

TECHNICAL GUIDE 50Hz



Heating and Air Conditioning

PREDATOR®

SINGLE PACKAGE AIR CONDITIONERS AND SINGLE PACKAGE GAS/ELECTRIC UNITS

DM090, 120, 150
7-1/2, 10, 12-1/2 NOMINAL TONS
9.0 - 10.0 EER



DESCRIPTION

YORK® Predator® units are convertible single packages with a common footprint cabinet and common roof curb for all 7-1/2 through 12-1/2 ton models. All units have two compressors with independent refrigeration circuits. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, roof jack, or frame.

All Predator® 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. A single economizer design is used on side and down discharge applications, as well as all tonnage sizes.

Predator® units are available in the following configurations: cooling only, cooling with electric heat, and cooling with gas heat. Electric heaters are available as factory-installed options or as field-installed accessories.



ISO 9001
Certified Quality
Management System

TABLE OF CONTENTS

DESCRIPTION	1
FEATURES	3
FACTORY INSTALLED OPTIONS	5
FIELD INSTALLED ACCESSORIES	6
NOMENCLATURE	8

LIST OF FIGURES

<u>Fig. #</u>	<u>Pg. #</u>
1 PREDATOR® COMPONENT LOCATION	3
2 UNIT 4 POINT LOAD	28
3 UNIT CENTER OF GRAVITY	28
4 UNIT 6 POINT LOAD	29
5 UNIT DIMENSIONS	29
6 PREDATOR® ROOF CURB DIMENSIONS	30
7 SUNLINE™ TO PREDATOR® TRANSITION ROOF CURB	31
8 BOTTOM DUCT OPENINGS (FROM ABOVE)	31
9 REAR DUCT DIMENSIONS	32
10 DOWNFLOW ECONOMIZER HOOD DETAIL	32
11 FACTORY INSTALLED DOWNFLOW ECONOMIZER	33
12 FIELD INSTALLED DOWNFLOW ECONOMIZER W/POWER EXHAUST	33
13 FIELD INSTALLED HORIZONTAL ECONOMIZER W/POWER EXHAUST	34
14 SLAB ECONOMIZER DOWNFLOW W/POWER EXHAUST	34
15 SLAB ECONOMIZER END RETURN W/POWER EXHAUST	35
16 TYPICAL COOLING UNIT WITH GAS HEAT WIRING DIAGRAM	36
17 TYPICAL COOLING UNIT WITH/WITHOUT ELECTRIC HEAT WIRING DIAGRAM	37

LIST OF TABLES

<u>Tbl. #</u>	<u>Pg. #</u>
1 PHYSICAL DATA	9
2 CAPACITY RATINGS IMPERIAL	10
3 CAPACITY RATINGS METRIC	10
4 COOLING CAPACITY 7-1/2 TON UNIT - IMPERIAL ..	11
5 COOLING CAPACITY 26.4 KW UNIT - METRIC	12
6 COOLING CAPACITY 10 TON UNIT - IMPERIAL	13
7 COOLING CAPACITY 35.1 KW UNIT - METRIC	14
8 COOLING CAPACITY 12-1/2 TON UNIT - IMPERIAL ..	15
9 COOLING CAPACITY 43.9 KW UNIT - METRIC	16
10 ELECTRICAL DATA 7-1/2 TON	17
11 ELECTRICAL DATA 10 TON	17
12 ELECTRICAL DATA 12-1/2 TON	17
13 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)	18
14 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (METRIC)	18
15 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)	18

<u>Tbl. #</u>	<u>Pg. #</u>
16 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)	19
17 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)	19
18 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (METRIC)	19
19 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)	20
20 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)	20
21 BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (IMPERIAL)	21
22 BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (METRIC)	21
23 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)	22
24 BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (METRIC)	22
25 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)	22
26 BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)	23
27 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)	23
28 BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (METRIC)	23
29 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)	24
30 BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)	24
31 BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (IMPERIAL)	25
32 BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (METRIC)	25
33 ADDITIONAL STATIC RESISTANCE 50" CABINET (IMPERIAL)	26
34 ADDITIONAL STATIC RESISTANCE 42" CABINET (IMPERIAL)	26
35 ADDITIONAL STATIC RESISTANCE 50" CABINET (METRIC)	27
36 ADDITIONAL STATIC RESISTANCE 42" CABINET (METRIC)	27
37 ELECTRIC HEAT MINIMUM SUPPLY AIR - IMPERIAL	28
38 ELECTRIC HEAT MINIMUM SUPPLY AIR - METRIC	28
39 INDOOR BLOWER SPECIFICATIONS	28
40 4 POINT LOAD WEIGHT	28
41 6 POINT LOAD WEIGHT	29
42 UNIT WEIGHT	29
43 UNIT HEIGHT	29
44 UNIT CLEARANCES	30
45 ECONOMIZER USAGE	33

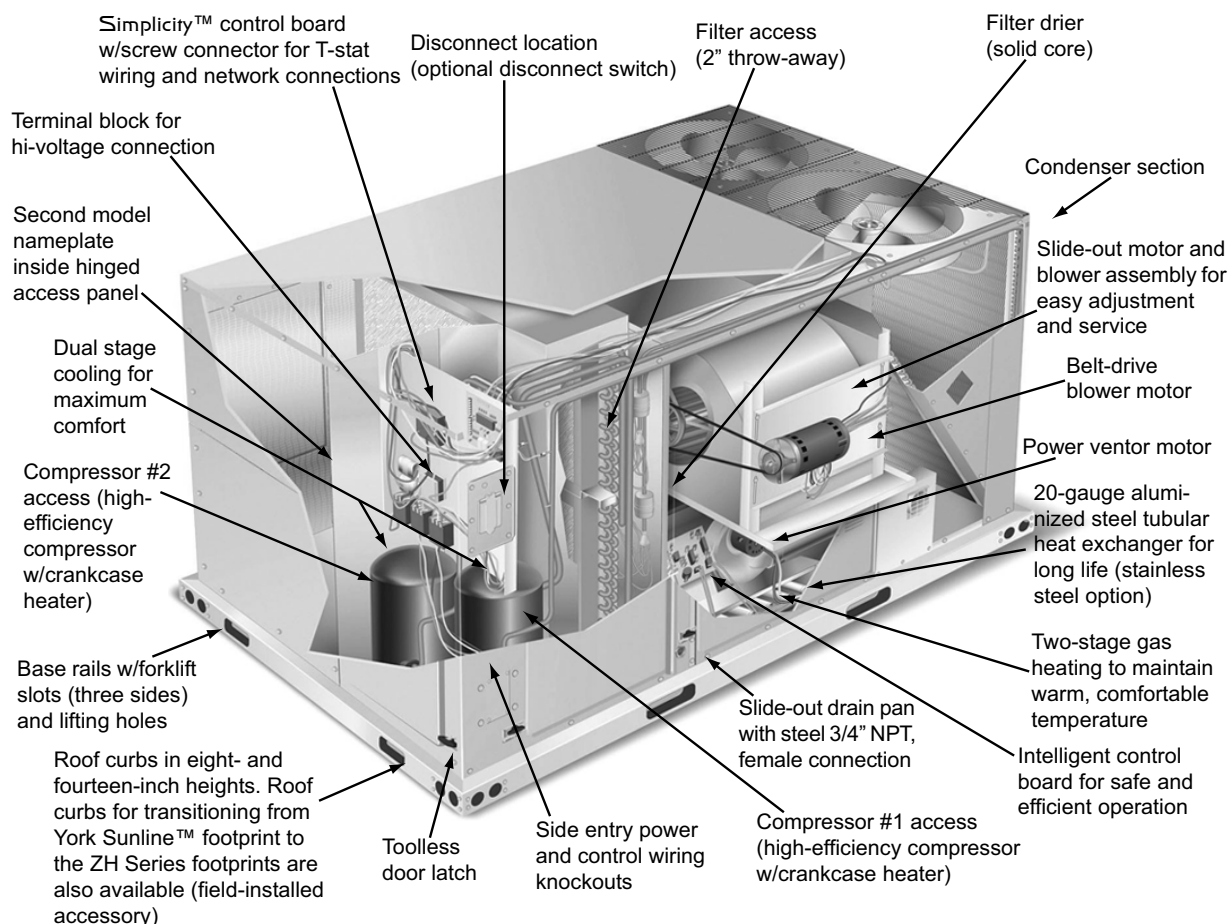


FIGURE 1 - PREDATOR® COMPONENT LOCATION

FEATURES

- **Standard Efficiency**— All standard efficiency units have a minimum EER of 9.0 (2.64 CoP). Gas/electric units have electronic spark ignition and power vented combustion with steady state efficiencies of 80%.
- **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.

Both the unit control board and ignition control board utilize flash codes to aid in diagnosis of unit malfunctions.

Unique alarm 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.
- **Balanced Heating** – The Predator® offers “Ultimate Heating Comfort” with a balance between 1st and 2nd stage gas heating. The 1st stage of a gas heat Predator® unit provides 60% of the heating capacity. Balanced heating allows the unit to better maintain desired temperatures.
- **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 (-17.8°C) 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.

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.
- **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. For the long term – 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 750 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 and heating option after the internal loads have been determined.

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” (610 mm) on-center joists or between 48” (1219 mm) 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 piped 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.

- **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 forklift access from 3 sides, and rigging holes are available so that an overhead crane can be used to place the units on a roof.
- **Easy Installation** – Gas and 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.
- **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 a minimum of 1.5” (375 Pa) ESP.

All units are shipped with 2” (51 mm) filters installed.

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 45 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 as the downflow economizer exist except you must order the 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" (51 mm) pleated filters.
- **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.
- **Aluminized Steel Gas Heat Exchanger** - For applications in non-corrosive environments.
- **Stainless Steel Gas Heat Exchanger** - For applications in corrosive environments, this option provides a full stainless steel heat exchanger assembly.
- **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 gas heat units and cooling units with electric heat, a HACR breaker sized to the unit is provided. For cooling only units, a switch sized to the largest electric heat available for the particular unit is provided. 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.
- **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.
- **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.
- **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.

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 as the downflow economizer exist except you must order the 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 economizer.**
- **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.
- **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.
- **Flue Exhaust Extension Kit** - In locations with wind or weather conditions which may interfere with proper exhausting of furnace combustion products, this kit can be installed to prevent the flue exhaust from entering nearby fresh air intakes.
- **-60°F Gas Heat Kit** - For installations which require gas heat units to perform in low ambient temperatures, a gas section heating kit is available. This kit provides electric heat in the gas heat controls section to ensure the gas valve and controls will continue to function properly at extremely low temperatures.
- **Gas Heat High Altitude Kit** - This kit converts a gas heat unit to operate at high altitudes, 2,000 to 6,000 feet. Conversion kits are available for natural gas and propane.
- **Gas Heat Propane Conversion Kit** - This kit converts a gas-fired heater from natural gas to propane. It contains the main burner orifices and gas valve replacement springs.

- **Gas Piping Kit** - Contains pipe nipples, fittings and gas cock required for gas supply connection with external shut off.
- **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.
- **Low Limit / Compressor Lockout Kit**
 1. **Compressor Lockout (CLO):** To prevent mechanical (compressorized) operation of the unit during cold outdoor conditions where there is a risk of returning liquid refrigerant back to the compressors.
 2. **Low Limit Control (LLC):** To prevent the supply air from dropping below a specified setpoint by utilizing the units first stage heating means when there is a demand for cooling during cold outside conditions.
- **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" (203 mm) and 14" (356 mm) 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" (254 mm) High) - Roof curbs for transitioning from Sunline™ units to Predator® Magnum. 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.

NOMENCLATURE

7.5-12.5 Ton York® Model Number Nomenclature

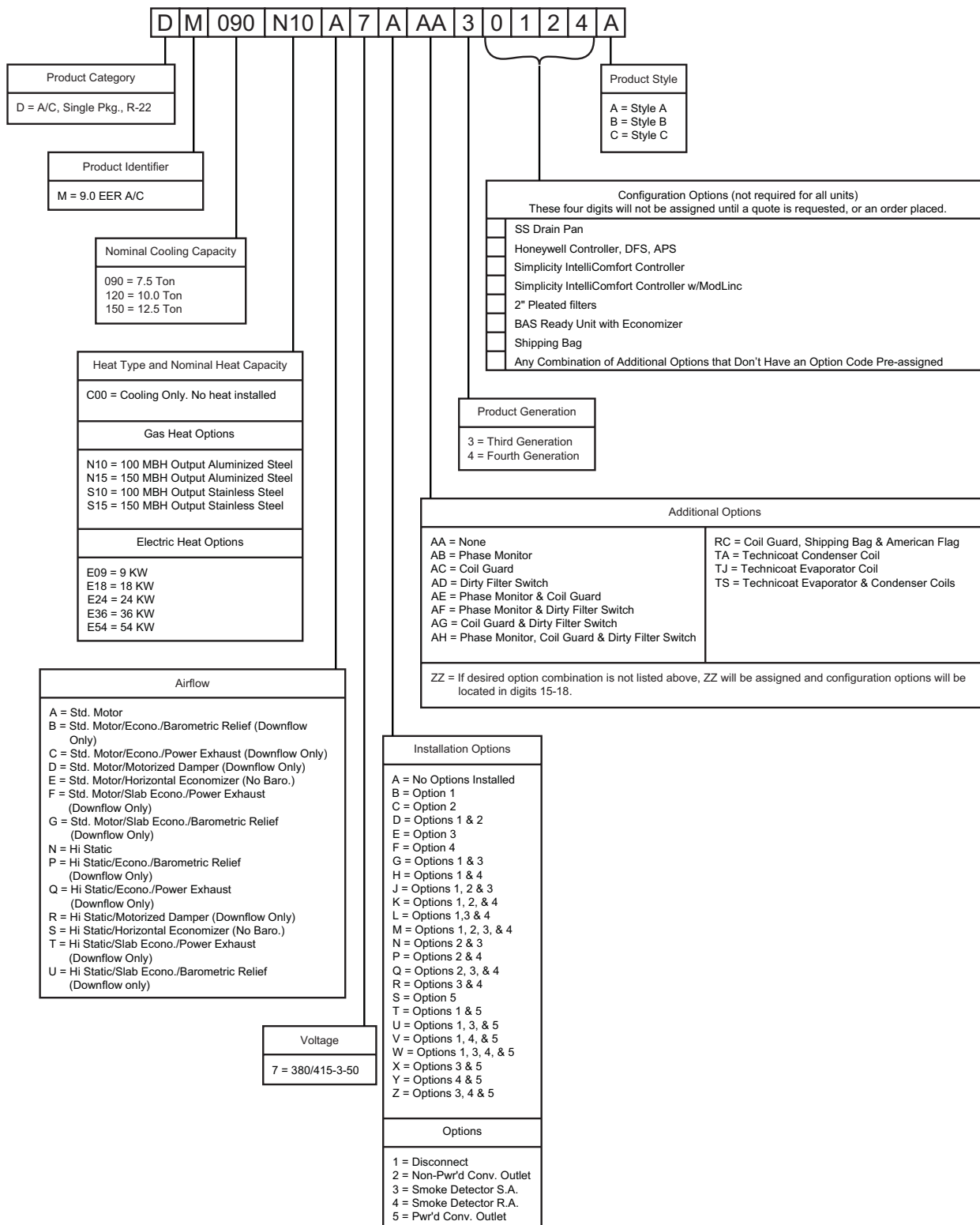


TABLE 1: PHYSICAL DATA

Component		Models		
		090	120	150
Evaporator Blower	Blower, Centrifugal Dia. X Wd. in. (Dia. X Wd. mm.)	12 x 12 (305 x 305)	15 x 15 (381 x 381)	15 x 15 (381 x 381)
	Motor, Standard - HP (kW)	3 (2.2)	2 (1.5)	4 (3)
	Motor, Optional - HP (kW)	3 (2.2)	4 (3)	N/A
Evaporator Coil	Rows	2	3	4
	Fins per 2.54 cm (1 in.)	15	15	15
	Height - in. (mm.)	32 (810)	40 (1020)	40 (1020)
	Face Area - ft. ² (m ²)	10.6 (0.98)	13.2 (1.23)	13.2 (1.23)
Condenser Fan (2 per Unit)	Propeller Dia. - in. (mm.) ea.	24 (610)	24 (610)	24 (610)
	Motor - HP (kW) ea.	3/4 (0.56)	3/4 (0.56)	3/4 (0.56)
	Airflow - CFM (m ³ /s) ea.	3700 (1.75)	3700 (1.75)	3700 (1.75)
Condenser Coil (2 per unit)	Rows (each)	1	1	2
	Fins per inch (2.54 mm)	20	20	20
	Height - in. (mm.)	28 (711)	44 (1120)	44 (1120)
	Face Area - ft. ² (m ²)	9.2 (.86)	14.5 (1.35)	14.5 (1.35)
Refrigerant Charge	System 1 - lbs. (kg.)	4.75 (2.15)	6.0 (2.72)	11.0 (4.99)
	System 2 - lbs. (kg.)	4.0 (1.81)	5.75 (2.61)	10.0 (4.54)
Compressors	Quantity	2	2	2
	Type	Recip	Recip	Scroll
Air Filters	Size Wd. x Ht. x Thickness in. (Wd. x Ht. x Thickness mm.)	25 x 16 x 2 (635 x 406 x 51)	25 x 20 x 2 (635 x 508 x 51)	25 x 20 x 2 (635 x 508 x 51)
	Number Per Unit	4	4	4

