

## Maverick® I Commercial Packaged Rooftop Systems

Heating & Cooling, Gas/Electric, Electric/Electric  
Models MPS A03 – 025  
3 to 25 Tons (10.6 to 87.9 kW)  
R-410A Refrigerant



3–5 tons



7–12 tons



15–25 tons

Introduction	3	Options	26
Agency Listed	3	Factory Installed Option Code	26
Nomenclature	3	Performance Data	27
Daikin's Unique Features and Options	4	System Performance—Cooling Only	27
Features and Benefits	6	System Performance—Gas Heat	33
D Vintage Units (MPSA03D – A12D)	6	System Performance—Standard Efficiency	39
New Features include:	6	System Performance—with Reheat	46
Compressor	6	Airflow Performance—Standard Efficiency	58
Condenser Fans	6	Airflow Performance—with Reheat	72
Drain Pan	6	Airflow Performance—High Efficiency	81
MicroChannel Condenser Technology	6	MCA and MROPD	85
MicroChannel Evaporator & TXV	6	MCA and MCOP	86
Filter Rack	7	Compressor and Condenser Motor	87
Coil Coating	7	Auxiliary Heater Kit Performance	89
Unit Construction	7	Dimensional Data	95
Cabinet	7	Unit Dimensions	95
Base	7	3–5 Ton Cooling Only Standard and High Efficiency	95
Access Panels	7	3–5 Ton Gas Heat Standard and High Efficiency	96
Electrical	7	7–12 Ton Cooling Only Standard Efficiency	97
Convenience Outlet and Disconnect Switch (Gas Heat Only)	8	7–12 Ton Gas Heat Standard Efficiency	98
Gauge Ports	9	15 Ton Gas Heat High Efficiency	99
Electromechanical Controls	9	15–25 Ton Cooling Only Standard Efficiency and 20 Ton High Efficiency	101
DDC Controller	9	15–25 Ton Gas Heat Standard Efficiency and 20 Ton High Efficiency	102
Keypad/Display	9	Through-the-Base Knockout Locations	103
Blower Compartment	11	Horizontal Duct Dimensions	104
Gas Heat Option	12	Curb Dimensions	105
Electric Heat Option	13	Accessories	106
Return Air Compartment/Economizer	14	Fresh Air Dampers	107
Power Exhaust	14	Economizers	110
Roof Curb	14	Horizontal Duct Installation	112
Reheat/Dehumidification Operational Description	15	Power Exhaust	115
Unit Selection	16	Roofcurbs	119
Selection Procedure	16	Electrical Data	122
Physical Data	17	Sample Wiring Diagrams	122
Unit Capacity and Physical Data	17	Engineering Guide Specification	137
Gas Pressures	25		

## The HVAC Solution for Low Rise Buildings

- All Maverick I models feature scroll compressors (R-410A refrigerant) offering maximum reliability, efficiency, and quiet operation.
- Alumined steel heat exchanger with in-shot burners helps eliminate corrosion. Stainless steel heat exchangers are optional.
- Integrated blower/burner control board with built-in diagnostic capability permits on-site trouble shooting.
- One-piece top over the indoor section with drip lip, drawn base pan, and 1" (25.4 mm) raised flanges for supply/return air connections provides superior water management.
- Convertible horizontal and vertical airflow design allows maximum field flexibility.
- Drive options to accommodate a wide range of design conditions as high as 2" (0.50 kPa) of external static pressure.
- Access doors to mechanical components, which promotes routine maintenance and can reduce service costs.
- Number-coded and color-coded wiring helps facilitate service and maintenance.
- Freeze stat control offers evaporator coil freeze protection, on all models.
- Standard factory-installed compressor high and low-pressure safety switches.
- Externally mounted refrigerant gauge ports for easy service diagnostics.
- Side and base electric power and gas connection entry helps minimize roof penetrations.
- Easy-to-install, plug-in, slip-in, 100% fully modulating economizers with enthalpy control.
- Quality baked powder paint finish offers long lasting protection against extreme weather conditions and is able to withstand 1,000 hour salt spray test.
- DDC Controls with optional BACnet® or LONTALK® communications.

### Agency Listed

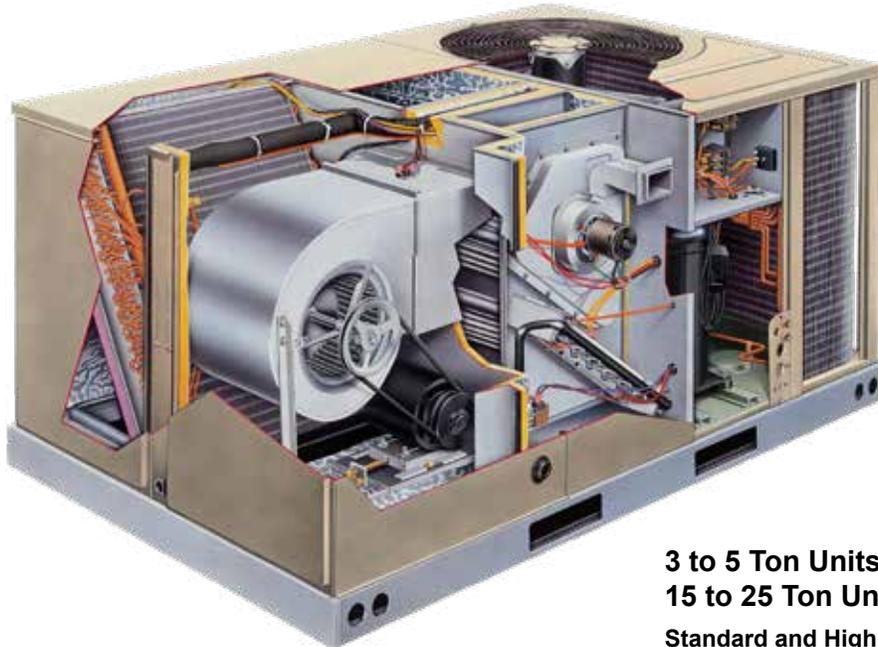


## Nomenclature

**MPS - A03 C Y C L 08 E XX B**

<p><b>Product Category</b> Daikin Package System</p> <p><b>Nominal Capacity (tons)</b> <i>Standard Efficiency</i> A03 = 3    A08 = 8.5    020 = 20 A04 = 4    A10 = 10    025 = 25 A05 = 5    A12 = 12.5 A07 = 7.5    015 = 15 <i>High Efficiency</i> H03 = 3    H15 = 15 H04 = 4    H20 = 20 H05 = 5</p> <p><b>Refrigerant</b> B = R-410                  D = R-410</p> <p><b>Type</b> Y = Cooling only G = Gas</p> <p><b>Voltage</b> C = 208/230V, 60Hz, 3Ø D = 460V, 60Hz, 3Ø Y = 575V, 60Hz, 3Ø</p>	<p><b>Economizer Option</b> A = No economizer B = With economizer D = Economizer for DDC controls</p> <p><b>Factory Installed Options</b> See <a href="#">Factory Installed Option Code on page 26</a></p> <p><b>Controls</b> Y = Electromechanical controls, cooling only E = Electromechanical controls, w/ gas heat D = DDC controls cooling only or cooling w/ gas heat R = Reheat with DDC controls, cooling only or cooling with gas heat</p> <p><b>Heating Capacity (MBh input)</b> 08 = 80 MBh                  15 = 150 MBh                  35 = 350 MBh 10 = 100 MBh                20 = 205 MBh                40 = 400 MBh 12 = 120 MBh                22 = 225 MBh                30 = 300 MBh 13 = 135 MBh                25 = 250 MBh 00 = Cooling only or field installed electric heat</p> <p><b>Drive Package</b> A = Belt drive – Low Static                  F = VFD – Low Static B = Belt drive – Medium Static              G = VFD – Medium Static C = Belt drive – High Static                  H = VFD – High Static M = Belt drive – high static                  R = VFD – Low Static V = Direct drive –(5 ton only)                S = VFD – High Static</p>
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## Daikin's Unique Features and Options



**3 to 5 Ton Units**  
**15 to 25 Ton Units (Not Shown)**

**Standard and High Efficiency Units:**  
**MPSA03 – 05C — MPSH03 – 05C**  
**MPSA03 – 05D**  
**MPS015 – 25B — MPSH15 – 25B**

**Heat Pump Units:**  
**MPSH03 – 05B**

**1 External Refrigerant Gauge Ports**

- Easy access for service

**2 Durable Construction**

- Exterior cabinet panels pass 1000-hour ASTM B 117 Salt Spray Test for durability
- 18 gauge sheet metal for durability and low leakage rates
- 3/4-inch, foil face insulation with mechanical fasteners helps prevent insulation damage and fibers in the airstream

**3 Polymer/Composite, Double-Sloped Drain Pan**

- Prevents corrosion
- Avoids standing water for high IAQ
- Sloped per ASHRAE Standard 62.1-2004
- Slide-out removal for easy periodic cleaning and maintenance for superior IAQ

**4 Refrigerant Piping**

- Thermal expansion valves

**5 Evaporator**

- Inside the blower compartment, the interlaced evaporator can be viewed. The evaporator uses copper tube and aluminum fin technology for maximum heat transfer (3-5 and 15-25 tons).
- The MPSA07D to 12D uses a microchannel evaporator coil which minimizes refrigerant use while maximizing heat transfer.

**6 DDC Unit Controller (optional)**

- Interoperability with BACnet® or LonMark® communications for easy integration into your building automation system of choice.

**7 Easy Access Doors**

- Provides easy access to system components for maintenance and serviceability
- Hinged access doors on the filter, fan, and control panel sections (7 to 25 ton units)



MPS A07D – A12D

**8 Slide Out Fan (7 to 25 Ton units)**

- For easy access and serviceability.

**9 Gas Heat Option**

- Tubular heat exchanger with in-shot burners for maximum heat transfer
- Two-stage gas valve with direct spark ignition provides greater efficiency on 7 ton and larger units

**10 Scroll Compressors**

- R-410A refrigerant
- Provide maximum dependability, efficiency and quiet operation
- Two refrigerant circuits on larger units provide efficient part load performance (15 to 25 ton units)
- Standard low and high pressure safety switches
- Filter driers on all refrigerant circuits for moisture removal and dependable operation

**11 2-Speed SAF Motors (Optional)**

- MPSH05C
- All MPS 7 to 25 ton units

**12 Optional Louvered Panels**

- For added protection of the condensing coils from hail and other physical damage.

**13 Optional Hot Gas Reheat**

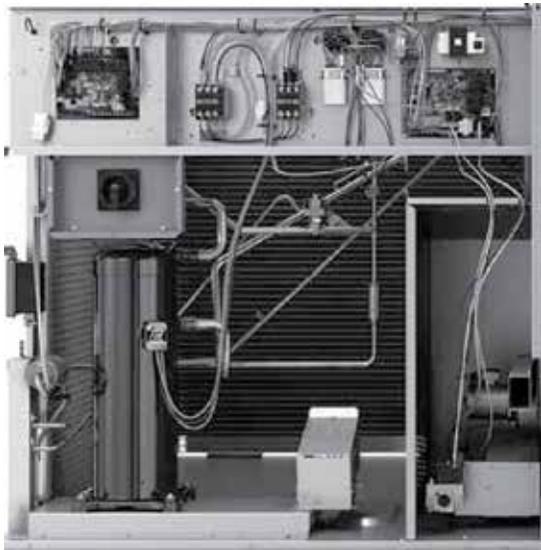
- Optional hot gas reheat used for dehumidification purposes

## D Vintage Units (MPSA03D – A12D)

### New Features include:

#### Compressor

The scroll compressor is known for its long life and for reliable, quiet, and efficient operation. The new maverick units come equipped with a single, 2 stage scroll compressor. This offers two stages of efficient cooling operation in which the first stage is approximately 50% of second stage. The suction and discharge lines are designed with shock loops to absorb the strain and stress that the starting torque, steady state operation, and shut-down cycle impose on the refrigerant tubing.



#### Condenser Fans

The condenser fan motors can easily be accessed and maintained through the top of the unit. A down-mount fan provides corrosion protection and easy removal. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.



#### Drain Pan

The drain pan is made from a composite material that resists the growth of harmful bacteria. With both side and center drain options, the drain pan slides out completely for easy cleaning. It also features a standard overflow switch.



#### MicroChannel Condenser Technology

The outdoor coil uses the latest microchannel technology for the most effective method of heat transfer. The outdoor coil is protected by optional louvered panels, which allow unobstructed airflow while protecting the unit from both the environment and vandalism.



#### MicroChannel Evaporator & TXV

The Microchannel Evaporator is accessible through the blower compartment, and through the filter rack, to simplify cleaning. The evaporator uses microchannel technology for maximum heat transfer, light weight, fewer manually brazed connections and reduced refrigerant charge. The TXV metering device maintains superheat over a wide range of varying temperatures optimizing unit performance for all conditions.

## Filter Rack

Located within the filter compartment, the new Maverick unit allows easy changeover between 2" and 4" standard size and readily available filters.

## Coil Coating

Every unit offers the option of factory-applied condenser coil coating that delivers superior corrosion resistance for outdoor coils to operate in the harshest of environments.



## Including All Units:

### Unit Construction

Maverick I rooftop units are designed from the ground up with the latest features and benefits required to compete in today's market. The commercial rooftop design stands alone in the industry and is a testament to the quality, reliability, ease of installation and serviceability that goes into each unit.

### Cabinet

The sheet-metal cabinet (1) uses nothing less than 18-gauge material for structural components with an underlying coat of G90. To ensure the leak-proof integrity of these units, the design utilizes a one-piece top with a 1/8" drip lip (4), gasket-protected panels and screws. The Maverick I hail guard (5) sets the standard for coil protection in the industry. Every unit has an electro deposition baked-on powder coat finish and is tested to withstand a rigorous 1000-hour salt spray test, per ASTM B117.

**Figure 1: Maverick I Rooftop Unit**



## Base

Anything built to last must start with the right foundation. In this case, the foundation is 14-gauge, commercial-grade, full-perimeter base rails (3), which integrate fork slots and rigging holes to save set-up time on the job site. The base pan (right) is stamped, which forms a 1-1/8" flange around the supply and return opening to prevent water entering the conditioned space (7). The insulation has been placed on the underside of the basepan, removing areas that would allow for potential moisture accumulation, which can facilitate growth of harmful bacteria. All insulation is secured with both adhesive and mechanical fasteners, and all edges are hidden. Each unit has been tested to U.L. 1995, ANSI 21.47 and AHRI 340-370 standards. Each unit bears the U.L. and AHRI certification labels located on the unit nameplate area (15). Contractors can rest assured that when a Maverick I unit arrives at the job, it is ready to go with a factory charge and quality checks. Each unit also proudly displays the "Made in the USA" designation.

**Figure 2: Rooftop Unit Base Assembly**



## Access Panels

Access to all major compartments is from the front of the unit, including the filter and electrical compartment, blower compartment, furnace section, and outdoor section. Each panel is permanently embossed with the compartment name (control/filter access, blower access and furnace access).

## Electrical

Electrical compartment access is through a hinged-access panel (2) with 1/4-turn latches. On the outside of the panel is the unit nameplate, which contains the model and serial number, electrical data and other important unit information.

The unit charging chart is located on the inside of the electrical compartment door. Electrical wiring diagrams are found on the control box cover, which allows contractors to move them to more readable locations. To the right of the control box the model and serial number can be found. Having this information on the inside will assure model identification for the life of the product.

Inside the control enclosure (10), each electrical component is clearly identified with a label that matches the component to the wiring diagram for ease of troubleshooting. All wiring is numbered on each end of the termination and color-coded to match the wiring diagram.

**Convenience Outlet and Disconnect Switch (Gas Heat Only)**

For added convenience in the field, a factory-installed convenience outlet and power disconnect are available.

Low and high-voltage power supply can enter either from the side or through the base. Low-voltage connections are made through the low-voltage terminal strip. For ease of access, the U.L.-required low-voltage barrier can be temporarily removed for low-voltage termination and then reinstalled. The high-voltage connection is terminated at the contactor of the number 1 compressor.

*Figure 3: Convenience Outlet/Disconnect Switch*



*Figure 4: Maverick I Access Doors*



## Gauge Ports

To the right of the electrical compartment are the externally mounted gauge ports, which are permanently identified by embossed wording that clearly identifies the compressor circuit, high pressure connection and low pressure connection (11, [Figure 4](#)). With the gauge ports mounted externally, an accurate diagnostic of system operation can be performed quickly and easily without disrupting airflow.

## Electromechanical Controls

The new C and D vintage Maverick I units now offer the affordable option of Electromechanical Controls. This allows the unit to be completely controlled by a 3rd party controller. From a 7 day programmable thermostat, to a DDC controller, this permits the user total flexibility in controller options. Refer to the Sample wiring diagrams section for more details

## DDC Controller

The optional DDC unit control system is pre-engineered and factory tested prior to shipment. Its features include:

- Stable, efficient temperature control.
- Comprehensive diagnostics.
- Alarm monitoring.
- Alarm-specific component shutdown if critical equipment conditions occur.

The DDC control system comes standard with a user interface, providing system operators with superior access to temperatures, operating states, alarm messages, and control parameters.

The DDC control system components include:

- DDC controller with keypad/display user interface.
- Unit-mounted temperature sensors.
- Field installed zone temperature sensor packages.
- Enthalpy sensors/controllers.

## Communication Feature

The DDC control system is factory configured for either time clock operation or for incorporation into an independent Building Automation Systems (BAS). Field installed communication modules provide the means to configure DDC unit controls for interoperability with an independent BAS using Daikin's innovative Open Choices™ feature. Communication modules are available to support BACnet MS/TP, BACnet/IP, and LONMARK communication protocols.

BACnet communications conform to the BACnet Standard, ANSI/ASHRAE Standard 135-2004, and are supported by a protocol implementation conformance statement (PICS).

LONTALK communications are in accordance with the Space Comfort Controller (SCC) profiles and are LONMARK 3.4 certified.

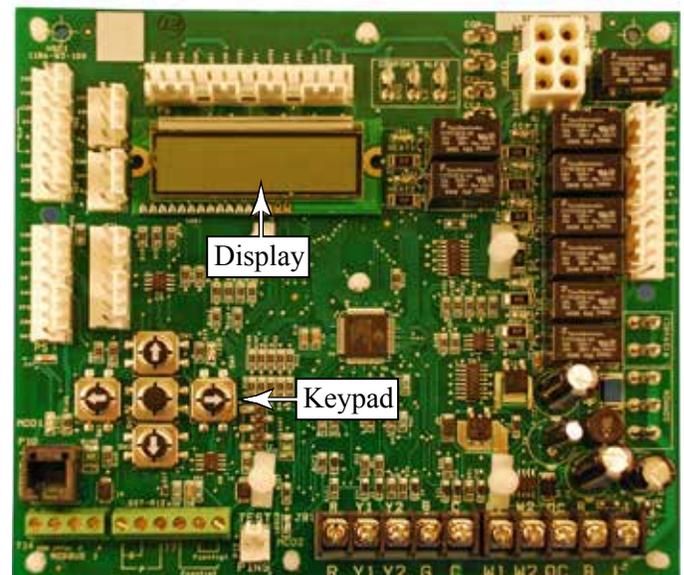
The building automation system can interact with one or more rooftop unit controllers in any of the following ways:

- Sets the unit's operating and occupancy modes.
- Monitors all controller inputs, outputs, set points, parameters, and alarms.
- Sets controller set points and parameters.
- Clears alarms.
- Sets the heat/cool changeover temperature.

## Keypad/Display

The keypad/display provides a user interface with the main controller and has easy-to-use keys and control knob used for navigation and entering changes. The display is a 2-line by 16-character format with clear English display messages. All operating conditions, system alarms, control parameters and schedules can be monitored from the keypad/display.

**Figure 5: Keypad/Display Interface**



## Unit Sensors

### Temperature and Enthalpy Sensors

The return and outside air temperature sensors are factory installed. The zone temperature sensor package can be ordered as a field installed option.

### Zone Temperature Sensors

Two optional zone temperature sensors are available:

1. Zone sensor with tenant override.
2. Zone sensor with tenant override and remote set point adjustment.

Timed tenant override is a standard DDC control feature.

Zone sensors are required for the controller's space reset of supply air set point and night setback features. All zone sensors are field installed with field wiring terminated at the unit controller.

### Enthalpy Sensors

The optional comparative enthalpy control economizer package is provided with the enthalpy sensor for the return air and outside air factory installed.

### Auto/Manual Operation Selection

Automatic or manual operation can be controlled at the keypad. The keypad provides a variety of occupancy and auto/manual control mode selections available to the operator:

Occupancy Modes	Control Modes
Auto	Off Manual
Occupied	Auto or Heat/Cool
Unoccupied	Cool Only
Bypass (tenant override)	Heat Only
	Fan Only

### Cooling and Heating Lockout Control

All unit controls include separate keypad-programmable set points for locking out mechanical cooling and heating. Mechanical cooling is locked out when the outdoor temperature is below the cooling lockout set point. Heating is locked out when the outdoor temperature is above the heating lockout set point. This feature can save energy cost by eliminating unnecessary heating and cooling during periods when the outdoor air temperature is mild.

### Night/Unoccupied Setback

When one of the zone temperature sensors is connected to the unit controller, night setback heating control and night setback cooling control are available. Separate, keypad-programmable, night heating and night cooling set points are used to start the unit when necessary. After the unit starts, night setback control is similar to normal occupied control except that the minimum outside air damper position is set to zero. If the outside air is suitable for free cooling, it is used during night setback operation.

### Control by Thermostat

The DDC controller is compatible with a programmable 24 volt thermostat. Connections are made via conventional thermostat screw terminals. Extensive unit status and diagnostics are displayed on the LCD screen of the DDC Controller.

### Timed Tenant Override

Off-hour operation flexibility is a must in today's office environments and Daikin's DDC controller handle it with ease. When unit operation is desired during unoccupied hours the tenant override button on either of the optional zone sensor packages is pressed to initiate the override operation. The unit then starts and runs in the occupied mode for a keypad-adjustable length of time (up to six hours). Tenant override operation can also be initiated by a BAS.

## Compressor Control

### Compressor Staging

Compressor staging is controlled directly by the control temperature. When the control temperature is warmer than the cooling set point, cooling is staged up; when the control temperature is cooler than the cooling set point, cooling is staged down. However, a stage change can only occur when the control temperature is outside the dead band. Staging is constrained by an inter-stage delay timer (five minute default setting). These constraints protect the compressors from short cycling while eliminating temperature variations near the diffusers.

## Economizer Control

### Economizer Changeover Selection

On units equipped with an economizer, there are two methods of determining whether the outdoor air is suitable for free cooling.

- The standard offering uses an outdoor enthalpy sensor. The unit controller compares the outdoor air enthalpy to a preprogrammed setpoint.
- The optional second method is a comparative enthalpy control. It uses a solid state device that compares the outdoor air ambient enthalpy to the return air enthalpy. When the outdoor air enthalpy is lower than the return air enthalpy, the unit will change to economizer operation.

## Alarm Management and Control

### Alarm Priority

The various alarms that can occur are prioritized according to the severity of the problem. Three alarm categories are used: 1-Faults, 2-Problems, and 3-Warnings.

1. Faults are the highest priority alarms. If a fault condition occurs, the complete unit is shut down until the alarm condition is gone and the fault is manually cleared at the keypad. A fault example is a "Fan Fail" alarm.
2. Problems are the next lower priority to faults. If a problem occurs, the complete unit does not shut down, but its operation is modified to compensate for the alarm condition. A problem automatically clears when the alarm condition that caused it is gone. "Lo Pres-Ckt1" is an example of a problem where only the affected compressor is shut down.
3. Warnings are the lowest priority alarms. No control action is taken when a warning occurs; it is simply indicated to alert the operator that the alarm condition needs attention. To remind the operator to read warnings, they must be manually cleared. "Dirty Filter" indication is an example of a warning.

**Table 1: DDC Alarm Summary**

Alarm Name	Fault	Problem	Warning
Emergency Off	X		
Control T Fail	X		
LCT	X		
Hi Return Tmp	X		
Hi Disch Tmp	X		
Lo Disch Tmp	X		
Fan Fail	X		
OAT Sensor		X	
Space Sensor		X	
Return Sensor		X	
Hi Pres-Ckt1		X	
Hi Pres-Ckt2		X	
Lo Pres-Ckt1		X	
Lo Pres-Ckt2		X	
Dirty Filter			X

### Furnace Controller

The integrated furnace controller, used to control furnace operation, incorporates a flashing LED trouble-shooting device. Flash codes are clearly outlined on the unit wiring diagram. The control transformer has a low voltage circuit breaker that trips if a low voltage electrical short occurs. There is a blower contactor and compressor contactor for each compressor.

## Blower Compartment

The blower compartment has a hinged access panel with 1/4 turn fasteners. To allow easy maintenance of the blower assembly, the entire assembly easily slides out by removing two 3/8" screws from the blower retention bracket.

### Motor Pulley

The adjustable motor pulley (13, Figure 4) can easily be adjusted by loosening the bolts on either side of the motor mount. Removing the bolts allows for easy removal of the blower pulley by pushing the blower assembly up to loosen the belt. Once the belt is removed, the motor sheave can be adjusted to the desired number of turns, ranging from 0 to 6 turns open. Where the demands for the job require high static, Daikin has high-static drives available that deliver nominal airflow up to 2" of static. By referring to the airflow performance tables listed in the installation instructions, proper static pressure and CFM requirements can be dialed in.

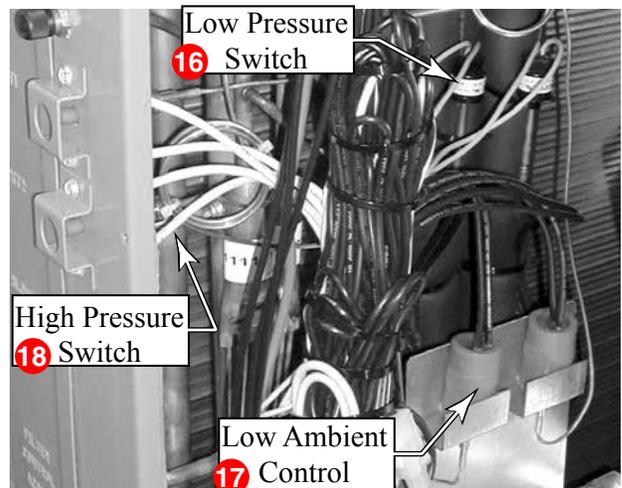
### Scroll Housing

The scroll housing (12, page 7) and blower provide quiet and efficient airflow. The blower sheave is secured by an "H" bushing which firmly secures the pulley to the blower shaft for years of trouble-free operation. The "H" bushing allows for easy removal of the blower pulley from the shaft, as opposed to the use of a set screw, which can score the shaft, creating burrs that make blower-pulley removal difficult.

### Low/High Pressure Switches

Also inside the blower compartment are the low-ambient control (17), low-pressure switch (16), high-pressure switch (18). The optional low-ambient control allows for operation of the compressor down to 0 degrees ambient temperature by cycling the outdoor fans on high pressure. The high-pressure switch will shut off the compressors if pressures exceeds, 450 PSIG are detected, this may occur if the outdoor fan motor fails. The low-pressure switch shuts off the compressors if low pressure is detected due to loss of charge.

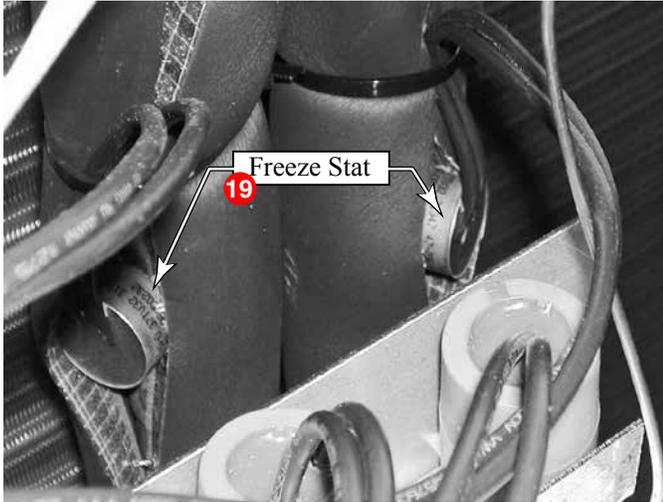
**Figure 6: Pressure Switches**



**Freeze Stat**

The optional freeze stat (19) safety device protects the compressor if the evaporator coil gets too cold (near freezing) due to low airflow. Each factory-installed option is brazed into the appropriate high or low side and wired appropriately.

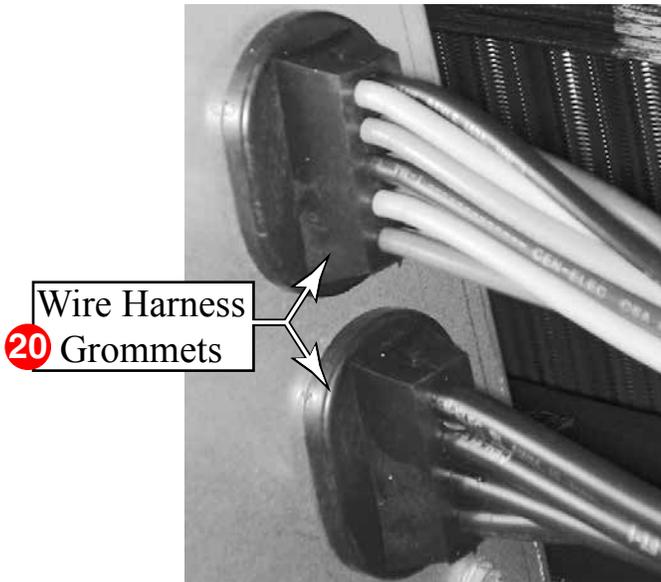
**Figure 7: Freeze Stat**



**Wiring**

Wiring throughout the unit is neatly bundled and routed. Where wire harnesses go through the condenser bulkhead or blower deck, a molded wire harness grommet assembly (20) provides an air-tight and water-tight seal, and provides strain relief.

**Figure 8: Wiring Harness**



**Gas Heat Option**

The furnace compartment contains the latest furnace technology on the market. The draft inducers (21) draw the flame from the in-shot burners (22) into the aluminized tubular heat exchanger (23) for clean, efficient gas heat. Stainless steel heat exchangers can be factory installed for those applications that have high fresh-air requirements, or applications in corrosive environments.

Each furnace on units 7 tons and above is equipped with a two-stage gas valve (24), which provides two stages of gas heat input. The first stage operates at 50% of the second stage (full fire). 81% steady state efficiency is maintained on both first and second stage by staging the multiple inducers (21) to optimize the combustion airflow and maintain a near stoichiometric burn at each stage.

The direct spark igniter (25) assures reliable ignition in the most adverse conditions. This is coupled with remote flame sense (26) to assure that the flame has carried across the entire length of the burner assembly. Gas supply can be routed from the side or up through the base.

Each furnace has the following safety devices to assure consistent and reliable operation after ignition:

- Pressures switches (27) to assure adequate combustion airflow before ignition.
- Rollout switches (28) to assure no obstruction or cracks in the heat exchanger.
- High limit device that protects the furnace from over-temperature problems.

**Figure 9: Gas Heat Option**

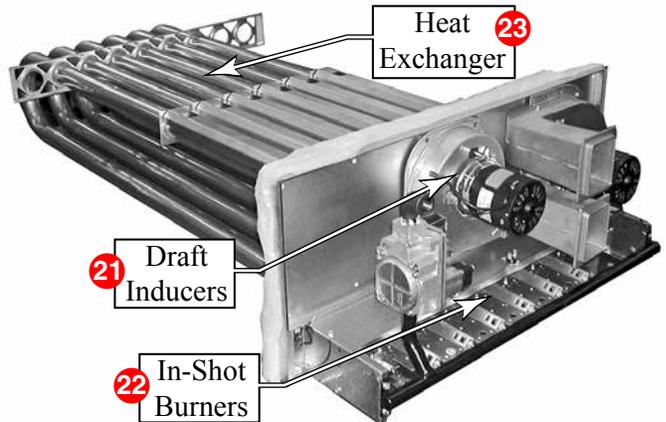
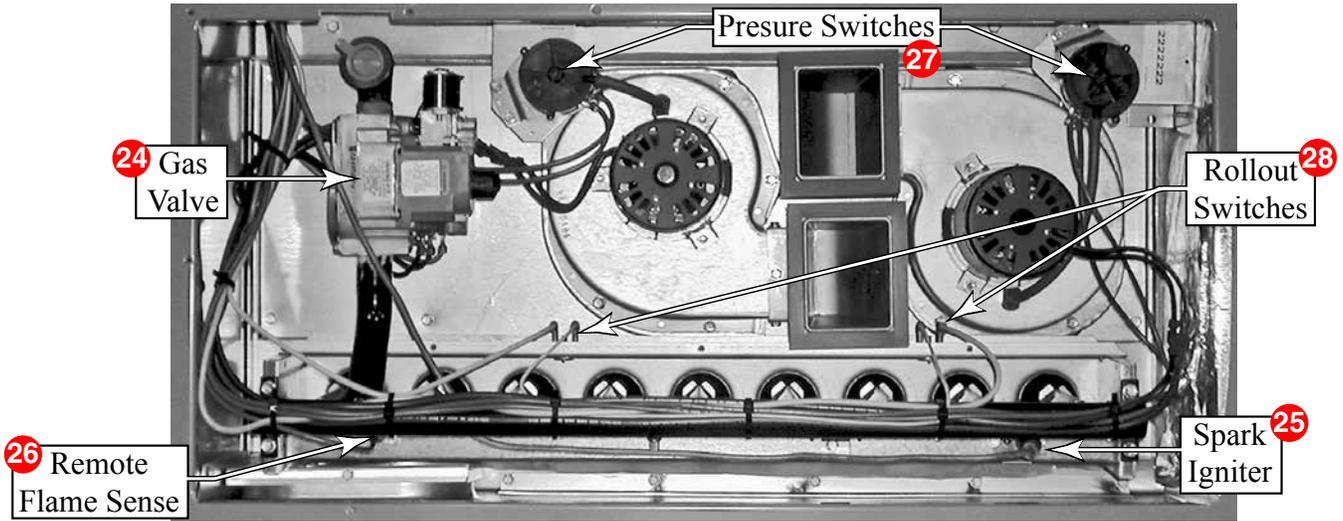


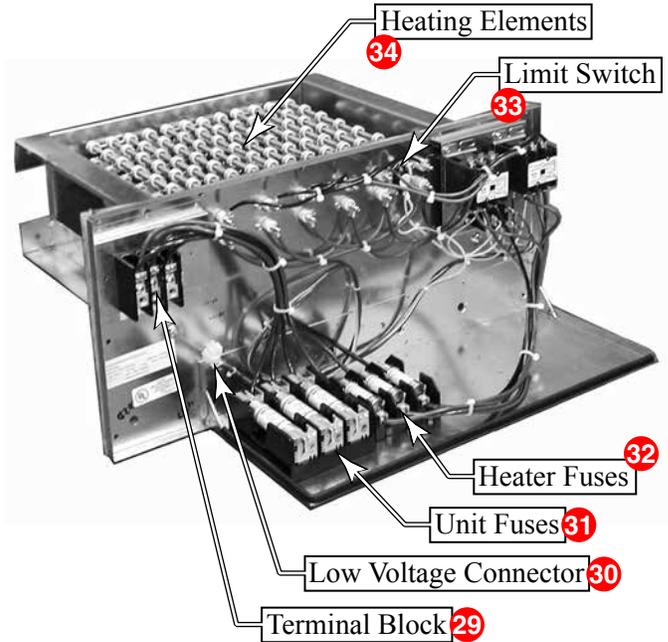
Figure 10: Gas Heat Assembly Detail



### Electric Heat Option

The heating compartment contains the latest electric furnace technology on the market. Built with ease-of-installation in mind, the electric furnace is completely wired for slide-in, plug-and-play installation in the field. With choices of up to six kilowatt offerings, the contractor is assured to get the correct amount of heating output to meet the designed heating load. Power hook-up in the field is easy with single-point wiring to a terminal block (29) and a polarized plug for the low-voltage connection (30). The electric furnace comes with fuses for the unit (31) and for the electric furnace (32), and is UL certified. The electric heating elements (34) are of a wound-wire construction and isolated with ceramic bushings. The limit switch (35) protects the design from over-temperature conditions. Each electric furnace has the capability to be converted from single-stage operation to two-stage operation by removing a jumper on the low-voltage terminal strip.

Figure 11: Electric Heat Option

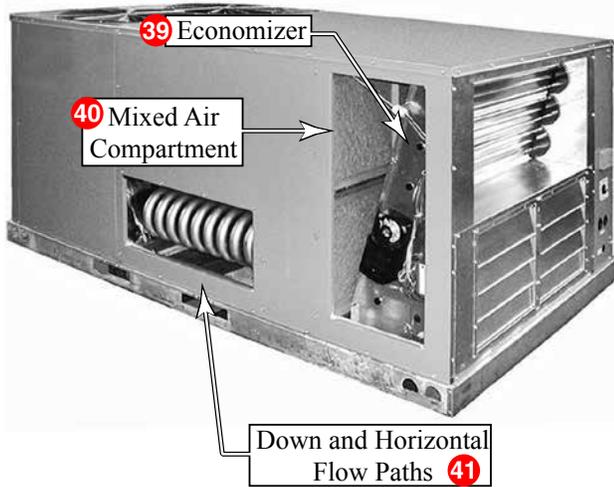


### Return Air Compartment/Economizer

Each unit is designed for both downflow and horizontal applications (41) for job configuration flexibility. The return air compartment (40) can also contain an economizer (39, Figure 12 and Figure 13).

Two economizer models are available, one for downflow applications, and one for horizontal applications. Each unit is pre-wired for the economizer to allow quick plug-in installation. The economizer is also available as a factory-installed option. The economizer, which provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements, comes standard with single enthalpy controls (42). The controls can be upgraded to dual enthalpy easily in the field. The direct drive actuator combined with gear driven dampers has eliminated the need for linkage adjustment in the field. The economizer control has a minimum position setpoint, an outdoor-air setpoint, a mix-air setpoint, and a CO<sub>2</sub> setpoint. Barometric relief is standard on all economizers.

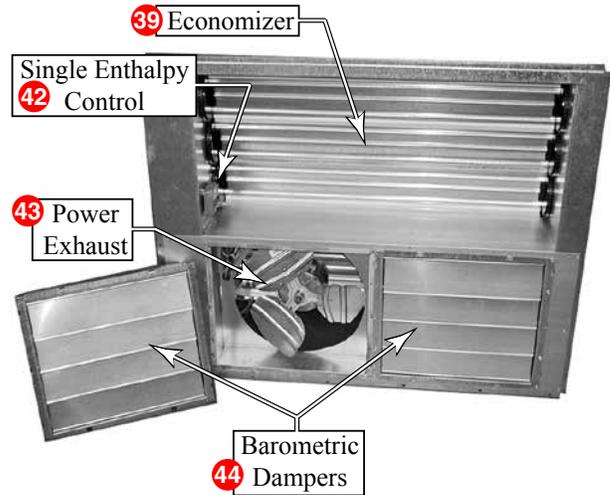
**Figure 12: Return Air/Economizer**



### Power Exhaust

The power exhaust is housed in the barometric relief opening and is easily slipped in with a plug-in assembly. Power exhaust (43) is easily field installed. The system comes complete with a barometric exhaust dampers (44).

**Figure 13: Power Exhaust and Economizer**



### Roof Curb

The Daikin roof curb is made for tool free assembly at the jobsite by hinge pin connection (45) on the adjacent curb sides which makes the assembly process quick and easy. The curb height is 14" and is applicable for all flat roof applications. Gasketing material is provided in the installation kit for an airtight and water-tight seal

**Figure 14: Roof Curb**



## Reheat/Dehumidification Operational Description

Maverick I rooftop units equipped with dehumidification control require both a space temperature sensor and a space humidity sensor. The demand for cooling will always be satisfied first before the rooftop unit will go into dehumidification control.

The rooftop has 2 types of dehumidification control modes, low dehumidification and high dehumidification control. Unit sizes 3–5 tons only have the high dehumidification control mode since they have only 1 stage of cooling and 1 supply fan speed. Unit sizes 7–25 tons have both the low and high dehumidification control modes since they have 2 stages of cooling and a 2 speed supply fan operation controlled by a VFD. If the space relative humidity is 2–5% above the setpoint the dehumidification control mode will be the “low” dehumidification control. If the space relative humidity is greater than 5% above the setpoint the unit will operate in the “high” dehumidification control mode.

In the low dehumidification control mode the supply fan will run at the low speed and the 1st stage of compressors will operate. In the high dehumidification control mode the supply fan will run at high or full speed and the 2nd stage of cooling will operate.

When the dehumidification control is initiated the liquid line solenoid valve going to the TXV valve closes and the valve from the reheat coil to the TXV opens. The bypass solenoid valve (discharge valve) at the condenser coil also opens. During the dehumidification mode some of the hot gas leaving the compressor goes through the bypass line and some continues to the condenser coil. The bypass gas and the liquid from the condenser come together in a 2 phase liquid/gas mixture and then goes to the reheat coil.

Figure 15: Cooling Mode

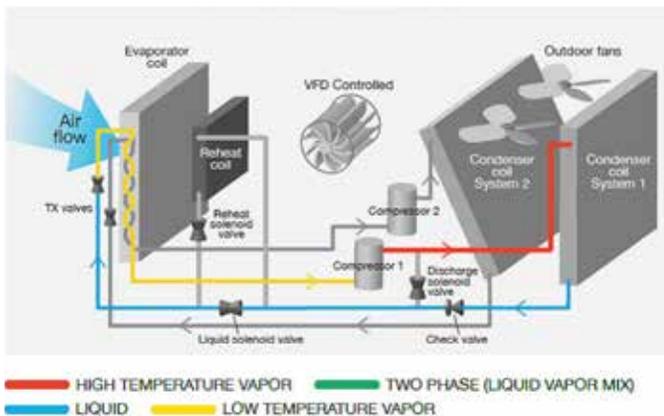
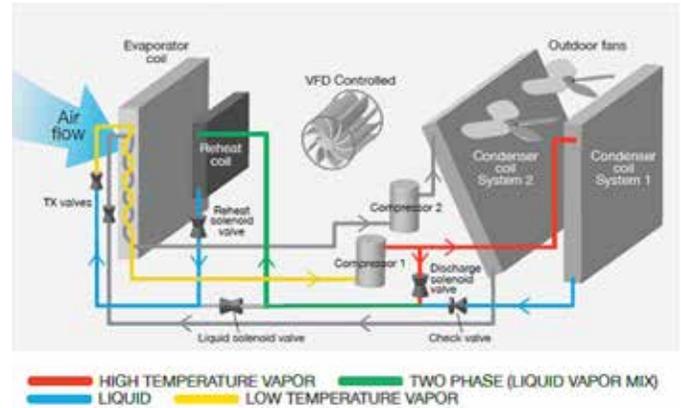


Figure 16: Dehumidification Mode



The amount of refrigerant going to the condenser coil and the amount of heat rejected at the condenser coil is controlled by the Outdoor Fan Motor Control—OFMC. The OFMC controls the outdoor fans based on the liquid line temperature sensor installed at the liquid line of the condenser coil. The OFMC has a temperature adjustment setting and can be controlled to increase or decrease the leaving air temperature (LAT) from the unit.

The default temperature for the OFMC is 90°F. Increasing this temperature setting will increase the leaving air temperature (LAT) of the unit and decreasing the OFMC temperature setting will decrease the LAT of the unit. The refrigerant system is balanced to produce about the same dry bulb temperature leaving the unit as the dry bulb temperature entering the cooling coil.

Thus, when the entering air temperature to the cooling coil is 70°F the LAT of the unit will be about 70°F also but with less moisture, lower dewpoint and drier/less humid air. The unit will operate in the dehumidification mode until the space humidity is satisfied.



# Unit Capacity and Physical Data

**Table 2: MPS A03D – A05D, Standard Efficiency (Cooling)**

Model	A03D	A04D	A05D
<b>Cooling Performance<sup>1</sup></b>			
Gross Cooling Capacity Btu (kW)	36000 (10.55)	49000 (14.36)	59500 (17.43)
EER/SEER	11.2/14.0	11.2/14.0	11.2/14.0
Nominal CFM/AHRI Rated CFM (L/s)	1200/1300 (566/613)	1600/1730 (755/816)	2000/1950 (944/920)
AHRI Net Cooling Capacity Btu (kW)	35,400 (10.37)	47,500 (13.92)	57500 (16.85)
Net Sensible Capacity Btu (kW)	27,000 (7.91)	25,100 (10.28)	41,000 (12.01)
Net Latent Capacity Btu (kW)	8,400 (2.46)	12,400 (3.63)	16,500 (4.83)
Net System kW	3.16	4.24	5.13
<b>Compressor(s)</b>			
Type/number	Scroll/1	Scroll/1	Scroll/1
<b>Sound<sup>4</sup></b>			
Outdoor Rating (dB)	88	88	88
<b>Outdoor Coil</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth In. (mm)	0.71 (18)	0.71 (18)	0.71 (18)
Face Area sq. ft. (sq. m)	16.5 (1.53)	16.5 (1.53)	16.5 (1.53)
Rows / FPI (FPcm)	1 / 23 (9)	1 / 23 (9)	1 / 23 (9)
<b>Indoor Coil</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth In. (mm)	1 (25.4)	1 (25.4)	1 (25.4)
Face Area sq. ft. (sq. m)	7.52 (0.7)	7.52 (0.7)	7.52 (0.7)
Rows / FPI (FPcm)	1 / 20 (8)	1 / 20 (8)	1 / 20 (8)
<b>Refrigerant Control</b>			
	<b>TX Valves</b>	<b>TX Valves</b>	<b>TX Valves</b>
<b>Drain Connection No./Size In. (mm)</b>			
	<b>1/0.75 (19.05)</b>	<b>1/0.75 (19.05)</b>	<b>1/0.75 (19.05)</b>
<b>Outdoor Fan</b>			
Type	Propeller	Propeller	Propeller
No. Used/Diameter In. (mm)	1/26 (660.4)	1/26 (660.4)	1/26 (660.4)
Drive Type/ No. Speeds	Direct/1	Direct/1	Direct/1
CFM (L/s)	4600 (2171)	4600 (2171)	4600 (2171)
No. Motors/HP	1 @ 1/5 HP	1 @ 1/5 HP	1 @ 1/5 HP
Motor RPM	820	820	820
<b>Indoor Fan</b>			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter In. (mm)	1/15×15 (381×381)	1/15×15 (381×381)	1/15×15 (381×381)
<b>Drive Type/No. Speeds</b>			
No. Motors/HP	1	1	1
Motor HP	2, 3	2, 3	2, 3
Motor RPM Direct Drive/Belt Drive	1725	1725	1725
Motor Frame Size	56	56	56
<b>Filter</b>			
Type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
[QTY] Size Recommended In. (mm x mm x mm)	[4] 2x16x16 (51x406x406)	[4] 2x16x16 (51x406x406)	[4] 2x16x16 (51x406x406)
<b>Refrigerant Charge</b>			
Charge Oz. (g)	68 (1928)	90 (2552)	88 (2495)

**NOTE:**

( ) Designates Metric Conversions

- Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER is rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
- Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

**Table 4: MPS A03D – A05D, Standard Efficiency (Gas Heating)**

Model	208/230V					
	A03D		A04D		A05D	
<b>Gas Heating Performance<sup>1</sup></b>						
AFUE %	81	81	81	81	81	81
Steady stage efficiency %	81	81	81	81	81	81
No. Stages	2	2	2	2	2	2
Gas Connection Size In. (mm)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
Heating Input (BtuH) High-Fire/Low-Fire	75,000/52,500 (21.98/115.4)	100,000/70,000 (29.3/20.5)	75,000/52,500 (21.98/115.4)	120,000/84,000 (35.2/24.6)	75,000/52,500 (21.98/115.4)	120,000/84,000 (35.2/24.6)
Heating output (BtuH)	60,750/42,525 (17.8/12.5)	81,000/56,700 (23.74/16.6)	60,750/42,525 (17.8/12.5)	97,200/68,040 (28.5/19.9)	60,750/42,525 (17.8/12.5)	97,200/68,040 (28.5/19.9)
High-Fire Rise Range F ( C )	25-55	35-65	25-55	40-70	25-55	40-70
	(13.9-30.6)	(19.4-36.1)	(16.7-33.3)	(22.2-38.9)	(16.7-33.3)	(22.2-38.9)
Low-Fire Rise Range F ( C )	20-50	25-55	20-50	30-60	20-50	30-60
	(11.1-27.8)	(13.9-30.6)	(11.1-27.8)	(16-33)	(11.1-27.8)	(16-33)
Model	460V					
	A03D		A04D		A05D	
<b>Gas Heating Performance<sup>1</sup></b>						
AFUE %	81	81	81	81	81	81
Steady stage efficiency %	81	81	81	81	81	81
No. Stages	2	2	2	2	2	2
Gas Connection Size In. (mm)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
Heating Input (BtuH) High-Fire/Low-Fire	75,000/52,500 (21.98/115.4)	100,000/70,000 (29.3/20.5)	75,000/52,500 (21.98/115.4)	120,000/84,000 (35.2/24.6)	75,000/52,500 (21.98/115.4)	120,000/84,000 (35.2/24.6)
Heating output (BtuH)	60,750/42,525 (17.8/12.5)	81,000/56,700 (23.74/16.6)	60,750/42,525 (17.8/12.5)	97,200/68,040 (28.5/19.9)	60,750/42,525 (17.8/12.5)	97,200/68,040 (28.5/19.9)
High-Fire Rise Range F ( C )	30-60	35-65	30-60	40-70	30-60	40-70
	(16.7-33.3)	(19.4-36.1)	(16.7-33.3)	(22.2-38.9)	(16.7-33.3)	(22.2-38.9)
Low-Fire Rise Range F ( C )	25-55	30-60	20-50	35-65	20-50	30-60
	(13.9-30.6)	(16.7-33.3)	(11.1-27.8)	(19.5-36.1)	(11.1-27.8)	(16-33)

**NOTE:**

( ) Designates Metric Conversions

1. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.

 4. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.  
 Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

**Table 5: MPS A07D – A12D, Standard Efficiency (Cooling)**

Model	A07D	A08D	A10D	A12D
<b>Cooling Performance<sup>1</sup></b>				
Gross cooling, BTU (kW)	88,000 (25.78)	99,000 (29.01)	118,000 (34.57)	148,000 (43.36)
EER <sup>2</sup> /IEER—IEER with VFD	11/14.8	11/14.8	11/14.8	10.8/14.2
Nominal airflow/AHRI airflow, cfm (L/s)	3000/3175 (1416/1498)	3400/3225 (1604/1522)	4000/3480 (1888/1642)	5000/3750 (2360/1770)
Net cooling, BTU (kW)	85,000 (24.9)	96,000 (28.13)	114,000 (33.4)	142,000 (41.61)
Net sensible, BTU (kW)	62,700 (18.37)	68,300 (20.01)	79,600 (23.32)	98,600 (28.89)
Net latent, BTU (kW)	22,300 (6.53)	27,700 (8.12)	34,400 (10.08)	43,400 (12.72)
Net system power kW	7.35	7.35	9.83	13.69
<b>Compressor(s)</b>				
Refrigerant circuits	1	1	1	2
Type/number	Scroll/1	Scroll/1	Scroll/1	Scroll/2
<b>Gas Heating Performance<sup>3</sup></b>				
AFUE %	80	80	80	80
Steady stage efficiency %	81	81	81	81
Number stages	2	2	2	2
Gas connection size, in.	3/4"	3/4"	3/4"	3/4"
Heating input (BtuH) low/high	150,000/205,000	150,000/225,000	150,000/225,000	150,000/225,000
Heating output (BtuH)	121,500/166,050	121,500/182,250	121,500/182,250	121,500/182,250
Temperature rise °F	20–65	15–65	15–65	10–55
<b>Sound<sup>4</sup></b>				
Outdoor rating (dB)	88	88	88	88
<b>Outdoor Coil</b>				
Fin type	Louvered	Louvered	Louvered	Louvered
Tube type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth, in. (mm)	0.71 (18)	0.81 (20.6)	1 (25.4)	1 (25.4)
Face area, sq. ft (sq. m)	25.4 (2.36)	25.6 (2.38)	25.6 (2.38)	31.5 (2.93)
Rows/fpi (fpcm)	1/23 (9)	1/23 (9)	1/23 (9)	1/23 (9)
<b>Indoor Coil</b>				
Fin type	Louvered	Louvered	Louvered	Louvered
Tube type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth, in. (mm)	1 (25.4)	1.26 (32)	1.26 (32)	1 (25.4)
Face area, sq. ft (sq. m)	11 (1.02)	10.69 (1.01)	10.9 (1.01)	13.8 (1.28)
Rows/fpi (fpcm)	1/20 (8)	1/20 (8)	1/20 (8)	2/18 (7)
Refrigerant control	TX valves	TX valves	TX valves	TX valves
Drain connection, in. (mm)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)
<b>Condenser Fan</b>				
Type	Propeller	Propeller	Propeller	Propeller
Number used/diameter, in. (mm)	2/24 (609.6)	2/24 (609.6)	2/24 (609.6)	2/24 (609.6)
Drive type/Number of speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM (L/s)	8000 (3775)	8000 (3775)	8500 (4011)	9000 (3775)
Motor hp	2 at 1/5 HP	2 at 1/5 HP	2 at 1/3 HP	2 at 3/4 HP
Motor rpm	820	820	1075	1100
<b>Indoor Fan</b>				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number used/diameter, in. (mm)	1/15×15 (381×381)	1/15×15 (381×381)	1/15×15 (381×381)	1/15×15 (381×381)
Number motors	1	1	1	1
Motor hp	2, 3	2, 3	2, 3	3, 5
Motor rpm	1725	1725	1725	1725
Motor frame size	56	56	56	56

**NOTE:**

( ) Designates Metric Conversions

1. Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.

2. EER is rated at AHRI conditions and in accordance with DOE test procedures.

3. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.

4. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Model	A07D	A08D	A10D	A12D
<b>Filter</b>				
Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
[Number] Size, in. (mm)	[4] 2×20×20 (51×508×508)	[4] 2×20×20 (51×508×508)	[4] 2×20×20 (51×508×508)	[4] 2×20×25 (51×508×635)
<b>Refrigerant</b>				
Charge/HGRH Charge, oz. (g)	100/137 (2835/3884)	117/154 (3317/4366)	136/182 (4899/5160)	186/232 (5273/6577)
<b>Weight</b>				
Net weight, lbs. (kg)	839 (381)	868 (394)	896 (406)	1094 (496)
Shipping weight, lbs. (kg)	878 (398)	907 (411)	935 (424)	1133 (514)

**NOTE:**

( ) Designates Metric Conversions

- Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER is rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
- Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

**Table 6: MPS 015B – 025B, Standard Efficiency (Cooling)**

Model	015B	020B	025B
<b>Cooling Performance<sup>1</sup></b>			
Gross cooling, BTU (kW)	188,000 (55.08)	244,000 (71.49)	312,000 (91.42)
EER <sup>2</sup> /IEER—IEER with VFD	11.1/12.4—14.6	11.1/11.4—14.8	10/10.1—14.1
Nominal airflow/AHRI airflow, cfm (L/s)	6000/5900 (2831/2784)	8000/7725 (3775/3645)	10000/9475 (4719/4471)
Net cooling, BTU (kW)	182,000 (53.33)	234,000 (68.56)	294,000 (86.14)
Net sensible, BTU (kW)	135,700 (39.76)	171,600 (50.28)	214,100 (62.73)
Net latent, BTU (kW)	46,300 (13.57)	62,400 (18.28)	79,900 (23.41)
Net system power kW	16.35	21.04	29.39
<b>Compressor(s)</b>			
Type/number	Scroll/2	Scroll/2	Scroll/2
Gas Heating Performance <sup>3</sup>			
AFUE %	80	80	80
Steady stage efficiency %	81	81	81
Number stages	2	2	2
Gas connection size, in.	3/4	3/4	3/4
Heating input (BtuH) low/high	250,000/350,000	300,000/400,000	300,000/400,000
Heating output (BtuH)	203,000/284,000	243,000/324,000	243,000/324,000
Temperature rise °F	15–60	15–55	10–45
<b>Sound<sup>4</sup></b>			
Outdoor rating (dB)	91	91	92
<b>Outdoor Coil</b>			
Fin type	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled
Tube size OD, in. (mm)	0.375 (9.5)	0.375 (9.5)	0.375 (9.5)
Face area, sq. ft (sq. m)	53.3 (4.95)	53.3 (4.95)	53.3 (4.95)
Rows, fpi (fpcm)	1/22 (9)	2/22 (9)	2/22 (9)
<b>Indoor Coil</b>			
Fin type	Louvered	Louvered	Louvered
Tube type	Rifled	Rifled	Rifled
Tube size OD, in. (mm)	0.375 (9.5)	0.375 (9.5)	0.375 (9.5)
Face area, sq. ft (sq. m)	26.67 (2.48)	26.67 (2.48)	26.67 (2.48)
Rows, fpi (fpcm)	2/18 (7)	3/13 (5)	4/15 (6)
Refrigerant control	TX valves	TX valves	TX valves
Drain connection, in. (mm)	1 (25.4)	1 (25.4)	1 (25.4)
<b>Condenser Fan</b>			
Type	Propeller	Propeller	Propeller
Number used/diameter, in. (mm)	4/24 (609.6)	6/24 (609.6)	6/24 (609.6)
Drive type/Number of speeds	Direct/1	Direct/1	Direct/1
CFM (L/s)	16000 (7550)	19800 (9344)	19800 (9344)
Motor hp	4 at 1/3 HP	6 at 1/3 HP	6 at 1/3 HP
Motor rpm	1075	1075	1075
<b>Indoor Fan</b>			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number used/diameter, in. (mm)	2/18×9 (457×229)	2/18×9 (457×229)	2/18×9 (457×229)
Number motors	1	1	1
Motor hp	3, 5	5, 7-1/2	7-1/2, 10
Motor rpm	1725	1725	1725
Motor frame size	56/184	184/213	213/215

**NOTE:**

( ) Designates Metric Conversions

- Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER is rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
- Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

Model	015B	020B	025B
<b>Filter</b>			
Fin type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
[Number] Size, in. (mm)	[8] 2×25×20 (51×635×508)	[8] 2×25×20 (51×635×508)	[8] 2×25×20 (51×635×508)
<b>Refrigerant</b>			
Charge, oz. (g)	205/211 (5812/5982)	402/331 (11397/9384)	339/357 (9611/10121)
<b>Weight</b>			
Net weight, lbs. (kg)	2000 (907)	2341 (1062)	2433 (1104)
Shipping weight, lbs. (kg)	2100 (953)	2441 (1107)	2533 (1149)

**NOTE:**

( ) Designates Metric Conversions

- Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER is rated at AHRI conditions and in accordance with DOE test procedures.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
- Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

**Table 7: MPS A03C – A05C Standard Efficiency (Cooling)**

Model	A03C	A04C	A05C
<b>Cooling Performance<sup>1</sup></b>			
Gross Cooling Capacity Btu (kW)	36,200 (10.61)	48,000 (14.06)	60,000 (17.58)
EER/SEER <sup>2</sup>	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM (L/s)	1200/1250 (566/590)	1600/1500 (755/708)	2000/1800 (944/849)
AHRI Net Cooling Capacity Btu (kW)	34,600 (10.14)	46,000 (13.48)	58,500 (17.14)
Net Sensible Capacity Btu (kW)	25,300 (7.41)	34,000 (9.96)	41,700 (12.22)
Net Latent Capacity Btu (kW)	9,300 (2.72)	12,000 (3.52)	17,500 (5.13)
Net System Power kW	2.95	3.93	4.95
<b>Compressor</b>			
No./Type	1/Scroll	1/Scroll	1/Scroll
<b>Gas Heating Performance</b>			
AFUE %	80	80	80
Steady stage efficiency %	81	81	81
No. stages	1	1	1
Gas connection size	1/2"	1/2"	1/2"
Heating input (BtuH) low/medium/high	80,000/120,000	80,000/100,000/135,000	100,000/135,000
Heating output (BtuH)	64,800/97,200	64,800/81,000/109,400	81,000/109,400
Temperature rise °F	30–80	30–80	30–70
<b>Sound<sup>4</sup></b>			
Outdoor Rating (dB)	78	78	83
<b>Outdoor Coil</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth in. (mm)	0.7 (18)	0.7 (18)	0.7 (18)
Face Area sq. ft. (sq. m)	13.9 (1.29)	16.4 (1.52)	16.4 (1.52)
Rows / FPI (FPcm)	1 / 23 (9)	1 / 23 (9)	1 / 23 (9)
<b>Indoor Coil - Fin Type</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth in. (mm)	1 (25)	1.3 (32)	1.3 (32)
Face Area sq. ft. (sq. m)	4.8 (0.45)	4.8 (0.45)	4.8 (0.45)
Rows / FPI (FPcm)	1/20 (8)	1/20 (8)	1/20 (8)
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. (mm)	1/0.75 (19.05)	1/0.75 (19.05)	1/0.75 (19.05)
<b>Outdoor Fan</b>			
Type	Propeller	Propeller	Propeller
No. Used/Diameter in. (mm)	1/24 (609.6)	1/24 (609.6)	1/24 (609.6)
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM (L/s)	3680 (1737)	3680 (1737)	3930 (1855)
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075
<b>Indoor Fan</b>			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. (mm)	1/10×10 (254×254)	1/10×10 (254×254)	1/11×10 (279×254)
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Belt/Adjustable
No. Motors	1	1	1
Motor HP	1/2	3/4	1
Motor RPM Direct Drive/Belt Drive	1725	1725	1725
Motor Frame Size <sup>5</sup>	56	56	56
<b>Filter</b>			
Type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
[NO.] Size Recommended in. (mm × mm × mm)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)
<b>Refrigerant Charge Oz. (g)</b>			
Charge Oz. (g)	54 (1531)	68 (1928)	63

**NOTES:**

( ) Designates Metric Conversions

- Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal CFM. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.
- Greater value indicates larger HP indoor fan motor
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.

**Table 8: MPS H03C – H05C, High Efficiency (Cooling)**

Model	H03C	H04C	H05C
<b>Cooling Performance<sup>1</sup></b>			
Gross Cooling Capacity Btu (kW)	36,200 (10.61)	48,000 (14.06)	59,000 (17.29)
EER/SEER <sup>2</sup>	12.5/15	12.5/15	11.6/15
EER (1st Stage/2nd Stage)	N/A	N/A	19.9/11.6
Nominal CFM/AHRI Rated CFM (L/s) <sup>7</sup>	1200/1250 (566/590)	1600/1600 (755/755)	1375/1800 (649/849)
AHRI Net Cooling Capacity Btu (kW) <sup>7</sup>	35,400 (10.37)	46,500 (13.62)	49,000/57,000 (14.3/16.7)
Net Sensible Capacity Btu (kW) <sup>7</sup>	26,200 (7.68)	35,700 (10.46)	34,800/40,800 (10.2/12.0)
Net Latent Capacity Btu (kW) <sup>7</sup>	9,200 (2.72)	10,800 (3.52)	14,200/16,200 (4.2/4.8)
Net System Power kW <sup>7</sup>	2.72	3.69	2.1/4.8
<b>Compressor</b>			
No./Type	1/Scroll	1/Scroll	1/Scroll
<b>Gas Heating Performance</b>			
AFUE %	81	81	81
Steady stage efficiency %	82	82	82
No. stages	1	1	1
Gas connection size	1/2"	1/2"	1/2"
Heating input (BtuH) low/medium/high	80,000/120,000	80,000/100,000/135,000	100,000/135,000
Heating output (BtuH)	64,800/97,200	64,800/81,000/109,400	81,000/109,400
Temperature rise °F	25-70	25-70	30 - 70
<b>Sound<sup>4</sup></b>			
Outdoor Rating (dB)	78	78	83
<b>Outdoor Coil</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth in. (mm)	0.7 (18)	0.7 (18)	0.7 (18)
Face Area sq. ft. (sq. m)	13.9 (1.29)	16.4 (1.52)	16.4 (1.52)
Rows / FPI (FPcm)	1 / 23 (9)	1 / 23 (9)	1 / 23 (9)
<b>Indoor Coil - Fin Type</b>			
Fin Type	Louvered	Louvered	Louvered
Tube Type	Microchannel	Microchannel	Microchannel
Microchannel Depth in. (mm)	1 (25)	1.3 (32)	1.3 (32)
Face Area sq. ft. (sq. m)	4.8 (0.45)	4.8 (0.45)	4.8 (0.45)
Rows / FPI (FPcm)	1/20 (8)	1/20 (8)	1/20 (8)
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. (mm)	1/0.75 (19.05)	1/0.75 (19.05)	1/0.75 (19.05)
<b>Outdoor Fan</b>			
Type	Propeller	Propeller	Propeller
No. Used/Diameter in. (mm)	1/24 (609.6)	1/24 (609.6)	1/24 (609.6)
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM (L/s)	3680 (1737)	3680 (1737)	3930 (1855)
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075
<b>Indoor Fan</b>			
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. (mm)	1/10×10 (254×254)	1/10×10 (254×254)	1/11×10 (279×254)
Drive Type/No. Speeds	Belt/Adjustable	Belt/Adjustable	Direct/Multiple
No. Motors	1	1	1
Motor HP	1/2	3/4	1
Motor RPM Direct Drive/Belt Drive	1725	1725	1075
Motor Frame Size5	56	56	48
<b>Filter</b>			
Type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
[NO.] Size Recommended in. (mm × mm × mm)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)	[1] 1×16×25 (25×406×635) [1] 1×16×25 (25×406×635)
<b>Refrigerant Charge Oz. (g)</b>			
Charge Oz. (g)	54 (1531)	68 (1928)	63

**NOTES:**

[ ] Designates Metric Conversions

- Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal CFM. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360.
- EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
- Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.
- Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.
- Greater value indicates larger HP indoor fan motor
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using ANSI standards.
- Values shown for H05C model are both AHRI rated. (1st stage/2nd stage)

## Gas Pressures

The following table lists gas line and manifold pressures for natural gas and LP gas for all unit sizes.

**Table 9: MPS A03B – 025B Gas Pressures**

Gas Line	Pressure Area	Inches W.C.
Natural gas	Line pressure	5"–10.5"
	Manifold pressure	3.5"
LP gas <sup>1</sup>	Line pressure	11"–13"
	Manifold Pressure	10"

**Note:**

1. Field installed conversion kit required. Contact Daikin Parts.

## Factory Installed Option Code

The following tables list options (codes) available for specific sized units.

