

2 to 5 Ton Vertical Packaged Wall Mount Heat Pumps

8AA1024H-1060H (High Efficiency Single Stage Cooling) • 8AA2024H-2060H (High Efficiency 2-Stage Cooling)



General Description

Marvair® wall mounted heat pumps are the ideal HVAC system for a wide variety of applications. The exterior mounting means that no valuable interior space is required. Marvair heat pumps are packaged units – the refrigerant piping and internal wiring are factory assembled and thoroughly tested. All components are readily accessible for easy service and maintenance. The energy efficient operation keeps operating costs to a minimum and makes Marvair heat pumps ideal problem solvers for a wide variety of applications, including offices, classrooms and telecommunication shelters.

➤ Marvair Heat Pumps Are Available To Meet Any Budget Or Efficiency Requirement:

• 8AA1024H - 1060H High Efficiency Models

Marvair's most efficient wall mount heat pumps with highly efficient scroll compressors result in Energy Efficiency Ratios (EER's) of up to 11.50. Available in cooling capacities of 2, 2½, 3, 3½, 4 and 5 tons (24,000 to 60,000 BTUH). No other wall mount heat pump is more efficient

• 8AA2024H - 2060H 2-Stage Compressor Models

These models feature a 2-stage compressor which can reduce energy costs by more precisely matching the cooling capacity to the heat load with first stage cooling approximately 65% of the total cooling capacity. This results in Energy Efficiency Ratios (EER's) of up to 11.00 and an Integrated Part Load Value (IPLV) of up to 15.00. 8AA 2-Stage models are available in cooling capacities of 2, 2½, 3, 3½, 4 and 5 tons (24,000 to 60,000 BTUH).

➤ Outside Air for Ventilation or Free Cooling

A full range of accessories and options allows Marvair wall mount heat pumps to be optimized for each application. For classrooms, a complete range of ventilation options are available to meet the fresh air requirements of the ASHRAE 62 standard, "Ventilation for Acceptable Indoor Air Quality", including the exclusive Marvair GreenWheel® Energy Recovery Ventilator. Where cooling is required during cool or cold weather, e.g., telecommunications shelters, a factory installed economizer should be used. To insure proper operation and optimum performance, all outside air ventilation packages are non-removable, factory installed and factory calibrated.



8AA1036H



FEATURES AND BENEFITS

GreenWheel® and GreenCube® Energy Recovery Ventilators

- Total Energy (Sensible and Latent) Recovery Ventilators
- Independent Ventilation Blower Motors

R-410A Refrigerant

- Efficient Heat Release
- Non-Ozone Depleting Refrigerant
- Synthetic Lubricant
- Reduced Compressor Wear

High Efficiency and Reliability

- EER up to 11.50 - No Wall Mount Heat Pump is More Efficient
- Optional Economizer Reduces Energy Usage
- High Efficiency Compressor and Lanced Coil Fins
- High/Low Pressure Switches with Lockout & Short Cycle Protection

Ease of Installation and Service

- Single Point Power Entry
- Built-In Mounting Flanges and Internal Disconnect
- Standard Access Valves and Filters, Status LEDs

➤ **2-Stage Compressor**

All Marvair 8AA2024H-2060H models feature a two stage compressor with a first stage capacity of 65% of the total capacity. The two stage compressor offers better comfort by maintaining more precise temperature and relative humidity levels with improved overall energy efficiency. During mild days, the first stage can satisfy the load, minimizing temperature fluctuations providing steady, even comfort. With Integrated Part Load Performance Values (IPLV) of up to 15.00, the heat pump with the two stage, high efficiency compressor can provide significant energy savings compared to older, less efficient systems. The cooling mode has two stage operation; heating is single stage.

➤ **Quiet in the Classroom**



In addition to high efficiency, Marvair heat pumps minimize sound levels in the classroom. A high efficiency axial fan moves air silently through the outdoor coils. A low vibration, scroll compressor ensures quiet operation as well as energy efficiency. The indoor air mover utilizes a revolutionary electronically commutated motor (ECM). This motor consumes a minimum of power with whisper quiet operation. The ECM automatically adjusts its speed to maintain the proper air flow at various external static pressures.

➤ **Safety Listed and Energy Certified**

All Marvair heat pumps are built to UL standard 1995, 4th edition and CAN/CSA C22.2, No. 236-11 Ed.4. For energy efficiency and performance, the units are tested and rated in accordance to the ANSI/AHRI (Air-Conditioning Heating and Refrigeration Institute) Standard 390 (Single Package Vertical Units). All units meet or exceed the efficiency requirements of ANSI/ASHRAE/IESNA 90.1.2019. Marvair wall mount heat pumps are commercial units and are not intended for use in residential applications.

➤ **Dehumidification**

The introduction of outside air can cause humidity levels to rise to unacceptable levels. To reduce humidity, the Marvair heat pumps can be ordered with a Hot Gas Reheat (HGR) coil. The HGR coil allows the heat pump to dehumidify without adversely lowering the temperature in the classroom and uses less energy than electric reheat. When used in conjunction with the GreenWheel® ERV, humidity levels can be controlled at a minimum of expense. See page 4 for a detailed description of the operation of the Hot Gas Reheat Coil.

Marvair Wall Mount Heat Pump Features

➤ **High Efficiency**

- Scroll compressors are standard on all units.
- Lanced fins and rifled tubing on the indoor & outdoor coils maximize heat transfer.
- Electronically commutated indoor blower motor.

➤ **Engineered Reliability**

- PC board simplifies wiring, consolidates several of the electrical functions in one device.
- High refrigerant pressure switch with lockout relay protects the compressor in the event of insufficient condenser air flow.
- Loss of charge pressure switch with lockout relay protects the compressor in the event of a loss of refrigerant or inadequate evaporator air flow.
- Time delay for short cycle protection.

➤ **Ease of Installation**

- Sloped top with flashing eliminates need of rain hood.
- Built-in mounting flanges facilitate installation and minimize chance of water leaks.
- Factory installed phase monitor is standard on all 3Ø units and will turn the air conditioner off if power supply is not phased properly.
- Factory installed disconnect on all units, including 460v. models.
- Outside air hood included with each unit.
- Single Point Power Entry complies with latest edition of U.L. Standard 1995.

➤ **Rugged Construction**

- Baked on beige finish over galvaneel steel on exterior sheet metal.
- Copper tube, aluminum fin evaporator and condenser coils.
- Corrosion resistant Dacromet® external fasteners.

➤ **Ease of Service**

- LED's on the control board indicate operational status and fault conditions.
- Refrigerant access valves are standard
- All major components are readily accessible
- Front control panel allows easy access and complies with NEC clearance codes on side by side units.
- Major components accessible from either side.



Options for Outside Air for Ventilation

ASHRAE standard 62 requires 30 cfm of outside air per occupant of a classroom. To meet this requirement, Marvair offers ventilation packages for every budget and requirement.

➤ Configuration “C”: Up to 100% Modulating Economizer

The economizer reduces the cost of air conditioning by using outside air when acceptable to cool the room. The factory installed Marvair® economizer has integral pressure relief. On a signal from a thermostat that cooling is required, either mechanical cooling with the compressor or free cooling with the economizer is provided. The Marvair economizer is capable of bringing in outside air equal to 100% of the rated cooling capacity of the unit and has built in pressure relief.

An internal enthalpy controller determines whether the outside air is sufficiently cool and dry to be used with cooling. If suitable, the compressor is locked out and the economizer damper opens to bring in outside air. The temperature at which the economizer opens is adjustable from approximately 55°F (13°C) to 73°F (23°C) at 50% RH. If the outside air becomes too hot or humid, the economizer damper closes completely or to a minimum position and mechanical cooling is activated. When used with minimum position potentiometer (optional), the Marvair® economizer can meet requirements of ASHRAE Std. 62.

➤ Configuration “D”: Two-Position Motorized Fresh Air Damper w/Pressure Relief Ventilation

Control Board Logic: The 92589 control board allows the position of the “D” damper to be set for desired outside air intake from fully closed to fully open. Setting 15 of the control board configuration menu allows the user to set the position from 20 (2VDC / Closed) to 100 (10VDC 100% open). The damper position can be adjusted in 1VDC increments to any position from closed to 100% open as required.

Operation: Anytime the indoor blower operates, the damper drives open to the position selected in the control board configuration menu setting 15. When the indoor blower stops operation the motorized damper spring returns to the fully closed position.

Note: This circuit does not interrupt the compressor or heater operation.

➤ Configuration “E”: Two-Position Motorized Fresh Air Damper w/Pressure Relief Ventilation & Independent Control

Control Board/Factory Installed Relay Logic: The 92589 control board allows the position of the “E” damper to be set for desired outside air intake from fully closed to fully open. Setting 15 of the control board configuration menu allows the user to set the position from 20 (2VDC / Closed) to 100 (10VDC 100% open). The damper position can be adjusted in 1VDC increments to any position from closed to 100% open as required.

Operation: Upon a “Call for Motorized damper” via a 24V signal from an external user-installed device, the motorized damper opens to the position selected in the control board configuration menu setting 15 and the indoor blower operates. A 24VAC signal {sourced from LVTB 24VAC “R” and supplied through a user-provided Normally Open (NO) contact} activates (opens) the Motorized Damper and connected Relief Damper. When the 24VAC signal is removed, the motorized damper spring returns to the fully closed position and the indoor blower stops operation. The motorized damper Does NOT open when there is a call for the indoor fan (G).

Note: This circuit does not interrupt the compressor or heater operation.

➤ Configuration “F”: No Free Cooling, 100%- Damper Opening, Emergency Ventilation Only w/Pressure Relief and Independent Control

Factory Installed Relay Logic: Upon a “Call for emergency ventilation”, from an external user-provided device; the motorized damper opens to 100% open position and the indoor blower is forced to operate. During “Emergency Ventilation mode”, the compressor and heater do not operate. The relay has a wire lead extended for the installer to connect their emergency ventilation control signal.

Note: This circuit interrupts the compressor and heater operation and forces the indoor blower and damper to operate during emergency ventilation mode.

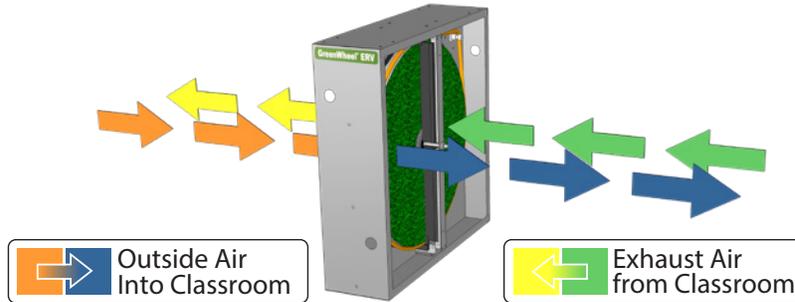
➤ Configuration “H”: GreenWheel® ERV Energy Recovery Ventilator (Optional)

Allows independent control of the exhaust and intake blowers. When used, the standard speed controller operates the intake blower and the optional second controller, the exhaust blower. Individual blower control allows positive pressurization of the classroom. Field or factory installed.

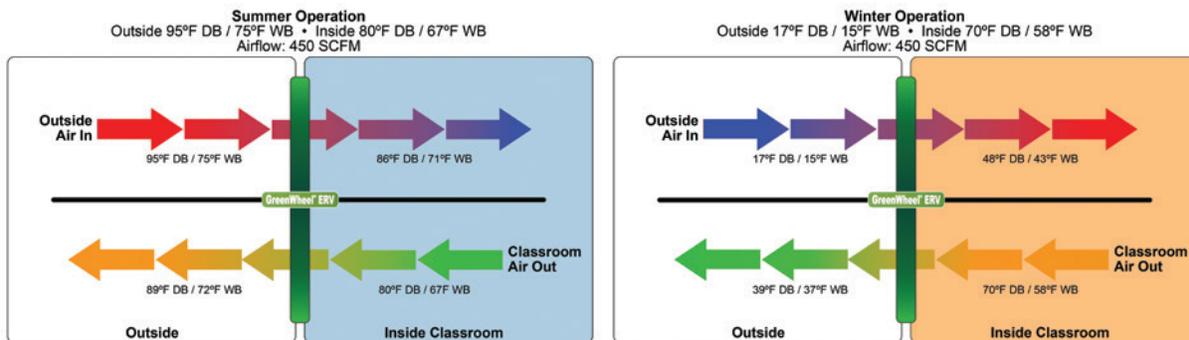
The Marvair GreenWheel® ERV is a total energy (both sensible and latent) wheel that reduces both construction and operating cost while ventilating the classroom to ASHRAE 62-1999 requirements. The use of the GreenWheel ERV reduces the energy load of the outside air. Exhausting stale, inside air keeps indoor pollutants and harmful gases to a minimum. The Marvair GreenWheel ERV has been tested and certified according to ARI Standard 1060.

How It Works - During the summer, cool dry air from the classroom is exhausted through the GreenWheel ERV to the outside. As the air passes through the rotating wheel, the desiccant becomes cooler and drier. Simultaneously, hot humid air is being pulled across the rotating wheel. The cool, dry desiccant absorbs moisture and heat from the incoming air. The cooler, drier air is mixed with the return air from the classroom and distributed throughout the room.

In the winter, warm moist air is exhausted through the GreenWheel ERV to the outside. As the air passes through the rotating wheel, the desiccant becomes warmer and absorbs moisture. Simultaneously, cold dry air is being pulled across the rotating wheel. The cold, dry air absorbs heat and moisture from the desiccant. The warmed air is mixed with the return air from the classroom and distributed throughout the room.