TABLE 2: CAPACITY RATINGS IMPERIAL

Model		Cooling Capacity		Sound Rating (dB)	Nominal Electric Heat Capacity (kW) ¹	Gas Heat Capacity			
		(80 / 67-95°F)				Input (MBH)	Output (MBH)	Temp Rise (°F)	Gas Line Size (in. OD)
Cooling Cap. (MBH)	Options	MBH	EER						
090	DM	91	8.75	87	-	-	-	-	-
	10	-	-	-	-	120	96	15-45	3/4
	15	-	-	-	-	175	140	30-60	3/4
120	DM	122	9.1	85	14, 18, 27, 41	-	-	-	-
	15	-	-	-	-	180	144	15-45	3/4
150	DM	138	9.0	84	14, 18, 27, 41	-	-	-	-
	15	-	-	-	-	180	144	10-40	3/4

1. Electric heaters rated at 415V. See tables 10 through 12 for kW ratings at 380V.

TABLE 3: CAPACITY RATINGS METRIC

Model		Cooling Capacity		Sound Rating (dB)	Nominal Electric Heat Capacity (kW) ¹	Gas Heat Capacity			
		(27/19-35°C)				Input (kW)	Output (kW)	Temp Rise (°C)	Gas Line Size (mm. OD)
Cooling Cap. (kW)	Options	kW	CoP ²						
090 (26.4)	DM	26.7	2.56	87	-		-	-	-
	10	-	-	-	-	35.1	28.1	8.3-25	19.05
	15	-	-	-	-	51.3	41.0	17-33	19.05
120 (35.1)	DM	35.75	2.67	85	14, 18, 27, 41	-	-	-	-
	15	-	-	-	-	52.7	42.2	8.3-25	19.05
150 (43.9)	DM	40.4	2.64	84	14, 18, 27, 41	-	-	-	-
	15	-	-	-	-	52.7	42.2	5.6-22	19.05

1. Electric heaters rated at 415V. See tables 10 through 12 for kW ratings at 380V

2. CoP = Co-efficient of Performance (CoP = Cooling Capacity (kW) / Power Input (kW))

TABLE 4: COOLING CAPACITY 7-1/2 TON UNIT - IMPERIAL

Air On Evap. Coil		Temperature of Air on Condenser Coil 75°F									Temperature of Air on Condenser Coil 85°F										
CFM	WB (°F)	Tot. Cap. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)								Tot. Cap. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)							
				86	83	80	77	74	71	68	86			83	80	77	74	71	68		
2250	72	103.3	7.9	60.1	53.7	47.3	40.9	34.5	-	-	98.9	8.5	58.2	51.8	45.4	39.0	32.5	-	-	-	-
	67	99.1	7.7	74.2	67.7	61.3	54.9	48.5	42.1	35.7	93.5	8.3	72.0	65.6	59.2	52.8	46.4	39.9	33.5	-	-
	62	90.0	7.5	90.0	81.9	75.4	69.0	62.6	56.2	49.8	84.6	8.0	84.6	79.8	73.4	67.0	60.6	54.2	47.7	-	-
2625	57	83.0	7.4	83.0	85.4	82.6	76.2	69.7	63.3	56.9	82.6	8.0	82.6	82.6	77.9	71.5	65.1	58.7	52.3	-	-
	72	108.8	7.9	66.6	59.0	51.4	43.9	36.3	-	-	103.8	8.6	64.3	56.7	49.1	41.6	34.0	-	-	-	-
	67	104.4	7.8	81.9	74.3	66.7	59.1	51.5	44.0	36.4	98.1	8.4	79.3	71.7	64.1	56.5	48.9	41.4	33.8	-	-
3000	62	94.8	7.5	94.8	90.7	82.0	74.5	66.9	59.3	51.7	88.8	8.1	88.8	86.4	79.5	71.9	64.3	56.8	49.2	-	-
	57	87.4	7.5	87.4	88.7	89.8	82.2	74.6	67.0	59.5	86.6	8.1	86.6	86.6	84.4	76.8	69.2	61.7	54.1	-	-
	72	114.3	8.0	73.1	64.3	55.6	46.8	38.1	-	-	108.6	8.7	70.4	61.7	52.9	44.2	35.4	-	-	-	-
3375	67	109.7	7.9	89.6	80.8	72.1	63.3	54.6	45.8	37.1	102.7	8.5	86.5	77.8	69.0	60.3	51.5	42.8	34.0	-	-
	62	99.6	7.6	99.6	99.6	88.7	79.9	71.2	62.4	53.7	92.9	8.2	92.9	92.9	85.6	76.8	68.1	59.3	50.6	-	-
	57	91.9	7.6	91.9	91.9	97.0	88.3	79.5	70.8	62.0	90.7	8.2	90.7	90.7	90.9	82.1	73.4	64.6	55.9	-	-
3750	72	115.7	8.1	78.3	68.3	58.3	48.4	38.4	-	-	110.0	8.7	75.7	65.7	55.7	45.8	35.8	-	-	-	-
	67	111.0	7.9	95.5	85.6	75.6	65.7	55.7	45.7	35.8	104.0	8.5	92.6	82.7	72.7	62.7	52.8	42.8	32.8	-	-
	62	100.8	7.7	100.8	100.8	94.9	84.9	74.9	65.0	55.0	94.1	8.3	94.1	94.1	90.2	80.2	70.2	60.3	50.3	-	-
3750	57	93.0	7.7	93.0	93.0	95.5	85.6	75.6	65.7	55.7	91.8	8.3	91.8	91.8	91.9	81.9	72.0	62.0	52.0	-	-
	72	117.1	8.2	83.4	72.3	61.1	49.9	38.7	-	-	111.3	8.8	80.9	69.7	58.6	47.4	36.2	-	-	-	-
	67	112.3	8.0	101.0	90.4	79.2	68.0	56.8	45.6	34.5	105.2	8.6	98.7	87.6	76.4	65.2	54.0	42.9	31.7	-	-
3750	62	102.0	7.7	102.0	102.0	101.1	89.9	78.7	67.5	56.4	95.2	8.3	95.2	95.2	94.7	83.6	72.4	61.2	50.0	-	-
	57	94.1	7.7	94.1	94.1	94.1	82.9	71.7	60.6	49.4	92.9	8.3	92.9	92.9	92.9	81.7	70.6	59.4	48.2	-	-
		Temperature of Air on Condenser Coil 95°F									Temperature of Air on Condenser Coil 105°F										
2250	72	94.5	9.1	56.3	49.9	43.4	37.0	30.6	-	-	87.6	9.7	52.8	46.4	39.9	33.5	27.1	-	-	-	-
	67	87.9	8.9	69.9	63.5	57.0	50.6	44.2	37.8	31.4	80.1	9.4	66.2	59.8	53.3	46.9	40.5	34.1	27.7	-	-
	62	79.2	8.6	79.2	77.8	71.4	65.0	58.5	52.1	45.7	72.6	9.2	72.6	72.0	66.0	59.6	53.2	46.7	40.3	-	-
2625	57	82.1	8.6	82.1	79.7	73.3	66.9	60.4	54.0	47.6	73.7	9.2	73.7	72.5	66.8	60.4	53.9	47.5	41.1	-	-
	72	98.7	9.2	62.0	54.4	46.8	39.3	31.7	-	-	91.7	9.8	58.6	51.0	43.4	35.8	28.2	-	-	-	-
	67	91.8	9.0	76.7	69.1	61.5	53.9	46.3	38.8	31.2	83.8	9.5	73.1	65.5	58.0	50.4	42.8	35.2	27.6	-	-
3000	62	82.7	8.7	82.7	82.0	76.9	69.4	61.8	54.2	46.6	76.0	9.3	76.0	75.7	71.7	64.1	56.5	48.9	41.4	-	-
	57	85.8	8.7	85.8	84.6	79.0	71.4	63.8	56.3	48.7	77.1	9.3	77.1	76.5	72.5	65.0	57.4	49.8	42.2	-	-
	72	102.9	9.3	67.7	59.0	50.2	41.5	32.7	-	-	95.8	9.9	64.3	55.6	46.8	38.1	29.3	-	-	-	-
3375	67	95.7	9.1	83.5	74.7	66.0	57.2	48.5	39.7	31.0	87.5	9.7	80.1	71.3	62.6	53.8	45.1	36.3	27.6	-	-
	62	86.2	8.8	86.2	86.2	82.5	73.8	65.0	56.3	47.5	79.4	9.4	79.4	79.4	77.4	68.6	59.9	51.2	42.4	-	-
	57	89.5	8.8	89.5	89.5	84.7	76.0	67.2	58.5	49.7	80.6	9.4	80.6	80.6	78.3	69.6	60.8	52.1	43.3	-	-
3750	72	104.2	9.4	73.1	63.1	53.1	43.2	33.2	-	-	96.8	10.0	69.6	59.6	49.7	39.7	29.7	-	-	-	-
	67	96.9	9.1	89.7	79.7	69.8	59.8	49.9	39.9	29.9	88.4	9.7	84.2	76.3	66.4	56.4	46.4	36.5	26.5	-	-
	62	87.3	8.9	87.3	87.3	85.5	75.5	65.5	55.6	45.6	80.2	9.4	80.2	80.2	79.2	69.3	59.3	49.3	39.4	-	-
3750	57	90.6	8.9	90.6	90.6	88.2	78.3	68.3	58.3	48.4	81.4	9.4	81.4	81.4	80.3	70.3	60.3	50.4	40.4	-	-
	72	105.5	9.4	78.4	67.2	56.1	44.9	33.7	-	-	97.8	10.0	74.9	63.7	52.5	41.3	30.1	-	-	-	-
	67	98.1	9.2	96.0	84.8	73.6	62.4	51.2	40.1	28.9	89.3	9.8	88.2	81.3	70.1	59.0	47.8	36.6	25.4	-	-
3750	62	88.4	8.9	88.4	88.4	88.4	77.2	66.0	54.9	43.7	81.1	9.5	81.1	81.1	81.1	69.9	58.7	47.5	36.3	-	-
	57	91.7	8.9	91.7	91.7	91.7	80.5	69.4	58.2	47.0	82.2	9.5	82.2	82.2	82.2	71.0	59.9	48.7	37.5	-	-
		Temperature of Air on Condenser Coil 115°F									Temperature of Air on Condenser Coil 125°F										
2250	72	80.7	10.3	49.3	42.8	36.4	30.0	23.6	-	-	73.9	10.9	45.8	39.3	32.9	26.5	20.1	-	-	-	-
	67	72.2	10.0	62.5	56.0	49.6	43.2	36.8	30.4	24.0	64.4	10.5	58.8	52.3	45.9	39.5	33.1	26.7	20.3	-	-
	62	66.1	9.7	66.1	66.1	60.6	54.2	47.8	41.3	34.9	59.6	10.2	59.6	59.6	55.2	48.8	42.4	36.0	29.5	-	-
2625	57	65.2	9.7	65.2	65.2	60.3	53.8	47.4	41.0	34.6	56.8	10.3	56.8	56.8	53.8	47.3	40.9	34.5	28.1	-	-
	72	84.7	10.5	55.1	47.5	39.9	32.4	24.8	-	-	77.7	11.1	51.7	44.1	36.5	28.9	21.3	-	-	-	-
	67	75.8	10.1	69.6	62.0	54.4	46.8	39.2	31.7	24.1	67.8	10.7	66.0	58.4	50.9	43.3	35.7	28.1	20.5	-	-
3000	62	69.4	9.8	69.4	69.4	66.4	58.8	51.3	43.7	36.1	62.7	10.4	62.7	62.7	61.2	53.6	46.0	38.4	30.8	-	-
	57	68.4	9.8	68.4	68.4	66.1	58.5	50.9	43.3	35.7	59.8	10.4	59.8	59.8	59.6	52.0	44.4	36.9	29.3	-	-
	72	88.7	10.6	60.9	52.2	43.5	34.7	26.0	-	-	81.5	11.3	57.6	48.8	40.1	31.3	22.6	-	-	-	-
3375	67	79.3	10.2	76.7	67.9	59.2	50.4	41.7	32.9	24.2	71.1	10.8	71.1	64.5	55.8	47.1	38.3	29.6	20.8	-	-
	62	72.6	10.0	72.6	72.6	72.3	63.5	54.8	46.0	37.3	65.8	10.6	65.8	65.8	65.8	58.4	49.6	40.9	32.1	-	-
	57	71.7	10.0	71.7	71.7	71.9	63.1	54.4	45.6	36.9	62.7	10.6	62.7	62.7	62.7	56.7	47.9	39.2	30.4	-	-
3750	72	89.3	10.6	66.1	56.2	46.2	36.2	26.3	-	-	81.9	11.3	62.7	52.7	42.7	32.8	22.8	-	-	-	-
	67	79.9	10.3	78.6	72.9	62.9	53.0	43.0	33.0	23.1	71.4	10.9	71.4	69.5	59.5	49.5	39.6	29.6	19.7	-	-
	62	73.2	10.0	73.2	73.2	73.0	63.0	53.1	43.1	33.1	66.1	10.6	66.1	66.1	66.1	56.8	46.8	36.9	26.9	-	-
3750	57	72.2	10.0	72.2	72.2	72.3	62.3	52.4	42.4	32.4	63.0	10.6	63.0	63.0	63.0	54.4	44.4	34.4	24.5	-	-
	72	90.0	10.7	71.3	60.1	48.9	37.8	26.6	-	-	82.2	11.3	67.7	56.6	45.4	34.2	23.0	-	-	-	-
	67	80.5	10.3	80.5	77.9	66.7	55.5	44.3	33.1	22.0	71.7	10.9	71.7	71.7	63.2	52.0	40.9	29.7	18.5	-	-
3750	62	73.7	10.1	73.7	73.7	73.7	62.5	51.4	40.2	29.0	66.4	10.6	66.4	66.4	66.4	55.2	44.0	32.8	21.7	-	-
	57	72.7	10.1	72.7	72.7	72.7	61.5	50.4	39.2	28.0	63.28										