**Table 10: MPS A03 – A05C Selectable options**

Installed Component	Option Code								
	AA	AR	AP	AH	BF	BY	JB	DN	DP
Low Pressure (LP)	X	X	X	X	X	X	X	X	X
High Pressure (HP)	X	X	X	X	X	X	X	X	X
Non-powered GFI outlet				X	X		X	X	X
Disconnect**				X	X		X	X	X
Freeze stat			X			X	X	X	
SS heat exchanger**	X	X	X						
Hail guard					X	X		X	X
Low ambient/Comfort alert**		X							X

**NOTE:** \*\* indicates the feature is only applicable for units with gas heat.

**Table 11: MPSA07 – A12D Selectable Options**

Installed Component	Option Code											
	Code Item: 10					Code Item: 11						
	B	C	D	E	F	B	C	D	E	F	H	K
Low Pressure (LP)	X	X	X	X	X	X	X	X	X	X	X	X
High Pressure (HP)	X	X	X	X	X	X	X	X	X	X	X	X
Non-powered GFI outlet							X	X			X	X
Disconnect**									X	X	X	
Hail guard	X		X		X							
Coated condenser Coil				X	X							
Low ambient/Comfort alert						X		X		X		X
Hinged Access Doors		X	X		X							

**NOTE:** \*\* indicates the feature is only applicable for units with gas heat.

**Table 12: MPS015B – 025B Cooling with Gas Heat**

Installed Component	Option Code						
	AA	AP	AH1	JB1	CW1	AR	CY1
Low Pressure (LP)	X	X	X	X	X	X	X
High Pressure (HP)	X	X	X	X	X	X	X
Non-powered GFI outlet			X	X	X		X
Disconnect			X	X	X		X
Freeze stat/low ambient		X			X	X	X
SS heat exchanger				X	X		X

**NOTE:**  
1. Disconnect and GFI outlet are not an option for 208/230 volt, 25 ton units.

**Table 13: MPS015B – 025B Cooling Only**

Installed Component	Option Code					
	AA	AG	AP	JC	AR	JE
Low Pressure (LP)	X	X	X	X	X	X
High Pressure (HP)	X	X	X	X	X	X
Non-powered GFI outlet		X		X		X
Freeze stat			X	X	X	X

**NOTE:** Low Ambient / Comfort Alert available with DDC controls only

# System Performance—Cooling Only

Table 14: Gross System Performance—MP5A03C, 3 Tons Cooling Only

		Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>									
		wbE	71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)		
		CFM (L/s)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)
		DR <sup>1</sup>	0.2	0.18	0.15	0.2	0.18	0.15	0.2	0.18	0.15
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	44.7 (13.1)	43.9 (12.9)	42.7 (12.5)	41.5 (12.2)	40.7 (11.9)	39.6 (11.6)	38.5 (11.3)	37.8 (11.1)	36.8 (10.8)
		Sens BTUH (kW)	23.8 (7.0)	22.8 (6.7)	21.2 (6.2)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)
		Power (kW)	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0
	80 (26.7)	Total BTUH (kW)	43.6 (12.8)	42.9 (12.6)	41.7 (12.2)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	37.4 (11.0)	36.7 (10.8)	35.7 (10.5)
		Sens BTUH (kW)	23.7 (6.9)	22.6 (6.6)	21.0 (6.2)	29.5 (8.6)	28.2 (8.3)	26.2 (7.7)	33.0 (9.7)	31.6 (9.3)	29.4 (8.6)
		Power (kW)	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0
	85 (29.4)	Total BTUH (kW)	42.5 (12.5)	41.7 (12.2)	40.6 (11.9)	39.3 (11.5)	38.6 (11.3)	37.5 (11.0)	36.3 (10.6)	35.6 (10.4)	34.6 (10.2)
		Sens BTUH (kW)	23.4 (6.8)	22.3 (6.5)	20.8 (6.1)	29.2 (8.6)	27.9 (8.2)	26.0 (7.6)	32.8 (9.6)	31.3 (9.2)	29.1 (8.5)
		Power (kW)	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.2
	90 (32.2)	Total BTUH (kW)	41.4 (12.1)	40.6 (11.9)	39.5 (11.6)	38.1 (11.2)	37.4 (11.0)	36.4 (10.7)	35.1 (10.3)	34.5 (10.1)	33.5 (9.8)
		Sens BTUH (kW)	22.9 (6.7)	21.9 (6.4)	20.4 (6.0)	28.8 (8.4)	27.5 (8.1)	25.6 (7.5)	32.3 (9.5)	30.9 (9.1)	28.7 (8.4)
		Power (kW)	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3
	95 (35)	Total BTUH (kW)	40.2 (11.8)	39.5 (11.6)	38.4 (11.2)	36.9 (10.8)	<b>36.3 (10.6)</b>	35.3 (10.3)	33.9 (9.9)	33.3 (9.8)	32.4 (9.5)
		Sens BTUH (kW)	22.4 (6.6)	21.4 (6.3)	19.9 (5.8)	28.2 (8.3)	<b>27.0 (7.9)</b>	25.1 (7.3)	31.8 (9.3)	30.3 (8.9)	28.2 (8.3)
		Power (kW)	2.5	2.4	2.4	2.5	<b>2.5</b>	2.4	2.5	2.5	2.5
	100 (37.8)	Total BTUH (kW)	39.0 (11.4)	38.3 (11.2)	37.2 (10.9)	35.7 (10.5)	35.1 (10.3)	34.1 (10.0)	32.7 (9.6)	32.2 (9.4)	31.3 (9.2)
		Sens BTUH (kW)	21.7 (6.4)	20.7 (6.1)	19.3 (5.6)	27.5 (8.1)	26.3 (7.7)	24.5 (7.2)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)
		Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6
	105 (40.6)	Total BTUH (kW)	37.7 (11.1)	37.1 (10.9)	36.1 (10.6)	34.5 (10.1)	33.9 (9.9)	33.0 (9.7)	31.5 (9.2)	30.9 (9.1)	30.1 (8.8)
		Sens BTUH (kW)	20.9 (6.1)	19.9 (5.8)	18.5 (5.4)	26.7 (7.8)	25.5 (7.5)	23.7 (7.0)	30.2 (8.9)	28.9 (8.5)	26.9 (7.9)
		Power (kW)	2.8	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8
	110 (43.3)	Total BTUH (kW)	36.5 (10.7)	35.8 (10.5)	34.9 (10.2)	33.2 (9.7)	32.7 (9.6)	31.8 (9.3)	30.3 (8.9)	29.7 (8.7)	28.9 (8.5)
		Sens BTUH (kW)	19.9 (5.8)	19.0 (5.6)	17.7 (5.2)	25.7 (7.5)	24.6 (7.2)	22.9 (6.7)	29.3 (8.6)	28.0 (8.2)	26.0 (7.6)
		Power (kW)	2.9	2.9	2.9	3.0	2.9	2.9	3.0	3.0	2.9
115 (46.1)	Total BTUH (kW)	35.2 (10.3)	34.6 (10.1)	33.6 (9.9)	32.0 (9.4)	31.4 (9.2)	30.5 (8.9)	29.0 (8.5)	28.5 (8.3)	27.7 (8.1)	
	Sens BTUH (kW)	18.8 (5.5)	18.0 (5.3)	16.7 (4.9)	24.7 (7.2)	23.6 (6.9)	21.9 (6.4)	28.2 (8.3)	26.9 (7.9)	25.0 (7.3)	
	Power (kW)	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.1	
120 (48.9)	Total BTUH (kW)	33.9 (9.9)	33.3 (9.8)	32.4 (9.5)	30.7 (9.0)	30.1 (8.8)	29.3 (8.6)	27.7 (8.1)	27.2 (8.0)	26.4 (7.7)	
	Sens BTUH (kW)	17.6 (5.1)	16.8 (4.9)	15.6 (4.6)	23.4 (6.9)	22.4 (6.6)	20.8 (6.1)	27.0 (7.9)	25.8 (7.5)	24.0 (7.0)	
	Power (kW)	3.3	3.3	3.2	3.3	3.3	3.3	3.4	3.3	3.3	
125 (51.7)	Total BTUH (kW)	32.6 (9.5)	32.0 (9.4)	31.1 (9.1)	29.3 (8.6)	28.8 (8.4)	28.0 (8.2)	26.3 (7.7)	25.9 (7.6)	25.2 (7.4)	
	Sens BTUH (kW)	16.2 (4.8)	15.5 (4.5)	14.4 (4.2)	22.1 (6.5)	21.1 (6.2)	19.6 (5.7)	25.6 (7.5)	24.5 (7.2)	22.7 (6.7)	
	Power (kW)	3.5	3.5	3.4	3.5	3.5	3.4	3.6	3.5	3.5	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 - DR) × (dbE - 80))

Table 15: Gross System Performance—MPSA04C, 4 Tons Cooling Only

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1650 (779)	1500 (708)	1275 (602)	1650 (779)	1500 (708)	1275 (602)	1650 (779)	1500 (708)	1275 (602)	
DR <sup>1</sup>		0.1	0.08	0.05	0.1	0.08	0.05	0.1	0.08	0.05	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	60.3 (17.7)	59.3 (17.4)	57.6 (16.9)	56.1 (16.4)	55.1 (16.1)	53.6 (15.7)	51.1 (15.0)	50.2 (14.7)	48.8 (14.3)
		Sens BTUH (kW)	31.2 (9.2)	29.8 (8.7)	27.7 (8.1)	39.8 (11.7)	38.1 (11.2)	35.4 (10.4)	43.9 (12.9)	41.9 (12.3)	39.0 (11.4)
		Power (kW)	2.6	2.6	2.5	2.6	2.6	2.5	2.6	2.6	2.5
	80 (26.7)	Total BTUH (kW)	58.5 (17.1)	57.4 (16.8)	55.9 (16.4)	54.2 (15.9)	53.2 (15.6)	51.8 (15.2)	49.2 (14.4)	48.4 (14.2)	47.0 (13.8)
		Sens BTUH (kW)	31.0 (9.1)	29.6 (8.7)	27.5 (8.1)	39.6 (11.6)	37.8 (11.1)	35.2 (10.3)	43.6 (12.8)	41.7 (12.2)	38.8 (11.4)
		Power (kW)	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	85 (29.4)	Total BTUH (kW)	56.7 (16.6)	55.7 (16.3)	54.2 (15.9)	52.4 (15.4)	51.5 (15.1)	50.1 (14.7)	47.5 (13.9)	46.6 (13.7)	45.3 (13.3)
		Sens BTUH (kW)	30.6 (9.0)	29.2 (8.6)	27.1 (8.0)	39.2 (11.5)	37.4 (11.0)	34.8 (10.2)	43.2 (12.7)	41.3 (12.1)	38.4 (11.3)
		Power (kW)	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	90 (32.2)	Total BTUH (kW)	55.0 (16.1)	54.0 (15.8)	52.5 (15.4)	50.7 (14.9)	49.8 (14.6)	48.4 (14.2)	45.7 (13.4)	44.9 (13.2)	43.7 (12.8)
		Sens BTUH (kW)	30.0 (8.8)	28.6 (8.4)	26.6 (7.8)	38.6 (11.3)	36.9 (10.8)	34.3 (10.0)	42.6 (12.5)	40.7 (11.9)	37.9 (11.1)
		Power (kW)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	95 (35)	Total BTUH (kW)	53.3 (15.6)	52.3 (15.3)	50.9 (14.9)	49.0 (14.4)	<b>48.1 (14.1)</b>	46.8 (13.7)	44.1 (12.9)	43.3 (12.7)	42.1 (12.3)
		Sens BTUH (kW)	29.2 (8.6)	27.9 (8.2)	26.0 (7.6)	37.8 (11.1)	<b>36.1 (10.6)</b>	33.6 (9.9)	41.9 (12.3)	40.0 (11.7)	37.2 (10.9)
		Power (kW)	3.3	3.3	3.3	3.3	<b>3.3</b>	3.3	3.3	3.3	3.3
	100 (37.8)	Total BTUH (kW)	51.7 (15.2)	50.8 (14.9)	49.4 (14.5)	47.4 (13.9)	46.6 (13.7)	45.3 (13.3)	42.5 (12.4)	41.7 (12.2)	40.6 (11.9)
		Sens BTUH (kW)	28.3 (8.3)	27.0 (7.9)	25.2 (7.4)	36.9 (10.8)	35.3 (10.3)	32.8 (9.6)	41.0 (12.0)	39.2 (11.5)	36.4 (10.7)
		Power (kW)	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	105 (40.6)	Total BTUH (kW)	50.2 (14.7)	49.3 (14.4)	47.9 (14.0)	45.9 (13.5)	45.1 (13.2)	43.9 (12.9)	40.9 (12.0)	40.2 (11.8)	39.1 (11.5)
		Sens BTUH (kW)	27.2 (8.0)	26.0 (7.6)	24.2 (7.1)	35.8 (10.5)	34.3 (10.0)	31.9 (9.3)	39.9 (11.7)	38.1 (11.2)	35.5 (10.4)
		Power (kW)	3.8	3.8	3.7	3.8	3.7	3.7	3.8	3.7	3.7
	110 (43.3)	Total BTUH (kW)	48.7 (14.3)	47.8 (14.0)	46.5 (13.6)	44.4 (13.0)	43.6 (12.8)	42.5 (12.4)	39.5 (11.6)	38.8 (11.4)	37.7 (11.1)
		Sens BTUH (kW)	26.0 (7.6)	24.8 (7.3)	23.1 (6.8)	34.6 (10.1)	33.1 (9.7)	30.8 (9.0)	38.7 (11.3)	36.9 (10.8)	34.4 (10.1)
		Power (kW)	4.0	4.0	3.9	4.0	4.0	3.9	4.0	4.0	4.0
115 (46.1)	Total BTUH (kW)	47.3 (13.9)	46.5 (13.6)	45.2 (13.2)	43.0 (12.6)	42.3 (12.4)	41.1 (12.0)	38.1 (11.2)	37.4 (11.0)	36.4 (10.7)	
	Sens BTUH (kW)	24.6 (7.2)	23.5 (6.9)	21.8 (6.4)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)	37.3 (10.9)	35.6 (10.4)	33.1 (9.7)	
	Power (kW)	4.3	4.2	4.2	4.3	4.2	4.2	4.3	4.2	4.2	4.2
120 (48.9)	Total BTUH (kW)	46.0 (13.5)	45.2 (13.2)	43.9 (12.9)	41.7 (12.2)	41.0 (12.0)	39.8 (11.7)	36.7 (10.8)	36.1 (10.6)	35.1 (10.3)	
	Sens BTUH (kW)	23.0 (6.7)	22.0 (6.4)	20.5 (6.0)	31.6 (9.3)	30.2 (8.9)	28.1 (8.2)	35.7 (10.5)	34.1 (10.0)	31.7 (9.3)	
	Power (kW)	4.5	4.5	4.4	4.5	4.5	4.4	4.5	4.5	4.4	4.4
125 (51.7)	Total BTUH (kW)	44.7 (13.1)	43.9 (12.9)	42.7 (12.5)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	35.5 (10.4)	34.8 (10.2)	33.9 (9.9)	
	Sens BTUH (kW)	21.3 (6.2)	20.3 (6.0)	18.9 (5.5)	29.9 (8.8)	28.6 (8.4)	26.6 (7.8)	34.0 (10.0)	32.4 (9.5)	30.2 (8.8)	
	Power (kW)	4.8	4.8	4.7	4.8	4.8	4.7	4.8	4.7	4.7	4.7

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 16: Gross System Performance—MPSA05C, 5 Tons Cooling Only

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	
DR <sup>1</sup>		0.13	0.12	0.9	0.13	0.12	0.9	0.13	0.12	0.9	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	75.4 (22.1)	74.0 (21.7)	72.0 (21.1)	69.7 (20.4)	68.4 (20.1)	66.6 (19.5)	67.8 (19.9)	66.6 (19.5)	64.7 (19.0)
		Sens BTUH (kW)	42.4 (12.4)	40.5 (11.9)	37.7 (11.0)	49.5 (14.5)	47.3 (13.9)	44.0 (12.9)	56.8 (16.7)	54.3 (15.9)	50.5 (14.8)
		Power (kW)	3.6	3.6	3.5	3.6	3.5	3.5	3.5	3.5	3.5
	80 (26.7)	Total BTUH (kW)	73.2 (21.5)	71.9 (21.1)	70.0 (20.5)	67.6 (19.8)	66.3 (19.4)	64.5 (18.9)	65.6 (19.2)	64.5 (18.9)	62.7 (18.4)
		Sens BTUH (kW)	41.4 (12.1)	39.6 (11.6)	36.8 (10.8)	48.5 (14.2)	46.4 (13.6)	43.1 (12.6)	55.8 (16.4)	53.4 (15.6)	49.6 (14.5)
		Power (kW)	3.8	3.8	3.7	3.8	3.7	3.7	3.7	3.7	3.7
	85 (29.4)	Total BTUH (kW)	71.1 (20.8)	69.8 (20.5)	67.9 (19.9)	65.4 (19.2)	64.3 (18.8)	62.5 (18.3)	63.5 (18.6)	62.4 (18.3)	60.7 (17.8)
		Sens BTUH (kW)	40.4 (11.8)	38.6 (11.3)	35.9 (10.5)	47.5 (13.9)	45.4 (13.3)	42.2 (12.4)	54.8 (16.1)	52.4 (15.4)	48.7 (14.3)
		Power (kW)	4.1	4.0	4.0	4.0	4.0	3.9	4.0	3.9	3.9
	90 (32.2)	Total BTUH (kW)	69.0 (20.2)	67.8 (19.9)	65.9 (19.3)	63.3 (18.6)	62.2 (18.2)	60.5 (17.7)	61.4 (18.0)	60.3 (17.7)	58.7 (17.2)
		Sens BTUH (kW)	39.4 (11.5)	37.6 (11.0)	35.0 (10.3)	46.5 (13.6)	44.4 (13.0)	41.3 (12.1)	53.8 (15.8)	51.4 (15.1)	47.8 (14.0)
		Power (kW)	4.3	4.3	4.2	4.3	4.2	4.2	4.2	4.2	4.1
	95 (35)	Total BTUH (kW)	66.9 (19.6)	65.7 (19.3)	63.9 (18.7)	61.2 (17.9)	<b>60.1 (17.6)</b>	58.5 (17.1)	59.3 (17.4)	58.3 (17.1)	56.7 (16.6)
		Sens BTUH (kW)	38.3 (11.2)	36.6 (10.7)	34.0 (10.0)	45.4 (13.3)	<b>43.3 (12.7)</b>	40.3 (11.8)	52.7 (15.4)	50.3 (14.7)	46.8 (13.7)
		Power (kW)	4.6	4.5	4.5	4.5	<b>4.5</b>	4.4	4.5	4.4	4.4
	100 (37.8)	Total BTUH (kW)	64.8 (19.0)	63.7 (18.7)	61.9 (18.1)	59.1 (17.3)	58.1 (17.0)	56.5 (16.6)	57.2 (16.8)	56.2 (16.5)	54.7 (16.0)
		Sens BTUH (kW)	37.1 (10.9)	35.5 (10.4)	33.0 (9.7)	44.2 (13.0)	42.2 (12.4)	39.3 (11.5)	51.5 (15.1)	49.2 (14.4)	45.8 (13.4)
		Power (kW)	4.8	4.8	4.7	4.8	4.7	4.7	4.7	4.7	4.6
	105 (40.6)	Total BTUH (kW)	62.7 (18.4)	61.6 (18.1)	59.9 (17.6)	57.1 (16.7)	56.1 (16.4)	54.5 (16.0)	55.2 (16.2)	54.2 (15.9)	52.7 (15.4)
		Sens BTUH (kW)	36.0 (10.5)	34.3 (10.1)	31.9 (9.4)	43.0 (12.6)	41.1 (12.0)	38.2 (11.2)	50.4 (14.8)	48.1 (14.1)	44.7 (13.1)
		Power (kW)	5.1	5.1	5.0	5.1	5.0	5.0	5.0	5.0	4.9
	110 (43.3)	Total BTUH (kW)	60.7 (17.8)	59.6 (17.5)	58.0 (17.0)	55.0 (16.1)	54.0 (15.8)	52.5 (15.4)	53.1 (15.6)	52.1 (15.3)	50.7 (14.9)
		Sens BTUH (kW)	34.7 (10.2)	33.2 (9.7)	30.9 (9.0)	41.8 (12.3)	40.0 (11.7)	37.2 (10.9)	49.1 (14.4)	46.9 (13.8)	43.7 (12.8)
		Power (kW)	5.4	5.4	5.3	5.4	5.3	5.2	5.3	5.3	5.2
115 (46.1)	Total BTUH (kW)	58.6 (17.2)	57.6 (16.9)	56.0 (16.4)	52.9 (15.5)	52.0 (15.2)	50.6 (14.8)	51.0 (15.0)	50.1 (14.7)	48.8 (14.3)	
	Sens BTUH (kW)	33.5 (9.8)	32.0 (9.4)	29.7 (8.7)	40.6 (11.9)	38.7 (11.4)	36.0 (10.6)	47.9 (14.0)	45.7 (13.4)	42.5 (12.5)	
	Power (kW)	5.7	5.7	5.6	5.7	5.6	5.6	5.6	5.6	5.5	
120 (48.9)	Total BTUH (kW)	56.6 (16.6)	55.6 (16.3)	54.1 (15.8)	50.9 (14.9)	50.0 (14.7)	48.6 (14.3)	49.0 (14.4)	48.1 (14.1)	46.8 (13.7)	
	Sens BTUH (kW)	32.2 (9.4)	30.7 (9.0)	28.6 (8.4)	39.2 (11.5)	37.5 (11.0)	34.9 (10.2)	46.6 (13.6)	44.5 (13.0)	41.4 (12.1)	
	Power (kW)	6.1	6.0	5.9	6.0	5.9	5.9	5.9	5.9	5.8	
125 (51.7)	Total BTUH (kW)	54.5 (16.0)	53.6 (15.7)	52.1 (15.3)	48.9 (14.3)	48.0 (14.1)	46.7 (13.7)	47.0 (13.8)	46.1 (13.5)	44.9 (13.1)	
	Sens BTUH (kW)	30.8 (9.0)	29.4 (8.6)	27.4 (8.0)	37.9 (11.1)	36.2 (10.6)	33.7 (9.9)	45.2 (13.2)	43.2 (12.7)	40.2 (11.8)	
	Power (kW)	6.4	6.3	6.3	6.3	6.3	6.2	6.3	6.2	6.2	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 17: Gross System Performance—MPSH03C, 3 Tons Cooling Only

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	
DR <sup>1</sup>		0.19	0.17	0.14	0.19	0.17	0.14	0.19	0.17	0.14	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	45.2 (13.3)	44.4 (13.0)	43.2 (12.7)	41.8 (12.2)	41.0 (12.0)	39.9 (11.7)	39.0 (11.4)	38.3 (11.2)	37.3 (10.9)
		Sens BTUH (kW)	24.2 (7.1)	23.1 (6.8)	21.5 (6.3)	29.9 (8.8)	28.6 (8.4)	26.6 (7.8)	33.7 (9.9)	32.2 (9.4)	29.9 (8.8)
		Power (kW)	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9
	80 (26.7)	Total BTUH (kW)	44.0 (12.9)	43.2 (12.7)	42.1 (12.3)	40.6 (11.9)	39.8 (11.7)	38.8 (11.4)	37.8 (11.1)	37.1 (10.9)	36.1 (10.6)
		Sens BTUH (kW)	24.0 (7.0)	22.9 (6.7)	21.3 (6.2)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	33.5 (9.8)	32.0 (9.4)	29.8 (8.7)
		Power (kW)	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0
	85 (29.4)	Total BTUH (kW)	42.8 (12.5)	42.1 (12.3)	40.9 (12.0)	39.4 (11.5)	38.7 (11.3)	37.6 (11.0)	36.6 (10.7)	35.9 (10.5)	34.9 (10.2)
		Sens BTUH (kW)	23.7 (6.9)	22.6 (6.6)	21.0 (6.2)	29.4 (8.6)	28.1 (8.2)	26.1 (7.7)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)
		Power (kW)	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2
	90 (32.2)	Total BTUH (kW)	41.6 (12.2)	40.9 (12.0)	39.8 (11.6)	38.1 (11.2)	37.5 (11.0)	36.4 (10.7)	35.4 (10.4)	34.7 (10.2)	33.8 (9.9)
		Sens BTUH (kW)	23.2 (6.8)	22.2 (6.5)	20.6 (6.0)	28.9 (8.5)	27.6 (8.1)	25.7 (7.5)	32.7 (9.6)	31.2 (9.2)	29.1 (8.5)
		Power (kW)	2.3	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.3
	95 (35)	Total BTUH (kW)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	36.9 (10.8)	<b>36.3 (10.6)</b>	35.3 (10.3)	34.2 (10.0)	33.6 (9.8)	32.6 (9.6)
		Sens BTUH (kW)	22.6 (6.6)	21.6 (6.3)	20.1 (5.9)	28.4 (8.3)	<b>27.1 (7.9)</b>	25.2 (7.4)	32.1 (9.4)	30.7 (9.0)	28.5 (8.4)
		Power (kW)	2.5	2.4	2.4	2.5	<b>2.5</b>	2.4	2.5	2.5	2.5
	100 (37.8)	Total BTUH (kW)	39.2 (11.5)	38.5 (11.3)	37.5 (11.0)	35.8 (10.5)	35.1 (10.3)	34.2 (10.0)	33.0 (9.7)	32.4 (9.5)	31.5 (9.2)
		Sens BTUH (kW)	21.9 (6.4)	20.9 (6.1)	19.5 (5.7)	27.6 (8.1)	26.4 (7.7)	24.6 (7.2)	31.4 (9.2)	30.0 (8.8)	27.9 (8.2)
		Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6
	105 (40.6)	Total BTUH (kW)	38.0 (11.1)	37.3 (10.9)	36.3 (10.6)	34.6 (10.1)	33.9 (9.9)	33.0 (9.7)	31.8 (9.3)	31.2 (9.1)	30.4 (8.9)
		Sens BTUH (kW)	21.1 (6.2)	20.1 (5.9)	18.7 (5.5)	26.8 (7.9)	25.6 (7.5)	23.8 (7.0)	30.6 (9.0)	29.2 (8.6)	27.2 (8.0)
		Power (kW)	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8
	110 (43.3)	Total BTUH (kW)	36.8 (10.8)	36.2 (10.6)	35.2 (10.3)	33.4 (9.8)	32.8 (9.6)	31.9 (9.3)	30.6 (9.0)	30.1 (8.8)	29.2 (8.6)
		Sens BTUH (kW)	20.1 (5.9)	19.2 (5.6)	17.9 (5.2)	25.8 (7.6)	24.7 (7.2)	23.0 (6.7)	29.6 (8.7)	28.3 (8.3)	26.3 (7.7)
		Power (kW)	3.0	2.9	2.9	3.0	3.0	2.9	3.0	3.0	3.0
115 (46.1)	Total BTUH (kW)	35.7 (10.4)	35.0 (10.3)	34.1 (10.0)	32.2 (9.4)	31.6 (9.3)	30.8 (9.0)	29.4 (8.6)	28.9 (8.5)	28.1 (8.2)	
	Sens BTUH (kW)	19.0 (5.6)	18.2 (5.3)	16.9 (4.9)	24.7 (7.3)	23.6 (6.9)	22.0 (6.4)	28.5 (8.4)	27.2 (8.0)	25.3 (7.4)	
	Power (kW)	3.2	3.1	3.1	3.2	3.2	3.1	3.2	3.2	3.1	
120 (48.9)	Total BTUH (kW)	34.5 (10.1)	33.9 (9.9)	32.9 (9.7)	31.0 (9.1)	30.5 (8.9)	29.6 (8.7)	28.2 (8.3)	27.7 (8.1)	27.0 (7.9)	
	Sens BTUH (kW)	17.8 (5.2)	17.0 (5.0)	15.8 (4.6)	23.5 (6.9)	22.5 (6.6)	20.9 (6.1)	27.3 (8.0)	26.1 (7.6)	24.3 (7.1)	
	Power (kW)	3.4	3.3	3.3	3.4	3.4	3.3	3.4	3.4	3.3	
125 (51.7)	Total BTUH (kW)	33.3 (9.8)	32.7 (9.6)	31.8 (9.3)	29.8 (8.7)	29.3 (8.6)	28.5 (8.4)	27.1 (7.9)	26.6 (7.8)	25.9 (7.6)	
	Sens BTUH (kW)	16.4 (4.8)	15.7 (4.6)	14.6 (4.3)	22.2 (6.5)	21.2 (6.2)	19.7 (5.8)	26.0 (7.6)	24.8 (7.3)	23.1 (6.8)	
	Power (kW)	3.6	3.5	3.5	3.6	3.6	3.5	3.6	3.6	3.5	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 - DR) × (dbE - 80))

Table 18: Gross System Performance—MPSH04C, 4 Tons Cooling Only

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	
DR <sup>1</sup>		0.11	0.09	0.05	0.11	0.09	0.05	0.11	0.09	0.05	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	58.9 (17.3)	57.8 (16.9)	56.2 (16.5)	55.1 (16.1)	54.1 (15.9)	52.6 (15.4)	49.6 (14.5)	48.8 (14.3)	47.4 (13.9)
		Sens BTUH (kW)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)	40.2 (11.8)	38.4 (11.3)	35.7 (10.5)	43.7 (12.8)	41.8 (12.2)	38.9 (11.4)
		Power (kW)	2.6	2.6	2.5	2.6	2.5	2.5	2.6	2.6	2.5
	80 (26.7)	Total BTUH (kW)	57.3 (16.8)	56.3 (16.5)	54.7 (16.0)	53.5 (15.7)	52.6 (15.4)	51.1 (15.0)	48.1 (14.1)	47.2 (13.8)	45.9 (13.5)
		Sens BTUH (kW)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)	40.2 (11.8)	38.4 (11.3)	35.7 (10.5)	43.7 (12.8)	41.8 (12.2)	38.9 (11.4)
		Power (kW)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	85 (29.4)	Total BTUH (kW)	55.7 (16.3)	54.7 (16.0)	53.2 (15.6)	51.9 (15.2)	51.0 (15.0)	49.6 (14.5)	46.5 (13.6)	45.7 (13.4)	44.4 (13.0)
		Sens BTUH (kW)	30.9 (9.0)	29.5 (8.6)	27.4 (8.0)	40.0 (11.7)	38.2 (11.2)	35.5 (10.4)	43.5 (12.7)	41.6 (12.2)	38.7 (11.3)
		Power (kW)	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	90 (32.2)	Total BTUH (kW)	54.1 (15.9)	53.2 (15.6)	51.7 (15.2)	50.4 (14.8)	49.5 (14.5)	48.1 (14.1)	44.9 (13.2)	44.1 (12.9)	42.9 (12.6)
		Sens BTUH (kW)	30.4 (8.9)	29.1 (8.5)	27.0 (7.9)	39.5 (11.6)	37.7 (11.1)	35.1 (10.3)	43.1 (12.6)	41.1 (12.1)	38.3 (11.2)
		Power (kW)	3.1	3.1	3.0	3.1	3.1	3.0	3.1	3.1	3.1
	95 (35)	Total BTUH (kW)	52.5 (15.4)	51.6 (15.1)	50.2 (14.7)	48.8 (14.3)	<b>47.9 (14.0)</b>	46.6 (13.7)	43.3 (12.7)	42.5 (12.5)	41.4 (12.1)
		Sens BTUH (kW)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	38.8 (11.4)	<b>37.1 (10.9)</b>	34.5 (10.1)	42.4 (12.4)	40.5 (11.9)	37.7 (11.0)
		Power (kW)	3.3	3.3	3.2	3.3	<b>3.3</b>	3.2	3.3	3.3	3.3
	100 (37.8)	Total BTUH (kW)	50.9 (14.9)	50.0 (14.7)	48.7 (14.3)	47.2 (13.8)	46.3 (13.6)	45.1 (13.2)	41.7 (12.2)	41.0 (12.0)	39.9 (11.7)
		Sens BTUH (kW)	28.8 (8.4)	27.5 (8.1)	25.6 (7.5)	37.9 (11.1)	36.2 (10.6)	33.7 (9.9)	41.5 (12.2)	39.6 (11.6)	36.8 (10.8)
		Power (kW)	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.4
	105 (40.6)	Total BTUH (kW)	49.3 (14.5)	48.5 (14.2)	47.1 (13.8)	45.6 (13.4)	44.8 (13.1)	43.5 (12.8)	40.1 (11.8)	39.4 (11.5)	38.3 (11.2)
		Sens BTUH (kW)	27.7 (8.1)	26.5 (7.8)	24.6 (7.2)	36.8 (10.8)	35.1 (10.3)	32.7 (9.6)	40.1 (11.8)	38.5 (11.3)	35.8 (10.5)
		Power (kW)	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	110 (43.3)	Total BTUH (kW)	47.7 (14.0)	46.9 (13.7)	45.6 (13.4)	44.0 (12.9)	43.2 (12.7)	42.0 (12.3)	38.5 (11.3)	37.8 (11.1)	36.8 (10.8)
		Sens BTUH (kW)	26.3 (7.7)	25.2 (7.4)	23.4 (6.9)	35.4 (10.4)	33.8 (9.9)	31.5 (9.2)	38.5 (11.3)	37.2 (10.9)	34.6 (10.1)
		Power (kW)	4.0	4.0	3.9	4.0	3.9	3.9	4.0	3.9	3.9
115 (46.1)	Total BTUH (kW)	46.1 (13.5)	45.3 (13.3)	44.1 (12.9)	42.3 (12.4)	41.6 (12.2)	40.4 (11.9)	36.9 (10.8)	36.2 (10.6)	35.2 (10.3)	
	Sens BTUH (kW)	24.7 (7.2)	23.6 (6.9)	22.0 (6.4)	33.8 (9.9)	32.3 (9.5)	30.1 (8.8)	36.9 (10.8)	35.7 (10.5)	33.2 (9.7)	
	Power (kW)	4.2	4.2	4.1	4.2	4.2	4.1	4.2	4.2	4.1	
120 (48.9)	Total BTUH (kW)	44.5 (13.0)	43.7 (12.8)	42.5 (12.5)	40.7 (11.9)	40.0 (11.7)	38.9 (11.4)	35.3 (10.3)	34.6 (10.1)	33.7 (9.9)	
	Sens BTUH (kW)	22.9 (6.7)	21.9 (6.4)	20.4 (6.0)	32.0 (9.4)	30.6 (9.0)	28.4 (8.3)	35.3 (10.3)	34.0 (10.0)	31.6 (9.3)	
	Power (kW)	4.5	4.5	4.4	4.5	4.4	4.4	4.5	4.4	4.4	
125 (51.7)	Total BTUH (kW)	42.9 (12.6)	42.1 (12.3)	40.9 (12.0)	39.1 (11.5)	38.4 (11.2)	37.3 (10.9)	33.6 (9.9)	33.0 (9.7)	32.1 (9.4)	
	Sens BTUH (kW)	20.9 (6.1)	19.9 (5.8)	18.5 (5.4)	30.0 (8.8)	28.6 (8.4)	26.6 (7.8)	33.5 (9.8)	32.0 (9.4)	29.8 (8.7)	
	Power (kW)	4.8	4.7	4.7	4.8	4.7	4.7	4.7	4.7	4.6	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 19: Gross System Performance—MPSH05C, 5 Tons Cooling Only

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		2310 (1090)	1850 (873)	1380 (651)	2310 (1090)	1850 (873)	1380 (651)	2310 (1090)	1850 (873)	1380 (651)	
DR <sup>1</sup>		0.17	0.13	0.08	0.17	0.13	0.08	0.17	0.13	0.08	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	77.5 (22.7)	74.1 (21.7)	70.7 (20.7)	71.1 (20.8)	68.0 (19.9)	64.9 (19.0)	65.8 (19.3)	62.9 (18.4)	60.0 (17.6)
		Sens BTUH (kW)	40.4 (11.8)	36.2 (10.6)	31.9 (9.3)	50.3 (14.7)	45.0 (13.2)	39.7 (11.6)	56.8 (16.6)	50.9 (14.9)	44.8 (13.1)
		Power (kW)	3.6	3.5	3.5	3.6	3.5	3.4	3.6	3.5	3.4
	80 (26.7)	Total BTUH (kW)	76.0 (22.3)	72.7 (21.3)	69.4 (20.3)	69.7 (20.4)	66.6 (19.5)	63.6 (18.6)	64.3 (18.8)	61.5 (18.0)	58.7 (17.2)
		Sens BTUH (kW)	40.7 (11.9)	36.4 (10.7)	32.1 (9.4)	50.6 (14.8)	45.3 (13.3)	39.9 (11.7)	57.1 (16.7)	51.1 (15.0)	45.1 (13.2)
		Power (kW)	3.8	3.7	3.7	3.8	3.7	3.6	3.8	3.7	3.6
	85 (29.4)	Total BTUH (kW)	74.4 (21.8)	71.2 (20.9)	67.9 (19.9)	68.1 (19.9)	65.1 (19.1)	62.1 (18.2)	62.7 (18.4)	60.0 (17.6)	57.2 (16.8)
		Sens BTUH (kW)	40.6 (11.9)	36.4 (10.7)	32.1 (9.4)	50.5 (14.8)	45.2 (13.3)	39.9 (11.7)	57.0 (16.7)	51.1 (15.0)	45.0 (13.2)
		Power (kW)	4.0	4.0	3.9	4.0	3.9	3.8	4.0	3.9	3.8
	90 (32.2)	Total BTUH (kW)	72.7 (21.3)	69.5 (20.4)	66.3 (19.4)	66.3 (19.4)	63.5 (18.6)	60.5 (17.7)	61.0 (17.9)	58.4 (17.1)	55.7 (16.3)
		Sens BTUH (kW)	40.2 (11.8)	36.0 (10.6)	31.8 (9.3)	50.1 (14.7)	44.9 (13.2)	39.6 (11.6)	56.6 (16.6)	50.7 (14.9)	44.7 (13.1)
		Power (kW)	4.3	4.2	4.1	4.3	4.2	4.1	4.2	4.1	4.0
	95 (35)	Total BTUH (kW)	70.8 (20.8)	67.8 (19.9)	64.6 (18.9)	64.5 (18.9)	<b>61.7 (18.1)</b>	58.8 (17.2)	59.1 (17.3)	56.6 (16.6)	54.0 (15.8)
		Sens BTUH (kW)	39.5 (11.6)	35.3 (10.4)	31.2 (9.1)	49.3 (14.5)	<b>44.2 (13.0)</b>	39.0 (11.4)	55.8 (16.4)	50.0 (14.7)	44.1 (12.9)
		Power (kW)	4.5	4.4	4.3	4.5	<b>4.4</b>	4.3	4.5	4.4	4.3
	100 (37.8)	Total BTUH (kW)	68.8 (20.2)	65.9 (19.3)	62.8 (18.4)	62.5 (18.3)	59.8 (17.5)	57.0 (16.7)	57.2 (16.7)	54.7 (16.0)	52.2 (15.3)
		Sens BTUH (kW)	38.3 (11.2)	34.4 (10.1)	30.3 (8.9)	48.2 (14.1)	43.2 (12.7)	38.1 (11.2)	54.7 (16.0)	49.0 (14.4)	43.2 (12.7)
		Power (kW)	4.8	4.7	4.6	4.8	4.7	4.6	4.7	4.6	4.5
	105 (40.6)	Total BTUH (kW)	66.7 (19.6)	63.8 (18.7)	60.9 (17.8)	60.4 (17.7)	57.8 (16.9)	55.1 (16.1)	55.0 (16.1)	52.6 (15.4)	50.2 (14.7)
		Sens BTUH (kW)	36.9 (10.8)	33.0 (9.7)	29.1 (8.5)	46.8 (13.7)	41.9 (12.3)	36.9 (10.8)	53.3 (15.6)	47.7 (14.0)	42.1 (12.3)
		Power (kW)	5.1	5.0	4.8	5.0	4.9	4.8	5.0	4.9	4.8
	110 (43.3)	Total BTUH (kW)	64.5 (18.9)	61.7 (18.1)	58.8 (17.2)	58.1 (17.0)	55.6 (16.3)	53.0 (15.5)	52.8 (15.5)	50.5 (14.8)	48.2 (14.1)
		Sens BTUH (kW)	35.1 (10.3)	31.4 (9.2)	27.7 (8.1)	44.9 (13.2)	40.3 (11.8)	35.5 (10.4)	51.4 (15.1)	46.1 (13.5)	40.6 (11.9)
		Power (kW)	5.3	5.2	5.1	5.3	5.2	5.1	5.3	5.2	5.1
115 (46.1)	Total BTUH (kW)	62.1 (18.2)	59.4 (17.4)	56.6 (16.6)	55.7 (16.3)	53.3 (15.6)	50.8 (14.9)	50.4 (14.8)	48.2 (14.1)	46.0 (13.5)	
	Sens BTUH (kW)	32.9 (9.6)	29.5 (8.6)	26.0 (7.6)	42.8 (12.5)	38.3 (11.2)	33.8 (9.9)	49.3 (14.4)	44.2 (12.9)	38.9 (11.4)	
	Power (kW)	5.6	5.5	5.4	5.6	5.5	5.4	5.6	5.5	5.3	
120 (48.9)	Total BTUH (kW)	59.5 (17.4)	57.0 (16.7)	54.3 (15.9)	53.2 (15.6)	50.9 (14.9)	48.5 (14.2)	47.8 (14.0)	45.8 (13.4)	43.7 (12.8)	
	Sens BTUH (kW)	30.4 (8.9)	27.2 (8.0)	24.0 (7.0)	40.3 (11.8)	36.1 (10.6)	31.8 (9.3)	46.8 (13.7)	41.9 (12.3)	36.9 (10.8)	
	Power (kW)	6.0	5.8	5.7	5.9	5.8	5.7	5.9	5.8	5.6	
125 (51.7)	Total BTUH (kW)	56.9 (16.7)	54.4 (15.9)	51.9 (15.2)	50.5 (14.8)	48.3 (14.2)	46.1 (13.5)	45.2 (13.2)	43.2 (12.7)	41.2 (12.1)	
	Sens BTUH (kW)	27.5 (8.1)	24.7 (7.2)	21.7 (6.4)	37.4 (11.0)	33.5 (9.8)	29.5 (8.7)	43.9 (12.9)	39.3 (11.5)	34.7 (10.2)	
	Power (kW)	6.3	6.1	6.0	6.3	6.1	6.0	6.2	6.1	6.0	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

# System Performance—Gas Heat

Table 20: Gross System Performance—MPSA03C, 3 Tons Gas Heat

		Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>									
		wbE	71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)		
		CFM (L/s)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)
		DR <sup>1</sup>	0.2	0.18	0.15	0.2	0.18	0.15	0.2	0.18	0.15
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	44.7 (13.1)	43.9 (12.9)	42.7 (12.5)	41.5 (12.2)	40.7 (11.9)	39.6 (11.6)	38.5 (11.3)	37.8 (11.1)	36.8 (10.8)
		Sens BTUH (kW)	23.8 (7.0)	22.8 (6.7)	21.2 (6.2)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)
		Power (kW)	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0
	80 (26.7)	Total BTUH (kW)	43.6 (12.8)	42.9 (12.6)	41.7 (12.2)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	37.4 (11.0)	36.7 (10.8)	35.7 (10.5)
		Sens BTUH (kW)	23.7 (6.9)	22.6 (6.6)	21.0 (6.2)	29.5 (8.6)	28.2 (8.3)	26.2 (7.7)	33.0 (9.7)	31.6 (9.3)	29.4 (8.6)
		Power (kW)	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0
	85 (29.4)	Total BTUH (kW)	42.5 (12.5)	41.7 (12.2)	40.6 (11.9)	39.3 (11.5)	38.6 (11.3)	37.5 (11.0)	36.3 (10.6)	35.6 (10.4)	34.6 (10.2)
		Sens BTUH (kW)	23.4 (6.8)	22.3 (6.5)	20.8 (6.1)	29.2 (8.6)	27.9 (8.2)	26.0 (7.6)	32.8 (9.6)	31.3 (9.2)	29.1 (8.5)
		Power (kW)	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.2
	90 (32.2)	Total BTUH (kW)	41.4 (12.1)	40.6 (11.9)	39.5 (11.6)	38.1 (11.2)	37.4 (11.0)	36.4 (10.7)	35.1 (10.3)	34.5 (10.1)	33.5 (9.8)
		Sens BTUH (kW)	22.9 (6.7)	21.9 (6.4)	20.4 (6.0)	28.8 (8.4)	27.5 (8.1)	25.6 (7.5)	32.3 (9.5)	30.9 (9.1)	28.7 (8.4)
		Power (kW)	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3
	95 (35)	Total BTUH (kW)	40.2 (11.8)	39.5 (11.6)	38.4 (11.2)	36.9 (10.8)	<b>36.3 (10.6)</b>	35.3 (10.3)	33.9 (9.9)	33.3 (9.8)	32.4 (9.5)
		Sens BTUH (kW)	22.4 (6.6)	21.4 (6.3)	19.9 (5.8)	28.2 (8.3)	<b>27.0 (7.9)</b>	25.1 (7.3)	31.8 (9.3)	30.3 (8.9)	28.2 (8.3)
		Power (kW)	2.5	2.4	2.4	2.5	<b>2.5</b>	2.4	2.5	2.5	2.5
	100 (37.8)	Total BTUH (kW)	39.0 (11.4)	38.3 (11.2)	37.2 (10.9)	35.7 (10.5)	35.1 (10.3)	34.1 (10.0)	32.7 (9.6)	32.2 (9.4)	31.3 (9.2)
		Sens BTUH (kW)	21.7 (6.4)	20.7 (6.1)	19.3 (5.6)	27.5 (8.1)	26.3 (7.7)	24.5 (7.2)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)
		Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6
	105 (40.6)	Total BTUH (kW)	37.7 (11.1)	37.1 (10.9)	36.1 (10.6)	34.5 (10.1)	33.9 (9.9)	33.0 (9.7)	31.5 (9.2)	30.9 (9.1)	30.1 (8.8)
		Sens BTUH (kW)	20.9 (6.1)	19.9 (5.8)	18.5 (5.4)	26.7 (7.8)	25.5 (7.5)	23.7 (7.0)	30.2 (8.9)	28.9 (8.5)	26.9 (7.9)
		Power (kW)	2.8	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8
	110 (43.3)	Total BTUH (kW)	36.5 (10.7)	35.8 (10.5)	34.9 (10.2)	33.2 (9.7)	32.7 (9.6)	31.8 (9.3)	30.3 (8.9)	29.7 (8.7)	28.9 (8.5)
		Sens BTUH (kW)	19.9 (5.8)	19.0 (5.6)	17.7 (5.2)	25.7 (7.5)	24.6 (7.2)	22.9 (6.7)	29.3 (8.6)	28.0 (8.2)	26.0 (7.6)
		Power (kW)	2.9	2.9	2.9	3.0	2.9	2.9	3.0	3.0	2.9
115 (46.1)	Total BTUH (kW)	35.2 (10.3)	34.6 (10.1)	33.6 (9.9)	32.0 (9.4)	31.4 (9.2)	30.5 (8.9)	29.0 (8.5)	28.5 (8.3)	27.7 (8.1)	
	Sens BTUH (kW)	18.8 (5.5)	18.0 (5.3)	16.7 (4.9)	24.7 (7.2)	23.6 (6.9)	21.9 (6.4)	28.2 (8.3)	26.9 (7.9)	25.0 (7.3)	
	Power (kW)	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.1	
120 (48.9)	Total BTUH (kW)	33.9 (9.9)	33.3 (9.8)	32.4 (9.5)	30.7 (9.0)	30.1 (8.8)	29.3 (8.6)	27.7 (8.1)	27.2 (8.0)	26.4 (7.7)	
	Sens BTUH (kW)	17.6 (5.1)	16.8 (4.9)	15.6 (4.6)	23.4 (6.9)	22.4 (6.6)	20.8 (6.1)	27.0 (7.9)	25.8 (7.5)	24.0 (7.0)	
	Power (kW)	3.3	3.3	3.2	3.3	3.3	3.3	3.4	3.3	3.3	
125 (51.7)	Total BTUH (kW)	32.6 (9.5)	32.0 (9.4)	31.1 (9.1)	29.3 (8.6)	28.8 (8.4)	28.0 (8.2)	26.3 (7.7)	25.9 (7.6)	25.2 (7.4)	
	Sens BTUH (kW)	16.2 (4.8)	15.5 (4.5)	14.4 (4.2)	22.1 (6.5)	21.1 (6.2)	19.6 (5.7)	25.6 (7.5)	24.5 (7.2)	22.7 (6.7)	
	Power (kW)	3.5	3.5	3.4	3.5	3.5	3.4	3.6	3.5	3.5	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 21: Gross System Performance—MPSA04C, 4 Tons Gas Heat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1650 (779)	1500 (708)	1275 (602)	1650 (779)	1500 (708)	1275 (602)	1650 (779)	1500 (708)	1275 (602)	
DR <sup>1</sup>		0.1	0.08	0.05	0.1	0.08	0.05	0.1	0.08	0.05	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	60.3 (17.7)	59.3 (17.4)	57.6 (16.9)	56.1 (16.4)	55.1 (16.1)	53.6 (15.7)	51.1 (15.0)	50.2 (14.7)	48.8 (14.3)
		Sens BTUH (kW)	31.2 (9.2)	29.8 (8.7)	27.7 (8.1)	39.8 (11.7)	38.1 (11.2)	35.4 (10.4)	43.9 (12.9)	41.9 (12.3)	39.0 (11.4)
		Power (kW)	2.6	2.6	2.5	2.6	2.6	2.5	2.6	2.6	2.5
	80 (26.7)	Total BTUH (kW)	58.5 (17.1)	57.4 (16.8)	55.9 (16.4)	54.2 (15.9)	53.2 (15.6)	51.8 (15.2)	49.2 (14.4)	48.4 (14.2)	47.0 (13.8)
		Sens BTUH (kW)	31.0 (9.1)	29.6 (8.7)	27.5 (8.1)	39.6 (11.6)	37.8 (11.1)	35.2 (10.3)	43.6 (12.8)	41.7 (12.2)	38.8 (11.4)
		Power (kW)	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	85 (29.4)	Total BTUH (kW)	56.7 (16.6)	55.7 (16.3)	54.2 (15.9)	52.4 (15.4)	51.5 (15.1)	50.1 (14.7)	47.5 (13.9)	46.6 (13.7)	45.3 (13.3)
		Sens BTUH (kW)	30.6 (9.0)	29.2 (8.6)	27.1 (8.0)	39.2 (11.5)	37.4 (11.0)	34.8 (10.2)	43.2 (12.7)	41.3 (12.1)	38.4 (11.3)
		Power (kW)	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	90 (32.2)	Total BTUH (kW)	55.0 (16.1)	54.0 (15.8)	52.5 (15.4)	50.7 (14.9)	49.8 (14.6)	48.4 (14.2)	45.7 (13.4)	44.9 (13.2)	43.7 (12.8)
		Sens BTUH (kW)	30.0 (8.8)	28.6 (8.4)	26.6 (7.8)	38.6 (11.3)	36.9 (10.8)	34.3 (10.0)	42.6 (12.5)	40.7 (11.9)	37.9 (11.1)
		Power (kW)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	95 (35)	Total BTUH (kW)	53.3 (15.6)	52.3 (15.3)	50.9 (14.9)	49.0 (14.4)	<b>48.1 (14.1)</b>	46.8 (13.7)	44.1 (12.9)	43.3 (12.7)	42.1 (12.3)
		Sens BTUH (kW)	29.2 (8.6)	27.9 (8.2)	26.0 (7.6)	37.8 (11.1)	<b>36.1 (10.6)</b>	33.6 (9.9)	41.9 (12.3)	40.0 (11.7)	37.2 (10.9)
		Power (kW)	3.3	3.3	3.3	3.3	<b>3.3</b>	3.3	3.3	3.3	3.3
	100 (37.8)	Total BTUH (kW)	51.7 (15.2)	50.8 (14.9)	49.4 (14.5)	47.4 (13.9)	46.6 (13.7)	45.3 (13.3)	42.5 (12.4)	41.7 (12.2)	40.6 (11.9)
		Sens BTUH (kW)	28.3 (8.3)	27.0 (7.9)	25.2 (7.4)	36.9 (10.8)	35.3 (10.3)	32.8 (9.6)	41.0 (12.0)	39.2 (11.5)	36.4 (10.7)
		Power (kW)	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	105 (40.6)	Total BTUH (kW)	50.2 (14.7)	49.3 (14.4)	47.9 (14.0)	45.9 (13.5)	45.1 (13.2)	43.9 (12.9)	40.9 (12.0)	40.2 (11.8)	39.1 (11.5)
		Sens BTUH (kW)	27.2 (8.0)	26.0 (7.6)	24.2 (7.1)	35.8 (10.5)	34.3 (10.0)	31.9 (9.3)	39.9 (11.7)	38.1 (11.2)	35.5 (10.4)
		Power (kW)	3.8	3.8	3.7	3.8	3.7	3.7	3.8	3.7	3.7
	110 (43.3)	Total BTUH (kW)	48.7 (14.3)	47.8 (14.0)	46.5 (13.6)	44.4 (13.0)	43.6 (12.8)	42.5 (12.4)	39.5 (11.6)	38.8 (11.4)	37.7 (11.1)
		Sens BTUH (kW)	26.0 (7.6)	24.8 (7.3)	23.1 (6.8)	34.6 (10.1)	33.1 (9.7)	30.8 (9.0)	38.7 (11.3)	36.9 (10.8)	34.4 (10.1)
		Power (kW)	4.0	4.0	3.9	4.0	4.0	3.9	4.0	4.0	3.9
115 (46.1)	Total BTUH (kW)	47.3 (13.9)	46.5 (13.6)	45.2 (13.2)	43.0 (12.6)	42.3 (12.4)	41.1 (12.0)	38.1 (11.2)	37.4 (11.0)	36.4 (10.7)	
	Sens BTUH (kW)	24.6 (7.2)	23.5 (6.9)	21.8 (6.4)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)	37.3 (10.9)	35.6 (10.4)	33.1 (9.7)	
	Power (kW)	4.3	4.2	4.2	4.3	4.2	4.2	4.3	4.2	4.2	4.2
120 (48.9)	Total BTUH (kW)	46.0 (13.5)	45.2 (13.2)	43.9 (12.9)	41.7 (12.2)	41.0 (12.0)	39.8 (11.7)	36.7 (10.8)	36.1 (10.6)	35.1 (10.3)	
	Sens BTUH (kW)	23.0 (6.7)	22.0 (6.4)	20.5 (6.0)	31.6 (9.3)	30.2 (8.9)	28.1 (8.2)	35.7 (10.5)	34.1 (10.0)	31.7 (9.3)	
	Power (kW)	4.5	4.5	4.4	4.5	4.5	4.4	4.5	4.5	4.4	4.4
125 (51.7)	Total BTUH (kW)	44.7 (13.1)	43.9 (12.9)	42.7 (12.5)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	35.5 (10.4)	34.8 (10.2)	33.9 (9.9)	
	Sens BTUH (kW)	21.3 (6.2)	20.3 (6.0)	18.9 (5.5)	29.9 (8.8)	28.6 (8.4)	26.6 (7.8)	34.0 (10.0)	32.4 (9.5)	30.2 (8.8)	
	Power (kW)	4.8	4.8	4.7	4.8	4.8	4.7	4.8	4.7	4.7	4.7

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 22: Gross System Performance – MPSA05C Tons Gas Heat**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	
DR <sup>1</sup>		0.13	0.12	0.09	0.13	0.12	0.09	0.13	0.12	0.09	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	73.9 (21.6)	72.6 (21.3)	70.6 (20.7)	67.7 (19.8)	66.5 (19.5)	64.7 (19.0)	62.5 (18.3)	61.4 (18.0)	59.7 (17.5)
		Sens BTUH (kW)	37.0 (10.8)	35.3 (10.4)	32.9 (9.6)	46.2 (13.5)	44.2 (12.9)	41.1 (12.0)	52.3 (15.3)	50.0 (14.7)	46.5 (13.6)
		Power (kW)	3.6	3.6	3.6	3.6	3.6	3.5	3.6	3.6	3.6
	80 (26.7)	Total BTUH (kW)	72.5 (21.2)	71.2 (20.9)	69.2 (20.3)	66.3 (19.4)	65.1 (19.1)	63.3 (18.6)	61.1 (17.9)	60.0 (17.6)	58.3 (17.1)
		Sens BTUH (kW)	37.2 (10.9)	35.6 (10.4)	33.1 (9.7)	46.5 (13.6)	44.4 (13.0)	41.3 (12.1)	52.6 (15.4)	50.3 (14.7)	46.7 (13.7)
		Power (kW)	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.8	3.8
	85 (29.4)	Total BTUH (kW)	70.9 (20.8)	69.6 (20.4)	67.7 (19.8)	64.7 (19.0)	63.6 (18.6)	61.8 (18.1)	59.5 (17.4)	58.5 (17.1)	56.9 (16.7)
		Sens BTUH (kW)	37.2 (10.9)	35.5 (10.4)	33.0 (9.7)	46.5 (13.6)	44.4 (13.0)	41.3 (12.1)	52.6 (15.4)	50.2 (14.7)	46.7 (13.7)
		Power (kW)	4.1	4.0	4.0	4.0	4.0	3.9	4.0	4.0	4.0
	90 (32.2)	Total BTUH (kW)	69.2 (20.3)	68.0 (19.9)	66.1 (19.4)	63.0 (18.5)	61.9 (18.1)	60.2 (17.6)	57.8 (16.9)	56.8 (16.6)	55.3 (16.2)
		Sens BTUH (kW)	36.8 (10.8)	35.2 (10.3)	32.7 (9.6)	46.1 (13.5)	44.0 (12.9)	40.9 (12.0)	52.2 (15.3)	49.8 (14.6)	46.4 (13.6)
		Power (kW)	4.3	4.3	4.2	4.3	4.2	4.2	4.2	4.2	4.2
	95 (35)	Total BTUH (kW)	67.4 (19.8)	66.2 (19.4)	64.4 (18.9)	61.2 (17.9)	<b>60.1 (17.6)</b>	58.5 (17.1)	56.0 (16.4)	55.0 (16.1)	53.5 (15.7)
		Sens BTUH (kW)	36.1 (10.6)	34.5 (10.1)	32.1 (9.4)	45.4 (13.3)	<b>43.3 (12.7)</b>	40.3 (11.8)	51.5 (15.1)	49.2 (14.4)	45.7 (13.4)
		Power (kW)	4.5	4.5	4.4	4.5	<b>4.5</b>	4.4	4.5	4.4	4.4
	100 (37.8)	Total BTUH (kW)	65.5 (19.2)	64.3 (18.8)	62.5 (18.3)	59.3 (17.4)	58.2 (17.1)	56.6 (16.6)	54.1 (15.8)	53.1 (15.6)	51.7 (15.1)
		Sens BTUH (kW)	35.1 (10.3)	33.5 (9.8)	31.1 (9.1)	44.3 (13.0)	42.3 (12.4)	39.4 (11.5)	50.4 (14.8)	48.2 (14.1)	44.8 (13.1)
		Power (kW)	4.8	4.8	4.7	4.8	4.7	4.7	4.7	4.7	4.7
	105 (40.6)	Total BTUH (kW)	63.4 (18.6)	62.3 (18.2)	60.6 (17.7)	57.2 (16.8)	56.2 (16.5)	54.7 (16.0)	52.0 (15.2)	51.1 (15.0)	49.7 (14.6)
		Sens BTUH (kW)	33.7 (9.9)	32.2 (9.4)	29.9 (8.8)	42.9 (12.6)	41.0 (12.0)	38.2 (11.2)	49.0 (14.4)	46.9 (13.7)	43.6 (12.8)
		Power (kW)	5.1	5.0	5.0	5.0	5.0	4.9	5.0	5.0	4.9
	110 (43.3)	Total BTUH (kW)	61.2 (17.9)	60.1 (17.6)	58.5 (17.1)	55.0 (16.1)	54.0 (15.8)	52.6 (15.4)	49.8 (14.6)	48.9 (14.3)	47.6 (13.9)
		Sens BTUH (kW)	32.0 (9.4)	30.6 (9.0)	28.4 (8.3)	41.2 (12.1)	39.4 (11.5)	36.6 (10.7)	47.3 (13.9)	45.2 (13.3)	42.1 (12.3)
		Power (kW)	5.3	5.3	5.2	5.3	5.3	5.2	5.3	5.2	5.2
115 (46.1)	Total BTUH (kW)	58.9 (17.3)	57.8 (16.9)	56.2 (16.5)	52.7 (15.4)	51.7 (15.2)	50.3 (14.8)	47.5 (13.9)	46.6 (13.7)	45.4 (13.3)	
	Sens BTUH (kW)	30.0 (8.8)	28.6 (8.4)	26.6 (7.8)	39.2 (11.5)	37.5 (11.0)	34.8 (10.2)	45.3 (13.3)	43.3 (12.7)	40.3 (11.8)	
	Power (kW)	5.6	5.6	5.5	5.6	5.6	5.5	5.6	5.5	5.5	
120 (48.9)	Total BTUH (kW)	56.4 (16.5)	55.4 (16.2)	53.9 (15.8)	50.2 (14.7)	49.3 (14.5)	48.0 (14.1)	45.0 (13.2)	44.2 (13.0)	43.0 (12.6)	
	Sens BTUH (kW)	27.6 (8.1)	26.4 (7.7)	24.5 (7.2)	36.9 (10.8)	35.2 (10.3)	32.7 (9.6)	43.0 (12.6)	41.0 (12.0)	38.2 (11.2)	
	Power (kW)	5.9	5.9	5.8	5.9	5.9	5.8	5.9	5.8	5.8	
125 (51.7)	Total BTUH (kW)	53.8 (15.8)	52.9 (15.5)	51.4 (15.1)	47.6 (14.0)	46.8 (13.7)	45.5 (13.3)	42.4 (12.4)	41.7 (12.2)	40.5 (11.9)	
	Sens BTUH (kW)	24.9 (7.3)	23.8 (7.0)	22.1 (6.5)	34.2 (10.0)	32.6 (9.6)	30.4 (8.9)	40.3 (11.8)	38.5 (11.3)	35.8 (10.5)	
	Power (kW)	6.3	6.2	6.1	6.2	6.2	6.1	6.2	6.2	6.1	

**Note:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 23: Gross System Performance—MPSH03C, 3 Tons Gas Heat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	1375 (649)	1250 (590)	1062 (501)	
DR <sup>1</sup>		0.19	0.17	0.14	0.19	0.17	0.14	0.19	0.17	0.14	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	45.2 (13.3)	44.4 (13.0)	43.2 (12.7)	41.8 (12.2)	41.0 (12.0)	39.9 (11.7)	39.0 (11.4)	38.3 (11.2)	37.3 (10.9)
		Sens BTUH (kW)	24.2 (7.1)	23.1 (6.8)	21.5 (6.3)	29.9 (8.8)	28.6 (8.4)	26.6 (7.8)	33.7 (9.9)	32.2 (9.4)	29.9 (8.8)
		Power (kW)	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9
	80 (26.7)	Total BTUH (kW)	44.0 (12.9)	43.2 (12.7)	42.1 (12.3)	40.6 (11.9)	39.8 (11.7)	38.8 (11.4)	37.8 (11.1)	37.1 (10.9)	36.1 (10.6)
		Sens BTUH (kW)	24.0 (7.0)	22.9 (6.7)	21.3 (6.2)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	33.5 (9.8)	32.0 (9.4)	29.8 (8.7)
		Power (kW)	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0
	85 (29.4)	Total BTUH (kW)	42.8 (12.5)	42.1 (12.3)	40.9 (12.0)	39.4 (11.5)	38.7 (11.3)	37.6 (11.0)	36.6 (10.7)	35.9 (10.5)	34.9 (10.2)
		Sens BTUH (kW)	23.7 (6.9)	22.6 (6.6)	21.0 (6.2)	29.4 (8.6)	28.1 (8.2)	26.1 (7.7)	33.2 (9.7)	31.7 (9.3)	29.5 (8.6)
		Power (kW)	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2
	90 (32.2)	Total BTUH (kW)	41.6 (12.2)	40.9 (12.0)	39.8 (11.6)	38.1 (11.2)	37.5 (11.0)	36.4 (10.7)	35.4 (10.4)	34.7 (10.2)	33.8 (9.9)
		Sens BTUH (kW)	23.2 (6.8)	22.2 (6.5)	20.6 (6.0)	28.9 (8.5)	27.6 (8.1)	25.7 (7.5)	32.7 (9.6)	31.2 (9.2)	29.1 (8.5)
		Power (kW)	2.3	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.3
	95 (35)	Total BTUH (kW)	40.4 (11.8)	39.7 (11.6)	38.6 (11.3)	36.9 (10.8)	<b>36.3 (10.6)</b>	35.3 (10.3)	34.2 (10.0)	33.6 (9.8)	32.6 (9.6)
		Sens BTUH (kW)	22.6 (6.6)	21.6 (6.3)	20.1 (5.9)	28.4 (8.3)	<b>27.1 (7.9)</b>	25.2 (7.4)	32.1 (9.4)	30.7 (9.0)	28.5 (8.4)
		Power (kW)	2.5	2.4	2.4	2.5	<b>2.5</b>	2.4	2.5	2.5	2.5
	100 (37.8)	Total BTUH (kW)	39.2 (11.5)	38.5 (11.3)	37.5 (11.0)	35.8 (10.5)	35.1 (10.3)	34.2 (10.0)	33.0 (9.7)	32.4 (9.5)	31.5 (9.2)
		Sens BTUH (kW)	21.9 (6.4)	20.9 (6.1)	19.5 (5.7)	27.6 (8.1)	26.4 (7.7)	24.6 (7.2)	31.4 (9.2)	30.0 (8.8)	27.9 (8.2)
		Power (kW)	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6
	105 (40.6)	Total BTUH (kW)	38.0 (11.1)	37.3 (10.9)	36.3 (10.6)	34.6 (10.1)	33.9 (9.9)	33.0 (9.7)	31.8 (9.3)	31.2 (9.1)	30.4 (8.9)
		Sens BTUH (kW)	21.1 (6.2)	20.1 (5.9)	18.7 (5.5)	26.8 (7.9)	25.6 (7.5)	23.8 (7.0)	30.6 (9.0)	29.2 (8.6)	27.2 (8.0)
		Power (kW)	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8
	110 (43.3)	Total BTUH (kW)	36.8 (10.8)	36.2 (10.6)	35.2 (10.3)	33.4 (9.8)	32.8 (9.6)	31.9 (9.3)	30.6 (9.0)	30.1 (8.8)	29.2 (8.6)
		Sens BTUH (kW)	20.1 (5.9)	19.2 (5.6)	17.9 (5.2)	25.8 (7.6)	24.7 (7.2)	23.0 (6.7)	29.6 (8.7)	28.3 (8.3)	26.3 (7.7)
		Power (kW)	3.0	2.9	2.9	3.0	3.0	2.9	3.0	3.0	3.0
115 (46.1)	Total BTUH (kW)	35.7 (10.4)	35.0 (10.3)	34.1 (10.0)	32.2 (9.4)	31.6 (9.3)	30.8 (9.0)	29.4 (8.6)	28.9 (8.5)	28.1 (8.2)	
	Sens BTUH (kW)	19.0 (5.6)	18.2 (5.3)	16.9 (4.9)	24.7 (7.3)	23.6 (6.9)	22.0 (6.4)	28.5 (8.4)	27.2 (8.0)	25.3 (7.4)	
	Power (kW)	3.2	3.1	3.1	3.2	3.2	3.1	3.2	3.2	3.1	
120 (48.9)	Total BTUH (kW)	34.5 (10.1)	33.9 (9.9)	32.9 (9.7)	31.0 (9.1)	30.5 (8.9)	29.6 (8.7)	28.2 (8.3)	27.7 (8.1)	27.0 (7.9)	
	Sens BTUH (kW)	17.8 (5.2)	17.0 (5.0)	15.8 (4.6)	23.5 (6.9)	22.5 (6.6)	20.9 (6.1)	27.3 (8.0)	26.1 (7.6)	24.3 (7.1)	
	Power (kW)	3.4	3.3	3.3	3.4	3.4	3.3	3.4	3.4	3.3	
125 (51.7)	Total BTUH (kW)	33.3 (9.8)	32.7 (9.6)	31.8 (9.3)	29.8 (8.7)	29.3 (8.6)	28.5 (8.4)	27.1 (7.9)	26.6 (7.8)	25.9 (7.6)	
	Sens BTUH (kW)	16.4 (4.8)	15.7 (4.6)	14.6 (4.3)	22.2 (6.5)	21.2 (6.2)	19.7 (5.8)	26.0 (7.6)	24.8 (7.3)	23.1 (6.8)	
	Power (kW)	3.6	3.5	3.5	3.6	3.6	3.5	3.6	3.6	3.5	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 24: Gross System Performance—MPSH04C, 4 Tons Gas Heat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	
DR <sup>1</sup>		0.11	0.09	0.05	0.11	0.09	0.05	0.11	0.09	0.05	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	58.9 (17.3)	57.8 (16.9)	56.2 (16.5)	55.1 (16.1)	54.1 (15.9)	52.6 (15.4)	49.6 (14.5)	48.8 (14.3)	47.4 (13.9)
		Sens BTUH (kW)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)	40.2 (11.8)	38.4 (11.3)	35.7 (10.5)	43.7 (12.8)	41.8 (12.2)	38.9 (11.4)
		Power (kW)	2.6	2.6	2.5	2.6	2.5	2.5	2.6	2.6	2.5
	80 (26.7)	Total BTUH (kW)	57.3 (16.8)	56.3 (16.5)	54.7 (16.0)	53.5 (15.7)	52.6 (15.4)	51.1 (15.0)	48.1 (14.1)	47.2 (13.8)	45.9 (13.5)
		Sens BTUH (kW)	31.1 (9.1)	29.7 (8.7)	27.6 (8.1)	40.2 (11.8)	38.4 (11.3)	35.7 (10.5)	43.7 (12.8)	41.8 (12.2)	38.9 (11.4)
		Power (kW)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	85 (29.4)	Total BTUH (kW)	55.7 (16.3)	54.7 (16.0)	53.2 (15.6)	51.9 (15.2)	51.0 (15.0)	49.6 (14.5)	46.5 (13.6)	45.7 (13.4)	44.4 (13.0)
		Sens BTUH (kW)	30.9 (9.0)	29.5 (8.6)	27.4 (8.0)	40.0 (11.7)	38.2 (11.2)	35.5 (10.4)	43.5 (12.7)	41.6 (12.2)	38.7 (11.3)
		Power (kW)	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	90 (32.2)	Total BTUH (kW)	54.1 (15.9)	53.2 (15.6)	51.7 (15.2)	50.4 (14.8)	49.5 (14.5)	48.1 (14.1)	44.9 (13.2)	44.1 (12.9)	42.9 (12.6)
		Sens BTUH (kW)	30.4 (8.9)	29.1 (8.5)	27.0 (7.9)	39.5 (11.6)	37.7 (11.1)	35.1 (10.3)	43.1 (12.6)	41.1 (12.1)	38.3 (11.2)
		Power (kW)	3.1	3.1	3.0	3.1	3.1	3.0	3.1	3.1	3.1
	95 (35)	Total BTUH (kW)	52.5 (15.4)	51.6 (15.1)	50.2 (14.7)	48.8 (14.3)	<b>47.9 (14.0)</b>	46.6 (13.7)	43.3 (12.7)	42.5 (12.5)	41.4 (12.1)
		Sens BTUH (kW)	29.7 (8.7)	28.4 (8.3)	26.4 (7.7)	38.8 (11.4)	<b>37.1 (10.9)</b>	34.5 (10.1)	42.4 (12.4)	40.5 (11.9)	37.7 (11.0)
		Power (kW)	3.3	3.3	3.2	3.3	<b>3.3</b>	3.2	3.3	3.3	3.3
	100 (37.8)	Total BTUH (kW)	50.9 (14.9)	50.0 (14.7)	48.7 (14.3)	47.2 (13.8)	46.3 (13.6)	45.1 (13.2)	41.7 (12.2)	41.0 (12.0)	39.9 (11.7)
		Sens BTUH (kW)	28.8 (8.4)	27.5 (8.1)	25.6 (7.5)	37.9 (11.1)	36.2 (10.6)	33.7 (9.9)	41.5 (12.2)	39.6 (11.6)	36.8 (10.8)
		Power (kW)	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.4
	105 (40.6)	Total BTUH (kW)	49.3 (14.5)	48.5 (14.2)	47.1 (13.8)	45.6 (13.4)	44.8 (13.1)	43.5 (12.8)	40.1 (11.8)	39.4 (11.5)	38.3 (11.2)
		Sens BTUH (kW)	27.7 (8.1)	26.5 (7.8)	24.6 (7.2)	36.8 (10.8)	35.1 (10.3)	32.7 (9.6)	40.1 (11.8)	38.5 (11.3)	35.8 (10.5)
		Power (kW)	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	110 (43.3)	Total BTUH (kW)	47.7 (14.0)	46.9 (13.7)	45.6 (13.4)	44.0 (12.9)	43.2 (12.7)	42.0 (12.3)	38.5 (11.3)	37.8 (11.1)	36.8 (10.8)
		Sens BTUH (kW)	26.3 (7.7)	25.2 (7.4)	23.4 (6.9)	35.4 (10.4)	33.8 (9.9)	31.5 (9.2)	38.5 (11.3)	37.2 (10.9)	34.6 (10.1)
		Power (kW)	4.0	4.0	3.9	4.0	3.9	3.9	4.0	3.9	3.9
115 (46.1)	Total BTUH (kW)	46.1 (13.5)	45.3 (13.3)	44.1 (12.9)	42.3 (12.4)	41.6 (12.2)	40.4 (11.9)	36.9 (10.8)	36.2 (10.6)	35.2 (10.3)	
	Sens BTUH (kW)	24.7 (7.2)	23.6 (6.9)	22.0 (6.4)	33.8 (9.9)	32.3 (9.5)	30.1 (8.8)	36.9 (10.8)	35.7 (10.5)	33.2 (9.7)	
	Power (kW)	4.2	4.2	4.1	4.2	4.2	4.1	4.2	4.2	4.1	
120 (48.9)	Total BTUH (kW)	44.5 (13.0)	43.7 (12.8)	42.5 (12.5)	40.7 (11.9)	40.0 (11.7)	38.9 (11.4)	35.3 (10.3)	34.6 (10.1)	33.7 (9.9)	
	Sens BTUH (kW)	22.9 (6.7)	21.9 (6.4)	20.4 (6.0)	32.0 (9.4)	30.6 (9.0)	28.4 (8.3)	35.3 (10.3)	34.0 (10.0)	31.6 (9.3)	
	Power (kW)	4.5	4.5	4.4	4.5	4.4	4.4	4.5	4.4	4.4	
125 (51.7)	Total BTUH (kW)	42.9 (12.6)	42.1 (12.3)	40.9 (12.0)	39.1 (11.5)	38.4 (11.2)	37.3 (10.9)	33.6 (9.9)	33.0 (9.7)	32.1 (9.4)	
	Sens BTUH (kW)	20.9 (6.1)	19.9 (5.8)	18.5 (5.4)	30.0 (8.8)	28.6 (8.4)	26.6 (7.8)	33.5 (9.8)	32.0 (9.4)	29.8 (8.7)	
	Power (kW)	4.8	4.7	4.7	4.8	4.7	4.7	4.7	4.7	4.6	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 25: Gross System Performance—MPSH05C, 5 Tons Gas Heat**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	1980 (934)	1800 (850)	1530 (722)	
DR <sup>1</sup>		0.14	0.13	0.1	0.14	0.13	0.1	0.14	0.13	0.1	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH (kW)	72.5 (21.2)	71.2 (20.9)	69.2 (20.3)	66.3 (19.4)	65.1 (19.1)	63.3 (18.6)	61.1 (17.9)	60.0 (17.6)	58.4 (17.1)
		Sens BTUH (kW)	36.2 (10.6)	34.6 (10.1)	32.1 (9.4)	45.4 (13.3)	43.4 (12.7)	40.4 (11.8)	51.5 (15.1)	49.2 (14.4)	45.8 (13.4)
		Power (kW)	3.5	3.5	3.4	3.5	3.4	3.4	3.4	3.4	3.4
	80 (26.7)	Total BTUH (kW)	71.1 (20.8)	69.8 (20.5)	67.9 (19.9)	64.9 (19.0)	63.7 (18.7)	62.0 (18.2)	59.7 (17.5)	58.6 (17.2)	57.0 (16.7)
		Sens BTUH (kW)	36.4 (10.7)	34.8 (10.2)	32.4 (9.5)	45.7 (13.4)	43.7 (12.8)	40.6 (11.9)	51.8 (15.2)	49.5 (14.5)	46.0 (13.5)
		Power (kW)	3.7	3.7	3.6	3.7	3.6	3.6	3.6	3.6	3.6
	85 (29.4)	Total BTUH (kW)	69.5 (20.4)	68.3 (20.0)	66.4 (19.5)	63.3 (18.6)	62.2 (18.2)	60.5 (17.7)	58.1 (17.0)	57.1 (16.7)	55.5 (16.3)
		Sens BTUH (kW)	36.4 (10.7)	34.8 (10.2)	32.3 (9.5)	45.7 (13.4)	43.6 (12.8)	40.6 (11.9)	51.8 (15.2)	49.4 (14.5)	46.0 (13.5)
		Power (kW)	3.9	3.9	3.8	3.9	3.8	3.8	3.8	3.8	3.8
	90 (32.2)	Total BTUH (kW)	67.8 (19.9)	66.6 (19.5)	64.8 (19.0)	61.7 (18.1)	60.6 (17.7)	58.9 (17.3)	56.4 (16.5)	55.4 (16.2)	53.9 (15.8)
		Sens BTUH (kW)	36.0 (10.6)	34.4 (10.1)	32.0 (9.4)	45.3 (13.3)	43.3 (12.7)	40.2 (11.8)	51.4 (15.1)	49.1 (14.4)	45.6 (13.4)
		Power (kW)	4.1	4.1	4.0	4.1	4.1	4.0	4.1	4.0	4.0
	95 (35)	Total BTUH (kW)	66.0 (19.3)	64.8 (19.0)	63.1 (18.5)	59.8 (17.5)	<b>58.8 (17.2)</b>	57.2 (16.8)	54.6 (16.0)	53.7 (15.7)	52.2 (15.3)
		Sens BTUH (kW)	35.3 (10.3)	33.7 (9.9)	31.4 (9.2)	44.6 (13.1)	<b>42.6 (12.5)</b>	39.6 (11.6)	50.7 (14.8)	48.4 (14.2)	45.0 (13.2)
		Power (kW)	4.4	4.3	4.3	4.3	<b>4.3</b>	4.3	4.3	4.3	4.2
	100 (37.8)	Total BTUH (kW)	64.1 (18.8)	62.9 (18.4)	61.2 (17.9)	57.9 (17.0)	56.9 (16.7)	55.3 (16.2)	52.7 (15.4)	51.8 (15.2)	50.3 (14.8)
		Sens BTUH (kW)	34.3 (10.0)	32.7 (9.6)	30.4 (8.9)	43.5 (12.8)	41.6 (12.2)	38.7 (11.3)	49.6 (14.5)	47.4 (13.9)	44.1 (12.9)
		Power (kW)	4.6	4.6	4.5	4.6	4.6	4.5	4.6	4.5	4.5
	105 (40.6)	Total BTUH (kW)	62.0 (18.2)	60.9 (17.8)	59.2 (17.4)	55.8 (16.4)	54.8 (16.1)	53.3 (15.6)	50.6 (14.8)	49.7 (14.6)	48.4 (14.2)
		Sens BTUH (kW)	32.9 (9.6)	31.4 (9.2)	29.2 (8.6)	42.1 (12.4)	40.3 (11.8)	37.4 (11.0)	48.2 (14.1)	46.1 (13.5)	42.9 (12.6)
		Power (kW)	4.9	4.9	4.8	4.9	4.8	4.8	4.8	4.8	4.7
	110 (43.3)	Total BTUH (kW)	59.8 (17.5)	58.7 (17.2)	57.1 (16.7)	53.6 (15.7)	52.7 (15.4)	51.2 (15.0)	48.4 (14.2)	47.6 (13.9)	46.3 (13.6)
		Sens BTUH (kW)	31.2 (9.1)	29.8 (8.7)	27.7 (8.1)	40.4 (11.9)	38.6 (11.3)	35.9 (10.5)	46.5 (13.6)	44.5 (13.0)	41.4 (12.1)
		Power (kW)	5.2	5.1	5.1	5.2	5.1	5.0	5.1	5.1	5.0
115 (46.1)	Total BTUH (kW)	57.5 (16.8)	56.5 (16.5)	54.9 (16.1)	51.3 (15.0)	50.4 (14.8)	49.0 (14.4)	46.1 (13.5)	45.3 (13.3)	44.0 (12.9)	
	Sens BTUH (kW)	29.2 (8.5)	27.9 (8.2)	25.9 (7.6)	38.4 (11.3)	36.7 (10.8)	34.1 (10.0)	44.5 (13.0)	42.5 (12.5)	39.5 (11.6)	
	Power (kW)	5.5	5.4	5.4	5.5	5.4	5.3	5.4	5.4	5.3	5.3
120 (48.9)	Total BTUH (kW)	55.0 (16.1)	54.0 (15.8)	52.6 (15.4)	48.8 (14.3)	48.0 (14.1)	46.7 (13.7)	43.6 (12.8)	42.9 (12.6)	41.7 (12.2)	
	Sens BTUH (kW)	26.8 (7.9)	25.6 (7.5)	23.8 (7.0)	36.1 (10.6)	34.5 (10.1)	32.0 (9.4)	42.2 (12.4)	40.3 (11.8)	37.5 (11.0)	
	Power (kW)	5.8	5.7	5.7	5.8	5.7	5.6	5.7	5.7	5.6	5.6
125 (51.7)	Total BTUH (kW)	52.4 (15.4)	51.5 (15.1)	50.1 (14.7)	46.2 (13.6)	45.4 (13.3)	44.2 (12.9)	41.0 (12.0)	40.3 (11.8)	39.2 (11.5)	
	Sens BTUH (kW)	24.1 (7.1)	23.0 (6.7)	21.4 (6.3)	33.4 (9.8)	31.9 (9.3)	29.7 (8.7)	39.5 (11.6)	37.7 (11.0)	35.1 (10.3)	
	Power (kW)	6.1	6.1	6.0	6.1	6.0	5.9	6.1	6.0	5.9	5.9

