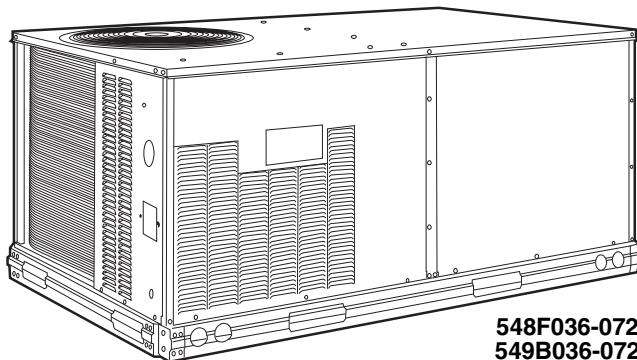


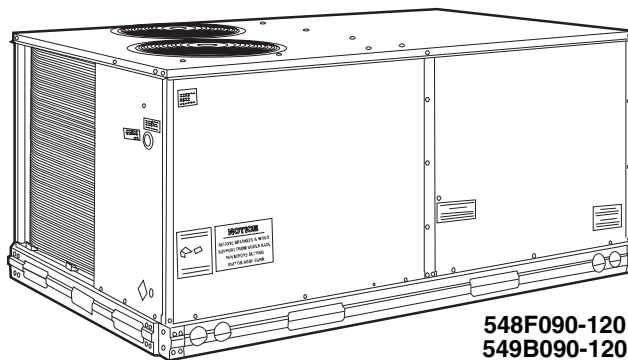


**COMMERCIAL
SINGLE PACKAGE ROOFTOP
STANDARD AND HIGH EFFICIENCY
HEAT PUMP UNITS**

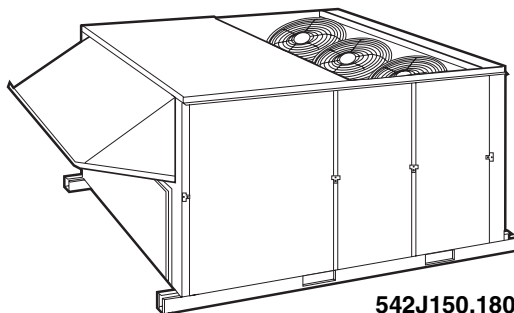
Models 542J, 548F, 549B
Sizes 036-180
DuraPac and DuraPac Plus
3 to 15 Tons



**548F036-072
549B036-072**



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



542J150,180



Standard-efficiency (548F), and high-efficiency (542J and 549B) heat pump units with:

- 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
- Optional gear driven EconoMi\$er with CO₂ ventilation control (2 to 10 vac actuator)
- Optional gear-driven EconoMi\$er with 4 to 20 mA actuator for EMS controls
- 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.

TABLE OF CONTENTS

	Page
Features/Benefits	1-3
Options and Accessories	4-9
Controls	10-14
Application Data	14,15
Typical Piping and Wiring	16,17
548F036-120	
Model Number Nomenclature	18
ARI Capacity Ratings	18
Physical Data	19,20
Base Unit Dimensions	21,22
Accessory Dimensions	23,24
Selection Procedure	25
Performance Data	26-55
Electrical Data	56-64
Typical Wiring Schematic	65,66
549B036-120	
Model Number Nomenclature	67
ARI Capacity Ratings	67
Physical Data	68,69
Base Unit Dimensions	70,71
Accessory Dimensions	72,73
Selection Procedure	74
Performance Data	75-90
Electrical Data	91-94
Typical Wiring Schematic	95,96
Guide Specifications — 548F and 549B036-120 Units ..	97-100
542J150,180	
Model Number Nomenclature	101
ARI Capacity Ratings	102
Physical Data	102,103
Base Unit Dimensions	104
Accessory Dimensions	105-107
Selection Procedure	108
Performance Data	109-114
Electrical Data	114
Typical Wiring Schematic	115-117
Guide Specifications — 542J150,180	118-121

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

In addition, all size 036-120 units are designed with a single, continuous top piece to eliminate any possible leaks. Totally enclosed condenser-fan motors and permanently lubricated bearings provide additional unit dependability.

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 036-072, 090-120, 150 and 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 036-120 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 150,180 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 (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 036-120 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 (036-120) or TXV metering device (150,180) 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 (036-120) or 40 F (150,180); optional head pressure control kit available for outdoor ambient conditions to -20 F.

INTEGRATED ECONOMIZERS AND OUTDOOR AIR

Optional EconoMi\$ers 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 discharge-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 stays at vent position.

Accessory upgrade kits allow for either outdoor air enthalpy changeover or for more precise differential enthalpy control.

Units can also utilize the factory or field-installed EconoMi\$er. The EconoMi\$er is microprocessor controlled and incorporates a parallel, opposed-blade gear driven damper system. In addition, it has a spring return built into the damper actuator to provide reliable close-on-power-loss. The EconoMi\$er comes equipped with up to 90% barometric relief capability for high outdoor airflow applications on 036-120 units only. Optional field-installed Barometric Relief package is available for use on 150,180 size units.

In addition, the EconoMi\$er two-stage power exhaust accessory can be utilized to help maintain proper building pressure (036-120 units only). Single stage power exhaust is available for unit sizes 150,180 as a field-installed accessory.

For units without economizer, year-round ventilation is enhanced by a manual outdoor-air damper. On 036-120 units, a 25% or 50% manual damper is available as a field-installed accessory. Unit sizes 150,180 are equipped with a standard 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 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 (American Society of Heating, Refrigeration, and Air Conditioning Engineers) 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.

OPTIONS AND ACCESSORIES

ITEM	OPTION*	ACCESSORY†
100% Open Two-Position Damper (036-120)		X
25% Open Two-Position Damper		X
Alternate Motors and Drives (548F036-120)	X	
Barometric Relief Damper (150 and 180 only, not for use with horizontal roof curb)		X
Convenience Outlet 115V	X	
Copper fins indoor and outdoor coil	X	
Copper fins outdoor coil	X	
Double Wall in unit airstream (150,180)	X**	
E-Coat outdoor coil (Aluminum Fin)	X	
E-Coat outdoor coil (Copper Fin)	X	
EconoMi\$er	X	X
EconoMi\$er with Power Exhaust		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 (548F036-120)	X	
Hinged Access Panels (549B036-120 and 542J150,180)	X	
Horizontal Adapter Curb (150,180)		X
Hot Gas Bypass (150,180)	X**	
Hydronic Glycol Coil (150,180)		X
Johnson METASYS Control	X**	
Manual Outdoor-Air Damper (25% Open) (036-120)		X
Manual Outdoor-Air Damper (50% Open) (036-120)		X
Motormaster® Head Pressure Control (Cycle Control or Fan Speed Modulation)		X
Novar Control	X**	
Outdoor Air Enthalpy Sensor (EconoMi\$er Only)		X
Outdoor Coil Grille (036-120)		X
Outdoor Coil Hail Guard Assembly		X
Power Exhaust (no barometric relief on sizes 150,180)		X
Power Exhaust Transformer for 460 or 575 v (036-120)		X
Power Exhaust with Barometric Relief (036-120)		X
Precoat Al. Fins on outdoor coil	X	
Return Air Enthalpy Sensor (EconoMi\$er Only)		X
Return Air Temperature Sensor (EconoMi\$er Only)		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Smoke Detectors	X**	
Stainless Steel Condensate Pan (150,180)	X**	
Thermostats and Subbases		X
Thru-the-Bottom Utility Connections		X
Time Guard® II Control Circuit		X
Unit-Mounted Non-Fused Disconnect	X	
UVC Lamps	X**	X
Winter Start Time Delay (150,180)		X

*Factory-installed.

†Field-installed.

**Special order/DEC only.

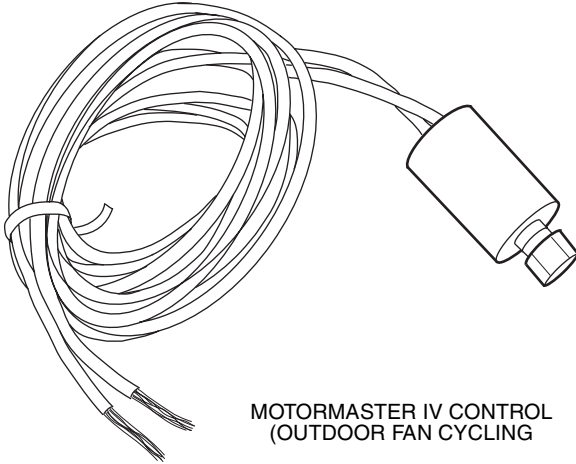
NOTES:

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.

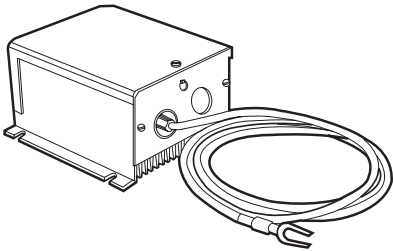
OPTIONS AND ACCESSORIES (cont)

LOW AMBIENT CONTROLS

Standard units are designed to operate in cooling at outdoor temperatures down to 25 F (for size 036-120 units) and 40 F (for size 150,180 units). With accessory Motormaster control (outdoor-fan cycling) units can operate at outdoor temperatures down to -20 F. The head pressure controls, which mount in the outdoor section, control the outdoor-fan motor to maintain correct condensing temperature.

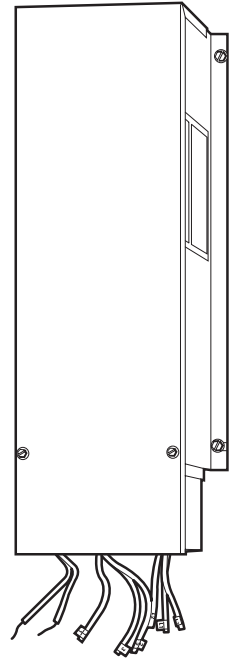


MOTORMASTER IV CONTROL
(OUTDOOR FAN CYCLING)

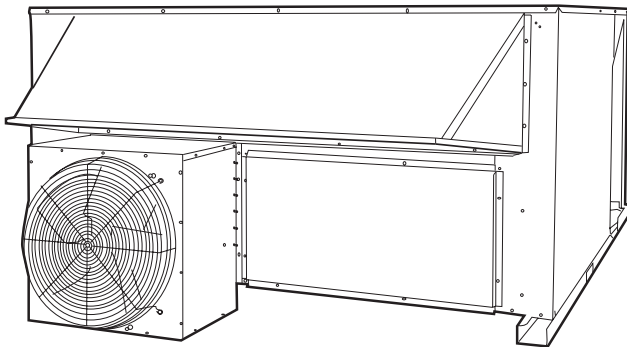


MOTORMASTER II CONTROL
(OUTDOOR FAN CYCLING)

MOTORMASTER I, III CONTROL
(OUTDOOR FAN SPEED MODULATOR)



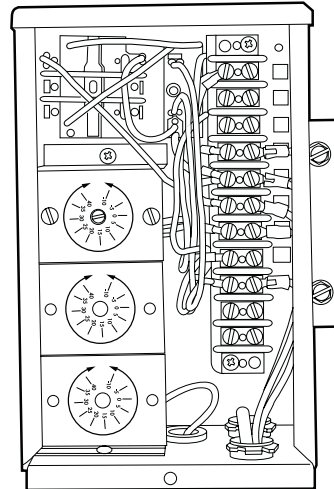
BAROMETRIC RELIEF/POWER EXHAUST (150,180 shown)



When used with accessory/optional economizer, the barometric relief or power exhaust accessory helps to relieve building overpressurization.

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

EMERGENCY HEAT CONTROL PACKAGE



Emergency heat control package allows emergency operation of electric heat and fans by bypassing compressor circuits and outdoor thermostats.

OPTIONS AND ACCESSORIES (cont)

DURA-SHIELD OUTDOOR COIL OPTIONS

Outdoor coil options are available to match coil construction to site conditions for the best corrosion durability. Pre-coated coils provide protections in mild coastal environments. All copper coils are best suited for moderate coastal applications, while E-coated coils provide superior protection in severe coastal and industrial applications.

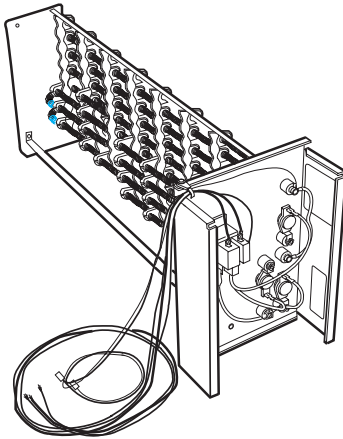
OUTDOOR COIL PROTECTION APPLICATIONS

DESCRIPTION (Dura-Shield 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	
E-Coated Cu/Cu				X		X

LEGEND

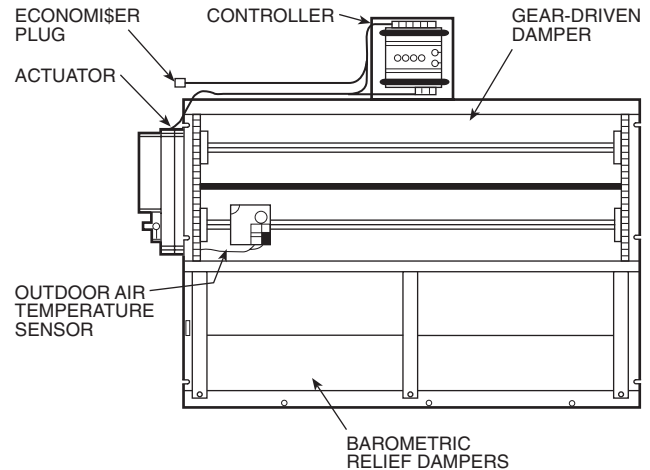
- Al/Cu — Aluminum Fin with Copper Tube Coil
- Cu/Cu — Copper Fin with Copper Tube Coil
- Dura-Shield — Family of Coil Protection Options
- E-Coated — Extremely flexible and durable epoxy coating uniformly applied to the coil surfaces.
- Pre-Coated — Epoxy Coating Applied to Fin Stock Material

ELECTRIC HEATERS



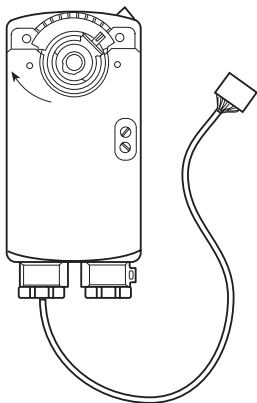
Electric heaters (and single point kits) are available in a wide range of capacities for factory or field installation.

ECONOMISER (036-120 shown)

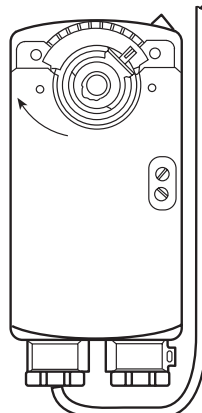


Factory-installed EconoMiSer utilizes a microprocessor-based control, gear drive damper system, low pressure drop characteristics, built-in spring return (for close upon power loss), and an integral barometric damper.

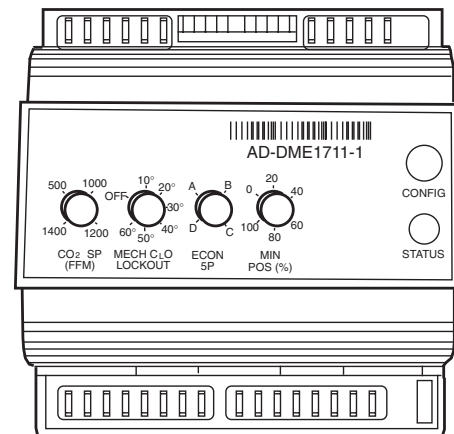
ECONOMISER STEPPER MOTOR



4-20 mA ECONOMISER ACTUATOR (use for EMS Interface)



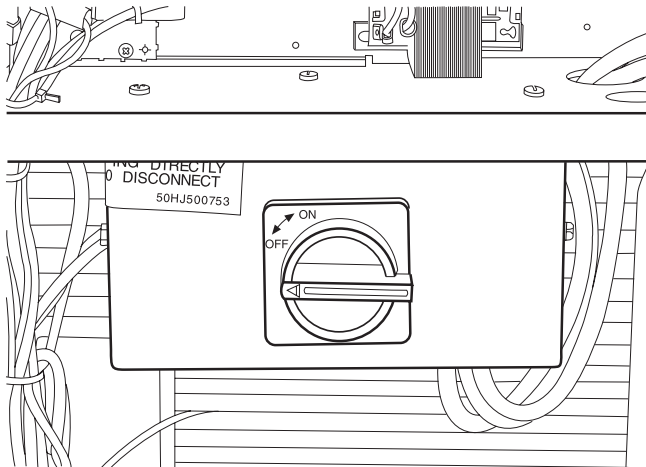
ECONOMISER MICROPROCESSOR CONTROLLER



Inputs for Dry Bulb, Enthalpy, Differential Temperature or Enthalpy, or Potentiometer

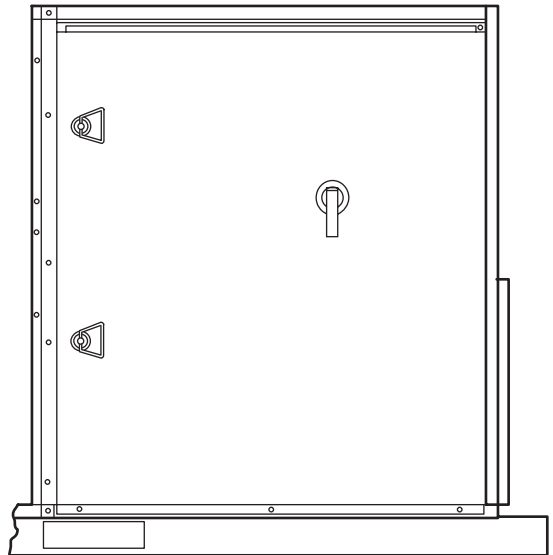
OPTIONS AND ACCESSORIES (cont)

UNIT-MOUNTED DISCONNECT (sizes 036-120)

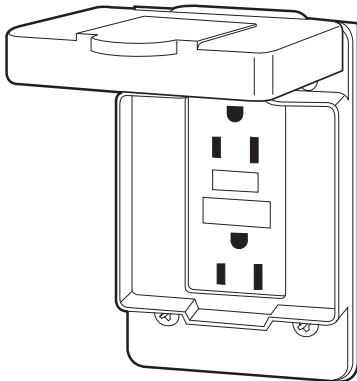


Factory-installed, internally mounted, NEC (National Electrical Code) and UL (Underwriters' Laboratories) approved non-fused switch provides unit power shutoff with disconnect lockout protection capability. The switch is accessible from outside the unit.

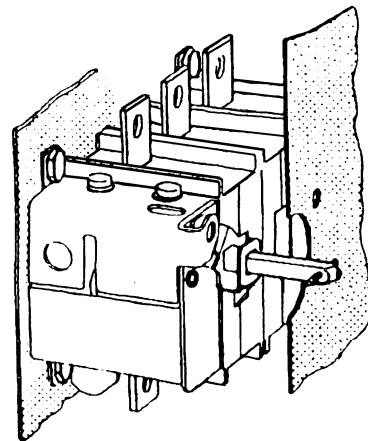
UNIT-MOUNTED DISCONNECT (sizes 150,180)



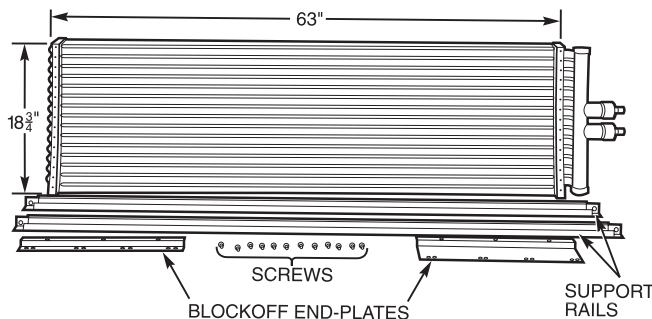
CONVENIENCE OUTLET



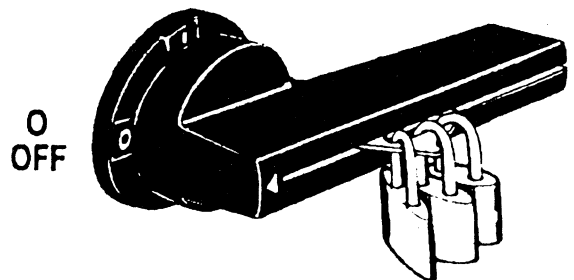
Factory-installed, internally mounted and externally accessible 115-v female receptacle. Includes 15-amp GFI (Ground Fault Interrupter) receptacle with independent fuse protection. Voltage required to operate convenience outlet is provided by a field-installed transformer (150,180 units).



GLYCOL COIL (150,180 only)



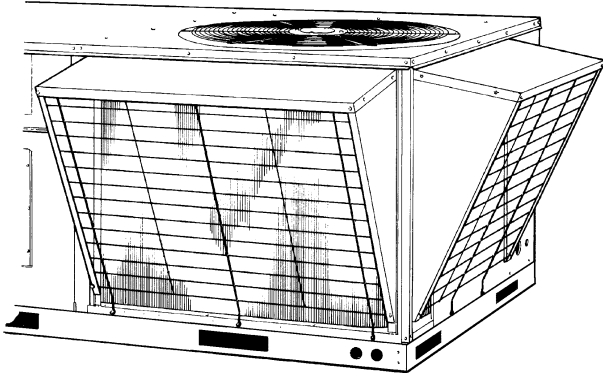
Glycol coil is intended for add-on type applications or new work where a boiler system is available. Glycol coil and electric heat cannot be installed together.



Factory-installed, internally-mounted, NEC (National Electrical Code) and UL (Underwriters' Laboratories) approved non-fused switch provides unit power shutoff with disconnect lockout protection capability. The control box access door is interlocked with the non-fused disconnect. The non-fused disconnect must be in the OFF position to open this door. The switch is accessible from outside the unit.

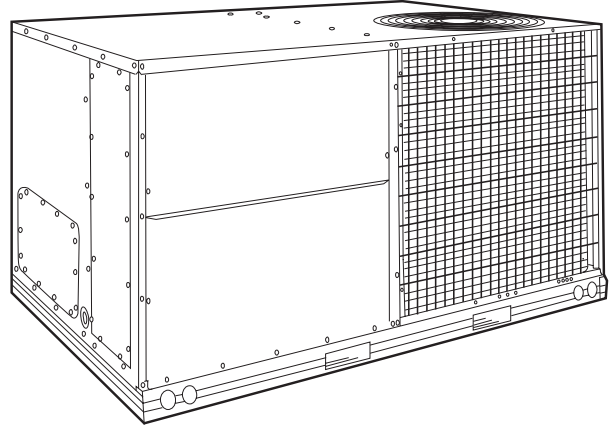
OPTIONS AND ACCESSORIES (cont)

HAIL GUARD



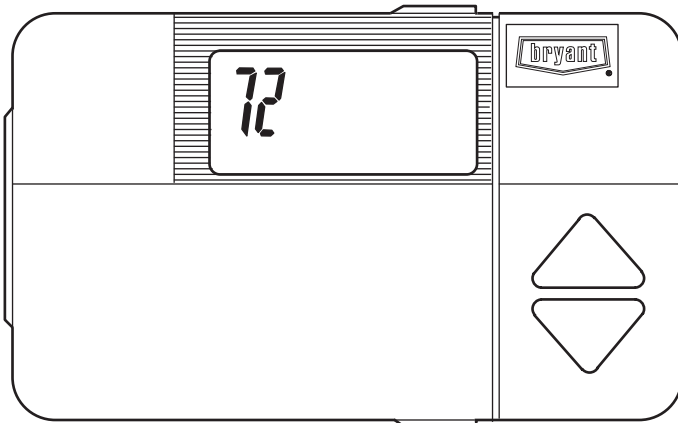
Outdoor coil hail guard accessory (field installed) protects coils against damage from hail and other flying debris.

OUTDOOR COIL GRILLE (036-120 only)



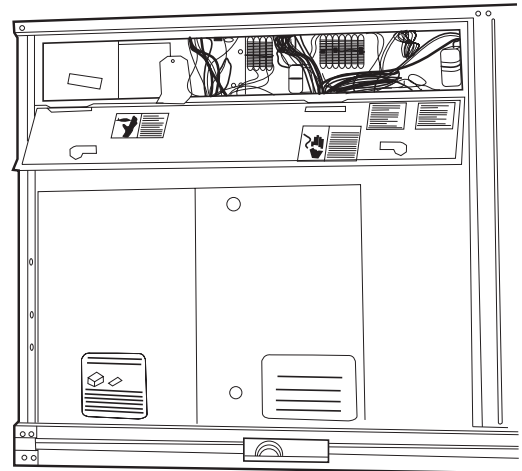
Coil guard grille protects coils against large objects and vandalism.

BRYANT COMMERCIAL PROGRAMMABLE THERMOSTAT

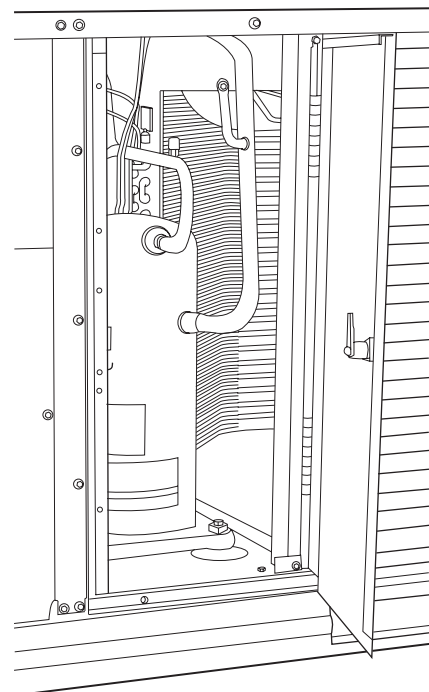


Designed specifically for use with Bryant commercial systems, this Bryant programmable thermostat features LED occupied/unoccupied displays and setback mode which can override continuous fan operation.

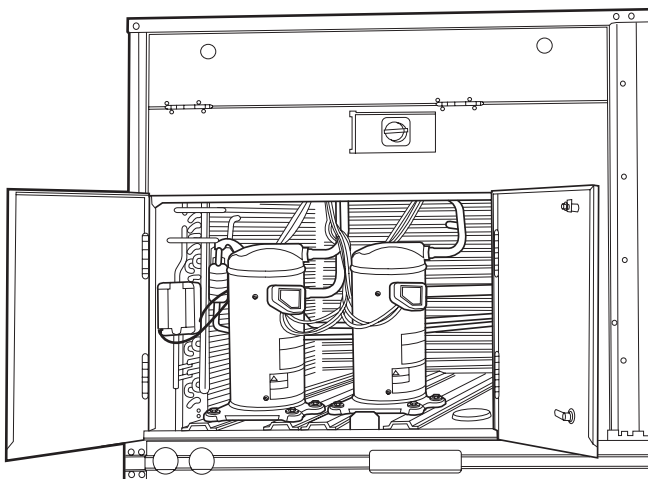
CONTROL BOX HINGED PANEL OPTION, 549B090-120 UNITS SHOWN



COMPRESSOR HINGED PANEL OPTION, 549B036-072 UNITS SHOWN



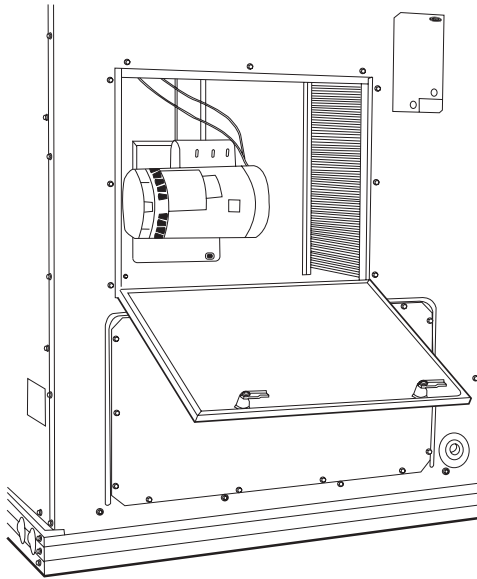
COMPRESSOR HINGED PANEL OPTION, 549B090-120 UNITS SHOWN



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

OPTIONS AND ACCESSORIES (cont)

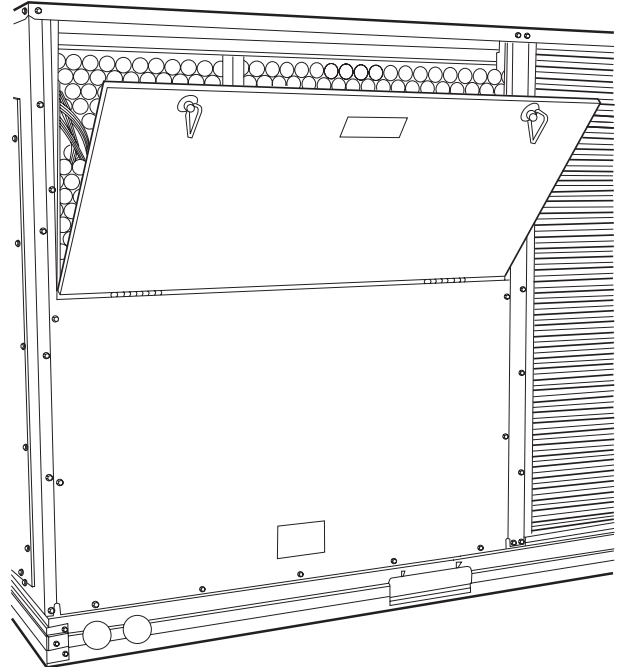
INDOOR-FAN HINGED PANEL OPTION (549B036-120)



This is included as a factory-installed option. It permits quick and simple indoor-fan access.

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

FILTER HINGED PANEL OPTION (549B036-120)



This is included as a factory-installed option. It permits tool-less filter access.

CONTROLS

OPERATING SEQUENCE — 548F036-120 AND 549B036-120

Cooling, Units Without Economizer — When thermostat calls for cooling, terminals G and Y1 are energized. The indoor-fan contactor (IFC), reversing valve solenoid (RVS1) and compressor contactor no. 1 (C1) are energized and indoor-fan motor, compressor no. 1, and outdoor fans start. The outdoor-fan motor(s) run continuously while unit is cooling. On 548F090-120 units, if the thermostat calls for a second stage of cooling by energizing Y2, compressor contactor no. 2 (C2) and reversing valve solenoid (RVS2) are energized and compressor no. 2 starts.

Heating, Units Without Economizer (548F036-072 and 549B036-072) — Set system switch at AUTO. or HEAT position. Set thermostat at desired temperature.

When the thermostat calls for heat, the IFC, outdoor-fan contactor (OFC), and compressor contactor are energized. The RVS is deenergized and switches position, and the indoor fan, outdoor fan, and compressor are energized.

If the thermostat calls for a second stage of heat, the heater contactor (HC) is energized and starts the electric heaters.

When the space temperature approaches the heating temperature set point, heating stages cycle off. The reversing valve solenoid is reenergized.

Heating, Units Without Economizer (548F090-120 and 549B090,120) — 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 reversing valves switch position and the indoor fan, outdoor fan, compressor no. 1, and compressor no. 2 are energized.

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, and the reversing valve solenoids (RVS1 and RVS2) will be energized.

Cooling, Units With EconoMi\$er (548F036-072 and 549B036-072) — When the outdoor-air temperature (OAT) is above the ECON SP set point and the room thermostat calls for Stage 1 cooling (R to G + Y1), the indoor-fan motor (IFM) is energized and the EconoMi\$er damper modulates to minimum position. The compressor contactor is energized to start the compressor and outdoor-fan motor (OFM) and RVS1 (reversing valve solenoid). After the thermostat is satisfied, the damper modulates to the fully closed position when the IFM is deenergized.

When the OAT is below the ECON SP setting and the room thermostat calls for Stage 1 cooling (R to G + Y1), the EconoMi\$er modulates to the minimum position when the IFM is energized. The EconoMi\$er provides Stage 1 of cooling by modulating the return and outdoor-air dampers to maintain a 55 F supply air set point. If the supply-air temperature (SAT) is greater than 57 F, the EconoMi\$er modulates open, allowing a greater amount of outdoor air to enter the unit. If the SAT drops below 53 F, the outdoor air damper modulates closed to reduce the amount of outdoor air. When the SAT is between 53 and 57 F, the EconoMi\$er maintains its position.

If outdoor-air alone cannot satisfy the cooling requirements of the conditioned space, and the OAT is above the MECH CLG LOCKOUT set point, the EconoMi\$er integrates free cooling

with mechanical cooling. This is accomplished by the strategies below.

NOTE: Compressor has a 2-minute Minimum On, Minimum Off, and Interstage delay timer.

1. If Y1 is energized, and the room thermostat calls for Y2 (2-stage thermostat), the compressor and OFM are energized. The EconoMi\$er damper is maintained at its current position.
2. If Y1 is energized for more than 20 minutes, and Y2 is not energized (whether or not a 2-stage thermostat is used), the compressor and OFM are energized. The EconoMi\$er damper is maintained at its current position.
3. If Y1 is energized, and the compressor is already energized (see Step 2) and the room thermostat calls for Y2, the compressor continues to operate.
4. If compressor is energized and the thermostat is satisfied, the compressor, the OFM, and IFM are deenergized and the EconoMi\$er modulates closed.

When the OAT is below the MECH CLG LOCKOUT set point, the compressors remain off.

Cooling, Units With EconoMi\$er (548F090-120 and 549B090,120) — When the outdoor-air temperature (OAT) is above the ECON SP set point and the room thermostat calls for Stage 1 cooling (R to G + Y1), the indoor-fan motor (IFM) is energized and the EconoMi\$er damper modulates to minimum position. The compressor contactor is energized to start the compressor and outdoor-fan motor (OFM) and RVS1 (reversing valve solenoid). After the thermostat is satisfied, the damper modulates to the fully closed position when the IFM is deenergized.

When the OAT is below the ECON SP setting and the room thermostat calls for Stage 1 cooling (R to G + Y1), the EconoMi\$er modulates to the minimum position when the IFM is energized. The EconoMi\$er provides Stage 1 of cooling by modulating the return and outdoor-air dampers to maintain a 55 F supply air set point. If the supply-air temperature (SAT) is greater than 57 F, the EconoMi\$er modulates open, allowing a greater amount of outdoor air to enter the unit. If the SAT drops below 53 F, the outdoor air damper modulates closed to reduce the amount of outdoor air. When the SAT is between 53 and 57 F, the EconoMi\$er maintains its position.

If outdoor-air alone cannot satisfy the cooling requirements of the conditioned space, and the OAT is above the MECH CLG LOCKOUT set point, the EconoMi\$er integrates free cooling with mechanical cooling. This is accomplished by the strategies below.

NOTE: Compressors have a 2-minute Minimum On, Minimum Off, and Interstage delay timer.

1. If Y1 is energized, and the room thermostat calls for Y2 (2-stage thermostat), compressor no. 1 and OFM are energized. The EconoMi\$er damper is maintained at its current position.
2. If Y1 is energized for more than 20 minutes, and Y2 is not energized (whether or not a 2-stage thermostat is used), compressor no. 1 and OFM are energized. The EconoMi\$er damper is maintained at its current position.
3. If Y1 is energized, and compressor no. 1 is already energized (see Step 2) and the room thermostat calls for Y2, compressor no. 1 continues to operate. If Y2 remains energized for more than 20 minutes, compressor no. 2 is energized.

CONTROLS (cont)

NOTE: Compressor no. 2 cannot be energized unless there is a signal for Y2 from the space thermostat.

4. If compressor no. 2 is energized, and the Y2 signal from the thermostat is satisfied, compressor no. 1 and 2 are deenergized. Reasserting Y2 will start compressor no. 1 and (after a 20-minute interstage delay) compressor 2.
5. If compressor no. 1 is energized and the thermostat is satisfied, compressor no. 1, the OFM, and IFM are deenergized and the EconoMi\$er modulates closed.

Heating, Units With Economizer — Upon a call for heat through W1, the IFC energizes to start the evaporator fan and the economizer damper blade opens to the minimum position. If the accessory two-position damper is used, the outdoor-air damper opens to the minimum position whenever the evaporator fan runs. If unit is equipped with 2 stages of heat, when additional heat is needed a call is made through W2.

As space temperature approaches the heating temperature set point, heating stages cycle off. Economizer or two-position damper returns to fully closed position.

Defrost (548F036-072 and 549B036-072) — 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.

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 EconoMi\$er — 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.

CONTROLS (cont)

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 (542J150) or compressor no. 2 (542J180) 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 EconoMiSer — 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 (542J180) and indoor and outdoor fan motors start. If the 5-minute CTD on the DB is satisfied, then compressor (542J150) or compressor no. 1 (542J180) contactor is energized and compressor (542J150) or compressor no. 1 (542J180) 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.

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).

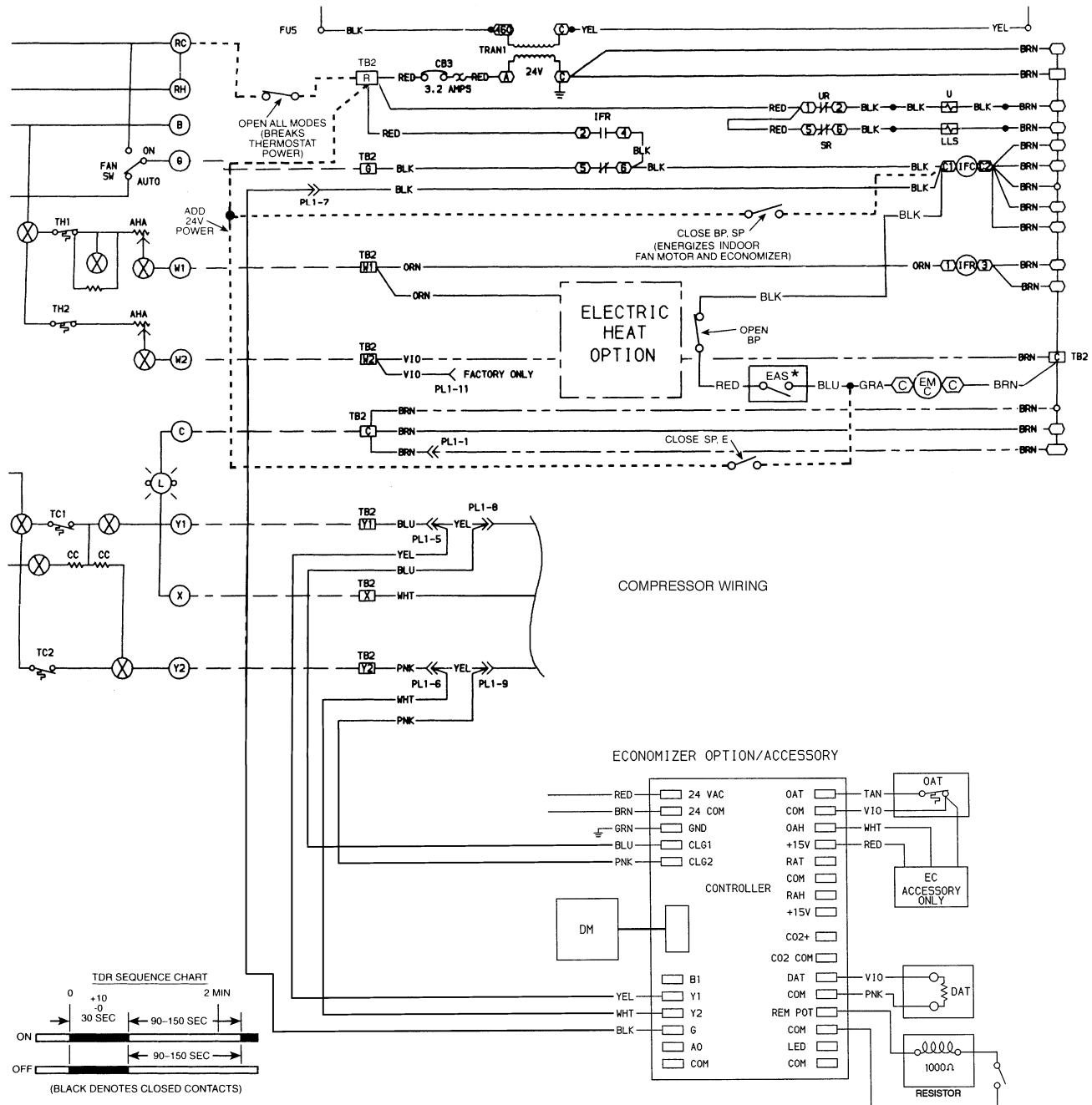
Continuous Air Circulation — Turn unit power on. Set system control at OFF position. Set fan switch at ON position. The indoor-fan contactor is energized through the thermostat switch and the indoor fan runs continuously.

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 (overcurrent 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.

CONTROLS (cont)



Typical Smoke Control/Fire Shutdown Wiring — 542J150,180

CONTROLS (cont)

LEGEND

AHA — Adjustable Heat Anticipator
CB — Circuit Breaker
CC — Cooling Compensator
CLO — Compressor Lockout
DAT — Discharge Air Thermistor
DM — Damper Motor
EAS — Economizer Actuator
 Auxiliary Switch
EMC — Economizer Motor Contactor
FU — Fuse
IFC — Indoor-Fan Contactor

IFR — Indoor-Fan Relay
L — Light
LLS — Liquid Line Solenoid
OAT — Outdoor-Air Thermostat
PL — Plug Assembly
SR — Solenoid Relay
TB — Terminal Block
TC — Thermostat Cooling
TH — Thermostat Heating
TRAN — Transformer
UR — Unloader Relay

 Terminal (Marked)
 Terminal (Unmarked)
 Terminal Block
 Splice
 Factory Wiring
 Field Wiring
 Option/Accessory Wiring
 To Indicate Common Potential Only, Not To Represent Wiring

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 ECONOMISER** — A field-installed accessory for horizontal discharge applications. Field-installed power exhaust accessory also available for vertical or horizontal EconoMi\$er applications (036-120).
- 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 (036-120).
- 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 548F/549B090,120 and 542J150,180 units.
- 6. HEATING-TO-COOLING** — 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:

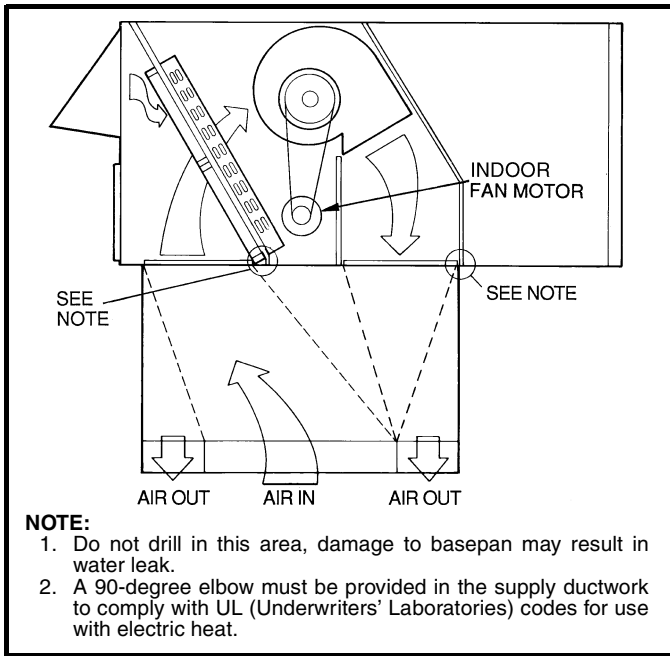
For 549B and 542J units with electric heating, the required minimum cfm is 900 for 549B036; 1200 for 549B048; 1500 for 549B060; 1700 for 549B072; 2250 for 549B090; 3000 for 549B120; 3900 for 542J150; and 4500 for 542J180, with the following exceptions:

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

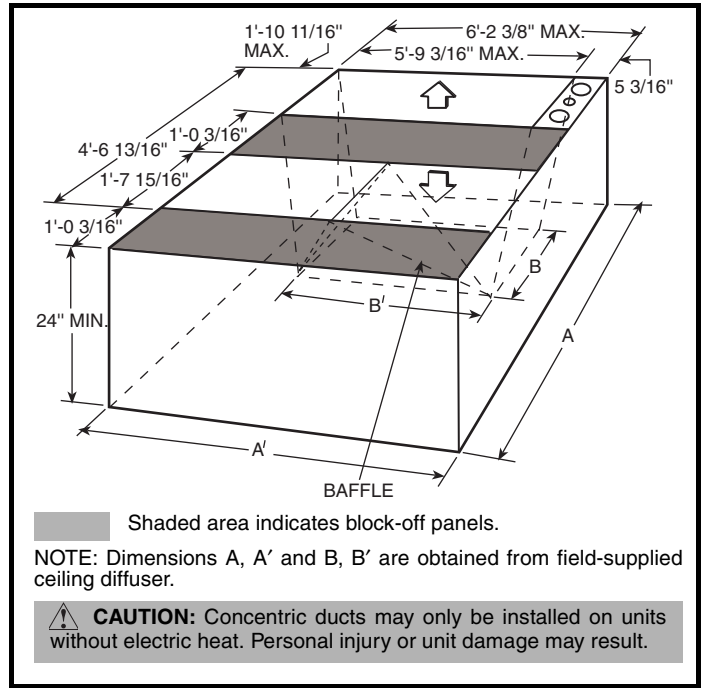
- 10. MINIMUM AMBIENT COOLING OPERATING TEMPERATURE** — The minimum temperature for standard units is 25 F (036-120) and 40 F (542J150,180). With accessory Motormaster® control, units can operate at outdoor temperatures down to -20 F.
- 11. INTERNAL UNIT DESIGN** — Due to Bryant's internal unit design (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.

