

TECHNICAL GUIDE



Heating and Air Conditioning

PREDATOR[®]

HIGH EFFICIENCY

SINGLE PACKAGE HEAT PUMPS

BP 078, 090, 102, 120 and 150

6-1/2, 7-1/2, 8-1/2, 10 and 12-1/2 NOMINAL TONS

9.3-10.7 EER



DESCRIPTION

ASHRAE 90.1 COMPLIANT

YORK[®] Predator[®] heat pump units are convertible single packages with a common footprint cabinet and common roof curb for all 6-1/2 through 12-1/2 ton models. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, or frame.

All Predator[®] heat pump units are self-contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged, wired, piped, and tested at the factory to provide a quick and easy field installation.

All units are convertible between side and down airflow. Independent economizer designs are used on side and down discharge applications, as well as all tonnage sizes.

Tested in Accordance With:



ISO 9001
Certified Quality
Management System

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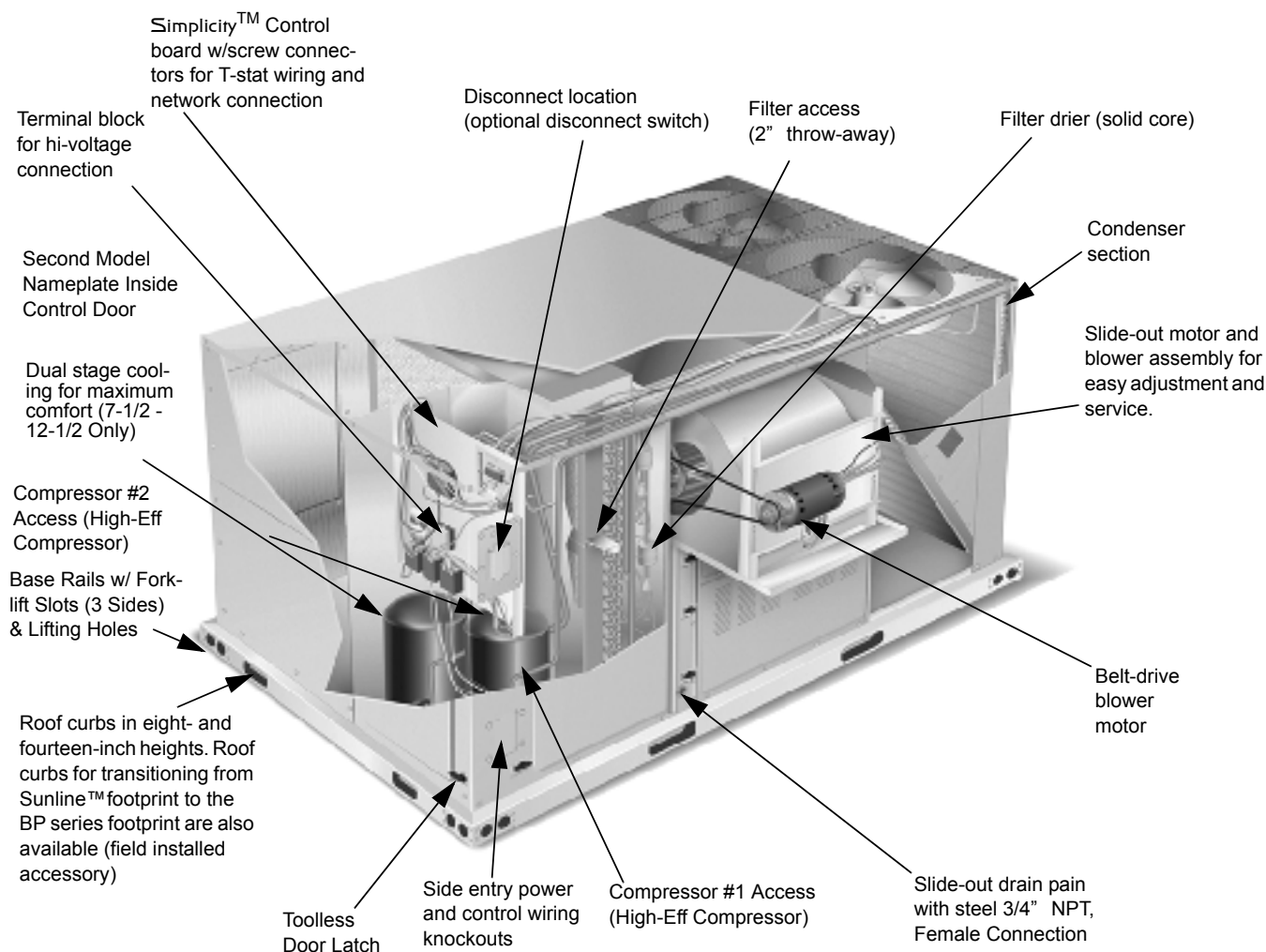


FIGURE 1 - PREDATOR® COMPONENT LOCATION

FEATURES

- **High Efficiency** – High efficiency units reach as high as 10.7 EER.
- **Service Friendly** – The Predator® incorporates a number of enhancements which improve serviceability.

The motor and blower slide out of the unit as a common assembly. This facilitates greater access to all the indoor airflow components, thus simplifying maintenance and adjustment.

Service time is reduced through the use of hinged, toolless panels. Such panels provide access to frequently inspected components and areas, including the control box, compressors, filters, indoor motor & blower, and the heating section. The panels are screwed in place at the factory to prevent access by children or other unauthorized persons. It is recommended that the panels be secured with screws once service is complete.

Service windows have been placed in both condenser section walls. Rotation of the cover allows easy access to the condenser coils for cleaning or inspection.

The unit control board utilizes flash codes to aid in diagnosis of unit malfunctions. Unique flash codes quickly identify the source of the unit alarm.

All units use the same standard filter size. This standardization removes any confusion on which filter sizes are needed for replacement.

The non-corrosive drain pan slides out of the unit to permit easy cleaning. The drain pan is accessed by removing the drain pan cover plate on the rear of the unit. Once the plate is removed, the drain pan slides out through the rear of the unit.

All Predator® units have a second model nameplate located inside the control access door. This is to prevent deterioration of the nameplate through weathering.

- **Environmentally Aware** – For improved Indoor Air Quality, foil faced insulation is used exclusively throughout the units.
- **Convertible Airflow Design** – The side duct openings are covered when they leave the factory. If a side supply/return is desired, the installer simply removes the two side duct covers from the outside of the unit and installs them over the down shot openings. No panel cutting is required. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **System Protection** - Suction line freezestats are supplied on all units to protect against loss of charge and coil frosting when the economizer operates at low outdoor air temperatures while the compressors are running. Every unit has solid-core liquid line filter-driers and high and low-pressure switches. Internal compressor protection is standard on all compressors. Crankcase heaters are standard on reciprocating compressors. Scroll compressors do not require crankcase heaters. Phase Monitors are standard on units with scroll compressors. This accessory monitors the incoming power to the unit and protects the unit from phase loss and reversed phase rotation.
- **Advanced Controls** - Simplicity™ control boards have standardized a number of features previously available only as options or by utilizing additional controls.
 - **Low Ambient** - An integrated low-ambient control allows all units to operate in the cooling mode down to 0°F outdoor ambient without additional assistance. Optionally, the control board can be programmed to lockout the compressors when the outdoor air temperature is low or when free cooling is available.
- **Fan Delays** - Fan on and fan off delays are fully programmable. Furthermore, the heating and cooling fan delay times are independent of one another. All units are programmed with default values based upon their configuration of cooling and heat.
- **Safety Monitoring** - The control board monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, compressor lockouts and repeated limit switch trips.
- **Nuisance Trip Protection and Strikes** - To prevent nuisance trouble calls, the control board uses a “three times, you’re out” philosophy. The high and low-pressure switches and the freezestats must trip three times within two hours before the unit control board will lock out the associated compressor.
- **On Board Diagnostics** - Each alarm will energize a trouble light on the thermostat, if so equipped, and flash an alarm code on the control board LED. Each high and low-pressure switch alarm as well as each freezestat alarm has its own flash code. The control board saves the five most recent alarms in memory, and these alarms can be reviewed at any time. Alarms and programmed values are retained through the loss of power.
- **Reliable** – From the beginning – All units undergo computer automated testing before they leave the factory. Units are tested for refrigerant charge and pressure, unit amperage, and 100% functionality. All Predator® units are painted with a long lasting, powder paint that stands up over the life of the unit. The paint used has been proven by a 1000 hour salt spray test.
- **Flexible Placement** – All models and configurations share the same cabinet/footprint and thus the same roof curb. You have the flexibility to set one curb and choose the correct tonnage size after the internal loads have been determined.

CAUTION

The Simplicity® control board used in this product will effectively operate the cooling system down to 0°F when this product is applied in a comfort cooling application for people. An economizer is typically included in this type of application. When applying this product for process cooling applications (computer rooms, switchgear, etc.), please reference applications bulletin AE-011-07 or call the applications department for Unitary Products @ 1-877-UPG-SERV for guidance. Additional accessories may be needed for stable operation at temperatures below 30° F.

- **Anti-Short Cycle Protection** - To aid compressor life, an anti-short cycle delay is incorporated into the standard controls. Compressor reliability is further ensured by programmable minimum run times. For testing, the anti-short cycle delay can be temporarily overridden with the push of a button.
- **Full Perimeter Base Rails** – The permanently attached base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails offer fork-lift access from 3 sides, and rigging holes are available so that an overhead crane can be used to place the units on a roof.

To further simplify planning and installation, Predator® cabinets are designed to fit your roof. With the optional roof curb, the unit ductwork is designed to fit around 24” on-center joists or between 48” on-center joists.

The drain pan can be rotated to drain to either the front or the rear of the unit. Additionally, the drain pan can be fitted to drain through the roof curb. As it is sometimes difficult to have a level installation, the drain pan features a generous slope to ensure proper drainage.

- **Easy Installation** – Electric utility knockouts are supplied in the unit underside as well as the side of the unit. A clearly identified location is provided to mount a field supplied electrical disconnect switch. Utility connections can be made quickly and with a minimum amount of field labor.

All units are shipped with 2" throw-away filters installed.

- **Wide Range of Indoor Airflows** – All indoor fan motors are belt-drive type providing maximum flexibility to handle most airflow requirements. For high static applications, factory installed alternate indoor fan motors are available. With the optional indoor fan motor, all units can supply nominal airflow at up to 1.5" ESP.
- **Warranty** - All models include a 1-year limited warranty on the complete unit. Compressors and electric heater elements each carry a 5-year warranty.

FACTORY INSTALLED OPTIONS

YORK® offers several equipment options factory installed, for the Predator® line.

- **Optional Factory Installed Economizers** - Predator units offer a variety of optional factory installed economizers with low leak dampers. The outdoor air enthalpy sensor enables economizer operation if the outdoor enthalpy is less than the setpoint of the economizer logic module. See Table 46 to determine the correct economizer for your application.
 - **Downflow Economizer - (With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type, and is shipped installed and wired. The installer needs only to assemble and mount the outdoor air hood (Provided). The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO₂ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
 - **Horizontal Economizer - (Without barometric relief)** - All features of the downflow economizer exist except you must order the duct mount barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizers only.**
- **BAS Ready Economizer -(With barometric relief)** - The economizer is provided with an actuator that requires a 0-10V DC input from an external source (i.e., field installed building automation system controller). Power exhaust options are available. The economizer is 2% low leakage type with spring return and fully modulating dampers capable of introducing up to 100% outside air. Also include 2" pleated filters.
- **Slab Economizer for Energy Recovery Ventilators- (With barometric relief and Fresh Air Hood)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type, and is shipped installed and wired. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO₂ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
- **Power Exhaust (Downflow only)** - This accessory installs in the unit with a down flow economizer.
- **Motorized Outdoor Air Damper** - The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Alternate Indoor Blower Motor** - For applications with high static restrictions, units are offered with optional indoor motors that provide higher static output and/or higher airflow, depending upon the installer's needs.
- **Electric Heaters** - The electric heaters range from 9kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. All heaters are intended for single point power supply.
- **Disconnect Switch** - For heat pumps with electric heat, an HACR breaker sized to the unit is provided. For heat pump only units, a switch sized to the largest electric heat available for the particular unit is provided. Factory installed option only.

- **Convenience Outlet - (Non-Powered /Powered)** - This option locates a 120V single-phase GFCI outlet with cover, on the corner of the unit housing adjacent to the compressors. The “ Non-powered” option requires the installer to provide the 120V single-phase power source and wiring. The “ Powered” option is powered by a step-down transformer in the unit. Factory installed option only.
- **Smoke Detectors** - The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment. Available for both the supply and/or return air.

WARNING

Factory installed smoke detectors in the return air, may be subjected to freezing temperatures during "off" times due to outside air infiltration. These smoke detectors have an operational limit of 32 °F to 131°F. Smoke detectors installed in areas that could be outside those limitations will have to be moved to prevent having false alarms.

- **Phase Monitors** - Designed to prevent unit damage. The phase monitor will shut the unit down in an out-of-phase condition. **(Standard on units with Scroll Compressors.)**
- **Coil Guard** - Customers can purchase a coil guard kit to protect the condenser coil from damage. Additionally, this kit stops animals and foreign objects from entering the space between the inner condenser coil and the main cabinet. This is not a hail guard kit.
- **Dirty Filter Switch** - This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters. Factory installed option or field installed accessory.
- **Stainless Steel Drain Pan** - An optional rust-proof stainless steel drain pan is available to provide years of trouble-free operation in corrosive environments.
- **Technicoat Condenser Coils** - The condenser coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **Technicoat Evaporator Coil** - The evaporator coils are coated with a phenolic coating for protection against corrosion due to harsh environments.
- **BAS - Building Automation System Controls Simplicity™ INTELLI-Comfort™ Control** - The York® Simplicity™ INTELLI-Comfort™ control is factory installed. It includes a supply air sensor, a return air sensor, and an outside air sensor. There are provisions for a field installed dirty filter indicator switch, an air-proving switch, an Outside Air Humidity sensor, a Return Air Humidity sensor, an Inside IAQ sensor, and an Outside Air IAQ sensor. Construction mode operation, 365-day real time clock with 7 day programming plus holiday scheduling is built-in. Two different modes of demand ventilation are achieved through the INTELLI-Comfort™ using CO₂ sensors. It uses an inside CO₂ sensor to perform Demand Ventilation. It can also use an Outside CO₂ sensor to perform Differential Demand Ventilation. It uses a Patented Comfort Ventilation algorithm to provide comfortable ventilation air temperature. The patented economizer-loading algorithm will protect the equipment when harsh operating conditions exist. Humidity in the occupied space or return duct can be monitored and controlled via humidity sensors and the on-board connection for hot gas re-heat system. It uses the INTELLI-Start™ algorithm to maximize energy savings by recovering the building from the Unoccupied Setpoints to the Occupied Setpoints just in time for the Occupied Time Period to begin. The Simplicity™ INTELLI-Comfort™ balances space temperature, ventilation air temperature, CO₂ and humidity for ultimate comfort.
- **Simplicity™ INTELLI-Comfort™ with Mod Link Control** - The York® Simplicity™ INTELLI-Comfort™ with Mod Link control is factory installed. It includes all the features of the INTELLI-Comfort™ control with an additional control to translate communications from MODBUS to the BACnet MSTP protocol.
- **Novar® BAS Control** - The Novar® building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch and air proving switch.
- **Johnson Controls BAS Control** - The Johnson Control YK-UNT-1126 building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch and air proving switch.
- **CPC BAS Control** - The Computer Process Controls Model 810-3060 ARTC Advanced Rooftop building automation system controller is factory installed. Includes supply air sensor, return air sensor, dirty filter indicator switch and air proving switch.
- **Honeywell BAS Control** - The Honeywell W7750C building automation system controller is factory installed. Includes air supply sensor, return air sensor, dirty filter indicator switch and air proving switch.

FIELD INSTALLED ACCESSORIES

YORK® offers several equipment accessories for field installation, for the Predator® line.

- **Downflow Economizer - (With barometric relief)** - The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers

close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO₂ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.

- **Horizontal Economizer - (Without barometric relief) -** All features of the downflow economizer exist except you must order the duct mount barometric relief separately. **You must order a 1EH0408 if you are installing a power exhaust. You can order a 1RD0411 Barometric Relief for horizontal flow economizers only.**
 - **Slab Economizer for Energy Recovery Ventilator-(Without barometric relief or Fresh Air Hood) -** The economizer is provided with a single enthalpy input. The economizer is 2% low leakage type. The economizer has spring return, fully modulating damper actuators and is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the standard single enthalpy input. There is an optional input dual dry bulb available. To meet regulated air standards, the economizer control accepts an optional CO₂ input for demand ventilation. With single enthalpy input, the economizer control monitors outdoor air. The dual enthalpy kit provides a second input used to monitor the return air. With a dual input kit installed, the economizer control compares the values of the two enthalpy or temperature inputs and positions the dampers to provide the maximum efficiency possible.
- You can order 1EH0409 Barometric Relief/FA Hood for field installations without an ERV.**
- **Dual Enthalpy Control, Accessory -** This kit contains the required components to convert a single enthalpy economizer to dual enthalpy.
 - **Barometric Relief Damper -** Zero to 100% capacity barometric relief dampers for use with horizontal flow, or field installed slab economizers.
 - **Power Exhaust -** This accessory installs in the unit with a down flow economizer. Power exhaust plugs into the connector in the unit bulkhead. **You must purchase 1EH0408 barometric relief/power exhaust hood when applying to a horizontal flow application.**
 - **Manual Outdoor Air Damper -** Like the motorized outdoor air damper, each manual outdoor air damper includes a slide-in damper assembly with an outdoor air hood and filters. Customers have a choice of dampers

with ranges of 0% to 100% or 0% to 35% outdoor air entry.

- **Motorized Outdoor Air Damper -** The motorized outdoor air damper includes a slide-in/plug-in damper assembly with an outdoor air hood and filters. The outdoor air dampers open to the preset position when the indoor fan motor is energized. The damper has a range of 0% to 100% outdoor air entry. Factory installed option or field installed accessory.
- **Smoke Detectors -** The smoke detectors stop operation of the unit by interrupting power to the control board if smoke is detected within the air compartment.
- **CO₂ Sensor -** Senses CO₂ levels and automatically overrides the economizer when levels rise above the preset limits.
- **Dirty Filter Switch -** This kit includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters.
- **Coil Guard -** Field installed decorative wire coil guard.
- **Hail Guard -** This kit includes a sloped hood which installs over the outside condenser coil and prevents damage to the coil fins from hail strikes. Field installed accessory only.
- **Electric Heaters -** The electric heaters range from 9 kW to 54kW and are available in all the voltage options of the base units. All heaters are dual staged. Cooling units include an adapter panel for easy installation of the electric heaters. Necessary hardware and connectors are included with the heaters. All heaters are intended for single point power supply.
- **Metal Frame Filter Kit -** Metal frame with polyester filter medium.
- **Permanent Filters -** Permanent filters are available.
- **Roof Curbs -** The roof curbs have insulated decks and are shipped disassembled. The roof curbs are available in 8" and 14" heights. For applications with security concerns, burglar bars are available for the duct openings of the roof curbs.
- **Roof Curb Transition -** Single Piece Adapter (10" High) - Roof curbs for transitioning from Sunline™ units to Predator® units. Fits 7.5 to 12.5 Sunline™ roof curbs only.
- **Burglar Bars -** Mount in the supply and return openings to prevent entry into the duct work.
- **Thermostat -** The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units (with or without an economizer) operate with two-stage heat/two-stage cool or two-stage cooling only thermostats, depending upon unit configuration.

TABLE 1: ACCESSORIES

Part Number	Description	Weight
1RC0470	Roof Curb, 8" Height	-
1RC0471	Roof Curb, 14" Height	-
1RC0472	Roof Curb, Transition (7.5 T through 12.5 T)	-
1BD0408	Burglar Bars, Downflow	-
2TP04520925	Electric Heat 9kW 230V	-
2TP04521825	Electric Heat 18kW 230V	-
2TP04522425	Electric Heat 24kW 230V	-
2TP04523625	Electric Heat 36kW 230V	-
2TP04525425	Electric Heat 54kW 230V	-
2TP04520946	Electric Heat 9kW 460V	-
2TP04521846	Electric Heat 18kW 460V	-
2TP04522446	Electric Heat 24kW 460V	-
2TP04523646	Electric Heat 36kW 460V	-
2TP04525446	Electric Heat 54kW 460V	-
2TP04520958	Electric Heat 9kW 575V	-
2TP04521858	Electric Heat 18kW 575V	-
2TP04522458	Electric Heat 24kW 575V	-
2TP04523658	Electric Heat 36kW 575V	-
2TP04525458	Electric Heat 54kW 575V	-
2TP04540925	Electric Heat 9kW 230V, 42" Tall Cabinet	-
2TP04541825	Electric Heat 18kW 230V, 42" Tall Cabinet	-
2TP04542425	Electric Heat 24kW 230V, 42" Tall Cabinet	-
2TP04543625	Electric Heat 36kW 230V, 42" Tall Cabinet	-
2TP04540946	Electric Heat 9kW 460V, 42" Tall Cabinet	-
2TP04541846	Electric Heat 18kW 460V, 42" Tall Cabinet	-
2TP04542446	Electric Heat 24kW 460V, 42" Tall Cabinet	-
2TP04543646	Electric Heat 36kW 460V, 42" Tall Cabinet	-
2TP04540958	Electric Heat 9kW 575V, 42" Tall Cabinet	-
2TP04541858	Electric Heat 18kW 575V, 42" Tall Cabinet	-
2TP04542458	Electric Heat 24kW 575V, 42" Tall Cabinet	-
2TP04543658	Electric Heat 36kW 575V, 42" Tall Cabinet	-
1FA0413	Manual Outside Air Damper 0-35%, Downflow (Incl. Hood, Damper & Filters, No Barometric Relief)	-
1FA0414	Manual Outside Air Damper 0-100%, Downflow (Incl. Hood, Damper & Filters, No Barometric Relief)	-
2MD04702724	Motorized Damper, Downflow (Incl. Hood, Damper & Filter, no Barometric Relief)	-
2MD04703324	Motorized Damper, Horizontal (Incl. Hood, Damper & Filter, no Barometric Relief)	-
2EE04705424	Economizer, Downflow (Incl. Barometric Relief & All Hoods)	124 lbs.
2EE04705524	Economizer, Horizontal (Incl. Dampers & Hoods, no Barometric Relief)	97 lbs.
2EE04705224	Economizer, Slab, Downflow (Incl. Dampers only no Hoods or Barometric Relief)	-
2EE04705624	"Downflow Economizer, Slab type for ERV (no Barometric Relief or FA hood)", 42" Tall Cabinet	-
2PE04703225	Power Exhaust, Downflow, 230V (For Units with Economizer only)	-
2PE04703246	Power Exhaust, Downflow, 460V (For Units with Economizer only)	-
2PE04703258	Power Exhaust, Downflow, 580V (For Units with Economizer only)	-
2EC04700924	Dual Enthalpy Control (Use with Single Enthalpy Economizer)	-
1EH0407	Hood Kit, Downflow Economizer (Included with all Downflow Economizers)	-
1RD0411	Barometric Relief Kit, Ductmount for Horizontal Application (Incl. Damper & Hood)	-
1EH0408	Barometric Relief Kit, Ductmount for Horizontal Application w/Power Exhaust (Incl. Damper & Hood)	25 lbs.
1EH0409	Barometric Relief / Hood Kit, for Field Installed Slab Econ. w/o ERV (Incl. Barometric Relief & FA Hood)	-
2AQ04700424	CO2 Detector Unit Mount	-
2AQ04700324	CO2 Detector Space Mount	-
2SD04700424	Smoke Detector, Supply or Return (Return Not Available with Horizontal Economizer)	-
1CG0419	Coil Guard (Electric / Electric & HP models)	-
1CG0427	Coil Guard (Electric / Electric & HP Models), 42" Tall Cabinet	-
1HG0411	Hail Guard Kit	-
1HG0415	Hail Guard Kit, 42" Tall Cabinet	-
1FL0402	Permanent Filter (Includes (4) Four Filters)	-
1FL0423	Permanent Filter (Includes (4) Four Filters), 42" Tall Cabinet	-
2DF0401	Dirty Filter Switch	-
1FF0410	Filter Frame Kit, Metal	-
1FF0411	Metal Filter Frame Kit, 42" Tall Cabinet	-

