Marvair®
ISO 9001:2015 REGISTERED COMPANY AIRXCEL™, Inc.

ComPac® I ComPac® II

PRODUCT DATA SHEET

2.8 to 17.7 kW (12,000 - 60,000 BTUH) Vertical Wall Mount Air Conditioners

Models AVPA12-20-24-30-36-42-48-60-72 & AVHA24-30-36-42-48-60 for 50 Hz. Applications

AVPA36ACE090CU-100

General Description

Used primarily to cool electronic and communication equipment shelters, Marvair® ComPac® I and ComPac® II 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 15°C (60°F). The ComPac I and ComPac II air conditioners have the necessary controls and components for operation during these (less than 15°C (60°F)) temperatures. All models use the non-ozone depleting R-410A refrigerant.

The primary difference between the ComPac I and the ComPac II units is that the ComPac® II air conditioner has 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.

The AVPA series is Marvair's most popular ComPac model with an Energy Efficiency Ratio (EER) of 9.0 to 10.0. The ComPac AVPA is available in cooling capacities of 2.8, 4.9, 6.0, 7.5, 8.8, 10.6, 11.7, 14.1, 15.7, and 17.7 kW when operated on a 50 Hz. power supply.

Safety Listed

All ComPac air conditioners are built to UL standard 1995, 4th edition and CAN/CSA C22.2, No. 236-11. The ComPac I and ComPac II air conditioners are commercial units and are not intended for use in residential applications.

50 Hz. units are for Export only.

Features and Benefits

Low Ambient Operation

- *Operates in Mechanical Cooling Down to -7°C (20°F)*
- *Extreme Duty Package Allows Operation at -18°C (0°F)*
- *3-Minute Timed By-Pass for Compressor Starting Below 13°C (55°F)*

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 Iternal Disconnect*
- *Standard Access Valves and Filters, Status LEDs*

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) down to -7°C (20°F). With the Extreme Duty option, the units will operate down -18°C (0°F).
- 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 13°C (55°F).
- Factory built-in economizer.*

➤ **High Efficiency**

- High efficiency compressor.
- Lanced fins and rifled tubing on many condenser & evaporator 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.

➤ **Remote Alarm Capability**

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

➤ **Rugged Construction**

- Copper tube, aluminum fin evaporator & condenser coils.
- 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 Service**

- Service access valves are standard.
- Standard 50mm (2") pleated filter with European Efficiency Class of G4 (MERV 7), 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.
- 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.

➤ **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 on all units.
- Single Point Power Entry complies with latest edition of U.L. Standard 1995.
- Side access panels for easy access to electrical connections.

*ComPac® II air conditioner only

A Marvair® First – Factory Installed Economizer

Marvair's ComPac® II air conditioner has been the industry standard since its introduction in 1986. Tens of thousands of ComPac II air conditioners are in operation from the metropolitan areas of North America 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 17°C (63°F) at 50% Relative Humidity to 23°C (73°F) 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 10 - 17°C (50 - 63°F) 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.

In all ComPac II air conditioners, the supply air flow in the economizer mode is the same or greater than the rated air flow. The "full flow" economizer reduces electrical costs by maximizing the use of outside air for cooling.

Controllers and Thermostats

➤ Controllers

CommStat 6 2/4 HVAC Controller NEW! ..... *P/N 70705*
CommStat 6 4/8 HVAC Controller NEW! ..... *P/N S/12087-04*
CommStat 6 6/12 HVAC Controller NEW! ..... *P/N S/12087-06*

The CommStat 6 is an HVAC controller, is available in three configurations, and is designed specifically for controlling up to six redundant air conditioners with two stage compressors. The **CommStat 6 2/4** controls up to two single or 2-stage air conditioners (4 Stages max.), the **CommStat 6 4/8** controls up to four single or 2-stage air conditioners (8 Stages max.) and the **CommStat 6 6/12** controls up to six single or 2-stage air conditioners (12 Stages max.)

In addition to the control of the air conditioners, the CommStat 6 has multiple configurable outputs for remote alarms or notification. The CommStat 6 is factory programmed with standard industry set points, but can be configured on site. Settings are retained indefinitely in the event of a power loss.

CommStat 4 HVAC Controller ..... P/N *S/7846*

The CommStat 4 HVAC controller is designed specifically for controlling two redundant air conditioners, heat pumps or air conditioners with 2-stage compressors. The CommStat 4 has seven outputs for remote alarms or notification. Status LED's indicate HEAT, COOL, POWER and the LEAD unit. When a fault is detected, an alarm LED flashes and the LCD screen displays the fault.

One can be daisy chained with a second CommStat 4 controllers for controlling up to four air conditioners in one shelter. When two CommStat 4 controllers are daisy chained together, one is the MASTER and the other controller is the SLAVE. Any settings to the MASTER unit immediately take effect on the SLAVE unit. See the CommStat 4 Product Data Sheet for complete details.

CommStat3™ Lead/Lag Microprocessor Controller ..... *P/N S/04581*

Solid state controller designed to operate a fully or partially redundant air conditioning system. Ensures equal wear on both air conditioners while allowing the lag unit to assist upon demand. Lead/ lag changeover is factory set at 7 days, but is field programmable in 1/2 day increments from 1/2 to 7 days. The CommStat 3™ Controller has LED's to indicate status & function, digital display of temperature, a comfort override button for energy savings, five alarm relays, a built in temperature sensor and is fully programmable. See CommStat 3™ Controller Product Data Sheet for details on operation & installation.

➤ Thermostats & Thermostat Guards

Thermostat ..... *P/N 50123*
Digital thermostat. 1-stage heat, 1-stage cooling. 7 day programmable. Fan switch: Auto & On. Auto-change over. Keypad lockout. Non-volatile program memory.

Thermostat ..... *P/N 50107*
Digital thermostat. 2-stage heat, 2-stage cooling. 7 day programmable. Fan switch: Auto & On. Auto-change over. Status LED's. Backlit display. Programmable fan. Non-volatile program memory.

Thermostat Guard ..... *P/N 50092*
Thermostat guard for use with the 50123 and 50107 thermostats.

Thermostat ..... *P/N 50218*
Digital, non-programmable thermostat. 1-stage cooling and 1-stage heat. Auto-changeover.

Accessories

➤ Supply Grilles

For AVPA20/24 ..... *P/N 80674*
20" x 8" (508 mm x 203 mm)

For AVPA30/36 ..... *P/N 80675*
28" x 8" (711 mm x 203 mm)

For AVPA42/48/60/72 ..... *P/N 80676*
30" x 10" (762 mm x 254 mm)

➤ Return Grilles

For AVPA20/24 ..... *P/N 80677*
20" x 12" (508 mm x 305 mm)

For AVPA30/36 ..... P/N 80678
28" x 14" (711 mm x 356 mm)
For AVPA42/48/60/72 ..... P/N 80679
30" x 16" (762 mm x 406 mm)

➤ Return Filter Grilles

Used when filter must be changed from the interior. Not recommended for ComPac® II air conditioner.
Note: Filter used in Return Filter Grille is 1" (25 mm) thick.

For AVPA20/24 ..... P/N 80671
20" x 12" (508 mm x 305 mm)
For AVPA30/36 ..... P/N 80672
28" x 14" (711 mm x 356 mm)
For AVPA42/48/60/72 ..... P/N 80673
30" x 16" (762 mm x 406 mm)

➤ For AVPA12 ComPac II with Factory Installed Economizer

Combination Supply and Return Air Grille and Wall Sleeve for 28" x 19" Opening
Wall Sleeve for 28" x 19" (711 mm x 483 mm) opening ..... P/N S/01784
Combination Supply and Return Air Grille for 28" x 19" (711 mm x 483 mm) opening ..... P/N 80681
Note: Grille is 26" x 17" (660 mm x 432 mm)

Options

The ComPac® I and ComPac® II air conditioners were designed and are built to stringent requirements of the communications/electronic shelter. Applications occur that have special requirements. Numerous options are available for the ComPac I and ComPac II air conditioners 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

ComPac® I and ComPac® II A/C – 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. Available on all units except the AVPA12. Units with reheat require a thermostat and a dehumidistat for proper operation.