**Note:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

# System Performance—Standard Efficiency

Table 26: Gross System Performance—MPS A07D, 7 Tons Standard Efficiency

		Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>															
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			61°F (16.1°C)			59°F (15.0°C)			
CFM (L/s)		3600 (1699)	2775 (1310)	2400 (1133)	3600 (1699)	2775 (1310)	2400 (1133)	3600 (1699)	2775 (1310)	2400 (1133)	3600 (1699)	2775 (1310)	2400 (1133)	3600 (1699)	2775 (1310)	2400 (1133)	
DR <sup>1</sup>		0.17	0.13	0.11	0.17	0.13	0.11	0.17	0.13	0.11	0.17	0.13	0.11	0.17	0.13	0.11	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	119.6 (35.0)	113.5 (33.2)	110.7 (32.4)	112.7 (33.0)	107.0 (31.3)	104.3 (30.6)	107.8 (31.6)	102.3 (30.0)	99.8 (29.2)	106.4 (31.2)	100.9 (29.6)	98.4 (28.8)	105.8 (31.0)	100.4 (29.4)	97.9 (28.7)
		Sens BTUH kW)	70.3 (20.6)	61.8 (18.1)	57.9 (17.0)	83.3 (24.4)	73.2 (21.4)	68.5 (20.1)	96.0 (28.1)	84.3 (24.7)	79.0 (23.2)	102.2 (29.9)	89.7 (26.3)	84.1 (24.6)	105.8 (31.0)	94.9 (27.8)	88.9 (26.1)
		Power kW)	5.2	5.1	5	5.1	5	4.9	5.1	4.9	4.9	5	4.9	4.9	5	4.9	4.8
	80 (26.7)	Total BTUH kW)	116.1 (34.0)	110.1 (32.3)	107.4 (31.5)	109.2 (32.0)	103.6 (30.4)	101.1 (29.6)	104.3 (30.6)	99.0 (29.0)	96.5 (28.3)	102.9 (30.1)	97.6 (28.6)	95.2 (27.9)	102.3 (30.0)	97.1 (28.4)	94.7 (27.7)
		Sens BTUH kW)	68.4 (20.1)	60.1 (17.6)	56.3 (16.5)	81.4 (23.9)	71.5 (20.9)	67.0 (19.6)	94.1 (27.6)	82.7 (24.2)	77.4 (22.7)	100.3 (29.4)	88.1 (25.8)	82.5 (24.2)	102.3 (30.0)	93.2 (27.3)	87.4 (25.6)
		Power kW)	5.6	5.4	5.4	5.5	5.4	5.3	5.5	5.3	5.3	5.4	5.3	5.2	5.4	5.3	5.2
	85 (29.4)	Total BTUH kW)	112.6 (33.0)	106.8 (31.3)	104.2 (30.5)	105.7 (31.0)	100.3 (29.4)	97.8 (28.7)	100.8 (29.5)	95.6 (28.0)	93.3 (27.3)	99.3 (29.1)	94.2 (27.6)	91.9 (26.9)	98.8 (28.9)	93.7 (27.5)	91.4 (26.8)
		Sens BTUH kW)	66.6 (19.5)	58.5 (17.1)	54.8 (16.0)	79.5 (23.3)	69.8 (20.5)	65.4 (19.2)	92.3 (27.0)	81.0 (23.7)	75.9 (22.2)	98.4 (28.8)	86.4 (25.3)	81.0 (23.7)	98.8 (28.9)	91.6 (26.8)	85.8 (25.1)
		Power kW)	6.0	5.9	5.8	6	5.8	5.8	5.9	5.8	5.7	5.9	5.7	5.7	5.9	5.7	5.6
	90 (32.2)	Total BTUH kW)	109.0 (31.9)	103.4 (30.3)	100.9 (29.6)	102.1 (29.9)	96.9 (28.4)	94.5 (27.7)	97.2 (28.5)	92.2 (27.0)	90.0 (26.4)	95.8 (28.1)	90.9 (26.6)	88.6 (26.0)	95.2 (27.9)	90.3 (26.5)	88.1 (25.8)
		Sens BTUH kW)	64.7 (19.0)	56.8 (16.7)	53.2 (15.6)	77.7 (22.8)	68.2 (20.0)	63.9 (18.7)	90.4 (26.5)	79.4 (23.3)	74.4 (21.8)	95.8 (28.1)	84.8 (24.8)	79.4 (23.3)	95.2 (27.9)	90.0 (26.4)	84.3 (24.7)
		Power kW)	6.6	6.4	6.3	6.5	6.4	6.3	6.5	6.3	6.2	6.4	6.3	6.2	6.4	6.2	6.2
	95 (35.0)	Total BTUH kW)	105.4 (30.9)	100.0 (29.3)	97.5 (28.6)	98.5 (28.9)	93.5 (27.4)	91.2 (26.7)	93.6 (27.4)	88.8 (26.0)	86.6 (25.4)	92.2 (27.0)	87.4 (25.6)	85.3 (25.0)	91.6 (26.8)	86.9 (25.5)	84.8 (24.8)
		Sens BTUH kW)	62.9 (18.4)	55.2 (16.2)	51.7 (15.2)	75.8 (22.2)	66.6 (19.5)	62.4 (18.3)	88.6 (26.0)	77.8 (22.8)	72.9 (21.4)	92.2 (27.0)	83.2 (24.4)	77.9 (22.8)	91.6 (26.8)	86.9 (25.5)	82.8 (24.3)
		Power kW)	7.2	7	6.9	7.2	7	6.9	7.1	6.9	6.8	7.1	6.9	6.8	7	6.9	6.8
	100 (37.8)	Total BTUH kW)	101.7 (29.8)	96.5 (28.3)	94.2 (27.6)	94.9 (27.8)	90.0 (26.4)	87.8 (25.7)	90.0 (26.4)	85.4 (25.0)	83.3 (24.4)	88.5 (25.9)	84.0 (24.6)	81.9 (24.0)	88.0 (25.8)	83.4 (24.5)	81.4 (23.9)
		Sens BTUH kW)	61.0 (17.9)	53.6 (15.7)	50.2 (14.7)	74.0 (21.7)	65.0 (19.0)	60.9 (17.8)	86.7 (25.4)	76.2 (22.3)	71.4 (20.9)	88.5 (25.9)	81.6 (23.9)	76.4 (22.4)	88.0 (25.8)	83.4 (24.5)	81.3 (23.8)
		Power kW)	7.9	7.7	7.6	7.9	7.7	7.6	7.8	7.6	7.5	7.8	7.6	7.5	7.7	7.5	7.4
	105 (40.6)	Total BTUH kW)	98.1 (28.7)	93.0 (27.3)	90.7 (26.6)	91.2 (26.7)	86.5 (25.4)	84.4 (24.7)	86.3 (25.3)	81.9 (24.0)	79.8 (23.4)	84.8 (24.9)	80.5 (23.6)	78.5 (23.0)	84.3 (24.7)	79.9 (23.4)	78.0 (22.9)
		Sens BTUH kW)	59.3 (17.4)	52.0 (15.2)	48.8 (14.3)	72.2 (21.2)	63.4 (18.6)	59.4 (17.4)	84.9 (24.9)	74.6 (21.9)	69.9 (20.5)	84.8 (24.9)	80.0 (23.4)	74.9 (22.0)	84.3 (24.7)	79.9 (23.4)	78.0 (22.9)
		Power kW)	8.7	8.5	8.4	8.6	8.4	8.3	8.6	8.4	8.3	8.5	8.3	8.2	8.5	8.3	8.2
	110 (43.3)	Total BTUH kW)	94.3 (27.6)	89.5 (26.2)	87.3 (25.6)	87.5 (25.6)	83.0 (24.3)	81.0 (23.7)	82.6 (24.2)	78.3 (23.0)	76.4 (22.4)	81.1 (23.8)	76.9 (22.5)	75.1 (22.0)	80.5 (23.6)	76.4 (22.4)	74.5 (21.8)
		Sens BTUH kW)	55.7 (16.3)	50.5 (14.8)	47.3 (13.9)	70.4 (20.6)	61.9 (18.1)	57.9 (17.0)	82.6 (24.2)	73.0 (21.4)	68.4 (20.1)	81.1 (23.8)	76.9 (22.5)	73.5 (21.5)	80.5 (23.6)	76.4 (22.4)	74.5 (21.8)
		Power kW)	7.9	9.3	9.2	9.5	9.2	9.1	9.4	9.2	9.1	9.4	9.2	9	9.4	9.1	9
115 (46.1)	Total BTUH kW)	84.3 (24.7)	85.9 (25.2)	83.8 (24.6)	83.7 (24.5)	79.4 (23.3)	77.5 (22.7)	78.8 (23.1)	74.8 (21.9)	72.9 (21.4)	77.3 (22.7)	73.4 (21.5)	71.6 (21.0)	76.8 (22.5)	72.8 (21.3)	71.1 (20.8)	
	Sens BTUH kW)	59.3 (17.4)	48.9 (14.3)	45.8 (13.4)	68.7 (20.1)	60.3 (17.7)	56.5 (16.6)	78.8 (23.1)	71.5 (20.9)	67.0 (19.6)	77.3 (22.7)	73.4 (21.5)	71.6 (21.0)	76.8 (22.5)	72.8 (21.3)	71.1 (20.8)	
	Power kW)	8.3	10.2	10.1	10.4	10.2	10.0	10.4	10.1	10.0	10.3	10.1	9.9	10.3	10	9.9	

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 27: Gross System Performance—MPS A08D, 8 Tons Standard Efficiency

wbE		Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>															
		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			61°F (16.1°C)			59°F (15.0°C)			
CFM (L/s)		4100 (6035)	3200 (1510)	2700 (1274)	4100 (6035)	3200 (1510)	2700 (1274)	4100 (6035)	3200 (1510)	2700 (1274)	4100 (6035)	3200 (1510)	2700 (1274)	4100 (6035)	3200 (1510)	2700 (1274)	
DR <sup>1</sup>		0.11	0.05	0.01	0.11	0.05	0.01	0.11	0.05	0.01	0.11	0.05	0.01	0.11	0.05	0.01	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW	129.9 (38.1)	123.6 (36.2)	122.7 (36.0)	116.7 (34.2)	116.7 (34.2)	113.4 (33.2)	118.3 (34.7)	112.5 (33.0)	109.3 (32.0)	117.5 (34.4)	111.8 (32.8)	108.6 (31.8)	118.0 (34.6)	112.2 (32.9)	109.0 (32.0)
		Sens BTUH kW	81.3 (23.8)	71.9 (21.1)	96.4 (28.2)	85.2 (25.0)	85.2 (25.0)	79.0 (23.1)	110.1 (32.3)	97.3 (28.5)	90.2 (26.4)	116.1 (34.0)	102.6 (30.1)	95.2 (27.9)	118.0 (34.6)	107.3 (31.5)	99.5 (29.2)
		Power kW	6.2	6.1	6.1	6.0	6.0	5.9	6.1	5.9	5.8	6.0	5.9	5.8	6.0	5.9	5.8
	80 (26.7)	Total BTUH kW	121.4 (35.6)	119.5 (35.0)	118.5 (34.7)	112.7 (33.0)	112.7 (33.0)	109.5 (32.1)	114.0 (33.4)	108.5 (31.8)	105.4 (30.9)	113.3 (33.2)	107.8 (31.6)	104.7 (30.7)	113.7 (33.3)	108.2 (31.7)	105.1 (30.8)
		Sens BTUH kW	79.2 (23.2)	70.0 (20.5)	94.3 (27.6)	83.3 (24.4)	83.3 (24.4)	77.2 (22.6)	108.0 (31.6)	95.4 (28.0)	88.5 (25.9)	113.3 (33.2)	100.8 (29.5)	93.4 (27.4)	113.7 (33.3)	105.5 (30.9)	97.8 (28.7)
		Power kW	6.6	6.4	6.5	6.3	6.3	6.2	6.4	6.3	6.2	6.4	6.2	6.2	6.4	6.2	6.1
	85 (29.4)	Total BTUH kW	121.4 (35.6)	115.5 (33.8)	114.2 (33.5)	108.7 (31.8)	108.7 (31.8)	105.6 (30.9)	109.8 (32.2)	104.4 (30.6)	101.5 (29.7)	109.0 (31.9)	103.7 (30.4)	100.8 (29.5)	109.5 (32.1)	104.2 (30.5)	101.2 (29.7)
		Sens BTUH kW	77.0 (22.6)	68.1 (20.0)	92.1 (27.0)	81.4 (23.9)	81.4 (23.9)	75.5 (22.1)	105.8 (31.0)	93.5 (27.4)	86.7 (25.4)	109.0 (31.9)	98.9 (29.0)	91.7 (26.9)	109.5 (32.1)	103.6 (30.4)	96.0 (28.1)
		Power kW	6.9	6.8	6.9	6.7	6.7	6.6	6.8	6.6	6.6	6.8	6.6	6.5	6.7	6.6	6.5
	90 (32.2)	Total BTUH kW	117.1 (34.3)	111.4 (32.7)	110.0 (32.2)	104.6 (30.7)	104.6 (30.7)	101.6 (29.8)	105.5 (30.9)	100.4 (29.4)	97.5 (28.6)	104.8 (30.7)	99.7 (29.2)	96.8 (28.4)	105.2 (30.8)	100.1 (29.3)	97.3 (28.5)
		Sens BTUH kW	74.9 (21.9)	66.2 (19.4)	89.9 (26.4)	79.5 (23.3)	79.5 (23.3)	73.7 (21.6)	103.6 (30.4)	91.6 (26.8)	84.9 (24.9)	104.8 (30.7)	97.0 (28.4)	89.9 (26.3)	105.2 (30.8)	100.1 (29.3)	94.3 (27.6)
		Power kW	7.4	7.2	7.3	7.1	7.1	7.0	7.2	7.1	7.0	7.2	7.0	6.9	7.2	7.0	6.9
	95 (35.0)	Total BTUH kW	112.9 (33.1)	107.4 (31.5)	105.7 (31.0)	100.5 (29.5)	100.5 (29.5)	97.7 (28.6)	101.2 (29.7)	96.3 (28.2)	93.6 (27.4)	100.5 (29.4)	95.6 (28.0)	92.9 (27.2)	100.9 (29.6)	96.0 (28.1)	93.3 (27.3)
		Sens BTUH kW	72.6 (21.3)	64.2 (18.8)	87.7 (25.7)	77.5 (22.7)	77.5 (22.7)	71.9 (21.1)	101.2 (29.7)	89.7 (26.3)	83.1 (24.4)	100.5 (29.4)	95.0 (27.8)	88.1 (25.8)	100.9 (29.6)	96.0 (28.1)	92.4 (27.1)
		Power kW	7.8	7.6	7.7	7.6	7.6	7.4	7.7	7.5	7.4	7.6	7.5	7.4	7.6	7.4	7.3
	100 (37.8)	Total BTUH kW	108.6 (31.8)	103.3 (30.3)	101.4 (29.7)	96.5 (28.3)	96.5 (28.3)	93.7 (27.5)	97.0 (28.4)	92.2 (27.0)	89.6 (26.3)	96.2 (28.2)	91.5 (26.8)	88.9 (26.1)	96.7 (28.3)	92.0 (26.9)	89.3 (26.2)
		Sens BTUH kW	70.4 (20.6)	62.2 (18.2)	85.5 (25.0)	75.5 (22.1)	75.5 (22.1)	70.0 (20.5)	97.0 (28.4)	87.7 (25.7)	81.3 (23.8)	96.2 (28.2)	91.5 (26.8)	86.2 (25.3)	96.7 (28.3)	92.0 (26.9)	89.3 (26.2)
		Power kW	8.3	8.1	8.2	8.0	8.0	7.9	8.2	8.0	7.8	8.1	7.9	7.8	8.1	7.9	7.8
	105 (40.6)	Total BTUH kW	104.3 (30.6)	99.2 (29.1)	97.1 (28.4)	92.4 (27.1)	92.4 (27.1)	89.7 (26.3)	92.7 (27.2)	88.1 (25.8)	85.6 (25.1)	91.9 (26.9)	87.4 (25.6)	84.9 (24.9)	92.4 (27.1)	87.9 (25.7)	85.4 (25.0)
		Sens BTUH kW	68.1 (20.0)	60.2 (17.6)	83.2 (24.4)	73.5 (21.5)	73.5 (21.5)	68.1 (20.0)	92.7 (27.2)	85.6 (25.1)	79.4 (23.3)	91.9 (26.9)	87.4 (25.6)	84.3 (24.7)	92.4 (27.1)	87.9 (25.7)	85.4 (25.0)
		Power kW	8.8	8.6	8.7	8.5	8.5	8.4	8.7	8.5	8.3	8.6	8.4	8.3	8.6	8.4	8.3
	110 (43.3)	Total BTUH kW	99.9 (29.3)	95.1 (27.9)	92.8 (27.2)	88.2 (25.9)	88.2 (25.9)	85.7 (25.1)	88.3 (25.9)	84.0 (24.6)	81.6 (23.9)	87.6 (25.7)	83.3 (24.4)	80.9 (23.7)	88.0 (25.8)	83.7 (24.5)	81.4 (23.8)
		Sens BTUH kW	65.8 (19.3)	58.1 (17.0)	80.8 (23.7)	71.4 (20.9)	71.4 (20.9)	66.2 (19.4)	88.3 (25.9)	83.6 (24.5)	77.5 (22.7)	87.6 (25.7)	83.3 (24.4)	80.9 (23.7)	88.0 (25.8)	83.7 (24.5)	81.4 (23.8)
		Power kW	9.3	9.1	9.3	9.0	9.0	8.9	9.2	9.0	8.9	9.2	9.0	8.8	9.1	8.9	8.8
115 (46.1)	Total BTUH kW	95.6 (28.0)	91.0 (26.7)	88.4 (25.9)	84.1 (24.7)	84.1 (24.7)	81.7 (24.0)	84.0 (24.6)	79.9 (23.4)	77.6 (22.8)	83.2 (24.4)	79.2 (23.2)	76.9 (22.5)	83.7 (24.5)	79.6 (23.3)	77.4 (22.7)	
	Sens BTUH kW	63.4 (18.6)	56.0 (16.4)	78.4 (23.0)	69.3 (20.3)	69.3 (20.3)	64.3 (18.8)	84.0 (24.6)	79.9 (23.4)	75.5 (22.1)	83.2 (24.4)	79.2 (23.2)	76.9 (22.5)	83.7 (24.5)	79.6 (23.3)	77.4 (22.7)	
	Power kW	9.9	9.7	9.8	9.6	9.6	9.5	9.8	9.5	9.4	9.7	9.5	9.4	9.7	9.5	9.4	

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 28: Gross System Performance—MPS A10D, 10 Tons Standard Efficiency

		Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>															
		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			61°F (16.1°C)			59°F (15.0°C)			
CFM (L/s)		4800 (2265)	3750 (1770)	3200 (1510)	4800 (2265)	3750 (1770)	3200 (1510)	4800 (2265)	3750 (1770)	3200 (1510)	4800 (2265)	3750 (1770)	3200 (1510)	4800 (2265)	3750 (1770)	3200 (1510)	
DR <sup>1</sup>		0.09	0.03	0.00	0.09	0.03	0.00	0.09	0.03	0.00	0.09	0.03	0.00	0.09	0.03	0.00	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW	155.3 (45.5)	147.8 (43.3)	143.8 (42.2)	147.8 (43.3)	140.7 (41.2)	136.9 (40.1)	142.8 (41.8)	135.8 (39.8)	132.2 (38.7)	141.5 (41.5)	134.7 (39.5)	131.1 (38.4)	141.4 (41.4)	134.5 (39.4)	130.9 (38.4)
		Sens BTUH kW	97.3 (28.5)	86.1 (25.2)	80.2 (23.5)	115.8 (33.9)	102.4 (30.0)	95.4 (28.0)	132.9 (38.9)	117.5 (34.4)	109.5 (32.1)	140.6 (41.2)	124.3 (36.4)	115.8 (33.9)	141.4 (41.4)	130.4 (38.2)	121.4 (35.6)
		Power kW	7.5	7.3	7.2	7.4	7.2	7.1	7.3	7.1	7.0	7.2	7.1	7.0	7.2	7.0	6.9
	80 (26.7)	Total BTUH kW	150.6 (44.1)	143.4 (42.0)	139.5 (40.9)	143.2 (42.0)	136.2 (39.9)	132.6 (38.9)	138.1 (40.5)	131.4 (38.5)	27.9 (37.5)	136.9 (40.1)	130.2 (38.2)	126.8 (37.1)	136.7 (40.1)	130.1 (38.1)	126.6 (37.1)
		Sens BTUH kW	94.9 (27.8)	84.0 (24.6)	78.2 (22.9)	113.5 (33.2)	100.3 (29.4)	93.5 (27.4)	130.5 (38.2)	115.4 (33.8)	107.5 (31.5)	136.9 (40.1)	122.2 (35.8)	113.8 (33.4)	136.7 (40.1)	128.3 (37.6)	119.5 (35.0)
		Power kW	7.9	7.7	7.6	7.8	7.6	7.5	7.7	7.5	7.4	7.7	7.5	7.4	7.6	7.4	7.3
	85 (29.4)	Total BTUH kW	146.0 (42.8)	138.9 (40.7)	135.2 (39.6)	138.5 (40.6)	131.8 (38.6)	128.3 (37.6)	133.5 (39.1)	127 (37.2)	123.6 (36.2)	132.2 (38.7)	125.8 (36.9)	122.5 (35.9)	132.1 (38.7)	125.7 (36.8)	122.3 (35.9)
		Sens BTUH kW	92.5 (27.1)	81.8 (24.0)	76.2 (22.3)	111.0 (32.5)	98.2 (28.8)	91.5 (26.8)	128.1 (37.5)	113.3 (33.2)	105.5 (30.9)	132.2 (38.7)	120.1 (35.2)	111.9 (32.8)	132.1 (38.7)	125.7 (36.8)	117.5 (34.4)
		Power kW	8.3	8.1	8.0	8.2	8.0	7.9	8.2	8.0	7.9	8.1	7.9	7.8	8.1	7.9	7.8
	90 (32.2)	Total BTUH kW	141.4 (41.4)	134.5 (39.4)	131.0 (38.4)	133.9 (39.2)	127.4 (37.3)	124.0 (36.3)	128.8 (37.8)	122.6 (35.9)	119.3 (35.0)	127.6 (37.4)	121.4 (35.6)	118.2 (34.6)	127.5 (37.4)	121.3 (35.5)	118.1 (34.6)
		Sens BTUH kW	90.1 (26.4)	79.7 (23.3)	74.2 (21.7)	108.6 (31.8)	96.0 (28.1)	89.5 (26.2)	125.6 (36.8)	111.1 (32.6)	103.5 (30.3)	127.6 (37.4)	117.9 (34.5)	109.8 (32.2)	127.5 (37.4)	121.3 (35.5)	115.5 (33.8)
		Power kW	8.8	8.6	8.5	8.7	8.5	8.4	8.6	8.4	8.3	8.6	8.4	8.3	8.5	8.3	8.2
	95 (35.0)	Total BTUH kW	136.8 (40.1)	130.2 (38.1)	126.7 (37.1)	129.3 (37.9)	123.0 (36.1)	119.7 (35.1)	124.2 (36.4)	118.2 (34.6)	115.1 (33.7)	123.0 (36.0)	117.0 (34.3)	113.9 (33.4)	122.9 (36.0)	116.9 (34.3)	113.8 (33.3)
		Sens BTUH kW	87.6 (25.7)	77.5 (22.7)	72.2 (21.1)	106.1 (31.1)	93.8 (27.5)	87.4 (25.6)	123.1 (36.1)	108.9 (31.9)	101.5 (29.7)	123 (36.0)	115.7 (33.9)	107.8 (31.6)	122.9 (36.0)	116.9 (34.3)	113.4 (33.2)
		Power kW	9.3	9.1	9.0	9.2	9.0	8.9	9.1	8.9	8.8	9.1	8.9	8.8	9.1	8.8	8.7
	100 (37.8)	Total BTUH kW	132.2 (38.7)	125.8 (36.9)	122.4 (35.9)	124.7 (36.5)	118.7 (34.8)	115.5 (33.8)	119.6 (35.1)	113.8 (33.4)	110.8 (32.5)	118.4 (34.7)	112.7 (33.0)	109.7 (32.1)	118.3 (34.7)	112.5 (33.0)	109.5 (32.1)
		Sens BTUH kW	85.1 (24.9)	75.2 (22.0)	70.1 (20.5)	103.6 (30.3)	91.6 (26.8)	85.3 (25.0)	119.6 (35.1)	106.7 (31.3)	99.4 (29.1)	118.4 (34.7)	112.7 (33.0)	105.7 (31.0)	118.3 (34.7)	112.5 (33.0)	109.5 (32.1)
		Power kW	9.9	9.6	9.5	9.8	9.5	9.4	9.7	9.5	9.3	9.6	9.4	9.3	9.6	9.4	9.2
	105 (40.6)	Total BTUH kW	127.6 (37.4)	121.4 (35.6)	118.2 (34.6)	120.1 (35.2)	114.3 (33.5)	111.2 (32.6)	115.1 (33.7)	109.5 (32.1)	106.6 (31.2)	113.8 (33.4)	108.3 (31.7)	105.4 (30.9)	113.7 (33.3)	108.2 (31.7)	105.3 (30.9)
		Sens BTUH kW	82.5 (24.2)	73.0 (21.4)	68.0 (19.9)	101.0 (29.6)	89.3 (26.2)	83.2 (24.4)	115.1 (33.7)	104.4 (30.6)	97.3 (28.5)	113.8 (33.4)	108.3 (31.7)	103.6 (30.4)	113.7 (33.3)	108.2 (31.7)	105.3 (30.9)
		Power kW	10.5	10.2	10.1	10.4	10.1	10.0	10.3	10.0	9.9	10.2	10.0	9.8	10.2	9.9	9.8
	110 (43.3)	Total BTUH kW	123 (36.1)	117.1 (34.3)	114.0 (33.4)	115.5 (33.9)	109.9 (32.2)	107.0 (31.4)	110.5 (32.4)	105.1 (30.8)	102.3 (30.0)	109.3 (32.0)	104.0 (30.5)	101.2 (29.7)	109.1 (32.0)	103.8 (30.4)	101.1 (29.6)
		Sens BTUH kW	79.9 (23.4)	70.6 (20.7)	65.8 (19.3)	98.4 (28.8)	87.0 (25.5)	81.1 (23.8)	110.5 (32.4)	102.1 (29.9)	95.1 (27.9)	109.3 (32.0)	104.0 (30.5)	101.2 (29.7)	109.1 (32.0)	103.8 (30.4)	101.1 (29.6)
		Power kW	11.1	10.8	10.7	11.0	10.7	10.6	10.9	10.6	10.5	10.8	10.6	10.4	10.8	10.5	10.4
115 (46.1)	Total BTUH kW	118.5 (34.7)	112.7 (33.0)	109.7 (32.2)	111.0 (32.5)	105.6 (31.0)	102.8 (30.1)	105.9 (31.0)	100.8 (29.5)	98.1 (28.8)	104.7 (30.7)	99.6 (29.2)	97.0 (28.4)	104.6 (30.6)	99.5 (29.2)	96.8 (28.4)	
	Sens BTUH kW	77.2 (22.6)	68.3 (20.0)	63.6 (18.6)	95.7 (28.1)	84.7 (24.8)	78.9 (23.1)	105.9 (31.0)	99.8 (29.2)	92.9 (27.2)	104.7 (30.7)	99.6 (29.2)	97.0 (28.4)	104.6 (30.6)	99.5 (29.2)	96.8 (28.4)	
	Power kW	11.7	11.4	11.3	11.6	11.3	11.2	11.5	11.2	11.1	11.5	11.2	11.1	11.4	11.2	11.0	

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 29: Gross System Performance—MPS A12D, 12 Tons Standard Efficiency

			Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>								
wbE			71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)		
CFM (L/s)			4500 (2124)	3750 (1770)	3000 (1416)	4500 (2124)	3750 (1770)	3000 (1416)	4500 (2124)	3750 (1770)	3000 (1416)
DR <sup>1</sup>			0.00	0.01	0.09	0.00	0.01	0.09	0.00	0.01	0.09
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW	179.6 (52.6)	173.3 (50.8)	167.0 (48.9)	172.2 (50.5)	166.2 (48.7)	160.2 (46.9)	167.3 (49.0)	161.4 (47.3)	155.5 (45.6)
		Sens BTUH kW	113.4 (33.2)	97.4 (28.5)	82.6 (24.2)	131.0 (38.4)	113.8 (33.3)	97.7 (28.6)	147.4 (43.2)	128.9 (37.8)	111.5 (32.7)
		Power kW	10.2	10	9.9	10.1	9.9	9.8	10	9.9	9.7
	80 (26.7)	Total BTUH kW	175.0 (51.3)	168.9 (49.5)	162.8 (47.7)	167.6 (49.1)	161.8 (47.4)	155.9 (45.7)	162.7 (47.7)	157.0 (46.0)	151.3 (44.3)
		Sens BTUH kW	110.9 (32.5)	95.3 (27.9)	80.9 (23.7)	128.5 (37.7)	111.7 (32.7)	95.9 (28.1)	144.9 (42.5)	126.8 (37.2)	109.8 (32.2)
		Power kW	10.6	10.4	10.3	10.5	10.4	10.2	10.4	10.3	10.1
	85 (29.4)	Total BTUH kW	170.5 (50.0)	164.5 (48.2)	158.5 (46.4)	163.1 (47.8)	157.4 (46.1)	151.6 (44.4)	158.1 (46.3)	152.5 (44.7)	147.0 (43.1)
		Sens BTUH kW	108.5 (31.8)	93.2 (27.3)	79.1 (23.2)	126.1 (36.9)	109.6 (32.1)	94.1 (27.6)	142.4 (41.7)	124.6 (36.5)	108.0 (31.6)
		Power kW	11.1	10.9	10.7	11	10.8	10.6	10.9	10.7	10.5
	90 (32.2)	Total BTUH kW	165.9 (48.6)	160.1 (46.9)	154.3 (45.2)	158.5 (46.4)	153.0 (44.8)	147.4 (43.2)	153.5 (45.0)	148.1 (43.4)	142.8 (41.8)
		Sens BTUH kW	105.8 (31.0)	91.0 (26.7)	77.2 (22.6)	123.4 (36.2)	107.4 (31.5)	92.3 (27.0)	139.7 (40.9)	122.4 (35.9)	106.2 (31.1)
		Power kW	11.6	11.4	11.2	11.5	11.3	11.1	11.4	11.2	11
	95 (35.0)	Total BTUH kW	161.4 (47.3)	155.7 (45.6)	150.0 (43.9)	154.0 (45.1)	148.6 (43.5)	143.2 (42.0)	149.0 (43.7)	143.8 (42.1)	138.5 (40.6)
		Sens BTUH kW	103.3 (30.3)	88.8 (26.0)	75.3 (22.1)	120.9 (35.4)	105.2 (30.8)	90.5 (26.5)	137.2 (40.2)	120.3 (35.2)	104.3 (30.6)
		Power kW	12.1	11.9	11.6	12	11.8	11.6	11.9	11.7	11.5
	100 (37.8)	Total BTUH kW	156.8 (45.9)	151.3 (44.3)	145.8 (42.7)	149.4 (43.8)	144.2 (42.3)	139.0 (40.7)	144.5 (42.3)	139.4 (40.8)	134.3 (39.3)
		Sens BTUH kW	100.6 (29.5)	86.5 (25.3)	73.4 (21.5)	118.2 (34.6)	102.9 (30.1)	88.6 (26.0)	134.6 (39.4)	118.0 (34.6)	102.4 (30.0)
		Power kW	12.6	12.4	12.2	12.5	12.3	12.1	12.4	12.2	12
	105 (40.6)	Total BTUH kW	152.3 (44.6)	147.0 (43.1)	141.6 (41.5)	144.9 (42.5)	139.8 (41.0)	134.8 (39.5)	139.9 (41.0)	135.0 (39.6)	130.1 (38.1)
		Sens BTUH kW	98.0 (28.7)	84.3 (24.7)	71.5 (20.9)	115.6 (33.9)	100.6 (29.5)	86.7 (25.4)	131.9 (38.6)	115.7 (33.9)	100.5 (29.4)
		Power kW	13.2	13	12.7	13.1	12.9	12.6	13	12.8	12.5
	110 (43.3)	Total BTUH kW	147.8 (43.3)	142.6 (41.8)	137.4 (40.3)	140.4 (41.1)	135.5 (39.7)	130.6 (38.3)	135.4 (39.7)	130.7 (38.3)	125.9 (36.9)
		Sens BTUH kW	95.3 (27.9)	82.0 (24.0)	69.6 (20.4)	112.9 (33.1)	98.4 (28.8)	84.8 (24.8)	129.2 (37.9)	113.5 (33.3)	98.6 (28.9)
		Power kW	13.8	13.5	13.3	13.7	13.5	13.2	13.6	13.4	13.1
115 (46.1)	Total BTUH kW	143.3 (42.0)	138.3 (40.5)	133.3 (39.1)	135.9 (39.8)	131.2 (38.4)	126.4 (37.0)	130.9 (38.4)	126.4 (37.0)	121.8 (35.7)	
	Sens BTUH kW	92.6 (27.1)	79.7 (23.4)	67.7 (19.8)	110.1 (32.3)	96.0 (28.1)	82.7 (24.2)	126.4 (37.0)	111.1 (32.6)	96.6 (28.3)	
	Power kW	14.4	14.2	13.9	14.3	14.1	13.8	14.2	14	13.7	

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 30: Gross System Performance—MPS 015B, 15 Tons Standard Efficiency**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	
DR <sup>1</sup>		0.04	0.08	0.13	0.04	0.08	0.13	0.04	0.08	0.13	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	226.5 (66.4)	217.8 (63.8)	210.4 (61.7)	214.3 (62.8)	206.0 (60.4)	199.0 (58.3)	206.3 (60.5)	198.4 (58.1)	191.7 (56.2)
		Sens BTUH kW)	148.8 (43.6)	126.2 (37.0)	108.5 (31.8)	174.1 (51.0)	149.6 (43.9)	130.2 (38.2)	193.4 (56.7)	167.5 (49.1)	146.8 (43.0)
		Power kW)	12.6	12.3	12.1	12.4	12.2	12.0	12.2	12.0	11.8
	80 (26.7)	Total BTUH kW)	222.2 (65.1)	213.6 (62.6)	206.4 (60.5)	209.9 (61.5)	201.8 (59.1)	195.0 (57.1)	202.0 (59.2)	194.2 (56.9)	187.6 (55.0)
		Sens BTUH kW)	146.6 (43.0)	124.3 (36.4)	106.9 (31.3)	171.9 (50.4)	147.8 (43.3)	128.7 (37.7)	191.3 (56.1)	165.7 (48.6)	145.3 (42.6)
		Power kW)	13.1	12.9	12.7	13.0	12.7	12.5	12.8	12.6	12.4
	85 (29.4)	Total BTUH kW)	217.5 (63.7)	209.1 (61.3)	202.0 (59.2)	205.3 (60.2)	197.3 (57.8)	190.7 (55.9)	197.3 (57.8)	189.7 (55.6)	183.3 (53.7)
		Sens BTUH kW)	144.1 (42.2)	122.3 (35.9)	105.2 (30.8)	169.5 (49.7)	145.7 (42.7)	127.0 (37.2)	188.8 (55.3)	163.6 (48.0)	143.5 (42.1)
		Power kW)	13.8	13.5	13.3	13.6	13.4	13.1	13.5	13.2	13.0
	90 (32.2)	Total BTUH kW)	212.5 (62.3)	204.3 (59.9)	197.4 (57.9)	200.2 (58.7)	192.5 (56.4)	186.0 (54.5)	192.3 (56.4)	184.9 (54.2)	178.6 (52.3)
		Sens BTUH kW)	141.4 (41.5)	120.0 (35.2)	103.3 (30.3)	166.7 (48.9)	143.5 (42.1)	125.1 (36.7)	186.2 (54.6)	161.4 (47.3)	141.6 (41.5)
		Power kW)	14.5	14.2	14.0	14.3	14.0	13.8	14.2	13.9	13.7
	95 (35.0)	Total BTUH kW)	207.2 (60.7)	199.2 (58.4)	192.4 (56.4)	194.9 (57.1)	<b>187.4</b> <b>(54.9)</b>	181.0 (53.0)	187.0 (54.8)	179.8 (52.7)	173.7 (50.9)
		Sens BTUH kW)	138.5 (40.6)	117.6 (34.5)	101.2 (29.7)	163.9 (48.0)	<b>141.1</b> <b>(41.4)</b>	123.0 (36.1)	183.3 (53.7)	159.0 (46.6)	139.6 (40.9)
		Power kW)	15.2	14.9	14.7	15.1	<b>14.8</b>	14.5	14.9	14.6	14.4
	100 (37.8)	Total BTUH kW)	201.5 (59.1)	193.7 (56.8)	187.2 (54.9)	189.2 (55.4)	181.9 (53.3)	175.8 (51.5)	181.3 (53.1)	174.3 (51.1)	168.4 (49.4)
		Sens BTUH kW)	135.4 (39.7)	115.0 (33.7)	99.1 (29.1)	160.7 (47.1)	138.4 (40.6)	120.8 (35.4)	180.1 (52.8)	156.3 (45.8)	137.3 (40.2)
		Power kW)	16.0	15.7	15.4	15.9	15.6	15.3	15.7	15.4	15.1
	105 (40.6)	Total BTUH kW)	195.5 (57.3)	188.0 (55.1)	181.6 (53.2)	183.2 (53.7)	176.2 (51.6)	170.2 (49.9)	175.3 (51.4)	168.5 (49.4)	162.8 (47.7)
		Sens BTUH kW)	132.0 (38.7)	112.2 (32.9)	96.6 (28.3)	157.3 (46.1)	135.6 (39.8)	118.3 (34.7)	175.3 (51.4)	153.4 (45.0)	134.8 (39.5)
		Power kW)	16.9	16.5	16.3	16.7	16.4	16.1	16.5	16.2	16.0
	110 (43.3)	Total BTUH kW)	189.2 (55.4)	181.9 (53.3)	175.7 (51.5)	176.9 (51.8)	170.1 (49.9)	164.3 (48.2)	169.0 (49.5)	162.5 (47.6)	156.9 (46.0)
		Sens BTUH kW)	128.4 (37.6)	109.1 (32.0)	93.9 (27.5)	153.7 (45.1)	132.6 (38.9)	115.8 (33.9)	169.0 (49.5)	150.5 (44.1)	132.3 (38.8)
		Power kW)	17.8	17.4	17.1	17.6	17.3	17.0	17.5	17.1	16.8
115 (46.1)	Total BTUH kW)	182.5 (53.5)	175.5 (51.4)	169.5 (49.7)	170.2 (49.9)	163.7 (48.0)	158.1 (46.3)	162.3 (47.6)	156.0 (45.7)	150.8 (44.2)	
	Sens BTUH kW)	124.5 (36.5)	105.9 (31.0)	91.2 (26.7)	149.9 (43.9)	129.4 (37.9)	113.0 (33.1)	162.3 (47.6)	147.2 (43.2)	129.6 (38.0)	
	Power kW)	18.7	18.4	18.1	18.6	18.2	17.9	18.4	18.1	17.8	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 31: Gross System Performance—MPS 020B, 20 Tons Standard Efficiency**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		9600 (4531)	7725 (3646)	6400 (3020)	9600 (4531)	7725 (3646)	6400 (3020)	9600 (4531)	7725 (3646)	6400 (3020)	
DR <sup>1</sup>		0.06	0.11	0.15	0.06	0.11	0.15	0.06	0.11	0.15	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	283.5 (83.1)	271.5 (79.6)	263.0 (77.1)	269.6 (79.0)	258.2 (75.7)	250.2 (73.3)	258.7 (75.8)	247.8 (72.6)	240.0 (70.3)
		Sens BTUH kW)	187.4 (54.9)	156.3 (45.8)	136.0 (39.9)	220.5 (64.6)	186.7 (54.7)	164.4 (48.2)	245.6 (72.0)	209.7 (61.5)	185.7 (54.4)
		Power kW)	15.4	15.1	14.9	15.3	15.0	14.7	15.1	14.8	14.6
	80 (26.7)	Total BTUH kW)	280.8 (82.3)	269.0 (78.8)	260.6 (76.4)	267.0 (78.2)	255.7 (74.9)	247.7 (72.6)	256.1 (75.1)	245.3 (71.9)	237.6 (69.6)
		Sens BTUH kW)	186.4 (54.6)	155.6 (45.6)	135.4 (39.7)	219.6 (64.4)	186.0 (54.5)	163.8 (48.0)	244.7 (71.7)	209.0 (61.3)	185.2 (54.3)
		Power kW)	16.2	15.9	15.6	16.0	15.7	15.5	15.9	15.5	15.3
	85 (29.4)	Total BTUH kW)	277.4 (81.3)	265.7 (77.9)	257.4 (75.4)	263.5 (77.2)	252.4 (74.0)	244.5 (71.7)	252.6 (74.0)	242.0 (70.9)	234.4 (68.7)
		Sens BTUH kW)	184.9 (54.2)	154.4 (45.3)	134.4 (39.4)	218.1 (63.9)	184.8 (54.2)	162.7 (47.7)	243.1 (71.3)	207.8 (60.9)	184.2 (54.0)
		Power kW)	17.0	16.7	16.4	16.9	16.5	16.3	16.7	16.3	16.1
	90 (32.2)	Total BTUH kW)	273.1 (80.0)	261.6 (76.7)	253.4 (74.3)	259.3 (76.0)	248.3 (72.8)	240.6 (70.5)	248.4 (72.8)	237.9 (69.7)	230.5 (67.6)
		Sens BTUH kW)	182.8 (53.6)	152.7 (44.8)	132.9 (39.0)	216.2 (63.4)	183.2 (53.7)	161.5 (47.3)	241.1 (70.7)	206.1 (60.4)	182.8 (53.6)
		Power kW)	17.9	17.5	17.3	17.7	17.4	17.1	17.6	17.2	16.9
	95 (35.0)	Total BTUH kW)	268.1 (78.6)	256.7 (75.2)	248.7 (72.9)	254.2 (74.5)	<b>243.5 (71.4)</b>	235.9 (69.1)	243.3 (71.3)	233.0 (68.3)	225.8 (66.2)
		Sens BTUH kW)	180.2 (52.8)	150.5 (44.1)	131.1 (38.4)	213.5 (62.6)	<b>181.1 (53.1)</b>	159.6 (46.8)	238.6 (69.9)	204.0 (59.8)	181.0 (53.1)
		Power kW)	18.8	18.4	18.2	18.7	<b>18.3</b>	18.0	18.5	18.1	17.8
	100 (37.8)	Total BTUH kW)	262.2 (76.8)	251.1 (73.6)	243.3 (71.3)	248.3 (72.8)	237.8 (69.7)	230.4 (67.5)	237.4 (69.6)	227.4 (66.6)	220.3 (64.6)
		Sens BTUH kW)	177.1 (51.9)	148.0 (43.4)	129.0 (37.8)	210.4 (61.7)	178.5 (52.3)	157.4 (46.1)	235.3 (69.0)	201.4 (59.0)	178.7 (52.4)
		Power kW)	19.8	19.4	19.1	19.6	19.2	18.9	19.5	19.1	18.8
	105 (40.6)	Total BTUH kW)	255.5 (74.9)	244.7 (71.7)	237.1 (69.5)	241.6 (70.8)	231.4 (67.8)	224.2 (65.7)	230.7 (67.6)	221.0 (64.8)	214.1 (62.7)
		Sens BTUH kW)	173.4 (50.8)	145.0 (42.5)	126.4 (37.1)	206.6 (60.6)	175.4 (51.4)	154.7 (45.3)	230.7 (67.6)	198.4 (58.2)	176.2 (51.6)
		Power kW)	20.8	20.4	20.1	20.7	20.2	19.9	20.5	20.1	19.8
	110 (43.3)	Total BTUH kW)	248.0 (72.7)	237.5 (69.6)	230.1 (67.4)	234.1 (68.6)	224.2 (65.7)	217.2 (63.7)	223.2 (65.4)	213.8 (62.7)	207.1 (60.7)
		Sens BTUH kW)	169.2 (49.6)	141.5 (41.5)	123.4 (36.2)	202.4 (59.3)	171.9 (50.4)	151.7 (44.5)	223.2 (65.4)	194.9 (57.1)	173.1 (50.7)
		Power kW)	21.9	21.5	21.1	21.7	21.3	21.0	21.6	21.1	20.8
115 (46.1)	Total BTUH kW)	239.6 (70.2)	229.5 (67.3)	222.3 (65.1)	225.8 (66.2)	216.2 (63.4)	209.5 (61.4)	214.9 (63.0)	205.8 (60.3)	199.4 (58.4)	
	Sens BTUH kW)	164.3 (48.2)	137.5 (40.3)	119.9 (35.1)	197.7 (58.0)	168.0 (49.2)	148.4 (43.5)	214.9 (63.0)	191.0 (56.0)	169.8 (49.8)	
	Power kW)	23.1	22.6	22.2	22.9	22.4	22.1	22.7	22.2	21.9	

**Note:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 32: Gross System Performance—MPS 025B, 25 Tons Standard Efficiency

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		12000 (5663)	9475 (4472)	8000 (3776)	12000 (5663)	9475 (4472)	8000 (3776)	12000 (5663)	9475 (4472)	8000 (3776)	
DR <sup>1</sup>		0.02	0.08	0.11	0.02	0.08	0.11	0.02	0.08	0.11	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	376.4 (110.3)	359.0 (105.2)	348.9 (102.3)	358.0 (104.9)	341.5 (100.1)	331.8 (97.2)	347.0 (101.7)	330.9 (97.0)	321.6 (94.3)
		Sens BTUH kW)	251.6 (73.7)	206.4 (60.5)	182.0 (53.3)	294.2 (86.2)	245.2 (71.9)	218.4 (64.0)	326.2 (95.6)	274.0 (80.3)	245.5 (72.0)
		Power kW)	20.8	20.3	20.0	20.5	20.0	19.7	20.2	19.7	19.5
	80 (26.7)	Total BTUH kW)	369.9 (108.4)	352.8 (103.4)	342.8 (100.5)	351.5 (103.0)	335.2 (98.2)	325.7 (95.5)	340.4 (99.8)	324.6 (95.1)	315.5 (92.5)
		Sens BTUH kW)	248.1 (72.7)	203.6 (59.7)	179.5 (52.6)	290.8 (85.2)	242.3 (71.0)	215.9 (63.3)	322.6 (94.6)	271.1 (79.5)	243.0 (71.2)
		Power kW)	21.7	21.2	21.0	21.4	21.0	20.7	21.2	20.7	20.4
	85 (29.4)	Total BTUH kW)	362.5 (106.2)	345.7 (101.3)	335.9 (98.4)	344.1 (100.8)	328.2 (96.2)	318.9 (93.5)	333.0 (97.6)	317.6 (93.1)	308.6 (90.4)
		Sens BTUH kW)	244.2 (71.6)	200.4 (58.7)	176.8 (51.8)	286.8 (84.1)	239.2 (70.1)	213.2 (62.5)	318.6 (93.4)	268.0 (78.6)	240.2 (70.4)
		Power kW)	22.8	22.2	21.9	22.5	22.0	21.7	22.2	21.7	21.4
	90 (32.2)	Total BTUH kW)	354.3 (103.8)	338.0 (99.1)	328.4 (96.2)	335.9 (98.4)	320.4 (93.9)	311.3 (91.2)	324.9 (95.2)	309.8 (90.8)	301.1 (88.2)
		Sens BTUH kW)	239.8 (70.3)	197.0 (57.7)	173.8 (50.9)	282.4 (82.8)	235.7 (69.1)	210.1 (61.6)	314.4 (92.2)	264.5 (77.5)	237.2 (69.5)
		Power kW)	23.9	23.3	23.0	23.6	23.0	22.7	23.3	22.7	22.4
	95 (35.0)	Total BTUH kW)	345.4 (101.2)	329.4 (96.5)	320.1 (93.8)	327.0 (95.8)	<b>311.9 (91.4)</b>	303.1 (88.8)	315.9 (92.6)	301.3 (88.3)	292.8 (85.8)
		Sens BTUH kW)	235.2 (68.9)	193.2 (56.6)	170.5 (50.0)	277.8 (81.4)	<b>232.0 (68.0)</b>	207.0 (60.7)	309.7 (90.8)	260.8 (76.4)	234.0 (68.6)
		Power kW)	25.0	24.4	24.1	24.7	<b>24.1</b>	23.8	24.4	23.9	23.5
	100 (37.8)	Total BTUH kW)	335.7 (98.4)	320.2 (93.8)	311.1 (91.2)	317.3 (93.0)	302.6 (88.7)	294.1 (86.2)	306.2 (89.7)	292.1 (85.6)	283.8 (83.2)
		Sens BTUH kW)	230.3 (67.5)	189.3 (55.5)	167.1 (49.0)	272.9 (80.0)	228.0 (66.8)	203.6 (59.7)	304.7 (89.3)	256.9 (75.3)	230.5 (67.6)
		Power kW)	26.2	25.6	25.3	25.9	25.3	25.0	25.6	25.1	24.7
	105 (40.6)	Total BTUH kW)	325.2 (95.3)	310.2 (90.9)	301.4 (88.3)	306.8 (89.9)	292.6 (85.8)	284.3 (83.3)	295.7 (86.7)	282.0 (82.6)	274.1 (80.3)
		Sens BTUH kW)	224.9 (65.9)	185.0 (54.2)	163.4 (47.9)	267.5 (78.4)	223.7 (65.6)	199.8 (58.6)	295.7 (86.7)	252.5 (74.0)	226.8 (66.5)
		Power kW)	27.5	26.9	26.5	27.2	26.6	26.2	26.9	26.3	25.9
	110 (43.3)	Total BTUH kW)	313.9 (92.0)	299.4 (87.7)	290.9 (85.3)	295.5 (86.6)	281.9 (82.6)	273.9 (80.3)	284.4 (83.3)	271.3 (79.5)	263.6 (77.3)
		Sens BTUH kW)	219.3 (64.3)	180.5 (52.9)	159.5 (46.8)	261.9 (76.8)	219.3 (64.3)	195.9 (57.4)	284.4 (83.3)	248.1 (72.7)	222.9 (65.3)
		Power kW)	28.9	28.2	27.8	28.6	27.9	27.5	28.3	27.6	27.2
115 (46.1)	Total BTUH kW)	301.8 (88.4)	287.9 (84.4)	279.7 (82.0)	283.4 (83.1)	270.4 (79.2)	262.7 (77.0)	272.4 (79.8)	259.8 (76.1)	252.4 (74.0)	
	Sens BTUH kW)	213.2 (62.5)	175.7 (51.5)	155.3 (45.5)	255.8 (75.0)	214.5 (62.9)	191.8 (56.2)	272.4 (79.8)	243.3 (71.3)	218.8 (64.1)	
	Power kW)	30.3	29.6	29.2	30.0	29.3	28.9	29.7	29.0	28.6	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

# System Performance—with Reheat

Table 33: Gross System Performance—MPS A03C, 3 Tons with Reheat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1320 (623)	1200 (566)	1020 (481)	1320 (623)	1200 (566)	1020 (481)	1320 (623)	1200 (566)	1020 (481)	
DR <sup>1</sup>		0.15	0.17	0.21	0.15	0.17	0.21	0.15	0.17	0.21	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	44.7 (13.1)	43.9 (12.9)	42.7 (12.5)	42.1 (12.3)	41.3 (12.1)	40.2 (11.8)	39.5 (11.6)	38.8 (11.4)	37.8 (11.1)
		Sens BTUH kW)	24.8 (7.3)	22.9 (6.7)	20.2 (5.9)	29.6 (8.7)	27.5 (8.1)	24.6 (7.2)	33.0 (9.7)	30.8 (9.0)	27.7 (8.1)
		Power kW)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	80 (26.7)	Total BTUH kW)	43.6 (12.8)	42.8 (12.5)	41.6 (12.2)	40.9 (12.0)	40.2 (11.8)	39.1 (11.5)	38.3 (11.2)	37.7 (11.0)	36.6 (10.7)
		Sens BTUH kW)	24.8 (7.3)	22.9 (6.7)	20.2 (5.9)	29.6 (8.7)	27.6 (8.1)	24.6 (7.2)	33.0 (9.7)	30.9 (9.1)	27.7 (8.1)
		Power kW)	2.3	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.2
	85 (29.4)	Total BTUH kW)	42.3 (12.4)	41.6 (12.2)	40.4 (11.8)	39.7 (11.6)	39.0 (11.4)	37.9 (11.1)	37.1 (10.9)	36.4 (10.7)	35.4 (10.4)
		Sens BTUH kW)	24.6 (7.2)	22.8 (6.7)	20.1 (5.9)	29.5 (8.6)	27.5 (8.1)	24.6 (7.2)	32.8 (9.6)	30.6 (9.0)	27.5 (8.1)
		Power kW)	2.3	2.3	2.3	2.4	2.3	2.3	2.4	2.3	2.3
	90 (32.2)	Total BTUH kW)	41.0 (12.0)	40.3 (11.8)	39.2 (11.5)	38.4 (11.3)	37.7 (11.0)	36.6 (10.7)	35.8 (10.5)	35.2 (10.3)	34.2 (10.0)
		Sens BTUH kW)	24.2 (7.1)	22.4 (6.6)	19.8 (5.8)	29.1 (8.5)	27.1 (7.9)	24.2 (7.1)	32.3 (9.5)	30.3 (8.9)	27.2 (8.0)
		Power kW)	2.5	2.4	2.4	2.5	2.4	2.4	2.5	2.4	2.4
	95 (35.0)	Total BTUH kW)	39.7 (11.6)	39.0 (11.4)	37.9 (11.1)	37.0 (10.8)	<b>36.3 (10.6)</b>	35.3 (10.3)	34.4 (10.1)	33.8 (9.9)	32.9 (9.6)
		Sens BTUH kW)	23.7 (6.9)	21.9 (6.4)	19.3 (5.7)	28.5 (8.4)	<b>26.5 (7.8)</b>	23.7 (6.9)	31.8 (9.3)	29.8 (8.7)	26.9 (7.9)
		Power kW)	2.6	2.6	2.5	2.6	<b>2.6</b>	2.5	2.6	2.6	2.5
	100 (37.8)	Total BTUH kW)	38.2 (11.2)	37.6 (11.0)	36.5 (10.7)	35.6 (10.4)	34.9 (10.2)	34.0 (10.0)	33.0 (9.7)	32.4 (9.5)	31.5 (9.2)
		Sens BTUH kW)	22.8 (6.7)	21.2 (6.2)	18.7 (5.5)	27.7 (8.1)	25.8 (7.6)	23.2 (6.8)	31.1 (9.1)	29.1 (8.5)	26.2 (7.7)
		Power kW)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	105 (40.6)	Total BTUH kW)	36.8 (10.8)	36.1 (10.6)	35.1 (10.3)	34.1 (10.0)	33.5 (9.8)	32.6 (9.6)	31.5 (9.2)	31.0 (9.1)	30.1 (8.8)
		Sens BTUH kW)	22.0 (6.4)	20.3 (5.9)	17.9 (5.2)	26.8 (7.9)	25.0 (7.3)	22.4 (6.6)	30.0 (8.8)	28.2 (8.3)	25.4 (7.4)
		Power kW)	2.9	2.9	2.8	2.9	2.9	2.8	2.9	2.9	2.9
	110 (43.3)	Total BTUH kW)	35.2 (10.3)	34.6 (10.1)	33.6 (9.8)	32.6 (9.6)	32.0 (9.4)	31.1 (9.1)	30.0 (8.8)	29.5 (8.6)	28.7 (8.4)
		Sens BTUH kW)	20.8 (6.1)	19.3 (5.7)	17.0 (5.0)	25.7 (7.5)	24.0 (7.0)	21.5 (6.3)	29.0 (8.5)	27.2 (8.0)	24.6 (7.2)
		Power kW)	3.1	3.1	3.0	3.1	3.1	3.0	3.1	3.1	3.0
115 (46.1)	Total BTUH kW)	33.6 (9.8)	33.0 (9.7)	32.1 (9.4)	31.0 (9.1)	30.4 (8.9)	29.6 (8.7)	28.4 (8.3)	27.9 (8.2)	27.1 (7.9)	
	Sens BTUH kW)	19.5 (5.7)	18.0 (5.3)	15.9 (4.7)	24.4 (7.1)	22.7 (6.7)	20.4 (6.0)	27.7 (8.1)	26.0 (7.6)	23.4 (6.9)	
	Power kW)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 34: Gross System Performance—MPS A04C, 4 Tons with Reheat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	1760 (831)	1600 (755)	1360 (642)	
DR <sup>1</sup>		0.13	0.15	0.18	0.13	0.15	0.18	0.13	0.15	0.18	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	59.2 (17.3)	58.1 (17.0)	56.5 (16.6)	56.7 (16.6)	55.7 (16.3)	54.1 (15.9)	54.2 (15.9)	53.3 (15.6)	51.8 (15.2)
		Sens BTUH kW)	33.8 (9.9)	31.2 (9.1)	27.5 (8.1)	40.5 (11.9)	37.7 (11.0)	33.6 (9.8)	45.4 (13.3)	42.5 (12.5)	38.1 (11.2)
		Power kW)	2.8	2.8	2.8	2.8	2.8	2.7	2.8	2.7	2.7
	80 (26.7)	Total BTUH kW)	57.5 (16.8)	56.4 (16.5)	54.9 (16.1)	54.9 (16.1)	54.0 (15.8)	52.5 (15.4)	52.5 (15.4)	51.6 (15.1)	50.2 (14.7)
		Sens BTUH kW)	33.7 (9.9)	31.1 (9.1)	27.5 (8.1)	40.3 (11.8)	37.6 (11.0)	33.6 (9.8)	45.2 (13.2)	42.3 (12.4)	38.0 (11.1)
		Power kW)	3.0	3.0	2.9	3.0	2.9	2.9	2.9	2.9	2.9
	85 (29.4)	Total BTUH kW)	55.7 (16.3)	54.7 (16.0)	53.2 (15.6)	53.2 (15.6)	52.3 (15.3)	50.8 (14.9)	50.8 (14.9)	49.9 (14.6)	48.5 (14.2)
		Sens BTUH kW)	33.3 (9.8)	30.8 (9.0)	27.2 (8.0)	40.0 (11.7)	37.3 (10.9)	33.3 (9.8)	44.9 (13.2)	42 (12.3)	37.8 (11.1)
		Power kW)	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0
	90 (32.2)	Total BTUH kW)	54.0 (15.8)	53 (15.5)	51.6 (15.1)	51.5 (15.1)	50.5 (14.8)	49.2 (14.4)	49.0 (14.4)	48.1 (14.1)	46.8 (13.7)
		Sens BTUH kW)	32.8 (9.6)	30.3 (8.9)	26.9 (7.9)	39.5 (11.6)	36.7 (10.8)	32.9 (9.6)	44.4 (13.0)	41.5 (12.2)	37.4 (11.0)
		Power kW)	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2
	95 (35.0)	Total BTUH kW)	52.2 (15.3)	51.3 (15.0)	49.9 (14.6)	49.7 (14.6)	48.8 (14.3)	47.5 (13.9)	47.3 (13.9)	46.4 (13.6)	45.1 (13.2)
		Sens BTUH kW)	32.0 (9.4)	29.7 (8.7)	26.3 (7.7)	38.7 (11.3)	36.1 (10.6)	32.4 (9.5)	43.6 (12.8)	40.8 (12.0)	36.7 (10.8)
		Power kW)	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4
	100 (37.8)	Total BTUH kW)	50.4 (14.8)	49.5 (14.5)	48.2 (14.1)	47.9 (14.0)	47.1 (13.8)	45.8 (13.4)	45.5 (13.3)	44.7 (13.1)	43.4 (12.7)
		Sens BTUH kW)	31.1 (9.1)	28.8 (8.4)	25.6 (7.5)	37.8 (11.1)	35.3 (10.3)	31.6 (9.3)	42.7 (12.5)	40.0 (11.7)	36.0 (10.5)
		Power kW)	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6
	105 (40.6)	Total BTUH kW)	48.6 (14.2)	47.8 (14.0)	46.5 (13.6)	46.1 (13.5)	45.3 (13.3)	44.1 (12.9)	43.7 (12.8)	42.9 (12.6)	41.7 (12.2)
		Sens BTUH kW)	29.9 (8.8)	27.8 (8.1)	24.6 (7.2)	36.6 (10.7)	34.2 (10.0)	30.7 (9.0)	41.6 (12.2)	38.9 (11.4)	35.1 (10.3)
		Power kW)	4.0	4.0	3.9	4.0	3.9	3.9	3.9	3.9	3.9
	110 (43.3)	Total BTUH kW)	46.8 (13.7)	46.0 (13.5)	44.8 (13.1)	44.3 (13.0)	43.5 (12.7)	42.4 (12.4)	41.9 (12.3)	41.2 (12.1)	40.0 (11.7)
		Sens BTUH kW)	28.6 (8.4)	26.5 (7.8)	23.5 (6.9)	35.3 (10.3)	32.9 (9.6)	29.6 (8.7)	40.2 (11.8)	37.7 (11.0)	33.9 (9.9)
		Power kW)	4.2	4.2	4.1	4.2	4.2	4.1	4.2	4.1	4.1
115 (46.1)	Total BTUH kW)	45.0 (13.2)	44.2 (13.0)	43.0 (12.6)	42.5 (12.5)	41.8 (12.2)	40.6 (11.9)	40.1 (11.7)	39.4 (11.5)	38.3 (11.2)	
	Sens BTUH kW)	27.0 (7.9)	25.0 (7.3)	22.1 (6.5)	33.8 (9.9)	31.6 (9.3)	28.3 (8.3)	38.7 (11.3)	36.3 (10.6)	32.7 (9.6)	
	Power kW)	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.3	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 35: Gross System Performance—MPS A05C, 5 Tons with Reheat**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		2040 (963)	1850 (873)	1570 (741)	2040 (963)	1850 (873)	1570 (741)	2040 (963)	1850 (873)	1570 (741)	
DR <sup>1</sup>		0.09	0.11	0.15	0.09	0.11	0.15	0.09	0.11	0.15	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	70.9 (20.8)	69.6 (20.4)	67.7 (19.8)	67.4 (19.7)	66.2 (19.4)	64.3 (18.8)	63.8 (18.7)	62.6 (18.3)	60.9 (17.8)
		Sens BTUH kW)	42.1 (12.3)	38.9 (11.4)	34.4 (10.1)	50.3 (14.7)	46.8 (13.7)	41.7 (12.2)	56.1 (16.4)	52.3 (15.3)	47.0 (13.8)
		Power kW)	3.7	3.7	3.7	3.7	3.7	3.6	3.7	3.7	3.7
	80 (26.7)	Total BTUH kW)	69.2 (20.3)	67.9 (19.9)	66.1 (19.4)	65.7 (19.2)	64.5 (18.9)	62.7 (18.4)	62.1 (18.2)	60.9 (17.8)	59.3 (17.4)
		Sens BTUH kW)	41.6 (12.2)	38.4 (11.3)	34.0 (10.0)	49.7 (14.6)	46.2 (13.5)	41.3 (12.1)	55.4 (16.2)	51.7 (15.1)	46.6 (13.7)
		Power kW)	3.9	3.9	3.9	3.9	3.9	3.8	3.9	3.9	3.9
	85 (29.4)	Total BTUH kW)	67.4 (19.7)	66.2 (19.4)	64.4 (18.9)	63.9 (18.7)	62.7 (18.4)	61.0 (17.9)	60.3 (17.7)	59.2 (17.3)	57.6 (16.9)
		Sens BTUH kW)	40.8 (12.0)	37.7 (11.0)	33.4 (9.8)	48.9 (14.3)	45.5 (13.3)	40.7 (11.9)	54.7 (16.0)	51.1 (15.0)	46.0 (13.5)
		Power kW)	4.2	4.1	4.1	4.1	4.1	4.0	4.1	4.1	4.0
	90 (32.2)	Total BTUH kW)	65.6 (19.2)	64.4 (18.9)	62.7 (18.4)	62.1 (18.2)	60.9 (17.8)	59.3 (17.4)	58.5 (17.1)	57.4 (16.8)	55.8 (16.3)
		Sens BTUH kW)	39.8 (11.7)	36.8 (10.8)	32.6 (9.6)	48.0 (14.1)	44.6 (13.1)	40.0 (11.7)	53.8 (15.8)	50.2 (14.7)	45.2 (13.2)
		Power kW)	4.4	4.4	4.3	4.4	4.3	4.3	4.3	4.3	4.3
	95 (35.0)	Total BTUH kW)	63.8 (18.7)	62.6 (18.3)	60.9 (17.8)	60.2 (17.6)	<b>59.1 (17.3)</b>	57.5 (16.8)	56.6 (16.6)	55.6 (16.3)	54.1 (15.9)
		Sens BTUH kW)	38.9 (11.4)	35.9 (10.5)	31.8 (9.3)	46.9 (13.7)	<b>43.7 (12.8)</b>	39.1 (11.5)	52.7 (15.4)	49.3 (14.4)	44.4 (13.0)
		Power kW)	4.6	4.6	4.5	4.6	<b>4.6</b>	4.5	4.6	4.5	4.5
	100 (37.8)	Total BTUH kW)	61.9 (18.1)	60.8 (17.8)	59.1 (17.3)	58.3 (17.1)	57.3 (16.8)	55.7 (16.3)	54.7 (16.0)	53.7 (15.7)	52.3 (15.3)
		Sens BTUH kW)	37.7 (11.0)	34.9 (10.2)	30.9 (9.1)	45.8 (13.4)	42.7 (12.5)	38.2 (11.2)	51.6 (15.1)	48.2 (14.1)	43.5 (12.7)
		Power kW)	4.9	4.8	4.8	4.9	4.8	4.8	4.8	4.8	4.7
	105 (40.6)	Total BTUH kW)	59.9 (17.6)	58.8 (17.2)	57.2 (16.8)	56.4 (16.5)	55.4 (16.2)	53.8 (15.8)	52.8 (15.5)	51.8 (15.2)	50.4 (14.8)
		Sens BTUH kW)	36.4 (10.7)	33.6 (9.8)	29.7 (8.7)	44.5 (13.0)	41.5 (12.2)	37.1 (10.9)	50.3 (14.7)	47 (13.8)	42.4 (12.4)
		Power kW)	5.2	5.1	5.0	5.1	5.1	5.0	5.1	5.1	5.0
	110 (43.3)	Total BTUH kW)	58.0 (17.0)	56.9 (16.7)	55.3 (16.2)	54.4 (15.9)	53.4 (15.6)	52.0 (15.2)	50.8 (14.9)	49.9 (14.6)	48.5 (14.2)
		Sens BTUH kW)	35.1 (10.3)	32.4 (9.5)	28.6 (8.4)	43.1 (12.6)	40.1 (11.7)	36.0 (10.5)	48.8 (14.3)	45.7 (13.4)	41.2 (12.1)
		Power kW)	5.4	5.4	5.3	5.4	5.4	5.3	5.4	5.3	5.3
115 (46.1)	Total BTUH kW)	56.0 (16.4)	54.9 (16.1)	53.4 (15.6)	52.4 (15.4)	51.4 (15.1)	50.0 (14.6)	48.8 (14.3)	47.9 (14.0)	46.6 (13.7)	
	Sens BTUH kW)	33.5 (9.8)	30.9 (9.1)	27.3 (8.0)	41.6 (12.2)	38.7 (11.3)	34.7 (10.2)	47.4 (13.9)	44.3 (13.0)	40.0 (11.7)	
	Power kW)	5.7	5.7	5.6	5.7	5.7	5.6	5.7	5.6	5.6	

**Note:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 36: Gross System Performance—MPS A07D, 7.5 Tons with Low Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		1800 (850)	1700 (802)	1200 (566)	1800 (850)	1700 (802)	1200 (566)	1800 (850)	1700 (802)	1200 (566)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	29.7 (8.7)	29.4 (8.6)	27.9 (8.2)	27.0 (7.9)	26.7 (7.8)	25.3 (7.4)	26.6 (7.8)	26.4 (7.7)	24.9 (7.3)
		Sens BTUH kW	6.5 (1.9)	6.3 (1.8)	5.4 (1.6)	9.0 (2.6)	8.7 (2.6)	7.5 (2.2)	11.4 (3.4)	11.1 (3.3)	9.6 (2.8)
		Power kW	3.2	3.1	3.1	3.2	3.2	3.1	3.2	3.2	3.2
	65 (18.3)	Total BTUH kW	29.5 (8.6)	29.2 (8.5)	27.6 (8.1)	26.7 (7.8)	26.4 (7.7)	25.0 (7.3)	26.4 (7.7)	26.1 (7.6)	24.7 (7.2)
		Sens BTUH kW	5.0 (1.5)	4.9 (1.4)	4.2 (1.2)	7.6 (2.2)	7.4 (2.2)	6.3 (1.9)	10.0 (2.9)	9.7 (2.9)	8.4 (2.5)
		Power kW	3.2	3.2	3.1	3.3	3.2	3.2	3.2	3.2	3.1
	70 (21.1)	Total BTUH kW	28.8 (8.4)	28.5 (8.4)	27.0 (7.9)	26.0 (7.6)	25.8 (7.6)	24.4 (7.1)	25.7 (7.5)	25.4 (7.5)	24.1 (7.1)
		Sens BTUH kW	3.7 (1.1)	3.6 (1.0)	3.1 (0.9)	6.2 (1.8)	6.0 (1.8)	5.2 (1.5)	8.6 (2.5)	8.4 (2.5)	7.2 (2.1)
		Power kW	3.2	3.2	3.1	3.3	3.3	3.2	3.3	3.3	3.2
	75 (23.9)	Total BTUH kW	27.8 (8.1)	27.5 (8.1)	26.0 (7.6)	25.0 (7.3)	24.7 (7.2)	23.4 (6.9)	24.7 (7.2)	24.4 (7.2)	23.1 (6.8)
		Sens BTUH kW	2.3 (0.7)	2.3 (0.7)	2.0 (0.6)	4.9 (1.4)	4.7 (1.4)	4.1 (1.2)	7.3 (2.1)	7.1 (2.1)	6.1 (1.8)
		Power kW	3.3	3.3	3.2	3.4	3.4	3.3	3.4	3.4	3.3
	80 (26.7)	Total BTUH kW	26.3 (7.7)	26.0 (7.6)	24.6 (7.2)	23.5 (6.9)	23.3 (6.8)	22.1 (6.5)	23.2 (6.8)	23.0 (6.7)	21.7 (6.4)
		Sens BTUH kW	1.1 (0.3)	1.0 (0.3)	0.9 (0.3)	3.6 (1.0)	3.5 (1.0)	3.0 (0.9)	6.0 (1.8)	5.9 (1.7)	5.1 (1.5)
		Power kW	3.4	3.4	3.3	3.5	3.5	3.4	3.5	3.5	3.4
	85 (29.4)	Total BTUH kW	24.5 (7.2)	24.2 (7.1)	22.9 (6.7)	21.7 (6.4)	21.5 (6.3)	20.3 (6.0)	21.4 (6.3)	21.1 (6.2)	20.0 (5.9)
		Sens BTUH kW	-0.2 (-0.1)	-0.2 (0.0)	-0.1 (0.0)	2.4 (0.7)	2.3 (0.7)	2.0 (0.6)	4.8 (1.4)	4.7 (1.4)	4.0 (1.2)
		Power kW	3.6	3.6	3.5	3.7	3.6	3.6	3.6	3.6	3.5
	90 (32.2)	Total BTUH kW	22.2 (6.5)	22.0 (6.4)	20.8 (6.1)	19.5 (5.7)	19.3 (5.6)	18.2 (5.3)	19.1 (5.6)	18.9 (5.5)	17.9 (5.3)
		Sens BTUH kW	-1.3 (-0.4)	-1.3 (-0.4)	-1.1 (-0.3)	1.2 (0.3)	1.1 (0.3)	1.0 (0.3)	3.6 (1.1)	3.5 (1.0)	3.0 (0.9)
		Power kW	3.8	3.7	3.6	3.8	3.8	3.7	3.8	3.8	3.7

**NOTE:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power-KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 37: Gross System Performance—MPS A07D, 7.5 Tons with High Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		3600 (1699)	2900 (1369)	2400 (1133)	3600 (1699)	2900 (1369)	2400 (1133)	3600 (1699)	2900 (1369)	2400 (1133)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	41.7 (12.2)	39.9 (11.7)	38.7 (11.3)	40.1 (11.8)	38.4 (11.3)	37.2 (10.9)	40.0 (11.7)	38.3 (11.2)	37.1 (10.9)
		Sens BTUH kW	8.9 (2.6)	8.0 (2.4)	7.4 (2.2)	12.8 (3.7)	11.5 (3.4)	10.5 (3.1)	18.5 (5.4)	16.7 (4.9)	15.3 (4.5)
		Power kW	5	4.9	4.8	4.9	4.8	4.8	4.9	4.8	4.8
	70 (21.1)	Total BTUH kW	39.8 (11.7)	38.1 (11.2)	36.9 (10.8)	38.3 (11.2)	36.7 (10.7)	35.5 (10.4)	38.1 (11.2)	36.5 (10.7)	35.4 (10.4)
		Sens BTUH kW	5.9 (1.7)	5.3 (1.6)	4.9 (1.4)	9.8 (2.9)	8.8 (2.6)	8.1 (2.4)	15.5 (4.6)	14.0 (4.1)	12.8 (3.8)
		Power kW	5.1	5	4.9	5.1	5	4.9	5	4.9	4.9
	80 (26.7)	Total BTUH kW	36.7 (10.7)	35.1 (10.3)	34.0 (10.0)	35.1 (10.3)	33.7 (9.9)	32.6 (9.6)	35.0 (10.3)	33.5 (9.8)	32.5 (9.5)
		Sens BTUH kW	2.1 (0.6)	1.9 (0.5)	1.7 (0.5)	5.9 (1.7)	5.3 (1.6)	4.9 (1.4)	11.7 (3.4)	10.5 (3.1)	9.6 (2.8)
		Power kW	5.4	5.3	5.2	5.3	5.2	5.1	5.3	5.2	5.1
	90 (32.2)	Total BTUH kW	32.3 (9.5)	30.9 (9.1)	30.0 (8.8)	30.8 (9.0)	29.5 (8.6)	28.5 (8.4)	30.6 (9.0)	29.3 (8.6)	28.4 (8.3)
		Sens BTUH kW	-2.7 (-0.8)	-2.4 (-0.7)	-2.2 (-0.6)	1.2 (0.3)	1.0 (0.3)	1.0 (0.3)	6.9 (2.0)	6.2 (1.8)	5.7 (1.7)
		Power kW	5.8	5.6	5.6	5.7	5.6	5.5	5.7	5.6	5.5
	100 (37.8)	Total BTUH kW	26.7 (7.8)	25.5 (7.5)	24.7 (7.3)	25.1 (7.4)	24.1 (7.1)	23.3 (6.8)	25.0 (7.3)	23.9 (7.0)	23.2 (6.8)
		Sens BTUH kW	-8.3 (-2.4)	-7.4 (-2.2)	-6.8 (-2.0)	-4.4 (-1.3)	-4.0 (-1.2)	-3.7 (-1.1)	1.3 (0.4)	1.2 (0.4)	1.1 (0.3)
		Power kW	6.3	6.2	6.1	6.2	6.1	6	6.2	6.1	6
	110 (43.3)	Total BTUH kW	19.8 (5.8)	19.0 (5.6)	18.4 (5.4)	18.3 (5.4)	17.5 (5.1)	17.0 (5.0)	18.1 (5.3)	17.4 (5.1)	16.8 (4.9)
		Sens BTUH kW	-14.7 (-4.3)	-13.2 (-3.9)	-12.2 (-3.6)	-10.9 (-3.2)	-9.8 (-2.9)	-9.0 (-2.6)	-5.1 (-1.5)	-4.6 (-1.4)	-4.2 (-1.2)
		Power kW	6.9	6.8	6.7	6.9	6.7	6.6	6.9	6.7	6.6
	120 (48.9)	Total BTUH kW	11.7 (3.4)	11.2 (3.3)	10.8 (3.2)	10.1 (3.0)	9.7 (2.8)	9.4 (2.8)	10.0 (2.9)	9.6 (2.8)	9.3 (2.7)
		Sens BTUH kW	-22.1 (-6.5)	-19.8 (-5.8)	-18.2 (-5.3)	-18.2 (-5.3)	-16.4 (-4.8)	-15.1 (-4.4)	-12.5 (-3.7)	-11.2 (-3.3)	-10.3 (-3.0)
		Power kW	7.8	7.6	7.5	7.7	7.5	7.4	7.7	7.5	7.4