NOMENCLATURE

6.5-12.5 Ton York® Model Number Nomenclature

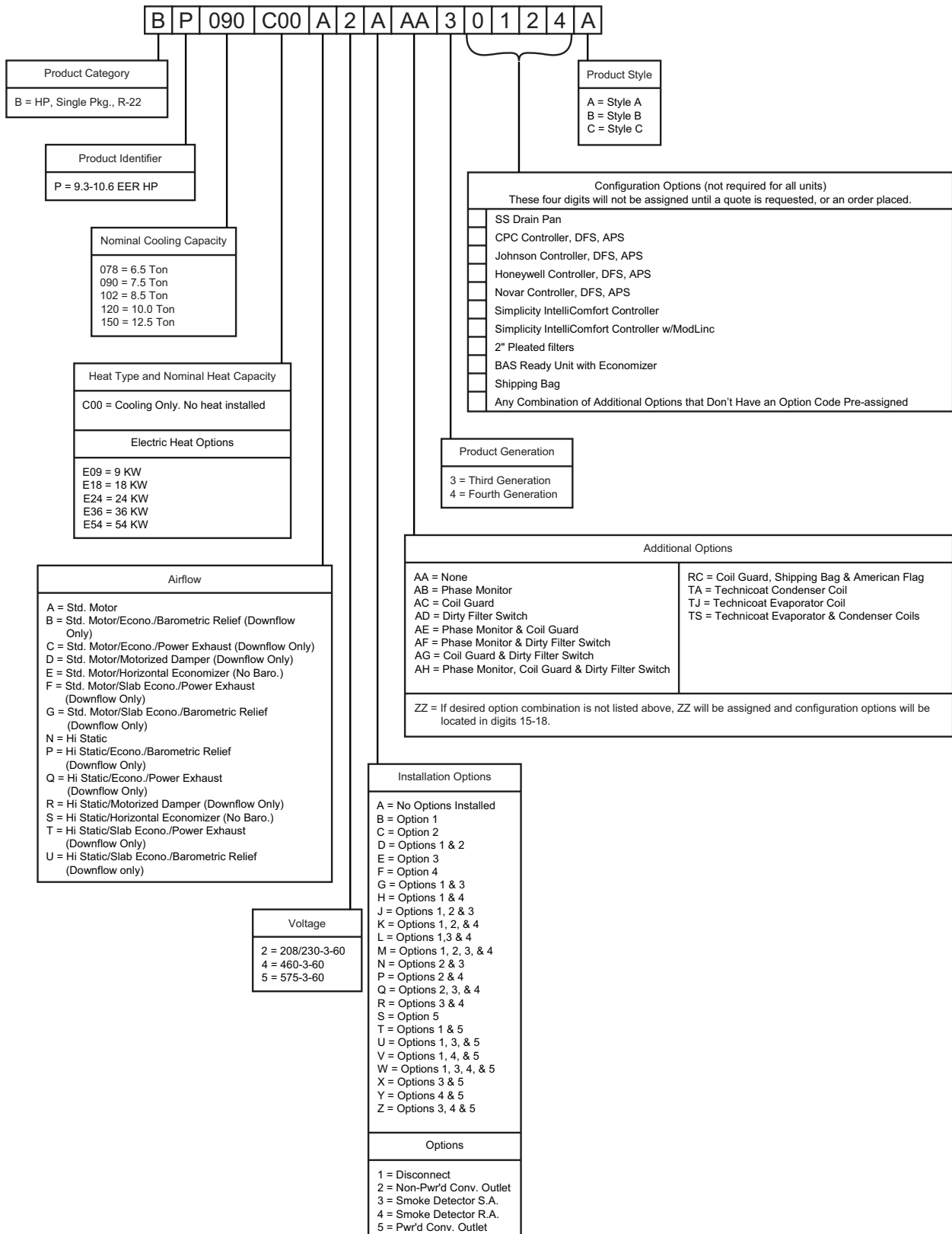


TABLE 2: PHYSICAL DATA

Component		Model				
		078	090	102	120	150
Evaporator Blower	Blower, Centrifugal (Dia. X Wd. in.)	15x15	12 x 12	15x15	15 x 15	15 x 15
	Motor, Standard (HP)	1-1/2	2	2	2	3
	Motor, Optional (HP)	2	3	3	3	5
Evaporator Coil	Rows	3	3	3	4	4
	Fins per Inch	15	15	15	15	15
	Height (in.)	40	32	40	40	40
	Face Area (ft. ² each)	13.2	10.6	13.2	13.2	13.2
Condenser Fan (2 per Unit)	Propeller Dia. (in., each)	24	24	24	24	24
	Motor (HP, each)	1/3	1/3	3/4	3/4	3/4
	CFM, Nominal (each)	1700	1700	2200	2200	2200
Condenser Coil (2 per unit)	Rows (each)	1	2	2	2	2
	Fins per Inch	20	20	20	20	20
	Height (in., each)	44	36	44	44	44
	Face Area (ft. ² each)	14.5	11.9	14.5	14.5	14.5
Refrigerant Charge	System 1 (lb./oz.)	18/0	12/0	13/8	15/4	12/12
	System 2 (lb./oz.)	N/A	12/0	13/8	15/4	12/12
Compressors	Quantity	1	2	2	2	2
	Type	Scroll	Recip	Recip	Recip	Scroll
Air Filters	Size (Wd. x Ht. x Thickness in.)	25x20x2	25x16x2	25x20x2	25x20x2	25x20x2
	Number Per Unit	4	4	4	4	4

TABLE 3: BP CAPACITY RATINGS

Size (Tons)	Cooling Capacity ARI Ratings*			CFM	Heating Capacity				Sound Rating (dB) [†]	Nom Elec Heat Cap [‡] (kW)
	MBH	EER	IPLV		MBH @ 47° F	COP @ 47°F	MBH @ 17°F	COP @ 17°F		
078 (6-1/2)	78	10.2	N/A	2600	69	3.2	43	2.2	84	9, 18, 24 34
090 (7-1/2)	89	10.6	11.08	2635	85	3.2	46	2.2	90	9, 18, 24 34
102 (8-1/2)	102	10.3	10.3	3400	100	3.2	56	2.2	90	9, 18, 24 34
120 (10)	120	10.3	10.0	3750	113	3.2	60	2.2	90	18, 24, 34 54
150 (12-1/2)	144	9.3	9.7	4750	142	3.1	91	2.1	90	18, 24, 34 54

* Rated at 95°F ambient 80°F dry bulb and 67°F wet bulb.

† Rated in accordance with ARI 270 standard.

‡ See Table 25.

TABLE 4: UNIT VOLTAGE LIMITATIONS

POWER RATING	MIN.	MAX.
208/230-3-60	187	252
460-3-60	432	504
575-3-60	540	630

TABLE 5: COOLING CAPACITY 6-1/2 TON UNIT

Air On Evap. Coil		Temperature of Air on Condenser Coil 85°F									Temperature of Air on Condenser Coil 95°F								
CFM	WB (°F)	Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)							Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)						
				86	83	80	77	74	71	68			86	83	80	77	74	71	68
1950	72	76.1	6.05	63.7	58.1	52.6	47.0	41.5	-	-	73.5	6.65	61.4	55.8	50.3	44.7	39.2	-	-
	67	70.6	5.87	70.6	70.6	70.0	64.4	58.9	53.3	47.8	67.3	6.47	67.3	67.3	66.6	61.0	55.5	49.9	44.3
	62	66.1	5.68	66.1	66.1	66.1	60.6	55.0	49.4	43.9	63.6	6.26	63.6	63.6	63.6	58.0	52.5	46.9	41.4
	57	64.6	5.68	64.6	64.6	64.6	59.1	53.5	48.0	42.4	62.2	6.28	62.2	62.2	62.2	56.6	51.0	45.5	39.9
2275	72	84.1	6.26	63.0	56.4	49.8	43.3	36.7	-	-	81.2	6.88	61.2	54.6	48.0	41.5	34.9	-	-
	67	78.0	6.07	74.2	70.4	66.3	59.8	53.2	46.6	40.0	74.4	6.69	71.6	67.8	63.6	57.1	50.5	43.9	37.3
	62	73.1	5.87	73.1	73.1	71.7	65.1	58.6	52.0	45.4	70.3	6.47	70.3	70.3	69.4	62.9	56.3	49.7	43.2
	57	71.4	5.87	71.4	71.4	71.1	64.5	58.0	51.4	44.8	68.7	6.49	68.7	68.7	67.9	61.3	54.7	48.2	41.6
2600	72	92.1	6.46	62.2	54.7	47.1	39.5	31.9	-	-	88.9	7.11	61.0	53.4	45.8	38.2	30.6	-	-
	67	85.4	6.27	77.8	70.2	62.7	55.1	47.5	39.9	32.3	81.4	6.91	75.8	68.2	60.7	53.1	45.5	37.9	30.3
	62	80.0	6.07	80.0	80.0	77.3	69.7	62.1	54.5	46.9	76.9	6.69	76.9	76.9	75.3	67.7	60.1	52.5	45.0
	57	78.2	6.06	78.2	78.2	77.6	70.0	62.4	54.8	47.2	75.2	6.71	75.2	75.2	73.6	66.0	58.4	50.8	43.3
2925	72	93.7	6.48	67.6	59.0	50.4	41.7	33.1	-	-	91.4	7.13	66.8	58.2	49.5	40.9	32.3	-	-
	67	86.9	6.28	83.1	75.7	67.1	58.4	49.8	41.2	32.5	83.6	6.93	80.8	74.3	65.6	57.0	48.3	39.7	31.1
	62	81.4	6.08	81.4	81.4	80.0	71.4	62.8	54.1	45.5	79.0	6.71	79.0	79.0	78.2	69.6	60.9	52.3	43.7
	57	79.6	6.08	79.6	79.6	79.2	70.6	62.0	53.3	44.7	77.2	6.73	77.2	77.2	76.4	67.8	59.2	50.5	41.9
3250	72	95.3	6.49	73.1	63.4	53.7	44.0	34.3	-	-	93.8	7.15	72.7	63.0	53.3	43.6	33.9	-	-
	67	88.3	6.30	88.3	81.2	71.5	61.8	52.1	42.4	32.7	85.9	6.95	85.9	80.3	70.6	60.9	51.2	41.5	31.8
	62	82.8	6.09	82.8	82.8	82.8	73.1	63.4	53.7	44.0	81.1	6.72	81.1	81.1	81.1	71.4	61.7	52.0	42.4
	57	80.9	6.09	80.9	80.9	80.9	71.2	61.5	51.9	42.2	79.3	6.74	79.3	79.3	79.3	69.6	59.9	50.2	40.5
Temperature of Air on Condenser Coil 105°F											Temperature of Air on Condenser Coil 115°F								
1950	72	70.4	7.38	58.4	52.8	47.3	41.7	36.2	-	-	67.2	8.10	55.4	49.8	44.3	38.7	33.2	-	-
	67	63.9	7.12	63.9	63.9	63.0	57.5	51.9	46.4	40.8	60.4	7.78	60.4	60.4	59.5	54.0	48.4	42.8	37.3
	62	60.9	6.93	60.9	60.9	60.9	55.3	49.8	44.2	38.6	58.2	7.59	58.2	58.2	58.2	52.6	47.1	41.5	35.9
	57	59.5	6.95	59.5	59.5	59.5	54.0	48.4	42.8	37.3	56.9	7.63	56.9	56.9	56.9	51.3	45.7	40.2	34.6
2275	72	77.3	7.63	58.8	52.3	45.7	39.1	32.5	-	-	73.3	8.37	56.5	49.9	43.3	36.8	30.2	-	-
	67	70.1	7.36	68.7	65.1	60.9	54.4	47.8	41.2	34.6	65.9	8.04	65.9	62.5	58.2	51.7	45.1	38.5	32.0
	62	66.9	7.16	66.9	66.9	65.8	59.3	52.7	46.1	39.6	63.5	7.85	63.5	63.5	62.3	55.7	49.1	42.5	36.0
	57	65.3	7.19	65.3	65.3	64.7	58.1	51.5	45.0	38.4	62.0	7.88	62.0	62.0	61.5	54.9	48.3	41.8	35.2
2600	72	84.1	7.87	59.3	51.7	44.1	36.5	28.9	-	-	79.4	8.64	57.6	50.0	42.4	34.8	27.2	-	-
	67	76.4	7.61	73.6	66.4	58.8	51.2	43.6	36.1	28.5	71.4	8.30	71.4	64.5	57.0	49.4	41.8	34.2	26.6
	62	72.8	7.39	72.8	72.8	70.8	63.2	55.6	48.1	40.5	68.7	8.10	68.7	68.7	66.3	58.8	51.2	43.6	36.0
	57	71.2	7.42	71.2	71.2	69.9	62.3	54.7	47.1	39.5	67.2	8.14	67.2	67.2	66.1	58.5	50.9	43.4	35.8
2925	72	86.3	7.91	64.9	56.3	47.7	39.0	30.4	-	-	81.3	8.70	63.0	54.4	45.8	37.1	28.5	-	-
	67	78.4	7.64	77.0	72.0	63.6	54.9	46.3	37.7	29.0	73.1	8.36	73.1	69.7	61.5	52.9	44.2	35.6	27.0
	62	74.7	7.43	74.7	74.7	73.7	65.1	56.4	47.8	39.1	70.4	8.16	70.4	70.4	69.2	60.5	51.9	43.3	34.6
	57	73.0	7.46	73.0	73.0	72.3	63.7	55.1	46.4	37.8	68.8	8.19	68.8	68.8	68.3	59.6	51.0	42.3	33.7
3250	72	88.5	7.95	70.6	60.9	51.2	41.5	31.8	-	-	83.2	8.76	68.5	58.8	49.1	39.5	29.8	-	-
	67	80.3	7.68	80.3	77.5	68.3	58.6	48.9	39.2	29.6	74.8	8.42	74.8	74.8	66.0	56.4	46.7	37.0	27.3
	62	76.6	7.47	76.6	76.6	76.6	66.9	57.2	47.5	37.8	72.0	8.21	72.0	72.0	72.0	62.3	52.6	43.0	33.3
	57	74.8	7.50	74.8	74.8	74.8	65.1	55.5	45.8	36.1	70.4	8.25	70.4	70.4	70.4	60.7	51.0	41.3	31.6
Temperature of Air on Condenser Coil 125°F																			
1950	72	64.0	8.82	52.4	46.8	41.3	35.7	30.2	-	-									
	67	57.0	8.44	57.0	57.0	56.0	50.4	44.9	39.3	33.7									
	62	55.5	8.26	55.5	55.5	55.5	49.9	44.3	38.8	33.2									
	57	54.2	8.30	54.2	54.2	54.2	48.6	43.1	37.5	32.0									
2275	72	69.3	9.12	54.1	47.6	41.0	34.4	27.8	-	-									
	67	61.7	8.72	61.7	59.8	55.5	49.0	42.4	35.8	29.3									
	62	60.1	8.53	60.1	60.1	58.7	52.1	45.5	38.9	32.4									
	57	58.7	8.58	58.7	58.7	58.3	51.7	45.1	38.6	32.0									
2600	72	74.6	9.41	55.8	48.3	40.7	33.1	25.5	-	-									
	67	66.4	9.00	66.4	62.7	55.1	47.5	40.0	32.4	24.8									
	62	64.7	8.81	64.7	64.7	61.9	54.3	46.7	39.1	31.5									
	57	63.2	8.86	63.2	63.2	62.4	54.8	47.2	39.6	32.0									
2925	72	76.2	9.49	61.1	52.5	43.9	35.2	26.6	-	-									
	67	67.8	9.08	67.8	67.4	59.5	50.8	42.2	33.5	24.9									
	62	66.1	8.88	66.1	66.1	64.7	56.0	47.4	38.8	30.1									
	57	64.6	8.93	64.6	64.6	64.2	55.5	46.9	38.3	29.6									
3250	72	77.9	9.56	66.4	56.8	47.1	37.4	27.7	-	-									
	67	69.3	9.15	69.3	69.3	63.8	54.1	44.4	34.7	25.0									
	62	67.5	8.95	67.5	67.5	67.5	57.8	48.1	38.4	28.7									
	57	65.9	9.00	65.9	65.9	65.9	56.3	46.6	36.9	27.2									

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 6: COOLING CAPACITY 7-1/2 TON UNIT

Air on Evaporator Coil		Temperature of Air on Condenser Coil																			
		75°F									85°F										
CFM	WB (°F)	Total Cap.* (MBH)	Total† Input (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)							Total Cap.* (MBH)	Total† Input (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)								
				86	83	80	77	74	71	68			86	83	80	77	74	71	68		
2550	72	103.7	6.2	58.7	52.3	45.9	39.4	33.0	-	-	99.8	6.9	58.4	52.0	45.6	39.2	32.8	-	-		
	67	100.5	6.2	77.4	71.0	64.6	58.2	51.8	45.4	38.9	96.1	6.9	75.6	69.2	62.8	56.4	49.9	43.5	37.1		
	62	98.1	6.2	98.1	89.7	83.3	76.9	70.5	64.1	57.7	92.3	6.8	92.3	86.8	80.4	74.0	67.6	61.1	54.7		
	57	95.6	6.2	95.6	94.8	88.3	81.9	75.5	69.1	62.7	90.7	6.8	90.7	89.6	83.2	76.7	70.3	63.9	57.5		
2625	72	104.1	6.2	63.0	55.5	47.9	40.3	32.7	-	-	100.8	6.9	63.2	55.6	48.1	40.5	32.9	-	-		
	67	100.9	6.2	82.6	75.0	67.5	59.9	52.3	44.7	37.1	97.1	6.9	81.3	73.7	66.2	58.6	51.0	43.4	35.8		
	62	98.6	6.2	98.6	94.4	87.0	79.5	71.9	64.3	56.7	93.2	6.8	93.2	90.5	84.7	77.2	69.6	62.0	54.4		
	57	96.0	6.2	96.0	95.6	92.3	84.8	77.2	69.6	62.0	91.6	6.8	91.6	91.1	87.7	80.1	72.5	64.9	57.3		
3000	72	104.6	6.2	67.4	58.6	49.9	41.1	32.4	-	-	101.9	7.0	68.0	59.3	50.5	41.8	33.0	-	-		
	67	101.3	6.2	87.8	79.1	70.3	61.6	52.8	44.1	35.3	98.1	6.9	87.1	78.3	69.6	60.8	52.1	43.3	34.6		
	62	99.0	6.2	99.0	99.0	90.7	82.0	73.3	64.5	55.8	94.2	6.9	94.2	94.2	89.1	80.3	71.6	62.8	54.1		
	57	96.4	6.2	96.4	96.4	96.3	87.6	78.8	70.1	61.3	92.5	6.8	92.5	92.5	92.2	83.4	74.7	65.9	57.2		
3375	72	107.0	6.3	71.9	62.0	52.0	42.0	32.1	-	-	103.7	7.0	73.0	63.1	53.1	43.1	33.2	-	-		
	67	103.7	6.3	94.3	83.3	73.3	63.4	53.4	43.5	33.5	99.9	6.9	93.0	83.1	73.1	63.1	53.2	43.2	33.2		
	62	101.3	6.3	101.3	101.3	97.2	87.2	77.2	67.3	57.3	95.9	6.9	95.9	95.9	93.3	83.4	73.4	63.4	53.5		
	57	98.7	6.3	98.7	98.7	98.6	88.6	78.7	68.7	58.7	94.2	6.9	94.2	94.2	94.0	84.0	74.1	64.1	54.1		
3750	72	109.4	6.4	76.5	65.3	54.1	42.9	31.8	-	-	105.5	7.0	78.0	66.8	55.7	44.5	33.3	-	-		
	67	106.0	6.4	100.7	87.5	76.3	65.2	54.0	42.8	31.6	101.6	6.9	99.0	87.8	76.6	65.4	54.3	43.1	31.9		
	62	103.6	6.4	103.6	103.6	103.6	92.4	81.2	70.0	58.9	97.5	6.9	97.5	97.5	97.5	86.4	75.2	64.0	52.8		
	57	100.9	6.4	100.9	100.9	100.9	89.7	78.5	67.3	56.2	95.8	6.9	95.8	95.8	95.8	84.7	73.5	62.3	51.1		
		95°F									105°F										
2550	72	95.9	7.6	58.2	51.7	45.3	38.9	32.5	-	-	89.9	8.1	55.4	48.9	42.5	36.1	29.7	-	-		
	67	91.8	7.5	73.8	67.4	60.9	54.5	48.1	41.7	35.3	83.6	8.1	70.3	63.9	57.4	51.0	44.6	38.2	31.8		
	62	86.4	7.4	86.4	83.9	77.5	71.0	64.6	58.2	51.8	78.4	8.0	78.4	76.1	69.7	63.3	56.9	50.4	44.0		
	57	85.7	7.4	85.7	84.4	78.0	71.6	65.1	58.7	52.3	77.5	8.0	77.5	76.3	69.9	63.5	57.0	50.6	44.2		
2625	72	97.5	7.6	63.4	55.8	48.2	40.7	33.1	-	-	91.9	8.3	61.0	53.4	45.8	38.3	30.7	-	-		
	67	93.3	7.6	80.0	72.4	64.9	57.3	49.7	42.1	34.5	85.5	8.2	76.7	69.5	61.9	54.3	46.7	39.2	31.6		
	62	87.9	7.4	87.9	86.6	82.4	74.9	67.3	59.7	52.1	80.1	8.2	80.1	79.0	75.1	67.5	59.9	52.3	44.7		
	57	87.2	7.4	87.2	86.5	83.0	75.4	67.8	60.2	52.7	79.3	8.2	79.3	78.6	75.3	67.7	60.1	52.5	44.9		
3000	72	99.2	7.7	68.7	59.9	51.2	42.4	33.7	-	-	94.0	8.4	66.6	57.9	49.1	40.4	31.6	-	-		
	67	94.9	7.6	86.3	77.5	68.8	60.0	51.3	42.5	33.8	87.4	8.3	83.1	75.1	66.4	57.6	48.9	40.1	31.4		
	62	89.3	7.5	89.3	89.3	87.4	78.7	69.9	61.2	52.4	81.9	8.3	81.9	81.9	80.4	71.7	62.9	54.2	45.4		
	57	88.6	7.5	88.6	88.6	88.0	79.3	70.5	61.8	53.0	81.0	8.3	81.0	81.0	80.6	71.9	63.1	54.4	45.7		
3375	72	100.4	7.6	74.1	64.1	54.2	44.2	34.3	-	-	95.1	8.4	72.4	62.4	52.4	42.5	32.5	-	-		
	67	96.1	7.6	91.8	82.8	72.8	62.9	52.9	43.0	33.0	88.5	8.3	86.3	80.1	70.8	60.9	50.9	40.9	31.0		
	62	90.4	7.4	90.4	90.4	89.5	79.5	69.5	59.6	49.6	82.9	8.3	82.9	82.9	82.2	72.2	62.3	52.3	42.3		
	57	89.7	7.4	89.7	89.7	89.4	79.4	69.5	59.5	49.6	82.0	8.3	82.0	82.0	81.8	71.9	61.9	51.9	42.0		
3750	72	101.6	7.6	79.6	68.4	57.2	46.0	34.8	-	-	96.3	8.3	78.1	66.9	55.7	44.5	33.4	-	-		
	67	97.2	7.5	97.2	88.1	76.9	65.7	54.5	43.4	32.2	89.6	8.3	89.6	85.0	75.3	64.1	52.9	41.7	30.6		
	62	91.5	7.4	91.5	91.5	91.5	80.3	69.2	58.0	46.8	83.9	8.2	83.9	83.9	83.9	72.8	61.6	50.4	39.2		
	57	90.8	7.4	90.8	90.8	90.8	79.6	68.5	57.3	46.1	83.0	8.2	83.0	83.0	83.0	71.8	60.7	49.5	38.3		
		115°F									125°F										
2550	72	83.8	8.7	52.6	46.2	39.7	33.3	26.9	-	-	77.8	9.2	49.8	43.4	36.9	30.5	24.1	-	-		
	67	75.5	8.7	66.8	60.4	53.9	47.5	41.1	34.7	28.3	67.3	9.3	63.3	56.9	50.5	44.0	37.6	31.2	24.8		
	62	70.3	8.7	70.3	68.3	61.9	55.5	49.1	42.7	36.3	62.3	9.3	62.3	60.6	54.1	47.7	41.3	34.9	28.5		
	57	69.3	8.7	69.3	68.2	61.8	55.4	49.0	42.5	36.1	61.1	9.3	61.1	60.1	53.7	47.3	40.9	34.5	28.0		
2625	72	86.3	8.9	58.6	51.0	43.4	35.9	28.3	-	-	80.7	9.5	56.2	48.6	41.0	33.4	25.9	-	-		
	67	77.7	8.9	73.3	66.5	59.0	51.4	43.8	36.2	28.6	69.8	9.5	69.8	63.6	56.0	48.4	40.8	33.3	25.7		
	62	72.4	8.9	72.4	71.4	67.7	60.1	52.5	44.9	37.3	64.7	9.6	64.7	63.8	60.3	52.7	45.1	37.5	29.9		
	57	71.3	8.9	71.3	70.8	67.5	60.0	52.4	44.8	37.2	63.4	9.6	63.4	62.9	59.8	52.2	44.6	37.1	29.5		
3000	72	88.7	9.1	64.6	55.9	47.1	38.4	29.6	-	-	83.5	9.8	62.6	53.9	45.1	36.4	27.6	-	-		
	67	79.9	9.1	79.9	72.7	64.0	55.2	46.5	37.7	29.0	72.3	9.8	72.3	70.3	61.6	52.8	44.1	35.3	26.6		
	62	74.5	9.1	74.5	74.5	73.4	64.7	55.9	47.2	38.4	67.0	9.9	67.0	67.0	66.4	57.7	48.9	40.2	31.4		
	57	73.3	9.1	73.3	73.3	73.3	64.5	55.8	47.0	38.3	65.7	9.9	65.7	65.7	65.7	57.2	48.4	39.7	30.9		
3375	72	89.9	9.1	70.6	60.6	50.7	40.7	30.8	-	-	84.6	9.8	68.9	58.9	48.9	39.0	29.0	-	-		
	67	80.9	9.1	80.9	77.3	68.8	58.8	48.9	38.9	29.0	73.3	9.8	73.3	73.3	66.8	56.8	46.9	36.9	26.9		
	62	75.4	9.1	75.4	75.4	74.9	64.9	55.0	45.0	35.0	67.9	9.9	67.9	67.9	67.6	57.6	47.7	37.7	27.8		
	57	74.3	9.1	74.3	74.3	74.3	64.3	54.3	44.4	34.4	66.6	9.9	66.6	66.6	66.6	56.7	46.7	36.8	26.8		
3750	72	91.0	9.1	76.6	65.4	54.2	43.1	31.9	-	-	85.7	9.8	75.1	64.0	52.8	41.6	30.4	-	-		
	67	81.9	9.1	81.9	81.9	73.6	62.5	51.3	40.1	28.9	74.3	9.9	74.3	74.3	72.0	60.8	49.7	38.5	27.3		
	62	76.4	9.1	76.4	76.4	76.4	65.2	54.0	42.8	31.7	68.8	9.9	68.8	68.8	68.8	57.6	46.4	35.3	24.1		
	57	75.2	9.1	75.2	75.2	75.2	64.1	52.9	41.7	30.5	67.4	9.9	67.4	67.4	67.4	56.3	45.1	33.9	22.7		

* The capacities are gross ratings. For net capacity, deduct indoor blower motor, MBH=3.415 x kW. Refer to the appropriate Blower Performance table for the kW of the supply air blower motor.