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

APPLICATION DATA (cont)

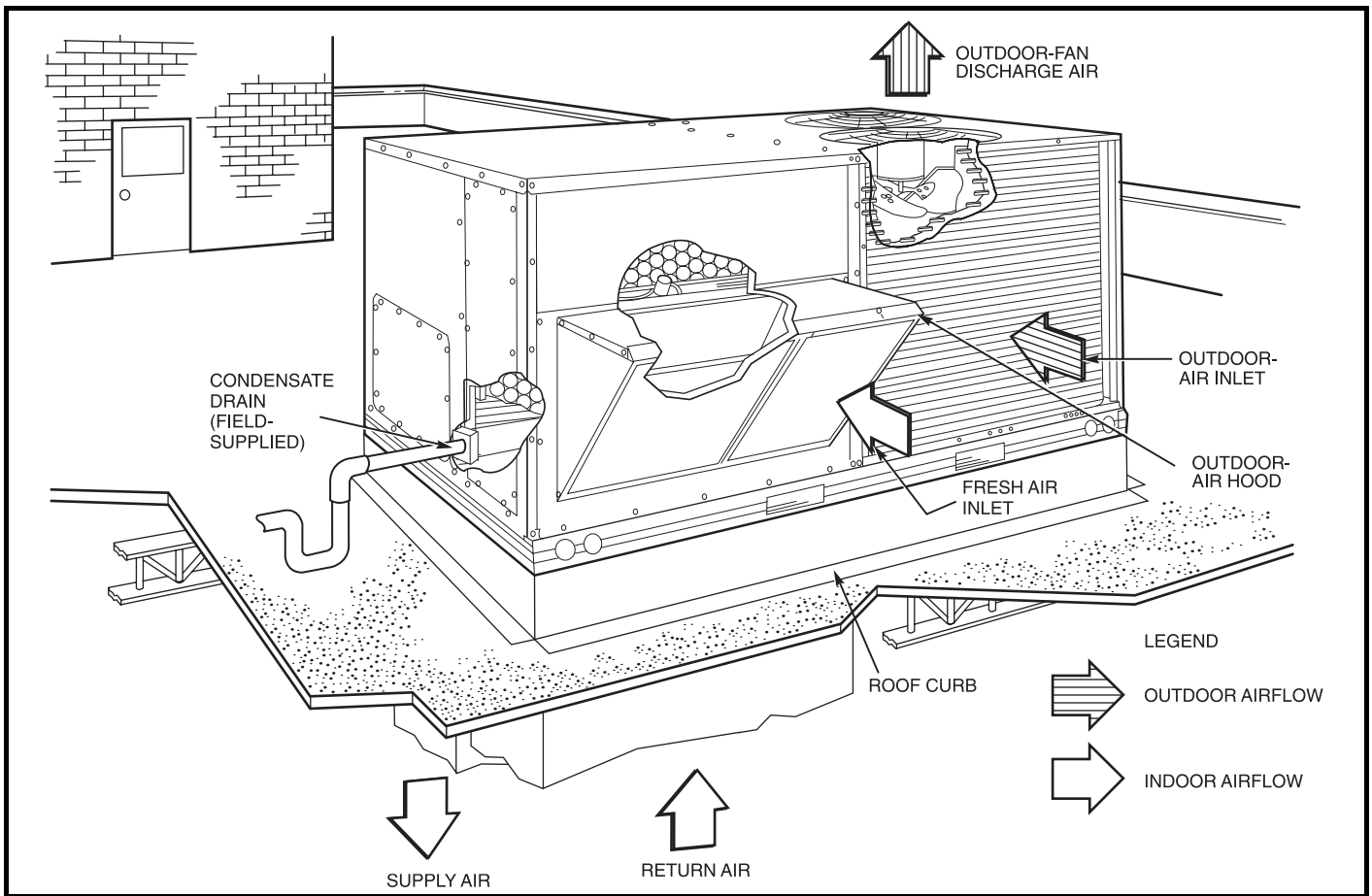


**Concentric Duct Distribution —
542J150,180**

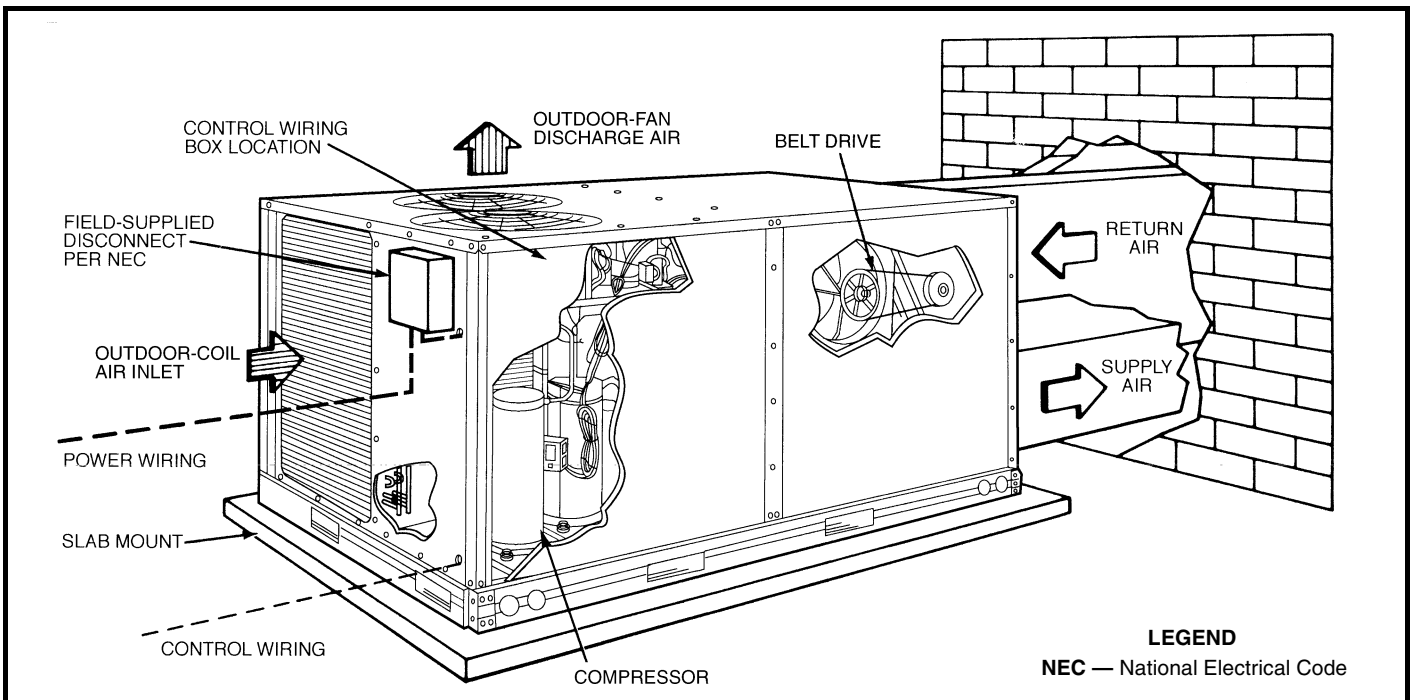


**Concentric Duct Details —
542J150,180**

TYPICAL PIPING AND WIRING

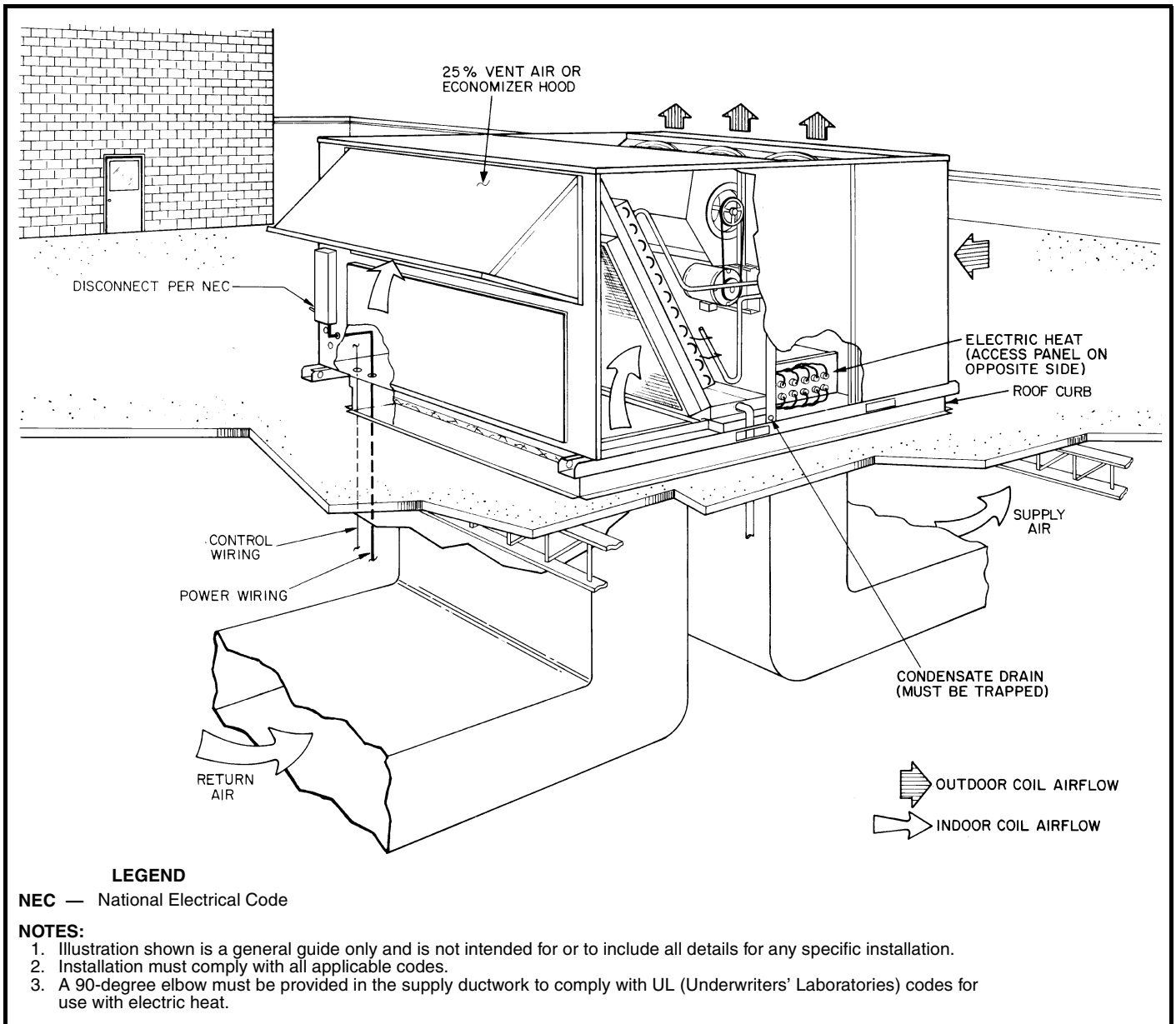


Vertical Discharge Ducting — 548F036-120 and 549B036-120



Horizontal Discharge Ducting — 548F036-120 and 549B036-120

TYPICAL PIPING AND WIRING (cont)



542J150,180

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

548F — Single-Package Heat Pump Unit	548F	E	X	090	000	AA	Factory-Installed Options*
Voltage Designation E — 460-3-60 J — 208/230-1-60† P — 208/230-3-60 T — 575-3-60							
X — No Heat Installed. (Field-installed electric heaters available.)							
Nominal Tons 036 — 3 090 — 7-1/2 048 — 4 102 — 8-1/2 060 — 5 120 — 10 072 — 6							
							Electric Heaters 000 — No factory-installed electric heaters

LEGEND

ODS — Order Distribution System

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

NOTE: The example model number 548FEX090000AA designates a 7½ ton 460-3-60 volt electric heat pump unit with factory-installed economizer.

Quality Assurance



Approvals:

ISO 9002
EN 29002
BS5750 PART 2
ANSI/ASQC Q92

ARI* CAPACITY RATINGS

548F036-060

UNIT 548F	NOMINAL TONS	COOLING			HEATING (High Temp)		SOUND RATING (decibels)
		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)
		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
102††	8½	96,000	8.90	96,000	3.00	55,000	2.00	8.85	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

3. Ratings are based on:



*Air Conditioning and Refrigeration Institute.
†Applies only to units with capacity of 60,000 Btuh or less.
**The IPLV applies only to 2-stage heat pump units.
††Not ASHRAE 90.1-99 compliant.

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.

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.

PHYSICAL DATA

548F036-072

548F036-120

UNIT SIZE 548F		036	048	060	072
NOMINAL CAPACITY (tons)		3	4	5	6
OPERATING WEIGHT (lb)					
Unit		500	520	550	590
Economizer		34	34	34	34
Durablade		47	47	47	47
Economizer		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		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		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	1...10 x 10	1...11 x 10	1...10 x 10
	Alt	1...10 x 10	1...10 x 10	1...10 x 10	1...10 x 10
	High-Static	1...10 x 10	1...10 x 10	1...10 x 10	1...10 x 10
Type Drive	Std	Direct	Direct	Direct	Belt
	Alt	Belt	Belt	Belt	Belt
	High-Static	Belt	Belt	Belt	Belt
Nominal Cfm		1200	1600	2000	2400
Maximum Continuous Bhp	Std	.34	.75	1.20	2.40
	Alt	1.00	1.00	1.30/2.40†	—
	High-Static	2.40	2.40	2.90	2.90
Motor Frame Size	Std	48	48	48	56
	Alt	48	48	56	—
	High-Static	56	56	56	56
Nominal Rpm High/Low	Std	860/800	1075/970	1075/970	—
	Alt	1620	1620	1725	—
	High-Static	1725	1725	1725	1725
Fan Rpm Range	Std	—	—	—	1070-1460
	Alt	760-1000	835-1185	900-1300	—
	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	—	—	—	2.8/3.8
	Alt	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	3.4/4.4
Nominal Motor Shaft Diameter (in.)	Std	1/2	1/2	1/2	5/8
	Alt	1/2	1/2	5/8	—
	High-Static	5/8	5/8	5/8	5/8
Fan Pulley Pitch Diameter (in.)	Std	—	—	—	4.5
	Alt	4.5	4.0	4.5	—
	High-Static	4.5	4.5	4.5	4.5
Belt, Quantity...Type...Length (in.)	Std	—	—	—	1...A...40
	Alt	1...A...34	1...A...34	1...A...39	—
	High-Static	1...A...39	1...A...39	1...A...40	1...A...40
Pulley Center Line Distance (in.)	Std	—	—	—	14.7-15.5
	Alt	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	14.7-15.5
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std	—	—	—	80
	Alt	48	70	80	—
	High-Static	65	65	60	60
Movable Pulley Maximum Full Turns From Closed Position	Std	—	—	—	5
	Alt	5	5	5	—
	High-Static	6	6	5	5
Factory Setting	Std	—	—	—	3
	Alt	3	3	3	—
	High-Static	3 1/2	3 1/2	3 1/2	3 1/2
Factory Speed Setting (rpm)	Std	—	—	—	1225
	Alt	856	975	1060	—
	High-Static	1233	1233	1396	1396
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...Size (in.)		1...20 x 24 x 1			
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 (cont)

548F090-120

UNIT SIZE 548F		090	102	120
NOMINAL CAPACITY (tons)		7 1/2	8 1/2	10
OPERATING WEIGHT (lb)				
Unit		940	965	1015
Economizer		44	44	44
Durablade		62	62	62
EconoMIser		143	143	143
Roof Curb*				
COMPRESSOR			Hermetic	
Quantity		2	2	2
Oil (oz)		45 ea	54 ea	54 ea
REFRIGERANT TYPE			R-22	
Operating Charge (lb-oz)				
Circuit 1		5-14	8- 6	7-14
Circuit 2		5-13	8-13	8- 3
OUTDOOR COIL		Enhanced Copper Tubes, Aluminum Lanced Fins Fixed Orifice Metering Device		
Rows...Fins/in.		1...17	2...17	2...17
Total Face Area (sq ft)		20.50	18.00	18.30
OUTDOOR FAN		Propeller Type		
Nominal Cfm		6500	6500	6500
Quantity...Diameter (in.)		2...22	2...22	2...22
Motor Hp...Rpm		1/4...1100	1/4...1100	1/4...1100
Watts Input (Total)		500	500	500
INDOOR COIL		Enhanced Copper Tubes, Aluminum Double-Wavy Fins, Fixed Orifice Metering Device		
Rows...Fins/in.		3...15	3...15	3...15
Total Face Area (sq ft)		8.0	8.0	11.1
INDOOR FAN		Centrifugal Type		
Quantity...Size (in.)	Std	1...15 x 15	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	1...15 x 15
Type Drive	Std	Belt	Belt	Belt
	Alt	Belt	—	Belt
	High-Static	Belt	Belt	Belt
Nominal Cfm		3000	3600	4000
Maximum Continuous Bhp	Std	2.40	2.40	2.40
	Alt	2.40	—	2.90
	High-Static	3.70	3.70	5.25
Motor Frame Size	Std	56	56	56
	Alt	56	—	56
	High-Static	56	56	56
Nominal Rpm High/Low	Std	—	—	—
	Alt	—	—	—
	High-Static	1725	1725	1725
Fan Rpm Range	Std	590- 840	685- 935	685- 935
	Alt	685- 935	—	835-1085
	High-Static	860-1080	860-1080	830-1130
Motor Bearing Type		Ball	Ball	Ball
Maximum Allowable Rpm		2100	2100	2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std	2.4/3.4	2.8/3.8	2.8/3.8
	Alt	2.8/3.8	—	3.4/4.4
	High-Static	4.0/5.0	4.0/5.0	2.8/3.8
Nominal Motor Shaft Diameter (in.)	Std	5/8	5/8	5/8
	Alt	5/8	—	7/8
	High-Static	7/8	7/8	7/8
Fan Pulley Pitch Diameter (in.)	Std	7.0	7.0	7.0
	Alt	7.0	—	7.0
	High-Static	8.0	8.0	5.8
Belt, Quantity...Type...Length (in.)	Std	1...A...49	1...A...49	1...A...49
	Alt	1...A...49	—	1...A...49
	High-Static	1...A...55	1...A...55	1...BX...46
Pulley Center Line Distance (in.)	Std	16.75-19.25	16.75-19.25	15.85-17.50
	Alt	15.75-19.25	—	15.85-17.50
	High-Static	15.75-19.25	16.75-19.25	15.85-17.50
Speed Change per Full Turn of Movable Pulley Flange (rpm)	Std	50	50	50
	Alt	50	—	50
	High-Static	60	60	60
Movable Pulley Maximum Full Turns From Closed Position	Std	5	5	5
	Alt	5	—	5
	High-Static	5	5	6
Factory Setting	Std	5	5	5
	Alt	5	—	5
	High-Static	5	5	5
Factory Speed Setting (rpm)	Std	590	685	685
	Alt	685	—	835
	High-Static	860	860	887
Fan Shaft Diameter at Pulley (in.)		1	1	1
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 ± 5	
FREEZE-PROTECTION THERMOSTAT (F)				
Opens			30 ± 5	
Closes			45 ± 5	
OUTDOOR-AIR INLET SCREENS			Cleanable	
Quantity...Size (in.)			1...20 x 25 x 1	
			1...16 x 25 x 1	
RETURN-AIR FILTERS			Throwaway	
Quantity...Size (in.)		4...16 x 20 x 2	4...16 x 20 x 2	4...20 x 20 x 2

LEGEND

Bhp — Brake Horsepower

*Weight of 14-in. roof curb.

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

BASE UNIT DIMENSIONS

548F036-120

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

BOTTOM POWER CHART. THESE HOLES REQ'D FOR USE WITH ACCESSORIES:

CRBTMPR001A00 (1/2" 3/4") OR
CRBTMPR002A00 (1/2" 1 1/4")

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

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

UNIT	STD UNIT WEIGHT		ECONOMIZER WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.
548F	500	227	47	21.3	123	57	120	54	125	57	130	59
036	048	520	236		130	59	125	57	130	53	135	61
060	550	249			138	63	132	60	138	62	142	64
072	590	268			148	68	142	64	148	67	152	69

NOTES:
1. DIMENSIONS IN [] ARE IN MILLIMETERS.

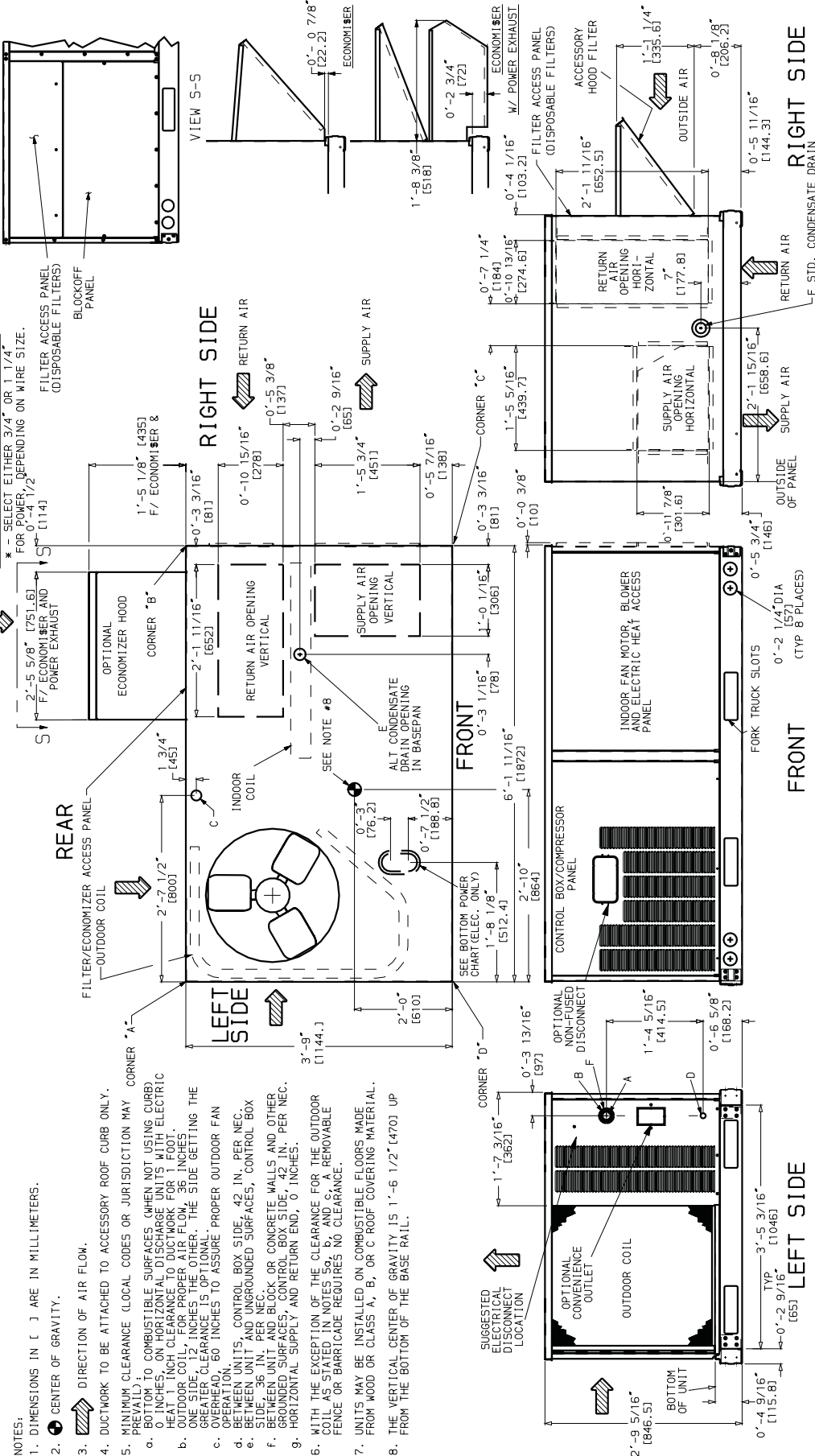
2. ⬤ CENTER OF GRAVITY.

3. ➡ DIRECTION OF AIR FLOW.

4. DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.

5. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):

- BOTTOM TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 1'-0" MINIMUM CLEARANCE TO OUTDOOR FLOOR FOR ELECTRIC HOODS; 1'-6" MINIMUM CLEARANCE TO OUTDOOR FLOOR FOR GAS HOODS.
- OUTDOOR COIL, 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. SIDE, 36 IN. PER NEC.
- E. BETWEEN UNIT AND GROUND SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
- F. GROUND SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
- G. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES.
- WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL, ALL CLEARANCES ARE TO BE MAINTAINED TO 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.



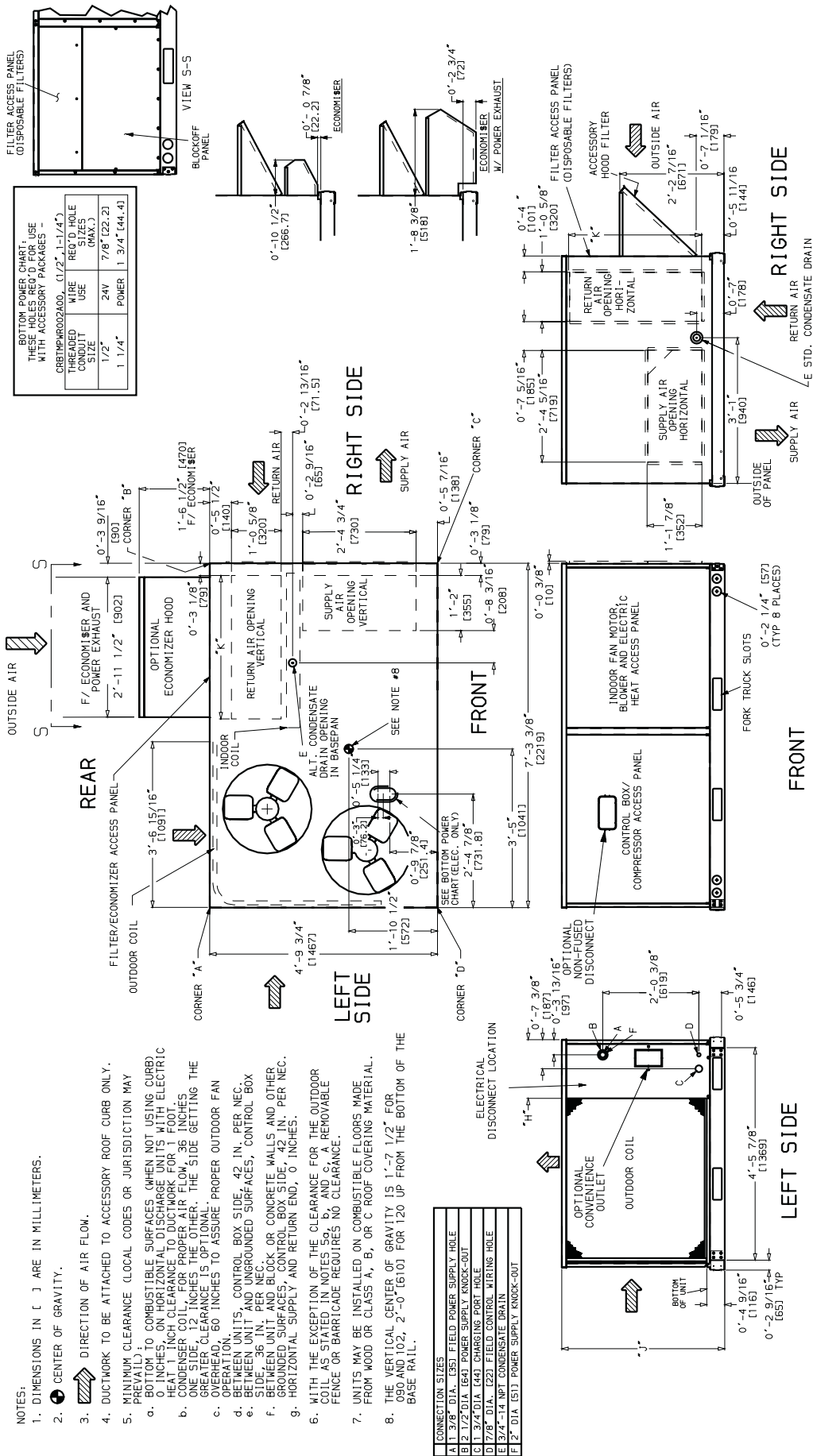
548F036-072

BASE UNIT DIMENSIONS (cont)

UNIT 548F	STD. UNIT WEIGHT		ECONOMIZER WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		"H"		"J"		"K"	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	FT.-IN.	MM	FT.-IN.	MM	FT.-IN.	MM
090	940	426	52	28	207	94	178	81	254	115	301	136	2'-0 7/8"	532	3'-5 5/16"	1050	2'-9 11/16"	856
102	965	438			212	96	183	83	261	119	309	140	2'-10 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

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) 0 INCHES, ON HORIZONTAL DISCHARGE UNITS WITH ELECTRICAL HEAT 1 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.
 - b. CONDENSER COIL FOR PROPER AIR FLOW, 36 INCHES CLEARANCE TO DUCTWORK. 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.
 - e. BETWEEN UNIT AND UNGROUNDING SURFACES, CONTROL BOX SIDE, 36 INCHES PER NEC.
 - f. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER COMBUSTIBLE SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
 - g. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES.
6. WITH THE EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR UNIT, ALL CLEARANCES MUST BE 1/2" REMOVABLE. 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'-1 1/2" FOR 090 AND 102, 2'-0" (6101) FOR 120 UP FROM THE BOTTOM OF 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. [23] FIELD CONTROL WIRING HOLE
E	3/4"-1.4 NPT CONDENSATE DRAIN
F	2" DIA. [51] POWER SUPPLY KNOCK-OUT

ACCESSORY DIMENSIONS

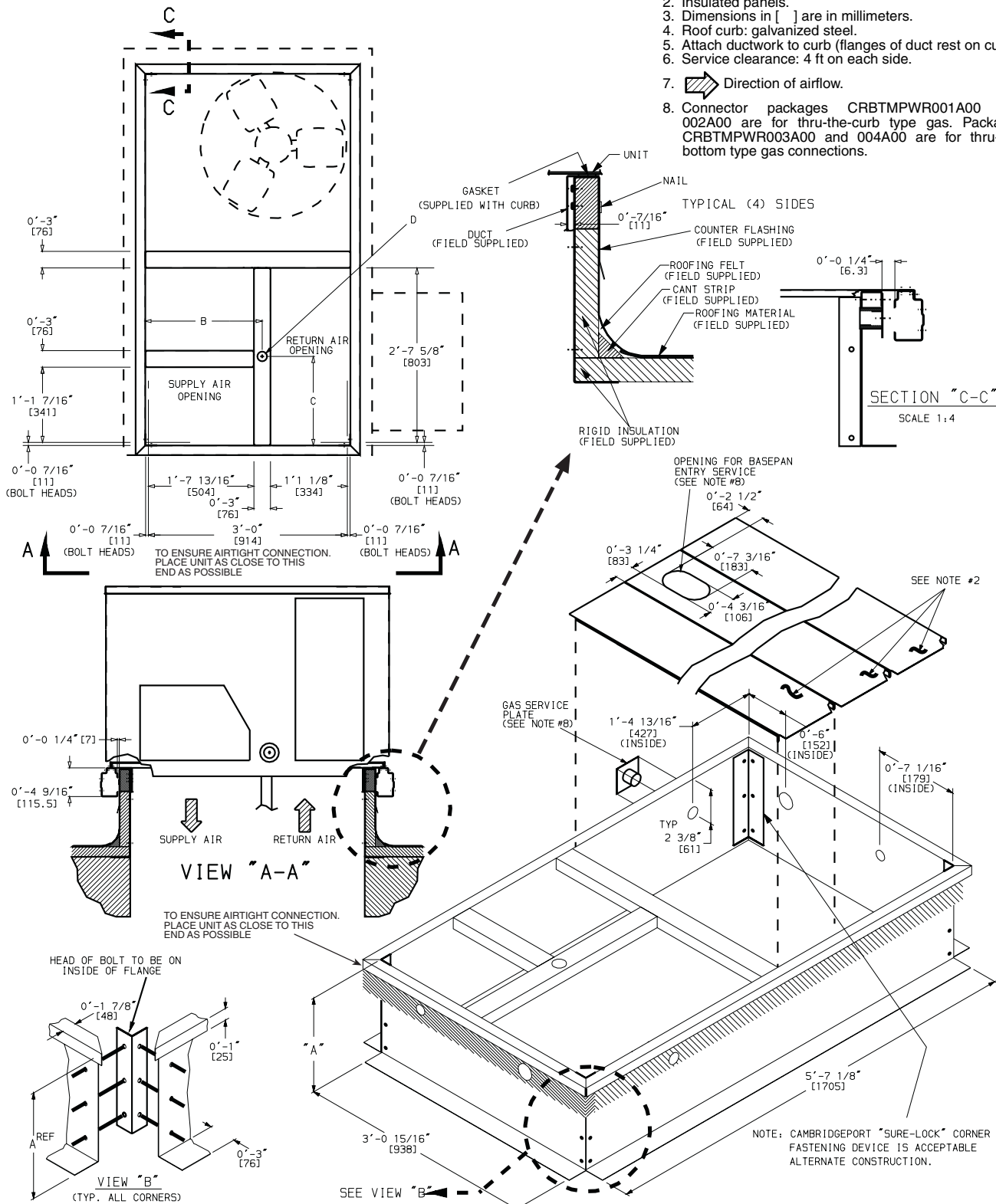
548F036-120

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL
CRBTMPWR001A00	1'-9 1/16" [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]	1 1/4" [31.7]	
CRBTMPWR003A00				1 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

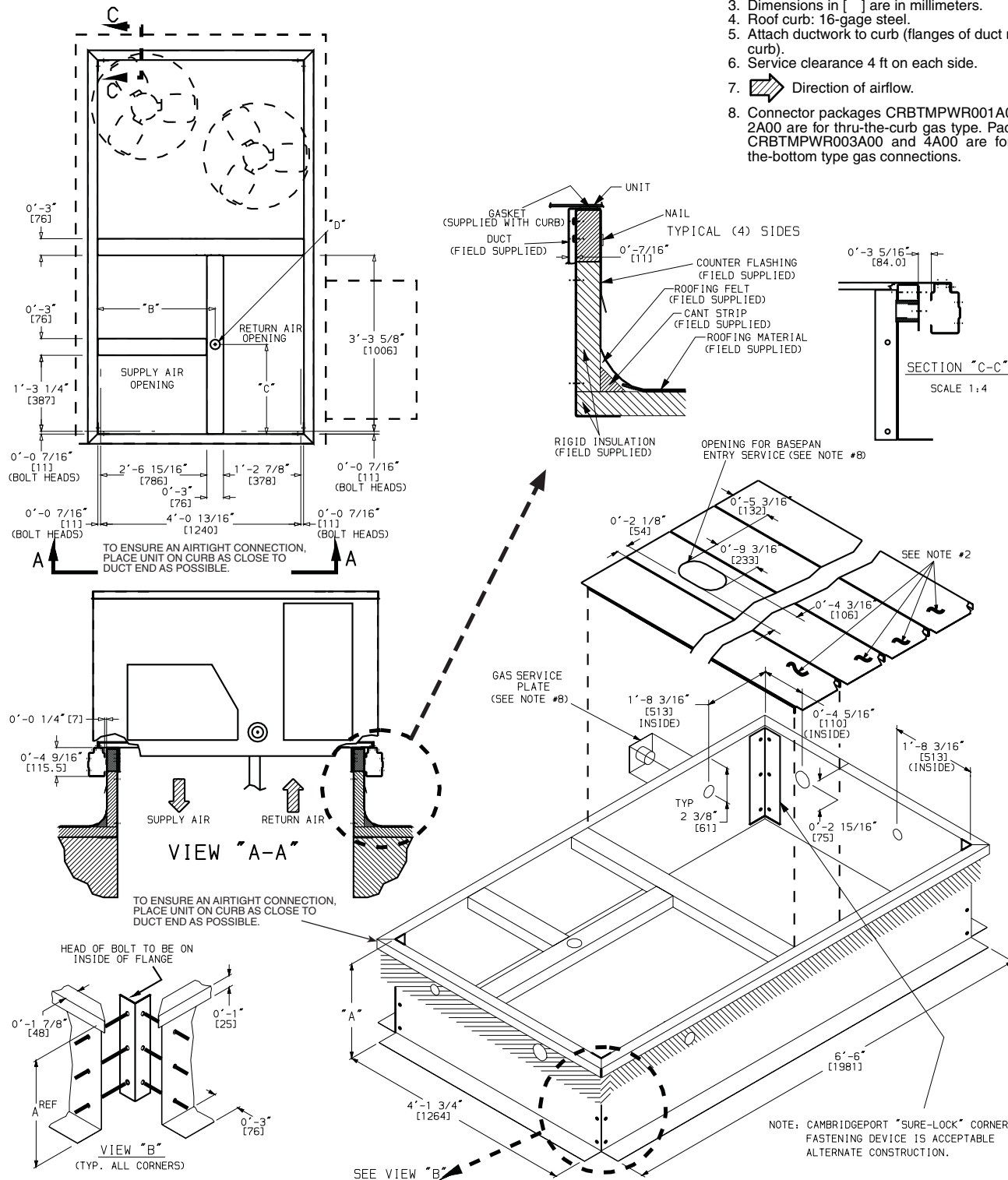
ACCESSORY DIMENSIONS (cont)

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL
CRBTMPWR001A00	2'-8 7/16" [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 1/2" [31.7] NPT	1 1/4" [31.7]	1 1/2" [31.7] NPT
CRBTMPWR003A00				1 1/2" [31.7] NPT	3/4" [19] NPT	1/2" [12.7] NPT
CRBTMPWR004A00				3/4" [19] NPT	1 1/4" [31.7]	1 1/2" [31.7] NPT

ROOF CURB ACCESSORY	"A"	UNIT SIZE
CRRFCURB003A00	1'-2" [356]	548F090-120
CRRFCURB004A00	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 CRBTMPWR001A00 and 2A00 are for thru-the-curb gas type. Packages CRBTMPWR003A00 and 4A00 are for thru-the-bottom type gas connections.



548F090-120

SELECTION PROCEDURE (WITH 548F048 EXAMPLE)

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 54) 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
Durablade economizer	.05 in. wg
Electric heat	.09 in. wg
Total static pressure	.59 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:

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

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

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

COOLING CAPACITIES

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 SHC kW	42.4	39.9	36.5	43.0	41.2	38.7	45.1	42.8	40.3
		16.7	22.0	26.8	17.5	24.2	30.9	19.3	26.9	34.1
		2.77	2.71	2.62	2.78	2.74	2.68	2.85	2.79	2.73
85	TC SHC kW	41.5	38.4	34.8	43.3	40.4	37.0	44.0	41.7	38.7
		16.6	21.6	26.2	18.2	24.6	30.3	19.3	27.2	33.7
		3.01	2.92	2.80	3.07	2.98	2.88	3.09	3.03	2.94
95	TC SHC kW	40.0	36.3	33.0	42.3	38.5	35.2	43.4	40.0	36.7
		16.2	20.9	25.7	18.2	24.2	29.8	19.7	27.2	32.7
		3.24	3.10	2.99	3.32	3.19	3.07	3.36	3.24	3.13
105	TC SHC kW	38.4	34.7	31.0	40.0	36.7	33.1	41.2	37.7	35.2
		15.7	20.5	24.8	17.5	23.9	28.8	19.3	26.6	31.7
		3.47	3.32	3.16	3.53	3.41	3.26	3.58	3.44	3.35
115	TC SHC kW	36.1	32.5	28.9	38.1	34.3	31.1	39.3	35.5	33.2
		15.1	19.8	23.9	17.2	23.2	27.8	19.1	26.2	30.2
		3.66	3.50	3.32	3.76	3.59	3.44	3.81	3.65	3.54
125	TC SHC kW	34.2	30.5	26.8	35.9	32.0	29.3	36.8	33.0	31.3
		14.6	19.2	22.9	16.7	22.6	26.3	18.5	25.5	28.4
		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 SHC kW	55.5	51.9	47.4	56.9	54.6	50.3	59.3	56.5	52.1
		24.5	31.2	37.4	26.0	35.2	43.4	28.4	39.0	47.6
		3.80	3.70	3.55	3.84	3.79	3.66	3.93	3.86	3.71
85	TC SHC kW	53.4	49.7	45.3	56.3	52.6	47.8	57.5	54.1	49.8
		23.8	30.4	36.7	26.3	34.9	42.6	28.3	38.6	46.9
		4.10	3.99	3.84	4.23	4.11	3.94	4.27	4.16	4.01
95	TC SHC kW	52.0	47.4	43.0	53.7	49.9	45.5	54.5	51.6	47.4
		23.4	29.6	35.8	25.5	33.9	41.6	27.3	38.2	45.2
		4.47	4.28	4.11	4.53	4.39	4.23	4.56	4.48	4.29
105	TC SHC kW	49.3	45.0	40.6	51.8	47.2	43.0	52.6	48.7	45.4
		22.5	28.8	34.7	25.3	33.0	40.3	27.1	37.1	43.3
		4.77	4.59	4.39	4.90	4.68	4.52	4.92	4.76	4.63
115	TC SHC kW	46.6	42.4	38.0	48.8	44.6	40.6	50.2	45.8	43.2
		21.7	27.9	33.6	24.3	32.4	38.7	26.8	36.1	41.2
		5.08	4.90	4.66	5.21	5.01	4.81	5.29	5.06	4.96
125	TC SHC kW	44.0	39.6	35.4	45.6	41.6	38.3	47.0	42.9	40.9
		20.9	26.9	32.4	23.3	31.6	36.5	25.9	35.6	39.0
		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

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.

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
.10	.98	1.96	2.94	3.92	4.90	formula
.20	.87	1.74	2.62	3.49	4.36	shown
.30	.76	1.53	2.29	3.05	3.82	below.

Interpolation is permissible.

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

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

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.

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
.10	.98	1.96	2.94	3.92	4.90	formula
.20	.87	1.74	2.62	3.49	4.36	shown
.30	.76	1.53	2.29	3.05	3.82	below.