➤ Protective Coating Packages

Typically, only the ComPac I is used in corrosive environments, but the ComPac II air conditioner is also available with corrosion protection. 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:*** the internal sheet metal which is insulated and the internal control box are not coated)

Note: The AVPA12 is available with the protective coatings and corrosion resistant fasteners, but does not have a sealed condenser fan motor.

➤ 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.

➤ High Filtration

Selected units are built with larger blowers/motors for use with higher efficiency filters. Units with economizers have a prefilter on the outside air. Not available on the AVPA12. Contact your Marvair representative for specific models.

➤ Color

ComPac® I and ComPac® II 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 or .050 stucco aluminum. When the 16 gauge painted steel or the aluminum is used, only the side, top and front panels are 16 gauge or aluminum. 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.

➤ 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. Not available on the AVPA12.

➤ Phase Monitor

Continuously measures the voltage of each of the three phases. The monitor separately senses low and high voltage, voltage unbalance including phase loss and phase reversal. A red LED glows to indicate a fault. When all voltages are acceptable, a green LED glows. Automatically resets when voltages and phases are within operating tolerances.
Note: Not required on 1ø units.

➤ Thermal Expansion Valve

Available on all ComPac 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. Available on all units except the AVPA12.

➤ Compressor Sound Jacket

To reduce sound of compressor. Available on all units except the AVPA12

➤ Extreme Duty Package *(Not Available on AVPA12)*

Allows Marvair® air conditioners to operate in extremely cold and hot ambient conditions. The Extreme Duty Kit is always factory installed and is available on all air conditioners. ComPac I units without an economizer will operate from 0°F to 130°F (-18° to 54°C). ComPac II units with an economizer will operate from -40°F to 130°F (-40° to 54°C).

The Extreme Duty Package includes a suction line accumulator, thermal expansion valve (TXV), crankcase heater, hard start kit, an auto reset high pressure switch and an outdoor thermostat and fan cycle switch. The fan cycle control is standard on all ComPac air conditioners and operates based upon the liquid line pressure. The outside thermostat opens whenever the outside temperature is below 50°F (10°C) and closes when the outside temperature is 50°F (10°C) or higher. When the temperature is below 50°F (10°C), the fan cycle switch is in the circuit; when temperatures are 50°F (10°C) or higher, the fan cycle switch is not in the circuit. The outdoor thermostat is used with a TXV to prevent excessive cycling or "hunting" of the TXV.

➤ Lockable Disconnect Access Cover Plate

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

➤ Desert Duty Package (Not available on the AVPA12)

Our standard air conditioners will operate in outside ambient temperatures up to 120°F (48.9°C) The Desert Duty package is a factory installed package of components and cabinet modifications to allow operation in ambient temperatures up 130°F (54°C). Standard features of the Desert Duty package include a thermal expansion valve and a sealed condenser fan motor. Cabinet modifications include a slotted panel in the base pan that improves condenser air flow and also provides access to the compressor and condenser fan motor. To prevent sand and dust infiltration, the electrical control box is sealed. A closed loop design on the ComPac I unit insures that no outside air is introduced into the shelter. Note: the ComPac II unit with the economizer may be ordered with the Desert Duty Package. If the ComPac II air conditioner is required with the Desert Duty Package, sand intrusion into the shelter should be considered.

➤ Washable Filter

Spun aluminum construction allows cleaning of filters with water.

➤ Right & Left Side Compressor Location

The 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 AVPA20-24-30-36, the standard location for the compressor is on the right hand side. In the AVPA12 and the AVPA42-48-60, the standard location for the compressor is on the left hand side. In the AVPA72, the compressor is accessed from the front of the unit and an opposing configuration is not required.

➤ Marvair Coil Cop® Theft Deterrent System

The Marvair Coil Cop® is a factory installed, multi-layered theft deterrent system designed for use in Marvair wall mounted air conditioners and heat pumps. It provides visual and audio warnings and remote notification in the event of an attempted theft or vandalism of the unit. It is especially useful for air conditioners located in remote or unsupervised locations, e.g., many cell sites, and can eliminate bulky and expensive cages. For a complete description of the components and operation of the Coil Cop system, please see the Coil Cop brochure (available for download at *www.marvair.com*).

Two variations of the Coil Cop theft deterrent system are available:

- **Coil Cop Variation T1** is the complete Coil Cop Package. Includes stainless steel channels to secure both the condenser and evaporator coils, warning labels, a speaker, tamper resistant fasteners, loss of charge switch, tri-axis accelerometer and operator panel with status lights.
- **Coil Cop Variation T2** includes stainless steel channels to secure the condenser coil, warning labels, a speaker, tamper resistant fasteners, loss of charge switch, tri-axis accelerometer and operator panel with status lights. Variation T2 does not include stainless steel channel on the evaporator coil.

Control Box

The internal control board in the ComPac® air conditioners simplifies wiring, consolidates several of the electrical functions onto one device and improves the reliability of the air conditioner. In addition, the control board has LED's that indicate operational status and fault conditions.

➤ LED Indicator Lights

COLOR	TYPE	STATUS	DESCRIPTION
Green	Power	Constant On	24 VAC power has been applied
Red	Status	Constant On	Normal operation
		1 Blink	High pressure switch has opened twice
		2 Blinks	Low pressure switch has opened twice
		3 Blinks	Freeze stat (optional) - indoor coil temperature is below 35°F (1°C)

➤ Modes of Operation

Normal Start-up: On a call for cooling, and the with the high pressure switch closed, the cooling system (compressor, indoor blower motor and outdoor fan motor) will be energized. (Note: See the Delay on Make feature). The cooling system will remain energized during the three minute low pressure switch bypass cycle. If the low pressure is closed, the cooling system will continue to operate after the three-minute bypass. If the low pressure switch is open after the three-minute bypass, the cooling system will be de-energized.

Lockout Mode: If either the high or low pressure switch opens twice on the same call for cooling, the control board enters into and indicates the lockout mode. In the lockout mode, the compressor is turned off, the alarm output is energized and the status LED's will blink to indicate which fault has occurred. If there is a call for air flow, the indoor blower will remain energized. When the lockout condition has cleared, the unit will reset if the demand of the thermostat is removed or when power is reset. The lockout circuit is factory wired for normally open contacts. The user can select either normally closed or normally open remote alarm dry contacts.

Delay on Make: On initial power up or on resumption of power, the air conditioner will wait .03 to 10 minutes from a call for cooling before allowing the contactor to energize.

Model Identification

AVP **A** **●●** **AC** **●** **●●●** **●** **●** **A5** **●●●**

AVP = Standard Efficiency
AVH = High Efficiency[1]

Refrigerant
A = R410A

Nominal Cooling
12 = 2.8 kW/9,550 BTUH
20 = 4.9 kW/16,300 BTUH
24 = 6.0 kW/20,400 BTUH
30 = 7.5 kW/25,500 BTUH
36 = 8.8 kW/30,175 BTUH
42 = 10.6 kW/36,125 BTUH
48 = 11.7 kW/39,950 BTUH
60 = 14.1 kW/48,025 BTUH
72 (1Ø) = 15.7 kW/53,550 BTUH
72 (3Ø) = 17.7 kW/60,350 BTUH

System Type
Air Conditioner

Power Supply
w = 220/240V, 1ø, 50 Hz.
F = 220V, 1ø, 50 Hz.
G = 220V, 3ø, 50 Hz.
E = 380V, 3ø, 50 Hz.[1]
[1]Three hot wires, a neutral and a ground

Electric Heat – kW
000 = No Heat
022 = 2.2 kW
036 = 3.6 kW
040 = 4 kW
050 = 5 kW
080 - 8 kW
090 = 9 kW
100 = 10 kW
150 = 15 kW