† These ratings include the condenser fan motors (total 1 kW) and the compressor motors but not the supply air blower motor.

TABLE 7: COOLING CAPACITY 8-1/2 TON UNIT

Air On Evap. Coil		Temperature of Air on Condenser Coil 85°F										Temperature of Air on Condenser Coil 95°F									
CFM	WB (°F)	Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)								Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)							
				86	83	80	77	74	71	68	86			83	80	77	74	71	68		
2550	72	109.7	8.06	66.4	59.1	51.8	44.5	37.3	-	-	108.8	8.75	65.1	57.9	50.6	43.3	36.1	-	-		
	67	104.5	7.96	83.8	76.6	69.3	62.0	54.7	47.5	40.2	100.8	8.61	82.6	75.3	68.0	60.8	53.5	46.2	39.0		
	62	105.0	7.97	84.3	77.1	69.8	62.5	55.2	48.0	40.7	93.4	8.40	93.4	90.2	82.9	75.6	68.4	61.1	53.8		
	57	95.9	7.86	95.9	95.9	89.2	81.9	74.6	67.4	60.1	93.6	8.44	93.6	92.3	85.0	77.7	70.4	63.2	55.9		
2975	72	112.6	8.10	72.4	63.8	55.2	46.6	38.1	-	-	112.1	8.83	71.7	63.1	54.5	45.9	37.4	-	-A		
	67	107.3	8.00	91.0	82.5	73.9	65.3	56.7	48.1	39.5	103.8	8.68	90.5	81.9	73.3	64.7	56.1	47.6	39.0		
	62	107.7	8.01	91.6	83.0	74.4	65.8	57.2	48.6	40.0	96.2	8.47	96.2	94.6	89.3	80.8	72.2	63.6	55.0		
	57	98.4	7.90	98.4	98.4	95.1	86.5	77.9	69.3	60.7	96.4	8.51	96.4	95.7	91.6	83.0	74.4	65.8	57.2		
3400	72	115.5	8.14	78.5	68.6	58.7	48.7	38.8	-	-	115.3	8.90	78.3	68.4	58.5	48.6	38.6	-	-		
	67	110.0	8.04	98.3	88.4	78.4	68.5	58.6	48.7	38.8	106.8	8.76	98.5	88.5	78.6	68.7	58.8	48.9	39.0		
	62	110.5	8.05	98.8	88.9	79.0	69.1	59.2	49.3	39.3	99.0	8.55	99.0	99.0	95.8	85.9	76.0	66.1	56.1		
	57	100.9	7.94	100.9	100.9	100.9	91.0	81.1	71.2	61.3	99.2	8.58	99.2	99.2	98.2	88.3	78.4	68.5	58.5		
3825	72	118.2	8.16	84.6	73.4	62.1	50.8	39.5	-	-	118.2	8.97	84.4	73.1	61.8	50.5	39.2	-	-		
	67	112.6	8.06	105.6	94.3	83.0	71.7	60.4	49.1	37.8	109.5	8.83	105.3	94.4	83.1	71.8	60.5	49.2	37.9		
	62	113.1	8.07	106.2	94.9	83.6	72.3	61.0	49.7	38.4	101.4	8.61	101.4	101.4	99.8	88.5	77.2	65.9	54.7		
	57	103.3	7.96	103.3	103.3	103.3	92.0	80.7	69.4	58.1	101.6	8.65	101.6	101.6	101.2	89.9	78.6	67.3	56.0		
4250	72	120.9	8.18	90.8	78.1	65.5	52.8	40.1	-	-	121.0	9.05	90.5	77.8	65.1	52.4	39.8	-	-		
	67	115.2	8.09	112.9	100.2	87.5	74.9	62.2	49.5	36.9	112.1	8.90	112.1	100.2	87.5	74.9	62.2	49.5	36.9		
	62	115.7	8.09	113.5	100.8	88.2	75.5	62.8	50.2	37.5	103.8	8.68	103.8	103.8	103.8	91.2	78.5	65.8	53.2		
	57	105.7	7.98	105.7	105.7	105.7	93.0	80.3	67.7	55.0	104.1	8.72	104.1	104.1	104.1	91.4	78.8	66.1	53.4		
Temperature of Air on Condenser Coil 105°F																					
2550	72	103.1	9.45	63.0	55.7	48.5	41.2	33.9	-	-	97.4	10.15	60.9	53.6	46.3	39.1	31.8	-	-		
	67	93.5	9.21	79.6	72.3	65.1	57.8	50.5	43.3	36.0	86.1	9.81	76.6	69.4	62.1	54.8	47.6	40.3	33.0		
	62	86.8	9.00	86.8	84.4	77.1	69.8	62.6	55.3	48.0	80.1	9.61	80.1	78.6	71.3	64.0	56.8	49.5	42.2		
	57	85.3	9.04	85.3	84.4	77.1	69.8	62.6	55.3	48.0	77.0	9.64	77.0	76.5	69.2	62.0	54.7	47.4	40.2		
2975	72	106.6	9.53	69.9	61.3	52.7	44.1	35.5	-	-	101.1	10.23	68.0	59.5	50.9	42.3	33.7	-	-		
	67	96.6	9.28	87.6	79.4	70.8	62.2	53.6	45.0	36.4	89.4	9.89	84.6	76.8	68.2	59.6	51.0	42.4	33.8		
	62	89.7	9.08	89.7	88.5	83.8	75.2	66.6	58.0	49.5	83.1	9.68	83.1	82.4	78.3	69.7	61.1	52.5	43.9		
	57	88.2	9.11	88.2	87.7	83.8	75.2	66.6	58.0	49.4	79.9	9.72	79.9	79.7	76.0	67.4	58.8	50.2	41.6		
3400	72	110.0	9.61	76.8	66.9	56.9	47.0	37.1	-	-	104.7	10.31	75.2	65.3	55.4	45.5	35.6	-	-		
	67	99.7	9.36	95.5	86.4	76.5	66.5	56.6	46.7	36.8	92.6	9.96	92.6	84.2	74.3	64.4	54.5	44.5	34.6		
	62	92.6	9.15	92.6	92.6	90.5	80.6	70.7	60.8	50.9	86.2	9.76	86.2	86.2	85.3	75.4	65.5	55.6	45.6		
	57	91.0	9.19	91.0	91.0	90.5	80.6	70.7	60.8	50.8	82.8	9.80	82.8	82.8	82.8	72.9	63.0	53.1	43.1		
3825	72	112.8	9.67	83.2	71.9	60.6	49.3	38.0	-	-	107.4	10.37	81.9	70.6	59.3	48.1	36.8	-	-		
	67	102.2	9.43	100.1	92.6	81.3	70.0	58.7	47.5	36.2	95.0	10.03	95.0	90.8	79.6	68.3	57.0	45.7	34.4		
	62	94.9	9.22	94.9	94.9	93.9	82.6	71.3	60.0	48.7	88.4	9.82	88.4	88.4	88.0	76.7	65.4	54.1	42.8		
	57	93.3	9.25	93.3	93.3	93.1	81.8	70.5	59.2	47.9	85.0	9.86	85.0	85.0	85.0	73.7	62.4	51.1	39.8		
4250	72	115.6	9.74	89.5	76.9	64.2	51.5	38.9	-	-	110.2	10.44	88.6	76.0	63.3	50.6	38.0	-	-		
	67	104.8	9.49	104.8	98.8	86.2	73.5	60.9	48.2	35.5	97.4	10.09	97.4	97.4	84.9	72.2	59.5	46.8	34.2		
	62	97.2	9.28	97.2	97.2	97.2	84.6	71.9	59.2	46.6	90.6	9.88	90.6	90.6	90.6	78.0	65.3	52.6	39.9		
	57	95.6	9.32	95.6	95.6	95.6	82.9	70.3	57.6	44.9	87.1	9.92	87.1	87.1	87.1	74.4	61.8	49.1	36.4		
Temperature of Air on Condenser Coil 125°F																					
2550	72	91.7	10.85	58.7	51.5	44.2	36.9	29.6	-	-											
	67	78.8	10.41	73.7	66.4	59.1	51.9	44.6	37.3	30.1											
	62	73.5	10.21	73.5	72.8	65.5	58.3	51.0	43.7	36.4											
	57	68.7	10.24	68.7	68.6	61.4	54.1	46.8	39.5	32.3											
2975	72	95.6	10.93	66.2	57.6	49.0	40.4	31.8	-	-											
	67	82.2	10.49	81.7	74.2	65.6	57.0	48.4	39.8	31.3											
	62	76.6	10.29	76.6	76.3	72.8	64.2	55.6	47.0	38.4											
	57	71.7	10.32	71.7	71.6	68.2	59.6	51.0	42.5	33.9											
3400	72	99.4	11.01	73.7	63.8	53.9	44.0	34.0	-	-											
	67	85.5	10.57	85.5	82.0	72.1	62.2	52.3	42.4	32.5											
	62	79.8	10.37	79.8	79.8	79.8	70.1	60.2	50.3	40.4											
	57	74.6	10.40	74.6	74.6	74.6	65.2	55.3	45.4	35.4											
3825	72	102.1	11.07	80.7	69.4	58.1	46.8	35.5	-	-											
	67	87.8	10.62	87.8	87.8	77.8	66.5	55.2	43.9	32.6											
	62	81.9	10.42	81.9	81.9	81.9	70.7	59.4	48.2	36.9											
	57	76.6	10.46	76.6	76.6	76.6	65.6	54.3	43.0	31.7											
4250	72	104.7	11.13	87.7	75.0	62.4	49.7	37.0	-	-											
	67	90.1	10.68	90.1	90.1	83.5	70.8	58.2	45.5	32.8											
	62	84.0	10.48	84.0	84.0	84.0	71.3	58.7	46.0	33.3											
	57	78.6	10.51	78.6	78.6	78.6	65.9	53.3	40.6	27.9											

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 8: COOLING CAPACITY 10 TON UNIT

Air On Evap. Coil		Temperature of Air on Condenser Coil 85°F									Temperature of Air on Condenser Coil 95°F								
CFM	WB (°F)	Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)							Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)						
				86	83	80	77	74	71	68			86	83	80	77	74	71	68
3000	72	137	9.7	79	71	62	54	45	-	-	137	10.4	78	69	61	52	43	-	-
	67	126	9.5	100	91	83	74	66	57	48	124	10.2	98	89	81	72	64	55	46
	62	116	9.3	116	110	101	93	84	75	67	114	10.0	114	109	100	92	83	74	66
3500	57	117	9.2	117	113	104	96	87	79	70	116	9.9	116	110	101	93	84	76	67
	72	141	9.8	87	77	67	57	47	-	-	139	10.5	86	76	66	56	46	-	-
	67	130	9.5	110	100	89	79	69	59	49	126	10.3	108	98	88	78	67	57	47
4000	62	120	9.3	120	116	109	99	89	79	69	116	10.1	116	113	109	99	89	78	68
	57	120	9.3	120	118	113	103	93	83	73	118	10.0	118	115	110	100	90	80	70
	72	145	9.8	96	84	72	61	49	-	-	141	10.6	94	83	71	59	48	-	-
4500	67	133	9.6	120	108	96	85	73	61	50	129	10.4	118	106	95	83	71	60	48
	62	123	9.4	123	123	118	106	94	83	71	117	10.2	117	117	117	106	94	82	71
	57	123	9.3	123	123	122	110	98	87	75	120	10.1	120	120	119	107	96	84	72
5000	72	145	9.9	101	87	74	61	48	-	-	142	10.6	101	87	74	61	48	-	-
	67	133	9.7	125	112	99	86	72	59	46	129	10.4	124	112	99	85	72	59	46
	62	123	9.5	123	123	121	107	94	81	68	118	10.2	118	118	118	105	91	78	65
	57	124	9.4	124	124	123	110	96	83	70	120	10.1	120	120	120	107	93	80	67
	72	146	10.0	106	91	76	61	46	-	-	142	10.6	107	92	77	62	47	-	-
	67	134	9.7	131	116	101	86	72	57	42	129	10.5	129	118	103	88	73	58	43
	62	124	9.5	124	124	124	109	94	79	64	118	10.2	118	118	118	103	88	73	59
	57	124	9.5	124	124	124	109	95	80	65	121	10.1	121	121	121	106	91	76	61
		Temperature of Air on Condenser Coil 105°F									Temperature of Air on Condenser Coil 115°F								
3000	72	127	11.2	74	66	57	49	40	-	-	117	11.9	71	62	54	45	37	-	-
	67	113	10.8	93	85	76	68	59	51	42	102	11.4	89	81	72	63	55	46	38
	62	103	10.5	103	100	91	82	74	65	57	93	11.0	93	90	82	73	65	56	48
3500	57	105	10.5	105	100	92	83	75	66	58	93	11.0	93	91	82	74	65	57	48
	72	130	11.3	83	73	63	52	42	-	-	120	12.1	80	70	60	49	39	-	-
	67	116	10.9	103	94	84	73	63	53	43	105	11.5	99	90	79	69	59	49	39
4000	62	106	10.6	106	104	100	89	79	69	59	96	11.1	96	95	90	80	70	60	50
	57	107	10.6	107	105	100	90	80	70	60	96	11.2	96	95	91	81	71	61	50
	72	133	11.4	91	80	68	56	45	-	-	124	12.2	88	77	65	53	42	-	-
4500	67	119	11.0	113	102	91	79	67	56	44	108	11.6	109	99	87	75	64	52	40
	62	108	10.7	108	108	108	96	85	73	61	99	11.2	99	99	99	87	75	64	52
	57	110	10.7	110	110	109	98	86	74	62	99	11.3	99	99	99	88	76	64	53
5000	72	133	11.5	98	85	71	58	45	-	-	124	12.3	95	82	69	55	42	-	-
	67	119	11.1	116	108	95	82	69	55	42	108	11.7	108	103	92	78	65	52	38
	62	108	10.8	108	108	108	95	82	68	55	98	11.3	98	98	98	85	72	59	45
	57	110	10.7	110	110	109	96	83	70	56	99	11.4	99	99	99	86	73	59	46
	72	133	11.5	104	90	75	60	45	-	-	123	12.4	102	87	72	57	42	-	-
	67	119	11.1	119	113	100	85	70	55	40	108	11.8	108	108	96	81	66	51	37
	62	108	10.8	108	108	108	93	78	63	49	98	11.4	98	98	98	83	68	53	39
	57	110	10.8	110	110	110	95	80	65	50	99	11.5	99	99	99	84	69	54	39
		Temperature of Air on Condenser Coil 125°F																	
3000	72	107	12.7	68	59	51	42	34	-	-									
	67	91	11.9	85	76	68	59	51	42	33									
	62	82	11.5	82	81	73	64	56	47	38									
3500	57	82	11.6	82	81	73	64	56	47	39									
	72	111	12.8	77	67	56	46	36	-	-									
	67	95	12.1	94	86	75	65	55	45	35									
4000	62	86	11.6	86	85	81	71	61	51	41									
	57	85	11.8	85	85	81	71	61	51	41									
	72	116	13.0	86	74	62	51	39	-	-									
4500	67	98	12.2	99	95	83	71	60	48	36									
	62	89	11.8	89	89	89	78	66	54	43									
	57	89	11.9	89	89	89	78	66	55	43									
5000	72	115	13.1	92	79	66	53	39	-	-									
	67	98	12.4	98	98	88	75	61	48	35									
	62	89	11.9	89	89	89	75	62	49	36									
	57	88	12.0	88	88	88	75	62	49	36									
	72	114	13.2	99	84	70	55	40	-	-									
	67	97	12.5	97	97	93	78	63	48	33									
	62	88	12.0	88	88	88	73	58	43	29									
	57	88	12.1	88	88	88	73	58	43	28									

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 9: COOLING CAPACITY 12-1/2 TON UNIT

Air On Evap. Coil		Temperature of Air on Condenser Coil 85°F									Temperature of Air on Condenser Coil 95°F										
CFM	WB (°F)	Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)								Tot. Cap.* (MBH)	Tot. Input† (kW)	Sensible Capacity (MBH)* Return Dry Bulb (°F)							
				86	83	80	77	74	71	68	86			83	80	77	74	71	68		
3750	72	165	12.2	97	86	75	64	54	-	-	157	13.4	93	83	72	61	51	-	-		
	67	152	11.9	123	112	101	91	80	69	58	143	13.1	118	108	97	86	76	65	54		
	62	141	11.6	141	136	125	114	104	93	82	132	12.8	132	128	117	107	96	85	75		
	57	139	11.3	139	136	125	115	104	93	82	132	12.8	132	128	117	107	96	85	75		
4375	72	170	12.2	107	94	82	69	57	-	-	162	13.5	104	92	79	66	54	-	-		
	67	157	12.0	136	123	110	98	85	72	60	147	13.1	132	119	106	94	81	68	56		
	62	145	11.7	145	142	136	123	111	98	86	136	12.9	136	134	129	116	103	91	78		
	57	143	11.4	143	142	136	124	111	98	86	136	12.9	136	134	129	116	103	91	78		
5000	72	175	12.3	118	103	88	74	59	-	-	167	13.6	115	100	86	71	57	-	-		
	67	162	12.0	148	134	119	105	90	75	61	151	13.2	145	130	116	101	86	72	57		
	62	149	11.8	149	149	147	133	118	103	89	140	13.0	140	140	140	125	111	96	82		
	57	147	11.5	147	148	148	133	118	104	89	140	12.9	140	140	140	125	111	96	82		
5625	72	176	12.4	125	109	92	76	59	-	-	168	13.7	123	106	90	73	57	-	-		
	67	162	12.1	156	141	124	108	91	74	58	152	13.3	149	137	121	104	88	71	54		
	62	150	11.9	150	150	149	132	116	99	83	141	13.1	141	141	141	124	108	91	75		
	57	148	11.6	148	148	148	132	115	99	82	141	13.0	141	141	141	124	108	91	75		
6250	72	177	12.5	133	115	96	77	59	-	-	169	13.8	131	112	94	75	56	-	-		
	67	163	12.2	163	148	129	111	92	73	55	154	13.4	154	145	126	107	89	70	51		
	62	151	12.0	151	151	151	132	114	95	76	142	13.2	142	142	142	123	105	86	67		
	57	149	11.7	149	149	149	131	112	93	75	142	13.2	142	142	142	123	105	86	67		
		Temperature of Air on Condenser Coil 105°F									Temperature of Air on Condenser Coil 115°F										
3750	72	147	14.8	90	79	69	58	47	-	-	137	16.3	87	76	65	55	44	-	-		
	67	133	14.4	115	104	93	83	72	61	51	122	15.8	111	100	90	79	68	58	47		
	62	122	14.1	122	119	108	97	87	76	65	112	15.5	112	109	98	88	77	66	56		
	57	125	14.2	125	121	110	100	89	78	67	118	15.7	118	114	103	92	82	71	60		
4375	72	151	14.9	101	88	75	63	50	-	-	140	16.4	97	84	71	59	46	-	-		
	67	136	14.5	126	115	102	90	77	64	52	125	15.9	120	111	98	86	73	61	48		
	62	125	14.2	125	124	118	106	93	80	68	115	15.6	115	113	108	95	83	70	57		
	57	128	14.3	128	126	121	108	96	83	70	120	15.8	120	118	113	100	88	75	63		
5000	72	155	15.0	111	96	82	67	53	-	-	143	16.5	107	92	78	63	49	-	-		
	67	140	14.6	136	126	111	97	82	68	53	128	16.0	128	122	107	93	78	63	49		
	62	129	14.3	129	129	129	114	100	85	70	117	15.7	117	117	117	103	88	74	59		
	57	131	14.4	131	131	131	117	102	88	73	123	15.9	123	123	123	108	94	79	65		
5625	72	156	15.2	120	103	87	70	54	-	-	145	16.6	117	100	84	67	51	-	-		
	67	141	14.8	139	132	118	102	85	68	52	129	16.2	129	126	116	99	82	66	49		
	62	130	14.4	130	130	130	113	97	80	63	119	15.8	119	119	119	102	85	69	52		
	57	133	14.5	133	133	133	116	99	83	66	124	16.0	124	124	124	108	91	74	58		
6250	72	158	15.3	129	110	92	73	55	-	-	146	16.7	127	109	90	71	53	-	-		
	67	142	14.9	142	138	125	106	88	69	50	131	16.3	131	131	124	105	87	68	49		
	62	131	14.6	131	131	131	112	94	75	56	120	16.0	120	120	120	101	82	64	45		
	57	134	14.7	134	134	134	115	96	78	59	125	16.2	125	125	125	107	88	70	51		
		Temperature of Air on Condenser Coil 125°F																			
3750	72	127	17.7	83	72	62	51	40	-	-											
	67	112	17.2	108	97	86	76	65	54	43											
	62	102	16.8	102	100	89	78	68	57	46											
	57	111	17.1	111	107	96	85	75	64	53											
4375	72	129	17.8	93	80	68	55	42	-	-											
	67	114	17.3	114	107	95	82	69	57	44											
	62	104	17.0	104	103	98	85	72	60	47											
	57	113	17.2	113	111	105	93	80	67	55											
5000	72	132	17.9	103	88	74	59	44	-	-											
	67	116	17.4	117	117	103	88	74	59	45											
	62	106	17.1	106	106	106	92	77	62	48											
	57	115	17.4	115	115	115	100	85	71	56											
5625	72	133	18.1	114	97	81	64	48	-	-											
	67	118	17.6	118	118	113	96	80	63	46											
	62	107	17.2	107	107	107	91	74	58	41											
	57	116	17.5	116	116	116	99	83	66	49											
6250	72	135	18.2	125	107	88	69	51	-	-											
	67	119	17.7	119	119	119	104	86	67	48											
	62	109	17.3	109	109	109	90	71	53	34											
	57	117	17.6	117	117	117	98	80	61	43											

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

* These capacities are gross ratings. For net capacity, deduct air blower motor, MBH = 3.415 x kW. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.