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

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

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 SHC kW	109.8	101.4	92.2	116.2	107.0	98.0	117.6	108.8	100.2	118.8	110.4	102.4
		44.2	57.4	69.4	49.6	66.0	82.0	51.8	69.8	87.0	54.0	74.0	92.0
		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 SHC kW	105.2	96.4	87.0	111.4	102.2	92.6	113.0	104.0	95.0	114.6	105.8	97.6
		42.8	55.6	67.6	48.4	65.0	80.0	50.8	69.0	84.4	53.4	73.8	88.8
		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 SHC kW	100.6	91.0	82.0	105.6	96.2	87.4	107.2	98.0	89.8	108.6	99.6	92.8
		41.6	54.0	65.8	47.0	63.2	77.8	49.4	67.4	81.4	52.0	72.2	84.6
		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 SHC kW	94.8	85.4	76.8	99.8	90.2	82.2	101.4	91.6	85.0	103.2	93.2	88.0
		40.0	52.2	63.8	45.6	61.6	74.6	48.2	65.8	77.6	51.2	70.4	80.4
		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 SHC kW	88.8	79.9	71.4	93.4	84.0	77.6	94.8	85.4	80.0	96.0	86.6	83.0
		38.4	50.4	61.6	44.2	59.8	70.6	46.6	64.0	73.2	49.4	68.6	75.8
		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 SHC kW	82.6	73.8	65.8	86.6	77.4	74.4	88.0	78.8	75.0	89.2	80.0	77.6
		36.8	48.6	59.2	42.2	57.8	66.2	45.2	62.0	68.6	48.2	66.6	71.0
		9.20	8.74	8.30	9.44	8.96	8.68	9.52	9.02	8.82	9.60	9.12	8.98

548F102 (8½ TONS)													
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/BF											
		2400/0.06			3200/0.09			3600/0.11			4000/0.14		
		Indoor Entering Air — Ewb (F)											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC SHC kW	111.4	102.3	91.0	115.7	108.2	97.6	117.0	110.1	100.4	118.1	111.6	102.5
		51.8	64.3	75.3	54.9	71.9	87.6	55.8	74.9	92.5	56.7	77.1	96.4
		8.64	8.48	8.23	9.32	9.18	8.95	9.73	9.61	9.30	10.19	10.12	9.72
85	TC SHC kW	108.8	97.4	86.1	113.7	104.2	92.9	115.2	106.6	94.8	116.6	108.3	98.0
		50.9	62.3	73.2	54.7	70.9	85.1	55.7	74.3	89.3	56.7	77.2	92.2
		9.27	9.09	8.76	9.98	9.79	9.40	10.40	10.24	9.83	10.88	10.74	10.20
95	TC SHC kW	104.5	92.7	81.2	110.4	98.8	87.7	112.0	101.3	90.8	113.2	103.1	93.8
		49.3	60.2	70.9	53.7	68.7	82.4	55.1	72.6	86.3	56.2	75.7	88.2
		9.90	9.56	9.22	10.64	10.39	9.88	11.07	10.86	10.25	11.55	11.36	10.67
105	TC SHC kW	98.8	87.8	75.9	105.5	93.4	83.0	107.4	95.4	86.5	108.9	97.1	89.5
		47.1	58.3	68.1	52.2	66.5	79.0	53.7	69.9	82.2	55.1	72.9	83.9
		10.37	10.08	9.70	11.26	10.90	10.33	11.71	11.34	10.73	12.20	11.82	11.24
115	TC SHC kW	93.8	82.4	71.1	98.7	87.9	78.6	100.8	89.8	82.1	102.9	91.3	85.3
		45.3	56.0	65.9	49.5	64.5	75.5	51.3	68.0	77.9	53.0	71.0	79.6
		10.99	10.56	10.13	11.72	11.39	10.79	12.16	11.86	11.24	12.76	12.38	11.76
125	TC SHC kW	88.4	77.2	66.7	93.1	82.2	74.5	94.9	83.9	77.9	96.2	85.3	80.8
		43.4	54.1	63.1	47.7	62.3	71.4	49.2	65.8	73.7	50.4	68.8	75.2
		11.52	11.03	10.56	12.33	11.87	11.30	12.78	12.33	11.75	13.29	12.81	12.27

PERFORMANCE DATA (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 SHC kW	127.4 60.0 8.30	120.4 76.4 8.18	110.6 91.0 7.88	134.2 66.2 8.54	126.2 86.0 8.34	116.2 104.4 8.04	135.6 67.8 8.60	127.4 89.0 8.36	117.8 108.8 8.10	137.0 70.2 8.64	129.0 93.4 8.38	120.6 115.6 8.20		
		85	TC SHC kW	124.6 59.2 9.24	116.2 74.6 9.04	106.4 89.4 8.74	131.0 65.4 9.50	122.0 84.8 9.24	112.4 103.6 8.98	132.4 67.4 9.54	123.6 88.4 9.28	114.0 107.4 9.02	133.8 70.0 9.60	126.0 94.2 9.36	116.4 112.8 9.08
				95	TC SHC kW	121.8 58.4 10.34	112.0 73.2 10.04	102.2 87.4 9.66	126.2 63.8 10.46	117.4 83.4 10.18	107.4 101.0 9.90	127.8 66.0 10.52	119.0 87.2 10.26	109.4 104.8 9.96	130.0 69.6 10.62
105	TC SHC kW					116.9 56.6 11.38	107.2 71.4 11.08	97.6 85.4 10.66	122.4 63.0 11.64	112.4 82.0 11.28	102.8 98.4 10.90	123.6 65.0 11.68	113.8 85.8 11.32	105.0 101.8 11.00	124.6 67.8 11.68
		115	TC SHC kW			112.0 55.0 12.58	102.0 69.6 12.18	92.8 83.2 11.74	116.6 61.2 12.78	107.0 80.2 11.42	98.0 95.2 12.00	118.0 63.6 12.84	108.2 84.2 12.48	100.2 98.0 12.12	120.0 67.4 12.96
				125	TC SHC kW	106.4 53.2 13.84	96.8 67.4 13.36	87.8 80.8 12.90	110.4 59.2 13.96	101.2 78.4 13.62	93.6 91.4 13.22	111.6 61.4 14.02	102.2 82.2 13.68	95.8 94.0 13.34	113.6 65.4 14.14

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.

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.

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

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:

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

PERFORMANCE DATA (cont)

INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

548F036-120

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 Btu/h) (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 (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	

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 (cont)

INSTANTANEOUS AND INTEGRATED HEATING RATINGS (cont)

548F036-120

548F102																		
Return Air (F db)	Cfm (Standard Air)	Air Temperature Entering Outdoor Coil (F)																
		0		10		17		30		40		47		50		60		
55	2400	Cap.	37.0	34.1	47.1	43.3	54.8	50.0	70.3	61.6	83.2	83.2	92.0	92.0	95.5	95.5	107.9	107.9
		kW	5.30		5.81		6.18		6.92		7.56		8.11		8.27		8.92	
	3200	Cap.	40.7	37.4	51.31	47.1	59.28	54.0	75.51	66.2	88.59	88.6	96.82	96.8	100.58	100.6	112.54	112.5
		kW	5.88		6.36		6.69		7.35		7.96		8.30		8.44		8.93	
	3600	Cap.	42.6	39.2	53.4	49.1	61.5	56.1	78.1	68.4	90.9	90.9	98.9	98.9	102.6	102.6	114.5	114.5
		kW	6.29		6.75		7.07		7.70		8.29		8.56		8.70		9.14	
	4000	Cap.	44.8	41.2	55.7	51.1	63.9	58.2	80.7	70.7	93.1	93.1	98.8	98.8	104.6	104.6	116.5	116.5
		kW	6.78		7.23		7.53		8.15		8.70		8.88		9.05		9.46	
70	2400	Cap.	30.0	27.6	39.8	36.5	47.4	43.2	62.8	55.0	75.4	75.4	85.0	85.0	89.0	89.0	101.6	101.6
		kW	5.38		5.97		6.41		7.25		7.95		8.55		8.85		9.61	
	3200	Cap.	33.3	30.6	43.8	40.2	51.8	47.2	68.0	59.6	81.5	81.5	91.0	91.0	94.6	94.6	107.5	107.5
		kW	5.96		6.53		6.93		7.70		8.34		8.91		9.08		9.68	
	3600	Cap.	35.1	32.3	45.8	42.1	53.9	49.2	70.4	61.7	84.1	84.1	92.4	92.4	97.1	97.1	109.8	109.8
		kW	6.37		6.92		7.31		8.06		8.68		9.21		9.35		9.90	
	4000	Cap.	37.1	34.2	48.0	44.1	56.2	51.3	72.9	63.9	86.7	86.7	95.8	95.8	99.5	99.5	112.0	112.0
		kW	6.85		7.39		7.77		8.50		9.10		9.57		9.71		10.21	
80	2400	Cap.	25.7	23.7	35.0	32.1	42.4	38.6	57.6	50.5	70.1	70.1	79.7	79.7	83.9	83.9	96.8	96.8
		kW	5.52		6.07		6.52		7.45		8.21		8.82		9.12		10.05	
	3200	Cap.	28.6	26.3	38.5	35.3	46.5	42.4	62.6	54.9	75.9	75.9	86.0	86.0	90.2	90.2	103.2	103.2
		kW	6.05		6.62		7.06		7.91		8.59		9.18		9.48		10.14	
	3600	Cap.	30.2	27.8	40.5	37.1	48.6	44.3	65.0	57.0	78.6	78.6	88.7	88.7	92.8	92.8	105.8	105.8
		kW	6.43		7.00		7.44		8.27		8.92		9.50		9.78		10.37	
	4000	Cap.	32.2	29.6	42.6	39.1	50.9	46.4	67.5	59.2	81.2	81.2	91.3	91.3	95.2	95.2	108.3	108.3
		kW	6.90		7.47		7.90		8.71		9.34		9.91		10.13		10.70	

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 Btu/h) (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 (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

Refer to page 51 for general Fan Performance notes.

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

548F036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.7			0.8			0.9			1.0			1.1			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	957	0.39	388	988	0.43	428	1039	0.45	448	1061	0.47	487	1083	0.53	527	1105	0.57	567
1000	992	0.44	438	1039	0.49	487	1061	0.51	507	1086	0.55	547	1111	0.59	587	1136	0.63	627
1100	1013	0.49	487	1068	0.55	547	1090	0.58	577	1109	0.61	607	1127	0.64	637	1145	0.67	666
1200	1045	0.56	557	1090	0.64	637	1109	0.64	647	1156	0.68	676	1203	0.71	706	1250	0.74	736
1300	1075	0.64	637	1122	0.70	696	1152	0.72	716	1190	0.76	756	1228	0.80	796	1266	0.84	836
1400	1110	0.73	726	1160	0.84	766	1181	0.81	806	1237	0.85	845	1293	0.89	885	1349	0.93	925
1500	1150	0.82	816	1190	1.00	855	1225	0.90	895	1271	0.95	945	1317	1.00	995	1363	1.05	1044

LEGEND

Refer to page 51 for general Fan Performance notes.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 1000 and maximum continuous bhp is 1.00.

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	Rpm
900	673	0.18	179	805	0.25	249	911	0.34	338	988	0.43	428	1061	0.47	487	1083
1000	709	0.22	219	835	0.30	298	937	0.38	378	1039	0.49	487	1086	0.55	547	1111
1100	746	0.26	259	867	0.35	348	964	0.40	398	1068	0.55	547	1109	0.61	607	1127
1200	785	0.32	318	903	0.41	408	994	0.50	497	1090	0.64	637	1156	0.68	676	1203
1300	826	0.38	378	942	0.48	477	1047	0.60	597	1122	0.70	696	1190	0.76	756	1228
1400	868	0.45	448	984	0.57	567	1067	0.67	666	1160	0.84	766	1237	0.85	845	1293
1500	911	0.53	527	1029	0.66	656	1109	0.77	766	1190	1.00	855	1271	0.95	945	1317

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	Rpm
900	1105	0.57	567	1140	0.63	622	1170	0.68	674	1198	0.73	723	1224	0.77	771	1250
1000	1136	0.63	627	1172	0.69	688	1203	0.75	745	1232	0.80	799	1258	0.86	852	1284
1100	1145	0.67	666	1181	0.73	731	1213	0.80	792	1242	0.85	850	1268	0.91	906	1290
1200	1210	0.74	736	1248	0.81	808	1282	0.88	875	1312	0.94	939	1340	1.01	1000	1366
1300	1266	0.84	836	1306	0.92	917	1341	1.00	993	1373	1.07	1066	1402	1.14	1136	1432
1400	1349	0.93	925	1391	1.02	1015	1429	1.11	1100	1463	1.19	1180	1494	1.26	1257	1524
1500	1383	1.05	1044	1426	1.15	1146	1465	1.25	1242	1500	1.34	1332	1532	1.43	1419	1550

LEGEND

Refer to page 51 for general Fan Performance notes.

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 2.4, and the maximum continuous watts are 2120.

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

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

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

Refer to page 51 for general Fan Performance notes.

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)*																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.1			0.2			0.3			0.4			0.6			0.7		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	542	0.16	168	616	0.21	221	678	0.27	278	739	0.32	336	842	0.44	462	886	0.50	525
1300	576	0.20	210	644	0.25	263	704	0.31	326	764	0.37	389	867	0.50	525	910	0.56	588
1400	610	0.24	252	673	0.30	315	732	0.36	378	791	0.42	441	889	0.55	578	933	0.62	651
1500	646	0.28	294	704	0.35	368	761	0.42	436	818	0.48	504	912	0.61	641	957	0.69	720
1600	681	0.33	347	735	0.40	420	790	0.47	494	845	0.54	567	920	0.68	695	931	0.76	772
1700	718	0.39	410	768	0.46	483	836	0.54	562	873	0.61	641	965	0.76	777	1005	0.84	853
1800	754	0.45	473	801	0.53	557	851	0.61	641	900	0.69	725	992	0.84	858	1032	0.92	940
1900	791	0.52	546	836	0.60	630	832	0.69	720	828	0.77	809	1019	0.93	950	1058	1.02	1037
2000	828	0.60	630	870	0.68	714	864	0.77	809	858	0.86	904	1046	1.03	1053	1085	1.12	1139

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)

Airflow (Cfm)	External Static Pressure (in. wg)																	
	1.0			1.1			1.2			1.4			1.6			1.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	1008	0.67	704	1052	0.73	762	1096	0.78	820	1134	0.89	835	1203	1.00	885	—	—	—
1300	1029	0.75	788	1065	0.81	846	1101	0.86	904	1174	1.01	1040	1229	1.15	1100	1277	1.27	1029
1400	1052	0.83	826	1087	0.90	890	1121	0.96	918	1183	1.09	1042	1255	1.22	1167	1305	1.38	1190
1500	1076	0.91	905	1111	0.99	980	1145	1.06	1014	1208	1.20	1138	1274	1.33	1272	1337	1.47	1350
1600	1100	1.00	995	1134	1.08	1069	1168	1.15	1100	1232	1.31	1253	1291	1.46	1396	1350	1.60	1558
1700	1124	1.09	1084	1158	1.17	1164	1192	1.25	1196	1255	1.42	1358	1314	1.58	1511	1370	1.77	1738
1800	1147	1.18	1174	1182	1.27	1263	1217	1.36	1301	1279	1.54	1473	1381	1.71	1635	1393	1.89	1907
1900	1169	1.27	1263	1205	1.37	1363	1240	1.47	1406	1303	1.66	1588	1408	1.85	1769	1417	2.03	2068
2000	1194	1.38	1373	1228	1.48	1472	1262	1.58	1511	1327	1.78	1702	1436	1.98	1894	1440	2.18	2229

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied motor drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 1000 and maximum continuous bhp is 1.00.

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

Refer to page 51 for general Fan Performance notes.

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	665	0.25	263	779	0.36	378	872	0.48	504	957	0.60	630	1028	0.69	725
1300	699	0.30	315	809	0.42	441	902	0.55	578	984	0.67	704	1058	0.80	841
1400	735	0.36	378	840	0.48	504	933	0.62	651	1011	0.75	788	1086	0.89	885
1500	770	0.42	441	873	0.55	578	963	0.69	725	1041	0.84	858	1113	0.99	985
1600	835	0.49	515	907	0.63	662	993	0.77	787	1072	0.93	950	1141	1.09	1084
1700	873	0.57	599	941	0.72	757	1024	0.87	889	1103	1.04	1063	1171	1.20	1194
1800	881	0.66	693	976	0.81	851	1057	0.97	991	1132	1.14	1165	1202	1.32	1313
1900	919	0.75	788	1011	0.92	967	1091	1.08	1104	1162	1.25	1277	1232	1.45	1442
2000	958	0.86	904	1046	1.03	1082	1125	1.21	1237	1195	1.38	1410	1262	1.58	1572

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	1083	0.74	778	1134	0.80	935	1185	0.88	965	1331	0.99	1000	1374	1.09	1083
1300	1121	0.89	935	1171	0.94	988	1219	1.00	999	1268	1.10	1029	1309	1.21	1203
1400	1153	1.00	976	1210	1.12	1071	1257	1.17	1105	1307	1.25	1190	1349	1.37	1367
1500	1180	1.13	1081	1241	1.27	1215	1295	1.37	1294	1339	1.43	1350	1382	1.57	1564
1600	1207	1.25	1196	1269	1.40	1339	1326	1.54	1454	1376	1.65	1558	1420	1.81	1805
1700	1235	1.37	1310	1296	1.53	1463	1354	1.70	1605	1407	1.84	1738	1452	2.02	2013
1800	1263	1.49	1425	1323	1.57	1597	1381	1.85	1757	1436	2.02	1907	1482	2.22	2210
1900	1294	1.63	1559	1351	1.81	1731	1408	2.00	1889	1463	2.19	2068	—	—	—
2000	1325	1.78	1702	1362	1.97	1884	1436	2.16	2040	1489	2.36	2229	—	—	—

LEGEND

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.4 and the maximum continuous watts are 2120.

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

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

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

Refer to page 51 for general Fan Performance notes.

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

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)*																
Airflow (Cfm)	External Static Pressure (in. wg)															
	0.1			0.2			0.4			0.6			0.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	730	0.34	347	789	0.40	409	896	0.53	542	990	0.67	685	1072	0.83	848	
1600	770	0.40	409	826	0.46	470	931	0.61	623	1020	0.75	766	1101	0.91	930	
1700	811	0.47	480	865	0.54	552	966	0.69	705	1051	0.84	858	1133	1.01	1032	
1800	852	0.55	562	905	0.62	634	1002	0.78	797	1084	0.93	950	1163	1.10	1124	
1900	894	0.54	552	945	0.72	736	1037	0.88	899	1119	1.04	1063	1194	1.21	1237	
2000	936	0.74	756	984	0.82	838	1072	0.98	1001	1154	1.16	1185	1226	1.33	1359	
2100	978	0.85	869	1024	0.93	950	1108	1.10	1124	1192	1.29	1318	1259	1.47	1502	
2200	1021	0.97	991	1064	1.05	1073	1145	1.22	1247	1225	1.43	1461	1294	1.62	1656	
2300	1064	1.10	1124	1104	1.18	1206	1183	1.36	1390	1260	1.57	1604	1330	1.78	1819	
2400	1107	1.24	1267	1145	1.32	1349	1222	1.45	1482	1296	1.73	1768	1365	1.94	1983	
2500	1150	1.39	1420	1186	1.48	1512	1262	1.68	1717	1331	1.80	1921	1400	2.12	2166	

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)																
Airflow (Cfm)	External Static Pressure (in. wg)															
	1.0			1.2			1.4			1.6			1.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	1153	1.00	1022	1221	1.17	1196	1256	1.30	1328	1280	1.32	1349	1320	1.22	1400	
1600	1178	1.09	1114	1252	1.27	1298	1311	1.45	1482	1340	1.58	1615	1380	1.61	1645	
1700	1205	1.18	1206	1278	1.37	1400	1345	1.57	1604	1397	1.76	1799	1424	1.89	1931	
1800	1235	1.29	1318	1303	1.48	1512	1371	1.69	1727	1433	1.90	1942	1480	2.09	2136	
1900	1266	1.40	1431	1330	1.59	1625	1396	1.80	1850	1460	2.03	2074	1517	2.25	2299	
2000	1297	1.53	1564	1362	1.73	1768	1422	1.94	1983	1485	2.16	2207	1544	2.40	2453	
2100	1327	1.66	1696	1393	1.80	1911	1452	2.08	2126	1510	2.31	2361	1569	2.55	2606	
2200	1359	1.80	1850	1423	2.02	2064	1483	2.24	2289	1538	2.46	2514	1595	2.71	2769	
2300	1392	1.97	2013	1454	2.18	2228	1515	2.41	2463	1569	2.64	2698	1622	2.88	2943	
2400	1426	2.15	2197	1485	2.36	2412	1544	2.59	2647	1601	2.84	2902	1652	3.07	3137	
2500	1461	2.34	2391	1518	2.55	2606	1575	2.78	2841	1631	3.03	3096	1684	3.28	3352	

LEGEND

NOTES:

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

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 1.30 for single-phase units and 2.40 for 3-phase units.

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

Refer to page 51 for general Fan Performance notes.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

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	808	0.42	429	914	0.56	572	1001	0.69	705	1084	0.85	869	1168	1.01	1032
1600	846	0.49	501	950	0.64	645	1034	0.78	797	1111	0.94	961	1194	1.11	1134
1700	884	0.57	582	983	0.72	736	1068	0.88	899	1145	1.03	1053	1218	1.21	1237
1800	924	0.66	674	1018	0.82	838	1105	0.98	1001	1179	1.13	1155	1246	1.32	1349
1900	965	0.76	777	1057	0.92	940	1143	1.10	1124	1212	1.26	1288	1280	1.43	1461
2000	1008	0.87	889	1096	1.04	1063	1177	1.22	1247	1247	1.40	1431	1300	1.57	1604
2100	1051	0.99	1012	1136	1.17	1196	1210	1.35	1380	1284	1.54	1574	1347	1.72	1758
2200	1095	1.12	1145	1173	1.30	1328	1245	1.49	1523	1322	1.70	1737	1380	1.89	1931
2300	1140	1.26	1288	1210	1.47	1502	1284	1.65	1686	1356	1.80	1901	1418	2.07	2115
2400	1185	1.41	1441	1249	1.61	1645	1323	1.80	1860	1389	2.03	2074	1456	2.26	2310
2500	1231	1.57	1604	1289	1.78	1819	1363	2.00	2044	1424	2.22	2269	1500	2.45	2504

548F060 (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	1199	1.19	1216	1126	1.46	1492	1250	1.69	1757	1301	1.91	1944	1349	2.12	2164
1600	1263	1.28	1308	1275	1.49	1523	1299	1.78	1800	1352	2.01	2047	1401	2.23	2280
1700	1295	1.39	1420	1351	1.58	1615	1352	1.80	1850	1407	2.03	2070	1459	2.26	2305
1800	1319	1.52	1553	1389	1.71	1747	1435	1.91	1952	1494	2.15	2197	1548	2.40	2446
1900	1343	1.64	1676	1415	1.80	1891	1478	2.05	2095	1538	2.31	2358	1594	2.57	2625
2000	1374	1.77	1809	1438	1.99	2034	1505	2.21	2258	1566	2.49	2542	1624	2.77	2830
2100	1409	1.91	1952	1465	2.14	2167	1533	2.45	2501	1596	2.77	2821	1654	3.08	3141
2200	1442	2.08	2126	1498	2.30	2350	1568	2.64	2688	1632	2.97	3031	1691	3.31	3375
2300	1475	2.26	2310	1554	2.64	2698	1627	3.03	3091	1693	3.42	3486	1755	3.81	3881
2400	1565	2.47	2524	1649	2.89	2948	1726	3.31	3379	—	—	—	—	—	—
2500	1596	2.95	3010	1682	3.45	3522	1760	3.96	4036	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 2.9 and the maximum continuous watts are 2562.

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

Refer to page 51 for general Fan Performance notes.

548F072 (6 TONS)* — STANDARD MOTOR (BELT DRIVE)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.1			0.2			0.4			0.6			0.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	852	0.55	562	905	0.62	615	1002	0.78	739	1084	0.93	859	1163	1.10	998
1900	894	0.64	630	945	0.72	692	1037	0.88	818	1119	1.04	948	1194	1.21	1089
2000	936	0.74	708	984	0.82	771	1072	0.98	899	1154	1.16	1047	1226	1.33	1190
2100	978	0.85	795	1024	0.93	859	1108	1.10	998	1190	1.29	1156	1259	1.47	1310
2200	1021	0.97	891	1064	1.05	956	1145	1.22	1097	1225	1.43	1275	1294	1.62	1439
2300	1064	1.10	998	1104	1.18	1064	1183	1.36	1216	1260	1.57	1396	1330	1.78	1578
2400	1107	1.24	1114	1145	1.32	1182	1222	1.52	1353	1296	1.73	1534	1365	1.94	1718
2500	1150	1.39	1241	1186	1.48	1318	1262	1.68	1491	1331	1.89	1674	1400	2.12	1875
2600	1193	1.56	1387	1228	1.65	1465	1301	1.86	1648	1367	2.07	1831	1435	2.31	2041
2700	1237	1.74	1543	1269	1.83	1621	1341	2.05	1814	1404	2.26	1997	1471	2.51	2214
2800	1280	1.94	1718	1311	2.03	1796	1381	2.25	1989	1442	2.47	2180	1506	2.72	2394
2900	1324	2.15	1901	1354	2.24	1980	1420	2.47	2180	1481	2.69	2369	1542	2.94	2579
3000	1368	2.37	2093	1396	2.46	2171	1460	2.69	2369	1521	2.93	2571	—	—	—

548F072 (6 TONS)* — STANDARD MOTOR (BELT DRIVE) (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.0			1.2			1.4			1.6					
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts			
1800	1235	1.29	1156	1303	1.48	1318	1371	1.69	1499	1433	1.90	1638			
1900	1266	1.40	1250	1330	1.59	1413	1396	1.81	1604	1460	2.03	1796			
2000	1297	1.53	1361	1362	1.73	1534	1422	1.94	1718	1485	2.16	1910			
2100	1327	1.66	1473	1393	1.87	1656	1452	2.08	1840	1510	2.31	2041			
2200	1359	1.81	1604	1423	2.02	1779	1483	2.24	1980	1538	2.46	2171			
2300	1392	1.97	1744	1454	2.18	1927	1515	2.41	2128	1569	2.64	2326			
2400	1426	2.15	1901	1485	2.36	2084	1544	2.59	2283	1601	2.84	2459			
2500	1461	2.34	2067	1518	2.55	2249	1575	2.78	2445	—	—	—			
2600	1497	2.54	2240	1552	2.76	2428	—	—	—	—	—	—			
2700	1532	2.75	2420	—	—	—	—	—	—	—	—	—			
2800	—	—	—	—	—	—	—	—	—	—	—	—			
2900	—	—	—	—	—	—	—	—	—	—	—	—			
3000	—	—	—	—	—	—	—	—	—	—	—	—			

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

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

Refer to page 51 for general Fan Performance notes.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

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	978	0.66	700	1063	0.82	771	1147	0.97	891	1248	1.20	1081	1322	1.33	1190
1900	1023	0.78	779	1097	0.91	843	1175	1.11	1006	1266	1.29	1158	1356	1.47	1310
2000	1068	0.90	867	1132	1.01	924	1218	1.23	1106	1303	1.41	1258	1397	1.52	1353
2100	1115	1.00	998	1180	1.17	1056	1261	1.35	1207	1340	1.53	1361	1428	1.66	1473
2200	1159	1.15	1081	1214	1.28	1148	1310	1.52	1353	1375	1.63	1447	1459	1.80	1595
2300	1202	1.29	1140	1248	1.38	1233	1358	1.69	1499	1410	1.72	1526	1488	1.93	1709
2400	1237	1.41	1224	1292	1.55	1378	1392	1.81	1604	1460	1.90	1683	1532	2.14	1892
2500	1272	1.53	1335	1335	1.71	1517	1427	1.94	1718	1518	2.16	1910	1575	2.35	2076
2600	1320	1.68	1482	1368	1.81	1604	1458	2.06	1823	1562	2.42	2136	1620	2.59	2283
2700	1361	1.82	1595	1400	1.91	1691	1490	2.19	1936	1602	2.64	2326	1666	2.85	2504
2800	1402	1.95	1639	1439	2.08	1840	1543	2.43	2145	1642	2.86	2512	1775	3.62	3290
2900	1446	2.16	1814	1477	2.16	1989	1585	2.65	2335	1753	3.58	3262	—	—	—
3000	1489	2.36	2032	1529	2.52	2223	1598	2.73	2444	1767	3.69	3360	—	—	—

548F072 (6 TONS) — HIGH-STATIC MOTOR (BELT DRIVE)* (cont)															
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	1395	1.46	1301	1475	1.56	1387	1542	1.71	1517	1607	1.94	1761	1667	2.16	1967
1900	1430	1.58	1404	1504	1.69	1499	1556	1.82	1613	1621	2.06	1874	1682	2.30	2093
2000	1459	1.67	1482	1532	1.82	1613	1588	1.97	1744	1655	2.23	2029	1717	2.49	2266
2100	1489	1.80	1595	1567	1.99	1761	1626	2.16	1910	1694	2.44	2224	1758	2.73	2485
2200	1528	1.95	1726	1603	2.17	1919	1666	2.37	2093	1736	2.68	2441	—	—	—
2300	1561	2.13	1884	1637	2.35	2076	1710	2.54	2272	1782	2.87	2616	—	—	—
2400	1584	2.28	2015	1671	2.55	2249	1756	2.70	2467	—	—	—	—	—	—
2500	1633	2.53	2232	1698	2.72	2405	1779	3.13	2848	—	—	—	—	—	—
2600	1675	2.77	2436	1768	3.26	2964	—	—	—	—	—	—	—	—	—
2700	1775	3.45	3141	—	—	—	—	—	—	—	—	—	—	—	—
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.

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 2.9 and the maximum continuous watts are 2562.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F090 (7½ TONS)* — STANDARD MOTOR AND DRIVE AND ALTERNATE DRIVE (BELT DRIVE)																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	511	0.52	539	592	0.74	708	659	0.95	875	722	1.19	1072	778	1.43	1275	829	1.68	1491
2300	518	0.55	562	599	0.77	731	665	0.98	899	727	1.22	1097	783	1.47	1310	834	1.72	1526
2400	534	0.61	607	613	0.84	787	677	1.06	965	738	1.30	1165	794	1.55	1378	844	1.81	1604
2500	549	0.67	653	627	0.90	835	690	1.14	1031	750	1.38	1233	805	1.64	1456	855	1.91	1691
2550	557	0.71	684	633	0.94	867	697	1.18	1064	756	1.42	1267	811	1.69	1499	861	1.96	1735
2600	565	0.74	708	639	0.97	891	703	1.22	1097	761	1.46	1301	816	1.74	1543	866	2.01	1779
2700	581	0.81	763	652	1.04	948	717	1.31	1173	773	1.55	1378	827	1.83	1621	878	2.12	1875
2800	597	0.89	827	665	1.12	1014	733	1.40	1250	786	1.66	1473	839	1.93	1709	889	2.23	1971
2900	613	0.97	891	679	1.20	1081	745	1.50	1335	799	1.76	1560	850	2.04	1805	900	2.34	2067
3000	629	1.06	965	694	1.29	1156	759	1.59	1413	812	1.88	1665	862	2.15	1901	911	2.46	2171
3100	646	1.15	1039	709	1.39	1241	772	1.70	1508	825	1.99	1761	875	2.28	2015	923	2.58	2275
3200	662	1.25	1123	724	1.50	1335	785	1.80	1595	840	2.11	1866	887	2.41	2128	934	2.71	2386
3300	679	1.35	1207	740	1.61	1430	798	1.91	1691	854	2.24	1980	900	2.54	2240	946	2.85	2504
3400	696	1.46	1301	756	1.73	1534	811	2.02	1788	868	2.37	2093	914	2.69	2369	959	3.00	2629
3500	712	1.57	1396	771	1.85	1639	824	2.14	1892	881	2.50	2206	928	2.84	2495	971	3.16	2759
3600	729	1.69	1499	787	1.98	1753	839	2.21	2006	894	2.64	2326	942	2.99	2620	984	3.22	2886
3700	746	1.85	1613	803	2.12	1875	854	2.42	2136	907	2.78	2445	956	3.15	2751	997	3.49	3017
3750	755	1.89	1674	811	2.20	1945	862	2.49	2197	914	2.85	2504	963	3.23	2815	—	—	—

548F090 (7½ TONS)* — STANDARD MOTOR AND DRIVE AND ALTERNATE DRIVE (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)											
	1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	884	1.97	1744	937	2.33	2058	947	2.66	2343	1022	3.10	2710
2300	885	2.00	1770	939	2.36	2084	979	2.69	2369	1025	3.12	2727
2400	892	2.08	1840	944	2.40	2119	987	2.76	2428	1039	3.20	2791
2500	902	2.18	1927	949	2.48	2188	1002	2.84	2495	1041	3.25	2831
2550	908	2.24	1980	953	2.53	2232	1003	2.87	2521	1045	3.28	2854
2600	913	2.29	2023	957	2.58	2275	1004	2.91	2554	1050	3.31	2878
2700	924	2.40	2120	967	2.70	2377	1010	3.01	2637	1056	3.37	2925
2800	935	2.52	2223	978	2.62	2479	1019	3.13	2735	1061	3.47	3002
2900	946	2.65	2335	989	2.96	2595	1030	3.27	2847	—	—	—
3000	957	2.78	2445	1000	3.09	2702	1040	3.41	2956	—	—	—
3100	968	2.91	2554	1011	3.24	2832	—	—	—	—	—	—
3200	980	3.04	2661	1022	3.38	2933	—	—	—	—	—	—
3300	991	3.18	2775	—	—	—	—	—	—	—	—	—
3400	1003	3.32	2886	—	—	—	—	—	—	—	—	—
3500	1014	3.48	3009	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F090 (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	514	0.55	562	593	0.76	723	662	0.99	907	724	1.22	1097	781	1.48	1318
2300	521	0.57	577	600	0.79	747	668	1.02	932	730	1.26	1131	786	1.50	1335
2400	536	0.63	623	613	0.85	795	680	1.09	989	741	1.34	1199	796	1.59	1413
2500	551	0.69	669	626	0.93	859	693	1.17	1056	753	1.43	1275	808	1.69	1499
2550	559	0.72	692	634	0.97	891	700	1.21	1089	759	1.48	1318	814	1.74	1543
2600	567	0.75	716	641	1.00	916	706	1.25	1123	764	1.52	1353	819	1.79	1587
2700	582	0.83	779	655	1.08	981	719	1.34	1199	776	1.61	1430	831	1.89	1674
2800	598	0.90	835	670	1.17	1056	732	1.43	1275	789	1.71	1617	842	2.00	1770
2900	614	0.98	899	684	1.25	1123	745	1.53	1361	802	1.81	1604	854	2.11	1866
3000	630	1.07	973	699	1.35	1207	759	1.63	1447	815	1.92	1700	866	2.23	1971
3100	646	1.16	1047	714	1.45	1292	773	1.74	1543	828	2.04	1805	878	2.35	2076
3200	662	1.28	1131	729	1.55	1378	787	1.86	1648	841	2.16	1910	891	2.48	2188
3300	679	1.36	1216	744	1.66	1473	801	1.98	1753	854	2.29	2023	904	2.61	2300
3400	695	1.47	1310	759	1.78	1578	816	2.10	1868	867	2.42	2136	917	2.75	2420
3500	712	1.59	1413	774	1.90	1683	830	2.23	1971	881	2.56	2257	930	2.90	2546
3600	729	1.71	1617	790	2.03	1796	845	2.37	2093	895	2.71	2386	943	3.05	2670
3700	745	1.84	1630	805	2.17	1919	860	2.52	2223	909	2.87	2521	956	3.22	2807
3750	754	1.91	1691	813	2.24	1980	868	2.59	2283	917	2.95	2587	963	3.30	2870

548F090 (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	841	1.81	1604	902	2.25	1989	939	2.60	2292	979	2.94	2589	1015	3.29	2892
2300	843	1.83	1621	905	2.28	2015	943	2.52	2309	983	2.96	2609	1020	3.31	2914
2400	848	1.88	1665	910	2.31	2041	952	2.74	2411	992	3.10	2729	1029	3.46	3048
2500	859	1.96	1735	912	2.31	2050	963	2.81	2470	1004	3.18	2798	1041	3.55	3126
2550	864	2.01	1779	915	2.34	2067	968	2.81	2479	1009	3.18	2798	1047	3.55	3126
2600	869	2.06	1823	918	2.37	2093	973	2.81	2487	1014	3.18	2798	1052	3.55	3126
2700	880	2.17	1919	927	2.47	2180	976	2.84	2495	1017	3.21	2828	1055	3.59	3159
2800	892	2.29	2023	938	2.58	2275	983	2.92	2562	1024	3.30	2908	1063	3.69	3248
2900	903	2.42	2136	949	2.71	2386	993	3.03	2653	1035	3.43	3017	1074	3.83	3370
3000	915	2.54	2240	961	2.85	2504	1003	3.17	2767	1045	3.59	3157	1084	4.01	3526
3100	926	2.67	2352	972	3.00	2629	1015	3.32	2886	1058	3.76	3306	1097	4.20	3693
3200	938	2.81	2470	983	3.14	2743	1026	3.47	3002	1069	3.93	3456	—	—	—
3300	950	2.95	2587	995	3.30	2870	1043	3.80	3341	—	—	—	—	—	—
3400	963	3.10	2710	1007	3.45	2987	1055	3.97	3493	—	—	—	—	—	—
3500	976	3.25	2831	1030	3.82	3362	—	—	—	—	—	—	—	—	—
3600	988	3.41	2956	1043	4.01	3528	—	—	—	—	—	—	—	—	—
3700	1019	3.90	3431	—	—	—	—	—	—	—	—	—	—	—	—
3750	1026	4.00	3517	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

- Boldface** indicates field-supplied drive is required.
- Field-supplied motor and drive** are required.
- Maximum continuous bhp is 3.7 and the maximum continuous watts are 3313.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F102 (8 TONS)* — STANDARD MOTOR (BELT DRIVE)																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	557	0.71	684	633	0.94	867	697	1.18	1064	756	1.42	1267	811	1.69	1499	861	1.96	1735
2600	565	0.74	708	639	0.97	891	703	1.22	1097	761	1.46	1301	816	1.74	1543	866	2.01	1779
2700	581	0.81	763	652	1.04	948	717	1.31	1173	773	1.55	1378	827	1.83	1621	878	2.12	1875
2800	597	0.89	827	665	1.12	1014	733	1.40	1250	786	1.66	1473	839	1.93	1709	889	2.23	1971
2900	613	0.97	891	679	1.20	1081	745	1.50	1335	799	1.76	1560	850	2.04	1805	900	2.34	2067
3000	629	1.06	965	694	1.29	1156	759	1.59	1413	812	1.88	1665	862	2.15	1901	911	2.46	2171
3100	646	1.15	1039	709	1.39	1241	772	1.70	1508	825	1.99	1761	875	2.28	2015	923	2.58	2275
3200	662	1.25	1123	724	1.50	1335	785	1.80	1595	840	2.11	1866	887	2.41	2128	934	2.71	2386
3300	679	1.35	1207	740	1.61	1430	798	1.91	1691	854	2.24	1980	900	2.54	2240	946	2.85	2504
3400	696	1.46	1301	756	1.73	1534	811	2.02	1788	868	2.37	2093	914	2.69	2369	959	3.00	2629
3500	712	1.57	1396	771	1.85	1639	824	2.14	1892	881	2.50	2206	928	2.84	2495	971	3.16	2759
3600	729	1.69	1499	787	1.98	1753	839	2.27	2006	894	2.64	2326	942	2.99	2620	984	3.32	2886
3700	746	1.82	1613	803	2.12	1875	854	2.42	2136	907	2.78	2445	956	3.15	2751	997	3.49	3017
3750	755	1.89	1674	811	2.20	1945	862	2.49	2197	914	2.85	2504	963	3.23	2815	—	—	—
3800	763	1.95	1726	819	2.27	2006	869	2.56	2257	920	2.92	2562	970	3.31	2878	—	—	—
3900	780	2.09	1849	835	2.42	2136	884	2.72	2394	933	3.07	2686	983	3.48	3009	—	—	—
4000	796	2.23	1971	851	2.56	2257	900	2.89	2537	946	3.23	2815	—	—	—	—	—	—
4100	813	2.39	2110	867	2.74	2411	915	3.06	2678	960	3.40	2948	—	—	—	—	—	—
4200	830	2.55	2249	883	2.91	2554	931	3.24	2823	—	—	—	—	—	—	—	—	—
4250	839	2.63	2317	892	3.00	2629	939	3.34	2902	—	—	—	—	—	—	—	—	—

548F102 (8 TONS)* — STANDARD MOTOR (BELT DRIVE) (cont)												
Airflow (Cfm)	External Static Pressure (in. wg)											
	1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	908	2.24	1980	953	2.53	2232	1003	2.87	2521	1045	3.28	2854
2600	913	2.29	2023	957	2.58	2275	1004	2.91	2554	1050	3.31	2878
2700	924	2.40	2120	967	2.70	2377	1010	3.01	2637	1056	3.37	2925
2800	935	2.52	2223	978	2.62	2479	1019	3.13	2735	1061	3.41	3002
2900	946	2.65	2335	989	2.96	2595	1030	3.27	2847	—	—	—
3000	957	2.78	2445	1000	3.09	2702	1040	3.41	2956	—	—	—
3100	968	2.91	2554	1011	3.24	2832	—	—	—	—	—	—
3200	980	3.04	2661	1022	3.38	2933	—	—	—	—	—	—
3300	991	3.18	2775	—	—	—	—	—	—	—	—	—
3400	1003	3.52	2886	—	—	—	—	—	—	—	—	—
3500	1014	3.48	3009	—	—	—	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—	—	—	—	—
3800	—	—	—	—	—	—	—	—	—	—	—	—
3900	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

- Boldface** indicates field-supplied drive is required.
-  indicates field-supplied motor and drive are required.
- Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F102 (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
2550	559	0.72	692	634	0.97	891	700	1.21	1089	759	1.48	1318	814	1.74	1543
2600	567	0.76	716	641	1.00	916	706	1.25	1123	764	1.52	1353	819	1.79	1587
2700	582	0.83	779	655	1.08	981	719	1.34	1199	776	1.61	1430	831	1.89	1674
2800	598	0.90	835	670	1.17	1056	732	1.43	1275	789	1.71	1517	842	2.00	1770
2900	614	0.98	899	684	1.25	1123	745	1.53	1361	802	1.81	1604	854	2.11	1866
3000	630	1.07	973	690	1.35	1207	759	1.63	1147	816	1.92	1700	866	2.23	1971
3100	646	1.16	1047	714	1.45	1292	773	1.74	1543	828	2.04	1805	878	2.35	2076
3200	662	1.26	1131	729	1.55	1378	787	1.86	1648	841	2.16	1910	891	2.48	2188
3300	679	1.36	1216	744	1.66	1473	801	1.98	1753	854	2.29	2023	904	2.61	2300
3400	695	1.47	1310	759	1.78	1578	816	2.10	1958	867	2.42	2136	917	2.75	2420
3500	712	1.59	1413	774	1.90	1683	830	2.23	1971	881	2.56	2257	930	2.90	2546
3600	729	1.71	1517	790	2.03	1796	845	2.37	2093	895	2.71	2386	943	3.05	2670
3700	745	1.84	1630	805	2.17	1919	860	2.52	2223	909	2.87	2521	956	3.22	2807
3750	754	1.91	1691	813	2.24	1980	868	2.59	2283	917	2.95	2587	963	3.30	2870
3800	762	1.98	1753	821	2.31	2041	875	2.66	2343	924	3.03	2653	970	3.38	2933
3900	779	2.12	1875	836	2.46	2171	890	2.82	2479	938	3.19	2783	981	3.65	3209
4000	796	2.27	2006	852	2.61	2300	905	2.98	2612	953	3.37	2925	996	3.85	3390
4100	813	2.42	2136	868	2.78	2445	920	3.15	2751	974	3.74	3294	—	—	—
4200	830	2.59	2283	884	2.95	2587	935	3.33	2894	990	3.96	3482	—	—	—
4250	839	2.68	2360	890	3.04	2661	965	3.88	3412	—	—	—	—	—	—

548F102 (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
2550	864	2.01	1779	915	2.34	2067	968	2.81	2479	991	3.02	2654	1012	3.21	2827
2600	869	2.06	1823	918	2.37	2093	973	2.81	2487	996	3.02	2654	1017	3.21	2827
2700	880	2.17	1919	927	2.47	2180	976	2.84	2495	999	3.05	2682	1021	3.25	2857
2800	892	2.29	2023	938	2.58	2275	983	2.92	2562	1006	3.13	2758	1028	3.34	2938
2900	903	2.42	2136	949	2.71	2386	993	3.03	2653	1017	3.25	2862	1038	3.46	3048
3000	915	2.54	2240	961	2.85	2504	1003	3.17	2767	1027	3.40	2994	1049	3.62	3189
3100	926	2.67	2352	972	3.00	2629	1016	3.32	2886	1040	3.56	3136	1062	3.80	3340
3200	938	2.81	2470	983	3.14	2743	1026	3.47	3002	1050	3.72	3277	1073	3.97	3491
3300	950	2.95	2587	995	3.30	2870	1022	3.58	3146	1046	3.84	3377	1069	4.09	3597
3400	963	3.10	2710	1007	3.45	2987	1034	3.74	3289	1059	4.01	3530	—	—	—
3500	976	3.25	2831	1007	3.56	3137	1034	3.85	3399	1058	4.15	3648	—	—	—
3600	988	3.41	2956	1019	3.74	3292	1047	4.05	3566	—	—	—	—	—	—
3700	992	3.59	3161	1023	3.94	3467	—	—	—	—	—	—	—	—	—
3750	999	3.68	3240	1030	4.04	3554	—	—	—	—	—	—	—	—	—
3800	1006	3.77	3318	1038	4.14	3640	—	—	—	—	—	—	—	—	—
3900	1017	4.07	3580	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 3.7 and the maximum continuous watts are 3313.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

548F036-120

548F120 (10 TONS)*																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	532	0.64	630	605	0.81	763	670	0.97	891	725	1.12	1014	778	1.28	1148	825	1.43	1275
3100	544	0.70	677	616	0.86	803	680	1.03	940	735	1.20	1081	787	1.36	1216	835	1.52	1353
3200	557	0.75	716	628	0.93	859	690	1.10	998	746	1.28	1148	796	1.44	1284	844	1.61	1430
3300	570	0.81	763	639	0.99	907	700	1.18	1064	757	1.36	1216	805	1.52	1353	854	1.70	1508
3400	583	0.88	818	651	1.06	965	711	1.25	1123	767	1.44	1284	815	1.61	1430	863	1.79	1587
3500	596	0.94	867	663	1.14	1031	721	1.33	1190	777	1.52	1353	826	1.71	1517	871	1.88	1665
3600	609	1.01	924	674	1.22	1097	732	1.42	1267	787	1.61	1430	836	1.80	1595	880	1.98	1753
3700	622	1.09	989	686	1.30	1165	744	1.50	1335	797	1.70	1508	847	1.91	1691	890	2.09	1849
3800	635	1.16	1047	698	1.39	1241	755	1.59	1413	808	1.80	1595	857	2.01	1779	901	2.20	1945
3900	649	1.25	1123	713	1.48	1318	767	1.68	1491	818	1.90	1683	867	2.11	1866	912	2.32	2050
4000	662	1.33	1190	722	1.57	1396	778	1.78	1578	829	2.01	1779	878	2.22	1962	922	2.44	2203
4100	675	1.42	1267	734	1.67	1482	790	1.89	1674	839	2.12	1875	888	2.33	2058	933	2.56	2309
4200	689	1.52	1353	746	1.77	1569	801	1.99	1761	851	2.23	1971	898	2.45	2212	943	2.69	2424
4300	702	1.61	1430	759	1.88	1665	813	2.11	1866	862	2.34	2067	908	2.58	2326	953	2.81	2533
4400	715	1.72	1526	772	1.99	1761	825	2.22	1962	873	2.46	2221	919	2.71	2442	963	2.94	2651
4500	729	1.83	1621	785	2.10	1858	837	2.35	2076	885	2.59	2335	929	2.85	2569	973	3.08	2782
4600	742	1.94	1718	797	2.22	1962	848	2.48	2238	896	2.72	2451	940	2.98	2688	984	3.22	2914
4700	756	2.06	1823	810	2.34	2067	860	2.61	2353	908	2.86	2578	951	3.12	2727	994	3.38	3068
4800	770	2.18	1927	823	2.46	2221	872	2.75	2505	919	3.00	2707	963	3.27	2847	1003	3.43	3202
4900	783	2.31	2041	836	2.60	2344	884	2.89	2605	931	3.14	2838	974	3.41	2956	1013	3.59	3349
5000	797	2.44	2203	849	2.73	2460	897	3.04	2661	943	3.30	2870	984	3.44	3211	1023	3.75	3501

548F120 (10 TONS)* (cont)												
Airflow (Cfm)	External Static Pressure (in. wg)											
	1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	874	1.60	1422	926	1.82	1613	974	2.11	1920	1012	2.41	2134
3100	880	1.68	1491	933	1.87	1656	983	2.16	1963	1017	2.44	2177
3200	888	1.77	1569	934	1.94	1718	988	2.18	1980	1025	2.47	2230
3300	897	1.86	1648	940	2.03	1853	989	2.24	2031	1032	2.53	2282
3400	907	1.97	1744	947	2.14	1946	991	2.32	2099	1038	2.57	2318
3500	916	2.07	1831	956	2.25	2039	997	2.43	2195	1043	2.64	2380
3600	926	2.18	1927	966	2.41	2134	1004	2.54	2291	1045	2.74	2478
3700	934	2.28	2015	976	2.48	2238	1013	2.66	2397	1051	2.85	2569
3800	943	2.41	2160	985	2.60	2334	1023	2.79	2514	1059	2.98	2688
3900	952	2.51	2265	994	2.72	2451	1032	2.92	2633	1068	3.12	2819
4000	962	2.63	2371	1003	2.84	2560	1042	3.06	2763	1078	3.26	2952
4100	973	2.77	2496	1011	2.97	2679	1051	3.20	2895	1087	3.41	3097
4200	983	2.91	2624	1021	3.11	2810	1060	3.34	3029	1090	3.51	3276
4300	994	3.05	2754	1031	3.25	2943	1068	3.48	3166	1097	3.70	3453
4400	1004	3.19	2885	1042	3.41	3097	1080	3.63	3388	1105	3.91	3642
4500	1015	3.33	3020	1051	3.45	3218	1090	3.75	3493	1112	4.12	3843
4600	1025	3.48	3166	1060	3.61	3369	1100	3.92	3655	1119	4.35	4057
4700	1037	3.58	3335	1070	3.84	3325	1111	4.10	3822	1126	4.59	4284
4800	1048	3.75	3494	1080	3.95	3686	1121	4.28	3995	1133	4.85	4523
4900	1060	3.92	3659	1089	4.13	3854	1132	4.48	4174	1140	5.12	4775
5000	1072	4.11	3830	1099	4.32	4027	1144	4.67	4359	—	—	—

LEGEND

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

*Standard motor drive range: 685 to 935 rpm. Alternate motor drive range: 835 to 1085 rpm. High-static motor drive range is 830 to 1130 rpm. All other rpms require field-supplied drive.