Quality Components - The GreenWheel ERV Ventilation package consists of the GreenWheel cassette, an incoming air blower, an exhaust air blower, an air filter for the incoming air and one fan speed controller that controls the speed of both blower motors simultaneously. As an option, a second fan speed controller can be factory installed for independent control of the exhaust air motor and positive pressurization of the classroom. Also, an optional filter on the exhaust air is available on selected models. Please consult your Marvair representative for details. The two blowers simultaneously pull fresh air from outside and exhaust air from the classroom through the rotating wheel. The air streams are separated by an insulated partition so that the incoming fresh air is not mixed with the exhaust air. Two variable speed blowers ensure that up to 450 CFM of outside air can be brought into the room and the indoor air is properly exhausted. Variable speed blowers permit that the desired quantity of outside air is delivered into the room. Optional independent exhaust air blower control allows positive pressurization of the classroom, i.e., more outside air can be introduced through the GreenWheel ERV than is exhausted.



GreenWheel® Energy Recovery Ventilator Performance

SCFM* of Outside Air	Energy Conserved, BTUH					
	95° DB/73° WB Outside • 80° DB/67° WB Inside			95° DB/80° WB Outside • 80° DB/67° WB Inside		
	Sensible	Latent	Total	Sensible	Latent	Total
225	2,900	1,100	4,000	2,900	6,400	9,300
250	3,100	1,200	4,300	3,100	6,900	10,000
325	3,700	1,400	5,100	3,700	8,100	11,800
400	4,200	1,500	5,700	4,200	9,100	13,300
450	4,500	1,600	6,100	4,500	9,700	14,200

SCFM* of Outside Air	Energy Conserved, BTUH								
	90° DB/74° WB Outside • 75° DB/64° WB Inside			80° DB/70° WB Outside • 75° DB/64° WB Inside			60° DB/54° WB Outside • 70° DB/58° WB Inside		
	Sensible	Latent	Total	Sensible	Latent	Total	Sensible	Latent	Total
225	2800	3600	6400	900	2800	2700	1900	200	2100
250	3000	3800	6800	1000	3000	4000	2000	200	2200
325	3600	4500	8100	1200	3500	4700	2400	200	2600
400	4100	4900	9000	1400	3800	5200	2700	300	3000
450	4300	5200	9500	1400	4000	5400	2900	300	3200

SCFM* of Outside Air	Energy Conserved, BTUH								
	40° DB/36° WB Outside • 70° DB/58° WB Inside			20° DB/18° WB Outside • 70° DB/58° WB Inside			0° DB/7° WB Outside • 70° DB/58° WB Inside		
	Sensible	Latent	Total	Sensible	Latent	Total	Sensible	Latent	Total
225	5600	3300	8900	9300	4900	14200	13000	5700	18700
250	6000	3600	9600	10000	5300	15300	14000	6100	14100
325	7200	4200	11400	12000	6200	18200	16700	7100	23800
400	8100	4600	12700	13500	6800	20300	18900	7900	26800
450	8600	4800	13400	14400	7100	21500	20100	8200	28300

*SCFM = Standard Cubic Feet per Minute
For performance of the GreenWheel® ERV at conditions other than those shown, please contact your Marvair® representative or the factory.

For performance of the GreenWheel ERV at conditions other than those shown, please contact your Marvair representative or the factory.

➤ **Configuration “N”: Manual Fresh Air Damper (Standard)**

Barometric damper capable of up to 15% of the air conditioner’s total rated airflow of outside air; field adjustable, no pressure relief.

Hot Gas Reheat Operation

Marvair® heat pumps equipped with Hot Gas Reheat (HGR) allow the indoor humidity of the controlled environment to be maintained at or below a certain humidity set point. These units do not have the ability to add humidity to the classroom. Dehumidification is achieved by operating mechanical cooling in conjunction with a hot gas reheat coil.

Operation - If the humidity rises above the set point on the humidity controller and the temperature in the classroom is satisfied, both mechanical cooling and the HGR coil operate to temper the air and lower the humidity. If the temperature in the classroom rises above (or falls below) the set point of the thermostat and the unit is operating in the dehumidification mode, the call for cooling (or heating) will override the call for dehumidification and the coil is disengaged until the thermostat is satisfied. This assures the environment temperature is maintained as first priority and humidity control is second.

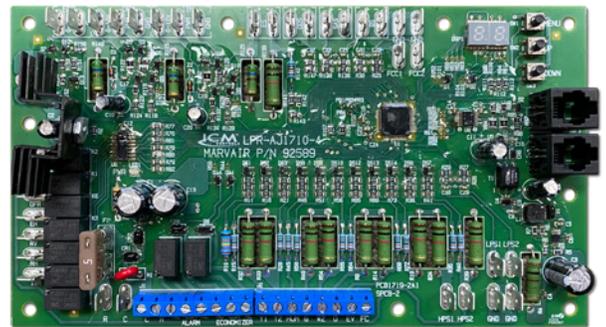
Heat Pump PC Board

➤ **Electronic Control Board**

The exclusive Printed Circuit Board (PCB) in base model Marvair heat pumps sets the standard for the industry in terms of flexibility, reliability, and performance. This UL certified component is engineered to optimize Heating, Cooling and Dehumidification operation while communicating valuable information to the end user.

Special Features Include:

- Improved HVAC System Reliability (Built In Sequence / Timer Functionality And Simplified Wiring)
- On Board Configuration Menu With Adjustments Of Various Functions and Setpoints
- 2-Stage Compressor Operation
- Independent Indoor Blower Speed Adjustments For 1st Stage Cooling, 2nd Stage Cooling, Electric Heat And Dehumidification (Optimize Latent and Sensible Capacity)
- Built-In Remote Communication (Monitor and Control Via MODBUS Qty. 2 RJ11 Ports)
- Alarm Status and Fault Display(Drastically Reduces Troubleshooting Time and System Downtime)
- Sensors To Monitor Refrigerant Temperature Of The Low Pressure Circuit and Liquid Line Circuit
- Economizer Control With Adjustments For Both Enthalpy Or Dry Bulb Sensor
- Economizer Status Output Contacts
- Emergency Ventilation Control (Systems Equipped with Ventilation Package)
- Forced Cooling (Overrides Economizer Operation)
- Dehumidification Control (Systems Equipped With Electric Reheat Or Hot Gas Reheat Dehumidification)
- Lockout Contacts (Normally Open Or Normally Closed)
- Alarms Communicated Via MODBUS



Protection of the Refrigerant Components

➤ **High Refrigerant Pressure Switch**

The high pressure switch is located on the liquid line. It is electrically connected to the PC board and will turn the compressor off if the pressure rises above the set point twice within one hour. This protects the compressor if airflow is significantly reduced or lost through the coil performing the condenser function.

➤ **Loss of Charge Switch**

The loss of charge switch is located on the liquid line. It is electrically connected to the PC board and will turn the compressor off if the pressure drops below the set point twice within one hour. This protects the compressor if airflow is significantly reduced or lost through the coil performing the evaporator function or there is a loss of refrigerant.

Marvair Wall Mount Heat Pump Options

Marvair® options can be used to provide optimum performance over a full range of operating conditions.

- **Adjustable Outdoor Thermostat**
Will not allow electric resistance heat to be energized unless the outdoor temperature is below the desired set point. Field or factory installed. Available on all Marvair heat pumps.
- **Energy Management System (EMS) Relay Kit**
Relay to control the unit. Available in 24, 120 or 240 VAC. Field or factory installed.
- **Electric Reheat**
Control provides simultaneous operation of compressor when in cooling mode and the electric elements to provide dehumidification without over cooling the room. The electric element (kW) must be properly sized for each model for proper operation. Factory installed. Consult factory for details.
- **Compressor Sound Jackets**
Reduces sound of compressor.

Special Application Packages and Coil Coatings

- **Protective Coating Packages**
Two corrosion protection packages are offered - one for the condenser section (Coastal Environmental Package) and the other for the entire unit (Coat-All Package).
The Coastal Environmental Package includes:
 - Corrosion resistant fasteners
 - Sealed or partially sealed condenser fan motor
 - Protective coating applied to all exposed internal copper and metal in the condenser section
 - Protective coating on the condenser coil (Luvata Insitu®) contains ES2 (embedded stainless steel pigment) technology**The Coat all Package includes all of the above, plus:**
 - Protective coating on the evaporator coil (Luvata Insitu®) contains ES2 (embedded stainless steel pigment) technology
 - Protective coating on exterior and interior components and sheet metal.**Note 1:** The insulated internal sheet metal and the internal control box are not coated.
Note 2: The corrosion prevention coating can not be applied to stainless steel.
- **Protective Coil Coatings**
The Condenser Coil or the Evaporator Coil or Both can be coated. Coating the Evaporator Coil in not common. For harsh conditions, e.g., power plants, paper mills or sites where the unit will be exposed to salt water, the coils should be protected by a protective coating.
Note: Cooling capacity may be reduced by up to 5% on units with coated coils.

Accessories

- **Thermostats and Controllers for Single Stage and 2-Stage Heat Pumps**
See the *Marvair Thermostats and Controllers Product Data Sheet* for the thermostats and controllers for use with Marvair heat pumps.

Indoor Air Quality Options

- **Anti-Microbial Light**
A germicidal UV light destroys toxic bacteria, viruses and mold on the indoor air coil.
- **Cold Plasma Air Purification Device**
Installed inside the unit, this device neutralizes odors, kills mold, bacteria and viruses. It also helps to control allergens*, asthma*, smoke and airborne particles.
*These statements are based on customer testimonials and have not been evaluated by the FDA.
- **MERV 13 Return Air Filters**
Factory installed two inch (51 cm) MERV 13 filters. Ultra high filtration material that removes most airborne mold, spores and dust. Replaces standard MERV 7 return air filters.



Cold Plasma Air Purifier

➤ Grilles

8AA1024H & 8AA2024H		
Double Deflection, Aluminum Supply Grille	28" x 8" (711mm x 203mm)	80675
Aluminum Return Grille	28" x 14" (711mm x 356mm)	80678
Return Filter Grille*	28" x 14" (711mm x 356mm)	80672
8AA1030H, 1036H, 1042H, 1048H & 1060H & 8AA2036H, 2042H, 2048H & 2060H		
Double Deflection, Aluminum Supply Grille	30" x 10" (762mm x 254mm)	80676
Aluminum Return Grille	30" x 16" (762mm x 406mm)	80679
Return Filter Grille	30" x 16" (762mm x 406mm)	80673
<p>Note: Return filter grilles should be used when the 2" (51mm) filter in the Marvair unit is not accessible from the exterior of the building. Filter used in the return filter grille is a 1" (25mm) thick filter. The return filter grille is not recommended for use with the Marvair II heat pumps with economizers.</p>		

EER Comparison by Model

Nominal Cooling Capacity (BTUH)	Basic Model	EER
22,000	8AA1024H	11.0
	8AA2024H	11.0
30,000	8AA1030H	11.5
	8AA2030H	11.0
36,000	8AA1036H	11.0
	8AA2036H	11.0
42,000	8AA1042H	11.0
	8AA2042H	11.0
48,000	8AA1048H	11.0
	8AA2048H	11.0
60,000	8AA1060H	11.0
	8AA2060H	11.0
<p>Note: 2024H-2060H models have 2-stage compressors.</p>		

Air Flow (Cubic Feet per Minute)

Model Number	External Static Pressure (WET COIL)					
	0.10	0.20	0.25	0.30	0.40	0.50
8AA1024H & 2024H	800	770	725	680	600	500
8AA1030H & 2030H	1200	1100	1050	1000	900	800
8AA1036H & 2036H	1290	1170	1115	1060	1000	920
8AA1042H & 2042H	1500	1360	1295	1230	1160	1070
8AA1048H & 2048H	1900	1800	1700	1600	1500	1350
8AA1060H & 2060H	2200	2100	2000	1900	1800	1650
<p>Air flow ratings of 208-230v. Units are at 230v. Air flow ratings of 480 v. units are at 460 volts. Operation of units at a different voltage from the rating point will affect air flow.</p> <p>Note: Follow local codes and standards when designing duct runs to deliver the required airflow. Minimize noise and excessive pressure drops caused by duct aspect ratio changes, bends, dampers and outlet grilles in duct runs.</p>						

Marvair Heat Pump Model Identification

Example	8	A	A	1	0	3	6	H	D	0	5	0	C	+	+	R	+	1	E	A	+	A	1	1	+	+	+	+	+	+
Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