† These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 10: HEATING APPLICATION DATA 6-1/2 TON UNIT

CFM	ID DB	CAP & kW	OUTDOOR TEMPERATURE (°F) (72% RH)							
			-10	0	10	20	30	40	50	60
1950	55	MBH	7.579	15.506	23.432	31.359	39.286	47.212	55.139	63.066
		KW	3.882	4.020	4.158	4.296	4.434	4.573	4.711	4.849
	70	MBH	12.565	20.491	28.418	36.345	44.271	52.198	60.125	68.051
		KW	4.713	4.851	4.989	5.127	5.265	5.404	5.542	5.680
	80	MBH	13.299	21.226	29.152	37.079	45.005	52.932	60.859	68.785
		KW	5.273	5.411	5.549	5.687	5.825	5.964	6.102	6.240
2600	55	MBH	13.381	21.308	29.235	37.161	45.088	53.015	60.941	68.868
		KW	3.525	3.663	3.801	3.939	4.077	4.216	4.354	4.492
	70	MBH	18.336	26.263	34.190	42.116	50.043	57.970	65.896	73.823
		KW	4.347	4.485	4.623	4.761	4.899	5.038	5.176	5.314
	80	MBH	19.094	27.021	34.948	42.874	50.801	58.728	66.654	74.581
		KW	4.914	5.052	5.190	5.328	5.466	5.605	5.743	5.881
3250	55	MBH	12.452	20.379	28.305	36.232	44.158	52.085	60.012	67.938
		KW	3.272	3.410	3.548	3.686	3.824	3.963	4.101	4.239
	70	MBH	17.438	25.364	33.291	41.218	49.144	57.071	64.997	72.924
		KW	4.103	4.241	4.379	4.517	4.655	4.794	4.932	5.070
	80	MBH	18.172	26.098	34.025	41.952	49.878	57.805	65.732	73.658
		KW	4.663	4.801	4.939	5.077	5.215	5.354	5.492	5.630

**THE MBH AND KW VALUES DO NOT INCLUDE THE SUPPLY AIR BLOWER MOTOR.
FOR NET CAPACITY, ADD THE SUPPLY AIR BLOWER MOTOR HEAT (MBH = 3.415 x KW)**

TABLE 11: HEATING APPLICATION DATA 7-1/2 TON UNIT

CFM	ID DB	CAP & kW	OUTDOOR TEMPERATURE (°F) (72% RH)							
			-10	0	10	20	30	40	50	60
2250	55	MBH	19.558	31.733	43.909	56.084	68.259	80.435	92.610	104.786
		KW	4.285	4.748	5.211	5.674	6.138	6.601	7.064	7.528
	70	MBH	13.542	25.718	37.893	50.068	62.244	74.419	86.595	98.770
		KW	4.759	5.223	5.686	6.149	6.613	7.076	7.539	8.002
	80	MBH	8.519	20.694	32.869	45.045	57.220	69.396	81.571	93.746
		KW	5.065	5.528	5.992	6.455	6.918	7.382	7.845	8.308
3000	55	MBH	23.523	35.699	47.874	60.049	72.225	84.400	96.576	108.751
		KW	4.299	4.762	5.225	5.689	6.152	6.615	7.079	7.542
	70	MBH	17.508	29.683	41.858	54.034	66.209	78.385	90.560	102.736
		KW	4.774	5.237	5.700	6.164	6.627	7.090	7.553	8.017
	80	MBH	12.484	24.660	36.835	49.010	61.186	73.361	85.537	97.712
		KW	5.079	5.543	6.006	6.469	6.933	7.396	7.859	8.322
3750	55	MBH	22.703	34.878	47.054	59.229	71.404	83.580	95.755	107.931
		KW	3.990	4.453	4.917	5.380	5.843	6.307	6.770	7.233
	70	MBH	16.687	28.863	41.038	53.213	65.389	77.564	89.740	101.915
		KW	4.465	4.928	5.391	5.855	6.318	6.781	7.245	7.708
	80	MBH	11.664	23.839	36.014	48.190	60.365	72.541	84.716	96.891
		KW	4.771	5.234	5.697	6.160	6.624	7.087	7.550	8.014

**THE MBH AND KW VALUES DO NOT INCLUDE THE SUPPLY AIR BLOWER MOTOR.
FOR NET CAPACITY, ADD THE SUPPLY AIR BLOWER MOTOR HEAT (MBH = 3.415 x KW)**

TABLE 12: HEATING APPLICATION DATA 8-1/2 TON UNIT

CFM	ID DB	CAP & kW	OUTDOOR TEMPERATURE (°F) (72% RH)							
			-10	0	10	20	30	40	50	60
2550	55	MBH	17.316	31.627	45.938	60.248	74.559	88.870	103.180	117.491
		KW	4.697	5.365	6.033	6.700	7.368	8.035	8.703	9.371
	70	MBH	13.315	27.626	41.937	56.247	70.558	84.869	99.179	113.490
		KW	5.336	6.004	6.672	7.339	8.007	8.674	9.342	10.010
	80	MBH	9.862	24.173	38.484	52.794	67.105	81.416	95.726	110.037
		KW	5.627	6.295	6.963	7.630	8.298	8.965	9.633	10.301
3400	55	MBH	21.927	36.238	50.549	64.859	79.170	93.481	107.791	122.102
		KW	4.696	5.364	6.032	6.699	7.367	8.034	8.702	9.370
	70	MBH	17.926	32.237	46.548	60.858	75.169	89.480	103.790	118.101
		KW	5.335	6.003	6.671	7.338	8.006	8.673	9.341	10.009
	80	MBH	14.473	28.784	43.095	57.405	71.716	86.027	100.337	114.648
		KW	5.626	6.294	6.962	7.629	8.297	8.964	9.632	10.300
4250	55	MBH	25.263	39.574	53.885	68.195	82.506	96.817	111.127	125.438
		KW	5.080	5.748	6.416	7.083	7.751	8.418	9.086	9.754
	70	MBH	21.262	35.573	49.884	64.194	78.505	92.816	107.126	121.437
		KW	5.719	6.387	7.055	7.722	8.390	9.057	9.725	10.393
	80	MBH	17.809	32.120	46.431	60.741	75.052	89.363	103.673	117.984
		KW	6.010	6.678	7.346	8.013	8.681	9.348	10.016	10.684

**THE MBH AND KW VALUES DO NOT INCLUDE THE SUPPLY AIR BLOWER MOTOR.
FOR NET CAPACITY, ADD THE SUPPLY AIR BLOWER MOTOR HEAT (MBH = 3.415 x KW)**

TABLE 13: HEATING APPLICATION DATA 10 TON UNIT

CFM	ID DB	CAP & kW	OUTDOOR TEMPERATURE (°F) (72% RH)							
			-10	0	10	20	30	40	50	60
3000	55	MBH	17.601	32.584	47.567	62.549	77.532	92.515	107.498	122.480
		KW	5.642	6.082	6.522	6.962	7.401	7.841	8.281	8.721
	70	MBH	18.204	33.187	48.170	63.152	78.135	93.118	108.101	123.083
		KW	6.590	7.030	7.469	7.909	8.349	8.789	9.228	9.668
	80	MBH	15.834	30.817	45.800	60.782	75.765	90.748	105.731	120.713
		KW	7.118	7.558	7.997	8.437	8.877	9.317	9.756	10.196
4000	55	MBH	18.040	33.023	48.006	62.989	77.971	92.954	107.937	122.920
		KW	5.215	5.655	6.095	6.535	6.974	7.414	7.854	8.294
	70	MBH	18.643	33.626	48.609	63.592	78.574	93.557	108.540	123.523
		KW	6.163	6.603	7.042	7.482	7.922	8.362	8.801	9.241
	80	MBH	16.273	31.256	46.239	61.222	76.204	91.187	106.170	121.153
		KW	6.691	7.131	7.570	8.010	8.450	8.890	9.329	9.769
5000	55	MBH	16.305	31.287	46.270	61.253	76.236	91.218	106.201	121.184
		KW	5.090	5.530	5.970	6.410	6.849	7.289	7.729	8.169
	70	MBH	16.908	31.890	46.873	61.856	76.839	91.821	106.804	121.787
		KW	6.038	6.478	6.917	7.357	7.797	8.237	8.676	9.116
	80	MBH	14.538	29.520	44.503	59.486	74.469	89.451	104.434	119.417
		KW	6.566	7.006	7.445	7.885	8.325	8.765	9.204	9.644

**THE MBH AND KW VALUES DO NOT INCLUDE THE SUPPLY AIR BLOWER MOTOR.
FOR NET CAPACITY, ADD THE SUPPLY AIR BLOWER MOTOR HEAT (MBH = 3.415 x KW)**

TABLE 14: HEATING APPLICATION DATA 12-1/2 TON UNIT

CFM	ID DB	CAP & kW	OUTDOOR TEMPERATURE (°F) (72% RH)							
			-10	0	10	20	30	40	50	60
3750	55	MBH	36.258	51.135	66.012	80.889	95.766	110.643	125.520	140.397
		KW	7.766	8.115	8.465	8.814	9.164	9.513	9.863	10.212
	70	MBH	42.599	57.476	72.353	87.230	102.107	116.984	131.861	146.738
		KW	9.412	9.761	10.111	10.460	10.810	11.159	11.509	11.858
	80	MBH	42.807	57.684	72.561	87.438	102.315	117.192	132.069	146.946
		KW	10.598	10.947	11.297	11.646	11.996	12.345	12.695	13.044
5000	55	MBH	38.088	52.965	67.842	82.719	97.596	112.473	127.350	142.226
		KW	6.971	7.320	7.670	8.019	8.369	8.718	9.068	9.417
	70	MBH	44.429	59.306	74.183	89.060	103.937	118.814	133.691	148.567
		KW	8.617	8.966	9.316	9.665	10.015	10.364	10.714	11.063
	80	MBH	44.637	59.514	74.391	89.268	104.145	119.022	133.899	148.775
		KW	9.803	10.152	10.502	10.851	11.201	11.550	11.900	12.249
6250	55	MBH	35.195	50.072	64.949	79.826	94.703	109.580	124.457	139.334
		KW	6.033	6.382	6.732	7.081	7.431	7.780	8.130	8.479
	70	MBH	41.536	56.413	71.290	86.167	101.044	115.921	130.798	145.675
		KW	7.679	8.028	8.378	8.727	9.077	9.426	9.776	10.125
	80	MBH	41.744	56.621	71.498	86.375	101.252	116.129	131.006	145.883
		KW	8.865	9.214	9.564	9.913	10.263	10.612	10.962	11.311

**THE MBH AND KW VALUES DO NOT INCLUDE THE SUPPLY AIR BLOWER MOTOR.
FOR NET CAPACITY, ADD THE SUPPLY AIR BLOWER MOTOR HEAT (MBH = 3.415 x KW)**

TABLE 15: ELECTRICAL DATA BP078 (6-1/2 TON) HP W/O PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	1.5 HP	2 HP	FLA	FLA				1.5 HP	2 HP	1.5 HP	2 HP	1.5 HP	2 HP	1.5 HP	2 HP
208	18.9	146.0	1.6	6.2	8.2	5.5	0.0	None	--	--	33.0	35.0	38.5	40.5	45	45	50	50
								2TP04520925	6.8	18.9	56.6	58.6	62.1	64.1	70	70	70	70
								2TP04521825	13.5	37.5	79.9	81.9	85.4	87.4	80	90	90	90
								2TP04522425	18.0	50.0	95.5	97.5	101.0	103.0	100	100	110	110
								2TP04523625	25.5	70.8	121.5	123.5	127.0	129.0	125	125	150	150
230	18.9	146.0	1.6	6.2	8.2	5.5	0.0	None	--	--	33.0	35.0	38.5	40.5	45	45	50	50
								2TP04520925	9.0	21.7	60.1	62.1	65.6	67.6	70	70	70	80
								2TP04521825	18.0	43.3	87.2	89.2	92.7	94.7	90	90	100	100
								2TP04522425	24.0	57.7	105.2	107.2	110.7	112.7	110	110	125	125
								2TP04523625	34.0	81.8	135.3	137.3	140.8	142.8	150	150	150	150
460	9.5	73.0	0.8	3.1	4.1	2.2	0.0	None	--	--	16.6	17.6	18.8	19.8	25	25	25	25
								2TP04520946	9	11.3	30.1	31.1	32.3	33.3	35	35	35	40
								2TP04521846	18	22.6	43.6	44.6	45.8	46.8	45	45	50	50
								2TP04522446	24	30.1	52.7	53.7	54.9	55.9	60	60	60	60
								2TP04523646	34	42.7	67.7	68.7	69.9	70.9	70	70	70	80
575	7.6	58.4	0.6	2.4	3.6	1.8	0.0	None	--	--	13.1	14.3	14.9	16.1	20	20	20	20
								2TP04520958	9	9.0	23.9	25.1	25.7	26.9	25	30	30	30
								2TP04521858	18	18.1	34.8	36	36.6	37.8	35	40	40	40
								2TP04522458	24	24.1	42	43.2	43.8	45	45	45	45	45
								2TP04523658	34	34.1	54	55.2	55.8	57	60	60	60	60

* Maximum HACR breaker of the same AMP size is applicable.

TABLE 16: ELECTRICAL DATA BP078 (6-1/2 TON) HP WITH PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	1.5 HP	2 HP	FLA	FLA				1.5 HP	2 HP	1.5 HP	2 HP	1.5 HP	2 HP	1.5 HP	2 HP
208	18.9	146.0	1.6	6.2	8.2	5.5	10.0	None	--	--	43.0	45.0	48.5	50.5	60	60	60	60
								2TP04520925	6.8	18.9	66.6	68.6	72.1	74.1	80	80	80	80
								2TP04521825	13.5	37.5	89.9	91.9	95.4	97.4	90	100	100	100
								2TP04522425	18.0	50.0	105.5	107.5	111.0	113.0	110	110	125	125
								2TP04523625	25.5	70.8	131.5	133.5	137.0	139.0	150	150	150	150
230	18.9	146.0	1.6	6.2	8.2	5.5	10.0	None	--	--	43.0	45.0	48.5	50.5	60	60	60	60
								2TP04520925	9.0	21.7	70.1	72.1	75.6	77.6	80	80	80	90
								2TP04521825	18.0	43.3	97.2	99.2	102.7	104.7	100	100	110	110
								2TP04522425	24.0	57.7	115.2	117.2	120.7	122.7	125	125	125	125
								2TP04523625	34.0	81.8	145.3	147.3	150.8	152.8	150	150	175	175
460	9.5	73.0	0.8	3.1	4.1	2.2	5.0	None	--	--	21.6	22.6	23.8	24.8	30	30	30	30
								2TP04520946	9	11.3	35.1	36.1	37.3	38.3	40	40	40	45
								2TP04521846	18	22.6	48.6	49.6	50.8	51.8	50	50	60	60
								2TP04522446	24	30.1	57.7	58.7	59.9	60.9	60	60	60	70
								2TP04523646	34	42.7	72.7	73.7	74.9	75.9	80	80	80	80
575	7.6	58.4	0.6	2.4	3.6	1.8	4.0	None	--	--	17.1	18.3	18.9	20.1	20	25	25	25
								2TP04520958	9	9.0	27.9	29.1	29.7	30.9	30	30	35	35
								2TP04521858	18	18.1	38.8	40	40.6	41.8	40	40	45	45
								2TP04522458	24	24.1	46	47.2	47.8	49	50	50	50	50
								2TP04523658	34	34.1	58	59.2	59.8	61	60	60	60	70

* Maximum HACR breaker of the same AMP size is applicable.

TABLE 17: ELECTRICAL DATA BP090 (7-1/2 TON) HP W/O PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse Size w/Power Exhaust	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	11.5	84.0	1.5	8.2	10.9	5.5	0.0	None	--	--	37.1	39.8	42.6	45.3	45	50	50	50
								2TP04540925	6.8	18.9	60.7	63.4	66.2	68.9	70	70	70	70
								2TP04541825	13.5	37.5	83.9	86.6	89.4	92.1	90	90	90	100
								2TP04542425	18	50.0	99.5	102.2	105.0	107.7	100	110	110	110
								2TP04543625	25.5	70.8	125.6	128.3	131.1	133.8	150	150	150	150
230	11.5	84.0	1.5	8.2	10.9	5.5	0.0	None	--	--	37.1	39.8	42.6	45.3	45	50	50	50
								2TP04540925	9	21.7	64.1	66.8	69.6	72.3	70	70	70	80
								2TP04541825	18	43.3	91.2	93.9	96.7	99.4	100	100	100	100
								2TP04542425	24	57.7	109.2	111.9	114.7	117.4	110	125	125	125
								2TP04543625	34	81.8	139.3	142.0	144.8	147.5	150	150	150	150
460	6.4	42.0	0.8	4.1	5.3	2.2	0.0	None	--	--	20.1	21.3	22.3	23.5	25	25	25	25
								2TP04540946	9	11.3	33.6	34.8	35.8	37	35	35	40	40
								2TP04541846	18	22.6	47.2	48.4	49.4	50.6	50	50	50	60
								2TP04542446	24	30.1	56.2	57.4	58.4	59.6	60	60	60	60
								2TP04543646	34	42.7	71.2	72.4	73.4	74.6	80	80	80	80
575	5.1	34.0	0.6	3.6	4.1	1.8	0.0	None	--	--	16.3	16.8	18.1	18.6	20	20	20	20
								2TP04540958	9	9.0	27.1	27.6	28.9	29.4	30	30	30	30
								2TP04541858	18	18.1	37.9	38.4	39.7	40.2	40	40	40	45
								2TP04542458	24	24.1	45.1	45.6	46.9	47.4	50	50	50	50
								2TP04543658	34	34.1	57.2	57.7	59	59.5	60	60	60	60

TABLE 18: ELECTRICAL DATA BP090 (7-1/2 TON) HP WITH PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse Size w/Power Exhaust	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	11.5	84.0	1.5	8.2	10.9	5.5	10.0	None	--	--	47.1	49.8	52.6	55.3	50	60	60	60
								2TP04540925	6.8	18.9	70.7	73.4	76.2	78.9	80	80	80	80
								2TP04541825	13.5	37.5	93.9	96.6	99.4	102.1	100	100	100	110
								2TP04542425	18	50.0	109.5	112.2	115.0	117.7	110	125	125	125
								2TP04543625	25.5	70.8	135.6	138.3	141.1	143.8	150	150	150	150
230	11.5	84.0	1.5	8.2	10.9	5.5	10.0	None	--	--	47.1	49.8	52.6	55.3	50	60	60	60
								2TP04540925	9	21.7	74.1	76.8	79.6	82.3	80	80	80	90
								2TP04541825	18	43.3	101.2	103.9	106.7	109.4	110	110	110	110
								2TP04542425	24	57.7	119.2	121.9	124.7	127.4	125	125	125	150
								2TP04543625	34	81.8	149.3	152.0	154.8	157.5	150	175	175	175
460	6.4	42.0	0.8	4.1	5.3	2.2	5.0	None	--	--	25.1	26.3	27.3	28.5	30	30	30	30
								2TP04540946	9	11.3	38.6	39.8	40.8	42	40	40	45	45
								2TP04541846	18	22.6	52.2	53.4	54.4	55.6	60	60	60	60
								2TP04542446	24	30.1	61.2	62.4	63.4	64.6	70	70	70	70
								2TP04543646	34	42.7	76.2	77.4	78.4	79.6	80	80	80	80
575	5.1	34.0	0.6	3.6	4.1	1.8	4.0	None	--	--	20.3	20.8	22.1	22.6	25	25	25	25
								2TP04540958	9	9.0	31.1	31.6	32.9	33.4	35	35	35	35
								2TP04541858	18	18.1	41.9	42.4	43.7	44.2	45	45	45	45
								2TP04542458	24	24.1	49.1	49.6	50.9	51.4	50	50	60	60
								2TP04543658	34	34.1	61.2	61.7	63	63.5	70	70	70	70

TABLE 19: ELECTRICAL DATA BP102 (8-1/2 TON) HP W/O PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	14.7	130.0	3.5	8.2	10.9	5.5	0.0	None	--	--	48.3	51.0	53.8	56.5	60	60	60	70
								2TP04520925	6.8	18.9	71.9	74.6	77.4	80.1	80	80	80	90
								2TP04521825	13.5	37.5	95.1	97.8	100.6	103.3	100	100	110	110
								2TP04522425	18.0	50.0	110.7	113.4	116.2	118.9	125	125	125	125
								2TP04523625	25.5	70.8	136.8	139.5	142.3	145.0	150	150	150	150
230	14.7	130.0	3.5	8.2	10.9	5.5	0.0	None	--	--	48.3	51.0	53.8	56.5	60	60	60	70
								2TP04520925	9.0	21.7	75.3	78.0	80.8	83.5	80	80	90	90
								2TP04521825	18.0	43.3	102.4	105.1	107.9	110.6	110	110	110	125
								2TP04522425	24.0	57.7	120.4	123.1	125.9	128.6	125	125	150	150
								2TP04523625	34.0	81.8	150.5	153.2	156.0	158.7	175	175	175	175
460	7.7	64.0	1.6	4.1	5.3	2.2	0.0	None	--	--	24.6	25.8	26.8	28	30	30	30	35
								2TP04520946	9	11.3	38.2	39.4	40.4	41.6	40	40	45	45
								2TP04521846	18	22.6	51.7	52.9	53.9	55.1	60	60	60	60
								2TP04522446	24	30.1	60.7	61.9	62.9	64.1	70	70	70	70
								2TP04523646	34	42.7	75.7	76.9	77.9	79.1	80	80	80	80
575	6.4	52.0	1.3	3.6	4.1	1.8	0.0	None	--	--	20.6	21.1	22.4	22.9	25	25	25	25
								2TP04520958	9	9.0	31.4	31.9	33.2	33.7	35	35	35	35
								2TP04521858	18	18.1	42.3	42.8	44.1	44.6	45	45	45	45
								2TP04522458	24	24.1	49.5	50	51.3	51.8	50	50	60	60
								2TP04523658	34	34.1	61.5	62	63.3	63.8	70	70	70	70

* Maximum HACR breaker of the same AMP size is applicable.

TABLE 20: ELECTRICAL DATA BP102 (8-1/2 TON) HP WITH PWRD CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	14.7	130.0	3.5	8.2	10.9	5.5	10.0	None	--	--	58.3	61.0	63.8	66.5	70	70	70	80
								2TP04520925	6.8	18.9	81.9	84.6	87.4	90.1	90	90	90	100
								2TP04521825	13.5	37.5	105.1	107.8	110.6	113.3	110	110	125	125
								2TP04522425	18.0	50.0	120.7	123.4	126.2	128.9	125	125	150	150
								2TP04523625	25.5	70.8	146.8	149.5	152.3	155.0	150	150	175	175
230	14.7	130.0	3.5	8.2	10.9	5.5	10.0	None	--	--	58.3	61.0	63.8	66.5	70	70	70	80
								2TP04520925	9.0	21.7	85.3	88.0	90.8	93.5	90	90	100	100
								2TP04521825	18.0	43.3	112.4	115.1	117.9	120.6	125	125	125	125
								2TP04522425	24.0	57.7	130.4	133.1	135.9	138.6	150	150	150	150
								2TP04523625	34.0	81.8	160.5	163.2	166.0	168.7	175	175	175	175
460	7.7	64.0	1.6	4.1	5.3	2.2	5.0	None	--	--	29.6	30.8	31.8	33	35	35	35	40
								2TP04520946	9	11.3	43.2	44.4	45.4	46.6	45	45	50	50
								2TP04521846	18	22.6	56.7	57.9	58.9	60.1	60	60	60	70
								2TP04522446	24	30.1	65.7	66.9	67.9	69.1	70	70	70	70
								2TP04523646	34	42.7	80.7	81.9	82.9	84.1	90	90	90	90
575	6.4	52.0	1.3	3.6	4.1	1.8	4.0	None	--	--	24.6	25.1	26.4	26.9	30	30	30	30
								2TP04520958	9	9.0	35.4	35.9	37.2	37.7	40	40	40	40
								2TP04521858	18	18.1	46.3	46.8	48.1	48.6	50	50	50	50
								2TP04522458	24	24.1	53.5	54	55.3	55.8	60	60	60	60
								2TP04523658	34	34.1	65.5	66	67.3	67.8	70	70	70	70

* Maximum HACR breaker of the same AMP size is applicable.

TABLE 21: ELECTRICAL DATA BP120 (10 TON) HP W/O POWERED CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse Size* w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	16.0	150.0	3.5	8.2	10.9	5.5	0.0	None	--	--	51.2	53.9	56.7	59.4	60	60	70	70
								2TP04521825	13.5	37.5	98.0	100.7	103.5	106.2	100	110	110	110
								2TP04522425	18.0	50.0	113.7	116.4	119.2	121.9	125	125	125	125
								2TP04523625	25.5	70.8	139.7	142.4	145.2	147.9	150	150	150	150
								2HP04525425**	40.6	112.7	151.1	154.5	158.0	161.4	175	175	175	175
230	16.0	150.0	3.5	8.2	10.9	5.5	0.0	None	--	--	51.2	53.9	56.7	59.4	60	60	70	70
								2TP04521825	18.0	43.3	105.3	108.0	110.8	113.5	110	110	125	125
								2TP04522425	24.0	57.7	123.4	126.1	128.9	131.6	125	150	150	150
								2TP04523625	34.0	81.8	153.4	156.1	158.9	161.6	175	175	175	175
								2HP04525425**	54.0	129.9	153.4	156.1	158.9	161.6	175	175	175	175
460	9.9	75.0	1.6	4.1	5.3	2.2	0.0	None	--	--	29.6	30.8	31.8	33	35	40	40	40
								2TP04521846	18	22.6	56.6	57.8	58.8	60	60	60	60	60
								2TP04522446	24	30.1	65.7	66.9	67.9	69.1	70	70	70	70
								2TP04523646	34	42.7	80.7	81.9	82.9	84.1	90	90	90	90
								2HP04535446**	54	67.8	80.7	81.9	82.9	84.1	90	90	90	90
575	6.4	62.0	1.3	3.6	4.1	1.8	0.0	None	--	--	20.6	21.1	22.4	22.9	25	25	25	25
								2TP04521858	18	18.1	42.3	42.8	44.1	44.6	45	45	45	45
								2TP04522458	24	24.1	49.5	50	51.3	51.8	50	50	60	60
								2TP04523658	34	34.1	61.5	62	63.3	63.8	70	70	70	70
								2HP04535458**	54	54.2	61.5	62	63.3	63.8	70	70	70	70

* Maximum HACR breaker of the same AMP size is applicable.