Refer to page 51 for general Fan Performance notes.

NOTES:

- Boldface** indicates high-static motor and drive are required.
- Maximum usable watts input is 2120 with standard motor, 2615 with alternate motor, and 4400 for the high-static motor. Maximum continuous bhp is 2.40 with standard motor, 2.90 with alternate motor, and 5.25 for the high-static motor.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL 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	0.72	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

Refer to page 51 for general Fan Performance notes.

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)																	
	0.1			0.2			0.3			0.4			0.5			0.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	526	0.06	70	584	0.08	99	656	0.12	139	734	0.22	219	818	0.25	269	875	0.27	289
1000	570	0.09	109	627	0.13	149	738	0.19	189	800	0.26	259	848	0.29	288	895	0.31	308
1100	614	0.13	149	670	0.16	189	758	0.23	229	812	0.29	288	863	0.32	308	914	0.35	348
1200	658	0.16	189	710	0.23	229	780	0.28	279	840	0.32	318	889	0.36	358	938	0.40	398
1300	703	0.20	239	752	0.27	269	808	0.32	318	868	0.37	368	916	0.41	408	963	0.45	448
1400	725	0.29	288	776	0.31	308	845	0.38	378	891	0.42	418	937	0.47	467	983	0.51	507
1500	755	0.33	328	816	0.38	378	870	0.43	428	924	0.48	477	969	0.53	527	1014	0.58	577

548F036 (3 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)																		
Airflow (Cfm)	External Static Pressure (in. wg)																	
	0.7			0.8			0.9			1.0			1.1			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	924	0.32	308	953	0.35	348	989	0.38	388	1028	0.42	438	1074	0.49	487	1120	0.54	537
1000	936	0.35	348	977	0.39	388	1020	0.44	438	1064	0.48	477	1124	0.54	537	1185	0.60	597
1100	960	0.39	388	1005	0.43	428	1052	0.49	487	1100	0.52	527	1163	0.59	587	1225	0.65	647
1200	960	0.45	388	1038	0.50	497	1076	0.53	527	1136	0.59	577	1201	0.65	647	1266	0.72	716
1300	1012	0.51	507	1061	0.56	557	1090	0.61	607	1172	0.65	647	1239	0.72	716	1306	0.79	786
1400	1027	0.56	557	1071	0.60	597	1108	0.67	666	1208	0.70	706	1278	0.79	786	1347	0.87	865
1500	1056	0.63	627	1097	0.68	676	1117	0.70	696	1245	0.74	776	1315	0.87	865	1385	0.96	955

LEGEND

Refer to page 51 for general Fan Performance notes.

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum usable watts input is 1000 and maximum continuous bhp is 1.00.

*Motor drive range: 760 to 1000 rpm. All other rpms require 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	584	0.08	99	734	0.22	219	875	0.27	269	953	0.35	348	1028	0.42	438
1000	627	0.13	149	800	0.26	259	895	0.31	308	977	0.39	388	1064	0.48	477
1100	670	0.16	189	812	0.29	288	914	0.35	348	1005	0.43	428	1100	0.52	527
1200	710	0.23	229	840	0.32	318	938	0.40	398	1038	0.50	497	1136	0.59	577
1300	752	0.27	269	868	0.37	368	963	0.45	448	1061	0.56	557	1172	0.65	647
1400	776	0.31	308	891	0.42	418	983	0.51	507	1071	0.60	597	1208	0.70	706
1500	816	0.38	378	924	0.48	477	1014	0.58	577	1097	0.68	676	1245	0.74	776

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	1120	0.54	537	1155	0.59	589	1186	0.64	639	1215	0.69	685	1240	0.73	730
1000	1185	0.60	597	1222	0.66	655	1255	0.71	709	1285	0.77	761	1312	0.82	811
1100	1225	0.65	647	1263	0.71	709	1298	0.77	769	1328	0.83	825	1357	0.88	879
1200	1266	0.72	716	1306	0.79	786	1341	0.86	851	1373	0.92	914	1402	0.98	973
1300	1306	0.79	786	1347	0.87	862	1383	0.94	934	1416	1.01	1003	1446	1.07	1068
1400	1347	0.87	865	1389	0.95	950	1427	1.03	1029	1461	1.11	1104	1492	1.18	1176
1500	1385	0.96	955	1428	1.05	1048	1467	1.14	1135	1502	1.22	1218	1534	1.30	1298

LEGEND

NOTES:

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

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.4 and the maximum continuous watts are 2120.

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

Refer to page 51 for general Fan Performance notes.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

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

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

Refer to page 51 for general Fan Performance notes.

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)*																					
Airflow (Cfm)	External Static Pressure (in. wg)																				
	0.1			0.2			0.3			0.4			0.6			0.7			0.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	514	0.15	158	590	0.20	210	657	0.25	263	723	0.30	315	828	0.42	441	876	0.49	510	924	0.55	578
1300	545	0.18	189	615	0.23	242	680	0.29	305	744	0.35	368	849	0.47	494	895	0.54	562	940	0.60	630
1400	577	0.21	221	642	0.27	284	704	0.33	347	766	0.39	410	870	0.52	546	915	0.59	620	959	0.66	693
1500	609	0.26	273	670	0.31	326	729	0.38	394	788	0.44	462	892	0.58	609	936	0.65	683	980	0.72	757
1600	642	0.30	315	699	0.36	378	755	0.43	447	811	0.49	515	913	0.64	672	957	0.72	751	1001	0.79	830
1700	675	0.36	378	728	0.42	441	782	0.49	510	836	0.55	578	935	0.71	746	979	0.79	825	1023	0.86	904
1800	709	0.41	431	759	0.48	504	810	0.55	578	860	0.62	651	957	0.78	820	1001	0.86	904	1044	0.94	988
1900	743	0.48	504	790	0.55	578	838	0.62	651	886	0.69	725	980	0.86	904	1023	0.95	993	1066	1.03	1082
2000	778	0.55	578	836	0.62	651	875	0.70	730	913	0.77	809	1004	0.94	988	1046	1.03	1082	1088	1.12	1177

548F048 (4 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)

Airflow (Cfm)	External Static Pressure (in. wg)														
	1.0			1.1			1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	999	0.66	674	1018	0.67	685	1036	0.68	695	1073	0.71	756	1109	0.75	794
1300	1025	0.74	756	1058	0.79	807	1090	0.84	858	1121	0.87	832	1159	0.90	918
1400	1042	0.81	828	1080	0.88	899	1118	0.95	971	1175	1.06	1014	1206	1.09	1042
1500	1060	0.88	899	1098	0.96	981	1136	1.04	1063	1205	1.19	1138	1258	1.30	1243
1600	1080	0.95	971	1117	1.04	1058	1153	1.12	1140	1224	1.29	1234	1287	1.45	1387
1700	1101	1.03	1053	1137	1.12	1139	1172	1.20	1226	1241	1.38	1320	1307	1.56	1492
1800	1122	1.11	1134	1157	1.20	1226	1192	1.29	1318	1258	1.48	1415	1323	1.67	1597
1900	1143	1.21	1237	1179	1.30	1328	1214	1.39	1420	1279	1.58	1511	1341	1.78	1702
2000	1165	1.31	1339	1200	1.40	1431	1235	1.49	1523	1300	1.69	1616	1361	1.90	1817

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 1000 and maximum continuous bhp is 1.00.

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

Refer to page 51 for general Fan Performance notes.

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	Watts
1200	641	0.23	242	761	0.34	357	859	0.46	483	943	0.58	609	1030	0.70	695	695
1300	673	0.28	294	786	0.39	410	887	0.52	546	968	0.65	683	1044	0.77	736	736
1400	705	0.33	347	817	0.45	473	914	0.59	620	996	0.72	757	1069	0.86	838	838
1500	738	0.38	399	847	0.51	536	940	0.65	683	1024	0.81	851	1095	0.95	930	930
1600	772	0.44	462	877	0.58	609	967	0.73	767	1051	0.89	935	1123	1.05	1073	1073
1700	806	0.51	536	906	0.66	693	997	0.81	851	1077	1.01	1030	1151	1.15	1185	1185
1800	841	0.59	620	939	0.75	788	1026	0.91	956	1104	1.07	1124	1178	1.26	1318	1318
1900	876	0.68	714	971	0.84	883	1056	1.01	1061	1132	1.18	1240	1204	1.37	1502	1502
2000	912	0.77	809	1004	0.94	988	1087	1.12	1177	1162	1.30	1366	1231	1.48	1604	1604

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	Watts
1200	1106	0.87	889	1134	0.98	998	1189	1.12	1138	1245	1.21	1358	1292	1.35	1345	1345
1300	1128	0.91	930	1183	1.10	1052	1226	1.23	1215	1297	1.35	1406	1346	1.51	1500	1500
1400	1139	1.01	1012	1218	1.14	1090	1286	1.34	1282	1320	1.48	1463	1370	1.65	1645	1645
1500	1162	1.09	1114	1228	1.24	1186	1303	1.40	1339	1343	1.60	1530	1393	1.79	1778	1778
1600	1185	1.20	1226	1250	1.35	1291	1319	1.51	1444	1382	1.68	1607	1434	1.88	1867	1867
1700	1215	1.31	1339	1276	1.48	1415	1334	1.64	1569	1398	1.80	1722	1451	2.01	2001	2001
1800	1243	1.43	1461	1303	1.61	1540	1359	1.78	1702	1418	1.95	1865	1471	2.18	2167	2167
1900	1271	1.56	1594	1330	1.74	1664	1386	1.93	1846	1439	2.11	2018	1493	2.36	2345	2345
2000	1298	1.69	1727	1358	1.89	1808	1413	2.08	1989	1466	2.27	2171	—	—	—	—

LEGEND

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous bhp is 2.4 and the maximum continuous watts are 2120.

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

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

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

Refer to page 51 for general Fan Performance notes.

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

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)*																
Airflow (Cfm)	External Static Pressure (in. wg)															
	0.1			0.2			0.4			0.6			0.8			
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	
1500	658	0.27	276	722	0.33	337	840	0.46	470	937	0.59	603	1027	0.74	756	
1600	693	0.32	327	754	0.38	388	867	0.52	531	963	0.65	664	1052	0.81	828	
1700	729	0.38	388	787	0.44	450	895	0.58	593	991	0.73	746	1075	0.88	899	
1800	765	0.45	460	821	0.51	521	923	0.65	664	1019	0.81	828	1099	0.96	981	
1900	802	0.52	531	854	0.58	593	953	0.73	746	1046	0.90	920	1126	1.06	1083	
2000	840	0.60	613	900	0.66	674	984	0.82	838	1073	0.99	1012	1154	1.16	1185	
2100	878	0.69	705	923	0.75	766	1015	0.91	930	1101	1.08	1104	1182	1.27	1298	
2200	916	0.78	797	958	0.85	869	1046	1.01	1032	1129	1.19	1216	1209	1.39	1420	
2300	954	0.89	910	993	0.96	981	1079	1.13	1155	1160	1.31	1339	1237	1.51	1543	
2400	993	1.00	1022	1029	1.07	1093	1112	1.25	1277	1190	1.43	1461	1264	1.63	1666	
2500	1031	1.13	1155	1066	1.20	1226	1145	1.39	1420	1220	1.57	1604	1292	1.77	1809	

548F060 (5 TONS) — ALTERNATE MOTOR (BELT DRIVE)* (cont)

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

LEGEND

NOTES:

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

- Boldface** indicates field-supplied drive is required.
- Shaded box** indicates field-supplied motor and drive are required.
- Maximum usable watts input is 2120 and maximum continuous bhp is 1.30 for single-phase units and 2.40 for 3-phase units.

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

Refer to page 51 for general Fan Performance notes.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

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	789	0.40	420	896	0.53	557	990	0.67	704	1072	0.83	872	1153	1.00	1051
1600	826	0.46	483	931	0.61	641	1020	0.75	788	1101	0.91	956	1178	1.09	1145
1700	865	0.54	567	966	0.69	725	1051	0.84	883	1133	1.01	1061	1205	1.18	1240
1800	905	0.62	661	1002	0.78	820	1084	0.93	977	1163	1.10	1156	1235	1.29	1355
1900	945	0.72	757	1037	0.88	925	1119	1.04	1093	1194	1.21	1271	1266	1.40	1471
2000	984	0.82	862	1072	0.98	1030	1154	1.16	1219	1226	1.33	1397	1297	1.53	1608
2100	1024	0.93	977	1108	1.10	1156	1192	1.29	1355	1259	1.47	1545	1327	1.66	1744
2200	1064	1.05	1103	1145	1.22	1282	1225	1.43	1503	1294	1.62	1702	1359	1.80	1902
2300	1104	1.18	1240	1183	1.36	1429	1260	1.57	1650	1330	1.78	1870	1392	1.97	2070
2400	1145	1.32	1387	1222	1.45	1524	1296	1.73	1818	1365	1.94	2038	1426	2.15	2259
2500	1186	1.48	1555	1262	1.68	1765	1331	1.89	1986	1400	2.12	2227	1461	2.34	2459

548F060 (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	1221	1.17	1229	1256	1.30	1366	1283	1.32	1387	1303	1.22	1282	1345	1.34	1390
1600	1252	1.27	1334	1311	1.45	1524	1340	1.58	1660	1330	1.61	1692	1373	1.77	1834
1700	1278	1.37	1439	1345	1.57	1650	1397	1.76	1849	1424	1.89	1986	1470	2.08	2153
1800	1303	1.48	1555	1371	1.69	1776	1433	1.90	1996	1480	2.09	2196	1528	2.30	2381
1900	1330	1.59	1671	1396	1.80	1902	1460	2.03	2133	1517	2.25	2364	1566	2.47	2563
2000	1362	1.73	1818	1422	1.94	2038	1485	2.16	2270	1544	2.40	2522	1594	2.64	2734
2100	1393	1.87	1965	1452	2.08	2185	1510	2.31	2427	1570	2.55	2674	1620	2.80	2905
2200	1423	2.02	2122	1483	2.24	2354	1538	2.46	2585	1594	2.71	2821	1645	2.98	3087
2300	1454	2.18	2291	1515	2.41	2532	1571	2.64	2758	1623	2.88	2976	1675	3.17	3280
2400	1485	2.36	2480	1544	2.59	2721	1604	2.84	2947	1657	3.07	3152	1710	3.38	3497
2500	1518	2.55	2679	1574	2.78	2905	1633	3.03	3134	1692	3.28	3345	1746	3.61	3736

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 2.9 and the maximum continuous watts are 2562.

*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.
Refer to page 51 for general Fan Performance notes.

548F072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.1			0.2			0.4			0.6			0.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	765	0.45	487	821	0.51	532	923	0.65	638	1019	0.81	843	1099	0.96	883
1900	802	0.45	539	854	0.58	585	953	0.73	700	1046	0.90	835	1126	1.06	965
2000	840	0.60	600	888	0.66	646	984	0.82	771	1073	0.99	907	1154	1.16	1047
2100	878	0.69	669	923	0.75	716	1015	0.91	843	1101	1.08	981	1182	1.27	1140
2200	916	0.78	739	958	0.85	795	1046	1.01	924	1129	1.19	1072	1209	1.39	1241
2300	954	0.89	827	993	0.96	883	1079	1.13	1022	1160	1.31	1173	1237	1.51	1344
2400	993	1.00	916	1029	1.07	973	1112	1.25	1123	1190	1.43	1275	1264	1.63	1447
2500	1031	1.13	1022	1066	1.20	1081	1145	1.39	1241	1220	1.57	1396	1292	1.77	1569
2600	1070	1.26	1131	1103	1.34	1199	1179	1.52	1353	1251	1.71	1517	1322	1.92	1700
2700	1109	1.41	1258	1140	1.48	1318	1212	1.67	1482	1283	1.87	1656	1352	2.09	1849
2800	1148	1.57	1396	1177	1.64	1456	1246	1.83	1621	1316	2.04	1805	1383	2.26	1997
2900	1188	1.74	1543	1215	1.81	1604	1281	2.00	1770	1349	2.22	1962	1413	2.44	2154
3000	1227	1.92	1700	1253	2.00	1770	1316	2.19	1936	1382	2.42	2136	1444	2.63	2317

548F072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)* (cont)												
Airflow (Cfm)	External Static Pressure (in. wg)											
	1.0			1.2			1.4			1.6		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1178	1.14	1031	1249	1.32	1182	1316	1.52	1353	1382	1.72	1526
1900	1201	1.23	1106	1274	1.43	1275	1338	1.62	1439	1402	1.83	1621
2000	1226	1.33	1190	1297	1.53	1361	1363	1.73	1534	1424	1.94	1718
2100	1252	1.45	1292	1320	1.64	1456	1388	1.85	1639	1448	2.07	1831
2200	1280	1.58	1404	1345	1.77	1569	1410	1.97	1744	1473	2.20	1945
2300	1309	1.71	1517	1372	1.91	1691	1434	2.11	1866	1496	2.34	2067
2400	1336	1.85	1639	1400	2.06	1823	1459	2.26	1997	1519	2.48	2188
2500	1363	2.00	1770	1428	2.22	1962	1486	2.43	2145	1543	2.65	2335
2600	1390	2.15	1901	1456	2.38	2102	1514	2.61	2300	1569	2.83	2487
2700	1418	2.31	2041	1483	2.56	2257	1543	2.80	2462	—	—	—
2800	1446	2.48	2188	1510	2.73	2403	—	—	—	—	—	—
2900	1476	2.67	2352	1537	2.92	2562	—	—	—	—	—	—
3000	1506	2.88	2529	—	—	—	—	—	—	—	—	—

LEGEND

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

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

*Motor drive range: 1070 to 1460 rpm. All other rpms require field-supplied drive.
Refer to page 51 for general Fan Performance notes.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

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	942	0.73	700	1047	0.90	835	1139	1.05	956	1193	1.14	1031	1276	1.30	1165
1900	982	0.83	779	1084	1.02	932	1160	1.11	1006	1223	1.24	1114	1301	1.38	1233
2000	1022	0.94	867	1121	1.12	1014	1188	1.22	1097	1254	1.36	1216	1329	1.44	1284
2100	1063	1.10	998	1140	1.18	1064	1196	1.27	1140	1272	1.45	1292	1354	1.58	1404
2200	1104	1.20	1081	1159	1.23	1106	1229	1.41	1258	1306	1.53	1361	1363	1.70	1508
2300	1130	1.27	1140	1196	1.37	1224	1264	1.56	1387	1340	1.66	1473	1397	1.86	1648
2400	1174	1.37	1224	1245	1.57	1396	1305	1.63	1447	1373	1.84	1630	1440	1.95	1726
2500	1201	1.50	1335	1284	1.65	1465	1338	1.75	1552	1402	1.99	1761	1469	2.04	1805
2600	1246	1.67	1482	1312	1.76	1560	1366	1.96	1735	1435	2.10	1858	1494	2.19	1936
2700	1285	1.80	1595	1354	1.95	1726	1403	2.14	1892	1474	2.21	1954	1536	2.46	2171
2800	1304	1.85	1639	1374	2.12	1875	1459	2.25	1989	1514	2.42	2136	1570	2.66	2343
2900	1345	2.05	1814	1412	2.32	2050	1496	2.54	2240	1529	2.61	2300	1603	2.87	2521
3000	1378	2.30	2032	1451	2.40	2119	1534	2.66	2343	1560	2.81	2470	1611	3.01	2648

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	1341	1.40	1250	1413	1.55	1378	1474	1.58	1404	1522	1.74	1564	1566	1.89	1704
1900	1374	1.53	1361	1437	1.62	1439	1490	1.67	1482	1538	1.84	1653	1583	2.00	1801
2000	1396	1.66	1473	1460	1.68	1491	1509	1.77	1569	1558	1.95	1752	1603	2.12	1909
2100	1413	1.75	1552	1475	1.73	1534	1529	1.92	1700	1578	2.11	1901	1624	2.30	2070
2200	1434	1.81	1604	1487	1.85	1639	1554	2.07	1831	1604	2.28	2049	1651	2.48	2232
2300	1459	1.88	1665	1520	2.07	1831	1576	2.24	1980	1627	2.46	2218	1674	2.68	2415
2400	1502	2.06	1823	1552	2.24	1980	1604	2.42	2136	1656	2.66	2396	1704	2.90	2609
2500	1524	2.24	1980	1585	2.42	2136	1638	2.60	2292	1691	2.86	2574	1740	3.12	2804
2600	1552	2.40	2119	1616	2.63	2317	1671	2.80	2462	1725	3.08	2772	1775	3.35	3019
2700	1584	2.61	2300	1646	2.83	2487	1706	2.97	2653	1761	3.27	2941	—	—	—
2800	1624	2.85	2504	1677	2.99	2661	1739	3.33	2998	1795	3.67	3299	—	—	—
2900	1671	3.03	2725	1742	3.43	3090	—	—	—	—	—	—	—	—	—
3000	1692	3.49	3140	1764	3.95	3558	—	—	—	—	—	—	—	—	—

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.

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 2.9 and the maximum continuous watts are 2562.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE AND ALTERNATE DRIVE (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	473	554	0.64	630	630	0.86	803	695	1.09	989	757	1.34	1199
2300	471	0.45	487	559	0.66	646	635	0.89	827	699	1.12	1014	760	1.37	1224
2400	482	0.50	524	569	0.71	684	645	0.95	875	708	1.18	1064	768	1.44	1284
2500	494	0.54	554	581	0.76	723	654	1.01	924	717	1.25	1123	776	1.51	1344
2550	501	0.57	577	587	0.79	747	659	1.05	956	722	1.29	1156	780	1.55	1378
2660	507	0.59	592	592	0.82	771	663	1.08	981	727	1.32	1182	784	1.58	1404
2700	520	0.65	638	604	0.89	827	672	1.14	1031	737	1.40	1250	793	1.66	1473
2800	533	0.71	684	615	0.95	875	683	1.20	1081	747	1.49	1327	802	1.75	1552
2900	546	0.77	731	626	1.02	932	693	1.27	1140	756	1.57	1396	813	1.84	1630
3000	559	0.83	779	637	1.09	989	704	1.35	1207	765	1.66	1473	823	1.94	1718
3100	572	0.90	835	648	1.17	1056	715	1.43	1275	775	1.74	1543	832	2.05	1814
3200	585	0.96	883	660	1.24	1114	727	1.52	1353	785	1.83	1621	841	2.15	1901
3300	598	1.03	940	671	1.32	1182	739	1.62	1439	795	1.91	1691	851	2.26	1997
3400	610	1.10	998	682	1.41	1258	750	1.72	1526	806	2.01	1779	860	2.36	2084
3500	623	1.17	1056	694	1.50	1335	761	1.82	1613	817	2.11	1866	870	2.47	2180
3600	636	1.25	1123	707	1.60	1422	772	1.93	1709	828	2.23	1971	880	2.57	2266
3700	649	1.33	1190	720	1.71	1517	783	2.03	1796	840	2.35	2076	890	2.69	2369
3750	655	1.37	1224	727	1.77	1569	789	2.09	1849	846	2.42	2136	896	2.75	2420

548F090 (7½ TONS) — STANDARD MOTOR AND DRIVE AND ALTERNATE DRIVE (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	810	1.62	1439	850	1.91	1691	873	2.20	1945	883	2.50	2206	895	2.78	2445
2300	816	1.65	1465	859	1.94	1718	888	2.24	1980	903	2.55	2249	911	2.85	2504
2400	824	1.72	1526	872	2.01	1779	909	2.32	2050	931	2.64	2326	935	2.96	2595
2500	832	1.79	1587	882	2.09	1849	925	2.40	2119	955	2.72	2394	972	3.06	2678
2550	836	1.83	1621	887	2.13	1884	931	2.45	2162	964	2.77	2436	986	3.11	2718
2660	839	1.87	1656	891	2.17	1919	936	2.49	2197	973	2.82	2479	999	3.16	2759
2700	846	1.95	1726	898	2.26	1997	946	2.58	2275	987	2.91	2554	1019	3.26	2839
2800	855	2.04	1805	906	2.35	2076	954	2.67	2352	997	3.01	2637	1034	3.36	2917
2900	863	2.13	1884	913	2.44	2154	961	2.77	2436	1006	3.12	2727	—	—	—
3000	872	2.22	1962	921	2.54	2240	969	2.88	2529	1014	3.22	2807	—	—	—
3100	882	2.33	2058	930	2.65	2335	976	2.99	2620	1021	3.34	2902	—	—	—
3200	892	2.45	2162	939	2.76	2428	984	3.10	2710	—	—	—	—	—	—
3300	902	2.57	2266	948	2.88	2529	993	3.21	2799	—	—	—	—	—	—
3400	912	2.69	2369	958	3.01	2637	1002	3.34	2902	—	—	—	—	—	—
3500	921	2.82	2479	968	3.15	2751	—	—	—	—	—	—	—	—	—
3600	930	2.95	2587	978	3.29	2862	—	—	—	—	—	—	—	—	—
3700	940	3.07	2686	—	—	—	—	—	—	—	—	—	—	—	—
3750	945	3.14	2743	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

*Motor drive range: 590 to 840 rpm. Alternate motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates high-static motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F090 (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	507	0.53	547	586	0.73	700	658	0.97	891	722	1.22	1097	783	1.46	1301
2300	513	0.55	562	592	0.76	723	663	1.00	916	727	1.26	1131	786	1.49	1327
2400	528	0.60	600	606	0.83	779	674	1.06	965	738	1.34	1199	795	1.58	1404
2500	542	0.68	648	619	0.90	835	686	1.13	1022	748	1.41	1258	806	1.68	1491
2550	550	0.69	669	627	0.94	867	692	1.17	1056	754	1.45	1292	812	1.74	1543
2660	557	0.72	692	634	0.97	891	698	1.21	1089	759	1.49	1327	816	1.79	1587
2700	573	0.79	747	648	1.05	956	711	1.29	1156	770	1.58	1404	827	1.88	1665
2800	588	0.86	803	662	1.13	1022	723	1.38	1233	782	1.66	1473	837	1.98	1763
2900	604	0.94	867	676	1.21	1089	737	1.48	1318	794	1.76	1560	849	2.08	1840
3000	620	1.02	932	690	1.30	1165	750	1.58	1404	806	1.86	1648	849	2.18	1927
3100	636	1.11	1006	704	1.39	1241	764	1.69	1499	818	1.97	1744	870	2.29	2023
3200	652	1.21	1089	718	1.49	1327	778	1.90	1595	831	2.09	1849	882	2.40	2119
3300	668	1.31	1173	732	1.59	1413	793	1.92	1700	844	2.21	1954	894	2.53	2232
3400	684	1.41	1258	747	1.70	1508	807	2.04	1805	857	2.35	2076	907	2.66	2343
3500	701	1.53	1361	762	1.82	1613	821	2.16	1910	871	2.48	2188	919	2.80	2462
3600	717	1.65	1465	777	1.94	1718	835	2.29	2023	885	2.63	2317	932	2.95	2587
3700	733	1.77	1569	792	2.07	1831	849	2.42	2136	899	2.78	2445	945	3.11	2718
3750	742	1.84	1630	800	2.14	1892	856	2.49	2197	907	2.86	2512	952	3.20	2719

548F090 (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	843	1.81	1604	908	2.25	1989	955	2.59	2283	991	2.89	2543	1023	3.19	2805
2300	846	1.84	1630	910	2.25	2015	959	2.61	2300	995	2.91	2563	1028	3.21	2827
2400	853	1.88	1665	912	2.31	2041	967	2.68	2360	1003	2.99	2631	1036	3.30	2902
2500	859	1.94	1718	919	2.37	2093	971	2.73	2403	1007	3.05	2681	1041	3.36	2956
2550	864	1.99	1761	920	2.39	2110	974	2.76	2428	1010	3.08	2710	1044	3.40	2989
2660	868	2.04	1805	921	2.41	2136	976	2.78	2445	1012	3.10	2730	1046	3.42	3011
2700	878	2.16	1910	928	2.45	2162	983	2.88	2529	1020	3.21	2828	1053	3.54	3119
2800	889	2.29	2023	937	2.57	2266	986	2.91	2554	1023	3.25	2857	1057	3.58	3181
2900	900	2.41	2128	947	2.70	2377	993	3.01	2637	1030	3.36	2955	1064	3.70	3260
3000	910	2.52	2223	958	2.85	2504	1002	3.15	2751	1039	3.51	3093	1074	3.88	3411
3100	920	2.64	2326	968	2.99	2620	1012	3.30	2870	1050	3.68	3240	1084	4.06	3574
3200	931	2.76	2428	979	3.13	2735	1023	3.47	3002	1061	3.87	3407	—	—	—
3300	942	2.89	2537	989	3.26	2839	1034	3.63	3121	1072	4.05	3564	—	—	—
3400	954	3.02	2645	1000	3.40	2948	1044	3.79	3237	—	—	—	—	—	—
3500	966	3.15	2751	1011	3.55	3062	1054	3.94	3340	—	—	—	—	—	—
3600	978	3.30	2870	1022	3.69	3165	1065	4.10	3445	—	—	—	—	—	—
3700	990	3.45	2987	1034	3.84	3272	—	—	—	—	—	—	—	—	—
3750	997	3.54	3055	1040	3.93	3333	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 3.7 and the maximum continuous watts are 3313.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F036-120

548F102 (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
2550	501	0.57	577	587	0.79	747	659	1.05	956	722	1.29	1156	780	1.55	1378
2660	507	0.59	592	592	0.82	771	663	1.08	981	727	1.32	1182	784	1.58	1404
2700	520	0.65	638	604	0.89	827	672	1.14	1031	737	1.40	1250	793	1.66	1473
2800	533	0.71	684	615	0.95	875	683	1.20	1081	747	1.49	1327	802	1.75	1552
2900	546	0.77	731	626	1.02	932	693	1.27	1140	756	1.57	1396	813	1.84	1630
3000	559	0.83	779	637	1.09	989	704	1.35	1207	765	1.66	1473	823	1.94	1718
3100	572	0.90	835	648	1.17	1056	715	1.43	1275	775	1.74	1543	832	2.05	1814
3200	585	0.96	883	660	1.24	1114	727	1.52	1353	785	1.83	1621	841	2.15	1901
3300	598	1.03	940	671	1.32	1182	739	1.62	1439	795	1.91	1691	851	2.26	1997
3400	610	1.10	998	682	1.41	1258	750	1.72	1526	806	2.01	1779	860	2.36	2084
3500	623	1.17	1056	694	1.50	1335	761	1.82	1613	817	2.11	1866	870	2.47	2180
3600	636	1.25	1123	707	1.60	1422	772	1.93	1709	828	2.23	1971	880	2.57	2266
3700	649	1.33	1190	720	1.71	1517	783	2.03	1796	840	2.35	2076	890	2.69	2369
3750	655	1.37	1224	727	1.77	1569	789	2.09	1849	846	2.42	2136	896	2.75	2420
3800	661	1.41	1258	733	1.82	1613	795	2.15	1901	852	2.48	2188	901	2.80	2462
3900	674	1.49	1327	746	1.93	1709	806	2.26	1997	863	2.61	2300	912	2.93	2571
4000	687	1.57	1396	759	2.05	1814	817	2.38	2102	874	2.75	2420	923	3.08	2694
4100	699	1.60	1473	772	2.17	1919	828	2.50	2206	885	2.88	2529	935	3.23	2815
4200	712	1.75	1552	785	2.30	2032	840	2.64	2326	897	3.03	2653	947	3.39	2940
4250	719	1.80	1595	792	2.37	2093	846	2.71	2386	903	3.10	2710	—	—	—

548F102 (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
2550	836	1.83	1621	887	2.13	1884	931	2.45	2162	964	2.77	2436	986	3.11	2718
2660	839	1.87	1656	891	2.17	1919	936	2.49	2197	973	2.82	2479	999	3.16	2759
2700	846	1.95	1726	898	2.26	1997	946	2.58	2275	987	2.91	2554	1019	3.26	2839
2800	855	2.04	1805	906	2.35	2076	954	2.67	2352	997	3.01	2637	1034	3.36	2917
2900	863	2.13	1884	913	2.44	2154	961	2.77	2436	1006	3.12	2727	—	—	—
3000	872	2.22	1962	921	2.54	2240	969	2.88	2529	1014	3.22	2807	—	—	—
3100	882	2.33	2058	930	2.65	2335	976	2.99	2620	1021	3.34	2902	—	—	—
3200	892	2.45	2162	939	2.76	2428	984	3.10	2710	—	—	—	—	—	—
3300	902	2.57	2266	948	2.88	2529	993	3.21	2799	—	—	—	—	—	—
3400	912	2.69	2369	958	3.01	2637	1002	3.34	2902	—	—	—	—	—	—
3500	921	2.82	2479	968	3.15	2751	—	—	—	—	—	—	—	—	—
3600	930	2.95	2587	978	3.29	2862	—	—	—	—	—	—	—	—	—
3700	940	3.07	2686	—	—	—	—	—	—	—	—	—	—	—	—
3750	945	3.14	2743	—	—	—	—	—	—	—	—	—	—	—	—
3800	949	3.20	2781	—	—	—	—	—	—	—	—	—	—	—	—
3900	959	3.33	2894	—	—	—	—	—	—	—	—	—	—	—	—
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Shaded** indicates field-supplied motor and drive are required.
3. Maximum usable watts input is 2120 and maximum continuous bhp is 2.40.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F102 (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
2550	550	0.69	669	627	0.94	867	692	1.17	1056	754	1.45	1292	812	1.74	1543
2660	557	0.72	692	634	0.97	891	698	1.21	1089	759	1.49	1327	816	1.79	1587
2700	573	0.79	747	648	1.05	956	711	1.29	1156	770	1.58	1404	827	1.88	1665
2800	588	0.86	803	662	1.13	1022	723	1.38	1233	782	1.66	1473	837	1.98	1753
2900	604	0.94	867	676	1.21	1089	737	1.48	1318	794	1.76	1560	848	2.08	1840
3000	620	1.02	932	690	1.30	1165	750	1.58	1404	806	1.86	1648	849	2.18	1927
3100	636	1.11	1006	704	1.39	1241	764	1.69	1499	818	1.97	1744	870	2.29	2023
3200	652	1.21	1089	718	1.49	1327	778	1.80	1595	831	2.09	1849	882	2.40	2119
3300	668	1.31	1173	732	1.59	1413	793	1.92	1700	844	2.21	1954	894	2.53	2232
3400	684	1.41	1258	747	1.70	1508	807	2.04	1805	857	2.35	2076	907	2.66	2343
3500	701	1.53	1361	762	1.82	1613	821	2.16	1910	871	2.48	2188	919	2.80	2462
3600	717	1.65	1465	777	1.94	1718	835	2.29	2023	885	2.63	2317	932	2.95	2587
3700	733	1.77	1569	792	2.07	1831	849	2.42	2136	899	2.78	2445	945	3.11	2718
3750	742	1.84	1630	800	2.14	1892	856	2.49	2197	907	2.86	2512	952	3.20	2719
3800	750	1.90	1683	807	2.21	1954	863	2.56	2257	914	2.93	2571	958	3.28	2854
3900	767	2.04	1805	822	2.35	2076	877	2.71	2386	928	3.09	2702	972	3.45	2987
4000	783	2.18	1927	838	2.50	2206	891	2.86	2512	942	3.26	2839	986	3.63	3121
4100	800	2.34	2067	854	2.66	2343	905	3.02	2645	956	3.43	2971	1000	3.81	3251
4200	817	2.49	2197	869	2.82	2479	920	3.19	2783	970	3.60	3099	1015	4.00	3380
4250	826	2.58	2275	877	2.91	2554	928	3.28	2854	977	3.69	3165	1022	4.10	3445

548F102 (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
2550	864	1.99	1761	920	2.39	2110	974	2.76	2428	1005	3.04	2672	1034	3.31	2910
2660	868	2.04	1805	921	2.41	2136	976	2.78	2445	1008	3.06	2691	1037	3.33	2931
2700	878	2.16	1910	928	2.45	2162	983	2.88	2529	1015	3.17	2788	1044	3.45	3036
2800	889	2.29	2023	937	2.57	2266	986	2.91	2554	1018	3.20	2817	1047	3.49	3068
2900	900	2.41	2128	947	2.70	2377	993	3.01	2637	1025	3.31	2914	1055	3.61	3174
3000	910	2.52	2223	958	2.85	2504	1002	3.15	2751	1034	3.47	3049	1064	3.77	3321
3100	920	2.64	2326	968	2.99	2620	1012	3.30	2870	1045	3.63	3195	1075	3.95	3479
3200	931	2.76	2428	979	3.13	2735	1023	3.47	3002	1056	3.82	3359	1087	4.16	3659
3300	942	2.89	2537	989	3.26	2839	1034	3.63	3121	1067	3.99	3514	—	—	—
3400	954	3.02	2645	1000	3.40	2948	1044	3.79	3237	1078	4.17	3669	—	—	—
3500	966	3.15	2751	1011	3.55	3062	1054	3.94	3340	—	—	—	—	—	—
3600	978	3.30	2870	1022	3.69	3165	1065	4.10	3445	—	—	—	—	—	—
3700	990	3.45	2987	1034	3.84	3272	—	—	—	—	—	—	—	—	—
3750	997	3.54	3055	1040	3.93	3333	—	—	—	—	—	—	—	—	—
3800	1003	3.62	3114	1045	4.01	3387	—	—	—	—	—	—	—	—	—
3900	1015	3.80	3244	1057	4.18	3495	—	—	—	—	—	—	—	—	—
4000	1028	3.99	3373	—	—	—	—	—	—	—	—	—	—	—	—
4100	1042	4.18	3495	—	—	—	—	—	—	—	—	—	—	—	—
4200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

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

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

Refer to page 51 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. **Grey background** indicates field-supplied motor and drive are required.
3. Maximum continuous bhp is 3.7 and the maximum continuous watts are 3313.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

548F120 (10 TONS)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	484	0.55	562	560	0.70	677	631	0.87	810	690	1.03	940	747	1.20	1081
3100	495	0.61	607	570	0.76	723	638	0.92	851	699	1.10	998	755	1.27	1140
3200	505	0.66	646	579	0.81	763	646	0.98	899	708	1.16	1047	761	1.34	1199
3300	516	0.72	692	589	0.87	810	655	1.05	956	717	1.23	1106	767	1.40	1250
3400	527	0.78	739	599	0.93	859	664	1.11	1006	724	1.30	1165	775	1.48	1318
3500	537	0.85	795	609	0.99	907	672	1.18	1064	731	1.36	1216	784	1.56	1387
3600	548	0.92	851	619	1.05	956	680	1.24	1114	738	1.43	1275	794	1.64	1456
3700	560	1.00	916	629	1.12	1014	688	1.31	1173	747	1.51	1344	802	1.73	1534
3800	571	1.08	981	639	1.19	1072	698	1.39	1241	756	1.60	1422	810	1.81	1604
3900	582	1.16	1047	649	1.27	1140	708	1.47	1310	764	1.69	1499	816	1.89	1674
4000	593	1.25	1123	659	1.35	1207	717	1.56	1387	773	1.78	1578	823	1.98	1753
4100	605	1.35	1207	670	1.44	1284	727	1.65	1465	781	1.86	1648	832	2.08	1840
4200	616	1.45	1292	680	1.53	1361	737	1.74	1543	789	1.95	1726	841	2.18	1927
4300	628	1.56	1387	690	1.63	1447	747	1.83	1621	798	2.05	1814	849	2.30	2032
4400	639	1.67	1482	701	1.73	1534	757	1.92	1700	807	2.16	1910	858	2.41	2177
4500	651	1.78	1578	712	1.84	1630	767	2.02	1788	817	2.27	2006	866	2.51	2265
4600	662	1.91	1691	722	1.95	1726	777	2.13	1884	827	2.38	2102	874	2.62	2362
4700	674	2.03	1796	733	2.07	1831	787	2.24	1980	836	2.50	2256	882	2.73	2460
4800	686	2.17	1919	744	2.20	1945	797	2.36	2084	846	2.62	2362	891	2.85	2569
4900	698	2.31	2041	755	2.33	2058	808	2.48	2238	856	2.73	2460	900	2.99	2698
5000	710	2.45	2212	766	2.47	2230	818	2.61	2353	866	2.86	2578	910	3.12	2819

548F120 (10 TONS)* (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	800	1.38	1233	850	1.52	1353	879	1.38	1233	925	1.81	1604	964	1.92	1761
3100	805	1.44	1284	857	1.63	1447	896	1.66	1473	935	1.93	1709	975	1.98	1811
3200	812	1.51	1344	862	1.71	1517	908	1.85	1639	944	2.01	1836	984	2.09	1903
3300	819	1.59	1413	867	1.78	1578	915	1.98	1753	952	2.11	1920	993	2.22	2014
3400	827	1.67	1482	873	1.85	1639	920	2.07	1831	963	2.21	2005	1001	2.31	2091
3500	833	1.75	1552	880	1.94	1718	926	2.15	1901	970	2.41	2134	1007	2.46	2221
3600	840	1.83	1621	888	2.04	1805	931	2.23	1971	976	2.47	2230	1017	2.62	2362
3700	847	1.92	1700	895	2.13	1884	938	2.33	2108	981	2.56	2309	1024	2.77	2496
3800	856	2.02	1788	901	2.23	1971	945	2.44	2203	986	2.65	2389	1029	2.89	2605
3900	865	2.12	1875	908	2.32	2050	953	2.55	2300	993	2.75	2478	1034	3.00	2707
4000	875	2.22	1962	915	2.42	2186	960	2.65	2389	1000	2.87	2587	1039	3.10	2800
4100	883	2.32	2050	924	2.54	2291	966	2.76	2487	1008	2.99	2698	1046	3.21	2904
4200	889	2.41	2177	934	2.65	2389	972	2.87	2587	1015	3.12	2819	1053	3.34	3029
4300	896	2.51	2265	943	2.77	2406	980	2.99	2698	1021	3.23	2923	1061	3.48	3166
4400	903	2.62	2362	951	2.89	2603	990	3.12	2819	1028	3.36	3049	1068	3.61	3241
4500	912	2.74	2469	958	3.00	2707	999	3.26	2982	1035	3.51	3161	1074	3.74	3346
4600	921	2.87	2587	965	3.11	2810	1008	3.39	3078	1041	3.68	3295	1081	3.90	3450
4700	930	3.00	2707	972	3.23	2923	1017	3.45	3224	1048	3.80	3436	1088	4.13	3552
4800	938	3.14	2838	980	3.37	3058	1025	3.55	3362	1055	3.85	3584	1095	4.30	3653
4900	946	3.27	2962	990	3.51	3149	1034	3.71	3505	1062	3.98	3741	1101	4.45	3753
5000	954	3.39	3078	998	3.62	3271	1042	3.85	3654	1068	4.08	3907	1108	4.59	3851

LEGEND

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

*Standard motor drive range: 685 to 935 rpm. Alternate motor drive range: 835 to 1085 rpm. High static motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

Refer to this page for general Fan Performance notes.

