	1.40	1305	734	1.60	1492	784	1.80	1683	833	2.02	1880	880	2.23	2082
4300	696	1.49	1392	747	1.70	1582	796	1.91	1777	844	2.12	1979	890	2.34	2184
4400	710	1.59	1482	760	1.80	1677	808	2.01	1876	855	2.23	2081	900	2.46	2290
4500	723	1.69	1577	773	1.90	1775	820	2.12	1978	866	2.35	2187	910	2.57	2400
4600	737	1.80	1675	785	2.01	1877	832	2.24	2085	877	2.46	2297	921	2.70	2514
4700	751	1.91	1778	798	2.13	1984	844	2.35	2195	889	2.59	2412	932	2.82	2633
4800	765	2.02	1885	812	2.25	2095	856	2.48	2310	900	2.71	2531	942	2.95	2756
4900	779	2.14	1996	825	2.37	2210	869	2.61	2430	912	2.85	2654	953	3.09	2883
5000	793	2.26	2112	838	2.50	2330	881	2.74	2554	923	2.98	2782	965	3.23	3014

549B120 (10 TONS) HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	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	830	1.39	1298	883	1.57	1466	934	1.76	1638	982	1.95	1815	1029	2.14	1996
3100	837	1.46	1363	889	1.65	1534	938	1.83	1710	986	2.03	1891	1033	2.23	2075
3200	843	1.53	1431	894	1.72	1606	944	1.91	1785	991	2.11	1969	1037	2.31	2157
3300	850	1.61	1502	901	1.80	1680	949	2.00	1863	996	2.20	2051	1041	2.40	2242
3400	858	1.69	1576	907	1.88	1758	955	2.09	1944	1001	2.29	2135	1046	2.50	2331
3500	865	1.77	1653	914	1.97	1838	961	2.18	2029	1007	2.38	2223	1051	2.60	2422
3600	873	1.86	1733	921	2.06	1922	967	2.27	2116	1012	2.48	2314	1056	2.70	2516
3700	881	1.95	1816	928	2.16	2010	974	2.37	2207	1019	2.58	2409	1062	2.80	2615
3800	889	2.04	1904	936	2.25	2100	981	2.47	2302	1025	2.69	2507	1068	2.91	2716
3900	898	2.14	1995	944	2.35	2195	988	2.57	2399	1032	2.80	2608	1074	3.03	2821
4000	907	2.24	2089	952	2.46	2293	996	2.68	2501	1038	2.91	2713	1080	3.14	2930
4100	916	2.35	2187	960	2.57	2395	1004	2.80	2607	1046	3.03	2822	1087	3.26	3042
4200	925	2.45	2289	969	2.68	2500	1011	2.91	2716	1053	3.15	2935	1094	3.39	3159
4300	934	2.57	2395	978	2.80	2610	1020	3.03	2828	1061	3.27	3052	1101	3.52	3279
4400	944	2.69	2504	986	2.92	2723	1028	3.16	2946	1068	3.40	3173	1108	3.65	3403
4500	954	2.81	2618	996	3.05	2840	1037	3.29	3067	1076	3.54	3297	1115	3.79	3531
4600	963	2.93	2736	1005	3.18	2962	1045	3.42	3192	1085	3.67	3426	1123	3.93	3664
4700	974	3.07	2858	1014	3.31	3088	1054	3.56	3322	1093	3.82	3560	1131	4.08	3801
4800	984	3.20	2985	1024	3.45	3219	1063	3.71	3456	1102	3.96	3697	1139	4.23	3943
4900	994	3.34	3116	1034	3.60	3353	1073	3.85	3594	1111	4.12	3839	1148	4.38	4088
5000	1005	3.49	3251	1044	3.74	3492	1082	4.01	3737	1119	4.27	3986	1156	4.55	4238

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 5.25.
3. See page 103 for General Fan Performance Notes.

*Motor drive range: 922 to 1219 rpm. All other rpms require field-supplied drive.

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)

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
549C024	936	906	877	847	817	788	758	728	698	669	639	—	—
549B, 549C036†	1044	1008	971	935	898	862	826	789	753	716	680	—	—
549B036**	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
549B, 549C048†	1185	1144	1102	1061	1019	978	936	895	853	812	770	—	—
549B048**	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
549B, 549C060†	1460	1425	1390	1355	1319	1284	1249	1214	1179	1144	1108	1073	1038
549B060**	1685	1647	1608	1570	1531	1493	1454	1416	1377	1339	1300	—	—
549B072†	1585	1538	1492	1445	1399	1352	1305	1259	1212	1166	1119	—	—
549B072**	1685	1647	1608	1570	1531	1493	1454	1416	1377	1339	1300	—	—
549B090†	950	930	905	885	865	840	820	795	775	750	730	—	—
549B090**	1080	1060	1035	1015	990	970	950	925	905	880	860	—	—
549B102†	1085	1061	1036	1012	987	963	938	914	889	865	840	—	—
549B102**	1080	1058	1036	1014	992	970	948	926	904	882	860	—	—
549B120†	1080	1060	1035	1015	990	970	950	925	905	880	860	—	—
549B120**	1219	1195	1170	1145	1120	1095	1071	1046	1021	996	972	947	922

*Approximate fan rpm shown.

†Indicates standard motor and drive package.

**Indicates high-static motor and drive package.

INDOOR-FAN MOTOR PERFORMANCE — STANDARD MOTORS

UNIT 549B, 549C	UNIT VOLTAGE	MAXIMUM CONTINUOUS BHP*	MAXIMUM OPERATING WATTS*	MAXIMUM AMP DRAW	MOTOR EFFICIENCY
024	ALL	0.58	580	2.0	75.0
036	208/230-1-60	1.20	1195	4.9	75.0
	208/230-3-60	1.20	1195	4.9	75.0
460-3-60	2.3			75.0	
048	208/230-1-60	1.20	1195	4.9	75.0
	208/230-3-60	1.20	1195	4.9	75.0
	460-3-60			2.3	75.0
060	208/230-1-60	1.30	1290	7.6	74.0
	208/230-3-60	2.40	2120	6.0	84.0
	460-3-60			3.0	84.0
072	208/230-3-60	2.40	2120	6.0	84.0
	460-3-60			3.0	84.0
090, 102	208/230-3-60	2.90	2615	8.6	80.0
	460-3-60	2.90	2615	3.9	80.0
120	208/230-3-60	3.70	3313	11.7	85.0
	460-3-60	3.70	3313	5.5	85.0

549B, 549C

INDOOR-FAN MOTOR PERFORMANCE — HIGH-STATIC MOTORS

UNIT 549B, 549C	UNIT VOLTAGE	MAXIMUM CONTINUOUS BHP*	MAXIMUM OPERATING WATTS*	MAXIMUM AMP DRAW	MOTOR EFFICIENCY
036	208/230-3-60	2.40	2120	6.0	75
	460-3-60			3.0	75
048	208/230-3-60	2.40	2120	6.0	75
	460-3-60			3.0	75
060	208/230-3-60	2.90	2615	8.6	84
	460-3-60			3.9	84
072	208/230-3-60	2.90	2615	8.6	84
	460-3-60			3.9	84
090, 102	208/230-3-60	3.70	3313	11.7	80
	460-3-60			5.5	80
120	208/230-3-60	5.25	4400	17.3	85
	460-3-60			8.5	85

LEGEND

BHP — Brake Horsepower

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

PERFORMANCE DATA — 549B, 549C (cont)

ACCESSORY ELECTRIC HEATERS STATIC PRESSURE* (in. wg) — 549B036-072 AND 549C024-060

COMPONENT	CFM									
	600	900	1200	1400	1600	1800	2000	2200	2400	2600
1 Heater Module	0.03	0.05	0.07	0.09	0.09	0.10	0.11	0.11	0.12	0.13
2 Heater Modules	0.14	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY ELECTRIC HEATERS STATIC PRESSURE* (in. wg) — 549B090-120

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

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP ECONOMIZER STATIC PRESSURE* (in. wg) — 549B036-072 AND 549C024-060

COMPONENT	CFM							
	1250	1500	1750	2000	2250	2500	2750	3000
Vertical EconoMi\$er2 and EconoMi\$erIV	0.045	0.065	0.08	0.12	0.145	0.175	0.22	0.255
Horizontal EconoMi\$er2 and EconoMi\$erIV	—	—	0.1	0.125	0.15	0.18	0.225	0.275

LEGEND

FIOP — Factory-Installed Option

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

ACCESSORY/FIOP ECONOMIZER STATIC PRESSURE* (in. wg) — 549B090-120

COMPONENT	CFM													
	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	6250
Vertical EconoMi\$er2 and EconoMi\$erIV	0.06	0.075	0.09	0.115	0.13	0.15	0.17	0.195	0.22	0.25	0.285	0.325	0.36	—
Horizontal EconoMi\$er2 and EconoMi\$erIV	—	0.1	0.125	0.15	0.18	0.21	0.25	0.275	0.3	0.34	0.388	—	—	—

LEGEND

FIOP — Factory-Installed Option

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

NOTE: The rooftop unit return air configuration determines the economizer configuration (vertical or horizontal).

549B, 549C

PERFORMANCE DATA — 549B, 549C (cont)
ELECTRIC HEATING CAPACITIES — 549B036-120 AND 549C024-060

UNIT 549B, 549C	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	SINGLE POINT BOX PACKAGE NO. CRSINGLE---A00
024 (2 Tons)	208/230/240 (single phase)	3.3/ 4.0/ 4.4	001	—
		4.9/ 6.0/ 6.5	002	—
		6.5/ 8.0/ 8.7	003	004
		7.9/ 9.6/10.5	004	004
036 (3 Tons)	208/230/240 (single phase)	3.3/ 4.0/ 4.4	001	—
		4.9/ 6.0/ 6.5	002	—
		6.5/ 8.0/ 8.7	003	004
		7.9/ 9.6/10.5	004	004
		9.8/12.0/13.0*	002 & 002	005
	208/230/240 (3 phase)	3.3/ 4.0/ 4.4	001	—
		4.9/ 6.0/ 6.5	002	—
		6.5/ 8.0/ 8.7	003	—
		7.9/ 9.6/10.5 12.0/14.7/16.0	004 005	002
460/480 (3 phase)	5.5/ 6.0	006	—	
	8.1/ 8.8	007	—	
	10.6/11.5	008	—	
	12.9/14.0	009	—	
048 (4 Tons)	208/230/240 (single phase)	3.3/ 4.0/ 4.4	001	—
		6.5/ 8.0/ 8.7	003	004
		9.8/12.0/13.0*	002 & 002	005
		13.1/16.0/17.4*	003 & 003	005
		15.8/19.3/21.0*	004 & 004	003
	208/230/240 (3 phase)	4.9/ 6.0/ 6.5	002	—
		6.5/ 8.0/ 8.7	003	—
		12.0/14.7/16.0	005	002
		15.8/19.3/21.0*	004 & 004	003
	460/480 (3 phase)	5.5/ 6.0	006	—
		10.6/11.5	008	—
		12.9/14.0	009	—
21.1/23.0*		008 & 008	—	
060 (5 Tons)	208/230/240 (single phase)	4.9/ 6.0/ 6.5	002	004
		6.5/ 8.0/ 8.7	003	004
		9.8/12.0/13.0*	002 & 002	005
		13.1/16.0/17.4*	003 & 003	005
		15.8/19.3/21.0*	004 & 004	005
	208/230/240 (3 phase)	4.9/ 6.0/ 6.5	002	001
		7.9/ 9.6/10.5	004	002
		12.0/14.7/16.0	005	002
		15.8/19.3/21.0*	004 & 004	003
		19.9/24.3/26.5*	004 & 005	002
	460/480 (3 phase)	5.5/ 6.0	006	—
		10.6/11.5	008	—
12.9/14.0		009	—	
21.1/23.0* 23.4/25.5*		008 & 008 008 & 009	—	
072 (6 tons)	208/230/240 (3 phase)	4.9/ 6.0/ 6.5	002	—
		7.9/ 9.6/10.5	004	002
		12.0/14.7/16.0	005	002
		15.8/19.3/21.0*	004 & 004	003
		19.9/24.3/26.5*	004 & 006	003
	460/480 (3 phase)	5.5/ 6.0	006	—
		10.6/11.5	008	—
		12.9/14.0	009	—
		21.1/23.0*	008 & 008	—
		23.4/25.5*	008 & 009	—

549B, 549C

*Two heater packages required to provide kW indicated.

NOTES:

- The rated heater voltage is 240 and 480 v. If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly.
- To determine heater kW at voltages other than those shown in table, use the following formula:

$$\text{Heater kW}_{\text{new}} = \text{Heater kW rated} \times (\text{unit power distribution voltage}/\text{rated heater voltage})^2$$

As an example:

For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v

$$\text{kW}_{\text{new}} = 16 \text{ kW} (215/240)^2$$

$$\text{kW}_{\text{new}} = 12.8 \text{ kW (rating at 215 v)}$$

PERFORMANCE DATA — 549B, 549C (cont)

ELECTRIC HEATING CAPACITIES — 549B036-120 AND 549C024-060 (cont)

UNIT 549B	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	ACCESSORY SINGLE POINT BOX PART NO. CRSINGLE---A00
090 (7½ Tons)	208/230/240 (3 phase)	7.8/ 9.6/10.4	117	007
		12.0/14.7/16.0	110	007
		18.6/22.8/24.8	111	009
		24.0/29.4/32.0	112	009
		31.8/39.0/42.4*	112,117	013
	460/480 (3 phase)	12.8/13.9	116	006
		15.2/16.5	113	006
		25.6/27.8	114	008
		30.4/33.0	115	008
		38.4/41.7*	114,116	—
102 (8½ Tons)	208/230/240 (3 phase)	7.8/ 9.6/10.4	117	012
		12.0/14.7/16.0	110	012
		18.6/22.8/24.8	111	015
		24.0/29.4/32.0	112	015
		31.8/39.0/42.4*	112,117	017
	460/480 (3 phase)	12.8/13.9	116	011
		15.2/16.5	113	011
		25.6/27.8	114	014
		30.4/33.0	115	014
		38.4/41.7*	114,116	016
120 (10 Tons)	208/230/240 (3 phase)	7.8/ 9.6/10.4	117	012
		12.0/14.7/16.0	110	012
		18.6/22.8/24.8	111	015
		24.0/29.4/32.0	112	015
		31.8/39.0/42.4*	112,117	017
	37.6/46.2/50.0*	112,110	017	
460/480 (3 phase)	15.2/16.5	113	011	
		25.6/27.8	114	014
		30.4/33.0	115	014
		38.4/41.7*	114,116	016
		46.0/50.0*	115,113	016

*Two heater packages required to provide kW indicated.

NOTES:

- The rated heater voltage is 240 and 480 v. If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly.
- To determine heater kW at voltages other than those shown in table, use the following formula:

$$\text{Heater kW}_{\text{new}} = \text{Heater kW rated} \times (\text{unit power distribution voltage}/\text{rated heater voltage})^2$$

As an example:

For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v

$$\text{kW}_{\text{new}} = 16 \text{ kW} (215/240)^2$$

$$\text{kW}_{\text{new}} = 12.8 \text{ kW (rating at 215 v)}$$

MULTIPLICATION FACTORS

HEATER RATING VOLTAGE	ACTUAL HEATER VOLTAGE										
	200	208	230	240	380	440	460	480	550	575	600
240	0.694	0.751	0.918	1.000	—	—	—	—	—	—	—
480	—	—	—	—	0.626	0.840	0.918	1.000	—	—	—
600	—	—	—	—	—	—	—	—	0.840	0.918	1.000

NOTE: The following equation converts kW of heat energy to Btuh:
kW x 3.413 = Btuh.

EXAMPLE: 34 kW (at 230 v) heater on 208 v
= 34.0 (.751 mult factor)
= 25.5 kW capacity at 208 v.

OUTDOOR SOUND POWER (TOTAL UNIT)

549B, 549C	ARI RATING (decibels)	OCTAVE BANDS; Lw (A)							
		63	125	250	500	1000	2000	4000	8000
024,036,048	76	50.8	63.4	62.2	65.9	69.2	65.9	63.0	56.5
060,072	80	57.6	70.2	66.9	71.7	74.7	72.2	67.8	62.4
090	82	62.3	69.3	71.5	74.7	76.2	72.9	68.7	61.5
102	84	64.6	71.1	73.3	76.9	77.6	73.7	70.6	63.7
120	84	64.6	71.1	73.3	76.9	77.6	73.7	70.6	63.7

ARI — Air Conditioning and Refrigeration Institute
Lw (A)— Unit A — Weighted Sound Power Level

ELECTRICAL DATA — 549B

549B036-120 STANDARD MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET

UNIT 549B	NOMINAL VOLTAGE V-PH-Hz	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-1-60	187	254	16.0	88.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 9.8/13.0	—/— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2	25.6/ 25.6 45.5/ 48.5 55.1/ 59.5 64.7/ 71.0 73.1/ 80.4 84.5/ 93.4	30/ 30** 50/ 50** 60/ 60** 70/ 80 80/ 90 90/100	25/ 25 43/ 46 52/ 56 61/ 67 69/ 75 79/ 87	101/101 117/120 125/128 133/138 139/145 148/155††
	208/230-3-60	187	254	10.3	77.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	18.5/ 18.5 30.0/ 31.7 35.5/ 38.0 41.0/ 44.6 45.9/ 50.1 60.1/ 66.6	20/20** 30/35** 40/40** 45/45** 50/60** 70/70	18/ 18 29/ 30 34/ 36 39/ 42 43/ 47 57/ 63	90/ 90 99/101 104/106 108/111 112/116 124/129
	460-3-60	414	508	5.1	39.0	0.4	2.2	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	9.0 18.0 22.2 26.2 30.0	15** 20** 25** 30** 30**	9 17 21 25 28	46 53 57 60 63
048 (4 Tons)	208/230-1-60	187	254	18.3	109.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 9.8/13.0 13.1/17.4 15.8/21.0	—/— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2 76.0/87.5	28.5/ 28.5 48.4/ 51.4 67.6/ 73.9 87.4/ 96.2 107.2/119.1 123.5/137.9	30/ 30** 50/ 60** 70/ 80 90/100 110/125 125/150	27/ 27 46/ 49 63/ 69 82/ 90 100/111 115/128	122/122 138/141 154/159 169/176†† 185/195†† 198/210††
	208/230-3-60	187	254	12.4	88.0	0.7	4.9	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	21.1/21.1 38.1/40.6 43.6/47.2 62.7/69.2 76.0/84.2	25/25** 40/45** 45/50** 70/70 80/90	21/ 21 36/ 39 41/ 45 59/ 65 71/ 79	101/101 115/117 119/122 135/140 145/152
	460-3-60	414	508	6.4	44.0	0.4	2.2	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	10.6 19.6 27.9 31.6 45.2	15** 20** 30** 35** 50**	10 19 26 30 42	51 58 65 68 79
060 (5 Tons)	208/230-1-60	187	254	25.0	150.0	1.5	7.6	—/— 4.9/ 6.5 6.5/ 8.7 9.8/16.0 13.1/17.4 15.8/21.0	—/— 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2 76.0/87.5	40.4/ 40.4 69.9/ 74.2 79.5/ 85.7 99.2/108.1 119.1/131.0 135.4/149.7	45/ 45** 70/ 80 80/ 90 100/110 125/150 150/150	39/ 39 66/ 70 75/ 81 93/102 112/123 127/140	188/188 211/215 219/224†† 235/242†† 251/260†† 264/275††
	208/230-3-60	187	254	17.3	123.0	1.5	5.8	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	28.9/ 28.9 45.9/ 48.4 56.3/ 60.6 70.6/ 77.1 83.8/ 92.1 97.9/108.7	30/ 30** 50/ 50** 60/ 70 80/ 80 90/100 100/110	28/ 28 44/ 46 53/ 57 67/ 73 79/ 86 92/102	168/168 181/183 190/193 201/208 212/218†† 223/232††
	460-3-60	414	508	9.0	62.0	0.8	2.6	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	13.9 22.9 31.2 34.9 48.5 51.5	15** 25** 35** 35** 50** 60**	14 22 29 33 45 48	92 100 106 109 120 123
072 (6 Tons)	208/230-3-60	187	254	20.5	156.0	1.4	5.8	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	32.8/ 32.8 49.8/ 52.3 60.2/ 64.5 74.5/ 81.0 87.7/ 96.0 101.8/112.6	35/ 35** 50/ 60** 70/ 70 80/ 90 90/100 110/125	32/ 32 47/ 50 57/ 61 70/ 76 82/ 90 95/105	200/200 214/216 222/225 233/239 244/251†† 255/264††
	460-3-60	414	508	9.6	70.0	0.6	2.6	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	15.2 24.2 32.5 36.2 49.8 53.6	20** 25** 35** 40** 50** 60**	15 23 31 34 47 50	92 99 106 109 120 123

549B, 549C

See Legend on page 114.

ELECTRICAL DATA — 549B (cont)

549B036-120 STANDARD MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET (cont)

UNIT 549B	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	187	254	12.4	88.0	1.4	7.5	—	—	38.2/ 38.2	40/ 40**	40/ 40	242/242
								7.8/10.4	21.7/ 25.0	65.3/ 69.5	70/ 70**	65/ 69	264/267
090 (7½ Tons)	460-3-60	414	508	6.4	44.0	0.7	3.4	—	—	19.2	20**	20	121
								13.9	16.7	40.1	45**	39	138
102 (8½ Tons)	208/230-3-60	187	254	13.9	105	1.4	7.5	—	—	41.3/ 41.3	45/ 45**	43/43	276/276
								7.8/10.4	21.7/ 25.0	68.4/ 72.5	70/ 80**	68/72	298/301
102 (8½ Tons)	460-3-60	414	508	7.9	55.0	0.7	3.4	—	—	68.4/ 72.5	70/ 80**	82/88	309/315††
								12.0/16.0	33.3/ 38.5	82.9/ 89.4	90/ 90	103/112	328/336††
120 (10 Tons)	208/230-3-60	187	254	19.3	123.0	1.4	10.6	—	—	56.8/ 56.8	60/ 60**	60/ 60	337/337
								7.8/10.4	21.7/ 25.0	84.0/ 88.1	90/ 90	85/ 89	358/362††
120 (10 Tons)	460-3-60	414	508	10.0	62.0	0.7	4.8	—	—	84.0/ 88.1	90/ 90	98/104	370/375††
								12.0/16.0	33.3/ 38.5	98.5/105.0	100/110	136/148	403/414††

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:
MCA New = MCA unit only + MCA of Power Exhaust

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

MCA New = 35.6 amps + 1.6 amps = 37.2 amps

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

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.

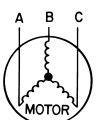
2. Unbalanced 3-Phase Supply Voltage

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

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

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

$$= 457$$

ELECTRICAL DATA — 549B (cont)

549B036-120 — STANDARD MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET

UNIT 549B	NOMINAL VOLTAGE V-PH-Hz	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-1-60	187	254	16.0	88.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 9.8/13.0	— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2	30.4/ 30.4 50.3/ 53.3 59.9/ 64.3 69.5/ 75.8 77.9/ 85.2 89.3/ 98.2	35/ 35** 60/ 60** 60/ 70 70/ 80 80/ 90 90/100	30/ 30 49/ 51 58/ 62 66/ 72 74/ 81 85/ 93	106/106 122/124 130/133 137/142 144/150†† 153/160††
	208/230-3-60	187	254	10.3	77.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	23.3/ 23.3 34.8/ 36.5 40.3/ 42.8 45.8/ 49.4 50.7/ 54.9 64.9/ 71.4	25/ 25** 35/ 40** 45/ 45** 50/ 50** 60/ 60** 70/ 80	24/ 24 34/ 36 39/ 42 45/ 48 49/ 53 62/ 68	95/ 95 104/106 109/111 113/116 117/120 128/134
	460-3-60	414	508	5.1	39.0	0.4	2.2	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	11.2 20.2 24.4 28.4 32.2	15** 25** 25** 30** 35**	11 20 24 27 31	48 55 59 62 65
048 (4 Tons)	208/230-1-60	187	254	18.3	109.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 9.8/13.0 13.1/17.4 15.8/21.0	—/— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2 76.0/87.5	33.3/ 33.0 53.2/ 56.2 72.4/ 78.7 92.2/101.0 112.0/123.9 128.3/142.7	35/ 35** 60/ 60 80/ 80 100/110 125/125 150/150	33/ 33 51/ 54 69/ 75 87/ 95 105/116 120/134	127/127 143/145 158/163†† 174/181†† 190/200†† 203/215††
	208/230-3-60	187	254	12.4	88.0	0.7	4.9	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	25.9/ 25.9 42.9/ 45.4 48.4/ 52.0 67.5/ 74.0 80.8/ 89.0	30/ 30** 45/ 50** 60/ 60** 70/ 80 90/ 90	26/ 26 42/ 44 47/ 50 65/ 71 77/ 84	106/106 120/122 124/127 139/145 150/157††
	460-3-60	414	508	6.4	44.0	0.4	2.2	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	12.8 21.8 30.0 33.8 47.4	15** 25** 35** 35** 50**	13 21 29 32 45	53 60 67 70 81
060 (5 Tons)	208/230-1-60	187	254	25.0	150.0	1.5	7.6	—/— 4.9/ 6.5 6.5/ 8.7 9.8/16.0 13.1/17.4 15.8/21.0	— 23.6/27.1 31.3/36.3 47.1/54.2 63.0/72.5 76.0/87.5	45.2/ 45.2 74.7/ 79.0 84.3/ 90.5 104.0/112.9 123.9/135.8 140.2/154.5	50/ 50** 80/ 80 90/100 110/125 125/150 150/175	45/ 45 72/ 76 81/ 86 99/107 117/128 132/145	193/193 216/220†† 224/229†† 240/247†† 256/265†† 269/280††
	208/230-3-60	187	254	17.3	123.0	1.5	5.8	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	33.7/ 33.7 50.7/ 53.2 61.1/ 65.4 75.4/ 81.9 88.6/ 96.9 102.7/113.5	35/ 35** 60/ 60** 70/ 70 80/ 90 90/100 110/125	34/ 34 49/ 52 59/ 63 72/ 78 84/ 92 97/107	173/173 186/188 194/198 206/211 216/223†† 228/236††
	460-3-60	414	508	9.0	62.0	0.8	2.6	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	16.1 25.1 33.3 37.1 50.7 53.7	20** 30** 35** 40** 60** 60**	16 24 32 35 48 51	95 102 108 111 122 125
072 (6 Tons)	208/230-3-60	187	254	20.5	156.0	1.4	5.8	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	37.6/ 37.6 54.6/ 57.1 65.0/ 69.3 79.3/ 85.8 92.5/100.8 106.6/117.4	40/ 40** 60/ 60** 70/ 70 80/ 90 100/110 110/125	37/ 37 53/ 55 63/ 66 76/ 82 88/ 95 101/111	205/205 219/221 227/230 238/243†† 249/255†† 260/269††
	460-3-60	414	508	9.6	70.0	0.6	2.6	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	17.4 26.4 34.6 38.4 52.0 55.8	20** 30** 35** 40** 60** 60**	17 26 33 37 49 53	99 106 113 116 127 130

549B, 549C

See Legend on page 122.

