

PRODUCT DATA SHEET

Marvair

2 to 5 Ton Vertical Self-Contained Packaged Wall Mount Air Conditioners
Models 8AA1024A - 8AA1060A & 8AA2036A-8AA2060A







General Description

Used primarily to cool electronic and communication equipment shelters, Marvair® wall mount air conditioners are problem solvers for a wide range of conditions and applications. Due to the high internal heat load, these shelters require cooling even when outside temperatures drop below 60°F (15°C). All Marvair air conditioners have the necessary controls and components for operation during these (less than 60°F [15°C]) temperatures. All models use the non-ozone depleting R-410A refrigerant.

Marvair wall mount air conditioners are available with a factory installed economizer. When ambient conditions are cool and dry, the economizer uses outside air to cool the shelter. The economizer provides temperature control, energy cost savings, and increased reliability by decreasing the operating hours of the compressor and the condenser fan. To insure proper operation and optimum performance, all economizers are non-removable, factory installed and tested. In addition, factory and field installed accessories can be used to meet specific requirements.

➤ High Efficiency Models

8AA1024A-1060A: Marvair's most efficient wall mount air conditioners. Electronically commutated indoor fan motors combined with highly efficient scroll compressors result in Energy Efficiency Ratios (EER's) of up to 11.75.

➤ 2-Stage Compressor Models

8AA2036A-2060A: These models have a 2-stage compressor with first stage cooling approximately 65% of the total cooling capacity. The 2-stage compressor provides lower start-up amps which can be critical when operating with a generator. The two stage compressor can also reduce energy costs and is able to more precisely match the cooling capacity of the air conditioner with the heat load in the shelter. Both non-economizer and economizer-equipped units are available with 2 stage compressors.









Features and Benefits

Built-In Energy Savings

- Optional Factory Installed Economizer
- Three Model Lines to Meet Any Budget and Efficiency Requirements
- Available EER of up to 11.75
- · Available 2-Stage Compressor

R-410A Refrigerant

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

High Efficiency and Reliability

- High Efficiency Compressor and Lanced Coil Fins
- High/Low Pressure Switches with Lockout & Short Cycle Protection

Ease of Installation and Service

- · Side Access Panels for Power Connections
- Built-In Mounting Flanges and Internal Disconnect
- · Standard Access Valves and Filters, Status LEDs

Marvair 8AA1024A-1060A & 8AA2036A-2060A PDS 06/2023 Rev.7

Safety Listed and Energy Certified

All Marvair wall mount air conditioners are built to UL standard 1995, 4th edition and CAN/CSA C22.2, No. 236-11. For energy efficiency and performance, the units are tested and rated in accordance to the ANSI/ARI (Air-Conditioning and Refrigeration Institute) Standard 390- 2003 (Single Package Vertical Units). All units meet or exceed the efficiency requirements of ANSI/ASHRAE/IESNA 90.1.2010. Marvair air conditioners are commercial units and are not intended for use in residential applications.

Standard Features

➤ Designed for Operation in Low **Ambient Conditions**

- Low ambient control cycles condenser fan to maintain proper refrigerant pressures. Allows operation in mechanical cooling (compressor) of our standard air conditioners down to 20°F (-7°C). With the Extreme Duty option, the units will operate down to 0°F (-18°C). Note: low temperature operation is affected by ambient conditions, e.g. wind and humidity.
- Three minute by-pass of the low pressure switch for start-up of compressor when outdoor temperatures are below 55°F (13°C).
- Optional economizer.

➤ High Efficiency

- High efficiency compressor.
- · Lanced fins standard on all evaporator and condenser coils.

➤ Built-in Reliability

- High pressure switch and low pressure switch with lockout protects refrigerant circuit.
- Adjustable .03 to ten minute delay on make for short cycle protection.

> Designed for Operation on **Generator Power**

 All Marvair single & three phase air conditioners are designed to operate on Generator Power. See Summary Electrical Ratings for your specific model

➤ Remote Alarm Capability

• Dry contacts can be used for remote alarm or notification upon air conditioner lockout.

➤ Ease of Service

- Service access valves are standard.
- Standard 2" (50 mm) pleated filter with a MERV rating of 8 changeable from outside.
- All major components are readily accessible.
- Front Control Panel allows easy access and complies with NEC clearance codes on redundant side-by-side systems.
- LEDs indicate operational status and fault conditions.
- · Foil backed insulation on the indoor air path.
- A minimum position potentiometer that can be adjusted to prevent the economizer damper from closing completely. This control ensures that whenever the evaporator fan is operating, fresh air is being introduced into the building.

➤ Rugged Construction

- Copper tube, aluminum fin evaporator & condenser coils.
- Field or factory installed heaters on discharge side of evaporator coil (optional)
- Baked on neutral beige finish over galvanneal steel for maximum cabinet life. (Other finishes are available.)

➤ Ease of Installation

- Sloped top with flashing eliminates need of rainhood.
- Built-in mounting flanges facilitate installation and minimize chance of water leaks.
- Supply and return openings exactly match previous models.
- Factory installed disconnect.
- Single Point Power Entry complies with latest edition of U.L. Standard 1995.
- Side access panels on economizer models for easy access to electrical connections.
- Phase monitor on all 3-Phase units to continuously measures the voltage of each of the three phases. Separate sensing of low/ high voltage, voltage imbalance including phase loss and phase reversal.

A Marvair® First – Factory Installed Economizer

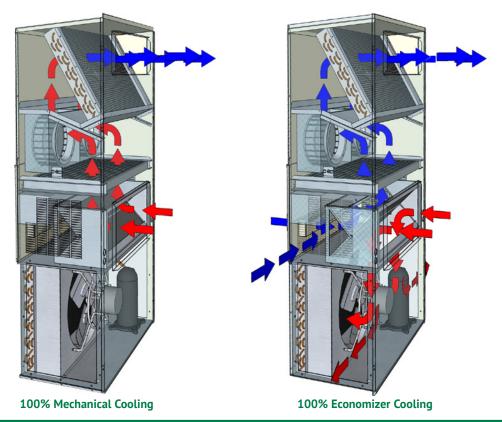
Marvair air conditioners have been the industry standard since their introduction in 1986. Tens of thousands are in operation from the metropolitan areas of North America to the deserts of the Mid-East to the Siberian tundra. Here's how the economizer works:

On a signal from the wall mounted indoor thermostat that cooling is required, either mechanical cooling with the compressor or free cooling with the economizer is provided. A factory installed enthalpy controller determines whether the outside air is sufficiently cool and dry to be used for cooling. If suitable, the compressor is locked out and the economizer damper opens to bring in outside air. Integral pressure relief allows the interior air to exit the shelter, permitting outside air to enter the shelter. The temperature at which the economizer opens is adjustable from 63°F (17°C) at 50% Relative Humidity to 73°F (23°C) at 50% Relative Humidity.

After the enthalpy control has activated and outside air is being brought into the building, the mixed air sensor measures the temperature of the air entering the indoor blower and then modulates the economizer damper to mix the right proportion of cool outside air with warm indoor air to maintain 50-63°F (10 - 17°C) air being delivered to the building. This prevents shocking the electronic components with cold outside air. The compressor is not permitted to operate when the economizer is functioning.

If the outside air becomes too hot or humid, the economizer damper closes completely, or to a field selectable minimum open position, and mechanical cooling is activated. 2

In all economizer equipped air conditioners, the supply air flow in the economizer mode is the same or greater than the rated air flow. (The rated air flow is the AHRI certified air flow when the unit is in mechanical cooling.) The "full flow" economizer reduces electrical costs by maximizing the use of outside air for cooling.



Savings with an Economizer

The following table shows the annual electrical cost of cooling a 10 ft. x 20 ft. x 9 ft. (3m x 6m x 2.7m) shelter in twelve cities in the US. Costs are shown for an air conditioner without an economizer, for an air conditioner with an economizer and the savings. The savings do not include any demand charges. The savings are based on the electrical usage of a five ton air conditioner and an electric rate of \$.11 per kilowatt-hour, the approximate average commercial rate in the US.

Hours of Operation	Atlanta, GA	Boston, MA	Chicago, IL	Dallas, TX	Denver, CO	Houston, TX
Annual Compressor & Condenser Motor Run Time without Economizer (Hrs.)	6,176	6,016	6,018	6,282	6,022	6,299
Annual Compressor & Condenser Motor Run Time with Economizer (Hrs.)	3,456	1,947	2,106	4,062	1,930	4,495
Run Time Savings with the Economizer (Hrs.)	2,720	4,069	3,912	2,220	4,092	1,804
Annual Costs Saving (\$) of 11.0 EER unit with an Economizer						
Annual Operating Cost 11.0 EER Unit without Economizer (\$)	\$3,150	\$3,068	\$3,069	\$3,204	\$3,072	\$3,212
Annual Operating Cost 11.0 EER with Economizer	\$2,071	\$1,459	\$1,525	\$2,323	\$1,454	\$2,496
Annual Savings using 11.0 EER Unit with Economizer	\$1,079	\$1,609	\$1,544	\$881	\$1,454	\$716

Hours of Operation	Los Angeles, CA	Miami, FL	Phoenix, AZ	Pittsburgh, PA	Seattle, WA	St. Louis, MO
Annual Compressor & Condenser Motor Run Time without Economizer (Hrs.)	6,105	6,434	6,473	6,026	5,999	6,120
Annual Compressor & Condenser Motor Run Time with Economizer (Hrs.)	3,121	6,062	4,799	2,172	1,093	2,896
Run Time Savings with the Economizer (Hrs.)	2,984	372	1,674	3,854	4,906	3,224
Annual Costs Saving (\$) of 11.0 EER unit with an Economizer						
Annual Operating Cost 11.0 EER Unit without Economizer (\$)	\$3,114	\$3,282	\$3,302	\$3,073	\$3,060	\$3,122
Annual Operating Cost 11.0 EER with Economizer	\$1,926	\$3,133	\$2,636	\$1,550	\$1,114	\$1,846
Annual Savings using 11.0 EER Unit with Economizer	\$1,188	\$148	\$666	\$1,523	\$1,946	\$1,275

Shelter Metrics:

- •10' x 20' x 9' building
- •Internal heat gain (electronics load): 12,000 watts.
- •Building surface area (excluding floor area): 740 ft²
- •R-Value of walls and ceiling: R-12
- •Internal shelter temperature (Thermostat set point): 75°F

Air Conditioner Metrics:

- •Economizer setting: 63°F (dry bulb or enthalpy sensor)
- •A/C unit capacity: 60,000 BTUH (5 tons) with 1-stage compressor
- •Nominal EER (unit efficiency): 11.0
- •Cost of power: \$.11 per KWH

Controllers and Thermostats

➤ Thermostats and Controllers for Marvair Air Conditioners

See the Marvair Thermostats and Controllers Product Data Sheet for the thermostats and controllers for use with Marvair air conditioners.