NOTES:

1. **Boldface** indicates field-supplied drive is required.
2. indicates high-static motor and drive are required.
3. Maximum usable watts input is 2120 with standard motor, 2615 with alternate motor, and 4400 for the high-static motor. Maximum continuous bhp is 2.40 with standard motor, 2.90 with alternate motor and 5.25 with high-static motor.

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 55.
2. Values include losses for filters, unit casing, and wet coils. See page 52 for accessory/FIOP (factory-installed option) 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. (Belt drive units only.)

PERFORMANCE DATA (cont)

ACCESSORY/FIOP 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
Durablade Economizer Accessory	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
EconoMiSer	0.05	0.09	0.13	0.17	0.22	0.27	0.32	0.39	0.45	0.53

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	3000	3500	4000	4500	5000	5500	6000	6250
1 Heater Module	0.02	0.03	0.05	0.07	0.08	0.10	0.12	0.14	0.16	0.17
2 Heater Modules	0.03	0.05	0.07	0.09	0.12	0.14	0.16	0.19	0.21	0.20
Durablade Economizer Accessory	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.09
EconoMiSer	0.07	0.09	0.13	0.18	0.23	0.30	0.36	—	—	—

LEGEND

FIOP — Factory-Installed Option

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

FAN RPM AT MOTOR PULLEY SETTINGS* — 548F036-120

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†	1185	1150	1115	1080	1045	1010	975	940	905	870	835	—	—
048**	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
060†	1300	1260	1220	1180	1140	1100	1060	1020	980	940	900	—	—
060**	1685	1589	1557	1525	1493	1460	1428	1396	1364	1332	1300	—	—
072††	1460	1420	1380	1345	1305	1265	1225	1185	1150	1110	1070	—	—
072**	1685	1589	1557	1525	1493	1460	1428	1396	1364	1332	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	—	—
102††	935	910	885	860	835	810	785	760	735	710	685	—	—
102**	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.

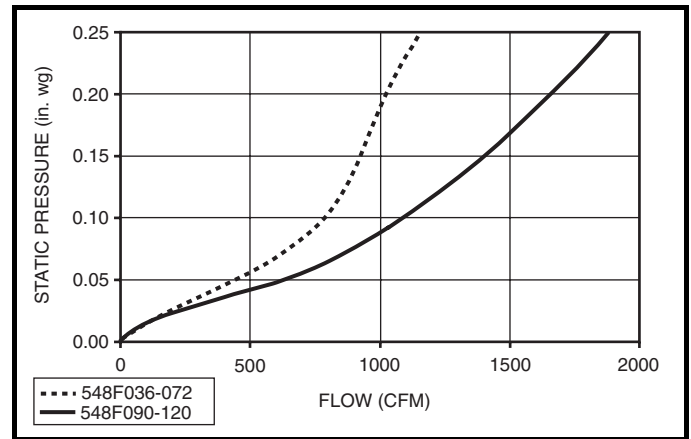
***Indicates alternate drive package only.

PERFORMANCE DATA (cont)

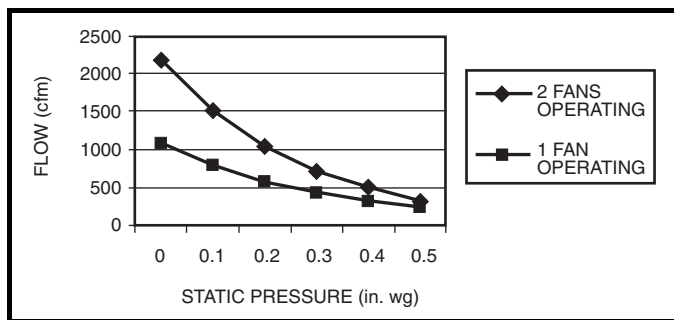
OPTIONAL POWER EXHAUST POWER REQUIREMENTS

UNIT SIZE	AMPS @ 230 V (2 Fans Running)	MOCP		
		230 VAC	460 VAC	575 VAC
548F036-072	1.40 Amps @ 60 Hz	15.0 amps	15.0 amps	15.0 amps
548F090-120	3.04 Amps @ 60 Hz			

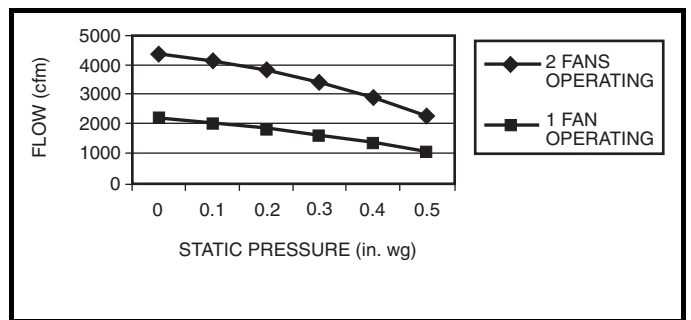
MOCP — Maximum Overcurrent Protection



**EconoMiSer Barometric Relief
Damper Characteristics**



**EconoMiSer Power Exhaust Performance
(548F036-072)**



**EconoMiSer Power Exhaust Performance
(548F090-120)**

PERFORMANCE DATA (cont)

ELECTRIC HEATING CAPACITIES

UNIT 548F	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	ACCESSORY SINGLE POINT BOX PART NO. CRSINGLE---A00
036	208/230 (single phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
		13.0*	102*	004
	208/230 (3 phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
048	208/230 (single phase)	6.0	106	—
		8.8	107	—
		11.5	108	—
		14.0	109	—
		16.0	105	—
	208/230 (3 phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
060	208/230 (single phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
		13.0*	102*	004
	208/230 (3 phase)	17.4*	103*	004
		21.0*	104*	004
		23.0*	108*	—
		25.5*	109,108	—

UNIT 548F	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	ACCESSORY SINGLE POINT BOX PART NO. CRSINGLE---A00
072	208/230 (3 phase)	6.5	102	—
		10.5	104	—
		16.0	105	—
		21.0*	104*	002
		26.5*	105,104	002
	460 (3 phase)	6.0	106	—
		11.5	108	—
		14.0	109	—
		23.0*	108*	—
090,102	208/230 (3 phase)	25.5*	109,108	—
		10.4	117	006
		16.0	110	006
		24.8	111	007
		32.0	112	007
	460 (3 phase)	42.4*	112,117	009
		13.9	116	006
		16.5	113	006
		27.8	114	006
120	208/230 (3 phase)	33.0	115	006
		41.7*	114,116	008
		10.4	117	012
		16.0	110	012
		32.0	112	012
	460 (3 phase)	42.4*	112,117	015
		50.0*	112,110	015
		16.5	113	011
		27.8	114	011

*Two heater packages required to provide kW indicated.

†On units with factory-installed outlet, use CRSINGLE014A00.

NOTES: The kW ratings shown above are at 240 and 480 v. Use the Multiplication Factors table to determine heater capacity for your particular voltage.

MULTIPLICATION FACTORS

HEATER RATING VOLTAGE	VOLTAGE DISTRIBUTION V-3-60	MULTIPLICATION FACTOR
240	200	0.69
	208	0.75
	230	0.92
	240	1.00
480	440	0.84
	460	0.92
	480	1.00
575	545	0.90
	575	1.00
	600	1.09

EXAMPLE: 32.0 kW (at 240 v) heater on 208 v
 = 32.0 (.75 mult factor)
 = 24.0 kW capacity at 208 v.

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

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	3.3	75
		460			1.8	
		575			1.8	
	Alternate	208/230	1.00	1000	5.1	
		460			2.2	
		575			2.2	
	High Static	208/230	2.40	2120	6.1	
		460			2.7	
		575			2.7	
048	Standard	208/230	0.75	850	3.1	75
		460			1.9	
		575			1.9	
	Alternate	208/230	1.00	1000	5.1	
		460			2.2	
		575			2.2	
	High Static	208/230	2.40	2120	6.1	
		460			2.7	
		575			2.7	
060	Standard	208/230	1.20	1340	6.2	74
		460			3.4	
		575			3.4	
	Alternate	208/230	1.30/2.40†	2120	9.2/6.1†	
		460			2.7	
		575			2.7	
	High Static	208/230	2.90	2562	6.1	
		460			2.7	
		575			2.7	
072	Standard	208/230	2.40	2120	6.1	84
		460			2.7	
		575			2.7	
	High Static	208/230	2.90	2562	7.9	
		460			3.6	
		575			3.6	
090	Standard, Alternate	208/230	2.40	2120	6.1	80
		460			2.7	
		575			2.7	
	High Static	208/230	3.70	3313	11.1	
		460			5.0	
		575			5.0	
102	Standard	208/230	2.40	2120	6.1	80
		460			2.7	
		575			2.7	
	High Static	208/230	3.70	3313	11.1	
		460			5.0	
		575			5.0	
120	Standard	208/230	2.40	2120	6.1	80
		460			2.7	
		575			2.7	
	Alternate	208/230	2.90	2615	7.9	
		460			3.6	
		575			3.6	
	High Static	208/230	5.25	4400	15.0	
		460			7.4	
		575			7.4	

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 **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	131/184
									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***
		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
		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
		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	12.1	20††	16	52
									8.8	10.6	21.4	25††	20	55
									11.5	13.8	25.4	30††	24	59
		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
		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
		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
	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
		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/ 45	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
		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/ 60††	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***

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

ELECTRICAL DATA (cont)
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	—	—	10.7	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	23.6/27.0	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***
		ALT	187	254	26.7	170.0	1.5	8.8	15.8/21.0	76.0/87.5	135.8/150.2	150/175	127/140	260/272***
									—	—	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***
	208/230-3-60	STD	187	254	15.4	124.0	1.5	5.9	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***
									—	—	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
		ALT	187	254	15.4	124.0	1.5	5.8	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***
									—	—	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
		HIGH-STATIC	187	254	15.4	124.0	1.5	7.5	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***
									—	—	28.3/ 28.3	30/ 30††	28/ 28	188/188
	460-3-60	STD	414	508	7.7	59.6	0.8	3.2	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***
		ALT	414	508	7.7	59.6	0.8	2.6	—	—	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
		HIGH-STATIC	414	508	7.7	59.6	0.8	3.4	25.5	30.7	52.0	60††	49	98
									—	—	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
	575-3-60	STD	518	632	6.2	49.4	0.8	3.2	23.0	27.7	47.7	50††	45	110
		ALT	518	632	6.2	49.4	0.8	2.6	25.5	30.7	51.4	60††	48	113
		HIGH-STATIC	518	632	6.2	49.4	0.8	3.4	—	—	13.8	15††	14	92
	575-3-60	STD	518	632	6.2	49.4	0.8	3.2	6.0	7.2	22.8	25††	22	99
		ALT	518	632	6.2	49.4	0.8	2.6	11.5	13.8	31.1	35††	30	105
		HIGH-STATIC	518	632	6.2	49.4	0.8	3.4	14.0	16.8	34.8	35††	33	108
	575-3-60	STD	518	632	6.2	49.4	0.8	3.2	23.0	27.7	48.5	50††	46	119
		ALT	518	632	6.2	49.4	0.8	2.6	25.5	30.7	52.2	60††	49	122
		HIGH-STATIC	518	632	6.2	49.4	0.8	3.4	—	—	11.0	15††	11	56
	575-3-60	STD	518	632	6.2	49.4	0.8	3.2	—	—	10.5	15††	10	67
		ALT	518	632	6.2	49.4	0.8	2.6	—	—	11.1	15††	11	75
		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 64.

ELECTRICAL DATA (cont)

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				
072 (6 Tons)	208/230-3-60	STD	187	254	22.7	146.0	1.4	5.8	—	—	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	187	254	22.7	146.0	1.4	7.5	—	—	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	414	508	11.4	73.0	0.7	2.6	—	—	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				
		HIGH-STATIC	414	508	11.4	73.0	0.7	3.4	—	—	18.4	20††	18	105				
									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					
575-3-60									STD	518	632	9.1	58.4	0.7	2.6	—	—	14.0
	HIGH-STATIC	518	632	9.1	58.4	0.7	3.4	—	—	14.7	15††	14	84					
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				
									7.8/10.5	21.7/ 25.0	65.9/ 70.0	70/ 80	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				
									7.8/10.5	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***				
	24.0/32.0								66.6/ 77.0	126.8/139.8	150/150	123/135	339/350***					
	31.8/42.4	88.3/102.0	153.9/171.1	175/175	148/164	361/375***												
	460-3-60	STD	414	508	6.7	42.0	0.7	2.6	—	—	19.1	20††	20	108				
									14.0	16.7	40.0	45††	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											
		HIGH-STATIC	414	508	6.7	42.0	0.7	4.8	—	—	21.3	25††	23	130				
									14.0	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***												
	575-3-60	STD	518	632	5.4	39.0	0.7	2.6	—	—	15.4	20††	16	97				
									17.0	17.1	36.7	40††	36	114				
									34.0	34.1	68.0	60††	55	131				
		HIGH-STATIC						518	632	5.4	39.0	0.7	4.8	—	—	17.1	20††	18
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 64.

ELECTRICAL DATA (cont)

UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET (cont)

548F036-120

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					
102 (8½ Tons)	208/230-3-60	STD	187	254	16.0	137.0	1.4	5.8	—	—	44.6/ 44.6	45/ 45††	47/ 47	321/321					
									7.8/10.5	21.7/ 25.0	71.7/ 75.9	80/ 80	72/ 75	343/346					
									12.0/16.0	33.3/ 38.5	86.2/ 92.7	90/100	85/ 91	354/360***					
									18.6/24.8	51.6/ 59.7	109.1/119.2	110/125	106/115	373/381***					
									24.0/32.0	66.6/ 77.0	127.9/140.9	150/150	123/135	388/398***					
									31.8/42.4	88.3/102.0	155.0/172.1	175/175	148/164	409/428***					
		HIGH-STATIC	187	254	16.0	137.0	1.4	10.6	—	—	49.4/ 49.4	50/ 50††	52/ 52	365/365					
									7.8/10.5	21.7/ 25.0	76.5/ 80.7	80/ 90	77/ 81	386/390***					
									12.0/16.0	33.3/ 38.5	91.0/ 97.5	100/100	91/ 96	398/403***					
									18.6/24.8	51.6/ 59.7	113.9/124.0	125/125	112/121	416/424***					
									24.0/32.0	66.6/ 77.0	132.7/145.7	150/150	129/141	431/442***					
									31.8/42.4	88.3/102.0	159.8/176.9	175/200	154/170	453/467***					
	460-3-60	STD	414	508	8.3	69.0	0.7	2.6	—	—	22.7	25††	24	162					
									14.0	16.7	43.6	45††	43	178					
									16.5	19.8	47.4	50††	46	182					
									27.8	33.4	64.4	70	62	195					
									33.0	39.7	72.3	80	69	201					
									41.7	50.2	85.4	90	81	212***					
		HIGH-STATIC	414	508	8.3	69.0	0.7	4.8	—	—	24.9	25††	26	184					
									14.0	16.7	45.8	50††	45	200					
									16.5	19.8	49.6	50††	49	203					
									27.8	33.4	66.6	70	65	217					
									33.0	39.7	74.5	80	72	223					
									41.7	50.2	87.6	90	84	234***					
	575-3-60	STD	518	632	6.4	58.0	0.7	2.6	—	—	17.6	20††	18	135					
									17.0	17.1	59.0	40††	38	152					
									34.0	34.1	60.2	70††	58	169					
		HIGH-STATIC											4.8	—	—	19.4	20††	20	152
														17.0	17.1	40.7	45††	40	170
34.0														34.1	62.0	70	60	187	
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	200/175	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	50††	39	135					
									34.0	34.1	61.4	70	59	152					
									51.0	51.2	69.9	70	78	169					
		ALT	518	632	6.9	49.4	0.7	3.4	—	—	19.4	20††	20	149					
									17.0	17.1	40.7	50††	40	166					
									34.0	34.1	62.0	70	60	183					
									51.0	51.2	70.6	80	79	201***					
		HIGH-STATIC	518	632	6.9	49.4	0.7	7.4	—	—	22.6	25††	24	145					
									17.0	17.1	43.9	45††	44	162					
									34.0	34.1	65.2	70	63	179					
									51.0	51.2	73.8	80	83	196***					

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

ELECTRICAL DATA (cont)

UNITS WITH 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	—	—	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	70/ 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	38.0/43.6	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/ 72	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	38.0/43.6	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	40/ 40††	34/ 35	100/101
									4.9/ 6.5	13.6/15.6	39.6/ 42.1	45/ 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	60/ 60††	48/ 52	113/116
		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
		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/ 50††	46/ 50	143/145
									7.9/10.5	21.9/25.3	52.2/ 56.5	60/ 60††	51/ 55	146/150
	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
		ALT	414	508	4.8	40.0	0.8	2.1	—	—	11.1	15††	11	50
									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
		HIGH-STATIC	414	508	4.8	40.0	0.8	2.6	—	—	11.6	15††	12	65
									6.0	7.2	20.6	25††	20	72
									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
	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
048 (4 Tons)	208/230-1-60	STD	187	254	29.1	132.0	1.5	3.5	—	—	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
									9.8/13.0	47.1/54.2	105.1/113.9	110/126	99/107	195/202
									13.1/17.4	63.0/72.5	124.1/136.8	125/150	117/128	211/220
		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
	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	120/107
									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
		ALT	187	254	16.8	91.0	1.5	4.9	—	—	32.2/ 32.2	35/ 35††	32/ 32	111/111
									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
		HIGH-STATIC	187	254	16.8	91.0	1.5	5.8	—	—	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
									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 64.

ELECTRICAL DATA (cont)

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
									11.5	13.8	33.3	35††	32	88
									14.0	16.8	37.1	40††	35	91
									23.0	27.7	50.7	60††	48	102
	575-3-60	STD	518	632	6.7	37.0	0.8	1.8	—	—	12.2	15††	12	44
		ALT	518	632	6.7	37.0	0.8	2.1	—	—	12.4	15††	12	45
		HIGH-STATIC	518	632	6.7	37.0	0.8	2.6	—	—	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	150/150	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/ 35††	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/ 90	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/ 90	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	30††	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	30††	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	34.8	35††	33	108
									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
		ALT	518	632	6.2	49.4	0.8	2.6	—	—	12.2	15††	12	69
		HIGH-STATIC	518	632	6.2	49.4	0.8	3.4	—	—	12.9	15††	13	77

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

ELECTRICAL DATA (cont)

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
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***
	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
		HIGH-STATIC	414	508	11.4	73.0	0.7	3.4	—	—	20.5	25††	20	107
									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
	575-3-60	STD	518	632	9.1	58.4	0.7	2.6	—	—	15.8	20††	16	78
									—	—	16.4	20††	16	85
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
									7.8/10.5	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***
		HIGH-STATIC	187	254	13.4	91.0	1.4	10.6	—	—	48.4/ 48.4	50/ 50††	52/ 52	277/277
									7.8/10.5	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***
	460-3-60	STD	414	508	6.7	42.0	0.7	2.6	—	—	21.3	25††	23	110
									14.0	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
		HIGH-STATIC	414	508	6.7	42.0	0.7	4.8	—	—	23.5	25††	25	132
									14.0	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
	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
		HIGH-STATIC	518	632	5.4	39.0	0.7	4.8	—	—	18.9	20††	20	116
									17.0	17.1	40.2	45††	40	133
									34.0	34.1	61.5	70	59	150

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

ELECTRICAL DATA (cont)

UNITS WITH ELECTRICAL CONVENIENCE OUTLET (cont)

548F036-120

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
102 (8½ Tons)	208/230-3-60	STD	187	254	16.0	137.0	1.4	5.8	—	—	44.6/ 49.9	50/ 50††	52/ 52	326/326
									7.8/10.5	21.7/ 25.0	76.5/ 80.7	80/ 90	77/ 81	348/351
									12.0/16.0	33.3/ 38.5	91.0/ 97.5	100/100	91/ 96	359/364
									18.6/24.8	51.6/ 59.7	113.9/124.0	125/125	112/121	377/386
									24.0/32.0	66.6/ 77.0	132.7/145.7	150/150	129/144	392/403
		HIGH-STATIC	187	254	16.0	137.0	1.4	10.6	31.8/42.4	88.3/102.0	154.8/176.9	175/200	154/170	414/428
									—	—	49.2/ 54.2	60/ 60††	58/ 58	369/369
									7.8/10.5	21.7/ 25.0	81.3/ 85.5	90/ 90	83/ 86	391/394***
									12.0/16.0	33.3/ 38.5	95.8/102.3	100/110	96/102	403/408***
									18.6/24.8	51.6/ 59.7	118.7/128.8	125/150	117/126	421/429***
	460-3-60	STD	414	508	8.3	69.0	0.7	2.6	—	—	24.9	25††	26	164
									14.0	16.7	45.7	50††	45	181
									16.5	19.8	49.6	50††	49	184
									27.8	33.4	66.6	70	65	197
									33.0	39.7	74.5	80	72	204
		HIGH-STATIC	414	508	8.3	69.0	0.7	4.8	41.7	50.2	87.6	90	84	214***
									—	—	24.9	30††	29	186
									14.0	16.7	47.9	50††	48	202
									16.5	19.8	51.8	60††	51	205
									27.8	33.4	68.8	70	67	219
	575-3-60	STD	518	632	6.4	58.0	0.7	2.6	33.0	39.7	76.7	80	74	225
									41.7	50.2	89.8	90	86	236***
									—	—	18.4	20††	20	137
									17.0	17.1	40.7	45††	40	154
		HIGH-STATIC	518	632	6.4	58.0	0.7	4.8	34.0	34.1	62.0	70	60	171
									—	—	20.6	25††	22	154
									17.0	17.1	42.5	45††	42	171
									34.0	34.1	63.7	70	62	188
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	93/101	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***
	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	80	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	85	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***
		ALT	518	632	6.9	49.4	0.7	3.4	—	—	21.1	25††	22	151
									17.0	17.1	42.5	45††	42	168
									34.0	34.1	63.7	70	62	185
									51.0	51.2	72.3	80	81	202***
		HIGH-STATIC	518	632	6.9	49.4	0.7	7.4	—	—	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***

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

ELECTRICAL DATA (cont)

LEGEND AND NOTES FOR ELECTRICAL TABLES

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



*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.

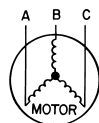
2. **Unbalanced 3-Phase Supply Voltage**

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

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

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

$$= 457$$

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.

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

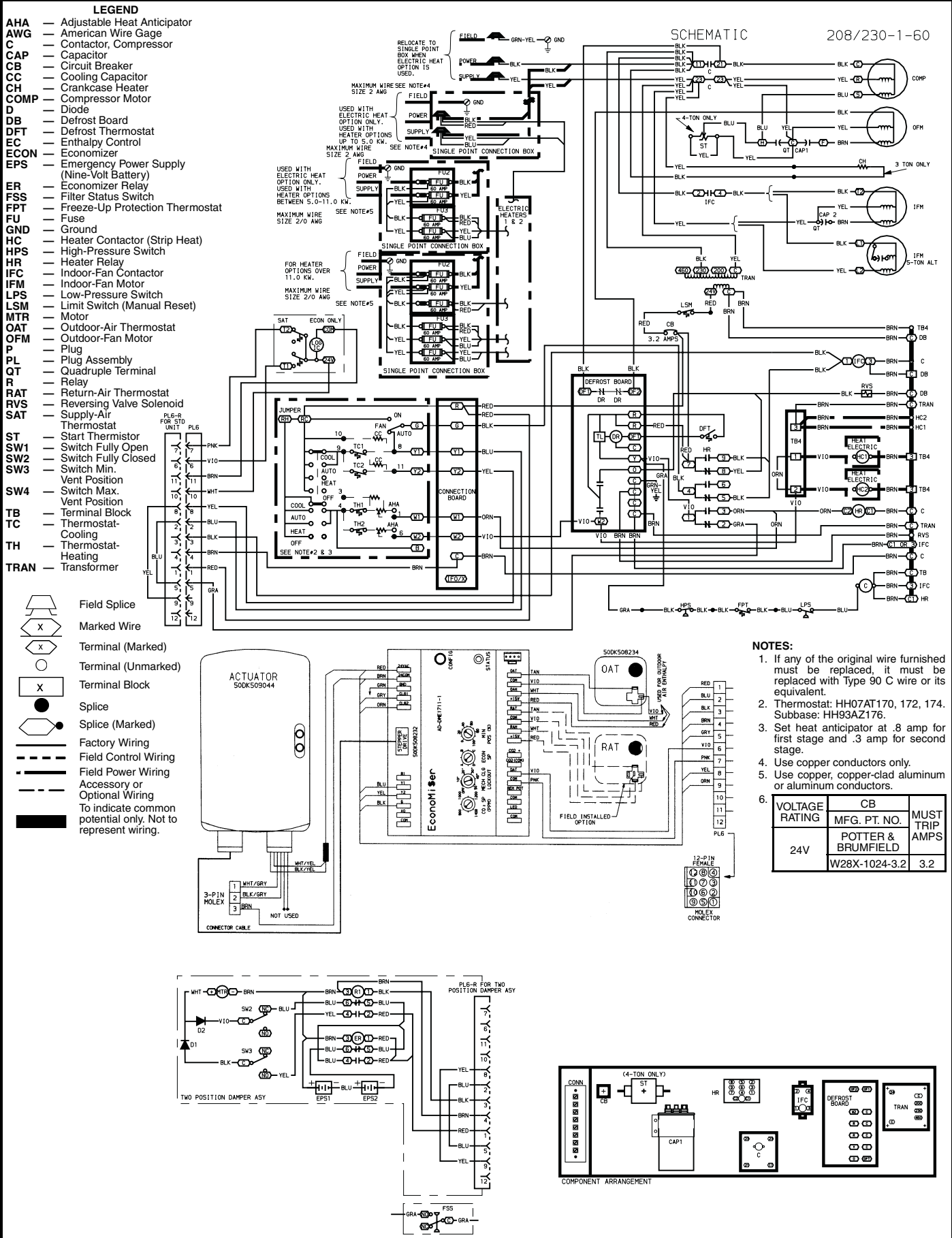
$$= 1.53\%$$

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.

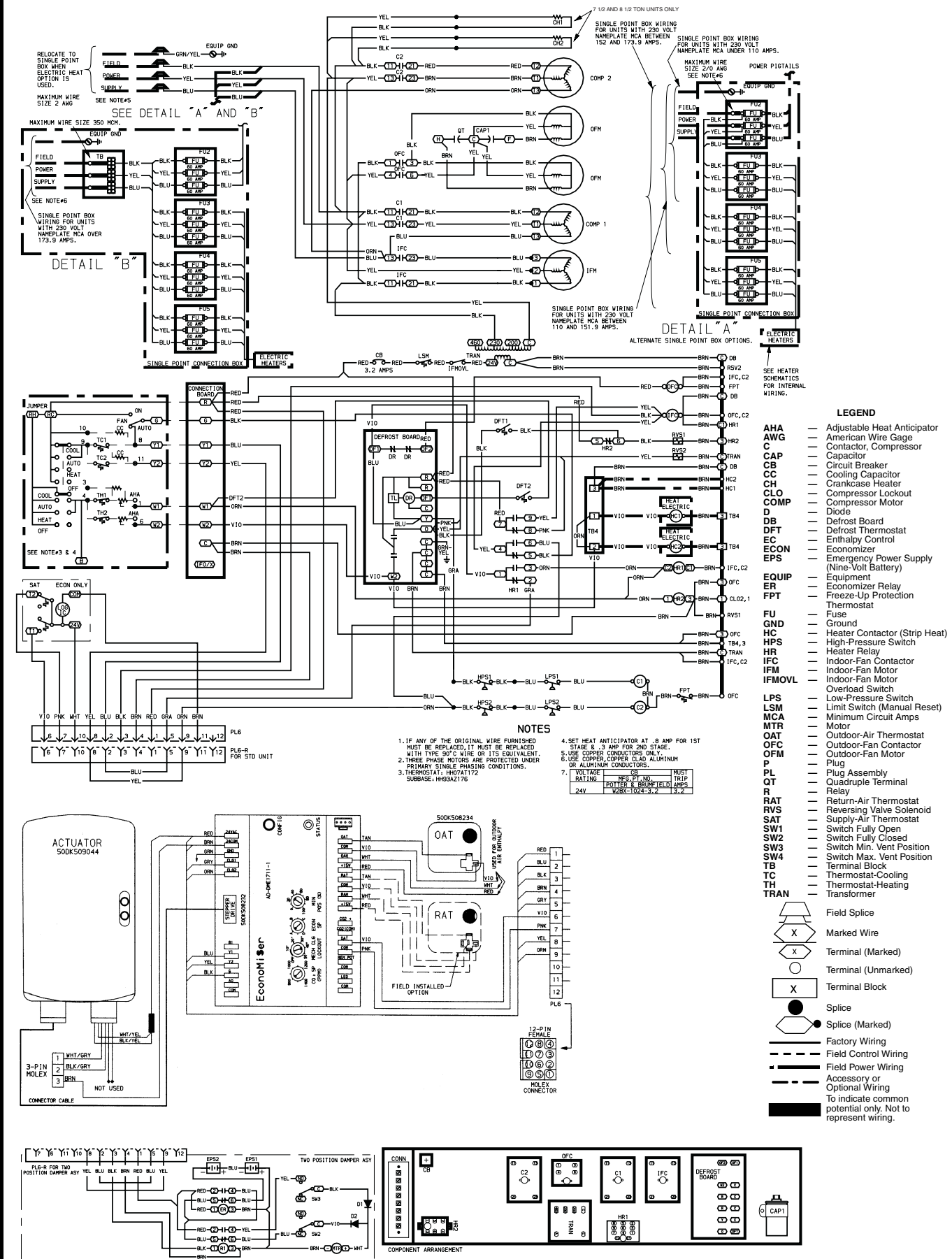
TYPICAL WIRING SCHEMATIC

548F036-120



548F036-072

TYPICAL WIRING SCHEMATIC (cont)



MODEL NUMBER NOMENCLATURE (ODS Model Number)

549B	E	X	090	000	AA
549B – Single-Packaged High-Efficiency Heat Pump Unit			Factory-Installed Options See 549B price pages for factory-installed option codes		
Voltage Designation E – 460-3-60 J – 208/230-1-60 P – 208/230-3-60			Electric Heaters 000 – No factory-installed electric heaters		
X – No Heat Installed (Field-installed electric heaters available)					
Nominal Tons 036 – 3 048 – 4 060 – 5 072 – 6 090 – 7-1/2 120 – 10					

LEGEND
ODS — Order Distribution System

Quality Assurance



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

ARI* CAPACITY RATINGS

549B036-060

UNIT 549B	NOMINAL TONS	COOLING		HEATING (High Temp)		SOUND RATING (decibels)
		Cap. (Btuh)	SEER†	Cap. (Btuh)	HSPF†	
036	3	36,000	12.0	34,000	7.6	76
048	4	46,000	12.0	46,000	7.6	76
060	5	60,000	11.9	60,000	7.6	80

549B072-120

UNIT 549B	NOMINAL TONS	COOLING		HEATING (High)		HEATING (Low)		SOUND RATING (decibels)	IPLV
		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	7 1/2	88,000	10.3	85,000	3.3	48,000	2.2	82	—
120	10	116,000	10.3	114,000	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

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.

*Air Conditioning and Refrigeration Institute.

†Applies only to units with capacity of 60,000 Btuh or less.

NOTE:

Rated in accordance with ARI Standard 210/240-95 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.



PHYSICAL DATA

549B036-072

BASE UNIT 549B	036	048	060	072
NOMINAL CAPACITY (tons)	3	4	5	6
OPERATING WEIGHT (lb)				
Unit	500	550	590	630
Durablade Economizer	34	34	34	34
EconoMi\$er	47	47	47	47
Roof Curb	115	115	115	115
COMPRESSOR	Scroll			
Quantity	1	1	1	1
Oil (oz)	42	53	50	60
REFRIGERANT TYPE	R-22			
Operating Charge (lb)	6.9	9.6	10.8	17.7
OUTDOOR FAN	Propeller			
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
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	16.53
INDOOR FAN	Centrifugal			
Size (in.)	10 x 10	10 x 10	10 x 10	10 x 10
Type Drive	Belt	Belt	Belt	Belt
Nominal Cfm	1200	1600	2000	2400
Maximum Continuous Bhp	1.20	1.20	1.80	2.40
Motor Frame	48	48	48	56
Fan Rpm	760-1090	840-1185	1020-1460	1120-1585
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Fan Rpm	1725	1725	1725	1725
Motor Pulley Pitch Diameter A/B (in.)	1.9/2.9	1.9/2.9	2.4/3.4	2.4/3.4
Fan Pulley Pitch Diameter (in.)	4.5	4.0	4.0	3.7
Belt — Type...Length (in.)	A...33	A...33	A...38	A...38
Pulley Center Line Distance (in.)	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)	65	70	93	93
Movable Pulley Maximum Full Turns From Closed Position	5	5	6	5
Factory Setting Full Turns Open	3	3	3	3
Factory Speed Setting (rpm)	890	980	1240	1305
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	4...15	4...15
Total Face Area (sq ft)	5.5	5.5	5.5	5.5
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			
Quantity...Size (in.)	1...20 x 24 x 1			
RETURN-AIR FILTERS	Throwaway			
Quantity...Size (in.)	2...16 x 25 x 2			

LEGEND

Bhp — Brake Horsepower

549B036-120

PHYSICAL DATA (cont)

549B090,120

BASE UNIT 549B	090	120
NOMINAL CAPACITY (tons)	7½	10
OPERATING WEIGHT (lb)		
Unit	870	1000
Durablade Economizer	44	44
EconoMiSer	62	62
Roof Curb	223	223
COMPRESSOR	Scroll	
Quantity	2	2
Oil (oz) (each compr)	57	57
REFRIGERANT TYPE	R-22	
Operating Charge (lb)		
Circuit 1	9.1	10.6
Circuit 2	9.6	9.9
OUTDOOR FAN	Propeller	
Quantity...Diameter (in.)	2...22	2...22
Nominal Cfm	6500	6500
Motor Hp...Rpm	¼...1100	¼...1100
OUTDOOR COIL	Enhanced Copper Tubes, Aluminum Fins, Fixed Orifice Metering Device	
Rows...Fins/in.	2...17	2...17
Total Face Area (sq ft)	20.5	25.1
INDOOR FAN	Centrifugal	
Size (in.)	15 x 15	15 x 15
Type Drive	Belt	Belt
Nominal Cfm	3000	4000
Maximum Continuous Bhp	2.90	4.20
Motor Frame	56	56
Fan Rpm Range	725-925	860-1080
Motor Bearing Type	Ball	Ball
Maximum Fan Rpm	1725	2100
Motor Pulley Pitch Diameter		
A/B (in.)	3.4/4.4	4.0/5.0
Fan Pulley Pitch Diameter (in.)	8.0	8.0
Belt — Type...Length (in.)	A...51	A...51
Pulley Center Line Distance (in.)	16.75-19.25	15.85-17.50
Fan Shaft Diameter at Pulley (in.)	1	1
Speed Change per Full Turn of		
Movable Pulley Flange (rpm)	50	45
Movable Pulley Maximum Full		
Turns from Closed Position	5	5
Factory Setting — Full Turns Open	5	5
Factory Speed Setting (rpm)	725	860
INDOOR COIL	Enhanced Copper Tubes, Aluminum Double Wavy Fins, Fixed Orifice Metering Device	
Rows...Fins/in.	3...15	4...15
Total Face Area (sq ft)	8.89	11.11
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 FILTER	Cleanable	
Quantity...Size (in.)	1...20 x 25 x 1	
	1...16 x 25 x 1	
RETURN-AIR FILTERS	Throwaway	
Quantity...Size (in.)	4...16 x 20 x 2	4...20 x 20 x 2

LEGEND

Bhp — Brake Horsepower

549B036-120

BASE UNIT DIMENSIONS

CONNECTION SIZES	
A	1 3/8" DIA. [351] FIELD POWER SUPPLY HOLE
B	2" DIA. [511] POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. [441] CHARGING PORT HOLE
D	7/8" DIA. [221] FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	2 1/2" DIA. [641] POWER SUPPLY KNOCK-OUT

BOTTOM POWER CHART: THESE PACKAGES REQUIRED FOR USE WITH ACCESSORY PACKAGES-CRBTMPR001A00 (1/2", 3/4") OR CRBTMPR002A00 (1/2", 1 1/4")

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

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

UNIT 549B	ECONOMIZER WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		"J"	
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	FT.-IN.	MM
036	500	227	47	21.3	56	25.4	58	26.3	58	26.3	2'-9 5/16"	846.5
048	550	249			61	27.7	64	29.0	63	28.6	2'-9 5/16"	846.5
060	590	268			66	30.0	68	30.8	66	30.0	2'-9 5/16"	846.5
072	630	286			70	31.8	73	33.1	71	31.8	3'-5 5/16"	1050

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) TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 0 INCHES; ON HORIZONTAL DISCHARGE UNITS WITH ELECTRIC HEAT 1 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.

6. OUTDOOR COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE OUTDOOR COIL, 80 INCHES TO ASSURE PROPER OUTDOOR FAN OPERATION.

7. BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC. SIDE, 36 IN. PER NEC.

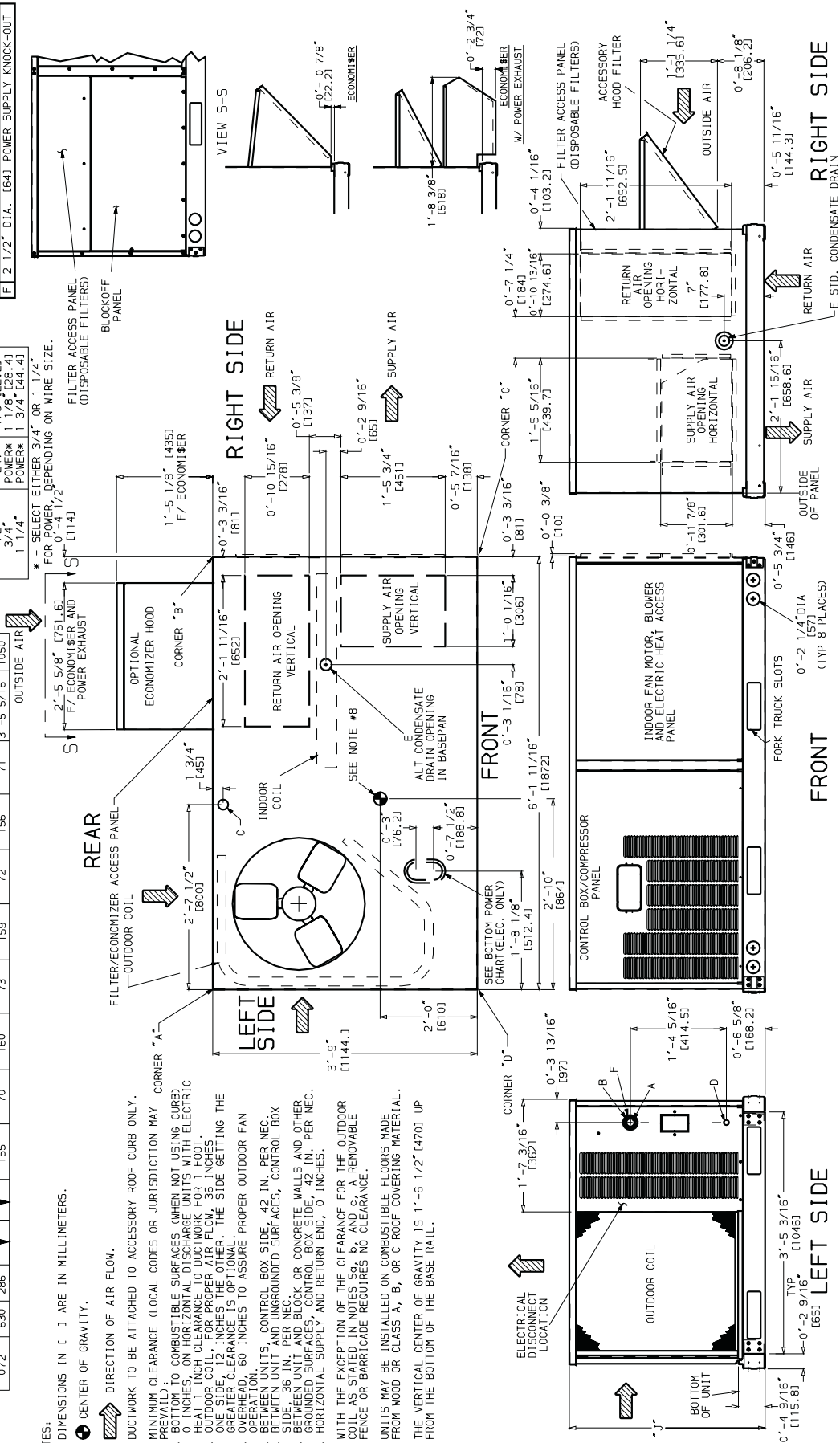
8. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.

9. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES.

10. 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.

11. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL.

12. THE VERTICAL CENTER OF GRAVITY IS 1'-6 1/2" [470] UP FROM THE BOTTOM OF THE BASE RAIL.

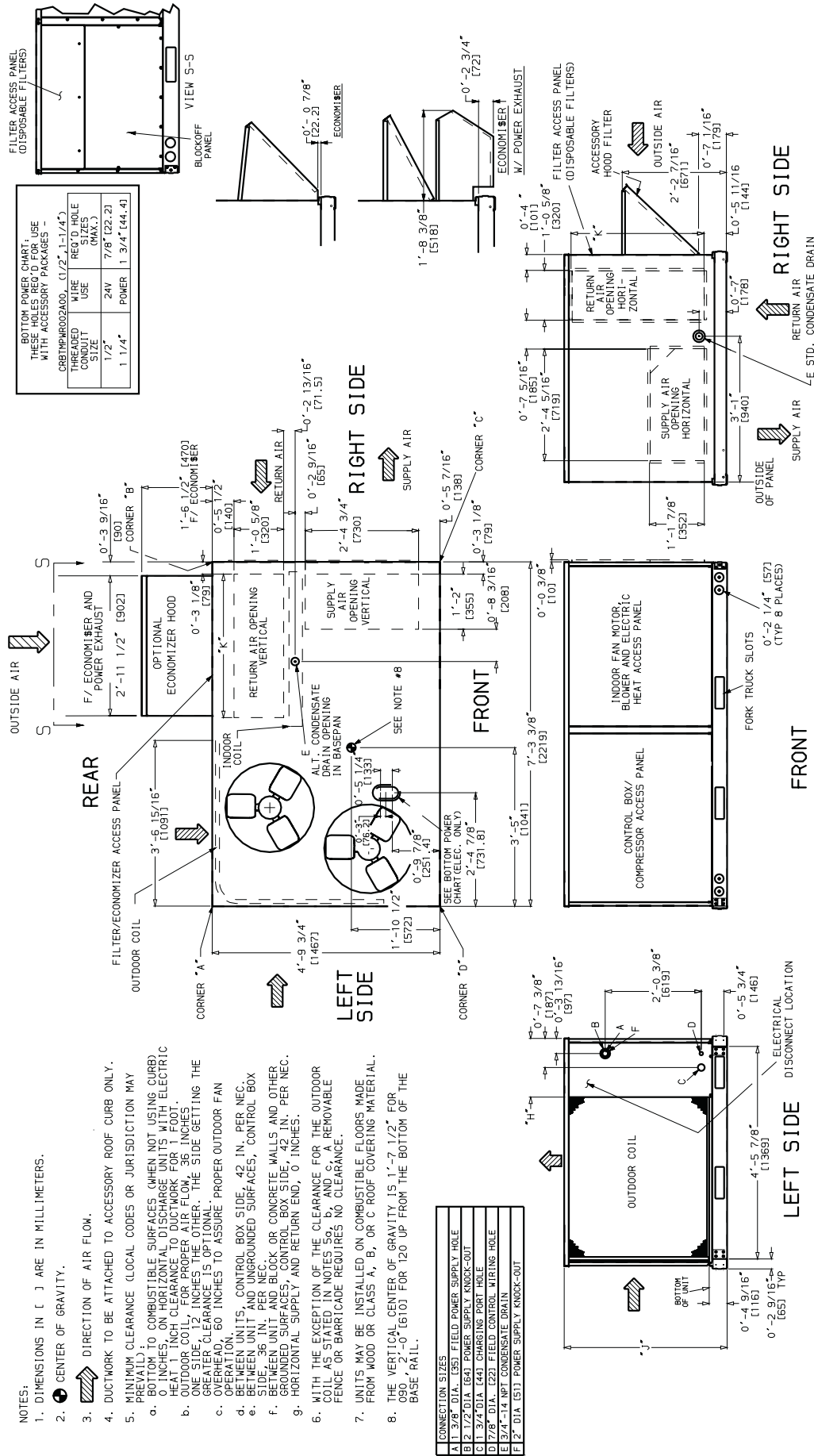


549B036-072

BASE UNIT DIMENSIONS (cont)

UNIT 549B	STD. UNIT WEIGHT LBS. KG.	ECONOMIZER WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		H		J		K	
		LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	FT.-IN.	MM	FT.-IN.	MM	FT.-IN.	MM
090	870	395	62	28	198	90	183	83	237	108	252	2'-0 7/8"	632	3'-5 5/16"	1050	2'-9 11/16"	856
120	1200	454	82	231	105	214	97	269	122	286	130	2'-10 7/8"	885	4'-1 5/16"	1253	3'-0 3/8"	924

- 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) 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.
 - c. ONE SIDE A 12 INCHES THE OTHER, THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
 - d. BETWEEN UNIT AND UNGROUNDED SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
 - e. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
 - f. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES.
 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'-7 1/2" FOR 090, 2'-0" [610] FOR 120 UP FROM THE BOTTOM OF THE BASE RAIL.



549B090,120

549B036-120

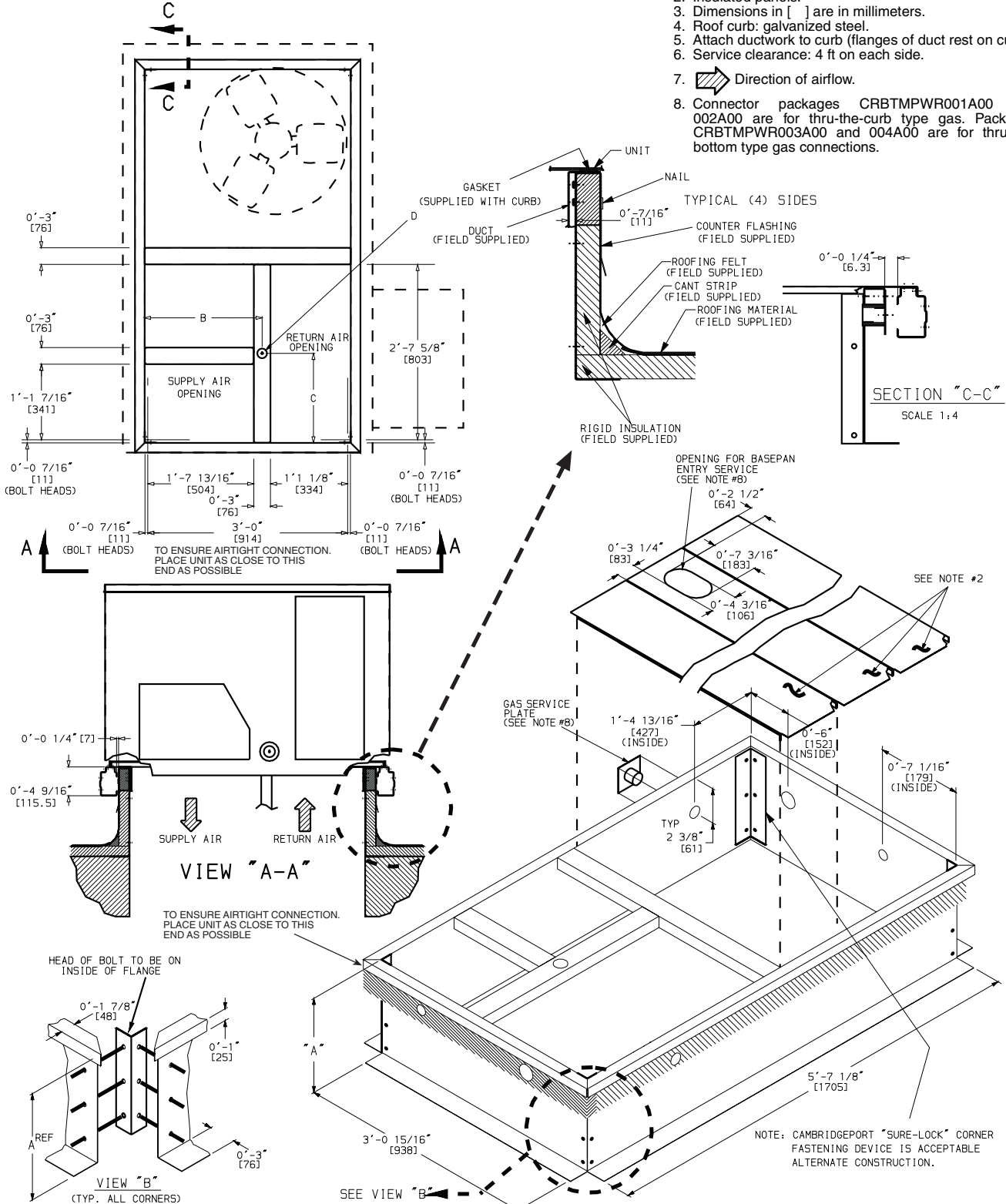
ACCESSORY DIMENSIONS

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				1/2" [12.7] NPT	3/4" [19] NPT	1/2" [12.7]
CRBTMPWR003A00				3/4" [19] NPT	1 1/4" [31.7]	1/2" [12.7]
CRBTMPWR004A00						

ROOF CURB ACCESSORY	A	UNIT SIZE
CRRFCURB001A00	1'-2" [356]	549B036-072
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.



549B036-072

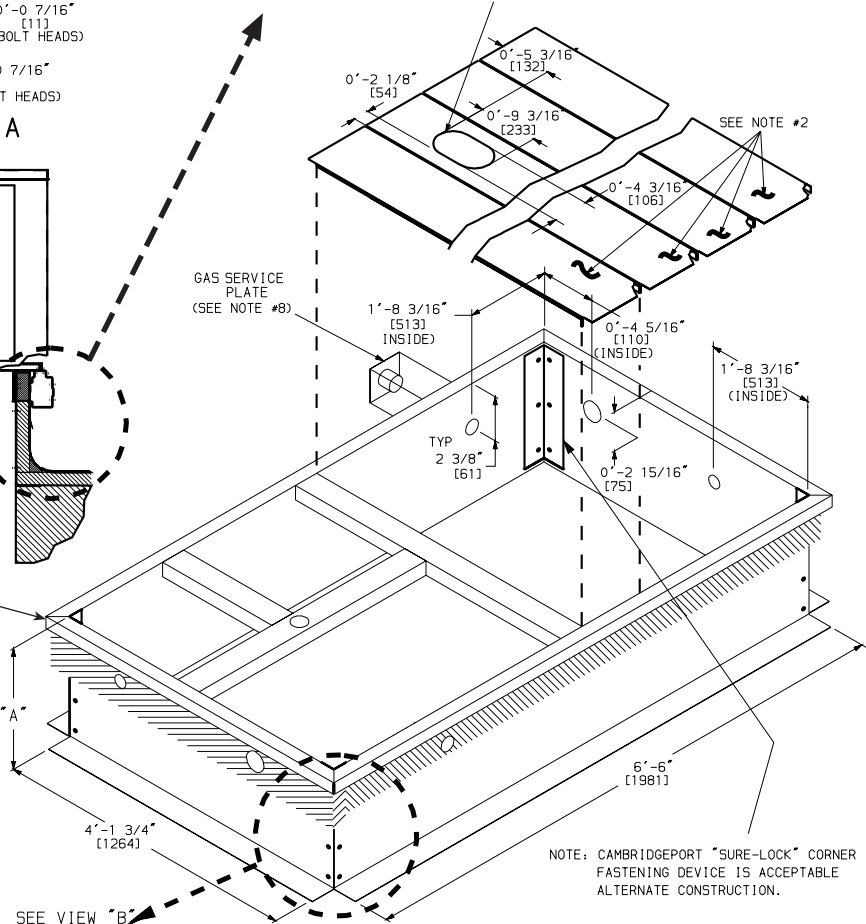
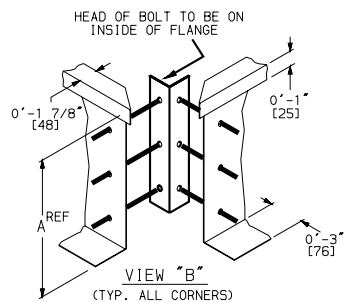
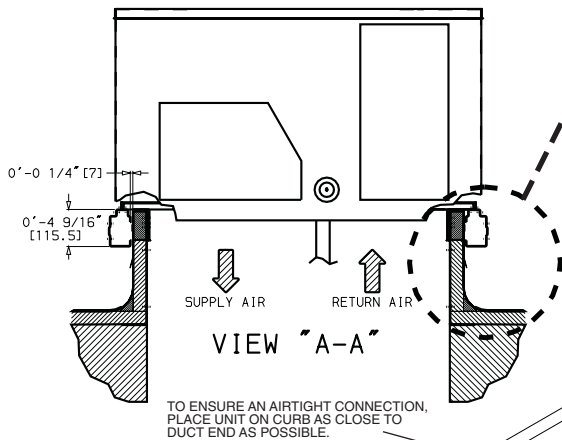
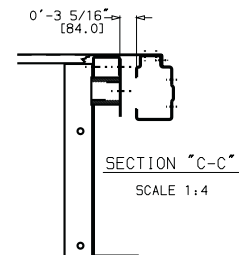
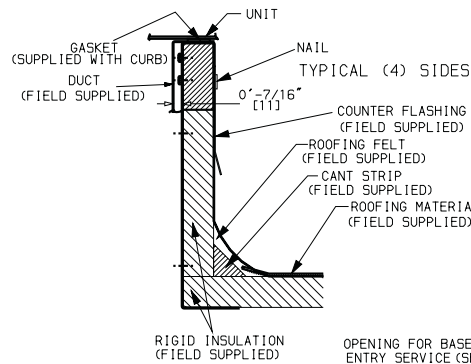
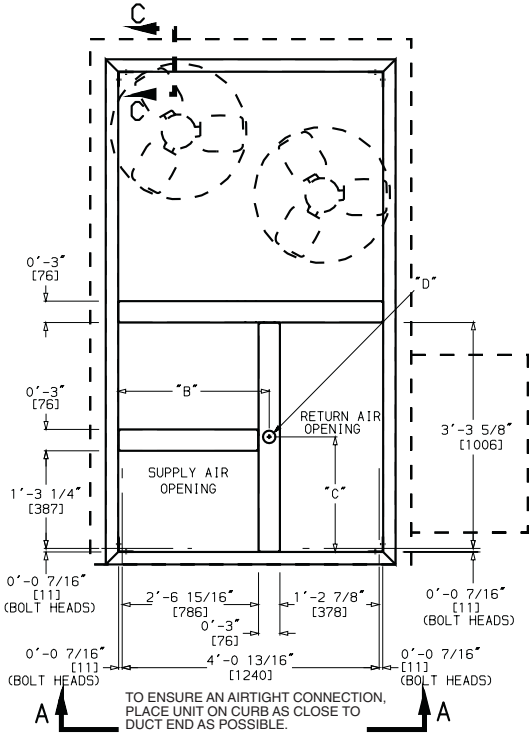
ACCESSORY DIMENSIONS (cont)

CONNECTOR PKG. ACCY.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL
CRBTMPWR001A00	2'-8 7/16" [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 1/2" [31.7] NPT	1 1/4" [31.7]	1/2" [12.7] NPT
CRBTMPWR003A00				1 1/2" [31.7] 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
CRRFCURB003A00	1'-2" [356]	549B090,120
CRRFCURB004A00	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 CRBTMPWR001A00 and 2A00 are for thru-the-curb gas type. Packages CRBTMPWR003A00 and 4A00 are for thru-the-bottom type gas connections.



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 47,400 Btuh and a sensible heat capacity of 32,800 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 20,400 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, 14,600 Btuh (35,000 – 20,400) additional electric heat is required.

Determine additional electric heat capacity in kW.

$$\frac{14,600 \text{ Btuh}}{3413 \text{ Btuh/kW}} = 4.3 \text{ kW of heat required.}$$

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 40,810 Btuh (20,400 + 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
Durablade economizer	.05 in. wg
Electric heat	.09 in. wg
Total static pressure	.59 in. wg

Enter the Fan Performance table for 549B048 vertical discharge. At 1600 cfm and 230-v, the standard motor will deliver 1.2 in. wg static pressure and 1.15 brake horsepower (bhp). This will adequately handle job requirements.

NOTE: Convert bhp to Watts using the formula below and the motor efficiency found in the Indoor-Fan Motor Data table.

For this example:

$$\text{Watts} = \frac{746 \times \text{Bhp}}{\text{Motor Efficiency}}$$

$$\text{Watts} = \frac{746 \times 1.15}{.75}$$

$$\text{Watts} = 1144$$

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:

$$\begin{aligned} \text{Net capacity} &= \text{Total capacity} - \text{IFM heat} \\ &= 47,400 \text{ Btuh} - (1144 \text{ Watts} \times 3.413 \\ &\quad \text{Btuh/Watts}) \\ &= 47,400 \text{ Btuh} - 3904 \text{ Btuh} \\ &= 43,496 \end{aligned}$$

$$\begin{aligned} \text{Net sensible capacity} &= 32,800 \text{ Btuh} - 3904 \text{ Btuh} \\ &= 28,896 \text{ Btuh} \end{aligned}$$

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 40,810 Btuh, the total heating capacity determined in Step III.

PERFORMANCE DATA

COOLING CAPACITIES

549B036 (3 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/Bf								
		900/0.13			1200/0.17			1500/0.19		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC SHC kW	41.7	38.4	34.1	43.2	40.3	37.3	44.4	41.4	36.8
		20.3	25.0	29.0	21.9	28.0	33.7	23.2	30.6	36.8
		2.22	2.17	2.13	2.23	2.20	2.17	2.25	2.21	2.18
85	TC SHC kW	40.5	37.2	32.4	42.1	39.0	36.0	43.1	40.2	37.2
		19.9	24.6	28.1	21.6	27.8	33.2	23.1	30.5	36.3
		2.49	2.45	2.40	2.51	2.48	2.44	2.53	2.49	2.45
95	TC SHC kW	39.1	35.9	30.6	40.8	37.6	33.9	42.0	38.7	35.8
		19.4	24.1	27.2	21.2	27.4	32.2	23.0	30.2	35.8
		2.80	2.75	2.69	2.82	2.78	2.74	2.85	2.80	2.76
105	TC SHC kW	37.6	33.9	28.8	39.2	36.0	32.3	40.1	37.0	34.6
		18.8	23.3	26.3	20.8	26.8	31.4	22.3	29.7	34.5
		3.13	3.08	3.01	3.16	3.11	3.06	3.18	3.13	3.09
115	TC SHC kW	35.9	31.9	27.9	37.4	34.2	30.2	38.3	35.3	32.5
		18.2	22.5	25.8	20.2	26.1	30.1	21.8	29.0	32.5
		3.49	3.43	3.36	3.52	3.47	3.40	3.54	3.50	3.45
125	TC SHC kW	34.2	30.5	26.3	35.5	32.1	28.6	36.3	33.2	31.0
		17.6	21.9	25.0	19.5	25.3	28.6	21.4	28.2	31.0
		3.88	3.81	3.74	3.91	3.85	3.79	3.92	3.88	3.84

549B048 (4 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/Bf								
		1200/0.13			1600/0.16			2000/0.19		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	53.1	48.7	45.0	55.6	49.6	46.7	56.1	50.7	48.4
	SHC	25.1	30.7	36.7	27.3	32.6	40.5	28.2	35.1	44.6
	kW	2.92	2.86	2.82	2.96	2.87	2.84	2.96	2.88	2.87
85	TC	51.9	47.3	43.7	53.9	49.1	45.6	54.4	50.2	46.9
	SHC	24.9	30.2	36.2	26.7	33.4	40.4	27.7	36.1	44.2
	kW	3.29	3.22	3.19	3.32	3.25	3.21	3.32	3.27	3.23
95	TC	50.5	45.5	42.1	51.8	47.4	44.0	52.3	47.4	44.6
	SHC	24.3	29.5	35.6	26.0	32.8	39.9	27.0	34.3	42.4
	kW	3.70	3.62	3.58	3.71	3.65	3.61	3.72	3.64	3.61
105	TC	48.2	43.7	40.5	50.0	45.3	42.2	50.8	46.3	43.2
	SHC	23.6	28.9	35.1	25.7	32.0	39.5	27.2	34.8	42.4
	kW	4.14	4.06	4.04	4.16	4.08	4.05	4.18	4.10	4.06
115	TC	45.1	42.1	38.2	46.4	43.5	39.9	46.0	44.4	41.3
	SHC	22.1	28.7	34.0	23.6	31.9	38.6	23.8	34.4	41.3
	kW	4.57	4.55	4.50	4.59	4.56	4.52	4.58	4.57	4.54
125	TC	43.2	39.5	36.1	43.9	41.2	37.7	44.9	41.8	39.6
	SHC	21.7	27.7	33.0	23.0	31.3	37.6	24.5	33.9	39.6
	kW	5.10	5.05	5.02	5.11	5.08	5.05	5.13	5.09	5.08

549B060 (5 Tons)										
Temp (F) Outdoor Entering Air (Edb)		Indoor Entering Air — Cfm/Bf								
		1500/0.03			2000/0.05			2500/0.07		
		Indoor Entering Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	70.4	62.3	52.9	73.6	68.2	58.4	75.5	69.1	64.9
	SHC	34.2	42.0	48.1	37.8	49.6	57.6	41.1	53.8	64.8
	kW	3.75	3.73	3.58	3.80	3.80	3.69	3.83	3.74	3.75
85	TC	68.5	58.9	50.8	71.0	65.4	56.5	72.7	66.9	62.7
	SHC	33.6	40.6	47.1	37.1	48.5	56.4	40.3	53.9	62.6
	kW	4.20	4.16	4.03	4.24	4.23	4.12	4.27	4.20	4.17
95	TC	65.8	55.3	47.4	68.8	62.2	53.5	70.5	64.0	60.3
	SHC	32.8	39.2	45.5	36.6	47.3	53.5	40.2	53.1	60.2
	kW	4.69	4.63	4.49	4.75	4.70	4.60	4.78	4.68	4.67
105	TC	63.0	51.4	43.6	65.6	58.1	50.2	67.1	60.7	57.5
	SHC	31.7	37.6	43.6	35.6	45.8	50.2	39.1	52.1	57.5
	kW	5.22	5.13	5.00	5.27	5.21	5.12	5.30	5.22	5.20
115	TC	59.4	48.2	40.8	62.1	52.6	46.8	63.7	55.5	52.6
	SHC	30.6	36.4	40.8	34.6	43.7	46.8	38.4	50.3	52.5
	kW	5.83	5.70	5.59	5.87	5.77	5.70	5.89	5.81	5.77
125	TC	53.8	44.6	40.4	56.8	46.3	43.3	59.5	47.8	47.3
	SHC	28.7	35.0	40.3	33.0	41.3	43.3	37.3	46.9	47.3
	kW	6.44	6.30	6.21	6.50	6.36	6.32	6.54	6.40	6.39

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:

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

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

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

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

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

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

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

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

549B036-120

PERFORMANCE DATA (cont)

COOLING CAPACITIES (cont)

549B072 (6 Tons)																	
Temp (F) Outdoor Entering Air (Edb)		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	77.6	71.6	67.9	84.7	79.8	73.6	71.5	85.9	81.0	75.0	74.3	88.4	82.9	78.4	78.3
		39.7	50.4	60.6	66.6	41.6	54.3	65.9	70.1	43.4	57.6	70.6	72.8	47.2	63.9	76.9	76.8
		4.90	4.78	4.69	4.63	4.94	4.84	4.71	4.69	4.97	4.86	4.74	4.73	5.04	4.91	4.81	4.81
85	TC SHC kW	81.5	75.5	69.0	64.8	83.2	77.3	71.1	69.4	84.5	78.5	72.7	72.2	86.2	80.8	76.5	76.5
		39.2	49.8	59.6	63.6	41.4	53.5	65.0	68.0	43.3	56.9	69.7	70.8	47.1	64.1	75.0	75.0
		5.45	5.34	5.23	5.16	5.49	5.36	5.27	5.23	5.52	5.38	5.29	5.27	5.57	5.45	5.36	5.36
95	TC SHC kW	78.8	72.5	64.1	61.8	80.9	74.5	67.0	66.1	82.0	76.0	69.9	69.9	83.7	78.1	74.2	74.1
		38.4	48.6	57.4	60.6	40.8	52.6	63.2	64.8	42.8	56.4	68.3	68.5	46.8	63.7	72.7	72.7
		6.03	5.91	5.79	5.73	6.09	5.96	5.84	5.82	6.11	6.00	5.89	5.89	6.16	6.05	5.96	5.96
105	TC SHC kW	76.2	69.5	58.6	57.8	77.9	71.3	63.4	63.1	79.3	72.7	67.2	67.2	81.1	74.5	71.3	71.2
		37.6	47.4	55.0	56.6	39.9	51.4	61.4	61.9	42.2	55.3	65.9	65.9	46.5	62.5	69.9	69.9
		6.69	6.56	6.40	6.38	6.73	6.61	6.45	6.44	6.77	6.64	6.51	6.51	6.82	6.67	6.59	6.57
115	TC SHC kW	72.5	65.1	54.8	54.7	74.3	67.8	58.6	58.6	75.6	69.1	63.2	63.2	77.3	70.9	68.4	68.4
		36.3	45.8	53.2	53.6	38.7	50.2	57.4	57.5	41.1	54.0	62.0	62.0	45.5	61.3	67.1	67.1
		7.37	7.24	7.08	7.07	7.43	7.30	7.16	7.16	7.48	7.34	7.21	7.21	7.52	7.38	7.32	7.32

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

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

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:

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

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

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

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

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

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

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

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

PERFORMANCE DATA (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.	10.9	10.0	13.7	12.6	16.6	15.3	19.7	18.1	22.1	20.1	26.8	23.5	30.9	30.9	34.0	34.0	35.3	35.3	40.7	40.7
		kW	1.97		2.06		2.14		2.22		2.30		2.42		2.54		2.64		2.69		2.87	
	1200	Cap.	11.4	10.4	14.2	13.0	17.1	15.7	20.1	18.4	22.5	20.5	27.3	24.0	31.5	31.5	34.7	34.7	36.1	36.1	41.7	41.7
		kW	2.02		2.09		2.15		2.22		2.27		2.37		2.46		2.53		2.56		2.71	
	1500	Cap.	11.7	10.8	14.6	13.4	17.4	16.0	20.5	18.8	22.9	20.9	27.8	24.4	32.0	32.0	35.2	35.2	36.7	36.7	42.5	42.5
		kW	2.08		2.14		2.19		2.26		2.29		2.37		2.44		2.50		2.53		2.66	
70	900	Cap.	9.5	8.8	12.6	11.6	15.6	14.5	19.0	17.4	21.4	19.5	26.2	23.0	30.1	30.1	33.1	33.1	34.5	34.5	39.5	39.5
		kW	2.18		2.31		2.42		2.54		2.63		2.80		2.95		3.06		3.11		3.33	
	1200	Cap.	10.0	9.2	13.1	12.1	16.2	14.9	19.5	17.9	21.9	20.0	26.7	23.4	30.7	30.7	33.8	33.8	35.1	35.1	40.5	40.5
		kW	2.24		2.34		2.44		2.52		2.60		2.73		2.83		2.93		2.97		3.12	
	1500	Cap.	10.4	9.6	13.5	12.4	16.6	15.3	19.9	18.2	22.3	20.4	27.1	23.8	31.2	31.2	34.3	34.3	35.7	35.7	41.2	41.2
		kW	2.30		2.39		2.47		2.55		2.61		2.72		2.80		2.87		2.91		3.05	
80	900	Cap.	8.4	7.7	11.6	10.7	14.9	13.7	18.3	16.8	20.8	18.9	25.7	22.6	29.6	29.6	32.5	32.5	33.8	33.8	38.7	38.7
		kW	2.32		2.47		2.62		2.76		2.87		3.08		3.22		3.37		3.43		3.67	
	1200	Cap.	8.9	8.2	12.2	11.2	15.4	14.3	18.9	17.3	21.4	19.5	26.2	23.0	30.2	30.2	33.2	33.2	34.6	34.6	39.7	39.7
		kW	2.38		2.50		2.63		2.75		2.83		2.99		3.12		3.21		3.25		3.44	
	1500	Cap.	9.3	8.5	12.6	11.6	15.9	14.7	19.3	17.7	21.8	19.9	26.7	23.4	30.6	30.6	33.7	33.7	35.0	35.0	40.4	40.4
		kW	2.44		2.55		2.67		2.77		2.83		2.97		3.07		3.15		3.19		3.34	

549B048 (4 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	1200	Cap.	14.9	13.8	18.7	17.2	22.8	20.9	27.0	24.8	30.3	27.6	36.8	32.3	42.2	42.2	46.3	46.3	48.3	48.3	55.5	55.5
		kW	2.61		2.73		2.86		3.00		3.10		3.31		3.50		3.65		3.73		4.02	
	1600	Cap.	15.5	14.4	19.4	17.8	23.4	21.5	27.7	25.4	30.9	28.2	37.5	32.9	43.1	43.1	47.4	47.4	49.5	49.5	57.0	57.0
		kW	2.67		2.77		2.87		2.98		3.05		3.21		3.35		3.46		3.52		3.75	
	2000	Cap.	16.1	14.9	19.9	18.3	23.9	22.0	28.2	25.8	31.5	28.7	38.1	33.5	43.8	43.8	48.2	48.2	50.3	50.3	58.0	58.0
		kW	2.75		2.83		2.92		3.00		3.07		3.19		3.31		3.40		3.45		3.65	
70	1200	Cap.	13.1	12.1	17.1	15.7	21.4	19.7	25.8	23.7	29.2	26.6	35.9	31.5	41.2	41.2	45.1	45.1	47.0	47.0	53.9	53.9
		kW	2.92		3.10		3.28		3.46		3.60		3.88		4.10		4.28		4.37		4.71	
	1600	Cap.	13.8	12.7	17.9	16.4	22.2	20.4	26.6	24.5	30.0	27.3	36.6	32.2	42.0	42.0	46.1	46.1	48.1	48.1	55.2	55.2
		kW	2.98		3.14		3.28		3.42		3.53		3.74		3.91		4.04		4.11		4.37	
	2000	Cap.	14.4	13.2	18.5	17.0	22.8	20.9	27.2	24.9	30.7	27.9	37.2	32.7	42.7	42.7	46.8	46.8	48.9	48.9	56.2	56.2
		kW	3.06		3.20		3.32		3.44		3.54		3.70		3.84		3.95		4.01		4.22	
80	1200	Cap.	11.5	10.6	15.8	14.6	20.3	18.6	24.8	22.9	28.3	25.8	35.1	30.8	40.4	40.4	44.5	44.5	46.2	46.2	52.9	52.9
		kW	3.13		3.35		3.56		3.78		3.94		4.28		4.55		4.75		4.85		5.22	
	1600	Cap.	12.3	11.3	16.5	15.2	21.1	19.4	25.6	23.6	29.1	26.5	36.0	31.6	41.3	41.3	45.4	45.4	47.2	47.2	54.2	54.2
		kW	3.19		3.39		3.57		3.74		3.87		4.13		4.33		4.48		4.56		4.84	
	2000	Cap.	12.8	11.8	17.2	15.8	21.7	19.9	26.3	24.2	29.8	27.1	36.6	32.1	42.0	42.0	46.0	46.0	48.0	48.0	55.1	55.1
		kW	3.28		3.45		3.61		3.76		3.87		4.08		4.24		4.37		4.43		4.66	

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.

549B036-120

PERFORMANCE DATA (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.	19.4	17.8	24.8	22.8	29.7	27.3	34.7	31.8	38.5	35.1	46.8	41.0	53.9	53.9	59.5	59.5	62.1	62.1	71.9	71.9
		kW	3.28		3.53		3.67		3.77		3.85		4.04		4.21		4.36		4.43		4.73	
	2000	Cap.	20.7	19.0	25.9	23.8	30.6	28.1	35.6	32.6	39.5	36.0	48.0	42.1	55.4	55.4	61.1	61.1	63.8	63.8	73.3	73.3
		kW	3.48		3.68		3.77		3.84		3.90		4.04		4.18		4.30		4.37		4.60	
	2500	Cap.	21.7	20.0	26.8	24.7	31.4	28.9	36.4	33.4	40.4	36.8	49.0	42.9	56.5	56.5	62.2	62.2	65.0	65.0	72.1	72.1
		kW	3.69		3.85		3.92		3.98		4.03		4.15		4.28		4.40		4.46		4.61	
70	1500	Cap.	14.5	13.3	21.8	20.0	28.2	26.0	34.0	31.2	37.8	34.5	45.7	40.1	52.4	52.4	57.7	57.7	60.2	60.2	69.5	69.5
		kW	3.20		3.71		4.07		4.30		4.42		4.64		4.83		5.00		5.08		5.40	
	2000	Cap.	15.9	14.7	23.3	21.4	29.5	27.1	34.9	32.1	38.7	35.3	46.8	41.0	53.7	53.7	59.3	59.3	61.8	61.8	71.5	71.5
		kW	3.44		3.91		4.20		4.36		4.43		4.59		4.74		4.87		4.94		5.21	
	2500	Cap.	17.2	15.8	24.5	22.5	30.5	28.1	35.8	32.9	39.6	36.1	47.8	41.9	54.8	54.8	60.4	60.4	63.1	63.1	72.4	72.4
		kW	3.67		4.11		4.35		4.47		4.53		4.66		4.79		4.91		4.97		5.21	
80	1500	Cap.	9.9	9.1	18.3	16.8	25.9	23.8	32.8	30.1	37.0	33.8	45.1	39.5	51.6	51.6	56.7	56.7	59.1	59.1	68.1	68.1
		kW	3.04		3.66		4.20		4.60		4.80		5.10		5.32		5.49		5.58		5.92	
	2000	Cap.	11.2	10.3	20.0	18.4	27.5	25.3	34.2	31.4	38.2	34.8	46.1	40.4	52.8	52.8	58.1	58.1	60.6	60.6	70.0	70.0
		kW	3.27		3.89		4.38		4.69		4.83		5.02		5.18		5.32		5.38		5.66	
	2500	Cap.	12.4	11.4	21.3	19.6	28.8	26.5	35.1	32.3	39.1	35.6	47.1	41.2	53.9	53.9	59.3	59.3	61.8	61.8	71.4	71.4
		kW	3.50		4.12		4.56		4.81		4.92		5.07		5.20		5.32		5.38		5.65	

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		
70	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		
	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		
80	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		
	55	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		5.29		5.59		5.93		6.23		6.57		6.54		
70	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. 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 (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	

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	

LEGEND

Cap. — Heating Capacity (1000 Btu/h) (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.

549B036-120

PERFORMANCE DATA (cont)
FAN PERFORMANCE — VERTICAL DISCHARGE UNITS

549B036 (3 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)											
	0.1		0.2		0.3		0.4		0.5		0.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
900	581	0.12	673	0.18	736	0.22	805	0.25	865	0.29	911	0.34
1000	644	0.19	709	0.22	782	0.28	835	0.30	900	0.35	937	0.38
1100	687	0.22	746	0.26	806	0.30	867	0.35	929	0.40	964	0.40
1200	733	0.26	785	0.32	843	0.35	903	0.41	960	0.47	994	0.50
1300	754	0.29	826	0.38	891	0.43	942	0.48	991	0.53	1047	0.60
1400	810	0.35	868	0.45	937	0.51	984	0.57	1032	0.62	1067	0.67
1500	841	0.42	911	0.53	985	0.61	1029	0.66	1073	0.72	1109	0.77

549B036 (3 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)											
	0.7		0.8		0.9		1.0		1.1		1.2	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
900	957	0.39	988	0.43	1039	0.45	1061	0.47	1083	0.53	1105	0.57
1000	992	0.44	1039	0.49	1061	0.51	1086	0.55	1111	0.59	1136	0.63
1100	1013	0.49	1068	0.55	1090	0.58	1109	0.61	1127	0.64	1145	0.67
1200	1045	0.56	1090	0.64	1109	0.64	1156	0.68	1203	0.71	1250	0.74
1300	1075	0.64	1122	0.70	1152	0.72	1190	0.76	1228	0.80	1266	0.84
1400	1110	0.73	1160	0.84	1181	0.81	1237	0.85	1293	0.89	1349	0.93
1500	1150	0.82	1190	1.00	1225	0.90	1271	0.95	1317	1.00	1363	1.05

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 3.)

2. Maximum continuous bhp is 1.20.

3. Motor drive range: 760 to 1090 rpm. All other rpms require field-supplied drive.

549B048 (4 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)													
	0.1		0.2		0.3		0.4		0.6		0.7		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1200	542	0.16	616	0.21	678	0.27	739	0.32	842	0.44	886	0.50	929	0.56
1300	576	0.20	644	0.25	704	0.31	764	0.37	867	0.50	910	0.56	952	0.62
1400	610	0.24	673	0.30	732	0.36	791	0.42	889	0.55	933	0.62	976	0.69
1500	646	0.28	704	0.35	761	0.42	818	0.48	912	0.61	957	0.69	1001	0.76
1600	681	0.33	735	0.40	790	0.47	845	0.54	920	0.68	931	0.76	1023	0.83
1700	718	0.39	768	0.46	836	0.54	873	0.61	965	0.76	1005	0.84	1045	0.91
1800	754	0.45	801	0.53	851	0.61	900	0.69	992	0.84	1032	0.92	1071	1.00
1900	791	0.52	836	0.60	832	0.69	828	0.77	1019	0.93	1058	1.02	1097	1.10
2000	828	0.60	870	0.68	864	0.77	858	0.86	1046	1.03	1085	1.12	1124	1.21

549B048 (4 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)											
	1.0		1.1		1.2		1.4		1.6		1.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1200	1008	0.67	1052	0.73	1096	0.78	1134	0.89	1203	1.00	—	—
1300	1029	0.75	1065	0.81	1101	0.86	1174	1.01	1229	1.15	1277	1.27
1400	1052	0.83	1087	0.90	1121	0.96	1183	1.09	1255	1.22	1305	1.38
1500	1076	0.91	1111	0.99	1145	1.06	1208	1.20	1274	1.33	1337	1.47
1600	1100	1.00	1134	1.08	1168	1.15	1232	1.31	1291	1.46	1350	1.60
1700	1124	1.09	1158	1.17	1192	1.25	1255	1.42	1314	1.58	1370	1.77
1800	1147	1.18	1182	1.27	1217	1.36	1279	1.54	1381	1.71	1393	1.89
1900	1169	1.27	1205	1.37	1240	1.47	1303	1.66	1408	1.85	1417	2.03
2000	1194	1.38	1228	1.48	1262	1.58	1327	1.78	1436	1.98	1440	2.18

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 1.20.

4. Motor drive range: 840 to 1185 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — VERTICAL DISCHARGE UNITS (cont)

549B060 (5 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)									
	0.1		0.2		0.4		0.6		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1500	711	0.33	769	0.39	878	0.51	971	0.64	1052	0.78
1600	751	0.39	806	0.45	906	0.53	1024	0.73	1087	0.88
1700	791	0.46	846	0.53	941	0.66	1030	0.80	1112	0.96
1800	852	0.55	905	0.62	1002	0.78	1084	0.93	1163	1.10
1900	894	0.64	945	0.72	1037	0.88	1119	1.04	1194	1.21
2000	936	0.74	984	0.82	1072	0.98	1154	1.16	1226	1.33
2100	978	0.85	1024	0.93	1108	1.10	1190	1.29	1259	1.47
2200	1021	0.97	1064	1.05	1145	1.22	1225	1.43	1294	1.62
2300	1064	1.10	1104	1.18	1183	1.36	1260	1.57	1330	1.78
2400	1107	1.24	1145	1.32	1222	1.52	1296	1.73	1365	1.94
2500	1150	1.39	1186	1.48	1262	1.68	1331	1.89	1400	2.12

549B060 (5 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)							
	1.0		1.2		1.4		1.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1500	1134	0.95	1213	1.11	1276	1.38	1331	1.49
1600	1159	1.02	1231	1.20	1311	1.39	1395	1.59
1700	1184	1.12	1258	1.30	1322	1.49	1403	1.69
1800	1235	1.29	1303	1.48	1371	1.69	1433	1.90
1900	1266	1.40	1330	1.59	1396	1.81	1460	2.03
2000	1297	1.53	1362	1.73	1422	1.94	1485	2.16
2100	1327	1.66	1393	1.87	1452	2.08	1510	2.31
2200	1359	1.81	1423	2.02	1483	2.24	1538	2.46
2300	1392	1.97	1454	2.18	1515	2.41	1569	2.64
2400	1426	2.15	1485	2.36	1544	2.59	1601	2.84
2500	1461	2.34	1518	2.55	1575	2.78	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 1.80.

4. Standard motor drive range: 1020 to 1460 rpm. All other rpms require field-supplied drive.

549B072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)									
	0.1		0.2		0.4		0.6		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1800	852	0.55	905	0.62	1002	0.78	1084	0.93	1163	1.10
1900	894	0.64	945	0.72	1037	0.88	1119	1.04	1194	1.21
2000	936	0.74	984	0.82	1072	0.98	1154	1.16	1226	1.33
2100	978	0.85	1024	0.93	1108	1.10	1190	1.29	1259	1.47
2200	1021	0.97	1064	1.05	1145	1.22	1225	1.43	1294	1.62
2300	1064	1.10	1104	1.18	1183	1.36	1260	1.57	1330	1.78
2400	1107	1.24	1145	1.32	1222	1.52	1296	1.73	1365	1.94
2500	1150	1.39	1186	1.48	1262	1.68	1331	1.89	1400	2.12
2600	1193	1.56	1228	1.65	1301	1.86	1367	2.07	1435	2.31
2700	1237	1.74	1269	1.83	1341	2.05	1404	2.26	1471	2.51
2800	1280	1.94	1311	2.03	1381	2.25	1442	2.47	1506	2.72
2900	1324	2.15	1354	2.24	1420	2.47	1481	2.69	1542	2.94
3000	1368	2.37	1396	2.46	1460	2.69	1521	2.93	—	—

549B072 (6 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)							
	1.0		1.2		1.4		1.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1800	1235	1.29	1303	1.48	1371	1.69	1433	1.90
1900	1266	1.40	1330	1.59	1396	1.81	1460	2.03
2000	1297	1.53	1362	1.73	1422	1.94	1485	2.16
2100	1327	1.66	1393	1.87	1452	2.08	1510	2.31
2200	1359	1.81	1423	2.02	1483	2.24	1538	2.46
2300	1392	1.97	1454	2.18	1515	2.41	1569	2.64
2400	1426	2.15	1485	2.36	1544	2.59	1601	2.84
2500	1461	2.34	1518	2.55	1575	2.78	—	—
2600	1497	2.54	1552	2.76	—	—	—	—
2700	1532	2.75	—	—	—	—	—	—
2800	—	—	—	—	—	—	—	—
2900	—	—	—	—	—	—	—	—
3000	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 2.40.