1	Unit Designation/Family	8 = Marvair Wall Mount	
2	Energy Efficiency Ratio (EER)	A = 11	
3	Refrigerant Type	A = R-410a	
4	Compressor Type/Quantity	1 = Fixed Speed/Single 2 = 2-Stage/Single	
5	Unit Capacity/Nominal Cooling (BTUH)	024 = 24,000	042 = 42,000
6		030 = 30,000	048 = 48,000
7		036 = 36,000	060 = 60,000
8	System Type	H = Heat Pump	
9	Power Supply (Volts-Hz-Phase)	A = 208/230-60-1 C = 208/230-60-3	D = 460-60-3
10	Heat Designation @ Rated Voltage	000 = No Heat	090 = 9KW
11		040 = 4KW	100 = 10KW
12		050 = 5KW	120 = 12KW
		060 = 6KW	150 = 15KW
13	Ventilation Configuration	C = Economizer D = Motorized Damper w/Pressure Relief E = Motorized Damper w/Pressure Relief & Independent Motorized Damper Control F = No Free Cooling, 100% Emergency Ventilation Only w/Independent Control H = GreenWheel® ERV K = Economizer w/Factory Installed CO2 Control N = Barometric Damper w/15% OSA + = None \$ = Special	
		G = Hot Gas Reheat R = Electric Reheat T = Electric Reheat w/Humidity Control + = None \$ = Special	
		A = Power Fail Alarm w/Additional Lockouts C = 24V EMS Relay Kit D = 24V EMS Relay Kit w/Factory Installed T-Stat E = Factory Installed T-Stat + = None \$ = Special	
		A = Evaporator Freeze Sensor (EFS) C = EFS w/Hot Gas Bypass D = Desert Duty F = Desert Duty w/Hard Start G = Desert Duty w/EFS H = Desert Duty w/Hard Start & EFS N = Hard Start P = Hard Start w/Low Ambient & CCH Q = Hard Start w/Low Ambient & Fan Cycle Control (FCC) R = Crank Case Heater (CCH) T = Hard Start w/EFS U = Hard Start w/Hot Gas Bypass V = Hard Start w/Low Ambient & CCH & EFS W = Low Ambient w/CCH X = Hot Gas Bypass Y = Low Ambient w/CCH & FCC Z = Low Ambient w/CCH & EFS 1 = Low Ambient w/FCC 2 = Low Ambient w/FCC & EFS 3 = CCH w/Hot Gas Bypass + = None \$ = Special	
		C = Center - All 6 ton units and above D = Left Hand - All 3 1/2 to 5 ton units E = Right Hand - All 2 to 3 ton units	
		A = 2" Pleated (MERV 8, AC/HP-C) C = 2" Charcoal D = MERV 11 High Filtration Package E = MERV 13 High Filtration Package F = Filter Access Through Return Air Grille W = Aluminum Washable + = None \$ = Special	
21	Corrosion Protection	A = Condenser Coil Only C = Evaporator Coil Only D = Both Coils Condenser & Evaporator E = All Coils Cond/Evap/Reheat F = Coat All G = Coastal Package & Evaporator Coil K = Coastal Package + = None \$ = Special	
		22 Engineering Revision Level 23 A1	
24	Cabinet Color	1 = Marvair Beige 2 = Gray 3 = Carlsbad Canyon 4 = White 5 = Stainless Steel Exterior 6 = Dark Bronze 8 = Mesa Tan 9 = Pebble Gray A = Stainless Steel - Unit \$ = Custom Color (Powder Coat)	
		25 Sound Attenuation 2 = Compressor Blanket + = None	
		26 Security Option A = Lockable Access Plate/Tamper Proof C = Tamper Proof Screws D = Lockable Access Plate w/Tamper Proof + = None \$ = Special	
27	Fastener/Drain Pan Option	A = Stainless Steel Fasteners C = Stainless Steel Drain Pan D = Stainless Steel Fasteners & Drain Pan + = None \$ = Special	
		28 Unused C = Copeland Compressor + = None \$ = Special	
29	Unused	+ = None \$ = Special	
		30 Special Variation + = None \$ = Special Configuration Not Covered by Model Nomenclature	
17	Indoor Air Quality Features	A = UV Light D = Dry Bulb Sensor E = Dry Bulb Sensor w/Dirty Filter G = Dirty Filter Sensor K = Bi-Polar Ionization M = Dry Bulb Sensor & CO2 Sensor (Only w/Economizer) + = None \$ = Special	
		1 = Top Supply/Bottom Return 2 = Center Supply (Reverse) 3 = Bottom Supply/Top Return (Counter) 4 = Top Panel Discharge 5 = Centrifugal Blowers 6 = 3T3 7 = 3T5 8 = 4T2 9 = 4T3 A = 3T2 \$ = Special	
		C = Center - All 6 ton units and above D = Left Hand - All 3 1/2 to 5 ton units E = Right Hand - All 2 to 3 ton units	
		A = Condenser Coil Only C = Evaporator Coil Only D = Both Coils Condenser & Evaporator E = All Coils Cond/Evap/Reheat F = Coat All G = Coastal Package & Evaporator Coil K = Coastal Package + = None \$ = Special	
		22 Engineering Revision Level 23 A1	
		1 = Marvair Beige 2 = Gray 3 = Carlsbad Canyon 4 = White 5 = Stainless Steel Exterior 6 = Dark Bronze 8 = Mesa Tan 9 = Pebble Gray A = Stainless Steel - Unit \$ = Custom Color (Powder Coat)	

Note: Not all options are available with all configurations. Contact your Marvair sales representative for configuration details and feature compatibility.

Marvair 8AA Single Stage Wall Mount Heat Pump Performance Data

Certified Efficiency and Capacity Ratings at ANSI/ARI Standard 390 - for 8AA Heat Pumps with Single Stage Compressor

Model Number	8AA1024H			8AA1030H			8AA1036H			8AA1042H			8AA1048H			8AA1060H		
	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D
Cooling BTUH ¹	22,000			26,800			34,000			40,500			46,200			57,000		
EER ²	11.0			11.5			11.0			11.0			11.0			11.0		
High Temperature Heating ³	21,000			26,000			33,000			33,000			42,000			51,000		
High Temperature COP ^{3,4}	3.3			3.3			3.3			3.3			3.3			3.3		
Rated Air Flow (CFM ⁵)	800			1,000			1,200			1,300			1,750			1,750		

¹Cooling is rated at 95°F (35°C) outdoor and 80°F DB/67°F WB (26.5°C DB/19.5°C WB) return air.
²EER = Energy Efficiency Ratio
³High Temperature Heating & COP is rated at 47°F DB/43°WB (8.3°C DB/6.1°C WB) outdoor and 70°F (21.1°C) return air.
⁴COP = Coefficient of Performance
⁵CFM = Cubic Feet per Minute
Ratings are with no outside air. Performance will be affected by altitude. Ratings are at 230 volts for 208/230 volt units ("A" & "C" models) and 460 volts for "D" models. Operation of units at a different voltage from that of the rating point will affect performance and air flow.

Sensible Total Heat Ratio @ 95°F (35°C) Outside Air DB - 8AA Heat Pumps with Single Stage Compressor

Model Number	8AA1024H			8AA1030H			8AA1036H			8AA1042H			8AA1048H			8AA1060H		
	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D
Total Capacity	22,000			26,800			34,000			40,500			46,200			57,000		
Sensible Heat Ratio	0.75			0.75			0.78			0.74			0.79			0.73		
Sensible Capacity	16,400			20,000			25,500			30,000			36,800			41,700		
Rated Air Flow (CFM ¹)	800			1,000			1,200			1,300			1,750			1,750		

¹CFM = Cubic Feet per Minute
Sensible Heat Ratios based upon ANSI/AHRI std. 390 outdoor conditions of 95°F (35°C) outdoor and 80°F DB/67°F WB (26.5°C DB/19.5°C WB) return air.

Cooling Performance (BTUH) at Various Outdoor Temperatures - 8AA Heat Pumps with Single Stage Compressor

Model Number	Outdoor Temperature								
	75°F/24°C	80°F/26.5°C	85°F/29°C	90°F/32°C	95°F/35°C	100°F/38°C	105°F/40.5°C	110°F/43.3°C	115°F/46°C
8AA1024H	25,520	24,640	23,760	22,880	22,000	21,120	20,240	19,360	18,920
8AA1030H	31,088	30,016	28,944	27,872	26,800	25,728	26,656	23,584	23,048
8AA1036H	39,440	38,080	36,720	35,360	34,000	32,640	31,280	29,920	29,240
8AA1042H	46,980	45,360	43,740	42,120	40,500	38,880	37,260	35,640	34,830
8AA1048H	53,592	51,744	49,896	48,048	46,200	44,352	42,504	40,656	39,732
8AA1060H	66,120	63,840	61,560	59,280	57,000	54,720	52,440	50,160	49,020

Based upon ANSI/AHRI std. 390 return air conditions of 80°F DB/67°F WB (26.5°C DB/19.5°C WB). Return air at rated air flow.

Heating Performance (BTUH) at Various Outdoor Temperatures - 8AA Heat Pumps with Single Stage Compressor

Model Number	Outdoor Temperature								
	10°F / -12.2°C	17°F / -8.3°C	20°F / -6.7°C	30°F / -1.1°C	40°F / 4.4°C	47°F / 8.3°C	50°F / 10°C	60°F / 15.6°C	70°F / 21.1°C
8AA1024H	9,775	11,500	12,450	15,775	18,625	21,000	21,630	22,575	23,625
8AA1030H	12,410	14,600	15,740	19,730	23,150	26,000	26,780	27,950	29,250
8AA1036H	14,110	16,600	18,240	23,980	28,900	33,000	33,990	35,475	37,125
8AA1042H	16,150	19,000	20,400	25,300	29,500	33,000	33,990	35,475	37,125
8AA1048H	20,060	23,600	25,440	31,880	37,400	42,000	43,260	45,150	47,250
8AA1060H	23,800	28,000	30,300	38,350	45,250	51,000	52,530	54,825	57,375

Based upon ANSI/AHRI std. 390 return air conditions of 70°F DB (21.1°C DB). Return air at rated air flow.

Electrical Characteristics - Compressor, Fan, Ventilation & Blower Motors - 8AA Heat Pumps with Single Stage Compressor

Model Number	COMPRESSOR			OTHER MOTORS	OUTDOOR FAN MOTOR			INDOOR BLOWER MOTOR (ECM)			VENTILATION		
	VOLTS-HZ-PH	RLA ¹	LRA ²	VOLTS-HZ-PH	RPM ³	FLA ⁴	HP ⁵	RPM ³	FLA ⁴	HP ⁵	GREENWHEEL [®] ERV		
											AMPS		
OAM ⁶	EXM ⁷	WD ⁸											
8AA1024HA	208/230-60-1	12.8	58.3	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3			
8AA1030HA	208/230-60-1	12.8	77.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1036HA	208/230-60-1	16.6	112.0	208/230-60-1	1200	2.5	1/3	1050	4.3	1/2	1.0	1.0	0.2
8AA1042HA	208/230-60-1	19.8	109.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1048HA	208/230-60-1	21.8	117.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA1060HA	208/230-60-1	26.2	134.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA1024HC	208/230-60-3	7.7	55.1	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3			
8AA1030HC	208/230-60-3	8.3	71.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1036HC	208/230-60-3	10.4	88.0	208/230-60-1	1200	2.5	1/3	1050	4.3	1/2	1.0	1.0	0.2
8AA1042HC	208/230-60-3	13.6	83.1	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1048HC	208/230-60-3	13.7	83.1	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA1060HC	208/230-60-3	15.6	111.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA1024HD	460-60-3	3.6	28.0	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3			
8AA1030HD	460-60-3	5.1	38.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1036HD	460-60-3	5.8	44.0	208/230-60-1	1200	2.5	1/3	1050	4.3	1/2	1.0	1.0	0.2
8AA1042HD	460-60-3	6.1	41.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA1048HD	460-60-3	6.2	41.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA1060HD	460-60-3	7.7	52.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2

¹RLA = Rated Load Amps

²LRA = Locked Rotor Amps

³RPM = Revolutions per Minute

⁴FLA = Full Load Amps

⁵HP = Horsepower

⁶OAM = Outside Air Mover

⁷EXM = Exhaust Air Mover

⁸WD = Wheel Drive Motor

The 460 volt units have a step down transformer for the 230 volt motors.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps w/Single Stage Compressor & Ventilation Configuration:

C: Economizer, Outside air with Pressure Relief

D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief

E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control

N: Barometric Damper, up to 15% outside air

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
		SPPE ³		SPPE ³		SPPE ³		SPPE ³		SPPE ³		SPPE ³		SPPE ³		SPPE ³		SPPE ³	
BASIC MODEL	VOLTS-HZ-PH	MCA ¹	MFS ²																
8AA1024HA	208/230-60-1	22.3	35	43.1	45	48.3	50	53.6	60	64.7	70			74.4	80				
8AA1030HA	208/230-60-1	25.6	35			51.6	60	56.9	60	67.3	70			77.7	80	88.1	90	103.7	110
8AA1036HA	208/230-60-1	27.6	40			53.6	60	58.8	60	69.2	70			79.6	80	90.1	100	105.7	110
8AA1042HA	208/230-60-1	34.4	50			60.4	70							86.4	90	96.9	100	112.5	120
8AA1048HA	208/230-60-1	39.4	60			65.4	70							91.4	100	101.9	110	117.5	120
8AA1060HA	208/230-60-1	44.9	70			70.9	80							96.9	100	107.4	110	123.0	130
8AA1024HC	208/230-60-3	15.9	20					34.0	40			43.0	45						
8AA1030HC	208/230-60-3	20.0	25					38.0	40			47.0	50			56.1	60	65.1	70
8AA1036HC	208/230-60-3	19.8	30					37.8	40			46.9	50			55.9	60	64.9	70
8AA1042HC	208/230-60-3	26.6	40					44.6	50			53.7	60			62.7	70	71.7	80
8AA1048HC	208/230-60-3	29.2	40					47.3	50			56.3	60			65.3	70	74.3	80
8AA1060HC	208/230-60-3	31.6	45					49.6	50			58.7	60			67.7	70	76.7	80
8AA1024HD	460-60-3	7.7	15					16.7	20			21.2	25			25.7	30	30.2	35
8AA1030HD	460-60-3	11.2	15					20.2	20			24.7	25			29.2	30	33.7	35
8AA1036HD	460-60-3	10.7	15					19.7	20			24.2	25			28.7	30	33.2	35
8AA1042HD	460-60-3	12.4	15					21.4	25			26.0	30			30.5	35	35.0	40
8AA1048HD	460-60-3	13.8	20					22.8	25			27.3	30			31.8	35	36.4	40
8AA1060HD	460-60-3	15.7	20					24.7	25			29.2	30			33.7	35	38.2	40

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry

MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps with Single Stage Compressor and with the "S" Circuit Jumper Set to "Yes" and Ventilation Configuration:

C: Economizer, Outside air with Pressure Relief

D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief

E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control

N: Barometric Damper, up to 15% outside air

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA1024HA	208/230-60-1	22.3	35	23.6	35	28.8	35	34.1	35					54.9	60				
8AA1030HA	208/230-60-1	25.6	35			30.3	35	35.6	40					56.4	60	66.8	70	82.4	90
8AA1036HA	208/230-60-1	27.6	40			30.3	40	35.6	40					56.4	60	66.8	70	82.4	90
8AA1042HA	208/230-60-1	34.4	45			34.4	45							56.4	60	66.8	70	82.4	90
8AA1048HA	208/230-60-1	39.4	60			39.4	60							58.9	60	69.3	70	84.9	90
8AA1060HA	208/230-60-1	44.9	70			44.9	70							59.9	60	69.3	70	84.9	90
8AA1024HC	208/230-60-3	15.9	20					20.8	35			29.9	35			38.9	40	47.9	50
8AA1030HC	208/230-60-3	20.0	25					22.3	25			31.4	35			40.4	45	49.4	50
8AA1036HC	208/230-60-3	19.8	35					22.3	30			31.4	35			40.4	45	49.4	50
8AA1042HC	208/230-60-3	26.6	40					26.6	40			31.4	40			40.4	45	49.4	50
8AA1048HC	208/230-60-3	29.2	40					29.6	40			33.9	40			42.9	45	51.9	60
8AA1060HC	208/230-60-3	31.6	45					31.6	45			33.9	45			42.9	45	51.9	60
8AA1024HD	460-60-3	7.7	15					10.4	15			14.9	20			19.4	20	24.0	25
8AA1030HD	460-60-3	11.2	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA1036HD	460-60-3	10.7	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA1042HD	460-60-3	12.4	15					12.4	15			15.7	20			20.2	25	24.7	25
8AA1048HD	460-60-3	13.8	20					13.8	15			16.9	20			21.4	25	26.0	30
8AA1060HD	460-60-3	15.7	20					15.7	20			16.9	20			21.4	25	26.0	30

S-Circuit - The user can move a pin on the board to control whether the electric heat will operate simultaneously with the compressor (S Circuit - NO) or will not run simultaneously with the compressor (S Circuit - Yes).
¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps with Single Stage Compressor & Ventilation Configuration:

H: GreenWheel® ERV

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA1030HA	208/230-60-1	27.8	35			53.8	60	59.1	60	69.5	70			79.9	90	90.3	90	105.9	110
8AA1036HA	208/230-60-1	29.8	40			55.8	60	61.0	70	71.4	80			81.8	90	92.3	100	107.9	110
8AA1042HA	208/230-60-1	36.6	45			62.6	70							88.6	90	99.1	100	114.7	120
8AA1048HA	208/230-60-1	41.6	50			67.6	70							93.6	100	104.1	105	119.7	120
8AA1060HA	208/230-60-1	47.1	60			73.1	80							99.1	105	109.6	110	125.2	130
8AA1030HC	208/230-60-3	22.2	25					40.2	45			49.2	50			58.3	60	67.3	70
8AA1036HC	208/230-60-3	22.0	30					40.0	45			49.1	50			58.1	60	67.1	70
8AA1042HC	208/230-60-3	28.8	35					46.8	50			55.9	60			64.9	70	73.9	80
8AA1048HC	208/230-60-3	31.4	40					49.5	50			58.5	60			67.5	70	76.5	80
8AA1060HC	208/230-60-3	33.8	45					51.8	60			60.9	70			69.9	80	78.9	80
8AA1030HD	460-60-3	12.3	15					21.3	25			25.8	25			30.3	30	34.8	35
8AA1036HD	460-60-3	11.8	15					22.8	25			25.3	30			29.8	30	34.3	35
8AA1042HD	460-60-3	13.5	15					22.5	25			27.1	30			31.6	30	36.1	40
8AA1048HD	460-60-3	14.9	15					23.9	25			28.4	30			32.9	35	37.5	40
8AA1060HD	460-60-3	16.8	20					25.8	30			30.3	35			34.8	35	39.3	40

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps w/Single Stage Compressor & “S” Circuit Set to “Yes” & Vent Config: H: GreenWheel® ERV

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA1030HA	208/230-60-1	27.8	35			32.5	35	37.8	40					58.6	60	69.0	70	84.6	90
8AA1036HA	208/230-60-1	29.8	40			32.6	40	37.8	40					58.6	60	69.0	70	84.6	90
8AA1042HA	208/230-60-1	36.6	45			36.6	45							58.6	60	69.0	70	84.6	90
8AA1048HA	208/230-60-1	41.6	50			41.6	50							61.1	70	71.5	80	87.1	90
8AA1060HA	208/230-60-1	47.1	60			47.1	60							62.1	70	71.5	80	87.1	90
8AA1030HC	208/230-60-3	22.2	25					24.5	25			33.6	35			42.6	45	51.6	60
8AA1036HC	208/230-60-3	22.0	30					24.8	30			33.6	35			42.6	45	51.6	60
8AA1042HC	208/230-60-3	28.8	35					28.8	35			33.6	35			42.6	45	51.6	60
8AA1048HC	208/230-60-3	31.4	40					31.8	40			36.1	40			45.1	50	54.1	60
8AA1060HC	208/230-60-3	33.8	45					33.8	45			36.1	45			45.1	50	54.1	60
8AA1030HD	460-60-3	12.3	15					12.3	15			16.8	20			21.3	25	25.8	30
8AA1036HD	460-60-3	11.8	15					13.5	15			16.8	20			21.3	25	25.8	30
8AA1042HD	460-60-3	13.5	15					13.5	15			16.8	20			21.3	25	25.8	30
8AA1048HD	460-60-3	14.9	15					14.9	15			18.0	20			22.5	25	27.0	30
8AA1060HD	460-60-3	16.8	20					16.8	20			18.0	20			22.5	25	27.0	30

S-Circuit - The user can move a pin on the board to control whether the electric heat will operate simultaneously with the compressor (S Circuit – NO) or will not run simultaneously with the compressor (S Circuit – Yes).
¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Unit Load Amps (Heating) - 8AA Heat Pumps w/Single Stage Compressor & Ventilation Configuration: C: Economizer, Outside air with Pressure Relief D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control N: Barometric Damper, up to 15% outside air

MODEL NUMBER	VOLTS-HZ-PH	CURRENT (AMPS)		LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS)								TOTAL MAXIMUM HEATING AMPS							
		HP ¹	IBM ²	(1) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCUIT (2) SHADED VALUES (12 & 15 kW) UTILIZE TWO CIRCUITS								INCLUDES AMPS FROM MOTOR(S) THAT ARE LOCATED ON AN ELECTRICAL CIRCUIT THAT DOES NOT HAVE HEATERS							
				04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw
8AA1024HA	208/230-60-1	19.1	2.8	16.7	20.8	25.00	33.3		41.7			35.8	39.9	44.1	52.4		60.8		
8AA1030HA	208/230-60-1	22.4	4.3	16.7	20.8	25.00	33.3		41.7	50.0	62.5	39.1	43.2	47.4	55.7		64.1	72.4	84.9
8AA1036HA	208/230-60-1	23.4	4.3	16.7	20.8	25.00	33.3		41.7	50.0	62.5	40.1	44.2	48.4	56.7		65.1	76.2	88.7
8AA1042HA	208/230-60-1	29.4	4.3		20.8				41.7	50.0	62.5		50.2				71.1	79.4	91.9
8AA1048HA	208/230-60-1	33.9	6.8		20.8				41.7	50.0	62.5		54.7				75.6	83.9	96.4
8AA1060HA	208/230-60-1	38.3	6.8		20.8				41.7	50.0	62.5		59.1				80.0	88.3	100.8
8AA1024HC	208/230-60-3	14.0	2.8			14.4		22		28.9	36.1			28.4		35.7		42.9	50.1
8AA1030HC	208/230-60-3	17.9	4.3			14.4		22		28.9	36.1			32.3		39.6		46.8	54.0
8AA1036HC	208/230-60-3	17.2	4.3			14.4		22		28.9	36.1			34.4		41.7		48.9	56.1
8AA1042HC	208/230-60-3	23.2	4.3			14.4		22		28.9	36.1			37.6		44.9		52.1	59.3
8AA1048HC	208/230-60-3	25.8	6.8			14.4		22		28.9	36.1			40.2		47.5		54.7	61.9
8AA1060HC	208/230-60-3	27.7	6.8			14.4		22		28.9	36.1			42.1		49.4		56.6	63.8
8AA1024HD	460-60-3	6.8	1.4			7.2		10.8		14.4	18.0			14.0		17.6		21.2	24.8
8AA1030HD	460-60-3	9.9	2.2			7.2		10.8		14.4	18.0			17.1		20.7		24.3	27.9
8AA1036HD	460-60-3	9.2	2.2			7.2		10.8		14.4	18.0			16.4		20.0		23.6	27.2
8AA1042HD	460-60-3	10.9	2.2			7.2		10.8		14.4	18.0			18.1		21.7		25.3	28.9
8AA1048HD	460-60-3	12.3	3.4			7.2		10.8		14.4	18.0			19.5		23.1		26.7	30.3
8AA1060HD	460-60-3	13.8	3.4			7.2		10.8		14.4	18.0			21.0		24.6		28.2	31.8

¹HP = Heat Pump Unit Amps (includes Indoor Motor amps) ²IBM = Indoor Blower Motor
Heating kW is rated at 240 volts on the 208-230v. (HPA & HPC) models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the HPD models.
Total heating amps for single phase units with two circuits (#1 and #2) includes both circuits. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Values shown are maximum phase loads. Loads are not equally balanced on each phase.

Unit Load Amps (Heating) - 8AA Heat Pumps with Single Stage Compressor & Ventilation Configuration: H: GreenWheel® ERV

MODEL NUMBER	VOLTS-HZ-PH	CURRENT (AMPS)			LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS) <small>(1) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCUIT (2) SHADED VALUES (12 & 15 kW) UTILIZE TWO CIRCUITS</small>								TOTAL MAXIMUM HEATING AMPS <small>INCLUDES AMPS FROM MOTOR(S) THAT ARE LOCATED ON AN ELECTRICAL CIRCUIT THAT DOES NOT HAVE HEATERS</small>							
		HP ¹	IBM ²	H ³	04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw
8AA1030HA	208/230-60-1	24.6	2.8	2.2	16.7	20.8	25.0	33.3		41.7	50.0	62.5	41.3	45.4	49.6	57.9		66.3	74.6	87.1
8AA1036HA	208/230-60-1	25.6	2.8	2.2	16.7	20.8	25.0	33.3		41.7	50.0	62.5	41.3	49.2	53.4	61.7		70.1	78.4	90.9
8AA1042HA	208/230-60-1	31.6	2.8	2.2		20.8				41.7	50.0	62.5		52.4				73.3	81.6	94.1
8AA1048HA	208/230-60-1	36.1	4.3	2.2		20.8				41.7	50.0	62.5		56.9				77.8	86.1	98.6
8AA1060HA	208/230-60-1	40.5	4.3	2.2		20.8				41.7	50.0	62.5		61.3				82.2	90.5	103.0
8AA1030HC	208/230-60-3	20.1	2.8	2.2			14.4		21.7		28.9	36.1			34.5		41.8		49.0	56.2
8AA1036HC	208/230-60-3	19.4	2.8	2.2			14.4		21.7		28.9	36.1			36.6		43.9		51.1	58.3
8AA1042HC	208/230-60-3	25.4	2.8	2.2			14.4		21.7		28.9	36.1			39.8		47.1		54.3	61.5
8AA1048HC	208/230-60-3	28.0	4.3	2.2			14.4		21.7		28.9	36.1			42.4		49.7		56.9	64.1
8AA1060HC	208/230-60-3	29.9	4.3	2.2			14.4		21.7		28.9	36.1			44.3		51.6		58.8	66.0
8AA1030HD	460-60-3	11.0	1.4	1.1			7.2		10.8		14.4	18.0			18.2		21.8		25.4	29.0
8AA1036HD	460-60-3	10.3	1.4	1.1			7.2		10.8		14.4	18.0			18.9		22.5		26.1	29.7
8AA1042HD	460-60-3	12.0	1.4	1.1			7.2		10.8		14.4	18.0			19.2		22.8		26.4	30.0
8AA1048HD	460-60-3	13.4	2.2	1.1			7.2		10.8		14.4	18.0			20.6		24.2		27.8	31.4
8AA1060HD	460-60-3	14.9	2.2	1.1			7.2		10.8		14.4	18.0			22.1		25.7		29.3	32.9

¹HP = Heat Pump Unit Amps (includes Indoor Motor amps) ²IBM = Indoor Blower Motor ³H = GreenWheel ERV
 Heating kW is rated at 240 volts on the 208-230v. (HPA & HPC) models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the HPD models.
 Total heating amps for single phase units with two circuits (#1 and #2) includes both circuits. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Values shown are maximum phase loads. Loads are not equally balanced on each phase.

Marvair 8AA 2-Stage Wall Mount Heat Pump Performance Data

Certified Efficiency and Capacity Ratings at ANSI/ARI Standard 390 - for 8AA Heat Pumps with 2-Stage Compressor

Model Number	8AA2024H			8AA2030H			8AA2036H			8AA2042H			8AA2048H			8AA2060H		
	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D
Cooling BTUH ¹ - 2nd Stage	22,000			28,800			33,000			39,000			47,000			56,000		
EER ² - 2nd Stage	11.0			11.0			11.0			11.0			11.0			11.0		
Integrated Part Load Value ³	13.5			14.0			14.0			13.6			15.0			14.8		
High Temperature Heating ⁴	21,400			26,000			31,400			37,600			39,000			50,500		
High Temperature COP ⁵	3.3			3.3			3.3			3.3			3.3			3.3		
Rated Air Flow (CFM ⁶)	800			1,000			1,200			1,300			1,750			1,750		

¹Cooling is rated at 95°F (35°C) outdoor and 80°F DB/67°F WB (26.5°C DB/19.5°C WB) return air.