Operation of 2-Stage Compressor Air Conditioners with a CommStat 4™ Lead/Lag Thermostat Controller

Marvair's 8AA air conditioners are available with 2-stage compressors. These units can provide substantial energy savings and better control of temperature and humidity by matching the cooling requirement with the performance of the air conditioner. First stage is typically 65% of the total (2-stage) capacity of the air conditioner. When operated from power supplied by a generator, starting the air conditioner in the first stage means lower start-up amps.

• CommStat[™] 4 Controller: When two, 2-stage air conditioners are controlled by a CommStat 4 lead/lag controller in a redundant application, one of the air conditioners is the lead unit and the second is the lag unit. On a call for cooling, the lead unit starts operation in the first stage (low capacity). If the temperature in the building continues to rise above the set point temperature, the first stage (low capacity) of the lag unit will be initiated. When the temperature in the building drops to the set point, the air conditioners will turn off. On a subsequent call for cooling the process will repeat.

If the set point temperature is not reached with the first stage capacity operation of both air conditioners, the lead air conditioner will commence operation in second stage (full capacity). If the temperature in the building continues to rise past the setpoint, the lag unit will switch to second stage cooling operation. At that time, both air conditioners are operating in maximum capacity.

When the temperature in the building is satisfied with either controller, both units will turn off.

If the units have economizers, the enthalpy sensor determines whether to use outside air or use mechanical cooling. When the economizer is used, the compressors do not operate.

Accessories

Accessories	
➤ Supply Grilles For 8AA1024A	
➤ Return Grilles For 8AA1024A	
➤ Return Filter Grilles Used when filter must be changed from the interior. Not recommended for air conditioners wit Note: Filter used in Return Filter Grille is 1" (25 mm) thick.	h an economizer.
For 8AA1024A	P/N 80672
28" x 14" (711 mm x 356 mm) For 8AA1030A, 1036A, 1042A, 1048A, 1060A	P/N 80673

Options

Marvair wall mount air conditioners are designed and are built to stringent requirements of the communications/ electronic shelter. Applications occur that have special requirements. Numerous options are available that meet these special needs.

➤ Hard Start Kit

Used on single phase equipment to give the compressor higher starting torque under low voltage conditions. (Field installed only) (Note: Not recommended for use on scroll compressors.)

> Dehumidification

Allows the electric heat to operate simultaneously with cooling. See Dehumidification Application Bulletin for details. Note: The electrical characteristics and requirements of air conditioners with the dehumidification option are different from standard air conditioners. Refer to the appropriate Summary Rating Charts for the electrical characteristics of units with Electric Reheat. Units with reheat require a thermostat and a dehumidistat for proper operation.

➤ Protective Coating Packages

Coated Coils: Either the condenser or evaporator coil can be coated. For harsh conditions, e.g., power plants, paper mills or sites were the unit will be exposed to salt water, the coils should be coated. *Note:* Cooling capacity may be reduced by up to 5% on units with coated coils.

Coastal Environmental Package: This package includes:

- Corrosion resistant fasteners,
- Sealed or partially sealed condenser fan motor,
- Insitu coating applied to all exposed internal copper and metal in the in the condenser section, and
- A protective coating on the condenser coil.

All Coat Package: Includes the same features as the Coastal Environmental Package and adds an impregnated polyurethane on the evaporator coil and the Insitu coating on all 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.

➤ Air Conditioner Transition Curb

Non-economizer units only – A sheet metal curb that enables 1042A/1048A/1060A air conditioner to replace 2-1/2 and 3 ton units. Curb transitions supply and return openings of the 3-1/2, 4 and 5 ton units to the smaller openings.

➤ Hot Gas By-Pass (Non-Economizer Models)

Used in specialty applications; i.e., Magnetic Resonance Imaging (MRI) buildings, to prevent magnetic voltage disturbance caused by compressor cycling. Hot gas by-pass option packages are available to allow operation to 20°F (-7°C). Please refer to Hot Gas By-pass Application Bulletin for details.

➤ High Filtration

Selected units are built with larger blowers/motors for use with higher efficiency filters with MERV ratings of 11, 13 and 14 when tested to ASHRAE 52.2. Units with economizers have a prefilter on the outside air. Contact your Marvair representative for specific models.

➤ Color

Marvair air conditioners are available in five different cabinet colors -the standard Marvair® beige, white, gray, brown and dark bronze. The standard cabinet's sides, top and front panels are constructed of 20 gauge painted steel. As an option, these panels can be built of 16 gauge steel in beige & gray. When the 16 gauge painted steel is used, only the side, top and front panels are 16 gauge. Contact your Marvair representative for color chips. The cabinet can also be constructed of type 316 stainless steel. Two stainless steel cabinet constructions are available- the complete cabinet, including most internal sheet metal or only the exterior sheet metal. Custom colors are also available; contact Marvair for details.

➤ Extended Warranty

A first-year labor (Silver), and a two-year labor (Gold) are available. See www.marvair.com for optional warranty details.

➤ Dirty Filter Indicator

A factory installed option that measures the difference in pressure across the internal filter and illuminates a LED when the pressure exceeds the desired difference.

➤ Thermal Expansion Valve

Available on all Marvair air conditioners. Improves performance in hot ambient temperatures.

➤ Sealed Condenser Fan Motors

Recommended on units to be installed in corrosive sites, e.g., near the ocean and in deserts with blowing sand.

➤ Compressor Sound Jacket

To reduce sound of compressor.

➤ Desert Duty Package

The Desert Duty package is a factory installed package of components and cabinet modifications which permit operation in harsh environments. To prevent sand and dust infiltration, the electrical control box is sealed. A closed loop design on non-economizer units insures that no outside air is introduced into the shelter. *Note:* Units with an economizer may be ordered with the Desert Duty Package. If the air conditioner is required with the Desert Duty Package, sand intrusion into the shelter should be considered. Units without an economizer will operate from 20°F to 131°F (-7°C to 55°C). Economizer equipped units will operate from -40°F to 131°F (-29°C to 55°C).

Custom colors available

➤ Lockable Disconnect Access Cover Plate

The access plate to the service disconnect switch can be equipped with a lockable cover.

➤ Washable Filter

Spun aluminum construction allows cleaning of filters with water.

➤ Hot Gas Reheat (HGR)

A Hot Gas Reheat coil and controls 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 room. Dehumidification is achieved by operating mechanical cooling in conjunction with a hot gas reheat coil.

➤ Right & Left Side Compressor Location

Marvair air conditioners can be built with the compressor on the opposite side to facilitate service access when two units are installed side by side. In the 8AA1024A-1042A and 8AA2024A-2042A, the standard location for the compressor is on the right hand side. In the 8AA2072A, the compressor is accessed from the front of the unit and an opposing configuration is not required.

➤ 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.

Dry Contacts Alarm Outputs



A dry contact is provided for each HVAC unit to indicate HVAC unit failure to the shelter alarm block. Unit failure is defined as 1) a high pressure lockout or 2) a low pressure lockout or 3) a loss of landline power. This dry contact is a normally open contact.

Controls

➤ Electronic Control Board

The exclusive Printed Circuit Board (PCB) in base model Marvair air conditioners 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.

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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)
- Thermocouple Thermistor 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



➤ Ambient Temperature Operating Ranges

Basic Model	Special Option	TEMPERATURE RANGES
Non-Economizer	Base Unit/Desert Duty	0°F - 131°F (-18°C - 55°C)
Economizer-Equipped	Base Unit/Desert Duty	-40°F - 131°F (-40°C - 55°C)

➤ SCFM @ Various External Static Pressures

Basic Model	0.10	0.15	0.20	0.25	0.30	0.40	0.50
8AA1024A	800	785	770	725	680	600	500
8AA1030A	1200	1150	1100	1050	1000	900	800
8AA1036A	1290	1230	1170	1115	1060	1000	920
8AA1042A	1500	1430	1360	1295	1230	1160	1070
8AA1048A	1900	1850	1800	1700	1600	1500	1350
8AA1060A	1900	1850	1800	1700	1600	1500	1350
8AA2036A	1290	1230	1170	1115	1060	1000	920
8AA2042A	1500	1430	1360	1295	1230	1160	1070
8AA2048A	1900	1850	1800	1700	1600	1500	1350
8AA2060A	1900	1850	1800	1700	1600	1500	1350

Values in bold are the minimum air flow.

Air flow ratings of 208-230 volt units are at 230v. Air flow ratings of 460 volt units are at 460 volts. Operation of units at a voltage different from the rating point will affect air flow.