TABLE 5: COOLING CAPACITY 26.4 KW UNIT - METRIC

Air On Evap. Coil		Temperature of Air on Condenser Coil 24°C									Temperature of Air on Condenser Coil 29°C								
m³/s	WB (°C)	Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°F)							Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°C)						
				30	28	27	25	23	22	20			30	28	27	25	23	22	20
1.06	22	30	7.9	17.6	15.7	13.9	12.0	10.1	-	-	29	8.5	17.1	15.2	13.3	11.4	9.5	-	-
	19	29	7.7	21.7	19.9	18.0	16.1	14.2	12.3	10.5	27	8.3	21.1	19.2	17.3	15.5	13.6	11.7	9.8
	17	26	7.5	26.4	24.0	22.1	20.2	18.3	16.5	14.6	25	8.0	24.8	23.4	21.5	19.6	17.8	15.9	14.0
	14	24	7.4	24.3	25.0	24.2	22.3	20.4	18.6	16.7	24	8.0	24.2	24.2	22.8	21.0	19.1	17.2	15.3
1.24	22	32	7.9	19.5	17.3	15.1	12.9	10.6	-	-	30	8.6	18.8	16.6	14.4	12.2	10.0	-	-
	19	31	7.8	24.0	21.8	19.5	17.3	15.1	12.9	10.7	29	8.4	23.2	21.0	18.8	16.6	14.3	12.1	9.9
	17	28	7.5	27.8	26.6	24.0	21.8	19.6	17.4	15.2	26	8.1	26.0	25.3	23.3	21.1	18.9	16.6	14.4
	14	26	7.5	25.6	26.0	26.3	24.1	21.9	19.6	17.4	25	8.1	25.4	25.4	24.7	22.5	20.3	18.1	15.8
1.42	22	34	8.0	21.4	18.9	16.3	13.7	11.2	-	-	32	8.7	20.6	18.1	15.5	12.9	10.4	-	-
	19	32	7.9	26.2	23.7	21.1	18.6	16.0	13.4	10.9	30	8.5	25.4	22.8	20.2	17.7	15.1	12.5	10.0
	17	29	7.6	29.2	29.2	26.0	23.4	20.9	18.3	15.7	27	8.2	27.2	27.2	25.1	22.5	20.0	17.4	14.8
	14	27	7.6	26.9	26.9	28.4	25.9	23.3	20.7	18.2	27	8.2	26.6	26.6	26.6	24.1	21.5	18.9	16.4
1.59	22	34	8.1	22.9	20.0	17.1	14.2	11.3	-	-	32	8.7	22.2	19.3	16.3	13.4	10.5	-	-
	19	33	7.9	28.0	25.1	22.2	19.2	16.3	13.4	10.5	30	8.5	27.1	24.2	21.3	18.4	15.5	12.5	9.6
	17	30	7.7	29.5	29.5	27.8	24.9	22.0	19.0	16.1	28	8.3	27.6	27.6	26.4	23.5	20.6	17.7	14.7
	14	27	7.7	27.3	27.3	28.0	25.1	22.2	19.2	16.3	27	8.3	26.9	26.9	26.9	24.0	21.1	18.2	15.2
1.77	22	34	8.2	24.5	21.2	17.9	14.6	11.3	-	-	33	8.8	23.7	20.4	17.2	13.9	10.6	-	-
	19	33	8.0	29.8	26.5	23.2	19.9	16.7	13.4	10.1	31	8.6	28.9	25.7	22.4	19.1	15.8	12.6	9.3
	17	30	7.7	29.9	29.9	29.6	26.3	23.1	19.8	16.5	28	8.3	27.9	27.9	27.8	24.5	21.2	17.9	14.7
	14	28	7.7	27.6	27.6	27.6	24.3	21.0	17.7	14.5	27	8.3	27.2	27.2	27.2	24.0	20.7	17.4	14.1
		Temperature of Air on Condenser Coil 35°C									Temperature of Air on Condenser Coil 41°C								
1.06	22	28	9.1	16.5	14.6	12.7	10.9	9.0	-	-	26	9.7	15.5	13.6	11.7	9.8	7.9	-	-
	19	26	8.9	20.5	18.6	16.7	14.8	13.0	11.1	9.2	23	9.4	19.4	17.5	15.6	13.8	11.9	10.0	8.1
	17	23	8.6	23.2	22.8	20.9	19.0	17.2	15.3	13.4	21	9.2	21.3	21.1	19.3	17.5	15.6	13.7	11.8
	14	24	8.6	24.1	23.4	21.5	19.6	17.7	15.8	14.0	22	9.2	21.6	21.2	19.6	17.7	15.8	13.9	12.0
1.24	22	29	9.2	18.2	15.9	13.7	11.5	9.3	-	-	27	9.8	17.2	14.9	12.7	10.5	8.3	-	-
	19	27	9.0	22.5	20.2	18.0	15.8	13.6	11.4	9.1	25	9.5	21.4	19.2	17.0	14.8	12.5	10.3	8.1
	17	24	8.7	24.2	24.0	22.6	20.3	18.1	15.9	13.7	22	9.3	22.3	22.2	21.0	18.8	16.6	14.3	12.1
	14	25	8.7	25.1	24.8	23.2	20.9	18.7	16.5	14.3	23	9.3	22.6	22.4	21.3	19.0	16.8	14.6	12.4
1.42	22	30	9.3	19.9	17.3	14.7	12.2	9.6	-	-	28	9.9	18.9	16.3	13.7	11.2	8.6	-	-
	19	28	9.1	24.5	21.9	19.3	16.8	14.2	11.6	9.1	26	9.7	23.5	20.9	18.3	15.8	13.2	10.6	8.1
	17	25	8.8	25.3	25.3	24.2	21.6	19.1	16.5	13.9	23	9.4	23.3	23.3	22.7	20.1	17.6	15.0	12.4
	14	26	8.8	26.2	26.2	24.8	22.3	19.7	17.1	14.6	24	9.4	23.6	23.6	22.9	20.4	17.8	15.3	12.7
1.59	22	31	9.4	21.4	18.5	15.6	12.7	9.7	-	-	28	10.0	20.4	17.5	14.6	11.6	8.7	-	-
	19	28	9.1	26.3	23.4	20.5	17.5	14.6	11.7	8.8	26	9.7	24.7	22.4	19.4	16.5	13.6	10.7	7.8
	17	26	8.9	25.6	25.6	25.0	22.1	19.2	16.3	13.4	24	9.4	23.5	23.5	23.2	20.3	17.4	14.5	11.5
	14	27	8.9	26.6	26.6	25.9	22.9	20.0	17.1	14.2	24	9.4	23.9	23.9	23.5	20.6	17.7	14.8	11.8
1.77	22	31	9.4	23.0	19.7	16.4	13.2	9.9	-	-	29	10.0	21.9	18.7	15.4	12.1	8.8	-	-
	19	29	9.2	28.1	24.8	21.6	18.3	15.0	11.7	8.5	26	9.8	25.9	23.8	20.6	17.3	14.0	10.7	7.5
	17	26	8.9	25.9	25.9	25.9	22.6	19.4	16.1	12.8	24	9.5	23.8	23.8	23.8	20.5	17.2	13.9	10.7
	14	27	8.9	26.9	26.9	26.9	23.6	20.3	17.1	13.8	24	9.5	24.1	24.1	24.1	20.8	17.5	14.3	11.0
		Temperature of Air on Condenser Coil 46°C									Temperature of Air on Condenser Coil 52°C								
1.06	22	24	10.3	14.4	12.6	10.7	8.8	6.9	-	-	22	10.9	13.4	11.5	9.7	7.8	5.9	-	-
	19	21	10.0	18.3	16.4	14.5	12.7	10.8	8.9	7.0	19	10.5	17.2	15.3	13.5	11.6	9.7	7.8	5.9
	17	19	9.7	19.4	19.4	17.8	15.9	14.0	12.1	10.2	17	10.2	17.5	17.5	16.2	14.3	12.4	10.5	8.7
	14	19	9.7	19.1	19.1	17.7	15.8	13.9	12.0	10.1	17	10.3	16.6	16.6	15.8	13.9	12.0	10.1	8.2
1.24	22	25	10.5	16.2	13.9	11.7	9.5	7.3	-	-	23	11.1	15.1	12.9	10.7	8.5	6.3	-	-
	19	22	10.1	20.4	18.2	15.9	13.7	11.5	9.3	7.1	20	10.7	19.4	17.1	14.9	12.7	10.5	8.2	6.0
	17	20	9.8	20.3	20.3	19.5	17.2	15.0	12.8	10.6	18	10.4	18.4	18.4	17.9	15.7	13.5	11.3	9.0
	14	20	9.8	20.1	20.1	19.4	17.1	14.9	12.7	10.5	18	10.4	17.5	17.5	17.5	15.2	13.0	10.8	8.6
1.42	22	26	10.6	17.9	15.3	12.7	10.2	7.6	-	-	24	11.3	16.9	14.3	11.7	9.2	6.6	-	-
	19	23	10.2	22.5	19.9	17.3	14.8	12.2	9.7	7.1	21	10.8	20.9	18.9	16.4	13.8	11.2	8.7	6.1
	17	21	10.0	21.3	21.3	21.2	18.6	16.1	13.5	10.9	19	10.6	19.3	19.3	19.3	17.1	14.5	12.0	9.4
	14	21	10.0	21.0	21.0	21.1	18.5	15.9	13.4	10.8	18	10.6	18.4	18.4	18.4	16.6	14.1	11.5	8.9
1.59	22	26	10.6	19.4	16.5	13.5	10.6	7.7	-	-	24	11.3	18.4	15.4	12.5	9.6	6.7	-	-
	19	23	10.3	23.0	21.4	18.4	15.5	12.6	9.7	6.8	21	10.9	20.9	20.4	17.4	14.5	11.6	8.7	5.8
	17	21	10.0	21.4	21.4	21.4	18.5	15.6	12.6	9.7	19	10.6	19.4	19.4	19.4	16.6	13.7	10.8	7.9
	14	21	10.0	21.2	21.2	21.2	18.3	15.3	12.4	9.5	18	10.6	18.5	18.5	18.5	15.9	13.0	10.1	7.2
1.77	22	26	10.7	20.9	17.6	14.3	11.1	7.8	-	-	24	11.3	19.9	16.6	13.3	10.0	6.8	-	-
	19	24	10.3	23.6	22.8	19.5	16.3	13.0	9.7	6.4	21	10.9	21.0	21.0	18.5	15.2	12.0	8.7	5.4
	17	22	10.1	21.6	21.6	21.6	18.3	15.1	11.8	8.5	19	10.6	19.5	19.5	19.5	16.2	12.9	9.6	6.3
	14	21	10.1	21.3	21.3	21.3	18.0	14.8	11.5	8.2	19	10.6	18.5	18.5	18.5	15.3	12.0	8.7	5.4

1. 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.

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

TABLE 6: COOLING CAPACITY 10 TON UNIT - IMPERIAL

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. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)								Tot. Cap. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)							
				86	83	80	77	74	71	68	86			83	80	77	74	71	68		
3000	72	141	11.7	82	73	65	56	48	39	30	135	12.6	83	75	66	57	49	40	32		
	67	130	11.3	102	93	85	76	67	59	50	122	12.0	98	90	81	73	64	56	47		
	62	120	10.9	120	112	104	95	87	78	70	114	11.7	114	114	107	98	90	81	72		
	57	117	10.9	117	117	108	99	91	82	74	112	11.6	112	112	108	99	90	82	73		
3500	72	145	11.8	90	80	70	60	50	39	29	138	12.7	89	79	69	59	49	39	28		
	67	134	11.4	111	101	91	81	71	61	51	124	12.2	105	95	85	75	65	54	44		
	62	124	11.0	124	120	112	102	92	82	71	116	11.8	116	116	111	101	91	81	71		
	57	121	11.0	121	121	116	106	96	86	76	115	11.7	115	115	112	102	92	82	72		
4000	72	150	11.9	98	87	75	63	52	40	28	141	12.9	95	83	72	60	48	37	25		
	67	139	11.5	121	110	98	86	75	63	51	126	12.3	112	100	88	77	65	53	42		
	62	128	11.1	128	128	120	108	97	85	73	119	11.9	119	119	116	104	93	81	69		
	57	125	11.1	125	125	125	113	102	90	78	117	11.8	117	117	117	105	93	82	70		
4500	72	152	12.0	106	92	79	66	53	39	26	145	13.0	106	93	79	66	53	39	26		
	67	140	11.6	130	117	103	90	77	64	50	130	12.4	123	111	98	84	71	58	44		
	62	129	11.2	129	129	125	112	99	86	72	122	12.0	122	122	120	107	94	81	67		
	57	127	11.2	127	127	127	113	100	87	73	120	12.0	120	120	120	107	93	80	67		
5000	72	154	12.2	113	98	83	68	54	39	24	149	13.2	117	102	87	72	57	42	27		
	67	142	11.7	139	124	109	94	79	64	49	133	12.6	133	122	107	92	77	62	47		
	62	131	11.4	131	131	131	116	101	86	71	125	12.2	125	125	125	110	95	80	65		
	57	128	11.3	128	128	128	113	98	83	69	123	12.1	123	123	123	108	93	79	64		
		Temperature of Air on Condenser Coil 105°F									Temperature of Air on Condenser Coil 115°F										
3000	72	125	13.5	77	69	60	52	43	35	26	115	14.3	72	63	55	46	38	29	20		
	67	112	12.8	94	86	77	69	60	52	43	103	13.5	90	82	73	65	56	48	39		
	62	104	12.3	104	103	95	87	78	70	61	94	12.9	94	92	84	75	67	58	49		
	57	104	12.4	104	103	96	88	79	71	62	95	13.1	95	94	85	77	68	59	51		
3500	72	128	13.7	85	74	64	54	44	34	24	118	14.6	80	70	60	50	40	29	19		
	67	115	13.0	102	93	82	72	62	52	42	106	13.8	100	90	80	70	60	50	40		
	62	106	12.4	106	106	101	91	81	71	61	97	13.1	97	96	92	81	71	61	51		
	57	106	12.5	106	106	103	93	82	72	62	98	13.3	98	97	93	83	73	63	53		
4000	72	131	13.8	92	80	68	57	45	33	22	122	14.8	88	77	65	53	42	30	18		
	67	118	13.1	111	99	88	76	64	53	41	109	14.0	109	99	87	75	64	52	40		
	62	109	12.6	109	109	108	96	84	73	61	99	13.3	99	99	99	88	76	64	53		
	57	109	12.7	109	109	109	97	86	74	62	101	13.6	101	101	101	89	78	66	54		
4500	72	134	14.0	101	88	74	61	48	35	21	124	15.0	96	83	69	56	43	30	16		
	67	121	13.3	117	108	95	82	69	55	42	111	14.2	111	106	93	80	67	53	40		
	62	111	12.8	111	111	111	97	84	71	58	101	13.5	101	101	101	88	74	61	48		
	57	111	12.9	111	111	111	98	85	72	58	103	13.8	103	103	103	89	76	63	50		
5000	72	137	14.2	110	95	80	66	51	36	21	126	15.3	104	89	74	59	44	29	14		
	67	123	13.5	123	117	103	88	73	58	43	113	14.4	113	113	99	84	69	54	40		
	62	114	12.9	114	114	114	99	84	69	54	103	13.7	103	103	103	88	73	58	43		
	57	114	13.1	114	114	114	99	84	69	54	104	14.0	104	104	104	90	75	60	45		
		Temperature of Air on Condenser Coil 125°F																			
3000	72	105	15.2	66	58	49	40	32	23	15											
	67	94	14.3	86	78	69	61	52	44	35											
	62	84	13.5	84	81	72	64	55	47	38											
	57	87	13.9	87	84	74	65	57	48	40											
3500	72	108	15.5	76	65	55	45	35	25	15											
	67	98	14.6	97	88	78	68	58	48	37											
	62	87	13.8	87	86	82	72	61	51	41											
	57	90	14.1	90	89	84	73	63	53	43											
4000	72	112	15.8	85	73	62	50	38	27	15											
	67	101	14.8	101	98	86	75	63	51	40											
	62	90	14.0	90	90	90	79	68	56	44											
	57	93	14.4	93	93	93	82	70	58	47											
4500	72	113	16.0	91	78	65	51	38	25	11											
	67	102	15.1	102	102	91	78	64	51	38											
	62	91	14.3	91	91	91	78	65	51	38											
	57	94	14.7	94	94	94	81	68	54	41											
5000	72	114	16.3	97	83	68	53	38	23	8											
	67	103	15.4	103	103	95	80	66	51	36											
	62	91	14.5	91	91	91	77	62	47	32											
	57	95	14.9	95	95	95	80	65	50	35											

1

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.

2

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

- 1 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.
- 2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 7: COOLING CAPACITY 35.1 KW UNIT - METRIC