Configuration
N = ComPac® I A/C
C = ComPac® II A/C

Special Option Code
R = Electric Reheat
U = Scroll Comp.
X = Hot Gas Bypass
O = Opposite Compressor
E = Extreme Duty
D = Desert Duty

Cabinet Color
100 = Beige
200 = Gray
400 = White
500 = Stainless Steel (Exterior Only)
SS-500 = Stainless Steel
700 = Aluminum Stucco

A5 = Built in compliance with UL 1995, 4th edition

Summary Electrical Ratings (Wire and Circuit Breaker Sizing)

AVPA Air Conditioners with Ventilation Configurations:
Manual Damper, up to 15% Outside Air ("N")
Economizer, up to 100% Outside Air with Pressure Relief ("C")

ELECTRIC HEAT		000 = None		036 = 3.6 kW		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	VOLTAGE PHASE / HZ	SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]	
		MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]
AVPA12ACF/W	220-1-50	6.8	15	20.2	25																
AVPA20ACF/W	220-1-50	16.2	25			23.0	35	28.1	30	33.4	35	43.7	45			54.2	60				
AVPA24ACF	220-1-50	17.8	25			23.0	25	28.1	30	33.4	35	43.7	45			54.2	60				
AVPA30ACF	220-1-50	19.5	30			23.0	30	28.1	30	33.4	35	43.7	45			54.2	60	64.6	70	80.2	90
AVPA36ACF	220-1-50	23.5	35			23.5	35	28.1	35	33.4	35	43.7	45			54.2	60	64.6	70	80.2	90
AVPA42ACF	220-1-50	24.5	40					28.1	40							54.2	60	64.6	70	80.2	90
AVPA48ACF	220-1-50	24.4	40					28.1	40							54.2	60	64.6	70	80.2	90
AVPA60ACF	220-1-50	30.7	50					30.7	60							55.1	60	65.5	70	81.1	90
AVPA72ACF	220-1-50	36.0	60					36.0	60							55.1	60	65.5	70	81.1	90
AVPA24ACG	220-3-50	14.6	20							20.1	25			29.2	30			38.2	40		
AVPA30ACG	220-3-50	15.5	20							20.1	25			29.2	30			38.2	40	47.2	50
AVPA36ACG	220-3-50	20.7	30							20.7	30			29.2	30			38.2	40	47.2	50
AVPA42ACG	220-3-50	21.5	35							21.5	35			29.2	35			38.2	40	47.2	50
AVPA48ACG	220-3-50	21.6	35							21.6	35			29.2	35			38.2	40	47.2	50
AVPA60ACG	220-3-50	24.9	40							24.9	40			30.1	40			39.1	40	48.1	50
AVPA72ACG	220-3-50	33.5	50							33.5	50			30.1	50			39.1	50	48.1	50
AVPA24ACE	380-3-50	8.9	15							8.9	15			12.1	15			15.6	20	19.2	20
AVPA30ACE	380-3-50	9.5	15							9.5	15			12.1	15			15.6	20	19.2	20
AVPA36ACE	380-3-50	10.0	15							10.0	15			12.1	15			15.6	20	19.2	20
AVPA42ACE	380-3-50	10.3	15							10.3	15			12.1	15			15.6	20	19.2	20
AVPA48ACE	380-3-50	10.5	15							10.5	15			12.1	15			15.6	20	19.2	20
AVPA60ACE	380-3-50	12.9	20							12.9	20			12.9	20			16.1	20	19.7	20
AVPA72ACE	380-3-50	16.5	25							16.5	25			16.5	25			16.1	25	19.7	25

[1]MCA = Minimum Circuit Ampacity (Wiring Size Amps) [2]MFS = Maximum Fuse Size [3]SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the ACF & ACG models. The 380 volts ACE models are calculated at 380 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)

AVPA Air Conditioners with Electric Reheat ("R") and Ventilation Configurations:
Manual Damper, up to 15% Outside Air ("N")
Economizer, up to 100% Outside Air with Pressure Relief ("C")
Motorized Damper, up to 450 CFM of Outside Air with Pressure Relief ("B")
Manual Damper, up to 450 CFM of Outside Air ("Y")
Manual Damper, up to 15% Outside Air with Pressure Relief ("Z")

ELECTRIC HEAT		000 = None		022= 2.2kw		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	VOLTAGE PHASE / HZ	SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]	
		MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]
AVPA12ACF	220-1-50	6.8	15	18.3	20			32.8	35												
AVPA20ACF	220-1-50	16.2	25			32.9	35	37.0	40	41.2	45					57.9	60				
AVPA24ACF	220-1-50	17.8	25			38.7	40	43.8	45	49.1	50					70.0	70				
AVPA30ACF	220-1-50	19.5	30			40.2	45	45.5	50	50.7	60					71.6	80	82.0	90	97.6	100
AVPA36ACF	220-1-50	23.5	35			44.2	45	46.2	50	54.7	60					75.6	80	86.0	90	101.6	110
AVPA42ACF	220-1-50	24.5	40					50.5	60							76.6	80	87.0	90	102.6	110
AVPA48ACF	220-1-50	24.4	40					50.4	60							76.5	80	86.9	90	102.5	110
AVPA60ACF	220-1-50	30.7	50					56.7	60							82.8	90	93.2	100	108.8	110
AVPA72ACF	220-1-50	36.0	60					62.0	70							88.2	90	98.5	100	114.1	120
AVPA24ACG	220-3-50	15.5	20							33.5	35			42.6	45			51.6	55	60.6	70
AVPA30ACG	220-3-50	16.8	20							34.8	35			43.9	45			52.9	55	61.9	70
AVPA36ACG	220-3-50	18.3	20							36.3	40			45.4	50			54.4	60	63.4	70
AVPA42ACG	220-3-50	22.3	30							40.3	45			49.4	50			58.4	60	67.4	70
AVPA48ACG	220-3-50	23.0	30							41.0	45			50.1	60			59.1	60	68.1	70
AVPA60ACG	220-3-50	29.5	30							47.9	50			56.6	60			65.6	70	74.6	75
AVPA72ACG	220-3-50	33.5	50							51.5	60			60.6	70			69.6	70	78.6	80
AVPA24ACE	380-3-50	10.2	15							17.3	20			11.0	15			24.5	25	28.0	30
AVPA30ACE	380-3-50	12.0	15							19.1	20			23.0	25			26.3	30	29.8	30
AVPA36ACE	380-3-50	12.2	15							19.3	20			23.0	25			27.0	30	30.0	35
AVPA42ACE	380-3-50	12.1	15							19.1	20			22.8	25			27.0	30	30.0	35
AVPA48ACE	380-3-50	12.1	15							19.1	20			22.8	25			27.0	30	30.0	35
AVPA60ACE	380-3-50	17.4	20							24.5	25			29.0	30			32.0	35	35.3	40
AVPA72ACE	380-3-50	16.5	25							23.6	25			27.3	30			30.8	35	34.4	35

[1]MCA = Minimum Circuit Ampacity (Wiring Size Amps) [2]MFS = Maximum Fuse Size [3]SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the ACF & ACG models. The 380 volts ACE models are calculated at 380 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)

AVHA Air Conditioners with Ventilation Configurations:
Manual Damper, up to 15% Outside Air ("N")
Economizer, up to 100% Outside Air with Pressure Relief ("C")
Motorized Damper, up to 450 CFM of Outside Air with Pressure Relief ("B")
Manual Damper, up to 450 CFM of Outside Air ("Y")
Manual Damper, up to 15% Outside Air with Pressure Relief ("Z")