➤ EER Comparison by Model

Nominal Cooling Capacity (BTUH)	Basic Model	EER
24,000	8AA1024A	11.00
30,000	8AA1030A	11.75
36,000	8AA1036A	11.00
36,000	8AA2036A	11.00
42,000	8AA1042A	11.00
42,000	8AA2042A	11.00
49,000	8AA1048A	11.50
48,000	8AA2048A	11.50
60,000	8AA1060A	11.00
60,000	8AA2060A	11.00

Model Identification Example Α 0 5 Position 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

4	Unit Designation/Family	8 = Marvair Wall Mount		I	D = Dry Dulla Consor
1	Unit Designation/Family Energy Efficiency Ratio				D = Dry Bulb Sensor E = Dry Bulb Sensor w/Dirty Filter
2	(EER)	A = 11	17	Indoor Air Quality Features	G = Dirty Filter Sensor + = None
3	Refrigerant Type	A = R-410a			\$ = Special
4 5	Compressor Type/Quantity	1 = Fixed Speed/Single 2 = 2-Stage/Single 024 = 24,000 042 = 42,000			1 = Top Supply/Bottom Return 2 = Center Supply (Reverse) 3 = Bottom Supply/Top Return (Counter)
6 7	Unit Capacity/Nominal Cooling (BTUH)	030 = 30,000 048 = 48,000 036 = 36,000 060 = 60,000			4 = Top Panel Discharge 5 = Centrifugal Blowers
8	System Type	A = Air Conditioner	18	Air Flow	6 = 3T3 7 = 3T5
9	Power Supply (Volts-Phase-Hz)	A = 208/230-1-60 D = 460-3-60 C = 208/230-3-60 Z = 575-3-60			8 = 4T2 9 = 4T3
10	Lloot Designation	000 = No Heat			A = 3T2 \$ = Special
11	Heat Designation @ Rated Voltage	040 = 4KW	19	Compressor Location	C = Center - All 6 ton units and above D = Left Hand - All 3½ to 5 ton units E = Right Hand - All 2 to 3 ton units
13	Ventilation Configuration	A = Solid Front Door C = Economizer D = Motorized Damper w/Pressure Relief E = Motorized Damper w/Pressure Relief & Independent Motorized Damper Control F = No Free Cooling, 100% Emergency Vostilation Only w/Vostilation Control	20	Filter Option	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
	, and the second	Ventilation Only w/Independent Control N = Barometric Damper w/15% OSA H = GreenWheel® ERV + = None \$ = Special G = Hot Gas Reheat	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
14	Dehumidification	R = Electric Reheat T = Electric Reheat w/Humidity Control + = None \$ = Special			K = Coastal Package + = None \$ = Special
Г		A = Power Fail Alarm w/Additional Lockouts	22	Engineering Revision Level	A2
15	Controls	C = 24V EMS Relay Kit D = 24V EMS Relay Kit w/Factory Installed T-Stat E = Factory Installed T-Stat + = None \$ = Special	24	Cabinet Color	1 = Marvair Beige 2 = Gray 3 = Carlsbad Canyon 4 = White 5 = Stainless Steel Exterior 6 = Dark Bronze
		A = Evaporator Freeze Sensor (EFS) C = EFS w/Hot Gas Bypass D = Desert Duty F = Desert Duty w/Hard Start			8 = Mesa Tan 9 = Pebble Gray A = Stainless Steel - Unit \$ = Custom Color (Powder Coat)
		G = Desert Duty w/EFS H = Desert Duty w/Hard Start & EFS	25	Sound Attenuation	2 = Compressor Blanket + = None
		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)	26	Security Option	A = Lockable Access Plate/Tamper Proof C = Tamper Proof Screws D = Lockable Access Plate w/Tamper Proof + = None \$ = Special
16	Operating Condition	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	27	Fastener/Drain Pan Option	 A = Stainless Steel Fasteners C = Stainless Steel Drain Pan D = Stainless Steel Fasteners & Drain Pan + = None \$ = Special
		Y = Low Ambient w/CCH & FCC	28	Unused	+ = None \$ = Special
		Z = Low Ambient w/CCH & EFS 1 = Low Ambient w/FCC 2 = Low Ambient w/FCC & EFS	29	Unused	+ = None \$ = Special
		3 = CCH w/Hot Gas Bypass + = None \$ = Special	30	Special Variation	+ = None \$ = Special Configuration Not Covered by Model Nomenclature

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

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Marvair 8AA Single Stage Wall Mount Air Conditioner Performance Data

Certified Efficiency and Capacity Ratings at ANSI/AHRI Standard 390 for 8AA Air Conditioners with Single Stage Compressor



Model Number	8.4	A102	4A		8AA1	0304A			8 A A1	1036A			8AA1	042A			8 AA 1	048A		8AA1060A			
Model Number	A C D		D	Α	С	D	z	A C D Z				Α	A C D Z				С	D	z	Α	С	D	Z
Cooling BTUH ¹	:	23,200)		29,000				35,	000			40,	000			49,	000		58,000			
EER ²		11.00			11.75		11.00				11.00				11.50				11.00				
Rated Air Flow (CFM³)		800			1,000			1,300 1,400						1,750				1,900					

¹Cooling rated at 95°F (35°C) outdoor and 80°F DB/67° WB (26.5°C DB/19.5°C WB) return air Ratings are with no outside air. Performance will be affected by altitude.

²EER=Energy Efficiency Ratio

³CFM=Cubic Feet per Minute

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 Dry Bulb - 8AA Air Conditioners with Single Stage Compressor

Model Number	84	A102	4A		8AA1	0304A			8AA1	036A			8AA1	042A		8AA1048A				8AA1060A			
woder Number	Α	С	D	Α	С	D	z	Α	С	D	z	Α	С	D	z	Α	С	D	z	Α	С	D	z
Total Capacity	:	23,200)		29,	000			35,	000			40,	000			49,	000			58,0	000	
Sensible Heat Ratio		0.76		6 0.76				0.76			0.73					0.	74			0.	73		
Sensible Capacity		17,600		22,020				26,945			29,270				36,175				42,505				
Rated Air Flow (CFM¹)		800		1,000				1,300					1,4	-00			1,7	750		1,900			

¹CFM=Cubic Feet per Minute

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

Cooling Performance (BTUH) at Various Outdoor Temperatures for 8AA Air Conditioners with Single Stage Compressor

TOF 8A	Return Air	Cooling							emperature	9				
Model Number	DB/WB °F(°C)	Capacity BTUH	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	120°F / 48.9°C	125°F / 51.7°C	130°F / 54.4°C
	72/61	Total	24,497	23,647	22,821	21,972	21,122	20,272	19,423	18,597	18,172	17,747	17,322	16,898
	(22/16)	Sensible	17,568	17,212	16,869	16,519	16,170	15,824	15,481	15,149	14,979	14,810	14,641	14,473
	76/63	Total	25,464	24,591	23,694	22,821	21,948	21,075	20,202	19,305	18,880	18,455	18,030	17,606
04440044	(24/17)	Sensible	19,030	18,677	18,317	17,968	17,622	17,279	16,937	16,589	16,425	16,261	16,098	15,936
8AA1024A	80/67	Total	27,376	26,432	25,488	24,544	23,600	22,656	21,712	20,768	20,296	19,871	19,446	19,022
	(27/19)	Sensible	18,908	18,552	18,199	17,848	17,500	17,154	16,810	16,469	16,299	16,147	15,995	15,844
	84/71	Total	29,288	28,273	27,282	26,267	25,252	24,237	23,222	22,231	21,712	21,287	20,862	20,438
	(29/22)	Sensible	18,690	18,335	17,991	17,641	17,293	16,949	16,606	16,274	16,102	15,961	15,820	15,680
	72/61	Total	30,102	29,058	28,043	26,999	25,955	24,911	23,867	22,852	22,330	21,808	21,286	20,764
	(22/16)	Sensible	22,020	21,585	21,165	20,735	20,309	19,885	19,464	19,057	18,849	18,641	18,434	18,228
	76/63	Total	31,291	30,218	29,116	28,043	26,970	25,897	24,824	23,722	23,200	22,678	22,156	21,634
	(24/17)	Sensible	23,898	23,465	23,024	22,597	22,174	21,752	21,334	20,907	20,706	20,506	20,306	20,107
8AA1030A	80/67	Total	33,640	32,480	31,320	30,160	29,000	27,840	26,680	25,520	24,940	24,418	23,896	23,374
	(27/19)	Sensible	23,745	23,309	22,876	22,447	22,020	21,596	21,175	20,757	20,549	20,363	20,177	19,991
	84/71	Total	35,989	34,742	33,524	32,277	31,030	29,783	28,536	27,318	26,680	26,158	25,636	25,114
	(29/22)	Sensible	23,474	23,039	22,618	22,189	21,764	21,341	20,922	20,515	20,303	20,130	19,958	19,786
	72/61	Total	36,953	35,671	34,425	33,144	31,862	30,580	29,299	28,053	27,412	26,771	26,130	25,490
	(22/16)	Sensible	26,946	26,417	25,906	25,384	24,865	24,349	23,837	23,341	23,088	22,835	22,583	22,331
	70/00	Total	38,412	37,095	35,742	34,425	33,108	31,791	30,474	29,121	28,480	27,839	27,198	26,558
	76/63 (24/17)	Sensible	29,241	28,716	28,180	27,661	27,145	26,633	26,124	25,604	25,359	25,115	24,872	24,629
8AA1036A		Total	41,296	39,872	38,448	37,024	35,600	34,176	32,752	31,328	30,616	29,975	29,334	28,694
	80/67 (27/19)	Sensible	29,041	28,512	27,986	27,464	26,945	26,430	25,917	25,409		-	24,702	24,476
		Total	44,180	42,649	41,154	39,623	38,092	36,561	35,030	33,535	25,155 32,752	24,928 32,111	31,470	30,830
	84/71 (29/22)	Sensible	28,695	28,167			26,618	26,105	25,594	25,100	24,842	24,631		24,212
		Total	41,520	40,080	27,656	27,135 37,240			32,920	31,520	30,800		24,421	28,640
	72/61 (22/16)				38,680		35,800	34,360				30,080	29,360	
	(22/10)	Sensible	29,436	28,838	28,260	27,669	27,082	26,498	25,919	25,359	25,072	24,786	24,501	24,218
	76/63	Total	43,160	41,680	40,160	38,680	37,200	35,720	34,240	32,720	32,000	31,280	30,560	29,840
8AA1042A	(24/17)	Sensible	31,858	31,263	30,656	30,069	29,486	28,906	28,330	27,743	27,466	27,190	26,915	26,641
	80/67	Total	46,400	44,800	43,200	41,600	40,000	38,400	36,800	35,200	34,400	33,680	32,960	32,240
	(27/19)	Sensible	31,643	31,044	30,449	29,857	29,270	28,687	28,108	27,533	27,246	26,990	26,734	26,478
	84/71	Total	49,640	47,920	46,240	44,520	42,800	41,080	39,360	37,680	36,800	36,080	35,360	34,640
	(29/22)	Sensible	31,265	30,668	30,088	29,499	28,913	28,332	27,755	27,195	26,904	26,666	26,429	26,192
	72/61	Total	50,862	49,098	47,383	45,619	43,855	42,091	40,327	38,612	37,730	36,848	35,966	35,084
	(22/16)	Sensible	36,323	35,592	34,887	34,165	33,448	32,736	32,028	31,344	30,994	30,645	30,297	29,950
	76/63	Total	52,871	51,058	49,196	47,383	45,570	43,757	41,944	40,082	39,200	38,318	37,436	36,554
8AA1048A	(24/17)	Sensible	39,340	38,614	37,873	37,156	36,444	35,737	35,034	34,316	33,978	33,641	33,305	32,970
074110-1071	80/67	Total	56,840	54,880	52,920	50,960	49,000	47,040	45,080	43,120	42,140	41,258	40,376	39,494
	(27/19)	Sensible	39,071	38,340	37,613	36,892	36,175	35,463	34,756	34,053	33,703	33,390	33,077	32,765
	84/71	Total	60,809	58,702	56,644	54,537	52,430	50,323	48,216	46,158	45,080	44,198	43,316	42,434
	(29/22)	Sensible	38,602	37,873	37,165	36,446	35,732	35,022	34,318	33,634	33,278	32,987	32,697	32,409
	72/61	Total	60,204	58,116	56,086	53,998	51,910	49,822	47,734	45,704	44,660	43,616	42,572	41,528
	(22/16)	Sensible	42,765	41,886	41,037	40,170	39,309	38,454	37,605	36,785	36,365	35,947	35,531	35,115
	76/63	Total	62,582	60,436	58,232	56,086	53,940	51,794	49,648	47,444	46,400	45,356	44,312	43,268
0444004	(24/17)	Sensible	46,277	45,403	44,512	43,651	42,795	41,946	41,102	40,242	39,837	39,433	39,030	38,629
8AA1060A	80/67	Total	67,280	64,960	62,640	60,320	58,000	55,680	53,360	51,040	49,880	48,836	47,792	46,748
	(27/19)	Sensible	45,989	45,109	44,234	43,367	42,505	41,650	40,801	39,958	39,538	39,162	38,788	38,414
	84/71	Total	71,978	69,484	67,048	64,554	62,060	59,566	57,072	54,636	53,360	52,316	51,272	50,228
	(29/22)	Sensible	45,465	44,586	43,734	42,869	42,010	41,157	40,311	39,491	39,063	38,715	38,368	38,021
		301131313	10, 400	11,500	10,704	12,000	12,010	11,107	10,011	00,401	00,000	00,710	00,000	00,0