Air On Evap. Coil		Temperature of Air on Condenser Coil 29°C									Temperature of Air on Condenser Coil 35°C								
m³/s	WB (°C)	Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°C)							Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°C)						
				30	28	27	25	23	22	20			30	28	27	25	23	22	20
1.42	22	41	11.7	24	21	19	16	14	11	9	40	12.6	24	22	19	17	14	12	9
	19	38	11.3	30	27	25	22	20	17	15	36	12.0	29	26	24	21	19	16	14
	17	35	10.9	35	33	30	28	25	23	20	33	11.7	33	33	31	29	26	24	21
	14	34	10.9	34	34	32	29	27	24	22	33	11.6	33	33	32	29	27	24	21
1.65	22	43	11.8	26	23	20	17	15	12	9	40	12.7	26	23	20	17	14	11	8
	19	39	11.4	33	30	27	24	21	18	15	36	12.2	31	28	25	22	19	16	13
	17	36	11.0	36	35	33	30	27	24	21	34	11.8	34	34	33	30	27	24	21
	14	36	11.0	36	35	34	31	28	25	22	34	11.7	34	34	33	30	27	24	21
1.89	22	44	11.9	29	25	22	19	15	12	8	41	12.9	28	24	21	18	14	11	7
	19	41	11.5	36	32	29	25	22	18	15	37	12.3	33	29	26	22	19	16	12
	17	37	11.1	37	37	35	32	28	25	22	35	11.9	35	35	34	31	27	24	20
	14	37	11.1	37	37	37	33	30	26	23	34	11.8	34	34	34	31	27	24	21
2.12	22	44	12.0	31	27	23	19	15	12	8	42	13.0	31	27	23	19	15	12	8
	19	41	11.6	38	34	30	26	23	19	15	38	12.4	36	32	29	25	21	17	13
	17	38	11.2	38	38	37	33	29	25	21	36	12.0	36	36	35	31	28	24	20
	14	37	11.2	37	37	37	33	29	25	22	35	12.0	35	35	35	31	27	23	20
2.36	22	45	12.2	33	29	24	20	16	11	7	44	13.2	34	30	25	21	17	12	8
	19	42	11.7	41	36	32	28	23	19	14	39	12.6	39	36	31	27	23	18	14
	17	38	11.4	38	38	38	34	30	25	21	37	12.2	37	37	37	32	28	24	19
	14	38	11.3	38	38	38	33	29	24	20	36	12.1	36	36	36	32	27	23	19
		Temperature of Air on Condenser Coil 41°C									Temperature of Air on Condenser Coil 46°C								
1.42	22	37	13.5	23	20	18	15	13	10	8	34	14.3	21	19	16	14	11	9	6
	19	33	12.8	28	25	23	20	18	15	13	30	13.5	26	24	21	19	16	14	11
	17	30	12.3	30	30	28	25	23	20	18	27	12.9	27	27	25	22	20	17	15
	14	30	12.4	30	30	28	26	23	21	18	28	13.1	28	27	25	22	20	17	15
1.65	22	38	13.7	25	22	19	16	13	10	7	35	14.6	23	20	18	15	12	9	6
	19	34	13.0	30	27	24	21	18	15	12	31	13.8	29	26	23	21	18	15	12
	17	31	12.4	31	31	30	27	24	21	18	28	13.1	28	28	27	24	21	18	15
	14	31	12.5	31	31	30	27	24	21	18	29	13.3	29	29	27	24	21	18	15
1.89	22	38	13.8	27	23	20	17	13	10	6	36	14.8	26	22	19	16	12	9	5
	19	35	13.1	32	29	26	22	19	15	12	32	14.0	32	29	26	22	19	15	12
	17	32	12.6	32	32	32	28	25	21	18	29	13.3	29	29	29	26	22	19	15
	14	32	12.7	32	32	32	29	25	22	18	30	13.6	30	30	30	26	23	19	16
2.12	22	39	14.0	30	26	22	18	14	10	6	36	15.0	28	24	20	16	13	9	5
	19	35	13.3	34	32	28	24	20	16	12	33	14.2	33	31	27	23	19	16	12
	17	33	12.8	33	33	32	29	25	21	17	30	13.5	30	30	30	26	22	18	14
	14	33	12.9	33	33	33	29	25	21	17	30	13.8	30	30	30	26	22	18	15
2.36	22	40	14.2	32	28	24	19	15	10	6	37	15.3	30	26	22	17	13	9	4
	19	36	13.5	36	34	30	26	21	17	13	33	14.4	33	33	29	25	20	16	12
	17	33	12.9	33	33	33	29	25	20	16	30	13.7	30	30	30	26	21	17	13
	14	33	13.1	33	33	33	29	25	20	16	31	14.0	31	31	31	26	22	18	13
		Temperature of Air on Condenser Coil 52°C																	
1.42	22	31	15.2	19	17	14	12	9	7	4									
	19	28	14.3	25	23	20	18	15	13	10									
	17	24	13.5	24	24	21	19	16	14	11									
	14	25	13.9	25	25	22	19	17	14	12									
1.65	22	32	15.5	22	19	16	13	10	7	4									
	19	29	14.6	29	26	23	20	17	14	11									
	17	25	13.8	25	25	24	21	18	15	12									
	14	26	14.1	26	26	25	22	19	16	13									
1.89	22	33	15.8	25	21	18	15	11	8	4									
	19	30	14.8	30	29	25	22	18	15	12									
	17	26	14.0	26	26	26	23	20	16	13									
	14	27	14.4	27	27	27	24	20	17	14									
2.12	22	33	16.0	27	23	19	15	11	7	3									
	19	30	15.1	30	30	27	23	19	15	11									
	17	27	14.3	27	27	27	23	19	15	11									
	14	28	14.7	28	28	28	24	20	16	12									
2.36	22	34	16.3	29	24	20	15	11	7	2									
	19	30	15.4	30	30	28	24	19	15	10									
	17	27	14.5	27	27	27	22	18	14	9									
	14	28	14.9	28	28	28	23	19	15	10									

- 1 These capacities are gross ratings. For net capacity, deduct air blower motor. Refer to the appropriate Blower Performance Table for the kW of the supply air blower motor.
- 2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 8: COOLING CAPACITY 12-1/2 TON UNIT - IMPERIAL

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. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)								Tot. Cap. ¹ (MBH)	Tot. Input ² (kW)	Sensible Capacity (MBH) ¹ Return Dry Bulb (°F)							
				86	83	80	77	74	71	68	86			83	80	77	74	71	68		
3750	72	150	11.8	90	80	69	58	47	-	-	143	13.0	88	78	67	56	45	-	-		
	67	140	11.5	115	104	94	83	72	61	51	132	12.6	111	101	90	79	69	58	47		
	62	123	11.2	123	116	105	95	84	73	63	117	12.4	117	112	102	91	80	70	59		
	57	118	11.3	118	116	105	95	84	73	63	111	12.5	111	111	100	90	79	68	57		
4375	72	155	11.8	101	88	75	63	50	-	-	148	13.0	98	86	73	61	48	-	-		
	67	145	11.5	128	115	102	90	77	64	52	137	12.5	124	111	99	86	73	61	48		
	62	127	11.2	127	124	115	103	90	77	65	121	12.4	121	119	111	99	86	73	61		
	57	122	11.3	122	121	115	103	90	77	65	115	12.4	115	115	110	97	84	72	59		
5000	72	161	11.8	111	96	82	67	53	-	-	153	12.9	109	94	80	65	50	-	-		
	67	150	11.5	140	126	111	97	82	67	53	142	12.5	136	122	107	92	78	63	49		
	62	132	11.3	132	132	125	111	96	82	67	125	12.3	125	125	121	106	92	77	63		
	57	126	11.3	126	126	125	111	96	82	67	119	12.4	119	119	119	105	90	75	61		
5625	72	165	11.9	132	115	99	82	65	-	-	157	13.1	129	112	95	79	62	-	-		
	67	153	11.6	149	141	134	118	101	84	68	146	12.6	143	136	128	112	95	79	62		
	62	135	11.3	135	135	132	115	98	82	65	129	12.5	129	129	126	110	93	77	60		
	57	129	11.4	129	129	129	112	96	79	62	123	12.5	123	123	123	106	89	73	56		
6250	72	169	11.9	153	134	116	97	78	-	-	162	13.2	148	130	111	93	74	-	-		
	67	157	11.6	157	157	157	138	120	101	83	150	12.8	150	150	150	131	112	94	75		
	62	138	11.4	138	138	138	119	101	82	63	132	12.6	132	132	132	113	95	76	58		
	57	133	11.4	133	133	133	114	95	77	58	126	12.7	126	126	126	107	89	70	51		
		Temperature of Air on Condenser Coil 105°F									Temperature of Air on Condenser Coil 115°F										
3750	72	135	14.3	86	75	64	54	43	-	-	127	15.6	83	72	62	51	40	-	-		
	67	124	13.8	108	97	87	76	65	55	44	117	15.1	105	94	83	73	62	51	41		
	62	110	13.6	110	108	97	86	75	65	54	103	14.9	103	103	92	81	71	60	49		
	57	105	13.8	105	105	94	84	73	62	52	99	15.0	99	99	89	78	67	57	46		
4375	72	139	14.3	96	83	70	58	45	-	-	131	15.6	93	80	67	55	42	-	-		
	67	129	13.8	119	108	95	82	70	57	44	121	15.1	115	104	91	79	66	53	41		
	62	114	13.6	114	113	106	93	81	68	56	107	14.9	107	106	101	88	76	63	50		
	57	109	13.7	109	109	103	91	78	66	53	103	15.0	103	103	97	85	72	59	47		
5000	72	144	14.3	106	91	76	62	47	-	-	135	15.6	102	88	73	59	44	-	-		
	67	133	13.8	130	118	103	89	74	59	45	124	15.1	124	114	99	85	70	56	41		
	62	118	13.6	118	118	115	101	86	72	57	110	14.9	110	110	110	95	80	66	51		
	57	113	13.7	113	113	112	98	83	69	54	106	15.0	106	106	106	91	76	62	47		
5625	72	148	14.4	121	105	88	72	55	-	-	138	15.7	114	98	81	64	48	-	-		
	67	136	13.9	135	129	119	103	86	69	53	127	15.2	127	122	110	93	77	60	43		
	62	120	13.7	120	120	119	103	86	69	53	112	15.0	112	112	112	95	79	62	46		
	57	115	13.8	115	115	115	99	82	65	49	108	15.1	108	108	108	91	75	58	41		
6250	72	151	14.5	137	119	100	81	63	-	-	140	15.8	126	107	89	70	52	-	-		
	67	139	14.0	139	139	135	116	98	79	61	129	15.3	129	129	120	102	83	65	46		
	62	123	13.8	123	123	123	105	86	67	49	115	15.0	115	115	115	96	77	59	40		
	57	118	13.9	118	118	118	99	81	62	43	110	15.2	110	110	110	91	73	54	36		
		Temperature of Air on Condenser Coil 125°F																			
3750	72	119	16.9	80	70	59	48	37	-	-											
	67	109	16.4	101	91	80	69	59	48	37											
	62	97	16.1	97	97	87	77	66	55	44											
	57	93	16.3	93	93	83	72	62	51	40											
4375	72	122	16.9	90	77	64	52	39	-	-											
	67	112	16.4	110	100	88	75	62	50	37											
	62	100	16.1	100	100	96	83	70	58	45											
	57	96	16.3	96	96	91	78	66	53	40											
5000	72	126	16.9	99	85	70	56	41	-	-											
	67	115	16.4	115	110	95	81	66	52	37											
	62	102	16.1	102	102	102	89	75	60	46											
	57	99	16.3	99	99	99	84	70	55	41											
5625	72	128	17.0	107	91	74	57	41	-	-											
	67	117	16.5	117	115	101	84	67	51	34											
	62	104	16.2	104	104	104	88	72	55	38											
	57	101	16.4	101	101	101	84	67	51	34											
6250	72	130	17.1	115	96	78	59	40	-	-											
	67	119	16.5	119	119	106	87	69	50	31											
	62	106	16.3	106	106	106	87	69	50	31											
	57	102	16.5	102	102	102	84	65	46	28											

1

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.

2

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

- 1 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.
- 2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 9: COOLING CAPACITY 43.9 KW UNIT - METRIC

Air On Evap. Coil		Temperature of Air on Condenser Coil 29°C										Temperature of Air on Condenser Coil 35°C							
m³/s	WB (°C)	Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°C)							Tot. Cap. ¹ (kW)	Tot. Input ² (kW)	Sensible Capacity (kW) ¹ Return Dry Bulb (°C)						
				30	28	27	25	23	22	20			30	28	27	25	23	22	20
1.77	22	44	11.8	26	23	20	17	14	-	-	42	13.0	26	23	20	16	13	-	-
	19	41	11.5	34	31	27	24	21	18	15	39	12.6	33	30	26	23	20	17	14
	17	36	11.2	36	34	31	28	25	21	18	34	12.4	34	33	30	27	24	20	17
	14	35	11.3	35	34	31	28	25	21	18	33	12.5	33	33	29	26	23	20	17
2.06	22	46	11.8	29	26	22	18	15	-	-	43	13.0	29	25	21	18	14	-	-
	19	42	11.5	37	34	30	26	23	19	15	40	12.5	36	33	29	25	21	18	14
	17	37	11.2	37	36	34	30	26	23	19	35	12.4	35	35	33	29	25	22	18
	14	36	11.3	36	36	34	30	26	23	19	34	12.4	34	34	32	28	25	21	17
2.36	22	47	11.8	33	28	24	20	15	-	-	45	12.9	32	28	23	19	15	-	-
	19	44	11.5	41	37	33	28	24	20	15	42	12.5	40	36	31	27	23	19	14
	17	39	11.3	39	39	37	32	28	24	20	37	12.3	37	37	35	31	27	23	18
	14	37	11.3	37	37	37	32	28	24	20	35	12.4	35	35	35	31	26	22	18
2.65	22	48	11.9	39	34	29	24	19	-	-	46	13.1	38	33	28	23	18	-	-
	19	45	11.6	44	41	39	34	30	25	20	43	12.6	42	40	38	33	28	23	18
	17	39	11.3	39	39	39	34	29	24	19	38	12.5	38	38	37	32	27	22	18
	14	38	11.4	38	38	38	33	28	23	18	36	12.5	36	36	36	31	26	21	16
2.95	22	49	11.9	45	39	34	28	23	-	-	47	13.2	44	38	33	27	22	-	-
	19	46	11.6	46	46	46	41	35	30	24	44	12.8	44	44	44	38	33	27	22
	17	40	11.4	40	40	40	35	30	24	19	39	12.6	39	39	39	33	28	22	17
	14	39	11.4	39	39	39	33	28	22	17	37	12.7	37	37	37	31	26	21	15
		Temperature of Air on Condenser Coil 41°C										Temperature of Air on Condenser Coil 46°C							
1.77	22	39	14.3	25	22	19	16	13	-	-	37	15.6	24	21	18	15	12	-	-
	19	36	13.8	32	29	25	22	19	16	13	34	15.1	31	28	24	21	18	15	12
	17	32	13.6	32	32	28	25	22	19	16	30	14.9	30	30	27	24	21	18	14
	14	31	13.8	31	31	28	25	21	18	15	29	15.0	29	29	26	23	20	17	13
2.06	22	41	14.3	28	24	21	17	13	-	-	38	15.6	27	23	20	16	12	-	-
	19	38	13.8	35	32	28	24	20	17	13	35	15.1	34	30	27	23	19	16	12
	17	33	13.6	33	33	31	27	24	20	16	31	14.9	31	31	30	26	22	18	15
	14	32	13.7	32	32	30	27	23	19	15	30	15.0	30	30	28	25	21	17	14
2.36	22	42	14.3	31	27	22	18	14	-	-	40	15.6	30	26	21	17	13	-	-
	19	39	13.8	38	35	30	26	22	17	13	36	15.1	36	33	29	25	21	16	12
	17	34	13.6	34	34	34	30	25	21	17	32	14.9	32	32	32	28	24	19	15
	14	33	13.7	33	33	33	29	24	20	16	31	15.0	31	31	31	27	22	18	14
2.65	22	43	14.4	36	31	26	21	16	-	-	40	15.7	33	29	24	19	14	-	-
	19	40	13.9	40	38	35	30	25	20	15	37	15.2	37	36	32	27	22	18	13
	17	35	13.7	35	35	35	30	25	20	15	33	15.0	33	33	33	28	23	18	13
	14	34	13.8	34	34	34	29	24	19	14	32	15.1	32	32	32	27	22	17	12
2.95	22	44	14.5	40	35	29	24	18	-	-	41	15.8	37	32	26	21	15	-	-
	19	41	14.0	41	41	40	34	29	23	18	38	15.3	38	38	35	30	24	19	13
	17	36	13.8	36	36	36	31	25	20	14	34	15.0	34	34	34	28	23	17	12
	14	35	13.9	35	35	35	29	24	18	13	32	15.2	32	32	32	27	21	16	10
		Temperature of Air on Condenser Coil 52°C																	
1.77	22	35	16.9	24	20	17	14	11	-	-									
	19	32	16.4	30	27	23	20	17	14	11									
	17	28	16.1	28	28	26	22	19	16	13									
	14	27	16.3	27	27	24	21	18	15	12									
2.06	22	36	16.9	26	23	19	15	11	-	-									
	19	33	16.4	32	29	26	22	18	15	11									
	17	29	16.1	29	29	28	24	21	17	13									
	14	28	16.3	28	28	27	23	19	16	12									
2.36	22	37	16.9	29	25	21	16	12	-	-									
	19	34	16.4	34	32	28	24	19	15	11									
	17	30	16.1	30	30	30	26	22	18	13									
	14	29	16.3	29	29	29	25	20	16	12									
2.65	22	37	17.0	31	27	22	17	12	-	-									
	19	34	16.5	34	34	29	25	20	15	10									
	17	31	16.2	31	31	31	26	21	16	11									
	14	29	16.4	29	29	29	25	20	15	10									
2.95	22	38	17.1	34	28	23	17	12	-	-									
	19	35	16.5	35	35	31	26	20	15	9									
	17	31	16.3	31	31	31	26	20	15	9									
	14	30	16.5	30	30	30	24	19	14	8									

1

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.

2

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

- 1 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.
- 2 These ratings include condenser fan motors and the compressor motors but not the supply air blower motor.

TABLE 10: ELECTRICAL DATA 7-1/2 TON

Voltage ¹	Compressors		OD Fan Motors	Supply Blower Motor FLA	Pwr Exh Motor	Electric Heater Model No.	Actual kW	Heater Amps	Min. Circuit Ampacity (Amps)	MCA w/Power Exhaust (Amps)	Max Fuse ² Size (Amps)	Max Fuse Size w/Power Exhaust (Amps)
	RLA ea.	LRA ea.	FLA ea.	3 HP	FLA				3 HP	2 HP	3 HP	2 HP
380	8.3	62.0	1.1	4.9	2.2	None	-	-	26.1	28.3	30	35
415	8.3	62.0	1.1	4.9	2.2	None	-	-	26.1	28.3	30	35

- Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
- Maximum HACR breaker of the same amp size is acceptable.