ELECTRICAL DATA — 549B (cont)

549B036-120 — STANDARD MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET (cont)

UNIT 549B	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	187	254	12.4	88.0	1.4	7.5	— 7.8/10.4 12.0/16.0 18.6/24.8 24.0/32.0 31.8/42.4	— 21.7/ 25.0 33.3/ 38.5 51.6/ 59.7 66.6/ 77.0 88.3/102.0	43.0/ 43.0 70.1/ 74.3 84.6/ 91.1 107.5/117.6 126.3/139.3 153.4/170.5	45/ 45** 80/ 80 90/100 110/125 150/150 175/175	46/ 46 71/ 75 84/ 90 105/115 122/134 147/163	247/247 269/272 280/285†† 298/307†† 313/324†† 335/349††
	460-3-60	414	508	6.4	44.0	0.7	3.4	— 13.9 16.5 27.8 33.0 41.7	— 16.7 19.8 33.4 39.7 50.2	21.4 42.3 46.1 63.1 71.0 84.1	25** 45** 50** 70 80 90	23 42 46 61 68 80	123 140 143 157 163 174
102 (8½ Tons)	208/230-3-60	187	254	13.9	105	1.4	7.5	— 7.8/10.4 12.0/16.0 18.6/24.8 24.0/32.0 31.8/42.4	— 21.7/ 25.0 33.3/ 38.5 51.6/ 59.7 66.6/ 77.0 88.3/102.0	46.1/ 46.1 73.2/ 77.3 87.7/ 94.2 110.6/120.7 129.3/142.3 156.5/173.6	50/ 50** 80/ 80 90/100 125/125 150/150 175/175	49/ 49 74/ 78 87/ 93 108/118 126/138 151/166	281/281 303/306 314/319†† 332/341†† 347/358†† 369/383††
	460-3-60	414	508	7.9	55.0	0.7	3.4	— 13.9 16.5 27.8 33.0 41.7	— 16.7 19.8 33.4 39.7 50.2	24.5 45.3 49.2 66.2 74.1 87.2	25** 50** 50** 70 80 90	26 45 49 64 72 84	145 162 165 179 185 196
120 (10 Tons)	208/230-3-60	187	254	19.3	123.0	1.4	10.6	— 7.8/10.4 12.0/16.0 18.6/24.8 24.0/32.0 31.8/42.4 37.6/50.0	— 21.7/ 25.0 33.3/ 38.5 51.6/ 59.7 66.6/ 77.0 88.3/102.0 104.4/120.3	61.6/ 61.6 88.8/ 92.9 103.3/109.8 144.9/157.9 172.0/189.1 192.1/181.9	70/ 70 90/100 110/110 150/175 175/200 200/200	65/ 65 90/ 94 104/110 142/154 167/183 185/204	341/341 363/366†† 375/380†† 408/418†† 430/443†† 446/462††
	460-3-60	414	508	10.0	62.0	0.7	4.8	— 16.5 27.8 33.0 41.7 50.0	— 19.8 33.4 39.7 50.2 60.1	30.9 55.6 72.6 80.5 93.6 91.0	35** 60** 80 90 100 100	33 55 71 78 90 102	172 191 205 211 222†† 232††

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:
MCA New = MCA unit only + MCA of Power Exhaust

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

MCA New = 35.6 amps + 1.6 amps = 37.2 amps

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

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.

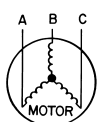
2. Unbalanced 3-Phase Supply Voltage

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

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

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

$$= 457$$

ELECTRICAL DATA — 549B (cont)

549B036-120 — HIGH-STATIC MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET

UNIT 549B	NOMINAL VOLTAGE V-PH-Hz	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-3-60	187	254	10.3	77.0	0.7	5.8	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	19.4/ 19.4 30.9/ 32.6 36.4/ 38.9 41.9/ 45.5 46.8/ 51.0 61.0/ 67.5	20/20 35/35 40/40 45/50 50/60 70/70	19/ 19 30/ 32 35/ 37 40/ 43 45/ 48 58/ 64	120/120 129/130 133/135 138/141 142/145 153/158
	460-3-60	414	508	5.1	39.0	0.4	2.6	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	9.4 18.4 22.6 26.6 30.4	15** 20** 25** 30** 35**	9 18 22 25 29	60 68 71 74 77
048 (4 Tons)	208/230-3-60	187	254	12.4	88.0	0.7	5.8	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	22.0/ 22.0 39.0/ 41.5 44.5/ 48.1 63.6/ 70.1 76.9/ 85.1	25/ 25 40/ 45 45/ 50 70/ 80 80/ 90	22/ 22 37/ 40 42/ 46 60/ 66 72/ 80	131/131 144/146 149/152 164/169 175/181††
	460-3-60	414	508	6.4	44.0	0.4	2.6	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	11.0 20.0 28.3 32.0 45.6	15** 20** 30** 35** 50**	11 19 27 30 43	65 73 79 82 93
060 (5 Tons)	208/230-3-60	187	254	17.3	123.0	1.5	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	30.6/ 30.6 47.6/ 50.1 58.0/ 62.3 72.3/ 78.8 85.5/ 93.8 99.6/110.4	35/ 35 50/ 60 60/ 70 80/ 80 90/100 100/125	30/ 30 46/ 48 55/ 59 69/ 75 81/ 88 94/104	187/187 200/202 209/212 220/225 231/237** 242/251**
	460-3-60	414	508	8.4	70.0	0.8	3.4	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	14.7 23.7 32.0 35.7 49.3 52.3	15** 25** 35** 40** 50** 60**	14 23 30 34 46 49	102 109 116 119 130 132
072 (6 Tons)	208/230-3-60	187	254	20.5	156.0	1.4	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	34.5/ 34.5 51.5/ 54.0 61.9/ 66.2 76.2/ 82.7 89.4/ 97.7 103.5/114.3	35/ 35 60/ 60 70/ 70 80/ 90 90/100 110/125	34/ 34 49/ 52 59/ 63 72/ 78 84/ 92 97/107	219/219 233/235 241/244 252/258 263/270** 274/283**
	460-3-60	414	508	9.6	70.0	0.6	3.4	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	16.0 25.0 33.3 37.0 50.6 54.4	20** 25** 35** 40** 60** 60**	16 24 32 35 47 51	107 114 120 123 134 137

See Legend on page 124.

549B, 549C

ELECTRICAL DATA — 549B (cont)

549B036-120 — HIGH-STATIC MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET (cont)

UNIT 549B	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	187	254	12.4	88.0	1.4	10.6	—	—	41.3/ 41.3	45/ 45**	44/ 44	267/267
								7.8/10.4	21.7/ 25.0	68.4/ 72.6	70/ 80	69/ 73	288/292
090 (7½ Tons)	460-3-60	414	508	6.4	44.0	0.7	4.8	—	—	20.6	25**	22	134
								13.9	16.7	41.5	45**	41	150
102 (8½ Tons)	208/230-3-60	187	254	13.9	105	1.4	10.6	—	—	44.4/ 44.4	45/ 45**	47/ 47	301/301
								7.8/10.4	21.7/ 25.0	71.5/ 75.6	80/ 80	72/ 76	322/326
102 (8½ Tons)	460-3-60	414	508	7.9	55.0	0.7	4.8	—	—	23.7	25**	25	156
								13.9	16.7	44.6	45**	44	172
120 (10 Tons)	208/230-3-60	187	254	19.3	123.0	1.4	15.0	—	—	61.2/ 61.2	70/ 70	65/ 65	360/360
								7.8/10.4	21.7/ 25.0	88.4/ 92.5	90/100	90/ 94	382/385††
120 (10 Tons)	460-3-60	414	508	10.0	62.0	0.7	7.4	—	—	31.3	35**	33	181
								16.5	19.8	56.1	60**	56	201

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

$$\text{MCA New} = 35.6 \text{ amps} + 1.6 \text{ amps} = 37.2 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

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.

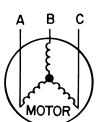
2. Unbalanced 3-Phase Supply Voltage

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

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

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

$$= 457$$

ELECTRICAL DATA — 549B (cont)

549B036-120 — HIGH-STATIC MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET

UNIT 549B	NOMINAL VOLTAGE V-PH-Hz	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-3-60	187	254	10.3	77.0	0.7	5.8	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	24.2/ 24.2 35.7/ 37.4 41.2/ 43.7 46.7/ 50.3 51.6/ 55.8 65.8/ 72.3	25/ 25 40/ 40 45/ 45 50/ 60 60/ 60 70/ 80	25/ 25 35/ 37 40/ 43 46/ 49 50/ 54 63/ 69	124/124 134/135 138/140 142/145 146/150 158/163
	460-3-60	414	508	5.1	39.0	0.4	2.6	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	11.6 20.6 24.8 28.8 33.6	15** 25** 25** 30** 35**	12 20 24 28 31	63 70 73 76 79
048 (4 Tons)	208/230-3-60	187	254	12.4	88.0	0.7	5.8	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	26.8/ 26.8 43.8/ 46.3 49.3/ 52.9 68.4/ 74.9 81.7/ 89.9	30/ 30 45/ 50 50/ 60 70/ 80 90/ 90	27/ 27 43/ 45 48/ 51 66/ 72 78/ 85	135/135 149/151 153/156 169/174 179/186††
	460-3-60	414	508	6.4	44.0	0.4	2.6	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	13.2 22.2 28.9 34.2 47.8	15** 25** 30** 35** 50**	13 22 28 33 45	68 75 80 84 95
060 (5 Tons)	208/230-3-60	187	254	17.3	123.0	1.5	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	35.4/ 35.4 52.4/ 54.9 62.8/ 67.1 77.1/ 83.6 90.3/ 98.6 104.4/115.2	40/ 40 60/ 60 70/ 70 80/ 90 100/100 110/125	36/ 36 51/ 54 61/ 65 74/ 80 86/ 94 99/109	192/192 205/207 213/217 225/230†† 235/242†† 247/255††
	460-3-60	414	508	8.4	70.0	0.8	3.4	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	16.9 25.9 34.1 37.9 51.5 54.5	20** 30** 35** 40** 60** 60**	17 25 33 36 49 52	104 111 118 121 132 134
072 (6 Tons)	208/230-3-60	187	254	20.5	156.0	1.4	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	39.3/ 39.3 56.3/ 58.8 66.7/ 71.0 81.0/ 87.5 94.2/102.5 108.3/119.1	40/ 40 60/ 60 70/ 80 90/ 90 100/110 110/125	39/ 39 55/ 57 65/ 68 78/ 84 90/ 97 103/113	224/224 238/240 246/249 257/262†† 268/274†† 279/288††
	460-3-60	414	508	9.6	70.0	0.6	3.4	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.7	18.2 27.2 35.4 39.2 52.8 56.6	20** 30** 40** 40** 60** 60**	18 26 34 37 50 53	109 116 123 126 136 139

See Legend on page 126.

549B, 549C

ELECTRICAL DATA — 549B (cont)

549B036-120 — HIGH-STATIC MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET (cont)

UNIT 549B	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
090 (7½ Tons)	208/230-3-60	187	254	12.4	88.0	1.4	10.6	—	—	46.1/ 46.1	50/ 50**	49/ 49	271/271
								7.8/10.4	21.7/ 25.0	73.2/ 77.4	80/ 80	74/ 78	293/296
090 (7½ Tons)	460-3-60	414	508	6.4	44.0	0.7	4.8	—	—	22.8	25**	24	136
								13.9	16.7	43.7	45**	44	152
102 (8½ Tons)	208/230-3-60	187	254	13.9	105	1.4	10.6	—	—	49.2/ 49.2	50/ 50**	53/ 53	305/305
								7.8/10.4	21.7/ 25.0	76.3/ 80.4	80/ 90	78/ 81	327/330
102 (8½ Tons)	460-3-60	414	508	7.9	55.0	0.7	4.8	—	—	25.9	30**	27	158
								13.9	16.7	46.7	50**	47	174
120 (10 Tons)	208/230-3-60	187	254	19.3	123.0	1.4	15.0	—	—	66.0/ 66.0	70/ 70	70/ 70	365/365
								7.8/10.4	21.7/ 25.0	93.2/ 97.3	100/100	95/ 99	387/390††
120 (10 Tons)	460-3-60	414	508	10.0	62.0	0.7	7.4	—	—	33.5	35**	36	183
								16.5	19.8	58.2	60**	58	203

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

$$\text{MCA New} = 35.6 \text{ amps} + 1.6 \text{ amps} = 37.2 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

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.

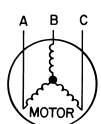
2. Unbalanced 3-Phase Supply Voltage

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

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

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

$$= 457$$

ELECTRICAL DATA — 549C

549C024-060 — STANDARD MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET

UNIT 549C	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCPP	FLA	LRA
024 (2Tons)	208/230-1-60	187	254	10.9	63.0	0.7	2.0	—/—	—/—	16.3/16.3	20/ 20**	16/16	69/ 69
								3.3/ 4.4	15.9/18.3	36.2/39.2	40/ 40**	34/37	84/ 87
								4.9/ 6.5	23.6/27.1	45.8/50.2	50/ 60**	43/47	92/ 96
								6.5/ 8.7	31.3/36.3	55.5/61.7	60/ 70	52/57	100/105
								7.9/10.5	38.0/43.8	63.8/71.1	70/ 80	59/66	107/112
036 (3Tons)	208/230-1-60	187	254	16.0	88.0	0.7	4.9	—/—	—/—	25.6/25.6	30/ 30**	25/25	101/101
								3.3/ 4.4	15.9/18.3	45.5/48.5	50/ 50**	43/46	117/120
								4.9/ 6.5	23.6/27.1	55.1/59.5	60/ 60**	52/56	125/128
								6.5/ 8.7	31.3/36.3	64.7/71.0	70/ 80	61/67	133/138
								7.9/10.5	38.0/43.8	73.1/80.4	80/ 90	69/75	139/145
								9.8/13.0	47.1/54.2	84.5/93.4	90/100	79/87	148/155††
	208/230-3-60	187	254	10.3	77.0	0.7	4.9	—/—	—/—	18.5/18.5	20/ 20**	18/18	90/ 90
								3.3/ 4.4	9.2/10.6	30.0/31.7	30/ 35**	29/30	99/101
								4.9/ 6.5	13.6/15.6	35.5/38.0	40/ 40**	34/36	104/106
								6.5/ 8.7	18.0/20.9	41.0/44.6	45/ 45**	39/42	108/111
								7.9/10.5	21.9/25.3	45.9/50.1	50/ 60**	43/47	112/116
								12.0/16.0	33.3/38.5	60.1/66.6	70/ 70	57/63	124/129
460-3-60	414	508	5.1	39.0	0.4	2.2	—	—	9.0	15**	9	46	
							6.0	7.2	18.0	20**	17	53	
							8.8	10.6	22.2	25**	21	57	
							11.5	13.8	26.2	30**	25	60	
							14.0	16.8	30.0	30**	28	63	
048 (4Tons)	208/230-1-60	197	254	21	115.0	0.7	4.9	—/—	—/—	31.9/ 31.9	35/ 35**	31/ 31	128/128
								3.3/ 4.4	15.9/18.3	51.7/ 54.7	60/ 60**	49/ 52	144/147
								6.5/ 8.7	31.3/36.3	71.0/ 77.2	80/ 80	67/ 72	160/165
								9.8/13.0	47.1/54.2	90.7/ 99.6	100/100	85/ 93	175/182††
								13.1/17.4	63.0/72.5	110.6/122.5	125/125	103/114	191/201††
								15.8/21.0	76.0/87.5	126.9/141.2	150/150	118/131	204/216††
	208/230-3-60	187	254	14.1	95.0	0.7	4.9	—/—	—/—	23.2/ 23.2	25/ 25**	23/ 23	108/108
								4.9/ 6.5	13.6/15.6	40.2/ 42.7	45/ 45**	38/ 41	122/124
								6.5/ 8.7	18.0/20.9	45.7/ 49.4	50/ 50**	43/ 47	126/129
								12.0/16.0	33.3/38.5	64.9/ 71.4	70/ 80	61/ 67	142/147
								15.8/21.0	43.9/50.5	78.1/ 86.4	80/ 90	73/ 81	152/159
								—	—	11.5	15**	11	52
	460-3-60	414	508	7.1	45.0	0.4	2.2	6.0	7.2	20.5	25**	19	59
								11.5	13.8	28.7	30**	27	66
								14.0	16.8	32.5	35**	30	69
23.0								27.7	46.1	50**	43	80	
—								—	11.5	15**	11	52	
060 (5Tons)	208/230-1-60	187	254	25.0	150.0	1.5	7.6	—/—	—	40.4/ 40.4	45/ 45**	39/ 39	188/188
								4.9/ 6.5	23.6/27.1	69.9/ 74.2	70/ 80	66/ 70	211/215
								6.5/ 8.7	31.3/36.3	79.5/ 85.7	80/ 90	75/ 81	219/224††
								9.8/16.0	47.1/54.2	99.2/108.1	100/110	93/102	235/242††
								13.1/17.4	63.0/72.5	119.1/131.0	125/150	112/123	251/260††
								15.8/21.0	76.0/87.5	135.4/149.7	150/150	127/140	264/275††
	208/230-3-60	187	254	17.3	123.0	1.5	5.8	—/—	—/—	28.9/ 28.9	30/ 30**	28/ 28	168/168
								4.9/ 6.5	13.6/15.6	45.9/ 48.4	50/ 50**	44/ 46	181/183
								7.9/10.5	21.9/25.3	56.3/ 60.6	60/ 70	53/ 57	190/193
								12.0/16.0	33.3/38.5	70.6/ 77.1	80/ 80	67/ 73	201/206
								15.8/21.0	43.9/50.5	83.8/ 92.1	90/100	79/ 86	212/218††
								19.9/26.5	55.2/63.8	97.9/108.7	100/110	92/102	223/232††
	460-3-60	414	508	8.4	70.0	0.8	2.6	—	—	13.9	15**	14	92
								6.0	7.2	22.9	25**	22	100
								11.5	13.8	31.2	35**	29	106
								14.0	16.8	34.9	35**	33	109
								23.0	27.7	48.5	50**	45	120
								25.0	30.1	51.5	60**	48	123

549B, 549C

See Legend on page 128.

ELECTRICAL DATA — 549C (cont)

549C024-060 — HIGH-STATIC MOTOR UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET

UNIT 549C	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-3-60	187	254	10.3	77.0	0.7	5.8	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	19.4/19.4 30.9/ 32.6 36.4/ 38.9 41.9/ 45.5 46.8/ 51.0 61.0/ 67.5	20/20 35/35 40/40 45/50 50/60 70/70	19/19 30/32 35/37 40/43 45/48 58/64	120/120 129/130 133/135 138/141 142/145 153/158
	460-3-60	414	508	5.1	39.0	0.4	2.6	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	9.4 18.4 22.6 26.6 30.4	15 20 25 30 35	9 18 22 25 29	60 68 71 74 77
048 (4 Tons)	208/230-3-60	187	254	14.1	95.0	0.7	5.8	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	24.1/24.1 41.1/43.6 46.6/50.3 65.8/72.3 79.0/87.3	25/25 45/45 50/60 70/80 80/90	24/24 39/42 44/48 62/68 74/82	138/138 151/153 159/159 171/176 182/188††
	460-3-60	414	508	7.1	45.0	0.4	2.6	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	11.9 20.9 29.1 32.9 46.5	15 25 30 35 50	12 20 27 31 43	66 74 80 83 94
060 (5 Tons)	208/230-3-60	187	254	17.3	123.0	1.5	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	30.6/ 30.6 47.6/ 50.1 58.0/ 62.3 72.3/ 78.8 85.5/ 93.8 99.6/110.4	35/ 35 50/ 60 60/ 70 80/ 80 90/100 100/125	30/ 30 46/ 48 55/ 59 69/ 75 81/ 88 94/104	187/187 200/202 209/212 220/225 231/237** 242/251**
	460-3-60	414	508	8.4	70.0	0.8	3.4	— 6.0 11.5 14.0 23.0 25.5	— 7.2 13.8 16.8 27.7 30.1	14.7 23.7 32.0 35.7 49.3 52.3	15 25 35 40 50 60	14 23 30 34 46 49	102 109 116 119 130 132

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:
MCA New = MCA unit only + MCA of Power Exhaust

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.
MCA New = 35.6 amps + 1.6 amps = 37.2 amps

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

NOTES:

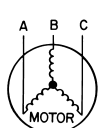
- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker.
- Unbalanced 3-Phase Supply Voltage**

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

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

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

ELECTRICAL DATA — 549C (cont)

549C024-060 — STANDARD MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET

UNIT 549C	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	kW†	FLA	MCA	MOCP**	FLA	LRA
024 (2 Tons)	208/230-1-60	187	254	10.9	63.0	0.7	2.0	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5	— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8	21.1/21.1 41.0/44.0 50.6/55.0 60.3/66.5 68.6/75.9	25/ 25 45/ 45 60/ 60 70/ 70 70/ 80	21/21 39/42 48/52 57/63 65/72	73/ 73 89/ 92 97/100 105/110 111/117
036 (3 Tons)	208/230-1-60	187	254	16.0	88.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 9.8/13.0	— 15.9/18.3 23.6/27.1 31.3/36.3 38.0/43.8 47.1/54.2	30.4/30.4 50.3/53.3 59.9/64.3 69.5/75.8 77.9/85.2 89.3/98.2	35/ 35 60/ 60 60/ 70 70/ 80 80/ 90 90/100	30/30 49/51 58/62 66/72 74/81 85/93	106/106 122/124 130/133 137/142 144/150†† 153/160††
	208/230-3-60	187	254	10.3	77.0	0.7	4.9	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	23.3/23.3 34.8/36.5 40.3/42.8 45.8/49.4 50.7/54.9 64.9/71.4	25/ 25 35/ 40 45/ 45 50/ 50 60/ 60 70/ 80	24/24 34/36 39/42 45/48 49/53 62/68	95/ 95 104/106 109/111 113/116 117/120 128/134
	460-3-60	414	508	5.1	39.0	0.4	2.2	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	11.2 20.2 24.4 28.4 32.2	15 25 25 30 35	11 20 24 27 31	48 55 59 62 65
048 (4 Tons)	208/230-1-60	197	254	21.0	115.0	0.7	4.9	—/— 3.3/ 4.4 6.5/ 8.7 9.8/13.0 13.1/17.4 15.8/21.0	—/— 15.9/18.3 31.3/36.3 47.1/54.2 63.0/72.5 76.0/87.5	36.7/ 36.7 56.5/ 59.5 75.8/ 82.0 95.5/104.4 115.4/127.3 131.7/146.0	40/ 40 60/ 60 80/ 90 100/110 125/150 150/150	36/ 36 54/ 57 72/ 78 90/ 98 109/119 124/137	133/133 149/151 164/169†† 180/187†† 196/206†† 209/221††
	208/230-3-60	187	254	14.1	95.0	0.7	4.9	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	28.0/ 28.0 45.0/ 47.5 50.5/ 54.2 69.7/ 76.2 82.9/ 91.2	30/ 30 50/ 50 60/ 60 70/ 80 90/100	28/ 28 44/ 46 49/ 52 66/ 72 79/ 86	113/113 127/129 134/134 146/152 157/164††
	460-3-60	414	508	7.1	45.0	0.4	2.2	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	13.7 22.7 30.9 34.7 48.3	15 25 35 35 50	14 22 30 33 46	54 61 68 71 82
060 (5 Tons)	208/230-1-60	187	254	25.0	150.0	1.5	7.6	—/— 4.9/ 6.5 6.5/ 8.7 9.8/13.0 13.1/17.4 15.8/21.0	— 23.6/27.1 31.3/36.3 47.1/54.2 63.0/72.5 76.0/87.5	45.2/ 45.2 74.7/ 79.0 84.3/ 90.5 104.0/112.9 123.9/135.8 140.2/154.5	50/ 50 80/ 80 90/100 110/125 125/150 150/175	45/ 45 72/ 76 81/ 86 99/107 117/128 132/145	193/193 216/220†† 224/229†† 240/247†† 256/265†† 269/280††
	208/230-3-60	187	254	17.3	123.0	1.5	5.8	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	33.7/ 33.7 50.7/ 53.2 61.1/ 65.4 75.4/ 81.9 88.6/ 96.9 102.7/113.5	35/ 35 60/ 60 70/ 70 80/ 90 90/100 110/125	34/ 34 49/ 52 59/ 63 72/ 78 84/ 92 97/107	173/173 186/188 194/198 206/211 216/223†† 228/236††
	460-3-60	414	508	8.4	70.0	0.8	2.6	— 6.0 11.5 14.0 23.0 25.0	— 7.2 13.8 16.8 27.7 30.1	16.1 25.1 33.3 37.1 50.7 53.7	20 30 35 40 60 60	16 24 32 35 48 51	95 102 108 111 122 125

549B, 549C

See Legend on page 130.

ELECTRICAL DATA — 549C (cont)

549C036-060 — HIGH-STATIC MOTOR UNITS WITH ELECTRICAL CONVENIENCE OUTLET

UNIT 549C	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE		COMPRESSOR (each)		OFM (each)	IFM	ELECTRIC HEAT*		POWER SUPPLY		MINIMUM UNIT DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FL A	kW†	FLA	MCA	MOCP	FLA	LRA
036 (3 Tons)	208/230-3-60	187	254	10.3	77.0	0.7	5.8	—/— 3.3/ 4.4 4.9/ 6.5 6.5/ 8.7 7.9/10.5 12.0/16.0	—/— 9.2/10.6 13.6/15.6 18.0/20.9 21.9/25.3 33.3/38.5	24.2/24.2 35.7/37.4 41.2/43.7 46.7/50.3 51.6/55.8 65.8/72.3	25/25 40/40 45/45 50/60 60/60 70/80	25/25 35/37 40/43 46/49 50/54 63/69	124/124 134/135 138/140 142/145 146/150 158/163
	460-3-60	414	508	5.1	39.0	0.4	2.6	— 6.0 8.8 11.5 14.0	— 7.2 10.6 13.8 16.8	11.6 20.6 24.8 28.8 32.6	15 25 25 30 35	12 20 24 28 31	63 70 73 76 79
048 (4 Tons)	208/230-3-60	187	254	14.1	95.0	0.7	5.8	—/— 4.9/ 6.5 6.5/ 8.7 12.0/16.0 15.8/21.0	—/— 13.6/15.6 18.0/20.9 33.3/38.5 43.9/50.5	24.1/24.1 41.1/43.6 46.6/50.3 65.8/72.3 79.0/87.3	25/25 45/45 50/60 70/80 80/90	24/24 39/42 44/48 62/68 74/82	138/138 151/153 156/159 171/176 182/188††
	460-3-60	414	508	7.1	45.0	0.4	2.6	— 6.0 10.5 14.0 23.0	— 7.2 12.6 16.8 27.7	14.1 23.1 29.8 35.1 48.7	15 25 30 40 50	14 22 29 33 46	69 76 81 85 96
060 (5 Tons)	208/230-3-60	187	254	17.3	123.0	1.5	7.5	—/— 4.9/ 6.5 7.9/10.5 12.0/16.0 15.8/21.0 19.9/26.5	—/— 13.6/15.6 21.9/25.3 33.3/38.5 43.9/50.5 55.2/63.8	35.4/ 35.4 52.4/ 54.9 62.8/ 67.1 77.1/ 83.6 90.3/ 98.6 104.4/115.2	40/ 40 60/ 60 70/ 70 80/ 90 100/100 110/125	36/ 36 51/ 54 61/ 65 74/ 80 86/ 94 99/109	192/192 205/207 213/217 225/230†† 235/242†† 247/255††
	460-3-60	414	508	8.4	70.0	0.8	3.4	— 6.0 11.5 14.0 23.0 25.0	— 7.2 13.8 16.8 27.7 30.1	16.9 25.9 34.1 37.9 51.5 54.5	20 30 35 40 60 60	17 25 33 36 49 52	104 111 118 121 132 134

LEGEND

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

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.