Electrical Characteristics - Compressor, Fan & Blower Motors

BASIC		COMPRESSOR	₹		OUTDOO	R FAN	MOTOR		INDOOR FA	AN MOT	OR (ECI	N)
MODEL	Туре	VOLTS-PH-HZ	RLA ¹	LRA ²	VOLTS-HZ-PH	RPM ³	FLA⁴	HP⁵	VOLTS-HZ-PH	RPM ³	FLA⁴	HP⁵
8AA1024AA		208/230-1-60	12.8	58.3	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	2.8	1/3
8AA1030AA		208/230-1-60	12.8	64.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1036AA	CODOLI	208/230-1-60	16.6	79.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1042AA	SCROLL	208/230-1-60	17.0	124.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1048AA		208/230-1-60	21.8	117.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA1060AA		208/230-1-60	26.4	134.0	208/230-60-1	825	5.3	1/2	208/230-60-1	1050	6.8	3/4
8AA1024AC		208/230-3-60	7.7	55.4	208/230-60-1	1200	3.5	1/4	208/230-60-1	1050	2.8	1/3
8AA1030AC		208/230-3-60	8.3	58.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1036AC	SCROLL	208/230-3-60	10.4	88.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1042AC	SCRULL	208/230-3-60	13.6	83.1	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1048AC		208/230-3-60	13.7	83.1	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA1060AC		208/230-3-60	15.9	111.0	208/230-60-1	825	5.3	1/2	208/230-60-1	1050	6.8	3/4
8AA1024AD		460-3-60	4.0	28.0	208/230-60-1	1200	3.5	1/4	208/230-60-1	1050	2.8	1/3
8AA1030AD		460-3-60	5.1	28.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1036AD	SCROLL	460-3-60	5.8	38.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1042AD	SCRULL	460-3-60	6.1	41.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1048AD		460-3-60	6.2	41.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA1060AD		460-3-60	7.7	52.0	208/230-60-1	825	5.3	1/2	208/230-60-1	1050	6.8	3/4
8AA1030AZ		575-3-60	3.3	23.7	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1036AZ		575-3-60	3.8	36.5	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1042AZ	SCROLL	575-3-60	4.2	33.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA1048AZ		575-3-60	4.8	33.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA1060AZ		575-3-60	5.8	39.0	208/230-60-1	825	5.3	1/2	208/230-60-1	1050	6.8	3/4
¹RLA = Rated Loa The 460 volt units		A = Locked Rotor A down transformer f			evolutions per Minu ors.	te ⁴ F	LA = Full	Load An	nps ⁵ HP = Hors	epower		

Summary Electrical Ratings (Wire and Circuit Breaker Sizing) - 8AA Air Conditioners with Single stage Compressors & Ventilation Configurations: Manual Damper, up to 15% Outside Air ("N") • Economizer, Outside Air with Pressure Relief ("C")

ELECTR	RIC 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	VOLTAGE	SPI			PE ³	_	PE ³	SPI											
MODEL	PHASE / HZ	MCA ¹	MFS ²																
8AA1024AA	208/230-1-60	22.3	35	23.6	35	28.8	35	34.1	35	44.5	45			54.9	60				
8AA1030AA	208/230-1-60	22.8	35	25.1	35	30.3	35	35.6	40	46.0	50			56.4	60	66.8	70	82.4	90
8AA1036AA	208/230-1-60	27.6	40	25.1	40	30.3	40	35.6	40	46.0	50			56.4	60	66.8	70	82.4	90
8AA1042AA	208/230-1-60	29.1	45			30.3	45							56.4	60	66.8	70	82.4	90
8AA1048AA	208/230-1-60	36.6	60			36.6	60							58.9	60	69.3	70	84.9	90
8AA1060AA	208/230-1-60	45.1	70			45.1	70							58.9	60	69.3	70	84.9	90
8AA1024AC	208/230-3-60	15.9	20					20.8	25			29.9	30			38.9	40		
8AA1030AC	208/230-3-60	17.2	25					22.3	25			31.4	35			40.4	45	49.4	50
8AA1036AC	208/230-3-60	19.8	30					22.3	30			31.4	35			40.4	45	49.4	50
8AA1042AC	208/230-3-60	24.8	35					24.8	35			31.4	35			40.4	45	49.4	50
8AA1048AC	208/230-3-60	26.4	40					26.4	40			33.9	40			42.9	45	51.9	60
8AA1060AC	208/230-3-60	32.0	45					32.0	45			33.9	45			42.9	45	51.9	60
8AA1024AD	460-3-60	8.2	15					10.4	15			14.9	15			19.4	20	24.0	25
8AA1030AD	460-3-60	9.8	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA1036AD	460-3-60	10.7	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA1042AD	460-3-60	11.5	15					11.6	15			15.7	20			20.2	25	24.7	25
8AA1048AD	460-3-60	12.4	15					12.4	15			16.9	20			21.4	25	26.0	30
8AA1060AD	460-3-60	15.7	20					15.7	20			16.9	20			21.4	25	26.0	30
8AA1030AZ	575-3-60	6.8	15					8.9	15			12.5	15			16.2	20	20.5	25
8AA1036AZ	575-3-60	7.5	15					8.9	15			12.5	15			16.2	20	20.5	25
8AA1042AZ	575-3-60	8.4	15					8.9	15			12.5	15			16.2	20	20.5	25
8AA1048AZ	575-3-60	9.7	15					9.9	15			13.5	15			17.2	20	21.5	25
8AA1060AZ	575-3-60	12.1	20					9.9	20			13.5	20			17.2	20	21.5	25

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 A & C models. The 460 volts D 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 Circuit Breaker Sizing) - 8AA Air Conditioners with Electric Reheat ("R") with Single stage Compressors and Ventilation Configurations:

Manual Damper, up to 15% Outside Air ("N") • Economizer, Outside Air with Pressure Relief ("C")

