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

GPAC™

PRODUCT DATA SHEET

Wall Mounted Air Conditioners with Gas Heat

Models AVGA24-30-36-42-48-60

AVGA24

General Description

The Marvair® GPac™ wall mounted air conditioner with gas heat is designed for use on a variety of applications including modular classrooms, relocatable offices and a multitude a permanent buildings. The GPac is manufactured in two cabinets with nominal cooling capacities of 2, 2-1/2, 3, 3-1/2, 4, and 5 tons and input heating capacities of 45,000; 67,500; 75,000; 90,000; 100,000 and 125,000 BTUHs. The Marvair GPac is available with a number of factory and field installed options and accessories which permit the user to optimize the unit for specific applications.

Safety Listed & Energy Certified

All GPac air conditioners are built to UL standard 1995, 4th edition and CAN/CSA C22.2, No. 236-11. The units are listed by ETL and tested to the American National Standard/CSA Standard for Gas Fired Central Furnaces; ANSI Z 21.47 -2006/CSA 2.30-2006. For energy efficiency and performance, the units are tested and rated in accordance to the ANSI/AHRI (Air-Conditioning Heating and Refrigeration Institute) Standard 390 (Single Package Vertical Units). All AVGA units meet or exceed the efficiency requirements of ANSI/ASHRAE/IESNA 90.1.2007.

Marvair GPac air conditioners are commercial units and are not intended for use in residential applications.

Standard Features

➤ Ease of Installation

- Built-in mounting flanges eliminate need for side brackets
- Sloped top sheds water, minimizes chance of water leaks and eliminates the need for a rainhood
- Top flashing piece and bottom mounting bracket provided on all units
- Electrical knockouts on back and side
- Gas connection on the right side
- Power disconnect

➤ Economical Gas Heat

- Factory set up for natural gas with easy conversion in field to propane
- Natural gas high altitude pressure switch kit allows operation in sites from 6,000 to 10,000 ft. (1,830 m to 3,050 m)
- Propane high altitude pressure switch kit allows operation in sites from 6,000 to 10,000 ft. (1,830 m to 3,050 m)
- Vertical vent pipe kits

Features and Benefits

Economical Gas Heat

- *Easy to Set Up for Natural Gas or Propane*
- *High Altitude Pressure Switch Kit Allows Operation from 6,000 to 10,000 ft. (1,830 to 3,050 meters) Using Propane or Natural Gas*
- *Optional Vertical Vent Pipe Kits*

R-410A Refrigerant

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

Patented Technology

- *Tubular Heat Exchanger with Integral Formed Dimple Turbolator*
- *Clean and Quiet "Inshot" Stainless Steel Gas Burners*

Ease of Installation and Service

- *Easily Accessible Electrical Box and Compressor*
- *Built-In Mounting Flanges and Internal Disconnect*
- *Standard Access Valves and Filters, Status LEDs*

Standard Features (continued)

➤ **Ease of Service**
- Compressor and electrical box are easily accessible
- Refrigerant access values allow quick check of refrigerant pressures
- Easily accessible filter
- LED identifies operating status and simplifies service by flashing fault code in heating mode
- Copper tube, aluminum fin evaporator and condenser coils

➤ **Protection of Refrigeration System Components**
- High and low pressure switches
- Compressor time delay

➤ **Low Ambient Operation in Cooling Mode.**
- Condenser fan cycles allowing cooling to 20°F (-7°C)

➤ **Patented Tubular Heat Exchanger with Integral Formed Dimple Turbulator**
- Enhanced heat transfer for optimum efficiency
- Quiet – eliminates noise caused by expansion and contraction of internal baffles

➤ **Patented Inshot Gas Burners**
- Quiet, clean burning gas inshot burners fire in a direct line with the orifice and the tube
- Unique carryover design (cross lighting from one burner to another) for immediate lighting
- Optional stainless steel burner

➤ **Direct Spark Ignition Control System with LED Flash Fault Indicator**
- Thirty second purge of heat exchanger prior to ignition
- Three ignition trials before lockout
- Sixty second post purge at end of operating cycle prevents nuisance trips of rollout switch
- One hour automatic reset after lockout – eliminates need to manually recycle on lockout
- LED identifies operating status and simplifies service by flashing fault code

Options for Outside Air Ventilation

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

➤ **Configuration "N": Manual Fresh Air Damper *(Standard)***
Manual damper capable of up to 15% of rated airflow of outside air; field adjustable, no pressure relief.