POWER EXHAUST ELECTRICAL DATA

POWER EXHAUST PART NO.	MCA (230 v)	MCA (460 v)	MCA (575 v)	MOCP (for separate power source)
CRPWREXH021A01	N/A	0.68	N/A	15
CRPWREXH022A01	3.4	N/A	1.32	15
CRPWREXH023A01	N/A	1.4	N/A	15
CRPWREXH028A01	1.7	N/A	0.68	15
CRPWREXH029A01	N/A	0.7	N/A	15
CRPWREXH030A01	1.6	N/A	0.64	15

N/A — Not available

NOTE: If a single power source is to be used, size wire to include power exhaust MCA and MOCP.

Check MCA and MOCP when power exhaust is powered through the unit. Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

For example, using a 549B060 unit with MCA = 35.6 and MOCP = 40, with CRPWREXH030A01 power exhaust.

$$\text{MCA New} = 35.6 \text{ amps} + 1.6 \text{ amps} = 37.2 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 40 amps and the MCA New is below 40; therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. In all cases, the MOCP for the power exhaust should be 15 amps per NEC.

549B, 549C



*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

**Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

NOTES:

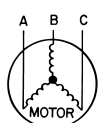
- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker.
- Unbalanced 3-Phase Supply Voltage**

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.

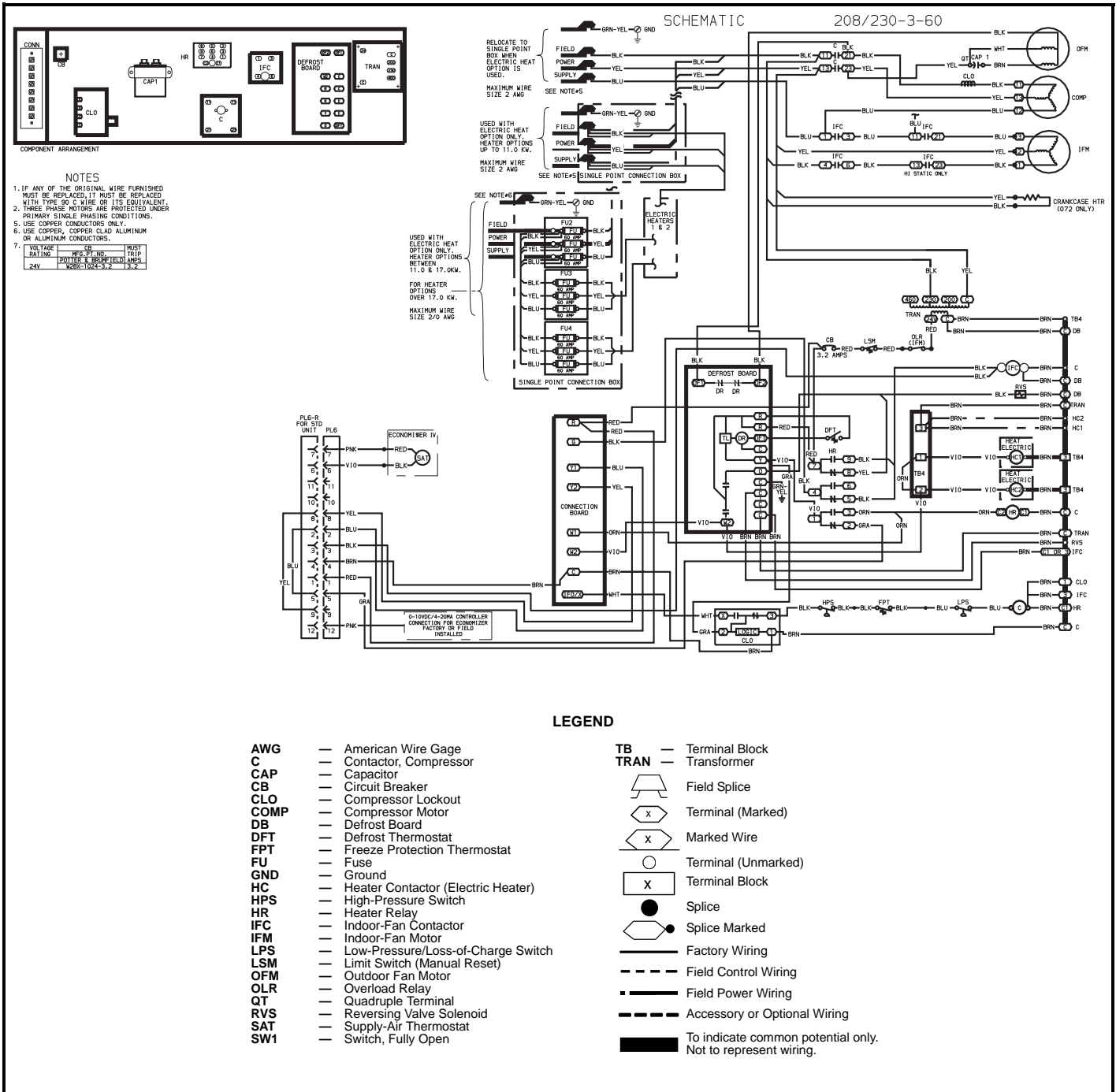


- AB = 452 v
- BC = 464 v
- AC = 455 v

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

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

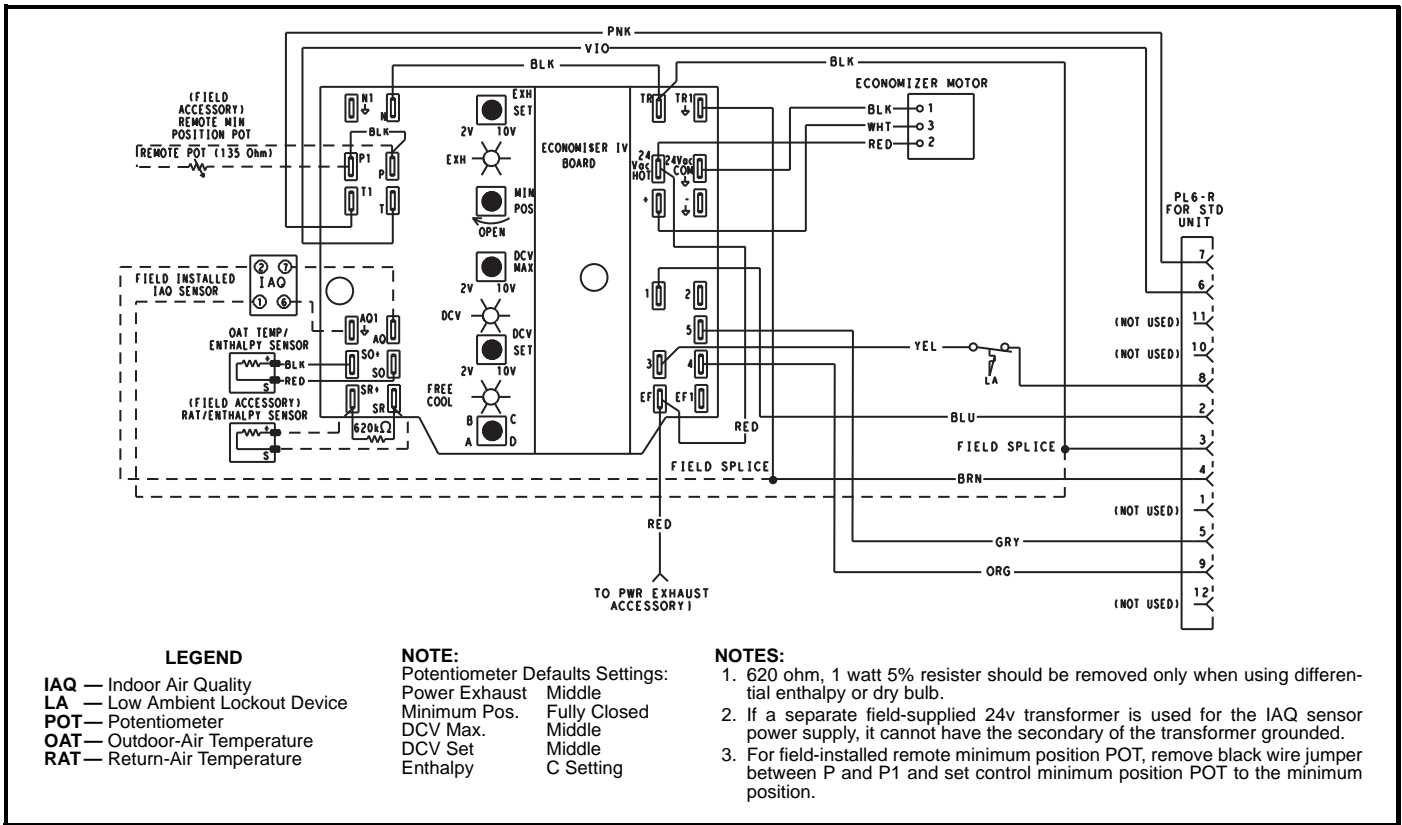
TYPICAL WIRING SCHEMATICS — 549B, 549C



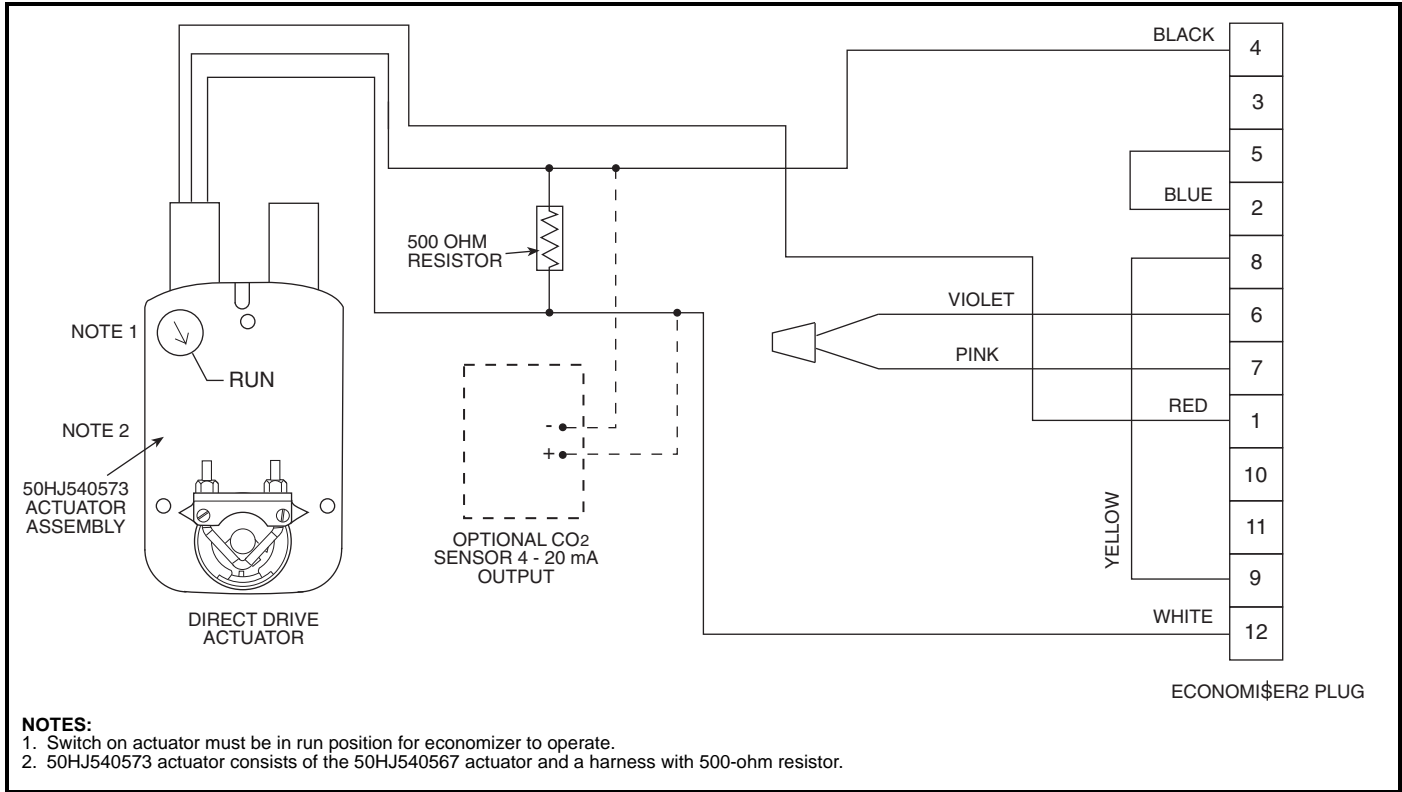
549B, 549C

549B036 208/230 v Shown

TYPICAL WIRING SCHEMATICS — 549B, 549C (cont)



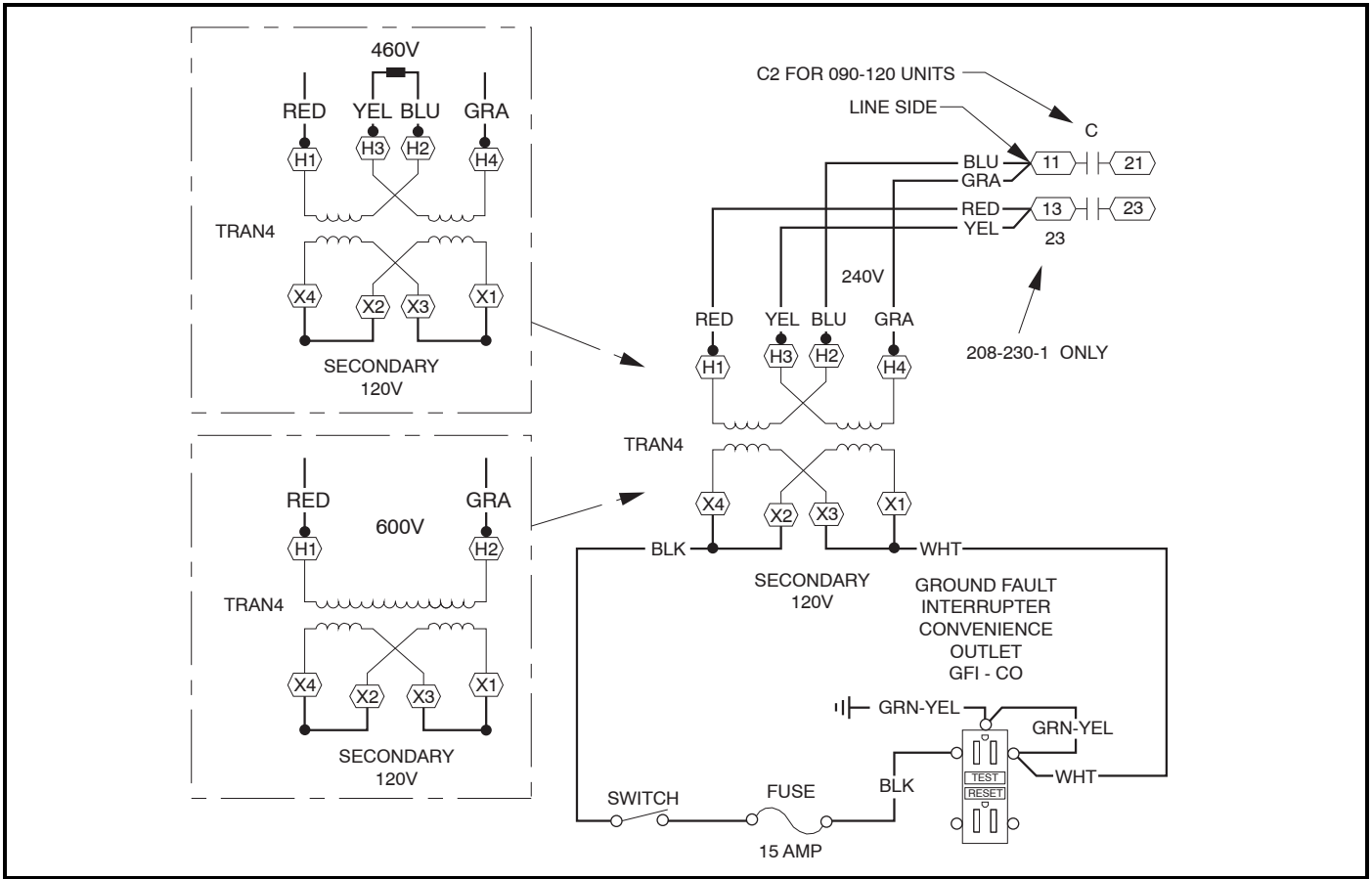
EconoMi\$erIV Wiring — 549B036-120, 549C024-060



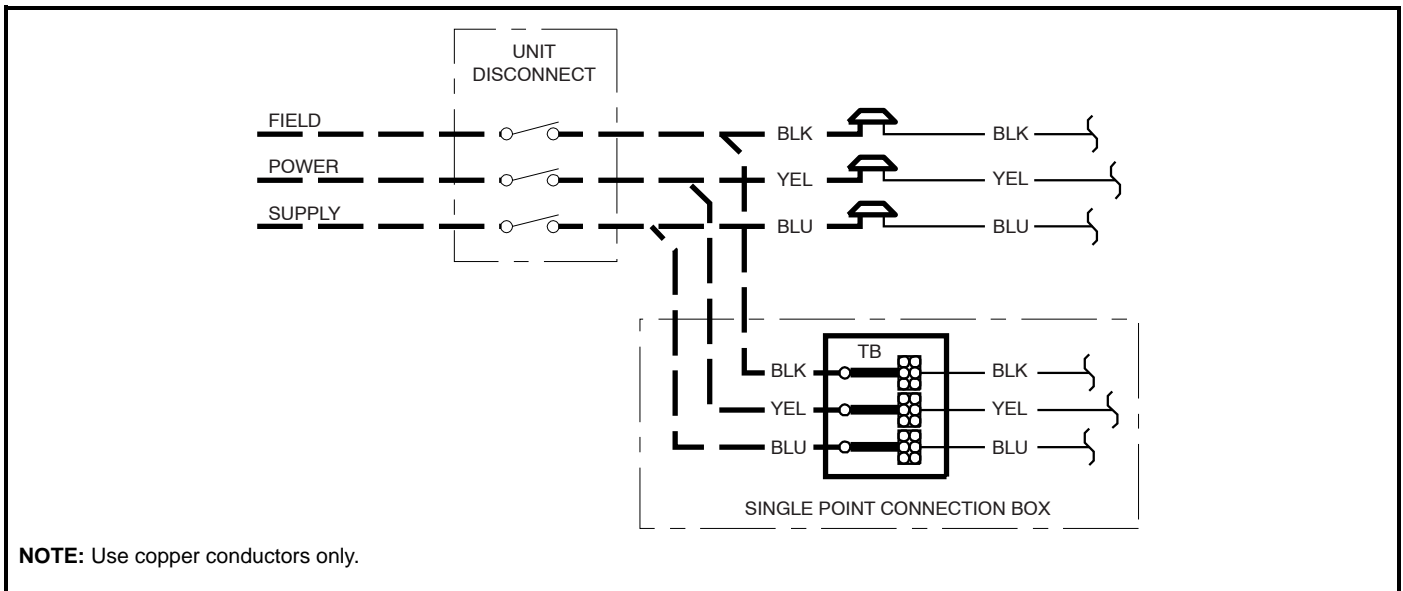
EconoMi\$er2 Wiring — 549B036-120, 549C024-060

549B, 549C

TYPICAL WIRING SCHEMATICS — 549B, 549C (cont)



Convenience Outlet (Optional) — 549B036-120, 549C024-060

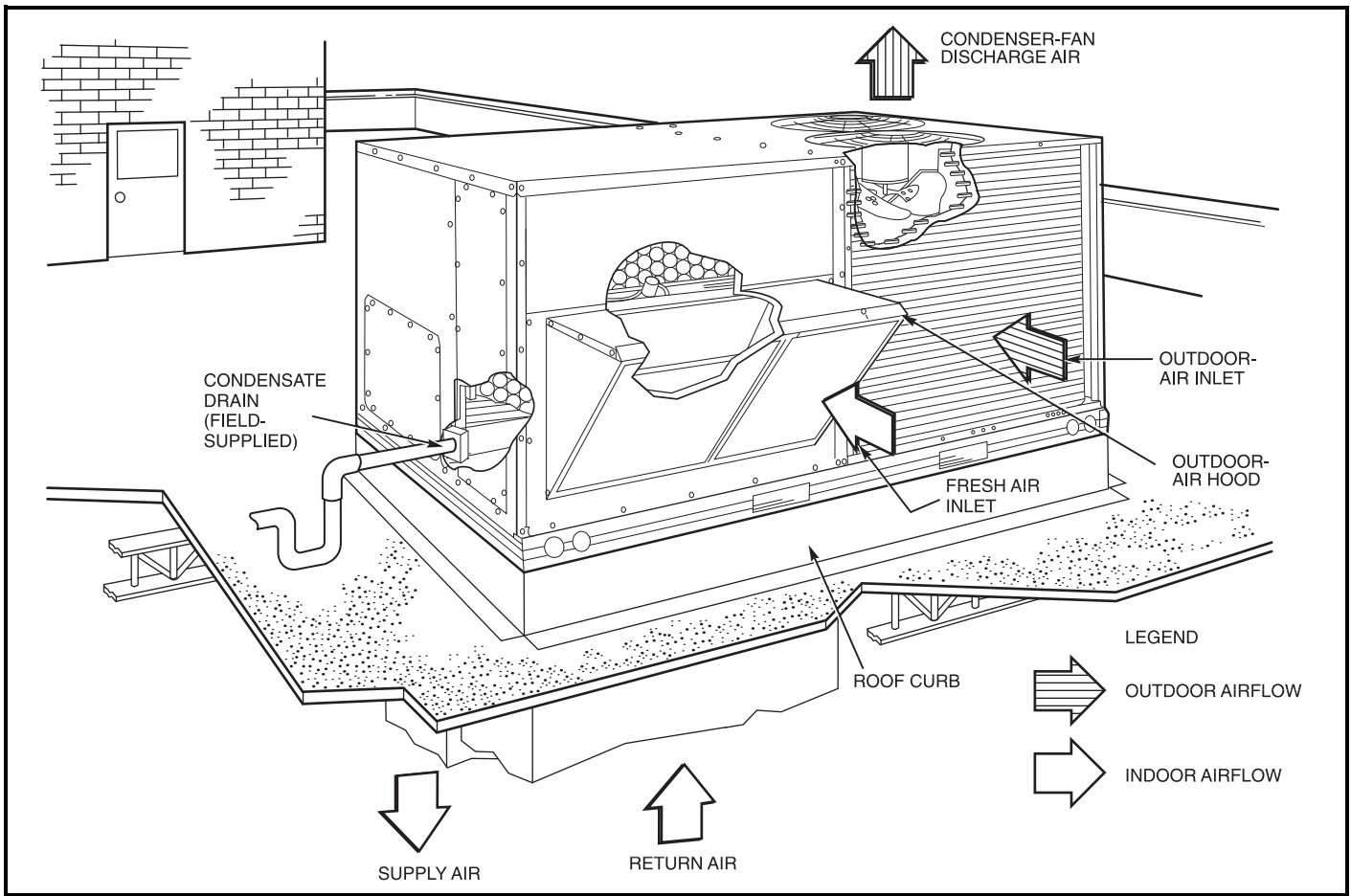


NOTE: Use copper conductors only.

Non-Fused Disconnect (Optional) — 549B036-120, 549C024-060

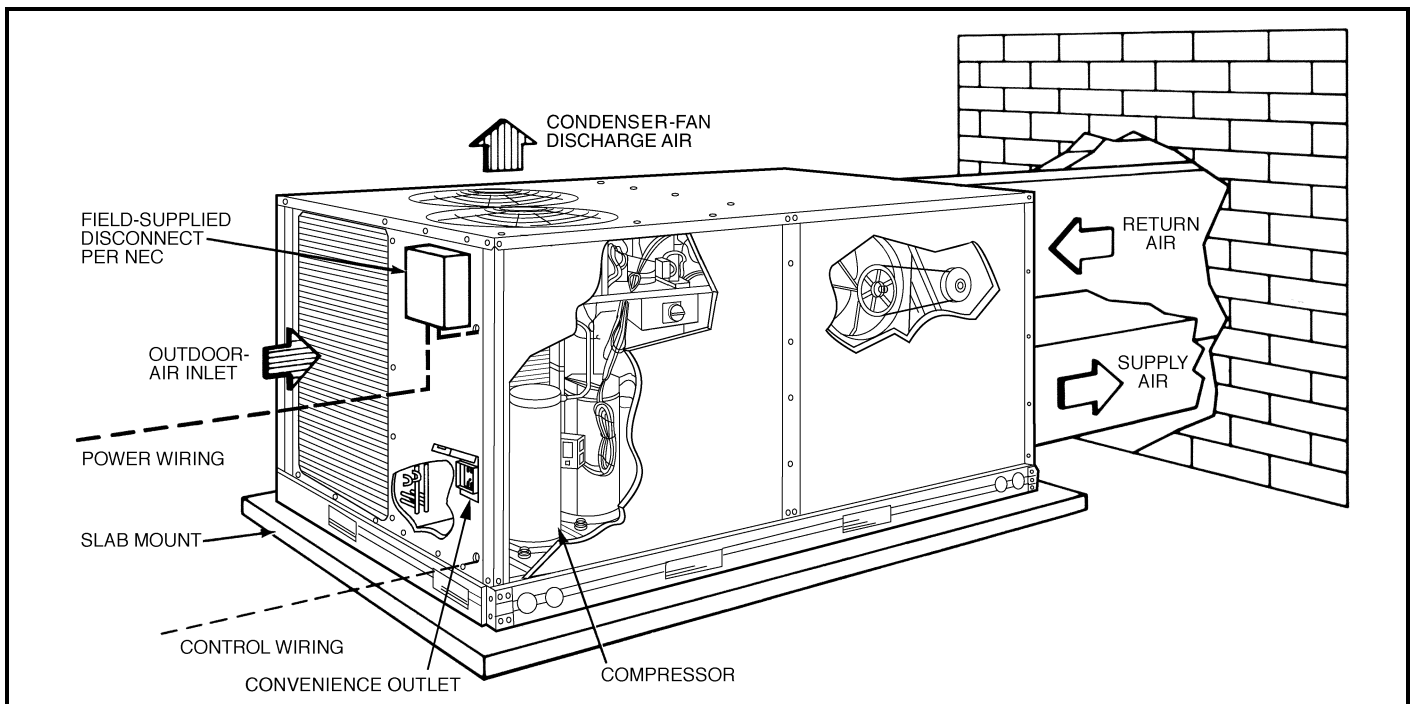
549B, 549C

TYPICAL PIPING AND WIRING — 549B036-120, 549C024-060



Vertical Discharge Ducting

549B, 549C



Horizontal Discharge Ducting

GUIDE SPECIFICATIONS — 549B036-120, 549C024-060

PACKAGED ROOFTOP AIR-TO-AIR HEAT PUMP — CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 2 TO 10 TONS, NOMINAL (COOLING)
34,800 TO 114,000 BTUH, NOMINAL
(HEATING)
4 TO 50 kW NOMINAL (ELECTRIC
HEATING)

BRYANT MODEL NUMBER:

549B
549C



PART 1 — GENERAL

1.01 SYSTEM DESCRIPTION

Outdoor rooftop mounted, electrically controlled air-to-air heat pump unit utilizing a scroll compressor for cooling duty and electric resistance coils for heating duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with ARI Standards 210/240 or 360 and 270. Designed in accordance with UL Standard 1995. Units shall be Energy Star qualified.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision.
- C. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- G. Unit shall be designed in accordance with ISO 9001:2000, and shall be manufactured in a facility registered to ISO 9001:2000.
- H. Each unit shall be subjected to a completely automated run testing on the assembly line. A factory-supplied print-out indicating tested pressures, amperages, data, and inspectors; providing certification of the unit status at the time of manufacture shall be provided upon request.