TABLE 11: ELECTRICAL DATA 10 TON

Voltage ¹	Compressors		OD Fan Motors	Supply Blower Motor FLA		Pwr Exh Motor	Electric Heater Model No.	Actual kW	Heater Amps	Min. Circuit Ampacity (Amps)		MCA w/Power Exhaust (Amps)		Max Fuse ² Size (Amps)		Max Fuse Size w/Power Exhaust (Amps)	
	RLA ea.	LRA ea.	FLA ea.	2 HP (1.5 kW)	4 HP (3 kW)	FLA				2 HP (1.5 kW)	4 HP (3 kW)	2 HP (1.5 kW)	4 HP (3 kW)	2 HP (1.5 kW)	4 HP (3 kW)	2 HP (1.5 kW)	4 HP (3 kW)
380	9.6	80	1.1	5.2	7.5	2.2	None	-	-	29.0	31.3	31.2	33.5	35	40	40	40
							2TP04521850	11.3	17.2	29.0	31.3	31.2	33.5	35	40	40	40
							2TP04522450	15.0	22.8	35.0	37.9	37.7	40.6	35	40	40	45
							2TP04523650	21.3	32.4	47.0	49.8	49.7	52.6	50	50	50	60
							2TP04525450	33.8	51.4	70.7	73.6	73.4	76.3	80	80	80	80
415	9.6	80	1.1	5.2	7.5	2.2	None	-	-	29.0	31.3	31.2	33.5	35	40	40	40
							2TP04521850	13.5	18.8	30.0	32.9	32.7	35.6	35	40	40	40
							2TP04522450	17.9	24.9	37.6	40.5	40.4	43.3	40	45	45	45
							2TP04523650	25.4	35.3	50.7	53.5	53.4	56.3	60	60	60	60
							2TP04525450	40.4	56.2	76.8	79.6	79.5	82.4	80	80	80	90

- Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
- Maximum HACR breaker of the same amp size is acceptable.

TABLE 12: ELECTRICAL DATA 12-1/2 TON

Voltage ¹	Compressors		OD Fan Motors	Supply Air Blower Motor FLA	Pwr Exh Motor	Electric Heater Model No.	Actual kW	Heater Amps	Min. Circuit Ampacity (Amps)	MCA w/Power Exhaust (Amps)	Max Fuse ² Size (Amps)	Max Fuse Size w/Power Exhaust (Amps)
	RLA ea.	LRA ea.	FLA ea.	4 HP (3 kW)	FLA				4 HP (3 kW)	4 HP (3 kW)	4 HP (3 kW)	4 HP (3 kW)
380	12.0	91	1.1	7.5	2.2	None	-	-	36.7	38.9	45	50
						2TP04521850	11.3	17.2	36.7	38.9	45	50
						2TP04522450	15.0	22.8	37.9	40.6	45	50
						2TP04523650	21.3	32.4	49.8	52.6	50	60
						2TP04525450	33.8	51.4	73.6	76.3	80	80
415	12.0	101	1.1	7.5	2.2	None	-	-	36.7	38.9	45	50
						2TP04521850	13.5	18.8	36.7	38.9	45	50
						2TP04522450	17.9	24.9	40.5	43.3	45	50
						2TP04523650	25.4	35.3	53.5	56.3	60	60
						2TP04525450	40.4	56.2	79.6	82.4	80	90

- Unit voltage limitations: minimum utilization 342 volts, maximum utilization 457 volts.
- Maximum HACR breaker of the same amp size is acceptable.

TABLE 13: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.2	–	–	–	–	–	–	–	–	–	–	–	–	3193	1490	1.60	2981	1310	1.41
0.4	3690	2230	2.39	3468	1950	2.09	3294	1750	1.88	3105	1550	1.66	2922	1370	1.47	2694	1210	1.30
0.6	3478	2110	2.26	3239	1830	1.96	3044	1640	1.76	2850	1440	1.54	2651	1270	1.36	2423	1120	1.20
0.8	3243	1980	2.12	3001	1720	1.85	2790	1520	1.63	2576	1330	1.43	2370	1170	1.26	2105	1020	1.09
1.0	3006	1830	1.96	2758	1580	1.70	2544	1400	1.50	2303	1230	1.32	2017	1050	1.13	1624	880	0.94
1.2	2758	1720	1.85	2533	1510	1.62	2230	1290	1.38	1891	1080	1.16	–	–	–	–	–	–
1.4	2447	1570	1.68	2182	1350	1.45	1769	1110	1.19	–	–	–	–	–	–	–	–	–
1.6	2085	1410	1.51	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 14: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - SIDE DUCT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m³/s	In (kW)	Out (kW)	m³/s	In (kW)	Out (kW)	m³/s	In (kW)	Out (kW)	m³/s	In (kW)	Out (kW)	m³/s	In (kW)	Out (kW)	m³/s	In (kW)	Out (kW)
50	–	–	–	–	–	–	–	–	–	–	–	–	1.51	1.49	1.19	1.36	1.31	1.05
100	1.74	2.23	1.78	1.64	1.95	1.55	1.55	1.75	1.40	1.46	1.55	1.24	1.38	1.37	1.10	1.27	1.21	0.97
149	1.64	2.11	1.68	1.53	1.83	1.46	1.44	1.64	1.39	1.34	1.44	1.15	1.25	1.27	1.01	1.14	1.12	0.89
199	1.53	1.98	1.58	1.42	1.72	1.38	1.32	1.52	1.38	1.22	1.33	1.07	1.12	1.17	0.94	0.99	1.02	0.81
249	1.42	1.83	1.46	1.30	1.58	1.27	1.20	1.40	1.28	1.09	1.23	0.98	0.95	1.05	0.84	0.77	0.88	0.70
299	1.30	1.72	1.38	1.20	1.51	1.21	1.05	1.29	1.17	0.89	1.08	0.91	–	–	–	–	–	–
349	1.15	1.57	1.25	1.03	1.35	1.08	0.83	1.11	1.01	–	–	–	–	–	–	–	–	–
399	0.98	1.41	1.26	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 15: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.8	–	–	–	–	–	–	–	–	–	–	–	–	2783	1500	1.61	2507	1300	1.39
1	3555	2440	2.62	3285	2120	2.27	3047	1860	2.00	2778	1590	1.71	2507	1390	1.49	2209	1180	1.27
1.2	3320	2310	2.48	3034	1990	2.13	2799	1730	1.86	2510	1480	1.59	2213	1260	1.35	1846	1050	1.13
1.4	3101	2160	2.32	2796	1860	2.00	2466	1590	1.71	2188	1330	1.43	1721	1090	1.17	–	–	–
1.6	2864	2040	2.19	2489	1710	1.83	2145	1450	1.56	–	–	–	–	–	–	–	–	–
1.8	2524	1860	2.00	2182	1550	1.66	–	–	–	–	–	–	–	–	–	–	–	–
2	2189	1680	1.80	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

TABLE 16: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
199	—	—	—	—	—	—	—	—	—	—	—	—	1.31	1.5	1.20	1.18	1.3	1.04
249	1.68	2.44	1.95	1.55	2.12	1.70	1.44	1.86	1.49	1.31	1.59	1.27	1.18	1.39	1.11	1.04	1.18	0.94
299	1.52	2.31	1.85	1.43	1.99	1.59	1.32	1.73	1.38	1.18	1.48	1.18	1.04	1.26	1.01	0.87	1.05	0.84
349	1.46	2.16	1.73	1.31	1.86	1.49	1.16	1.59	1.27	1.03	1.33	1.06	0.81	1.09	0.87	—	—	—
399	1.35	2.04	1.63	1.17	1.71	1.36	1.01	1.45	1.16	—	—	—	—	—	—	—	—	—
448	1.19	1.86	1.49	1.03	1.55	1.24	—	—	—	—	—	—	—	—	—	—	—	—
498	1.03	1.68	1.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 17: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.4	4820	2675	2.87	4582	2362	2.53	4319	2080	2.23	4086	1842	1.98	3863	1648	1.77	3590	1430	1.53
0.6	4522	2496	2.68	4307	2215	2.38	4025	1941	2.08	3713	1678	1.80	3464	1499	1.61	3149	1291	1.38
0.8	4223	2332	2.50	3973	2062	2.21	3656	1783	1.91	3363	1550	1.66	3026	1350	1.45	—	—	—
1.0	3913	2174	2.33	3679	1923	2.06	3262	1619	1.74	2721	1330	1.43	—	—	—	—	—	—
1.2	3521	1978	2.12	3104	1693	1.82	—	—	—	—	—	—	—	—	—	—	—	—
1.4	2790	1660	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 18: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - SIDE DUCT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
100	2.27	2.68	2.14	2.16	2.36	1.89	2.04	2.08	1.66	1.93	1.84	1.47	1.82	1.65	1.32	1.69	1.43	1.14
149	2.13	2.50	2.00	2.03	2.22	1.77	1.90	1.94	1.55	1.75	1.68	1.34	1.63	1.50	1.20	1.49	1.29	1.03
199	1.99	2.33	1.87	1.88	2.06	1.65	1.73	1.78	1.43	1.59	1.55	1.24	1.43	1.35	1.08	—	—	—
249	1.85	2.17	1.74	1.74	1.92	1.54	1.54	1.62	1.30	1.28	1.33	1.06	—	—	—	—	—	—
299	1.66	1.98	1.58	1.46	1.69	1.35	—	—	—	—	—	—	—	—	—	—	—	—
349	1.32	1.66	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 19: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4960	2495	2.68
0.6	-	-	-	-	-	-	-	-	-	-	-	-	5091	2745	2.94	4646	2314	2.48
0.8	-	-	-	-	-	-	-	-	-	5078	2937	3.15	4839	2584	2.77	4347	2153	2.31
1.0	-	-	-	-	-	-	5075	3117	3.34	4767	2730	2.93	4487	2377	2.55	3946	1942	2.08
1.2	-	-	-	5068	3308	3.55	4742	2881	3.09	4427	2513	2.69	4108	2159	2.32	3501	1723	1.85
1.4	5079	3595	3.86	4787	3105	3.33	4452	2713	2.91	4012	2259	2.42	3665	1926	2.07	-	-	-
1.6	4739	3316	3.56	4482	2892	3.10	4098	2474	2.65	3543	2006	2.15	3057	1642	1.76	-	-	-
1.8	4461	3111	3.34	4070	2621	2.81	3552	2160	2.32	-	-	-	-	-	-	-	-	-
2.0	3997	2782	2.98	3400	2219	2.38	-	-	-	-	-	-	-	-	-	-	-	-
2.2	3496	2480	2.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 20: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - SIDE DUCT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	2.50	2.00
149	-	-	-	-	-	-	-	-	-	-	-	-	2.40	2.75	2.20	2.19	2.31	1.85
199	-	-	-	-	-	-	-	-	-	2.40	2.94	2.35	2.28	2.58	2.07	2.05	2.15	1.72
249	-	-	-	-	-	-	2.40	3.12	2.49	2.25	2.73	2.18	2.12	2.38	1.90	1.86	1.94	1.55
299	-	-	-	2.39	3.31	2.65	2.24	2.88	2.30	2.09	2.51	2.01	1.94	2.16	1.73	1.65	1.72	1.38
349	2.40	3.60	2.88	2.26	3.11	2.48	2.10	2.71	2.17	1.89	2.26	1.81	1.73	1.93	1.54	-	-	-
399	2.24	3.32	2.65	2.12	2.89	2.31	1.93	2.47	1.98	1.67	2.01	1.60	1.44	1.64	1.31	-	-	-
448	2.11	3.11	2.49	1.92	2.62	2.10	1.68	2.16	1.73	-	-	-	-	-	-	-	-	-
498	1.89	2.78	2.23	1.60	2.22	1.78	-	-	-	-	-	-	-	-	-	-	-	-
548	1.65	2.48	1.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 21: BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.4	-	-	-	6130	4171	4.47	5915	3774	4.05	5610	3309	3.55	5396	2948	3.16	4960	2495	2.68
0.6	-	-	-	5850	3932	4.22	5648	3565	3.82	5363	3136	3.36	5091	2745	2.94	4646	2314	2.48
0.8	5870	4273	4.58	5567	3715	3.98	5406	3380	3.62	5078	2937	3.15	4839	2584	2.77	4347	2153	2.31
1.0	5652	4087	4.38	5327	3518	3.77	5075	3117	3.34	4767	2730	2.93	4487	2377	2.55	3946	1942	2.08
1.2	5350	3820	4.10	5068	3308	3.55	4742	2881	3.09	4427	2513	2.69	4108	2159	2.32	-	-	-
1.4	5079	3595	3.86	4787	3105	3.33	4452	2713	2.91	4012	2259	2.42	3665	1926	2.07	-	-	-
1.6	4739	3316	3.56	4482	2892	3.10	4098	2474	2.65	-	-	-	-	-	-	-	-	-
1.8	4461	3111	3.34	4070	2621	2.81	-	-	-	-	-	-	-	-	-	-	-	-
2.0	3997	2782	2.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 22: BLOWER PERFORMANCE 12-1/2 TON - SIDE DUCT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
100	-	-	-	2.89	4.17	3.34	2.79	3.77	3.02	2.65	3.31	2.65	2.55	2.95	2.36	2.34	2.50	2.00
149	-	-	-	2.76	3.93	3.15	2.67	3.57	2.85	2.53	3.14	2.51	2.40	2.75	2.20	2.19	2.31	1.85
199	2.77	4.27	3.42	2.63	3.72	2.97	2.55	3.38	2.70	2.40	2.94	2.35	2.28	2.58	2.07	2.05	2.15	1.72
249	2.67	4.09	3.27	2.51	3.52	2.81	2.40	3.12	2.49	2.25	2.73	2.18	2.12	2.38	1.90	1.86	1.94	1.55
299	2.52	3.82	3.06	2.39	3.31	2.65	2.24	2.88	2.30	2.09	2.51	2.01	1.94	2.16	1.73	-	-	-
349	2.40	3.60	2.88	2.26	3.11	2.48	2.10	2.71	2.17	1.89	2.26	1.81	1.73	1.93	1.54	-	-	-
399	2.24	3.32	2.65	2.12	2.89	2.31	1.93	2.47	1.98	-	-	-	-	-	-	-	-	-
448	2.11	3.11	2.49	1.92	2.62	2.10	-	-	-	-	-	-	-	-	-	-	-	-
498	1.89	2.78	2.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 23: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.2	3478	2110	2.26	3239	1830	1.96	3044	1640	1.76	2850	1440	1.54	2651	1270	1.36	2423	1120	1.20
0.4	3243	1980	2.12	3001	1720	1.85	2790	1520	1.63	2576	1330	1.43	2370	1170	1.26	2105	1020	1.09
0.6	3006	1830	1.96	2758	1580	1.70	2544	1400	1.50	2303	1230	1.32	2017	1050	1.13	1624	880	0.94
0.8	2758	1720	1.85	2533	1510	1.62	2230	1290	1.38	1891	1080	1.16	—	—	—	—	—	—
1.0	2447	1570	1.68	2182	1350	1.45	1769	1110	1.19	—	—	—	—	—	—	—	—	—
1.2	2085	1410	1.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 24: BLOWER PERFORMANCE 7-1/2 TON STANDARD MOTOR - DOWNSHOT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
50	1.64	2.11	1.68	1.53	1.83	1.46	1.44	1.64	1.39	1.34	1.44	1.15	1.25	1.27	1.01	1.14	1.12	0.89
100	1.53	1.98	1.58	1.42	1.72	1.38	1.32	1.52	1.38	1.22	1.33	1.07	1.12	1.17	0.94	0.99	1.02	0.81
149	1.42	1.83	1.46	1.30	1.58	1.27	1.20	1.40	1.28	1.09	1.23	0.98	0.95	1.05	0.84	0.77	0.88	0.70
199	1.30	1.72	1.38	1.20	1.51	1.21	1.05	1.29	1.17	0.89	1.08	0.91	—	—	—	—	—	—
249	1.15	1.57	1.25	1.03	1.35	1.08	0.83	1.11	1.01	—	—	—	—	—	—	—	—	—
299	0.98	1.41	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 25: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.4	—	—	—	—	—	—	—	—	—	—	—	—	2783	1500	1.61	2507	1300	1.39
0.6	—	—	—	3285	2120	2.27	3047	1860	2.00	2778	1590	1.71	2507	1390	1.49	2209	1180	1.27
0.8	—	—	—	3034	1990	2.13	2799	1730	1.86	2510	1480	1.59	2213	1260	1.35	1846	1050	1.13
1.0	3101	2160	2.32	2796	1860	2.00	2466	1590	1.71	2188	1330	1.43	1721	1090	1.17	—	—	—
1.2	2864	2040	2.19	2489	1710	1.83	2145	1450	1.56	—	—	—	—	—	—	—	—	—
1.4	2524	1860	2.00	2182	1550	1.66	—	—	—	—	—	—	—	—	—	—	—	—
1.6	2189	1680	1.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 26: BLOWER PERFORMANCE 7-1/2 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
100	—	—	—	—	—	—	—	—	—	—	—	—	1.31	1.5	1.20	1.18	1.3	1.04
149	1.67	2.44	1.95	1.55	2.12	1.70	1.44	1.86	1.49	1.31	1.59	1.27	1.18	1.39	1.11	1.04	1.18	0.94
199	1.57	2.31	1.85	1.43	1.99	1.59	1.32	1.73	1.38	1.18	1.48	1.18	1.04	1.26	1.01	0.87	1.05	0.84
249	1.46	2.16	1.73	1.31	1.86	1.49	1.16	1.59	1.27	1.03	1.33	1.06	0.81	1.09	0.87	—	—	—
299	1.35	2.04	1.63	1.17	1.71	1.36	1.01	1.45	1.16	—	—	—	—	—	—	—	—	—
349	1.19	1.86	1.49	1.03	1.55	1.24	—	—	—	—	—	—	—	—	—	—	—	—
399	1.03	1.68	1.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 27: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.2	4543	2511	2.69	4362	2250	2.41	4139	1996	2.14	3911	1766	1.89	3719	1594	1.71	3518	1407	1.51
0.4	4311	2381	2.55	4115	2127	2.28	3862	1871	2.01	3611	1644	1.76	3386	1471	1.58	3153	1293	1.39
0.6	4032	2232	2.39	3804	1982	2.13	3508	1720	1.84	3246	1506	1.61	2971	1332	1.43	—	—	—
0.8	3706	2068	2.22	3428	1818	1.95	3078	1548	1.66	—	—	—	—	—	—	—	—	—
1.0	3333	1892	2.03	2989	1644	1.76	—	—	—	—	—	—	—	—	—	—	—	—
1.2	2914	1711	1.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 28: BLOWER PERFORMANCE 10 TON STANDARD MOTOR - DOWNSHOT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
50	2.14	2.51	2.01	2.06	2.25	1.80	1.95	2.00	1.60	1.85	1.77	1.41	1.75	1.59	1.27	1.66	1.41	1.13
100	2.03	2.38	1.91	1.94	2.13	1.70	1.82	1.87	1.50	1.70	1.64	1.31	1.60	1.47	1.18	1.49	1.29	1.03
149	1.90	2.23	1.79	1.80	1.98	1.59	1.66	1.72	1.38	1.53	1.51	1.20	1.40	1.33	1.07	—	—	—
199	1.75	2.07	1.65	1.62	1.82	1.45	1.45	1.55	1.24	—	—	—	—	—	—	—	—	—
249	1.57	1.89	1.51	1.41	1.64	1.32	—	—	—	—	—	—	—	—	—	—	—	—
299	1.38	1.71	1.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 29: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.2	-	-	-	-	-	-	-	-	-	-	-	-	4966	2666	2.86	4605	2290	2.46
0.4	-	-	-	-	-	-	-	-	-	4919	2473	2.65	4721	2515	2.70	4344	2145	2.30
0.6	-	-	-	-	-	-	4929	3022	3.24	4665	2324	2.49	4450	2353	2.52	4048	1991	2.13
0.8	-	-	-	4908	3197	3.43	4668	2841	3.05	4391	2171	2.33	4151	2183	2.34	3717	1829	1.96
1.0	4915	3456	3.71	4651	3013	3.23	4388	2656	2.85	4096	2015	2.16	3825	2008	2.15	3352	1664	1.78
1.2	4653	3253	3.49	4377	2823	3.03	4089	2467	2.65	3779	1858	1.99	3471	1830	1.96	2951	1499	1.61
1.4	4372	3046	3.27	4087	2631	2.82	3771	2277	2.44	3442	1703	1.83	3090	1652	1.77	-	-	-
1.6	4070	2837	3.04	3780	2437	2.61	3434	2089	2.24	3084	1552	1.66	-	-	-	-	-	-
1.8	3748	2629	2.82	3455	2243	2.41	3078	1904	2.04	-	-	-	-	-	-	-	-	-
2.0	3406	2425	2.60	3114	2051	2.20	-	-	-	-	-	-	-	-	-	-	-	-
2.2	3044	2228	2.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 30: BLOWER PERFORMANCE 10 TON OPTIONAL MOTOR - DOWNSHOT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
50	-	-	-	-	-	-	-	-	-	-	-	-	2.34	2.67	2.13	2.17	2.29	1.83
100	-	-	-	-	-	-	-	-	-	2.32	2.47	1.98	2.23	2.51	2.01	2.05	2.15	1.72
149	-	-	-	-	-	-	2.33	3.02	2.42	2.20	2.32	1.86	2.10	2.35	1.88	1.91	1.99	1.59
199	-	-	-	2.32	3.20	2.56	2.20	2.84	2.27	2.07	2.17	1.74	1.96	2.18	1.75	1.75	1.83	1.46
249	2.32	3.46	2.76	2.20	3.01	2.41	2.07	2.66	2.12	1.93	2.01	1.61	1.81	2.01	1.61	1.58	1.66	1.33
299	2.20	3.25	2.60	2.07	2.82	2.26	1.93	2.47	1.97	1.78	1.86	1.49	1.64	1.83	1.46	1.39	1.50	1.20
349	2.06	3.05	2.44	1.93	2.63	2.10	1.78	2.28	1.82	1.62	1.70	1.36	1.46	1.65	1.32	-	-	-
399	1.92	2.84	2.27	1.78	2.44	1.95	1.62	2.09	1.67	1.46	1.55	1.24	-	-	-	-	-	-
448	1.77	2.63	2.10	1.63	2.24	1.79	1.45	1.90	1.52	-	-	-	-	-	-	-	-	-
498	1.61	2.43	1.94	1.47	2.05	1.64	-	-	-	-	-	-	-	-	-	-	-	-
548	1.44	2.23	1.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 31: BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (IMPERIAL)