➤ **Configuration "Z": Field Adjustable Motorized Damper with Pressure Relief *(Optional)***
Motorized damper capable of 0 to 450 cfm of outside air (not to exceed 40% of rated air flow), field adjustable, includes pressure relief.

➤ **Configuration "Y": Field Adjustable Damper *(Optional)***
Manual damper capable of 0 to 450 cfm of outside air (not to exceed 40% of rated air flow), field adjustable, no pressure relief.

➤ **Configuration "B": Motorized Two Position Damper *(Optional)***
Motorized, two position damper (open and closed) capable of 0 to 450 cfm of outside air; includes pressure relief. A 24-volt actuated motor controls the damper from an external input such as a time clock, CO2 sensor, energy management system or a manual switch.

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

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

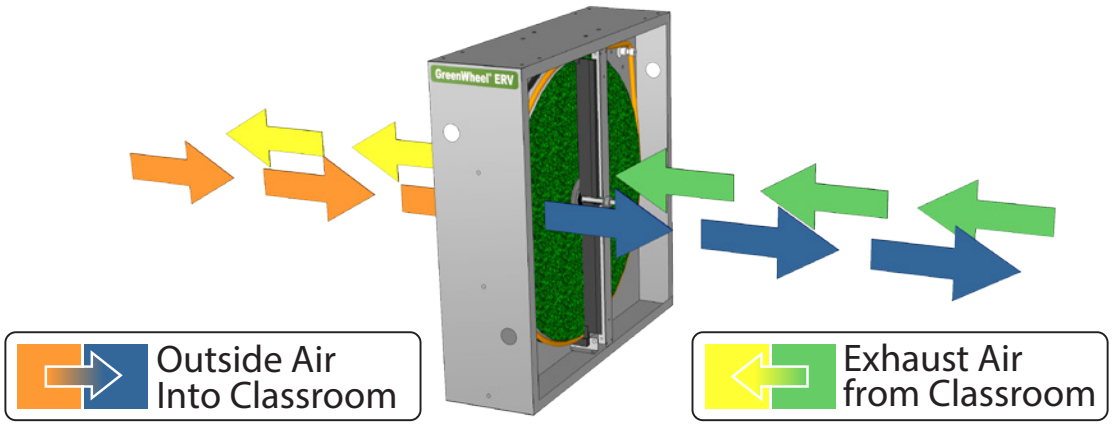
➤ **Configuration "H": GreenWheel® ERV Energy Recovery Ventilator *(Optional)***
Allows independent control of the exhaust and intake blowers. When used, the standard speed controller operates the intake blower and the optional second controller, the exhaust blower. Individual blower control allows positive pressurization of a classroom or other space. Field or factory installed.

The Marvair GreenWheel® ERV is a total energy (both sensible and latent) wheel that reduces both construction and