** Only 34 kW of Electric heat can be simultaneously energized with the mechanical heating. The full 54 kW operates only if both compressors are locked-out.

TABLE 22: ELECTRICAL DATA BP120 (10 TON) HP WITH POWERED CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	2 HP	3 HP	FLA	FLA				2 HP	3 HP	2 HP	3 HP	2 HP	3 HP	2 HP	3 HP
208	16.0	150.0	3.5	8.2	10.9	5.5	10.0	None	--	--	61.2	63.9	66.7	69.4	70	70	80	80
								2TP04521825	13.5	37.5	108.0	110.7	113.5	116.2	110	125	125	125
								2TP04522425	18.0	50.0	123.7	126.4	129.2	131.9	125	150	150	150
								2TP04523625	25.5	70.8	149.7	152.4	155.2	157.9	150	175	175	175
								2HP04525425**	40.6	112.7	163.6	167.0	170.5	173.9	175	175	175	175
230	16.0	150.0	3.5	8.2	10.9	5.5	10.0	None	--	--	61.2	63.9	66.7	69.4	70	70	80	80
								2TP04521825	18.0	43.3	115.3	118.0	120.8	123.5	125	125	125	125
								2TP04522425	24.0	57.7	133.4	136.1	138.9	141.6	150	150	150	150
								2TP04523625	34.0	81.8	163.4	166.1	168.9	171.6	175	175	175	175
								2HP04525425**	54.0	129.9	163.4	166.1	168.9	171.6	175	175	175	175
460	9.9	75.0	1.6	4.1	5.3	2.2	5.0	None	--	--	34.6	35.8	36.8	38	40	45	45	45
								2TP04521846	18	22.6	61.6	62.8	63.8	65	70	70	70	70
								2TP04522446	24	30.1	70.7	71.9	72.9	74.1	80	80	80	80
								2TP04523646	34	42.7	85.7	86.9	87.9	89.1	90	90	90	90
								2HP04535446**	54	67.8	85.7	86.9	87.9	89.1	90	90	90	90
575	6.4	62.0	1.3	3.6	4.1	1.8	4.0	None	--	--	24.6	25.1	26.4	26.9	30	30	30	30
								2TP04521858	18	18.1	46.3	46.8	48.1	48.6	50	50	50	50
								2TP04522458	24	24.1	53.5	54	55.3	55.8	60	60	60	60
								2TP04523658	34	34.1	65.5	66	67.3	67.8	70	70	70	70
								2HP04535458**	54	54.2	65.5	66	67.3	67.8	70	70	70	70

* Maximum HACR breaker of the same AMP size is applicable.

** Only 34 kW of Electric heat can be simultaneously energized with the mechanical heating. The full 54 kW operates only if both compressors are locked-out.

TABLE 23: ELECTRICAL DATA BP150 (12-1/2 TON) HP W/O POWERED CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.		3 HP	5 HP						3 HP	5 HP	3 HP	5 HP	3 HP	5 HP	3 HP	5 HP
208	18.9	146.0	3.5	10.9	16.1	5.5	0.0	None	--	--	60.4	65.6	65.9	71.1	70	80	80	90
								2TP04521825	13.5	37.5	107.3	112.5	112.8	118.0	110	125	125	125
								2TP04522425	18.0	50.0	122.9	128.1	128.4	133.6	125	150	150	150
								2TP04523625	25.5	70.8	148.9	154.1	154.4	159.6	150	175	175	175
								2HP04535425**	40.6	112.7	154.5	161.0	161.4	167.9	175	175	175	175
230	18.9	146.0	3.5	10.9	16.1	5.5	0.0	None	--	--	60.4	65.6	65.9	71.1	70	80	80	90
								2TP04521825	18.0	43.3	114.6	119.8	120.1	125.3	125	125	125	150
								2TP04522425	24.0	57.7	132.6	137.8	138.1	143.3	150	150	150	150
								2TP04523625	34.0	81.8	162.7	167.9	168.2	173.4	175	175	175	175
								2HP04535425**	54.0	129.9	162.7	167.9	168.2	173.4	175	175	175	175
460	9.5	73.0	1.6	5.3	8.1	2.2	0.0	None	--	--	29.9	32.7	32.1	34.9	35	40	40	40
								2TP04521846	18	22.6	56.9	59.7	59.1	61.9	60	60	60	70
								2TP04522446	24	30.1	66	68.8	68.2	71	70	70	70	80
								2TP04523646	34	42.7	81	83.8	83.2	86	90	90	90	90
								2HP04535446**	54	67.8	81	83.8	83.2	86	90	90	90	90
575	7.6	58.4	1.3	4.1	6.0	1.8	0.0	None	--	--	23.8	25.7	25.6	27.5	30	30	30	35
								2TP04521858	18	18.1	45.5	47.4	47.3	49.2	50	50	50	50
								2TP04522458	24	24.1	52.7	54.6	54.5	56.4	60	60	60	60
								2TP04523658	34	34.1	64.7	66.6	66.5	68.4	70	70	70	70
								2HP04535458**	54	54.2	64.7	66.6	66.5	68.4	70	70	70	70

* Maximum HACR breaker of the same AMP size is applicable.

** Only 34 kW of Electric heat can be simultaneously energized with the mechanical heating. The full 54 kW operates only if both compressors are locked-out.

TABLE 24: ELECTRICAL DATA BP150 (12-1/2 TON) HP WITH POWERED CONVENIENCE OUTLET

Voltage	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Pwr Conv Outlet	Electric Heater Model No.	Actual KW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse* Size (Amps)		Max Fuse* Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.		3 HP	5 HP						3 HP	5 HP	3 HP	5 HP	3 HP	5 HP	3 HP	5 HP
208	18.9	146.0	3.5	10.9	16.1	5.5	10.0	None	--	--	70.4	75.6	75.9	81.1	80	90	90	100
								2TP04521825	13.5	37.5	117.3	122.5	122.8	128.0	125	125	125	150
								2TP04522425	18.0	50.0	132.9	138.1	138.4	143.6	150	150	150	150
								2TP04523625	25.5	70.8	158.9	164.1	164.4	169.6	175	175	175	175
								2HP04535425**	40.6	112.7	167.0	173.5	173.9	180.4	175	175	175	200
230	18.9	146.0	3.5	10.9	16.1	5.5	10.0	None	--	--	70.4	75.6	75.9	81.1	80	90	90	100
								2TP04521825	18.0	43.3	124.6	129.8	130.1	135.3	125	150	150	150
								2TP04522425	24.0	57.7	142.6	147.8	148.1	153.3	150	150	150	175
								2TP04523625	34.0	81.8	172.7	177.9	178.2	183.4	175	200	200	200
								2HP04535425**	54.0	129.9	172.7	177.9	178.2	183.4	175	200	200	200
460	9.5	73.0	1.6	5.3	8.1	2.2	5.0	None	--	--	34.9	37.7	37.1	39.9	40	45	45	45
								2TP04521846	18	22.6	61.9	64.7	64.1	66.9	70	70	70	70
								2TP04522446	24	30.1	71	73.8	73.2	76	80	80	80	80
								2TP04523646	34	42.7	86	88.8	88.2	91	90	90	90	100
								2HP04535446**	54	67.8	86	88.8	88.2	91	90	90	90	100
575	7.6	58.4	1.3	4.1	6.0	1.8	4.0	None	--	--	27.8	29.7	29.6	31.5	35	35	35	35
								2TP04521858	18	18.1	49.5	51.4	51.3	53.2	50	60	60	60
								2TP04522458	24	24.1	56.7	58.6	58.5	60.4	60	60	60	70
								2TP04523658	34	34.1	68.7	70.6	70.5	72.4	70	80	80	80
								2HP04535458**	54	54.2	68.7	70.6	70.5	72.4	70	80	80	80

* Maximum HACR breaker of the same AMP size is applicable.

** Only 34 kW of Electric heat can be simultaneously energized with the mechanical heating. The full 54 kW operates only if both compressors are locked-out.

TABLE 25: ELECTRIC HEAT MULTIPLIERS

VOLTAGE		kW Cap. Multiplier
NOMINAL	RATING	
240	208	0.75
	230	0.92
480	460	0.92
600	575	0.92

NOTE: Electric heaters are rated at nominal voltage. Use this table to determine the electric heat capacity for heaters supplied at lower voltages.

NOTES FOR TABLES 26 THROUGH 35:

- Blower performance includes dry coil and 2" throwaway filters.

ESP (External Static Pressure) given is that available for the supply and return air duct system. All internal resistances have been deducted from the total static pressure of the blower.

TABLE 26: 6-1/2 TON SIDE SHOT BLOWER PERFORMANCE

External Static Pressure																											
CFM	0.2			0.4			0.6			0.8			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	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts
1900	602	0.59	550	687	0.69	641	764	0.81	758	839	0.95	884	893	1.18	1097	957	1.34	1252	1013	1.42	1324	1062	1.59	1484			
2000	612	0.64	600	697	0.72	676	772	0.84	782	846	1.01	940	900	1.22	1137	963	1.39	1299	1019	1.48	1377	1067	1.65	1541			
2100	622	0.70	652	707	0.76	712	781	0.87	810	854	1.07	997	907	1.26	1179	970	1.44	1346	1024	1.53	1430	1073	1.71	1599			
2200	632	0.76	707	608	0.61	572	717	0.80	750	843	861	1.13	1055	913	1.31	1223	976	1.50	1395	1030	1.59	1485	1078	1.78	1656		
2300	642	0.82	764	623	0.66	614	727	0.85	790	880	869	1.19	1113	920	1.36	1269	983	1.55	1444	1035	1.65	1541	1083	1.84	1713		
2400	652	0.88	823	639	0.71	659	736	0.89	832	807	876	1.26	1172	927	1.41	1318	989	1.60	1493	1041	1.71	1597	1088	1.90	1770		
2500	662	0.95	885	654	0.76	705	746	0.94	877	815	884	1.32	1232	934	1.47	1369	996	1.66	1544	1046	1.78	1655	1094	1.96	1827		
2600	672	1.02	949	669	0.81	755	756	0.99	923	824	891	1.39	1292	940	1.53	1423	1002	1.71	1595	1051	1.84	1713	1099	2.02	1884		
2700	682	1.09	1016	684	0.86	806	766	1.04	971	832	899	1.45	1353	947	1.59	1479	1008	1.77	1647	1057	1.90	1773	1104	2.08	1941		
2800	692	1.16	1083	699	0.92	860	776	1.10	1022	841	906	1.52	1414	954	1.65	1537	1015	1.82	1700	1062	1.97	1833	1109	2.14	1999		
2900	702	1.23	1150	715	0.98	917	786	1.15	1074	850	914	1.58	1476	960	1.71	1597	1021	1.88	1753	1068	2.03	1894					
3000	712	1.30	1217	730	1.05	976	795	1.21	1129	858	921	1.65	1539	967	1.78	1660	1028	1.94	1807	1073	2.10	1956					
3100	722	1.37	1284	745	1.11	1037	805	1.27	1185	867	929	1.72	1602	974	1.85	1725	1034	2.00	1862								
3200	732	1.44	1351	760	1.18	1100	815	1.33	1244	876	936	1.79	1666	981	1.92	1793	1041	2.06	1918								
3300	742	1.51	1418	776	1.25	1166	825	1.40	1305	884	944	1.86	1731	987	2.00	1862	1047	2.12	1974								

High Horsepower Option Required

TABLE 27: 7-1/2 TON SIDE SHOT BLOWER PERFORMANCE

CFM		External Static Pressure																												
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2										
RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts							
2000	745	0.31	292	811	0.51	478	876	0.71	658	939	0.89	827	1001	1.05	980	1061	1.19	1113	1118	1.31	1221	1174	1.46	1361	1486	1278	1.74	1622		
2100	759	0.38	359	825	0.58	545	890	0.78	725	954	0.96	894	1015	1.12	1047	1075	1.27	1180	1133	1.38	1288	1188	1.54	1434	1559	1292	1.82	1695		
2200	774	0.46	429	841	0.66	615	906	0.85	795	969	1.03	964	1031	1.20	1117	1090	1.34	1251	1148	1.46	1359	1204	1.62	1508	1633	1307	1.90	1769		
2300	791	0.54	504	857	0.74	690	922	0.93	870	985	1.11	1039	1047	1.28	1192	1107	1.42	1325	1164	1.54	1433	1220	1.70	1584	1709	1324	1.98	1845		
2400	808	0.62	582	874	0.82	768	939	1.02	948	1002	1.20	1117	1064	1.36	1270	1124	1.51	1403	1182	1.62	1511	1237	1.78	1664	1789	1341	2.06	1925		
2500	826	0.71	664	892	0.91	850	957	1.11	1030	1020	1.29	1199	1082	1.45	1353	1142	1.59	1486	1200	1.71	1594	1255	1.87	1746	1871	1359	2.15	2007		
2600	845	0.81	750	911	1.00	936	976	1.20	1116	1039	1.38	1285	1101	1.54	1438	1161	1.69	1571	1219	1.80	1680	1274	1.97	1832	1957	1378	2.25	2093		
2700	865	0.90	840	931	1.10	1026	996	1.29	1206	1059	1.47	1375	1121	1.64	1528	1181	1.78	1661	1238	1.90	1769	1294	2.06	1922	2046	1398	2.34	2183		
2800	885	1.00	933	952	1.20	1119	1016	1.39	1299	1080	1.58	1468	1141	1.74	1621	1201	1.88	1755	1259	2.00	1863	1314	2.16	2015	2140	1418	2.44	2276		
2900	907	1.11	1030	973	1.30	1216	1038	1.50	1396	1101	1.68	1565	1163	1.84	1718	1222	1.99	1851	1280	2.10	1960	1336	2.27	2113	2238	1439	2.55	2374		
3000	929	1.21	1131	995	1.41	1317	1060	1.61	1497	1123	1.79	1666	1185	1.95	1819	1244	2.09	1952	1302	2.21	2060	1358	2.38	2214	2339	1461	2.66	2475		
3100	951	1.32	1235	1017	1.52	1421	1082	1.72	1601	1146	1.90	1769	1207	2.06	1923	1267	2.21	2056	1325	2.32	2164	1380	2.49	2320	2445	1484	2.77	2581		
3200	975	1.44	1342	1041	1.64	1528	1106	1.83	1708	1169	2.01	1877	1231	2.18	2030	1290	2.32	2163	1348	2.48	2311	1404	2.61	2431	2555	1507	2.89	2691		
3300	999	1.56	1453	1065	1.76	1639	1130	1.95	1819	1193	2.13	1987	1255	2.30	2141	1314	2.47	2304	1372	2.60	2425	1428	2.73	2545	2670	1531	3.01	2806		
3400	1023	1.68	1567	1089	1.88	1753	1154	2.07	1932	1218	2.25	2101	1279	2.46	2293	1339	2.60	2422	1397	2.73	2544	1452	2.86	2664	2789	1556	3.14	2925		
3500	1048	1.81	1684	1115	2.01	1870	1179	2.20	2049	1243	2.44	2273	1304	2.59	2416	1364	2.73	2546	1422	2.86	2667	1478	2.99	2787	2912	1581	3.27	3048		
3600	1074	1.94	1804	1140	2.13	1990	1205	2.33	2170	1269	2.58	2401	1330	2.73	2544	1390	2.87	2673	1448	3.00	2794	1503	3.13	2914	3039	1581	3.27	3048		
3700	1101	2.07	1927	1167	2.27	2113	1232	2.54	2369	1295	2.72	2532	1357	2.87	2676	1416	3.01	2805	1474	3.14	2926	1530	3.27	3046	3171	1581	3.27	3048		
3800	1127	2.20	2053	1194	2.48	2315	1258	2.69	2505	1322	2.86	2669	1383	3.02	2812	1443	3.15	2941	1501	3.29	3062	1530	3.27	3046	3171	1581	3.27	3048		
3900	1155	2.39	2232	1221	2.63	2455	1286	2.84	2645	1349	3.01	2809	1411	3.17	2952	1471	3.31	3081	1501	3.29	3062	1530	3.27	3046	3171	1581	3.27	3048		
4000	1183	2.55	2377	1249	2.79	2600	1314	2.99	2790	1377	3.17	2953	1439	3.32	3097	1471	3.31	3081	1501	3.29	3062	1530	3.27	3046	3171	1581	3.27	3048		
4100	1211	2.71	2525	1277	2.95	2748	1342	3.15	2939	1406	3.33	3102	1471	3.31	3081	1501	3.29	3062	1530	3.27	3046	1530	3.27	3046	3171	1581	3.27	3048		
4200	1240	2.87	2678	1306	3.11	2901	1371	3.32	3091	1406	3.33	3102	1471	3.31	3081	1501	3.29	3062	1530	3.27	3046	1530	3.27	3046	3171	1581	3.27	3048		
4300	1269	3.04	2835	1336	3.28	3058	1406	3.33	3091	1406	3.33	3102	1471	3.31	3081	1501	3.29	3062	1530	3.27	3046	1530	3.27	3046	3171	1581	3.27	3048		
4400	1299	3.21	2996	1366	3.45	3220	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201	1436	3.52	3201
4500	1329	3.39	3161	1396	3.63	3380	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361	1466	3.70	3361
High Horsepower Option Required																														

TABLE 28: 8-1/2 TON SIDE SHOT BLOWER PERFORMANCE

External Static Pressure																	
CFM	0.2		0.4		0.6		0.8		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	RPM	Watts
2600	703	1.07	995	758	1.10	1023	831	1.26	1179	887	1.40	1302	947	1.57	1464	1003	1601
2700	716	1.09	1019	771	1.15	1072	841	1.31	1221	896	1.46	1359	955	1.63	1517	1010	1662
2800	729	1.12	1048	783	1.21	1125	851	1.36	1268	906	1.52	1419	963	1.69	1574	1016	1726
2900	741	1.16	1083	795	1.27	1181	861	1.42	1320	915	1.59	1482	971	1.75	1634	1023	1792
3000	754	1.21	1124	807	1.33	1241	871	1.48	1377	924	1.66	1549	979	1.82	1698	1030	1861
3100	767	1.26	1170	820	1.40	1305	882	1.54	1438	934	1.74	1618	987	1.89	1765	1036	1933
3200	780	1.31	1223	832	1.47	1371	892	1.61	1505	943	1.81	1691	995	1.97	1836	1043	2007
3300	792	1.37	1281	844	1.55	1442	902	1.69	1576	953	1.89	1766	1003	2.05	1910	1050	2084
3400	805	1.44	1344	856	1.63	1516	912	1.77	1652	962	1.98	1845	1011	2.13	1987	1056	2164
3500	818	1.52	1414	869	1.71	1593	922	1.86	1733	971	2.07	1927	1019	2.22	2068	1063	2246
3600	831	1.60	1489	881	1.80	1674	933	1.95	1819	981	2.16	2012	1027	2.31	2152	1070	2331
3700	843	1.68	1569	893	1.89	1758	943	2.05	1910	990	2.25	2100	1035	2.40	2239	1076	2419
3800	856	1.78	1656	906	1.98	1846	953	2.15	2005	1000	2.35	2191	1043	2.50	2330	1083	2509
3900	869	1.88	1748	918	2.08	1937	963	2.26	2106	1009	2.45	2286	1051	2.60	2424	1090	2602
4000	882	1.98	1846	930	2.18	2032	974	2.37	2211	1018	2.56	2383	1059	2.71	2522	1096	2698
4100	894	2.09	1950	942	2.29	2131	984	2.49	2321	1028	2.66	2484	1067	2.81	2623	1103	2796
4200	907	2.21	2059	955	2.40	2233	994	2.61	2436	1037	2.78	2587	1075	2.93	2728	1110	2897
4300	920	2.33	2174	967	2.51	2338	1004	2.74	2556	1046	2.89	2694	1083	3.04	2836	1117	3001

High Horsepower Option Required

TABLE 29: 10 TON SIDE SHOT BLOWER PERFORMANCE

CFM	External Static Pressure																	
	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	741	1.20	1122	741	1.20	1122	741	1.20	1122	741	1.20	1122	741	1.20	1122	741	1.20	1122
3100	755	1.25	1167	755	1.25	1167	755	1.25	1167	755	1.25	1167	755	1.25	1167	755	1.25	1167
3200	769	1.31	1218	769	1.31	1218	769	1.31	1218	769	1.31	1218	769	1.31	1218	769	1.31	1218
3300	783	1.37	1274	783	1.37	1274	783	1.37	1274	783	1.37	1274	783	1.37	1274	783	1.37	1274
3400	797	1.43	1336	797	1.43	1336	797	1.43	1336	797	1.43	1336	797	1.43	1336	797	1.43	1336
3500	811	1.51	1404	811	1.51	1404	811	1.51	1404	811	1.51	1404	811	1.51	1404	811	1.51	1404
3600	825	1.59	1477	825	1.59	1477	825	1.59	1477	825	1.59	1477	825	1.59	1477	825	1.59	1477
3700	839	1.67	1556	839	1.67	1556	839	1.67	1556	839	1.67	1556	839	1.67	1556	839	1.67	1556
3800	853	1.76	1641	853	1.76	1641	853	1.76	1641	853	1.76	1641	853	1.76	1641	853	1.76	1641
3900	867	1.86	1731	867	1.86	1731	867	1.86	1731	867	1.86	1731	867	1.86	1731	867	1.86	1731
4000	881	1.96	1827	881	1.96	1827	881	1.96	1827	881	1.96	1827	881	1.96	1827	881	1.96	1827
4100	895	2.07	1928	895	2.07	1928	895	2.07	1928	895	2.07	1928	895	2.07	1928	895	2.07	1928
4200	909	2.18	2035	909	2.18	2035	909	2.18	2035	909	2.18	2035	909	2.18	2035	909	2.18	2035
4300	923	2.30	2148	923	2.30	2148	923	2.30	2148	923	2.30	2148	923	2.30	2148	923	2.30	2148
4400	937	2.43	2266	937	2.43	2266	937	2.43	2266	937	2.43	2266	937	2.43	2266	937	2.43	2266
4500	951	2.56	2390	951	2.56	2390	951	2.56	2390	951	2.56	2390	951	2.56	2390	951	2.56	2390
4600	965	2.70	2519	965	2.70	2519	965	2.70	2519	965	2.70	2519	965	2.70	2519	965	2.70	2519
4700	979	2.85	2654	979	2.85	2654	979	2.85	2654	979	2.85	2654	979	2.85	2654	979	2.85	2654
4800	993	3.00	2795	993	3.00	2795	993	3.00	2795	993	3.00	2795	993	3.00	2795	993	3.00	2795
4900	1007	3.15	2941	1007	3.15	2941	1007	3.15	2941	1007	3.15	2941	1007	3.15	2941	1007	3.15	2941
5000	1021	3.32	3093	1021	3.32	3093	1021	3.32	3093	1021	3.32	3093	1021	3.32	3093	1021	3.32	3093