1.03 DELIVERY, STORAGE, AND HANDLING

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

PART 2 — PRODUCTS

2.01 EQUIPMENT (STANDARD)

A. General:

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

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
2. Evaporator fan compartment interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, 1 lb density, flexible fiberglass insulation, neoprene coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
3. Cabinet panels shall be easily removable for servicing.
4. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
5. Unit shall have a factory-installed, sloped condensate drain pan made of a non-corrosive material, providing a minimum 3/4-in.-14 NPT connection with both vertical and horizontal drains, and shall comply with ASHRAE Standard 62.
6. Unit shall have a factory-installed filter access panel to provide filter access with tool-less removal.
7. Unit shall have standard thru-the-bottom power connection capability (accessory kit is required).

C. Fans:

1. Indoor Fan:

- a. Fan shall be direct or belt driven as shown on the equipment drawings. Belt drive shall include an adjustable-pitch motor pulley.
- b. Fan wheel shall be double-inlet type with forward-curved blades.
- c. Bearings shall be sealed, permanently lubricated ball-bearing type for longer life and lower maintenance.

2. Indoor fan shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.

3. Outdoor fan shall be of the direct-driven (with totally enclosed motors) propeller type and shall discharge air vertically.

4. Outdoor fan shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

D. Compressor(s):

1. Fully hermetic type, internally protected scroll-type.
2. Factory mounted on rubber grommets and internally spring mounted for vibration isolation.
3. On dual electrically and mechanically independent circuits (090-120).

E. Coils:

1. Standard indoor and outdoor coils shall have copper or aluminum plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.

2. Testing:

- a. Indoor and outdoor coils shall be qualified to UL 1995 burst test at 2,200 psi.
- b. Indoor and outdoor coils shall be leak tested to 150 psig and pressure tested to 400 psig.

3. Coils:

- a. Copper-fin coils shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan. All copper construction shall provide protection in moderate coastal environments.
- b. E-Coated aluminum-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be aluminum fins mechanically bonded to copper tubes.
- c. E-Coated copper-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be copper fins mechanically bonded to copper tubes with copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting sheet metal coil pan to maintain coating integrity and minimize corrosion potential between coil and pan.
- d. Optional pre-coated aluminum-fin coils shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube. Epoxy-phenolic barrier shall minimum galvanic action between dissimilar metals.

F. Heating Section:

- 1. May be equipped with field-installed electric resistance heater(s) of the characteristics shown in the equipment schedule.
- 2. Heater elements shall be open wire, adequately supported and insulated with ceramic bushings.

G. Refrigerant Components:

Refrigerant circuit components shall include:

- 1. Fixed orifice metering system (fixed orifice device).
- 2. Refrigerant filter drier.
- 3. Reversing valve.
- 4. Service gage connections on suction, discharge, and liquid lines.

H. Filter Section:

- 1. Standard filter section shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
- 2. Filter face velocity shall not exceed 320 fpm at nominal airflows.
- 3. Filter section should use only one size filter.
- 4. Filters shall be accessible through an access panel with “no-tool” removal.

I. Controls and Safeties:

1. Unit Controls:

Unit shall be complete with self-contained low-voltage control circuit protected by a fuse on the 24-v transformer side (090-120 units have a resettable circuit breaker).

2. Safeties:

- a. Unit shall incorporate a solid-state compressor protector which provides anti-cycle reset capability at the space thermostat, should any of the following standard safety devices trip and shut off compressor.
 - 1) Compressor overtemperature, overcurrent.
 - 2) Loss-of-charge/low-pressure switch.
 - 3) Freeze-protection thermostat, evaporator coil.
 - 4) High-pressure switch.
 - 5) Automatic reset motor thermal overload protector.

The lockout protection shall be easily disconnected at the control board, if necessary.

- b. Heating section shall be provided with the following minimum protections:

- 1) High-temperature limit switches.
- 2) Overcurrent protection.

- c. Unit shall incorporate an outdoor coil defrost system to prevent excessive frost accumulation during heating duty, and shall be controlled as follows:

- 1) Defrost shall be initiated on the basis of time and coil temperature.
- 2) A 30/50/90-minute timer shall activate defrost cycle only if the coil temperature is low enough to indicate a heavy frost condition.
- 3) Defrost cycle shall terminate when defrost thermostats are satisfied and shall have a positive termination time of 10 minutes.

J. Operating Characteristics:

- 1. Unit shall be capable of starting and running at 125 F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/240 or 360 at $\pm 10\%$ voltage.
- 2. Compressor with standard controls shall be capable of operation down to 25 F (in cooling mode) ambient outdoor temperature.

GUIDE SPECIFICATIONS — 549B036-120, 549C024-060 (cont)

3. Compressor with standard controls shall be capable of operation down to -20 F (in heating mode) ambient outdoor temperature.
4. Unit shall be capable of simultaneous heating duty and defrost cycle operation when using accessory electric heaters.

K. Electrical Requirements:

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

L. Motors:

1. Compressor motors shall be cooled by refrigerant gas passing through motor windings and shall have line break thermal and current overload protection.
2. Indoor-fan motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.
3. Totally enclosed outdoor-fan motor shall have permanently lubricated bearings, and inherent automatic-reset thermal overload protection.

M. Special Features:

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

1. Roof Curbs (Horizontal and Vertical):

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

* 2. Integrated Economizers:

- a. Integrated integral modulating type capable of simultaneous economizer and compressor operation. During economizer operation, up to two compressors on sizes 090-120 will operate.
- b. Available as a factory-installed option in vertical supply/return configuration only. (Available as a field-installed accessory for dedicated horizontal and/or vertical supply return configurations.)
- c. Includes all hardware and controls to provide cooling with outdoor air.
- d. Equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
- e. Capable of introducing up to 100% outdoor air.
- f. EconoMi\$erIV and EconoMi\$er2 shall be equipped with a barometric relief damper capable of relieving up to 100% return air.
- g. Designed to close damper(s) during loss-of-power situations with spring return built into motor.
- h. Dry bulb outdoor-air temperature sensor shall be provided as standard. Outdoor air sensor set point is adjustable and shall range from 40 to 100 F. For the EconoMi\$erIV, the return air sensor, indoor enthalpy sensor, and outdoor enthalpy sensor shall be provided as field-installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control. For the EconoMi\$er2, the enthalpy, differential temperature (adjustable), and differential enthalpy control shall be provided as field-installed accessories.

- i. The EconoMi\$erIV and EconoMi\$er2 shall have a gear-driven parallel blade design.
- j. EconoMi\$erIV microprocessor control shall provide control of internal building pressure through its accessory power exhaust function. Factory set at 100%, with a range of 0% to 100%.

- k. EconoMi\$er2 shall be capable of control from a 4 to 20 mA signal through optional 4 to 20 mA design without microprocessor control (required for third party control interface).

- l. EconoMi\$erIV Microprocessor Occupied Minimum Damper Position Setting maintains the minimum airflow into the building during occupied period providing design ventilation rate for full occupancy (damper position during heating). A remote potentiometer may be used to override the set point.

- m. EconoMi\$erIV Microprocessor Unoccupied Minimum Damper Position Setting — The EconoMi\$erIV damper shall be completely closed when the unit is in the occupied mode.

- n. EconoMi\$erIV Microprocessor IAQ/DCV Maximum Damper Position Setting — Setting the maximum position of the damper prevents the introduction of large amounts of hot or cold air into the space. This position is intended to satisfy the base minimum ventilation rate.

- o. EconoMi\$erIV Microprocessor IAQ/DCV control modulates the outdoor-air damper to provide ventilation based on the optional 2 to 10 vdc CO₂ sensor input.

- p. Compressor lockout sensor (opens at 35 F, closes at 50 F).

- q. Actuator shall be direct coupled to economizer gear, eliminating linkage arms and rods.

r. Control LEDs:

- 1) When the outdoor-air damper is capable of providing free cooling, the "Free Cool" LED shall illuminate.
- 2) The IAQ LED indicates when the module is on the DCV mode.
- 3) The EXH LED indicates when the exhaust fan contact is closed.

- s. Remote Minimum Position Control — A field-installed accessory remote potentiometer shall allow the outdoor-air damper to be opened or closed beyond the minimum position in the occupied mode for modified ventilation.

3. Manual Outdoor-Air Damper:

Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 50% outdoor air for year round ventilation.

* 4. 100% Two-Position Damper:

- a. Two-position damper package shall include single blade damper and motor. Admits up to 100% outdoor air.
- b. Damper shall close upon indoor (evaporator) fan shutoff.
- c. Designed to close damper during loss of power situations.
- d. Equipped with 15% barometric relief damper.

GUIDE SPECIFICATIONS — 549B036-120, 549C024-060 (cont)

- * 5. 25% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper and motor. Admits up to 25% outdoor air.
 - b. Damper shall close upon indoor fan shutoff.
- * 6. Head Pressure Control Package:

Control package shall consist of solid-state control and condenser-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling and wind baffles.
- 7. Electric Resistance Heaters:
 - a. Open wire nichrome elements with all necessary safety operating controls.
 - b. UL listed and indicated on basic unit information plate.
 - c. Available in multiples to match heating requirements.
 - d. Single point kits available for each heater when required.
- * 8. Electronic Programmable Thermostat:

Unit shall be capable of using deluxe full-featured electronic thermostat. Thermostat shall use built-in compressor cycle delay control for both heating and cooling duty. Thermostat shall be capable of working with third party direct digital controls.
- * 9. Thermostat and Subbase:

Thermostat shall provide staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.
- * 10. Outdoor Coil Hail Guard Assembly:

Hail guard shall protect against damage from hail and flying debris.
- 11. Unit-Mounted, Non-Fused Disconnect Switch:

Switch shall be factory-installed, internally mounted. NEC and UL approved non-fused switch shall provide unit power shutoff. Switch shall be accessible from outside the unit and shall provide power off lockout capability.
- 12. Convenience Outlet:

Switch shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. Switch shall include 15 amp GFI receptacle with independent fuse protection. Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer. Switch shall be accessible from outside the unit.

NOTE: Convenience outlet shall be designed for short duration electrical maintenance loads, and for use with long term electrical supply.
- 13. Outdoor Coil Grille:

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

Unit shall be prevented from restarting for minimum of 5 minutes after shutdown.
- 15. Thru-the-Bottom Utility Connectors:

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

Switch shall provide status of indoor (evaporator) fan (ON/OFF) or filter (CLEAN/DIRTY). Status shall be displayed over communication bus when used with direct digital controls or with an indicator light at the thermostat.
- 17. Power Exhaust Accessory for EconoMi\$erIV or EconoMi\$er2:

Power exhaust shall be used in conjunction with EconoMi\$erIV or EconoMi\$er2 to provide system exhaust of up to 100% of return air (vertical only). The power exhaust is a field-installed accessory (separate vertical and horizontal design).

NOTE: Horizontal power exhaust is intended to mount in return ductwork.

As the outdoor-air damper opens and closes, *both* propeller fans are energized and de-energized through the EconoMi\$erIV controller. The set point is factory set at 100% of outdoor-air, and is adjustable 0 to 100% to meet specific job requirements. Available in 208/230-1-60 v or 460-3-60 v. An LED light on the controller indicates when the power exhaust is operating.

For the EconoMi\$er2, the power exhaust shall be controlled by the third party controls.
- 18. Outdoor Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):

The outdoor air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the controller will provide differential enthalpy control. The sensor allows the controller to determine if outside air is suitable for free cooling.
- 19. Return Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):

The return air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with an outdoor air enthalpy sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential enthalpy control.
- 20. Return Air Temperature Sensor (EconoMi\$erIV or EconoMi\$er2):

The return air temperature sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with the standard outdoor air temperature sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential temperature control.
- 21. Outdoor Air/Return Air Temperature Sensor (adjustable) (EconoMi\$er2):

Optional sensor uses a third party control to control outdoor air damper and compressor operation.
- 22. Indoor Air Quality (CO₂) Sensor (EconoMi\$er2):
 - a. Shall have the ability to provide demand ventilation indoor air quality (IAQ) control through the EconoMi\$er2 with an IAQ sensor.
 - b. The IAQ sensor shall be available in duct mount, wall mount, and wall mount with LED display. The set point shall have adjustment capability.

GUIDE SPECIFICATIONS — 549B036-120, 549C024-060 (cont)

23. Indoor Air Quality (CO₂) Room Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be wall mounted with an LED display in parts per million. The set point shall have adjustment capability.
24. Return Air CO₂ Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be duct mounted. The set point shall have adjustment capability.
25. Ultra-Violet Germicidal Lamps:
Ultra-violet germicidal lamps are designed to eliminate odor-causing mold and fungus that may develop in the wet area of the indoor section of the unit. The high output, low temperature germicidal lamps are field installed in the indoor section of the unit, aimed at the indoor coil and condensate pan.
The short wave-length ultra-violet light inhibits and kills mold, fungus and microbial growth. The lamps have an output rating at 45 F in 400 fpm airflow of 120 microwatts/cm² at 1 meter.
26. Hinged Panel Option:
Hinged panel option provide hinged access panels for the filter, compressor, evaporator fan, and control box areas. Filter hinged panels permit tool-less entry for changing filters. Each hinged panel is permanently attached to the rooftop unit.
27. Emergency Heat Control Package:
When mechanical heating is locked out, auxiliary heat shall be activated when necessary.
28. Louvered Hail Guard:
The hail guard shall protect the entire outdoor coil surface from direct or indirect (from adjacent surfaces) hail damage. Hail guard shall have a pressure drop of 2%.

PHYSICAL DATA — 542J150,180

UNIT SIZE 542J	150		180
	203/230 V, 460 V	575 V	
NOMINAL CAPACITY (tons)	12.5		15
OPERATING WT (lb)			
Unit	1615		1925
EconoMiSer ^{IV}	90		90
EconoMiSer ²	85		85
Roof Curb*	200		200
COMPRESSOR Semi-Hermetic			
Model Number (Quantity)	06D-328 (1)		06D-818 (2)
Cylinders	6		4
Capacity Staging (%)	0,66,100		0,50,100
Oil Change (oz)	115		88 (each)
REFRIGERANT TYPE R-22			
Charge (lb)	26.0		16.5
System 1	—		16.5
System 2	—		16.5
OUTDOOR COIL 3/8 in. Enhanced Copper Tubes, Aluminum Lanced or Copper Plate Fins			
Rows	3		3
Fins/in.	15		15
Total Face Area (sq ft)	21.7		21.7
OUTDOOR FAN Propeller Type, Direct Drive			
Nominal Cfm	9,000		9,000
Number...Diameter (in.)	3...22		3...22
Motor Hp (1075 Rpm)	1/2		1/2
Watts Input (Total)	1090		1090
INDOOR COIL 3/8-in. Enhanced Copper Tubes, Aluminum Double Wavy or Copper Plate Fins, Face Split			
Rows	3		3
Fins/in.	15		15
Total Face Area (sq ft)	17.5		17.5
INDOOR FAN Centrifugal, Adjustable Pitch Belt Drive			
Quantity...Size (in.)	2...10 x 10	2...10 x 10	2...12 x 12
Nominal Cfm	5000	5000	6000
Maximum Continuous Bhp	4.25	3.45	5.90
Fan Rpm Range	STD 891-1179	1159-1429	817-1038
	ALT 1227-1559	—	1082-1303
Motor Nominal Rpm	1725	1550	1745
Maximum Allowable Rpm	1550	—	1550
Motor Pulley Pitch Diameter (in.)	STD 3.1-4.1	4.3-5.3	3.7-4.7
	ALT 3.7-4.7	—	4.9-5.9
Fan Pulley Pitch Diameter (in.)	STD 6.0	6.4	7.9
	ALT 5.2	—	7.9
Belt, Quantity...Type...Length (in.)	STD 1...BX...42	1...BX...45	1...BX...46
	ALT 1...BX...42	—	1...BX...50
Pulley Center Line Distance (in.)	13.5-15.5	13.5-15.5	13.3-14.8
Factory Setting	3.5	3.5	3.5
Factory Speed Setting	STD 1035	1296	934
	ALT 1389	—	1199
Motor Hp (Service Factor)	3.7 (1.15)	3.0 (1.15)	5 (1.15)
Motor Frame Size	56H	56H	184T
Motor Efficiency	0.86	0.82	0.875
HIGH-PRESSURE SWITCH			
Cutout (psig)	426		
Reset (psig)	320		
LOW-PRESSURE/LOSS-OF-CHARGE SWITCH			
Cutout (psig)	7		
Reset (psig)	22		
FREEZE PROTECTION THERMOSTAT (F)			
Opens	30 ± 5		
Closes	45 ± 5		
OUTDOOR AIR INLET SCREENS Cleanable			
Economizer, Quantity...Size (in.)	2...20 x 25 x 1		
	1...20 x 20 x 1		
RETURN-AIR FILTERS (Type) 10% Efficient — 2-in. Throwaway Fiberglass			
Quantity...Size (in.)	4...20 x 20 x 2		
	4...16 x 20 x 2		
POWER EXHAUST 1/2 Hp 208/230 or 460 V Motor, Direct Drive Propeller Fan (Factory Wired for 460 V)			

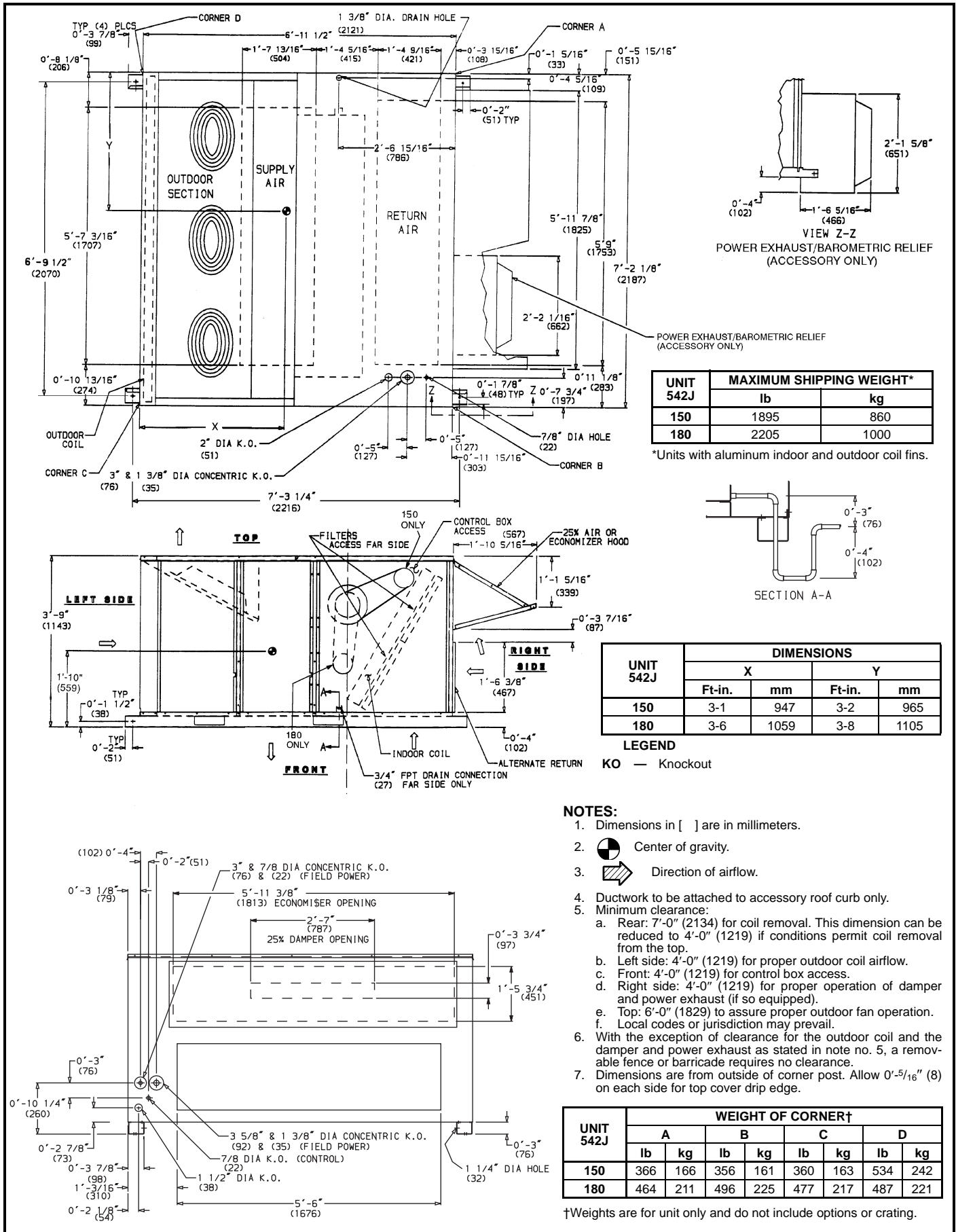
LEGEND

Al — Aluminum
Cu — Copper

*Weight of 14 in. roof curb.

542J

BASE UNIT DIMENSIONS



UNIT 542J	MAXIMUM SHIPPING WEIGHT*	
	lb	kg
150	1895	860
180	2205	1000

*Units with aluminum indoor and outdoor coil fins.

UNIT 542J	DIMENSIONS			
	X		Y	
	Ft.-in.	mm	Ft.-in.	mm
150	3-1	947	3-2	965
180	3-6	1059	3-8	1105

LEGEND
KO — Knockout

- NOTES:**
- Dimensions in [] are in millimeters.
 - Center of gravity.
 - Direction of airflow.
 - Ductwork to be attached to accessory roof curb only.
 - Minimum clearance:
 - Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" (1219) if conditions permit coil removal from the top.
 - Left side: 4'-0" (1219) for proper outdoor 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 outdoor fan operation.
 - Local codes or jurisdiction may prevail.
 - With the exception of clearance for the outdoor coil and the damper and power exhaust as stated in note no. 5, a removable fence or barricade requires no clearance.
 - Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top cover drip edge.

UNIT 542J	WEIGHT OF CORNER†							
	A		B		C		D	
	lb	kg	lb	kg	lb	kg	lb	kg
150	366	166	356	161	360	163	534	242
180	464	211	496	225	477	217	487	221

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

542J150,180

542J

ACCESSORY DIMENSIONS — 542J150,180 (cont)

NOTE: CRRFCURB013A00 is a fully factory preassembled horizontal adapter and includes an insulated transition duct. The pressure drop through the adapter curb is negligible. Power exhaust and barometric relief accessory are not available with horizontal adapter.

For horizontal return applications: The power exhaust and barometric relief dampers must be installed in the return air duct.

ACCESSORY PACKAGE NO.	CURB HEIGHT	DESCRIPTION
CRRFCURB013A00	1'-11" (584)	Pre-Assembled Horizontal Adapter Roof Curb

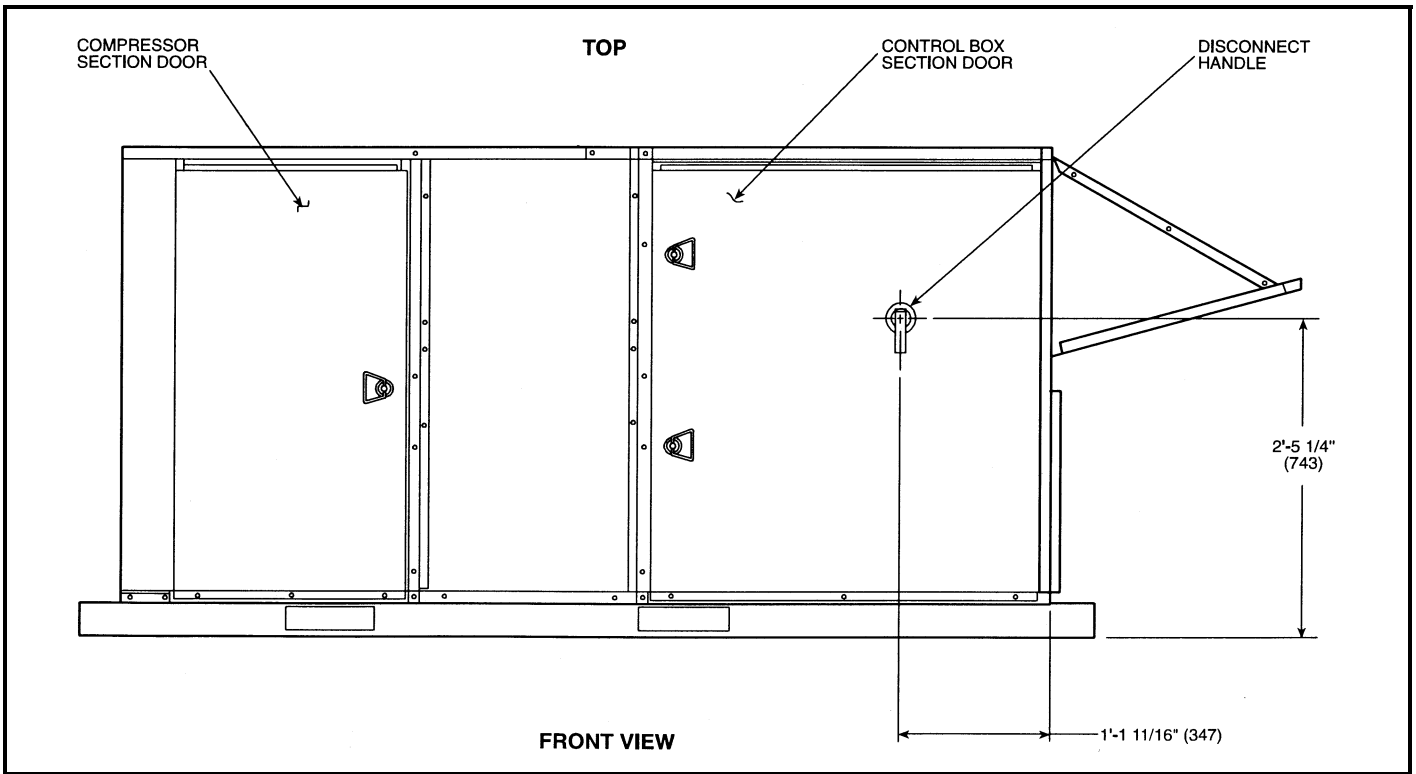
Horizontal Adapter Installation — 542J150,180

END VIEW

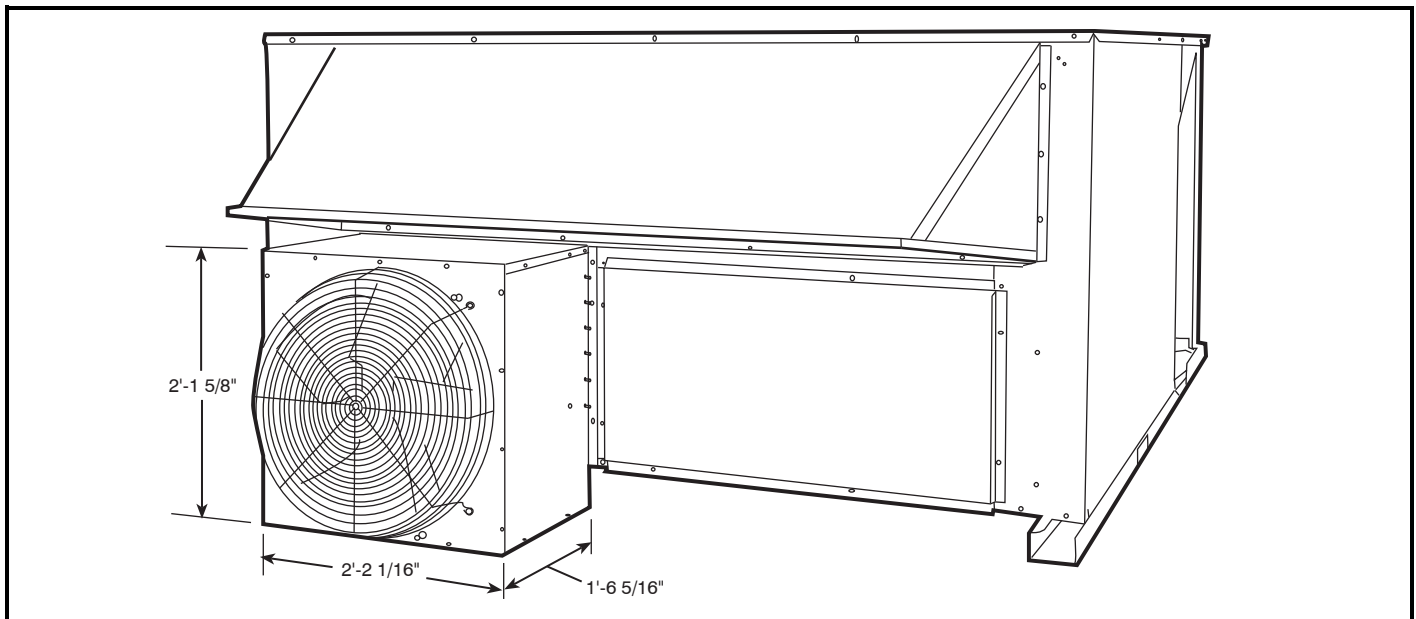
Convenience Outlet — 542J150,180

542J

ACCESSORY DIMENSIONS — 542J150,180 (cont)



Non-Fused Disconnect — 542J150,180



Power Exhaust — 542J150,180

542J

SELECTION PROCEDURE (WITH 542J180 EXAMPLE)

I DETERMINE HEATING AND COOLING REQUIREMENTS AT DESIGN CONDITIONS:

Given:

Required Cooling Capacity (TC) 164,000 Btuh
 Sensible Heat Capacity (SHC). 120,000 Btuh
 Required Heating Capacity 170,000 Btuh
 Outdoor-Air Temperature (Cooling) 95 F
 Indoor Entering-Air Temperature
 (Cooling). 80 F Edb/67 F Ewb
 Outdoor Coil Entering-Air Temperature
 (Heating) 0° F
 Indoor Winter Design Temperature 70 F
 Indoor-Air Quantity. 6000 Cfm
 External Static Pressure (ESP) 1.30 in. wg
 Electrical Characteristics (V-Ph-Hz). 230-3-60
 Economizer is specified.