²EER = Energy Efficiency Ratio

³Integrated Part Load Value is an integrated efficiency measure from 1st and 2nd stage capacity modulation.

⁴High Temperature Heating & COP is rated at 47°F DB/43°WB (8.3°C DB/6.1°C WB) outdoor and 70°F (21.1°C) return air.

⁵COP = Coefficient of Performance

⁶CFM = Cubic Feet per Minute

Ratings are with no outside air. Performance will be affected by altitude. Ratings are at 230 volts for 208/230 volt units ("A" & "C" models) and 460 volts for "D" models.

Operation of units at a different voltage from that of the rating point will affect performance and air flow.

Sensible Total Heat Ratio @ 95°F (35°C) Outside Air DB - 8AA Heat Pumps - Stage 2

Model Number	8AA2024H			8AA2030H			8AA2036H			8AA2042H			8AA2048H			8AA2060H		
	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D	A	C	D
Total Capacity	22,000			28,800			33,000			39,000			47,000			56,000		
Sensible Heat Ratio	0.78			0.80			0.78			0.74			0.77			0.70		
Sensible Capacity	17,000			23,000			26,000			29,000			36,000			39,000		
Rated Air Flow (CFM)	800			1,000			1,200			1,300			1,750			1,750		

¹CFM=Cubic Feet per Minute

Sensible Heat Ratios based upon ANSI/AHRI std. 390 outdoor conditions of 95°F (35°C) outdoor and 80°F DB/67°F WB (26.5°C DB/19.5°C WB) return air.

Cooling Performance (BTUH) at Various Outdoor Temperatures - 8AA Heat Pumps - Stage 2

Model Number	Outdoor Temperature									
	75°F/24°C	80°F/26.5°C	85°F/29°C	90°F/32°C	95°F/35°C	100°F/38°C	105°F/40.5°C	110°F/43.3°C	115°F/46°C	
8AA2024H	25,520	24,640	23,700	22,800	22,000	21,000	20,200	19,300	18,900	
8AA2030H	33,408	32,256	31,104	29,952	28,800	27,648	26,496	25,344	24,768	
8AA2036H	38,280	36,960	35,640	34,320	33,000	31,680	30,360	29,040	28,380	
8AA2042H	45,240	43,680	42,120	40,560	39,000	37,440	35,880	34,320	33,540	
8AA2048H	54,520	52,640	50,760	48,880	47,000	45,120	43,240	41,360	40,420	
8AA2060H	64,960	62,720	60,480	59,280	56,000	53,760	51,520	49,280	48,160	

Based upon ANSI/AHRI std. 390 return air conditions of 80°F DB/67°F WB (26.5°C DB/19.5°C WB). Return air at rated air flow.

Heating Performance (BTUH) at Various Outdoor Temperatures - 8AA Heat Pumps with 2-Stage Compressor

Model Number	Outdoor Temperature									
	10°F/-12.2°C	17°F/-8.3°C	20°F/-6.7°C	30°F/-1.1°C	40°F/4.4°C	47°F/8.3°C	50°F/10°C	60°F/15.6°C	70°F/21.1°C	
8AA2024H	11,880	13,200	14,500	17,160	19,800	21,400	22,400	25,800	27,000	
8AA2030H	12,155	14,300	15,470	19,565	23,075	26,000	26,780	27,950	29,250	
8AA2036H	14,620	17,200	18,620	23,590	27,850	31,400	32,342	33,755	35,325	
8AA2042H	17,680	20,800	22,420	28,090	32,950	37,000	38,110	39,775	41,625	
8AA2048H	18,700	22,000	23,700	29,650	34,750	39,000	40,170	41,925	43,875	
8AA2060H	25,500	30,000	32,050	39,225	45,375	50,500	52,015	54,288	56,813	

Based upon ANSI/AHRI std. 390 return air conditions of 70°F DB (21.1°C DB). Return air at rated air flow.

Electrical Characteristics - 8AA Heat Pumps - 2-Stage Compressor Compressor, Fan, Ventilation & Blower Motors -

C: Economizer, Outside air with Pressure Relief

D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief

E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control

N: Barometric Damper, up to 15% outside air

Model Number	COMPRESSOR			OTHER MOTORS	OUTDOOR FAN MOTOR			INDOOR BLOWER MOTOR (ECM)			VENTILATION GREENWHEEL® ERV		
	VOLTS-HZ-PH	RLA ¹	LRA ²	VOLTS-HZ-PH	RPM ³	FLA ⁴	HP ⁵	RPM ³	FLA ⁴	HP ⁵	AMPS		
											OAM ⁶	EXM ⁷	WD ⁸
8AA2024HA	208/230-60-1	11.7	58.3	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	1.0	1.0	0.2
8AA2030HA	208/230-60-1	13.1	73.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2036HA	208/230-60-1	15.2	83.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2042HA	208/230-60-1	17.9	96.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2048HA	208/230-60-1	21.1	104.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA2060HA	208/230-60-1	27.1	152.9	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA2024HC	208/230-60-3	6.5	55.4	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	1.0	1.0	0.2
8AA2030HC	208/230-60-3	8.6	58.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2036HC	208/230-60-3	11.6	73.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2042HC	208/230-60-3	14.1	88.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2048HC	208/230-60-3	14.0	83.1	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA2060HC	208/230-60-3	16.5	110.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA2024HD	460-60-3	3.5	28.0	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	1.0	1.0	0.2
8AA2030HD	460-60-3	4.3	28.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2036HD	460-60-3	5.7	38.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2042HD	460-60-3	6.2	44.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	1.0	1.0	0.2
8AA2048HD	460-60-3	6.4	41.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2
8AA2060HD	460-60-3	7.2	52.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	1.0	1.0	0.2

¹RLA = Rated Load Amps ²LRA = Locked Rotor Amps ³RPM = Revolutions per Minute ⁴FLA = Full Load Amps
⁵HP = Horsepower ⁶OAM = Outside Air Mover ⁷EXM = Exhaust Air Mover ⁸WD = Wheel Drive Motor
The 460 volt units have a step down transformer for the 230 volt motors.

Electrical Characteristics - 8AA Heat Pumps - 2-Stage Compressor Compressor, Fan, Ventilation & Blower Motors-

Q: GreenCube® Energy Recovery Ventilator

Model Number	COMPRESSOR			OTHER MOTORS	OUTDOOR FAN MOTOR			INDOOR BLOWER MOTOR (ECM)			VENTILATION GREENCUBE® ERV	
	VOLTS-HZ-PH	RLA ¹	LRA ²	VOLTS-HZ-PH	RPM ³	FLA ⁴	HP ⁵	RPM ³	FLA ⁴	HP ⁵	AMPS	
											OAM ⁶	EXM ⁷
8AA2024HA	208/230-60-1	11.7	58.3	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	0.7	0.4
8AA2030HA	208/230-60-1	13.1	73.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2036HA	208/230-60-1	15.2	83.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2042HA	208/230-60-1	17.9	96.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2048HA	208/230-60-1	21.1	104.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4
8AA2060HA	208/230-60-1	27.1	152.9	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4
8AA2024HC	208/230-60-3	6.5	55.4	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	0.7	0.4
8AA2030HC	208/230-60-3	8.6	58.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2036HC	208/230-60-3	11.6	73.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2042HC	208/230-60-3	14.1	88.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2048HC	208/230-60-3	14.0	83.1	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4
8AA2060HC	208/230-60-3	16.5	110.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4
8AA2024HD	460-60-3	3.5	28.0	208/230-60-1	1200	3.5	1/3	1050	2.8	1/3	0.7	0.4
8AA2030HD	460-60-3	4.3	28.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2036HD	460-60-3	5.7	38.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2042HD	460-60-3	6.2	44.0	208/230-60-1	1200	5.3	1/2	1050	4.3	1/2	0.7	0.4
8AA2048HD	460-60-3	6.4	41.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4
8AA2060HD	460-60-3	7.2	52.0	208/230-60-1	1200	5.3	1/2	1050	6.8	3/4	0.7	0.4

¹RLA = Rated Load Amps ²LRA = Locked Rotor Amps ³RPM = Revolutions per Minute ⁴FLA = Full Load Amps
⁵HP = Horsepower ⁶OAM = Outside Air Mover ⁷EXM = Exhaust Air Mover
The 460 volt units have a step down transformer for the 230 volt motors.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps w/2-Stage Compressor and Ventilation Configurations:

C: Economizer, Outside air with Pressure Relief

D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief

E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control

N: Barometric Damper, up to 15% outside air

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	20.9	30	41.8	50	47.0	50	52.2	60	62.6	70			73.0	80				
8AA2030HA	208/230-60-1	26.0	35			52.0	60	57.2	60	67.6	70			78.1	80	88.5	90	104.1	110
8AA2036HA	208/230-60-1	28.6	40			54.6	60	59.9	60	70.3	80			80.7	90	91.1	100	106.7	110
8AA2042HA	208/230-60-1	32.0	45			58.0	60							84.1	90	94.5	100	110.1	120
8AA2048HA	208/230-60-1	38.5	60			64.5	70							90.6	100	101.0	110	116.6	120
8AA2060HA	208/230-60-1	46.0	70			72.0	80							98.1	100	108.5	110	124.1	130
8AA2024HC	208/230-60-3	14.4	20					32.5	35			41.5	45						
8AA2030HC	208/230-60-3	20.4	25					38.4	40			47.4	50			56.4	60	65.5	70
8AA2036HC	208/230-60-3	24.1	35					42.1	45			51.2	60			60.2	70	69.2	70
8AA2042HC	208/230-60-3	27.2	40					45.3	50			54.3	60			63.3	70	72.3	80
8AA2048HC	208/230-60-3	29.6	40					47.6	50			56.7	60			65.7	70	74.7	80
8AA2060HC	208/230-60-3	32.7	45					50.8	60			59.8	60			68.8	70	77.8	80
8AA2024HD	460-60-3	7.5	15					16.5	20			21.1	25			25.6	30	30.1	35
8AA2030HD	460-60-3	10.2	15					19.2	20			23.7	25			28.2	30	32.7	35
8AA2036HD	460-60-3	11.9	15					20.9	25			25.5	30			30.0	35	34.5	35
8AA2042HD	460-60-3	12.6	15					21.6	25			26.1	30			30.6	35	35.1	40
8AA2048HD	460-60-3	14.1	20					23.1	25			27.6	30			32.1	35	36.6	40
8AA2060HD	460-60-3	15.1	20					24.1	25			28.6	30			33.1	35	37.6	40

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry

MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps with 2-Stage Compressor and "S" Circuit Set to "Yes" and Ventilation Configurations:

C: Economizer, Outside air with Pressure Relief

D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief

E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control

N: Barometric Damper, up to 15% outside air

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	20.9	30	25.2	35	30.3	35	35.6	40					56.4	60				
8AA2030HA	208/230-60-1	26.0	35			30.3	35	35.6	40					56.4	60	66.8	70	82.4	90
8AA2036HA	208/230-60-1	28.6	40			30.3	40	35.6	40					56.4	60	66.8	70	82.4	90
8AA2042HA	208/230-60-1	32.0	45			32	45							56.4	60	66.8	70	82.4	90
8AA2048HA	208/230-60-1	38.5	60			41	60							58.9	60	69.3	70	84.9	90
8AA2060HA	208/230-60-1	46.0	70			41	70							58.9	60	69.3	70	84.9	90
8AA2024HC	208/230-60-3	14.4	20					22.3	25			31.4	35			40.4	45	49.4	50
8AA2030HC	208/230-60-3	20.4	25					22.3	25			31.4	35			40.4	45	49.4	50
8AA2036HC	208/230-60-3	24.1	35					24.1	35			31.4	35			40.4	45	49.4	50
8AA2042HC	208/230-60-3	27.2	40					27.2	40			31.4	40			40.4	45	49.4	50
8AA2048HC	208/230-60-3	29.6	40					29.6	40			33.9	40			42.9	45	51.9	60
8AA2060HC	208/230-60-3	32.7	45					32.7	45			33.9	45			42.9	45	51.9	60
8AA2024HD	460-60-3	7.5	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA2030HD	460-60-3	10.2	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA2036HD	460-60-3	11.9	15					11.9	15			15.7	20			20.2	25	24.7	25
8AA2042HD	460-60-3	12.6	15					12.6	15			15.7	20			20.2	25	24.7	25
8AA2048HD	460-60-3	14.1	20					14.1	15			16.9	20			21.4	25	25.9	30
8AA2060HD	460-60-3	15.1	20					15.1	20			16.9	20			21.4	25	25.9	30

S-Circuit - The user can move a pin on the board to control whether the electric heat will operate simultaneously with the compressor (S Circuit - NO) or will not run simultaneously with the compressor (S Circuit - Yes).