**NOTE:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power-KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 38: Gross System Performance—MPS A08D, 8 Tons with Low Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		2100 (991)	1700 (802)	1400 (661)	2100 (991)	1700 (802)	1400 (661)	2100 (991)	1700 (802)	1400 (661)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	36.6 (10.7)	35.1 (10.3)	33.9 (9.9)	34.5 (10.1)	33.1 (9.7)	32.1 (9.4)	31.9 (9.3)	30.6 (9.0)	29.6 (8.7)
		Sens BTUH kW	7.1 (2.1)	6.4 (1.9)	5.9 (1.7)	9.0 (2.6)	8.1 (2.4)	7.4 (2.2)	10.7 (3.1)	9.7 (2.8)	8.9 (2.6)
		Power kW	3.9	3.8	3.7	3.8	3.8	3.7	3.8	3.8	3.8
	65 (18.3)	Total BTUH kW	35.5 (10.4)	34.0 (10.0)	32.9 (9.6)	33.4 (9.8)	32.1 (9.4)	31.0 (9.1)	30.8 (9.0)	29.5 (8.6)	28.6 (8.4)
		Sens BTUH kW	6.1 (1.8)	5.5 (1.6)	5.0 (1.5)	8.0 (2.3)	7.2 (2.1)	6.6 (1.9)	9.7 (2.8)	8.7 (2.6)	8.0 (2.4)
		Power kW	3.9	3.8	3.8	3.9	3.8	3.8	3.9	3.8	3.8
	70 (21.1)	Total BTUH kW	34.1 (10.0)	32.7 (9.6)	31.7 (9.3)	32.1 (9.4)	30.8 (9.0)	29.8 (8.7)	29.5 (8.6)	28.3 (8.3)	27.4 (8.0)
		Sens BTUH kW	4.8 (1.4)	4.3 (1.3)	4.0 (1.2)	6.7 (2.0)	6.0 (1.8)	5.5 (1.6)	8.5 (2.5)	7.6 (2.2)	7.0 (2.0)
		Power kW	4	3.9	3.9	4	3.9	3.9	4	3.9	3.9
	75 (23.9)	Total BTUH kW	32.7 (9.6)	31.3 (9.2)	30.3 (8.9)	30.6 (9.0)	29.4 (8.6)	28.4 (8.3)	28.0 (8.2)	26.8 (7.9)	26.0 (7.6)
		Sens BTUH kW	3.3 (1.0)	3.0 (0.9)	2.8 (0.8)	5.2 (1.5)	4.7 (1.4)	4.3 (1.3)	7.0 (2.0)	6.3 (1.8)	5.8 (1.7)
		Power kW	4.1	4	4	4.1	4	4	4.1	4	4
	80 (26.7)	Total BTUH kW	31.0 (9.1)	29.7 (8.7)	28.8 (8.4)	29.0 (8.5)	27.8 (8.1)	26.9 (7.9)	26.3 (7.7)	25.2 (7.4)	24.4 (7.2)
		Sens BTUH kW	1.7 (0.5)	1.5 (0.4)	1.4 (0.4)	3.6 (1.0)	3.2 (0.9)	2.9 (0.9)	5.3 (1.6)	4.8 (1.4)	4.4 (1.3)
		Power kW	4.3	4.2	4.1	4.3	4.2	4.1	4.3	4.2	4.1
	85 (29.4)	Total BTUH kW	29.1 (8.5)	27.9 (8.2)	27.0 (7.9)	27.1 (7.9)	26.0 (7.6)	25.1 (7.4)	24.4 (7.2)	23.4 (6.9)	22.7 (6.6)
		Sens BTUH kW	-0.2 (-0.1)	-0.2 (-0.1)	-0.2 (-0.1)	1.7 (0.5)	1.5 (0.4)	1.4 (0.4)	3.4 (1.0)	3.1 (0.9)	2.8 (0.8)
		Power kW	4.4	4.3	4.3	4.4	4.3	4.3	4.4	4.3	4.3
	90 (32.2)	Total BTUH kW	27.1 (7.9)	26.0 (7.6)	25.1 (7.4)	25.0 (7.3)	24.0 (7.0)	23.2 (6.8)	22.4 (6.6)	21.5 (6.3)	20.8 (6.1)
		Sens BTUH kW	-2.3 (-0.7)	-2.1 (-0.6)	-1.9 (-0.6)	-0.4 (-0.1)	-0.4 (-0.1)	-0.4 (-0.1)	1.3 (0.4)	1.2 (0.3)	1.1 (0.3)
		Power kW	4.6	4.5	4.4	4.6	4.5	4.4	4.6	4.5	4.4

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 39: Gross System Performance—MPS A08D, 8 Tons with High Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		4100 (1935)	2900 (1369)	2700 (1274)	4100 (1935)	2900 (1369)	2700 (1274)	4100 (1935)	2900 (1369)	2700 (1274)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	57.6 (16.9)	53.6 (15.7)	52.9 (15.5)	45.7 (13.4)	42.5 (12.5)	42.0 (12.3)	51.3 (15.0)	47.7 (14.0)	47.1 (13.8)
		Sens BTUH kW	12.7 (3.7)	10.7 (3.1)	10.3 (3.0)	14.6 (4.3)	12.2 (3.6)	11.8 (3.5)	20.5 (6.0)	17.2 (5.0)	16.6 (4.9)
		Power kW	6.6	6.4	6.3	5.2	5	5	6.3	6.1	6
	70 (21.1)	Total BTUH kW	52.7 (15.5)	49.1 (14.4)	48.4 (14.2)	40.9 (12.0)	38.0 (11.1)	37.5 (11.0)	46.4 (13.6)	43.2 (12.7)	42.6 (12.5)
		Sens BTUH kW	10.1 (3.0)	8.5 (2.5)	8.2 (2.4)	11.9 (3.5)	10.0 (2.9)	9.7 (2.8)	17.9 (5.2)	15.0 (4.4)	14.5 (4.2)
		Power kW	6.4	6.1	6.1	5	4.8	4.8	6	5.8	5.8
	80 (26.7)	Total BTUH kW	46.3 (13.6)	43.1 (12.6)	42.6 (12.5)	34.5 (10.1)	32.1 (9.4)	31.6 (9.3)	40.0 (11.7)	37.2 (10.9)	36.7 (10.8)
		Sens BTUH kW	5.6 (1.6)	4.7 (1.4)	4.5 (1.3)	7.4 (2.2)	6.2 (1.8)	6.0 (1.8)	13.3 (3.9)	11.2 (3.3)	10.8 (3.2)
		Power kW	6.4	6.1	6.1	5	4.8	4.8	6.1	5.8	5.8
	90 (32.2)	Total BTUH kW	38.4 (11.2)	35.7 (10.5)	35.2 (10.3)	26.5 (7.8)	24.7 (7.2)	24.3 (7.1)	32.1 (9.4)	29.8 (8.7)	29.4 (8.6)
		Sens BTUH kW	-0.9 (-0.3)	-0.7 (-0.2)	-0.7 (-0.2)	0.9 (0.3)	0.8 (0.2)	0.8 (0.2)	6.9 (2.0)	5.8 (1.7)	5.6 (1.6)
		Power kW	6.6	6.4	6.4	5.2	5.1	5	6.3	6.1	6.1
	100 (37.8)	Total BTUH kW	28.9 (8.5)	26.9 (7.9)	26.5 (7.8)	17.0 (5.0)	15.8 (4.6)	15.6 (4.6)	22.6 (6.6)	21.0 (6.1)	20.7 (6.1)
		Sens BTUH kW	-9.2 (-2.7)	-7.7 (-2.3)	-7.5 (-2.2)	-7.4 (-2.2)	-6.2 (-1.8)	-6.0 (-1.8)	-1.5 (-0.4)	-1.2 (-0.4)	-1.2 (-0.4)
		Power kW	7.2	6.9	6.9	5.8	5.6	5.5	6.8	6.6	6.6
	110 (43.3)	Total BTUH kW	17.9 (5.2)	16.6 (4.9)	16.4 (4.8)	6.0 (1.8)	5.6 (1.6)	5.5 (1.6)	11.5 (3.4)	10.7 (3.1)	10.6 (3.1)
		Sens BTUH kW	-19.5 (-5.7)	-16.3 (-4.8)	-15.8 (-4.6)	-17.7 (-5.2)	-14.8 (-4.3)	-14.3 (-4.2)	-11.7 (-3.4)	-9.8 (-2.9)	-9.5 (-2.8)
		Power kW	7.9	7.7	7.6	6.5	6.3	6.3	7.6	7.4	7.3
	120 (48.9)	Total BTUH kW	5.3 (1.5)	4.9 (1.4)	4.9 (1.4)	-6.6 (-1.9)	-6.1 (-1.8)	-6.0 (-1.8)	-1.0 (-0.3)	-1.0 (-0.3)	-1.0 (-0.3)
		Sens BTUH kW	-31.6 (-9.3)	-26.5 (-7.8)	-25.7 (-7.5)	-29.8 (-8.7)	-25.0 (-7.3)	-24.2 (-7.1)	-23.9 (-7.0)	-20.0 (-5.9)	-19.4 (-5.7)
		Power kW	9	8.7	8.6	7.6	7.3	7.3	8.7	8.4	8.3

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 40: Gross System Performance—MPS A10D, 10 Tons with Low Reheat

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		3000(1416)	2400(1133)	2000(944)	3000(1416)	2400(1133)	2000(944)	3000(1416)	2400(1133)	2000(944)	
Outdoor Dry Bulb Temperature °F (°C)	60(15.6)	Total BTUH kW	46.5 (13.6)	44.4 (13.0)	43.1 (12.6)	43.1 (12.6)	41.2 (12.1)	40.0 (11.7)	40.3 (11.8)	38.6 (11.3)	37.4 (11.0)
		Sens BTUH kW	12.9 (3.8)	11.6 (3.4)	10.7 (3.1)	13.8 (4.0)	12.3 (3.6)	11.4 (3.3)	18.5 (5.4)	16.5 (4.8)	15.3 (4.5)
		Power kW	4.6	4.5	4.4	4.5	4.4	4.3	4.5	4.4	4.3
	65(18.3)	Total BTUH kW	45.7 (13.4)	43.7 (12.8)	42.4 (12.4)	42.3 (12.4)	40.5 (11.9)	39.3 (11.5)	39.6 (11.6)	37.8 (11.1)	36.7 (10.8)
		Sens BTUH kW	10.5 (3.1)	9.4 (2.8)	8.7 (2.5)	11.4 (3.3)	10.2 (3.0)	9.4 (2.8)	16.1 (4.7)	14.4 (4.2)	13.3 (3.9)
		Power kW	4.6	4.5	4.5	4.6	4.5	4.4	4.5	4.4	4.4
	70(21.1)	Total BTUH kW	44.7 (13.1)	42.7 (12.5)	41.4 (12.1)	41.3 (12.1)	39.5 (11.6)	38.3 (11.2)	38.5 (11.3)	36.9 (10.8)	35.7 (10.5)
		Sens BTUH kW	8.3 (2.4)	7.4 (2.2)	6.9 (2.0)	9.2 (2.7)	8.2 (2.4)	7.6 (2.2)	13.9 (4.1)	12.4 (3.6)	11.4 (3.4)
		Power kW	4.7	4.6	4.6	4.7	4.6	4.5	4.6	4.5	4.5
	75(23.9)	Total BTUH kW	43.4 (12.7)	41.5 (12.2)	40.2 (11.8)	40.0 (11.7)	38.3 (11.2)	37.1 (10.9)	37.2 (10.9)	35.6 (10.4)	34.5 (10.1)
		Sens BTUH kW	6.3 (1.8)	5.6 (1.7)	5.2 (1.5)	7.2 (2.1)	6.4 (1.9)	5.9 (1.7)	11.9 (3.5)	10.6 (3.1)	9.8 (2.9)
		Power kW	4.9	4.8	4.7	4.8	4.7	4.7	4.8	4.7	4.6
	80(26.7)	Total BTUH kW	41.8 (12.2)	40.0 (11.7)	38.8 (11.4)	38.4 (11.3)	36.8 (10.8)	35.6 (10.4)	35.7 (10.5)	34.1 (10.0)	33.1 (9.7)
		Sens BTUH kW	4.5 (1.3)	4.0 (1.2)	3.7 (1.1)	5.4 (1.6)	4.8 (1.4)	4.4 (1.3)	10.1 (2.9)	9.0 (2.6)	8.3 (2.4)
		Power kW	5.1	5	4.9	5	4.9	4.9	5	4.9	4.8
	85(29.4)	Total BTUH kW	40.0 (11.7)	38.2 (11.2)	37.1 (10.9)	36.6 (10.7)	35.0 (10.3)	33.9 (9.9)	33.8 (9.9)	32.4 (9.5)	31.4 (9.2)
		Sens BTUH kW	2.9 (0.8)	2.6 (0.8)	2.4 (0.7)	3.8 (1.1)	3.4 (1.0)	3.1 (0.9)	8.5 (2.5)	7.6 (2.2)	7.0 (2.0)
		Power kW	5.4	5.3	5.2	5.3	5.2	5.1	5.3	5.2	5.1
	90(32.2)	Total BTUH kW	37.9 (11.1)	36.2 (10.6)	35.1 (10.3)	34.5 (10.1)	33.0 (9.7)	32.0 (9.4)	31.7 (9.3)	30.4 (8.9)	29.4 (8.6)
		Sens BTUH kW	1.5 (0.4)	1.3 (0.4)	1.2 (0.4)	2.4 (0.7)	2.1 (0.6)	2.0 (0.6)	7.1 (2.1)	6.3 (1.9)	5.8 (1.7)
		Power kW	5.7	5.6	5.5	5.6	5.5	5.4	5.6	5.5	5.4

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 41: Gross System Performance—MPS A10D, 10 Tons with High Reheat

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		4800 (2265)	3800 (1793)	3200 (1510)	4800 (2265)	3800 (1793)	3200 (1510)	4800 (2265)	3800 (1793)	3200 (1510)	
Outdoor Dry Bulb Temperature °F (°C)	60(15.6)	Total BTUH kW	58.1 (17.0)	55.4 (16.2)	53.9 (15.8)	55.5 (16.3)	53.0 (15.5)	51.4 (15.1)	53.1 (15.6)	50.7 (14.9)	49.2 (14.4)
		Sens BTUH kW	10.5 (3.1)	9.3 (2.7)	8.6 (2.5)	15.6 (4.6)	13.9 (4.1)	12.9 (3.8)	19.9 (5.8)	17.7 (5.2)	16.4 (4.8)
		Power kW	7	6.9	6.8	6.9	6.8	6.7	6.9	6.8	6.7
	70(21.1)	Total BTUH kW	53.4 (15.7)	51.0 (14.9)	49.5 (14.5)	50.8 (14.9)	48.5 (14.2)	47.1 (13.8)	48.4 (14.2)	46.2 (13.5)	44.9 (13.2)
		Sens BTUH kW	8.3 (2.4)	7.4 (2.2)	6.8 (2.0)	13.4 (3.9)	12.0 (3.5)	11.1 (3.2)	17.7 (5.2)	15.8 (4.6)	14.6 (4.3)
		Power kW	7.1	7	6.9	7	6.9	6.8	7	6.9	6.8
	80(26.7)	Total BTUH kW	48.4 (14.2)	46.2 (13.5)	44.9 (13.2)	45.8 (13.4)	43.7 (12.8)	42.5 (12.4)	43.4 (12.7)	41.5 (12.1)	40.3 (11.8)
		Sens BTUH kW	4.5 (1.3)	4.0 (1.2)	3.7 (1.1)	9.7 (2.8)	8.6 (2.5)	8.0 (2.3)	14.0 (4.1)	12.5 (3.6)	11.5 (3.4)
		Power kW	7.4	7.3	7.2	7.3	7.2	7.1	7.3	7.2	7.1
	90(32.2)	Total BTUH kW	43.1 (12.6)	41.1 (12.0)	39.9 (11.7)	40.5 (11.9)	38.6 (11.3)	37.5 (11.0)	38.1 (11.2)	36.3 (10.6)	35.3 (10.3)
		Sens BTUH kW	-0.8 (-0.2)	-0.7 (-0.2)	-0.6 (-0.2)	4.4 (1.3)	3.9 (1.1)	3.6 (1.1)	8.7 (2.5)	7.7 (2.3)	7.2 (2.1)
		Power kW	7.9	7.7	7.6	7.8	7.7	7.5	7.8	7.6	7.5
	100(37.8)	Total BTUH kW	37.4 (11.0)	35.7 (10.5)	34.6 (10.2)	34.8 (10.2)	33.2 (9.7)	32.2 (9.4)	32.4 (9.5)	30.9 (9.1)	30.0 (8.8)
		Sens BTUH kW	-7.6 (-2.2)	-6.8 (-2.0)	-6.3 (-1.8)	-2.5 (-0.7)	-2.2 (-0.6)	-2.0 (-0.6)	1.8 (0.5)	1.6 (0.5)	1.5 (0.4)
		Power kW	8.6	8.4	8.3	8.5	8.3	8.2	8.5	8.3	8.2
	110(43.3)	Total BTUH kW	31.3 (9.2)	29.9 (8.8)	29.0 (8.5)	28.7 (8.4)	27.4 (8.0)	26.6 (7.8)	26.3 (7.7)	25.1 (7.4)	24.4 (7.1)
		Sens BTUH kW	-16.0 (-4.7)	-14.3 (-4.2)	-13.2 (-3.9)	-10.9 (-3.2)	-9.7 (-2.8)	-9.0 (-2.6)	-6.6 (-1.9)	-5.9 (-1.7)	-5.5 (-1.6)
		Power kW	9.5	9.3	9.2	9.4	9.2	9.1	9.4	9.2	9
	120(48.9)	Total BTUH kW	24.9 (7.3)	23.8 (7.0)	23.1 (6.8)	22.3 (6.5)	21.3 (6.2)	20.7 (6.1)	19.9 (5.8)	19.0 (5.6)	18.5 (5.4)
		Sens BTUH kW	-26.0 (-7.6)	-23.2 (-6.8)	-21.5 (-6.3)	-20.9 (-6.1)	-18.6 (-5.5)	-17.2 (-5.0)	-16.6 (-4.9)	-14.8 (-4.3)	-13.7 (-4.0)
		Power kW	10.6	10.3	10.2	10.5	10.2	10.1	10.5	10.2	10.1

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—KW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 42: Gross System Performance—MPS A12D, 12.5 Tons with Low Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		3000 (1416)	2400 (1133)	2000 (944)	3000 (1416)	2400 (1133)	2000 (944)	3000 (1416)	2400 (1133)	2000 (944)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	46.5 (13.6)	44.4 (13.0)	43.1 (12.6)	43.1 (12.6)	41.2 (12.1)	40.0 (11.7)	40.3 (11.8)	38.6 (11.3)	37.4 (11.0)
		Sens BTUH kW	12.9 (3.8)	11.6 (3.4)	10.7 (3.1)	13.8 (4.0)	12.3 (3.6)	11.4 (3.3)	18.5 (5.4)	16.5 (4.8)	15.3 (4.5)
		Power kW	4.6	4.5	4.4	4.5	4.4	4.3	4.5	4.4	4.3
	65 (18.3)	Total BTUH kW	45.7 (13.4)	43.7 (12.8)	42.4 (12.4)	42.3 (12.4)	40.5 (11.9)	39.3 (11.5)	39.6 (11.6)	37.8 (11.1)	36.7 (10.8)
		Sens BTUH kW	10.5 (3.1)	9.4 (2.8)	8.7 (2.5)	11.4 (3.3)	10.2 (3.0)	9.4 (2.8)	16.1 (4.7)	14.4 (4.2)	13.3 (3.9)
		Power kW	4.6	4.5	4.5	4.6	4.5	4.4	4.5	4.4	4.4
	70 (21.1)	Total BTUH kW	44.7 (13.1)	42.7 (12.5)	41.4 (12.1)	41.3 (12.1)	39.5 (11.6)	38.3 (11.2)	38.5 (11.3)	36.9 (10.8)	35.7 (10.5)
		Sens BTUH kW	8.3 (2.4)	7.4 (2.2)	6.9 (2.0)	9.2 (2.7)	8.2 (2.4)	7.6 (2.2)	13.9 (4.1)	12.4 (3.6)	11.4 (3.4)
		Power kW	4.7	4.6	4.6	4.7	4.6	4.5	4.6	4.5	4.5
	75 (23.9)	Total BTUH kW	43.4 (12.7)	41.5 (12.2)	40.2 (11.8)	40.0 (11.7)	38.3 (11.2)	37.1 (10.9)	37.2 (10.9)	35.6 (10.4)	34.5 (10.1)
		Sens BTUH kW	6.3 (1.8)	5.6 (1.7)	5.2 (1.5)	7.2 (2.1)	6.4 (1.9)	5.9 (1.7)	11.9 (3.5)	10.6 (3.1)	9.8 (2.9)
		Power kW	4.9	4.8	4.7	4.8	4.7	4.7	4.8	4.7	4.6
	80 (26.7)	Total BTUH kW	41.8 (12.2)	40.0 (11.7)	38.8 (11.4)	38.4 (11.3)	36.8 (10.8)	35.6 (10.4)	35.7 (10.5)	34.1 (10.0)	33.1 (9.7)
		Sens BTUH kW	4.5 (1.3)	4.0 (1.2)	3.7 (1.1)	5.4 (1.6)	4.8 (1.4)	4.4 (1.3)	10.1 (2.9)	9.0 (2.6)	8.3 (2.4)
		Power kW	5.1	5	4.9	5	4.9	4.9	5	4.9	4.8
	85 (29.4)	Total BTUH kW	40.0 (11.7)	38.2 (11.2)	37.1 (10.9)	36.6 (10.7)	35.0 (10.3)	33.9 (9.9)	33.8 (9.9)	32.4 (9.5)	31.4 (9.2)
		Sens BTUH kW	2.9 (0.8)	2.6 (0.8)	2.4 (0.7)	3.8 (1.1)	3.4 (1.0)	3.1 (0.9)	8.5 (2.5)	7.6 (2.2)	7.0 (2.0)
		Power kW	5.4	5.3	5.2	5.3	5.2	5.1	5.3	5.2	5.1
	90 (32.2)	Total BTUH kW	37.9 (11.1)	36.2 (10.6)	35.1 (10.3)	34.5 (10.1)	33.0 (9.7)	32.0 (9.4)	31.7 (9.3)	30.4 (8.9)	29.4 (8.6)
		Sens BTUH kW	1.5 (0.4)	1.3 (0.4)	1.2 (0.4)	2.4 (0.7)	2.1 (0.6)	2.0 (0.6)	7.1 (2.1)	6.3 (1.9)	5.8 (1.7)
		Power kW	5.7	5.6	5.5	5.6	5.5	5.4	5.6	5.5	5.4

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 43: Gross System Performance—MPS A12D, 12.5 Tons with High Reheat**

Entering Indoor Air @ 75°F (23.9°C) dbE <sup>1</sup>											
wbE		65.3°F (18.5°C)			64°F (17.8°C)			62.5°F (16.9°C)			
CFM (L/s)		6000 (2832)	4100 (1935)	4000 (1888)	6000 (2832)	4100 (1935)	4000 (1888)	6000 (2832)	4100 (1935)	4000 (1888)	
Outdoor Dry Bulb Temperature °F (°C)	60 (15.6)	Total BTUH kW	99.3 (29.1)	91.5 (26.8)	91.1 (26.7)	101.6 (29.8)	93.7 (27.4)	93.2 (27.3)	92.7 (27.2)	85.5 (25.1)	85.2 (25.0)
		Sens BTUH kW	33.3 (9.7)	27.4 (8.0)	27.0 (7.9)	40.1 (11.8)	33.0 (9.7)	32.6 (9.6)	46.4 (13.6)	38.1 (11.2)	37.7 (11.0)
		Power kW	9.5	9.1	9.1	9.3	8.9	8.9	9.3	8.9	8.9
	70 (21.1)	Total BTUH kW	94.4 (27.7)	87.1 (25.5)	86.7 (25.4)	96.7 (28.3)	89.2 (26.1)	88.8 (26.0)	87.9 (25.8)	81.1 (23.8)	80.7 (23.7)
		Sens BTUH kW	27 (7.9)	22.2 (6.5)	21.9 (6.4)	33.9 (9.9)	27.9 (8.2)	27.5 (8.1)	40.1 (11.7)	33.0 (9.7)	32.6 (9.5)
		Power kW	9.7	9.3	9.3	9.5	9.2	9.2	9.5	9.2	9.1
	80 (26.7)	Total BTUH kW	87.6 (25.7)	80.8 (23.7)	80.4 (23.6)	89.9 (26.3)	82.9 (24.3)	82.5 (24.2)	81.1 (23.8)	74.8 (21.9)	74.4 (21.8)
		Sens BTUH kW	20.1 (5.9)	16.5 (4.8)	16.3 (4.8)	27.0 (7.9)	22.2 (6.5)	21.9 (6.4)	33.2 (9.7)	27.3 (8.0)	27.0 (7.9)
		Power kW	10.2	9.8	9.8	10	9.6	9.6	10	9.6	9.6
	90 (32.2)	Total BTUH kW	78.7 (23.1)	72.6 (21.3)	72.3 (21.2)	81.0 (23.7)	74.7 (21.9)	74.4 (21.8)	72.2 (21.2)	66.6 (19.5)	66.3 (19.4)
		Sens BTUH kW	12.5 (3.7)	10.3 (3.0)	10.2 (3.0)	19.4 (5.7)	15.9 (4.7)	15.8 (4.6)	25.6 (7.5)	21.0 (6.2)	20.8 (6.1)
		Power kW	11	10.5	10.5	10.8	10.4	10.3	10.8	10.3	10.3
	100 (37.8)	Total BTUH kW	67.8 (19.9)	62.5 (18.3)	62.3 (18.2)	70.1 (20.5)	64.7 (18.9)	64.4 (18.9)	61.3 (18.0)	56.5 (16.6)	56.3 (16.5)
		Sens BTUH kW	4.3 (1.3)	3.5 (1.0)	3.5 (1.0)	11.2 (3.3)	9.2 (2.7)	9.1 (2.7)	17.4 (5.1)	14.3 (4.2)	14.1 (4.1)
		Power kW	11.9	11.5	11.4	11.8	11.3	11.3	11.8	11.3	11.3
	110 (43.3)	Total BTUH kW	54.9 (16.1)	50.6 (14.8)	50.4 (14.8)	57.2 (16.8)	52.7 (15.5)	52.5 (15.4)	48.4 (14.2)	44.6 (13.1)	44.4 (13.0)
		Sens BTUH kW	-4.6 (-1.3)	-3.8 (-1.1)	-3.7 (-1.1)	2.3 (0.7)	1.9 (0.5)	1.9 (0.5)	8.5 (2.5)	7.0 (2.0)	6.9 (2.0)
		Power kW	13.2	12.6	12.6	13	12.5	12.4	13	12.5	12.4
	120 (48.9)	Total BTUH kW	40.0 (11.7)	36.8 (10.8)	36.7 (10.8)	42.3 (12.4)	39.0 (11.4)	38.8 (11.4)	33.4 (9.8)	30.8 (0.9)	30.7 (9.0)
		Sens BTUH kW	-14.1 (-4.1)	-11.6 (-3.4)	-11.5 (-3.4)	-7.2 (-2.1)	-6.0 (-1.7)	-5.9 (-1.7)	-1.0 (-0.3)	-0.9 (-0.2)	-0.8 (-0.2)
		Power kW	14.6	14.1	14	14.5	13.9	13.9	14.4	13.9	13.8

NOTE: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 44: Gross System Performance—MPS 015B, 15 Tons with Reheat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	
DR <sup>1</sup>		0.12	0.08	0.04	0.12	0.08	0.04	0.12	0.08	0.04	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	229.8 (67.3)	220.9 (64.7)	213.5 (62.5)	214.3 (62.8)	206 (60.4)	199 (58.3)	205.3 (60.1)	197.4 (57.8)	190.7 (55.9)
		Sens BTUH kW)	134.3 (39.4)	121.8 (35.7)	111.2 (32.6)	165.1 (48.4)	149.7 (43.9)	136.7 (40.1)	189.9 (55.6)	172.2 (50.5)	157.2 (46.1)
		Power kW)	12.6	12.3	12.1	12.4	12.2	12.0	12.2	12.0	11.8
	80 (26.7)	Total BTUH kW)	225.5 (66.1)	216.8 (63.5)	209.4 (61.4)	209.9 (61.5)	201.9 (59.2)	195 (57.1)	200.9 (58.9)	193.2 (56.6)	186.7 (54.7)
		Sens BTUH kW)	132.1 (38.7)	119.8 (35.1)	109.4 (32.1)	163 (47.8)	147.8 (43.3)	134.9 (39.5)	187.7 (55.0)	170.2 (49.9)	155.4 (45.5)
		Power kW)	13.2	12.9	12.7	13.0	12.7	12.5	12.8	12.6	12.4
	85 (29.4)	Total BTUH kW)	220.8 (64.7)	212.3 (62.2)	205.1 (60.1)	205.3 (60.2)	197.4 (57.8)	190.7 (55.9)	196.3 (57.5)	188.7 (55.3)	182.3 (53.4)
		Sens BTUH kW)	129.8 (38.1)	117.7 (34.5)	107.5 (31.5)	160.7 (47.1)	145.7 (42.7)	133.0 (39.0)	185.4 (54.3)	168.1 (49.3)	153.5 (45)
		Power kW)	13.8	13.5	13.3	13.6	13.4	13.1	13.4	13.2	13.0
	90 (32.2)	Total BTUH kW)	215.8 (63.2)	207.5 (60.8)	200.4 (58.7)	200.3 (58.7)	192.5 (56.4)	186 (54.5)	191.3 (56.0)	183.9 (53.9)	177.7 (52.1)
		Sens BTUH kW)	127.4 (37.3)	115.5 (33.9)	105.5 (30.9)	158.2 (46.4)	143.5 (42)	131 (38.4)	183 (53.6)	165.9 (48.6)	151.5 (44.4)
		Power kW)	14.5	14.2	14.0	14.3	14.0	13.8	14.1	13.9	13.6
	95 (35.0)	Total BTUH kW)	210.4 (61.7)	202.3 (59.3)	195.5 (57.3)	194.9 (57.1)	<b>187.4 (54.9)</b>	181.0 (53.1)	185.9 (54.5)	178.7 (52.4)	172.7 (50.6)
		Sens BTUH kW)	124.8 (36.6)	113.2 (33.2)	103.3 (30.3)	155.6 (45.6)	<b>141.1 (41.3)</b>	128.8 (37.7)	180.4 (52.9)	163.6 (47.9)	149.3 (43.8)
		Power kW)	15.2	14.9	14.7	15.1	<b>14.8</b>	14.5	14.9	14.6	14.4
	100 (37.8)	Total BTUH kW)	204.7 (60.0)	196.9 (57.7)	190.2 (55.7)	189.2 (55.4)	181.9 (53.3)	175.8 (51.5)	180.2 (52.8)	173.3 (50.8)	167.4 (49.1)
		Sens BTUH kW)	122.0 (35.8)	110.7 (32.4)	101.0 (29.6)	152.9 (44.8)	138.6 (40.6)	126.5 (37.1)	177.6 (52.0)	161.1 (47.2)	147.0 (43.1)
		Power kW)	16.0	15.7	15.5	15.8	15.5	15.3	15.7	15.4	15.1
	105 (40.6)	Total BTUH kW)	198.7 (58.2)	191.0 (56.0)	184.6 (54.1)	183.2 (53.7)	176.1 (51.6)	170.1 (49.9)	174.2 (51.0)	167.5 (49.1)	161.8 (47.4)
		Sens BTUH kW)	119.1 (34.9)	108.0 (31.7)	98.6 (28.9)	149.9 (43.9)	136.0 (39.8)	124.1 (36.4)	174.2 (51.0)	158.4 (46.4)	144.6 (42.4)
		Power kW)	16.9	16.5	16.3	16.7	16.4	16.1	16.5	16.2	15.9
	110 (43.3)	Total BTUH kW)	192.3 (56.4)	184.9 (54.2)	178.6 (52.3)	176.8 (51.8)	170.0 (49.8)	164.2 (48.1)	167.8 (49.2)	161.3 (47.3)	155.8 (45.7)
		Sens BTUH kW)	116.1 (34.0)	105.2 (30.8)	96.1 (28.2)	146.9 (43.0)	133.2 (39.0)	121.6 (35.6)	167.8 (49.2)	155.6 (45.6)	142.1 (41.6)
		Power kW)	17.8	17.4	17.1	17.6	17.3	17.0	17.4	17.1	16.8
115 (46.1)	Total BTUH kW)	185.6 (54.4)	178.4 (52.3)	172.4 (50.5)	170.0 (49.8)	163.5 (47.9)	158.0 (46.3)	161.0 (47.2)	154.8 (45.4)	149.6 (43.8)	
	Sens BTUH kW)	112.9 (33.1)	102.3 (30.0)	93.4 (27.4)	143.7 (42.1)	130.3 (38.2)	118.9 (34.9)	161.0 (47.2)	152.7 (44.8)	139.4 (40.9)	
	Power kW)	18.7	18.4	18.1	18.5	18.2	17.9	18.4	18.0	17.7	
120 (48.9)	Total BTUH kW)	178.5 (52.3)	171.6 (50.3)	165.8 (48.6)	163 (47.8)	156.7 (45.9)	151.4 (44.4)	154.0 (45.1)	148.0 (43.4)	143.0 (41.9)	
	Sens BTUH kW)	109.5 (32.1)	99.3 (29.1)	90.6 (26.6)	140.3 (41.1)	127.2 (37.3)	116.2 (34.0)	154.0 (45.1)	148.0 (43.4)	136.7 (40.0)	
	Power kW)	19.7	19.3	19.0	19.5	19.2	18.9	19.4	19.0	18.7	
125 (51.7)	Total BTUH kW)	171.1 (50.1)	164.5 (48.2)	158.9 (46.6)	155.5 (45.6)	149.6 (43.8)	144.5 (42.3)	146.5 (42.9)	140.9 (41.3)	136.1 (39.9)	
	Sens BTUH kW)	106.0 (31.1)	96.1 (28.2)	87.7 (25.7)	136.8 (40.1)	124.0 (36.3)	113.2 (33.2)	146.5 (42.9)	140.9 (41.3)	133.7 (39.2)	
	Power kW)	20.8	20.4	20.0	20.6	20.2	19.9	20.4	20.0	19.7	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 45: Gross System Performance—MPS 020B, 20 Tons with Reheat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	7200 (3398)	5900 (2784)	4800 (2265)	
DR <sup>1</sup>		0.12	0.08	0.04	0.12	0.08	0.04	0.12	0.08	0.04	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	286.7 (84.0)	274.6 (80.5)	266.0 (78.0)	269.6 (79.0)	258.2 (75.7)	250.1 (73.3)	257.6 (75.5)	246.7 (72.3)	239.0 (70.0)
		Sens BTUH kW)	167.1 (49.0)	150.1 (44.0)	138.1 (40.5)	208.0 (61.0)	186.8 (54.8)	171.9 (50.4)	240.7 (70.5)	216.2 (63.4)	198.9 (58.3)
		Power kW)	15.5	15.1	14.9	15.3	15.0	14.7	15.1	14.8	14.5
	80 (26.7)	Total BTUH kW)	284.1 (83.3)	272.1 (79.7)	263.6 (77.3)	267.0 (78.2)	255.7 (74.9)	247.7 (72.6)	255.0 (74.7)	244.2 (71.6)	236.6 (69.3)
		Sens BTUH kW)	166.1 (48.7)	149.2 (43.7)	137.3 (40.2)	207.0 (60.7)	186.0 (54.5)	171.1 (50.1)	239.7 (70.2)	215.3 (63.1)	198.1 (58.1)
		Power kW)	16.2	15.9	15.6	16.0	15.7	15.5	15.9	15.5	15.3
	85 (29.4)	Total BTUH kW)	280.7 (82.3)	268.8 (78.8)	260.5 (76.3)	263.6 (77.2)	252.4 (74.0)	244.6 (71.7)	251.6 (73.7)	241.0 (70.6)	233.4 (68.4)
		Sens BTUH kW)	164.7 (48.3)	147.9 (43.4)	136.1 (39.9)	205.6 (60.3)	184.7 (54.1)	169.9 (49.8)	238.3 (69.8)	214.1 (62.7)	196.9 (57.7)
		Power kW)	17.1	16.7	16.4	16.9	16.5	16.3	16.7	16.3	16.1
	90 (32.2)	Total BTUH kW)	276.4 (81.0)	264.8 (77.6)	256.5 (75.2)	259.3 (76.0)	248.3 (72.8)	240.6 (70.5)	247.3 (72.5)	236.9 (69.4)	229.5 (67.3)
		Sens BTUH kW)	162.9 (47.7)	146.3 (42.9)	134.6 (39.4)	203.8 (59.7)	183.1 (53.7)	168.4 (49.4)	236.5 (69.3)	212.4 (62.3)	195.4 (57.3)
		Power kW)	17.9	17.5	17.3	17.7	17.4	17.1	17.5	17.2	16.9
	95 (35.0)	Total BTUH kW)	271.4 (79.5)	259.9 (76.2)	251.8 (73.8)	254.2 (74.5)	<b>243.5 (71.3)</b>	235.9 (69.1)	242.2 (71.0)	232.0 (68.0)	224.8 (65.9)
		Sens BTUH kW)	160.7 (47.1)	144.3 (42.3)	132.8 (38.9)	201.6 (59.1)	<b>181.1 (53.1)</b>	166.6 (48.8)	234.3 (68.7)	210.4 (61.7)	193.6 (56.7)
		Power kW)	18.8	18.5	18.2	18.7	<b>18.3</b>	18.0	18.5	18.1	17.8
	100 (37.8)	Total BTUH kW)	265.4 (77.8)	254.2 (74.5)	246.3 (72.2)	248.3 (72.8)	237.8 (69.7)	230.4 (67.5)	236.3 (69.3)	226.3 (66.3)	219.3 (64.3)
		Sens BTUH kW)	158.0 (46.3)	141.9 (41.6)	130.6 (38.3)	198.9 (58.3)	178.7 (52.4)	164.4 (48.2)	231.6 (67.9)	208.1 (61.0)	191.4 (56.1)
		Power kW)	19.8	19.4	19.1	19.6	19.2	18.9	19.4	19.0	18.7
	105 (40.6)	Total BTUH kW)	258.7 (75.8)	247.8 (72.6)	240 (70.3)	241.6 (70.8)	231.3 (67.8)	224.1 (65.7)	229.6 (67.3)	219.9 (64.4)	213.0 (62.4)
		Sens BTUH kW)	154.9 (45.4)	139.2 (40.8)	128 (37.5)	195.8 (57.4)	175.9 (51.6)	161.8 (47.4)	228.5 (67.0)	205.3 (60.2)	188.9 (55.3)
		Power kW)	20.8	20.4	20.1	20.7	20.2	19.9	20.5	20.0	19.7
	110 (43.3)	Total BTUH kW)	251.1 (73.6)	240.5 (70.5)	233.0 (68.3)	234 (68.6)	224.1 (65.7)	217.1 (63.6)	222.0 (65.1)	212.6 (62.3)	206.0 (60.4)
		Sens BTUH kW)	151.4 (44.4)	136.0 (39.9)	125.1 (36.7)	192.3 (56.4)	172.8 (50.6)	158.9 (46.6)	222.0 (65.1)	202.1 (59.2)	186.0 (54.5)
		Power kW)	21.9	21.5	21.1	21.7	21.3	21.0	21.5	21.1	20.8
115 (46.1)	Total BTUH kW)	242.7 (71.1)	232.5 (68.1)	225.2 (66)	225.6 (66.1)	216.0 (63.3)	209.3 (61.3)	213.6 (62.6)	204.6 (60.0)	198.2 (58.1)	
	Sens BTUH kW)	147.5 (43.2)	132.5 (38.8)	121.9 (35.7)	188.4 (55.2)	169.3 (49.6)	155.7 (45.6)	213.6 (62.6)	198.6 (58.2)	182.7 (53.5)	
	Power kW)	23.1	22.6	22.2	22.9	22.4	22.0	22.7	22.2	21.9	
120 (48.9)	Total BTUH kW)	233.5 (68.4)	223.6 (65.5)	216.6 (63.5)	216.3 (63.4)	207.2 (60.7)	200.7 (58.8)	204.4 (59.9)	195.7 (57.4)	189.6 (55.6)	
	Sens BTUH kW)	143.2 (41.9)	128.6 (37.7)	118.3 (34.7)	184.1 (53.9)	165.4 (48.5)	152.1 (44.6)	204.4 (59.9)	194.7 (57.1)	179.1 (52.5)	
	Power kW)	24.2	23.7	23.4	24.0	23.5	23.2	23.9	23.4	23.0	
125 (51.7)	Total BTUH kW)	223.4 (65.5)	214.0 (62.7)	207.3 (60.7)	206.3 (60.4)	197.6 (57.9)	191.4 (56.1)	194.3 (56.9)	186.1 (54.5)	180.3 (52.8)	
	Sens BTUH kW)	138.4 (40.6)	124.3 (36.4)	114.4 (33.5)	179.3 (52.5)	161.1 (47.2)	148.2 (43.4)	194.3 (56.9)	186.1 (54.5)	175.2 (51.3)	
	Power kW)	25.5	24.9	24.7	25.3	24.8	24.4	25.1	24.6	24.2	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 46: Gross System Performance—MPS 025B, 25 Tons with Reheat

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		10615 (5010)	9650 (4554)	8202 (3871)	10615 (5010)	9650 (4554)	8202 (3871)	10615 (5010)	9650 (4554)	8202 (3871)	
DR <sup>1</sup>		0.13	0.11	0.08	0.13	0.11	0.08	0.13	0.11	0.08	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	343.6 (100.7)	337.4 (98.9)	328.2 (96.2)	326.8 (95.8)	321.0 (94.1)	312.2 (91.5)	315.2 (92.4)	309.5 (90.7)	301.1 (88.2)
		Sens BTUH kW)	205.7 (60.3)	196.5 (57.6)	182.7 (53.5)	244.1 (71.5)	233.3 (68.4)	216.9 (63.6)	274.9 (80.5)	262.6 (77.0)	244.2 (71.6)
		Power kW)	21.3	21.2	20.9	21.2	21.0	20.7	21.0	20.8	20.5
	80 (26.7)	Total BTUH kW)	341.0 (99.9)	334.9 (98.1)	325.8 (95.5)	324.3 (95)	318.5 (93.3)	309.8 (90.8)	312.6 (91.6)	307.0 (90.0)	298.7 (87.5)
		Sens BTUH kW)	204.7 (60.0)	195.6 (57.3)	181.9 (53.3)	243.2 (71.3)	232.4 (68.1)	216.1 (63.3)	274.0 (80.3)	261.7 (76.7)	243.4 (71.3)
		Power kW)	22.1	21.9	21.6	21.9	21.7	21.4	21.7	21.5	21.2
	85 (29.4)	Total BTUH kW)	337.7 (99.0)	331.6 (97.2)	322.6 (94.5)	321.0 (94.1)	315.2 (92.4)	306.6 (89.9)	309.3 (90.6)	303.8 (89.0)	295.5 (86.6)
		Sens BTUH kW)	203.4 (59.6)	194.4 (57.0)	180.7 (53)	241.9 (70.9)	231.1 (67.7)	214.9 (63.0)	272.6 (79.9)	260.5 (76.3)	242.2 (71)
		Power kW)	22.9	22.7	22.4	22.7	22.5	22.2	22.5	22.3	22.0
	90 (32.2)	Total BTUH kW)	333.5 (97.7)	327.6 (96.0)	318.6 (93.4)	316.8 (92.8)	311.1 (91.2)	302.7 (88.7)	305.1 (89.4)	299.7 (87.8)	291.5 (85.4)
		Sens BTUH kW)	201.7 (59.1)	192.7 (56.5)	179.2 (52.5)	240.2 (70.4)	229.5 (67.2)	213.4 (62.5)	270.9 (79.4)	258.9 (75.9)	240.7 (70.5)
		Power kW)	23.8	23.6	23.2	23.6	23.4	23.1	23.4	23.2	22.9
	95 (35.0)	Total BTUH kW)	328.6 (96.3)	322.7 (94.6)	313.9 (92.0)	311.8 (91.4)	<b>306.3 (89.8)</b>	297.9 (87.3)	300.2 (88)	294.8 (86.4)	286.8 (84.0)
		Sens BTUH kW)	199.6 (58.5)	190.7 (55.9)	177.4 (52.0)	238.1 (69.8)	<b>227.5 (66.7)</b>	211.5 (62.0)	268.8 (78.8)	256.8 (75.3)	238.9 (70.0)
		Power kW)	24.7	24.5	24.1	24.5	<b>24.3</b>	24.0	24.3	24.1	23.8
	100 (37.8)	Total BTUH kW)	322.8 (94.6)	317.0 (92.9)	308.4 (90.4)	306.1 (89.7)	300.6 (88.1)	292.4 (85.7)	294.4 (86.3)	289.1 (84.7)	281.3 (82.4)
		Sens BTUH kW)	197.1 (57.8)	188.3 (55.2)	175.1 (51.3)	235.6 (69)	225.1 (66.0)	209.3 (61.3)	266.3 (78.0)	254.5 (74.6)	236.6 (69.3)
		Power kW)	25.6	25.4	25.1	25.5	25.2	24.9	25.3	25.0	24.7
	105 (40.6)	Total BTUH kW)	316.2 (92.7)	310.6 (91.0)	302.1 (88.5)	299.5 (87.8)	294.2 (86.2)	286.1 (83.8)	287.8 (84.3)	282.7 (82.8)	275.0 (80.6)
		Sens BTUH kW)	194.2 (56.9)	185.6 (54.4)	172.6 (50.6)	232.7 (68.2)	222.3 (65.1)	206.8 (60.6)	263.4 (77.2)	251.7 (73.8)	234.1 (68.6)
		Power kW)	26.7	26.4	26.1	26.5	26.2	25.9	26.3	26.1	25.7
	110 (43.3)	Total BTUH kW)	308.8 (90.5)	303.3 (88.9)	295.0 (86.5)	292.1 (85.6)	286.9 (84.1)	279.1 (81.8)	280.4 (82.2)	275.4 (80.7)	267.9 (78.5)
		Sens BTUH kW)	190.9 (55.9)	182.4 (53.5)	169.6 (49.7)	229.4 (67.2)	219.2 (64.2)	203.8 (59.7)	260.1 (76.2)	248.5 (72.8)	231.1 (67.7)
		Power kW)	27.7	27.5	27.1	27.5	27.3	26.9	27.3	27.1	26.8
115 (46.1)	Total BTUH kW)	300.6 (88.1)	295.3 (86.5)	287.2 (84.2)	283.9 (83.2)	278.8 (81.7)	271.2 (79.5)	272.2 (79.8)	267.4 (78.4)	260.1 (76.2)	
	Sens BTUH kW)	187.2 (54.9)	178.9 (52.4)	166.4 (48.8)	225.7 (66.1)	215.7 (63.2)	200.6 (58.8)	256.5 (75.2)	245.0 (71.8)	227.9 (66.8)	
	Power kW)	28.8	28.6	28.2	28.7	28.4	28.0	28.5	28.2	27.8	
120 (48.9)	Total BTUH kW)	291.6 (85.5)	286.4 (83.9)	278.6 (81.6)	274.9 (80.6)	270.0 (79.1)	262.6 (77.0)	263.2 (77.1)	258.5 (75.8)	251.5 (73.7)	
	Sens BTUH kW)	183.2 (53.7)	175 (51.3)	162.7 (47.7)	221.6 (64.9)	211.8 (62.1)	196.9 (57.7)	252.4 (74)	241.1 (70.7)	224.2 (65.7)	
	Power kW)	30.0	29.7	29.4	29.8	29.6	29.2	29.6	29.4	29.0	
125 (51.7)	Total BTUH kW)	281.8 (82.6)	276.8 (81.1)	269.2 (78.9)	265.1 (77.7)	260.4 (76.3)	253.3 (74.2)	253.4 (74.3)	248.9 (72.9)	242.1 (70.9)	
	Sens BTUH kW)	178.7 (52.4)	170.7 (50.0)	158.8 (46.5)	217.2 (63.6)	207.5 (60.8)	193.0 (56.5)	247.9 (72.6)	236.8 (69.4)	220.3 (64.5)	
	Power kW)	31.2	31.0	30.5	31.0	30.8	30.4	30.9	30.6	30.2	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

Table 47: Gross System Performance—MPS 015H, 15 Tons High Efficiency

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		6050 (2855)	5500 (2596)	4675 (2206)	6050 (2855)	5500 (2596)	4675 (2206)	6050 (2855)	5500 (2596)	4675 (2206)	
DR <sup>1</sup>		0.11	0.09	0.06	0.11	0.09	0.06	0.11	0.09	0.06	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	215.9 (63.3)	212.1 (62.1)	206.3 (60.4)	202.4 (59.3)	198.8 (58.2)	193.3 (56.7)	192.6 (56.4)	189.2 (55.4)	184.0 (53.9)
		Sens BTUH kW)	111.3 (32.6)	106.4 (31.2)	98.9 (29.0)	147.8 (43.3)	141.2 (41.4)	131.3 (38.5)	181.0 (53)	172.9 (50.7)	160.8 (47.1)
		Power kW)	9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.8
	80 (26.7)	Total BTUH kW)	212.0 (62.1)	208.2 (61.0)	202.5 (59.3)	198.4 (58.1)	194.8 (57.1)	189.5 (55.5)	188.6 (55.3)	185.3 (54.3)	180.2 (52.8)
		Sens BTUH kW)	109.8 (32.2)	104.9 (30.7)	97.5 (28.6)	146.2 (42.8)	139.7 (40.9)	129.9 (38.1)	179.4 (52.6)	171.4 (50.2)	159.4 (46.7)
		Power kW)	10.4	10.3	10.2	10.1	10.0	9.9	9.8	9.7	9.6
	85 (29.4)	Total BTUH kW)	207.2 (60.7)	203.5 (59.6)	198.0 (58.0)	193.7 (56.8)	190.2 (55.7)	185.0 (54.2)	183.9 (53.9)	180.6 (52.9)	175.7 (51.5)
		Sens BTUH kW)	107.8 (31.6)	103.0 (30.2)	95.8 (28.1)	144.2 (42.3)	137.8 (40.4)	128.1 (37.5)	177.4 (52.0)	169.5 (49.7)	157.6 (46.2)
		Power kW)	11.3	11.2	11.0	11.0	10.9	10.7	10.7	10.6	10.5
	90 (32.2)	Total BTUH kW)	201.8 (59.1)	198.2 (58.1)	192.8 (56.5)	188.2 (55.2)	184.9 (54.2)	179.8 (52.7)	178.5 (52.3)	175.3 (51.4)	170.5 (50.0)
		Sens BTUH kW)	105.4 (30.9)	100.7 (29.5)	93.6 (27.4)	141.8 (41.6)	135.5 (39.7)	126.0 (36.9)	175.0 (51.3)	167.2 (49.0)	155.5 (45.6)
		Power kW)	12.2	12.1	11.9	11.9	11.8	11.6	11.6	11.5	11.4
	95 (35.0)	Total BTUH kW)	195.6 (57.3)	192.1 (56.3)	186.9 (54.8)	182.1 (53.4)	<b>178.8 (52.4)</b>	173.9 (51.0)	172.3 (50.5)	169.2 (49.6)	164.6 (48.2)
		Sens BTUH kW)	102.6 (30.1)	98.0 (28.7)	91.2 (26.7)	139.0 (40.7)	<b>132.8 (38.9)</b>	123.5 (36.2)	172.2 (50.5)	164.5 (48.2)	153.0 (44.8)
		Power kW)	13.1	13.0	12.8	12.9	<b>12.7</b>	12.6	12.6	12.5	12.3
	100 (37.8)	Total BTUH kW)	188.7 (55.3)	185.3 (54.3)	180.3 (52.8)	175.2 (51.3)	172.0 (50.4)	167.3 (49.0)	165.4 (48.5)	162.4 (47.6)	158.0 (46.3)
		Sens BTUH kW)	99.4 (29.1)	95.0 (27.8)	88.3 (25.9)	135.8 (39.8)	129.8 (38.0)	120.7 (35.4)	165.4 (48.5)	161.5 (47.3)	150.2 (44.0)
		Power kW)	14.2	14.0	13.8	13.9	13.7	13.6	13.6	13.5	13.3
	105 (40.6)	Total BTUH kW)	181.1 (53.1)	177.8 (52.1)	173.0 (50.7)	167.5 (49.1)	164.5 (48.2)	160.0 (46.9)	157.7 (46.2)	154.9 (45.4)	150.7 (44.2)
		Sens BTUH kW)	95.8 (28.1)	91.6 (26.8)	85.1 (25.0)	132.2 (38.8)	126.3 (37.0)	117.5 (34.4)	157.7 (46.2)	154.9 (45.4)	147.0 (43.1)
		Power kW)	15.2	15.1	14.9	14.9	14.8	14.6	14.6	14.5	14.3
	110 (43.3)	Total BTUH kW)	172.7 (50.6)	169.6 (49.7)	165.0 (48.3)	159.1 (46.6)	156.3 (45.8)	152.0 (44.5)	149.4 (43.8)	146.7 (43.0)	142.7 (41.8)
		Sens BTUH kW)	91.9 (26.9)	87.8 (25.7)	81.6 (23.9)	128.3 (37.6)	122.5 (35.9)	114.0 (33.4)	149.4 (43.8)	146.7 (43.0)	142.7 (41.8)
		Power kW)	16.3	16.2	16.0	16.1	15.9	15.7	15.8	15.6	15.4
115 (46.1)	Total BTUH kW)	163.6 (47.9)	160.6 (47.1)	156.3 (45.8)	150.0 (44.0)	147.3 (43.2)	143.3 (42.0)	140.2 (41.1)	137.7 (40.4)	134.0 (39.3)	
	Sens BTUH kW)	87.5 (25.6)	83.6 (24.5)	77.7 (22.8)	123.9 (36.3)	118.4 (34.7)	110.1 (32.3)	140.2 (41.1)	137.7 (40.4)	134.0 (39.3)	
	Power kW)	17.5	17.4	17.1	17.2	17.1	16.8	16.9	16.8	16.6	
120 (48.9)	Total BTUH kW)	153.7 (45.0)	151.0 (44.2)	146.9 (43.0)	140.2 (41.1)	137.7 (40.3)	133.9 (39.2)	130.4 (38.2)	128.1 (37.5)	124.6 (36.5)	
	Sens BTUH kW)	82.7 (24.2)	79.0 (23.2)	73.5 (21.5)	119.1 (34.9)	113.8 (33.3)	105.8 (31.0)	130.4 (38.2)	128.1 (37.5)	124.6 (36.5)	
	Power kW)	18.7	18.6	18.3	18.4	18.3	18.0	18.2	18.0	17.8	
125 (51.7)	Total BTUH kW)	143.1 (41.9)	140.6 (41.2)	136.7 (40.1)	129.6 (38.0)	127.3 (37.3)	123.8 (36.3)	119.8 (35.1)	117.7 (34.5)	114.5 (33.5)	
	Sens BTUH kW)	77.5 (22.7)	74.1 (21.7)	68.9 (20.2)	113.9 (33.4)	108.9 (31.9)	101.2 (29.7)	119.8 (35.1)	117.7 (34.5)	114.5 (33.5)	
	Power kW)	20.0	19.8	19.6	19.7	19.5	19.3	19.4	19.3	19.0	

Note: DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

**Table 48: Gross System Performance—MPS 020H, 20 Tons High Efficiency**

Entering Indoor Air @ 80°F (26.7°C) dbE <sup>1</sup>											
wbE		71°F (21.7°C)			67°F (19.4°C)			63°F (17.2°C)			
CFM (L/s)		8113 (3829)	7375 (3481)	6269 (2959)	8113 (3829)	7375 (3481)	6269 (2959)	8113 (3829)	7375 (3481)	6269 (2959)	
DR <sup>1</sup>		0.11	0.09	0.06	0.11	0.09	0.06	0.11	0.09	0.06	
Outdoor Dry Bulb Temperature °F (°C)	75 (23.9)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	80 (26.7)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	85 (29.4)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	90 (32.2)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	95 (35.0)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	<b>241.0 (70.6)</b>	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	<b>178.0 (52.2)</b>	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	<b>16.4</b>	16.2	16.5	16.4	16.2
	100 (37.8)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9) <sup>1</sup>	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	86.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	105 (40.6)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
	110 (43.3)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)
		Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)
		Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2
115 (46.1)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	
	Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	
	Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2	
120 (48.9)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	
	Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	
	Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2	
125 (51.7)	Total BTUH kW)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	245.4 (71.9)	241.0 (70.6)	234.4 (68.7)	
	Sens BTUH kW)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	186.3 (54.6)	178.0 (52.2)	165.5 (48.5)	
	Power kW)	16.5	16.4	16.2	16.5	16.4	16.2	16.5	16.4	16.2	

**Note:** DR — Depression Ratio; dbE — Entering Air Dry Bulb; wbE — Entering Air Wet Bulb; Total — Total Capacity × 1000 BTUH; Sens — Sensible Capacity × 1000 BTUH Power—kW input  
 1. When the entering air dry bulb is other than 80°F (27°C), adjust the sensible capacity from the table by adding (1.10 × CFM × (1 – DR) × (dbE – 80))

# Airflow Performance—Standard Efficiency

**Table 49: Airflow Performance—MPS A03C, 208V, 230V, 460V**
**Airflow Performance – 3 Ton [10.55 Kw] Three Phase Belt Drive**

Air Flow CFM [L/s]	Capacity 3 Ton [10.55 kW]																													
	Voltage 208/230/460/575, 3-Phase																													
	External Static Pressure - Inches of Water [kPa]																													
	0.1 (.02)		0.2 (.05)		0.3 (.07)		0.4 (.10)		0.5 (.12)		0.6 (.15)		0.7 (.17)		0.8 (.20)		0.9 (.22)		1.0 (.25)		1.1 (.27)		1.2 (.30)		1.3 (.32)		1.4 (.35)		1.5 (.37)	
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	
900 [425]	—	—	—	—	699	223	765	261	827	292	886	318	941	338	993	352	1042	360	1087	362	1129	358	1168	348	1203	332	1235	310	1264	282
1000 [472]	—	—	662	228	717	258	781	293	842	323	899	346	952	364	1002	376	1049	381	1093	381	1133	374	1170	362	1203	344	1233	320	1260	289
1100 [519]	—	—	667	275	737	295	798	328	857	355	912	377	964	392	1012	401	1057	404	1099	402	1137	393	1172	378	1204	358	1232	331	1257	298
1200 [566]	643	278	693	298	756	334	817	365	873	390	927	409	976	422	1023	428	1066	429	1106	424	1143	413	1176	396	1205	373	1232	344	1255	309
1300 [614]	661	316	716	341	777	376	835	404	890	426	942	443	990	453	1035	458	1076	456	1114	449	1149	435	1180	416	1208	391	1232	359	1254	322
1400 [661]	669	352	739	387	799	419	855	445	908	465	958	479	1004	487	1047	489	1087	485	1123	475	1156	460	1185	438	1211	410	1234	377	1253	337
1500 [708]	702	399	763	434	821	464	876	487	927	505	975	517	1019	523	1060	522	1098	516	1132	504	1163	486	1191	462	1215	432	1236	396	1254	354

**NOTE:** L-DRIVE left of bold line, M-DRIVE right of bold line

Drive Package	<b>L</b>						<b>M</b>					
Motor H.P. [W]	1/2 [373]						1/2 [373]					
Blower Sheave	6.9" Pitch Diameter						6.4" Pitch Diameter					
Motor Sheave	2.4" – 3.4" Pitch Diameter						3.4" – 4.4" Pitch Diameter					
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	<b>3</b>	4	5
RPM	910	869	<b>818</b>	775	728	682	1176	1145	1108	<b>1060</b>	996	968

**Component Air Resistance**

Component	Standard Indoor Airflow – CFM [L/s]											
	1000 (472)		1200 (566)		1400 (661)		1600 (755)		1800 (850)		2000 (944)	
	Resistance – Inches Water [kPa]											
Wet Coil	0.035		0.040		0.060		0.070		0.085		0.100	
Downflow	0.055		0.060		0.066		0.072		0.080		0.086	
R.S.I. Economizer	0.05		0.06		0.07		0.08		0.09		0.10	
R.A. Damper	0.05		0.06		0.07		0.08		0.09		0.10	

**NOTES:**

- Performance shown with dry coil & standard 2" [50.8 mm] filters.
- Standard CFM @ .075 lbs./cu.ft.
- Motor efficiency = 80%
- BHP = Watts × Motor Efficiency/746.
- Add component resistance to duct static to determine E.S.P as shown on charts

**( ) Designates Metric Conversions**

Table 50: Airflow Performance—MPS A04C, 208V, 230V, 460V

Airflow Performance – 4 Ton [14.07 Kw] Three Phase Belt Drive

Air Flow CFM [L/s]	Capacity 4 Ton [14.07 kW]																													
	Voltage 208/230/460/575, 3-Phase																													
	External Static Pressure - Inches of Water [kPa]																													
	0.1 (.02)		0.2 (.05)		0.3 (.07)		0.4 (.10)		0.5 (.12)		0.6 (.15)		0.7 (.17)		0.8 (.20)		0.9 (.22)		1.0 (.25)		1.1 (.27)		1.2 (.30)		1.3 (.32)		1.4 (.35)		1.5 (.37)	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
1200 [566]	—	—	—	—	—	—	817	425	879	440	940	456	999	475	1057	496	1113	519	1168	545	1221	572	1272	602	1322	634	1371	669	1420	704
1300 [614]	—	—	—	—	—	—	838	437	899	457	958	479	1015	503	1071	529	1126	558	1178	589	1230	622	1279	657	1327	695	1374	734	1421	773
1400 [661]	—	—	—	—	806	418	861	457	919	482	976	510	1032	539	1086	571	1138	605	1189	641	1239	680	1286	720	1333	763	1377	808	1421	853
1500 [708]	—	—	—	—	825	458	883	486	940	517	995	549	1048	584	1101	622	1151	661	1200	703	1248	746	1294	792	1338	841	1382	890	1426	939
1600 [755]	—	—	798	449	849	490	905	523	960	559	1013	598	1065	638	1115	681	1164	725	1211	772	1257	821	1301	873	1343	926	1385	979	1427	1032
1700 [802]	—	—	817	493	873	530	928	569	981	611	1032	654	1082	700	1130	748	1177	798	1222	851	1266	905	1308	962	1349	1021	1390	1080	1431	1139
1800 [850]	791	490	844	537	898	579	950	624	1002	670	1051	719	1099	771	1146	824	1190	880	1234	937	1276	997	1316	1059	1355	1124	1394	1189	—	—
1900 [897]	816	543	870	589	923	637	973	687	1023	739	1070	793	1116	850	1161	908	1204	969	1245	1033	1285	1098	1324	1166	1361	1235	1398	1304	—	—
2000 [944]	845	599	897	650	947	703	996	758	1044	816	1089	875	1134	937	1176	1002	1217	1068	1257	1137	1295	1207	1332	1280	1367	1355	—	—	—	—

NOTE: L-DRIVE left of bold line, M-DRIVE right of bold line

Drive Package	L						M					
Motor H.P. [W]	1/2 [373]						3/4 [559]					
Blower Sheave	6.9" Pitch Diameter						6.4" Pitch Diameter					
Motor Sheave	2.8" – 3.8" Pitch Diameter						3.4" – 4.4" Pitch Diameter					
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	<b>3</b>	4	5
RPM	1029	984	<b>950</b>	915	855	816	1281	1207	1174	<b>1141</b>	1111	1071

Component Air Resistance

Component	Standard Indoor Airflow – CFM [L/s]											
	1000 (472)		1200 (566)		1400 (661)		1600 (755)		1800 (850)		2000 (944)	
	Resistance – Inches Water [kPa]											
Wet Coil	0.035		0.040		0.060		0.070		0.085		0.100	
Downflow	0.055		0.060		0.066		0.072		0.080		0.086	
R.S.I. Economizer	0.05		0.06		0.07		0.08		0.09		0.10	

NOTES:

- Performance shown with dry coil & standard 2" [50.8 mm] filters.
- Standard CFM @ .075 lbs./cu.ft.
- Motor efficiency = 80%
- BHP = Watts × Motor Efficiency/746.
- Add component resistance to duct static to determine E.S.P as shown on charts

( ) Designates Metric Conversions

**Table 51: Airflow Performance—MPS A05C, 208V, 230V, 460V**

**Airflow Performance – 5 Ton [17.6 Kw] Three Phase Belt Drive**

Air Flow CFM [L/s]	Capacity 5 Ton [17.6 kW] 14 SEER																													
	Voltage 208/230/460/575, 3-Phase																													
	External Static Pressure - Inches of Water [kPa]																													
	0.1 (.02)		0.2 (.05)		0.3 (.07)		0.4 (.10)		0.5 (.12)		0.6 (.15)		0.7 (.17)		0.8 (.20)		0.9 (.22)		1.0 (.25)		1.1 (.27)		1.2 (.30)		1.3 (.32)		1.4 (.35)		1.5 (.37)	
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	
1400 [661]	—	—	—	—	—	—	784	466	835	497	886	533	935	574	983	621	1030	674	1077	732	1122	795	1166	864	1209	939	1251	1019	1292	1104
1500 [708]	—	—	—	—	—	—	800	484	850	519	899	558	947	604	994	655	1040	711	1085	773	1129	841	1172	914	1214	992	1255	1076	1295	1166
1600 [755]	—	—	—	—	766	478	816	511	865	549	913	593	960	643	1006	698	1051	758	1095	824	1137	895	1179	972	1220	1055	1260	1143	1300	1231
1700 [802]	—	—	—	—	785	509	833	546	881	589	928	637	974	690	1018	749	1062	813	1105	883	1146	959	1187	1040	1227	1126	1265	1218	1303	1310
1800 [850]	—	—	755	505	804	550	851	591	898	637	943	689	988	747	1031	810	1074	878	1115	952	1156	1031	1195	1116	1234	1207	1271	1302	1308	1397
1900 [897]	716	491	776	560	823	600	869	645	915	695	959	751	1003	812	1045	879	1086	951	1127	1029	1166	1113	1204	1202	1242	1296	1278	1396	1314	1496
2000 [944]	745	562	797	615	843	658	889	707	933	762	976	821	1018	887	1059	958	1099	1034	1139	1116	1177	1203	1214	1296	1250	1394	1285	1498	1320	1602
2100 [991]	773	637	819	679	864	726	908	779	951	837	993	901	1034	970	1074	1045	1113	1125	1151	1211	1188	1303	1224	1399	1259	1502	1293	1609	—	—
2200 [1038]	797	706	842	751	886	803	929	860	971	922	1011	990	1051	1063	1090	1142	1128	1226	1165	1316	1200	1411	1235	1512	1269	1618	—	—	—	—
2300 [1085]	822	783	865	833	908	888	950	949	990	1015	1030	1087	1069	1164	1106	1247	1143	1335	1179	1429	1213	1528	1247	1633	1279	1743	—	—	—	—
2400 [1133]	847	870	889	924	931	983	971	1048	1011	1118	1049	1194	1087	1275	1123	1362	1159	1454	1193	1551	1227	1655	1259	1763	1291	1878	—	—	—	—
2500 [1179]	873	966	914	1023	954	1087	994	1155	1032	1229	1069	1309	1106	1394	1141	1485	1175	1581	1209	1683	1241	1790	1272	1903	—	—	—	—	—	—

NOTE: L-DRIVE left of bold line, M-DRIVE right of bold line

Drive Package	L							M				
Motor H.P. [W]	3/4 [559]							1 [746]				
Blower Sheave	6.9" Pitch Diameter							6.9" Pitch Diameter				
Motor Sheave	2.8" – 3.8" Pitch Diameter							4.0" – 5.0" Pitch Diameter				
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	<b>3</b>	4	5
RPM	967	936	<b>900</b>	855	816	769	1248	1203	1163	<b>1123</b>	1078	1042

**Component Air Resistance**

Component	Standard Indoor Airflow – CFM [L/s]					
	1600 (755)	1800 (850)	2000 (944)	2200 (1038)	2400 (1133)	2600 (1227)
	Resistance – Inches Water [kPa]					
Wet Coil	0.070	0.085	0.100	0.110	0.120	0.125
Downflow	0.072	0.080	0.086	0.093	0.100	0.107
R.S.I. Economizer	0.08	0.09	0.10	0.11	0.12	0.13
R.A. Damper						

**NOTES:**

- Performance shown with dry coil & standard 2" [50.8 mm] filters.
- Standard CFM @ .075 lbs./cu.ft.
- Motor efficiency = 80%
- BHP = Watts × Motor Efficiency/746.
- Add component resistance to duct static to determine E.S.P as shown on charts

( ) Designates Metric Conversions

Table 52: Airflow Performance—MPS A07D

AirFlow CFM [L/s]	Model MPS A07D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2400 [1133]	—	—	551	782	585	814	619	848	652	885	684	926	717	969	748	1016	780	1065	810	1118	841	1174	870	1233	900	1294	929	1359	957	1427	985	1498	1012	1572	1039	1649	1065	1729	1091	1813	
2500 [1180]	—	—	562	816	596	848	629	884	661	923	693	964	725	1009	756	1057	787	1108	817	1162	846	1219	876	1279	904	1343	933	1409	960	1478	987	1550	1014	1626	1040	1704	1066	1786	1092	1870	
2600 [1227]	—	—	574	851	607	885	639	922	671	962	702	1006	733	1052	764	1101	794	1153	823	1209	852	1267	881	1329	909	1393	937	1461	964	1531	990	1605	1016	1682	1042	1762	1067	1844	1092	1930	
2700 [1274]	553	857	585	889	618	925	650	963	681	1004	712	1049	742	1096	772	1147	801	1201	830	1258	858	1317	886	1380	914	1446	941	1515	967	1587	993	1662	1019	1740	1044	1821	1068	1905	1092	1993	
2800 [1321]	565	896	597	930	629	966	660	1006	691	1049	721	1095	751	1144	780	1196	808	1251	837	1309	864	1370	892	1434	919	1501	945	1572	971	1645	996	1721	1021	1801	1045	1883	1069	1969	1093	2057	
2900 [1368]	577	937	609	972	640	1010	670	1051	701	1096	730	1143	759	1193	788	1246	816	1303	843	1362	871	1425	897	1490	923	1559	949	1630	974	1705	999	1783	1023	1864	1047	1948	1070	2035	1093	2124	
3000 [1416]	590	981	621	1017	651	1057	681	1099	710	1145	739	1193	768	1245	796	1300	823	1357	850	1418	877	1482	903	1549	928	1619	953	1692	978	1768	1002	1847	1026	1929	1049	2014	1072	2103	1094	2194	
3100 [1463]	602	1027	633	1065	662	1105	692	1149	720	1196	749	1246	777	1299	804	1355	831	1414	857	1476	883	1541	908	1610	933	1681	958	1755	982	1833	1005	1913	1028	1997	1051	2083	1073	2173	1094	2266	
3200 [1510]	615	1075	645	1114	674	1157	702	1202	731	1250	758	1301	785	1356	812	1413	838	1473	864	1537	889	1603	914	1673	938	1746	962	1821	986	1900	1008	1982	1031	2067	1053	2155	1074	2246	1095	2340	
3300 [1557]	628	1126	657	1166	685	1210	713	1256	741	1306	768	1359	794	1414	820	1473	846	1535	871	1600	896	1668	920	1739	944	1813	967	1890	989	1970	1012	2053	1033	2139	1055	2229	1075	2321	1096	2416	
3400 [1604]	640	1179	669	1221	697	1266	724	1314	751	1365	777	1419	803	1476	829	1536	854	1599	878	1665	902	1734	926	1807	949	1882	971	1960	993	2042	1015	2126	1036	2214	1057	2305	1077	2398	1097	2495	
3500 [1652]	653	1235	681	1278	708	1324	735	1373	761	1425	787	1481	812	1539	837	1601	861	1665	885	1733	909	1803	932	1877	954	1954	976	2034	997	2116	1018	2202	1039	2291	1059	2383	1078	2478	1097	2576	
3600 [1699]	666	1292	693	1337	720	1384	746	1435	771	1489	797	1545	821	1605	845	1668	869	1734	892	1803	915	1875	938	1950	959	2028	981	2109	1001	2193	1022	2280	1042	2371	1061	2464	1080	2560	1098	2660	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line

Drive Package	A/F										B/G										C/H									
Motor H.P. [W]	2.0 [1491.4]										3.0 [2237.1]										3.0 [2237.1]									
Blower Sheave	AK84H										AK84H										AK84H									
Motor Sheave	1VL40*7/8										1VP50*7/8										1VP56*7/8									
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5						
RPM	767	721	<b>678</b>	635	590	548	992	949	908	866	823	<b>782</b>	1108	1067	1029	987	946	905												

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 7.5 Ton

Actual – CFM [L/s]	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1605]	3600 [1699]
Total MBH	0.96	0.97	0.98	0.99	1.00	1.01	1.02
Sensible MBH	0.89	0.92	0.95	0.97	1.00	1.03	1.06
Power kW	0.98	0.99	0.99	1.00	1.01	1.01	1.02

Component Air Resistance, IWC – 7.5 Ton

Component	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1605]	3600 [1699]
	Resistance – Inches Water [kPa]						
Wet Coil	0.04 [0.01]	0.05 [0.01]	0.06 [0.01]	0.07 [0.02]	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]
Vertical Economizer 100% R.A. Damper Open	0.01 [0.00]	0.02 [0.01]	0.04 [0.01]	0.05 [0.01]	0.07 [0.02]	0.09 [0.02]	0.11 [0.03]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 53: Side Airflow Performance—MPS A07D

AirFlow CFM [L/s]	Model MPS A07D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2700 [1274]	—	—	561	894	596	934	631	975	665	1018	698	1062	730	1108	762	1155	793	1203	823	1253	853	1304	882	1357	910	1411	937	1467	964	1524	990	1583	1015	1643	1039	1704	1063	1767	1086	1832	
2800 [1321]	—	—	573	927	608	969	642	1013	676	1058	708	1104	740	1152	771	1201	802	1252	832	1304	861	1358	889	1413	917	1470	943	1528	970	1587	995	1648	1020	1711	1044	1775	1067	1840	1090	1907	
2900 [1368]	—	—	586	964	620	1008	654	1054	687	1101	719	1150	750	1200	781	1252	811	1305	840	1360	869	1416	897	1473	924	1532	950	1593	976	1654	1001	1718	1025	1782	1048	1848	1071	1916	1093	1985	
3000 [1416]	564	959	599	1004	633	1051	666	1099	698	1149	730	1200	761	1253	791	1307	820	1362	849	1419	877	1477	904	1537	931	1598	957	1661	982	1725	1006	1791	1030	1858	1053	1926	1075	1996	1097	2067	
3100 [1463]	578	1001	612	1048	645	1098	678	1148	710	1200	741	1254	771	1308	801	1365	830	1423	858	1482	886	1542	912	1605	939	1668	964	1733	989	1800	1012	1868	1036	1937	1058	2008	1080	2080	1101	2154	
3200 [1510]	592	1046	625	1096	658	1148	690	1201	721	1255	752	1311	782	1368	811	1427	840	1487	867	1548	894	1611	921	1676	946	1742	971	1809	995	1878	1019	1948	1041	2020	1063	2093	1085	2168	1105	2244	
3300 [1557]	605	1096	638	1148	671	1202	702	1257	733	1314	763	1372	793	1432	821	1493	849	1555	877	1619	903	1684	929	1751	954	1819	979	1889	1002	1960	1025	2033	1047	2107	1069	2182	1090	2259	1110	2337	
3400 [1604]	619	1149	652	1204	684	1260	715	1317	745	1376	775	1437	804	1499	832	1562	860	1627	886	1693	912	1761	938	1830	962	1900	986	1972	1009	2046	1032	2121	1053	2197	1074	2275	1095	2354	1114	2435	
3500 [1652]	634	1206	666	1263	697	1322	728	1382	758	1443	787	1506	815	1570	843	1635	870	1702	896	1771	922	1841	946	1912	970	1985	994	2060	1017	2135	1038	2213	1060	2291	1080	2371	1100	2453	1119	2536	
3600 [1699]	648	1267	680	1326	711	1387	741	1449	770	1513	799	1578	827	1645	854	1713	880	1782	906	1853	931	1925	955	1999	979	2074	1002	2151	1024	2229	1045	2308	1066	2389	1086	2472	1105	2556	1124	2641	
3700 [1746]	663	1332	694	1393	724	1456	754	1521	783	1587	811	1654	838	1723	865	1793	891	1865	916	1938	941	2013	965	2089	988	2167	1010	2246	1032	2326	1053	2408	1073	2491	1092	2576	1111	2662	1129	2750	
3800 [1793]	678	1400	708	1464	738	1529	767	1596	795	1665	823	1734	850	1805	876	1878	902	1952	926	2028	951	2105	974	2183	996	2263	1018	2344	1039	2427	1060	2511	1080	2597	1099	2684	1117	2772	1134	2862	
3900 [1840]	693	1472	723	1538	752	1606	781	1675	808	1746	836	1818	862	1892	888	1966	913	2043	937	2121	961	2200	983	2281	1005	2363	1027	2447	1048	2532	1067	2618	1087	2706	1105	2796	1123	2886	1140	2979	
4000 [1888]	708	1548	737	1617	766	1687	794	1758	822	1831	848	1906	874	1981	900	2059	924	2137	948	2218	971	2299	993	2382	1015	2467	1036	2553	1056	2640	1075	2729	1094	2819	1112	2911	1129	3004	1146	3099	
4100 [1935]	723	1628	752	1699	781	1771	808	1845	835	1920	861	1997	887	2075	911	2155	935	2236	959	2318	981	2402	1003	2488	1024	2574	1045	2663	1064	2752	1083	2844	1101	2936	1119	3030	1136	3126	1152	3223	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F					B/G					C/H							
Motor H.P. [W]	2.0 [1491.4]					3.0 [2237.1]					3.0 [2237.1]							
Blower Sheave	AK79H					AK79H					AK79H							
Motor Sheave	1VL40*7/8					1VP50*7/8					1VP56*7/8							
Turns Open	0	1	<b>2</b>	3	4	5	0	1	<b>2</b>	3	4	<b>5</b>	0	1	<b>2</b>	3	4	5
RPM	804	758	<b>710</b>	661	616	559	1048	1003	959	914	872	<b>826</b>	1168	1128	1087	1044	1002	957

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum or maximum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure
  4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 7.5 Ton

Actual – CFM [L/s]	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1605]	3600 [1699]
Total MBH	0.96	0.97	0.98	0.99	1.00	1.01	1.02
Sensible MBH	0.89	0.92	0.95	0.97	1.00	1.03	1.06
Power kW	0.98	0.99	0.99	1.00	1.01	1.01	1.02

Component Air Resistance, IWC – 7.5 Ton

Component	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1604]	3600 [1699]
	Resistance – Inches Water [kPa]						
Wet Coil	0.04 [0.01]	0.05 [0.01]	0.06 [0.01]	0.07 [0.02]	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]
"Horizontal Economizer 100% R.A. Damper Open	0.01 [0.00]	0.02 [0.00]	0.04 [0.01]	0.05 [0.01]	0.07 [0.02]	0.09 [0.02]	0.11 [0.03]

- NOTES:
1. Multiply correction factor times gross performance data.
  2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.