ESP (iwg)	Turns Open																	
	0			1			2			3			4			5		
	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP	CFM	Watts	BHP
0.4	5576	4015	4.32	5370	3547	3.80	5171	3197	3.43	5007	2884	3.09	4721	2515	2.70	4344	2145	2.30
0.6	5376	3839	4.12	5147	3376	3.62	4929	3022	3.24	4735	2704	2.90	4450	2353	2.52	4048	1991	2.13
0.8	5155	3652	3.92	4908	3197	3.43	4668	2841	3.05	4411	2501	2.68	4151	2183	2.34	3717	1829	1.96
1.0	4915	3456	3.71	4651	3013	3.23	4388	2656	2.85	4035	2281	2.45	3825	2008	2.15	-	-	-
1.2	4653	3253	3.49	4377	2823	3.03	4089	2467	2.65	3608	2051	2.20	-	-	-	-	-	-
1.4	4372	3046	3.27	4087	3621	2.82	3771	2277	2.44	-	-	-	-	-	-	-	-	-
1.6	4070	2837	3.04	3780	2437	2.61	-	-	-	-	-	-	-	-	-	-	-	-
1.8	3748	2629	2.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 32: BLOWER PERFORMANCE 12-1/2 TON - DOWNSHOT (METRIC)

ESP (Pa)	Turns Open																	
	0			1			2			3			4			5		
	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)	m ³ /s	In (kW)	Out (kW)
100	2.63	4.01	3.21	2.53	3.55	2.84	2.44	3.20	2.56	2.36	2.88	2.31	2.23	2.51	2.01	2.05	2.15	1.72
149	2.54	3.84	3.07	2.43	3.38	2.70	2.33	3.02	2.42	2.23	2.70	2.16	2.10	2.35	1.88	1.91	1.99	1.59
199	2.43	3.65	2.92	2.32	3.20	2.56	2.20	2.84	2.27	2.08	2.50	2.00	1.96	2.18	1.75	1.75	1.83	1.46
249	2.32	3.46	2.76	2.20	3.01	2.41	2.07	2.66	2.12	1.90	2.28	1.83	1.81	2.01	1.61	-	-	-
299	2.20	3.25	2.60	2.07	2.82	2.26	1.93	2.47	1.97	1.70	2.05	1.64	-	-	-	-	-	-
349	2.06	3.05	2.44	1.93	2.63	2.10	1.78	2.28	1.82	-	-	-	-	-	-	-	-	-
399	1.92	2.84	2.27	1.78	2.44	1.95	-	-	-	-	-	-	-	-	-	-	-	-
448	1.77	2.63	2.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES FOR TABLES 13 THROUGH 32:

- "Turns Open" refers to the setting of the variable pitch motor sheave, where "0 Turns Open" is fully closed.
- Blower performance includes dry coil and 2" (51mm) throw-away filters.
- Blower performance for gas heat includes the maximum number of heat tubes available for each tonnage.
- 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 33: ADDITIONAL STATIC RESISTANCE 50" CABINET (IMPERIAL)

CFM	Cooling Only ¹	Economizer ^{2 3}	Electric Heat KW ²				
			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

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. 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 34: ADDITIONAL STATIC RESISTANCE 42" CABINET (IMPERIAL)

CFM	Cooling Only ¹	Economizer ^{2 3}
1900	-0.004	0.07
2100	0.01	0.09
2300	0.01	0.11
2500	0.02	0.13
2700	0.03	0.16
2900	0.04	0.18
3100	0.05	0.20
3300	0.06	0.22
3500	0.07	0.24
3700	0.08	0.27
3900	0.09	0.29
4100	0.09	0.31
4300	0.10	0.33

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. 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 35: ADDITIONAL STATIC RESISTANCE 50" CABINET (METRIC)

M ³ S	Cooling Only ¹	Economizer ^{2 3}	Electric Heat kW ²				
			9	18	24	36	54
0.89	14.9	5.0	12.4	14.9	17.4	19.9	24.8
0.99	17.4	5.0	14.9	17.4	19.9	22.4	27.3
1.08	19.9	5.0	17.4	19.9	22.4	24.8	32.3
1.18	22.4	5.0	19.9	22.4	24.8	27.3	34.8
1.27	27.3	7.5	22.4	24.8	29.8	32.3	39.7
1.36	29.8	7.5	24.8	27.3	32.3	34.8	44.7
1.46	34.8	7.5	29.8	32.3	37.3	39.7	49.7
1.55	39.7	7.5	32.3	34.8	42.2	44.7	54.6
1.65	44.7	9.9	37.3	39.7	47.2	49.7	59.6
1.74	49.7	9.9	42.2	44.7	52.2	49.7	64.6
1.83	57.1	9.9	47.2	49.7	57.1	59.6	69.5
1.93	62.1	9.9	52.2	54.6	62.1	64.6	77.0
1.02	69.5	12.4	57.1	59.6	69.5	72.0	84.4
2.12	74.5	12.4	62.1	64.6	74.5	77.0	91.9
2.21	82.0	12.4	69.5	72.0	82.0	84.4	99.3
2.30	89.4	12.4	74.5	77.0	86.9	91.9	106.8
2.40	96.9	14.9	82.0	84.4	94.4	99.3	114.2
2.49	104.3	14.9	86.9	91.9	101.8	106.8	121.7
2.59	111.8	14.9	94.4	99.3	109.3	114.2	131.6
2.68	119.2	14.9	101.8	106.8	116.7	121.7	139.1
2.77	129.1	17.4	109.3	114.2	124.2	131.6	146.5
2.87	139.1	17.4	116.7	121.7	131.6	139.1	154.0
2.96	149.0	17.4	124.2	131.6	139.1	146.5	161.4

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. 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 62.1 Pa, the unit will deliver less M3S during full economizer operation.

TABLE 36: ADDITIONAL STATIC RESISTANCE 42" CABINET (METRIC)

M ³ S	Cooling Only ¹	Economizer ^{2 3}
0.9	-0.99	17.40
0.99	2.50	22.40
1.09	2.50	27.40
1.18	4.98	32.40
1.27	7.50	39.90
1.37	10.00	44.83
1.46	12.50	49.81
1.56	14.90	54.80
1.65	17.40	59.80
1.75	19.90	67.20
1.84	22.40	72.20
1.93	22.40	77.20
2.03	24.90	82.20

1. Add these resistance values to the available static resistance in the respective Blower Performance Tables.
2. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
3. 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 62.1 Pa, the unit will deliver less M3S during full economizer operation.

**TABLE 37: ELECTRIC HEAT MINIMUM SUPPLY AIR
- IMPERIAL**

HEATER		UNIT MODEL SIZE, NOMINAL TONS	
kW	VOLTAGE	10	12.5
		MINIMUM SUPPLY AIR CFM	
18	380/415	3000	3750
24		3000	3750
36		3000	3750
54		3000	3750

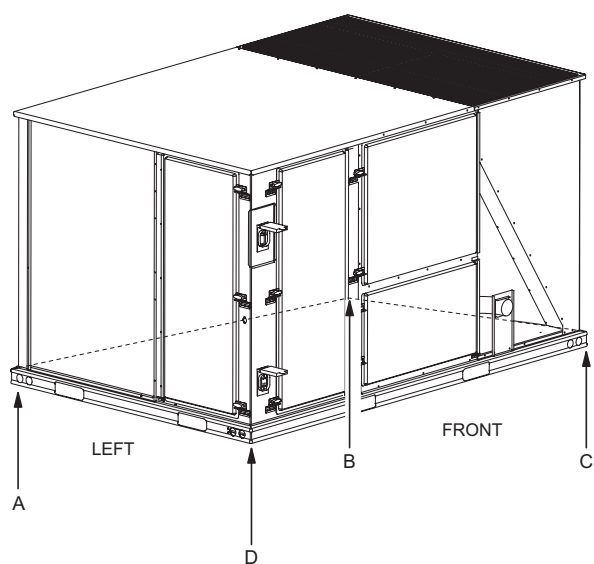
**TABLE 38: ELECTRIC HEAT MINIMUM SUPPLY AIR
- METRIC**

HEATER		UNIT MODEL SIZE, NOMINAL TONS	
kW	VOLTAGE	10	12.5
		MINIMUM SUPPLY AIR M ³ S	
18	380/415	1.42	1.76
24		1.42	1.76
36		1.42	1.76
54		1.42	1.76

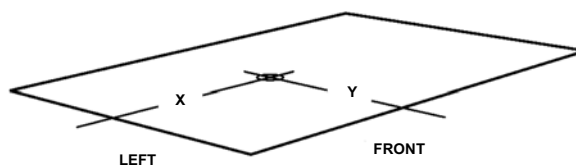
TABLE 39: INDOOR BLOWER SPECIFICATIONS

MODEL	MOTOR					MOTOR SHEAVE			BLOWER SHEAVE			BELT
	HP	RPM ¹	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Model	
DM090	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	5.5	1	AK59	A49
	3	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	5.0	1	AK54	A47
DM120	2	1725	80%	1.15	56	3.4 - 4.4	7/8	1VM50	7	1	AK74	A54
	4	1725	80%	1.15	184T	4.3 - 5.3	1-1/8	1VP56	6.2	1	AK66	B55
DM150	4	1725	87%	1.15	184T	4.3 - 5.3	1-1/8	1VP56	6.2	1	BK72	B55

1. 1425 RPM on 50 Hz.

**FIGURE 2 - UNIT 4 POINT LOAD****TABLE 40: 4 POINT LOAD WEIGHT**

Model	Location (lbs. (kg.))			
	A	B	C	D
090	192 (87.1)	143 (64.9)	224 (101.6)	301 (136.5)
120	245 (111)	209 (94)	305 (138)	357 (162)
150	262 (118)	224 (101)	327 (148)	382 (173)



Unit Model Number	X	Y
DM090	38 (965.2)	23 (584.2)
DM120	47 1/2 (1206.5)	25 1/2 (647.7)
DM150	47 1/2 (1206.5)	25 1/2 (647.7)

FIGURE 3 - UNIT CENTER OF GRAVITY

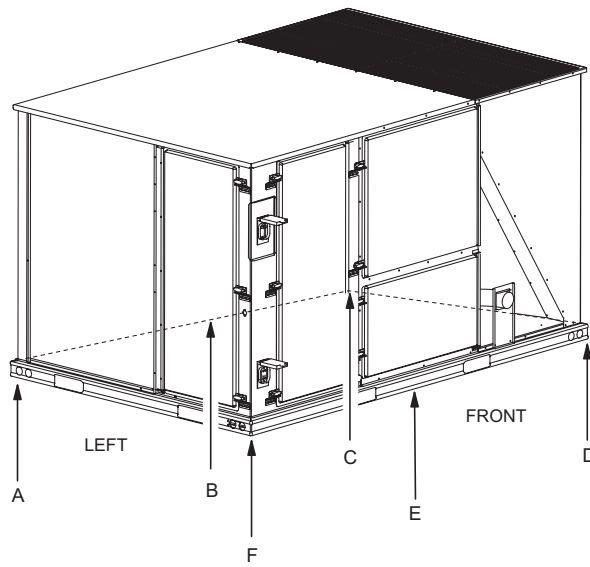


FIGURE 4 - UNIT 6 POINT LOAD

TABLE 41: 6 POINT LOAD WEIGHT

Model	Locations (lbs. (kg.))					
	A	B	C	D	E	F
090	135 (61.2)	110 (49.9)	91 (41.3)	142 (64.4)	172 (78.0)	211 (95.71)
120	168 (76.2)	151 (68.4)	136 (61.7)	198 (89.8)	219 (99.3)	244 (110.7)
150	180 (81.6)	161 (73)	145 (65.8)	212 (96.2)	235 (107)	262 (118.8)

TABLE 42: UNIT WEIGHT

Model	Shipping Weight lbs. (kg)	Operating Weight lbs. (kg)
090	865 (392.4)	860 (390.1)
120	1143 (518.6)	1138 (516.3)
150	1202 (545.3)	1197 (543.1)