ELECTRIC HEAT		000 = None		022= 2.2kw		036=3.6 kw		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	VOLTAGE PHASE / HZ	SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]	
		MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]
AVHA24ACG	220-3-50	15.5	20									20.8	25			29.9	30			38.9	40		
AVHA30ACG	220-3-50	16.8	20									20.8	25			29.9	30			38.9	40	48.0	50
AVHA36ACG	220-3-50	18.3	20									20.8	25			29.9	30			38.9	40	48.0	50
AVHA42ACG	220-3-50	22.3	30									21.1	30			30.2	40			39.2	40	48.2	50
AVHA48ACG	220-3-50	23.0	30									21.1	30			30.2	40			39.2	40	48.2	50
AVHA60ACG	220-3-50	29.5	30									23.2	30			32.3	40			41.3	50	50.3	60
AVHA24ACE	380-3-50	10.2	15									8.8	15			12.4	15			15.9	20	19.6	20
AVHA30ACE	380-3-50	12.0	15									8.8	15			12.4	15			15.9	20	19.6	20
AVHA36ACE	380-3-50	12.2	15									8.8	15			12.4	15			15.9	20	19.6	20
AVHA42ACE	380-3-50	12.1	15									9.0	15			12.6	15			16.1	20	19.7	20
AVHA48ACE	380-3-50	12.1	15									9.0	15			12.6	15			16.1	20	19.7	20
AVHA60ACE	380-3-50	17.4	20									10.3	20			13.9	20			17.3	20	21.0	25

[1]MCA = Minimum Circuit Ampacity (Wiring Size Amps) [2]MFS = Maximum Fuse Size [3]SPPE = Single Point Power Entry
MCA & MFS are calculated at 230 volts on the ACF & ACG models. The 380 volts ACE models are calculated at 380 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)

AVHA Air Conditioners with Electric Reheat ("R") and Ventilation Configurations:
Manual Damper, up to 15% Outside Air ("N")
Economizer, up to 100% Outside Air with Pressure Relief ("C")
Motorized Damper, up to 450 CFM of Outside Air with Pressure Relief ("B")
Manual Damper, up to 450 CFM of Outside Air ("Y")
Manual Damper, up to 15% Outside Air with Pressure Relief ("Z")

ELECTRIC HEAT		000 = None		036 = 3.6		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	VOLTAGE PHASE / HZ	SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]		SPPE[3]	
		MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]	MCA[1]	MFS[2]
AVHA24ACG	220-3-50	15.5	20							33.5	35			42.6	45			51.6	55	60.6	70
AVHA30ACG	220-3-50	16.8	20							34.8	35			43.9	45			52.9	55	61.9	70
AVHA36ACG	220-3-50	18.3	20							36.3	40			45.4	50			54.4	60	63.4	70
AVHA42ACG	220-3-50	22.3	30							40.3	45			49.4	50			58.4	60	67.4	70
AVHA48ACG	220-3-50	23.0	30							41.0	45			50.1	60			59.1	60	68.1	70
AVHA60ACG	220-3-50	29.5	30							47.9	50			56.6	60			65.6	70	74.6	75
AVHA24ACE	380-3-50	10.2	15							17.3	20			11.0	15			24.5	25	28.0	30
AVHA30ACE	380-3-50	12.0	15							19.1	20			23.0	25			26.3	30	29.8	30
AVHA36ACE	380-3-50	12.2	15							19.3	20			23.0	25			27.0	30	30.0	35
AVHA42ACE	380-3-50	12.1	15							19.1	20			22.8	25			27.0	30	30.0	35
AVHA48ACE	380-3-50	12.1	15							19.1	20			22.8	25			27.0	30	30.0	35
AVHA60ACE	380-3-50	17.4	20							24.5	25			29.0	30			32.0	35	35.3	40

[1]MCA = Minimum Circuit Ampacity (Wiring Size Amps) [2]MFS = Maximum Fuse Size [3]SPPE = Single Point Power Entry.
MCA & MFS are calculated at 230 volts on the ACF & ACG models. The 380 volts ACE models are calculated at 380 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.

Electrical Characteristics - Compressor & Motors

AVPA Air Conditioners

BASIC MODEL	COMPRESSOR			OUTDOOR FAN MOTOR				INDOOR BLOWER MOTOR			
	VOLTS / HZ / PH	RLA[1]	LRA[2]	VOLTS / HZ / PH	RPM[3]	FLA[4]	HP[5]	VOLTS / HZ / PH	RPM[3]	FLA[4]	HP[5]
AVPA12ACF/W	220/240-50-1	3.84	21.0	220/240-50-1	1630	0.6	1/6	208/220-50-1	1304	1.4	1/4
AVPA20ACF/W	220/240-50-1	9.4	48.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA24ACF	220/240-50-1	10.9	60.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA30ACF	220/240-50-1	12.2	67.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA36ACF	220/240-50-1	15.4	82.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA42ACF	220/240-50-1	16.0	87.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA48ACF	220/240-50-1	15.9	98.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA60ACF	220/240-50-1	20.2	128.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2
AVPA72ACF	220/240-50-1	24.5	153.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2
AVPA24ACG	200/220-50-3	8.3	58.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA30ACG	200/220-50-3	9.0	71.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA36ACG	200/220-50-3	13.2	86.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA42ACG	200/220-50-3	13.6	83.1	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA48ACG	200/220-50-3	13.7	83.1	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA60ACG	200/220-50-3	15.6	110.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2
AVPA72ACG	200/220-50-3	22.4	149.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2
AVPA24ACE	380/420-50-3	5.1	28.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA30ACE	380/420-50-3	5.6	38.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA36ACE	380/420-50-3	6.0	44.0	220/240-50-1	900	2.1	1/4	208/220-50-1	710	2.1	1/4
AVPA42ACE	380/420-50-3	6.1	41.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA48ACE	380/420-50-3	6.2	41.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVPA60ACE	380/420-50-3	7.7	52.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2
AVPA72ACE	380/420-50-3	10.6	75.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	3.0	1/2

[1]RLA = Rated Load Amps [2]LRA = Locked Rotor Amps [3]RPM = Revolutions per Minute [4]FLA = Full Load Amps [5]HP = Horsepower

Electrical Characteristics - Compressor & Motors

AVHA Air Conditioners

BASIC MODEL	COMPRESSOR			OUTDOOR FAN MOTOR				INDOOR BLOWER MOTOR			
	VOLTS / HZ / PH	RLA[1]	LRA[2]	VOLTS / HZ / PH	RPM[3]	FLA[4]	HP[5]	VOLTS / HZ / PH	RPM[3]	FLA[4]	HP[5]
AVHA24ACG	200/220-60-3	8.2	59.0	220/240-50-1	825	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA30ACG	200/220-60-3	9.3	78.0	220/240-50-1	825	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA36ACG	200/220-60-3	10.5	80.0	220/240-50-1	825	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA42ACG	200/220-60-3	13.4	80.7	220/240-50-1	825	2.4	1/2	208/220-50-1	1075	3.1	1/2
AVHA48ACG	200/220-60-3	14.0	80.7	220/240-50-1	825	2.4	1/2	208/220-50-1	1075	3.1	1/2
AVHA60ACG	200/220-60-3	15.3	110.0	220/240-50-1	1075	5.2	3/4	208/220-50-1	1075	5.2	3/4
AVHA24ACE	380/420-50-3	4.0	38.0	220/240-50-1	825	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA30ACE	380/420-50-3	5.4	38.0	220/240-50-1	900	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA36ACE	380/420-50-3	5.6	36.0	220/240-50-1	900	2.4	1/2	208/220-50-1	1500	2.8	1/3
AVHA42ACE	380/420-50-3	6.1	43.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVHA48ACE	380/420-50-3	6.1	43.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	2.1	1/3
AVHA60ACE	380/420-50-3	7.8	52.0	220/240-50-1	825	2.4	1/2	208/220-50-1	910	5.2	1/2

[1]RLA = Rated Load Amps [2]LRA = Locked Rotor Amps [3]RPM = Revolutions per Minute [4]FLA = Full Load Amps [5]HP = Horsepower

Unit Load Amps -
AVPA Air Conditioners with Ventilation Configurations:
Manual Damper, up to 15% Outside Air ("N")
Economizer, up to 100% Outside Air with Pressure Relief ("C")