High Horsepower Option Required

TABLE 30: 12-1/2 TON SIDE SHOT BLOWER PERFORMANCE

CFM	External Static Pressure																							
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2.0					
	RPM	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	
3700	3700	2.58	2406	952	2.81	2622	1007	3.09	2883	1048	3.23	3011	1092	3.50	3266	1138	3.73	3473	1175	3.87	3605	1219	4.14	3877
3800	3800	2.65	2466	968	2.88	2682	1013	3.16	2943	1054	3.30	3072	1103	3.57	3282	1149	3.80	3483	1181	3.94	3616	1235	4.21	3949
3900	3900	2.72	2526	984	2.95	2742	1029	3.23	3003	1070	3.37	3103	1119	3.64	3332	1165	3.87	3533	1193	3.99	3649	1255	4.28	4026
4000	4000	2.79	2586	1000	3.02	2802	1045	3.30	3063	1086	3.44	3163	1139	3.71	3392	1181	3.94	3593	1211	4.07	3682	1277	4.34	4104
4100	4100	2.86	2646	1016	3.09	2862	1061	3.37	3123	1101	3.51	3203	1159	3.78	3452	1193	3.99	3647	1227	4.14	3717	1293	4.41	4219
4200	4200	2.93	2706	1032	3.16	2922	1077	3.44	3183	1117	3.58	3263	1175	3.85	3512	1209	4.06	3702	1243	4.21	3792	1309	4.48	4321
4300	4300	3.00	2766	1048	3.23	2982	1093	3.51	3243	1133	3.65	3323	1193	3.92	3572	1225	4.13	3757	1259	4.28	3877	1325	4.55	4429
4400	4400	3.07	2826	1064	3.30	3042	1109	3.58	3303	1149	3.72	3383	1209	4.00	3632	1241	4.20	3812	1275	4.33	3962	1341	4.62	4530
4500	4500	3.14	2886	1080	3.37	3102	1125	3.65	3363	1165	3.79	3443	1225	4.07	3692	1257	4.27	3867	1291	4.39	4047	1357	4.69	4631
4600	4600	3.21	2946	1096	3.44	3162	1141	3.72	3423	1181	3.86	3503	1241	4.14	3752	1273	4.34	3922	1307	4.46	4132	1373	4.73	4732
4700	4700	3.28	3006	1112	3.51	3222	1157	3.79	3483	1197	3.93	3563	1257	4.21	3812	1289	4.41	3977	1323	4.53	4217	1389	4.80	4832
4800	4800	3.35	3066	1128	3.58	3282	1173	3.86	3543	1213	4.00	3623	1273	4.28	3872	1305	4.48	4032	1339	4.61	4302	1405	4.88	4933
4900	4900	3.42	3126	1144	3.65	3342	1189	3.93	3603	1229	4.07	3683	1289	4.35	3932	1321	4.55	4087	1355	4.68	4387	1421	4.95	5034
5000	5000	3.49	3186	1160	3.72	3402	1205	4.00	3663	1245	4.14	3743	1305	4.42	3992	1337	4.62	4142	1371	4.75	4427	1437	5.02	5135
5100	5100	3.56	3246	1176	3.79	3462	1221	4.07	3723	1261	4.21	3803	1321	4.49	4052	1353	4.69	4197	1387	4.81	4557	1453	5.09	5246
5200	5200	3.63	3306	1192	3.86	3522	1237	4.14	3783	1277	4.28	3863	1337	4.56	4112	1369	4.76	4252	1403	4.94	4672	1469	5.16	5357
5300	5300	3.70	3366	1208	3.93	3582	1253	4.21	3843	1293	4.35	3923	1353	4.63	4172	1385	4.83	4307	1419	5.06	4787	1485	5.23	5468
5400	5400	3.77	3426	1224	4.00	3642	1269	4.28	3903	1309	4.42	3983	1369	4.70	4232	1401	4.90	4362	1435	5.19	4902	1501	5.31	5579
5500	5500	3.84	3486	1240	4.07	3702	1285	4.35	3963	1325	4.49	4043	1385	4.77	4292	1417	4.97	4417	1451	5.32	5017	1517	5.44	5680
5600	5600	3.91	3546	1256	4.14	3762	1301	4.42	4023	1341	4.56	4103	1401	4.84	4352	1433	5.04	4472	1467	5.45	5132	1533	5.56	5781
5700	5700	3.98	3606	1272	4.21	3822	1317	4.49	4083	1357	4.63	4163	1417	4.91	4412	1449	5.11	4527	1483	5.58	5247	1549	5.68	5882
5800	5800	4.05	3666	1288	4.28	3882	1333	4.56	4143	1373	4.70	4223	1433	5.00	4472	1465	5.18	4582	1500	5.69	5362	1565	5.79	5983
5900	5900	4.12	3726	1304	4.35	3942	1349	4.63	4203	1389	4.77	4283	1449	5.07	4532	1481	5.25	4637	1516	5.81	5477	1581	5.91	6084
6000	6000	4.19	3786	1320	4.42	3992	1365	4.70	4263	1405	4.84	4343	1465	5.14	4592	1500	5.32	4692	1532	5.94	5592	1597	6.04	6185
6100	6100	4.26	3846	1336	4.49	4052	1381	4.77	4323	1421	4.91	4403	1481	5.21	4652	1516	5.39	4747	1548	6.07	5707	1613	6.14	6286
6200	6200	4.33	3906	1352	4.56	4112	1397	4.84	4383	1437	4.98	4463	1497	5.28	4712	1532	5.46	4802	1564	6.20	5822	1629	6.21	6387

High Horsepower Option Required

TABLE 31: 6-1/2 TON DOWN SHOT BLOWER PERFORMANCE

External Static Pressure																								
CFM	0.2			0.4			0.6			0.8			1.0			1.2			1.4			1.6		
	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts
1900				733	0.75	698	804	0.9	825	881	1.03	963	931	1.21	1124	980	1.37	1279	1019	1.51	1409			
2000							745	0.8	742	814	0.94	872	885	1.09	1017	939	1.27	1181	987	1.43	1336	1025	1.57	1465
2100										756	0.85	789	824	0.99	922	889	1.15	1073	946	1.33	1240	993	1.5	1395
2200										767	0.9	839	835	1.05	975	894	1.21	1131	954	1.4	1301	1000	1.56	1454
2300												778	0.96	891	845	1.1	1030	898	1.28	1191	962	1.46	1363	
2400															789	1.01	946	855	1.17	1088	902	1.34	1253	
2500																	801	1.08	1003	865	1.23	1148		
2600																			812	1.14	1063	875	1.3	1211
2700	728	0.76	709				767	1.03	984	823	1.21	1125	886	1.37	1276	914	1.56	1452	992	1.75	1627	1032	1.9	1771
2800	739	0.86	801				778	1.11	1035	834	1.28	1190	896	1.44	1344	918	1.63	1523	1000	1.82	1697	1039	1.97	1838
2900	750	0.96	894				790	1.19	1107	846	1.35	1257	906	1.52	1414	923	1.71	1596	1008	1.9	1769	1045	2.04	1906
3000	761	1.06	987				801	1.27	1182	857	1.42	1327	916	1.59	1487	927	1.79	1671	1015	1.98	1842			
3100	772	1.16	1080							868	1.5	1400	926	1.68	1562	931	1.87	1748	1023	2.06	1917			
3200	784	1.26	1175									879	1.58	1475	937	1.76	1640	935	1.96	1827				
3300	795	1.36	1269																					
High Horsepower Option Required																								

High Horsepower Option Required

TABLE 32: 7-1/2 TON DOWN SHOT BLOWER PERFORMANCE

External Static Pressure																											
CFM	0.2			0.4			0.6			0.8			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	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts
2000	814	0.52	488	888	0.71	665	960	0.89	834	1030	1.06	984	1103	1.18	1104	1179	1.27	1185	1253	1.51	1411	1335	1.69	1577	1429	1.90	1773
2100	831	0.60	558	905	0.79	735	977	0.97	904	1047	1.13	1054	1120	1.26	1174	1196	1.35	1255	1266	1.60	1492	1349	1.78	1658	1443	1.99	1854
2200	849	0.68	633	924	0.87	810	995	1.05	979	1066	1.21	1129	1138	1.34	1249	1214	1.43	1330	1282	1.69	1574	1364	1.87	1741	1458	2.08	1936
2300	869	0.77	713	943	0.95	890	1015	1.14	1059	1086	1.30	1208	1158	1.43	1329	1234	1.51	1410	1299	1.78	1658	1381	1.96	1824	1475	2.17	2020
2400	890	0.86	798	964	1.05	975	1036	1.23	1143	1106	1.39	1293	1179	1.52	1414	1255	1.60	1495	1317	1.87	1745	1400	2.05	1911	1493	2.26	2107
2500	911	0.95	887	986	1.14	1063	1057	1.32	1232	1128	1.48	1382	1201	1.61	1503	1277	1.70	1584	1337	1.97	1834	1420	2.15	2000	1513	2.36	2196
2600	934	1.05	980	1009	1.24	1157	1080	1.42	1325	1151	1.58	1475	1223	1.71	1596	1299	1.80	1677	1358	2.07	1928	1440	2.25	2094	1534	2.46	2290
2700	958	1.16	1077	1032	1.35	1254	1104	1.53	1422	1175	1.69	1572	1247	1.82	1693	1323	1.90	1774	1379	2.17	2026	1462	2.35	2192	1556	2.56	2388
2800	982	1.26	1178	1057	1.45	1355	1128	1.63	1524	1199	1.80	1674	1271	1.92	1794	1348	2.01	1875	1402	2.28	2128	1485	2.46	2294	1578	2.67	2490
2900	1007	1.38	1283	1082	1.57	1460	1153	1.75	1629	1224	1.91	1779	1297	2.04	1899	1373	2.12	1980	1425	2.40	2236	1508	2.58	2402	1602	2.79	2598
3000	1033	1.49	1392	1108	1.68	1569	1179	1.86	1737	1250	2.02	1887	1322	2.15	2008	1399	2.24	2089	1450	2.52	2348	1532	2.70	2515	1626	2.91	2710
3100	1060	1.61	1504	1134	1.80	1681	1206	1.98	1850	1277	2.15	1999	1349	2.27	2120	1400	2.49	2319	1474	2.65	2467	1557	2.82	2633	1651	3.03	2829
3200	1087	1.74	1620	1162	1.93	1797	1233	2.11	1965	1304	2.27	2115	1357	2.47	2303	1426	2.62	2443	1500	2.78	2590	1583	2.96	2756	1676	3.17	2952
3300	1115	1.87	1739	1189	2.06	1916	1261	2.24	2084	1318	2.46	2291	1383	2.61	2433	1451	2.76	2572	1526	2.92	2719	1608	3.10	2886	1702	3.31	3081
3400	1143	2.00	1861	1218	2.19	2038	1279	2.44	2270	1344	2.60	2426	1409	2.75	2568	1478	2.90	2707	1552	3.06	2854	1635	3.24	3021	1729	3.45	3216
3500	1172	2.13	1986	1246	2.32	2163	1306	2.59	2411	1371	2.75	2566	1436	2.91	2708	1505	3.06	2848	1579	3.21	2995	1662	3.39	3161			
3600	1201	2.27	2114	1267	2.55	2377	1334	2.74	2557	1398	2.91	2713	1464	3.06	2855	1532	3.21	2994	1606	3.37	3142						
3700	1223	2.48	2314	1295	2.71	2530	1361	2.91	2710	1426	3.07	2865	1491	3.23	3007	1560	3.38	3147									
3800	1251	2.65	2473	1323	2.88	2688	1389	3.08	2868	1454	3.24	3023	1519	3.40	3165												
3900	1280	2.83	2636	1351	3.06	2852	1418	3.25	3032																		
4000	1308	3.01	2806	1380	3.24	3021	1446	3.43	3201																		

High Horsepower Option Required

TABLE 33: 8-1/2 TON DOWN SHOT BLOWER PERFORMANCE

External Static Pressure																					
CFM		0.2		0.4		0.6		0.8		1.0		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	BHP	Watts	RPM	BHP	Watts	
2300						713	1.03	959	1.09	1012	863	1.19	1108	920	1.32	1233	967	1.47	1374	1004	1.62
2400						727	1.06	984	1.13	1054	874	1.25	1163	929	1.39	1296	974	1.55	1441	1010	1.69
2500																					
2600																					
2700																					
2800																					
2900	652	1.11	1035	724	1.16	1085	800	1.28	1190	868	1.43	1331	925	1.60	1488	972	1.77	1653	1011	1.94	
3000	671	1.14	1061	741	1.21	1128	814	1.34	1248	880	1.50	1400	935	1.68	1564	981	1.86	1732	1018	2.03	
3100	690	1.18	1096	758	1.26	1178	829	1.41	1312	892	1.58	1473	945	1.76	1643	990	1.95	1815	1025	2.12	
3200	709	1.22	1138	775	1.32	1234	843	1.48	1381	904	1.66	1550	956	1.85	1726	998	2.04	1900	1032	2.21	
3300	729	1.28	1189	792	1.39	1298	858	1.56	1456	916	1.75	1632	966	1.94	1812	1007	2.13	1989	1040	2.31	
3400	748	1.34	1248	809	1.47	1369	872	1.65	1537	929	1.84	1719	976	2.04	1902	1015	2.23	2080	1047	2.40	
3500	767	1.41	1315	826	1.55	1447	887	1.74	1623	941	1.94	1810	986	2.14	1995	1024	2.33	2174	1054	2.50	
3600	786	1.49	1391	843	1.64	1532	901	1.84	1715	953	2.04	1905	997	2.24	2092	1033	2.44	2270	1062	2.60	
3700	805	1.58	1474	860	1.74	1624	916	1.94	1812	965	2.15	2005	1007	2.35	2193	1041	2.54	2370	1069	2.71	
3800	824	1.68	1566	877	1.85	1723	930	2.05	1915	977	2.26	2109	1017	2.46	2297	1050	2.65	2473	1076	2.81	
3900	843	1.79	1666	894	1.96	1829	945	2.17	2023	990	2.38	2218	1027	2.58	2405	1059	2.77	2578	1083	2.92	
4000	862	1.90	1774	911	2.08	1943	959	2.29	2138	1002	2.50	2331	1038	2.70	2516	1067	2.88	2686	1091	3.03	
4100	881	2.03	1890	928	2.21	2063	974	2.42	2257	1014	2.63	2449	1048	2.82	2631	1076	3.00	2797	1099	3.12	
4200	900	2.16	2015	945	2.35	2190	988	2.56	2383	1026	2.76	2571	1058	2.95	2749	1085	3.12	2911	1099	3.12	
High Horsepower Option Required																					

High Horsepower Option Required

TABLE 34: 10 TON DOWN SHOT BLOWER PERFORMANCE

External Static Pressure																								
CFM	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6									
	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts						
3000				741	1.21	1128	814	1.34	1248	880	1.50	1400	935	1.68	1564	981	1.86	1732	1018	2.03	1893	1047	2.17	2026
3100				758	1.26	1178	829	1.41	1312	892	1.58	1473	945	1.76	1643	990	1.95	1815	1025	2.12	1976	1063	2.26	2107
3200				775	1.32	1234	843	1.48	1381	904	1.66	1550	956	1.85	1726	998	2.04	1900	1032	2.21	2061	1060	2.35	2190
3300				792	1.39	1298	858	1.56	1456	916	1.75	1632	966	1.94	1812	1007	2.13	1989	1040	2.31	2149	1066	2.44	2272
3400	748	1.34	1248	809	1.47	1369	872	1.65	1537	929	1.84	1719	976	2.04	1902	1015	2.23	2080	1047	2.40	2239	1072	2.53	2361
3500	767	1.41	1315	826	1.55	1447	887	1.74	1623	941	1.94	1810	986	2.14	1995	1024	2.33	2174	1054	2.50	2331			
3600	786	1.49	1391	843	1.64	1532	901	1.84	1715	953	2.04	1905	997	2.24	2092	1033	2.44	2270	1062	2.60	2425			
3700	805	1.58	1474	860	1.74	1624	916	1.94	1812	965	2.15	2005	1007	2.35	2193	1041	2.54	2370	1069	2.71	2522			
3800	824	1.68	1566	877	1.85	1723	930	2.05	1915	977	2.26	2109	1017	2.46	2297	1050	2.65	2473	1076	2.81	2621			
3900	843	1.79	1666	894	1.96	1829	945	2.17	2023	990	2.38	2218	1027	2.58	2405	1059	2.77	2578						
4000	862	1.90	1774	911	2.08	1943	959	2.29	2138	1002	2.50	2331	1038	2.70	2516	1067	2.88	2686						
4100	881	2.03	1890	928	2.21	2063	974	2.42	2257	1014	2.63	2449	1048	2.82	2631	1076	3.00	2797						
4200	900	2.16	2015	945	2.35	2190	988	2.56	2383	1026	2.76	2571	1058	2.95	2749									
4300	919	2.30	2148	962	2.49	2324	1003	2.70	2514	1038	2.89	2697	1068	3.08	2871									
4400	938	2.45	2288	979	2.65	2466	1017	2.84	2650	1050	3.03	2828	1079	3.21	2996									
4500	957	2.61	2437	996	2.80	2614	1032	3.00	2792	1063	3.18	2963												
4600	976	2.78	2595	1013	2.97	2770	1046	3.15	2940	1075	3.33	3103												
4700	995	2.96	2760	1030	3.15	2932	1061	3.32	3094															
4800	1015	3.15	2934	1047	3.33	3102	1075	3.49	3253															
4900	1034	3.34	3115	1065	3.52	3278																		
5000	1053	3.55	3305	1082	3.71	3462																		
High Horsepower Option Required																								

TABLE 35: 12-1/2 TON DOWN SHOT BLOWER PERFORMANCE

CFM	External Static Pressure															
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM	BHP	Watts	RPM
3700	875	1.96	1831	926	2.09	1946	974	2.23	2077	1020	2.38	2220	1065	2.54	2372	1108
3800	875	1.96	1831	926	2.09	1946	974	2.23	2077	1020	2.38	2220	1065	2.54	2372	1108
3900	893	2.06	1918	943	2.19	2044	990	2.34	2183	1036	2.50	2332	1080	2.67	2489	1123
4000	911	2.16	2012	960	2.30	2147	1007	2.46	2294	1052	2.63	2449	1096	2.80	2611	1138
4100	929	2.27	2113	977	2.42	2256	1023	2.59	2410	1068	2.76	2571	1111	2.94	2737	1153
4200	947	2.38	2219	995	2.54	2371	1040	2.72	2531	1084	2.89	2697	1127	3.08	2867	1168
4300	965	2.50	2332	1012	2.67	2491	1056	2.85	2657	1100	3.03	2828	1142	3.22	3001	1183
4400	983	2.63	2451	1029	2.81	2617	1073	2.99	2788	1116	3.18	2963	1157	3.37	3139	1198
4500	1001	2.76	2577	1046	2.95	2749	1090	3.14	2925	1132	3.33	3103	1173	3.52	3281	1212
4600	1019	2.91	2708	1063	3.10	2886	1106	3.29	3066	1148	3.48	3247	1188	3.68	3428	1227
4700	1036	3.05	2846	1081	3.25	3029	1123	3.45	3212	1164	3.64	3396	1204	3.84	3578	1242
4800	1054	3.21	2990	1098	3.41	3177	1139	3.61	3364	1180	3.81	3549	1219	4.00	3732	1257
4900	1072	3.37	3141	1115	3.57	3331	1156	3.78	3520	1196	3.98	3707	1234	4.17	3891	1272
5000	1090	3.54	3297	1132	3.74	3491	1172	3.95	3682	1211	4.15	3870	1250	4.35	4054	1287
5100	1108	3.71	3460	1149	3.92	3656	1189	4.13	3848	1227	4.33	4037	1265	4.53	4221	1302
5200	1126	3.89	3629	1167	4.11	3827	1205	4.31	4020	1243	4.51	4208	1281	4.71	4391	1317
5300	1144	4.08	3805	1184	4.29	4003	1222	4.50	4196	1259	4.70	4384	1296	4.90	4566	1331
5400	1162	4.28	3987	1201	4.49	4185	1238	4.70	4378	1275	4.90	4565	1311	5.09	4745	1346
5500	1180	4.48	4175	1218	4.69	4373	1255	4.90	4564	1291	5.10	4750				
5600	1198	4.69	4369	1235	4.90	4566	1271	5.10	4756							
5700	1216	4.90	4569	1253	5.11	4765										
5800	1234	5.12	4776													
5900	1252															
6000	1270															
6100	1288															
6200	1306															

High Horsepower Option Required

TABLE 36: ADDITIONAL STATIC RESISTANCE 50-3/4" CABINET

CFM	Cooling Only*	Economizer† ‡	Electric Heat KW†				
			9	18	24	36	54
1900	0.06	0.02	0.05	0.06	0.07	0.08	0.10
2100	0.07	0.02	0.06	0.07	0.08	0.09	0.11
2300	0.08	0.02	0.07	0.08	0.09	0.10	0.13
2500	0.09	0.02	0.08	0.09	0.10	0.11	0.14
2700	0.11	0.03	0.09	0.10	0.12	0.13	0.16
2900	0.12	0.03	0.10	0.11	0.13	0.14	0.18
3100	0.14	0.03	0.12	0.13	0.15	0.16	0.20
3300	0.16	0.03	0.13	0.14	0.17	0.18	0.22
3500	0.18	0.04	0.15	0.16	0.19	0.20	0.24
3700	0.20	0.04	0.17	0.18	0.21	0.22	0.26
3900	0.23	0.04	0.19	0.20	0.23	0.24	0.28
4100	0.25	0.04	0.21	0.22	0.25	0.26	0.31
4300	0.28	0.05	0.23	0.24	0.28	0.29	0.34
4500	0.30	0.05	0.25	0.26	0.30	0.31	0.37
4700	0.33	0.05	0.28	0.29	0.33	0.34	0.40
4900	0.36	0.05	0.30	0.31	0.35	0.37	0.43
5100	0.39	0.06	0.33	0.34	0.38	0.40	0.46
5300	0.42	0.06	0.35	0.37	0.41	0.43	0.49
5500	0.45	0.06	0.38	0.40	0.44	0.46	0.53
5700	0.48	0.06	0.41	0.43	0.47	0.49	0.56
5900	0.52	0.07	0.44	0.46	0.50	0.53	0.59
6100	0.56	0.07	0.47	0.49	0.53	0.56	0.62
6300	0.60	0.07	0.50	0.53	0.56	0.59	0.65

* Add these resistance values to the available static resistance in the respective Blower Performance Tables.

† Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.

‡ The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

TABLE 37: ADDITIONAL STATIC RESISTANCE 42" CABINET

CFM	Cooling Only*	Economizer† ‡	Electric Heat KW†				
			9	18	24	36	54
1900	-0.004	0.07	0.05	0.06	0.07	0.08	0.1
2100	0.01	0.09	0.06	0.07	0.08	0.09	0.11
2300	0.01	0.11	0.07	0.08	0.09	0.1	0.13
2500	0.02	0.13	0.08	0.09	0.1	0.11	0.14
2700	0.03	0.16	0.09	0.1	0.12	0.13	0.16
2900	0.04	0.18	0.1	0.11	0.13	0.14	0.18
3100	0.05	0.20	0.12	0.13	0.15	0.16	0.2
3300	0.06	0.22	0.13	0.14	0.17	0.18	0.22
3500	0.07	0.24	0.15	0.16	0.19	0.2	0.24
3700	0.08	0.27	0.17	0.18	0.21	0.22	0.26
3900	0.09	0.29	0.19	0.2	0.23	0.24	0.28
4100	0.09	0.31	0.21	0.22	0.25	0.26	0.31
4300	0.10	0.33	0.23	0.24	0.28	0.29	0.34

* Add these resistance values to the available static resistance in the respective Blower Performance Tables.

† Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.

‡ The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct system is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation.

TABLE 38: ELECTRIC HEAT MINIMUM SUPPLY AIR

HEATER		UNIT MODEL SIZE, NOMINAL TONS				
kW	VOLTAGE	6.5	7.5	8.5	10	12.5
		MINIMUM SUPPLY AIR CFM				
9	208/230	1950	2250	2550	N/A	N/A
18		1950	2250	2550	3000	3750
24		1950	2250	2550	3000	3750
36		1950	2250	2550	3000	3750
54		N/A	N/A	N/A	3500	4000
9	480	1950	2250	2550	N/A	N/A
18		1950	2250	2550	3000	3750
24		1950	2250	2550	3000	3750
36		1950	2250	2550	3000	3750
54		N/A	N/A	N/A	3000	3750
9	600	1950	2250	2550	N/A	N/A
18		1950	2250	2550	3000	3750
24		1950	2250	2550	3000	3750
36		1950	2250	2550	3000	3750
54		N/A	N/A	N/A	3500	3750

TABLE 39: INDOOR BLOWER SPECIFICATIONS

MODEL	MOTOR					MOTOR SHEAVE			BLOWER SHEAVE			BELT
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Model	
BP078	1-1/2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	9.5	1	AK99	A58
	2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	7.5	1	AK79	A55
BP090	2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	6.5	1	AK69	A49
	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	6.0	1	AK64	A49
BP102	2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	9.0	1	AK94	A56
	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
BP120	2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	8.5	1	AK89	A56
	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
BP150	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	7.0	1	AK74	A54
	5	1725	87%	1.15	184T	4.3 - 5.3	1-1/8	1VP56	6.7	1	BK77	BX56

TABLE 40: POWER EXHAUST SPECIFICATIONS

POWER EXHAUST MODEL	VOLT	PHASE	MOTOR			ELECTRICAL			FUSE SIZE	CFM@ 0.1 ESP	
			HP	RPM*	QTY	LRA	FLA	MCA			
2PE0473225	208/230	1	0.75	1075	1	24.9	5.0	6.3	10	3,800	
2PE0473246	460	1					N/A	2.2	2.8		5
2PE0473258	575	1				1050		1.5	1.9		4

* Motors are multi-tapped and factory wired for high speed.