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry

MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps with 2-Stage Compressor & Ventilation Configuration: H: GreenWheel® ERV

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	23.1	30	44.0	50	49.2	60	54.4	60	64.8	70			75.2	80				
8AA2030HA	208/230-60-1	28.2	35			54.2	60	59.4	60	69.8	70			80.3	90	90.7	90	106.3	110
8AA2036HA	208/230-60-1	30.8	40			56.8	60	62.1	70	72.5	80			82.9	90	93.3	100	108.9	110
8AA2042HA	208/230-60-1	34.2	45			60.2	70							86.3	90	96.7	100	112.3	120
8AA2048HA	208/230-60-1	40.7	50			66.7	70							92.8	100	103.2	105	118.8	120
8AA2060HA	208/230-60-1	48.2	60			74.2	80							100.3	105	110.7	110	126.3	130
8AA2024HC	208/230-60-3	14.9	20					34.7	40			43.7	50						
8AA2030HC	208/230-60-3	18.6	25					40.6	45			49.6	50			58.6	60	67.7	70
8AA2036HC	208/230-60-3	22.3	30					44.3	45			53.4	60			62.4	70	71.4	80
8AA2042HC	208/230-60-3	25.4	35					47.5	50			56.5	60			65.5	70	74.5	80
8AA2048HC	208/230-60-3	26.8	40					49.8	50			58.9	60			67.9	70	76.9	80
8AA2060HC	208/230-60-3	29.9	45					53.0	60			62.0	70			71.0	80	80.0	80
8AA2024HD	460-60-3	7.8	15					17.6	20			22.2	25			26.7	30	31.2	35
8AA2030HD	460-60-3	9.3	15					20.3	25			24.8	25			29.3	30	33.8	35
8AA2036HD	460-60-3	11.0	15					22.0	25			26.6	30			31.1	30	35.6	40
8AA2042HD	460-60-3	11.7	15					22.7	25			27.2	30			31.7	30	36.2	40
8AA2048HD	460-60-3	12.7	15					24.2	25			28.7	30			33.2	35	37.7	40
8AA2060HD	460-60-3	13.7	20					25.2	30			29.7	30			34.2	35	38.7	40

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) - 8AA Heat Pumps with 2-Stage Compressor & “S” Circuit set to “Yes” & Vent. Configuration: H: GreenWheel® ERV

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	23.1	30	27.4	30	32.5	35	37.8	40					58.6	60				
8AA2030HA	208/230-60-1	28.2	35			32.5	35	37.8	40					58.6	60	69.0	70	84.6	90
8AA2036HA	208/230-60-1	30.8	40			32.5	40	37.8	40					58.6	60	69.0	70	84.6	90
8AA2042HA	208/230-60-1	34.2	45			34.2	45							58.6	60	69.0	70	84.6	90
8AA2048HA	208/230-60-1	40.7	50			43.2	50							61.1	70	71.5	80	87.1	90
8AA2060HA	208/230-60-1	48.2	60			43.2	60							61.1	70	71.5	80	87.1	90
8AA2024HC	208/230-60-3	14.9	20					24.5	25			33.6	35			42.6	45	51.6	60
8AA2030HC	208/230-60-3	18.6	25					24.5	25			33.6	35			42.6	45	51.6	60
8AA2036HC	208/230-60-3	22.3	30					26.3	30			33.6	35			42.6	45	51.6	60
8AA2042HC	208/230-60-3	25.4	35					29.4	35			33.6	35			42.6	45	51.6	60
8AA2048HC	208/230-60-3	26.8	40					31.8	40			36.1	40			45.1	50	54.1	60
8AA2060HC	208/230-60-3	29.9	45					34.9	45			36.1	45			45.1	50	54.1	60
8AA2024HD	460-60-3	7.8	15					12.3	15			16.8	20			21.3	25	25.8	30
8AA2030HD	460-60-3	9.3	15					12.3	15			16.8	20			21.3	25	25.8	30
8AA2036HD	460-60-3	11.0	15					13.0	15			16.8	20			21.3	25	25.8	30
8AA2042HD	460-60-3	11.7	15					13.7	15			16.8	20			21.3	25	25.8	30
8AA2048HD	460-60-3	12.7	15					15.2	15			18.0	20			22.5	25	27.0	30
8AA2060HD	460-60-3	13.7	20					16.2	20			18.0	20			22.5	25	27.0	30

S-Circuit - The user can move a pin on the board to control whether the electric heat will operate simultaneously with the compressor (S Circuit – NO) or will not run simultaneously with the compressor (S Circuit – Yes).
¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

**Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) -
8AA Heat Pump with 2- Stage Compressor & Ventilation Configuration:
Q: GreenCube® Energy Recovery Ventilator**

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	22.0	35	42.9	50	48.1	60	53.3	60	63.7	70			74.1	80				
8AA2030HA	208/230-60-1	27.1	35			53.1	60	58.3	60	68.7	70			79.2	80	89.6	90	105.2	110
8AA2036HA	208/230-60-1	29.7	40			55.7	60	61.0	60	71.4	80			81.8	90	92.2	100	107.8	110
8AA2042HA	208/230-60-1	33.1	45			59.1	60							85.2	90	95.6	100	111.2	120
8AA2048HA	208/230-60-1	39.6	60			65.6	70							91.7	100	102.1	110	117.7	120
8AA2060HA	208/230-60-1	47.1	70			73.1	80							99.2	100	109.6	110	125.2	130
8AA2024HC	208/230-60-3	15.5	20					33.6	40			42.6	45						
8AA2030HC	208/230-60-3	21.5	25					39.5	40			48.5	50			57.5	60	66.6	70
8AA2036HC	208/230-60-3	25.2	35					43.2	45			52.3	60			61.3	70	70.3	70
8AA2042HC	208/230-60-3	28.3	40					46.4	50			55.4	60			64.4	70	73.4	80
8AA2048HC	208/230-60-3	30.7	40					48.7	50			57.8	60			66.8	70	75.8	80
8AA2060HC	208/230-60-3	33.8	45					51.9	60			60.9	60			69.9	70	78.9	80
8AA2024HD	460-60-3	8.1	15					17.1	20			21.6	25			26.1	30	30.6	35
8AA2030HD	460-60-3	10.7	15					19.7	20			24.3	25			28.8	30	33.3	35
8AA2036HD	460-60-3	12.5	15					21.5	25			26.0	30			30.5	30	35.0	35
8AA2042HD	460-60-3	13.1	15					22.1	25			26.6	30			31.1	35	35.7	40
8AA2048HD	460-60-3	14.6	20					23.6	25			28.1	30			32.6	35	37.2	40
8AA2060HD	460-60-3	15.6	20					24.6	25			29.1	30			33.6	35	38.2	40

¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

**Summary Electrical Ratings (Wire and HACR Circuit Breaker Sizing) -
8AA Heat Pumps with 2-Stage Compressor & “S” Circuit set to “Yes” & Vent. Configurations:
Q: GreenCube® Energy Recovery Ventilator**

ELECTRIC HEAT		000 = None		040 = 4 kw		050 = 5 kw		060 = 6 kw		080 = 8 kw		090 = 9 kw		100 = 10 kw		120 = 12 kw		150 = 15 kw	
BASIC MODEL	VOLTS-HZ-PH	SPPE ³																	
		MCA ¹	MFS ²																
8AA2024HA	208/230-60-1	22.0	35	24.7	35	29.9	35	35.2	40	45.6	50			56.0	60				
8AA2030HA	208/230-60-1	27.1	35			31.4	35	36.7	40	47.1	50			57.5	60	67.9	70	83.5	90
8AA2036HA	208/230-60-1	29.7	40			31.4	40	36.7	40	47.1	50			57.5	60	67.9	70	83.5	90
8AA2042HA	208/230-60-1	33.1	45			33.1	45							57.5	60	67.9	70	83.5	90
8AA2048HA	208/230-60-1	39.6	60			39.6	60							60.0	70	70.4	75	86.0	90
8AA2060HA	208/230-60-1	47.1	70			47.1	70							60.0	70	70.4	75	86.0	90
8AA2024HC	208/230-60-3	15.5	20					21.9	25			31.0	35						
8AA2030HC	208/230-60-3	21.5	25					23.4	25			32.5	35			41.5	45	50.5	55
8AA2036HC	208/230-60-3	25.2	35					25.2	35			32.5	35			41.5	45	50.5	55
8AA2042HC	208/230-60-3	28.3	40					28.3	40			32.5	40			41.5	45	50.5	55
8AA2048HC	208/230-60-3	30.7	40					30.7	40			35.0	40			44.0	45	53.0	55
8AA2060HC	208/230-60-3	33.8	45					33.8	45			35.0	45			44.0	45	53.0	55
8AA2024HD	460-60-3	8.1	15					11.0	15			15.5	20			20.0	25	24.5	30
8AA2030HD	460-60-3	10.7	15					11.7	15			16.2	20			20.7	25	25.3	30
8AA2036HD	460-60-3	12.5	15					12.5	15			16.2	20			20.7	25	25.3	30
8AA2042HD	460-60-3	13.1	15					13.1	15			16.2	20			20.7	25	25.3	30
8AA2048HD	460-60-3	14.6	20					14.6	20			17.5	20			22.0	25	26.5	30
8AA2060HD	460-60-3	15.6	20					15.6	20			17.5	20			22.0	25	26.5	30

S-Circuit - The user can move a pin on the board to control whether the electric heat will operate simultaneously with the compressor (S Circuit – NO) or will not run simultaneously with the compressor (S Circuit – Yes).
¹MCA = Minimum Circuit Ampacity (Wiring Size Amps) ²MFS = Maximum Fuse or HACR Breaker Size ³SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the 208-230v. (HPA & HPC) models. The 460 volt HPD models are calculated at 460 volts. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

**Unit Load Amps (Heating) -
8AA Heat Pumps w/2-Stage Compressor & Ventilation Configuration:
C: Economizer, Outside air with Pressure Relief
D: Motorized 2-Position Damper, up to 450 cfm of outside air w/Pressure Relief
E: Motorized Damper w/Pressure Relief & Independent Motorized Damper Control
N: Barometric Damper, up to 15% outside air**

MODEL NUMBER	VOLTS-HZ-PH	CURRENT (AMPS)		LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS) (1) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCUIT (2) SHADED VALUES (12 & 15 kW) UTILIZE TWO CIRCUITS									TOTAL MAXIMUM HEATING AMPS INCLUDES AMPS FROM MOTOR(S) THAT ARE LOCATED ON AN ELECTRICAL CIRCUIT THAT DOES NOT HAVE HEATERS						
		HP ¹	IBM ²	04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw
8AA2024HA	208/230-60-1	17.9	2.8	16.7	20.8	25.00	33.3		41.7				34.6	38.7	42.9	51.2		59.6	
8AA2030HA	208/230-60-1	22.7	4.3	16.7	20.8	25.00	33.3		41.7	50.0	62.5	39.4	43.5	47.7	56.0	64.4	72.7	85.2	
8AA2036HA	208/230-60-1	24.8	4.3	16.7	20.8	25.00	33.3		41.7	50.0	62.5	41.5	45.6	49.8	58.1	66.5	74.8	87.3	
8AA2042HA	208/230-60-1	27.5	4.3		20.8				41.7	50.0	62.5		48.3			69.2	77.5	90.0	
8AA2048HA	208/230-60-1	33.2	6.8		20.8				41.7	50.0	62.5		54.0			74.9	83.2	95.7	
8AA2060HA	208/230-60-1	39.2	6.8		20.8				41.7	50.0	62.5		60.0			80.9	89.2	101.7	
8AA2024HC	208/230-60-3	12.8	2.8			14.4		22		28.9	36.1			27.2		34.5		41.7	48.9
8AA2030HC	208/230-60-3	18.2	4.3			14.4		22		28.9	36.1			32.6		39.9		47.1	54.3
8AA2036HC	208/230-60-3	21.2	4.3			14.4		22		28.9	36.1			35.6		42.9		50.1	57.3
8AA2042HC	208/230-60-3	23.7	4.3			14.4		22		28.9	36.1			38.1		45.4		52.6	59.8
8AA2048HC	208/230-60-3	26.1	6.8			14.4		22		28.9	36.1			40.5		47.8		55.0	62.2
8AA2060HC	208/230-60-3	28.6	6.8			14.4		22		28.9	36.1			43.0		50.3		57.5	64.7
8AA2024HD	460-60-3	6.7	1.4			9.0		10.8		14.4	18.0			15.7		17.5		21.1	24.7
8AA2030HD	460-60-3	9.1	2.2			9.0		10.8		14.4	18.0			18.1		19.9		23.5	27.1
8AA2036HD	460-60-3	10.5	2.2			9.0		10.8		14.4	18.0			19.5		21.3		24.9	28.5
8AA2042HD	460-60-3	11.0	2.2			9.0		10.8		14.4	18.0			20.0		21.8		25.4	29.0
8AA2048HD	460-60-3	12.5	3.4			9.0		10.8		14.4	18.0			21.5		23.3		26.9	30.5
8AA2060HD	460-60-3	13.3	3.4			9.0		10.8		14.4	18.0			22.3		24.1		27.7	31.3

¹HP = Heat Pump Unit Amps (includes Indoor Motor amps) ²IBM = Indoor Blower Motor
Heating kW is rated at 240 volts on the 208-230v. (HPA & HPC) models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the HPD models.
Total heating amps for single phase units with two circuits (#1 and #2) includes both circuits. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Values shown are maximum phase loads. Loads are not equally balanced on each phase.