BASIC MODEL NUMBER	VOLTAGE PHASE / HZ	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*									
		AC[1]	IBM[2]	2.2 kW	3.6 kW	04 kW	05 kW	06 kW	08 kW	09 kW	10 kW	12 kW	15 kW	2.2 kW	3.6 kW	04 Kw	05 Kw	06 Kw	08 Kw	09 Kw	10 Kw	12 Kw	15 Kw
AVPA12ACF/W	200-1-50	3.84	1.4	9.17	15		20.8							10.6	16.4		22.2						
AVPA20ACF/W	220-1-50	11.8	2.1			16.7	20.8	25.0	33.3		41.7					18.8	22.9	27.1	35.4		43.8		
AVPA24ACF	220-1-50	15.1	2.1			16.7	20.8	25.0	33.3		41.7					18.8	22.9	27.1	35.4		43.8		
AVPA30ACF	220-1-50	16.3	2.1			16.7	20.8	25.0	33.3		41.7	50.0	62.5			18.8	22.9	27.1	35.4		43.8	52.1	64.6
AVPA36ACF	220-1-50	19.6	2.1			16.7	20.8	25.0	33.3		41.7	50.0	62.5			18.8	22.9	27.1	35.4		43.8	52.1	64.6
AVPA42ACF	220-1-50	20.5	2.1				20.8				41.7	50.0	62.5				22.9				43.8	52.1	64.6
AVPA48ACF	220-1-50	20.4	2.1				20.8				41.7	50.0	62.5				22.9				43.8	52.1	64.6
AVPA60ACF	220-1-50	25.6	3.0				20.8				41.7	50.0	62.5				23.8				44.7	53.0	65.5
AVPA72ACF	220-1-50	29.9	3.0				20.8				41.7	50.0	62.5				23.8				44.7	53.0	65.5
AVPA24ACG	220-3-50	12.5	2.1					14.4		21.7		28.9	36.1					16.5		23.8		31.0	38.2
AVPA30ACG	220-3-50	13.3	2.1					14.4		21.7		28.9	36.1					16.5		23.8		31.0	38.2
AVPA36ACG	220-3-50	17.6	2.1					14.4		21.7		28.9	36.1					16.5		23.8		31.0	38.2
AVPA42ACG	220-3-50	18.1	2.1					14.4		21.7		28.9	36.1					16.5		23.8		31.0	38.2
AVPA48ACG	220-3-50	18.2	2.1					14.4		21.7		28.9	36.1					16.5		23.8		31.0	38.2
AVPA60ACG	220-3-50	21.0	3.0					14.4		21.7		28.9	36.1					17.4		24.7		31.9	39.1
AVPA72ACG	220-3-50	27.8	3.0					14.4		21.7		28.9	36.1					17.4		24.7		31.9	39.1
AVPA24ACE	380-3-50	7.6	1.3					5.7		8.6		11.4	14.3					7.0		9.9		12.7	15.6
AVPA30ACE	380-3-50	8.1	1.3					5.7		8.6		11.4	14.3					7.0		9.9		12.7	15.6
AVPA36ACE	380-3-50	8.5	1.3					5.7		8.6		11.4	14.3					7.0		9.9		12.7	15.6
AVPA42ACE	380-3-50	8.8	1.3					5.7		8.6		11.4	14.3					7.0		9.9		12.7	15.6
AVPA48ACE	380-3-50	8.9	1.3					5.7		8.6		11.4	14.3					7.0		9.9		12.7	15.6
AVPA60ACE	380-3-50	11.0	1.8					5.7		8.6		11.4	14.3					7.5		10.4		13.2	16.1
AVPA72ACE	380-3-50	13.9	1.8					5.7		8.6		11.4	14.3					7.5		10.4		13.2	16.1

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

Heating kW is rated at 240 volts on the ACF & ACG models. Derate heater output by 25% for operation at 208 volts. Heating kW is rated at 380 volts on the ACE 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.

AVPA Efficiency and Capacity Ratings ARI Standard 390

Model AVPA	12	20	24		30		36		42		48		60		72	
	1ø	1ø	1ø	3ø	1ø	3ø	1ø	3ø	1ø	3ø	1ø	3ø	1ø	3ø	1ø	3ø
Cooling[1] kW/BTUH	2.64/9,000	4.78/16,300	6.0/20,400		7.5/25,500		8.8/30,175		10.6/36,125		11.7/39,950		14.1/48,025		15.7/53,550	17.7/60,350
Rated Airflow[2] (M^3/Hr/CFM)	680/400	1,019/600	1,214/714		1,445/850		1,765/1,040		2,200/1,290		2,545/1,500		2.675/1,575		2.960/1,745	

[1]Cooling rated at 35°C (95°F) outdoor and 26.5°C (80°F) wet bulb/19.5°C (67°F) dry bulb indoor (return) air. Note: All capacity and efficiency ratings are with a 50 Hz. power supply. Ratings are with no outside air. Ratings are affected by altitude.
[2]All flow ratings are with no outside air.

AVPA Cooling Capacities (kW & BTUH) at Various Outdoor Temperatures

Capacities are at 26.5°C (80°F) Dry Bulb/19.5°C (67°F) Wet Bulb Indoor (Return) Air

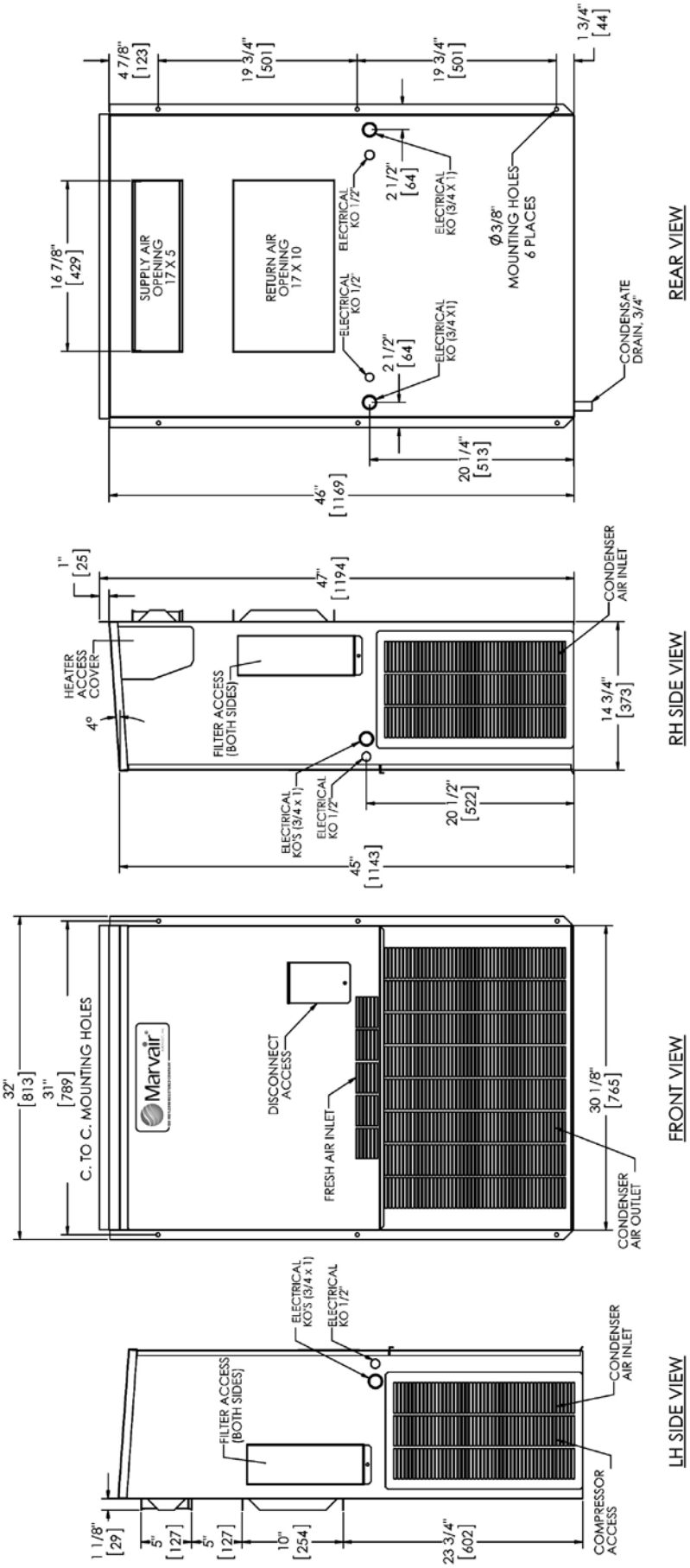
Model	29.5°C 85°F	32°C 90°F	35°C 95°F	38°C 100°F	40.5°C 105°F	43.5°C 110°F	46°C 115°F	48.9ºC 120ºF	51.7ºC 125ºF	54.4ºC 130ºF
AVPA12	2.85 9,717	2.74 9,358	2.64 9,000	2.53 8,638	2.43 8,279	2.32 7,917	2.27 7,738	2.11 7,200		
AVPA20	5.15 17569	4.98 16,980	4.78 16,300	4.59 15,673	4.39 14,966	4.21 14,367	4.11 14,041	3.83 13,061	3.66 12,408	3.44 11,755
AVPA24	6.46 22,032	6.22 21,216	5.98 20,400	5.74 19,584	5.50 18,768	5.26 17,952	5.14 17,544	4.78 (16,312)	4.54 (15,509)	4.31 (14,693)
AVPA30	8.07 27,540	7.77 26,520	7.47 25,500	7.17 24,480	6.87 23,460	6.57 22,440	6.43 21,930	5.98 (20,393)	5.68 (19,373)	5.38 (18,354)
AVPA36	9.55 32,589	9.19 31,382	8.84 30,175	8.49 28,968	8.13 27,761	7.78 26,554	7.60 25,951	7.07 (24,133)	6.72 (22,927)	6.36 (21,720)
AVPA42	11.44 39,015	11.01 37,570	10.58 36,125	10.16 34,680	9.74 33,235	9.31 31,790	9.10 31,068	8.46 (28,883)	8.04 (27,439)	7.62 (25,995)
AVPA48	12.64 43,146	12.17 41,548	11.71 39,950	11.24 38,352	10.77 36,754	10.30 35,156	10.02 34,204	9.36 (31,941)	8.90 (30,370)	8.43 (28,771)
AVPA60	15.20 51,867	14.63 49,946	14.07 48,025	13.51 46,104	12.95 44,183	12.38 42,262	12.10 41,302	11.26 (38,411)	10.69 (36,491)	10.13 (34,570)
AVPA 72 (1ø)	16.95 57,834	16.32 55,692	15.69 53,550	15.06 51,408	14.43 49,266	13.81 47,124	13.49 46,053	12.55 (42,833)	11.92 (40,692)	11.30 (38,550)
AVPA72 (3ø)	19.10 65,178	18.39 62,764	17.68 60,350	16.98 57,936	16.27 55,522	15.56 53,108	15.21 51,901	14.14 (48,266)	13.44 (45,853)	12.73 (43,440)