ELECT	RIC 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	VOLTAGE	SPI	PE ³	SP	PE ³	SPI	PE ³	SP	PE ³	SPI	PE ³	SP	PE ³	SP	PE ³	SPI	PE ³	SP	PE ³
MODEL	PHASE / HZ	MCA ¹	MFS ²																
8AA1024AA	208/230-1-60	22.3	35	43.1	45	48.3	50	53.6	60					74.4	80				
8AA1030AA	208/230-1-60	22.8	35	43.6	45	48.8	50	54.1	60					74.9	80	85.3	90	100.9	110
8AA1036AA	208/230-1-60	27.6	40	48.4	50	53.6	60	58.8	60					79.6	80	90.1	100	105.7	110
8AA1042AA	208/230-1-60	29.1	45			55.1	60							81.1	90	91.6	100	107.2	110
8AA1048AA	208/230-1-60	36.6	60			62.6	70							88.6	90	99.1	100	114.7	120
8AA1060AA	208/230-1-60	45.1	70			71.1	80							97.2	100	107.6	110	123.2	130
8AA1024AC	208/230-3-60	15.9	20					34.0	35			43.0	45			52.0	60	61.0	70
8AA1030AC	208/230-3-60	17.2	25					35.2	40			44.2	45			53.3	60	62.3	70
8AA1036AC	208/230-3-60	19.8	30					37.8	40			46.9	50			55.9	60	64.9	70
8AA1042AC	208/230-3-60	24.8	35					42.8	45			51.9	60			60.9	70	69.9	70
8AA1048AC	208/230-3-60	26.4	40					44.5	45			53.5	60			62.5	70	71.5	80
8AA1060AC	208/230-3-60	32.0	45					50.0	60			59.0	60			68.1	70	77.1	80
8AA1024AD	460-3-60	8.2	15					17.2	20			21.7	25			26.2	30	30.7	30
8AA1030AD	460-3-60	9.8	15					18.8	20			23.3	25			27.8	30	32.3	35
8AA1036AD	460-3-60	10.7	15					19.7	20			24.2	25			28.7	30	33.2	35
8AA1042AD	460-3-60	11.5	15					20.5	25			25.1	30			29.6	30	34.1	35
8AA1048AD	460-3-60	12.4	15					21.4	25			25.9	30			30.4	35	35.0	40
8AA1060AD	460-3-60	15.7	20					24.7	25			29.2	30			33.7	35	38.2	40
8AA1030AZ	575-3-60	6.8	15					14.1	15			17.7	20			21.3	25	25.6	30
8AA1036AZ	575-3-60	7.5	15					14.7	15			18.3	20			21.9	25	26.2	30
8AA1042AZ	575-3-60	8.4	15					15.6	20			19.2	20			22.8	25	27.1	30
8AA1048AZ	575-3-60	9.7	15					16.9	20			20.5	25			24.2	25	28.5	30
8AA1060AZ	575-3-60	12.1	20					19.3	20			22.9	25			26.5	30	30.9	35

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 A & C models. The 460 volts D 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 - 8AA Air Conditioners with with Single stage Compressors and Ventilation Configurations: Manual Damper, up to 15% Outside Air ("N") • Economizer, Outside Air with Pressure Relief ("C")

BASIC MODEL	VOLTAGE PHASE / HZ	CURF		(1) A	LL HEAT	ING ELE	MENTS A	G - ELE ARE ON A 5 kW) UTI	SEPAR	ATE CIR	CUIT		UDES AN	IPS FRO	ом мото	N HEATI DR(S) TH NT DOES	AT ARE	LOCATE	
NUMBER		AC 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
8AA1024AA	208/230-1-60	19.1	2.8	16.7	20.8	25.0	33.3		41.7			19.5	23.6	27.8	36.1		44.5		
8AA1030AA	208/230-1-60	19.6	4.3	16.7	20.8	25.0	33.3		41.7	50.0	62.5	21.0	25.1	29.3	37.6		46.0	54.3	66.8
8AA1036AA	208/230-1-60	23.4	4.3	16.7	20.8	25.0	33.3		41.7	50.0	62.5	21.0	25.1	29.3	37.6		46.0	54.3	66.8
8AA1042AA	208/230-1-60	24.8	4.3		20.8				41.7	50.0	62.5		25.1				46.0	54.3	66.8
8AA1048AA	208/230-1-60	31.1	6.8		20.8				41.7	50.0	62.5		27.6				48.5	56.8	69.3
8AA1060AA	208/230-1-60	38.5	6.8		20.8				41.7	50.0	62.5		27.6				48.5	56.8	69.3
8AA1024AC	208/230-3-60	14.0	2.8			14.4		21.7		28.9	36.1			17.2		24.5		31.7	38.9
8AA1030AC	208/230-3-60	15.1	4.3			14.4		21.7		28.9	36.1			18.7		26.0		33.2	40.4
8AA1036AC	208/230-3-60	17.2	4.3			14.4		21.7		28.9	36.1			18.7		26.0		33.2	40.4
8AA1042AC	208/230-3-60	21.4	4.3			14.4		21.7		28.9	36.1			18.7		26.0		33.2	40.4
8AA1048AC	208/230-3-60	23.0	6.8			14.4		21.7		28.9	36.1			21.2		28.5		35.7	42.9
8AA1060AC	208/230-3-60	28.0	6.8			14.4		21.7		28.9	36.1			21.2		28.5		35.7	42.9
8AA1024AD	460-3-60	5.4	1.4			7.2		10.8		14.4	18.0			8.6		12.2		15.8	19.4
8AA1030AD	460-3-60	7.3	2.2			7.2		10.8		14.4	18.0			9.4		13.0		16.6	20.2
8AA1036AD	460-3-60	8.0	2.2			7.2		10.8		14.4	18.0			9.4		13.0		16.6	20.2
8AA1042AD	460-3-60	8.3	2.2			7.2		10.8		14.4	18.0			9.4		13.0		16.6	20.2
8AA1048AD	460-3-60	9.6	3.4			7.2		10.8		14.4	18.0			10.6		14.2		17.8	21.4
8AA1060AD	460-3-60	11.1	3.4			7.2		10.8		14.4	18.0			10.6		14.2		17.8	21.4
8AA1030AZ	575-3-60	5.0	1.7			5.8		8.7		11.5	14.4			7.5		10.4		13.3	16.2
8AA1036AZ	575-3-60	5.5	1.7			5.8		8.7		11.5	14.4			7.5		10.4		13.3	16.2
8AA1042AZ	575-3-60	5.9	1.7			5.8		8.7		11.5	14.4			7.5		10.4		13.3	16.2
8AA1048AZ	575-3-60	7.5	2.7			5.8		8.7		11.5	14.4			8.5		11.4		14.3	17.2
8AA1060AZ	575-3-60	8.5	2.7			5.8		8.7		11.5	14.4			8.5		11.4		14.3	17.2

¹AC = Air Conditioner Unit Amps ²IBM = Indoor Blower Motor

Heating kW is rated at 240 volts on the A & C models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the D models. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Loads are not equally balanced on each phase and values shown are maximum phase loads.

Marvair 8AA 2-Stage Wall Mount Air Conditioner Performance Data

Certified Efficiency and Capacity Ratings at ANSI/AHRI Standard 390 for 8AA Air Conditioners with 2-Stage Compressors

Madal Noveless	8	AA2036	A		8AA2	2042A			8AA2	048A			8AA2	060A	
Model Number	Α	С	D	Α	С	D	Z	Α	С	D	Z	Α	С	D	Z
Cooling BTUH1 - 2nd Stage		35,000			39,	000			47,	000			56,	000	
EER ² - 2nd Stage		11.00			11	.00			11	.75			11.	.00	
Integrated Part Load Value ³		16.00			14	.10			16	.00			14	.80	
Rated Air Flow (CFM ⁴)		1,300			1,4	100			1,7	750			1,9	000	

¹Cooling rated at 95°F (35°C) outdoor and 80°F DB/67° WB (26.5°C DB/19.5°C WB) return air.
²EER=Energy Efficiency Ratio

Sensible Total Heat Ratio @ 95°F (35°C) Outside Air Dry Bulb - 8AA Air Conditioners with 2-Stage Compressors

Model Number	8	AA2036	A		8AA2	042A			8AA2	048A			8AA2	060A	
Model Number	Α	С	D	Α	С	D	Z	Α	С	D	Z	Α	С	D	Z
Total Capacity		35,000			39,	000			47,	000			56,	000	
Sensible Heat Ratio		0.70			0.	71			0.	79			0.	77	
Sensible Capacity	24,445				27,	590			36,	920			43,	235	
Rated Air Flow (CFM¹)	1,300				1,4	.00			1,7	'50			1,9	900	
¹ CFM=Cubic Feet per Minute															

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

Stage 2 Cooling Performance (BTUH) at Various Outdoor Temperatures

Model Number			O	utdoor Temperatu	re		
woder Number	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 / 41°C
8AA2036A	40,600	39,200	37,800	36,400	35,000	33,600	32,200
8AA2042A	45,240	43,680	42,120	40,560	39,000	37,440	35,880
8AA2048A	54,520	52,640	50,760	48,880	47,000	45,120	43,240
8AA2060A	64,960	62,720	60,480	58,240	56,000	53,760	51,520
Based upon ANSI/AHRI std. 390 re	eturn air conditions	of 80°F DB/67° WE	3 (26.5°C DB/19.5°	C WB) at various or	utdoor temperature	S.	

Stage 1 Cooling Performance (BTUH) at Various Outdoor Temperatures

Model Number			0	utdoor Temperatu	re		
Model Number	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 / 41°C
8AA2036A	30,856	29,792	28,728	27,664	26,600	25,536	24,472
8AA2042A	34,336	33,152	31,968	30,784	29,600	28,416	27,232
8AA2048A	44,080	42,560	41,040	39,520	38,000	36,480	34,960
8AA2060A	51,040	49,280	47,520	45,760	44,000	42,240	40,480
Based upon ANSI/AHRI std. 390 re	eturn air conditions	of 80°F DB/67° WE	3 (26.5°C DB/19.5°	C WB) at various o	utdoor temperature	S.	

Integrated Part Load Value is an integrated efficiency measure from 1st and 2nd stage capacity modulation. 4CFM=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.