Table 55: Side Airflow Performance—MPS A08D

AirFlow CFM [L/s]	Model MPS A08D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2700 [1274]	—	—	—	—	577	932	611	969	644	1009	677	1052	710	1098	742	1147	774	1199	806	1254	837	1312	868	1373	898	1437	929	1505	959	1575	988	1648	1017	1725	1046	1804	1074	1886	1102	1972	
2800 [1321]	—	—	556	926	589	962	622	1000	655	1042	687	1087	719	1134	751	1185	783	1239	814	1295	844	1355	875	1418	905	1484	934	1553	963	1624	992	1699	1021	1777	1049	1858	1077	1942	1105	2029	
2900 [1368]	—	—	568	958	601	995	633	1036	666	1079	697	1125	729	1174	760	1227	791	1282	821	1340	851	1402	881	1466	911	1533	940	1604	968	1677	997	1754	1025	1834	1052	1916	1080	2002	1107	2090	
3000 [1416]	—	—	580	994	613	1033	645	1074	676	1119	708	1167	738	1218	769	1272	799	1329	829	1389	859	1452	888	1518	917	1587	945	1659	973	1734	1001	1812	1029	1894	1056	1978	1082	2065	1109	2155	
3100 [1463]	561	996	593	1033	624	1073	656	1117	687	1163	718	1213	748	1265	778	1321	808	1379	837	1441	866	1506	895	1573	923	1644	951	1718	978	1794	1006	1874	1033	1957	1059	2043	1085	2132	1111	2224	
3200 [1510]	574	1037	605	1076	636	1118	667	1163	698	1211	728	1262	758	1316	787	1373	816	1434	845	1497	873	1563	902	1632	929	1705	957	1780	984	1858	1010	1940	1037	2024	1063	2112	1088	2202	1113	2296	
3300 [1557]	587	1082	618	1122	648	1166	679	1212	709	1262	738	1315	767	1371	796	1430	825	1491	853	1556	881	1624	908	1695	936	1769	962	1846	989	1926	1015	2009	1041	2095	1066	2184	1091	2276	1116	2372	
3400 [1604]	600	1130	630	1172	660	1217	690	1266	720	1317	749	1371	777	1429	806	1489	834	1553	861	1619	888	1689	915	1761	942	1837	968	1916	994	1997	1020	2082	1045	2170	1070	2260	1094	2354	1118	2451	
3500 [1652]	613	1182	643	1226	672	1273	702	1323	730	1376	759	1432	787	1491	815	1553	842	1618	869	1686	896	1757	922	1831	948	1909	974	1989	999	2072	1024	2158	1049	2248	1073	2340	1097	2436	1121	2534	
3600 [1699]	626	1238	656	1283	685	1332	713	1383	741	1438	769	1495	797	1556	824	1620	851	1687	877	1756	904	1829	929	1905	955	1984	980	2066	1005	2151	1029	2238	1053	2329	1077	2423	1100	2520	1123	2621	
3700 [1746]	640	1297	668	1344	697	1394	725	1447	753	1504	780	1563	807	1625	833	1690	860	1759	886	1830	911	1905	937	1982	961	2063	986	2146	1010	2233	1034	2322	1057	2415	1081	2510	1103	2609	1126	2711	
3800 [1793]	653	1360	681	1409	709	1460	737	1515	764	1573	790	1634	817	1698	843	1765	869	1835	894	1908	919	1984	944	2063	968	2145	992	2230	1016	2318	1039	2410	1062	2504	1084	2601	1107	2701	1128	2805	
3900 [1840]	667	1426	694	1477	721	1530	748	1587	775	1646	801	1709	827	1774	852	1843	878	1914	902	1989	927	2067	951	2147	975	2231	998	2318	1021	2408	1044	2500	1066	2596	1088	2695	1110	2797	1131	2902	
4000 [1888]	680	1496	707	1548	734	1604	760	1662	786	1723	812	1787	837	1854	862	1924	887	1998	911	2074	935	2153	958	2235	981	2321	1004	2409	1027	2501	1049	2595	1071	2693	1092	2793	1113	2897	1134	3003	
4100 [1935]	694	1570	720	1624	746	1681	772	1740	797	1803	822	1869	847	1938	872	2009	896	2084	919	2162	943	2243	965	2327	988	2414	1010	2504	1032	2597	1054	2693	1075	2792	1096	2895	1116	3000	1137	3108	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F										B/G					C/H				
Motor H.P. [W]	2.0 [1491.4]										3.0 [2237.1]					3.0 [2237.1]				
Blower Sheave	AK79H										AK79H					AK79H				
Motor Sheave	1VL40*7/8										1VP50*7/8					1VP56*7/8				
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5		
RPM	800	754	<b>707</b>	662	616	555	1048	1005	960	916	870	<b>827</b>	1170	1126	1085	1044	1000	956		

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 8 Ton

Actual – CFM [L/s]	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
Total MBH	0.97	0.98	0.99	1.01	1.02	1.03	1.04	1.05
Sensible MBH	0.93	0.96	0.99	1.01	1.04	1.07	1.10	1.13
Power kW	0.99	0.99	1.00	1.00	1.01	1.02	1.02	1.03

Component Air Resistance, IWC – 8 Ton

Component	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
	Resistance – Inches Water [kPa]							
Wet Coil	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]	0.10 [0.03]	0.11 [0.03]	0.13 [0.03]	0.14 [0.04]	0.15 [0.04]
Horizontal Economizer 100% R.A. Damper Open	0.03 [0.01]	0.04 [0.01]	0.06 [0.01]	0.08 [0.02]	0.10 [0.02]	0.12 [0.03]	0.15 [0.04]	0.17 [0.04]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 56: Airflow Performance—MPS A10D

AirFlow CFM [L/s]	Model MPS A10D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.02]		0.2 [0.05]		0.3 [0.07]		0.4 [0.10]		0.5 [0.12]		0.6 [0.15]		0.7 [0.17]		0.8 [0.20]		0.9 [0.22]		1.0 [0.25]		1.1 [0.27]		1.2 [0.30]		1.3 [0.32]		1.4 [0.35]		1.5 [0.37]		1.6 [0.40]		1.7 [0.42]		1.8 [0.45]		1.9 [0.47]		2.0 [0.50]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
3200 [1510]	597	1046	629	1092	661	1141	692	1191	723	1242	753	1296	782	1351	811	1409	839	1468	867	1528	893	1591	920	1655	945	1722	970	1790	994	1859	1018	1931	1041	2004	1064	2080	1085	2157	1107	2236	
3300 [1557]	610	1092	642	1141	674	1192	705	1244	735	1299	764	1355	793	1413	822	1473	849	1535	876	1599	903	1664	928	1731	954	1800	978	1871	1002	1943	1025	2018	1048	2094	1070	2172	1091	2251	1112	2333	
3400 [1604]	624	1142	655	1194	686	1247	717	1303	747	1360	776	1419	804	1480	832	1542	859	1607	886	1673	912	1741	937	1811	962	1883	986	1956	1010	2031	1032	2108	1055	2187	1076	2268	1097	2350	1117	2435	
3500 [1652]	638	1196	669	1251	699	1307	729	1365	759	1425	787	1487	815	1550	843	1616	870	1683	896	1752	921	1823	946	1895	971	1969	994	2046	1017	2124	1040	2203	1061	2285	1083	2368	1103	2454	1123	2541	
3600 [1699]	651	1255	682	1312	712	1371	742	1432	771	1494	799	1559	827	1625	854	1693	880	1763	906	1835	931	1908	955	1984	979	2061	1003	2140	1025	2220	1047	2303	1068	2387	1089	2473	1109	2561	1129	2651	
3700 [1746]	665	1317	696	1377	725	1439	755	1503	783	1568	811	1635	838	1704	865	1775	891	1848	916	1922	941	1998	965	2076	988	2156	1011	2238	1033	2321	1055	2406	1075	2493	1096	2582	1115	2673	1134	2765	
3800 [1793]	679	1385	709	1447	739	1512	767	1578	795	1646	823	1716	850	1788	876	1861	901	1937	926	2014	950	2093	974	2173	997	2256	1019	2340	1041	2426	1062	2514	1083	2604	1102	2696	1122	2789	1140	2884	
3900 [1840]	693	1456	723	1521	752	1589	780	1658	808	1728	835	1801	861	1875	887	1952	912	2030	936	2110	960	2191	983	2275	1006	2360	1028	2447	1049	2536	1070	2627	1090	2719	1109	2813	1128	2909	1146	3007	
4000 [1888]	708	1532	737	1600	765	1670	793	1741	820	1815	847	1890	873	1967	898	2046	923	2127	947	2210	970	2294	993	2380	1015	2468	1036	2558	1057	2650	1077	2743	1097	2838	1116	2935	1134	3034	1152	3135	
4100 [1935]	722	1612	751	1682	779	1755	806	1830	833	1906	859	1984	884	2064	909	2145	933	2229	957	2314	980	2401	1002	2490	1024	2581	1045	2673	1065	2768	1085	2864	1104	2962	1123	3061	1141	3163	1158	3266	
4200 [1982]	736	1696	765	1769	792	1845	819	1922	845	2001	871	2082	896	2164	921	2249	944	2335	968	2423	990	2513	1012	2604	1033	2698	1054	2793	1074	2890	1093	2989	1112	3090	1130	3192	1147	3296	1164	3402	
4300 [2029]	751	1784	779	1861	806	1939	832	2019	858	2100	883	2184	908	2269	932	2356	955	2445	978	2536	1000	2629	1022	2723	1043	2819	1063	2917	1082	3017	1101	3118	1119	3222	1137	3327	1154	3434	—	—	
4400 [2076]	765	1877	793	1956	820	2037	846	2120	871	2204	896	2290	920	2378	944	2468	967	2560	989	2653	1010	2749	1032	2846	1052	2945	1072	3045	1091	3148	1109	3252	1127	3358	1144	3466	1161	3576	—	—	
4500 [2123]	780	1974	807	2056	833	2140	859	2225	884	2312	908	2401	932	2492	955	2584	978	2679	1000	2775	1021	2873	1041	2973	1061	3074	1081	3178	1099	3283	1117	3390	1135	3499	1152	3609	1168	3722	—	—	
4600 [2171]	795	2076	821	2160	847	2246	872	2335	897	2424	921	2516	944	2610	967	2705	989	2802	1010	2901	1031	3002	1051	3104	1071	3208	1090	3314	1108	3422	1126	3532	1143	3644	1159	3757	—	—	—	—	
4700 [2218]	810	2181	836	2269	861	2358	886	2448	910	2541	934	2635	957	2732	979	2830	1000	2929	1021	3031	1042	3134	1062	3240	1081	3347	1099	3455	1117	3566	1134	3679	1151	3793	1167	3909	—	—	—	—	
4800 [2265]	825	2291	850	2381	875	2473	900	2567	923	2662	946	2759	969	2858	991	2959	1012	3061	1033	3165	1052	3272	1072	3380	1090	3489	1108	3601	1126	3714	1143	3829	1159	3946	—	—	—	—	—	—	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F										B/G					C/H				
Motor H.P. [W]	2.0 [1491.4]										3.0 [2237.1]					3.0 [2237.1]				
Blower Sheave	AK79H										AK79H					AK79H				
Motor Sheave	1VL40*7/8					1VP50*7/8					1VP50*7/8					1VP56*7/8				
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5		
RPM	800	754	<b>707</b>	662	616	555	1048	1005	960	916	870	<b>827</b>	1170	1126	1085	1044	1000	956		

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 10 Ton

Actual – CFM [L/s]	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
Total MBH	0.97	0.98	0.99	1.01	1.02	1.03	1.04	1.05
Sensible MBH	0.93	0.96	0.99	1.01	1.04	1.07	1.10	1.13
Power kW	0.99	0.99	1.00	1.00	1.01	1.02	1.02	1.03

Component Air Resistance, IWC – 10 Ton

Component	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
	Resistance – Inches Water [kPa]							
Wet Coil	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]	0.10 [0.03]	0.11 [0.03]	0.13 [0.03]	0.14 [0.04]	0.15 [0.04]
Vertical Economizer 100% R.A. Damper Open	0.03 [0.01]	0.04 [0.01]	0.06 [0.01]	0.08 [0.02]	0.10 [0.02]	0.12 [0.03]	0.15 [0.04]	0.17 [0.04]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 57: Side Airflow Performance—MPSA10D

AirFlow CFM [L/s]	Model MPS A10D																																										
	External Static Pressure—Inches of Water [kPa]																																										
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]				
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
3200 [1510]	575	1018	607	1057	637	1099	667	1143	697	1191	727	1240	756	1293	785	1346	814	1406	842	1466	870	1529	897	1595	924	1664	951	1735	978	1809	1004	1885	1030	1965	1055	2047	1080	2131	1105	2219			
3300 [1557]	588	1060	618	1101	649	1146	679	1192	708	1242	737	1294	766	1349	795	1406	823	1466	850	1529	878	1595	905	1663	932	1734	958	1808	984	1884	1010	1963	1035	2045	1060	2129	1085	2216	1109	2306			
3400 [1604]	600	1106	630	1150	660	1196	690	1245	719	1297	748	1352	776	1409	804	1469	832	1531	859	1597	886	1664	913	1735	939	1808	965	1884	990	1963	1016	2044	1040	2128	1065	2215	1089	2305	1113	2397			
3500 [1652]	613	1156	643	1202	672	1251	701	1302	730	1357	758	1413	786	1473	814	1535	841	1600	868	1668	894	1738	920	1811	946	1887	972	1965	997	2046	1022	2130	1046	2217	1070	2306	1094	2397	1117	2492			
3600 [1699]	626	1210	655	1258	684	1310	713	1364	741	1420	769	1479	796	1541	823	1606	850	1673	877	1743	903	1816	929	1892	954	1970	979	2050	1004	2134	1028	2220	1052	2309	1076	2400	1099	2494	1122	2591			
3700 [1746]	639	1268	668	1319	696	1373	724	1429	752	1488	779	1550	806	1614	833	1681	860	1751	886	1823	911	1898	937	1976	962	2056	986	2140	1011	2225	1035	2314	1058	2405	1081	2499	1104	2596	1127	2695			
3800 [1793]	652	1330	680	1384	708	1440	736	1498	763	1560	790	1624	817	1690	843	1760	869	1832	895	1907	920	1984	945	2064	970	2147	994	2233	1018	2321	1041	2412	1064	2505	1087	2602	1110	2701	1132	2802			
3900 [1840]	665	1397	693	1452	721	1511	748	1572	775	1636	801	1702	828	1771	854	1843	879	1917	904	1995	929	2075	954	2157	978	2242	1001	2330	1025	2421	1048	2514	1071	2610	1093	2709	1115	2810	1137	2914			
4000 [1888]	678	1467	706	1525	733	1586	760	1650	787	1716	813	1785	839	1856	864	1930	889	2007	914	2087	938	2169	962	2254	986	2341	1009	2432	1032	2525	1055	2620	1077	2719	1099	2820	1121	2923	1142	3030			
4100 [1935]	692	1542	719	1602	746	1666	772	1731	798	1800	824	1871	850	1945	875	2022	899	2101	923	2183	947	2267	971	2355	994	2445	1017	2537	1040	2633	1062	2731	1084	2831	1105	2935	1126	3041	1147	3150			
4200 [1982]	706	1621	732	1684	759	1749	785	1817	810	1888	836	1962	861	2038	885	2117	909	2199	933	2283	957	2370	980	2460	1003	2552	1025	2647	1047	2745	1069	2845	1091	2948	1112	3054	1132	3163	1153	3274			
4300 [2029]	720	1704	746	1769	772	1837	797	1907	823	1981	847	2057	872	2135	896	2217	920	2301	943	2387	966	2477	989	2569	1012	2664	1034	2761	1055	2861	1077	2964	1098	3069	1118	3178	1139	3288	1158	3402			
4400 [2076]	734	1791	760	1858	785	1928	810	2001	835	2077	859	2155	883	2237	907	2320	931	2407	954	2496	976	2587	999	2682	1020	2779	1042	2879	1063	2981	1084	3087	1105	3195	1125	3305	1145	3418	—	—			
4500 [2123]	748	1882	773	1952	798	2024	823	2100	847	2178	871	2259	895	2342	918	2428	941	2517	964	2608	986	2702	1008	2799	1030	2899	1051	3001	1071	3106	1092	3214	1112	3324	1132	3437	1151	3552	—	—			
4600 [2171]	762	1977	787	2049	812	2124	836	2202	860	2283	884	2366	907	2451	930	2540	952	2631	974	2725	996	2822	1018	2921	1039	3023	1059	3127	1080	3235	1100	3345	1120	3457	1139	3573	1158	3691	—	—			
4700 [2218]	777	2076	801	2151	826	2228	849	2309	873	2391	896	2477	919	2565	941	2656	963	2750	985	2846	1006	2945	1027	3046	1048	3151	1068	3258	1088	3367	1108	3480	1127	3595	1146	3712	—	—	—	—			
4800 [2265]	792	2180	816	2257	840	2337	863	2419	886	2504	909	2592	931	2683	953	2776	975	2872	996	2971	1017	3072	1037	3176	1058	3283	1077	3392	1097	3504	1116	3619	1135	3736	1153	3856	—	—	—	—			

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F										B/G					C/H				
Motor H.P. [W]	2.0 [1491.4]										3.0 [2237.1]					3.0 [2237.1]				
Blower Sheave	AK79H										AK79H					AK79H				
Motor Sheave	1VL40*7/8										1VP50*7/8					1VP56*7/8				
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5		
RPM	798	753	<b>707</b>	663	616	556	1041	998	955	912	867	<b>824</b>	1155	1119	1078	1037	994	951		

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 10 Ton

Actual – CFM [L/s]	3200 [1510]	3400 [1604]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]
Total MBH	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.04	1.05
Sensible MBH	0.93	0.96	0.98	1.01	1.03	1.06	1.08	1.11	1.13
Power kW	0.99	0.99	1.00	1.00	1.01	1.01	1.01	1.02	1.02

Component Air Resistance, IWC – 10 Ton

Component	3200 [1510]	3400 [1604]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]
	Resistance – Inches Water [kPa]								
Wet Coil	0.10 [0.02]	0.11 [0.03]	0.12 [0.03]	0.13 [0.03]	0.15 [0.04]	0.16 [0.04]	0.18 [0.04]	0.19 [0.05]	0.21 [0.05]
Horizontal Economizer 100% R.A. Damper Open	0.07 [0.02]	0.09 [0.02]	0.11 [0.03]	0.13 [0.03]	0.16 [0.04]	0.19 [0.05]	0.21 [0.05]	0.24 [0.06]	0.28 [0.07]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 58: Airflow Performance—MPSA12D

AirFlow CFM [L/s]	Model MPSA12D																																									
	External Static Pressure—Inches of Water [kPa]																																									
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]			
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	
4000 [1888]	766	1776	795	1806	824	1842	851	1883	878	1931	904	1985	929	2044	953	2110	976	2181	998	2259	1019	2342	1040	2431	1059	2526	1078	2627	1096	2734	1113	2847	1129	2966	1144	3091	1158	3221	1171	3358		
4100 [1935]	778	1820	807	1856	835	1897	862	1944	888	1997	913	2056	937	2120	961	2191	983	2268	1005	2350	1026	2439	1045	2533	1064	2634	1082	2740	1099	2852	1116	2970	1131	3094	1145	3224	1159	3360	1171	3502		
4200 [1982]	792	1875	820	1915	847	1961	873	2014	899	2072	923	2136	947	2206	969	2282	991	2364	1012	2451	1032	2545	1051	2645	1070	2750	1087	2862	1103	2979	1119	3102	1134	3232	1147	3367	1160	3508	1172	3655		
4300 [2029]	806	1938	833	1984	859	2036	885	2093	910	2156	934	2226	957	2301	979	2382	1000	2469	1020	2562	1040	2661	1058	2766	1076	2877	1092	2993	1108	3116	1123	3244	1137	3379	1150	3519	1162	3665	1174	3818		
4400 [2076]	820	2012	847	2063	873	2119	898	2182	922	2251	945	2325	967	2406	989	2492	1009	2584	1029	2682	1048	2787	1065	2897	1082	3013	1098	3134	1113	3262	1128	3396	1141	3536	1154	3681	1165	3833	1176	3990		
4500 [2123]	835	2095	861	2151	886	2213	911	2281	934	2355	957	2434	978	2520	999	2611	1019	2709	1038	2812	1056	2922	1073	3037	1090	3158	1105	3285	1119	3418	1133	3557	1146	3702	1158	3853	1168	4009	1178	4172		
4600 [2171]	851	2187	876	2249	901	2316	925	2389	947	2468	969	2553	990	2644	1010	2740	1030	2843	1048	2952	1065	3066	1082	3187	1097	3313	1112	3445	1126	3584	1139	3728	1151	3878	1162	4034	1172	4196	1182	4363		
4700 [2218]	867	2290	892	2356	916	2428	939	2507	961	2591	982	2681	1003	2777	1022	2879	1041	2987	1058	3101	1075	3220	1091	3346	1106	3478	1120	3615	1133	3759	1145	3908	1157	4063	1167	4224	1177	4391	1186	4564		
4800 [2265]	884	2401	908	2473	932	2551	954	2634	975	2723	996	2819	1016	2920	1034	3027	1052	3140	1069	3259	1085	3384	1101	3515	1115	3652	1128	3795	1141	3943	1153	4098	1163	4258	1173	4425	1182	4597	1190	4775		
4900 [2312]	902	2523	925	2599	948	2682	969	2771	990	2866	1010	2966	1029	3073	1047	3185	1065	3303	1081	3427	1097	3558	1111	3694	1125	3836	1138	3984	1149	4137	1160	4297	1170	4463	1180	4634	1188	4812	1195	4995		
5000 [2359]	920	2653	943	2736	965	2824	986	2917	1006	3017	1025	3123	1044	3235	1061	3352	1078	3476	1093	3605	1108	3741	1122	3882	1135	4029	1147	4182	1158	4341	1169	4506	1178	4677	1187	4854	1194	5036	1201	5225		
5100 [2407]	939	2794	961	2881	982	2974	1003	3073	1022	3179	1041	3289	1058	3406	1075	3529	1091	3658	1106	3792	1120	3933	1134	4079	1146	4232	1158	4390	1168	4554	1178	4725	1187	4901	1194	5083	1201	5270	1208	5464		
5200 [2454]	958	2944	980	3036	1000	3135	1020	3239	1039	3349	1057	3465	1074	3588	1090	3716	1105	3849	1120	3989	1133	4135	1146	4287	1158	4444	1168	4608	1178	4777	1187	4953	1196	5134	1203	5321	1209	5514	1215	5713		
5300 [2501]	978	3103	999	3201	1019	3305	1038	3414	1056	3530	1074	3651	1090	3778	1106	3912	1120	4051	1134	4196	1147	4347	1159	4504	1170	4666	1180	4835	1189	5010	1198	5190	1205	5377	1212	5569	1217	5767	1222	5972		
5400 [2548]	999	3273	1019	3376	1038	3484	1057	3599	1074	3720	1091	3846	1107	3979	1122	4117	1136	4261	1149	4412	1161	4568	1172	4730	1183	4898	1192	5072	1201	5252	1209	5438	1215	5629	1221	5827	1226	6030	—	—		
5500 [2595]	1020	3451	1040	3559	1058	3673	1076	3793	1093	3919	1109	4051	1124	4189	1138	4332	1152	4482	1164	4637	1176	4799	1186	4966	1196	5139	1205	5318	1213	5503	1220	5694	1226	5891	—	—	—	—	—	—		
5600 [2643]	1042	3640	1061	3753	1079	3872	1096	3997	1112	4128	1128	4265	1142	4408	1156	4557	1168	4712	1180	4872	1191	5039	1201	5212	1210	5390	1218	5574	1226	5765	—	—	—	—	—	—	—	—	—	—		
5700 [2690]	1064	3838	1083	3956	1100	4080	1117	4211	1132	4347	1147	4489	1161	4637	1174	4791	1186	4951	1197	5117	1207	5289	1216	5467	1225	5650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5800 [2737]	1088	4045	1105	4169	1122	4298	1138	4434	1153	4575	1167	4723	1180	4876	1192	5035	1204	5200	1214	5371	1224	5548	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5900 [2784]	1111	4262	1128	4391	1144	4526	1160	4666	1174	4813	1187	4966	1200	5124	1211	5289	1222	5459	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6000 [2831]	1136	4489	1152	4623	1167	4763	1182	4909	1196	5061	1208	5218	1220	5382	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: A/F-Drive left of the bold line, B/G-Drive right of bold lines.

Drive Package	A/F						B/G					
Motor H.P. [W]	3.0 [2237.1]						5.0 [3728.5]					
Blower Sheave	AK71H						AK79H					
Motor Sheave	1VL44*7/8						1VP60*1x1/8					
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>
RPM	1003	958	<b>912</b>	863	814	764	1220	1171	1127	1085	1039	<b>994</b>

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum or maximum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
  4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 12.5 Ton

Actual – CFM [L/s]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
Total MBH	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11
Sensible MBH	1.03	1.06	1.08	1.11	1.13	1.16	1.18	1.21	1.23	1.26	1.28
Power kW	1.01	1.01	1.01	1.02	1.02	1.03	1.03	1.03	1.04	1.04	1.05

Component Air Resistance, IWC – 12.5 Ton

Component	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
	Resistance – Inches Water [kPa]										
Wet Coil	0.15 [0.04]	0.17 [0.04]	0.18 [0.05]	0.20 [0.05]	0.21 [0.05]	0.23 [0.06]	0.25 [0.06]	0.27 [0.07]	0.29 [0.07]	0.31 [0.08]	0.33 [0.08]
Vertical Economizer 100% R.A. Damper Open	0.16 [0.04]	0.19 [0.05]	0.21 [0.05]	0.24 [0.06]	0.28 [0.07]	0.31 [0.08]	0.35 [0.09]	0.38 [0.09]	0.42 [0.10]	0.46 [0.11]	0.51 [0.13]

- NOTES:
1. Multiply correction factor times gross performance data.
  2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 59: Side Airflow Performance—MPS A12D

AirFlow CFM [L/s]	Model MPS A12D																																												
	External Static Pressure—Inches of Water [kPa]																																												
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]						
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W			
4000 [1888]	—	—	791	1757	819	1824	846	1892	872	1961	897	2031	922	2101	946	2173	970	2245	993	2318	1015	2392	1036	2467	1057	2542	1077	2619	1096	2696	1115	2774	1133	2853	1150	2933	1167	3014	1183	3095					
4100 [1935]	782	1773	809	1841	836	1911	863	1982	888	2053	913	2125	937	2198	961	2272	984	2346	1006	2422	1027	2498	1048	2576	1068	2654	1088	2733	1106	2812	1124	2893	1142	2975	1158	3057	1174	3140	1189	3224					
4200 [1982]	801	1860	828	1932	854	2004	880	2077	905	2150	929	2225	952	2300	975	2377	997	2454	1019	2532	1040	2611	1060	2691	1079	2771	1098	2853	1116	2935	1133	3018	1150	3102	1166	3187	1181	3272	1196	3359					
4300 [2029]	819	1954	845	2028	871	2102	896	2177	920	2254	944	2331	967	2409	989	2488	1011	2567	1032	2648	1052	2729	1071	2811	1090	2894	1108	2978	1125	3063	1142	3149	1158	3235	1174	3323	1188	3411	1202	3500					
4400 [2076]	837	2053	863	2129	888	2207	912	2284	936	2363	959	2443	981	2523	1003	2605	1024	2687	1044	2770	1064	2854	1082	2938	1101	3024	1118	3110	1135	3197	1151	3286	1166	3375	1181	3464	1195	3555	1208	3646					
4500 [2123]	855	2159	880	2237	905	2317	929	2397	952	2479	974	2561	996	2644	1016	2727	1037	2812	1056	2897	1075	2984	1093	3071	1111	3159	1128	3248	1144	3338	1159	3428	1174	3520	1188	3612	1201	3705	1214	3799					
4600 [2171]	873	2270	898	2351	921	2433	944	2516	967	2600	988	2684	1009	2770	1030	2856	1049	2943	1068	3031	1086	3120	1104	3210	1121	3300	1137	3392	1152	3484	1167	3577	1181	3671	1195	3766	1207	3861	1219	3958					
4700 [2218]	891	2387	914	2471	938	2556	960	2641	982	2727	1003	2814	1023	2902	1043	2991	1062	3080	1080	3171	1097	3262	1114	3354	1130	3447	1146	3541	1161	3636	1175	3732	1188	3828	1201	3925	1213	4023	—	—					
4800 [2265]	908	2511	931	2597	954	2684	975	2772	996	2860	1017	2950	1036	3040	1055	3132	1074	3224	1091	3317	1108	3410	1124	3505	1140	3601	1155	3697	1169	3794	1182	3892	1195	3991	1207	4091	1219	4191	—	—					
4900 [2312]	925	2640	947	2729	969	2818	990	2908	1011	3000	1031	3092	1050	3184	1068	3278	1086	3373	1102	3468	1119	3565	1134	3662	1149	3760	1163	3859	1177	3958	1190	4059	1202	4160	1213	4262	—	—	—	—					
5000 [2359]	942	2775	964	2866	985	2958	1005	3051	1025	3145	1044	3239	1062	3335	1080	3431	1097	3528	1113	3626	1129	3725	1144	3824	1158	3925	1172	4026	1185	4128	1197	4231	1208	4335	1219	4440	—	—	—	—					
5100 [2407]	958	2916	979	3010	1000	3104	1020	3200	1039	3296	1057	3393	1075	3491	1092	3589	1108	3689	1124	3789	1139	3891	1153	3993	1167	4096	1180	4200	1192	4304	1204	4410	1214	4516	—	—	—	—	—	—					
5200 [2454]	975	3063	995	3160	1015	3256	1034	3354	1053	3453	1070	3552	1087	3653	1104	3754	1120	3856	1135	3959	1149	4063	1162	4167	1175	4273	1188	4379	1199	4486	1210	4594	1220	4703	—	—	—	—	—	—					
5300 [2501]	991	3217	1010	3315	1030	3415	1048	3515	1066	3616	1083	3718	1100	3821	1115	3924	1130	4029	1145	4134	1158	4241	1171	4348	1184	4456	1195	4564	1206	4674	1216	4785	—	—	—	—	—	—	—	—					
5400 [2548]	1006	3376	1026	3477	1044	3579	1062	3681	1079	3785	1096	3889	1111	3995	1126	4101	1141	4208	1155	4316	1168	4425	1180	4534	1192	4645	1203	4756	1213	4868	—	—	—	—	—	—	—	—	—	—	—				
5500 [2595]	1022	3541	1040	3644	1058	3749	1075	3854	1092	3960	1108	4067	1123	4175	1137	4283	1151	4393	1164	4503	1177	4614	1188	4726	1199	4839	1210	4953	1219	5068	—	—	—	—	—	—	—	—	—	—	—				
5600 [2643]	1037	3712	1055	3818	1072	3924	1089	4032	1105	4141	1120	4250	1134	4361	1148	4472	1161	4584	1174	4697	1185	4810	1196	4925	1207	5040	1216	5156	—	—	—	—	—	—	—	—	—	—	—	—	—				
5700 [2690]	1052	3888	1069	3997	1086	4106	1102	4217	1117	4328	1132	4440	1145	4552	1159	4666	1171	4780	1183	4896	1194	5012	1204	5129	1214	5247	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
5800 [2737]	1067	4071	1083	4182	1099	4294	1115	4407	1129	4520	1143	4635	1156	4750	1169	4866	1181	4983	1192	5101	1202	5220	1212	5339	1221	5460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5900 [2784]	1081	4260	1097	4374	1113	4488	1127	4603	1141	4719	1154	4836	1167	4954	1179	5073	1190	5192	1200	5312	1210	5433	1219	5555	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6000 [2831]	1095	4455	1111	4571	1126	4688	1139	4805	1153	4924	1165	5043	1177	5164	1188	5285	1199	5407	1209	5529	1218	5653	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: A/F-Drive left of the bold line, B/G-Drive right of bold lines.

Drive Package	A/F												B/G					
Motor H.P. [W]	3.0 [2237.1]												5.0 [3728.5]					
Blower Sheave	AK71H												AK79H					
Motor Sheave	1VL44*7/8												1VP60*1x1/8					
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
RPM	1002	955	<b>909</b>	862	813	765	1208	1171	1127	1084	1038	<b>995</b>	1208	1171	1127	1084	1038	<b>995</b>

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum or maximum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
  4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors –12.5 Ton

Actual – CFM [L/s]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
Total MBH	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11
Sensible MBH	1.03	1.06	1.08	1.11	1.13	1.16	1.18	1.21	1.23	1.26	1.28
Power kW	1.01	1.01	1.01	1.02	1.02	1.03	1.03	1.03	1.04	1.04	1.05

Component Air Resistance, IWC – 12.5 Ton

Component	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
	Resistance – Inches Water [kPa]										
Wet Coil	0.15 [0.04]	0.17 [0.04]	0.18 [0.05]	0.20 [0.05]	0.21 [0.05]	0.23 [0.06]	0.25 [0.06]	0.27 [0.07]	0.29 [0.07]	0.31 [0.08]	0.33 [0.08]
Horizontal Economizer 100% R.A. Damper Open	0.16 [0.04]	0.19 [0.05]	0.21 [0.05]	0.24 [0.06]	0.28 [0.07]	0.31 [0.08]	0.35 [0.09]	0.38 [0.09]	0.42 [0.10]	0.46 [0.11]	0.51 [0.13]

- NOTES:
1. Multiply correction factor times gross performance data.
  2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 60: Airflow Performance—MPS 015B

AirFlow CFM (L/s)	Model MPS 015 — Voltage 208/230, 460, 575 3phase																																																
	External Static Pressure Inches of Water (kPa)																																																
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)		1.6 (0.40)		1.7 (0.42)		1.8 (0.45)		1.9 (0.47)		2.0 (0.50)										
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS				
4800 (2265)	—	—	—	—	—	—	—	—	—	—	—	583	1393	608	1508	632	1621	656	1732	679	1841	701	1947	723	2052	744	2154	764	2254	785	2326	805	2430	825	2537	844	2647	863	2761	881	2878								
5000 (2359)	—	—	—	—	—	—	—	—	—	—	—	591	1476	616	1593	640	1707	663	1820	686	1930	708	2038	729	2145	750	2248	771	2350	791	2420	811	2528	830	2640	850	2755	868	2873	887	2995								
5200 (2454)	—	—	—	—	—	—	—	—	—	—	—	575	1442	600	1562	624	1681	648	1797	671	1911	693	2023	715	2133	736	2241	757	2346	777	2410	797	2520	817	2633	836	2749	855	2869	874	2992	892	3118						
5400 (2548)	—	—	—	—	—	—	—	—	—	—	—	583	1530	608	1652	632	1772	655	1890	678	2005	701	2119	722	2231	743	2340	764	2447	784	2512	804	2626	823	2744	842	2865	861	2989	879	3117	897	3248						
5600 (2643)	—	—	—	—	—	—	—	—	—	—	—	592	1621	616	1745	640	1866	663	1986	686	2103	708	2218	729	2331	750	2442	770	2551	791	2620	810	2739	830	2861	849	2987	867	3116	885	3248	903	3384						
5800 (2737)	—	—	—	—	—	—	—	—	—	—	—	576	1588	601	1715	625	1840	649	1964	672	2085	694	2204	716	2321	737	2436	757	2548	778	2614	798	2735	817	2858	836	2985	855	3116	873	3249	891	3386	909	3527				
6000 (2831)	—	—	—	—	—	—	—	—	—	—	—	585	1683	610	1813	634	1940	657	2065	680	2187	702	2308	724	2426	744	2543	765	2657	785	2731	805	2856	824	2984	843	3116	861	3251	879	3389	897	3531	914	3676				
6200 (2926)	—	—	—	—	—	—	—	—	—	—	—	570	1650	595	1783	619	1913	643	2042	666	2169	688	2293	710	2415	731	2535	752	2653	773	2728	792	2854	812	2984	831	3116	850	3253	868	3392	886	3535	903	3682	920	3832		
6400 (3020)	—	—	—	—	—	—	—	—	—	—	—	579	1750	604	1885	628	2017	652	2148	674	2276	697	2402	718	2526	739	2648	760	2767	780	2852	800	2983	819	3118	838	3255	856	3396	875	3541	892	3688	909	3839	926	3994		
6600 (3114)	—	—	—	—	—	—	—	—	—	—	—	589	1854	614	1991	637	2125	661	2257	683	2386	705	2514	727	2640	748	2763	768	2884	788	2984	808	3119	827	3258	845	3400	863	3546	881	3695	899	3847	916	4003	—	—		
6800 (3209)	—	—	—	—	—	—	—	—	—	—	—	574	1822	599	1961	623	2099	647	2235	670	2369	692	2500	714	2629	735	2756	756	288	2776	2984	796	3121	815	3262	834	3405	853	3552	871	3702	888	3856	905	4013	922	4173	—	—
7000 (3303)	—	—	—	—	—	—	—	—	—	—	—	584	1930	609	2072	633	2211	656	2349	679	2484	701	2617	723	2748	744	2877	764	3003	785	3124	804	3265	823	3410	842	3559	860	3710	878	3865	895	4024	912	4185	929	4350	—	—
7200 (3398)	570	1897	595	2042	619	2185	643	2327	666	2466	689	2602	711	2737	732	2870	753	3000	773	3127	793	3270	812	3416	831	3566	849	3719	868	3875	885	4035	902	4198	919	4364	—	—	—	—	—	—	—	—					

NOTE: L-Drive left of bold line, M-Drive right of bold line; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	L						M					
Motor H.P. (W)	3.0 (2237.1)						5.0 (3728.5)					
Blower Sheave	BK105H						BK105 H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	<b>1</b>	2	3	4	5	6	1	2	3	<b>4</b>	5	6
RPM	<b>733</b>	701	669	640	605	572	927	903	873	<b>840</b>	808	775

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors 15 Ton

CFM [L/s]	4800 (2265)	5000 (2359)	5200 (2454)	5400 (2548)	5600 (2643)	5800 (2737)	6000 (2831)	6200 (2926)	6400 (3020)	6600 (3114)	6800 (3209)	7000 (3303)	7200 (3398)
Total MBH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.01	1.02	1.02	1.03	1.03	1.04
Sensible MBH	0.87	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1.11	1.14	1.16
Power kW	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.02	1.02

NOTE: Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

Component Airflow Resistance 15 Ton

CFM (L/s)	4800 (2265)	5000 (2359)	5200 (2454)	5400 (2548)	5600 (2643)	5800 (2737)	6000 (2831)	6200 (2926)	6400 (3020)	6600 (3114)	6800 (3209)	7000 (3303)	7200 (3398)
	Resistance Inches of Water (kPa)												
Wet Coil	0.03 (0.01)	0.04 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)
Downflow	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.08 (0.02)
Downflow Economizer RA Damper Open	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)	0.13 (0.03)	0.14 (0.03)	0.15 (0.04)	0.16 (0.04)	0.16 (0.04)	0.17 (0.04)	0.18 (0.04)
Horizontal Economizer RA Damper Open	0.00 (0.00)	0.01 (0.00)	0.01 (0.00)	0.02 (0.00)	0.02 (0.00)	0.03 (0.01)	0.03 (0.01)	0.04 (0.01)	0.04 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)



Table 62: Airflow Performance—MPS 025B

Airflow CFM (L/s)	Model MPS 025 Voltage 208/230, 460, 575 3 phase																																																				
	External Static Pressure Inches of Water (kPa)																																																				
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)		1.6 (0.40)		1.7 (0.42)		1.8 (0.45)		1.9 (0.47)		2.0 (0.50)														
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS												
8000 [3775]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	794	3720	814	3870	833	4024	851	4182	869	4344	886	4510	903	4680	920	4854	948	5256	963	5410	979	5565	994	5720	1009	5877												
8200 [3869]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	807	3908	826	4065	845	4226	863	4392	880	4561	897	4735	914	4912	943	5296	958	5455	973	5614	988	5774	1003	5935	1018	6097												
8400 [3964]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	801	3947	820	4108	838	4273	856	4442	874	4614	891	4791	908	4972	924	5157	952	5503	967	5667	982	5832	997	5997	1012	6164	1028	6331										
8600 [4058]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	794	3989	813	4153	832	4321	850	4493	868	4670	886	4850	902	5034	919	5223	947	5557	962	5725	977	5894	992	6064	1007	6235	1022	6407	1037	6579								
8800 [4153]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	807	4200	826	4371	845	4547	862	4727	880	4910	897	5098	913	5290	942	5614	957	5787	972	5960	987	6134	1002	6310	1017	6486	1032	6663	1047	6841								
9000 [4247]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	801	4249	820	4424	839	4603	857	4786	874	4973	892	5164	908	5359	924	5558	952	5853	967	6031	982	6209	997	6389	1012	6570	1027	6752	1042	6934	1057	7118						
9200 [4341]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	795	4300	815	4478	833	4660	851	4847	869	5037	886	5232	903	5430	919	5633	947	5923	962	6105	977	6289	992	6473	1007	6658	1022	6844	1037	7031	1052	7219	1068	7408				
9400 [4436]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	790	4352	809	4534	828	4720	846	4910	864	5104	881	5302	898	5504	915	5710	943	5997	958	6184	972	6372	987	6561	1002	6750	1017	6941	1032	7132	1048	7325	1063	7518	—	—		
9600 [4530]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	804	4592	823	4781	841	4975	859	5172	876	5373	893	5579	910	5788	926	6002	953	6267	968	6460	983	6653	998	6847	1013	7042	1028	7238	1043	7434	1058	7632	—	—	—	—		
9800 [4624]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	798	4652	817	4845	836	5042	854	5242	872	5447	889	5656	905	5869	922	6085	949	6355	964	6551	979	6749	994	6947	1009	7147	1024	7347	1039	7548	1054	7751	1069	7954	—	—	—	—
10000 [4719]	793	4714	813	4910	831	5110	849	5315	867	5523	884	5735	901	5951	917	6171	945	6446	960	6647	975	6849	990	7052	1005	7256	1019	7461	1034	7667	1050	7873	1065	8081	—	—	—	—	—	—	—	—	—	—	—	—	—						
10200 [4813]	808	4978	827	5181	845	5389	863	5600	880	5816	897	6035	913	6259	941	6542	956	6748	971	6954	986	7162	1001	7370	1016	7579	1031	7789	1046	8000	1061	8212	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
10400 [4908]	822	5254	840	5465	858	5680	876	5899	893	6122	909	6349	926	6580	953	6852	967	7063	982	7275	997	7488	1012	7701	1027	7916	1042	8131	1057	8348	1072	8565	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
10600 [5002]	836	5543	854	5761	872	5984	889	6210	906	6441	922	6675	949	6961	964	7176	979	7393	993	7610	1008	7828	1023	8047	1038	8267	1053	8488	1068	8710	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
10800 [5096]	850	5845	868	6071	885	6301	902	6534	918	6772	946	7074	961	7294	975	7514	990	7736	1005	7959	1020	8182	1035	8407	1050	8632	1065	8858	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
11000 [5191]	864	6160	882	6393	899	6630	915	6871	943	7191	958	7415	972	7640	987	7867	1002	8094	1017	8321	1032	8550	1046	8780	1061	9011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
11200 [5285]	878	6487	895	6728	912	6972	940	7313	955	7541	969	7771	984	8001	999	8233	1014	8465	1029	8698	1043	8933	1058	9168	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
11400 [5379]	892	6827	909	7075	925	7328	952	7671	967	7905	981	8140	996	8376	1011	8613	1026	8851	1041	9089	1055	9329	1070	9570	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
11600 [5474]	906	7180	922	7436	950	7806	964	8044	979	8283	994	8524	1008	8765	1023	9007	1038	9250	1053	9494	1068	9739	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
11800 [5568]	920	7546	948	7944	962	8187	977	8431	991	8676	1006	8921	1021	9168	1035	9416	1050	9664	1065	9913	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
12000 [5663]	946	8087	960	8334	975	8583	989	8832	1004	9082	1019	9333	1033	9585	1048	9838	1063	1092	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

NOTE: L-Drive left of bold line, M-Drive right of bold line; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	L						M					
Motor H.P. (w)	7.5 (5592.7)						10.0 (7457.0)					
Blower Sheave	BK130H						BK120H					
Motor Sheave	1 VP-71						1VP-75					
Turns Open	<b>1</b>	2	3	4	5	6	1	2	3	<b>4</b>	5	6
RPM	<b>919</b>	894	869	844	817	790	1067	1039	1012	<b>982</b>	953	925

- 1. Factory Sheave settings are shown in bold type.
- 2. Do not set motor sheave below minimum turns open shown.
- 3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
- 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors 25 Ton

CFM (L/s)	8000 (3775)	8400 (3964)	8800 (4153)	9200 (4341)	9600 (4530)	10000 (4719)	10400 (4908)	10800 (5096)	11200 (5285)	11600(5474)	12000(5663)
Total MBH	0.97	0.98	0.99	0.99	1.00	1.01	1.02	1.03	1.03	1.04	1.05
Sensible MBH	0.89	0.92	0.95	0.98	1.01	1.04	1.08	1.11	1.14	1.17	1.20
Power kW	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.02	1.02	1.02

NOTE: Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity. ( ) Designates Metric Conversions

Component Airflow Resistance 25 Ton

CFM (L/s)	8000 (3775)	8400 (3964)	8800 (4153)	9200 (4341)	9600 (4530)	10000 (4719)	10400 (4908)	10800 (5096)	11200 (5285)	11600 (5474)	12000(5663)
	Resistance Inches of Water (kPa)										
Wet Coil	0.07 (0.02)	0.09 (0.02)	0.10 (0.02)	0.12 (0.03)	0.13 (0.03)	0.15 (0.04)	0.16 (0.04)	0.18 (0.04)	0.19 (0.05)	0.21 (0.05)	0.22 (0.05)
Downflow	0.12 (0.03)	0.14 (0.03)	0.16 (0.04)	0.19 (0.05)	0.22 (0.05)	0.25 (0.06)	0.29 (0.07)	0.33 (0.08)	0.37 (0.09)	0.42 (0.10)	0.46 (0.11)
Downflow Economizer RA Damper Open	0.22 (0.05)	0.24 (0.06)	0.26 (0.06)	0.28 (0.07)	0.30 (0.07)	0.32 (0.08)	0.34 (0.08)	0.37 (0.09)	0.39 (0.10)	0.41 (0.10)	0.44 (0.11)
Horizontal Economizer RA Damper Open	0.09 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)	0.14 (0.03)	0.15 (0.04)	0.16 (0.04)	0.17 (0.04)	0.18 (0.04)	0.19 (0.05)

# Airflow Performance—with Reheat

**Table 63: Reheat Airflow Performance, 3 Ton — Belt-Drive**

Airflow CFM (L/s)	Capacity 3 Ton (10.55 kW) Packaged Air Conditioner (13 SEER)																													
	3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)																													
	0.1 (.02)		0.2 (.05)		0.3 (.07)		0.4 (.10)		0.5 (.12)		0.6 (.15)		0.7 (.17)		0.8 (.20)		0.9 (.22)		1.0 (.25)		1.1 (.27)		1.2 (.30)		1.3 (.32)		1.4 (.35)		1.5 (.37)	
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	
900 (425)	—	—	—	—	665	290	730	300	780	315	830	330	875	360	920	375	960	390	990	410	1040	445	1080	470	1140	510	1190	540	1235	590
1000 (472)	—	—	625	275	680	295	750	310	805	325	850	345	895	375	935	390	970	410	1015	435	1065	465	1100	500	1160	530	1210	560	1255	610
1100 (519)	—	—	640	300	710	315	780	325	830	340	875	365	915	390	955	405	990	430	1040	450	1080	485	1115	540	1180	540	1230	600	1270	630
1200 (566)	—	—	670	315	735	330	800	345	850	365	890	385	935	410	975	430	1010	450	1060	475	1100	520	1145	560	1200	600	1250	630	1285	660
1300 (614)	625	315	700	330	770	350	830	370	875	400	915	415	955	440	990	450	1040	495	1085	530	1125	565	1165	590	1220	645	1260	675	1305	710
1400 (661)	655	340	730	365	795	385	850	400	890	430	935	445	975	470	1010	500	1070	540	1110	575	1150	615	1195	645	1230	685	1280	725	1325	760
1500 (708)	685	380	755	390	825	415	870	435	915	450	955	480	990	505	1040	545	1090	590	1135	630	1180	660	1220	720	1255	740	1295	785	1350	820

Bold lines separate L, M and N drives respectively; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	L												M						N (Field-Supplied)								
Motor H.P. (w)	1/2 (373)												3/4 (559)						3/4 (559)								
Blower Sheave	6.9 Pitch Diameter												6.4 Pitch Diameter						6.4 Pitch Diameter								
Motor Sheave	Adjustable 2.4-3.4 Pitch Diameter												Adjustable 3.4-4.4 Pitch Diameter						Adjustable 4.0-5.0 Pitch Diameter								
Turns Open	0	<b>1</b>	2	3	4	5	6	0	1	2	3	<b>4</b>	5	6	0	1	2	3	<b>4</b>	5	6	RPM Range 1090-1365					
RPM	935	<b>875</b>	830	780	730	680	625	1295	1230	1185	1135	<b>1085</b>	1000	955	RPM Range 1090-1365												

- NOTES:  
 1. Performance shown with dry coil & standard 2" (50.8 mm) filters.  
 2. Standard CFM @ .075 lbs./cu. ft.  
 3. Motor efficiency = 80%  
 4. BHP =  $\frac{\text{Watts} \times \text{Motor Eff.}}{746}$   
 5. Add component resistance to duct static to determine E.S.P. as shown on charts

**Table 64: Reheat Airflow Performance, 4 Ton — Belt-Drive**

Airflow CFM (L/s)	Capacity 4 Ton (14.06 kWTS)—Packaged Air Conditioner (13 SEER)																													
	3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)																													
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)	
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	
1200 (566)	—	—	—	—	745	340	810	375	865	390	900	400	945	420	1000	440	1040	460	1075	490	1115	540	1170	580	1215	620	1260	650	1300	685
1300 (614)	—	—	695	330	770	365	835	395	880	415	920	435	975	455	1010	470	1060	490	1100	530	1140	570	1190	600	1235	640	1270	685	1315	740
1400 (661)	—	—	725	350	795	395	855	420	895	435	945	455	995	470	1030	500	1070	520	1115	560	1160	600	1205	640	1250	685	1290	745	1335	810
1500 (708)	690	360	750	390	820	425	875	450	920	465	970	480	1010	500	1055	560	1100	580	1140	630	1180	660	1230	700	1270	760	1315	815	1350	865
1600 (755)	720	390	780	430	850	460	895	480	945	500	990	530	1035	565	1075	590	1115	635	1160	680	1205	725	1250	770	1290	830	1335	890	1365	935
1700 (802)	750	430	810	465	870	485	920	500	970	530	1015	570	1055	600	1090	645	1140	695	1180	735	1225	790	1270	845	1315	910	1350	960	—	—
1800 (850)	780	475	840	515	895	540	945	555	990	600	1035	625	1080	660	1115	710	1155	740	1205	800	1250	860	1295	930	1340	995	1365	1030	—	—
1900 (897)	820	520	870	560	925	580	970	600	1015	640	1060	690	1115	750	1145	790	1185	835	1225	880	1275	900	1315	1010	1355	1060	—	—	—	—
2000 (944)	850	585	900	610	950	630	1000	665	1045	715	1090	760	1130	810	1170	865	1205	900	1255	965	1300	1050	1340	1100	1365	1140	—	—	—	—

Bold lines separate L, M and N drives respectively; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	L												M						N (Field-Supplied)					
Motor H.P. (w)	1/2 (373)												3/4 (559)						3/4 (559)					
Blower Sheave	6.9 Pitch Diameter												6.4 Pitch Diameter						6.4 Pitch Diameter					
Motor Sheave	Adjustable 2.8-3.8 Pitch Diameter												Adjustable 3.4-4.4 Pitch Diameter						Adjustable 4.0-5.0 Pitch Diameter					
Turns Open	0	<b>1</b>	2	3	4	5	6	0	1	<b>2</b>	3	4	5	6	RPM Range 1090-1365									
RPM	990	<b>945</b>	895	800	750	695	625	1270	1225	<b>1170</b>	1115	1065	1015	965	RPM Range 1090-1365									

- NOTES:  
 1. Performance shown with dry coil & standard 2" (50.8 mm) filters.  
 2. Standard CFM @ .075 lbs./cu. ft.  
 3. Motor efficiency = 80%  
 4. BHP =  $\frac{\text{Watts} \times \text{Motor Eff.}}{746}$   
 5. Add component resistance to duct static to determine E.S.P. as shown on charts

Table 65: Reheat Airflow Performance, 5 Ton — Belt-Drive

Airflow CFM (L/s)	Capacity 5 Ton (17.58 kW)—Package Air Conditioner (13 SEER)																													
	3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)																													
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)	
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	
1400 (661)	—	—	—	—	780	370	815	385	875	425	930	460	970	490	1030	540	1065	570	1105	595	1150	615	1195	645	1235	660	1300	705	1340	745
1500 (708)	—	—	—	—	795	405	840	415	895	440	945	500	995	540	1045	595	1080	615	1135	650	1165	675	1215	700	1255	735	1320	775	1355	805
1600 (755)	—	—	780	390	805	425	870	470	915	510	965	560	1015	600	1060	640	1105	680	1145	705	1180	730	1225	750	1275	790	1340	840	1365	880
1700 (802)	—	—	795	450	840	490	895	530	940	570	990	605	1035	640	1075	680	1120	725	1160	755	1200	790	1245	815	1300	855	1355	905	1375	940
1800 (850)	780	455	815	470	870	540	915	540	965	675	1010	660	1055	710	1100	760	1140	785	1175	810	1225	850	1260	880	1320	930	1365	985	1390	1020
1900 (897)	800	485	850	530	895	590	945	640	995	675	1035	720	1070	775	1120	810	1160	850	1200	890	1245	915	1290	960	1335	1000	1375	1050	1405	1100
2000 (944)	830	550	880	605	930	655	970	700	1015	730	1055	790	1105	830	1145	875	1180	910	1225	950	1260	980	1320	1035	1350	1075	1385	1120	—	—
2100 (991)	860	615	915	655	955	705	1005	760	1040	820	1090	870	1130	910	1170	950	1210	995	1250	1020	1290	1060	1335	1100	1370	1150	1400	1200	—	—
2200 (1038)	895	680	945	735	995	780	1030	830	1060	880	1120	940	1155	980	1195	1020	1240	1055	1275	1100	1320	1140	1360	1180	1385	1225	—	—	—	—
2300 (1085)	940	755	975	795	1015	830	1065	910	1100	965	1150	1025	1180	1050	1225	1095	1265	1125	1310	1175	1350	1230	1375	1260	1405	1320	—	—	—	—
2400 (1133)	970	825	1015	880	1040	925	1100	1005	1145	1055	1175	1085	1225	1140	1260	1175	1300	1210	1340	1255	1370	1315	1400	1375	—	—	—	—	—	—

NOTE: L-Drive left of bold line, M-Drive right of bold line; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	L							M						
Motor H.P. (w)	3/4 (559)							1 (746)						
Blower Sheave	6.9 Pitch Diameter							6.9 Pitch Diameter						
Motor Sheave	Adjustable 2.8-3.8 Pitch Diameter							Adjustable 4.0-5.0 Pitch Diameter						
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	<b>3</b>	4	5		
RPM	1007	963	<b>922</b>	880	833	785	1272	1242	1210	<b>1172</b>	1130	1089		

Factory sheave settings are shown in bold print.

Component Air Resistance

Component	Standard Indoor Airflow—CFM (L/s)			
	2200 (944)	2400 (1133)	2600 (1227)	2800 (1321)
	Resistance—Inches Water (kPa)			
Wet Coil	0.079	0.090	0.102	0.118
Downflow	0.061	0.079	0.089	0.100
R.S.I. Economizer R.A. Damper	0.09	0.10	0.11	0.12
				0.13
				0.15

NOTES:

- Performance shown with dry coil & standard 2" (50.8 mm) filters.
- Standard CFM @ .075 lbs./cu. ft.
- Motor efficiency = 80%
- BHP =  $\frac{\text{Watts} \times \text{Motor Eff.}}{746}$
- Add component resistance to duct static to determine E.S.P. as shown on charts

Table 66: Reheat Airflow Performance, A07D — Sideflow

AirFlow CFM [L/s]	Model MPS A07D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.50]		
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM
2400 [1133]	—	—	—	—	558	822	594	853	629	887	663	925	697	965	730	1009	763	1066	794	1106	826	1159	856	1216	886	1275	915	1338	943	1404	971	1474	998	1546	1025	1622	1051	1700	1076	1782	
2500 [1180]	—	—	—	—	568	848	604	881	638	917	672	956	705	998	738	1044	769	1092	801	1144	831	1199	861	1258	890	1319	919	1384	947	1452	974	1523	1001	1597	1027	1674	1052	1755	1077	1838	
2600 [1227]	—	—	543	846	579	877	613	912	647	950	681	991	713	1035	745	1082	777	1132	807	1186	837	1243	867	1303	895	1366	923	1433	951	1502	978	1575	1004	1651	1029	1730	1054	1812	1078	1898	
2700 [1274]	—	—	554	877	589	910	623	946	657	986	689	1029	722	1074	753	1124	784	1176	814	1231	844	1290	872	1352	901	1417	928	1485	955	1556	981	1631	1007	1708	1032	1789	1056	1873	1079	1961	
2800 [1321]	—	—	566	911	600	946	634	984	666	1026	699	1070	730	1118	761	1169	792	1223	821	1280	850	1340	878	1404	906	1470	933	1540	959	1613	985	1690	1010	1769	1034	1852	1058	1938	1081	2027	
2900 [1368]	543	916	577	949	611	989	644	1026	676	1069	708	1115	739	1164	770	1217	799	1273	828	1332	857	1394	885	1459	912	1528	938	1599	964	1674	989	1752	1014	1833	1037	1918	1061	2005	1083	2096	
3000 [1416]	555	955	589	990	622	1029	655	1070	687	1115	718	1163	748	1214	778	1269	807	1326	836	1387	864	1451	891	1518	918	1588	944	1662	969	1738	994	1818	1017	1901	1041	1987	1063	2077	1085	2169	
3100 [1463]	568	998	601	1035	634	1075	666	1118	697	1165	728	1215	758	1268	787	1324	816	1383	844	1445	871	1511	898	1580	924	1652	949	1727	974	1806	998	1887	1022	1972	1044	2060	1066	2151	1088	2245	
3200 [1510]	581	1044	614	1083	646	1125	677	1170	708	1218	738	1270	768	1324	796	1382	824	1443	852	1507	879	1575	905	1646	931	1719	955	1796	980	1876	1003	1960	1026	2046	1048	2136	1070	2229	1091	2325	
3300 [1557]	594	1093	626	1134	658	1178	689	1225	719	1275	749	1328	778	1384	806	1444	833	1507	860	1573	887	1642	912	1714	937	1790	962	1869	985	1951	1008	2036	1031	2124	1052	2216	1073	2310	1094	2408	
3400 [1604]	607	1146	639	1189	670	1234	701	1283	730	1335	759	1390	788	1448	815	1509	843	1574	869	1642	895	1713	920	1787	944	1864	968	1945	991	2028	1014	2115	1036	2205	1057	2298	1077	2395	1097	2494	
3500 [1652]	621	1203	652	1247	683	1294	713	1344	742	1398	770	1455	798	1515	825	1578	852	1644	878	1714	903	1786	928	1862	952	1941	975	2024	997	2109	1019	2198	1041	2290	1061	2385	1081	2483	1101	2584	
3600 [1699]	635	1262	666	1308	696	1357	725	1409	754	1465	782	1523	809	1585	836	1650	862	1718	887	1789	912	1864	936	1941	959	2022	982	2106	1004	2194	1025	2284	1046	2378	1066	2474	1086	2574	1104	2677	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F					B/G					C/H							
Motor H.P. [W]	2.0 [1491.4]					3.0 [2237.1]					3.0 [2237.1]							
Blower Sheave	AK84H					AK84H					AK84H							
Motor Sheave	1VL40*7/8					1VP50*7/8					1VP56*7/8							
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5
RPM	765	720	<b>676</b>	633	589	544	989	949	908	865	823	<b>780</b>	1108	1067	1029	987	946	905

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 7.5 Ton

Actual – CFM [L/s]	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1605]	3600 [1699]
Total MBH	0.96	0.97	0.98	0.99	1.00	1.01	1.02
Sensible MBH	0.89	0.92	0.95	0.97	1.00	1.03	1.06
Power kW	0.98	0.99	0.99	1.00	1.01	1.01	1.02

Component Air Resistance, IWC – 7.5 Ton

Component	2400 [1133]	2600 [1227]	2800 [1321]	3000 [1416]	3200 [1510]	3400 [1604]	3600 [1699]
	Resistance – Inches Water [kPa]						
Wet Coil	0.04 [0.01]	0.05 [0.01]	0.06 [0.01]	0.07 [0.02]	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]
Horizontal Economizer 100% R.A. Damper Open	0.01 [0.00]	0.02 [0.00]	0.04 [0.01]	0.05 [0.01]	0.07 [0.02]	0.09 [0.02]	0.11 [0.03]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 67: Reheat Airflow Performance, A08D — Sideflow

AirFlow CFM [L/s]	Model MPS A08D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2700 [1274]	—	—	—	—	577	932	611	969	644	1009	677	1052	710	1098	742	1147	774	1199	<b>806</b>	1254	837	1312	868	1373	898	1437	929	1505	959	1575	988	1648	1017	1725	1046	1804	1074	1886	1102	1972	
2800 [1321]	—	—	556	926	589	962	622	1000	655	1042	687	1087	719	1134	751	1185	783	1239	814	1295	844	1355	875	1418	905	1484	934	1553	963	1624	992	1699	1021	1777	1049	1858	1077	1942	1105	2029	
2900 [1368]	—	—	568	958	601	995	633	1036	666	1079	697	1125	729	1174	760	1227	791	1282	821	1340	851	1402	881	1466	911	1533	940	1604	968	1677	997	1754	1025	1834	1052	1916	1080	2002	1107	2090	
3000 [1416]	—	—	580	994	613	1033	645	1074	676	1119	708	1167	738	1218	769	1272	799	1329	829	1389	859	1452	888	1518	917	1587	945	1659	973	1734	1001	1812	1029	1894	1056	1978	1082	2065	1109	2155	
3100 [1463]	561	996	593	1033	624	1073	656	1117	687	1163	718	1213	748	1265	778	1321	808	1379	837	1441	866	1506	895	1573	923	1644	951	1718	978	1794	1006	1874	1033	1957	1059	2043	1085	2132	1111	2224	
3200 [1510]	574	1037	605	1076	636	1118	667	1163	698	1211	728	1262	758	1316	787	1373	816	1434	845	1497	873	1563	902	1632	929	1705	957	1780	984	1858	1010	1940	1037	2024	1063	2112	1088	2202	1113	2296	
3300 [1557]	587	1082	618	1122	648	1166	679	1212	709	1262	738	1315	767	1371	796	1430	825	1491	853	1556	881	1624	908	1695	936	1769	962	1846	989	1926	1015	2009	1041	2095	1066	2184	1091	2276	1116	2372	
3400 [1604]	600	1130	630	1172	660	1217	690	1266	720	1317	749	1371	777	1429	806	1489	834	1553	861	1619	888	1689	915	1761	942	1837	968	1916	994	1997	1020	2082	1045	2170	1070	2260	1094	2354	1118	2451	
3500 [1652]	613	1182	643	1226	672	1273	702	1323	730	1376	759	1432	787	1491	815	1553	842	1618	869	1686	896	1757	922	1831	948	1909	974	1989	999	2072	1024	2158	1049	2248	1073	2340	1097	2436	1121	2534	
3600 [1699]	626	1238	656	1283	685	1332	713	1383	741	1438	769	1495	797	1556	824	1620	851	1687	877	1756	904	1829	929	1905	955	1984	980	2066	1005	2151	1029	2238	1053	2329	1077	2423	1100	2520	1123	2621	
3700 [1746]	640	1297	668	1344	697	1394	725	1447	753	1504	780	1563	807	1625	833	1690	860	1759	886	1830	911	1905	937	1982	961	2063	986	2146	1010	2233	1034	2322	1057	2415	1081	2510	1103	2609	1126	2711	
3800 [1793]	653	1360	681	1409	709	1460	737	1515	764	1573	790	1634	817	1698	843	1765	869	1835	894	1908	919	1984	944	2063	968	2145	992	2230	1016	2318	1039	2410	1062	2504	1084	2601	1107	2701	1128	2805	
3900 [1840]	667	1426	694	1477	721	1530	748	1587	775	1646	801	1709	827	1774	852	1843	878	1914	902	1989	927	2067	951	2147	975	2231	998	2318	1021	2408	1044	2500	1066	2596	1088	2695	1110	2797	1131	2902	
4000 [1888]	680	1496	707	1548	734	1604	760	1662	786	1723	812	1787	837	1854	862	1924	887	1998	911	2074	935	2153	958	2235	981	2321	1004	2409	1027	2501	1049	2595	1071	2693	1092	2793	1113	2897	1134	3003	
4100 [1935]	694	1570	720	1624	746	1681	772	1740	797	1803	822	1869	847	1938	872	2009	896	2084	919	2162	943	2243	965	2327	988	2414	1010	2504	1032	2597	1054	2693	1075	2792	1096	2895	1116	3000	1137	3108	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F					B/G					C/H							
Motor H.P. [W]	2.0 [1491.4]					3.0 [2237.1]					3.0 [2237.1]							
Blower Sheave	AK79H					AK79H					AK79H							
Motor Sheave	1VL40*7/8					1VP50*7/8					1VP56*7/8							
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5
RPM	800	754	<b>707</b>	662	616	555	1048	1005	960	916	870	<b>827</b>	1170	1126	1085	1044	1000	956

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 8 Ton

Actual – CFM [L/s]	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
Total MBH	0.97	0.98	0.99	1.01	1.02	1.03	1.04	1.05
Sensible MBH	0.93	0.96	0.99	1.01	1.04	1.07	1.10	1.13
Power kW	0.99	0.99	1.00	1.00	1.01	1.02	1.02	1.03

Component Air Resistance, IWC – 8 Ton

Component	2700 [1274]	2900 [1368]	3100 [1463]	3300 [1557]	3500 [1652]	3700 [1746]	3900 [1840]	4100 [1935]
	Resistance – Inches Water [kPa]							
Wet Coil	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]	0.10 [0.03]	0.11 [0.03]	0.13 [0.03]	0.14 [0.04]	0.15 [0.04]
Horizontal Economizer 100% R.A. Damper Open	0.03 [0.01]	0.04 [0.01]	0.06 [0.01]	0.08 [0.02]	0.10 [0.02]	0.12 [0.03]	0.15 [0.04]	0.17 [0.04]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available

Table 68: Reheat Airflow Performance, A10D — Sideflow

AirFlow CFM [L/s]	Model MPS A10D																																								
	External Static Pressure—Inches of Water [kPa]																																								
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]		
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
3200 [1510]	575	1018	607	1057	637	1099	667	1143	697	1191	727	1240	756	1293	785	1346	814	1406	842	1466	870	1529	897	1595	924	1664	951	1735	978	1809	1004	1885	1030	1965	1055	2047	1080	2131	1105	2219	
3300 [1557]	588	1060	618	1101	649	1146	679	1192	708	1242	737	1294	766	1349	795	1406	823	1466	850	1529	878	1595	905	1663	932	1734	958	1808	984	1884	1010	1963	1035	2045	1060	2129	1085	2216	1109	2306	
3400 [1604]	600	1106	630	1150	660	1196	690	1245	719	1297	748	1352	776	1409	804	1469	832	1531	859	1597	886	1664	913	1735	939	1808	965	1884	990	1963	1016	2044	1040	2128	1065	2215	1089	2305	1113	2397	
3500 [1652]	613	1156	643	1202	672	1251	701	1302	730	1357	758	1413	786	1473	814	1535	841	1600	868	1668	894	1738	920	1811	946	1887	972	1965	997	2046	1022	2130	1046	2217	1070	2306	1094	2397	1117	2492	
3600 [1699]	626	1210	655	1258	684	1310	713	1364	741	1420	769	1479	796	1541	823	1606	850	1673	877	1743	903	1816	929	1892	954	1970	979	2050	1004	2134	1028	2220	1052	2309	1076	2400	1099	2494	1122	2591	
3700 [1746]	639	1268	668	1319	696	1373	724	1429	752	1488	779	1550	806	1614	833	1681	860	1751	886	1823	911	1898	937	1976	962	2056	986	2140	1011	2225	1035	2314	1058	2405	1081	2499	1104	2596	1127	2695	
3800 [1793]	652	1330	680	1384	708	1440	736	1498	763	1560	790	1624	817	1690	843	1760	869	1832	895	1907	920	1984	945	2064	970	2147	994	2233	1018	2321	1041	2412	1064	2505	1087	2602	1110	2701	1132	2802	
3900 [1840]	665	1397	693	1452	721	1511	748	1572	775	1636	801	1702	828	1771	854	1843	879	1917	904	1995	929	2075	954	2157	978	2242	1001	2330	1025	2421	1048	2514	1071	2610	1093	2709	1115	2810	1137	2914	
4000 [1888]	678	1467	706	1525	733	1586	760	1650	787	1716	813	1785	839	1856	864	1930	889	2007	914	2087	938	2169	962	2254	986	2341	1009	2432	1032	2525	1055	2620	1077	2719	1099	2820	1121	2923	1142	3030	
4100 [1935]	692	1542	719	1602	746	1666	772	1731	798	1800	824	1871	850	1945	875	2022	899	2101	923	2183	947	2267	971	2355	994	2445	1017	2537	1040	2633	1062	2731	1084	2831	1105	2935	1126	3041	1147	3150	
4200 [1982]	706	1621	732	1684	759	1749	785	1817	810	1888	836	1962	861	2038	885	2117	909	2199	933	2283	957	2370	980	2460	1003	2552	1025	2647	1047	2745	1069	2845	1091	2948	1112	3054	1132	3163	1153	3274	
4300 [2029]	720	1704	746	1769	772	1837	797	1907	823	1981	847	2057	872	2135	896	2217	920	2301	943	2387	966	2477	989	2569	1012	2664	1034	2761	1055	2861	1077	2964	1098	3069	1118	3178	1139	3288	1158	3402	
4400 [2076]	734	1791	760	1858	785	1928	810	2001	835	2077	859	2155	883	2237	907	2320	931	2407	954	2496	976	2587	999	2682	1020	2779	1042	2879	1063	2981	1084	3087	1105	3195	1125	3305	1145	3418	—	—	
4500 [2123]	748	1882	773	1952	798	2024	823	2100	847	2178	871	2259	895	2342	918	2428	941	2517	964	2608	986	2702	1008	2799	1030	2899	1051	3001	1071	3106	1092	3214	1112	3324	1132	3437	1151	3552	—	—	
4600 [2171]	762	1977	787	2049	812	2124	836	2202	860	2283	884	2366	907	2451	930	2540	952	2631	974	2725	996	2822	1018	2921	1039	3023	1059	3127	1080	3235	1100	3345	1120	3457	1139	3573	1158	3691	—	—	
4700 [2218]	777	2076	801	2151	826	2228	849	2309	873	2391	896	2477	919	2565	941	2656	963	2750	985	2846	1006	2945	1027	3046	1048	3151	1068	3258	1088	3367	1108	3480	1127	3595	1146	3712	—	—	—	—	
4800 [2265]	792	2180	816	2257	840	2337	863	2419	886	2504	909	2592	931	2683	953	2776	975	2872	996	2971	1017	3072	1037	3176	1058	3283	1077	3392	1097	3504	1116	3619	1135	3736	1153	3856	—	—	—	—	

NOTE: A/F-Drive left of 1st bold line, B/G-Drive in middle of bold lines, C/H-Drive right of 2nd bold line.