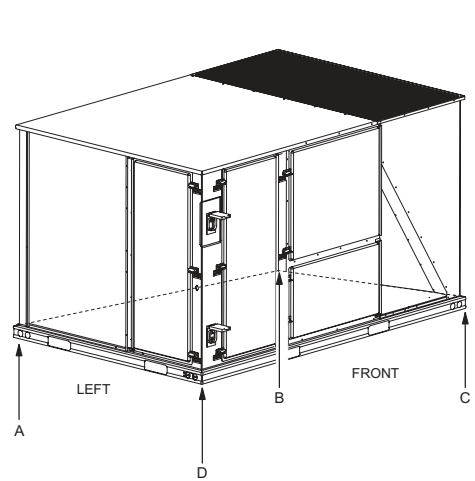
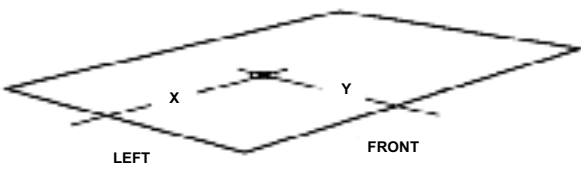


FIGURE 2 - UNIT 4 POINT LOAD

TABLE 41: 4 POINT LOAD WEIGHT

Model	Location (lbs.)			
	A	B	C	D
BP078	241	206	300	352
BP090	199	148	232	311
BP102	257	220	321	375
BP120	265	226	330	386
BP150	263	224	327	383



Unit Model Number	X	Y
BP078	47 1/2	25 1/2
BP090	38	23
BP102	47 1/2	25 1/2
BP120	47 1/2	25 1/2
BP150	47 1/2	25 1/2

FIGURE 3 - UNIT CENTER OF GRAVITY

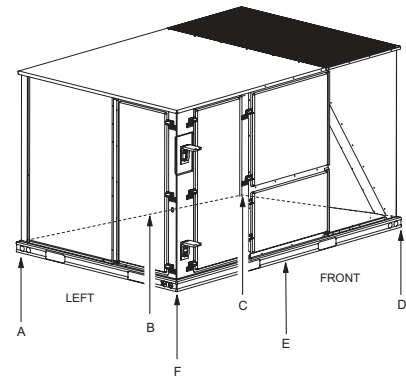


FIGURE 4 - UNIT 6 POINT LOAD

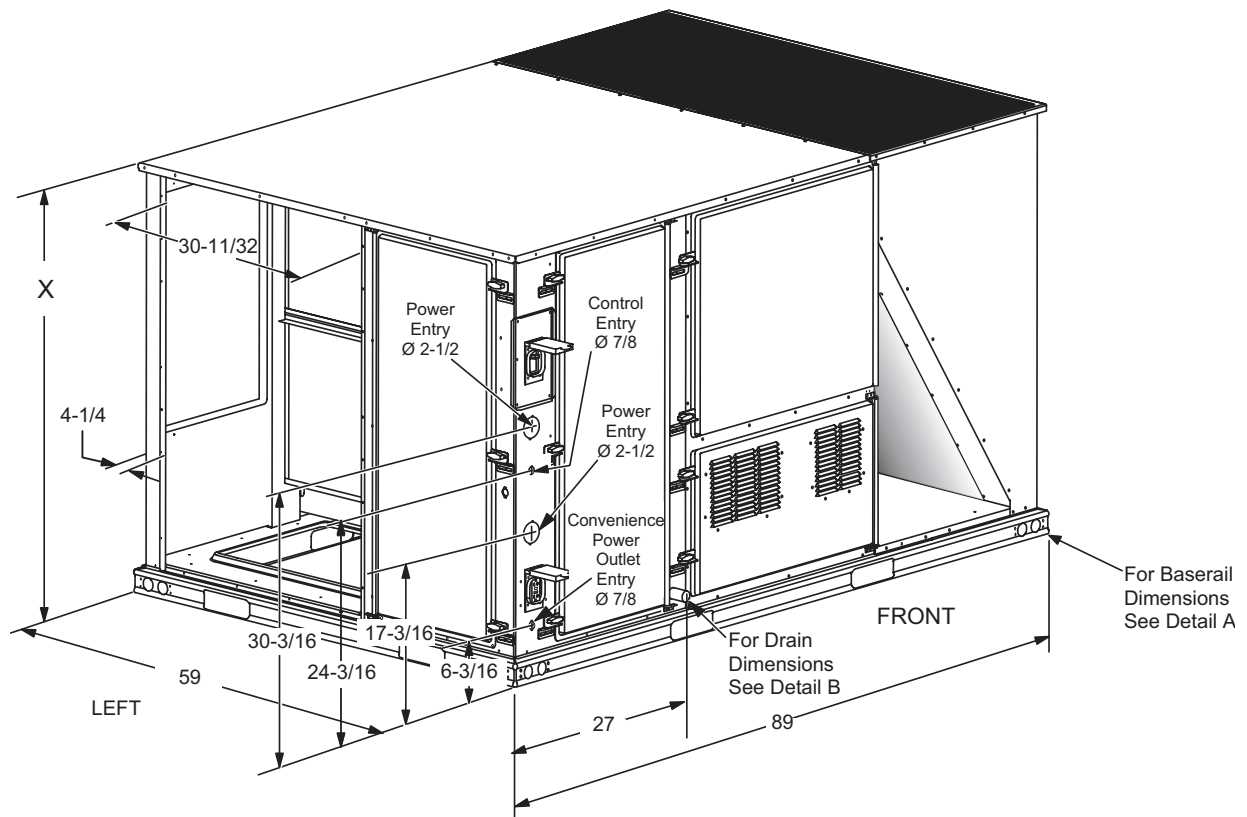
TABLE 42: 6 POINT LOAD WEIGHT

Model	Locations (lbs.)					
	A	B	C	D	E	F
BP078	165	148	134	195	216	241
BP090	139	113	94	147	128	218
BP102	176	158	143	208	231	257
BP120	181	163	147	214	237	264
BP150	180	161	146	213	235	262

TABLE 43: UNIT WEIGHT

Model	Shipping Weight (lbs.)	Operating Weight (lbs.)
BP078	1104	1099
BP090	895	890
BP102	1178	1173
BP120	1212	1207
BP150	1202	1197
Econ.	85	84
w/ PE	150	148
Elec. Heat*	49	49

* 54kW heater

**FIGURE 5 - UNIT DIMENSIONS****TABLE 44: UNIT HEIGHT**

Unit Model Number	X
BP078	50 3/4
BP090	42
BP102	50 3/4
BP120	50 3/4
BP150	50 3/4

TABLE 45: UNIT CLEARANCES

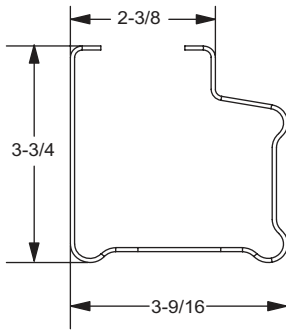
Top*	72"	Right	12"
Front	36"	Left	36"
Rear†	36"	Bottom‡	0"

* Units must be installed outdoors. Overhanging structure or shrubs should not obstruct condenser air discharge outlet.

† To remove the slide-out drain pan, a rear clearance of 60" is required. If space is unavailable, the drain pan can be removed through the front by separating the corner wall.

‡ Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.

DETAIL A



DETAIL B

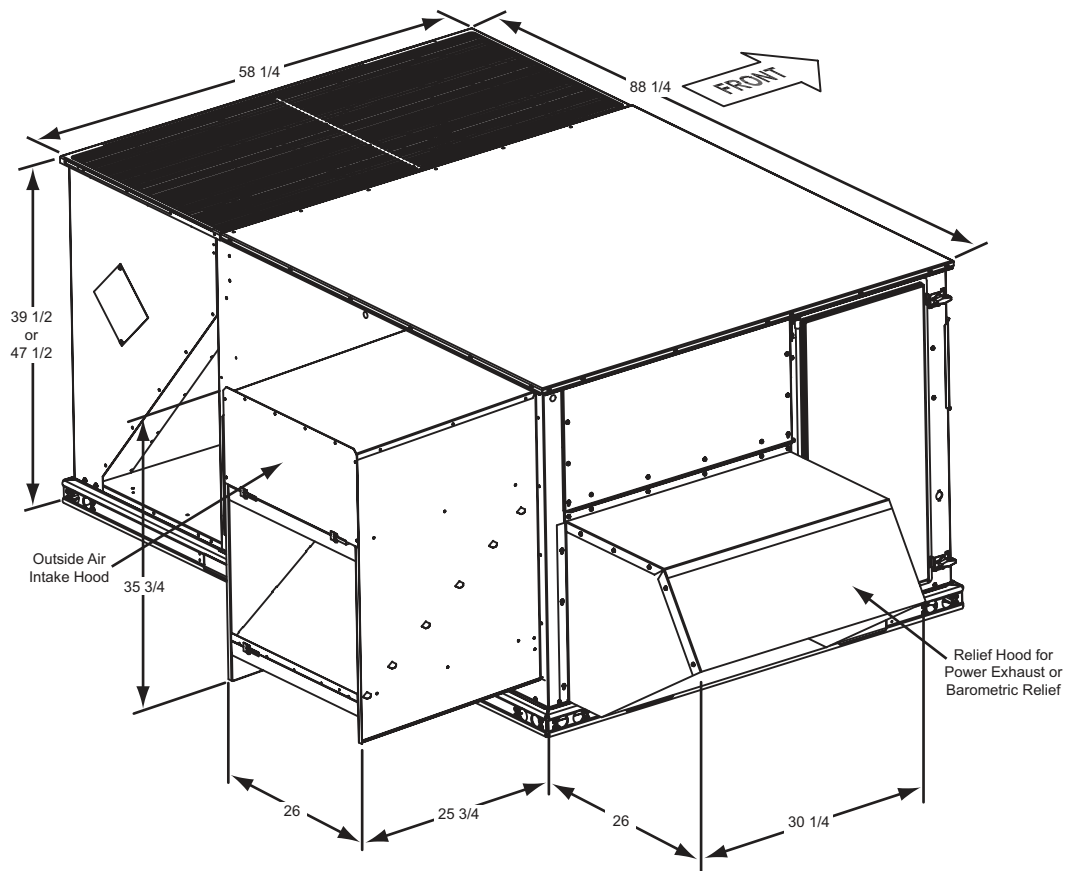
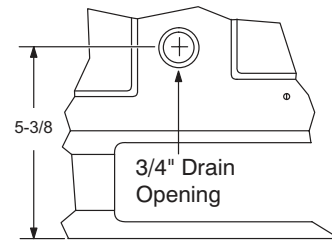


FIGURE 6 - DOWNFLOW ECONOMIZER HOOD DETAIL

TABLE 46: ECONOMIZER USAGE

Application	Cabinet Height	Description	Model
Bottom Return	All	Downflow economizer with barometric relief	2EE04705424
Side Return	All	Horizontal economizer without barometric relief	2EE04705524*
ERV or End Return	42"	Slab Economizer, 42" tall cabinet	2EE04705624†
	50"	Slab Economizer, 50" tall cabinet	2EE04705224†

* Barometric relief must be ordered separately and installed in duct work.

† Barometric relief or fresh air hood not included. Must be ordered separately.