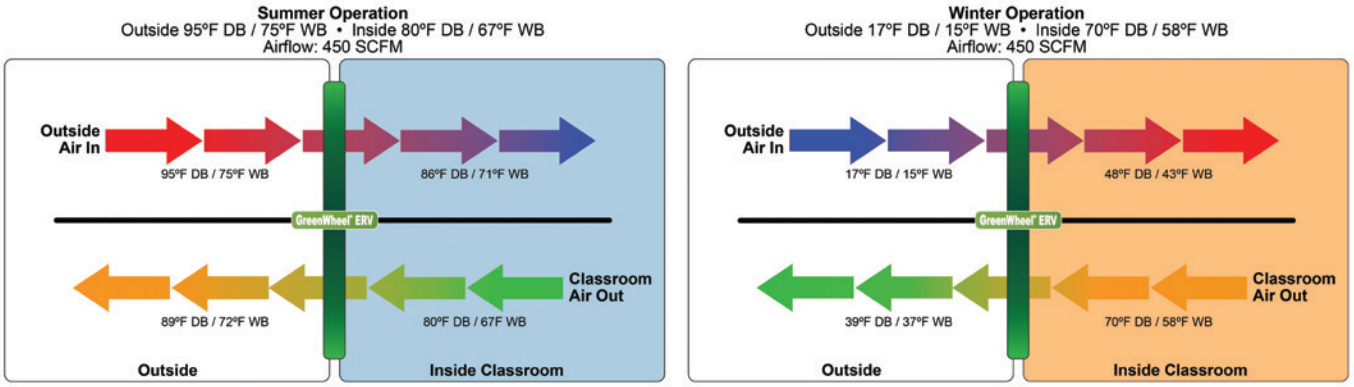
operating cost while ventilating the classroom to ASHRAE 62-1999 requirements. The use of the GreenWheel ERV reduces the energy load of the outside air. Exhausting stale, inside air keeps indoor pollutants and harmful gases to a minimum. The Marvair GreenWheel ERV has been tested and certified according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

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

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



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



GreenWheel® Energy Recovery Ventilator Performance

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

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

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

*SCFM = Standard Cubic Feet per Minute

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

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Outside Air Ventilation Schedule

Ventilation Package Designator*	Description	Outside Air Capability	Pressure Relief
N	Manual, fixed position damper	0-15% of rated air flow	No
Z	Motorized damper, field adjustable	Up to 450 cfm, but not to exceed 40% of the rated air flow of the heat pump.	Yes
Y	Manual damper, field adjustable.	Up to 450 cfm, but not to exceed 40% of the rated air flow of the heat pump.	No
B	Motorized, two position damper (open and closed) includes pressure relief. A 24-volt actuated motor controls the damper from an external input such as a time clock, CO2 sensor, energy management system or a manual switch	Up to 450 cfm, but not to exceed 40% of the rated air flow of the heat pump.	Yes
C	Economizer	100% of rated air flow of outside air	Yes
H	GreenWheel® ERV. Includes a ventilation intake air blower, a ventilation intake air filter, a ventilation exhaust blower and a single fan speed controller for both motors. Optional second fan speed controller for the exhaust air. This second controller allows independent control of the exhaust air motor and positive pressurization of the classroom.	0-450 cfm	Yes

*See Model Identification Chart.

Hot Gas Reheat Operation

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

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

Accessories

➤ **Grilles for the AVGA24-30-36**

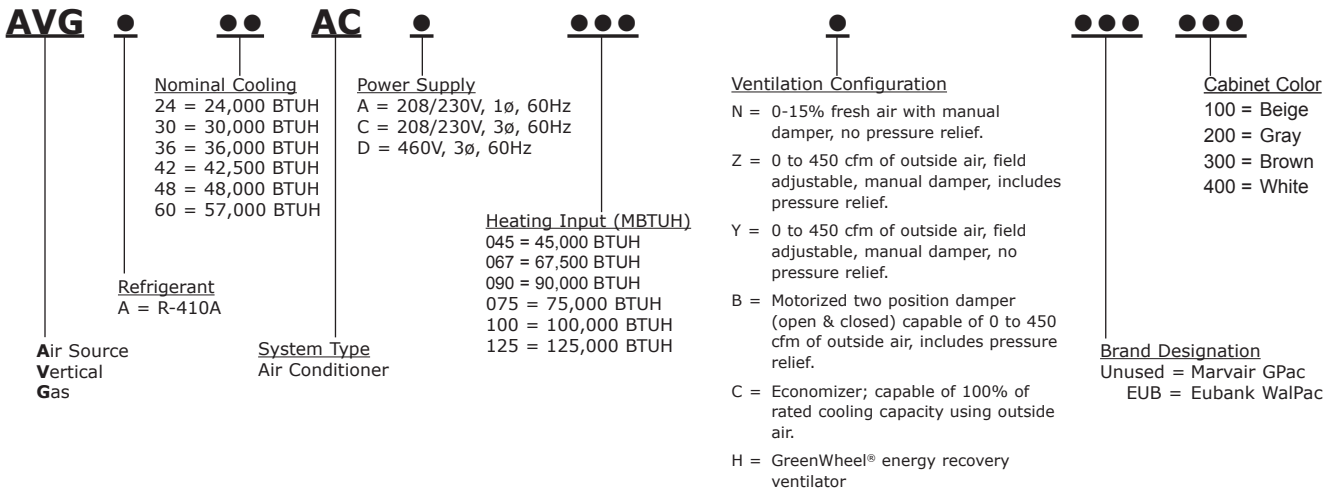
Supply Grille: 28” x 8” ..... *P/N 80675*
Return Grille: 28” x 14” ..... *P/N 80678*
Return Filter Grille:* 28” x 14” ..... *P/N 80672*