4. Standard motor drive range: 1120 to 1585 rpm. All other rpms require field-supplied drive.

549B036-120

PERFORMANCE DATA (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		1.2	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
2250	511	0.52	592	0.74	659	0.95	722	1.19	778	1.43	829	1.68
2300	518	0.55	599	0.77	665	0.98	727	1.22	783	1.47	834	1.72
2400	534	0.61	613	0.84	677	1.06	738	1.30	794	1.55	844	1.81
2500	549	0.67	627	0.90	690	1.14	750	1.38	805	1.64	855	1.91
2550	557	0.71	633	0.94	697	1.18	756	1.42	811	1.69	861	1.96
2600	565	0.74	639	0.97	703	1.22	761	1.46	816	1.74	866	2.01
2700	581	0.81	652	1.04	717	1.31	773	1.55	827	1.83	878	2.12
2800	597	0.89	665	1.12	733	1.40	786	1.66	839	1.93	889	2.23
2900	613	0.97	679	1.20	745	1.50	799	1.76	850	2.04	900	2.34
3000	629	1.06	694	1.29	759	1.59	812	1.88	862	2.15	911	2.46
3100	646	1.15	709	1.39	772	1.70	825	1.99	875	2.28	923	2.58
3200	662	1.25	724	1.50	785	1.80	840	2.11	887	2.41	934	2.71
3300	679	1.35	740	1.61	798	1.91	854	2.24	900	2.54	946	2.85
3400	696	1.46	756	1.73	811	2.02	868	2.37	914	2.69	959	3.00
3500	712	1.57	771	1.85	824	2.14	881	2.50	928	2.84	971	3.16
3600	729	1.69	787	1.98	839	2.21	894	2.64	942	2.99	984	3.22
3700	746	1.85	803	2.12	854	2.42	907	2.78	956	3.15	997	3.49
3750	755	1.89	811	2.20	862	2.49	914	2.85	963	3.23	—	—

549B090 (7½ TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)							
	1.4		1.6		1.8		2.0	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
2250	884	1.97	937	2.33	947	2.66	1022	3.10
2300	885	2.00	939	2.36	979	2.69	1025	3.12
2400	892	2.08	944	2.40	987	2.76	1039	3.20
2500	902	2.18	949	2.48	1002	2.84	1041	3.25
2550	908	2.24	953	2.53	1003	2.87	1045	3.28
2600	913	2.29	957	2.58	1004	2.91	1050	3.31
2700	924	2.40	967	2.70	1010	3.01	1056	3.37
2800	935	2.52	978	2.82	1019	3.13	1061	3.47
2900	946	2.65	989	2.96	1030	3.27	—	—
3000	957	2.78	1000	3.09	1040	3.41	—	—
3100	968	2.91	1011	3.24	—	—	—	—
3200	980	3.04	1022	3.38	—	—	—	—
3300	991	3.18	—	—	—	—	—	—
3400	1003	3.32	—	—	—	—	—	—
3500	1014	3.48	—	—	—	—	—	—
3600	—	—	—	—	—	—	—	—
3700	—	—	—	—	—	—	—	—
3750	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 2.90.

4. Standard motor drive range: 725 to 925 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA (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		1.2	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
3000	459	0.46	625	0.85	691	1.01	734	1.10	787	1.30	829	1.50
3100	478	0.57	637	0.90	702	1.08	744	1.16	796	1.36	837	1.56
3200	500	0.62	647	0.97	712	1.16	753	1.23	805	1.43	845	1.63
3300	519	0.69	658	1.03	721	1.23	762	1.30	814	1.50	853	1.71
3400	537	0.77	669	1.10	731	1.30	773	1.38	823	1.57	862	1.78
3500	561	0.86	680	1.17	741	1.37	784	1.47	832	1.65	871	1.86
3600	592	0.98	692	1.24	751	1.45	796	1.57	841	1.72	880	1.95
3700	654	1.12	714	1.31	767	1.50	815	1.67	861	1.85	906	2.08
3800	668	1.20	727	1.40	780	1.60	827	1.77	873	1.95	916	2.18
3900	683	1.28	741	1.49	793	1.70	839	1.88	884	2.05	927	2.28
4000	697	1.37	754	1.59	806	1.80	851	1.99	895	2.16	938	2.38
4100	711	1.46	767	1.69	819	1.90	864	2.10	907	2.28	949	2.49
4200	726	1.56	780	1.80	832	2.01	877	2.22	919	2.41	960	2.60
4300	741	1.66	794	1.91	845	2.12	889	2.35	931	2.54	971	2.72
4400	755	1.77	808	2.03	858	2.24	902	2.48	943	2.68	983	2.86
4500	770	1.89	821	2.15	871	2.37	915	2.61	955	2.82	995	3.01
4600	784	2.00	835	2.27	884	2.49	928	2.75	968	2.96	1006	3.17
4700	799	2.13	849	2.40	897	2.63	941	2.88	981	3.11	1018	3.32
4800	814	2.25	863	2.53	910	2.77	954	3.02	993	3.27	1030	3.48
4900	829	2.39	877	2.67	923	2.92	967	3.17	1006	3.43	1043	3.65
5000	843	2.52	892	2.81	937	3.08	980	3.32	1019	3.60	1055	3.82

549B120 (10 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)								
Airflow (Cfm)	External Static Pressure (in. wg)							
	1.4		1.6		1.8		2.0	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
3000	886	1.73	943	1.88	988	1.91	995	1.95
3100	892	1.78	947	2.00	995	2.05	1008	2.07
3200	899	1.85	951	2.06	1000	2.17	1021	2.20
3300	907	1.93	959	2.10	1004	2.33	1036	2.36
3400	915	2.01	966	2.17	1009	2.46	1043	2.47
3500	924	2.09	974	2.24	1015	2.51	1054	2.59
3600	933	2.18	983	2.32	1023	2.58	1058	2.70
3700	950	2.27	991	2.47	1030	2.65	1064	2.82
3800	959	2.38	1001	2.58	1040	2.78	1075	2.96
3900	969	2.50	1010	2.70	1049	2.91	1085	3.11
4000	979	2.62	1020	2.83	1059	3.04	1095	3.25
4100	989	2.74	1029	2.96	1068	3.18	1105	3.39
4200	1000	2.86	1039	3.10	1077	3.31	1114	3.54
4300	1011	2.97	1049	3.23	1087	3.46	1124	3.69
4400	1022	3.10	1059	3.37	1097	3.61	1133	3.84
4500	1033	3.23	1070	3.51	1107	3.76	1143	4.00
4600	1044	3.37	1081	3.64	1117	3.92	1152	4.17
4700	1056	3.52	1092	3.78	1127	4.07	1162	4.33
4800	1057	3.69	1103	3.93	1138	4.23	1172	4.50
4900	1079	3.87	1114	4.09	1149	4.37	1182	4.68
5000	1091	4.05	1126	4.25	1160	4.53	1193	4.85

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 4.20 with standard motor.

4. Standard motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

549B036-120

PERFORMANCE DATA (cont)
FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS

549B036 (3 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)											
	0.1		0.2		0.3		0.4		0.5		0.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
900	526	0.06	584	0.08	656	0.12	734	0.22	818	0.25	875	0.27
1000	570	0.09	627	0.13	738	0.19	800	0.26	848	0.29	895	0.31
1100	614	0.13	670	0.16	758	0.23	812	0.29	863	0.32	914	0.35
1200	658	0.16	710	0.23	780	0.28	840	0.32	889	0.36	938	0.40
1300	703	0.20	752	0.27	808	0.32	868	0.37	916	0.41	963	0.45
1400	725	0.29	776	0.31	845	0.38	891	0.42	937	0.47	983	0.51
1500	755	0.33	816	0.38	870	0.43	924	0.48	969	0.53	1014	0.58

549B036 (3 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)											
	0.7		0.8		0.9		1.0		1.1		1.2	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
900	924	0.32	953	0.35	989	0.38	1028	0.42	1074	0.49	1120	0.54
1000	936	0.35	977	0.39	1020	0.44	1064	0.48	1124	0.54	1185	0.60
1100	960	0.39	1005	0.43	1052	0.49	1100	0.52	1163	0.59	1225	0.65
1200	960	0.45	1038	0.50	1076	0.53	1136	0.59	1201	0.65	1266	0.72
1300	1012	0.51	1061	0.56	1090	0.61	1172	0.65	1239	0.72	1306	0.79
1400	1027	0.56	1071	0.60	1108	0.67	1208	0.70	1278	0.79	1347	0.87
1500	1056	0.63	1097	0.68	1117	0.70	1245	0.74	1315	0.87	1385	0.96

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 3.)

2. Maximum continuous bhp is 1.20.

3. Motor drive range: 760 to 1090 rpm. All other rpms require field-supplied drive.

549B048 (4 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)													
	0.1		0.2		0.3		0.4		0.6		0.7		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1200	514	0.15	590	0.20	657	0.25	723	0.30	828	0.42	876	0.49	924	0.55
1300	545	0.18	615	0.23	680	0.29	744	0.35	849	0.47	895	0.54	940	0.60
1400	577	0.21	642	0.27	704	0.33	766	0.39	870	0.52	915	0.59	959	0.66
1500	609	0.26	670	0.31	729	0.38	788	0.44	892	0.58	936	0.65	980	0.72
1600	642	0.30	699	0.36	755	0.43	811	0.49	913	0.64	957	0.72	1001	0.79
1700	675	0.36	728	0.42	782	0.49	836	0.55	935	0.71	979	0.79	1023	0.86
1800	709	0.41	759	0.48	810	0.55	860	0.62	957	0.78	1001	0.86	1044	0.94
1900	743	0.48	790	0.55	838	0.62	886	0.69	980	0.86	1023	0.95	1066	1.03
2000	778	0.55	836	0.62	875	0.70	913	0.77	1004	0.94	1046	1.03	1088	1.12

549B048 (4 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)											
	1.0		1.1		1.2		1.4		1.6		1.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1200	999	0.66	1018	0.67	1036	0.68	1073	0.71	1109	0.75	1138	0.79
1300	1025	0.74	1058	0.79	1090	0.84	1121	0.87	1159	0.90	1193	0.95
1400	1042	0.81	1080	0.88	1118	0.95	1175	1.06	1206	1.09	1244	1.12
1500	1060	0.88	1098	0.96	1136	1.04	1205	1.19	1258	1.30	1289	1.34
1600	1080	0.95	1117	1.04	1153	1.12	1224	1.29	1287	1.45	1337	1.56
1700	1101	1.03	1137	1.12	1172	1.20	1241	1.38	1307	1.56	1366	1.73
1800	1122	1.11	1157	1.20	1192	1.29	1258	1.48	1323	1.67	1385	1.86
1900	1143	1.21	1179	1.30	1214	1.39	1279	1.58	1341	1.78	1402	1.98
2000	1165	1.31	1200	1.40	1235	1.49	1300	1.69	1361	1.90	1419	2.10

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 1.20.

4. Motor drive range: 840 to 1185 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA (cont)

FAN PERFORMANCE — HORIZONTAL DISCHARGE UNITS (cont)

549B060 (5 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)									
	0.1		0.2		0.4		0.6		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1500	665	0.31	729	0.35	843	0.47	940	0.60	1026	0.74
1600	703	0.36	763	0.40	872	0.53	965	0.66	1049	0.81
1700	741	0.40	801	0.47	902	0.60	993	0.75	1077	0.89
1800	765	0.45	821	0.51	923	0.65	1019	0.81	1099	0.96
1900	802	0.45	854	0.58	953	0.73	1046	0.90	1126	1.06
2000	840	0.60	888	0.66	984	0.82	1073	0.99	1154	1.16
2100	878	0.69	923	0.75	1015	0.91	1101	1.08	1182	1.27
2200	916	0.78	958	0.85	1046	1.01	1129	1.19	1209	1.39
2300	954	0.89	993	0.96	1079	1.13	1160	1.31	1237	1.51
2400	993	1.00	1029	1.07	1112	1.25	1190	1.43	1264	1.63
2500	1031	1.13	1066	1.20	1145	1.39	1220	1.57	1292	1.77

549B060 (5 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)							
	1.0		1.2		1.4		1.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1500	1108	0.89	1187	1.06	1202	1.18	1079	1.10
1600	1130	0.97	1206	1.14	1275	1.32	1281	1.44
1700	1152	1.05	1226	1.23	1298	1.41	1359	1.60
1800	1178	1.14	1249	1.32	1316	1.52	1382	1.72
1900	1201	1.23	1274	1.43	1338	1.62	1402	1.83
2000	1226	1.33	1297	1.53	1363	1.73	1424	1.94
2100	1252	1.45	1320	1.64	1388	1.85	1448	2.07
2200	1280	1.58	1345	1.77	1410	1.97	1473	2.20
2300	1309	1.71	1372	1.91	1434	2.11	1496	2.34
2400	1336	1.85	1400	2.06	1459	2.26	1519	2.48
2500	1363	2.00	1428	2.22	1486	2.43	1543	2.65

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 1.80.

4. Standard motor drive range: 1020 to 1460 rpm. All other rpms require field-supplied drive.

549B072 (6 TONS) — STANDARD MOTOR (BELT DRIVE)

Airflow (Cfm)	External Static Pressure (in. wg)									
	0.1		0.2		0.4		0.6		0.8	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1800	765	0.45	821	0.51	923	0.65	1019	0.81	1099	0.96
1900	802	0.45	854	0.58	953	0.73	1046	0.90	1126	1.06
2000	840	0.60	888	0.66	984	0.82	1073	0.99	1154	1.16
2100	878	0.69	923	0.75	1015	0.91	1101	1.08	1182	1.27
2200	916	0.78	958	0.85	1046	1.01	1129	1.19	1209	1.39
2300	954	0.89	993	0.96	1079	1.13	1160	1.31	1237	1.51
2400	993	1.00	1029	1.07	1112	1.25	1190	1.43	1264	1.63
2500	1031	1.13	1066	1.20	1145	1.39	1220	1.57	1292	1.77
2600	1070	1.26	1103	1.34	1179	1.52	1251	1.71	1322	1.92
2700	1109	1.41	1140	1.48	1212	1.67	1283	1.87	1352	2.09
2800	1148	1.57	1177	1.64	1246	1.83	1316	2.04	1383	2.26
2900	1188	1.74	1215	1.81	1281	2.00	1349	2.22	1413	2.44
3000	1227	1.92	1253	2.00	1316	2.19	1382	2.42	1444	2.63

549B072 (6 TONS) — STANDARD MOTOR (BELT DRIVE) (cont)

Airflow (Cfm)	External Static Pressure (in. wg)							
	1.0		1.2		1.4		1.6	
	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
1800	1178	1.14	1249	1.32	1316	1.52	1382	1.72
1900	1201	1.23	1274	1.43	1338	1.62	1402	1.83
2000	1226	1.33	1297	1.53	1363	1.73	1424	1.94
2100	1252	1.45	1320	1.64	1388	1.85	1448	2.07
2200	1280	1.58	1345	1.77	1410	1.97	1473	2.20
2300	1309	1.71	1372	1.91	1434	2.11	1496	2.34
2400	1336	1.85	1400	2.06	1459	2.26	1519	2.48
2500	1363	2.00	1428	2.22	1486	2.43	1543	2.65
2600	1390	2.15	1456	2.38	1514	2.61	1569	2.83
2700	1418	2.31	1483	2.56	1543	2.80	—	—
2800	1446	2.48	1510	2.73	—	—	—	—
2900	1476	2.67	1537	2.92	—	—	—	—
3000	1506	2.88	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 2.40.

4. Standard motor drive range: 1120 to 1585 rpm. All other rpms require field-supplied drive.

549B036-120

PERFORMANCE DATA (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	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
2250	465	0.43	554	0.64	630	0.86	695	1.09	757	1.34
2300	471	0.45	559	0.66	635	0.89	699	1.12	760	1.37
2400	482	0.50	569	0.71	645	0.95	708	1.18	768	1.44
2500	494	0.54	581	0.76	654	1.01	717	1.25	776	1.51
2550	501	0.57	587	0.79	659	1.05	722	1.29	780	1.55
2600	507	0.59	592	0.82	663	1.08	727	1.32	784	1.58
2700	520	0.65	604	0.89	672	1.14	737	1.40	793	1.66
2800	533	0.71	615	0.95	683	1.20	747	1.49	802	1.75
2900	546	0.77	626	1.02	693	1.27	756	1.57	813	1.84
3000	559	0.83	637	1.09	704	1.35	765	1.66	823	1.94
3100	572	0.90	648	1.17	715	1.43	775	1.74	832	2.05
3200	585	0.96	660	1.24	727	1.52	785	1.83	841	2.15
3300	598	1.03	671	1.32	739	1.62	795	1.91	851	2.26
3400	610	1.10	682	1.41	750	1.72	806	2.01	860	2.36
3500	623	1.17	694	1.50	761	1.82	817	2.11	870	2.47
3600	636	1.25	707	1.60	772	1.93	828	2.23	880	2.57
3700	649	1.33	720	1.71	783	2.03	840	2.35	890	2.69
3750	655	1.37	727	1.77	789	2.09	846	2.42	896	2.75

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	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
2250	810	1.62	850	1.91	873	2.20	890	2.50	903	2.78
2300	816	1.65	859	1.94	888	2.24	897	2.55	922	2.85
2400	824	1.72	872	2.01	909	2.32	931	2.64	935	2.96
2500	832	1.79	882	2.09	925	2.40	955	2.72	972	3.06
2550	836	1.83	887	2.13	931	2.45	964	2.77	986	3.11
2600	839	1.87	891	2.17	936	2.49	973	2.82	999	3.16
2700	846	1.95	898	2.26	946	2.58	987	2.91	1019	3.26
2800	855	2.04	906	2.35	954	2.67	997	3.01	1034	3.36
2900	863	2.13	913	2.44	961	2.77	1006	3.12	—	—
3000	872	2.22	921	2.54	969	2.88	1014	3.22	—	—
3100	882	2.33	930	2.65	976	2.99	1021	3.34	—	—
3200	892	2.45	939	2.76	984	3.10	—	—	—	—
3300	902	2.57	948	2.88	993	3.21	—	—	—	—
3400	912	2.69	958	3.01	1002	3.34	—	—	—	—
3500	921	2.82	968	3.15	—	—	—	—	—	—
3600	930	2.95	978	3.29	—	—	—	—	—	—
3700	940	3.07	—	—	—	—	—	—	—	—
3750	945	3.14	—	—	—	—	—	—	—	—

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to page 87 for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2. indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 2.90.

4. Standard motor drive range: 725 to 925 rpm. All other rpms require field-supplied drive.

PERFORMANCE DATA (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	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
3000	459	0.35	595	0.74	657	0.88	716	1.05	770	1.24
3100	478	0.46	605	0.79	667	0.94	725	1.10	779	1.30
3200	500	0.57	615	0.85	679	1.01	734	1.16	787	1.36
3300	519	0.62	625	0.90	691	1.08	744	1.23	796	1.43
3400	537	0.69	637	0.97	702	1.16	753	1.30	805	1.50
3500	561	0.77	647	1.03	712	1.23	762	1.38	814	1.57
3600	592	0.86	658	1.10	721	1.30	773	1.47	823	1.65
3700	607	0.97	670	1.18	732	1.37	782	1.56	833	1.73
3800	621	1.05	681	1.25	742	1.45	795	1.66	842	1.82
3900	636	1.13	693	1.32	751	1.53	808	1.76	851	1.92
4000	650	1.21	705	1.40	761	1.61	819	1.86	861	2.02
4100	665	1.30	717	1.48	772	1.71	830	1.96	871	2.13
4200	680	1.39	728	1.57	783	1.81	839	2.05	883	2.25
4300	696	1.49	739	1.66	794	1.91	848	2.14	896	2.38
4400	711	1.60	750	1.75	805	2.02	857	2.24	908	2.51
4500	727	1.70	762	1.85	817	2.12	867	2.35	919	2.63
4600	742	1.82	774	1.96	828	2.23	877	2.46	929	2.75
4700	758	1.94	786	2.07	840	2.34	888	2.59	938	2.87
4800	773	2.06	799	2.18	852	2.46	899	2.72	947	2.98
4900	789	2.19	812	2.30	863	2.57	910	2.86	957	3.11
5000	805	2.32	826	2.43	875	2.70	921	2.99	966	3.24

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	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp	Rpm	Bhp
3000	822	1.44	872	1.69	919	1.88	950	1.70	962	1.82
3100	829	1.50	882	1.73	932	2.00	965	1.80	971	1.95
3200	837	1.56	886	1.78	943	2.06	978	1.91	984	2.07
3300	845	1.63	892	1.85	947	2.10	988	2.05	995	2.20
3400	853	1.71	899	1.93	951	2.17	995	2.17	1008	2.32
3500	862	1.78	907	2.01	959	2.24	1000	2.33	1021	2.47
3600	871	1.86	915	2.09	965	2.32	1005	2.46	1036	2.59
3700	879	1.95	927	2.17	973	2.38	1013	2.57	1046	2.73
3800	889	2.03	934	2.26	980	2.48	1022	2.69	1058	2.87
3900	898	2.12	942	2.36	987	2.59	1030	2.81	1068	3.01
4000	908	2.21	950	2.46	994	2.70	1037	2.92	1077	3.14
4100	917	2.32	960	2.55	1001	2.81	1045	3.04	1085	3.21
4200	925	2.44	969	2.65	1009	2.92	1051	3.17	1092	3.40
4300	935	2.56	979	2.77	1018	3.03	1058	3.29	1100	3.53
4400	945	2.68	988	2.89	1028	3.14	1066	3.41	1106	3.67
4500	955	2.82	996	3.02	1037	3.25	1074	3.54	1113	3.81
4600	967	2.96	1005	3.16	1046	3.38	1084	3.66	1121	3.95
4700	980	3.11	1015	3.30	1056	3.52	1093	3.79	1129	4.09
4800	992	3.26	1025	3.45	1064	3.67	1103	3.92	1137	4.22
4900	1003	3.41	1036	3.61	1073	3.83	1112	4.07	1147	4.36
5000	1014	3.56	1049	3.79	1083	4.00	1121	4.23	1157	4.50

LEGEND

Bhp — Brake Horsepower Input to Fan

Refer to this page for general Fan Performance notes.

NOTES:

1. **Boldface** indicates a field-supplied drive is required. (See Note 4.)

2.  indicates field-supplied motor and drive are required.

3. Maximum continuous bhp is 4.20 with standard motor.

4. Standard motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

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 Data table on page 89.
2. Values include losses for filters, unit casing, and wet coils. See page 88 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.

549B036-120

PERFORMANCE DATA (cont)
ACCESSORY/FIOP STATIC PRESSURE* (in. wg) — 549B036-072

COMPONENT	CFM									
	900	1200	1400	1600	1800	2000	2200	2400	2600	3000
1 Heater Module	0.05	0.07	0.09	0.09	0.10	0.11	0.11	0.12	0.13	0.15
2 Heater Modules	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.19
Durablade Economizer Accessory	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
EconoMi\$er	0.05	0.09	0.13	0.17	0.22	0.27	0.32	0.39	0.45	0.53

LEGEND

FIOP — Factory-Installed Option

*The static pressure must be added to external static pressure. The sum and the indoor 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) — 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
Durablade Economizer Accessory	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.09
EconoMi\$er	0.07	0.09	0.13	0.18	0.23	0.30	0.36	—	—	—

LEGEND

FIOP — Factory-Installed Option

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

FAN RPM AT MOTOR PULLEY SETTINGS* — 549B036-120

UNIT 549B	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1½	2	2½	3	3½	4	4½	5	5½	6
036	1090	1055	1025	990	960	925	890	860	825	795	760	—	—
048	1185	1150	1115	1080	1045	1015	980	945	910	875	840	—	—
060	1460	1425	1385	1350	1315	1275	1240	1205	1165	1130	1095	1055	1020
072	1585	1540	1490	1445	1400	1350	1305	1260	1210	1165	1120	—	—
090	925	905	888	865	845	825	805	785	765	745	725	—	—
120	1080	1060	1035	1015	990	970	950	925	905	880	860	—	—

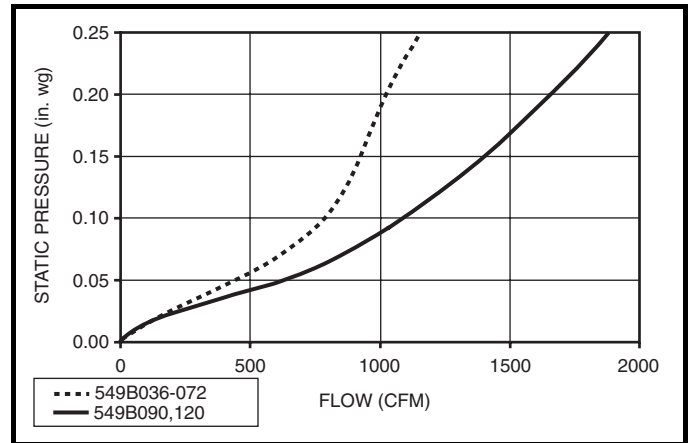
*Approximate fan rpm shown.

PERFORMANCE DATA (cont)

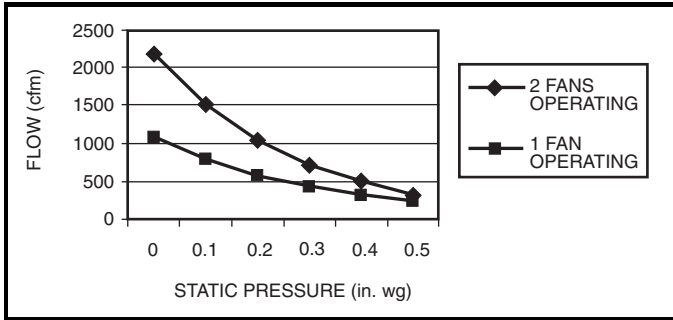
OPTIONAL POWER EXHAUST POWER REQUIREMENTS

UNIT SIZE	AMPS @ 230 V (2 Fans Running)	MOCP	
		230 VAC	460 VAC
549B036-072	1.40 Amps @ 60 Hz	15.0 amps	15.0 amps
549B090,120	3.04 Amps @ 60 Hz		

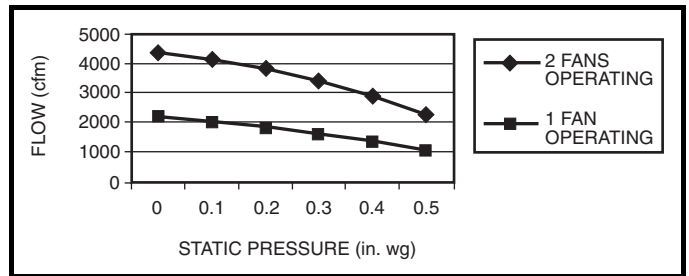
MOCP — Maximum Overcurrent Protection



EconoMiSer Barometric Relief Damper Characteristics



**EconoMiSer Power Exhaust Performance
(549B036-072)**



**EconoMiSer Power Exhaust Performance
(549B090,120)**

549B036-120

INDOOR-FAN MOTOR DATA — 549B036-120

UNIT 549B	UNIT PHASE	MAXIMUM CONTINUOUS BHP*	MAXIMUM OPERATING WATTS*	UNIT VOLTAGE	MAXIMUM AMP DRAW	MOTOR EFFICIENCY (%)
036	Single	1.20	1000	208/230	5.1	75
	Three	1.20	1000	208/230	5.1	
				460	2.3	
048	Single	1.20	1000	208/230	5.1	75
	Three	1.20	1000	208/230	5.1	
				460	2.3	
060	Single	1.80	1921	208/230	9.2	74
	Three	1.80	1921	208/230	6.1	
				460	2.7	
072	Three	2.40	2120	208/230	6.1	84
				460	2.7	
090	Three	2.90	2615	208/230	7.9	80
				460	3.6	
120	Three	4.20	3775	208/230	11.1	85
				460	5.0	

LEGEND

Bhp — Brake Horsepower Input to Fan

*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 (cont)

ELECTRIC HEATING CAPACITIES

UNIT 549B	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	ACCESSORY SINGLE POINT BOX PART NO. CRSINGLE---A00
036	208/230 (single phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
		13.0*	102*	004
	208/230 (3 phase)	4.4	101	—
		6.5	102	—
		8.7	103	—
		10.5	104	—
		16.0	105	—
048	208/230 (single phase)	6.0	106	—
		8.8	107	—
		11.5	108	—
		14.0	109	—
		21.0*	104*	004
	208/230 (3 phase)	6.5	102	—
		8.7	103	—
		13.0*	102*	004
		17.4*	103*	004
		21.0*	104*	004
060	208/230 (single phase)	6.5	102	—
		8.7	103	—
		13.0*	102*	004
		17.4*	103*	004
		21.0*	104*	004
	208/230 (3 phase)	10.5	104	—
		16.0	105	—
		21.0*	104*	002
		26.5*	105,104	002
072	208/230 (3 phase)	6.0	106	—
		11.5	108	—
		14.0	109	—
		23.0*	108*	—
		25.5*	109,108	—
	460 (3 phase)	6.5	102	—
		10.5	104	—
		16.0	105	—
		21.0*	104*	002
		26.5*	105,104	002

ELECTRIC HEATING CAPACITIES (cont)

UNIT 549B	VOLTAGE (60 Hz)	ACCESSORY kW	ACCESSORY HEATER PART NUMBER CRHEATER---A00	ACCESSORY SINGLE POINT BOX PART NO. CRSINGLE---A00
090	208/230 (3 phase)	10.4	117	006
		16.0	110	006
		24.8	111	007
		32.0	112	007
		42.4*	112,117	009
	460 (3 phase)	13.9	116	006
		16.5	113	006
		27.8	114	006
		33.0	115	006
		41.7*	114,116	008
120	208/230 (3 phase)	10.4	117	012
		16.0	110	012
		32.0	112	012
		42.4*	112,117	015
		50.0*	112,110	015
	460 (3 phase)	16.5	113	011
		27.8	114	011
		33.0	115	011†
		41.7*	114,116	014
		50.0*	115,113	014

*Two heater packages required to provide kW indicated.

†On units with factory-installed outlet, use CRSINGLE014A00.

NOTES: The kW ratings shown above are at 240 and 480 v. Use the Multiplication Factors table to determine heater capacity for your particular voltage.

MULTIPLICATION FACTORS

HEATER kW RATING	VOLTAGE DISTRIBUTION V/3/60	MULTIPLICATION FACTOR
240	200	.69
	208	.75
	230	.92
	240	1.00
480	440	.84
	460	.92
	480	1.00

EXAMPLE: 32.0 kW (at 240 v) heater on 208 v
 = 32.0 (.75 mult factor)
 = 24.0 kW capacity at 208 v.

OUTDOOR SOUND POWER (TOTAL UNIT)

549B	ARI RATING (dB)	OCTAVE BANDS; Lw (A)							
		63	125	250	500	1000	2000	4000	8000
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
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

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	23.7	129.0	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 23.6/27.1 31.3/36.3 47.1/54.2 63.0/72.5 76.0/87.5	35.2/ 35.2 55.1/ 58.1 74.4/ 80.6 94.1/103.0 114.0/125.9 130.2/144.6	40/ 40** 60/ 60** 80/ 90 100/110 125/150 150/150	34/ 34 52/ 55 70/ 75 88/ 96 106/117 121/134	142/142 158/161 174/179 189/196†† 205/215†† 218/230††
	208/230-3-60	187	254	13.5	99.0	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	22.5/ 22.5 39.5/ 42.0 45.0/ 48.6 64.1/ 70.6 77.4/ 85.6	25/ 25** 40/ 45** 45/ 50** 70/ 80 90/100	22/ 22 38/ 40 43/ 46 60/ 66 72/ 80	112/112 126/128 130/133 146/151 156/163
	460-3-60	414	508	7.4	49.5	0.4	2.2	— 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	57 64 70 73 84
060 (5 Tons)	208/230-1-60	187	254	28.8	169.0	1.5	8.8	—/— 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	46.3/ 46.3 75.8/ 80.2 85.4/ 91.7 105.2/114.1 125.1/136.9 141.3/155.7	50/ 50** 80/ 90 90/100 110/125 150/150 150/175	45/ 45 72/ 76 81/ 87 99/107 117/128 132/146	216/216 240/243 247/252†† 263/270†† 279/289†† 292/304††
	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 48/ 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	14.7 23.7 31.9 35.7 49.3 53.0	15** 25** 35** 40** 50** 60**	14 23 30 34 46 50	84 92 98 101 112 115
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

549B036-120

ELECTRICAL DATA (cont)
UNITS WITHOUT ELECTRICAL CONVENIENCE OUTLET (cont)

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
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	38.2/ 38.2 65.3/ 69.5 79.8/ 86.3 102.7/112.8 121.5/134.5 148.6/165.7	40/ 40** 70/ 70 80/ 90 110/125 125/150 150/175	40/ 40 65/ 69 79/ 85 100/109 117/129 142/158	242/242 264/267 275/281†† 294/302†† 309/319†† 330/344††
	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	19.2 40.1 44.0 61.0 68.8 82.0	20** 45** 45** 70 70 90	20 39 43 59 66 78	121 138 141 155 161 171
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 24.0/32.0 31.8/42.4 37.6/50.0	—/— 21.7/ 25.0 33.3/ 38.5 66.6/ 77.0 88.3/102.0 104.4/120.3	56.8/ 56.8 84.0/ 88.1 98.5/105.0 140.1/153.1 167.2/184.3 187.3/177.1	60/ 60** 90/ 90 100/110 150/175 175/200 200/200	60/ 60 85/ 89 98/104 136/148 161/177 180/198	337/337 358/362†† 370/375†† 403/414†† 425/439†† 441/457††
	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	28.7 53.3 70.5 78.3 91.5 88.8	30 60 80 80 100 100	30 53 69 76 88 99	170 189 203 209 220†† 230††

LEGEND AND NOTES FOR ELECTRICAL DATA TABLES

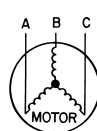
LEGEND

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.



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

Determine maximum deviation from average voltage.

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

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

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

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



*Used to determine minimum disconnect per NEC.

†Heater capacity (kW) is based on heater voltage of 208 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 cannot be used.

***Units have 2 outdoor fan motors.

NOTES:

- In compliance with NEC requirements for multimotor and combination load and 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 percent of voltage imbalance.

ELECTRICAL DATA (cont)

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	23.7	129.0	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 23.6/27.1 31.3/36.3 47.1/54.2 76.0/87.5	40.0/ 40.0 59.9/ 62.9 79.2/ 85.4 98.9/107.8 118.8/130.7 135.0/149.4	45/ 45** 60/ 70 80/ 90 100/110 125/150 150/150	39/ 39 58/ 60 75/ 81 93/102 112/123 127/140	147/147 163/165 178/183†† 194/201†† 210/220†† 223/235††
	208/230-3-60	187	254	13.5	99.0	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	27.3/ 27.3 44.3/ 46.8 49.8/ 53.4 68.9/ 75.4 82.2/ 90.4	30/ 30** 45/ 50** 50/ 60** 70/ 80 90/100	27/ 27 43/ 45 48/ 52 66/ 72 78/ 86	117/117 131/133 135/138 150/156 161/168††
	460-3-60	414	508	7.4	49.5	0.4	2.2	— 6.0 11.5 14.0 23.0	— 7.2 13.8 16.8 27.7	14.0 23.0 31.3 35.0 48.7	15** 25** 35** 40** 50**	14 22 30 33 46	59 66 73 76 86
060 (5 Tons)	208/230-1-60	187	254	28.8	169.0	1.5	8.8	—/— 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	51.1/ 51.1 80.6/ 85.0 90.2/ 96.5 110.0/118.9 129.9/141.7 146.1/160.5	60/ 60** 90/ 90 100/100 110/125 150/150 150/175	50/ 50 78/ 82 86/ 92 105/113 123/134 138/151	221/221 245/248†† 252/257†† 268/275†† 284/293†† 297/308††
	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	16.8 25.8 34.1 37.8 51.5 55.2	20** 30** 35** 40** 60** 60**	17 25 33 36 49 52	87 94 100 103 114 117
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	94 101 108 111 122 125

549B036-120

ELECTRICAL DATA (cont)
UNITS WITH ELECTRICAL CONVENIENCE OUTLET (cont)

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
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††
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 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/ 92.9 103.3/109.6 144.9/157.9 172.0/189.1 192.1/181.9	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 AND NOTES FOR ELECTRICAL DATA TABLES

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



*Used to determine minimum disconnect per NEC.
†Heater capacity (kW) is based on heater voltage of 208 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 cannot be used.
***Units have 2 outdoor fan motors.

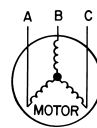
NOTES:

- In compliance with NEC requirements for multimotor and combination load and 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 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

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

Determine maximum deviation from average voltage.

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

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

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

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

549B036-120



TYPICAL WIRING SCHEMATIC (cont)

LEGEND FOR TYPICAL WIRING SCHEMATIC

IMPORTANT: Consult unit wiring label for actual wiring schematic.

AHA — Adjustable Heat Anticipator
AWG — American Wire Gage
C — Contactor, Compressor
CAP — Capacitor
CB — Circuit Breaker
CC — Cooling Compensator
CLO — Compressor Lockout
COMP — Compressor Motor
DB — Defrost Board
DFT — Defrost Thermostat
ECON — Economizer
FPT — Freeze-Up Protection Thermostat
FSS — Filter Status Switch
FU — Fuse
GND — Ground
HC — Heater Contactor (Strip Heat)
HPS — High-Pressure Switch
HR — Heater Relay
IFC — Indoor-Fan Contactor
IFM — Indoor-Fan Motor
LPS — Low-Pressure Switch
LSM — Limit Switch (Manual Reset)
MTR — Motor
OAT — Outdoor-Air Thermostat
OFM — Outdoor-Fan Motor
P — Plug
PL — Plug Assembly
QT — Quadruple Terminal
R — Relay
RAT — Return-Air Thermostat

RVS — Reversing Valve Solenoid
SAT — Supply Air Thermostat
SW2 — Switch, Fully Closed
SW3 — Switch, Minimum Vent Position
TB — Terminal Block
TC — Thermostat-Cooling
TH — Thermostat-Heating
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

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. Thermostat:
HH07AT170, 172, 174
Subbase:
HH93AZ176
4. Set heat anticipator at .8 amp for 1st stage & .3 amp for 2nd stage.
5. Use copper conductors only.
6. Use copper, copper clad aluminum. or aluminum conductors.
- 7.

VOLTAGE RATING	CB	MUST TRIP AMPS
	HFG. PT. NO.	
24V	POTTER & BRUNFIELD	3.2
	W2BX-1024-3.2	

GUIDE SPECIFICATIONS — 548F AND 549B036-120 UNITS

PACKAGED ROOFTOP AIR-TO-AIR HEAT PUMP — CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 3 TO 10 TONS, NOMINAL (COOLING)

BRYANT MODEL NUMBER: 548F,
549B

PART 1 — General

1.01 SYSTEM DESCRIPTION

Outdoor rooftop mounted, electrically controlled air-to-air heat pump unit utilizing a hermetic reciprocating (548F) or scroll (549B) compressor for cooling and heating duty and electric resistance coils for auxiliary heating duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with ARI Standards 210/240 or 360 and 270. Designed in accordance with UL Standard 1995.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision.
- C. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- G. Unit shall be designed in accordance with ISO 9001, and shall be manufactured in a facility registered to ISO 9002/BS5750, Part 2.
- H. Each 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, 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. 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 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 or reciprocating type.
2. Factory mounted on rubber grommets and internally spring mounted for vibration isolation.
3. On independent circuits (548F090-120 and 549B090,120).

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. 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.

548F/549B036-120

GUIDE SPECIFICATIONS — 548F AND 549B036-120 UNITS (cont)

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.
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 115 F (548F) or 125 F (549B) 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.
3. Compressor with optional 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.

GUIDE SPECIFICATIONS — 548F AND 549B036-120 UNITS (cont)

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.
- b. Includes all hardware and controls to provide cooling with outdoor air.
- c. Equipped with low-leakage dampers, not to exceed 3% leakage at 1 in. wg pressure differential.
- d. Capable of introducing up to 100% outdoor air.
- e. EconoMi\$er shall be equipped with a barometric relief damper.
- f. Designed to close damper(s) during loss-of-power situations with spring return built into motor.
- g. Dry bulb outdoor-air temperature sensor shall be provided as standard. Enthalpy, differential temperature, and differential enthalpy control shall be provided as an option.
- h. EconoMi\$er is a gear-driven parallel blade design.
- i. EconoMi\$er shall provide control of internal building pressure through its accessory two-stage power exhaust function.
- j. EconoMi\$er shall be capable of control from a 4 to 20 mA signal.

3. 25% Manual Outdoor-Air Damper:

Manual damper package shall consist of damper, birdscreen, and rainhood which can be preset to admit up to 25% outdoor air for year-round ventilation.

*4. 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.

*5. 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.

*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:

Consists of solid-state control and condenser-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling 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:

Capable of using deluxe full-featured electronic thermostat. Shall use built-in compressor cycle delay control for both heating and cooling duty.

*10. Thermostat and Subbase:

Provides staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.

*11. Outdoor Coil Hail Guard Assembly:

Hail guard shall protect against damage from hail and flying debris.

*12. Unit-Mounted, Non-Fused Disconnect Switch:

Shall be factory-installed, internally mounted. NEC and UL approved non-fused switch shall provide unit power shutoff. Shall be accessible from outside the unit and shall provide power off lockout capability.

*13. Convenience Outlet:

Shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. 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. Shall be accessible from outside the unit.

*14. Outdoor Coil Grille:

The grille protects the outdoor coil from damage by large objects without increasing unit clearances.

GUIDE SPECIFICATIONS — 548F AND 549B036-120 UNITS (cont)

15. Compressor Cycle Delay:

Unit shall be prevented from restarting for minimum of 5 min. after shutdown.

*16. Thru-the-Bottom Utility Connectors:

Kit shall provide connectors to permit electrical connections to be brought to the unit through the basepan.

*17. Fan/Filter Status Switch:

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

*18. Solid-State Enthalpy Control:

- a. For use with Durablade economizer package only.
- b. Capable of sensing outdoor-air enthalpy content (temperature and humidity) and controlling economizer cut-in point to have minimum heat content air passing over the indoor coil for most efficient system operation.

*19. Differential Enthalpy Sensor:

- a. For use with Durablade economizer only.
- b. Capable of comparing enthalpy content (temperature and humidity) of outdoor and indoor air and controlling economizer cut-in point at the most economical level.

*20. EconoMi\$er with Power Exhaust:

Package shall provide control of internal building pressure. The two-stage system shall exhaust up to 100% of return air (vertical only).

*21. Two-Stage Power Exhaust Accessory for EconoMi\$er:

Power exhaust shall be used in conjunction with EconoMi\$er to provide system exhaust of up to 100% of return air. The power exhaust is a field-installed accessory (vertical and horizontal applications).

The individual fans are energized through the end switches located in the actuator, which will open as the outdoor-air damper opens. These end switches are factory set for 30 and 70% of outdoor-air, and can be set to meet specific job requirements.

*22. Outdoor Air Enthalpy Sensor:

The outdoor air enthalpy sensor shall be used with the EconoMi\$er device to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the EconoMi\$er device will provide differential enthalpy control. The sensor allows the EconoMi\$er controller to determine if outside air is suitable for free cooling.

*23. Return Air Enthalpy Sensor:

The return air enthalpy sensor shall be used with the EconoMi\$er device. When used in conjunction with an outdoor air enthalpy sensor, the EconoMi\$er device will provide differential enthalpy control.

*24. Return Air Temperature Sensor:

The return air temperature sensor shall be used with the EconoMi\$er device. When used in conjunction with the standard outdoor air temperature sensor, the EconoMi\$er device will provide differential temperature control.

*25. Power Exhaust Auxiliary Transformer:

Field-installed 460v to 230v transformer to provide power to the 230v power exhaust when attached to a 460v rooftop unit.

*26. 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 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. 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 air-flow of 120 microwatts/cm² at 1 meter.

*27. Hinged Panel Option (549B only):

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.

28. Emergency Heat Control Package:

When mechanical heating is locked out, auxiliary heat shall be activated when necessary.