Drive Package	A/F										B/G					C/H				
Motor H.P. [W]	2.0 [1491.4]										3.0 [2237.1]					3.0 [2237.1]				
Blower Sheave	AK79H										AK79H					AK79H				
Motor Sheave	1VL40*7/8										1VP50*7/8					1VP56*7/8				
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>	0	1	2	3	4	5		
RPM	798	753	<b>707</b>	663	616	556	1041	998	955	912	867	<b>824</b>	1155	1119	1078	1037	994	951		

NOTES:

1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum or maximum turns open shown.
3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 10 Ton

Actual – CFM [L/s]	3200 [1510]	3400 [1604]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]
Total MBH	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.04	1.05
Sensible MBH	0.93	0.96	0.98	1.01	1.03	1.06	1.08	1.11	1.13
Power kW	0.99	0.99	1.00	1.00	1.01	1.01	1.01	1.02	1.02

Component Air Resistance, IWC – 10 Ton

Component	3200 [1510]	3400 [1604]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]
	Resistance – Inches Water [kPa]								
Wet Coil	0.10 [0.02]	0.11 [0.03]	0.12 [0.03]	0.13 [0.03]	0.15 [0.04]	0.16 [0.04]	0.18 [0.04]	0.19 [0.05]	0.21 [0.05]
Horizontal Economizer 100% R.A. Damper Open	0.07 [0.02]	0.09 [0.02]	0.11 [0.03]	0.13 [0.03]	0.16 [0.04]	0.19 [0.05]	0.21 [0.05]	0.24 [0.06]	0.28 [0.07]

NOTES:

1. Multiply correction factor times gross performance data.
2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 69: Reheat Airflow Performance, A12D — Sideflow

AirFlow CFM [L/s]	Model MPS A12D																																												
	External Static Pressure—Inches of Water [kPa]																																												
	0.1 [0.2]		0.2 [0.5]		0.3 [0.7]		0.4 [1.0]		0.5 [1.2]		0.6 [1.5]		0.7 [1.7]		0.8 [2.0]		0.9 [2.2]		1.0 [2.5]		1.1 [2.7]		1.2 [3.0]		1.3 [3.2]		1.4 [3.5]		1.5 [3.7]		1.6 [4.0]		1.7 [4.2]		1.8 [4.5]		1.9 [4.7]		2.0 [5.0]						
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W			
4000 [1888]	—	—	791	1757	819	1824	846	1892	872	1961	897	2031	922	2101	946	2173	970	2245	993	2318	1015	2392	1036	2467	1057	2542	1077	2619	1096	2696	1115	2774	1133	2853	1150	2933	1167	3014	1183	3095					
4100 [1935]	782	1773	809	1841	836	1911	863	1982	888	2053	913	2125	937	2198	961	2272	984	2346	1006	2422	1027	2498	1048	2576	1068	2654	1088	2733	1106	2812	1124	2893	1142	2975	1158	3057	1174	3140	1189	3224					
4200 [1982]	801	1860	828	1932	854	2004	880	2077	905	2150	929	2225	952	2300	975	2377	997	2454	1019	2532	1040	2611	1060	2691	1079	2771	1098	2853	1116	2935	1133	3018	1150	3102	1166	3187	1181	3272	1196	3359					
4300 [2029]	819	1954	845	2028	871	2102	896	2177	920	2254	944	2331	967	2409	989	2488	1011	2567	1032	2648	1052	2729	1071	2811	1090	2894	1108	2978	1125	3063	1142	3149	1158	3235	1174	3323	1188	3411	1202	3500					
4400 [2076]	837	2053	863	2129	888	2207	912	2284	936	2363	959	2443	981	2523	1003	2605	1024	2687	1044	2770	1064	2854	1082	2938	1101	3024	1118	3110	1135	3197	1151	3286	1166	3375	1181	3464	1195	3555	1208	3646					
4500 [2123]	855	2159	880	2237	905	2317	929	2397	952	2479	974	2561	996	2644	1016	2727	1037	2812	1056	2897	1075	2984	1093	3071	1111	3159	1128	3248	1144	3338	1159	3428	1174	3520	1188	3612	1201	3705	1214	3799					
4600 [2171]	873	2270	898	2351	921	2433	944	2516	967	2600	988	2684	1009	2770	1030	2856	1049	2943	1068	3031	1086	3120	1104	3210	1121	3300	1137	3392	1152	3484	1167	3577	1181	3671	1195	3766	1207	3861	1219	3958					
4700 [2218]	891	2387	914	2471	938	2556	960	2641	982	2727	1003	2814	1023	2902	1043	2991	1062	3080	1080	3171	1097	3262	1114	3354	1130	3447	1146	3541	1161	3636	1175	3732	1188	3828	1201	3925	1213	4023	—	—					
4800 [2265]	908	2511	931	2597	954	2684	975	2772	996	2860	1017	2950	1036	3040	1055	3132	1074	3224	1091	3317	1108	3410	1124	3505	1140	3601	1155	3697	1169	3794	1182	3892	1195	3991	1207	4091	1219	4191	—	—					
4900 [2312]	925	2640	947	2729	969	2818	990	2908	1011	3000	1031	3092	1050	3184	1068	3278	1086	3373	1102	3468	1119	3565	1134	3662	1149	3760	1163	3859	1177	3958	1190	4059	1202	4160	1213	4262	—	—	—	—					
5000 [2359]	942	2775	964	2866	985	2958	1005	3051	1025	3145	1044	3239	1062	3335	1080	3431	1097	3528	1113	3626	1129	3725	1144	3824	1158	3925	1172	4026	1185	4128	1197	4231	1208	4335	1219	4440	—	—	—	—					
5100 [2407]	958	2916	979	3010	1000	3104	1020	3200	1039	3296	1057	3393	1075	3491	1092	3589	1108	3689	1124	3789	1139	3891	1153	3993	1167	4096	1180	4200	1192	4304	1204	4410	1214	4516	—	—	—	—	—	—					
5200 [2454]	975	3063	995	3160	1015	3256	1034	3354	1053	3453	1070	3552	1087	3653	1104	3754	1120	3856	1135	3959	1149	4063	1162	4167	1175	4273	1188	4379	1199	4486	1210	4594	1220	4703	—	—	—	—	—	—					
5300 [2501]	991	3217	1010	3315	1030	3415	1048	3515	1066	3616	1083	3718	1100	3821	1115	3924	1130	4029	1145	4134	1158	4241	1171	4348	1184	4456	1195	4564	1206	4674	1216	4785	—	—	—	—	—	—	—	—					
5400 [2548]	1006	3376	1026	3477	1044	3579	1062	3681	1079	3785	1096	3889	1111	3995	1126	4101	1141	4208	1155	4316	1168	4425	1180	4534	1192	4645	1203	4756	1213	4868	—	—	—	—	—	—	—	—	—	—	—				
5500 [2595]	1022	3541	1040	3644	1058	3749	1075	3854	1092	3960	1108	4067	1123	4175	1137	4283	1151	4393	1164	4503	1177	4614	1188	4726	1199	4839	1210	4953	1219	5068	—	—	—	—	—	—	—	—	—	—	—				
5600 [2643]	1037	3712	1055	3818	1072	3924	1089	4032	1105	4141	1120	4250	1134	4361	1148	4472	1161	4584	1174	4697	1185	4810	1196	4925	1207	5040	1216	5156	—	—	—	—	—	—	—	—	—	—	—	—	—				
5700 [2690]	1052	3888	1069	3997	1086	4106	1102	4217	1117	4328	1132	4440	1145	4552	1159	4666	1171	4780	1183	4896	1194	5012	1204	5129	1214	5247	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
5800 [2737]	1067	4071	1083	4182	1099	4294	1115	4407	1129	4520	1143	4635	1156	4750	1169	4866	1181	4983	1192	5101	1202	5220	1212	5339	1221	5460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5900 [2784]	1081	4260	1097	4374	1113	4488	1127	4603	1141	4719	1154	4836	1167	4954	1179	5073	1190	5192	1200	5312	1210	5433	1219	5555	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6000 [2831]	1095	4455	1111	4571	1126	4688	1139	4805	1153	4924	1165	5043	1177	5164	1188	5285	1199	5407	1209	5529	1218	5653	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: A/F-Drive left of the bold line, B/G-Drive right of bold lines.

Drive Package	A/F						B/G					
Motor H.P. [W]	3.0 [2237.1]						5.0 [3728.5]					
Blower Sheave	AK71H						AK79H					
Motor Sheave	1VL44*7/8						1VP60*1x1/8					
Turns Open	0	1	<b>2</b>	3	4	5	0	1	2	3	4	<b>5</b>
RPM	1002	955	<b>909</b>	862	813	765	1208	1171	1127	1084	1038	<b>995</b>

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum or maximum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
  4. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors – 7.5 Ton [26.4 kW]

Actual – CFM [L/s]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
Total MBH	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11
Sensible MBH	1.03	1.06	1.08	1.11	1.13	1.16	1.18	1.21	1.23	1.26	1.28
Power kW	1.01	1.01	1.01	1.02	1.02	1.03	1.03	1.03	1.04	1.04	1.05

Component Air Resistance, IWC – 7.5 TON [26.4 kW]

Component	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	6000 [2831]
	Resistance – Inches Water [kPa]										
Wet Coil	0.15 [0.04]	0.17 [0.04]	0.18 [0.05]	0.20 [0.05]	0.21 [0.05]	0.23 [0.06]	0.25 [0.06]	0.27 [0.07]	0.29 [0.07]	0.31 [0.08]	0.33 [0.08]
Horizontal Economizer 100% R.A. Damper Open	0.16 [0.04]	0.19 [0.05]	0.21 [0.05]	0.24 [0.06]	0.28 [0.07]	0.31 [0.08]	0.35 [0.09]	0.38 [0.09]	0.42 [0.10]	0.46 [0.11]	0.51 [0.13]

- NOTES:
1. Multiply correction factor times gross performance data.
  2. Resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

NOTE: Add component resistance to duct resistance to determine total external static pressure.

DNA = Data not Available.

Table 70: Reheat Airflow Performance, 15 Ton — 60 Hz — Sideflow

Airflow CFM (L/s)	Capacity 15 Tons (52.7 kW)																																										
	External Static Pressure—Inches of Water (kPa)																																										
	0.1 (.02)		0.2 (.05)		0.3 (.07)		0.4 (.10)		0.5 (.12)		0.6 (.15)		0.7 (.17)		0.8 (.20)		0.9 (.22)		1.0 (.25)		1.1 (.27)		1.2 (.30)		1.3 (.32)		1.4 (.35)		1.5 (.37)		1.6 (.40)		1.7 (.42)		1.8 (.45)		1.9 (.47)		2.0 (.50)				
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS
4800 (2265)	—	—	—	—	—	—	—	—	—	—	565	1521	591	1621	616	1723	640	1827	663	1934	686	2044	708	2156	729	2270	750	2387	770	2507	789	2629	808	2753	825	2880	843	3009	859	3141			
5000 (2359)	—	—	—	—	—	—	—	—	—	—	574	1587	599	1692	624	1799	648	1909	671	2021	693	2136	715	2253	736	2372	757	2494	777	2619	796	2746	814	2875	832	3007	849	3142	865	3279			
5200 (2454)	—	—	—	—	—	—	—	—	—	—	557	1553	583	1661	608	1771	632	1883	656	1998	679	2115	701	2235	723	2357	744	2482	764	2609	784	2739	802	2871	821	3006	838	3143	855	3283	871	3425	
5400 (2548)	—	—	—	—	—	—	—	—	—	—	566	1630	592	1742	617	1857	641	1975	664	2095	687	2218	709	2343	731	2470	751	2600	771	2732	791	2867	809	3005	827	3144	845	3287	861	3431	877	3579	
5600 (2643)	—	—	—	—	—	—	—	—	—	—	576	1714	601	1832	625	1952	649	2075	673	2200	695	2328	717	2458	738	2591	759	2726	779	2863	798	3003	816	3146	834	3291	851	3438	868	3588	884	3740	
5800 (2737)	—	—	—	—	—	—	559	1686	585	1807	610	1930	634	2055	658	2183	681	2313	703	2446	725	2582	746	2719	766	2860	786	3002	805	3148	823	3295	841	3445	858	3598	874	3753	890	3910			
6000 (2831)	—	—	—	—	—	—	569	1781	594	1907	619	2035	643	2166	667	2299	689	2435	712	2573	733	2713	754	2856	774	3001	794	3149	812	3300	830	3452	848	3608	865	3765	881	3926	896	4088			
6200 (2926)	—	—	—	—	—	—	578	1885	603	2016	628	2149	652	2285	675	2423	698	2564	720	2707	741	2852	762	3001	782	3151	801	3304	820	3460	838	3618	855	3778	871	3941	887	4106	902	4274			
6400 (3020)	—	—	—	—	562	1862	588	1996	613	2132	637	2270	661	2411	684	2555	707	2701	728	2849	749	3000	770	3153	790	3309	809	3467	827	3628	845	3791	862	3956	878	4124	894	4295	909	4468			
6600 (3114)	—	—	—	—	572	1976	597	2115	622	2256	647	2400	670	2546	693	2695	715	2846	737	2999	758	3155	778	3313	797	3474	816	3638	835	3804	852	3972	869	4143	885	4316	901	4491	915	4670			
6800 (3209)	—	—	555	1957	582	2099	607	2242	632	2389	656	2537	679	2689	702	2842	724	2999	745	3157	766	3318	786	3482	805	3648	824	3816	842	3987	859	4161	876	4337	892	4515	907	4696	—	—			
7000 (3303)	—	—	566	2082	592	2228	617	2378	641	2529	665	2683	688	2839	711	2998	733	3160	754	3323	774	3490	794	3658	813	3830	832	4003	850	4179	867	4358	883	4539	899	4722	914	4908	—	—			
7200 (3398)	—	—	576	2215	602	2366	627	2521	651	2677	675	2836	698	2998	720	3162	742	3328	763	3497	783	3669	803	3843	821	4019	840	4198	857	4379	874	4563	890	4749	906	4938	921	5129	—	—			

NOTE: R-Drive left of bold line, S-Drive right of bold line; WTS = Watts; ( ) Designates Metric Conversions

Drive Package	R						S					
Motor H.P. (W)	3.0 (2237.1)						5.0 (3728.54)					
Blower Sheave	BK105H						BK105H					
Motor Sheave	1VP-44						1VP-56					
Turns Open	<b>1</b>	2	3	4	5	6	1	2	3	<b>4</b>	5	6
RPM	<b>716</b>	689	655	624	593	560	920	888	860	<b>826</b>	795	761

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
  4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors—15 Ton

Actual—CFM (L/s)	4800 (2265)	5000 (2360)	5200 (2454)	5400 (2549)	5600 (2643)	5800 (2737)	6000 (2832)	6200 (2926)	6400 (3020)	6600 (3115)	6800 (3209)	7000 (3304)	7200 (3398)
Total MBTUH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.01	1.02	1.02	1.03	1.03	1.04
Sensible MBTUH	0.87	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1.11	1.14	1.16
Power kW	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.02	1.02

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

Reheat Unit Component Air Resistance—15 Ton

CFM (L/s)	4800 (2265)	5000 (2360)	5200 (2454)	5400 (2549)	5600 (2643)	5800 (2737)	6000 (2832)	6200 (2926)	6400 (3020)	6600 (3115)	6800 (3209)	7000 (3304)	7200 (3398)
	Resistance — Inches of Water (kPa)												
Wet Coil	0.03 (0.01)	0.04 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)
Downflow	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.08 (0.02)
Downflow Economizer RA Damper Open	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)	0.13 (0.03)	0.14 (0.03)	0.15 (0.04)	0.16 (0.04)	0.16 (0.04)	0.17 (0.04)	0.18 (0.04)
Horizontal Economizer RA Damper Open	0.00 (0.00)	0.01 (0.00)	0.01 (0.00)	0.02 (0.00)	0.02 (0.00)	0.03 (0.01)	0.03 (0.01)	0.04 (0.01)	0.04 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)
Concentric Grill RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	0.21 (0.05)	0.25 (0.06)	0.28 (0.07)	0.32 (0.08)	0.35 (0.09)	0.39 (0.10)	0.43 (0.11)	0.46 (0.11)	0.50 (0.12)	0.54 (0.13)	0.57 (0.14)	0.61 (0.15)	0.64 (0.16)

NOTE: Add component resistance to duct resistance to determine total external static pressure.





# Airflow Performance—High Efficiency

Table 73: High Efficiency Airflow Performance, 3 Ton — Belt-Drive

Airflow CFM (L/s)	High Efficiency 3 Ton (10.55 & 12.31 kW) Packaged Air Conditioner																													
	3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)																													
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)	
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	
900 (425)	—	—	—	—	665	290	730	300	780	315	830	330	875	360	920	375	960	390	990	410	1040	445	1080	470	1140	510	1190	540	1235	590
1000 (472)	—	—	625	275	680	295	750	310	805	325	850	345	895	375	935	390	970	410	1015	435	1065	465	1100	500	1160	530	1210	560	1255	610
1100 (519)	—	—	640	300	710	315	780	325	830	340	875	365	915	390	955	405	990	430	1040	450	1080	485	1115	540	1180	540	1230	600	1270	630
1200 (566)	—	—	670	315	735	330	800	345	850	365	890	385	935	410	975	430	1010	450	1060	475	1100	520	1145	560	1200	600	1250	630	1285	660
1300 (614)	625	315	700	330	770	350	830	370	875	400	915	415	955	440	990	450	1040	495	1085	530	1125	565	1165	590	1220	645	1260	675	1305	710
1400 (661)	655	340	730	365	795	385	850	400	890	430	935	445	975	470	1010	500	1070	540	1110	575	1150	615	1195	645	1230	685	1280	725	1325	760
1500 (708)	685	380	755	390	825	415	870	435	915	450	955	480	990	505	1040	545	1090	590	1135	630	1180	660	1220	720	1255	740	1295	785	1350	820
1600 (755)	730	420	790	435	850	455	890	490	935	505	970	525	1005	550	1075	605	1110	640	1160	680	1200	730	1245	780	1280	800	1325	840	1365	885
1700 (802)	755	465	825	475	875	505	915	535	955	550	985	570	1040	630	1100	685	1135	710	1185	750	1225	800	1265	830	1295	875	1350	910	—	—
1800 (850)	790	500	850	530	890	550	935	570	975	600	1020	650	1080	690	1125	740	1165	770	1210	830	1245	870	1290	910	1310	930	—	—	—	—

Bold lines separate L, M and N drives respectively; WTS = Watts; ( ) Designates Metric Conversion

Drive Package	L												M						N (Field-Supplied)					
Motor H.P. (w)	1/2 (373)												3/4 (559)						3/4 (559)					
Blower Sheave	6.9 Pitch Diameter												6.4 Pitch Diameter						6.4 Pitch Diameter					
Motor Sheave	Adjustable 2.4-3.4 Pitch Diameter												Adjustable 3.4-4.4 Pitch Diameter						Adjustable 4.0-5.0 Pitch Diameter					
Turns Open	0	<b>1</b>	2	3	4	5	6	0	1	2	3	<b>4</b>	5	6										
RPM	935	<b>875</b>	830	780	730	680	625	1295	1230	1185	1135	<b>1085</b>	1000	955	RPM Range 1090-1365									

**NOTES:**

- Factory sheave settings are shown in bold print.
- 1. Performance shown with dry coil & standard 2" (50.8 mm) filters.
- 2. Standard CFM @ .075 lbs./cu. ft.
- 3. Motor efficiency = 80%
- 4.  $BHP = \frac{Watts \times Motor\ Eff.}{746}$
- 5. Add component resistance to duct static to determine E.S.P. as shown on charts

Table 74: High Efficiency Airflow Performance, 4 Ton — Belt-Drive

Airflow CFM (L/s)	High Efficiency 4 Ton (14.06 kW)—Packaged Air Conditioner																													
	3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)																													
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)	
RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	
1200 (566)	—	—	—	—	745	340	810	375	865	390	900	400	945	420	1000	440	1040	460	1075	490	1115	540	1170	580	1215	620	1260	650	1300	685
1300 (614)	—	—	695	330	770	365	835	395	880	415	920	435	975	455	1010	470	1060	490	1100	530	1140	570	1190	600	1235	640	1270	685	1315	740
1400 (661)	—	—	725	350	795	395	855	420	895	435	945	455	995	470	1030	500	1070	520	1115	560	1160	600	1205	640	1250	685	1290	745	1335	810
1500 (708)	690	360	750	390	820	425	875	450	920	465	970	480	1010	500	1055	560	1100	580	1140	630	1180	660	1230	700	1270	760	1315	815	1350	865
1600 (755)	720	390	780	430	850	460	895	480	945	500	990	530	1035	565	1075	590	1115	635	1160	680	1205	725	1250	770	1290	830	1335	890	1365	935
1700 (802)	750	430	810	465	870	485	920	500	970	530	1015	570	1055	600	1090	645	1140	695	1180	735	1225	790	1270	845	1315	910	1350	960	—	—
1800 (850)	780	475	840	515	895	540	945	555	990	600	1035	625	1080	660	1115	710	1155	740	1205	800	1250	860	1295	930	1340	995	1365	1030	—	—
1900 (897)	820	520	870	560	925	580	970	600	1015	640	1060	690	1115	750	1145	790	1185	835	1225	880	1275	900	1315	1010	1355	1060	—	—	—	—
2000 (944)	850	585	900	610	950	630	1000	665	1045	715	1090	760	1130	810	1170	865	1205	900	1255	965	1300	1050	1340	1100	1365	1140	—	—	—	—

Bold lines separate L, M and N drives respectively; WTS = Watts; ( ) Designates Metric Conversion

Drive Package	L												M						N (Field-Supplied)					
Motor H.P. (w)	1/2 (373)												3/4 (559)						3/4 (559)					
Blower Sheave	6.9 Pitch Diameter												6.4 Pitch Diameter						6.4 Pitch Diameter					
Motor Sheave	Adjustable 2.8-3.8 Pitch Diameter												Adjustable 3.4-4.4 Pitch Diameter						Adjustable 4.0-5.0 Pitch Diameter					
Turns Open	0	<b>1</b>	2	3	4	5	6	0	1	<b>2</b>	3	4	5	6										
RPM	990	<b>945</b>	895	840	790	740	695	1270	1225	<b>1170</b>	1115	1065	1015	965	RPM Range 1090-1365									

**NOTES:**

- Factory sheave settings are shown in bold print.
- 1. Performance shown with dry coil & standard 2" (50.8 mm) filters.
- 2. Standard CFM @ .075 lbs./cu. ft.
- 3. Motor efficiency = 80%
- 4.  $BHP = \frac{Watts \times Motor\ Eff.}{746}$
- 5. Add component resistance to duct static to determine E.S.P. as shown on charts

**Table 75: High Efficiency Airflow Performance, 5 Ton — Direct-Drive**

		CFM Setting	High Efficiency 5 Ton (17.6 kW)—Package Air Conditioner															
			3 PH—208-230/460 Volt—External Static Pressure—Inches of Water (kPa)															
			0.1 (0.02)	0.2 (0.05)	0.3 (0.07)	0.4 (0.10)	0.5 (0.12)	0.6 (0.15)	0.7 (0.17)	0.8 (0.20)	0.9 (0.22)	1.0 (0.25)	1.1 (0.27)	1.2 (0.30)	1.3 (0.32)	1.4 (0.35)	1.5 (0.37)	
1st Stage Cooling	Factory Setting	1400	CFM	1393	1418	1443	1463	1470	1448	1456	1463	1415	1403	1376	1341	1289	1265	1229
			RPM	610	688	754	800	873	940	992	1026	1080	1130	1160	1186	1213	1254	1292
			Watts	215	266	314	350	409	466	515	550	599	653	683	710	742	791	835
	Optional	1600	CFM	1579	1599	1626	1642	1647	1642	1651	1648	1644	1633	1616	1570	1523	1499	1397
			RPM	676	734	793	850	903	952	1004	1054	1095	1139	1186	1225	1265	1297	1321
			Watts	302	349	404	454	508	560	614	670	717	772	836	885	942	988	989
2nd Stage Cooling/ Fan & Heating	Factory Setting	1800	CFM	1758	1784	1796	1801	1820	1825	1834	1826	1832	1830	1814	1817	1795	1682	1561
			RPM	722	782	836	874	932	971	1022	1065	1114	1150	1189	1231	1273	1319	1348
			Watts	392	451	508	547	615	664	728	786	854	908	968	1036	1106	1147	1127
	Optional	2000	CFM	2075	2087	2088	2085	2090	2101	2114	2106	2105	2101	2034	2001	1943	1855	1628
			RPM	798	843	897	936	981	1018	1057	1096	1136	1170	1203	1241	1272	1309	1349
			Watts	590	646	714	769	835	890	953	1014	1082	1137	1167	1193	1220	1241	1186
	Optional	2200	CFM	2222	2220	2239	2244	2261	2236	2216	2180	2146	2110	2051	2010	1958	1863	1636
			RPM	841	883	933	971	1008	1046	1075	1106	1141	1173	1207	1238	1273	1312	1351
			Watts	717	777	856	921	984	1037	1054	1083	1115	1143	1176	1201	1233	1250	1195

**Component Air Resistance**

Component	Standard Indoor Airflow—CFM (L/s)					
	1600 (755)	1800 (850)	2000 (944)	2200 (1038)	2400 (1133)	2600 (1227)
	Resistance—Inches Water (kPa)					
Wet Coil	0.070	0.085	0.100	0.120	0.120	0.125
Downflow	0.072	0.080	0.086	0.100	0.100	0.107
RSI Economizer RA Damper	0.08	0.09	0.10	0.12	0.12	0.13

**NOTES:**

- Performance shown with dry coil & standard 2" (50.8 mm) filters.
- Standard CFM @ .075 lbs./cu. ft.
- Motor efficiency = 80%
- $BHP = \frac{Watts \times Motor\ Eff.}{746}$
- Add component resistance to duct static to determine E.S.P. as shown on charts

Table 76: High Efficiency Airflow Performance, 15 Ton — Sideflow

Airflow CFM (L/s)	Capacity 15 Ton (52.8 kW) Voltage 208/230, 460 — 3 Phase																																															
	External Static Pressure—Inches of Water (kPa)																																															
	0.1 (0.02)		0.2 (0.05)		0.3 (0.07)		0.4 (0.10)		0.5 (0.12)		0.6 (0.15)		0.7 (0.17)		0.8 (0.20)		0.9 (0.22)		1.0 (0.25)		1.1 (0.27)		1.2 (0.30)		1.3 (0.32)		1.4 (0.35)		1.5 (0.37)		1.6 (0.40)		1.7 (0.42)		1.8 (0.45)		1.9 (0.47)		2.0 (0.50)									
	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS	RPM	WTS				
4800 (2265)	—	—	—	—	—	—	—	—	—	—	583	1393	608	1508	632	1621	656	1732	679	1841	701	1947	723	2052	744	2154	764	2254	785	2326	805	2430	825	2537	844	2647	863	2761	881	2878								
5000 (2359)	—	—	—	—	—	—	—	—	—	—	591	1476	616	1593	640	1707	663	1820	686	1930	708	2038	729	2145	750	2248	771	2350	791	2420	811	2528	830	2640	850	2755	868	2873	887	2995								
5200 (2454)	—	—	—	—	—	—	—	—	—	—	575	1442	600	1562	624	1681	648	1797	671	1911	693	2023	715	2133	736	2241	757	2346	777	2410	797	2520	817	2633	836	2749	855	2869	874	2992	892	3118						
5400 (2548)	—	—	—	—	—	—	—	—	—	—	583	1530	608	1652	632	1772	655	1890	678	2005	701	2119	722	2231	743	2340	764	2447	784	2512	804	2626	823	2744	842	2865	861	2989	879	3117	897	3248						
5600 (2643)	—	—	—	—	—	—	—	—	—	—	592	1621	616	1745	640	1866	663	1986	686	2103	708	2218	729	2331	750	2442	770	2551	791	2620	810	2739	830	2861	849	2987	867	3116	885	3248	903	3384						
5800 (2737)	—	—	—	—	—	—	—	—	—	—	576	1588	601	1715	625	1840	649	1964	672	2085	694	2204	716	2321	737	2436	757	2548	778	2614	798	2735	817	2858	836	2985	855	3116	873	3249	891	3386	909	3527				
6000 (2831)	—	—	—	—	—	—	—	—	—	—	585	1683	610	1813	634	1940	657	2065	680	2187	702	2308	724	2426	744	2543	765	2657	785	2731	805	2856	824	2984	843	3116	861	3251	879	3389	897	3531	914	3676				
6200 (2926)	—	—	—	—	—	—	—	—	—	—	570	1650	595	1783	619	1913	643	2042	666	2169	688	2293	710	2415	731	2535	752	2653	773	2728	792	2854	812	2984	831	3116	850	3253	868	3392	886	3535	903	3682	920	3832		
6400 (3020)	—	—	—	—	—	—	—	—	—	—	579	1750	604	1885	628	2017	652	2148	674	2276	697	2402	718	2526	739	2648	760	2767	780	2852	800	2983	819	3118	838	3255	856	3396	875	3541	892	3688	909	3839	926	3994		
6600 (3114)	—	—	—	—	—	—	—	—	—	—	589	1854	614	1991	637	2125	661	2257	683	2386	705	2514	727	2640	748	2763	768	2884	788	2984	808	3119	827	3258	845	3400	863	3546	881	3695	899	3847	916	4003	—	—		
6800 (3209)	—	—	—	—	—	—	—	—	—	—	574	1822	599	1961	623	2099	647	2235	670	2369	692	2500	714	2629	735	2756	756	2882	776	2984	796	3121	815	3262	834	3405	853	3552	871	3702	888	3856	905	4013	922	4173	—	—
7000 (3303)	—	—	—	—	—	—	—	—	—	—	584	1930	609	2072	633	2211	656	2349	679	2484	701	2617	723	2748	744	2877	764	3003	785	3124	804	3265	823	3410	842	3559	860	3710	878	3865	895	4024	912	4185	929	4350	—	—
7200 (3398)	570	1897	595	2042	619	2185	643	2327	666	2466	689	2602	711	2737	732	2870	753	3000	773	3127	793	3270	812	3416	831	3566	849	3719	868	3875	885	4035	902	4198	919	4364	—	—	—	—	—	—	—	—				

NOTE: L-Drive left of bold line, M-Drive right of bold line; WTS = Watts; ( ) Designates Metric Conversion

Drive Package	L, R						M, S					
Motor H.P. (W)	3.0 (2237.1)						5.0 (3728.5)					
Blower Sheave	BK105H						BK105H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	<b>1</b>	2	3	4	5	6	1	2	3	<b>4</b>	5	6
RPM	<b>733</b>	701	669	640	605	572	927	903	873	<b>840</b>	808	775

- NOTES:
1. Factory sheave settings are shown in bold type.
  2. Do not set motor sheave below minimum turns open shown.
  3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
  4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

Airflow Correction Factors—15 Ton High Efficiency (52.8 kW)

ACTUAL CFM (L/s)	4800 (2265)	5000 (2360)	5200 (2454)	5400 (2549)	5600 (2643)	5800 (2737)	6000 (2832)	6200 (2926)	6400 (3020)	6600 (3115)	6800 (3209)	7000 (3304)	7200 (3398)
TOTAL MBTUH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.01	1.02	1.02	1.03	1.03	1.04
SENSIBLE MBTUH	0.87	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1.11	1.14	1.16
POWER kW	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.02	1.02

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

Component Air Resistance—15 Ton High Efficiency (52.8 kW)

CFM (L/s)	4800 (2265)	5000 (2360)	5200 (2454)	5400 (2549)	5600 (2643)	5800 (2737)	6000 (2832)	6200 (2926)	6400 (3020)	6600 (3115)	6800 (3209)	7000 (3304)	7200 (3398)
Resistance — Inches of Water (kPa)													
Wet Coil	0.03 (0.01)	0.04 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)
Downflow	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.08 (0.02)	0.08 (0.02)
Downflow Economizer RA Damper Open	0.09 (0.02)	0.10 (0.02)	0.10 (0.02)	0.11 (0.03)	0.12 (0.03)	0.13 (0.03)	0.13 (0.03)	0.14 (0.03)	0.15 (0.04)	0.16 (0.04)	0.16 (0.04)	0.17 (0.04)	0.18 (0.04)
Horizontal Economizer RA Damper Open	0.00 (0.00)	0.01 (0.00)	0.01 (0.00)	0.02 (0.00)	0.02 (0.00)	0.03 (0.01)	0.03 (0.01)	0.04 (0.01)	0.04 (0.01)	0.05 (0.01)	0.05 (0.01)	0.06 (0.01)	0.06 (0.01)
Concentric Grill RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	0.21 (0.05)	0.25 (0.06)	0.28 (0.07)	0.32 (0.08)	0.35 (0.09)	0.39 (0.10)	0.43 (0.11)	0.46 (0.11)	0.50 (0.12)	0.54 (0.13)	0.57 (0.14)	0.61 (0.15)	0.64 (0.16)

















**Table 87: Auxiliary Heater Kits Characteristics and Application: 480V — 3 Phase**

Unit Model Number MPS-	Heater Kit Model No. RXJJ-	Heater kW @ 480V, 3 Phase	Heater Kit FLA	Unit Min. Ckt. Ampacity	Max. Fuse or Ckt. Bkr. Size (Ckt. Bkr. Must Be HACR Type for USA)	Single Point- Power Kit
A03C High Static Drive	NONE	—	—	10	15	—
	A10D	9.6	11.6	17	20	—
	A15D	14.4	17.4	24	25	—
	A20D	19.2	23.3	31	35	—
A04C High Static Drive	NONE	—	—	11	15	—
	A10D	9.6	11.6	17	20	—
	A15D	14.4	17.4	24	25	—
	A20D	19.2	23.3	32	35	—
A05C High Static Drive	NONE	—	—	13	20	—
	A10D	9.6	11.6	18	20	—
	A15D	14.4	17.4	25	25	—
	A20D	19.2	23.3	32	35	—
A07D Low Static Drive	NONE	—	—	21	30	RXJX-AD0605
	DD10DNV	9.6	11.5	21	30	RXJX-AD0605
	DD15DNV	14.4	17.3	27	30	RXJX-AD0605
	DD20DNV	19.2	23.1	34	35	RXJX-AD0605
	DD30DNV	28.8	34.6	49	50	RXJX-AD0605
	DD40DNV	38.4	46.2	63	70	RXJX-AD0605
A07D High Static Drive	NONE	—	—	24	35	RXJX-AD0605
	DD10DNV	9.6	11.5	24	35	RXJX-AD0605
	DD15DNV	14.4	17.3	34	35	RXJX-AD0605
	DD20DNV	19.2	23.1	45	45	RXJX-AD0605
	DD30DNV	28.8	34.6	57	60	RXJX-AD0605
	DD40DNV	38.4	46.2	68	70	RXJX-AD0605
A08D Low Static Drive	NONE	—	—	23	25	RXJX-AD0605
	DD10DNV	9.6	11.5	23	25	RXJX-AD0605
	DD15DNV	14.4	17.3	27	30	RXJX-AD0605
	DD20DNV	19.2	23.1	34	35	RXJX-AD0605
	DD30DNV	28.8	34.6	49	50	RXJX-AD0605
	DD40DNV	38.4	46.2	63	70	RXJX-AD0605
A08D High Static Drive	NONE	—	—	26	30	RXJX-AD0605
	DD10DNV	9.6	11.5	26	30	RXJX-AD0605
	DD15DNV	14.4	17.3	31	35	RXJX-AD0605
	DD20DNV	19.2	23.1	38	40	RXJX-AD0605
	DD30DNV	28.8	34.6	52	60	RXJX-AD0605
	DD40DNV	38.4	46.2	67	70	RXJX-AD0605
A10D Low Static Drive	NONE	—	—	25	30	RXJX-AD0605
	DD10DNV	9.6	11.5	25	30	RXJX-AD0605
	DD15DNV	14.4	17.3	27	30	RXJX-AD0605
	DD20DNV	19.2	23.1	34	35	RXJX-AD0605
	DD30DNV	28.8	34.6	49	50	RXJX-AD0605
	DD40DNV	38.4	46.2	63	70	RXJX-AD0605
A10D High Static Drive	NONE	—	—	28	35	RXJX-AD0605
	DD10DNV	9.6	11.5	28	35	RXJX-AD0605
	DD15DNV	14.4	17.3	31	35	RXJX-AD0605
	DD20DNV	19.2	23.1	38	40	RXJX-AD0605
	DD30DNV	28.8	34.6	52	60	RXJX-AD0605
	DD40DNV	38.4	46.2	67	70	RXJX-AD0605
A12D Low Static Drive	NONE	—	—	33	40	RXJX-AD0609
	DD10DNV	9.6	11.5	33	40	RXJX-AD0609
	DD15DNV	14.4	17.3	33	40	RXJX-AD0609
	DD20DNV	19.2	23.1	38	40	RXJX-AD0609
	DD30DNV	28.8	34.6	52	60	RXJX-AD0609
	DD40DNV	38.4	46.2	67	70	RXJX-AD0609

**NOTE:** When selecting a heater for the 7-12 ton D vintage units, you will not be able to operate the electric heat without the corresponding single point power kit.

Unit Model Number MPS-	Heater Kit Model No. RXJJ-	Heater kW @ 480V, 3 Phase	Heater Kit FLA	Unit Min. Ckt. Ampacity	Max. Fuse or Ckt. Bkr. Size (Ckt. Bkr. Must Be HACR Type for USA)	Single Point- Power Kit
A12D Medium Static Drive	NONE	—	—	36	45	RXJX-AD0609
	DD10DNV	9.6	11.5	36	45	RXJX-AD0609
	DD15DNV	14.4	17.3	36	45	RXJX-AD0609
	DD20DNV	19.2	23.1	42	45	RXJX-AD0609
	DD30DNV	28.8	34.6	56	60	RXJX-AD0609
	DD40DNV	38.4	46.2	71	80	RXJX-AD0609
015B Low Static Drive	NONE	—	—	38	45	—
	CE20D	19.2	23.1	38	45	—
	CE40D	38.4	46.2	64	70	—
	CE60D	57.6	69.3	93	100	—
	CE75D	72	86.6	114	125	—
015B High Static Drive	NONE	—	—	40	50	—
	CE20D	19.2	23.1	40	50	—
	CE40D	38.4	46.2	67	70	—
	CE60D	57.6	69.3	95	100	—
	CE75D	72	86.6	117	125	—
020B Low Static Drive	NONE	—	—	52	60	—
	CE20D	19.2	23.1	52	60	—
	CE40D	38.4	46.2	67	70	—
	CE60D	57.6	69.3	95	100	—
	CE75D	72	86.6	117	125	—
020B High Static Drive	NONE	—	—	56	70	—
	CE20D	19.2	23.1	56	70	—
	CE40D	38.4	46.2	70	70	—
	CE60D	57.6	69.3	99	100	—
	CE75D	72	86.6	121	125	—
025B Low Static Drive	NONE	—	—	60	70	—
	CE20D	19.2	23.1	60	70	—
	CE40D	38.4	46.2	70	70	—
	CE60D	57.6	69.3	99	100	—
	CE75D	72	86.6	121	125	—
025B High Static Drive	NONE	—	—	63	80	—
	CE20D	19.2	23.1	63	80	—
	CE40D	38.4	46.2	74	80	—
	CE60D	57.6	69.3	103	110	—
	CE75D	72	86.6	124	125	—

**NOTE:** When selecting a heater for the 7-12 ton D vintage units, you will not be able to operate the electric heat without the corresponding single point power kit.

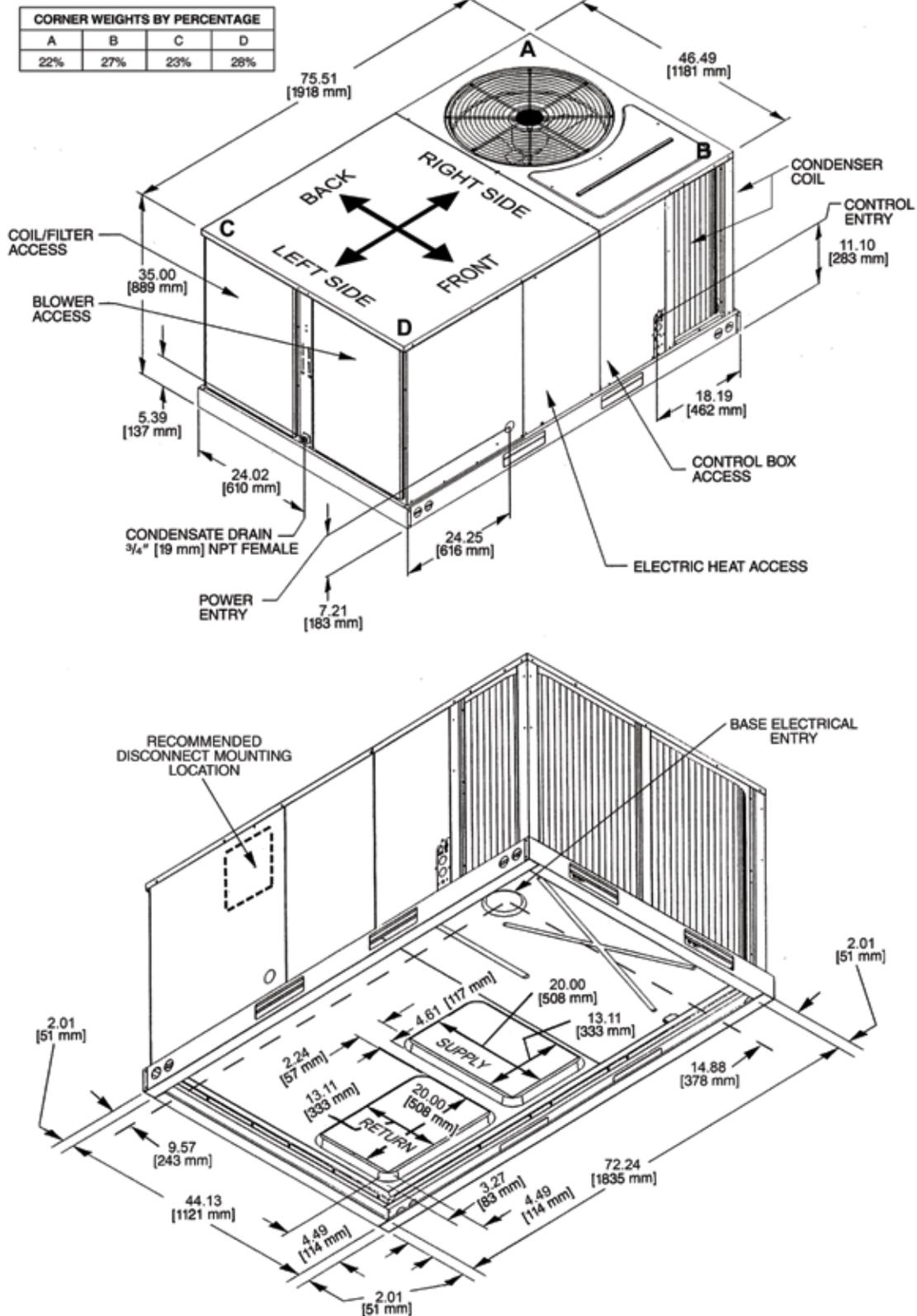
**Table 88: Auxiliary Heater Kits Characteristics and Application: High Efficiency — 480V — 60 Hz — 3 Phase**

Model	RXJJ Heater Kit Nominal kW	Rated Heater kW @ 480V	Heater Amp. @ 480V	Unit Min. Ckt. Ampacity @ 480V	MOP Min./Max @ 480V
MPSH03 Belt-Drive	A10D	9.6	11.6	17	20/20
	A15D	14.4	17.4	24	25/25
	A20D	19.2	23.3	31	35/35
MPSH04 Direct-Drive	A10D	9.6	11.6	18	20/20
	A15D	14.4	17.4	25	25/25
	A20D	19.2	23.3	31	35/35
MPSH05 Direct-Drive	A10D	9.6	11.6	21	25/25
	A15D	14.4	17.4	28	30/30
	A20D	19.2	23.3	35	35/35
MPSH15 Low Static Drive	CE20D	19.2	23.1	38	45/50
	CE40D	38.4	46.2	64	70/70
	CE60D	57.6	69.3	93	100/100
	CE75D	72	86.6	114	125/125
MPSH15 High Static Drive	CE20D	19.2	23.1	40	45/50
	CE40D	38.4	46.2	67	70/70
	CE60D	57.6	69.3	95	100/100
	CE75D	72	86.6	117	125/125
MPSH20 Low Static Drive	CE20D	19.2	23.1	49	60/60
	CE40D	38.4	46.2	67	70/70
	CE60D	57.6	69.3	95	100/100
	CE75D	72	86.6	117	125/125
MPSH20 High Static Drive	CE20D	19.2	23.1	52	60/60
	CE40D	38.4	46.2	70	70/70
	CE60D	57.6	69.3	99	100/100
	CE75D	72	86.6	121	125/125

# Unit Dimensions

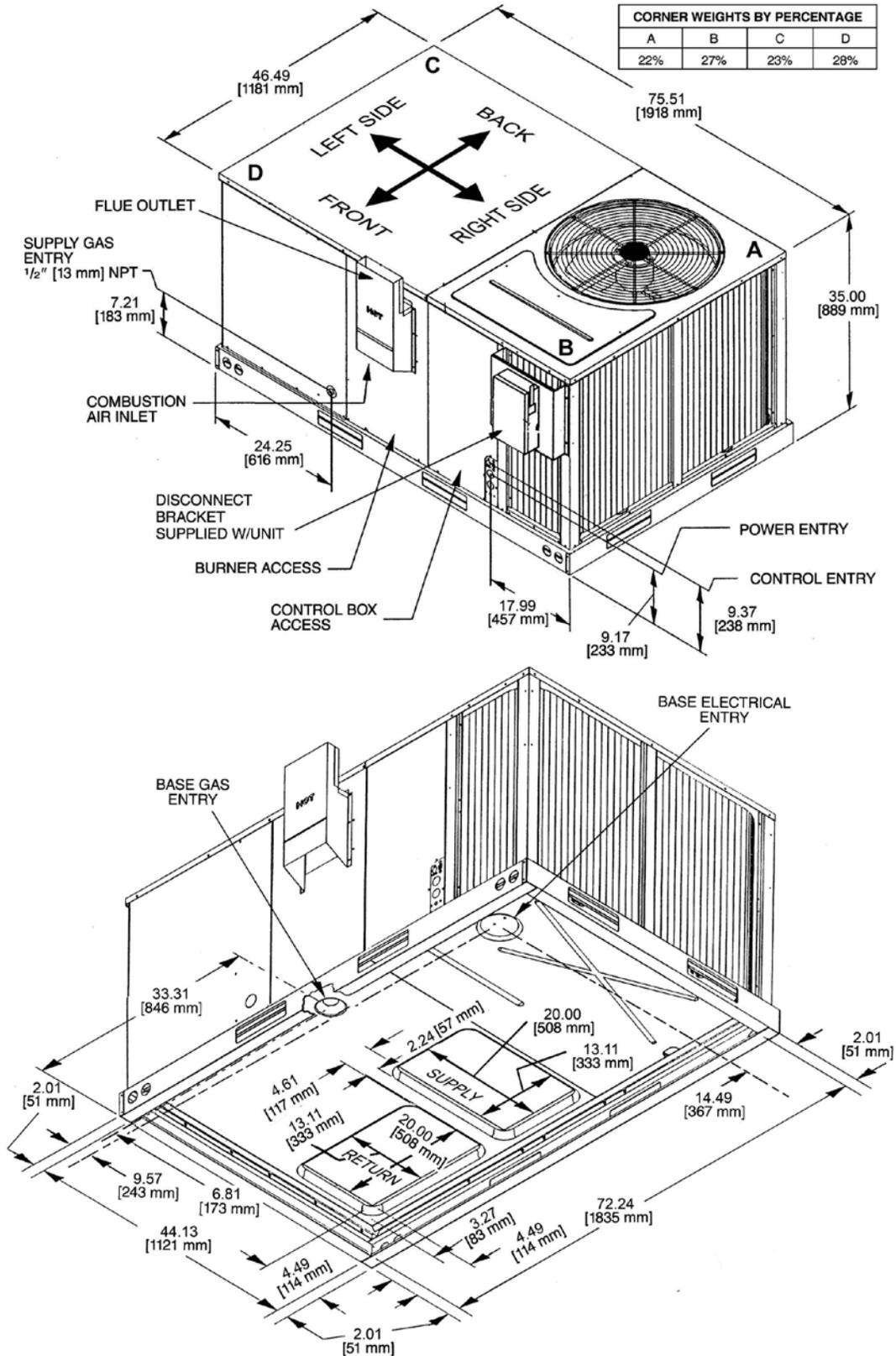
## 3–5 Ton Cooling Only Standard and High Efficiency

Figure 17: MPS A03B – A05B Dimensions (Cooling Only)



### 3–5 Ton Gas Heat Standard and High Efficiency

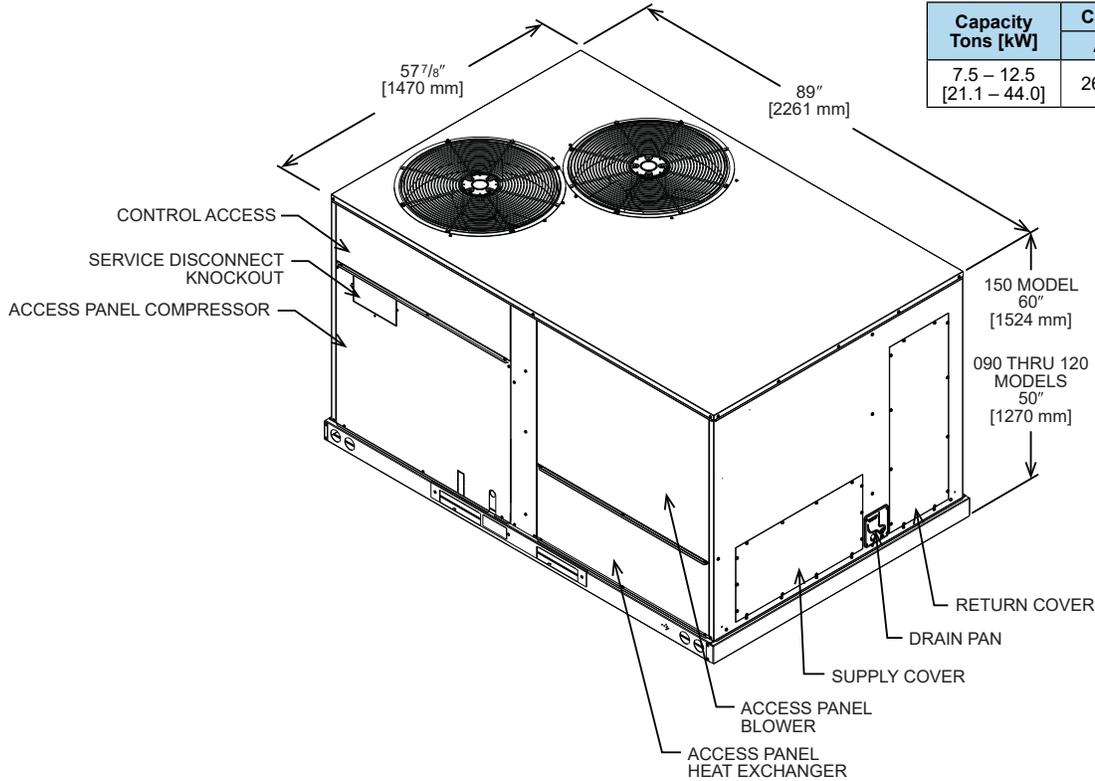
Figure 18: MPS A03B – A05B Dimensions (Gas Heat)



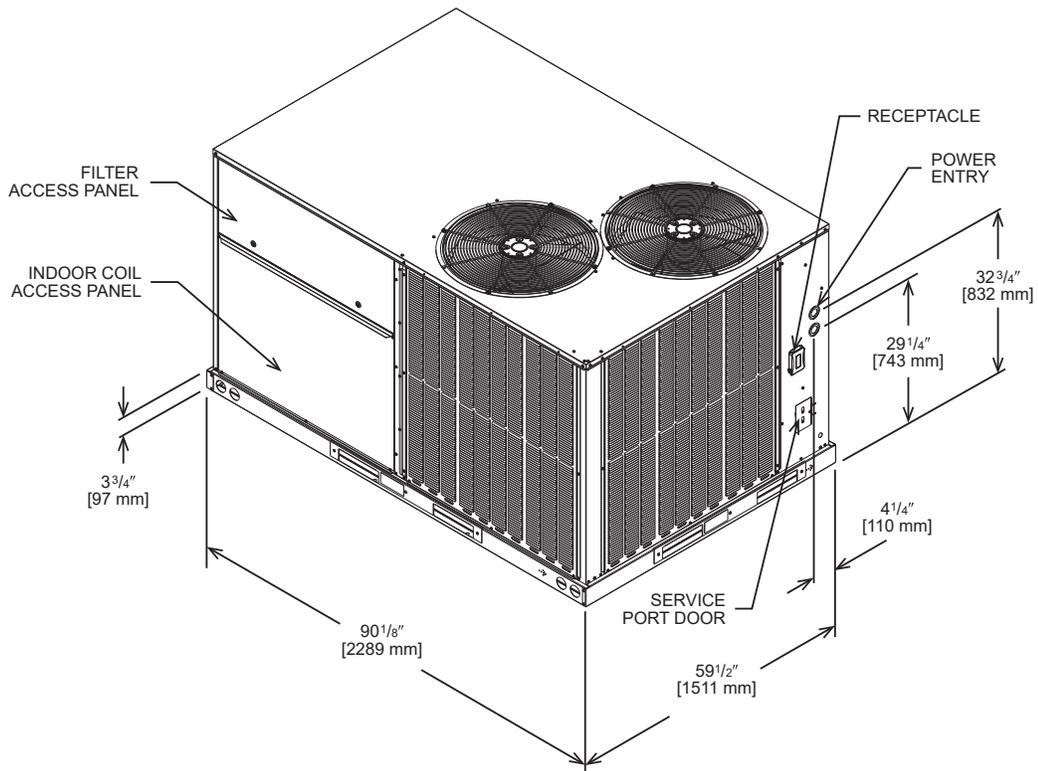
### 7-12 Ton Cooling Only Standard Efficiency

Figure 19: MPS A07D – A12D Dimensions (Cooling Only)

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
7.5 – 12.5 [21.1 – 44.0]	26%	34%	17%	23%



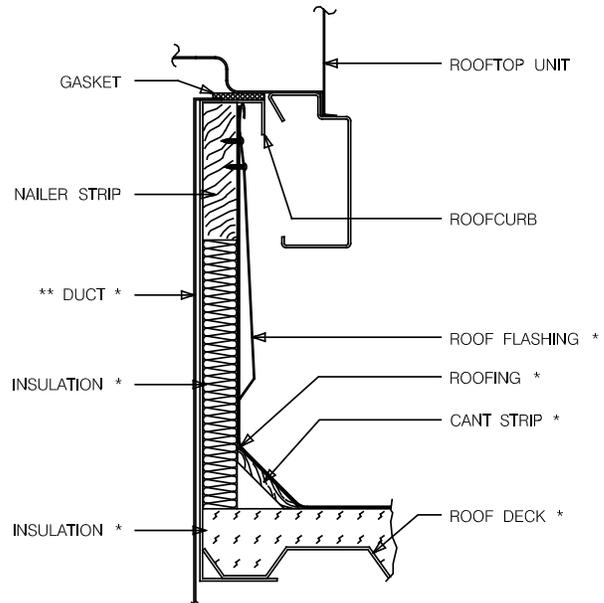
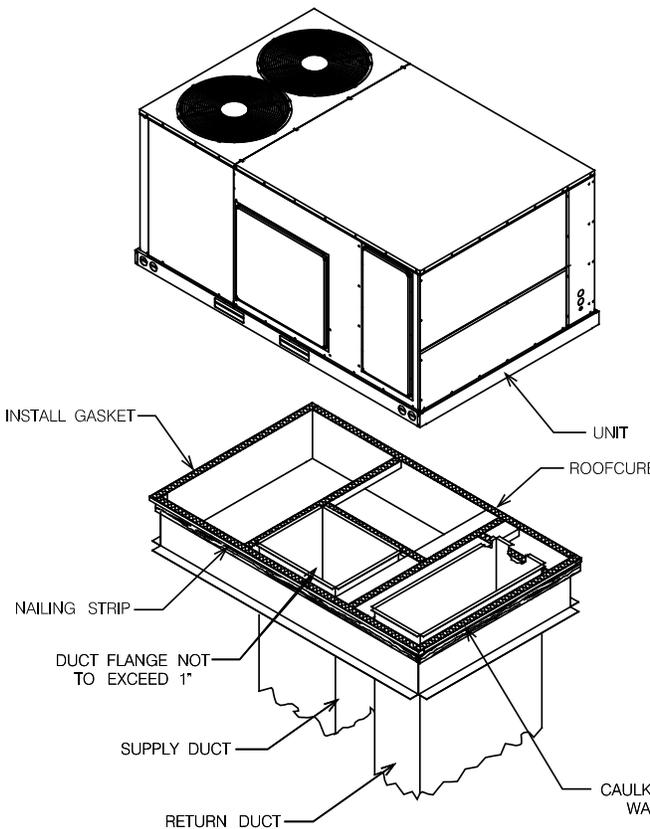
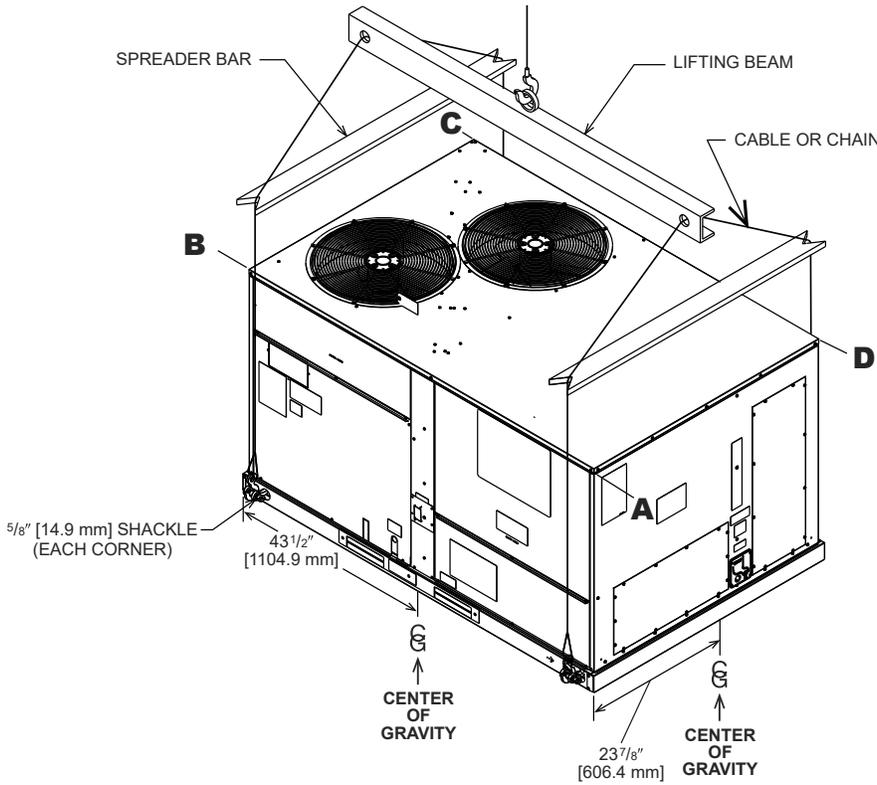
[ ] Designates Metric Conversions



# 7-12 Ton Gas Heat Standard Efficiency

Figure 20: MPS A07D – A12D Dimensions

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
7.5 – 12.5 [21.1 – 44.0]	26%	34%	17%	23%

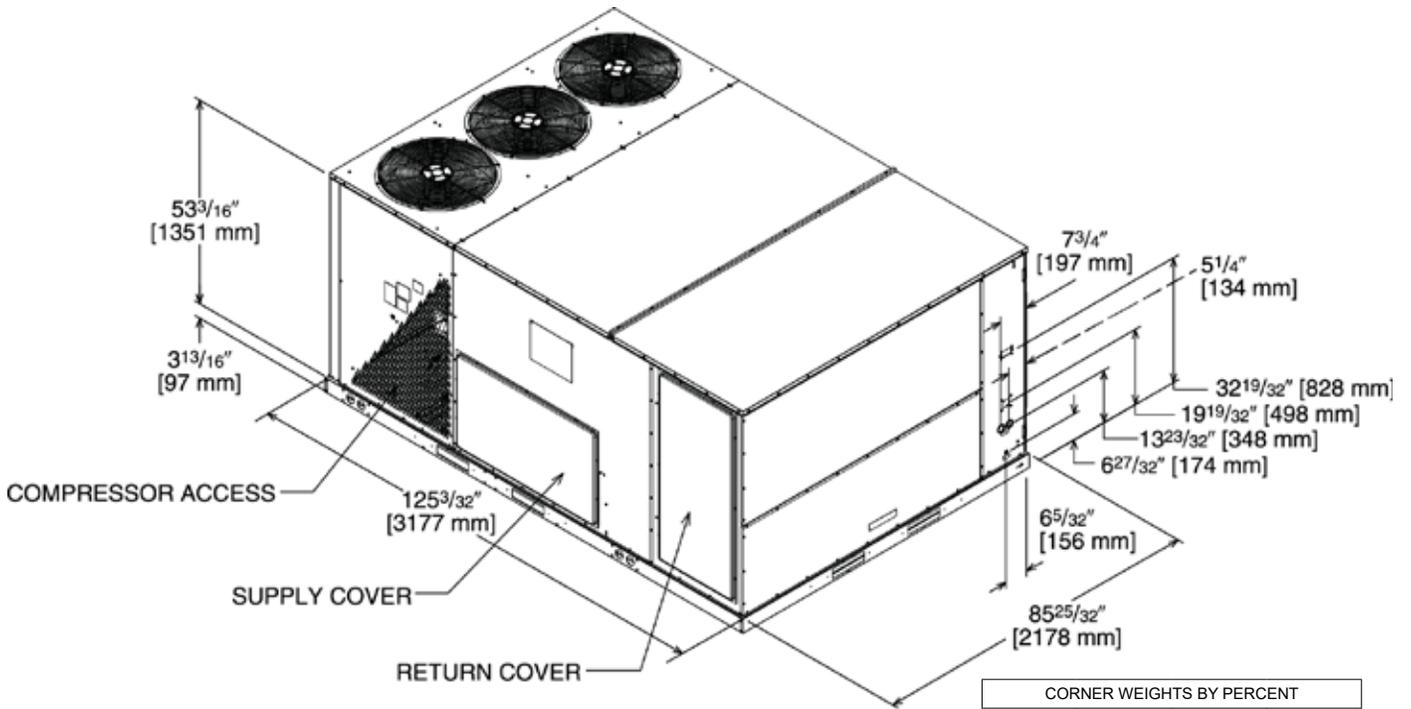


\* BY CONTRACTOR

\*\* FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS FOR RECOMMENDED DUCT SIZES.

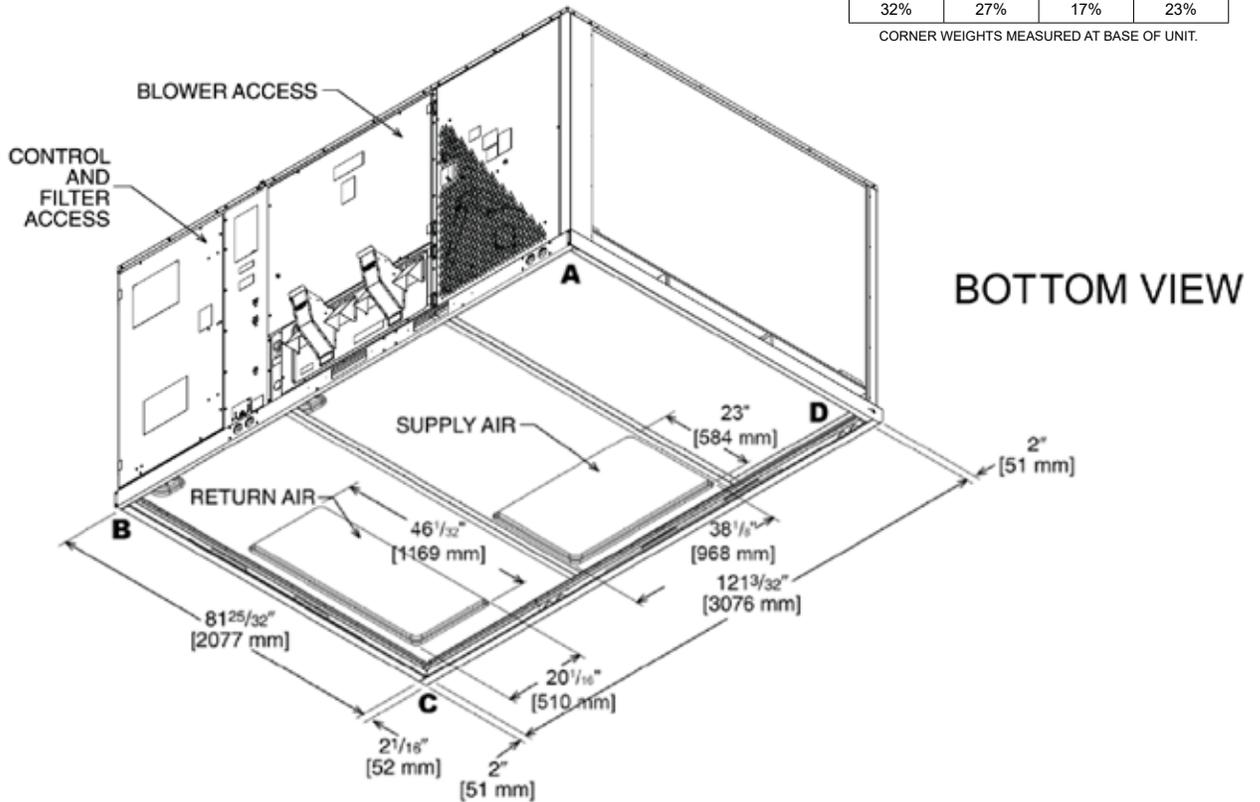
# 15 Ton Gas Heat High Efficiency

Figure 21: MPS 15B Dimensions (Gas Heat)



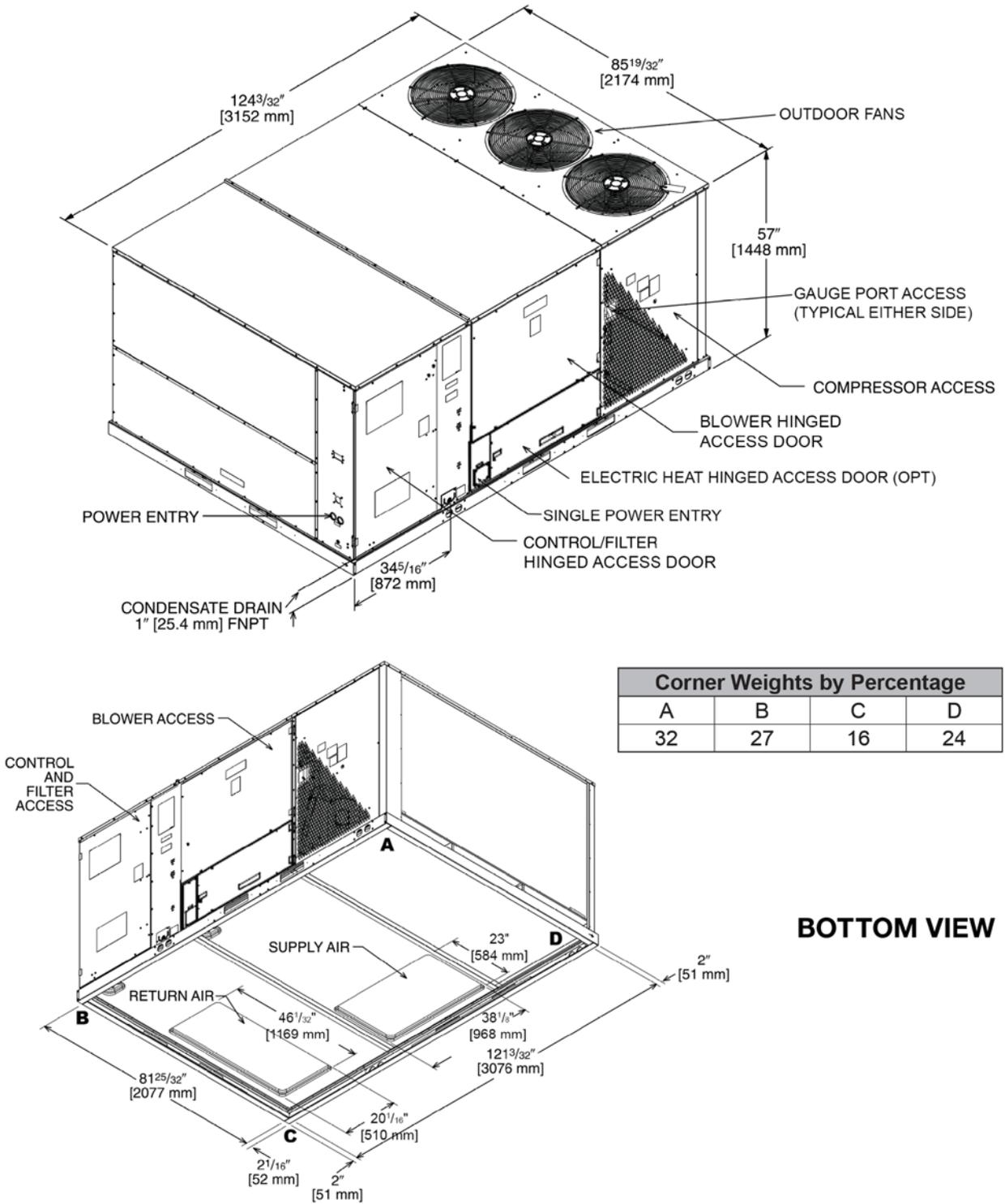
CORNER WEIGHTS BY PERCENT			
A	B	C	D
32%	27%	17%	23%

CORNER WEIGHTS MEASURED AT BASE OF UNIT.