Stage 2 Cooling Performance (BTUH) at Various Outdoor Temperatures for 8AA Air Conditioners with 2-Stage Compressor

	Return Air	Cooling			Jug		ipi coo	Outdoor Te	emperatur	е				
Model Number	DB/WB °F(°C)	Capacity BTUH	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	120°F / 48.9°C	125°F / 51.7°C	130°F / 54.4°C
	72/61	Total	36,330	35,070	33,845	32,585	31,325	30,065	28,805	27,580	26,950	26,320	25,690	25,060
	(22/16)	Sensible	24,758	24,239	23,739	23,227	22,718	22,212	21,709	21,223	20,974	20,726	20,479	20,232
	76/63	Total	37,765	36,470	35,140	33,845	32,550	31,255	29,960	28,630	28,000	27,370	26,740	26,110
8AA2036A	(24/17)	Sensible	26,700	26,185	25,660	25,151	24,646	24,144	23,644	23,135	22,894	22,655	22,416	22,178
0AA2U30A	80/67	Total	40,600	39,200	37,800	36,400	35,000	33,600	32,200	30,800	30,100	29,470	28,840	28,210
	(27/19)	Sensible	26,500	25,981	25,466	24,954	24,445	23,940	23,438	22,939	22,690	22,467	22,245	22,024
	84/71	Total	43,435	41,930	40,460	38,955	37,450	35,945	34,440	32,970	32,200	31,570	30,940	30,310
	(29/22)	Sensible	26,156	25,639	25,137	24,627	24,120	23,617	23,117	22,631	22,378	22,172	21,966	21,761
	72/61	Total	40,482	39,078	37,713	36,309	34,905	33,501	32,097	30,732	30,030	29,328	28,626	27,924
	(22/16)	Sensible	27,892	27,311	26,749	26,176	25,606	25,039	24,476	23,932	23,653	23,376	23,099	22,823
	76/63	Total	42,081	40,638	39,156	37,713	36,270	34,827	33,384	31,902	31,200	30,498	29,796	29,094
	(24/17)	Sensible	30,108	29,531	28,942	28,372	27,806	27,243	26,684	26,113	25,844	25,576	25,309	25,042
8AA2042A	80/67	Total	45,240	43,680	42,120	40,560	39,000	37,440	35,880	34,320	33,540	32,838	32,136	31,434
	(27/19)	Sensible	29,893	29,311	28,734	28,160	27,590	27,024	26,461	25,902	25,624	25,375	25,126	24,878
	84/71	Total	48,399	46,722	45,084	43,407	41,730	40,053	38,376	36,738	35,880	35,178	34,476	33,774
	(29/22)	Sensible	29,518	28,938	28,376	27,804	27,236	26,672	26,112	25,568	25,285	25,053	24,823	24,593
	72/61	Total	48,786	47,094	45,449	43,757	42,065	40,373	38,681	37,036	36,190	35,344	34,498	33,652
	(22/16)	Sensible	36,709	36,014	35,342	34,654	33,971	33,292	32,617	31,965	31,631	31,298	30,966	30,634
	76/63	Total	50,713	48,974	47,188	45,449	43,710	41,971	40,232	38,446	37,600	36,754	35,908	35,062
04400404	(24/17)	Sensible	39,948	39,257	38,552	37,869	37,191	36,516	35,846	35,162	34,839	34,518	34,197	33,877
8AA2048A	80/67	Total	54,520	52,640	50,760	48,880	47,000	45,120	43,240	41,360	40,420	39,574	38,728	37,882
	(27/19)	Sensible	39,678	38,982	38,290	37,603	36,920	36,242	35,568	34,898	34,565	34,265	33,967	33,670
	84/71	Total	58,327	56,306	54,332	52,311	50,290	48,269	46,248	44,274	43,240	42,394	41,548	40,702
	(29/22)	Sensible	39,215	38,522	37,848	37,164	36,483	35,807	35,136	34,484	34,145	33,868	33,591	33,316
	72/61	Total	58,128	56,112	54,152	52,136	50,120	48,104	46,088	44,128	43,120	42,112	41,104	40,096
	(22/16)	Sensible	43,132	42,290	41,475	40,644	39,817	38,997	38,181	37,394	36,991	36,589	36,189	35,790
	76/63	Total	60,424	58,352	56,224	54,152	52,080	50,008	47,936	45,808	44,800	43,792	42,784	41,776
0440000	(24/17)	Sensible	46,866	46,028	45,173	44,347	43,526	42,711	41,901	41,075	40,685	40,297	39,910	39,525
8AA2060A	80/67	Total	64,960	62,720	60,480	58,240	56,000	53,760	51,520	49,280	48,160	47,152	46,144	45,136
	(27/19)	Sensible	46,576	45,732	44,894	44,061	43,235	42,414	41,599	40,790	40,387	40,026	39,666	39,307
	84/71	Total	69,496	67,088	64,736	62,328	59,920	57,512	55,104	52,752	51,520	50,512	49,504	48,496
	(29/22)	Sensible	46,058	45,216	44,399	43,569	42,745	41,927	41,115	40,328	39,917	39,583	39,249	38,917

Stage 1 Cooling Performance (BTUH) at Various Outdoor Temperatures for 8AA Air Conditioners with 2-Stage Compressor

	Return Air	Cooling						Outdoor Te	emperatur	e				
Model Number	DB/WB °F(°C)	Capacity BTUH	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	120°F / 48.9°C	125°F / 51.7°C	130°F / 54.4°C
	72/61	Total	27,611	26,653	25,722	24,765	23,807	22,849	21,892	20,961	20,482	20,003	19,524	19,046
	(22/16)	Sensible	21,236	20,858	20,492	20,117	19,745	19,373	19,004	18,646	18,463	18,280	18,097	17,915
	76/63	Total	28,701	27,717	26,706	25,722	24,738	23,754	22,770	21,759	21,280	20,801	20,322	19,844
8AA2036A	(24/17)	Sensible	23,163	22,788	22,404	22,032	21,662	21,294	20,927	20,552	20,375	20,199	20,022	19,844
OAAZUJUA	80/67	Total	30,856	29,792	28,728	27,664	26,600	25,536	24,472	23,408	22,876	22,397	21,918	21,440
	(27/19)	Sensible	22,959	22,582	22,207	21,833	21,461	21,091	20,722	20,356	20,173	20,009	19,845	19,682
	84/71	Total	33,011	31,867	30,750	29,606	28,462	27,318	26,174	25,057	24,472	23,993	23,514	23,036
	(29/22)	Sensible	22,645	22,270	21,905	21,533	21,163	20,794	20,428	20,071	19,885	19,734	19,582	19,431
	72/61	Total	30,725	29,659	28,623	27,558	26,492	25,426	24,361	23,325	22,792	22,259	21,726	21,194
	(22/16)	Sensible	23,927	23,505	23,096	22,678	22,261	21,847	21,434	21,034	20,830	20,625	20,422	20,218
	76/63	Total	31,938	30,843	29,718	28,623	27,528	26,433	25,338	24,213	23,680	23,147	22,614	22,082
04400404	(24/17)	Sensible	26,125	25,706	25,277	24,862	24,448	24,037	23,627	23,209	23,011	22,814	22,614	22,082
8AA2042A	80/67	Total	34,336	33,152	31,968	30,784	29,600	28,416	27,232	26,048	25,456	24,923	24,390	23,858
	(27/19)	Sensible	25,906	25,484	25,065	24,647	24,232	23,818	23,407	22,997	22,793	22,610	22,427	22,245
	84/71	Total	36,734	35,461	34,218	32,945	31,672	30,399	29,126	27,883	27,232	26,699	26,166	25,634
	(29/22)	Sensible	25,564	25,144	24,736	24,321	23,907	23,495	23,086	22,688	22,480	22,311	22,142	21,973
	72/61	Total	39,444	38,076	36,746	35,378	34,010	32,642	31,274	29,944	29,260	28,576	27,892	27,208
	(22/16)	Sensible	32,922	32,378	31,851	31,312	30,776	30,242	29,710	29,196	28,932	28,576	27,892	27,208
	76/63	Total	41,002	39,596	38,152	36,746	35,340	33,934	32,528	31,084	30,400	29,716	29,032	28,348
	(24/17)	Sensible	36,144	35,603	35,051	34,516	33,983	33,453	32,528	31,084	30,400	29,716	29,032	28,348
8AA2048A	80/67	Total	44,080	42,560	41,040	39,520	38,000	36,480	34,960	33,440	32,680	31,996	31,312	30,628
	(27/19)	Sensible	35,870	35,326	34,786	34,248	33,712	33,180	32,650	32,123	31,860	31,624	31,312	30,628
	84/71	Total	47,158	45,524	43,928	42,294	40,660	39,026	37,392	35,796	34,960	34,276	33,592	32,908
	(29/22)	Sensible	35,439	34,898	34,372	33,836	33,303	32,773	32,246	31,733	31,466	31,248	31,030	30,813
	72/61	Total	45,672	44,088	42,548	40,964	39,380	37,796	36,212	34,672	33,880	33,088	32,296	31,504
	(22/16)	Sensible	38,014	37,378	36,762	36,133	35,507	34,884	34,264	33,664	33,357	33,050	32,296	31,504
	76/63	Total	47,476	45,848	44,176	42,548	40,920	39,292	37,664	35,992	35,200	34,408	33,616	32,824
	(24/17)	Sensible	41,721	41,090	40,445	39,820	39,198	38,580	37,664	35,992	35,200	34,408	33,616	32,824
8AA2060A	80/67	Total	51,040	49,280	47,520	45,760	44,000	42,240	40,480	38,720	37,840	37,048	36,256	35,464
	(27/19)	Sensible	41,425	40,789	40,157	39,529	38,904	38,282	37,663	37,048	36,742	36,467	36,193	35,464
	84/71	Total	54,604	52,712	50,864	48,972	47,080	45,188	43,296	41,448	40,480	39,688	38,896	38,104
	(29/22)	Sensible	40,947	40,314	39,699	39,073	38,451	37,832	37,216	36,618	36,306	36,052	35,798	35,544

Electrical Characteristics - Compressor, Fan & Blower Motors - 8AA Air Conditioners with 2-Stage Compressor