Edb — Entering dry bulb

Ewb — Entering wet bulb

II SELECT UNIT BASED ON REQUIRED COOLING CAPACITY.

Enter Cooling Capacity table on page 146 at outdoor-entering temperature of 95 F, indoor air entering at 6000 cfm and 67 F ewb. The 542J180 will provide a total capacity (TC) of 180,800 Btuh, a sensible heat capacity (SHC) of 136,400 Btuh and a total unit kW of 15.88.

For indoor-air temperature other than 80 F edb, calculate sensible heat capacity correction, as required, using the formula found in Note 3 following the Cooling Capacities table on page 146.

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

III SELECT ELECTRIC HEAT.

Enter the Integrated Heating Capacities table on page 147 at 6000 cfm (interpolation required). At 70 F return indoor air and 0° F air entering the outdoor coil, the integrated heating capacity is 58,500 Btuh with a unit input kW of 11.71.

The required heating capacity is 170,000 Btuh; therefore, 111,500 Btuh (170,000 – 58,500) additional electric heat is necessary.

Determine additional electric heat capacity in kW.

$$\frac{111,500 \text{ Btuh}}{3412 \text{ Btuh/kW}} = 32.7 \text{ kW}$$

Enter the Electric Resistance Heater Data table at 230-3-60. The 34-kW heater satisfies the electric heater requirements.

IV DETERMINE FAN SPEED AND MOTOR HORSE-POWER REQUIREMENTS AT DESIGN CONDITIONS.

Before entering Fan Performance table, calculate the total static pressure required based on unit components. From the given and the Accessory/FIOP Static Pressure table on page 151, find:

External static pressure	1.30 in. wg
Economizer static pressure	0.07 in. wg
Electric heat static pressure	0.09 in. wg
Total static pressure	1.46 in. wg

Enter the Fan Performance table on page 149. At 6000 cfm and 1.46 in. wg external static pressure, the fan speed is 1214 and the bhp is 3.95 (interpolation required). The standard motor and alternate high static drive and suitable.

V DETERMINE NET CAPACITIES.

Capacities are gross and do not include the effect of indoor-fan motor (IFM) heat.

Determine net cooling capacity as follows:

$$\begin{aligned} \text{Net capacity} &= \text{Gross capacity} - \text{IFM heat} \\ &= 180,800 - 3.95 \text{ bhp} \times \frac{2545 \text{ Btuh}}{\text{hp} \times .85} \\ &= 180,800 - 11,827 \\ &= 168,973 \text{ Btuh} \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 136,400 - 11,827 \\ &= 124,573 \text{ Btuh} \end{aligned}$$

Determine net heating capacity as follows:

$$\begin{aligned} \text{Net capacity} &= \\ &= \text{Gross capacity} + \text{IFM heat} + \text{Electric heat capacity} \\ &= 56,800 + (\text{IFM kW} \times 3412) + (\text{Elec. kW} \times 3412) \\ &= 56,800 + 11,827 + (34 \times 3412) \\ &= 56,800 + 11,827 + 116,008 \\ &= 184,635 \text{ Btuh} \end{aligned}$$

PERFORMANCE DATA — 542J

COOLING CAPACITIES

542J150 (12 1/2 Tons)			Indoor Entering Air — Cfm/BF														
Temp (F) Outdoor Entering Air (Edb)			3750/0.04			4500/0.05			5000/0.05			5625/0.06			6250/0.07		
			Indoor Entering Air — Ewb (F)														
			72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
75	TC		167.0	154.0	140.0	171.0	158.0	144.0	173.0	159.0	146.0	171.0	162.0	148.0	173.0	161.0	151.0
	SHC		79.6	100.0	120.0	85.0	108.0	131.0	87.5	114.0	138.0	94.5	120.0	146.0	97.7	127.0	150.0
	KW		10.00	9.77	9.50	10.10	9.87	9.61	10.20	9.93	9.68	10.20	10.00	9.74	10.20	10.00	9.80
85	TC		160.0	148.0	133.0	164.0	151.0	137.0	167.0	154.0	140.0	168.0	155.0	143.0	166.0	157.0	146.0
	SHC		77.6	98.9	118.0	82.0	107.0	129.0	86.1	113.0	136.0	89.6	118.0	142.0	95.3	125.0	146.0
	KW		11.10	10.80	10.40	11.20	10.90	10.60	11.30	11.00	10.70	11.30	11.00	10.80	11.30	11.10	10.80
95	TC		155.0	141.0	127.0	157.0	144.0	131.0	160.0	146.0	133.0	161.0	149.0	137.0	163.0	149.0	140.0
	SHC		76.1	96.3	115.0	80.3	105.0	126.0	84.4	110.0	132.0	86.5	117.0	137.0	91.7	121.0	140.0
	KW		12.20	11.80	11.40	12.20	11.90	11.50	12.40	12.00	11.60	12.40	12.10	11.80	12.50	12.10	11.90
105	TC		147.0	133.0	120.0	150.0	137.0	124.0	152.0	138.0	127.0	153.0	140.0	131.0	154.0	141.0	134.0
	SHC		73.6	93.3	112.0	78.5	102.0	123.0	81.6	108.0	127.0	85.1	114.0	131.0	88.6	120.0	134.0
	KW		13.20	12.70	12.30	13.30	12.90	12.50	13.40	13.00	12.60	13.50	13.10	12.80	13.50	13.10	12.90
115	TC		140.0	126.0	112.0	141.0	129.0	118.0	144.0	130.0	121.0	144.0	131.0	125.0	146.0	133.0	128.0
	SHC		71.4	90.3	109.0	75.1	99.1	117.0	78.9	104.0	121.0	81.9	110.0	125.0	87.0	117.0	128.0
	KW		14.20	13.70	13.20	14.30	13.90	13.50	14.40	14.00	13.70	14.50	14.00	13.90	14.60	14.10	14.00
125	TC		131.0	118.0	105.0	134.0	120.0	111.0	135.0	122.0	115.0	137.0	123.0	118.0	136.0	124.0	121.0
	SHC		68.1	87.6	105.0	73.5	96.4	111.0	75.7	102.0	115.0	80.7	108.0	118.0	83.4	113.0	121.0
	KW		15.20	14.70	14.10	15.40	14.90	14.50	15.40	14.90	14.70	15.60	15.00	14.90	15.60	15.10	15.00

LEGEND

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

NOTES:

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

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

t_{wb} = Wet-bulb temperature corresponding to enthalpy of air leaving indoor coil (h_{wlb})

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

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

3. SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

Interpolation is permissible.

Correction Factor = 1.10 x (1 - BF) x (edb - 80).

542J180 (15 Tons)			Indoor Entering Air — Cfm/BF														
Temp (F) Outdoor Entering Air (Edb)			4500/0.06			5250/0.08			6000/0.10			6750/0.10			7500/0.12		
			Indoor Entering Air — Ewb (F)														
			72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
75	TC		210.0	192.0	173.4	216.0	196.6	178.4	220.0	202.0	182.2	222.0	204.0	185.6	224.0	206.0	190.2
	SHC		100.6	125.2	148.2	106.0	134.0	160.6	110.6	143.0	172.2	115.0	151.2	183.2	120.2	158.2	190.0
	KW		13.58	13.12	12.66	13.76	13.28	12.84	13.88	13.44	12.98	13.96	13.52	13.10	14.02	13.60	13.26
85	TC		202.0	183.0	164.4	208.0	187.8	169.0	212.0	191.4	172.8	212.0	194.0	177.2	214.0	195.8	182.2
	SHC		98.0	121.8	144.2	103.8	131.2	156.4	109.0	140.0	168.6	112.0	148.0	177.0	116.2	155.6	182.2
	KW		14.86	14.32	13.78	15.08	14.52	13.98	15.22	14.66	14.14	15.26	14.78	14.30	15.34	14.86	14.50
95	TC		192.4	173.2	155.0	196.2	177.8	159.2	200.0	180.8	163.4	202.0	183.4	169.0	204.0	185.4	174.2
	SHC		94.8	118.0	140.0	100.2	127.4	152.6	105.6	136.4	163.4	110.6	144.8	169.0	114.2	153.2	173.8
	KW		16.16	15.52	14.88	16.32	15.72	15.10	16.48	15.88	15.30	16.62	16.00	15.54	16.64	16.12	15.76
105	TC		182.0	163.0	145.0	186.4	167.0	149.4	188.6	170.0	155.4	191.0	172.2	160.8	193.0	173.8	165.2
	SHC		91.0	114.2	135.2	96.8	123.6	147.6	101.8	132.6	155.2	107.2	141.2	160.6	112.2	149.6	165.2
	KW		17.36	16.64	15.92	17.58	16.86	16.16	17.70	17.04	16.48	17.84	17.18	16.74	17.94	17.28	16.96
115	TC		171.2	152.4	134.8	175.0	156.2	140.6	177.8	158.8	146.8	179.4	160.8	152.2	179.6	162.2	156.4
	SHC		87.4	110.2	130.8	92.6	119.4	140.6	98.8	128.2	146.8	103.6	136.8	151.8	107.2	144.6	156.2
	KW		18.54	17.72	16.90	18.76	17.94	17.24	18.94	18.12	17.60	19.02	18.28	17.90	19.04	18.38	18.16
125	TC		159.4	141.2	125.0	162.8	143.8	132.0	165.6	147.0	137.8	166.6	148.8	143.0	168.2	150.0	146.8
	SHC		83.6	105.8	125.0	89.0	115.0	131.8	94.4	123.6	137.8	99.8	132.2	142.8	105.0	139.6	146.6
	KW		19.64	18.74	17.88	19.86	19.00	18.34	20.00	19.12	18.72	20.20	19.28	19.00	20.20	19.40	19.28

LEGEND

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

NOTES:

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

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

t_{wb} = Wet-bulb temperature corresponding to enthalpy of air leaving indoor coil (h_{wlb})

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

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

3. SHC is based on 80 F edb temperature of air entering indoor coil. Below 80 F edb, subtract (corr factor x cfm) from SHC. Above 80 F edb, add (corr factor x cfm) to SHC.

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

Interpolation is permissible.

Correction Factor = 1.10 x (1 - BF) x (edb - 80).

PERFORMANCE DATA — 542J (cont)

INTEGRATED HEATING CAPACITIES

542J150 (12 1/2 Tons)																					
CFM	Return Air Temp F (db)	Temp Air Entering Outdoor Coil (F db at 75% RH)																			
		-10		0		10		17		20		30		40		47		50		60	
		Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW
3750	55	40.4	7.81	53.0	8.35	65.6	8.89	74.5	9.27	78.5	9.47	91.9	10.10	120.0	11.00	140.0	11.50	147.0	11.80	168.0	12.60
	70	37.7	8.19	49.8	8.85	61.9	9.51	70.3	9.97	74.1	10.20	86.8	11.00	114.0	11.90	133.0	12.50	139.0	12.90	161.0	13.90
	80	35.4	8.41	47.1	9.15	58.8	9.89	67.0	10.40	70.8	10.70	83.4	11.50	109.0	12.50	128.0	13.20	134.0	13.60	156.0	14.70
4500	55	40.3	7.98	53.9	8.49	67.5	9.00	77.0	9.35	80.9	9.54	93.8	10.10	123.0	10.90	144.0	11.40	149.0	11.60	167.0	12.30
	70	36.7	8.38	49.8	9.00	62.9	9.62	72.0	10.00	75.9	10.30	88.6	11.00	116.0	11.80	136.0	12.50	142.0	12.70	163.0	13.60
	80	33.2	8.64	46.4	9.32	59.6	10.00	68.7	10.50	72.6	10.70	85.2	11.50	112.0	12.50	131.0	13.10	137.0	13.40	159.0	14.50
5000	55	41.0	8.11	54.7	8.60	68.4	9.09	78.0	9.43	81.9	9.60	95.0	10.20	124.0	10.90	144.0	11.40	149.0	11.60	165.0	12.10
	70	44.7	8.45	55.2	9.07	65.7	9.69	73.1	10.10	76.9	10.30	89.7	11.00	118.0	11.90	138.0	12.50	143.0	12.70	163.0	13.50
	80	33.6	8.76	47.0	9.43	60.4	10.10	69.8	10.60	73.6	10.80	86.3	11.60	113.0	12.50	132.0	13.10	139.0	13.40	160.0	14.40
5625	55	42.0	8.27	55.7	8.74	69.4	9.21	79.0	9.54	83.0	9.71	96.2	10.30	124.0	10.90	144.0	11.40	148.0	11.50	164.0	12.10
	70	42.7	8.66	54.3	9.24	65.9	9.82	74.1	10.20	77.9	10.40	90.9	11.10	120.0	11.90	140.0	12.50	145.0	12.70	163.0	13.40
	80	34.5	8.94	48.0	9.57	61.5	10.20	70.9	10.70	74.7	10.90	87.4	11.60	115.0	12.50	134.0	13.10	140.0	13.40	160.0	14.30
6250	55	44.0	8.43	57.3	8.89	70.6	9.35	79.9	9.67	83.9	9.83	97.3	10.40	124.0	11.00	143.0	11.40	147.0	11.50	160.0	12.00
	70	45.7	8.79	56.8	9.37	67.9	9.95	75.6	10.40	79.4	10.50	91.9	11.20	120.0	12.00	140.0	12.50	145.0	12.70	161.0	13.30
	80	35.2	9.04	48.8	9.72	62.4	10.40	71.9	10.80	75.7	11.00	88.4	11.70	117.0	12.60	136.0	13.20	142.0	13.40	159.0	14.20

542J180 (15 Tons)																					
CFM	Return Air Temp F (db)	Temp Air Entering Outdoor Coil (F db at 75% RH)																			
		-10		0		10		17		20		30		40		47		50		60	
		Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW	Cap.	kW
3750	55	46.4	9.80	60.8	10.60	75.6	11.34	85.8	11.84	91.4	12.10	110.0	12.96	150.2	14.00	178.2	14.72	189.4	15.08	228.0	16.32
	70	39.6	10.04	54.4	10.96	69.8	11.86	80.4	12.48	85.8	12.78	103.4	13.82	141.6	15.02	168.4	15.84	179.0	16.26	214.0	17.64
	80	35.0	10.20	50.2	11.20	65.8	12.20	76.8	12.90	81.8	13.24	99.2	14.38	136.0	15.70	161.8	16.60	172.0	17.04	206.0	18.52
4500	55	47.8	10.02	62.0	10.78	77.0	11.48	87.6	11.96	93.2	12.20	112.0	12.98	153.2	13.92	182.2	14.58	193.4	14.90	230.0	15.94
	70	40.6	10.26	55.8	11.16	71.2	12.00	82.0	12.60	87.4	12.90	105.4	13.86	144.6	14.98	172.0	15.74	182.8	16.12	220.0	17.36
	80	36.0	10.44	51.6	11.40	67.4	12.36	78.4	13.04	83.6	13.36	101.0	14.44	138.8	15.68	165.2	16.52	175.8	16.94	212.0	18.30
5000	55	48.6	10.26	63.0	10.98	78.4	11.64	89.2	12.10	94.8	12.32	113.6	13.06	155.2	13.94	184.4	14.56	195.8	14.86	234.0	15.80
	70	41.8	10.50	56.8	11.36	72.6	12.18	83.6	12.76	89.0	13.04	107.2	13.96	147.0	15.00	174.8	15.74	185.8	16.08	222.0	17.24
	80	37.2	10.66	52.8	11.62	68.6	12.54	79.8	13.20	85.0	13.50	103.0	14.56	141.4	15.72	168.2	16.52	179.0	16.90	216.0	18.18
5625	55	49.2	10.50	63.8	11.18	79.4	11.82	90.2	12.26	96.0	12.46	115.2	13.18	158.0	14.02	187.8	14.60	198.4	14.84	234.0	15.64
	70	42.6	10.72	58.0	11.58	73.6	12.38	84.6	12.92	90.2	13.20	108.6	14.08	149.2	15.08	177.6	15.78	188.4	16.10	224.0	17.14
	80	38.2	10.88	54.0	11.84	69.8	12.74	81.0	13.38	86.4	13.68	104.4	14.68	143.4	15.80	170.8	16.58	181.6	16.94	218.0	18.14
6250	55	50.0	10.72	64.6	11.40	80.2	12.00	91.0	12.42	97.0	12.64	116.6	13.30	159.8	14.14	190.0	14.70	200.0	14.92	234.0	15.58
	70	43.4	10.96	58.8	11.80	74.6	12.58	85.6	13.12	91.2	13.36	110.0	14.22	151.0	15.20	179.6	15.88	190.2	16.16	226.0	17.12
	80	39.0	11.12	54.8	12.06	70.8	12.94	82.0	13.56	87.6	13.86	105.6	14.84	145.0	15.92	172.6	16.66	183.6	17.00	220.0	18.16

LEGEND

- Cap. — Capacity (1000 Btuh)
- Edb — Entering Air Dry-Bulb Temperature (F)
- Ldb — Leaving Air Dry-Bulb Temperature (F)
- kW — Compressor and Outdoor-Fan Power Input
- RH — Relative Humidity

NOTES:

1. Integrated heating capacity ratings shown are not adjusted for the effects of the indoor-fan motor power and heat. A deduction has been made for defrosting the outdoor coils at temperatures below 40 F.

2. Direct interpolation is permissible. Do not extrapolate.
 3. When using auxiliary and/or supplementary heating, the maximum allowable leaving-air temperature is 140 F.

$$Ldb\ F = Edb\ F + \frac{\text{Total heating cap. (Btuh)}}{1.10 \times \text{airflow cfm}}$$

4. For supplementary glycol coil:

$$\text{Fluid flow Gpm} = \frac{\text{fluid capacity (Btuh)}}{500 \times \text{fluid temperature drop (F)}}$$

PERFORMANCE DATA — 542J (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS

542J150 (208/230 V AND 460 V) (12½ TONS)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
3750	724	481	0.55	838	685	0.78	937	889	1.01	1028	1097	1.25	1111	1309	1.49
4000	754	613	0.70	865	824	0.94	962	1034	1.18	1050	1247	1.42	1131	1463	1.67
4250	786	757	0.86	893	975	1.11	987	1191	1.36	1073	1408	1.60	1152	1629	1.86
4500	818	914	1.04	922	1138	1.30	1013	1360	1.55	1097	1583	1.80	1174	1808	2.06
4750	850	1084	1.23	951	1313	1.50	1040	1541	1.76	1122	1770	2.02	1197	2000	2.28
5000	883	1267	1.44	980	1501	1.71	1068	1736	1.98	1147	1969	2.24	1221	2204	2.51
5250	917	1464	1.67	1011	1703	1.94	1096	1943	2.21	1174	2183	2.49	1246	2423	2.76
5500	950	1675	1.91	1041	1918	2.19	1124	2165	2.47	1201	2409	2.75	1272	2655	3.02
5750	985	1901	2.17	1072	2147	2.45	1153	2400	2.73	1228	2650	3.02	1298	2901	3.31
6000	1020	2142	2.44	1103	2391	2.72	1183	2649	3.02	1256	2905	3.31	1324	3160	3.60
6250	1055	2398	2.73	1135	2650	3.02	1213	2912	3.32	1284	3175	3.62	1352	3435	3.91

542J150 (208/230 V AND 460 V) (12½ TONS)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
3750	1190	1526	1.74	1265	1746	1.99	1337	1972	2.25	1405	2199	2.51	1471	2431	2.77
4000	1208	1684	1.92	1281	1908	2.17	1351	2136	2.43	1418	2368	2.70	1483	2603	2.97
4250	1227	1853	2.11	1299	2082	2.37	1367	2313	2.64	1433	2548	2.90	1496	2787	3.18
4500	1247	2036	2.32	1317	2268	2.58	1384	2503	2.85	1448	2742	3.12	1510	2983	3.40
4750	1269	2232	2.54	1337	2468	2.81	1403	2707	3.08	1465	2948	3.36	1526	3194	3.64
5000	1291	2441	2.78	1358	2680	3.05	1422	2923	3.33	1484	3168	3.61	1544	3418	3.89
5250	1315	2664	3.03	1380	2907	3.31	1443	3154	3.59	1503	3403	3.88	1562	3655	4.16
5500	1339	2900	3.30	1403	3148	3.59	1464	3398	3.87	1524	3651	4.16	—	—	—
5750	1364	3151	3.59	1426	3403	3.88	1486	3657	4.17	—	—	—	—	—	—
6000	1389	3416	3.89	1450	3672	4.18	—	—	—	—	—	—	—	—	—
6250	1415	3695	4.21	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Standard drive range is 891 to 1179 rpm. Alternate drive range is 1227 to 1559. Other rpms may require a field-supplied drive.

NOTES:

- 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.
- Fan performance is identical for horizontal discharge applications using horizontal adapter curb (CRRFCURB013A00).
- See page 149 for General Fan Performance notes.

542J150 (575 V) (12½ TONS)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
3750	724	481	0.55	838	685	0.78	937	889	1.01	1028	1097	1.25	1111	1309	1.49
4000	754	613	0.70	865	824	0.94	962	1034	1.18	1050	1247	1.42	1131	1463	1.67
4250	786	757	0.86	893	975	1.11	987	1191	1.36	1073	1408	1.60	1152	1629	1.86
4500	818	914	1.04	922	1138	1.30	1013	1360	1.55	1097	1583	1.80	1174	1808	2.06
4750	850	1084	1.23	951	1313	1.50	1040	1541	1.76	1122	1770	2.02	1197	2000	2.28
5000	883	1267	1.44	980	1501	1.71	1068	1736	1.98	1147	1969	2.24	1221	2204	2.51
5250	917	1464	1.67	1011	1703	1.94	1096	1943	2.21	1174	2183	2.49	1246	2423	2.76
5500	950	1675	1.91	1041	1918	2.19	1124	2165	2.47	1201	2409	2.75	1272	2655	3.02
5750	985	1901	2.17	1072	2147	2.45	1153	2400	2.73	1228	2650	3.02	1298	2901	3.31
6000	1020	2142	2.44	1103	2391	2.72	1183	2649	3.02	1256	2905	3.31	—	—	—
6250	1055	2398	2.73	1135	2650	3.02	1213	2912	3.32	—	—	—	—	—	—

542J150 (575 V) (12½ TONS)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
3750	1190	1526	1.74	1265	1746	1.99	1337	1972	2.25	1405	2199	2.51	1471	2431	2.77
4000	1208	1684	1.92	1281	1908	2.17	1351	2136	2.43	1418	2368	2.70	1483	2603	2.97
4250	1227	1853	2.11	1299	2082	2.37	1367	2313	2.64	1433	2548	2.90	1496	2787	3.18
4500	1247	2036	2.32	1317	2268	2.58	1384	2503	2.85	1448	2742	3.12	1510	2983	3.40
4750	1269	2232	2.54	1337	2468	2.81	1403	2707	3.08	1465	2948	3.36	—	—	—
5000	1291	2441	2.78	1358	2680	3.05	1422	2923	3.33	—	—	—	—	—	—
5250	1315	2664	3.03	1380	2907	3.31	—	—	—	—	—	—	—	—	—
5500	1339	2900	3.30	—	—	—	—	—	—	—	—	—	—	—	—
5750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Factory-shipped motor drive range is 1159 to 1429 rpm. Other rpms may require a field-supplied drive.

NOTES:

- 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.
- Fan performance is identical for horizontal discharge applications using horizontal adapter curb (CRRFCURB013A00).
- See page 149 for General Fan Performance notes.