[ ] Designates Metric Conversions

Figure 22: MPS 015H Dimensions (Cooling Only, High Efficiency)

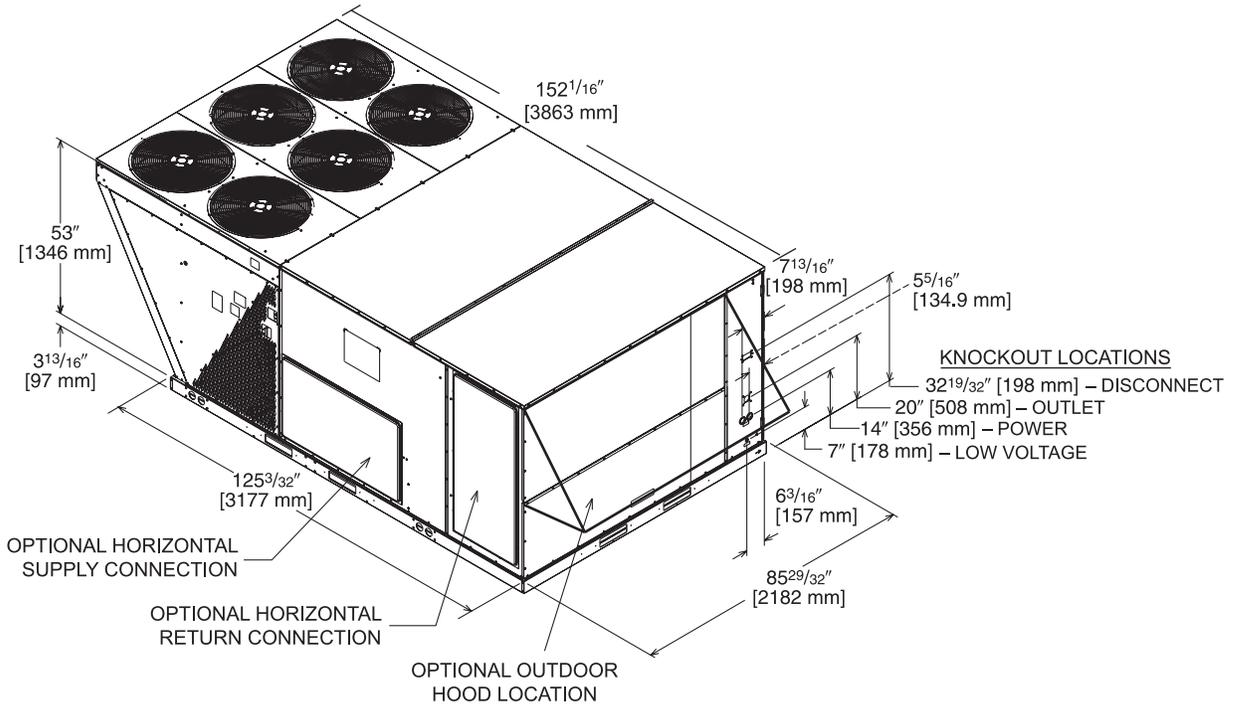


**BOTTOM VIEW**

[ ] Designates Metric Conversions

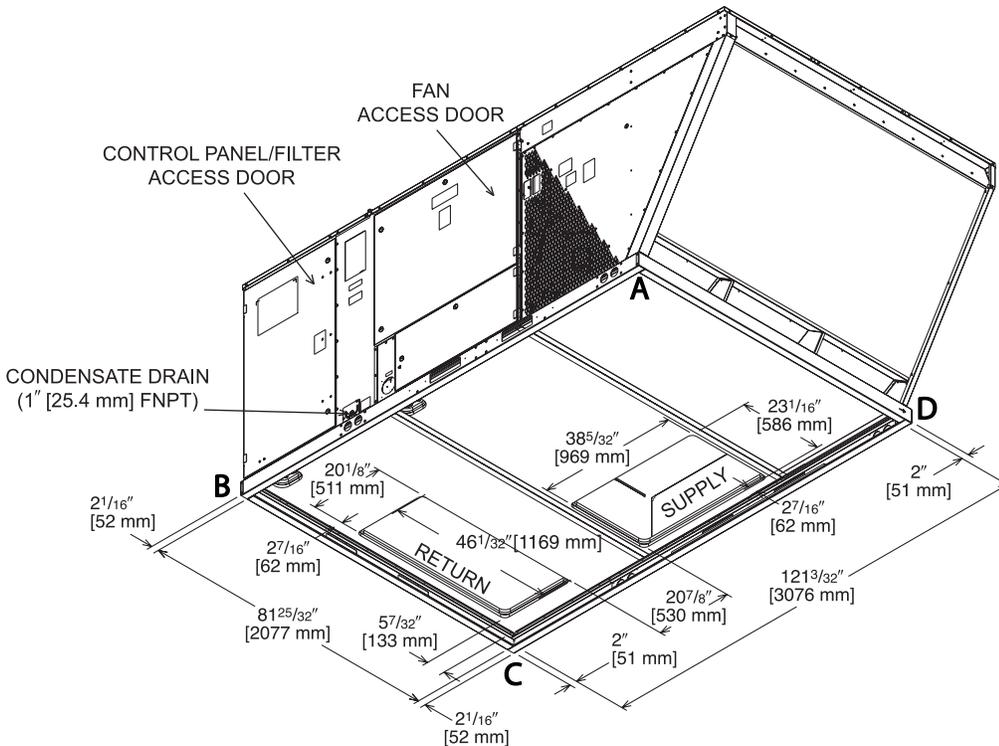
### 15–25 Ton Cooling Only Standard Efficiency and 20 Ton High Efficiency

Figure 23: MPS 0015B – 025B Dimensions (Cooling Only)



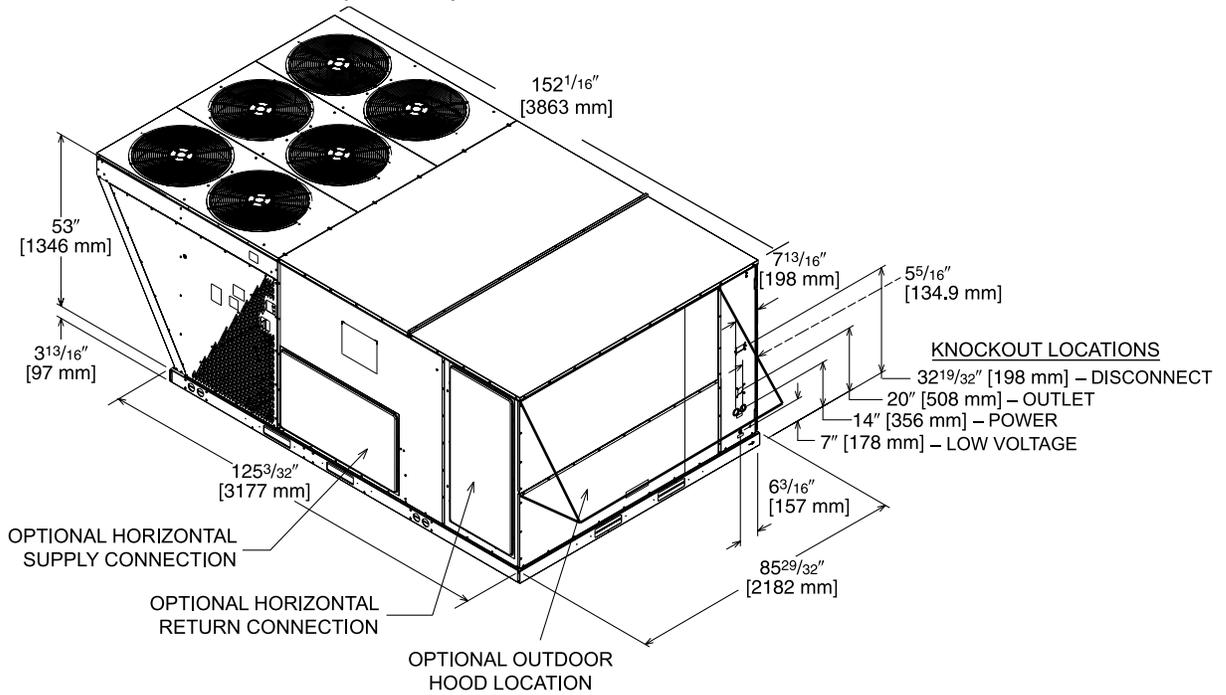
CORNER WEIGHTS BY PERCENTAGE			
A	B	C	D
32%	27%	16%	24%

CORNER WEIGHTS MEASURED AT BASE OF UNIT.



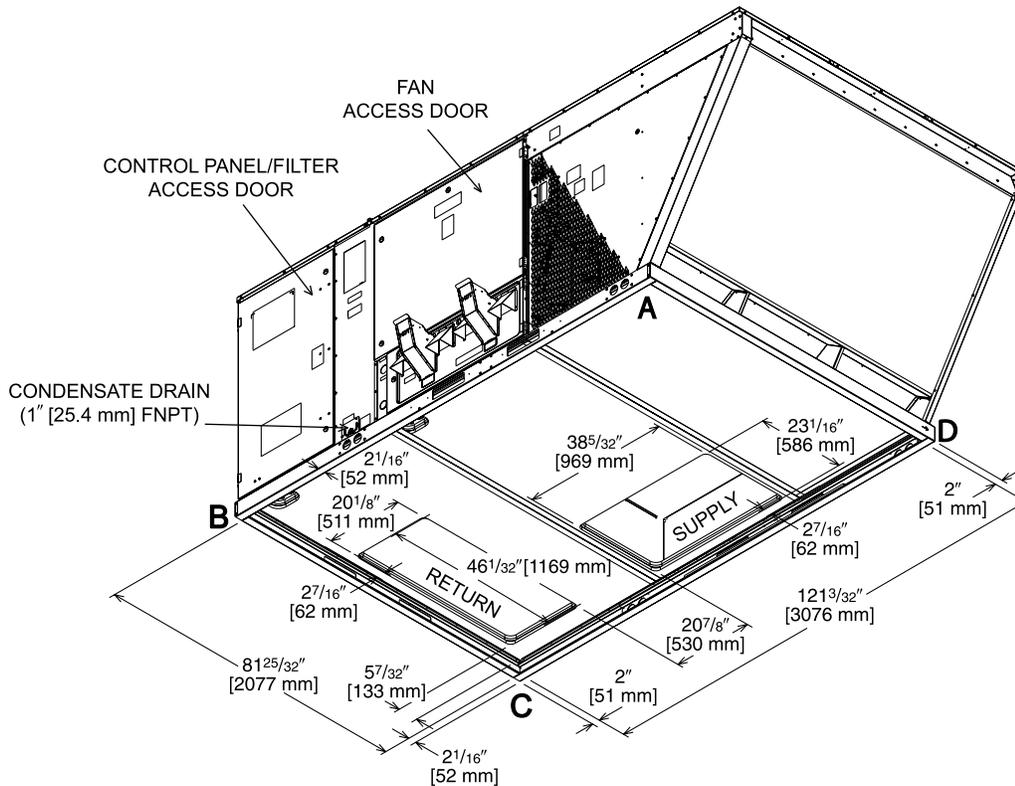
# 15–25 Ton Gas Heat Standard Efficiency and 20 Ton High Efficiency

Figure 24: MPS 015B – 025B Dimensions (Gas Heat)



CORNER WEIGHTS BY PERCENTAGE			
A	B	C	D
32%	27%	16%	24%

CORNER WEIGHTS MEASURED AT BASE OF UNIT.



# Through-the-Base Knockout Locations

Figure 25: MPS A07D – A12D Through-the-Base Knockout Locations (Standard Efficiency)

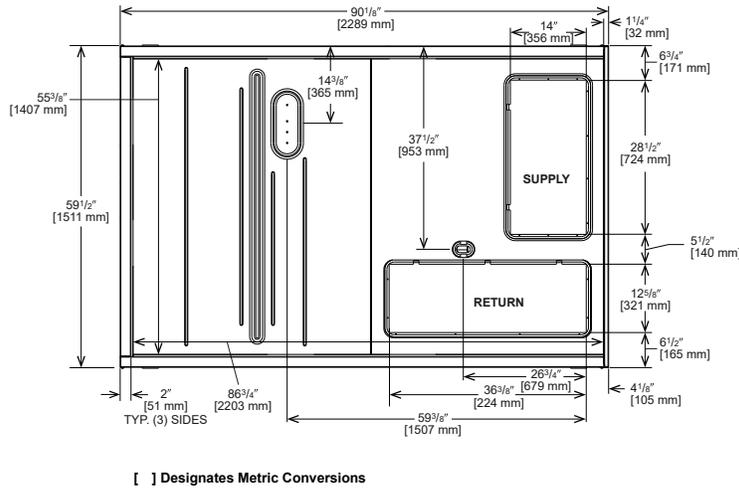


Figure 26: MPS 015B Through-the-Base Knockout Locations (High Efficiency)

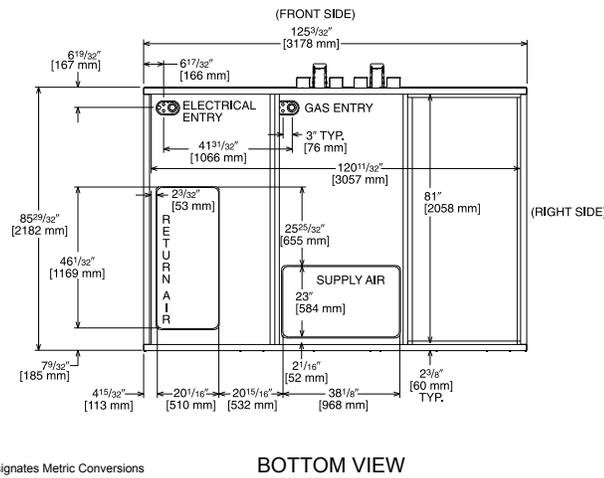
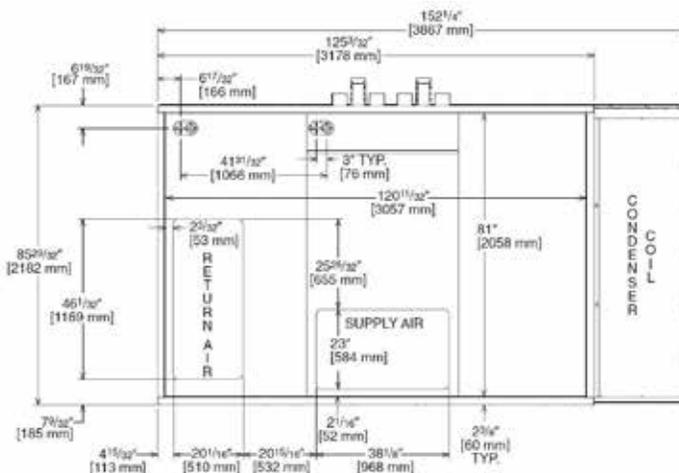
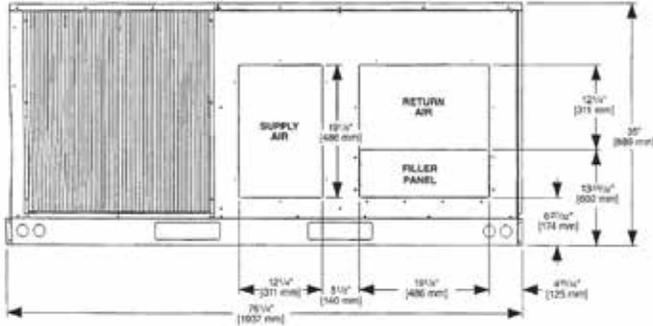


Figure 27: MPS 015B – 025B Through the Base Knockout Locations (15–25 Ton Standard Efficiency and 20 Ton High Efficiency)

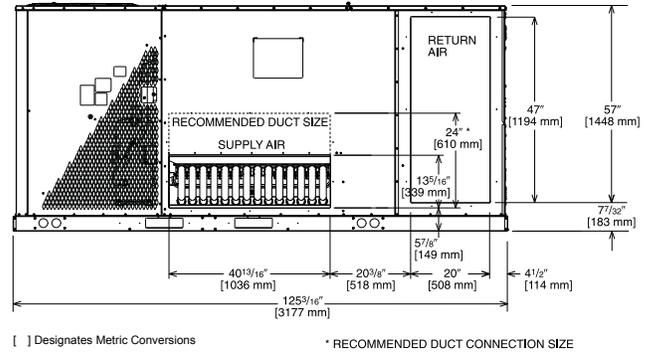


## Horizontal Duct Dimensions

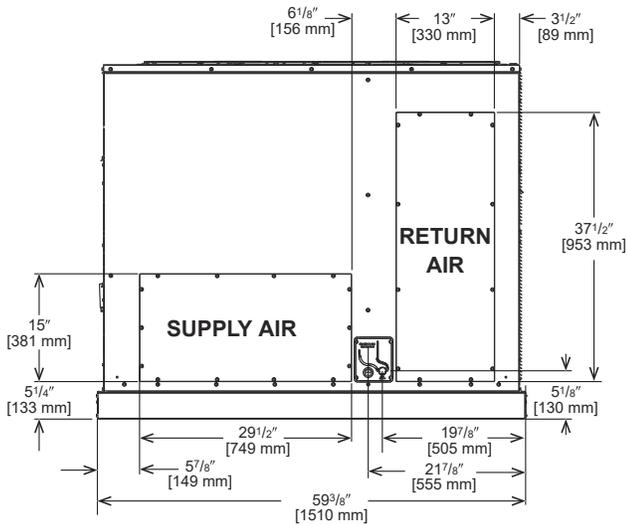
**Figure 28: MPS (O, A, H) 03 (B, C) through (O, A, H) 05 (B, C) Horizontal Duct Dimensions (Standard and High Efficiency)**



**Figure 30: MPS 015B Horizontal Duct Dimensions (High Efficiency)**

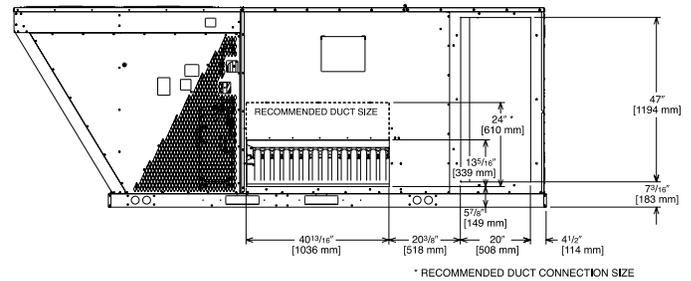


**Figure 29: MPS A07D – A12D Horizontal Duct Dimensions (Standard Efficiency)**



[ ] Designates Metric Conversions

**Figure 31: MPS 015B – 025B Horizontal Duct Dimensions (Standard Efficiency and 20 Ton High Efficiency)**



## Curb Dimensions

Figure 32: MPS (O, A, H) 03 (B, C) Curb Dimensions (Standard and High Efficiency)

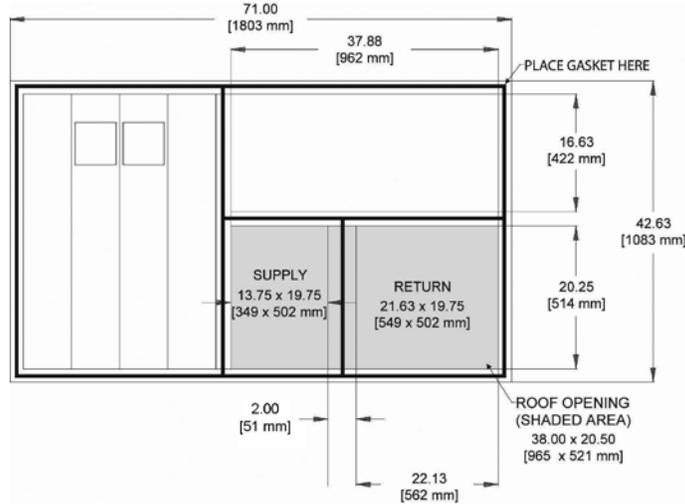


Figure 33: MPS A07D – A12D Curb Dimensions (Standard Efficiency)

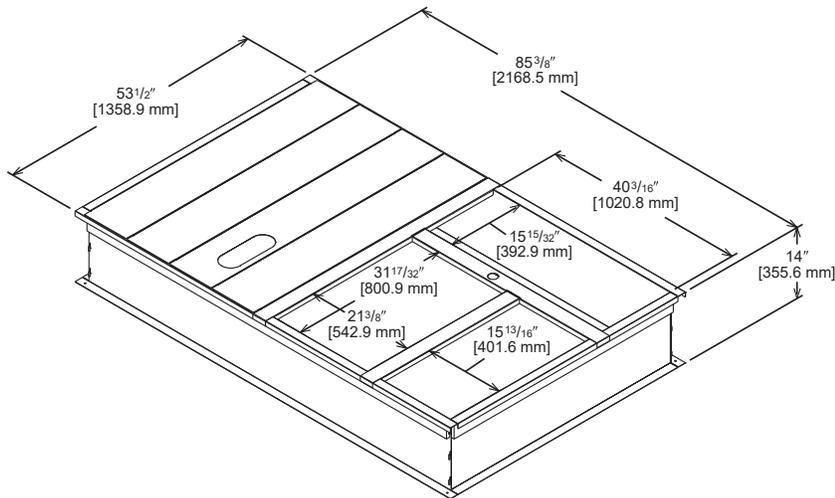
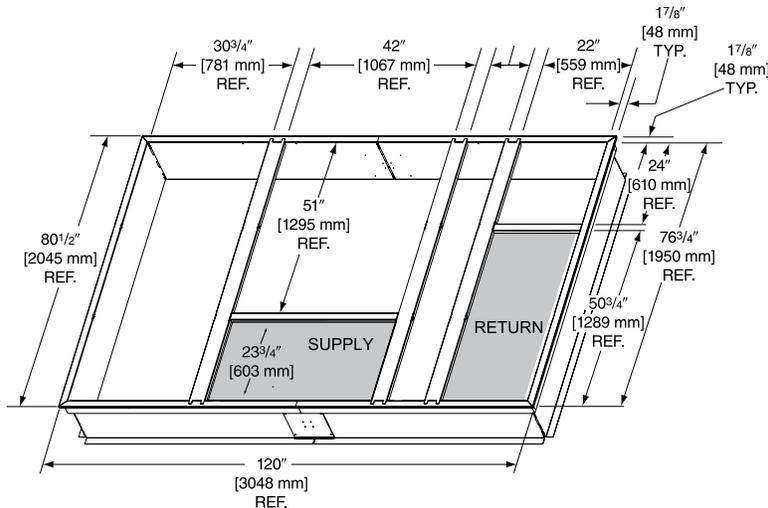


Figure 34: MPS 015B – 025B Curb Dimensions (Standard and High Efficiency)



## Accessories

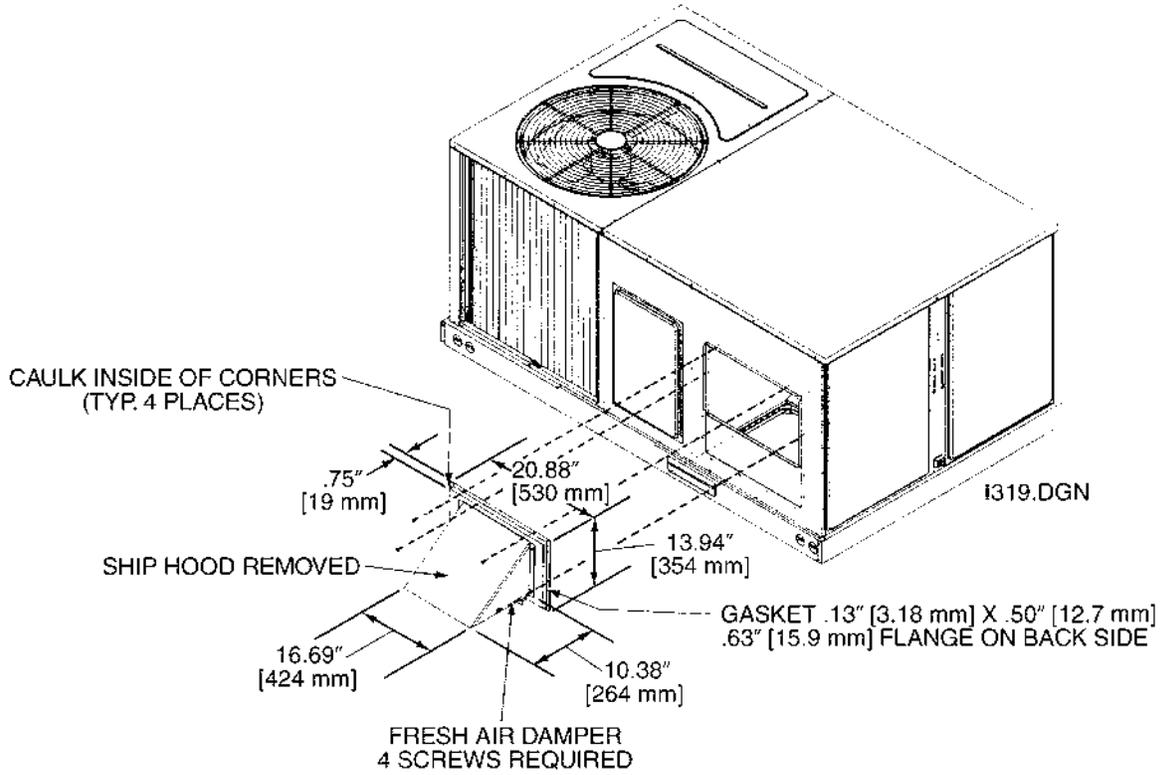
**Table 89: Accessory Weights**

Accessory	Daikin Part Number	Shipping Weight lbs (kg)	Operating Weight lbs (kg)
Economizer, Analog Controls, 3–5 ton, Vert/Horiz	MXRD-01RECAM3	70 (32)	60 (27)
Economizer, Analog Controls, 7–12 ton, Vertical	RXRD-01MDDAM3	84 (39)	57 (26)
Economizer, Analog Controls, 7–12 ton, Horizontal	RXRD-01MDHBM3	84 (38)	55 (25)
Economizer, Analog Controls, 15–25 ton, Vertical	MXRD-PGCM3	155 (70)	146 (66)
Economizer, Analog Controls, 15–25 ton, Horizontal	MXRD-RGCM3	155 (70)	146 (66)
Economizer, DDC Controls, 3–5 ton, Vert/Horiz	MXRD-TKCM3	70 (32)	60 (27)
Economizer, DDC Controls, 7–12 ton, Vertical	RXRD-01MDDBM3	86 (39)	57 (26)
Economizer, DDC Controls, 7–12 ton, Horizontal	RXRD-01MDHBM3	84 (38)	55 (25)
Economizer, DDC Controls, 15–25 ton, Vertical	MXRD-PMCM3	155 (70)	146 (66)
Economizer, DDC Controls, 15–25 ton, Horizontal	MXRD-RMCM3	155 (70)	146 (66)
OA damper, 3–5 ton, Manual	MXRF-FGA1	11 (5)	9 (4)
OA damper, Analog Controls, 3–5 ton, Motorized	MXRF-FGB1	13 (6)	11 (5)
OA damper, 7–12 ton, Manual	RXRF-ADA1	15 (6.8)	12 (5.4)
OA damper, Analog Controls, 7–12 ton, Motorized	RXRF-ADB1	38 (17.2)	31 (14.1)
OA damper, DDC Controls, 7–12 ton, Motorized	RXRF-ADC1	38 (17.2)	31 (14.1)
OA damper, 15–25 ton, Manual	MXRF-KFA1	46 (21)	35 (16)
OA damper, DDC Controls, 15–25 ton, Motorized	MXRF-AW05	51 (23)	40 (18)
Power Exhaust Kit, 3–5 Ton 208/230V	MXRX-BGF06C	70 (32)	60 (27)
Power Exhaust Kit, 3–5 Ton 460V	MXRX-BGF06D	70 (32)	60 (27)
Power Exhaust Kit, 7–12 Ton 208/230V	RXRX-CDF01C	58 (26)	48 (22)
Power Exhaust Kit, 7–12 Ton 460V	RXRX-CDF01D	50 (23)	44 (20)
Power Exhaust Kit, 15–25 Ton 208/230V	RXRX-BGF05C	44 (20)	42 (19)
Power Exhaust Kit, 15–25 Ton 460V	RXRX-BGF05D	44 (20)	42 (19)
Power Exhaust Kit, 15–25 Ton 575V	RXRX-BGF05Y	44 (20)	42 (19)
14" Roof Curb, 3–5 Ton	RXKG-CBH14	92 (42)	88 (40)
14" Roof Curb, 7–12 Ton	RXKG-DDD14	109 (49)	104 (47)
14" Roof Curb, 15–25 Ton	RXKG-CAE14	170 (77)	164 (74)
Receptacle Outlet	RXRX-AN01	N/A	N/A
Thermostat Guard	113130101	N/A	N/A
7-Day Programmable Stat	113129901	N/A	N/A
Ionization Smoke Detector	113126601	N/A	N/A
CO <sub>2</sub> Sensor	RXRX-AR02	N/A	N/A
Dual Enthalpy Kit	RXRX-AV02	N/A	N/A

### Fresh Air Dampers

Fresh Air Damper Kit for 3–5 Ton Units

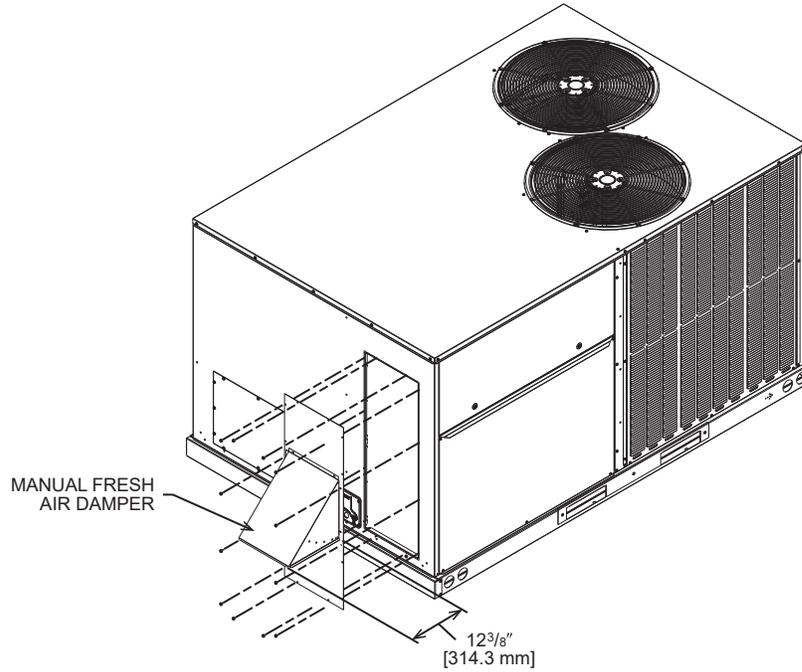
Figure 35: Damper Kit: MPS A03B – A05B



**Fresh Air Damper Kit for 7–12 Ton Units**

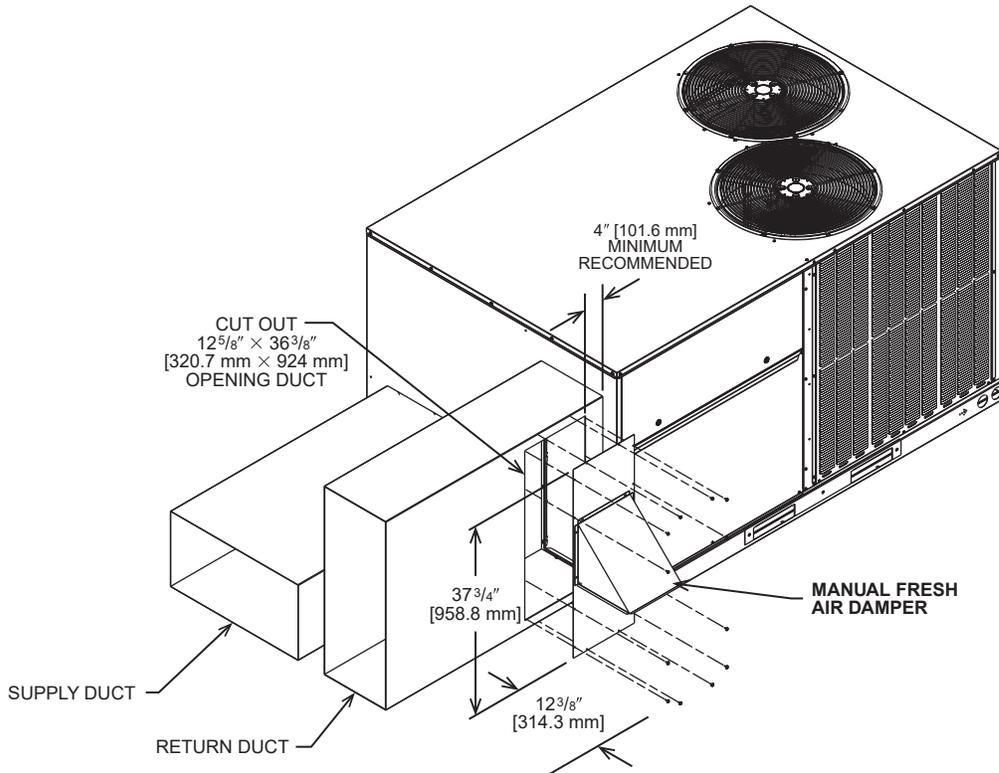
**Figure 36: Downflow and Horizontal Application: MPS A07D – A12D**

**DOWNFLOW APPLICATION**



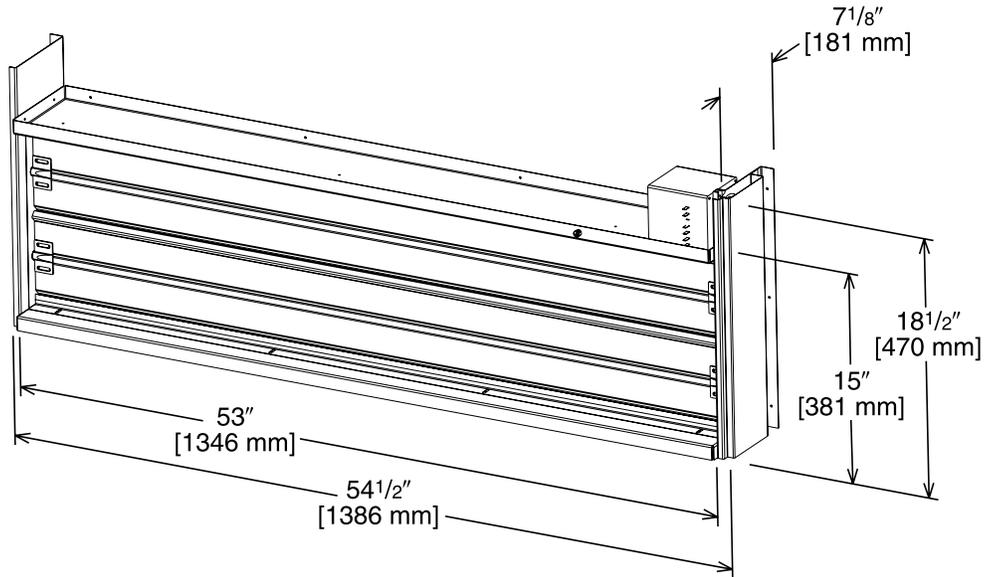
[ ] Designates Metric Conversions

**HORIZONTAL APPLICATION**



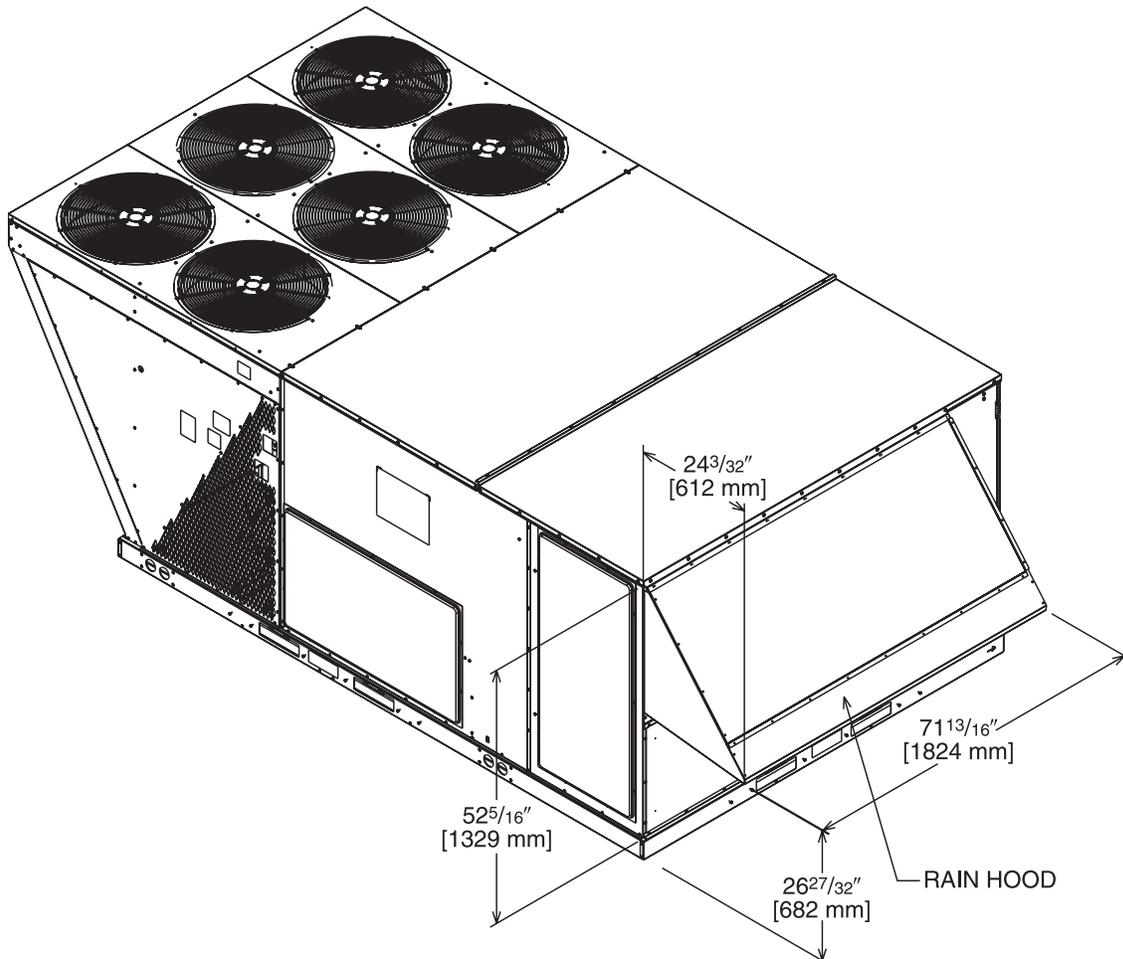
**Fresh Air Damper Kit for 15–25 Ton Units**

**Figure 37: Damper Kit: MPS 015B – 025B**



**NOTE:** Outdoor air hood must also be ordered with this kit

**Figure 38: Outdoor Air Hood: MPS 015B – 025B**

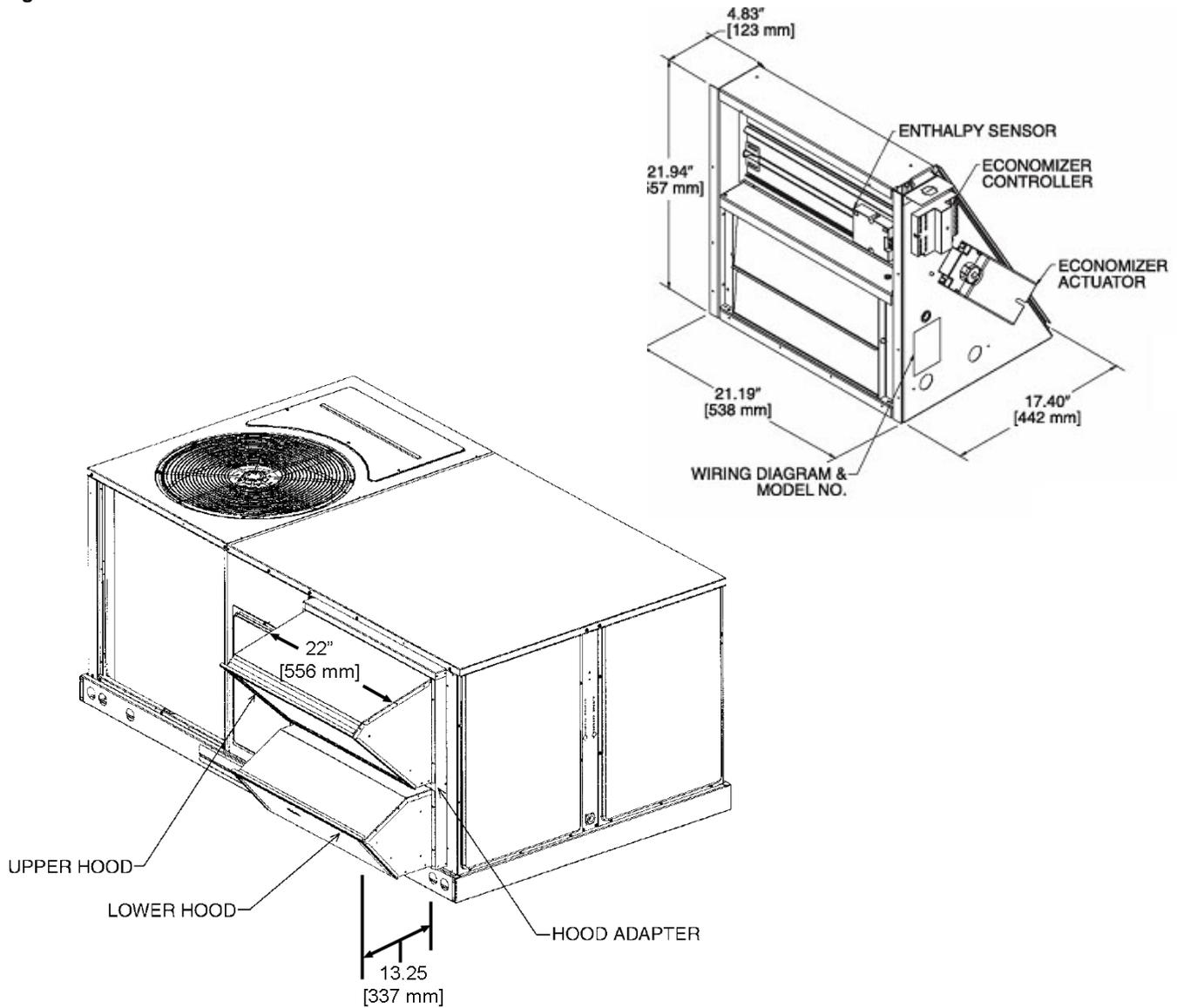


## Economizers

### Economizers: 3–5 Tons

- Features economizer controller
- Pre-configured—no field adjustments necessary
- Available factory installed or field accessory
- Standard barometric relief damper provided
- Gear driven direct drive actuator
- Single enthalpy with dual enthalpy upgrade kit
- Fully modulating (0-100%)
- CO<sub>2</sub> input sensor available (field installed)
- Low leakage dampers
- Economizer slips in complete for downflow or horizontal
- Horizontal or downflow applications duct application
- Slip-in design for easy installations
- Field assembled hood ships with economizer
- Plug-in polarized electrical connections
- Field installed power exhaust available

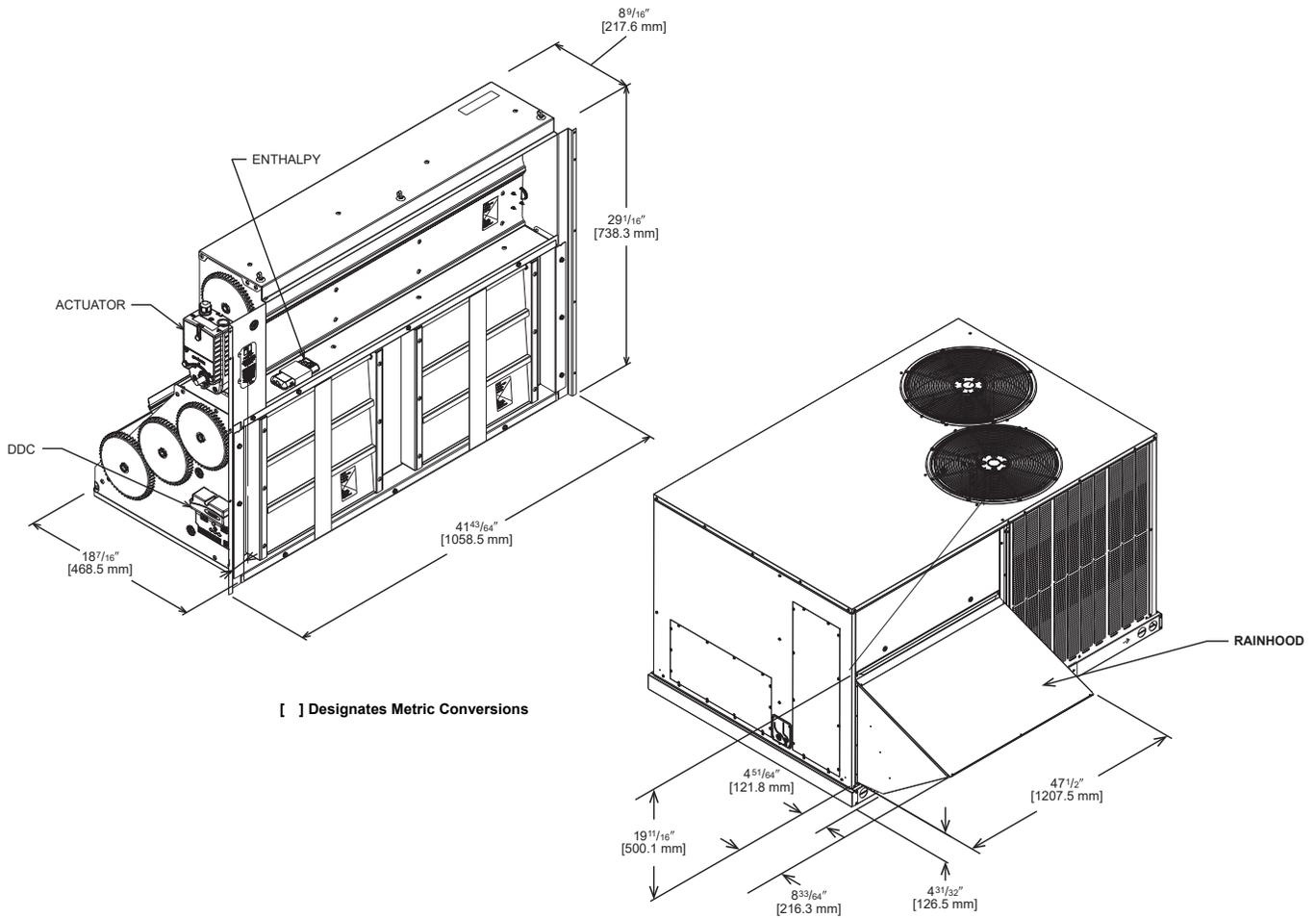
Figure 39: Economizer: MPS A03B – A05B



**Economizers: 7–12 Tons**

- Features Honeywell controls
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0–100%)
- Ultra low leak dampers meet California Title 24 requirements
- Slip-in design for easy installation
- Standard barometric relief damper
- Single enthalpy
- CO<sub>2</sub> input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for downflow duct application
- Field installed power exhaust available
- Prewired for smoke detector
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS), or 16 × 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 × 2 LCD screen

**Figure 40: Economizer: MPS A07D – A12D**

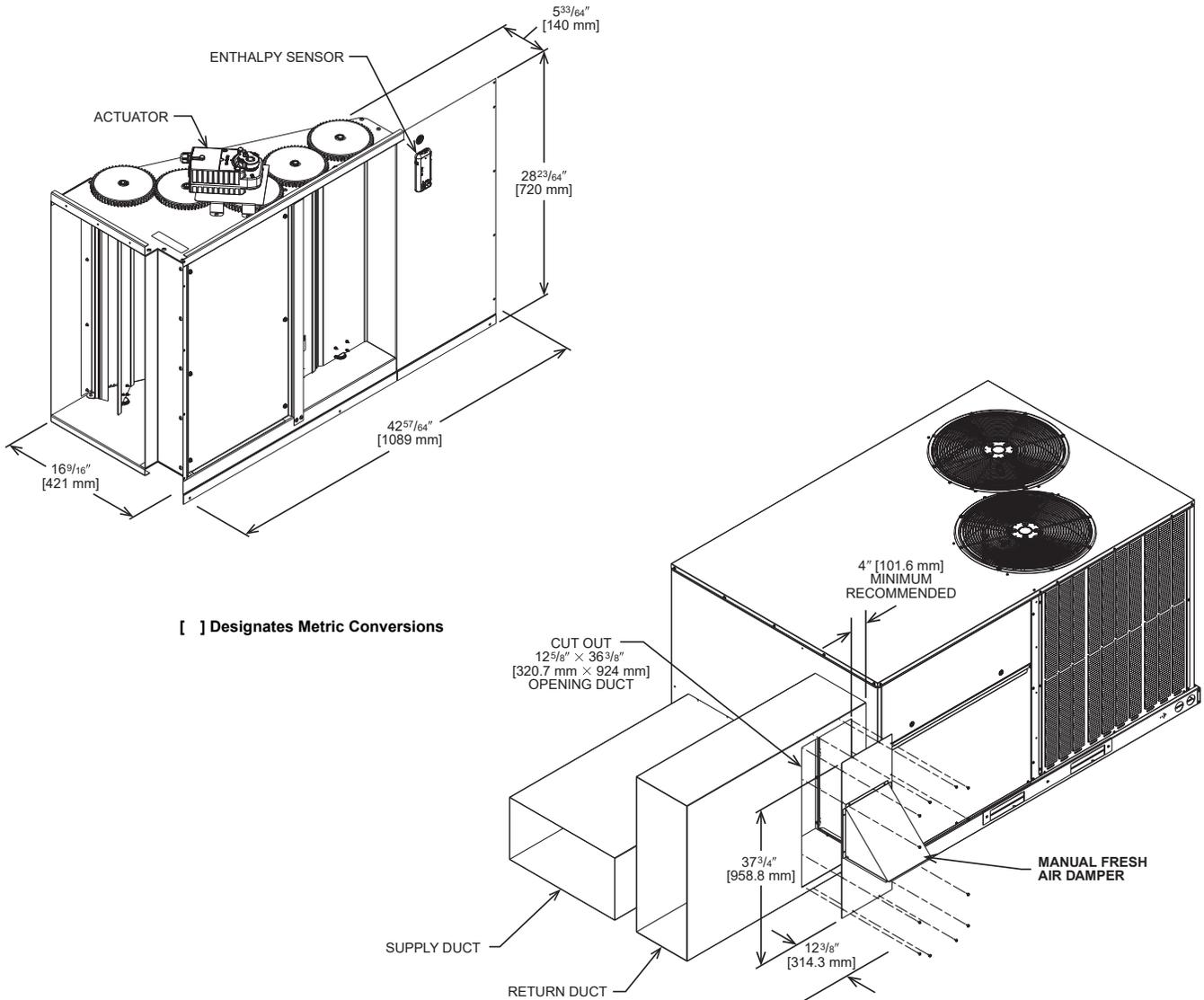


## Horizontal Duct Installation

### Economizers: 7–12 Tons

- Features Honeywell controls
- Available as a field installed accessory only
- Gear driven direct drive actuator
- Fully modulating (0–100%)
- Ultra low leak dampers meet California Title 24 requirements
- Slip-in design for easy installation
- Standard barometric relief damper
- Single enthalpy
- CO<sub>2</sub> input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for horizontal duct application
- Field installed power exhaust available
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS), or 16 × 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 × 2 LCD screen

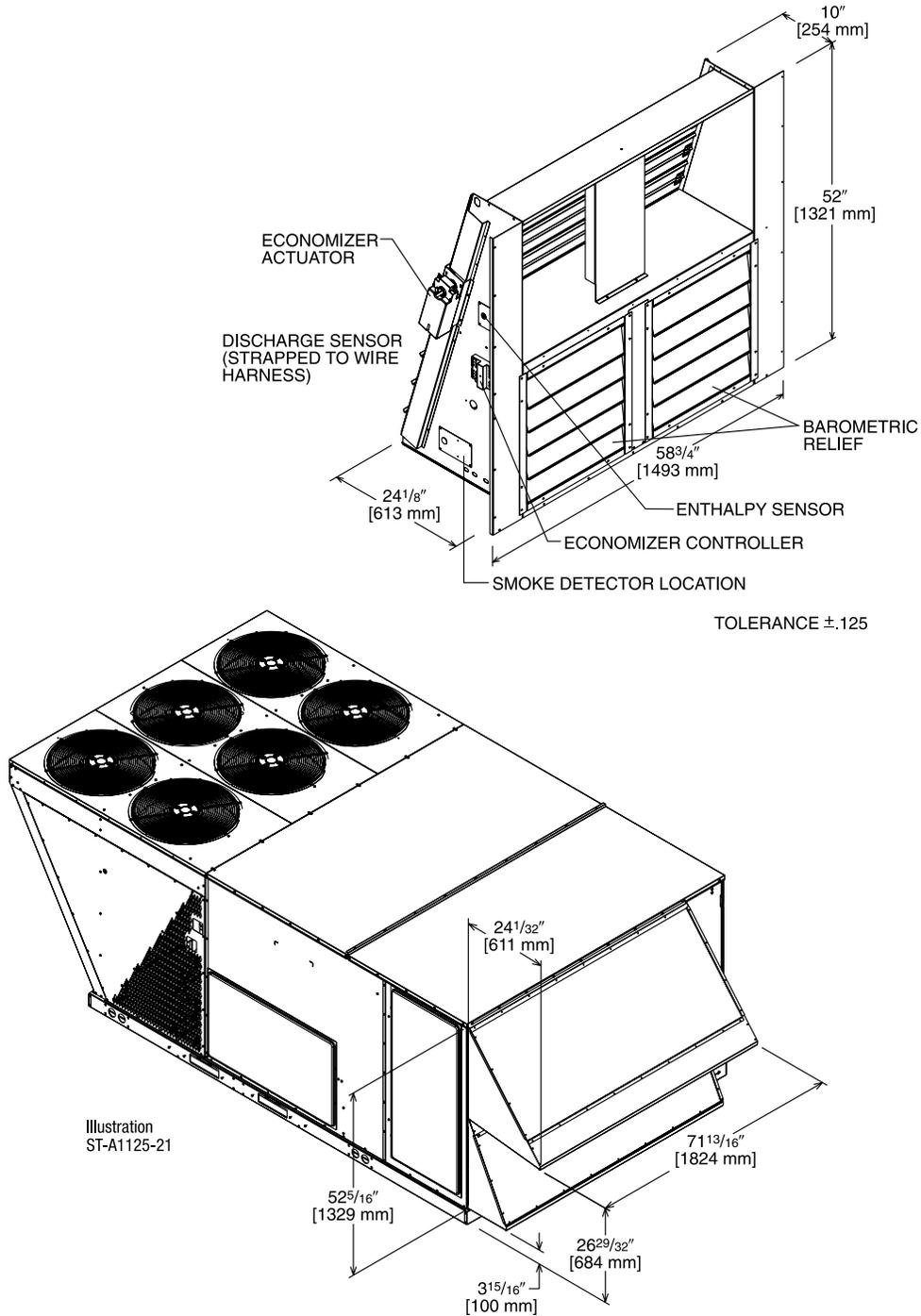
Figure 41: Economizer: MPS A07D – A12D



**Economizers: 15–25 Tons**

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Fully modulating (0-100%)
- Low leakage dampers
- Slip-in design for easy installation
- Plug-in polarized electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper
- Single enthalpy with dual enthalpy upgrade kit available
- CO<sub>2</sub> input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for downflow duct application
- Field installed power exhaust available

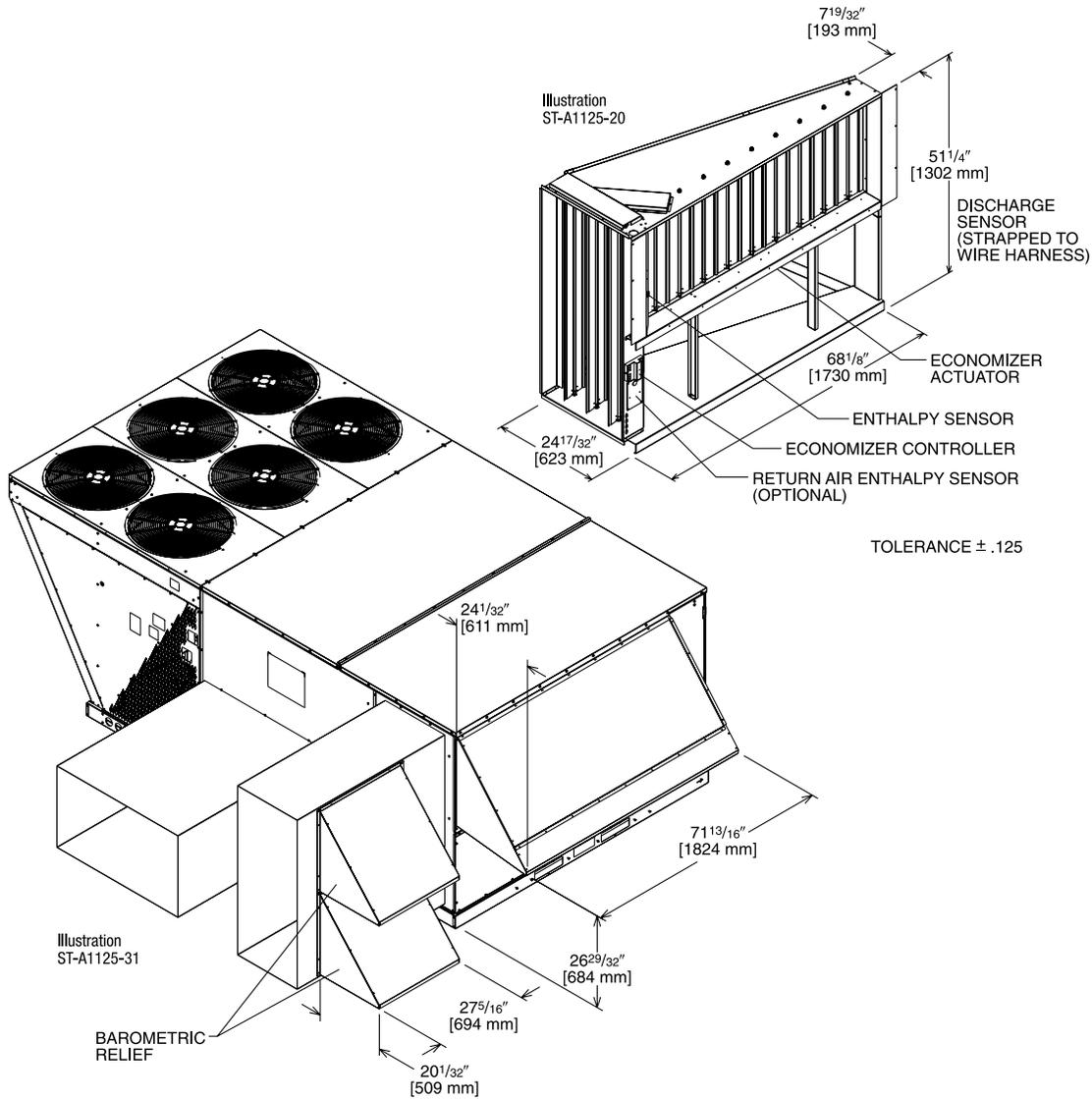
**Figure 42: Economizer: MPS 015B – 025B**



**Economizers: 15–25 Tons**

- Features economizer controller
- Available factory installed or field accessory
- Gear driven direct drive actuator
- Gully modulating (0-100%)
- Low leakage dampers
- Slip-in design for easy installation
- Plug-in polarized 12 pin electrical connections
- Pre-configured—no field adjustments necessary
- Standard barometric relief damper
- Single enthalpy with dual enthalpy upgrade kit available
- CO<sub>2</sub> input sensor available
- Field assembled hood ships with economizer
- Economizer ships complete for downflow duct application
- Field installed power exhaust available

**Figure 43: Economizer: MPS 015B – 025B**



# Power Exhaust

**Table 90: Air Damper and Exhaust Accessories**

Model Number	Number of Fans	Volts	Phase	HP (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM (L/s) <sup>1</sup>	RPM		
RXRX-CDF01C	2	208-230	1	0.47	2200 (1038)	3000	1.55	1.1
RXRX-CDF01D	2	460	3	0.40	1970 (930)	2750	0.51	1.9

**NOTE:**

1. CFM is at 0" W.C. external static pressure.

## Integral Power Exhaust For Economizer: 3–5 Tons (Field Installed Only)

### MPS-A03B-A05B—MXRX-CGF04 (C,D,Y Voltages)

- For economizer controller
- Downflow or horizontal applications
- Requires separate power supply with disconnect
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position
- Polarized plug connects power exhaust relay to economizer
- Adjustable switch on economizer, factory preset to

**Table 91: Power Exhaust Kit for MXRD-NECM Economizers**

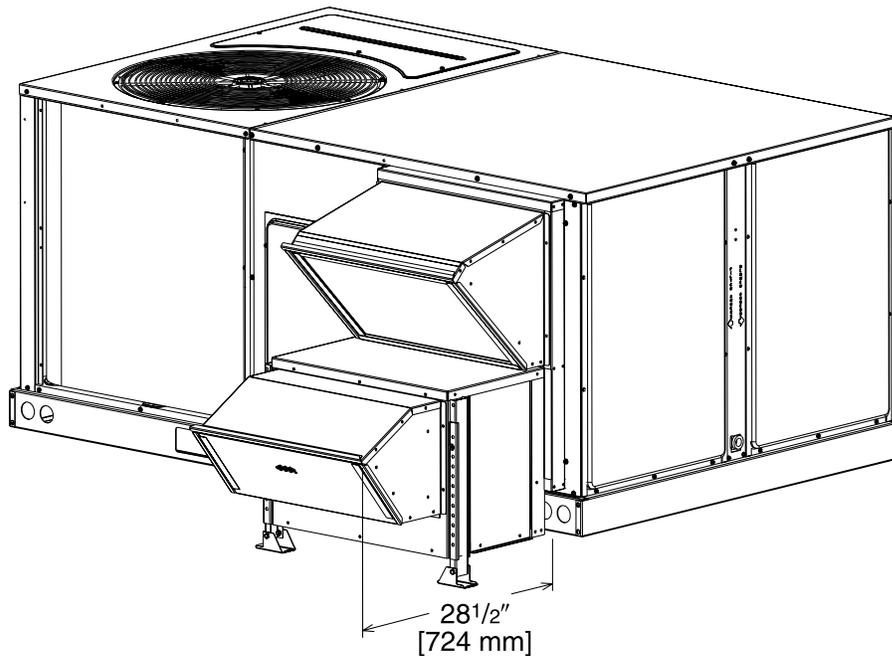
Model No.	No. of Fans	Volts	Phase	Watts (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM (L/s) <sup>1</sup>	RPM		
MXRX-BGF06C	1	208-230	1	1000	2500 (1179)	1725	4.4	23.7
MXRX-BGF06D	1	460	1	800	2370 (1118)	1620	1.8	4.1
MXRX-BGF06Y <sup>2</sup>	1	575	1	800	2370 (1118)	1620	1.5	3.3

**Note:**

1. CFM is at 0" W.C. external static pressure.

2. Unit includes 575 to 460 Volt step-down transformer.

**Figure 45: Integral Power Exhaust Economizer: MPS A03B – A05B**



**Power Exhaust Kit For Economizers: 7–12 Tons**

- For economizer controller
- Downflow or horizontal applications
- Polarized plug connects power exhaust relay to economizer

**Table 92: Power Exhaust Data for 7–12 Ton Units**

Model Number	Number of Fans	Volts	Phase	HP (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM (L/s) <sup>1</sup>	RPM		
RXRX-CDF01C	2	208-230	1	0.47	2200 (1038)	3000	1.55	1.1
RXRX-CDF01D	2	460	3	0.40	1970 (930)	2750	0.51	1.9

**NOTE:**

1. CFM is at 0" W.C. external static pressure.

**Figure 46: Vertical Airflow Power Exhaust Economizer: MPS A07D – A12D**

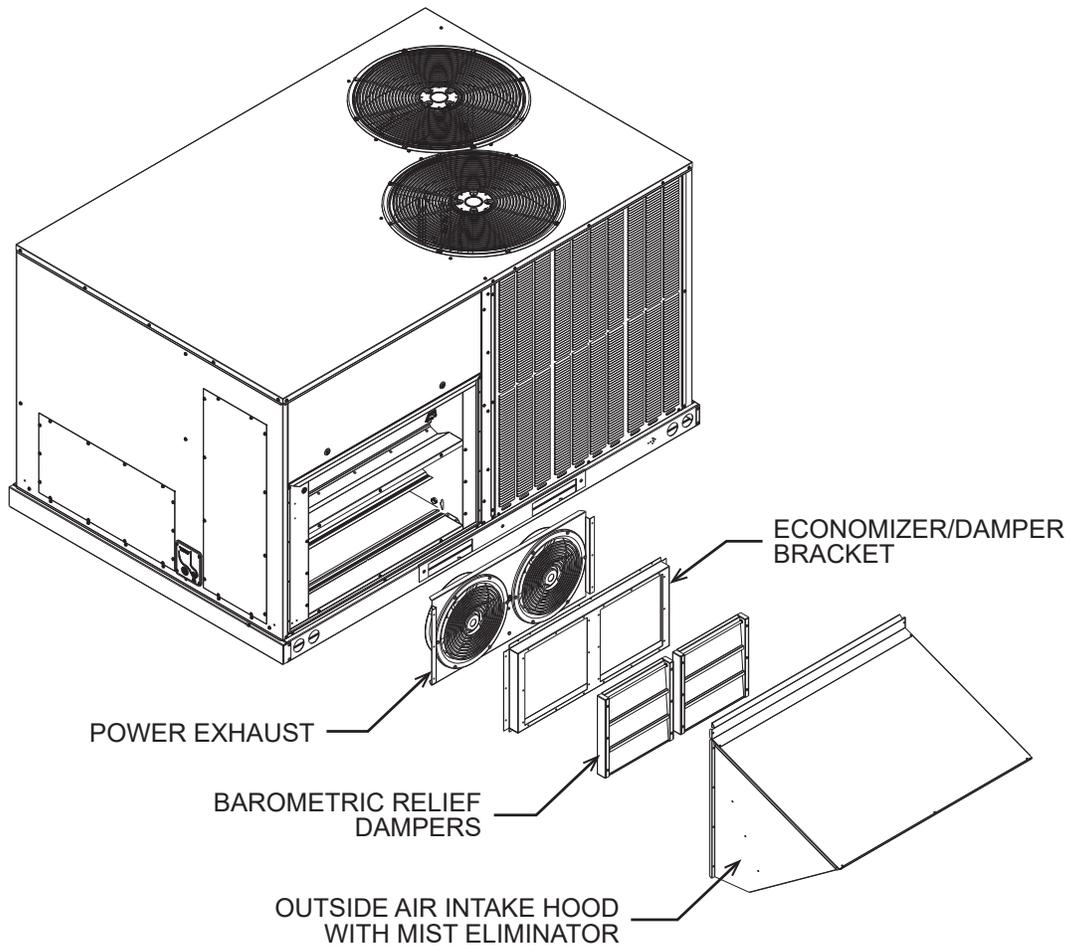
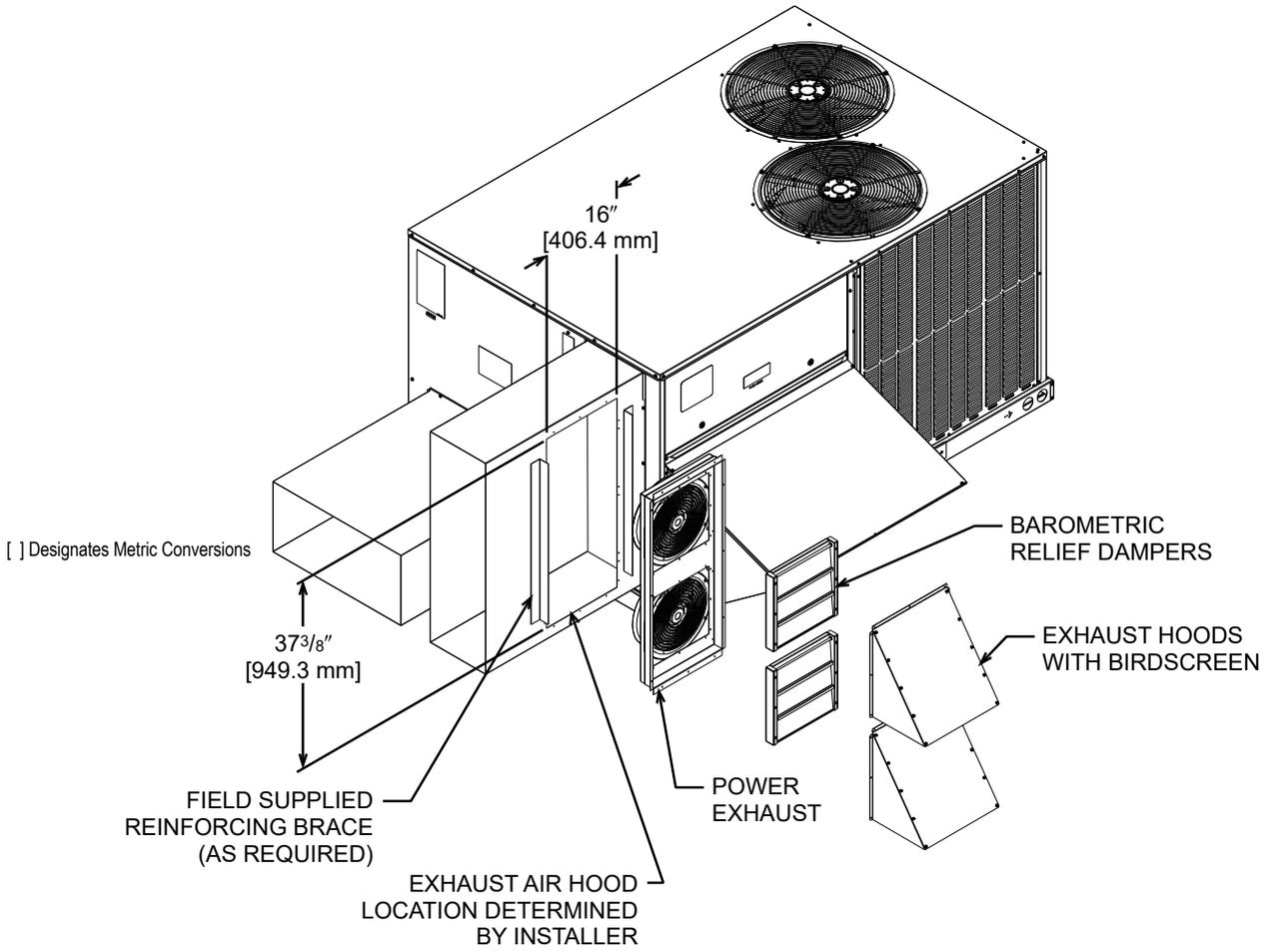


Figure 47: Horizontal Airflow Power Exhaust Economizer: MPS A07D – A12D



**Power Exhaust Kit For Economizers: 15–25 Tons**

- For economizer controller
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position
- Polarized plug connects power exhaust relay to economizer

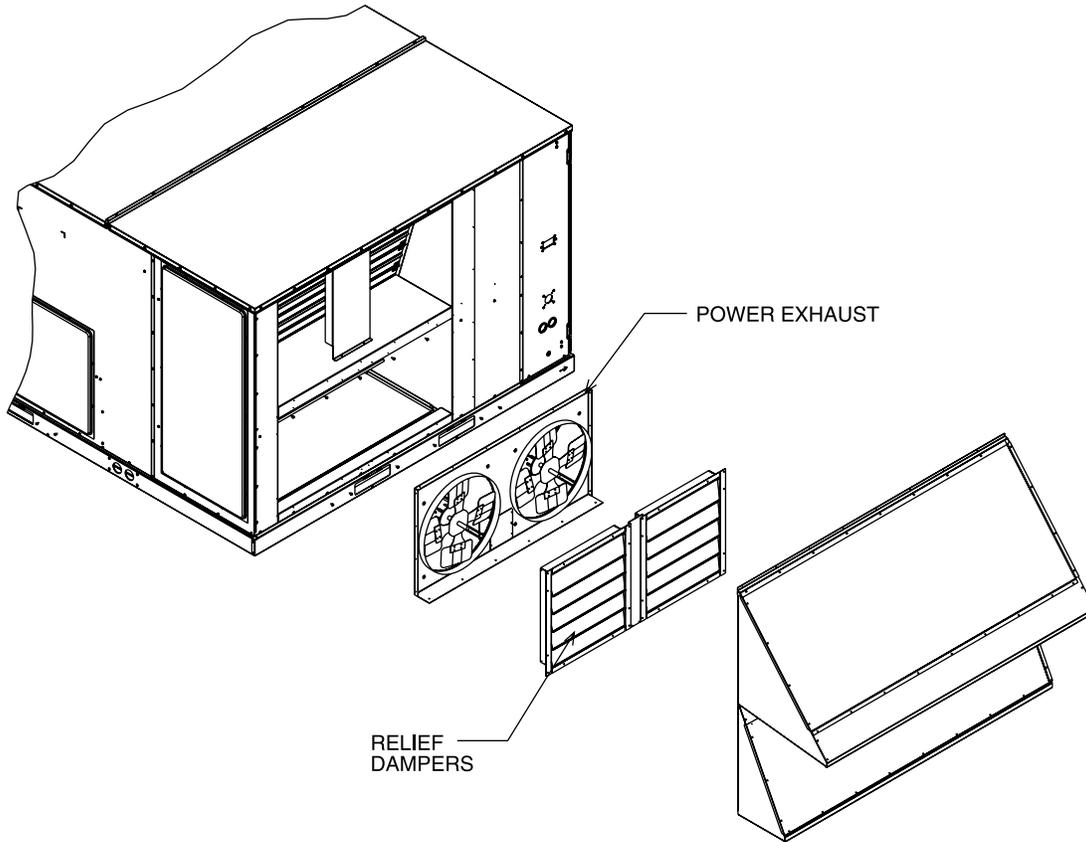
**Table 93: Power Exhaust Data for 15–25 Ton Units**

Model Number	Number of Fans	Volts	Phase	HP (ea.)	Low Speed		High Speed <sup>3</sup>		FLA (ea.)	LRA (ea.)
					CFM [L/s] <sup>1</sup>	RPM	CFM [L/s] <sup>1</sup>	RPM		
RXRX-BGF05	2	208-230	1	0.75	4100 [1935]	850	5200 [2454]	1050	5.0	4.97
RXRX-BGF05D	2	460	1	0.7	4100 [1935]	850	5200 [2454]	1050	2.2	3.4
RXRX-BGF05Y <sup>2</sup>	2	575	1	0.75	4100 [1935]	850	5200 [2454]	1050	1.5	2.84

**Note:**

1. CFM is at 0" W.C. external static pressure.
2. Unit includes 575 to 460 Volt step-down transformer.
3. Power exhaust is factory set on high speed motor tap.

**Figure 48: Vertical Airflow Power Exhaust Economizer: MPS 015B – 025B**



# Roofcurbs

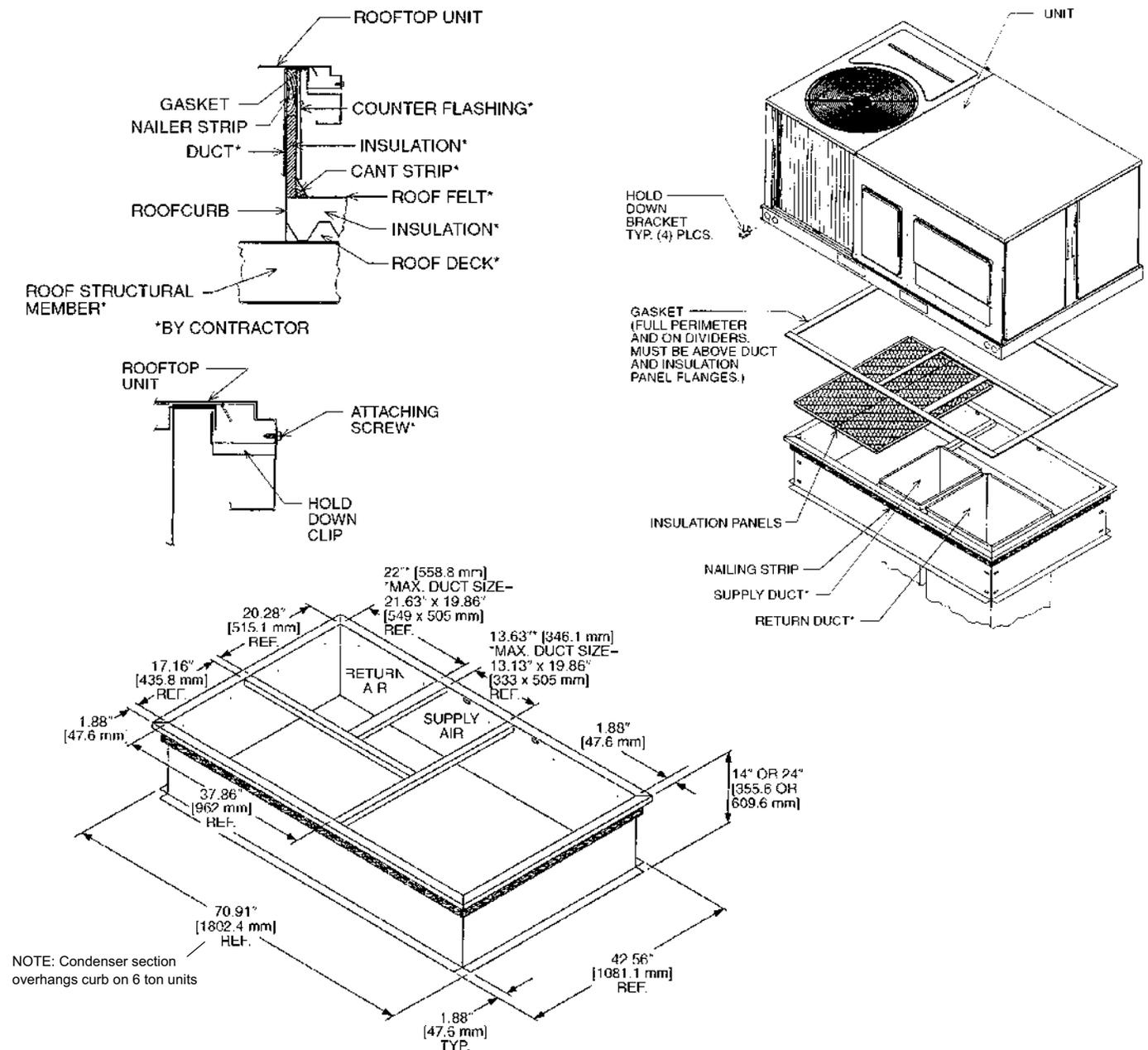
## Roofcurbs (Full Perimeter): 3–5 Tons

- One available height for all models, 14" (356 mm) .
- 2"x4" (51 mm x 102 mm) nailer provided.
- Quick assembly corners for easy installation.
- Insulating panels provided.
- Opening provided in bottom pan to match the through-the-curb electrical connection opening provided on the unit.
- Sealing gasket provided with roofcurb, 28" (711 mm) .
- 18 gauge galvanized steel base pan.