BASIC	_	COMP	RESSOR		OUTD	OOR FAN	MOTOR		INDOOR	FAN MOT	OR (ECM	⁶)
MODEL	Type	VOLTS-PH-HZ	RLA ¹	LRA ²	VOLTS-HZ-PH	RPM ³	FLA ⁴	HP⁵	VOLTS-HZ-PH	RPM ³	FLA ⁴	HP⁵
8AA2036AA		208/230-1-60	15.2	83.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2042AA	SCROLL	208/230-1-60	17.9	96.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2048AA	SCRULL	208/230-1-60	21.1	104.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2060AA		208/230-1-60	27.1	152.9	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2036AC		208/230-3-60	11.6	73.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2042AC	SCROLL	208/230-3-60	14.1	88.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2048AC	SCRULL	208/230-3-60	14.0	83.1	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2060AC		208/230-3-60	16.5	110.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2036AD		460-3-60	5.7	38.0	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2042AD	SCROLL	460-3-60	6.2	44.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2048AD	SCRULL	460-3-60	6.4	41.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2060AD		460-3-60	7.2	52.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2036AZ		575-3-60	4.0	25.6	208/230-60-1	825	2.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2042AZ	SCROLL	575-3-60	5.1	30.0	208/230-60-1	1200	3.5	1/3	208/230-60-1	1050	4.3	1/2
8AA2048AZ	SURULL	575-3-60	4.6	33.0	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4
8AA2060AZ		575-3-60	5.5	38.9	208/230-60-1	825	2.5	1/2	208/230-60-1	1050	6.8	3/4

¹RLA = Rated Load Amps ²LRA = Locked Rotor Amps ³RPM = Revolutions per Minute ⁴FLA = Full Load Amps ⁵HP = Horsepower ⁶ECM = Electronically Commutated Motor

Summary Electrical Ratings (Wire and Circuit Breaker Sizing) - 8AA Air Conditioners with 2-Stage Compressor and Ventilation Configurations: Manual Damper, up to 15% Outside Air ("N") Economizer, Outside Air with Pressure Relief ("C")

ELECTR	IC HEAT	000 =	None	040 =	4 kw	050 =	5 kw	060 =	6 kw	080 =	8 kw	090 =	9 kw		= 10 w	120 k	= 12 w	150 k	
BASIC	VOLTAGE	SP	PE ³	SPI	PE ³														
MODEL	PHASE / HZ	MCA ¹	MFS ²																
8AA2036AA	208/230-1-60	25.8	40	25.8	40	30.3	40	35.6	40	46.0	50			56.4	60	66.8	70	82.4	90
8AA2042AA	208/230-1-60	30.2	45			30.3	45							56.4	60	66.8	70	82.4	90
8AA2048AA	208/230-1-60	35.7	60			35.7	60							58.9	60	69.3	70	84.9	90
8AA2060AA	208/230-1-60	43.1	70			43.1	70							58.9	60	69.3	70	84.9	90
8AA2036AC	208/230-3-60	21.3	30					22.3	30			31.4	35			40.4	45	49.4	50
8AA2042AC	208/230-3-60	25.5	35					25.5	35			31.4	35			40.4	45	49.4	50
8AA2048AC	208/230-3-60	26.8	40					26.8	40			33.9	40			42.9	45	51.9	60
8AA2060AC	208/230-3-60	29.9	45					29.9	45			33.9	45			42.9	45	51.9	60
8AA2036AD	460-3-60	10.5	15					11.2	15			15.7	20			20.2	25	24.7	25
8AA2042AD	460-3-60	11.7	15					11.7	15			15.7	20			20.2	25	24.7	25
8AA2048AD	460-3-60	12.7	15					12.7	15			16.9	20			21.4	25	26.0	30
8AA2060AD	460-3-60	13.7	20					13.7	20			16.9	20			21.4	25	26.0	30
8AA2036AZ	575-3-60	7.7	15					8.9	15			12.5	15			16.2	20	20.5	25
8AA2042AZ	575-3-60	9.5	15					8.9	15			12.5	15			16.2	20	20.5	25
8AA2048AZ	575-3-60	9.5	15					9.9	15			13.5	15			17.2	20	21.5	25
8AA2060AZ	575-3-60	10.6	20					9.9	20			13.5	20			17.2	20	21.5	25

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 A & C models. The 460 volts D 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.

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

Summary Electrical Ratings (Wire and Circuit Breaker Sizing) - 8AA Air Conditioners with Two Stage Compressor, Electric Reheat ("R") and Ventilation Configurations:

Manual Damper, up to 15% Outside Air ("N") • Economizer, Outside Air with Pressure Relief ("C")

ELECT	RIC 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	VOLTAGE	SP	PE ³	SPI	PE ³	SP	PE ³												
MODEL	PHASE / HZ	MCA ¹	MFS ²																
8AA2036AA	208/230-1-60	25.8	40	46.7	50	51.9	60	57.1	60					77.9	80	88.3	100	104.0	110
8AA2042AA	208/230-1-60	30.2	45			56.2	60							82.3	90	92.7	100	108.3	110
8AA2048AA	208/230-1-60	35.7	60			61.7	70							87.8	90	98.2	100	113.8	120
8AA2060AA	208/230-1-60	43.1	70			69.2	80							95.2	100	105.6	110	121.3	130
8AA2036AC	208/230-3-60	21.3	30					39.3	40			48.3	50			57.4	60	66.4	70
8AA2042AC	208/230-3-60	25.5	35					43.5	45			52.5	60			61.6	70	70.6	70
8AA2048AC	208/230-3-60	26.8	40					44.9	45			53.9	60			62.9	70	71.9	80
8AA2060AC	208/230-3-60	29.9	45					48.0	60			57.0	60			66.0	70	75.0	80
8AA2036AD	460-3-60	10.5	15					19.5	20			24.1	25			28.6	30	33.1	35
8AA2042AD	460-3-60	11.7	15					20.7	25			25.2	30			29.7	30	34.2	35
8AA2048AD	460-3-60	12.7	15					21.7	25			26.2	30			30.7	35	35.2	40
8AA2060AD	460-3-60	13.7	20					22.7	25			27.2	30			31.7	35	36.2	40
8AA2036AZ	575-3-60	7.7	15					14.9	20			18.5	20			22.1	25	26.4	30
8AA2042AZ	575-3-60	9.5	15					16.7	20			20.3	25			23.9	25	28.2	30
8AA2048AZ	575-3-60	9.5	15					16.7	20			20.3	25			23.9	25	28.2	30
8AA2060AZ	575-3-60	10.6	20					17.8	20			21.4	25			25.0	30	29.3	30

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 A & C models. The 460 volts D 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.

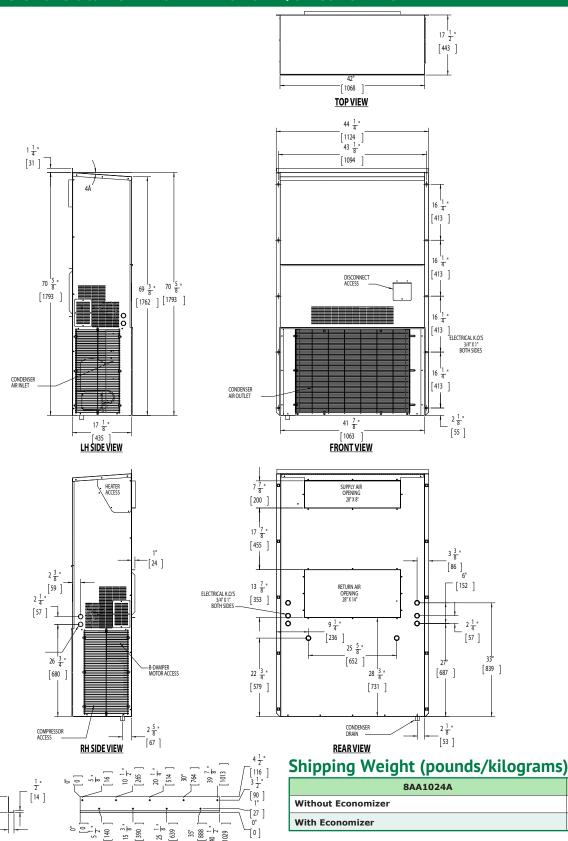
Unit Load Amps - 8AA Air Conditioners with 2-Stage Compressor and Ventilation Configurations: Manual Damper, up to 15% Outside Air ("N") Economizer, Outside Air with Pressure Relief ("C")

BASIC MODEL	VOLTAGE	CURF		(1) Al	LL HEAT	ING ELE	MENTS A	ARE ON A	A SEPAR	ATE CIR	CUIT	INCL	UDES AN	MPS FRC	м мото	NEAT DR(S) TH	AT ARE	LOCATE	
	PHASE / HZ	,		(2) S	SHADED	VALUES	(12 & 15	kW) UTI	LIZE I W	O CIRCU	JIIS	AN E	LECTRIC	AL CIRC	CUII IHA	T DOES	NOT HA	VE HEA	IERS
NUMBER		AC 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
8AA2036AA	208/230-1-60	22.0	4.3	16.7	20.8	25.0	33.3		41.7	50.0	62.5	21.0	25.1	29.3	37.6		46.0	54.3	66.8
8AA2042AA	208/230-1-60	25.7	4.3		20.8				41.7	50.0	62.5		25.1				46.0	54.3	66.8
8AA2048AA	208/230-1-60	30.4	6.8		20.8				41.7	50.0	62.5		27.6				48.5	56.8	69.3
8AA2060AA	208/230-1-60	36.4	6.8		20.8				41.7	50.0	62.5		27.6				48.5	56.8	69.3
8AA2036AC	208/230-3-60	18.4	4.3			14.4		21.7		28.9	36.1			18.7		26.0		33.2	40.4
8AA2042AC	208/230-3-60	21.9	4.3			14.4		21.7		28.9	36.1			18.7		26.0		33.2	40.4
8AA2048AC	208/230-3-60	23.3	6.8			14.4		21.7		28.9	36.1			21.2		28.5		35.7	42.9
8AA2060AC	208/230-3-60	25.8	6.8			14.4		21.7		28.9	36.1			21.2		28.5		35.7	42.9
8AA2036AD	460-3-60	7.9	2.2			7.2		10.8		14.4	18.0			9.4		13.0		16.6	20.2
8AA2042AD	460-3-60	8.4	2.2			7.2		10.8		14.4	18.0			9.4		13.0		16.6	20.2
8AA2048AD	460-3-60	9.8	3.4			7.2		10.8		14.4	18.0			10.6		14.2		17.8	21.4
8AA2060AD	460-3-60	10.6	3.4			7.2		10.8		14.4	18.0			10.6		14.2		17.8	21.4
8AA2036AZ	575-3-60	5.8	1.7			5.8		8.7		11.5	14.4			7.5		10.4		13.3	16.2
8AA2042AZ	575-3-60	6.9	1.7			5.8		8.7		11.5	14.4			7.5		10.4		13.3	16.2
8AA2048AZ	575-3-60	7.5	2.7			5.8		8.7		11.5	14.4			8.5		11.4		14.3	17.2
8AA2060AZ	575-3-60	8.4	2.7			5.8		8.7		11.5	14.4			8.5		11.4		14.3	17.2

¹AC = Air Conditioner Unit Amps ²IBM = Indoor Blower Motor

Heating kW is rated at 240 volts on the A & C models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 480 volts on the D models. Total heating and cooling amps includes all motors. Three phase models contain single phase motor loads. Loads are not equally balanced on each phase and values shown are maximum phase loads.