AVPA Sensible Total Ratio @ 35°C (95°F) Outside Air DB

MODEL	12AC	20AC	24AC	30AC	36AC	42AC	48AC	60AC	72AC (1 Ph)	72AC (3 Ph)
TOTAL CAPACITY (kW/BTUH)	2.64/9,000	4.78/16,300	60/20,400	7.5/25,500	8.8/30,175	10.6/36,125	11.7/39,950	14.1/48,025	15.7/53,550	17.7/60,350
SENSIBLE HEAT RATIO	0.74	0.75	0.69	0.74	0.69	0.75	0.75	0.69	0.70	0.66
SENSIBLE CAPACITY (kW/BTUH)	1.95/6,660	3.6/12,300	4.14/14,080	5.55/18,870	6.07/20,820	7.95/27,095	8.78/29,960	9.45/33,135	11.0/37,485	11.68/39,830

Sensible ratios based upon return air conditions of 26.5°C (80°F) Dry Bulb / 19.5°C (67°F) Wet Bulb

Dimensional Data - AVPA12 ComPac® I Air Conditioners



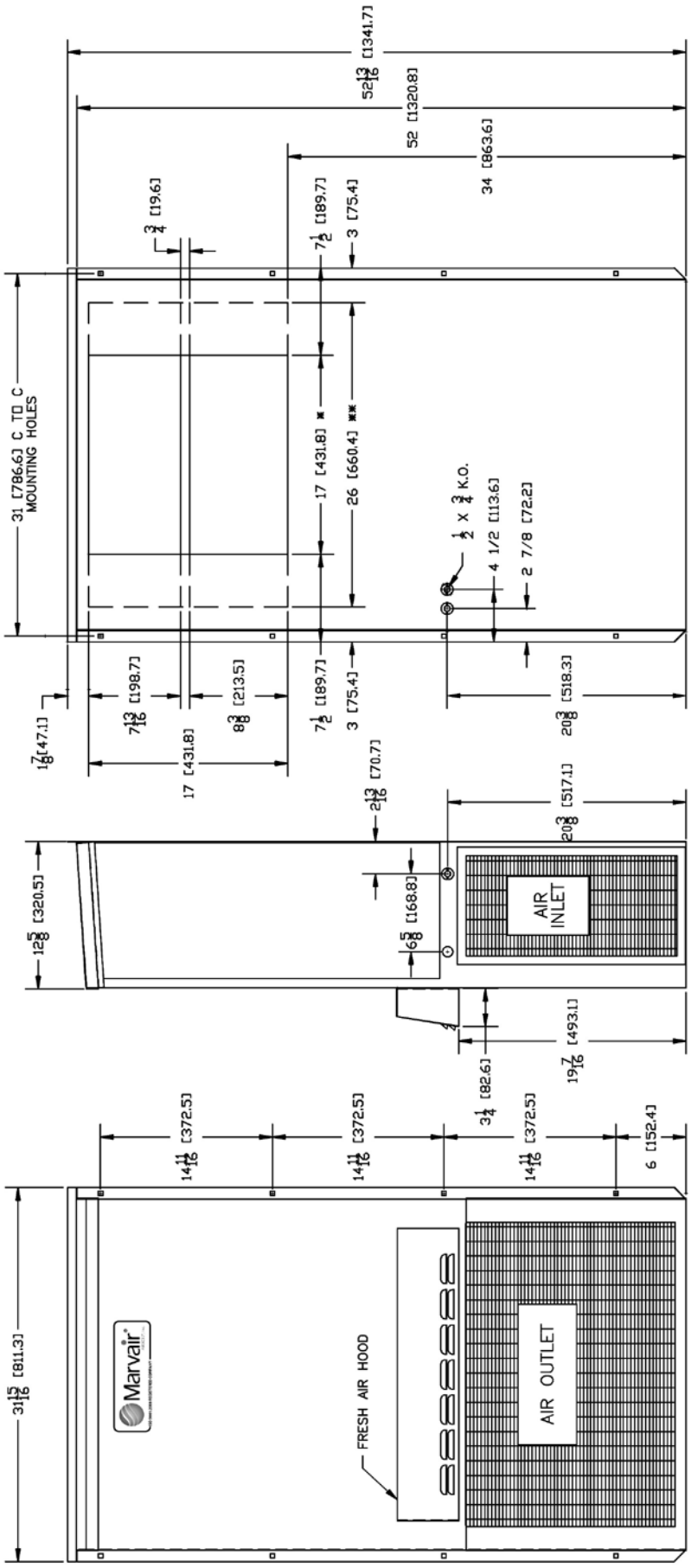
Shipping Weight (pounds/kilograms)

AVPA12	LBS/KGS
COMPAC I	185/84

Filter Size

AVPA12	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	10" x 20" x 2"	254 x 508 x 52	91974	1	7