**Unit Load Amps (Heating) -
8AA Heat Pumps with 2-Stage Compressor & Ventilation Configuration:
H: GreenWheel® ERV**

MODEL NUMBER	VOLTS-HZ-PH	CURRENT (AMPS)			LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS) (1) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCUIT (2) SHADED VALUES (12 & 15 kW) UTILIZE TWO CIRCUITS									TOTAL MAXIMUM HEATING AMPS INCLUDES AMPS FROM MOTOR(S) THAT ARE LOCATED ON AN ELECTRICAL CIRCUIT THAT DOES NOT HAVE HEATERS						
		HP ¹	IBM ²	H ³	04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw
8AA2024HA	208/230-60-1	20.1	4.3	2.2	16.7	20.8	25.0	33.3		41.7			36.8	40.9	45.1	53.4		61.8		
8AA2030HA	208/230-60-1	24.9	4.3	2.2	16.7	20.8	25.0	33.3		41.7	50.0	62.5	41.6	45.7	49.9	58.2		66.6	74.9	87.4
8AA2036HA	208/230-60-1	27.0	4.3	2.2	16.7	20.8	25.0	33.3		41.7	50.0	62.5	43.7	47.8	52.0	60.3		68.7	77.0	89.5
8AA2042HA	208/230-60-1	29.7	4.3	2.2		20.8				41.7	50.0	62.5		50.5				71.4	79.7	92.2
8AA2048HA	208/230-60-1	35.4	6.8	2.2		20.8				41.7	50.0	62.5		56.2				77.1	85.4	97.9
8AA2060HA	208/230-60-1	41.4	6.8	2.2		20.8				41.7	50.0	62.5		62.2				83.1	91.4	103.9
8AA2024HC	208/230-60-3	15.0	4.3	2.2			14.4		21.7		28.9	36.1			29.4		36.7		43.9	51.1
8AA2030HC	208/230-60-3	20.4	4.3	2.2			14.4		21.7		28.9	36.1			34.8		42.1		49.3	56.5
8AA2036HC	208/230-60-3	23.4	4.3	2.2			14.4		21.7		28.9	36.1			37.8		45.1		52.3	59.5
8AA2042HC	208/230-60-3	25.9	4.3	2.2			14.4		21.7		28.9	36.1			40.3		47.6		54.8	62.0
8AA2048HC	208/230-60-3	28.3	6.8	2.2			14.4		21.7		28.9	36.1			42.7		50.0		57.2	64.4
8AA2060HC	208/230-60-3	30.8	6.8	2.2			14.4		21.7		28.9	36.1			45.2		52.5		59.7	66.9
8AA2024HD	460-60-3	7.8	2.2	1.1			7.2		10.8		14.4	18.0			15.0		18.6		22.2	25.8
8AA2030HD	460-60-3	10.2	2.2	1.1			7.2		10.8		14.4	18.0			17.4		21.0		24.6	28.2
8AA2036HD	460-60-3	11.6	2.2	1.1			7.2		10.8		14.4	18.0			18.8		22.4		26.0	29.6
8AA2042HD	460-60-3	12.1	2.2	1.1			7.2		10.8		14.4	18.0			19.3		22.9		26.5	30.1
8AA2048HD	460-60-3	13.6	3.4	1.1			7.2		10.8		14.4	18.0			20.8		24.4		28.0	31.6
8AA2060HD	460-60-3	14.4	3.4	1.1			7.2		10.8		14.4	18.0			21.6		25.2		28.8	32.4

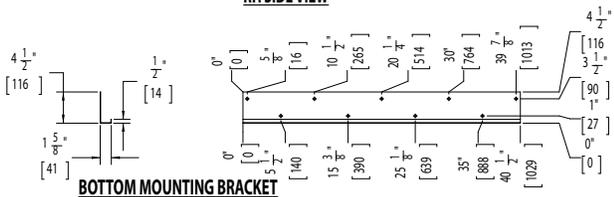
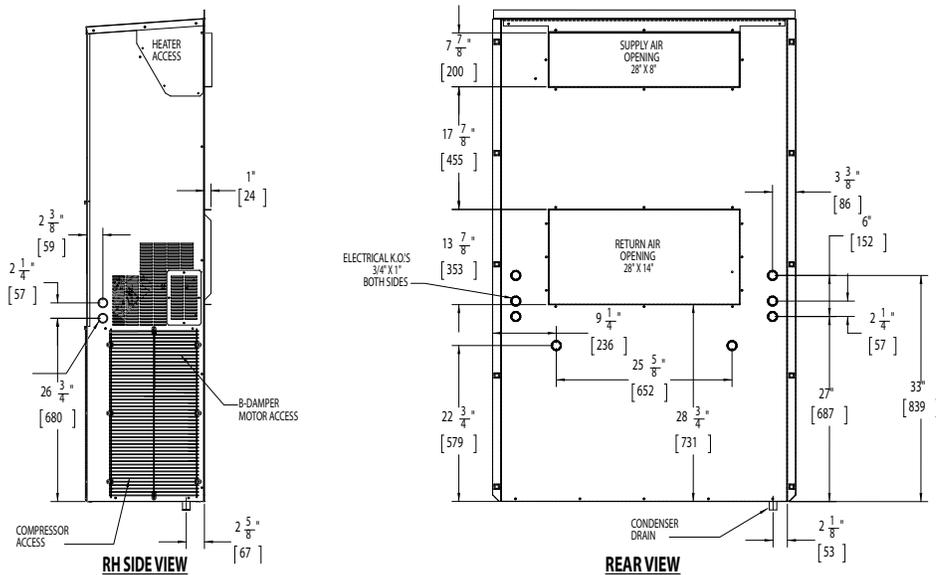
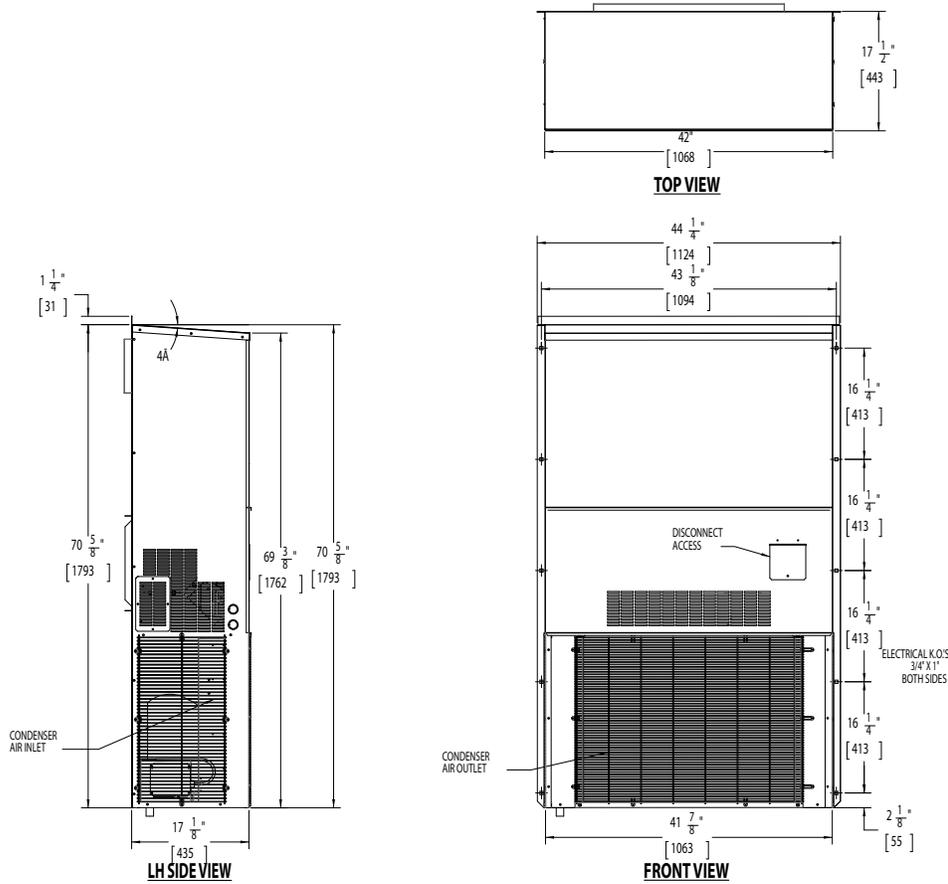
¹HP = Heat Pump Unit Amps (includes Indoor Motor amps) ²IBM = Indoor Blower Motor ³H = GreenWheel ERV
Heating kW is rated at 240 volts on the 208-230v. (HPA & HPC) models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the HPD models.
Total heating amps for single phase units with two circuits (#1 and #2) includes both circuits. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Values shown are maximum phase loads. Loads are not equally balanced on each phase.

Unit Load Amps (Heating) - 8AA Heat Pump with 2-Stage Compressor and Q: GreenCube® Energy Recovery Ventilator

MODEL NUMBER	VOLTS-HZ-PH	CURRENT (AMPS)			LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS) (1) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCUIT (2) SHADED VALUES (12 & 15 kW) UTILIZE TWO CIRCUITS									TOTAL MAXIMUM HEATING AMPS INCLUDES AMPS FROM MOTOR(S) THAT ARE LOCATED ON AN ELECTRICAL CIRCUIT THAT DOES NOT HAVE HEATERS								
		HP ¹	IBM ²	Q ³	04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw		
8AA2024HA	208/230-60-1	20.1	2.8	1.1	16.7	20.8	25.0	33.3		41.7			36.8	40.9	45.1	53.4		61.8				
8AA2030HA	208/230-60-1	24.9	2.8	1.1	16.7	20.8	25.0	33.3		41.7	50.0	62.5	41.6	45.7	49.9	58.2		66.6	74.9	87.4		
8AA2036HA	208/230-60-1	27.0	2.8	1.1	16.7	20.8	25.0	33.3		41.7	50.0	62.5	43.7	47.8	52.0	60.3		68.7	77.0	89.5		
8AA2042HA	208/230-60-1	29.7	2.8	1.1		20.8				41.7	50.0	62.5		50.5				71.4	79.7	92.2		
8AA2048HA	208/230-60-1	35.4	4.3	1.1		20.8				41.7	50.0	62.5		56.2				77.1	85.4	97.9		
8AA2060HA	208/230-60-1	41.4	4.3	1.1		20.8				41.7	50.0	62.5		62.2				83.1	91.4	103.9		
8AA2024HC	208/230-60-3	15.0	2.8	1.1			14.4		21.7		28.9	36.1			29.4		36.7		43.9	51.1		
8AA2030HC	208/230-60-3	20.4	2.8	1.1			14.4		21.7		28.9	36.1			34.8		42.1		49.3	56.5		
8AA2036HC	208/230-60-3	23.4	2.8	1.1			14.4		21.7		28.9	36.1			37.8		45.1		52.3	59.5		
8AA2042HC	208/230-60-3	25.9	2.8	1.1			14.4		21.7		28.9	36.1			40.3		47.6		54.8	62.0		
8AA2048HC	208/230-60-3	28.3	4.3	1.1			14.4		21.7		28.9	36.1			42.7		50.0		57.2	64.4		
8AA2060HC	208/230-60-3	30.8	4.3	1.1			14.4		21.7		28.9	36.1			45.2		52.5		59.7	66.9		
8AA2024HD	460-60-3	7.8	1.4	0.6			7.2		10.8		14.4	18.0			15.0		18.6		22.2	25.8		
8AA2030HD	460-60-3	10.2	1.4	0.6			7.2		10.8		14.4	18.0			17.4		21.0		24.6	28.2		
8AA2036HD	460-60-3	11.6	1.4	0.6			7.2		10.8		14.4	18.0			18.8		22.4		26.0	29.6		
8AA2042HD	460-60-3	12.1	1.4	0.6			7.2		10.8		14.4	18.0			19.3		22.9		26.5	30.1		
8AA2048HD	460-60-3	13.6	2.2	0.6			7.2		10.8		14.4	18.0			20.8		24.4		28.0	31.6		
8AA2060HD	460-60-3	14.4	2.2	0.6			7.2		10.8		14.4	18.0			21.6		25.2		28.8	32.4		

¹HP = Heat Pump Unit Amps (includes Indoor Motor amps) ²IBM = Indoor Blower Motor ³Q = GreenCube® ERV
 Heating kW is rated at 240 volts on the 208-230v. (HPA & HPC) models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the HPD models.
 Total heating amps for single phase units with two circuits (#1 and #2) includes both circuits. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Values shown are maximum phase loads. Loads are not equally balanced on each phase.

Dimensional Data for 8AA1024H & 8AA2024H



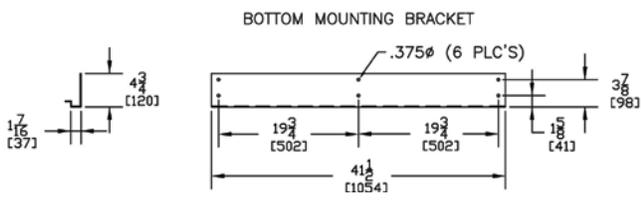
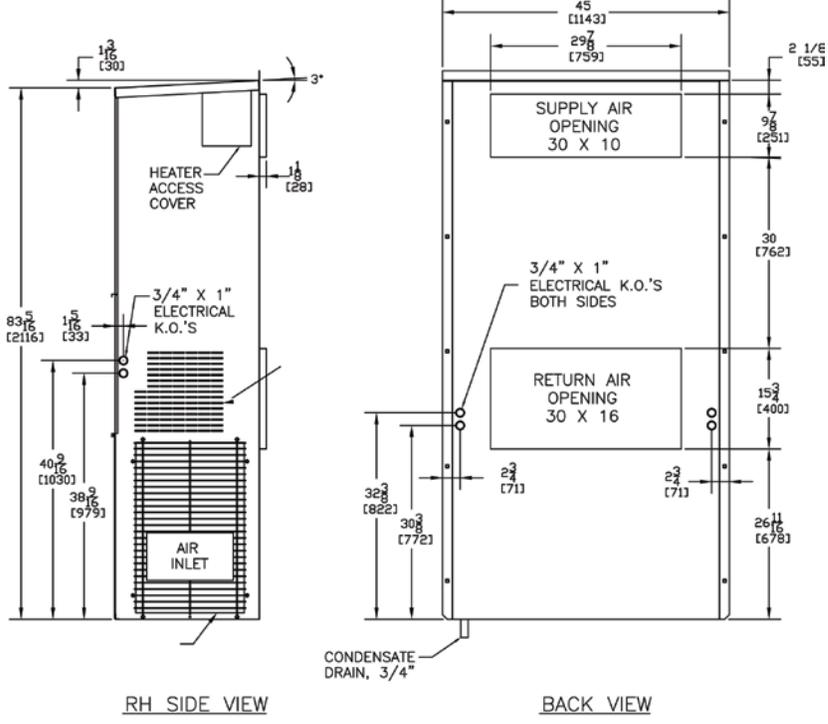
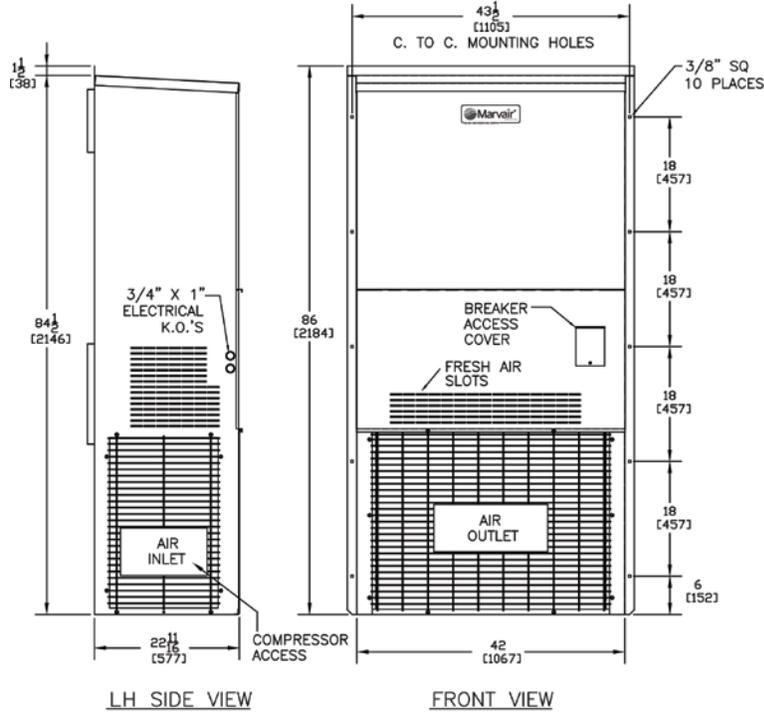
Shipping Weight (pounds/kilograms)