Dimensional Data - 8AA1024A with or w/o Economizer



Filter Size

With Economizer

8AA1024A	INCHES	MILLIMETERS		FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	30 x 16 x 1	762 x 406 x 25	80136	1	8

LBS/KGS

420/191

445/202.5

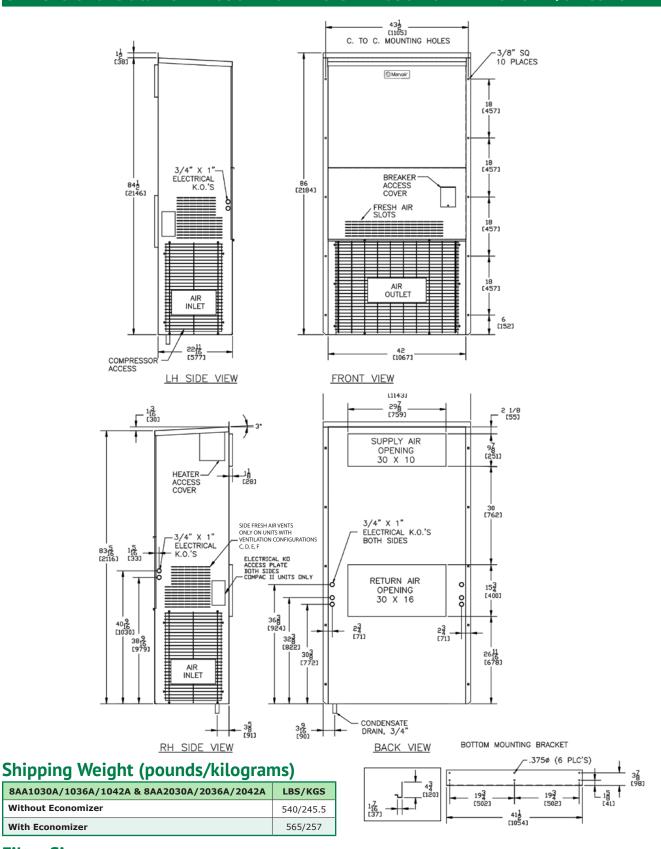
BOTTOM MOUNTING BRACKET

15 g" [

25 [†] " [639]

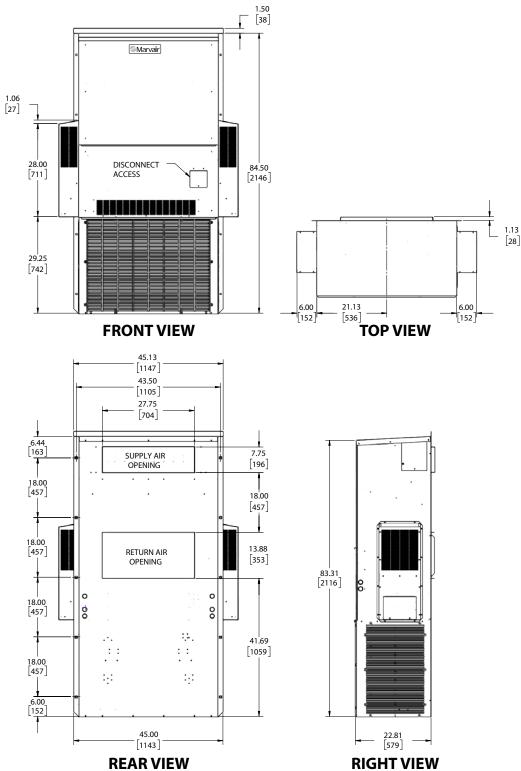
4 ½" [116]

Dimensional Data - 8AA1030A-1042A & 8AA2030-2042A with or w/o Economizer



8AA1030A/1036A/1042A & 8AA2030A/2036A/2042A	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	36½ x 22 x 2	927 x 559 x 51	80162	1	8

Dimensional Data - 8AA2036A 3T3 w/Vertical Economizer

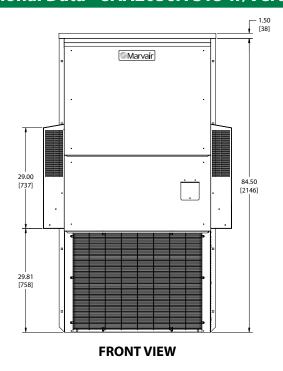


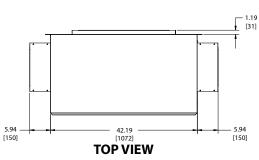
Shipping Weight

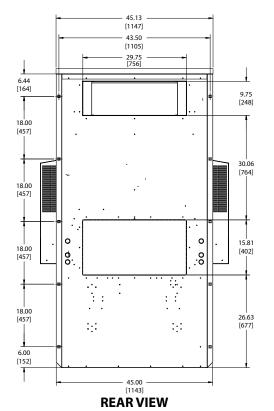
8AA2036A 3T3	LBS/KGS	
With Economizer	685/310.7	

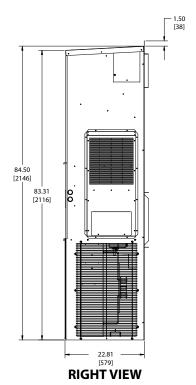
8AA2036A 3T3	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	15 ¹ / ₂ x 36 ¹ / ₂ x 2	394 x 927 x 51	92985	1	8

Dimensional Data - 8AA2036A 3T5 w/Vertical Economizer







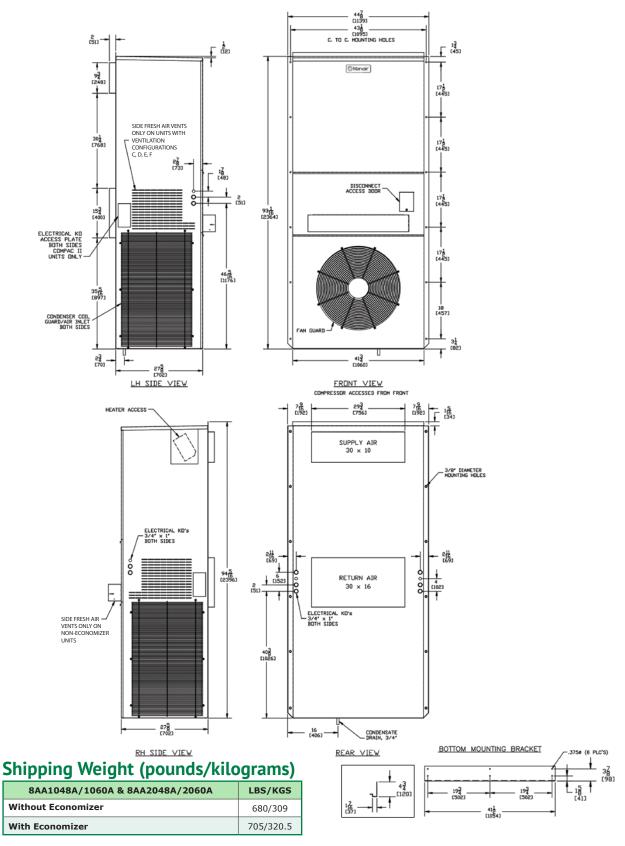


Shipping Weight

8AA2036A 3T5	LBS/KGS	
With Economizer	685/310.7	

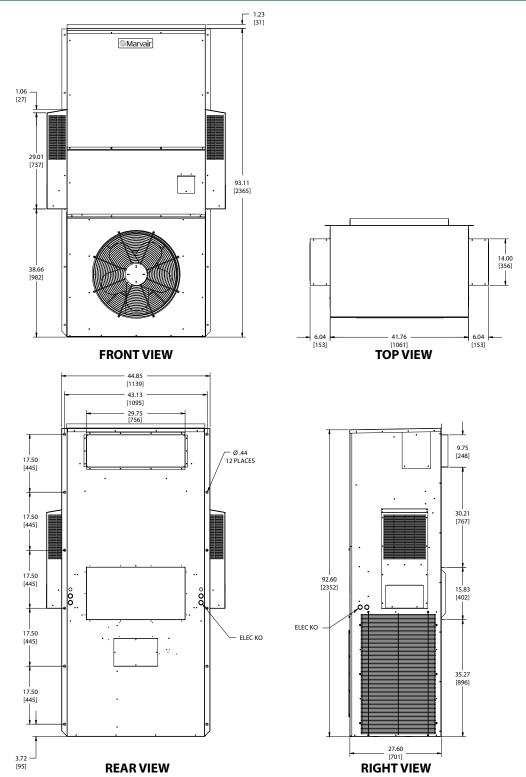
8AA2036A 3T5	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	15 ¹ / ₂ x 36 ¹ / ₂ x 2	394 x 927 x 51	92985	1	8

Dimensional Data - 8AA1048A/1060A & 8AA2048A/2060A with or w/o Economizer



8AA1048A/1060A & 8AA2048A/2060A	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	18 x 24 x 2	457 x 610 x 51	81257	2	8

Dimensional Data - 8AA2060A w/Vertical Economizer



Shipping Weight

8AA2060A	LBS/KGS	
With Economizer	705/320.5	

8AA2060A	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	21 ¹ / ₂ x 36 ¹ / ₂ x 2	546 x 927 x 51	80162	2	8

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.



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