PERFORMANCE DATA — 542J (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

542J180 (15 TONS)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
4500	584	717	0.8	695	952	1.1	798	1205	1.3	893	1483	1.7	984	1786	2.0
4800	609	839	0.9	717	1085	1.2	815	1346	1.5	907	1630	1.8	994	1938	2.2
5100	634	971	1.1	738	1229	1.4	833	1500	1.7	921	1791	2.0	1006	2104	2.4
5400	660	1118	1.3	760	1389	1.6	852	1669	1.9	937	1968	2.2	1019	2286	2.6
5700	687	1284	1.4	783	1566	1.8	873	1858	2.1	956	2165	2.4	1034	2490	2.8
6000	712	1458	1.6	805	1752	2.0	892	2055	2.3	973	2371	2.7	1049	2703	3.0
6300	736	1644	1.8	826	1952	2.2	911	2265	2.5	990	2591	2.9	1064	2930	3.3
6600	763	1856	2.1	851	2176	2.4	933	2502	2.8	1010	2837	3.2	1082	3186	3.6
6900	788	2078	2.3	873	2410	2.7	954	2747	3.1	1029	3093	3.5	1099	3451	3.9
7200	813	2316	2.6	896	2662	3.0	975	3011	3.4	1048	3367	3.8	1117	3734	4.2
7500	841	2584	2.9	921	2943	3.3	998	3304	3.7	1070	3672	4.1	1137	4049	4.5

542J180 (15 TONS)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
4500	1070	2113	2.4	1151	2458	2.8	1229	2819	3.2	1302	3194	3.6	—	—	—
4800	1078	2269	2.5	1157	2620	2.9	1233	2990	3.3	1306	3374	3.8	—	—	—
5100	1086	2439	2.7	1164	2795	3.1	1238	3170	3.5	—	—	—	—	—	—
5400	1097	2626	2.9	1172	2986	3.3	1245	3366	3.8	—	—	—	—	—	—
5700	1110	2835	3.2	1183	3200	3.6	1253	3584	4.0	—	—	—	—	—	—
6000	1122	3053	3.4	1193	3422	3.8	1262	3810	4.3	—	—	—	—	—	—
6300	1135	3286	3.7	1204	3660	4.1	1271	4052	4.5	—	—	—	—	—	—
6600	1151	3549	4.0	1218	3928	4.4	1283	4325	4.8	—	—	—	—	—	—
6900	1167	3821	4.3	1232	4207	4.7	1295	4608	5.2	—	—	—	—	—	—
7200	1183	4113	4.6	1246	4505	5.0	—	—	—	—	—	—	—	—	—
7500	1202	4437	5.0	1264	4837	5.4	—	—	—	—	—	—	—	—	—

LEGEND

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

*Standard drive range is 817 to 1038 rpm. Alternate drive range is 1082 to 1303. Other rpms may require a field-supplied drive.

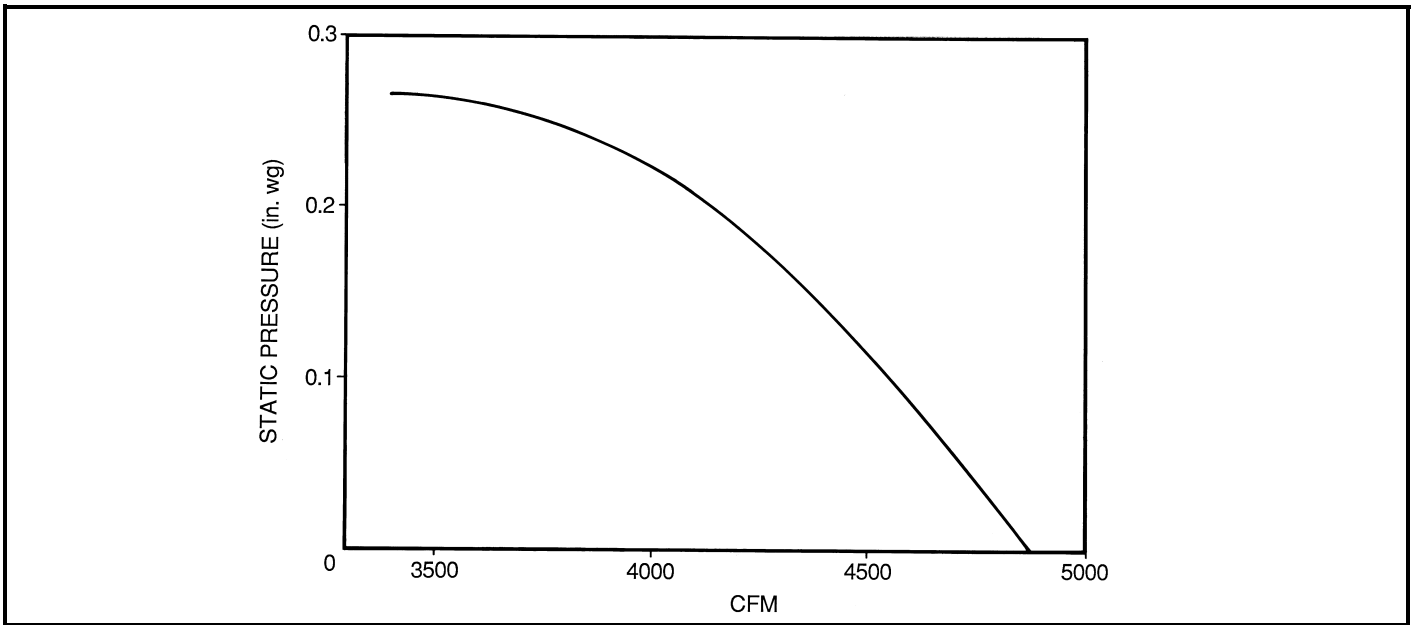
NOTES:

1. 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.
2. Fan performance is identical for horizontal discharge applications using horizontal adapter curb (CRRFCURB013A00).
3. See this page for General Fan Performance notes.

GENERAL NOTES FOR FAN PERFORMANCE TABLES

1. 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 Indoor-Fan Motor Performance table on page 150.
2. Values include losses for filters, unit casing, and wet coils. See page 151 for accessory/FIOP static pressure information.
3. Use of a field-supplied motor may affect wire sizing. Contact your Bryant representative for details.
4. Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA — 542J (cont)



Fan Performance Using Accessory Power Exhaust — 542J150,180

FAN RPM AT MOTOR PULLEY SETTINGS*

UNIT 542J	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
150 (208/230 V and 460 V)†	—	—	1179	1150	1121	1093	1064	1035	1006	978	949	920	891
150 (208/230 V and 460 V)**	—	—	1559	1522	1488	1455	1422	1389	1356	1323	1289	1256	1227
150 (575 V)†	—	—	1429	1403	1376	1349	1323	1296	1269	1242	1215	1188	1159
180†	—	—	1038	1023	1001	979	956	934	912	890	868	846	817
180**	—	—	1303	1288	1266	1244	1222	1199	1177	1155	1133	1111	1082

*Approximate fan rpm shown.

†Indicates standard motor and drive package.

**Indicates standard motor and alternate drive package.

INDOOR-FAN MOTOR PERFORMANCE — STANDARD MOTORS

UNIT 542J	UNIT VOLTAGE	MAXIMUM CONTINUOUS BHP*	MAXIMUM OPERATING WATTS*	MAXIMUM AMP DRAW	MOTOR EFFICIENCY
150	208/230-3-60	4.25	3775	10.5	85.8
	460-3-60			4.9	85.8
	575-3-60	3.45	3065	3.9	81.7
180	208/230-3-60	5.90	5180	15.8	87.5
	460-3-60			7.9	87.5
	575-3-60			6.0	87.5

LEGEND

BHP — Brake Horsepower

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

PERFORMANCE DATA — 542J (cont)

ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 542J150,180

ACCESSORY/FIOP	UNIT SIZE	UNIT VOLTAGE	kW	CFM							
				3750	4500	5000	5600	6000	6250	7200	7500
Electric Heaters	150	208/230-3-60	14-34 42,56	0.05 0.06	0.05 0.06	0.07 0.08	0.08 0.10	0.09 0.12	0.09 0.13	0.11 0.16	0.12 0.17
		460-3-60	15,32 55	0.05 0.06	0.05 0.06	0.07 0.08	0.08 0.10	0.09 0.12	0.09 0.13	0.11 0.15	0.12 0.15
		575-3-60	37	0.06	0.06	0.08	0.10	0.12	0.13	0.15	0.17
	180	208/230-3-60	26,34 42,59	*	*	*	0.08 0.10	0.09 0.12	0.09 0.13	0.11 0.16	0.12 0.17
		460-3-60	32,55	*	*	*	0.08 0.10	0.09 0.12	0.09 0.13	0.11 0.15	0.12 0.17
		575-3-60	50	*	*	*	0.13	0.15	0.16	0.20	0.21
EconoMi\$erIV and EconoMi\$er2	150,180	All	—	0.03	0.04	0.05	0.06	0.07	0.07	0.08	0.10
Glycol Coil	150,180	All	—	0.16	0.18	0.25	0.31	0.35	0.37	0.44	0.46

LEGEND

FIOP — Factory-Installed Option

*Units with electric heat are not designed to operate at these ranges.

NOTES:

1. Heaters are rated at 208/240 v, 480 v, and 600 v.

2. The static pressure must be added to external static pressure. The sum and the indoor-air section entering-air cfm should then be used in conjunction with the Fan Performance table to determine blower rpm, bhp, and watts.

ELECTRIC HEATING CAPACITIES — 542J150,180

UNIT 542J	HEATER kW				HEATER STAGES	% HEAT PER STAGE	MAXIMUM STAGES*
	Unit Voltages						
	208	230	460	575			
150	14	19	15	—	1	100	1
	26	34	32	—	2	50/50	2
	42	56	55	37	2	33/67	3
180	26	34	32	—	2	50/50	2
	42	56	55	—	2	33/67	3
	—	—	—	50	2	50/50	4

*Maximum number of stages using accessory outdoor-air thermostats.

NOTE: Heaters are rated at 208 v, 240 v, 480 v, and 600 v. See multiplication factors table on page 152.

PERFORMANCE DATA — 542J (cont)

GLYCOL COIL DATA* — 542J150,180

EDB	EGT	CFM																	
		4400						5000						6200					
		% Glycol																	
		25			50			25			50			25			50		
		Cap.	Gpm	Ldb	Cap.	Gpm	Ldb	Cap.	Gpm	Ldb	Cap.	Gpm	Ldb	Cap.	Gpm	Ldb	Cap.	Gpm	Ldb
55	200	310	33	120	293	33	116	333	35	117	315	36	113	375	40	111	353	40	108
	180	255	27	108	237	27	105	274	29	106	254	29	102	308	33	101	285	33	98
	160	200	21	97	181	21	93	215	23	95	194	22	91	241	25	91	217	25	87
70	200	274	29	127	257	29	124	294	31	124	276	31	121	331	35	119	310	35	116
	180	218	23	116	201	23	112	235	25	114	216	25	110	264	28	109	241	28	106
	160	164	17	104	146	17	100	176	19	103	156	18	99	197	21	99	174	20	96
80	200	249	26	132	233	27	129	268	28	130	250	28	126	301	32	125	280	32	122
	180	194	21	121	177	20	117	209	22	119	190	22	115	234	25	115	212	24	112
	160	140	15	109	123	14	106	150	16	108	131	15	104	168	18	105	146	17	102

LEGEND

- Cap. — Btuh x 1000
- EDB — Entering Dry-Bulb Temperature (F)
- EGT — Entering Glycol Temperature (F)
- Gpm — Gallons per Minute
- Ldb — Leaving Dry-Bulb Temperature (F)

*This accessory glycol coil is intended for use with a MINIMUM of 25% glycol solution. It IS NOT intended for use solely with water due to freeze-up conditions and the resulting water damage to the conditioned space.

NOTE: Fluid $\Delta t = 20$ F.

GLYCOL COIL RATINGS — 542J150,180

ENTERING FLUID TEMP (F)	CFM							
	4000		5000		6000		8000	
	GPM	ΔP	GPM	ΔP	GPM	ΔP	GPM	ΔP
200	27	1.2	31	1.5	35	1.8	41	2.4
180	22	0.9	25	1.1	27	1.3	32	1.6
160	16	0.6	19	0.7	20	0.8	24	1.0

NOTE: ΔP is the fluid pressure in ft of head.

MULTIPLICATION FACTORS

HEATER RATING VOLTAGE	ACTUAL HEATER VOLTAGE										
	200	208	230	240	380	440	460	480	550	575	600
240	0.694	0.751	0.918	1.000	—	—	—	—	—	—	—
480	—	—	—	—	0.626	0.840	0.918	1.000	—	—	—
600	—	—	—	—	—	—	—	—	0.840	0.918	1.000

NOTE: The following equation converts kW of heat energy to Btuh:
 $kW \times 3.413 = Btuh$.

EXAMPLE: 34 kW (at 230 v) heater on 208 v
 = 34.0 (.751 mult factor)
 = 25.5 kW capacity at 208 v.

542J

ELECTRICAL DATA — 542J
ELECTRICAL DATA — 542J150,180

UNIT 542J	VOLTAGE (3 PH, 60 Hz)	VOLTAGE RANGE		COMPRESSOR				OUTDOOR FAN MOTOR		INDOOR FAN MOTOR		POWER EXHAUST		ELECTRIC HEAT*		POWER SUPPLY		DISCONNECT SIZING	
				No. 1		No. 2		Qty	FLA (ea)	Hp	FLA	FLA	LRA	FLA	kW	MCA	MOCP†	RLA	LRA
		Min	Max	RLA	LRA	RLA	LRA												
150	208/230	187	253	39.7	228	—	—	3	1.7	3.7	10.5/10.5	—	—	—/— 39/ 45 72/ 92 117/135	—/— 14/19 26/34 42/56	65/ 65 114/122 155/168 211/200	100/100 125/150 175/175 225/225	64/ 64 64/ 64 94/107 147/167	387/387
												4.6	18.8	—/— 39/ 45 72/ 82 117/135	—/— 14/19 26/34 42/56	70/ 70 119/126 159/173 216/205	100/100 125/150 175/175 225/225	69/ 69 69/ 69 100/112 152/173	406/406
	460	414	508	19.9	114	—	—	3	0.8	3.7	4.8	—	—	— 18 39 66	— 15 32 55	32 54 81 98	50 60 90 110	31 31 50 82	189
												2.3	6.0	— 18 39 66	— 15 32 55	34 57 83 100	50 70 90 110	34 34 53 84	195
	575	518	632	16.0	91	—	—	3	0.75	3.0	3.9	—	—	— 37	— 37	26 72	40 80	26 47	91
												2.1	4.8	— 37	— 37	28 75	40 80	28 50	96
180	208/230	187	253	28.2	160	28.2	160	3	1.7	5	15.8/158	—	—	—/— 72/ 82 117/135	—/— 26/34 42/56	84/ 84 174/187 231/219	110/110 175/200 250/225	89/ 89 101/112 153/173	499/485
												4.6	18.8	—/— 72/ 82 117/135	—/— 26/34 42/56	89/ 89 179/191 235/224	110/110 200/200 250/225	94/ 94 106/118 158/179	518/504
	460	414	508	14.1	80	14.1	80	3	0.8	5	7.9	—	—	— 39 66	— 32 55	42 91 108	50 100 110	44 54 85	238
												2.3	6.0	— 39 66	— 32 55	44 93 110	50 100 125	47 57 88	244
	575	518	632	11.3	64	11.3	64	3	0.75	5	6.0	—	—	— 50	— 50	34 96	40 100	35 64	165
												2.1	4.8	— 50	— 50	36 98	45 100	38 67	169

LEGEND

- FLA — Full Load Amps
- HACR — Heating, Air Conditioning and Refrigeration
- LRA — Locked Rotor Amps
- MCA — Minimum Circuit Amps
- MOCP — Maximum Overcurrent Protection
- NEC — National Electrical Code
- RLA — Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, 480 v and 600 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Fuse or HACR circuit breaker. This is the maximum size permissible; smaller fuse size may be used where conditions permit.

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



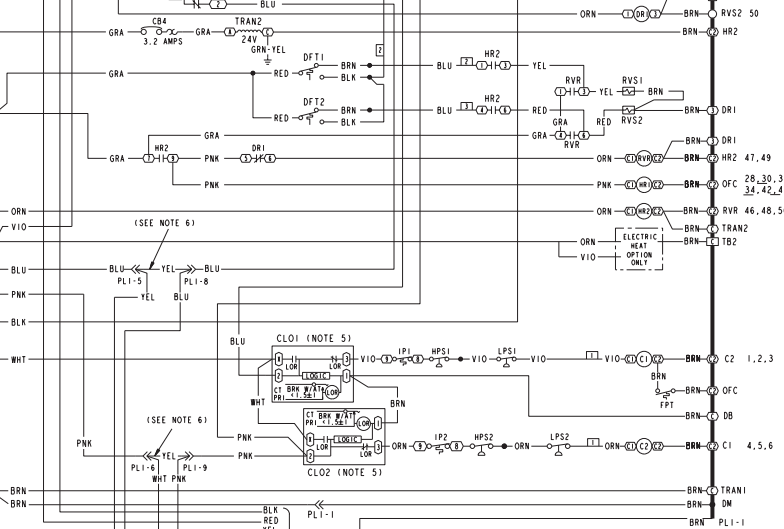
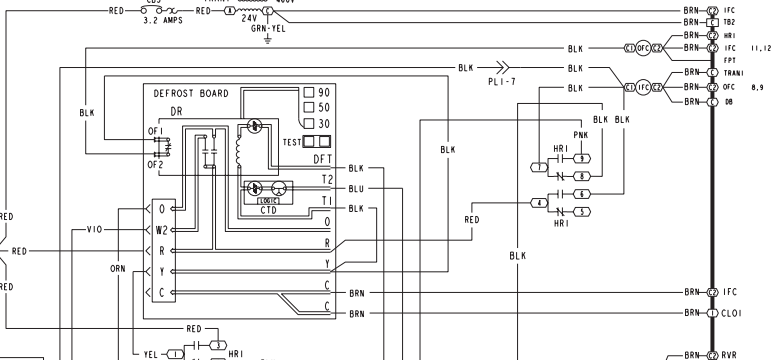
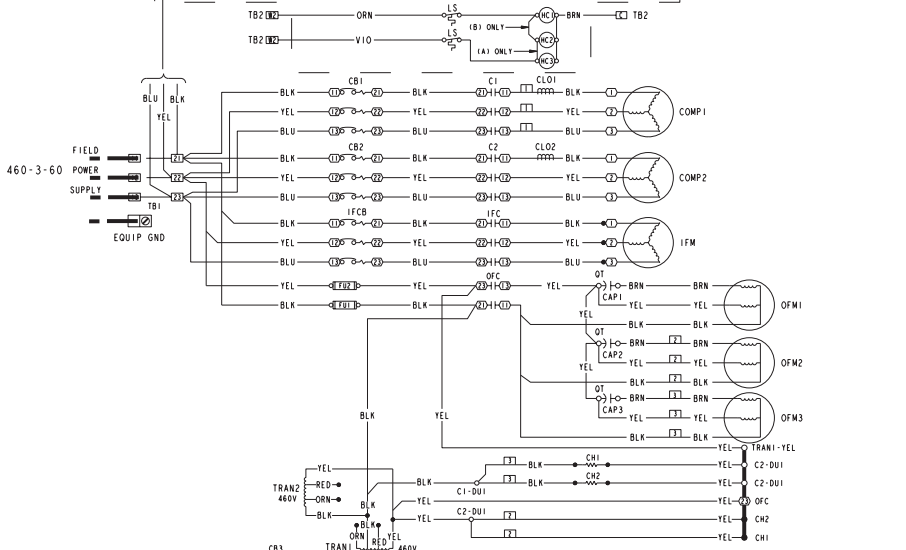
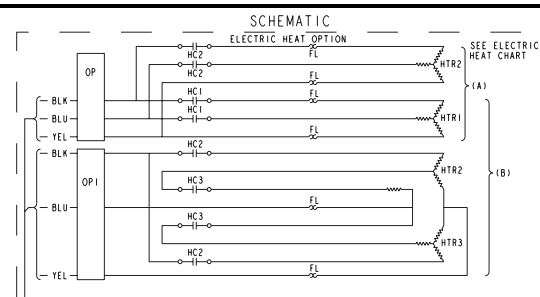
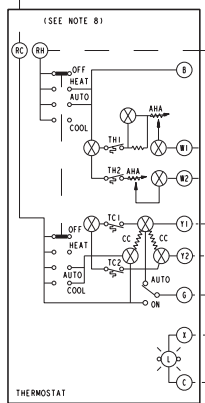
TYPICAL WIRING SCHEMATIC — 542J

ELECTRIC HEAT		
	480V AMPS	480V KW
A	39	32.4
B	66	54.9

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











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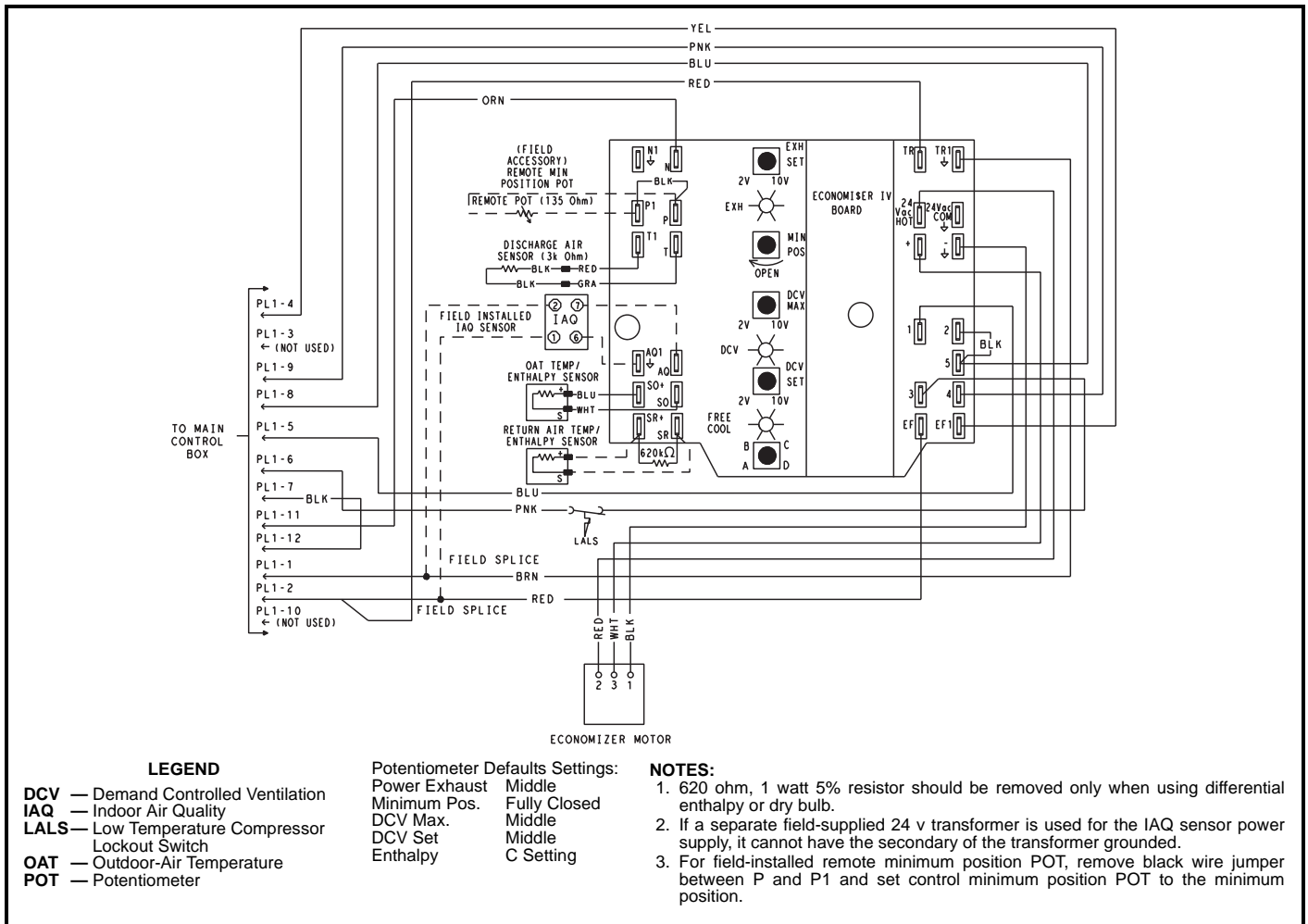


542J

TYPICAL WIRING SCHEMATIC — 542J (cont)

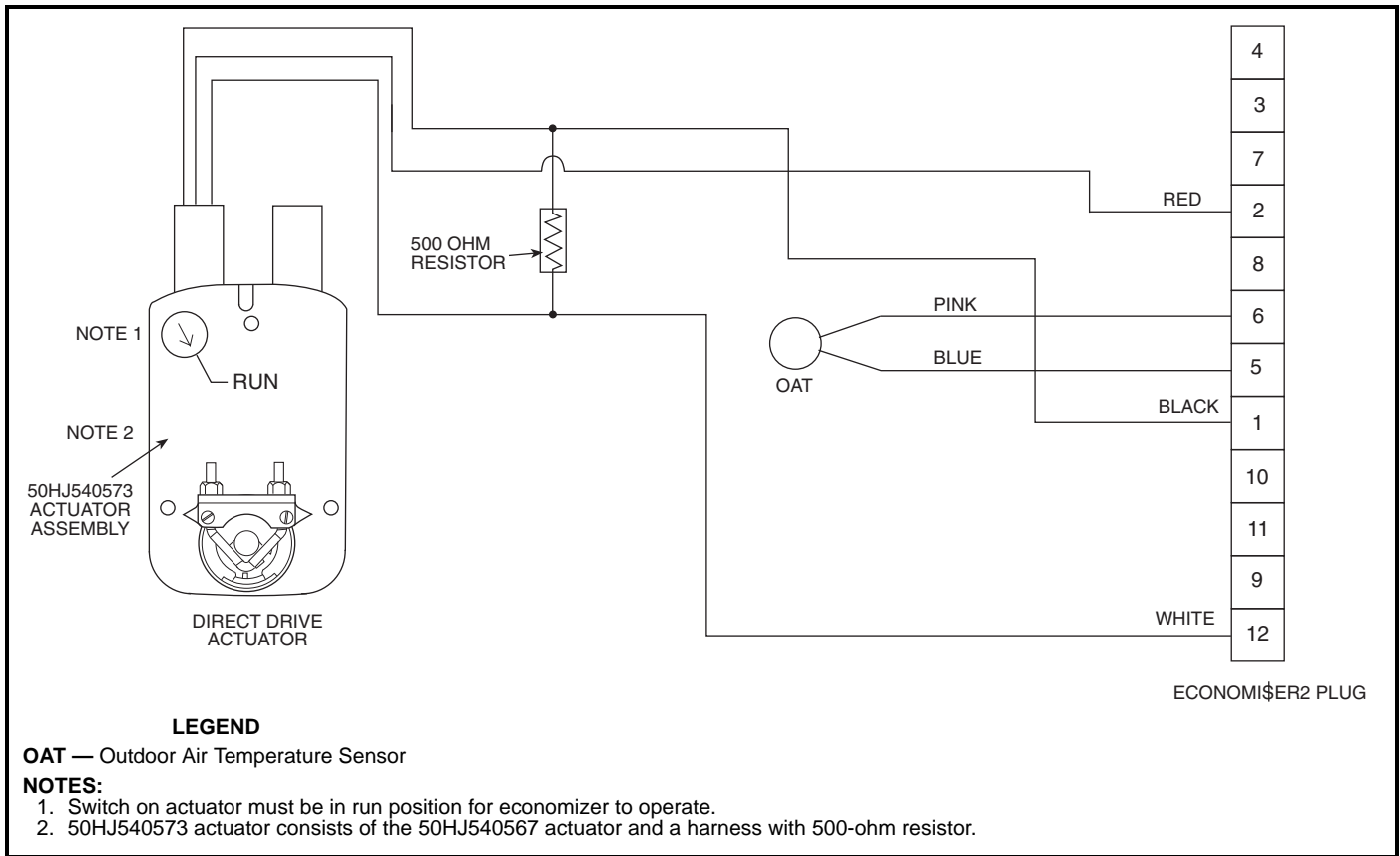
LEGEND

C — Contactor, Compressor	RVR — Reversing Valve
CAP — Capacitor	RVS — Reversing Valve Solenoid
CB — Circuit Breaker	TB — Terminal Block
CH — Crankcase Heater	TRAN — Transformer
CLO — Compressor Lockout	 Field Splice
COMP — Compressor Motor	 Terminal (Marked)
DB — Defrost Board	 Marked Wire
DFT — Defrost Thermostat	 Terminal (Unmarked)
FL — Freeze Protection Limit Switch	 Terminal Block
FPT — Freeze Protection Thermostat	 Splice
FU — Fuse	 Splice Marked
GND — Ground	 Factory Wiring
HC — Heater Contactor (Electric Heater)	 Field Control Wiring
HPS — High-Pressure Switch	 Field Power Wiring
HR — Heater Relay	 Accessory or Optional Wiring
HTR — Heater	 To indicate common potential only. Not to represent wiring.
IFC — Indoor-Fan Contactor	
IFCB — Indoor Fan Circuit Breaker	
IFM — Indoor-Fan Motor	
IP — Internal Protection	
LPS — Low-Pressure/Loss-of-Charge Switch	
LS — Limit Switch	
OFM — Outdoor Fan Motor	
OP — Overload Protection	
QT — Quadruple Terminal	