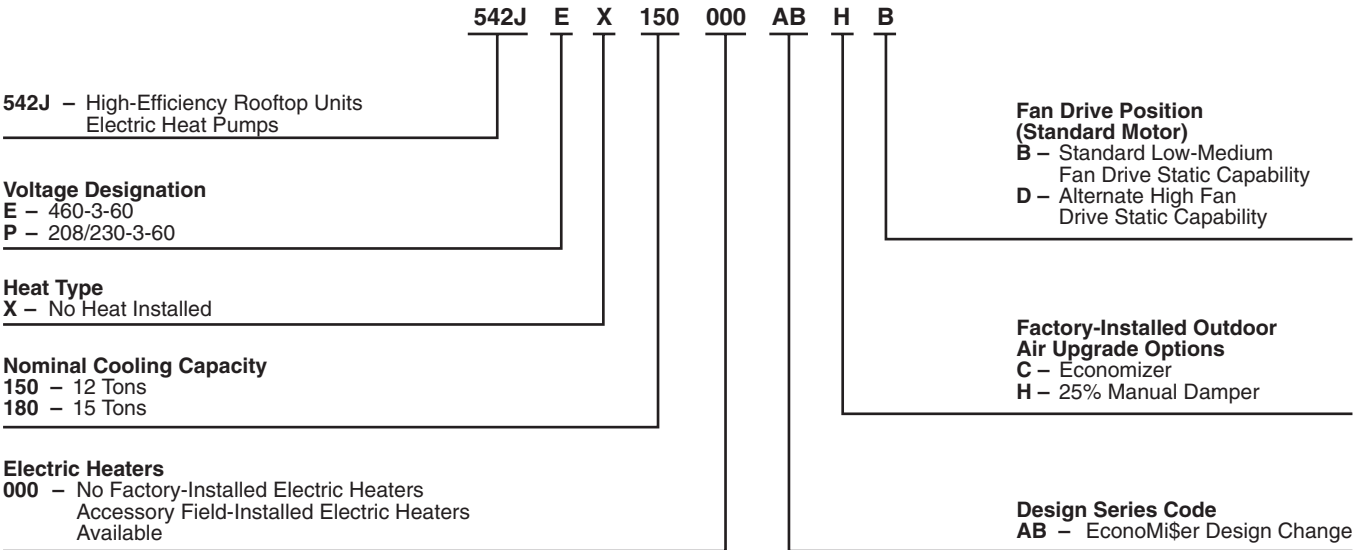
29. Alternate Motors and/or Drives 548F036-060, 090, 120):

Alternate motors and drives shall be factory-installed to provide additional performance range.

30. High-Static Motor(s) and Drive(s) (548F036-120):

High-static motor(s) and drive(s) shall be factory-installed to provide and additional performance range.

MODEL NUMBER NOMENCLATURE — 542J150,180 UNITS



Quality Assurance



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

ARI* CAPACITY RATINGS

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
kW — Kilowatts
wb — Wet Bulb



*Air-Conditioning and Refrigeration Institute.

NOTES:

542J units are rated in accordance with ARI Standard 340.

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

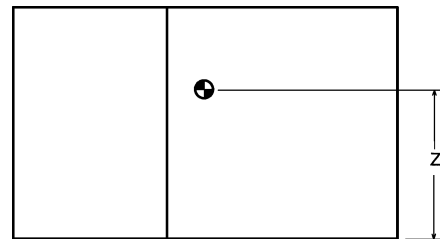
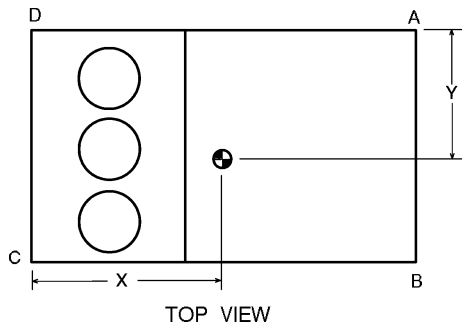
Cooling Standard: 80 F db, 67 wb indoor coil entering-air temperature and 95 F outdoor entering-air temperature.

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.

PHYSICAL DATA



SIDE VIEW

WEIGHT DISTRIBUTION AND CENTER OF GRAVITY

UNIT 542J	WEIGHT		WEIGHT OF CORNER								DIMENSIONS					
	Lb	Kg	A		B		C		D		X		Y		Z	
			Lb	Kg	Lb	Kg	Lb	Kg	Lb	Kg	ft-in.	mm	ft-in.	mm	ft-in.	mm
150	1615	733	366	166	356	161	360	163	534	242	3'-1"	947	3'-2"	965	1'-10"	559
180	1925	874	464	211	496	225	477	217	487	221	3'-6"	1059	3'-8"	1105	1'-10"	559

PHYSICAL DATA (cont)

542J150,180

UNIT 542J	150	180
OPERATING WT (lb)		
Unit	1615	1925
Electric Heat	65	65
EconoMi\$er	80	80
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)	11	88 (each)
REFRIGERANT TYPE		
	R-22	
Charge (lb)		
System 1	26.0	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...12 x 12
Nominal Cfm	5000	6000
Fan Rpm Range	891-1179	817-1038
	1227-1559	1082-1303
Motor Nominal Rpm	1725	1745
Maximum Allowable Rpm	1550	1550
Motor Pulley Pitch Diameter (in.)	3.1-4.1	3.7-4.7
	3.7-4.7	4.9-5.9
Fan Pulley Pitch Diameter (in.)	6.0	7.9
	5.2	7.9
Belt, Quantity...Type...Length (in.)	1...BX...42	1...BX...46
	1...BX...42	1...BX...50
Pulley Center Line Distance (in.)	13.5-15.5	13.3-14.8
Factory Setting	3.5	3.5
Factory Speed Setting	1035	934
	1389	1199
Motor Hp (Service Factor)	3.7 (1.15)	5 (1.15)
Motor Frame Size	56H	184T
Motor Efficiency	0.86	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
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)	

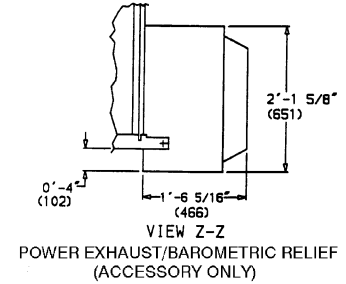
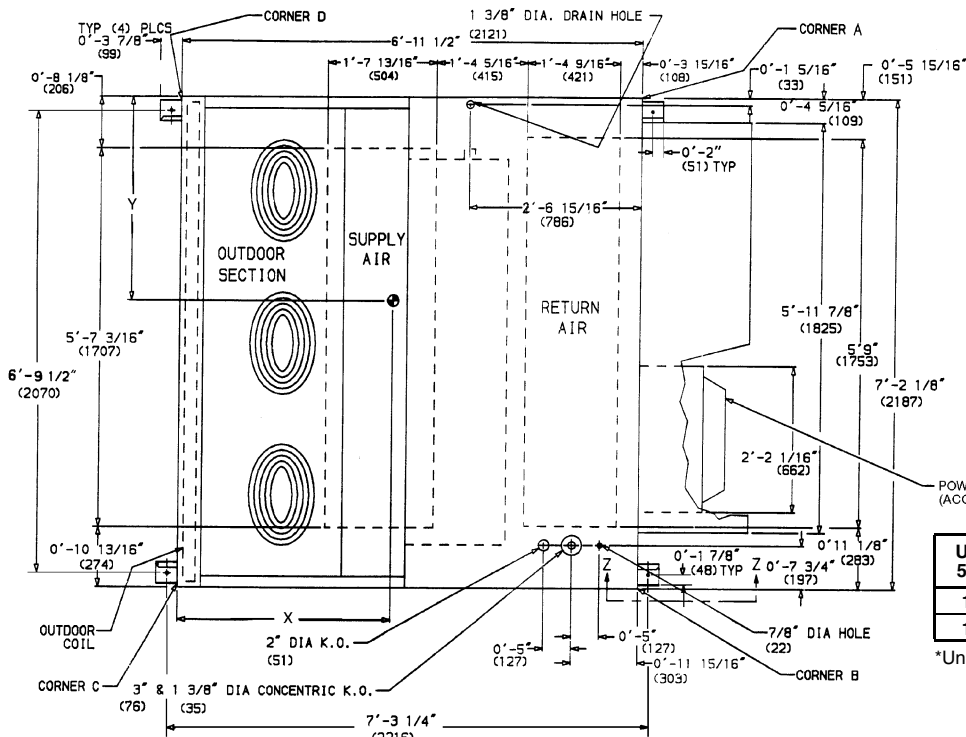
LEGEND

Al — Aluminum
Cu — Copper

*Weight of 14 in. roof curb

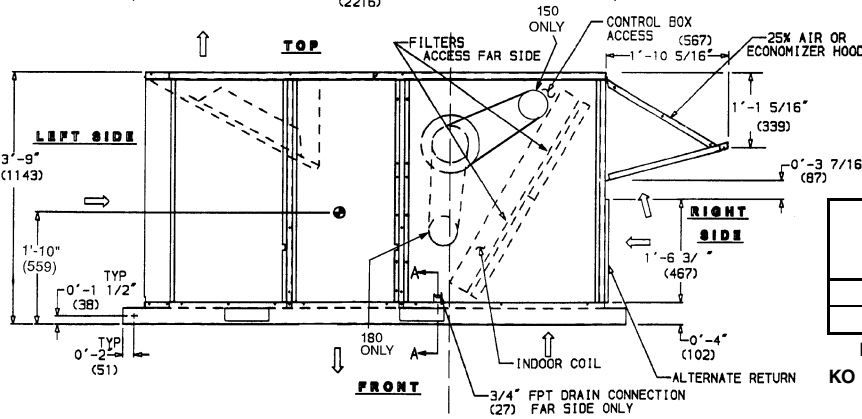
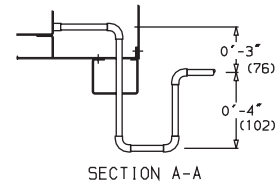
542J150,180

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

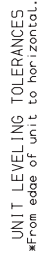
*Weights are for unit only and do not include options or crating.

542J150,180

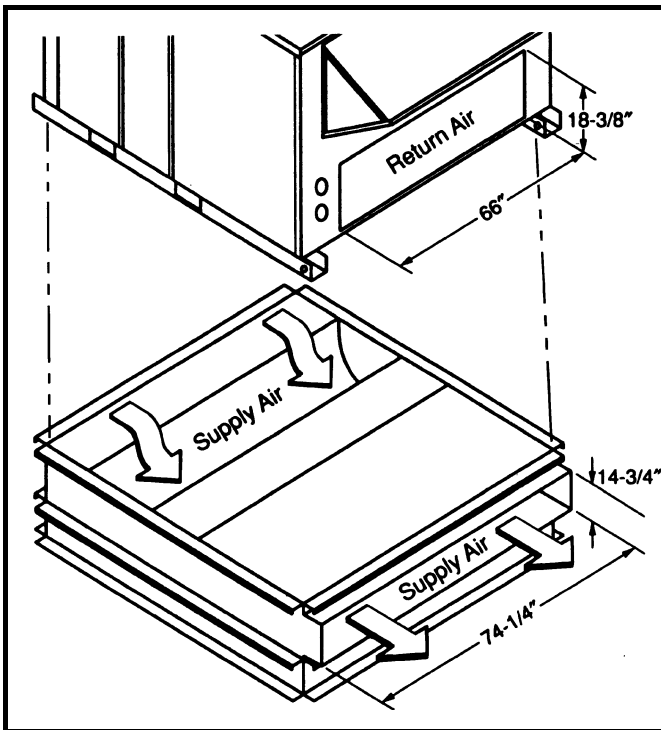
542J150,180

542J150,180

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



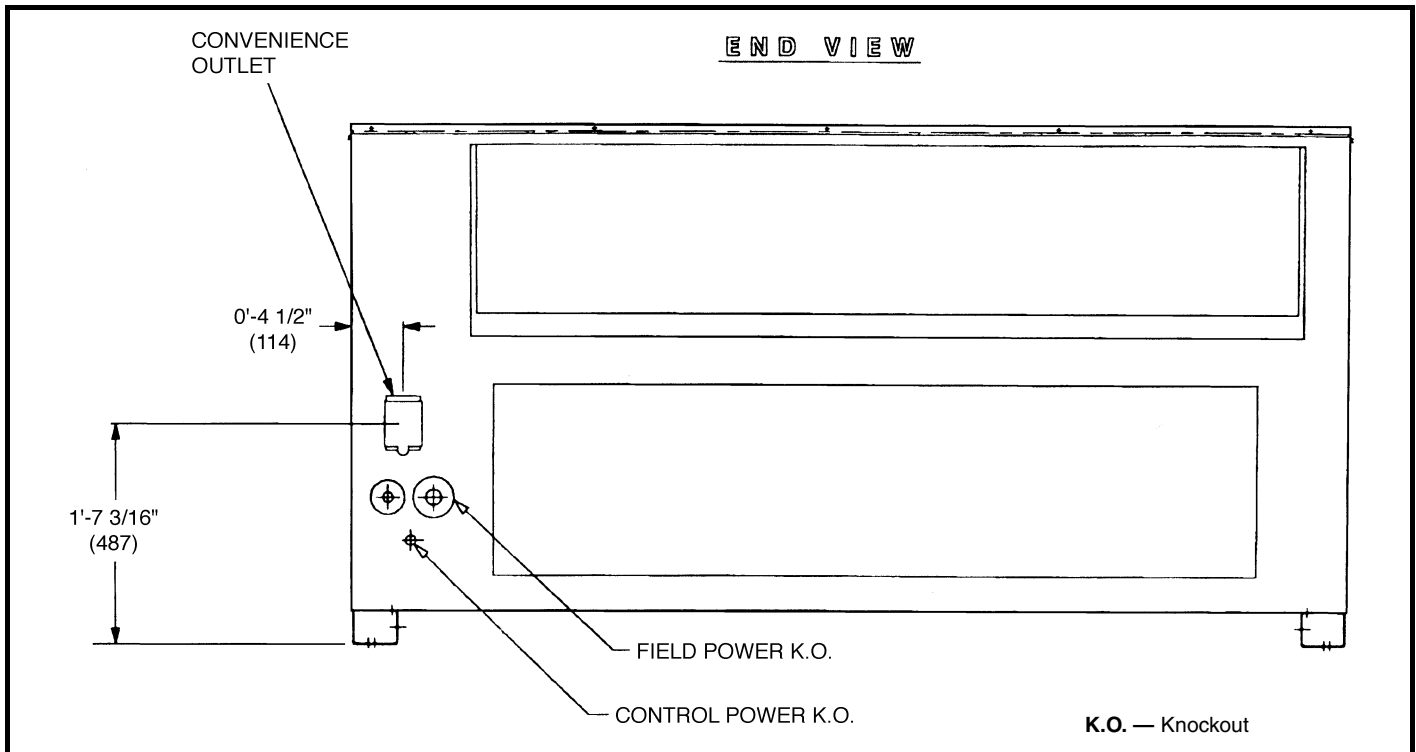
ACCESSORY DIMENSIONS (cont)



NOTE: CRRFCURB013A00 is a fully factory pre-assembled horizontal adapter which includes an insulated high static regain transition duct and substantially improves fan static performance. Power exhaust and barometric relief accessories cannot be used with factory pre-assembled, high static, horizontal adapter.

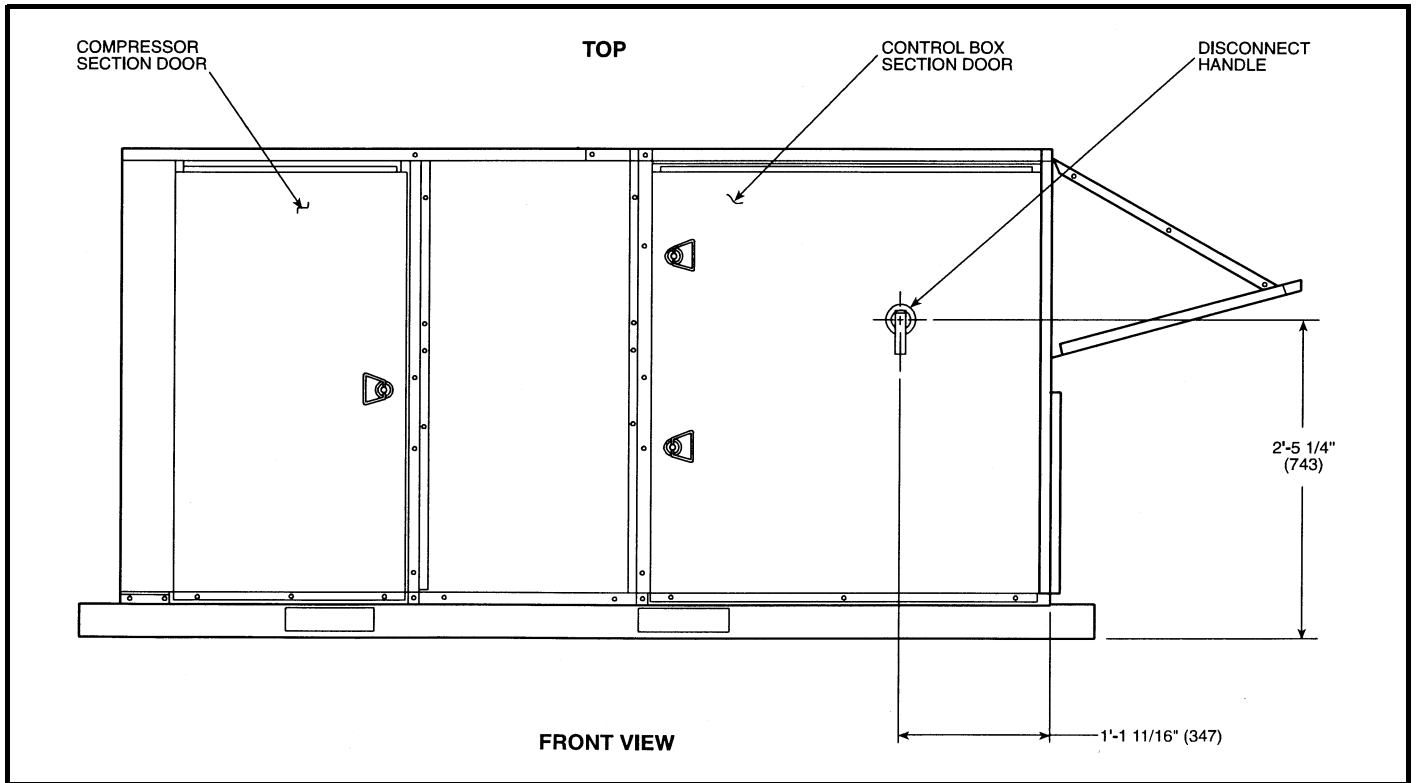
ACCESSORY PACKAGE NO.	CURB HEIGHT	DESCRIPTION
CRRFCURB013A00	2'-0" (610)	Pre-Assembled High Static Horizontal Adapter

Horizontal Adapter Installation — 542J150,180

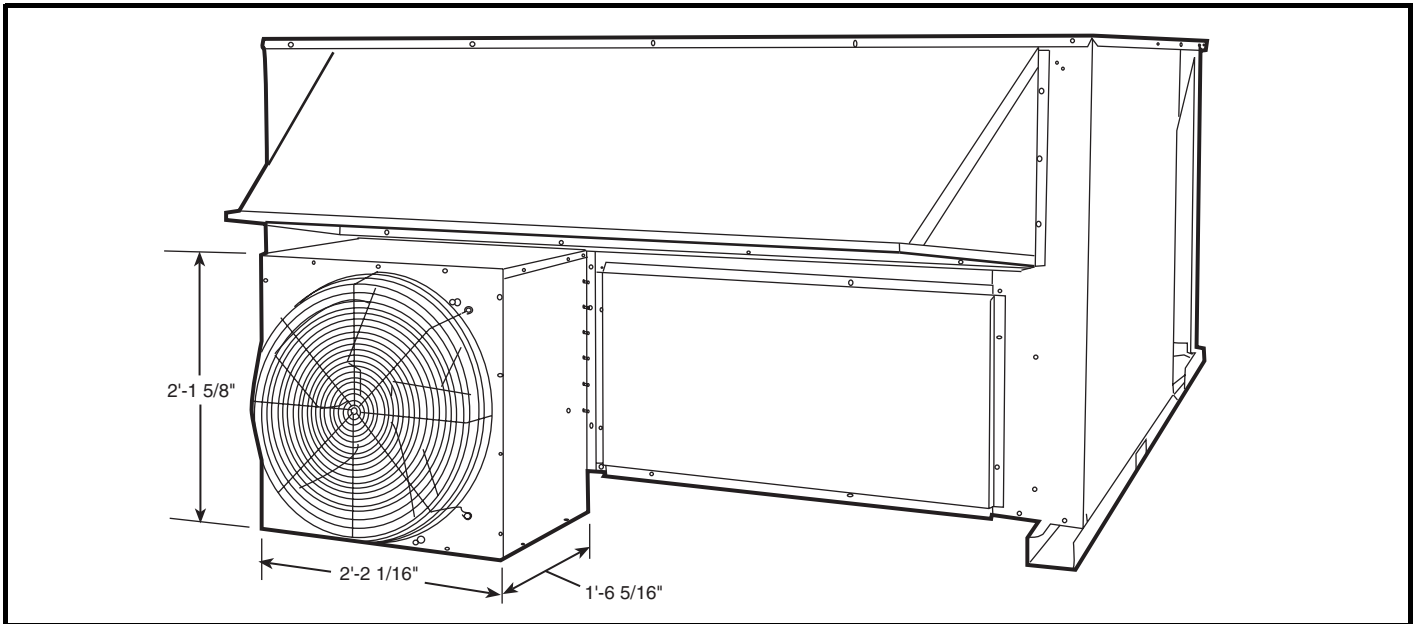


Convenience Outlet — 542J150,180

ACCESSORY DIMENSIONS (cont)



Non-Fused Disconnect — 542J150,180



Power Exhaust — 542J150,180

542J150,180

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

EconoMi\$er is specified.

Edb — Entering dry bulb

Ewb — Entering wet bulb

II SELECT UNIT BASED ON REQUIRED COOLING CAPACITY.

Enter Cooling Capacity table on page 109 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 109.

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 110 at 6000 cfm. 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 (interpolation required).

The required heating capacity is 170,000 Btuh; therefore, 111,500 Btuh (170,000 – 58,500) additional electric heat is necessary.

Determine the additional electric heat capacity in kW.

$$\frac{111,500 \text{ Btuh}}{3412 \text{ Btuh/kW}} = 32.6 \text{ kW}$$

Enter the Electric Heating Capacities table at 230-3-60. The 34-kW heater satisfies the electric heater requirements.

IV DETERMINE FAN SPEED AND MOTOR HORSEPOWER 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 112, find:

External static pressure	1.30 in. wg
EconoMi\$er 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 111. 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 are 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:

Net capacity = Gross capacity – IFM heat

$$= 180,800 - 3.95 \text{ bhp} \times \frac{2545 \frac{\text{Btuh}}{\text{hp}}}{.85}$$

$$= 180,800 - 11,827$$

$$= 168,973 \text{ Btuh}$$

$$\text{Net sensible capacity} = 136,400 - 11,827$$

$$= 124,573 \text{ Btuh}$$

Determine net heating capacity as follows:

Net capacity =

$$\begin{aligned} &\text{Gross capacity} + \text{IFM heat} + \text{Electric heat capacity} \\ &= 58,500 + (\text{IFM kW} \times 3412) + (\text{Elec. kW} \times 3412) \\ &= 58,500 + 11,827 + (34 \times 3412) \\ &= 58,500 + 11,827 + 116,008 \\ &= 186,335 \text{ Btuh} \end{aligned}$$

PERFORMANCE DATA

COOLING CAPACITIES

542J150																
Temp (F) Air Ent Outdoor Coil		Air Entering Indoor Coil — Cfm/BF														
		3750/0.04			4500/0.05			5000/0.05			5625/0.06			6250/0.07		
		Air Entering Indoor Coil — Ewb (F)														
		72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
75	TC SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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

542J180																
Temp (F) Air Ent Outdoor Coil		Air Entering Indoor Coil — Cfm/BF														
		4500/0.06			5250/0.08			6000/0.10			6750/0.10			7500/0.12		
		Air Entering Indoor Coil — Ewb (F)														
		72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
75	TC SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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 SHC kW	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
		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
		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:

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

PERFORMANCE DATA (cont)
INTEGRATED HEATING CAPACITIES

542J150																					
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																					
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.

$$\text{Ldb F} = \text{Edb F} + \frac{\text{Total heating cap. (Btuh)}}{1.10 \times \text{airflow cfm}}$$

4. For supplementary glycol coil:
 Fluid flow Gpm

$$= \frac{\text{fluid capacity (Btuh)}}{500 \times \text{fluid temperature drop (F)}}$$

PERFORMANCE DATA (cont) **FAN PERFORMANCE — VERTICAL DISCHARGE UNITS**

542J150															
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 (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
Refer to this page for general Fan Performance notes.

NOTES:
 1. Standard drive range is 891 to 1179 rpm. Alternate drive range is 1227 to 1559. Other rpms may require a field-supplied drive.
 2. 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.

542J180															
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 (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
Refer to this page for general Fan Performance notes.

NOTES:
 1. Standard drive range is 817 to 1038 rpm. Alternate drive range is 1082 to 1303. Other rpms may require a field-supplied drive.
 2. 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.

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 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 114.
- Values include losses for filters, unit casing, and wet coils. See page 112 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.

PERFORMANCE DATA (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
	180	208/230-3-60	26.34 42.56	*	*	*	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
EconoMi\$er	All	All	—	0.03	0.03	0.05	0.06	0.07	0.07	0.09	0.10
Glycol Coil	All	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:

- Heaters are rated at 208/240 v and 480 v.
- 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.

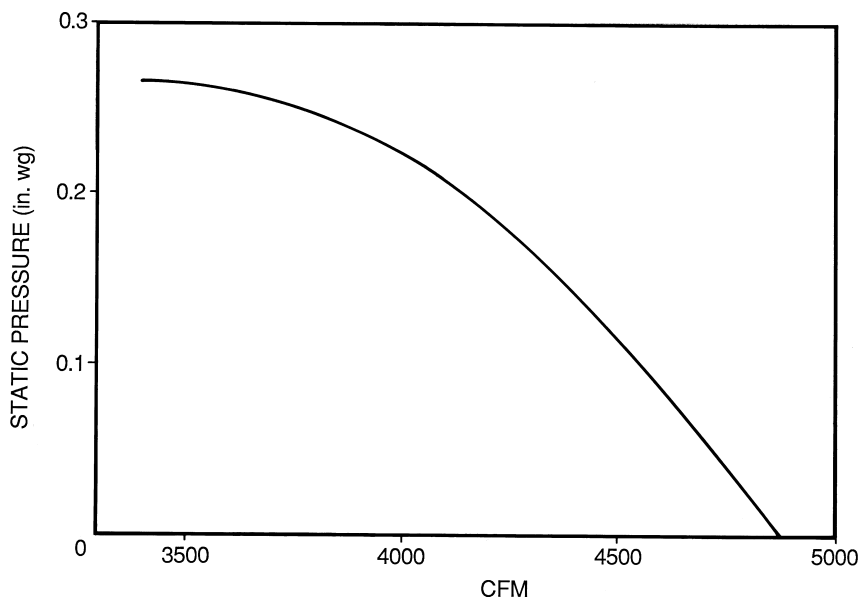
FAN RPM AT MOTOR PULLEY SETTINGS* — 542J150,180

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†	—	—	1179	1150	1121	1093	1064	1035	1006	978	949	920	891
150**	—	—	1559	1522	1488	1455	1422	1389	1356	1323	1289	1256	1227
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.

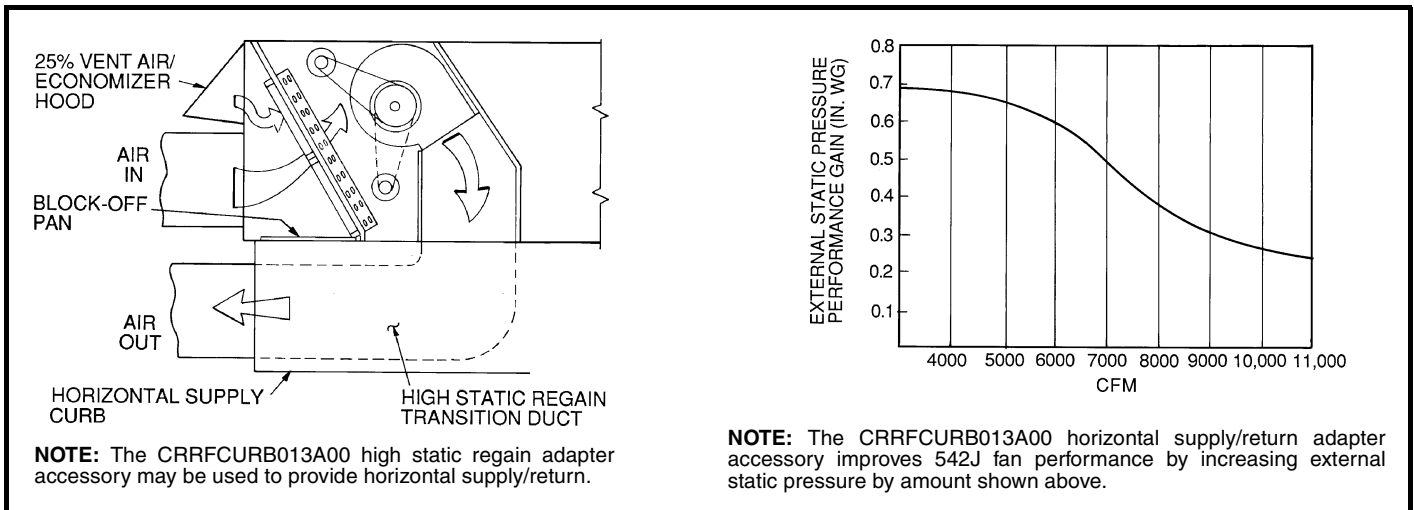
†Standard motor with standard drive.

**Standard motor with alternate drive.



Fan Performance Using Accessory Power Exhaust

PERFORMANCE DATA (cont)



Horizontal Supply/Return Fan Performance with CRRFCURB013A00 High Static Regain Adapter

ELECTRIC HEATING CAPACITIES — 542J150,180

UNIT 542J	HEATER kW			HEATER STAGES	% HEAT PER STAGE	MAXIMUM STAGES*
	Unit Voltages					
	208	230	460			
150	14	19	15	1	100	1
	26	34	32	2	50/50	2
	42	56	55	2	33/67	3
180	26	34	32	2	50/50	2
	42	56	55	2	33/67	3

*Maximum number of stages using accessory outdoor-air thermostats.

NOTE: Heaters are rated at 208 v, 240 v and 480 v. See multiplication factors table on page 54.

GLYCOL COIL DATA*

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

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.

PERFORMANCE DATA (cont)

INDOOR-FAN MOTOR PERFORMANCE — 542J150,180

UNIT 542J	UNIT VOLTAGE	MAXIMUM ACCEPTABLE CONTINUOUS BHP*	MAXIMUM ACCEPTABLE OPERATING WATTS	MAXIMUM AMP DRAW	MOTOR EFFICIENCY
150	208/230	4.25	3775	10.5	85.8
	460			4.9	85.8
180	208/230	5.90	5180	15.8	87.5
	460			7.9	87.5

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.

ELECTRICAL DATA

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														
		Min	Max	RLA	LRA	RLA	LRA	Qty	FLA (ea)	Hp	FLA	FLA	LRA	FLA	kW	MCA	MOCP†	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	
	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	

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

NOTES:

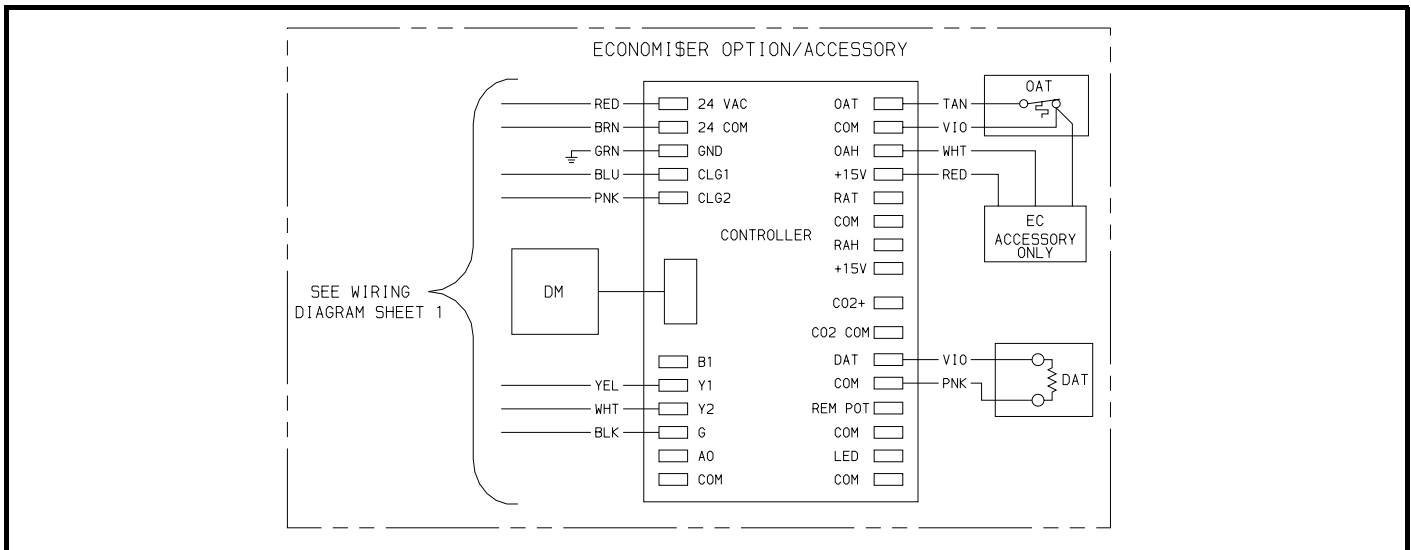
- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. The Canadian units may be fuse or circuit breaker.
- MCA calculation for units with electric heaters over 50 kW = (1.25 x IFM amps) + (1.00 x heater FLA).

*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. This is the maximum size permissible; smaller fuse size may be used where conditions permit.



TYPICAL WIRING SCHEMATIC (cont)



LEGEND AND NOTES FOR TYPICAL WIRING SCHEMATIC

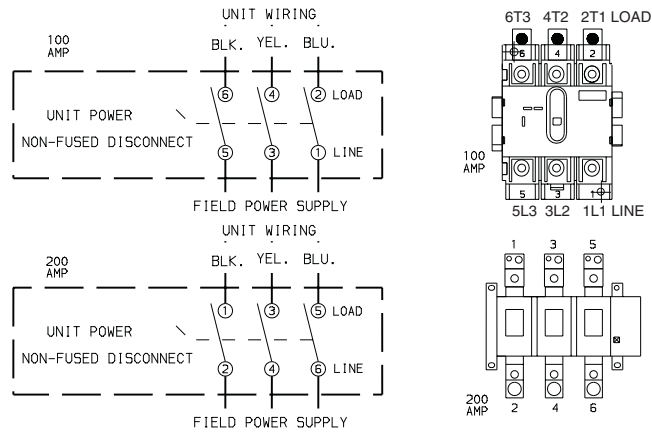
AHA	— Adjustable Heat Anticipator
BKR W/AT	— Breaks with Amp Turns
C	— Contactor, Compressor
CAP	— Capacitor
CB	— Circuit Breaker
CC	— Cooling Compensator
CH	— Crankcase Heater
CLO	— Compressor Lockout
COMP	— Compressor Motor
CT	— Current Transformer
CTD	— Compressor Time Delay
DAT	— Discharge Air Thermistor
DB	— Defrost Board
DFT	— Defrost Thermostat
DM	— Damper Motor
DR	— Defrost Relay
DU	— Dummy Terminal
EC	— Enthalpy Control
EQUIP	— Equipment
FL	— Fuse Link
FPT	— Freeze Protection Thermostat
GND	— Ground
HC	— Heater Contactor
HPS	— High-Pressure Switch
HR	— Heat Relay
HTR	— Heater
IFC	— Indoor-Fan Contactor
IFCB	— Indoor-Fan Circuit Breaker
IFM	— Indoor Fan Motor
IP	— Internal Protector

L	— Light
LOR	— Lock Out Relay
LPS	— Low-Pressure Switch
LS	— Limit Switch
OAT	— Outdoor-Air Thermostat
OFC	— Outdoor-Fan Contactor
OFM	— Outdoor Fan Motor
OP	— Overcurrent Protector
PL	— Plug Assembly
QT	— Quadruple Terminal
RVR	— Reversing Valve Relay
RVS	— Reversing Valve Solenoid
TB	— Terminal Block
TC	— Thermostat Cooling
TH	— Thermostat Heating
TRAN	— Transformer
	Terminal (Marked)
	Terminal (Unmarked)
	Terminal Block
	Splice
	Factory Wiring
	Field Wiring
	Option/Accessory Wiring
	To Indicate Common Potential Only: Not To Represent Wiring

NOTES:

- Compressor and/or fan motor(s) thermally protected. Three-phase motors are protected against primary single phasing conditions.
- If any of the original wire furnished must be replaced, it must be replaced with type 90° C wire or its equivalent.
- CB1,2 must trip amps are equal to or less than 156% FLA, IFCB 140%.
- The CLO locks out the compressor to prevent short cycling on compressor overload and safety devices. Before replacing CLO, check these devices.
- Jumpers are omitted when unit is equipped with economizer.
- Number(s) indicates the line location of used contacts. A bracket over (2) numbers signifies a single-pole, double-throw contact. An underlined number signifies a normally-closed contact. Plain (no line) number signifies a normally-open contact.
- Remove jumper between terminals RC and RH.

TYPICAL WIRING SCHEMATIC (cont)



NOTES:

1. If the non-fused disconnect Service Option is ordered for size 150,180 units, the Non-Fused Disconnect will be factory-installed.
2. The Disconnect takes the place of TB-1 as shown on the unit wiring diagram label and the component arrangement label.

Optional Non-Fused Disconnect — 542J150,180

PACKAGED ROOFTOP AIR-TO-AIR HEAT PUMP — CONSTANT VOLUME APPLICATION

HVAC GUIDE SPECIFICATIONS

SIZE RANGE: 12 to 15 TONS, NOMINAL (COOLING)
136,000 to 172,000 BTUH, NOMINAL
(INPUT 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 Standard 340. Designed in accordance with UL Standard 1995.
- B. Unit shall be designed to conform to ASHRAE 15, latest revision.
- C. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
- D. Roof curb shall be designed to conform to NRCA Standards.
- E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- G. Unit shall be designed in accordance with ISO 9001, and shall be manufactured in a facility registered to ISO 9002/BS5750, Part 2.
- H. Each 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, 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. 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.
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 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.

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:
 - 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.
- 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 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.

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 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.

GUIDE SPECIFICATIONS — 542J150,180 UNITS (cont)

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 which substantially improves indoor fan static motor performance (static regain).

NOTE: Power exhaust and barometric relief must be mounted in the return ductwork when used in conjunction with this accessory.

*3. Integrated EconoMi\$er:

- a. Integrated integral modulating type capable of simultaneous EconoMi\$er and compressor operation.
- b. Includes all hardware and controls to provide cooling with outdoor air.
- c. Equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
- d. Capable of introducing up to 100% outdoor air.
- e. EconoMi\$er shall be equipped with a barometric relief damper.
- f. Designed to close damper(s) during loss-of-power situations with spring return built into motor.
- g. Dry bulb outdoor-air temperature sensor shall be provided as standard. Enthalpy, differential temperature, and differential enthalpy control shall be provided as an option.
- h. EconoMi\$er is a gear-driven parallel blade design.
- i. EconoMi\$er shall provide control of internal building pressure through its accessory two-stage power exhaust function.
- j. EconoMi\$er shall be capable of control from a 4 to 20 mA signal.

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.

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:

Consists of solid-state control and condenser-coil temperature sensor to maintain condensing temperature between 90 F and 110 F at outdoor ambient temperatures down to -20 F by condenser-fan speed modulation or condenser-fan cycling 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:

Capable of using deluxe full-featured electronic thermostat. Shall use built-in compressor cycle delay control for both heating and cooling duty.

*10. Thermostat and Subbase:

Provides staged cooling and heating automatic (or manual) changeover, fan control, and indicator light.

*11. Unit-Mounted, Non-Fused Disconnect Switch:

Shall be factory-installed, internally mounted. NEC and UL approved non-fused switch shall provide unit power shutoff. Shall be accessible from outside the unit and shall provide power off lockout capability.

*12. Convenience Outlet:

Shall be factory-installed and internally mounted with easily accessible 115-v female receptacle. 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. Shall be accessible from outside the unit.

*13. Compressor Cycle Delay:

Unit shall be prevented from restarting for minimum of 5 min. after shutdown.

*14. Fan/Filter Status Switch:

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

GUIDE SPECIFICATIONS — 542J150,180 UNITS (cont)

15. **Power Exhaust Accessory:**
Power exhaust shall be used to provide system exhaust of up to 100% of return air. The power exhaust is a field-installed accessory (vertical applications).
16. **Outdoor Air Enthalpy Sensor:**
The outdoor air enthalpy sensor shall be used with the EconoMi\$er device to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the EconoMi\$er device will provide differential enthalpy control. The sensor allows the EconoMi\$er controller to determine if outside air is suitable for free cooling.
17. **Return Air Enthalpy Sensor:**
The return air enthalpy sensor shall be used with the EconoMi\$er device. When used in conjunction with an outdoor air enthalpy sensor, the EconoMi\$er device will provide differential enthalpy control.
18. **Return Air Temperature Sensor:**
The return air temperature sensor shall be used with the EconoMi\$er device. When used in conjunction with the standard outdoor air temperature sensor, the EconoMi\$er device will provide differential temperature control.
19. **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 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 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.
20. **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.
21. **Emergency Heat Control Package:**
When mechanical heating is locked out, auxiliary heat shall be activated when necessary.
22. **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.
23. **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.
24. **Alternate Drive:**
Alternate drive shall provide higher static drive capability to enhance indoor fan performance rpm range.
25. **Stainless Steel Condensate Pan:**
Stainless steel condensate pans shall be available for condensate collection.

INDEX

542J150,180 section	101-121	Indoor fan motor performance	
548F036-120 section	18-66,97-100	542J150,180	114
549B036-120 section	67-100	548F036-120	55
Airflow		549B036-120	89
Configuration	14	Internal unit design	14
Maximum	14	Minimum ambient cooling	
Minimum	14	operating temperature	14
Application data	14,15	Model number nomenclature	
ARI capacity ratings		542J150,180	101
542J150,180	102	548F036-120	18
548F036-120	18	549B036-120	67
549B036-120	67	Multiplication factors	
EconoMiSer		542J150,180	54
548F036-120	53	548F036-120	54
549B036-120	89	549B036-120	90
Changeover, heating to cooling	14	Non-fused disconnect 542J150,180	7,107
Controls	10-14	Options and accessories	4-9
Convenience outlet	7,106	Outdoor sound power 549B036-120	90
Cooling capacities		Outdoor installation	14
542J150,180	109	Performance data	
548F036-120	26-28	542J150,180	109-114
549B036-120	75,76	548F036-120	26-55
Dimensions		549B036-120	75-90
Accessory		Physical data	
542J150,180	105-107	542J150,180	102,103
548F036-120	23,24	548F036-120	19,20
549B036-120	72,73	549B036-120	68,69
Base unit		Piping and wiring	
542J150,180	104	542J150,180	17
548F036-120	21,22	548F036-120	16
549B036-120	70,71	549B036-120	16
Ductwork	14	Power exhaust	
Economizer	6,14,53,89	542J150,180	107,112
Electric heating capacities		548F036-120	53
542J150,180	113	549B036-120	89
548F036-120	54	With EconoMiSer	
549B036-120	90	548F036-120	53
Electrical data		549B036-120	89
542J150,180	114	Roof Curb	
548F036-120	56-64	542J150,180	105
549B036-120	91-94	548F036-072	23
Fan performance		548F090-120	24
542J150,180	111,112	549B036-072	72
542J150,180 with horizontal adapter	113	549B090,120	73
548F036-120	32-51	Selection procedure	
549B036-120	80-87	542J150,180	108
Fan RPM at motor pulley settings		548F036-120	25
542J150,180	112	549B036-120	74
548F036-120	52	Static pressure drop	
549B036-120	88	542J150,180	112
Features/Benefits	1-3	548F036-120	52
Glycol coil	7,113	549B036-120	88
Guide specifications		Thermostats	8,14
542J150,180	118-121	Thru-the-bottom power connections	14
548F036-120	97-100	Wiring schematic	
549B036-120	97-100	542J150,180	115-117
Horizontal adapter	106,113	548F036-120	65,66
Heating ratings		549B036-120	95,96
Instantaneous and integrated heating ratings			
548F036-120	28-31		
549B036-120	77-79		
Integrated heating ratings			
542J150,180	110		



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