Dimensional Data - AVPA12 ComPac® II Air Conditioners



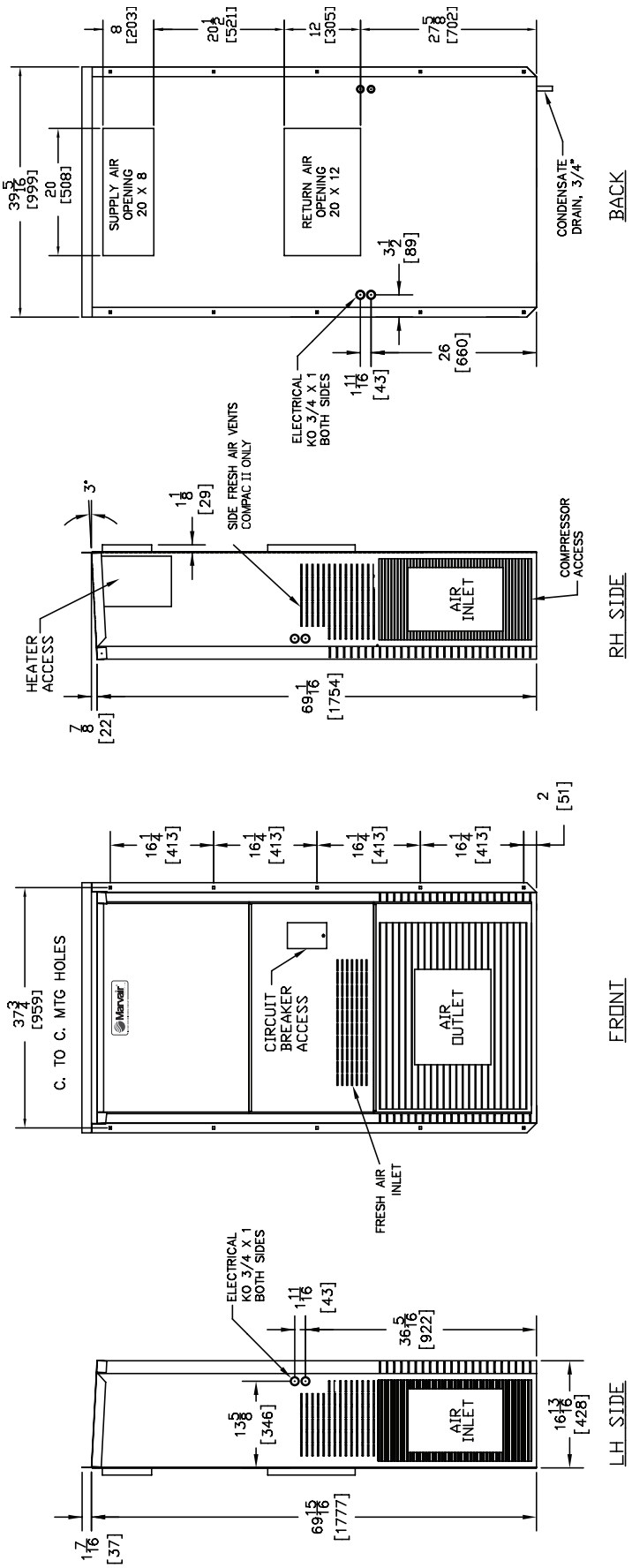
Shipping Weight (pounds/kilograms)

AVPA12	LBS/KGS
COMPAC II	194/88

Filter Size

AVPA12	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	6¼" x 22¼" x 2"	159 x 565 x 52	80172	1	7

Dimensional Data - AVPA20/24 & AVHA24 ComPac® I & II Air Conditioners



Shipping Weight (pounds/kilograms)

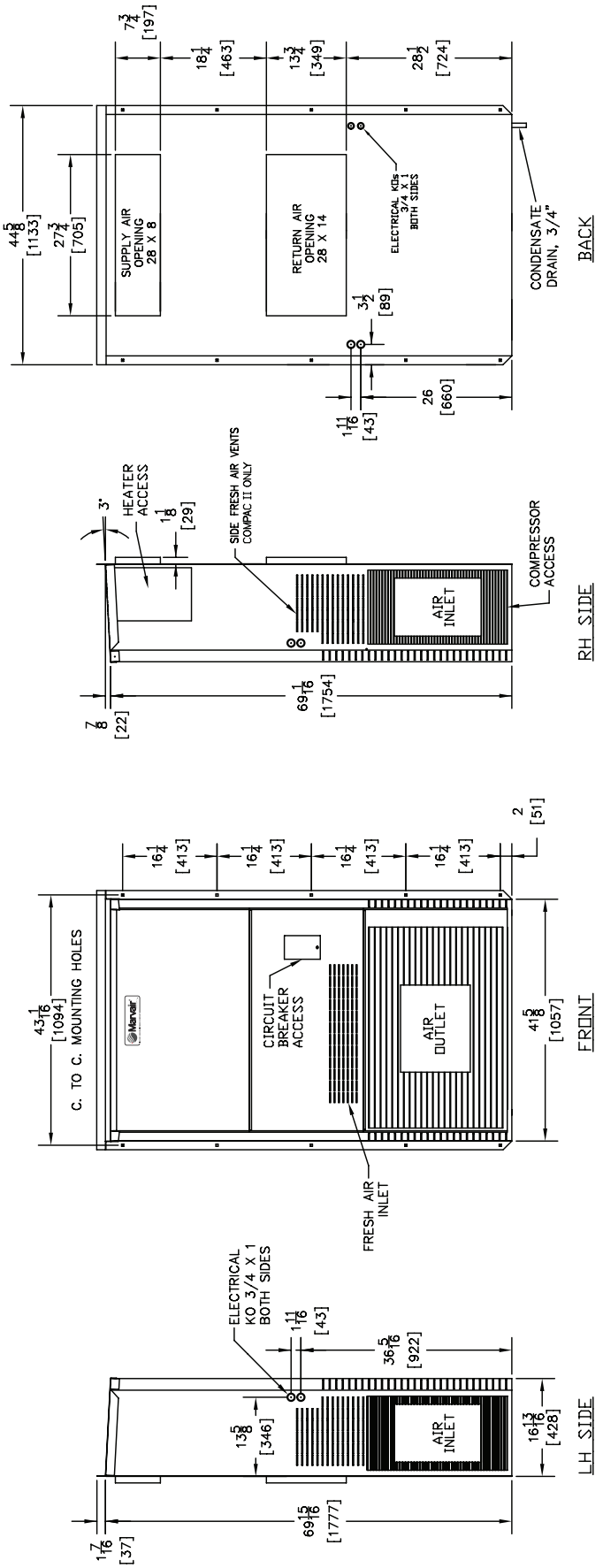
AVPA20/24 & AVHA24	LBS/KGS
COMPAC I	275/125
COMPAC II	286/130

Filter Size

AVPA20/24 & AVHA24	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	25" x 16" x 2"	635 x 406 x 51	80137	1	7

BOTTOM MOUNTING BRACKET

Dimensional Data - AVPA30/36 & AVHA30/36 ComPac® I & II Air Conditioners

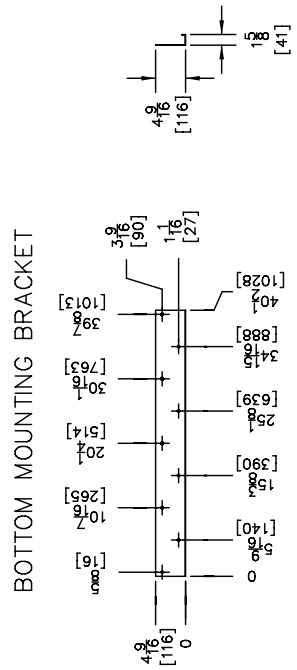


Shipping Weight (pounds/kilograms)