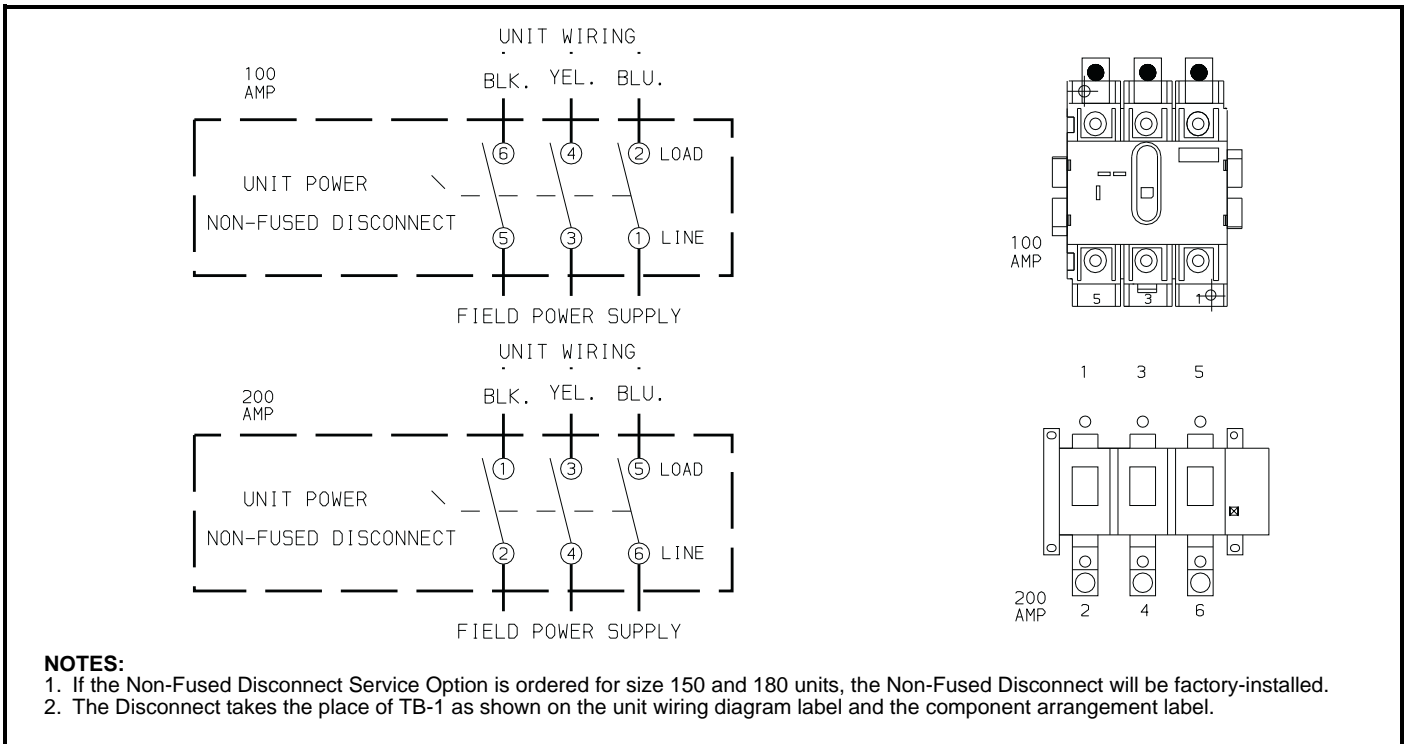


EconoMiser IV Wiring — 542J150,180

TYPICAL WIRING SCHEMATIC — 542J (cont)



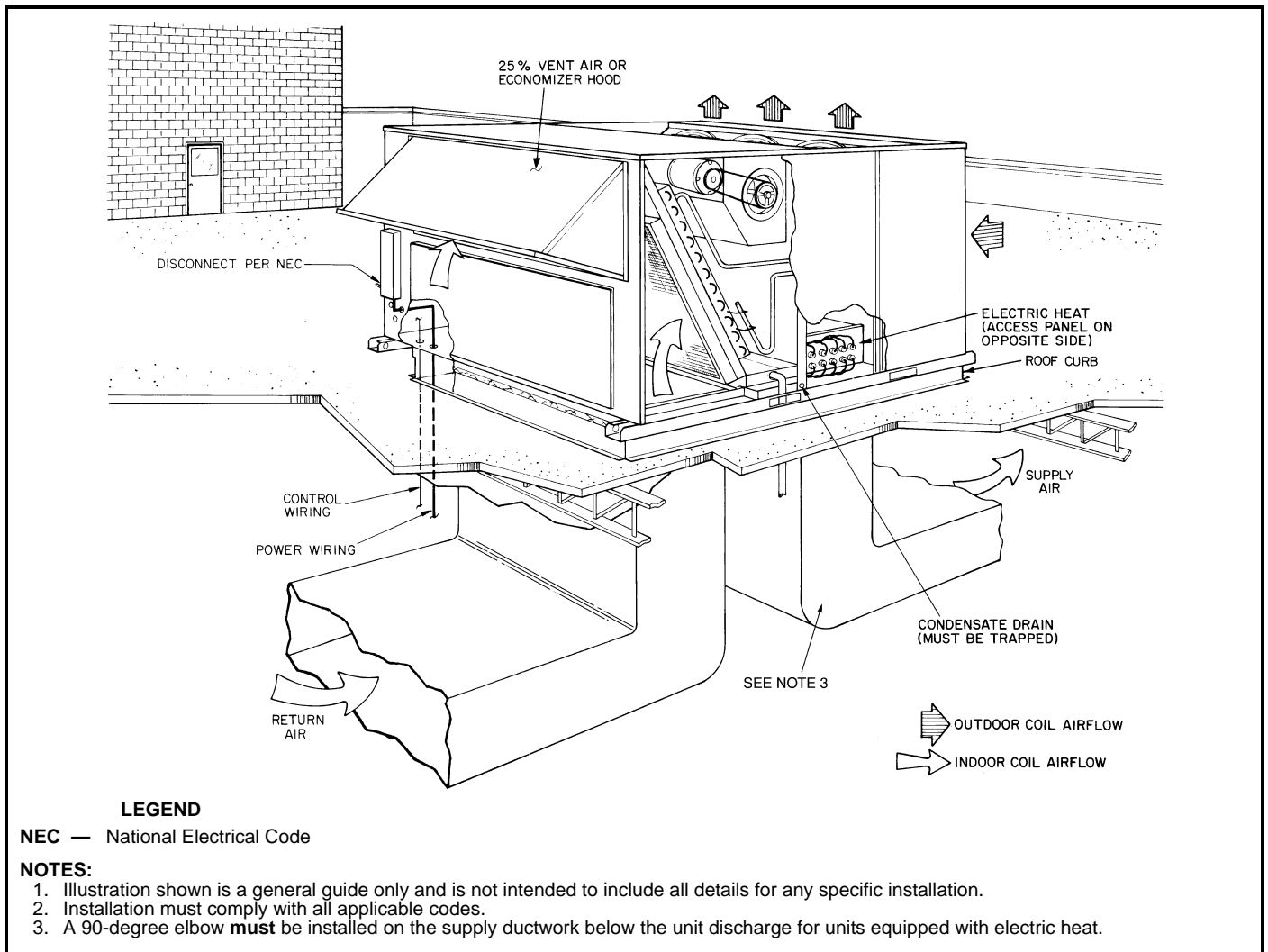
EconoMi\$er2 Wiring — 542J150,180



Non-Fused Disconnect (Optional) — 542J150,180

542J

TYPICAL PIPING AND WIRING — 542J150,180



GUIDE SPECIFICATIONS — 542J150,180

PACKAGED ROOFTOP AIR-TO-AIR HEAT PUMP — CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 13 AND 15 TONS, NOMINAL (COOLING)
136,000 TO 172,000 BTUH, NOMINAL
(HEATING)
19 TO 50 kW NOMINAL (ELECTRIC
HEATING)

BRYANT MODEL NUMBER:
542J



PART 1 — GENERAL

1.01 SYSTEM DESCRIPTION

Outdoor rooftop mounted, electrically controlled air-to-air heat pump unit utilizing reciprocating, semi-hermetic compressor(s) for cooling duty and electric resistance coils for heating duty. Unit shall discharge supply air vertically or horizontally (with horizontal supply/return adapter assembly or roof curb) as shown on contract drawings.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with ARI Standards 210/240 or 360 and 270. Designed in accordance with UL Standard 1995. Units shall be Energy Star qualified.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision.
- C. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- G. Unit shall be designed in accordance with ISO 9001:2000, and shall be manufactured in a facility registered to ISO 9001:2000.
- H. Each unit shall be subjected to a completely automated run testing on the assembly line. Units contain a factory-supplied printout indicating tested pressures, amperages, data, and inspectors; providing certification of the unit status at the time of manufacture.

1.03 DELIVERY, STORAGE, AND HANDLING

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

PART 2 — PRODUCTS

2.01 EQUIPMENT (STANDARD)

A. General:

Factory assembled, single-piece heat pump unit. Contained within the unit enclosure shall be all factory wiring,

pipng, controls, refrigerant charge (R-22), and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
2. Indoor fan compartment interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, 1 lb. density, flexible fiberglass insulation, neoprene coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
3. Cabinet panels shall be easily removable for servicing.
4. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
5. Unit shall have a factory-installed, sloped condensate drain pan made of a non-corrosive material, providing a minimum 3/4-in. 14 NPT connection with both vertical and horizontal drains, and shall comply with ASHRAE Standard 62.
6. Unit shall have a factory-installed filter access panel to provide filter access with tool-less removal.
7. Unit shall have standard thru-the-bottom gas and power connection capability (accessory kit is required).

C. Fans:

1. Indoor Fan:
 - a. Fan shall be belt driven with an adjustable-pitch motor pulley. The standard fan drive shall have a factory-installed low-medium static pressure fan drive. The alternate fan drive option shall have a factory-installed high-static pressure fan drive.
 - b. Fan wheel shall be double-inlet type with forward-curved blades.
 - c. Bearings shall be sealed, permanently lubricated ball-bearing type for longer life and lower maintenance.
 - d. Bearings shall be pillow block type (180 only).
2. Indoor fan shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.
3. Outdoor fan shall be of the direct-driven (with totally enclosed motors) propeller type and shall discharge air vertically.
4. Outdoor fan shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

D. Compressor(s):

1. Reciprocating semi-hermetic compressors with factory-installed crankcase heaters.
2. Factory mounted on rubber grommets and internally spring mounted for vibration isolation.
3. On independent circuits (180).
4. The size 150 unit semi-hermetic compressor shall be equipped with an electric unloader for capacity control.

GUIDE SPECIFICATIONS — 542J150,180 (cont)

E. Coils:

1. Standard indoor and outdoor coils shall have copper or aluminum plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
2. Coils shall be leak tested at 150 psig (1034 kPa) and pressure tested at 450 psig (3103 kPa).
3. Coils:
 - a. Copper-fin coils shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan. All copper construction shall provide protection in moderate coastal environments.
 - b. E-Coated aluminum-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be aluminum fins mechanically bonded to copper tubes.
 - c. E-Coated copper-fin coils shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60 deg of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90. Coil construction shall be copper fins mechanically bonded to copper tubes with copper tube sheets. Galvanized steel tube sheets shall not be acceptable. A polymer strip shall prevent coil assembly from contacting sheet metal coil pan to maintain coating integrity and minimize corrosion potential between coil and pan.
 - d. Optional pre-coated aluminum-fin coils shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper

tube. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.

F. Heating Section:

1. May be equipped with field-installed electric resistance heater(s) of the characteristics shown in the equipment schedule.
2. Heater elements shall be open wire, adequately supported and insulated with ceramic bushings.

G. Refrigerant Components:

Refrigerant circuit components shall include:

1. Fixed orifice metering system (Acutrol™ device).
2. Refrigerant filter drier.
3. Reversing valve.
4. Service gage connections on suction, discharge, and liquid lines.

H. Filter Section:

1. Standard filter section shall consist of factory-installed, low velocity, throwaway 2-in. thick fiber-glass filters of commercially available sizes.
2. Filter face velocity shall not exceed 320 fpm at nominal airflows.
3. Filter section should use only one size filter.
4. Filters shall be accessible through an access panel with “no-tool” removal.

I. Controls and Safeties:

1. Unit Controls:

Unit shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-v transformer side.

2. Safeties:

a. Unit shall incorporate a solid-state compressor protector which provides anti-cycle reset capability at the space thermostat, should any of the following standard safety devices trip and shut off compressor.

- 1) Compressor overtemperature, overcurrent.
- 2) Loss-of-charge/low-pressure switch.
- 3) Freeze-protection thermostat, evaporator coil.
- 4) High-pressure switch.
- 5) Automatic reset motor thermal overload protector.

The lockout protection shall be easily disconnected at the control board, if necessary.

b. Heating section shall be provided with the following minimum protections:

- 1) High-temperature limit switches.
- 2) Overcurrent protection.

c. Unit shall incorporate an outdoor coil defrost system to prevent excessive frost accumulation during heating duty, and shall be controlled as follows:

- 1) Defrost shall be initiated on the basis of time and coil temperature.
- 2) A 30/50/90-minute timer shall activate defrost cycle only if the coil temperature is low enough to indicate a heavy frost condition.
- 3) Defrost cycle shall terminate when defrost thermostats are satisfied and shall have a positive termination time of 10 minutes.

GUIDE SPECIFICATIONS — 542J150,180 (cont)

J. Operating Characteristics:

1. Unit shall be capable of starting and running at 125 F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/240 or 360 at $\pm 10\%$ voltage.
2. Compressor with standard controls shall be capable of operation down to 40 F (in cooling mode) ambient outdoor temperature.
3. Compressor with standard controls shall be capable of operation down to -20 F (in heating mode) ambient outdoor temperature.
4. Unit shall be capable of simultaneous heating duty and defrost cycle operation when using accessory electric heaters.

K. Electrical Requirements:

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

L. Motors:

1. Compressor motors shall be cooled by refrigerant gas passing through motor windings and shall have line break thermal and current overload protection.
2. Indoor-fan motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.
3. Totally enclosed outdoor-fan motor shall have permanently lubricated bearings, and inherent automatic-reset thermal overload protection.

M. Special Features:

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

1. Roof Curbs (Horizontal and Vertical):
 - a. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
 - b. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
2. Horizontal Adapter Roof Curb:

Includes factory-assembled adapter and duct.

NOTE: Power exhaust and barometric relief must be mounted in the return ductwork when used in conjunction with this accessory.
- * 3. Integrated Economizers:
 - a. Integrated integral modulating type capable of simultaneous economizer and compressor operation.
 - b. Available as a factory-installed option and accommodates vertical or horizontal return air configurations. (Available as a field-installed accessory for dedicated horizontal and/or vertical supply return configurations.)
 - c. Includes all hardware and controls to provide cooling with outdoor air.
 - d. Equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
 - e. Capable of introducing up to 100% outdoor air.
 - f. EconoMi\$erIV and EconoMi\$er2 shall be equipped with a barometric relief damper.
 - g. Designed to close damper(s) during loss-of-power situations with spring return built into motor.

- h. Dry bulb outdoor-air temperature sensor shall be provided as standard. Outdoor air sensor set point is adjustable and shall range from 40 to 100 F. For the EconoMi\$erIV, the return air sensor, indoor humidity sensor, and outdoor humidity sensor shall be provided as field-installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control. For the EconoMi\$er2, the enthalpy, differential temperature (adjustable), and differential enthalpy control shall be provided as field-installed accessories.
 - i. The EconoMi\$erIV and EconoMi\$er2 shall have a gear-driven parallel blade design.
 - j. EconoMi\$erIV microprocessor control shall provide control of internal building pressure through its accessory power exhaust function. Factory set at 100%, with a range of 0% to 100%.
 - k. EconoMi\$er2 shall be capable of control from a 4 to 20 mA signal through optional 4 to 20 mA design without microprocessor control (required for third party control interface).
 - l. EconoMi\$erIV Microprocessor Occupied Minimum Damper Position Setting maintains the minimum airflow into the building during occupied period providing design ventilation rate for full occupancy (damper position during heating). A remote potentiometer may be used to override the set point.
 - m. EconoMi\$erIV Microprocessor Unoccupied Minimum Damper Position Setting — The EconoMi\$erIV dampers shall be completely closed when the unit is in the occupied mode.
 - n. EconoMi\$er2 Microprocessor Maximum Damper Position Setting — Setting the maximum position of the damper prevents the introduction of large amounts of hot or cold air into the space. This position is intended to satisfy the base minimum ventilation rate.
 - o. EconoMi\$erIV Microprocessor IAQ/DCV control modulates the outdoor-air damper to provide ventilation based on the optional 2 to 10 vdc CO₂ sensor input.
 - p. Compressor lockout sensor (opens at 35 F, closes at 50 F).
 - q. Actuator shall be direct coupled to economizer gear, eliminating linkage arms and rods.
 - r. Control LEDs:
 - 1) When the outdoor-air damper is capable of providing free cooling, the "Free Cool" LED shall illuminate.
 - 2) The IAQ LED indicates when the module is on the DCV mode.
 - 3) The EXH LED indicates when the exhaust fan contact is closed.
 - s. Remote Minimum Position Control — A field-installed accessory remote potentiometer shall allow the outdoor-air damper to be opened or closed beyond the minimum position in the occupied mode for modified ventilation.
4. Barometric Relief Damper:
 - a. Package shall include damper, seals, hardware, and hoods to relieve excess internal pressure.
 - b. Damper shall close due to gravity upon unit shutdown.

GUIDE SPECIFICATIONS — 542J150,180 (cont)

5. Manual Outdoor-Air Damper:
Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 50% outdoor air for year round ventilation.
- * 6. 25% Two-Position Damper:
 - a. Two-position damper package shall include single blade damper and motor. Admits up to 25% outdoor air.
 - b. Damper shall close upon indoor fan shutoff.
- * 7. Head Pressure Control Package:
Control package shall consist of solid-state control and condenser-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling and wind baffles.
8. Electric Resistance Heaters:
 - a. Open wire nichrome elements with all necessary safety operating controls.
 - b. UL listed and indicated on basic unit information plate.
 - c. Available in multiples to match heating requirements.
 - d. Single point kits available for each heater when required.
- * 9. Electronic Programmable Thermostat:
Unit shall be capable of using deluxe full-featured electronic thermostat. Thermostat shall use built-in compressor cycle delay control for both heating and cooling duty. Thermostat shall be capable of working with third party direct digital controls.
- * 10. Thermostat and Subbase:
Thermostat and subbase shall provide staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.
11. Convenience Outlet:
Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. Outlet shall include 15 amp GFI receptacle with independent fuse protection. Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer. Outlet shall be accessible from outside the unit.
12. Compressor Cycle Delay:
Unit shall be prevented from restarting for minimum of 5 minutes after shutdown.
13. Fan/Filter Status Switch:
Switch shall provide status of indoor (evaporator) fan (ON/OFF) or filter (CLEAN/DIRTY). Status shall be displayed over communication bus when used with direct digital controls or with an indicator light at the thermostat.
14. Power Exhaust:
Package shall include an exhaust (propeller style) fan, 1/2 Hp 208-230, 460 v (factory-wired for 460 v) direct drive motor, and damper for vertical flow units with economizer to control over-pressurization of building. Power Exhaust package must be field-installed in return-air ductwork when used with optional side return connections.
15. Outdoor Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):
The outdoor air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the controller will provide differential enthalpy control. The sensor allows the controller to determine if outside air is suitable for free cooling.
16. Return Air Enthalpy Sensor (EconoMi\$erIV or EconoMi\$er2):
The return air enthalpy sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with an outdoor air enthalpy sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential enthalpy control.
17. Return Air Temperature Sensor (EconoMi\$erIV or EconoMi\$er2):
The return air temperature sensor shall be used with the EconoMi\$erIV or EconoMi\$er2 device. When used in conjunction with the standard outdoor air temperature sensor, the EconoMi\$erIV or EconoMi\$er2 device will provide differential temperature control.
18. Indoor Air Quality (CO₂) Sensor (EconoMi\$er2):
 - a. Shall have the ability to provide demand ventilation indoor air quality (IAQ) control through the economizer with an IAQ sensor.
 - b. The IAQ sensor shall be available in duct mount, wall mount, and wall mount with LED display. The set point shall have adjustment capability.
19. Indoor Air Quality (CO₂) Room Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be wall mounted with an LED display in parts per million. The set point shall have adjustment capability.
20. Return Air CO₂ Sensor (EconoMi\$erIV):
Sensor shall have the ability to provide demand ventilation control through the EconoMi\$erIV. The IAQ sensor shall be duct mounted. The set point shall have adjustment capability.
21. Ultra-Violet Germicidal Lamps:
Ultra-violet germicidal lamps are designed to eliminate odor causing mold and fungus that may develop in the wet area of the indoor section of the unit. The high output, low temperature germicidal lamps are field installed in the indoor section of the unit, aimed at the indoor coil and condensate pan. The short wavelength ultra-violet light inhibits and kills mold, fungus and microbial growth. The lamps have an output rating at 45 F in 400 fpm airflow of 120 microwatts/cm² at 1 meter.
22. Hinged Panel Option:
Hinged panel option provide hinged access panels for the filter, compressor, indoor fan, and control box areas. Filter hinged panels permit tool-less entry for changing filters. Each hinged panel is permanently attached to the rooftop unit.
23. Emergency Heat Control Package:
When mechanical heating is locked out, auxiliary heat shall be activated when necessary.

GUIDE SPECIFICATIONS — 542J150,180 (cont)

24. Glycol Coil:

Coil shall be 2-row copper tube (1/2-in. OD) with aluminum plate fins (15 fins/in.) and 1.625 in. OD copper headers. Input and output connections shall be 1.625 in. ODM copper stubs for sweat connection. Coil shall be furnished with suitable support rails, end plates, and hardware for ready field installation in the heater compartment.

25. Winter Start Time Delay:

Used in conjunction with the accessory low ambient kit or head pressure control device, the kit permits

operation in cooling at lower outdoor temperatures. See price pages for more information.

26. Alternate Drive:

Alternate drive shall provide higher static drive capability to enhance indoor fan performance rpm range.

27. Stainless Steel Condensate Pan:

Stainless steel condensate pans shall be available for condensate collection.

CONTROLS

SEQUENCE OF OPERATION — 548F036-120, 549B036-120, AND 549C024-060

Cooling, Units Without Economizer — When thermostat calls for cooling, terminals G and Y1 are energized. The indoor-fan contactor (IFC), reversing valve solenoid (RVS1 for sizes 024-072) (RVS1 and RVS2 for sizes 090-120) and compressor contactor are energized and indoor-fan motor, compressor, and outdoor fan starts. The outdoor-fan motor runs continuously while unit is cooling.

Heating, Units Without Economizer — Upon a request for heating from the space thermostat, terminal W1 will be energized with 24 v. The IFC, outdoor-fan contactor (OFC), C1, and C2 will be energized. The indoor fan, outdoor fans, and compressor no. 1, and compressor no. 2 are energized and reversing valves are deenergized and switch position.

If the space temperature continues to fall while W1 is energized, W2 will be energized with 24 v, and the heater contactor(s) (HC) will be energized, which will energize the electric heater(s).

When the space thermostat is satisfied, W2 will be deenergized first, and the electric heater(s) will be deenergized.

Upon a further rise in space temperature, W1 will be deenergized.

Cooling, Units With EconoMi\$erIV — When free cooling is not available, the compressors will be controlled by the zone thermostat. When free cooling is available, the outdoor-air damper is modulated by the EconoMi\$erIV control to provide a 50 to 55 F mixed-air temperature into the zone. As the mixed-air temperature fluctuates above 55 or below 50 F, the dampers will be modulated (open or close) to bring the mixed-air temperature back within control.

If mechanical cooling is utilized with free cooling, the outdoor-air damper will maintain its current position at the time the compressor is started. If the increase in cooling capacity causes the mixed-air temperature to drop below 45 F, then the outdoor-air damper position will be decreased to the minimum position. If the mixed-air temperature continues to fall, the outdoor-air damper will close. Control returns to normal once the mixed-air temperature rises above 48 F.

If optional power exhaust is installed, as the outdoor-air damper opens and closes, the power exhaust fans will be energized and deenergized.

If field-installed accessory CO₂ sensors are connected to the EconoMi\$erIV control, a demand controlled ventilation strategy will begin to operate. As the CO₂ level in the zone increases above the CO₂ set point, the minimum position of the damper will be increased proportionally. As the CO₂ level decreases because of the increase in fresh air, the outdoor-air damper will be proportionally closed.

For EconoMi\$erIV operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed.

When the EconoMi\$erIV control is in the occupied mode and a call for cooling exists (Y1 on the thermostat), the control will first check for indoor fan operation. If the fan is not on, then cooling will not be activated. If the fan is on, then the control will open the EconoMi\$erIV damper to the minimum position.

On the initial power to the EconoMi\$erIV control, it will take the damper up to 2¹/₂ minutes before it begins to position itself. Any change in damper position will take up to 30 seconds to initiate. Damper movement from full closed to full open (or vice versa) will take between 1¹/₂ and 2¹/₂ minutes.

If free cooling can be used as determined from the appropriate changeover command (switch, dry bulb, enthalpy curve,

differential dry bulb, or differential enthalpy), then the control will modulate the dampers open to maintain the mixed-air temperature set point at 50 to 55 F.

If there is a further demand for cooling (cooling second stage — Y2 is energized), then the control will bring on compressor stage 1 to maintain the mixed-air temperature set point. The EconoMi\$erIV damper will be open at maximum position. EconoMi\$erIV operation is limited to a single compressor.

Heating, Units With EconoMi\$erIV — When the room temperature calls for heat through terminal W1, the indoor (evaporator) fan contactor (IFC) and heater contactor no. 1 (HC1) are energized and the reversing valve(s) deenergize and switches position. 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. When the thermostat is satisfied, the damper moves to the fully closed position.