8AA1024H & 8AA2024H	LBS/KGS
WITH VENTILATION CONFIGURATION "N"	420/191
WITH VENTILATION CONFIGURATION "C", "D"	445/202.5

Filter Size

8AA1024H & 8AA2024H	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	30 x 16 x 1	762 x 406 x 25	80136	1	8

Dimensional Data for 8AA1030H/1036H/1042H & 8AA2030H/2036H/2042H



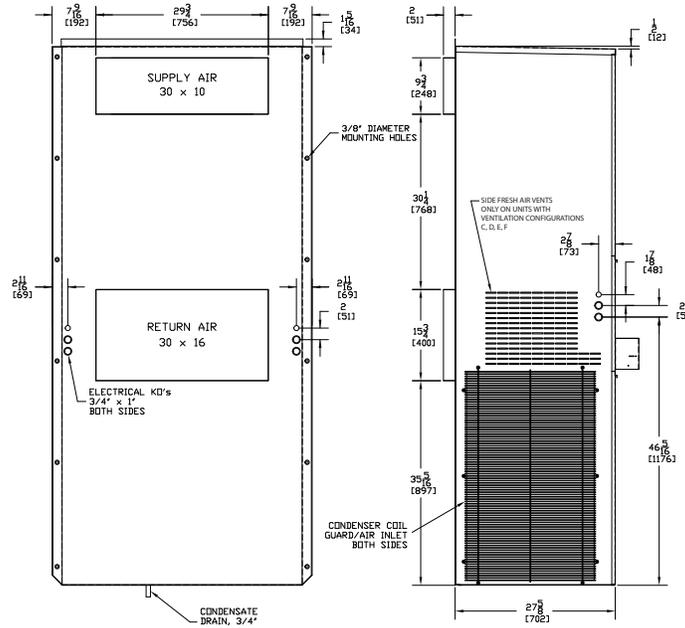
Shipping Weight (pounds/kilograms)

8AA1030H/1036H/1042H & 8AA2030H/2036H/2042H	LBS/KGS
WITH VENTILATION CONFIGURATION "N"	540/246
WITH VENTILATION CONFIGURATION "C", "D"	495/224.5

Filter Size

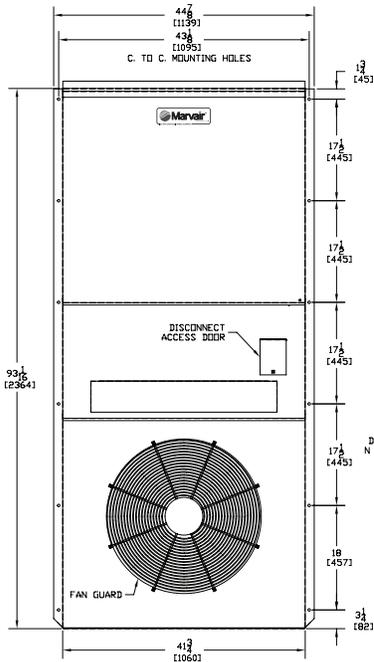
8AA1030H/1036H/1042H & 8AA2030H/2036H/2042H	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	36 1/2 x 22 x 1	927 x 559 x 25	80139	1	8

Dimensional Data for 8AA1048H/1060H & 8AA2048H/2060H



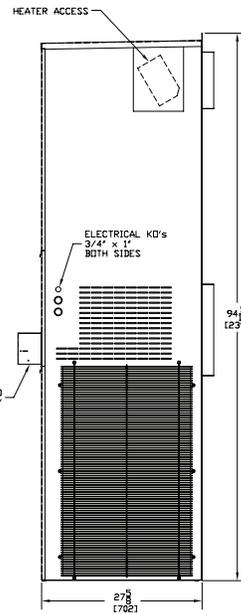
REAR VIEW

LH SIDE VIEW

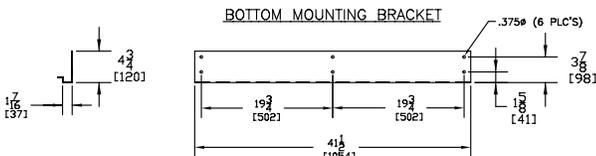


FRONT VIEW

COMPRESSOR ACCESSED FROM FRONT



RH SIDE VIEW



Shipping Weight (pounds/kilograms)

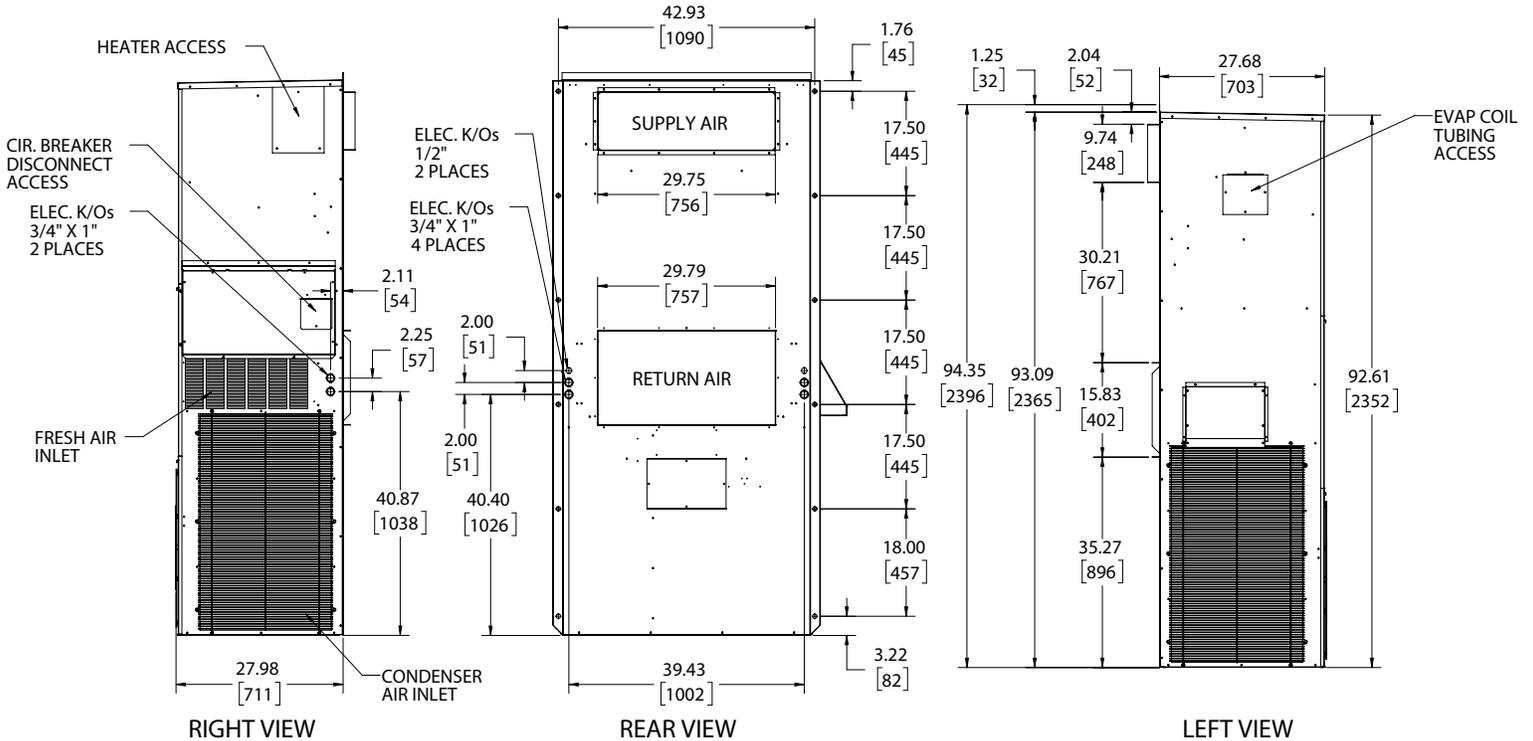
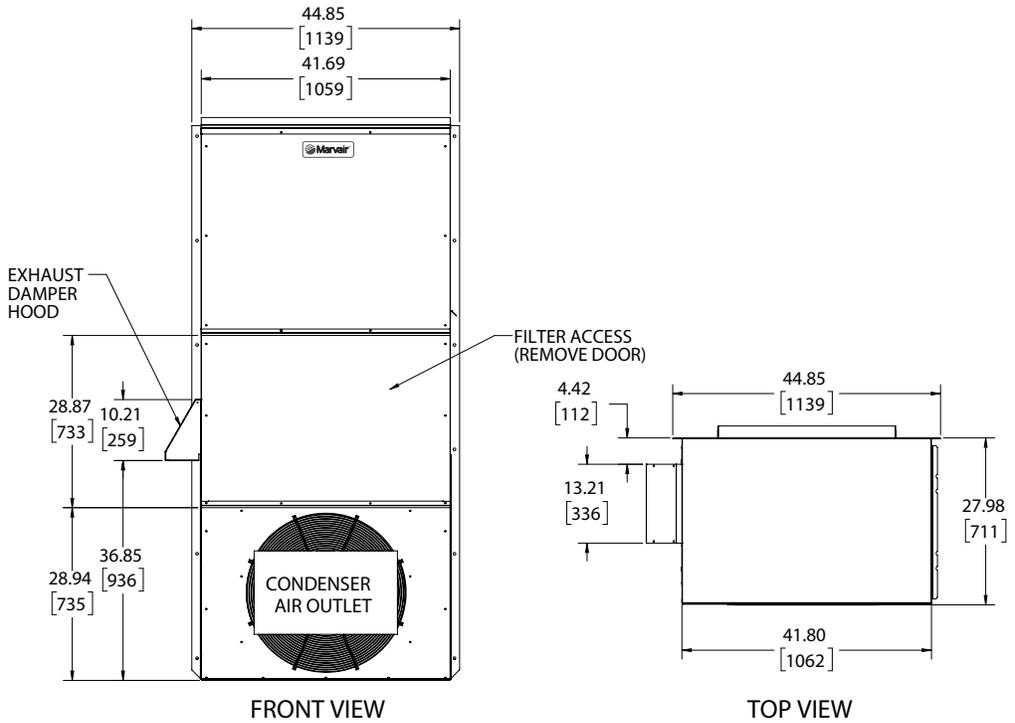
8AA1048H/1060H & 8AA2048H/2060H	LBS/KGS
WITH VENTILATION CONFIGURATION "N"	680/309
WITH VENTILATION CONFIGURATION "C", "D"	659/298.9
WITH GREENCUBE® ERV "Q"	810/369

Filter Size

8AA1048H/1060H & 8AA2048H/2060H	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	18 x 24 x 1	457 x 610 x 25	81199	2	8
INTAKE AIR FILTER*	14 x 14 x 1	356 x 356 x 25	80192	1	N/A
RETURN AIR FILTER (STD)**	16 x 24 x 1	406 x 635 x 25	92367	2	8
RETURN AIR FILTER (OPT)**	16 x 24 x 2	406 x 635 x 51	91968	2	8
INTAKE AIR FILTER**	9 3/4 x 22 3/4 x 3/4	248 x 222 x 19	92113	1	N/A
EXHAUST AIR FILTER**	9 3/4 x 22 3/4 x 3/4	248 x 222 x 19	92113	1	N/A

*Units with the GreenWheel ERV **Units with the GreenCube® ERV

Dimensional Data for 8AA1024H-1060H & 8AA2024H-2060H w/GreenWheel ERV



Shipping Weight (pounds/kilograms)

8AA1024H-1060H & 8AA2024H-2060H w/GreenWheel ERV	LBS/KGS
With GreenWheel ERV	

Filter Size

	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER					
INTAKE AIR FILTER*					

Notes



Please consult the Marvair® website at www.marvair.com for the latest product literature. Detailed dimensional data is available upon request. A complete warranty statement can be found in each product's Installation/Operation Manual, on our website or by contacting Marvair at 229-273-3636. As part of the Marvair continuous improvement program, specifications are subject to change without notice.



P.O. Box 400 • Cordele, GA 31010
156 Seedling Drive • Cordele, GA 31015
Ph: 229-273-3636 • Fax: 229-273-5154
Email: marvair@airxcs.com • Internet: www.marvair.com