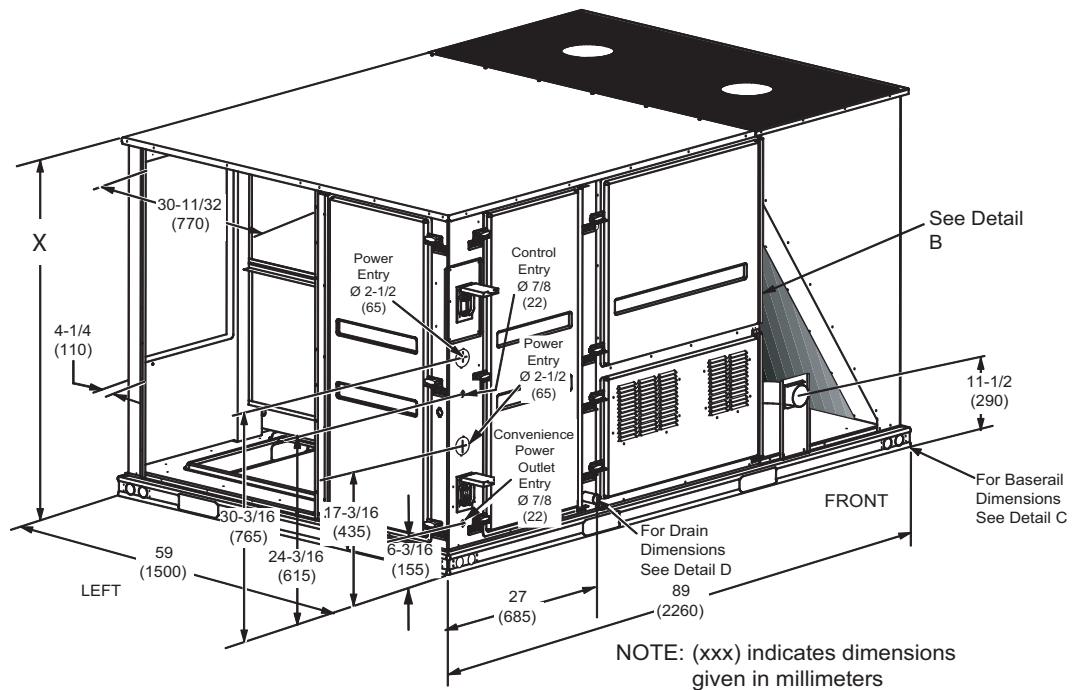
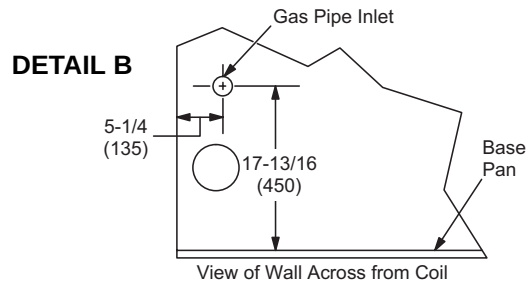
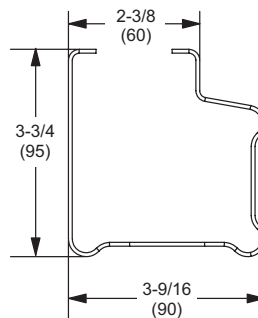


FIGURE 5 - UNIT DIMENSIONS

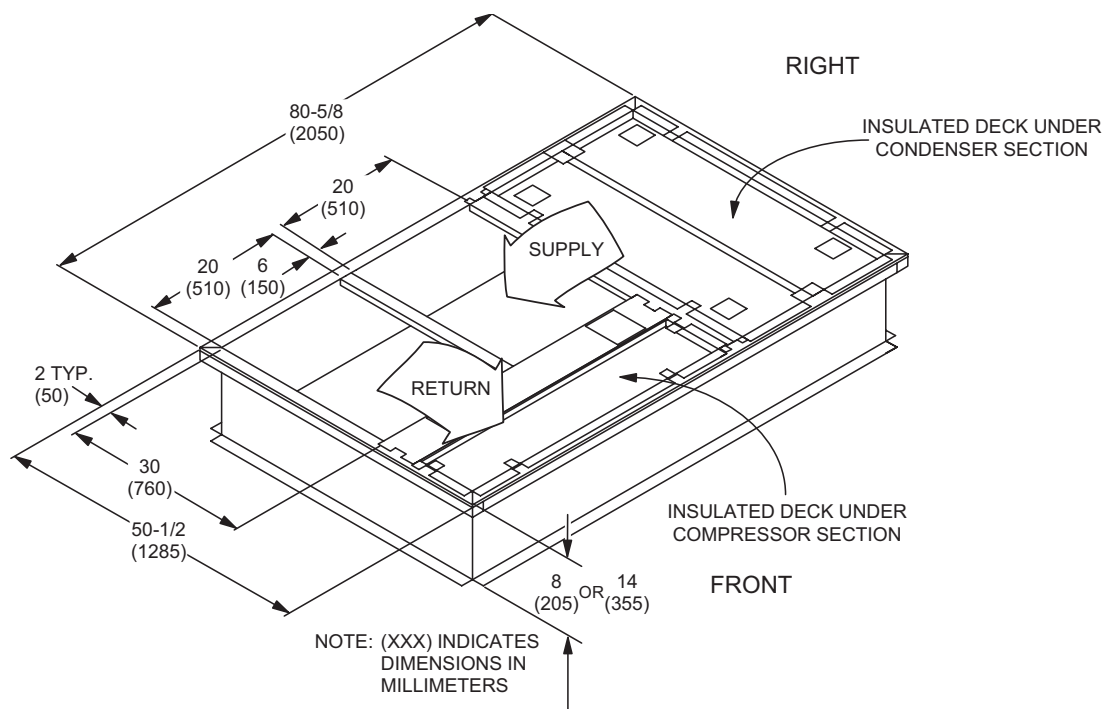
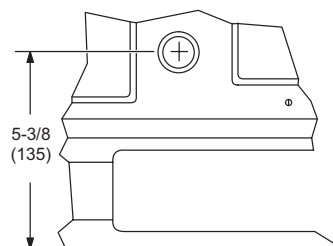
TABLE 43: UNIT HEIGHT

Unit Model Number	X
DM090	42 (1067)
DM120	50 3/4 (1289)
DM150	50 3/4 (1289)

**DETAIL C****TABLE 44: UNIT CLEARANCES ¹**

Top²	72(1830)	Right	12(305)
Front	36(915)	Left	36(915)
Rear³	36(915)	Bottom⁴	0(0)

1. In inches and millimeters, in.(mm).
2. Units must be installed outdoors. Overhanging structure or shrubs should not obstruct condenser air discharge outlet.
3. To remove the slide-out drain pan, a rear clearance of 60" (1525 mm) is required. If space is unavailable, the drain pan can be removed through the front by separating the corner wall.
4. Units may be installed on combustible floors.

DETAIL D**FIGURE 6 - PREDATOR® ROOF CURB DIMENSIONS**

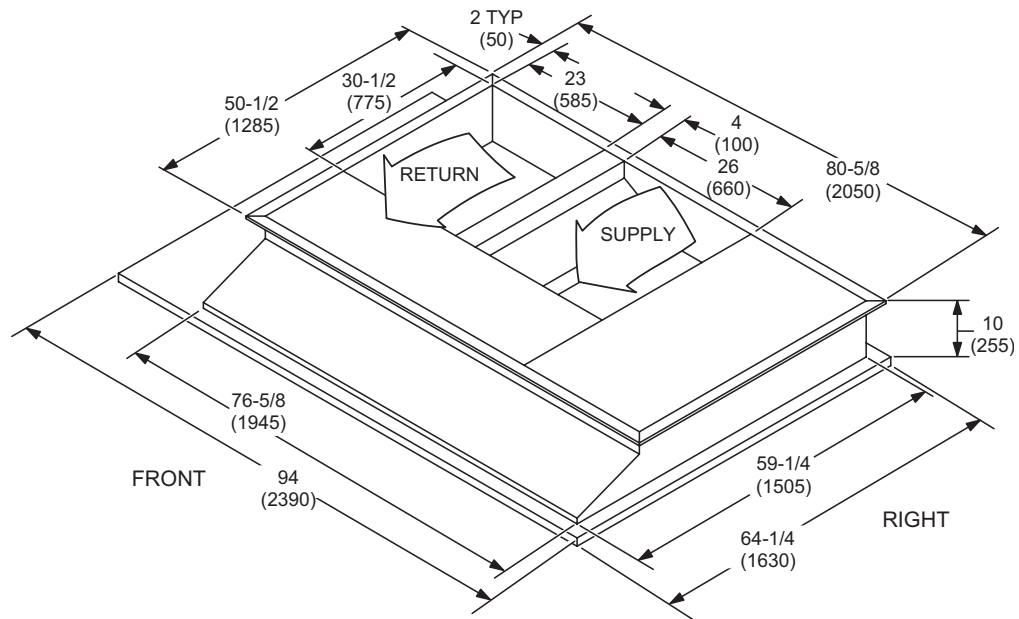


FIGURE 7 - SUNLINE™ TO PREDATOR® TRANSITION ROOF CURB

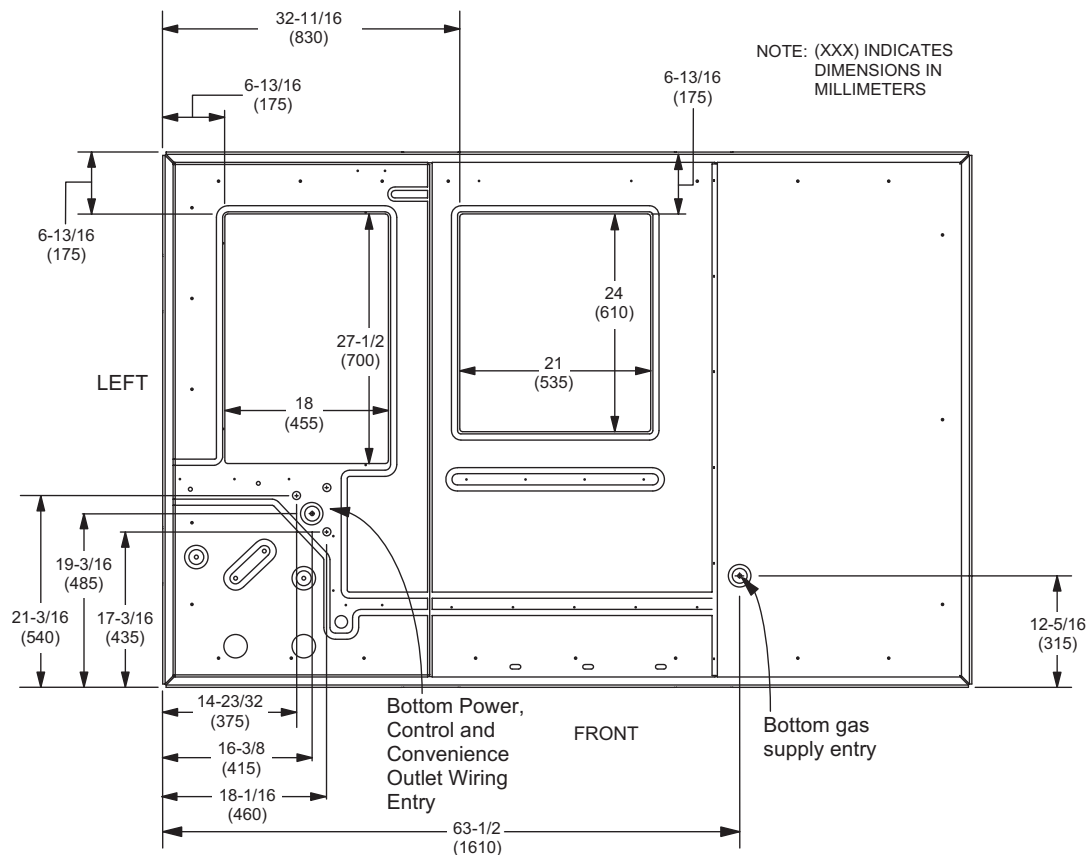


FIGURE 8 - BOTTOM DUCT OPENINGS (FROM ABOVE)

REAR DUCT DIMENSIONS

CABINET SIZE	DIMENSION		
	"A"	"B"	"C"
50 3/4 (1289)	28 1/4 (717)	18 1/16 (459)	28 1/4 (717)
42 (1067)	27 3/4 (705)	12 1/16 (306)	27 1/2 (699)