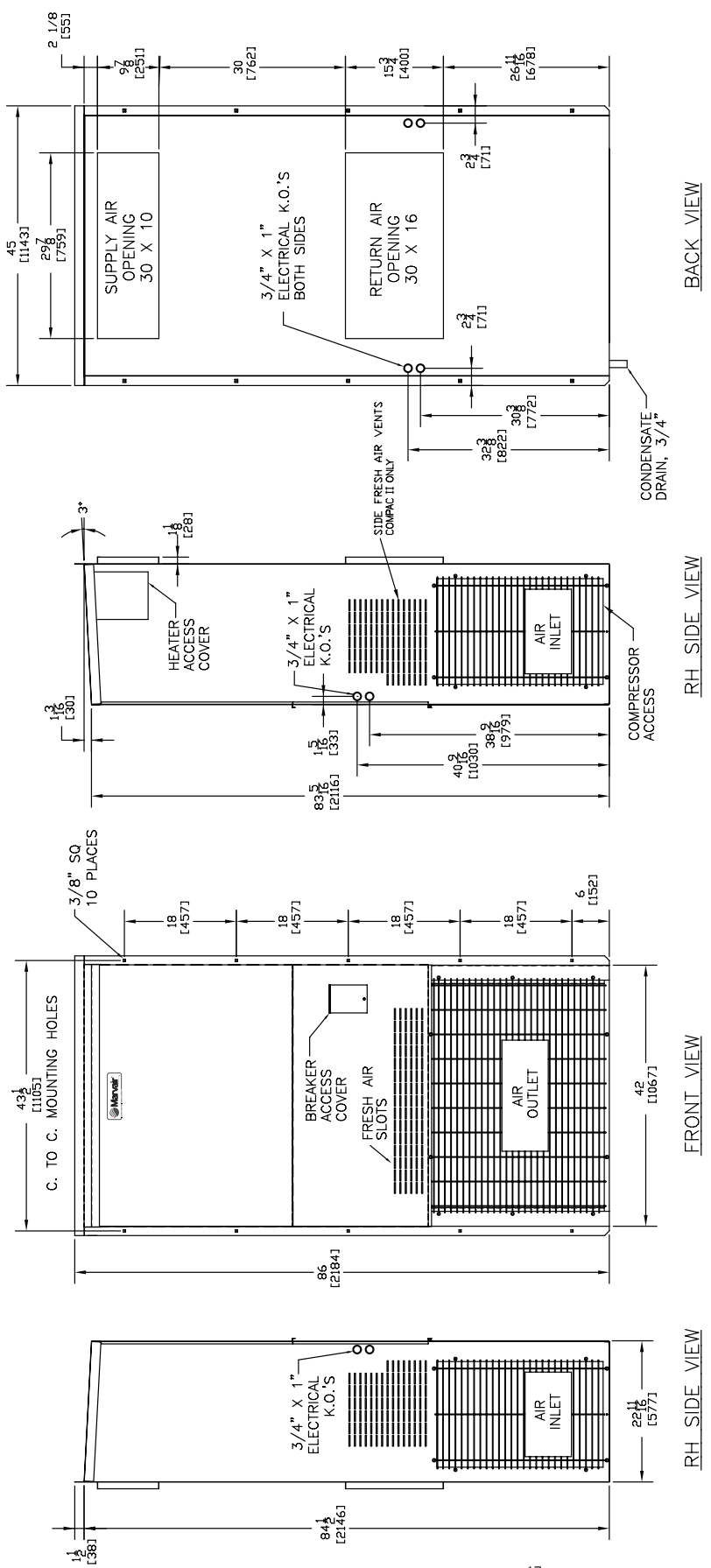
AVPA30/36 & AVHA 30/36	LBS/KGS
COMPAC I	390/177.3
COMPAC II	410/186.4

Filter Size

AVPA30/36 & AVHA 30/36	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	30 x 16 x 2	762 x 406 x 51	80138	1	7



Dimensional Data - AVPA42/48/60 & AVHA42/48/60ComPac® I & II Air Conditioners



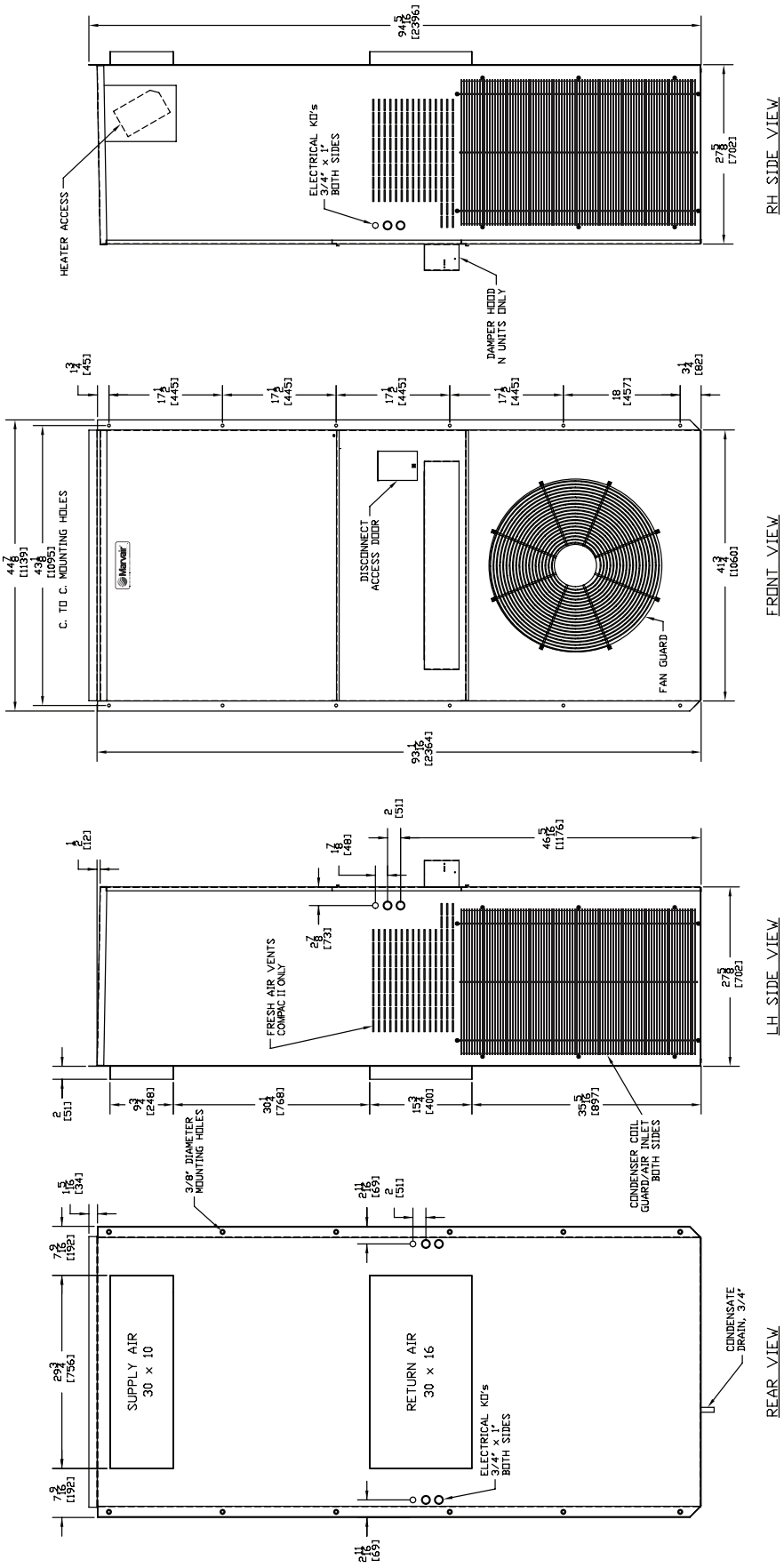
Shipping Weight (pounds/kilograms)

AVPA42/48/60 & AVHA42/48/60	LBS/KGS
COMPAC I	535/245
COMPAC II	590/268

Filter Size

AVPA42/48/60 & AVHA42/48/60	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 - AVPA72 ComPac® I & II Air Conditioners



Shipping Weight (pounds/kilograms)

AVPA72	LBS/KGS
COMPAC I	625/284
COMPAC II	640/291

Filter Size

AVPA72	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	18 x 24 x 2	457 x 610 x 51	81257	2	7

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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