Table 94: Roofcurb Accessories

Daikin Model Number	Description
RXKG-CAD14	MPS-A03B through -A05B
RXKG-DDD14	MPS-A07D through -A12D
RXKG-CBH14	MPS-015B through -025B

Figure 49: Typical Roofcurb Installation: MPS A03B – A05B

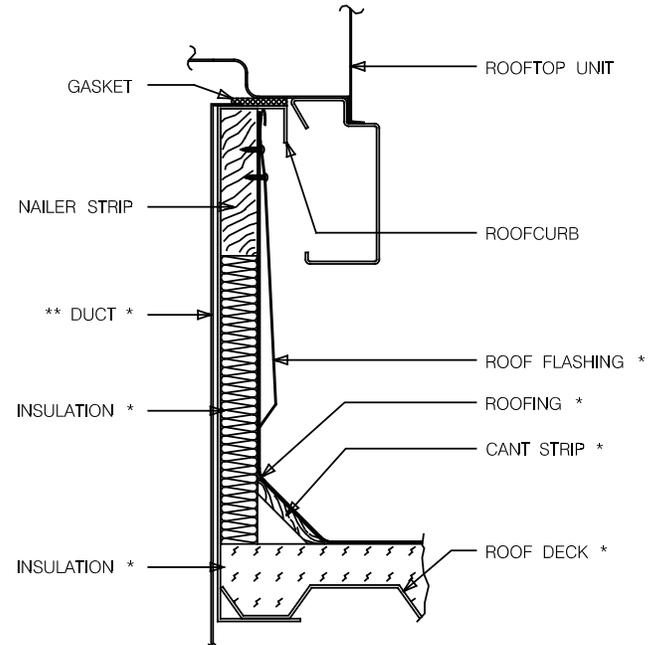
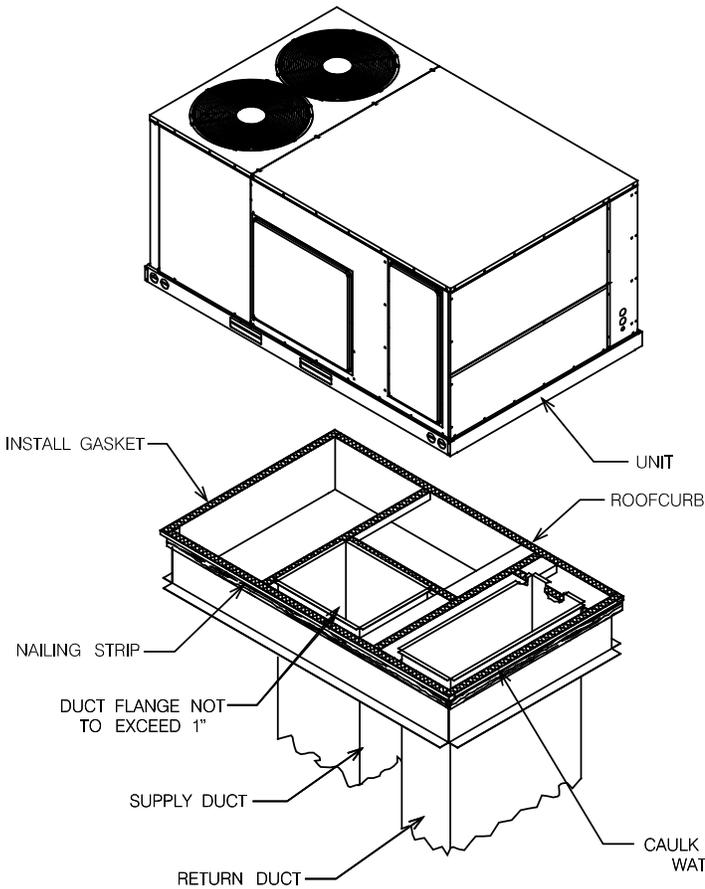


**Roofcurbs (Full Perimeter): 7–12 Tons**

- One available height for all models, 14" (356 mm) .
- Quick assembly corners for easy installation.
- Opening provided in bottom pan to match the through-the-curb electrical connection opening provided on the unit base pan.

- 1"×4" (25 mm × 102 mm) nailer provided.
- Insulating panels provided.
- Sealing gasket provided with roofcurb, 28" (711 mm) .
- 18 gauge galvanized steel.

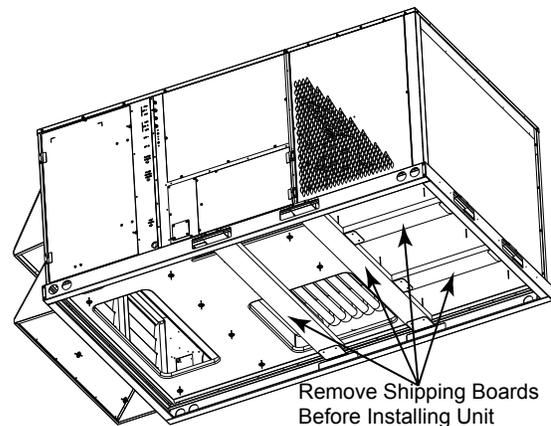
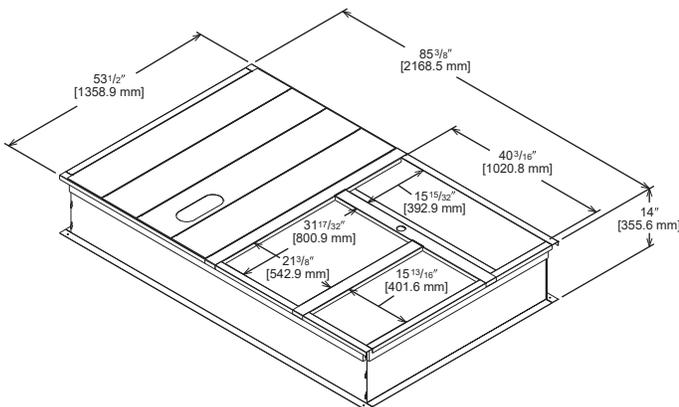
**Figure 50: Typical Roofcurb Installation: MPS A07D – A12D**



\* BY CONTRACTOR

\*\* FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS FOR RECOMMENDED DUCT SIZES.

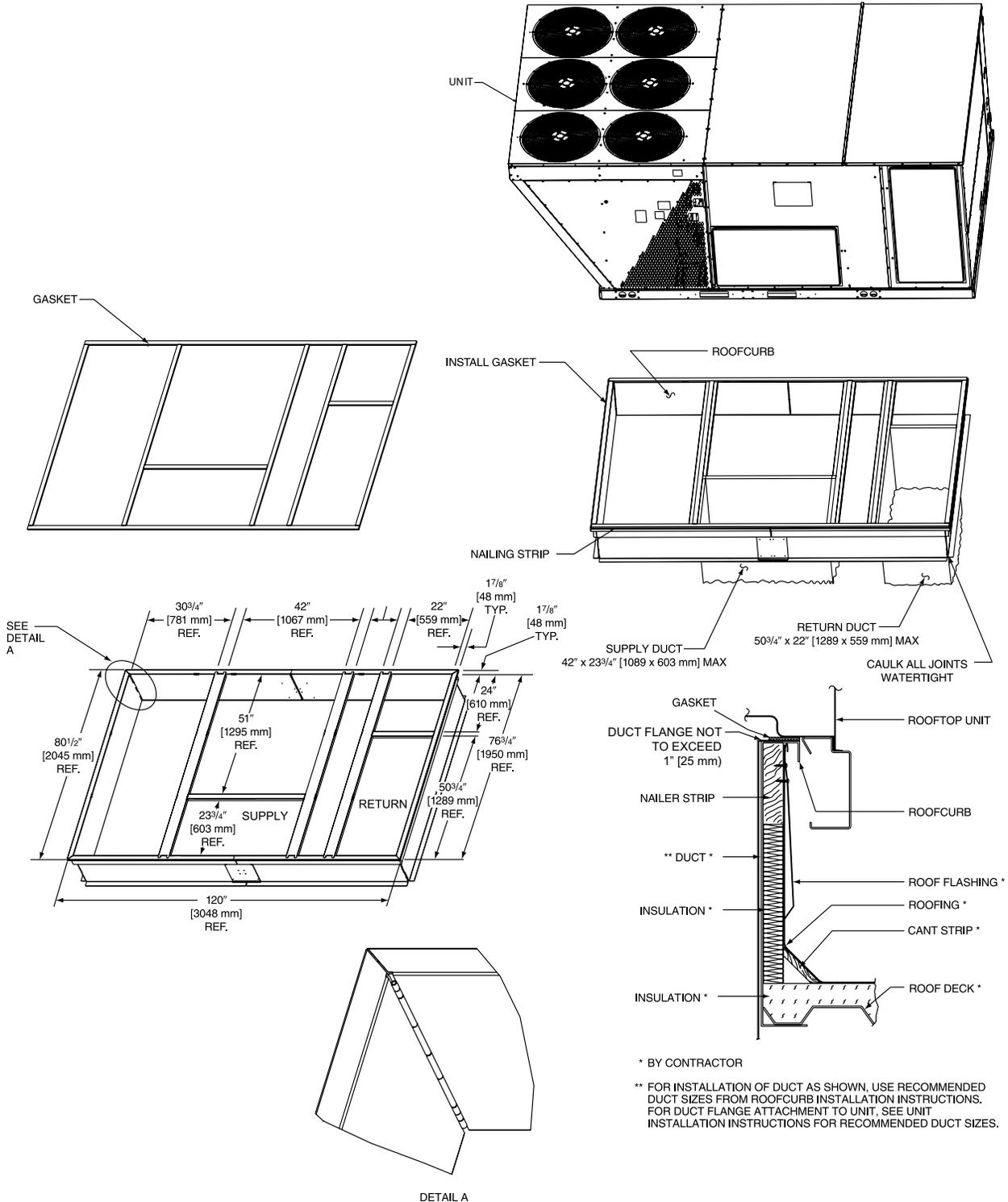
[ ] Designates Metric Conversions



**Roofcurbs (Full Perimeter): 15–25 Tons**

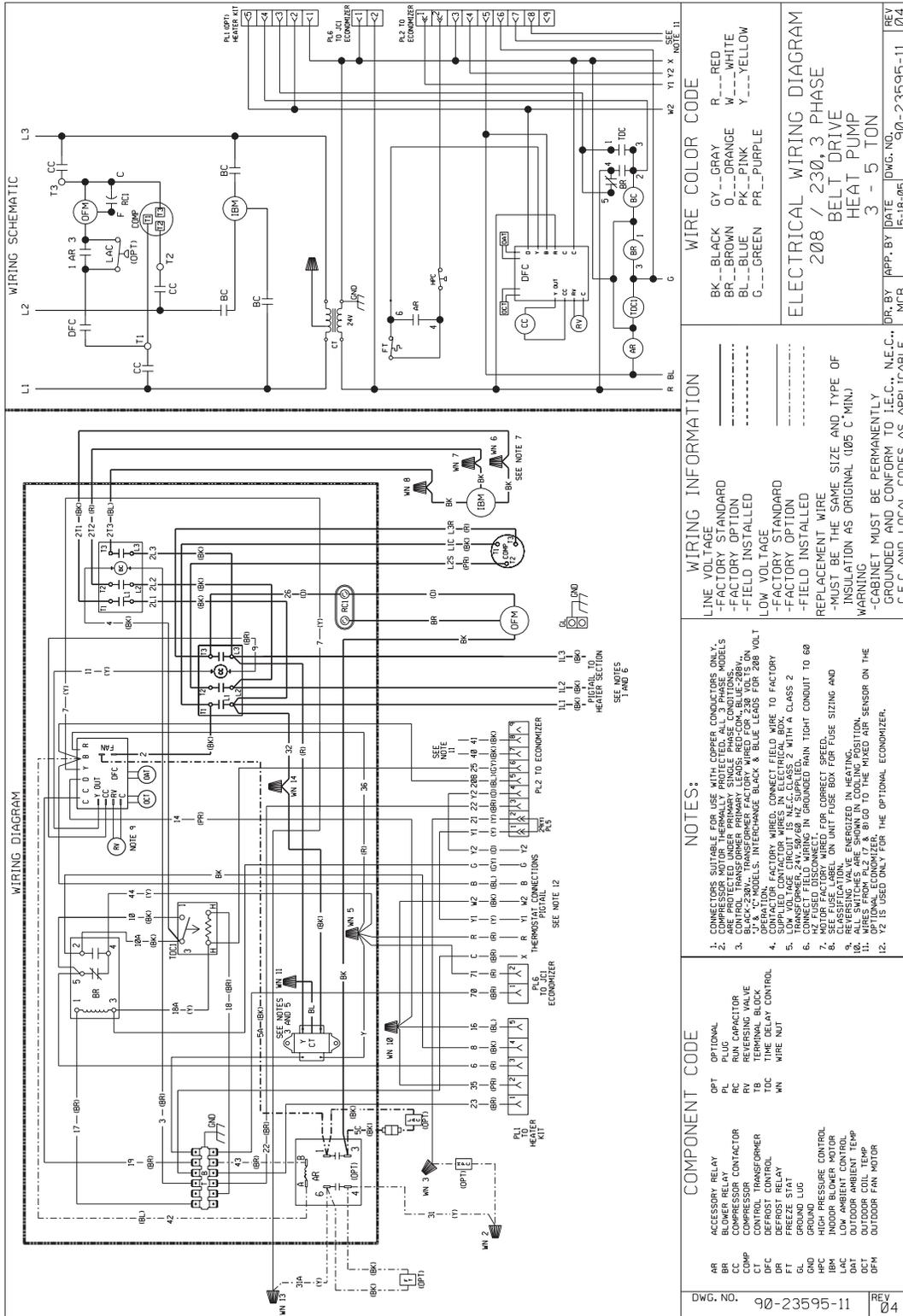
- One available height for all models, 14" (356 mm) .
- Quick assembly corners for easy installation.
- 1"x4" (25 mm x 102 mm) nailer provided.
- Insulating panels not required because of insulated outdoor base pan.
- Sealing gasket provided with roofcurb, 28" (711 mm) .
- 18 gauge galvanized steel.

**Figure 51: Typical Roofcurb Installation: MPS 015B – 020B**



# Sample Wiring Diagrams

Figure 52: Belt-Drive Heat Pump, MSHH03-H05 Ton, 208/230V, 3 Phase



WIRE COLOR CODE	
BK	BLACK
BR	BROWN
BL	BLUE
G	GREEN
GY	GRAY
OR	ORANGE
PK	PINK
PR	PURPLE
R	RED
W	WHITE
Y	YELLOW

WIRING INFORMATION	
LINE VOLTAGE	208 / 230V, 3 PHASE
-FACTORY STANDARD	BELT DRIVE
-FACTORY OPTION	HEAT PUMP
-FIELD INSTALLED	3 - 5 TON
LOW VOLTAGE	
-FACTORY STANDARD	
-FIELD INSTALLED	
REPLACEMENT WIRE	
-MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105 C MIN)	
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C. AND LOCAL CODES AS APPLICABLE.	

- NOTES:**
- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
  - COMPRESSOR MOTOR THERMALLY PROTECTED, ALL 3 PHASE MODELS.
  - BLACK-230V, TRANSFORMER PRIMARY STATUS, REVERSE POLARITY, OPERATION MODELS, INTERCHANGE BLACK & BLUE LEADS FOR 208 VOLT OPERATION.
  - CONTRACTOR FACTORY WIRE: CONNECT FIELD WIRE TO FACTORY WIRE. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 FUSED DISCONNECT FOR CORRECT SIZING.
  - CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO 60 HZ FUSED DISCONNECT FOR CORRECT SIZING.
  - SEE FUSE LABEL ON UNIT FUSE BOX FOR FUSE SIZING AND CLASSIFICATION. ENERGIZED IN HEATING.
  - ALL SWITCHES ARE SHOWN IN COOLING POSITION.
  - OPTIONAL ECONOMIZER, 8 LOG TO THE MIXED AIR SENSOR ON THE OPTIONAL ECONOMIZER.
  - Y2 IS USED ONLY FOR THE OPTIONAL ECONOMIZER.

COMPONENT CODE	
AR	ACCESSORY RELAY
BR	BLOWER RELAY
CC	COMPRESSOR CAPACITOR
CT	CONTROL TRANSFORMER
DR	DEFROST RELAY
FT	FREEZE STAT
GL	GROUND LUG
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
LAC	LOW AMBIENT CONTROL
OAT	OUTDOOR AMBIENT TEMP
OPM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	REVERSING VALVE
RV	REVERSING VALVE
TB	TERMINAL BLOCK
TR	TRANSFORMER
WN	WIRE NUT

DWG. NO.	90-23595-11	REV	04
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Figure 54: : MPSA03C-A05C DDC, 208/230/460V, 3 Phase Cooling only with Reheat

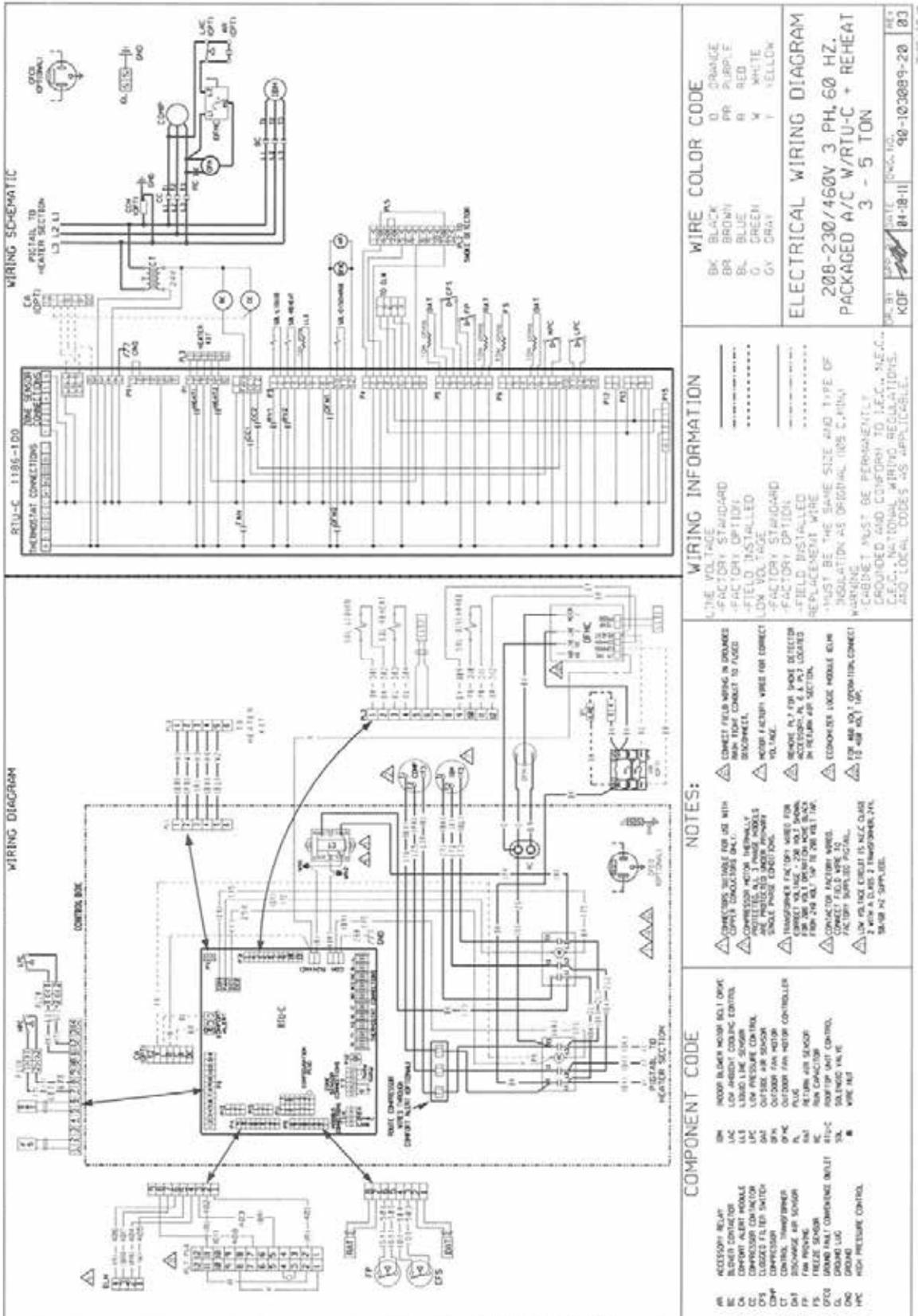


Figure 55: MPSA03C-A05C DDC, 208/230/460V, 3 Phase Gas Heat with Reheat

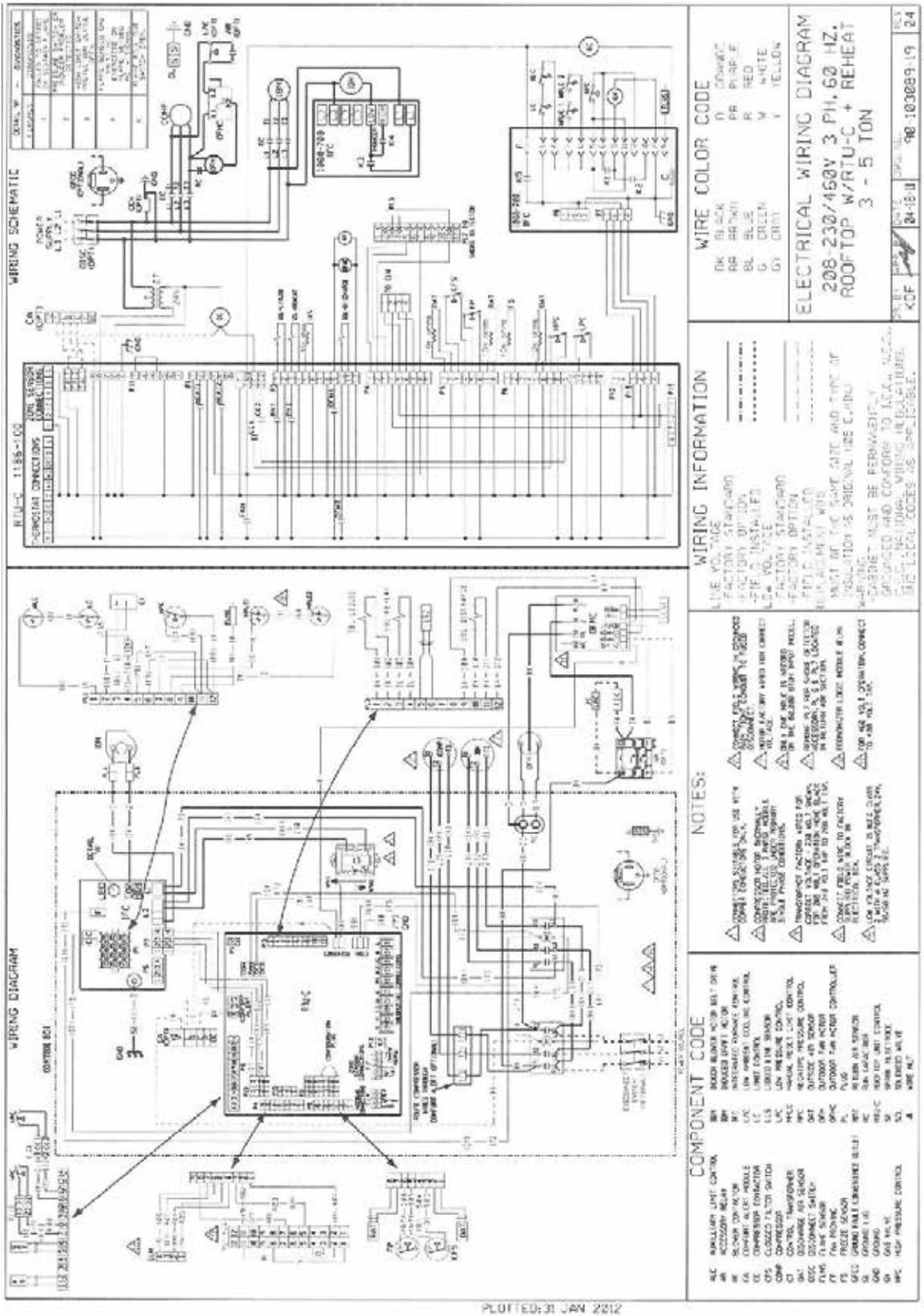


Figure 56: MPSA03C – MPSA05C, 208-230/460V, 3 phase, Cooling Only

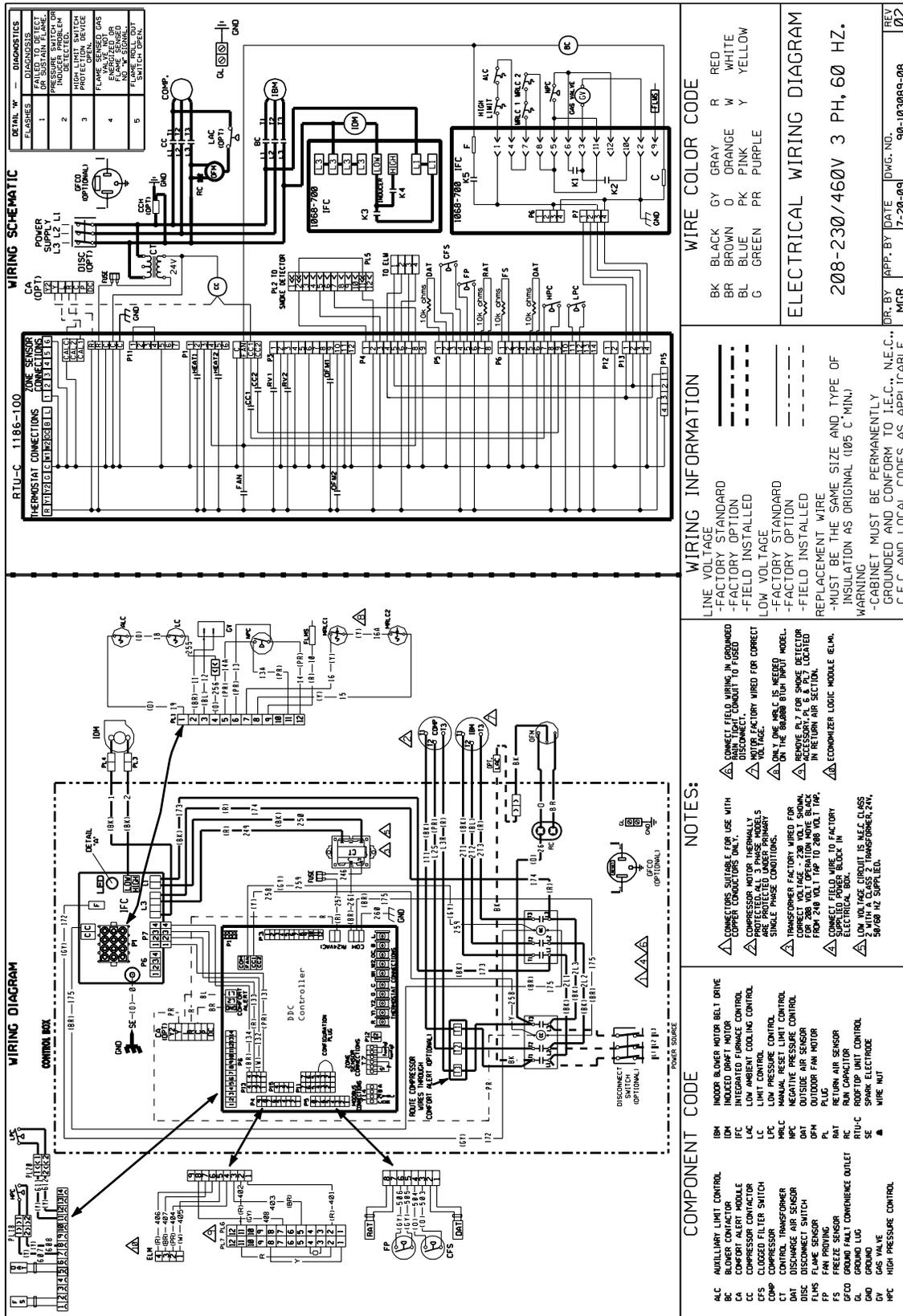
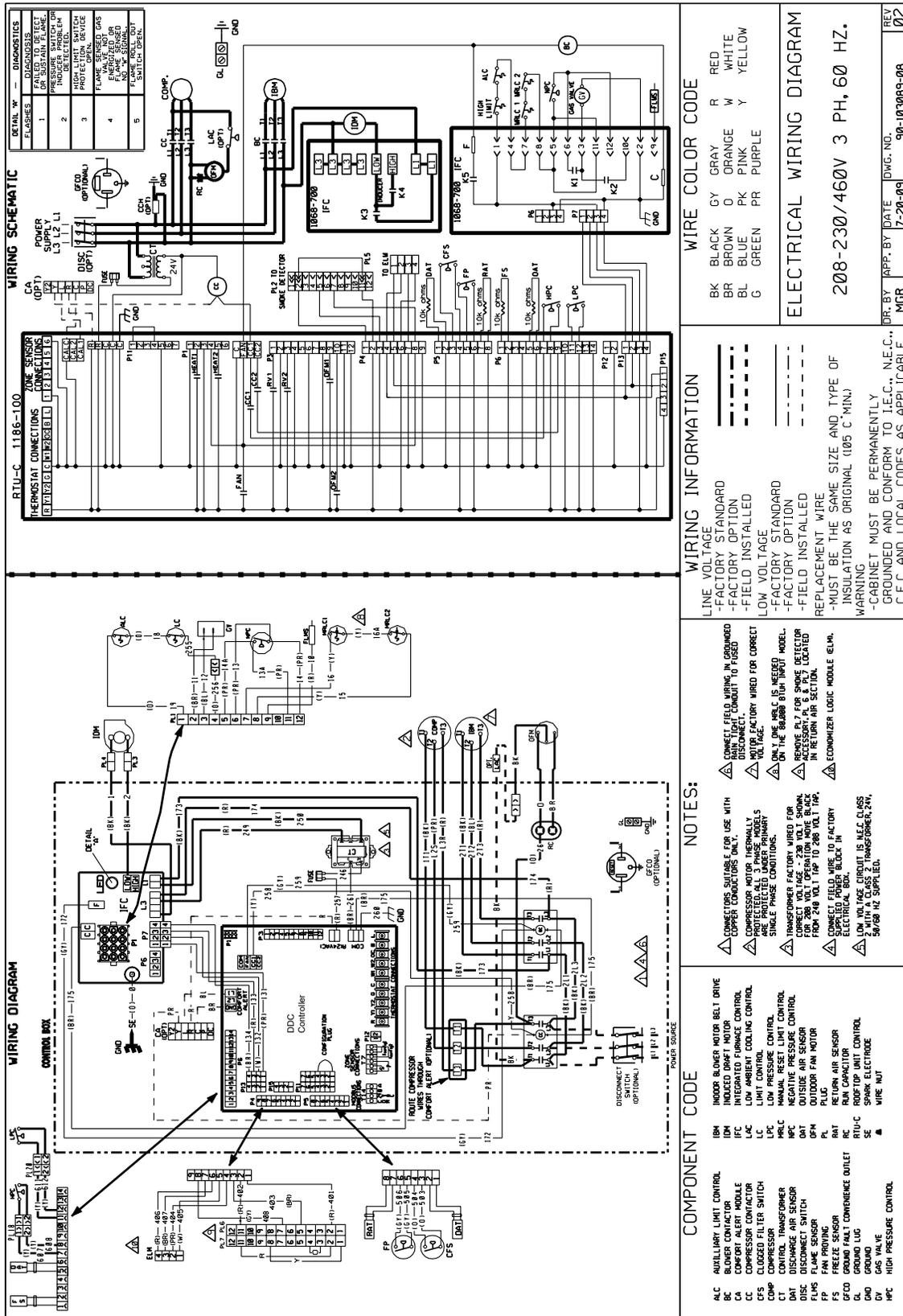


Figure 57: MPSA03C – MPSA05C, 208-230/460V, 3 Phase, Gas Heat



**NOTES:**

- △ CONNECT FIELD WIRING TO GROUNDING BUS TO PREVENT SHORT CIRCUIT TO GROUND.
- △ COMPRESSOR MOTOR WIRING FOR CORRECT PROTECTED 3 PHASE MODELS ONLY. WIRING FOR SINGLE PHASE MODELS IS NOT APPLICABLE.
- △ ONLY ONE WIRE IS NEEDED ON THE BLUDDO 01M UNIT MODEL.
- △ REMOVE R17 FOR SMOKE DETECTOR ACCESSORY AT 6 & P7 LOCATED IN RETURN AIR SECTION.
- △ ECONOMIZER LOGIC MODULE (ELM).
- △ LOW VOLTAGE WIRE TO FACTORY ELECTRICAL BOX.
- △ LOW VOLTAGE CIRCUIT IS M.E.C. CLASS 50/00 VOLT SUPPLIED.

**COMPONENT CODE**

INDOOR BLOWER MOTOR BELT DRIVE  
 INDUCED DRAFT MOTOR CONTROL  
 RETURN AIR FAN MOTOR  
 LOW AMBIENT COOLING CONTROL  
 LIMIT CONTROL  
 LFC LOW PRESSURE CONTROL  
 MRLC MANUAL RESET LIMIT CONTROL  
 NPC NEGATIVE PRESSURE CONTROL  
 DAT DISCHARGE AIR SENSOR  
 DISC DISCONNECT SWITCH  
 PMS FAN PROTECT  
 FPM FAN PROTECT  
 FFS FREEZE SENSOR  
 RC RETURN AIR SENSOR  
 RUN CAPACITOR  
 RFD FAN MOTOR  
 RFD UNIT CONTROL  
 SE SPRINK ELECTRODE  
 WIRE NUT

IBH AUXILIARY LIMIT CONTROL  
 IBM BLOWER MOTOR CONTROL  
 ICM CONTROL MODULE  
 IFC COMPRESSOR CONTACTOR  
 CFS CLOGGED FILTER SWITCH  
 COMP COMPRESSOR  
 CT CONTROL TRANSFORMER  
 DAT DISCHARGE AIR SENSOR  
 DISC DISCONNECT SWITCH  
 PMS FAN PROTECT  
 FPM FAN PROTECT  
 FFS FREEZE SENSOR  
 RC RETURN AIR SENSOR  
 RUN CAPACITOR  
 RFD FAN MOTOR  
 RFD UNIT CONTROL  
 SE SPRINK ELECTRODE  
 WIRE NUT

**WIRING INFORMATION**

LINE VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED  
 LOW VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

REPLACEMENT WIRE  
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105 C MIN.)  
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C. AND LOCAL CODES AS APPLICABLE.

**WIRING SCHEMATIC**

DETAIL 'W' - DIAGNOSTICS

1	FLASHES	AT 1/200 VOLTAGE
2	FLASHES	PRESSURE SWITCH OR DETECTOR
3	FLASHES	AUXILIARY SWITCH
4	FLASHES	FLAME SAFETY SWITCH
5	FLASHES	FLAME SAFETY SWITCH OPEN





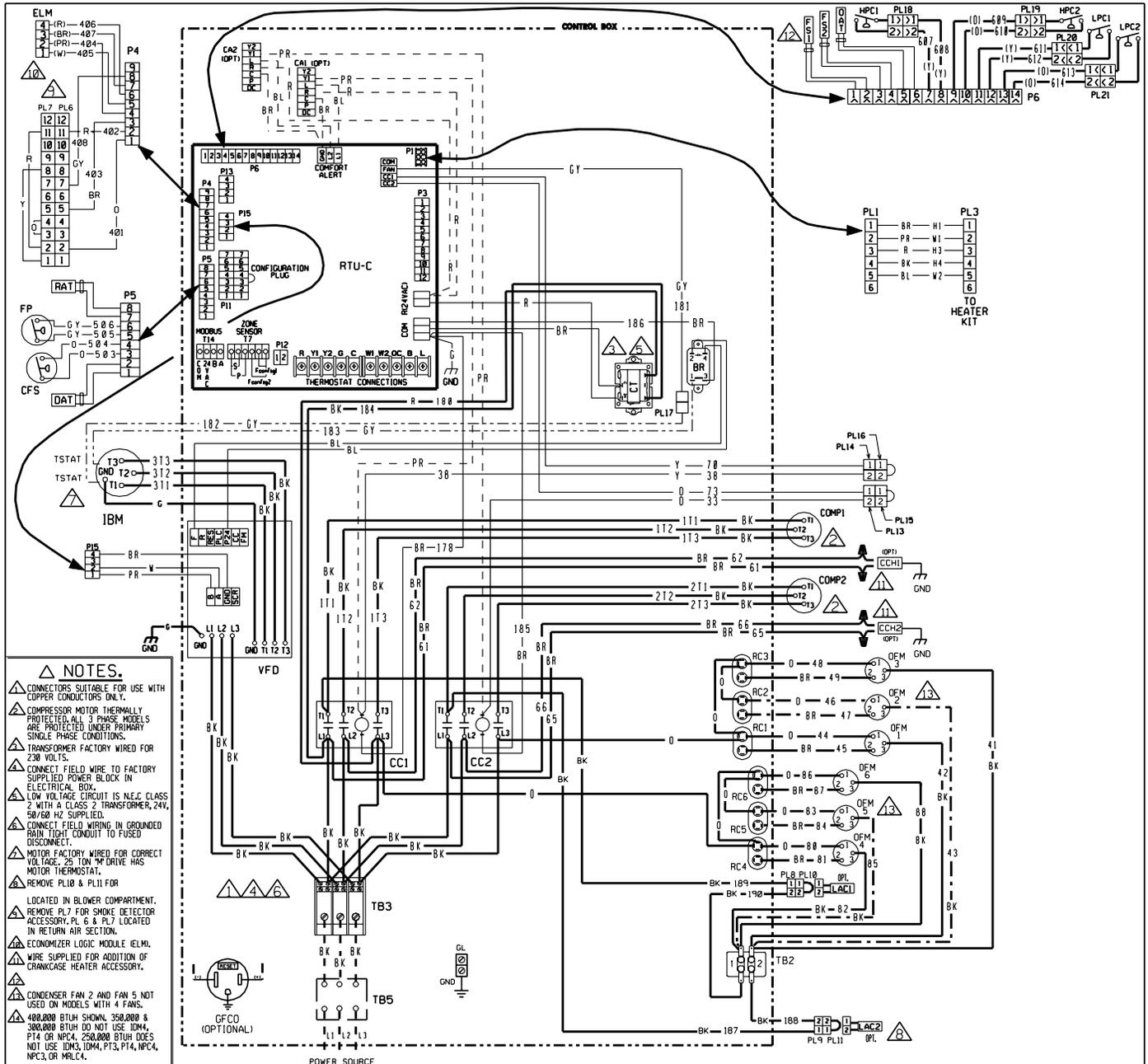








Figure 64: MPS 015B – 025B DDC, 208-230/460V, 3 phase, 2-Speed SAF Cooling only



- NOTES.**
- ▲ CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
  - ▲ COMPRESSOR MOTOR THERMALLY PROTECTED, ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
  - ▲ TRANSFORMER FACTORY WIRED FOR 230 VOLTS.
  - ▲ CONNECT FIELD WIRE TO FACTORY SUPPLIED POWER BLOCK IN ELECTRICAL BOX.
  - ▲ LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
  - ▲ CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
  - ▲ MOTOR FACTORY WIRED FOR CORRECT VOLTAGE, 25 TON HP DRIVE HAS MOTOR THERMOSTAT.
  - ▲ REMOVE PL10 & PL11 FOR LOCATED IN BLOWER COMPARTMENT.
  - ▲ REMOVE PL7 FOR SMOKE DETECTOR ACCESSORY, PL 6 & PL7 LOCATED IN RETURN AIR SECTION.
  - ▲ ECONOMIZER LOGIC MODULE (ELM), WIRE SUPPLIED FOR ADDITION OF CRANKCASE HEATER ACCESSORY.
  - ▲ CONDENSER FAN 2 AND FAN 5 NOT USED ON MODELS WITH 4 FANS.
  - ▲ 480,000 BTUH SHOWAL 350,000 & 380,000 BTUH DO NOT USE IDM4, P14 OR NPC4, 250,000 BTUH DOES NOT USE IDM3, IDM4, PT3, P14, NPC4, NPC3, OR NPC1.

**COMPONENT CODE**

BR	BLOWER RELAY	HPC	HIGH PRESSURE CONTROL
CA	COMFORT ALERT MODULE	IBM	INDOOR BLOWER MOTOR BELT DRIVE
CC	COMPRESSOR CONTACTOR	LAC	LOW AMBIENT COOLING CONTROL
CCH	CRANKCASE HEATER	LPC	LIMIT CONTROL
CFS	CLOSED FILTER SWITCH	LPC	LOW PRESSURE CONTROL
COMP	COMPRESSOR	DAT	OUTSIDE AIR SENSOR
CT	CONTROL TRANSFORMER	OPM	OUTDOOR FAN MOTOR
DAT	DISCHARGE AIR SENSOR	PL	PLUG
DISC	DISCONNECT SWITCH	PL	PLUG
FP	FAN PREVIEW	RC	RUN CAPACITOR
FS	FREEZE SENSOR	RTU-C	ROOFTOP UNIT CONTROL
GFCO	GROUND FAULT CONVENIENCE OUTLET	TB	TERMINAL BLOCK
GL	GROUND LUG	VFD	VARIABLE FREQUENCY DRIVE
GND	GROUND	W	WIRE NUT

**WIRING INFORMATION**

LINE VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

LOW VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

REPLACEMENT WIRE  
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

WARNING  
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

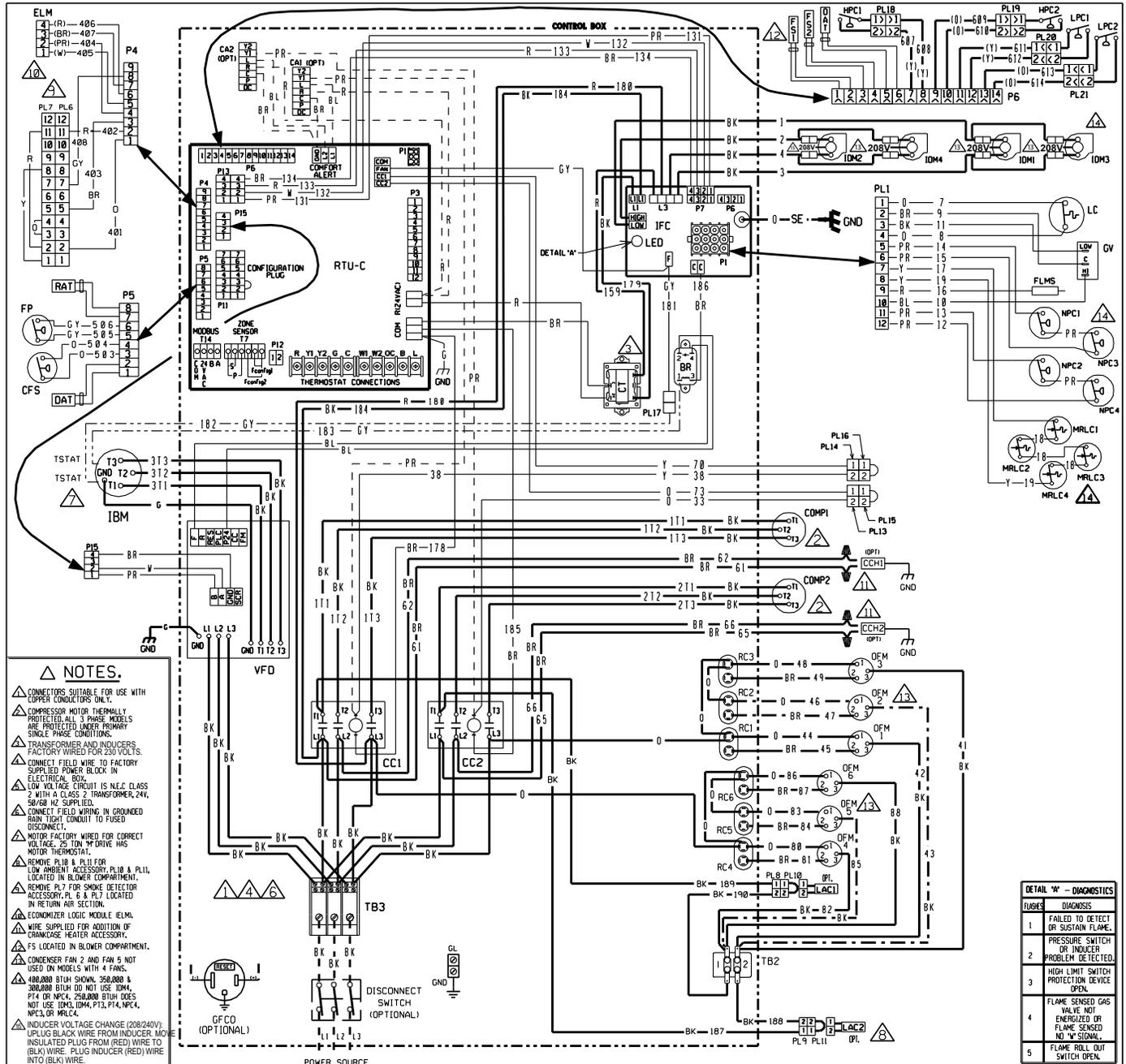
**WIRE COLOR CODE**

BK	BLACK	O	ORANGE
BR	BROWN	PR	PURPLE
BL	BLUE	R	RED
G	GREEN	W	WHITE
GY	GRAY	Y	YELLOW

**WIRING DIAGRAM**  
**VFD MODELS**  
 208-230/460V 3 PH, 60 HZ.  
 SELF-CONTAINED/PACKAGE A/C W/RTU-C

DR. BY	APP. BY	DATE	DWG. NO.	REV
MCB		01-04-12	90-103079-09	02

Figure 65: MPS 015B – 025B DDC, 208-230/460V, 3 phase, 2-Speed SAF Gas Heat



- NOTES.**
- ▲ CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
  - ▲ COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
  - ▲ TRANSFORMER AND INDUCERS FACTORY WIRED FOR 240V/50/60 HZ.
  - ▲ CONNECT FIELD WIRE TO FACTORY SUPPLIED POWER BLOCK IN ELECTRICAL BOX.
  - ▲ LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
  - ▲ CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
  - ▲ MOTOR FACTORY WIRED FOR CORRECT VOLTAGE. 25 TON W/DRIVE HAS MOTOR THERMOSTAT.
  - ▲ REMOVE PL18 & PL11 FOR LOW AMBIENT ACCESSORY. PL18 & PL11 LOCATED IN BLOWER COMPARTMENT.
  - ▲ REMOVE PL7 FOR SMOKE DETECTOR ACCESSORY. PL 6 & PL7 LOCATED IN RETURN AIR SECTION.
  - ▲ ECONOMIZER LOGIC MODULE (ELM) WIRE SUPPLIED FOR ADDITION OF CRANKCASE HEATER ACCESSORY.
  - ▲ FS LOCATED IN BLOWER COMPARTMENT.
  - ▲ CONDENSER FAN 2 AND FAN 5 NOT USED ON MODELS WITH 4 FANS.
  - ▲ 400,000 BTUH SHOWN, 350,000 & 300,000 BTUH DO NOT USE IOM4, P14 OR NPC4, 350,000 BTUH USE NOT USE IOM4, P13, P14, NPC4, NPC3, OR MRLC4.
  - ▲ INDUCER VOLTAGE CHANGE (208/240V): UPLUG BLACK WIRE FROM INDUCER. MOVE INSULATED PLUG FROM (RED) WIRE TO (BLK) WIRE. PLUG INDUCER (RED) WIRE INTO (BLK) WIRE.

**DETAIL 'W' - DIAGNOSTICS**

FLAME	DIAGNOSIS
1	FAILED TO DETECT OR SUSTAIN FLAME.
2	PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
3	HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
4	FLAME SENSED GAS VALVE NOT ENERGIZED OR FLAME SENSED NO. 5 SIGNAL.
5	FLAME ROLL OUT SWITCH OPEN.

**COMPONENT CODE**

BR	BLOWER RELAY	IBM	INDOOR BLOWER MOTOR BELT DRIVE
CA	COMFORT ALERT MODULE	IDM	INDUCED DRAFT MOTOR
CC	COMPRESSOR CONTACTOR	IFC	INTEGRATED FURNACE CONTROL
CCH	CRANKCASE HEATER	LAC	LOW AMBIENT COOLING CONTROL
CFS	CLOGGED FILTER SWITCH	LC	LIMIT CONTROL
COMP	COMPRESSOR	LPC	LOW PRESSURE CONTROL
CT	CONTROL TRANSFORMER	MRLC	MANUAL RESET LIMIT CONTROL
DAT	DISCHARGE AIR SENSOR	NPC	NEGATIVE PRESSURE CONTROL
DISC	DISCONNECT SWITCH	OAT	OUTSIDE AIR SENSOR
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
FP	FAN PROWING	PL	PLUG
FS	FREZE SENSOR	RAT	RETURN AIR SENSOR
GFCO	GROUND FAULT CONVENIENCE OUTLET	RC	RUN CAPACITOR
GL	GROUND LUG	RTU-C	ROOF TOP UNIT CONTROL
GND	GROUND	SE	SPARK ELECTRODE
GV	GAS VALVE	TB	TERMINAL BLOCK
HPC	HIGH PRESSURE CONTROL	TFD	VARIABLE FREQUENCY DRIVE
		W	WIRE NUT

**WIRING INFORMATION**

LINE VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

LOW VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

REPLACEMENT WIRE  
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

WARNING  
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

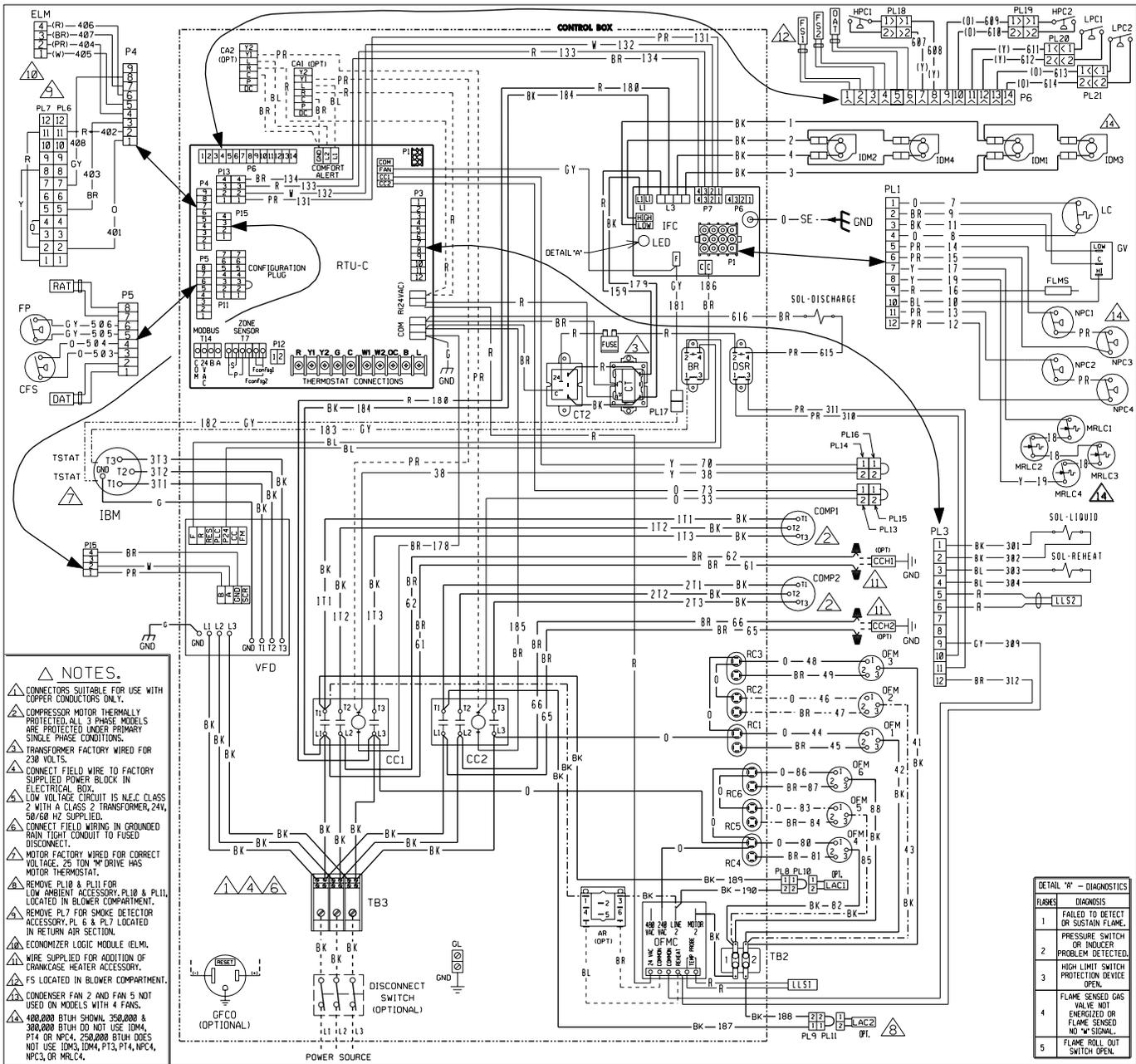
**WIRE COLOR CODE**

BK	BLACK	O	ORANGE
BR	BROWN	P	PURPLE
BL	BLUE	R	RED
G	GREEN	W	WHITE
GY	GRAY	Y	YELLOW

**WIRING DIAGRAM**  
**VFD MODELS**  
 208-230/460V 3 PH, 60 HZ.  
 ROOF TOP W/RTU-C

DR. BY MCB    APP. BY    DATE 01-04-12    DWG. NO. 90-103079-08    REV 01

Figure 66: MPS 015B – 025B DDC, 208-230/460V, 3 phase, Gas Heat with Reheat



- NOTES.**
- △ CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
  - △ COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
  - △ TRANSFORMER FACTORY WIRE FOR 230 VOLTS.
  - △ CONNECT FIELD WIRE TO FACTORY SUPPLIED POWER BLOCK IN ELECTRICAL BOX.
  - △ LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
  - △ CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
  - △ MOTOR FACTORY WIRE FOR CORRECT VOLTAGE. 25 TON "M" DRIVE HAS MOTOR THERMOSTAT.
  - △ REMOVE PL8 & PL11 FOR LOW AMBIENT ACCESSORY. PL10 & PL11 LOCATED IN BLOWER COMPARTMENT.
  - △ REMOVE PL7 FOR SMOKE DETECTOR ACCESSORY. PL6 & PL7 LOCATED IN RETURN AIR SECTION.
  - △ ECONOMIZER LOGIC MODULE (ELM).
  - △ WIRE SUPPLIER FOR ADDITION OF CRANKCASE HEATER ACCESSORY.
  - △ FS LOCATED IN BLOWER COMPARTMENT.
  - △ CONDENSER FAN 2 AND FAN 5 NOT USED ON MODELS WITH 4 FANS.
  - △ 400,000 BTUH SHOWS 350,000 & 300,000 BTUH DO NOT USE IDM4, P14 OR NPC4. 250,000 BTUH DOES NOT USE IDM3, IDM4, PT3, PT4, NPC4, NPC3, OR MRLC4.

**COMPONENT CODE**

AR	ACCESSORY RELAY	IBM	INDOOR BLOWER MOTOR BELT DRIVE
BR	BLOWER RELAY	IDM	INDUCED DRAFT MOTOR
CA	COMFORT ALERT MODULE	IFC	INTEGRATED FURNACE CONTROL
CC	COMPRESSOR CONTACTOR	LAC	LOW AMBIENT COOLING CONTROL
CCH	CRANKCASE HEATER	LCL	LIMIT CONTROL
CFS	CLOSED FILTER SWITCH	LLS	LIQUID LINE SENSOR
COMP	COMPRESSOR	LPC	LOW PRESSURE CONTROL
CT	CONTROL TRANSFORMER	MRLC	MANUAL RESET LIMIT CONTROL
DAT	DISCHARGE AIR SENSOR	NPC	NEGATIVE PRESSURE CONTROL
DSR	DISCHARGE SOLENOID RELAY	OAT	OUTSIDE AIR SENSOR
DISC	DISCONNECT SWITCH	OFM	OUTDOOR FAN MOTOR
FLMS	FLAME SENSOR	OFMC	OUTDOOR FAN MOTOR CONTROLLER
FP	FAN PROVING	PL	PLUG
FS	FREEZE SENSOR	RAT	RETURN AIR SENSOR
GFCO	GROUND FAULT CONVENIENCE OUTLET	RC	RUN CAPACITOR
GL	GROUND LUG	RTU-C	ROOFTOP UNIT CONTROL
GND	GROUND	SE	SPARK ELECTRODE
GV	GAS VALVE	TB	TERMINAL BLOCK
HPC	HIGH PRESSURE CONTROL	VFD	VARIABLE FREQUENCY DRIVE
		W	WIRE NUT

**WIRING INFORMATION**

LINE VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

LOW VOLTAGE  
 -FACTORY STANDARD  
 -FACTORY OPTION  
 -FIELD INSTALLED

REPLACEMENT WIRE  
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

WARNING  
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

**WIRE COLOR CODE**

BK	BLACK	O	ORANGE
BR	BROWN	PR	PURPLE
BL	BLUE	R	RED
G	GREEN	W	WHITE
GY	GRAY	Y	YELLOW

**WIRING DIAGRAM  
 REHEAT MODELS  
 208-230/460V 3 PH, 60 HZ.  
 ROOFTOP W/RTU-C**

DR. BY	APP. BY	DATE	DWG. NO.	REV
MCB		10-21-11	90-103079-04	01

Reference IM 972 for remaining wiring diagrams.

## Part 1: General

### 1.01 Section Includes:

- A. Commercial Packaged Rooftop air conditioners.

### 1.02 References

- A. AFBMA 9-Load Ratings and Fatigue Life for Ball Bearings.
- B. AMCA 99-Standards Handbook
- C. AMCA 210-Laboratory Methods of Testing Fans for Rating Purposes
- D. AMCA 300-Test Code for Sound Rating Air Moving Devices
- E. AMCA 500-Test Methods for Louver, Dampers, and Shutters.
- F. AHRI 410-Forced-Circulation Air-Cooling and Air-Heating Coils.
- G. AHRI 430-Central-Station Air-Handling Units.
- H. AHRI 435-Application of Central-Station Air-Handling Units.
  - I. IBC 2000 - International Building Code
  - J. NEMA MG1-Motors and Generators
  - K. National Electrical Code.
  - L. NFPA 70-National Fire Protection Agency.
  - M. SMACNA-HVAC Duct Construction Standards-Metal and Flexible.
  - N. UL 900-Test Performance of Air Filter Units.

### 1.03 Submittals

- A. Shop Drawings: Indicate assembly, unit dimensions, weight loading, required clearances, construction details, field connection details, electrical characteristics and connection requirements.
- B. Product Data:
  - 1. Provide literature that indicates dimensions, weights, capacities, ratings, fan performance, and electrical characteristics and connection requirements.
  - 2. Manufacturer's Installation Instructions.

### 1.04 Operation And Maintenance Data

- A. Maintenance Data: Provide instructions for installation, maintenance and service

### 1.05 Qualifications

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience, who issues complete catalog data on total product.
- B. Startup must be done by trained personnel experienced with rooftop equipment.
- C. Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters and remote controls are in place, bearings lubricated, and manufacturers' installation instructions have been followed.

### 1.06 Delivery, Storage, And Handling

- A. Deliver, store, protect and handle products to site.
- B. Accept products on site and inspect for damage.
- C. Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

## Part 2: Products

### 2.01 Manufacturers

- A. The following manufacturers will be considered provided they comply with the contract documents. No substitutions will be permitted.
  1. Daikin Applied
  2. Trane
  3. Carrier
  4. York

### 2.02 General Description

- A. Furnish as shown on plans, Daikin Packaged Systems, Singlezone Heating and Cooling Unit(s) model MPS. Unit performance and electrical characteristics shall be per the job schedule.
- B. Configuration: Fabricate as detailed on prints and drawings:
  1. Return plenum / economizer section
  2. Filter section
  3. Cooling coil section
  4. Supply fan section
  5. Gas heating section
  6. Condensing unit section
- C. The complete unit shall be cULus listed. Gas furnace units shall be UL listed and classified in accordance with ANSIZ 21.47.
- D. Unit shall comply with ASHRAE 90.1-2007 standards for efficiency and EER.

- E. Each unit shall be specifically designed for outdoor rooftop application and include a weatherproof cabinet. Each unit shall be completely factory assembled and shipped in one piece. MPS packaged units shall be shipped fully charged with Refrigerant 410A and POE oil.
- F. The unit shall undergo a complete factory run test prior to shipment. The factory test shall include final balancing of the supply fan assemblies, a refrigeration circuit run test, a unit control system operations checkout, a unit refrigerant leak test and a final unit inspection.
- G. All units shall have decals and tags to indicate caution areas and aid unit service. Unit nameplates shall be fixed to the main control panel door. Electrical wiring diagrams shall be attached to the control panels. Installation, operating and maintenance bulletins and start-up forms shall be supplied with each unit.
- H. Performance: All scheduled capacities and face areas are minimum accepted values. All scheduled amps, kW, and HP are maximum accepted values that allow scheduled capacity to be met.
- I. Warranty: The manufacturer shall provide 12-month parts only warranty. Defective parts will be repaired or replaced during the warranty period at no charge. The warranty period shall commence at startup or six months after shipment, whichever occurs first.
- J. The manufacturer shall provide extended 48-month, parts only, warranty on the compressor. Defective parts will be repaired or replaced during the warranty period at no charge. The warranty period shall commence at startup or six months after shipment, whichever occurs first.

### 2.03 Cabinet, Casing, And Frame

- A. Panel construction shall be 18 GA single wall construction with a baked powder coat finish. Insulation shall be a minimum of 3/4" thick fiberglass with a foil face surface. Insulation shall be glued to the panel as well as mechanically fastened. In lieu of foil face insulation with mechanical fasteners, double wall construction may be substituted. Panel design shall not have any exposed insulation edges.
- B. Exterior surfaces shall be constructed of 18 GA, G90 galvanized, with a baked powder coat finish of a neutral beige color. Finished panel surfaces to withstand a minimum 1000-hour salt spray test in accordance with ASTM B117 standard for salt spray resistance
- C. Base frame shall be 14 GA galvanized steel and be a full perimeter design. The base frame shall have integral forklift slots and rigging holes. The unit base shall overhang the roof curb for positive water runoff and shall seat on the roof curb gasket to provide a positive, weather tight seal.

- D. The full unit base pan shall be a one-piece stamped design. The base pan shall have a stamped 1-1/8" flange around the supply and return air openings to prevent any water to penetrate into the building. The base pan shall be insulated with foil face insulation with mechanical fasteners on the underside of the pan. The rooftop base pan shall not have insulation on the air stream side of the equipment
- E. Service doors shall be provided on the filter section, supply fan, and the electrical control panel section . [MPSA07 - MPS025 only]. All service access doors shall be mounted on multiple hinges and shall be secured by a 1/4 turn latch system. Removable panels secured by multiple mechanical fasteners are not acceptable.

### 2.04 Supply Fan

- A. Supply fan shall be a double width double inlet (DWDI) forward curved centrifugal fan. The supply fan shall be mounted using solid-steel shafts and wheel hubs with mating keyways.
- B. [MPSA03B and MPSA04B only] Unit shall come equipped with a direct drive fan. The fan shall be a double inlet, centrifugal wheel and shall rotate in permanently lubricated ball bearings. The wheel shall be made from steel with a corrosion resistant finish. The fan / motor assembly shall be statically and dynamically balanced.
- C. The fan assembly shall have adjustable pitched sheaves on the motor. Bushings shall be used on all sheaves to allow for easy removal of the pulleys from the fan and motor shaft. Fixed bore pulleys fastened to the shaft by setscrews will not be allowed. The drives shall be selected with a 1.2 service factor.
- D. All fan assemblies shall be statically and dynamically balanced at the factory, including a final trim balance, prior to shipment. All fan assemblies shall employ solid steel fan shafts. Bearings shall be sized to provide a L-50 life of 250,000 hours.
- E. Fan motors shall be heavy-duty, 1800 rpm, open drip-proof (ODP). Motors efficiencies shall meet EPAct efficiencies. Motors shall be mounted on an adjustable base that provides for proper alignment and belt tension adjustment.
- F. The fan design shall allow for the fan and motor assembly to slide out of the rooftop unit for ease of servicing the equipment.

## 2.05 Electrical

- A. Unit wiring shall comply with NEC requirements and with all applicable UL standards. All electrical components shall be UL recognized where applicable. All wiring and electrical components provided with the unit shall be number and color-coded and labeled according to the electrical diagram provided for easy identification. The unit shall be provided with a factory wired weatherproof control panel. Unit shall have a single point power connection for main power connection. A terminal board shall be provided for low voltage control wiring. Each compressor and condenser fan motor shall be furnished with contactors and thermal overload protection. Supply fan motors shall have a factory installed and wired control contactor. Knockouts shall be provided in the bottom of the main control panels for field wiring entrance.
- B. A single non-fused disconnect switch shall be provided for disconnecting electrical power at the unit. Disconnect switches shall be mounted internally to the control panel and operated by an externally mounted handle

## 2.06 Heating And Cooling Sections

- A. [MPS015B - MPS025B ton units] Direct expansion (DX) cooling coils shall be fabricated of seamless high efficiency copper tubing that is mechanically expanded into high efficiency aluminum plate fins. Coils shall be a multi-row design. Units shall have two independent refrigerant circuits and shall use an interlaced coil circuiting that keeps the full coil face active at all load conditions. All coils shall be factory leak tested with high pressure air under water.
- B. [MPSA03B - MPSA05B units] Direct expansion (DX) cooling coils shall be fabricated of seamless high efficiency copper tubing that is mechanically expanded into high efficiency aluminum plate fins. Coils shall be a multi-row design. All coils shall be factory leak tested with high pressure air under water.
- C. [MPSA07 – MPS A10 units] Direct expansion (DX) cooling coils shall be fabricated of Aluminum Micro Channel Coils that shall be leak tested to 150psig, pressure tested to 550 psig, and qualified to UL 1995 burst test at 2,200 psig. Units shall be provided with one two stage refrigerant circuit and shall use a single row microchannel cooling coil.
- D. [MPS A12 units] Direct expansion (DX) cooling coils shall be fabricated of Aluminum Micro Channel Coils that shall be leak tested to 150psig, pressure tested to 550 psig, and qualified to UL 1995 burst test at 2,200 psig. Units shall be provided with two independent refrigerant circuits and shall use a single row microchannel cooling coil per refrigerant circuit.

- E. A non-corrosive ceramic or polymer positively sloped drain pan shall be provided with the cooling coil. The drain pan shall extend beyond the leaving side of the coil and underneath the cooling coil connections. The drain pan shall have a minimum slope of 1/8" per foot to provide positive draining. The slope of the drain pan shall be in two directions and comply with ASHRAE Standard 62.1 The drain pan shall be connected to a threaded drain connection extending through the unit base.
- F. The rooftop unit shall include a natural gas heating section. The heating module shall be a tubular design with in-shot gas burners. The heat exchanger tubes shall be constructed of aluminized steel. The module shall have an induced draft fan that will maintain a negative pressure in the heat exchanger tubes for the removal of the flue gases.
- G. The heater shall have an electronic direct spark ignition system with a remote flame sensor. The gas furnace shall have a flame rollout safety protection switches and a high temperature limit switch that will shut the gas valve off upon detection of improper burner manifold operation. The induced draft fan shall have an airflow safety switch that will prevent the gas valve from turning on in the event of no airflow in the flue chamber.
- H. A factory-installed DDC control system shall control the gas heat furnace. The control system shall shut down the entire heating system after two unsuccessful attempts at start-up and require a manual reset. Field installed heating systems shall require a field UL/ETL certification. The manufacturer's rooftop unit UL/ETL certification shall cover the complete unit including the gas heating modules.
- I. The heating modules shall have a field installed kit for conversion of the unit to LP gas.

## 2.07 Filters

- A. Unit shall be provided with a draw-through filter section. The filter rack shall be designed to accept a 2" filter. The unit design shall have a hinged access door for the filter section.

## 2.08 Outdoor / Return Air Section

- A. Unit shall be provided with an outdoor air economizer section. The 0 to 100% outside air economizer section shall include outdoor, return, and exhaust air dampers. The outside and return air dampers shall be sized to handle 100% of the supply air volume. Damper blades shall be gasketed with side seals and jamb seals to provide an air leakage rate of 4 cfm / square foot of damper area at 1" differential pressure per ASHRAE 90.1 Energy Standard. Leakage rate to be tested in accordance with AMCA Standard 500. A barometric exhaust damper shall be provided to exhaust air out of the back of the unit. A bird screen shall be provided to prevent infiltration of rain and foreign materials. Exhaust damper blades shall be lined with vinyl gasketing on contact edges. Control of the dampers shall be by a factory installed direct coupled actuator. Damper actuator shall be of the modulating, spring return type. An adjustable enthalpy control shall be provided to sense the dry-bulb temperature and relative humidity of the outdoor air stream to determine if outdoor air is suitable for "free" cooling. If outdoor air is suitable for "free" cooling, the outdoor air dampers shall modulate in response to the unit's temperature control system.

## 2.09 Condensing Section

- A. Condenser coils shall be multi-row and fabricated from high efficiency rifled copper tubing mechanically bonded to high efficiency aluminum fins. Each condenser coil shall be factory leak tested with high-pressure air under water. Condenser coils shall be protected from incidental contact to coil fins by a coil guard.
- B. [MPS A07 - MPS A12 only] Condenser coils shall be an all aluminum design. The aluminum tube shall be a micro channel design with high efficiency aluminum fins. Fins shall be brazed to the tubing for a direct bond. Each condenser coil shall be leak tested to 150psig, pressure tested to 550 psig, and qualified to UL 1995 burst test at 2,200 psig.
- C. Condenser fans shall be direct drive, axial type designed for low tip speed and vertical air discharge. Condenser fan rpm shall be 1140 rpm maximum. Fan blades shall be constructed of steel and riveted to a steel center hub. Condenser fan motors shall be heavy-duty, non-reversing type with permanently lubricated ball bearing and thermal protection. Motor design shall be totally enclosed air over (TEAO) to protect the motors from rain and damage by water.
- D. Optional low ambient cooling to 0 degrees F shall be provided.
- E. Refrigeration circuit shall be complete with a thermal expansion valve and liquid line filter drier.
- F. Refrigerant gauge ports shall be external to the cabinet for both low and high pressure for ease of service.
- G. Each unit shall have multiple, heavy-duty scroll compressors. Each compressor shall be complete with gauge ports, anti-slug protection, motor overload protection and a time delay to prevent short cycling and simultaneous starting of compressors following a power failure. Compressors shall be isolated with resilient rubber isolators to decrease noise transmission.
- H. All units 12 through 25 tons shall have two independent refrigeration circuits. Each circuit shall be dehydrated and factory charged with Refrigerant 410A and oil.

## 2.10 Roof Curb

- A. A prefabricated 14-gauge galvanized steel, mounting curb shall be provided for field assembly on the roof decking prior to unit shipment. The roof curb shall be a full perimeter type with complete perimeter support of the air handling section and condensing section. The curb shall be a minimum of 14" high and include a nominal 2"x4" wood nailing strip. Gasket shall be provided for field mounting between the unit base and roof curb.

**2.11 Controls (Analog)**

- A. [MPSA07 - MPS025 Units] Control system shall have 2 stages for cooling and 2 stages for heating.
- B [MPSA03 - MPSA05 units] Control system shall have 1 stage for cooling and 1 stage for heating.

**2.12 Controls (DDC)**

- A. Provide a complete integrated microprocessor based Direct Digital Control (DDC) system to control all unit functions including temperature control, monitoring, unit safety protection, and diagnostics. This system shall consist of all required temperature sensors, pressure sensors, controller and keypad/ display operator interface.
- B. The stand-alone DDC controllers shall not be dependent on communications with any on-site or remote PC or master control panel for proper unit operation. The microprocessor shall maintain existing set points and operate stand alone if the unit loses either direct connect or network communications. The microprocessor memory shall be protected from voltage fluctuations as well as any extended power failures. No settings shall be lost, even during extended power shutdowns.
- C. The DDC control system shall permit starting and stopping of the unit locally or remotely. The control system shall be capable of providing a remote alarm indication. The unit control system shall provide for outside air damper actuation, emergency shutdown, remote heat enable/ disable, remote cool enable/ disable, heat indication, cool indication, and fan operation.
- D. The keypad interface shall allow convenient navigation and access to all control functions. The unit keypad/display character format shall be 2 lines × 16 characters. For ease of service, the display format shall be English language readout. The user interaction with the display shall provide the following information as a minimum:
  - 1. Return air temperature
  - 2. Supply air temperature
  - 3. Outdoor air temperature
  - 4. Space air temp
  - 5. Dirty filter indication
  - 6. Airflow verification
  - 7. Cooling status
  - 8. Unit status
  - 9. Last 10 active alarms and / or faults

- E. The user interaction with the keypad shall provide the following setpoints as a minimum:

**Controls mode**

1. Standby
2. Heat/cool
3. Cool only
4. Heat only
5. Fan only

**Occupancy mode**

1. Occupied
2. Unoccupied
3. Tenant override

- F. Night setback and setup space temperature







### ***Daikin Applied Training and Development***

Now that you have made an investment in modern, efficient Daikin equipment, its care should be a high priority. For training information on all Daikin HVAC products, please visit us at [www.DaikinApplied.com](http://www.DaikinApplied.com) and click on Training, or call 540-248-9646 and ask for the Training Department.

### ***Warranty***

All Daikin equipment is sold pursuant to its standard terms and conditions of sale, including Limited Product Warranty. Consult your local Daikin Applied representative for warranty details. To find your local Daikin Applied representative, go to [www.DaikinApplied.com](http://www.DaikinApplied.com).

### ***Aftermarket Services***

To find your local parts office, visit [www.DaikinApplied.com](http://www.DaikinApplied.com) or call 800-37PARTS (800-377-2787). To find your local service office, visit [www.DaikinApplied.com](http://www.DaikinApplied.com) or call 800-432-1342.

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Products manufactured in an ISO Certified Facility.