Defrost (548F036-072, 549B036-072, and 549C024-060) — As frost builds up on the outdoor coil, the coil temperature drops below 28 F. When this outdoor-coil temperature drop is sensed by the defrost thermostat (DFT) and the defrost timer is at the end of a timed period (adjustable at 30, 50, or 90 minutes), the unit operates in a defrost cycle controlled by the defrost timer and thermostat. During this cycle, the reversing valve solenoid (RVS) is energized and the outdoor fan shuts off. The electric heaters (if installed) will be energized.

The unit continues to defrost until the coil temperature as measured by DFT reaches 65 F, or the duration of defrost cycle completes a 10-minute period.

At the end of the defrost cycle, the electric heaters (if installed) and the reversing valve will be deenergized, and the outdoor-fan motor will be energized. The unit will now operate in the Heating mode.

If the thermostat is satisfied during a defrost cycle, the unit will continue in the Defrost mode until the time or temperature constraints are satisfied.

Defrost (548F090-120 and 549B090-120) — When the temperature of the outdoor coil drops below 28 F as sensed by the defrost thermostat (DFT2) and the defrost timer is at the end of a timed period (adjustable at 30, 50, or 90 minutes), reversing valve solenoids (RVS1 and RVS2) are energized and the OFC is deenergized. This switches the position of the reversing valves and shuts off the outdoor fan. The electric heaters (if installed) will be energized.

The unit continues to defrost until the coil temperature as measured by DFT2 reaches 65 F, or the duration of defrost cycle completes a 10-minute period.

During the Defrost mode, if circuit 1 defrosts first, RVS1 will oscillate between Heating and Cooling modes until the Defrost mode is complete.

At the end of the defrost cycle, the electric heaters (if installed) will be deenergized; the reversing valves switch and the outdoor-fan motor will be energized. The unit will now operate in the Heating mode.

If the space thermostat is satisfied during a defrost cycle, the unit will continue in the Defrost mode until the time or temperature constraints are satisfied.

Automatic Changeover — When the system selection switch is set at AUTO. position, unit automatically changes from heating operation to cooling operation when the temperature of the conditioned space rises to the cooling level setting. When the temperature of the conditioned space falls to the heating level setting, unit automatically changes from cooling to heating operation (with a 3° F deadband in between).

CONTROLS (cont)

Continuous Air Circulation — Turn unit power on. Set system control at OFF position. Set fan switch at ON position. The indoor-fan contactor is energized through the thermostat switch and the indoor fan runs continuously.

Cycle-LOC™ Protection — If unit operation is interrupted by an open high-pressure switch, low-pressure switch, indoor coil freeze-stat, or by compressor internal line-break device (over-current or overtemperature), and compressor is calling for either cooling or heating, Cycle-LOC protection device simultaneously locks out unit and lights a warning light on the thermostat. Restart the unit by manually turning thermostat to OFF and then to ON position. If any of the protective devices opens again, the unit continues to lock out until corrective action is taken.

NOTE: If the unit fails to operate due to compressor overcurrent condition, restart by manually resetting circuit breakers at the unit. Restart cannot be accomplished at the room thermostat.

Emergency Heat — If compressor is inoperative due to a tripped safety device (high or low pressure, indoor coil freeze-stat, overcurrent, or overtemperature), the Cycle-LOC device locks out the compressor and lights a warning light on the room thermostat. When the switch is on (thermostat is set to the EM HT position), compressor circuit and outdoor thermostats are bypassed, and the second stage of thermostat energizes the indoor blower and the electric resistance heaters.

SEQUENCE OF OPERATION — 542J150,180

Cooling, Units Without Economizer — With unit main power on, set thermostat to COOL position and desired room temperature. Set fan switch at AUTO. (on demand) or ON (continuous) position.

On a rise in room temperature, cooling contactor no. 1 in the thermostat closes. The indoor and outdoor fan motors start. If the 5-minute compressor time-delay (CTD) on the defrost board (DB) is satisfied, then compressor no. 1 (542J180) or unloaded compressor (542J150) contactor is energized and compressor will start. Compressor cycles on demand of the thermostat to satisfy room conditions. Each time the cooling contactor no. 1 opens, the CTD starts the 5-minute delay.

On 542J180 units, with an additional rise in room temperature, cooling contactor no. 2 in the thermostat closes, energizing compressor contactor no. 2. Compressor no. 2 starts and cycles on demand of the thermostat to satisfy the occupied space demands.

On 542J150 units, compressor runs fully loaded on a call for second-stage cooling.

Cooling, Units With Economizer — Upon a call for cooling, when outdoor ambient temperature is above the temperature control setting, the indoor and outdoor fans and compressor(s) 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 indoor 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 (542J180) or loaded compressor (542J150) is energized and mechanical cooling is integrated with economizer cooling. Compressor no. 2 (542J180) is locked out. If the air temperature is

below 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 indoor coil. It detects frost build-up and turns off the compressor(s), allowing the coil to clear. Once frost has melted, the compressor can be reenergized.

Heating, Units Without Economizer — With unit main power on, set thermostat at HEAT position and desired room temperature. Set fan switch at AUTO. (on demand) or ON (continuous) position.

On a drop in room temperature, heating contactor no. 1 in the thermostat closes, energizing heat relay (HR), reversing valve relay (RVR), reversing valve solenoids (RVS1 and RVS2) and compressor no. 2 contactor. Compressor (size 150) or compressor no. 2 (size 180) and indoor and outdoor fan motors start. If the 5-minute CTD on the DB is satisfied, then compressor no. 1 contactor is energized and compressor no. 1 will start.

On units equipped with electric heat, when additional heat is needed, heating contactor no. 2 in the thermostat closes, energizing W2.

Heating, Units With Economizer — With unit main power on, set thermostat at HEAT position and desired room temperature. Set fan switch at AUTO. (on demand) or ON (continuous) position.

On a drop in room temperature, heating contactor no. 1 in the thermostat closes, energizing heat relay (HR), reversing valve relay (RVR), reversing valve solenoids (RVS1 and RVS2) and compressor no. 2 contactor. Compressor no. 2 (size 180) and indoor and outdoor fan motors start. If the 5-minute CTD on the DB is satisfied, then compressor (542J150) or compressor no. 1 (180) contactor is energized and compressor (542J150) or compressor no. 1 (180) will start. The outdoor-air damper stays at vent position while the indoor fan is operating.

On units equipped with electric heat, when additional heat is needed, heating contactor no. 2 in the thermostat closes, energizing W2.

Defrost Cycle — When the temperature of the outdoor coil drops below 28 F as sensed by the defrost thermostat (DFT1 or DFT2), the defrost timer starts. At the end of a timed period (field set at 30, 50, or 90 minutes), the defrost cycle will begin. The defrost board energizes terminals O and W2, energizes the defrost relay (DR), deenergizes the reversing valve solenoids (RVS1 and RVS2), and energizes the electric heat. The outdoor-fan motor will stop.

The unit continues to defrost either until the coil temperature as measured by DFT1 or DFT2 reaches 65 F, or until unit completes a 10-minute defrost cycle.

During the defrost mode, when a circuit defrosts, RVS will oscillate between heating and cooling modes until defrost mode is complete. This will prevent the head pressure from getting too high.

At the end of the defrost cycle, the electric heaters (if applicable) will be deenergized, the reversing valve solenoids will be energized, and the outdoor fans will start.

APPLICATION DATA

1. **OUTDOOR INSTALLATION** — Units approved for outdoor installation only.
2. **DUCTWORK** — 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. **HORIZONTAL ECONOMIZER** — A field-installed accessory is available for horizontal discharge applications. Field-installed power exhaust accessory also available for vertical or horizontal Economizer applications.
4. **THRU-THE-BOTTOM POWER CONNECTIONS** — For applications requiring thru-the-bottom connections, Bryant accessory thru-the-bottom package must be purchased to ensure proper connections.
5. **THERMOSTAT** — 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. A two-stage thermostat is required for all size 090-180 units.
6. **HEATING-TO-COOLING CHANGEOVER** — All units are automatic changeover from heating to cooling when automatic changeover thermostat and subbase are used.
7. **AIRFLOW** — Units are draw-thru on cooling and blow-thru on heating.
8. **MAXIMUM AIRFLOW** — To minimize the possibility of condensate blow-off from indoor coil, airflow through units should not exceed 500 cfm/ton.
9. **MINIMUM AIRFLOW** — For cooling, minimum airflow is 300 cfm/ton. For 548F units with electric heating, the required minimum cfm is 900 for 548F036; 1200 for 548F048; 1500 for 548F060; 1800 for 548F072; 2250 for 548F090; 2500 for 548F102; and 3000 for 548F120, with the following exceptions:

UNIT 548F	UNIT VOLTAGE	HEATER kW	UNIT CONFIGURATION	REQUIRED MINIMUM CFM
120	208/230	42.4	Horizontal	3200
	208/230	50.0	Horizontal	3200
	460	50.0	Horizontal or Vertical	3200
090-120	575	17.0	Horizontal or Vertical	2800
		34.0		2350

For 542J, 549B, and 549C units with electric heating, required minimum cfm is 600 for 549C024, 900 for 549B/C036, 1200 for 549B/C048, 1500 for 549B/C060, 1700 for 549B072, 2250 for 549B090, 3000 for 549B120, 3900 for 542J150, and 4500 for 542J180, with the following exceptions:

UNIT 549B	UNIT VOLTAGE	HEATER kW	UNIT CONFIGURATION	REQUIRED MINIMUM CFM
120	208/230	50.0	Horizontal or Vertical	3250
	460	50.0	Horizontal or Vertical	3400

10. **MINIMUM AMBIENT COOLING OPERATING TEMPERATURE** — The minimum temperature for standard size 036-120 units is 25 F. With accessory Motormaster® I, II, or IV

control, units can operate at outdoor temperatures down to -20 F.

Unit sizes 150 and 180 are designed to operate at outdoor temperatures down to 40 F. With accessory Motormaster I control, units can operate at outdoor temperatures down to -20 F.

11. **INTERNAL UNIT DESIGN** — Due to Bryant's internal unit design (draw-thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Physical Data table and the notes following each Fan Performance table can be utilized with confidence.

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

12. **CONDENSATE DRAIN PAN** — A sloped condensate drain pan is supplied on all units. The condensate pan must be externally trapped. Condensate drains are located on both the bottom and end of the unit.
13. **FIELD-SUPPLIED FAN DRIVES** — If the factory drive sets must be changed to obtain other wheel speeds, consult the nearest Browning Manufacturing Co. sales office with the required new wheel speed and the data from Physical Data tables (center distances, motor and fan shaft diameters, motor horsepower) for a modified drive set selection. For minor speed changes, the fan sheave size should be changed. (Do not reduce the size of the motor sheave; this will result in reduced belt horse-power ratings and reduced belt life.)

14. CONDENSER COIL PROTECTION

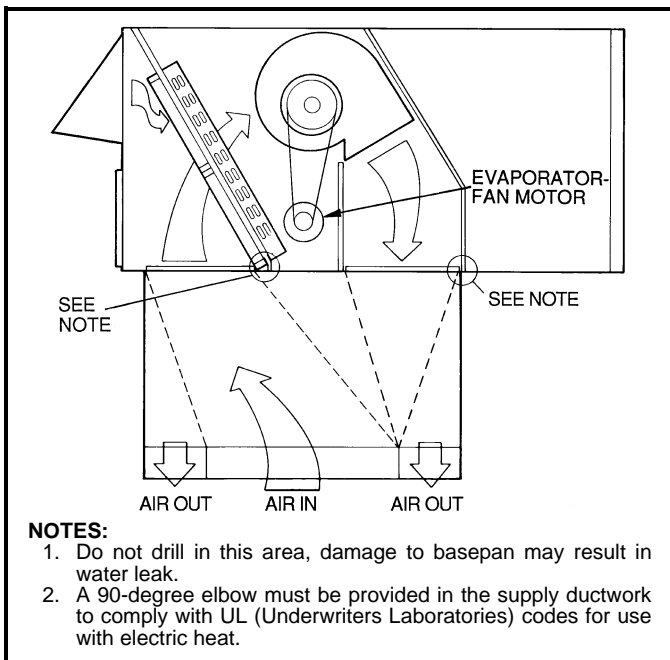
Pre-Coated Aluminum-Fin Coils have a durable epoxy-phenolic coating applied to the fin prior to the fin stamping process to provide protection in mildly corrosive coastal environments. Pre-coated coils have an inert barrier between the aluminum fin and copper tube. This barrier electrically disconnects the dissimilar metals to minimize the potential for galvanic corrosion. This economical option provides substantial corrosion protection beyond the standard uncoated coil construction.

Copper-Fin Coils provide increased corrosion resistance in moderate coastal environments where industrial air pollution is not present. All copper coils eliminate bi-metallic construction to eliminate the potential for galvanic corrosion. Application in industrial environments is not recommended due to potential attack from sulfur, sulfur oxide, nitrogen oxides, carbon and several other industrial airborne contaminants. In moderate seacoast environments, copper-fin coils have extended life compared to standard or pre-coated aluminum-fin coils.

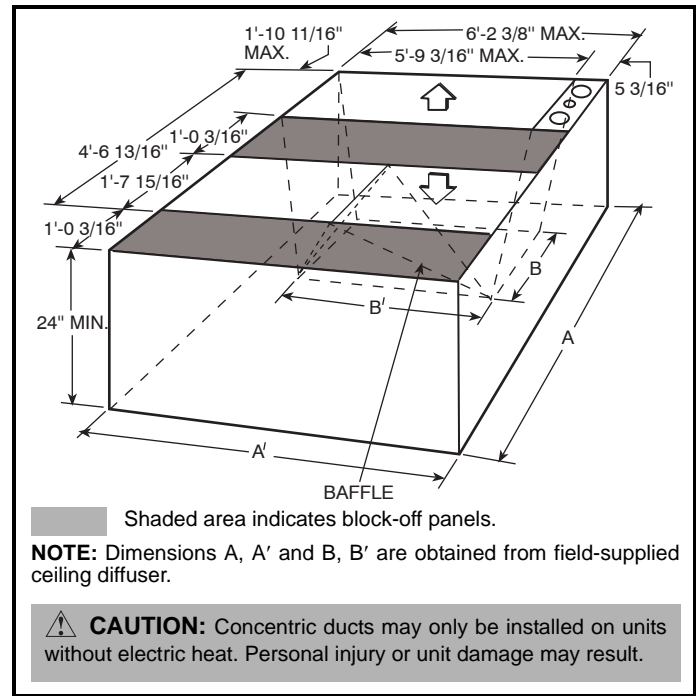
E-Coated Aluminum-Fin coils undergo a precisely controlled scientific process that bonds an impermeable epoxy coating to the specially prepared fin coil surface. E-Coating produces a smooth, consistent coating that is less brittle, more resilient and more durable than previous postcoating processes. E-Coated aluminum-fin coils offer economical protection and improved coil life in many contaminated environments.

E-Coated Copper-Fin Coils provide maximum protection in virtually all environments, this option combines the continuous, impenetrable barrier of the E-Coating process with the natural resistance of an all-copper construction. E-Coated copper-fin coil assemblies ensure long life, even in environments that combine harsh coastal conditions with industrial contamination.

APPLICATION DATA (cont)



Concentric Duct Distribution — 542J150,180



Concentric Duct Details — 542J150,180

CONDENSER COIL PROTECTION APPLICATIONS

DESCRIPTION (<i>Enviro-Shield™</i> Option)	ENVIRONMENT*					
	Standard, Non-Corrosive	Mild Coastal	Moderate Coastal	Severe Coastal	Industrial	Combined Coastal and Industrial
Standard, Al/Cu	X					
Pre-Coated Al/Cu		X				
Cu/Cu			X			
E-Coated Al/Cu					X	X
E-Coated Cu/Cu				X		

LEGEND

Al/Cu	— Aluminum Fin with Copper Tube Coil	E-Coated	— Extremely Flexible and Durable Epoxy Coating Uniformly Applied to the Coil Surfaces
Cu/Cu	— Copper Fin with Copper Tube Coil	Pre-Coated	— Epoxy Coating Applied to Fin Stock Material
Enviro-Shield	— Family of Coil Protection Options		

*See "Selection Guide: Environmental Corrosion Protection" Catalog No. 811-217 for more information

15. ECONOMI\$ERIV — The EconoMi\$erIV factory-installed economizer package includes a gear-driven damper system that modulates the return air and outdoor air supply to the rooftop unit in order to take advantage of "free cooling" with outdoor air when conditions are suitable. The system utilizes industry proven technology available for integrating the use of outdoor air for cooling with mechanical cooling for 3 through 15-ton rooftop units. The intuitive EconoMi\$erIV solid-state controller optimizes and enhances rooftop operation through reduced energy consumption, optimal zone comfort, and efficient equipment cycling. This is accomplished by operating the compressors when the outdoor air temperature is too warm, integrating the compressors with outdoor air when free cooling is available, and locking out the compressor when outdoor air temperature is too cold. The detailed sequence of operation is described in the controls section with a brief description of selected application items here.

Thermostat Interface — The EconoMi\$erIV control was designed to work with conventional thermostats that have Y1 (cooling stage 1), Y2 (cooling stage 2), W1 (heat stage 1), W2 (heat stage 2), and G (fan). In addition, the EconoMi\$erIV will support an occupied/unoccupied switch (typically integrated into the thermostat or thermidistat). When the switch is closed, it provides a 24 vac signal to the unit for occupied mode, and provides no signal to indicate unoccupied mode. The EconoMi\$erIV control can be configured to allow different minimum economizer damper positions and to allow the use of mechanical cooling in the occupied mode.

Control Features — The EconoMi\$erIV controller provides superior functionality for rooftop unit operation. EconoMi\$erIV control features are included as follows:

Remote minimum position control — The EconoMi\$erIV controller can be used with a field-supplied and field-installed remote minimum position control switch that will enable and disable the EconoMi\$erIV to open or close the damper beyond the minimum position for modified ventilation, providing 2 to 10 vdc output.

NOTE: Minimum position signal takes priority over the DCV (Demand and Control Ventilation) maximum position signal.

Demand control ventilation (DCV) — The EconoMi\$erIV has DCV capability when using an IAQ sensor. This sensor is typically installed in the return duct or occupied space. When implementing a DCV control scheme with the EconoMi\$erIV, the control algorithm will modulate the position of the damper between two user-configured damper positions, Maximum DCV Position and Minimum Occupied position. Design airflow rates for these two damper positions should be such that when the damper is at the Maximum DCV position, enough fresh ventilation air will be brought in to remove contaminants and CO₂ generated by sources other than people (i.e., since in unoccupied mode). The Maximum DCV position is intended to satisfy the IAQ "Base Ventilation Rate." The Minimum Occupied position design airflow rate should be sufficient to satisfy ventilation requirements for removing CO₂ from all sources including people at the maximum occupancy.

APPLICATION DATA (cont)

IAQ sensors — EconoMi\$erIV can be utilized with any IAQ (CO₂) sensor that provides a 2 to 10 vdc output. The controller will modulate the outdoor air damper to provide ventilation based on the sensor output and the IAQ setting of the controller. When used, an IAQ sensor will modulate the damper from the minimum position (base ventilation rate based on CO₂ levels) to maximum position (full occupancy ventilation rate).

Damper operation — The EconoMi\$erIV allows the damper to be configured for two adjustable damper positions including maximum position and occupied minimum positions. The two (2) position damper capability is a unique feature of EconoMi\$erIV and includes operation flexibility as follows:

1. Minimum Occupied Position: This adjustable position allows a minimum ventilation airflow rate through the unit during occupied periods (base ventilation rate).
2. Demand Control Ventilation (DCV) Maximum Position: A DCV maximum occupied position is provided when using an IAQ sensor for DCV. See DCV and Control sections for sequence. The DCV Maximum Position limits outdoor airflow into the rooftop when the DCV routine overrides the mixed air sensor. Setting the DCV Maximum Position of the outdoor-air damper prevents large amounts of hot or cold air into the space.

IMPORTANT: When the DCV Maximum Position is set below the minimum position, the minimum position overrides the maximum position, negating most DCV functions.

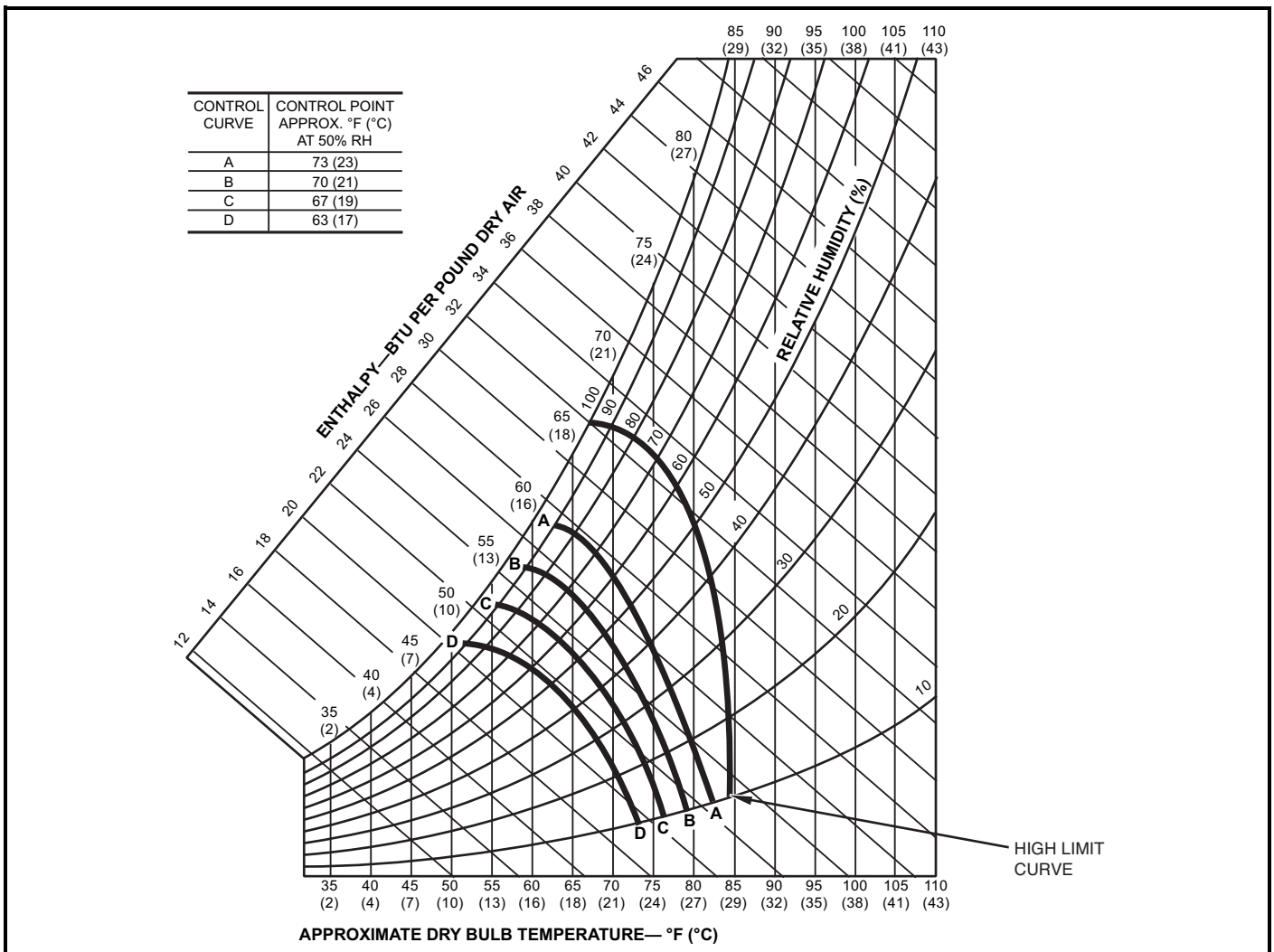
Compressor staging — The EconoMi\$erIV is an integrated economizer and has the ability to utilize simultaneous outdoor air and compressors. The EconoMi\$erIV can be configured to support economizer and compressor operation for up to 4 compressors. Only one or two compressor operation is available with 3 to 12¹/₂ ton units.

CHANGEOVER STRATEGIES — The EconoMi\$erIV controller can be configured to accommodate all available economizer control strategies that place the rooftop unit in economizer mode including:

Switch — Used when a remote signal from an energy management system will enable and disable the EconoMi\$erIV (remote enable control).

Outdoor dry bulb — EconoMi\$erIV will be enabled based on the outside air temperature. This is provided standard with the EconoMi\$erIV.

Differential dry bulb — EconoMi\$erIV will be enabled whenever the outside air temperature is lower than the return-air temperature.



Economizer Changeover Curves

Outside air enthalpy — EconoMi\$erIV will be enabled based on the outside air enthalpy curves as shown in the EconoMi\$erIV Changeover diagram below. The A, B, C, and D curves shown have been in use for many years and have been included as part of the latest ASHRAE 90.1 energy efficiency code. The curves are designed to take into consideration both outdoor temperature and humidity. These curves are used to set up the EconoMi\$erIV controller to use the EconoMi\$erIV for free cooling when the conditions to the left of the curve exist. When the conditions are to the right of the curve, then outdoor air cooling will not be used and the outdoor air damper position will be set at the minimum position.

Deciding which curve is used is a function of the outdoor climate and the type of economizer utilized. Since EconoMi\$erIV is a fully integrated economizer, the range where outdoor air can be utilized for free cooling is expanded and the A and B curves may be used. The control point table in the EconoMi\$erIV Changeover diagram below provides assistance for whether the A and B curves

will be suitable. In general terms, a hot and humid climate may be a reason not to use the A curve, while a cooler climate might be more applicable for using the A or B curve.

The EconoMi\$erIV has expanded outdoor air capability. For a changeover economizer which cannot utilize simultaneous economizer and compression, both A and B curves would potentially be undesirable since the temperature and humidity levels are too high without compression assistance to provide effective cooling. Therefore, most changeover economizers utilize the D curve.

Differential enthalpy — The EconoMi\$erIV will be enabled based on the comparison of the enthalpy of the return air and outside air. When the outside air enthalpy is lower than the return side, the unit will be in economizer mode.

Using the EconoMi\$erIV controller for implementing different control changeover strategies requires the use of different combinations of dry bulb and humidity sensors as outlined in the EconoMi\$erIV Sensor Usage table.

ECONOMI\$ERIV SENSOR USAGE

APPLICATION	ECONOMI\$ERIV WITH OUTDOOR AIR DRY BULB SENSOR	ECONOMI\$ERIV WITH SINGLE ENTHALPY SENSOR
	Accessories Required	Accessories Required
Outdoor Air Dry Bulb	None. The outdoor air dry bulb sensor is factory installed.	CRTEMPSN002A00*
Differential Dry Bulb	CRTEMPSN002A00*	(2) CRTEMPSN002A00*
Single Enthalpy	HH57AC078	None. The single enthalpy sensor is factory installed.
Differential Enthalpy	HH57AC078 and CRENTDIF004A00*	CRENTDIF004A00*
CO ₂ for DCV Control using a Wall-Mounted CO ₂ Sensor	CGCDXSEN004A00	
CO ₂ for DCV Control using a Duct-Mounted CO ₂ Sensor	CGCDXSEN004A00† and CGCDXASP001A00**	

*CRENTDIF004A00 and CRTEMPSN002A00 accessories are used on many different base units. As such, these kits may contain parts that will not be needed for installation.

†CGCDXSEN004A00 is an accessory CO₂ sensor.

**CGCDXASP001A00 is an accessory aspirator box required for duct-mounted applications.



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