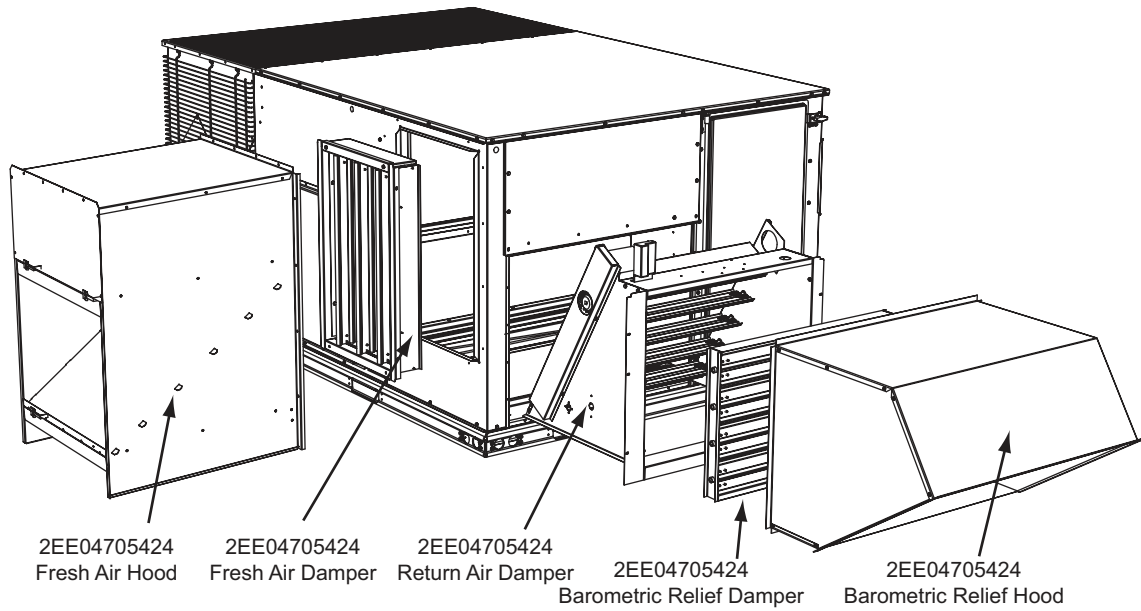


FIGURE 7 - FACTORY INSTALLED DOWNFLOW ECONOMIZER

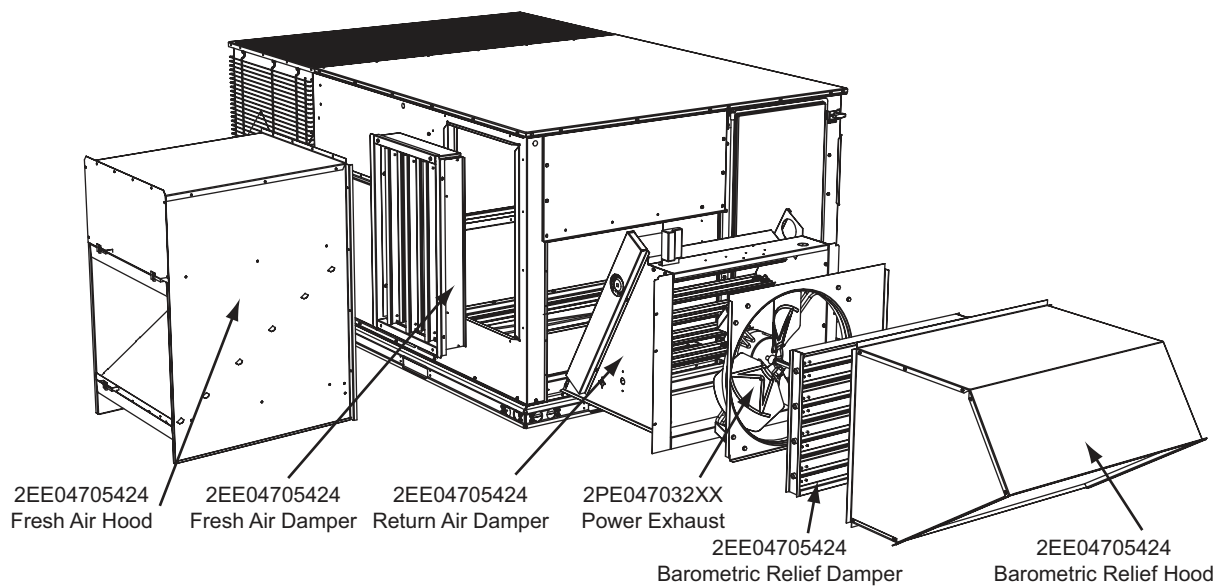


FIGURE 8 - FIELD INSTALLED DOWNFLOW ECONOMIZER W/POWER EXHAUST

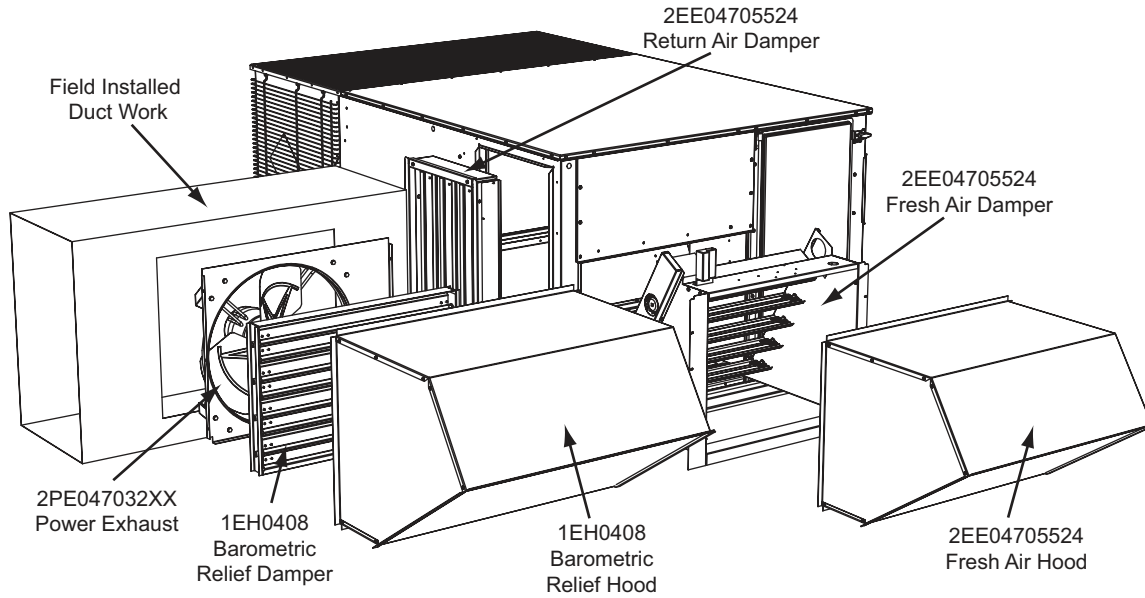


FIGURE 9 - FIELD INSTALLED HORIZONTAL ECONOMIZER W/POWER EXHAUST

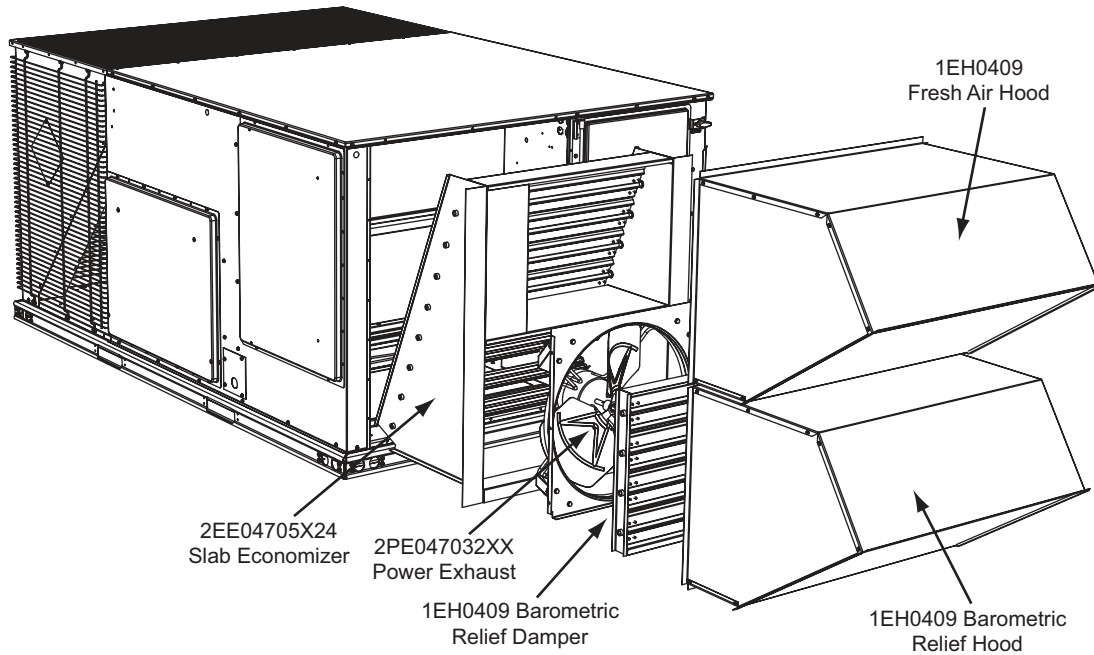


FIGURE 10 - SLAB ECONOMIZER DOWNFLOW W/POWER EXHAUST

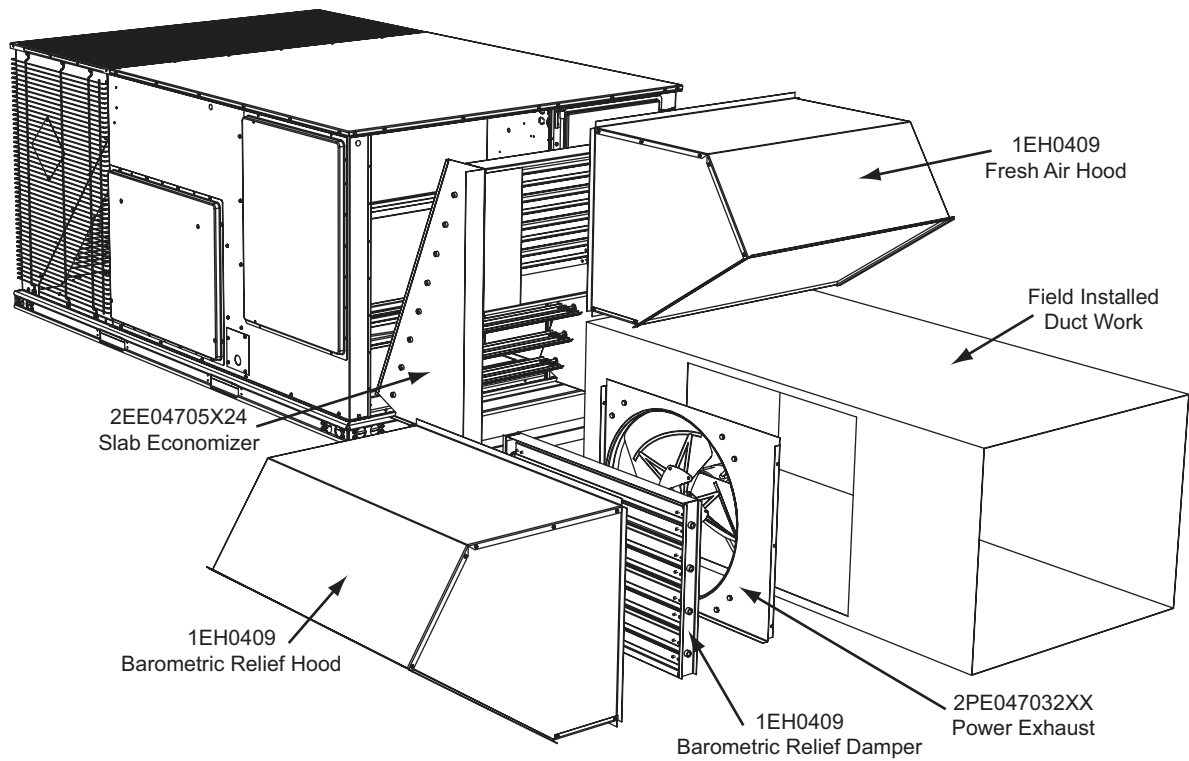


FIGURE 11 - SLAB ECONOMIZER END RETURN W/POWER EXHAUST

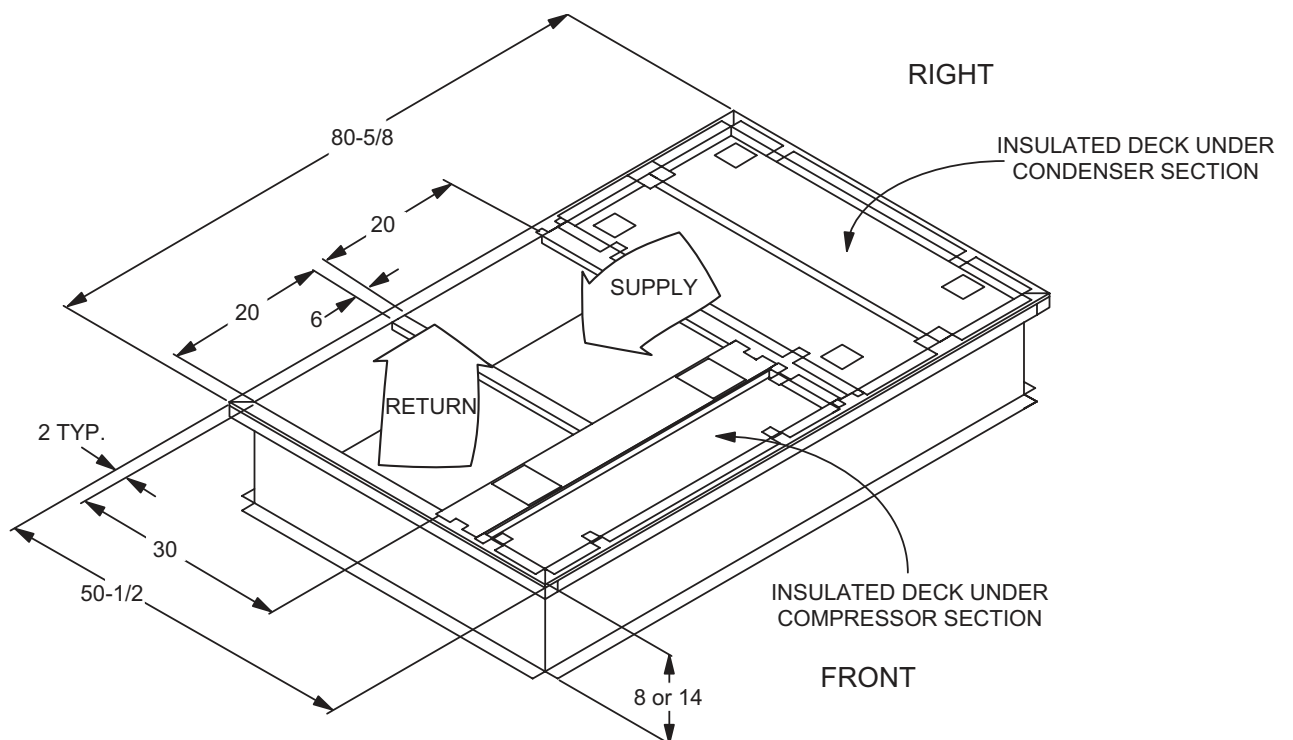


FIGURE 12 - PREDATOR® ROOF CURB DIMENSIONS

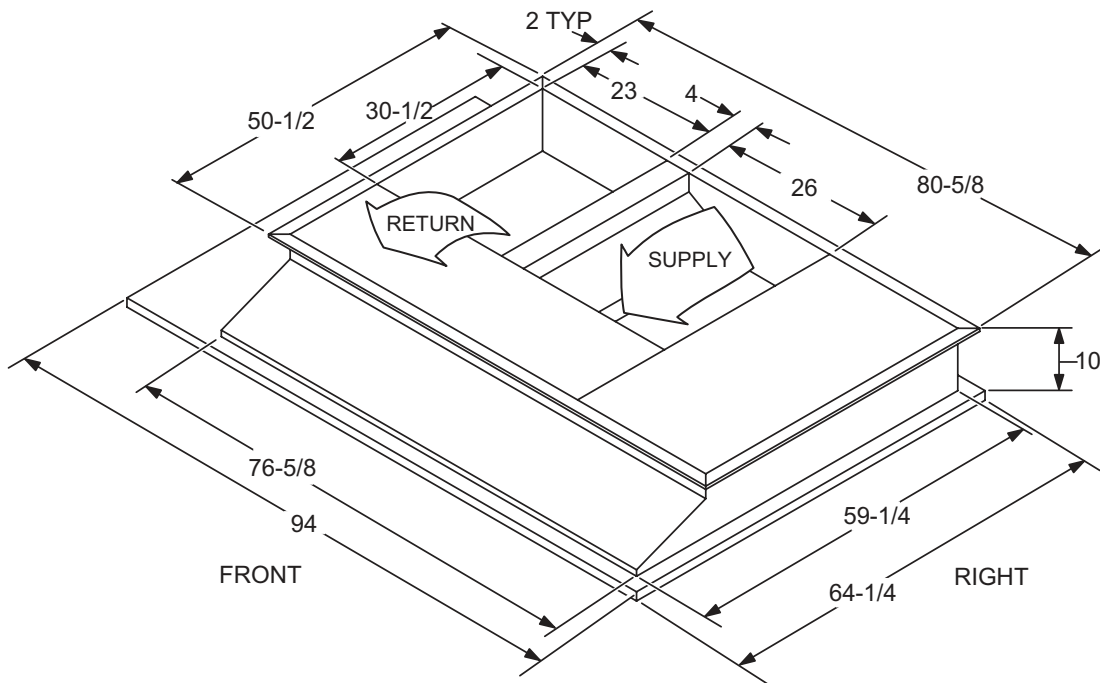


FIGURE 13 - SUNLINE™ TO PREDATOR® TRANSITION ROOF CURBS

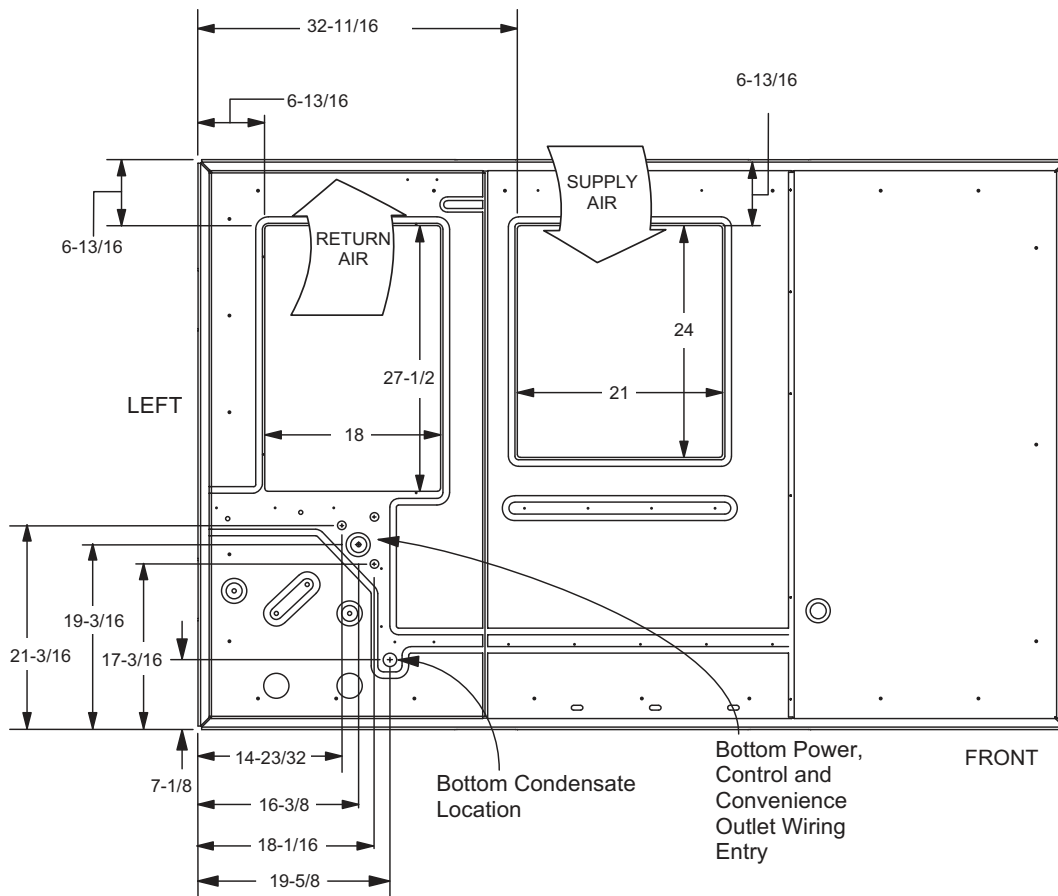
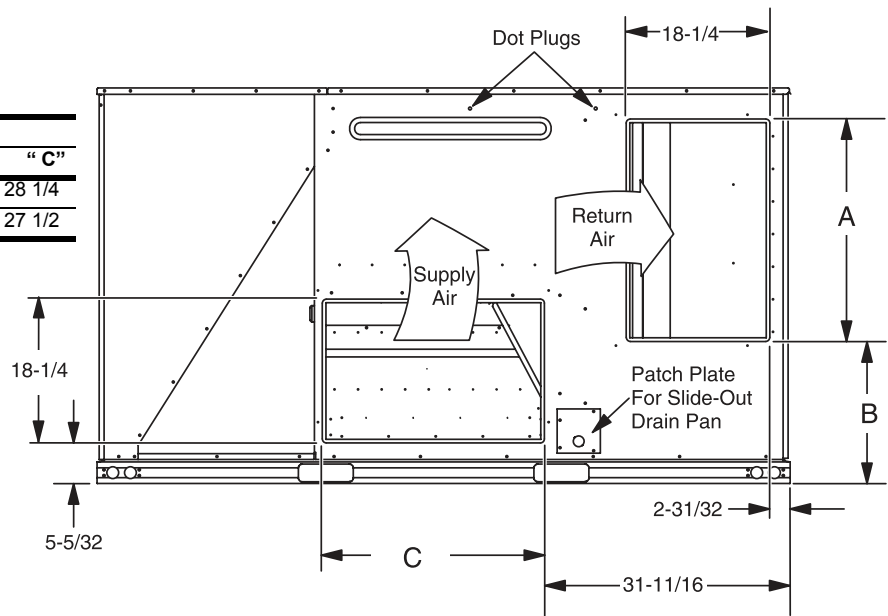


FIGURE 14 - BOTTOM DUCT OPENINGS (FROM ABOVE)

REAR DUCT DIMENSIONS

CABINET SIZE	DIMENSION		
	"A"	"B"	"C"
50 3/4"	28 1/4	18 1/16	28 1/4
42"	27 3/4	12 1/16	27 1/2

**FIGURE 15 - REAR DUCT DIMENSIONS**

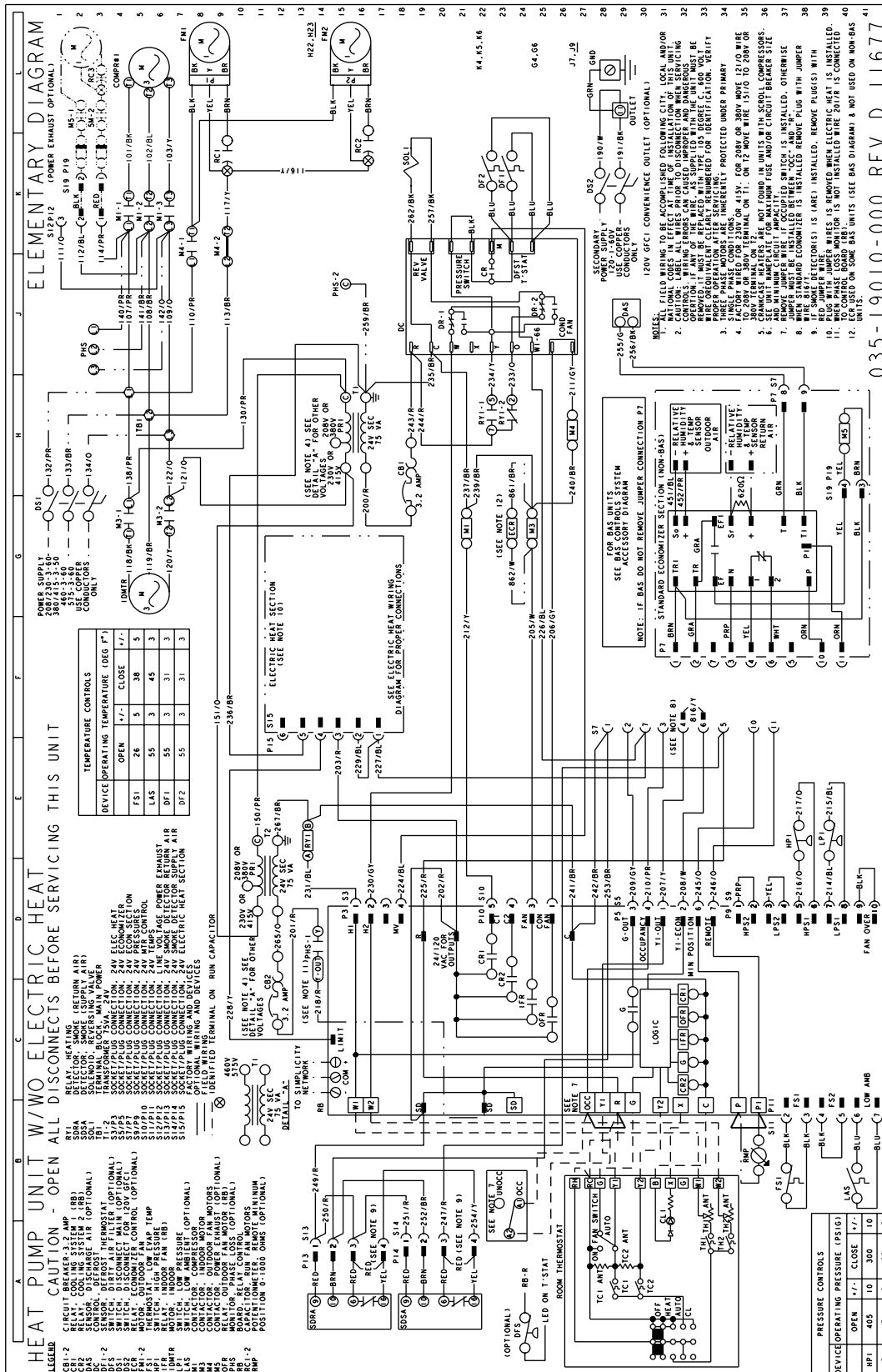
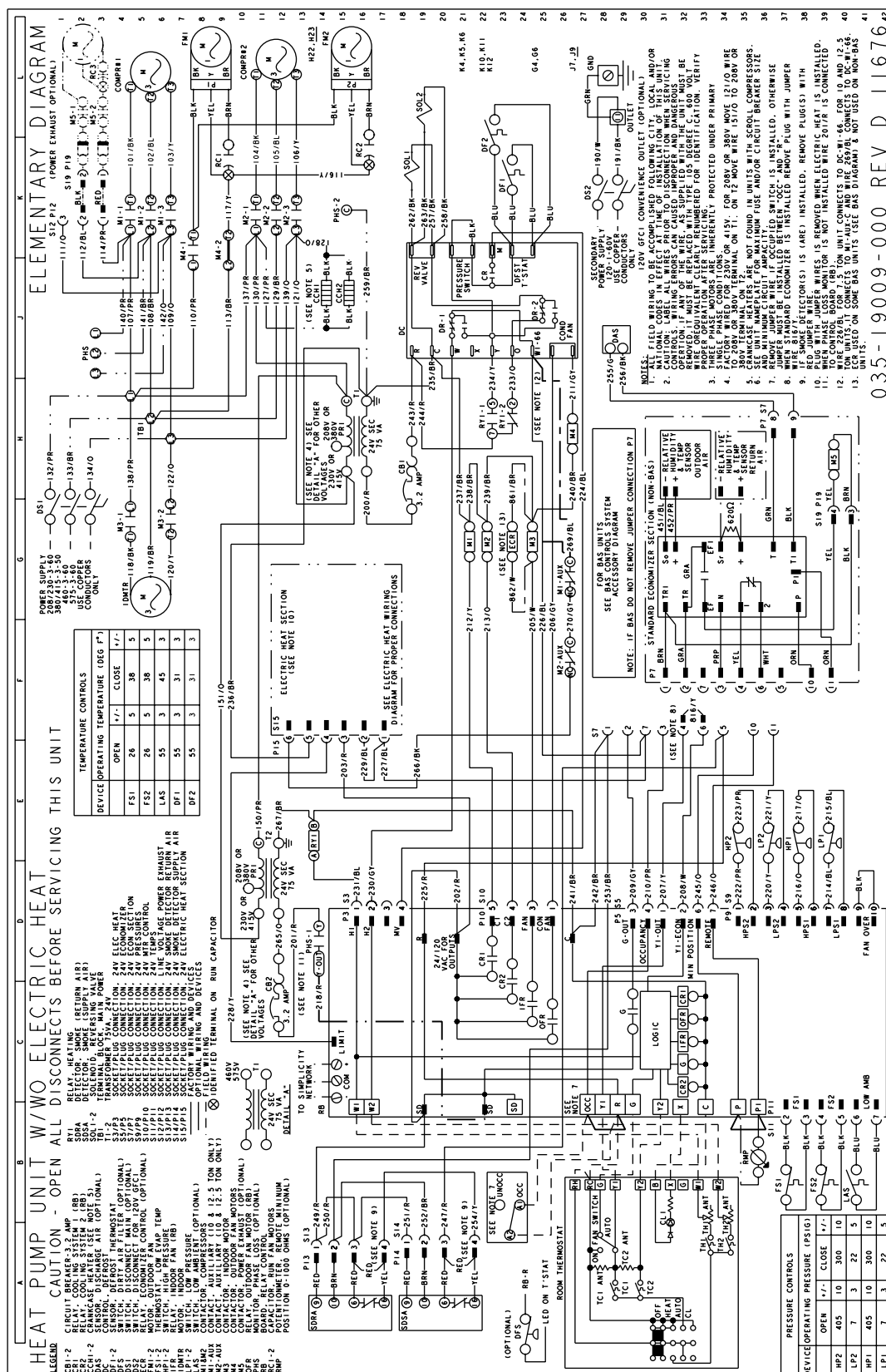


FIGURE 17 - TYPICAL 7-1/2 - 12-1/2 TON HEAT PUMP WITH OR WITHOUT ELECTRIC HEAT WIRING DIAGRAM



GUIDE SPECIFICATIONS

BP078, 090, 102, 120 & 150 9.3-10.7 EER

GENERAL

YORK® Predator® heat pump units are convertible single packages with a common footprint cabinet and common roof curb for all 6-1/2 through 12-1/2 ton models. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, or frame. All Predator® heat pump units are self-contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged, wired, piped, and tested at the factory to provide a quick and easy field installation. All units are convertible between side and down airflow. Independent economizer designs are used on side and down discharge applications, as well as all tonnage sizes.

DESCRIPTION

Units shall be factory assembled, single package, designed for outdoor installation. Units shall have a minimum EER of 9.3. They shall have built in field convertible duct connections for down discharge supply/return or horizontal discharge supply/return and be available with factory installed options or field installed accessories. The units shall be factory wired, piped and charged with R-22 refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. The cooling performance shall be rated in accordance with DOE and ARI test procedures. Units shall be CSA certified to ANSI Z21.47 and UL 1995/CAN/CSA No. 236-M90 standards.

UNIT CABINET

Unit cabinet shall be constructed of galvanized steel with exterior surfaces coated with a non-chalking, powder paint finish, certified at 1000 hours salt spray test per ASTM-B117 standards. Indoor blower sections shall be insulated with up to 1" thick insulation coated on the airside. Aluminum foil faced insulation shall be used in the unit's compartments and be fastened to prevent insulation from entering the air stream. Cabinet doors shall be hinged with toolless access for easy servicing and maintenance. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, fork truck access and proper sealing on roof curb applications. Disposable 2" filters shall be furnished and be accessible through hinged access door. Fan performance measuring ports shall be provided on the outside of the cabinet to allow accurate air measurements of evaporator fan performance without removing panels or creating bypass of the coils. Condensate pan shall be slide out design, constructed of a non corrosive material, internally sloped and conforming to ASHRAE 62-B9 standards. Condensate connection shall be a minimum of 3/4" I.D. female and be rigid mount connection.

INDOOR (EVAPORATOR) FAN ASSEMBLY

Fan shall be a belt drive assembly and include an adjustable pitch motor pulley. Job site selected brake horsepower shall not exceed the motors nameplate horsepower rating plus the service factor. Units shall be designed to operate within the service factor. Fan wheel shall be double inlet type with forward curve blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Entire blower assembly and motor shall be slide out design.

OUTDOOR (CONDENSER) FAN ASSEMBLY

The outdoor fans shall be of the direct drive type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider brackets and shall be dynamically balanced for smooth operation. The outdoor fan motors shall have permanently lubricated bearings internally protected against overload conditions and staged independently. A cleaning window shall be provided on two sides of the units for coil cleaning.

REFRIGERANT COMPONENTS

Compressor(s):

- a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of + or - 10% of the unit nameplate voltage.
- b. Shall have internal spring isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- a. evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed. Special Phenolic coating shall be available as a factory option.
- b. Evaporator and condenser coils shall be of the direct expansion, draw-thru design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Independent fixed-orifice or thermally operated expansion devices.
- b. Solid core filter drier/strainer to eliminate any moisture or foreign matter.

- c. Accessible service gage connections on both suction and discharge lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge.
- d. The unit shall have two independent refrigerant circuits, equally split in 50% capacity increments.

Unit Controls:

- a. Unit shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-volt transformer side.
- b. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit, should any of the following standard safety devices trip and shut off compressor:
 - (1) loss-of-charge/Low-pressure switch.
 - (2) High-pressure switch.
 - (3) Freeze-protection thermostat, evaporator coil. If any of the above safety devices trip, a LED (light-emitting diode) indicator shall flash a diagnostic code that indicates which safety switch has tripped.
- c. Unit shall incorporate "AUTO RESET" compressor over temperature, over current protection.
- d. Unit shall operate with conventional thermostat designs and have a low voltage terminal strip for easy hook-up.
- e. Unit control board shall have on-board diagnostics and fault code display.
- f. Standard controls shall include anti-short cycle and low voltage protection, and permit cooling operation down to 0 °F.
- g. Control board shall monitor each refrigerant safety switch independently.
- h. Control board shall retain last 5 fault codes in non volatile memory, which will not be lost in the event of a power loss.

ELECTRIC HEATING SECTION

An electric heating section, with nickel chromium elements, shall be provided in a range of 9 thru 54 KW, offering two states of capacity all sizes. The heating section shall have a primary limit control(s) (automatic reset) to prevent the heating element system from operating at an excessive temperature. The Heating Section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating Sections shall be wired for a single point power supply with branch circuit fusing (where required).

UNIT OPERATING CHARACTERISTICS

Unit shall be capable of starting and running at 125 °F outdoor temperature, exceeding maximum load criteria of ARI Standard 340/360. The compressor, with standard controls, shall be capable of operation down to 0 °F outdoor temperature.

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ELECTRICAL REQUIREMENTS

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

STANDARD LIMITED WARRANTIES

Compressor – 5 Years, Elect. Heat Elem. – 5 Years, Parts – 1 Year

FACTORY INSTALLED OPTIONAL OUTDOOR AIR (Shall be made available by either/or):

1. **ELECTRONIC ENTHALPY ECONOMIZER** – Outdoor and return air dampers that are interlocked and positioned by a fully-modulating, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in outdoor air to meet the minimum ventilation requirement of the conditioned space during normal operation. During economizer operation, a mixed-air temperature control shall modulate the outdoor and return air damper assembly to prevent the supply air temperature from dropping below 55 °F. Changeover from compressor to economizer operation shall be provided by an integral electronic enthalpy control that feeds input into the basic module. The outdoor intake opening shall be covered with a rain hood that matches the exterior of the unit. Water eliminator/filters shall be provided. Simultaneous economizer/compressor operation is also possible. Dampers shall fully close on power loss. Available with barometric relief or power exhaust.
2. **MOTORIZED OUTDOOR AIR DAMPERS** – Outdoor and return air dampers that are interlocked and positioned by a 2-position, spring-return damper actuator. The maximum leakage rate for the outdoor air intake dampers shall not exceed 2% when dampers are fully closed and operating against a pressure differential of 0.5 IWG. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in the design CFM of outdoor air to meet the ventilation requirements of the conditioned space during normal operation. Whenever the indoor fan motor is energized, the dampers open up to one of two pre-selected positions – regardless of the outdoor air enthalpy. Dampers return to the fully closed position when the indoor fan motor is de-energized. Dampers shall fully close on power loss.

ADDITIONAL FACTORY INSTALLED OPTIONS

- **ALTERNATE INDOOR BLOWER MOTOR** – For applications with high restrictions, units are available with optional indoor blower motors that provide higher static output and/or higher airflow.

- **CONVENIENCE OUTLET (NON POWERED/POWERED)** – Unit can be provided with an optional 120VAC GFCI outlet with cover on the corner of the unit housing the compressors.
- **PHASE MONITOR** - Designed to prevent damage in out-of-phase condition.
- **COIL GUARD** - Designed to prevent condenser coil damage.
- **BAS CONTROLS** - Include supply air sensor, return air sensor, dirty filter indicator and air proving switch.
- **DIRTY FILTER SWITCH** – This option includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high-pressure drop across the filters.
- **STAINLESS STEEL DRAIN PAN** – Provides years of trouble-free operation in corrosive environments.
- **BREAKER** – For heat pumps with electric heat, an HACR breaker can be factory installed on the unit.
- **DISCONNECT SWITCH** - For heat pump units only, a disconnect switch sized to the largest electric heat available, can be factory installed.

- **ELECTRIC HEATER** - The electric heater ranges from 9 kW to 54 kW and is available in all the voltage options of the base unit.
- **SMOKE DETECTOR** – A smoke detector can be factory mounted and wired in the supply and/or return air compartments.

OTHER PRE-ENGINEERED ACCESSORIES AVAILABLE

- **ROOF CURB** - 14" and 8" high, full perimeter knockdown curb, with hinged design for quick assembly.
- **BAROMETRIC RELIEF DAMPER** – (Unit mounted – Downflow, Duct Mounted – Horizontal) – Contains a rain hood, air inlet screen, exhaust damper and mounting hardware. Used to relieve internal air pressure through the unit during economizer operation.
- **DIRTY FILTER SWITCH**
- **ECONOMIZER** (Downflow and Horizontal)
- **POWER EXHAUST** – (Unit mount – Downflow, Duct mount – Horizontal)
- **DUAL ENTHALPY KIT** - Provides a second input to economizer to monitor return air.

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