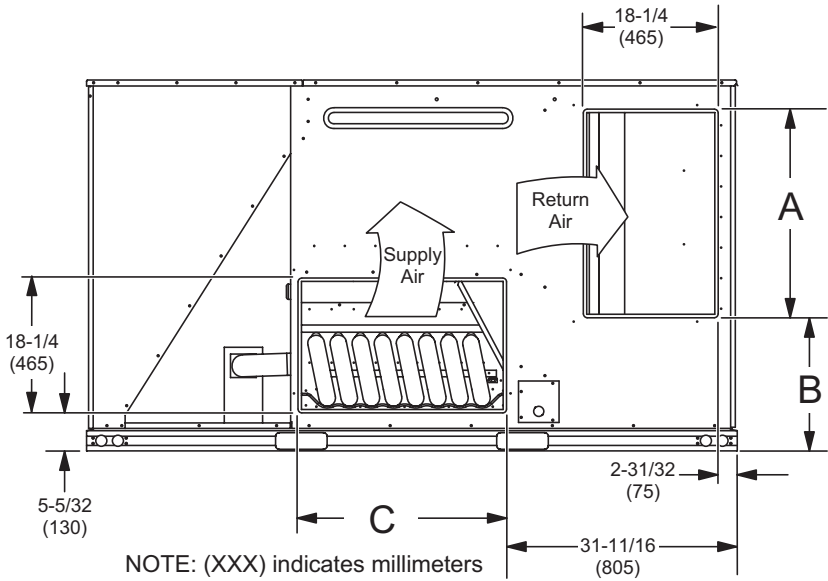


FIGURE 9 - REAR DUCT DIMENSIONS

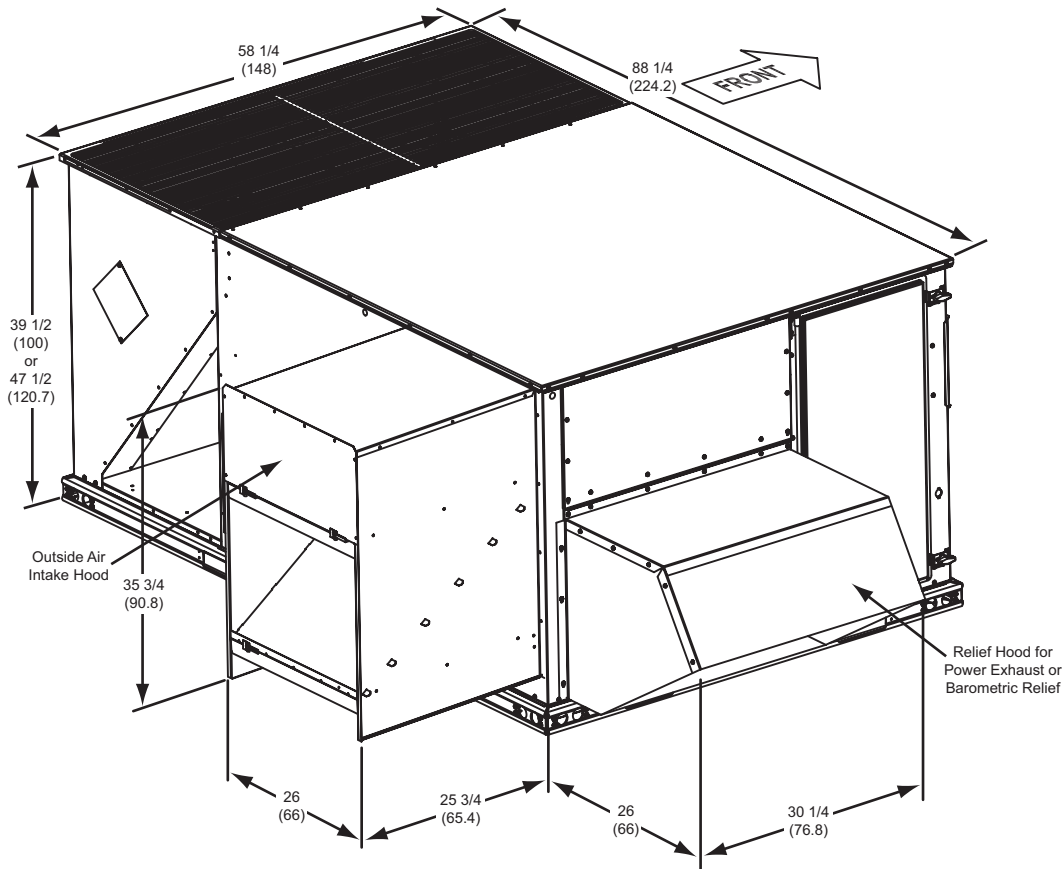
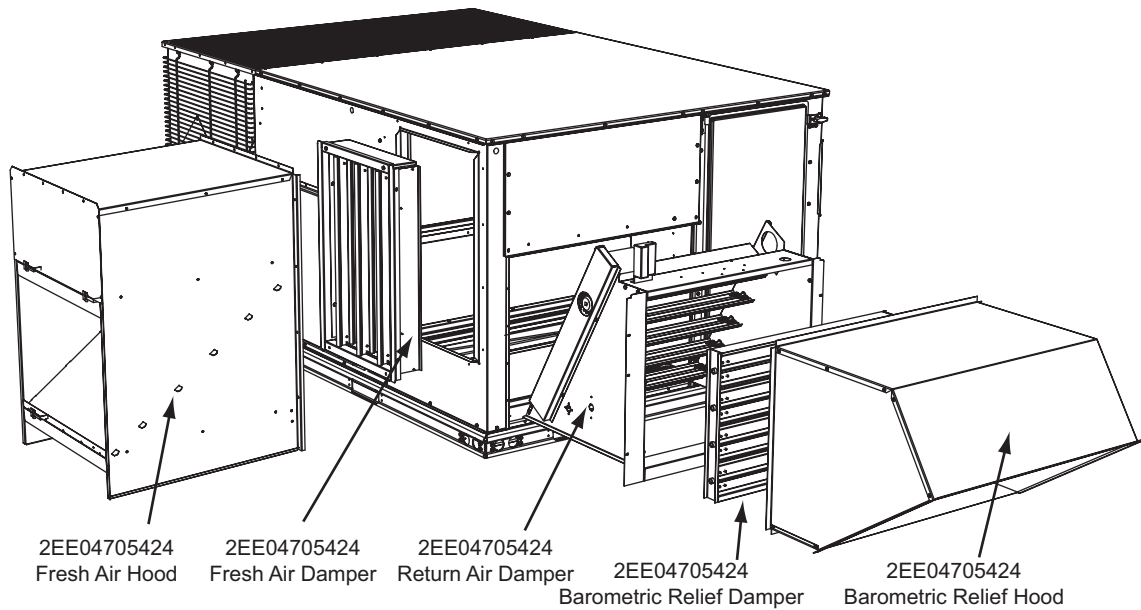
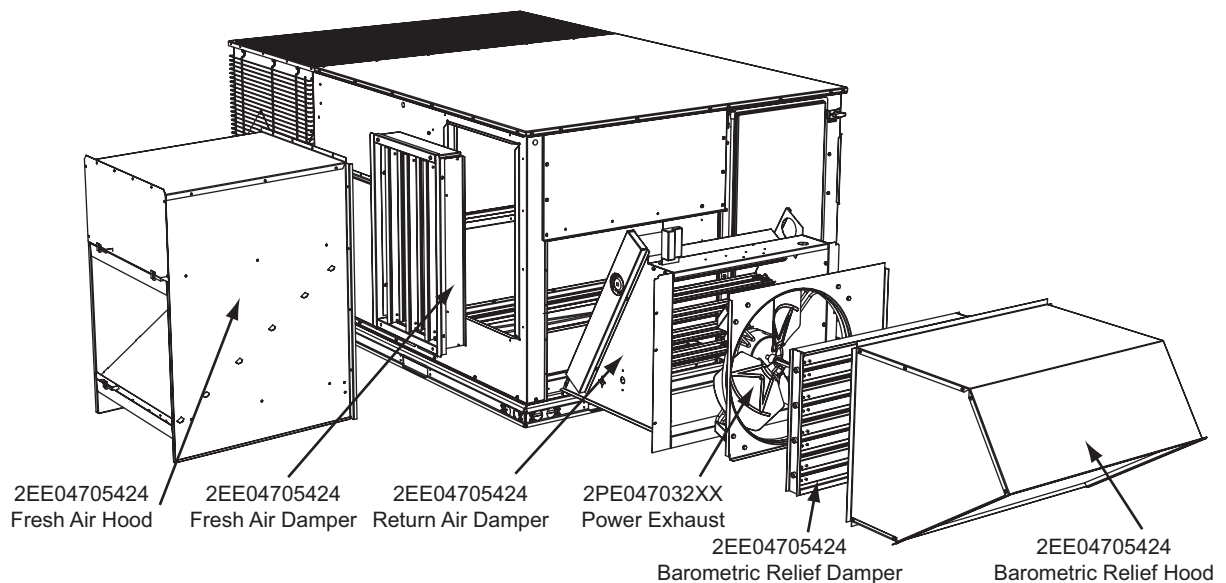


FIGURE 10 -DOWNFLOW ECONOMIZER HOOD DETAIL

TABLE 45: 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 ¹
ERV or End Return	42"	Slab Economizer, 42" tall cabinet	2EE04705624 ²
	50"	Slab Economizer, 50" tall cabinet	2EE04705224 ²

1. Barometric relief must be ordered separately and installed in duct work.
2. Barometric relief or fresh air hood not included. Must be ordered separately.

**FIGURE 11 -FACTORY INSTALLED DOWNFLOW ECONOMIZER****FIGURE 12 -FIELD INSTALLED DOWNFLOW ECONOMIZER W/POWER EXHAUST**

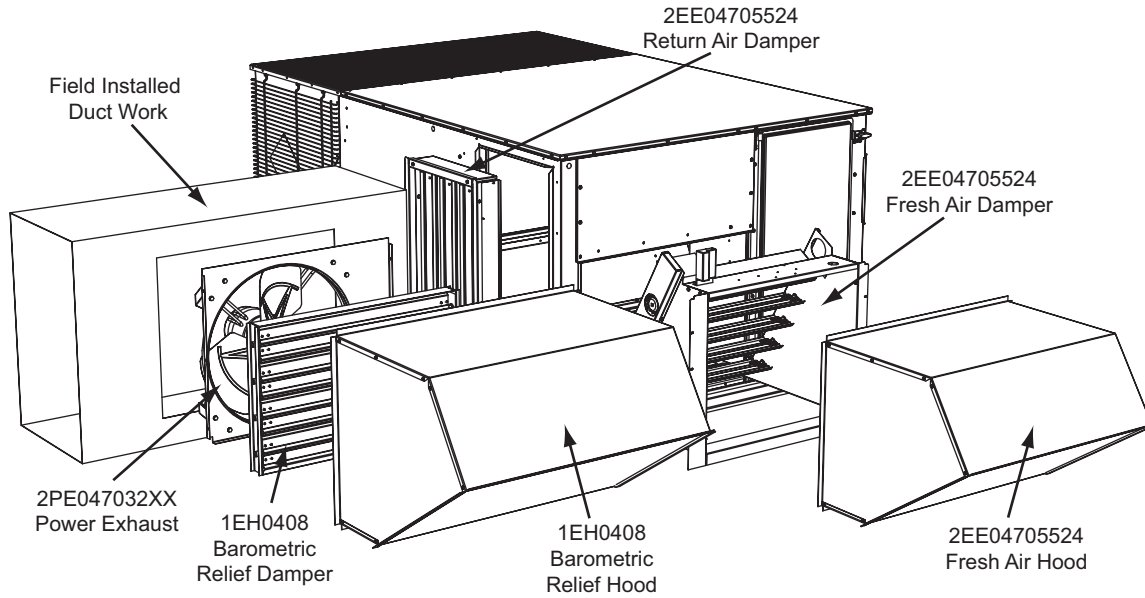


FIGURE 13 -FIELD INSTALLED HORIZONTAL ECONOMIZER W/POWER EXHAUST

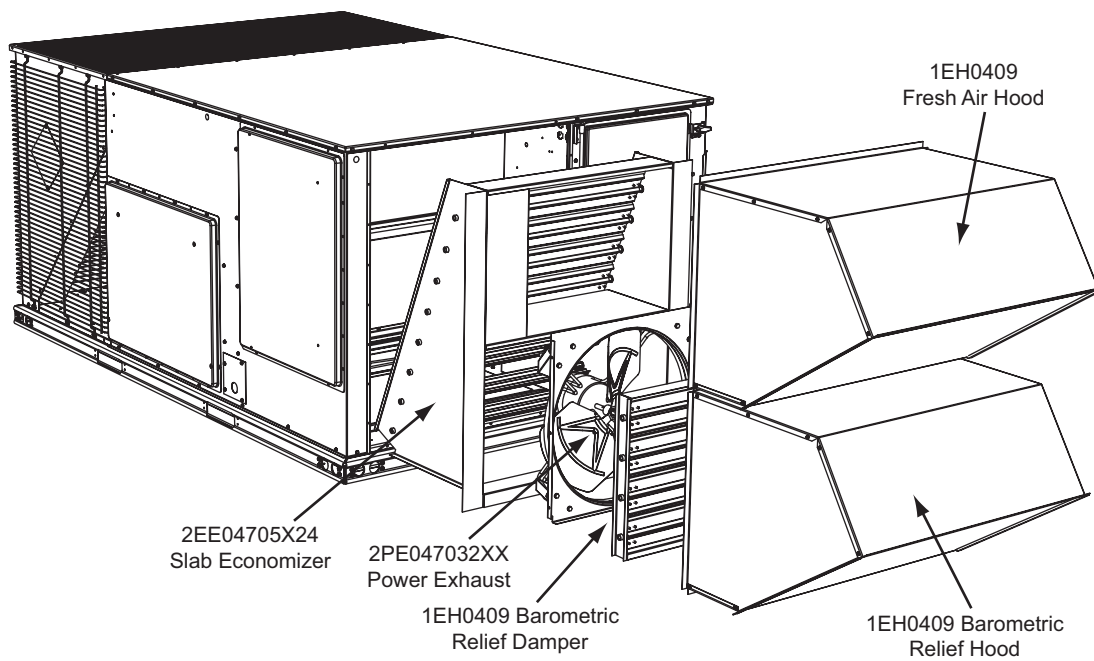


FIGURE 14 -SLAB ECONOMIZER DOWNFLOW W/POWER EXHAUST

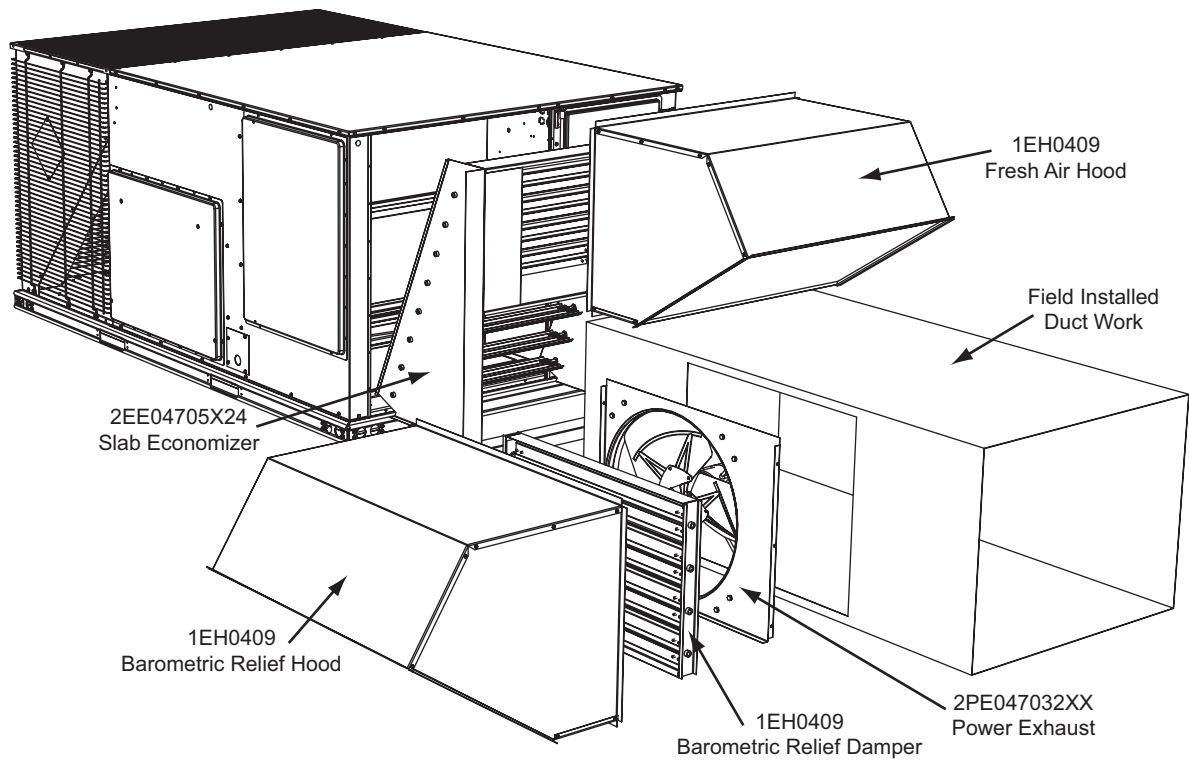


FIGURE 15 -SLAB ECONOMIZER END RETURN W/POWER EXHAUST



FIGURE 16 -TYPICAL COOLING UNIT WITH GAS HEAT WIRING DIAGRAM

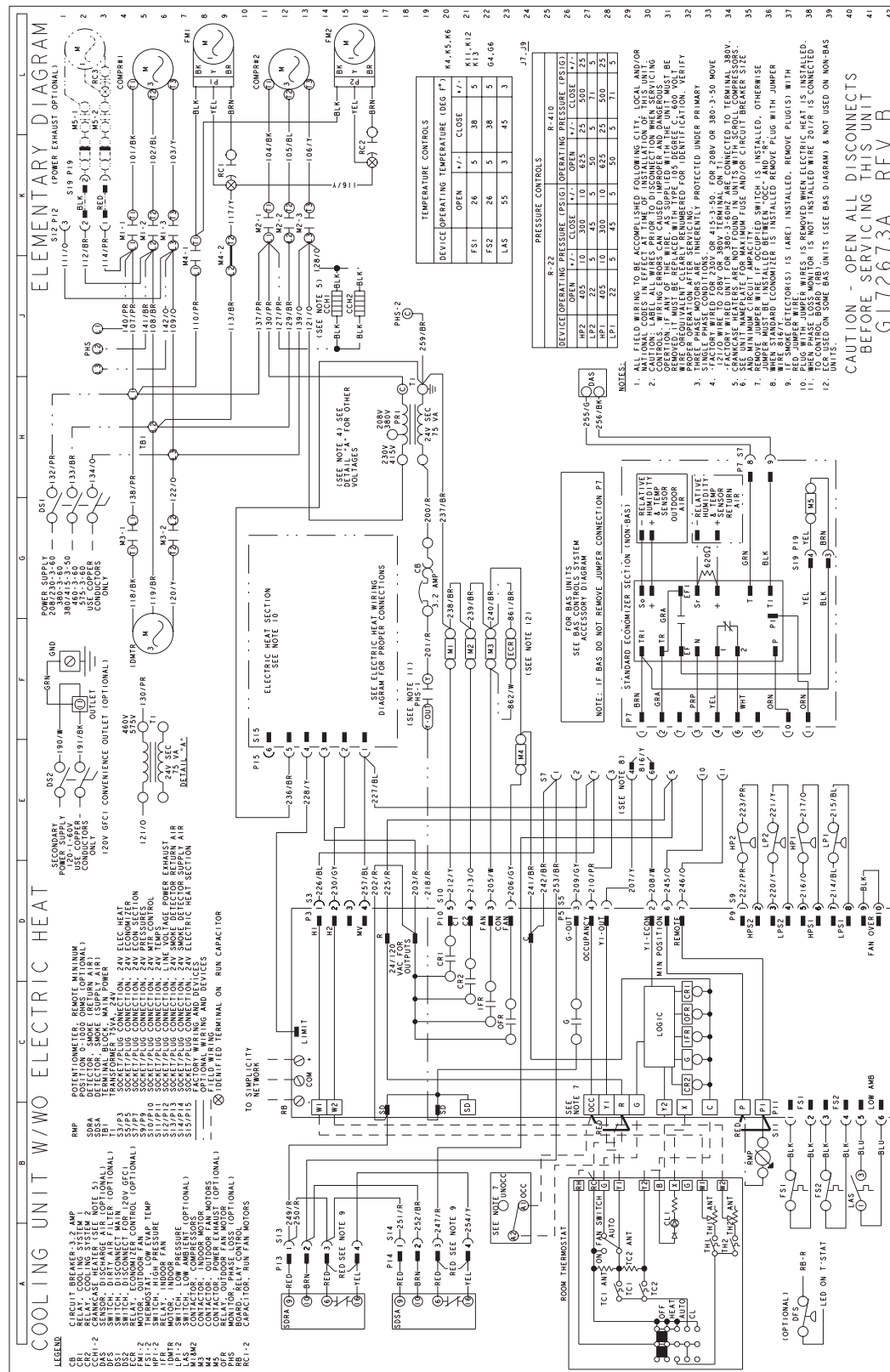


FIGURE 17 -TYPICAL COOLING UNIT WITH/WOUT ELECTRIC HEAT WIRING DIAGRAM

Subject to change without notice. Printed in U.S.A.
Copyright © 2009 by Johnson Controls, Inc. All rights reserved.

259335-XTG-C-1208
Supersedes: 259335-YTG-B-0606

Johnson Controls Unitary Products
5005 York Drive
Norman, OK 73069