➤ **Grilles for the AVGA42-48-60**

Supply Grille: 30” x 10” ..... *P/N 80676*
Return Grille: 30” x 16” ..... *P/N 80679*
Return Filter Grille:*30” x 16” ..... *P/N 80673*

*Used when filter is accessed and changed from inside the interior.

Model Identification



Heating Capacity Inputs Available

MODEL	Available Heating Inputs
AVGA24	45,000 BTUH; 67,500 BTUH; 90,000 BTUH
AVGA30	45,000 BTUH; 67,500 BTUH; 90,000 BTUH
AVGA36	45,000 BTUH; 67,500 BTUH; 90,000 BTUH
AVGA42	75,000 BTUH; 100,000 BTUH; 125,000 BTUH
AVGA48	75,000 BTUH; 100,000 BTUH; 125,000 BTUH
AVP60	75,000 BTUH; 100,000 BTUH; 125,000 BTUH

Certified Efficiency and Capacity Ratings at ANSI/AHRI Standard 390 - AVGA Air Conditioners

Model Number	AVGA24AC	AVGA30AC	AVGA36AC	AVGA42AC1	AVGA48AC2	AVGA60AC1
Cooling BTUH[1]	24,000	30,000	35,600	42,000	46,000	55,000
EER[2]	9.25	9.60	9.25	10.00	10.00	10.00
Rated Air Flow (CFM[3])	800	900	1050	1550	1600	1650

[1]Cooling capacity and efficiency (EER) rated at 95°F (35°C) outdoor and 80°F DB/67° WB (26.5°C DB/19.5°C WB) return air
[2]EER=Energy Efficiency Ratio [3]CFM=Cubic Feet per Minute
Ratings are with no outside air. Performance will be affected by altitude. Ratings are at 230 volts for 208/230 volt units ("A" & "C" models) and 460 volts for "D" models. Operation of units at a different voltage from that of the rating point will affect performance and air flow.

Sensible Total Heat Ratio @ 95°F (35°C) Outside Air DB - AVGA Air Conditioners

Model Number	AVGA24			AVGA30			AVGA36			AVGA42			AVPA48AC			AVGA60		
	ACA	ACC	ACD	ACA	ACC	ACD	ACA	ACC	ACD	AC1A	AC1C	AC1D	AC1A	AC1C	AC1D	AC1A	AC1C	AC1D
Total Capacity	24,000			30,000			35,600			42,000			46,000			55,000		
Sensible Heat Ratio	0.69			0.70			0.64			0.76			0.72			0.68		
Sensible Capacity	16,560			21,140			23,045			32,185			33,960			37,595		
Rated Air Flow (CFM[1])	800			900			1,050			1,550			1,600			1,650		

[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 Dry Bulb B/67° Wet Bulb (26.5°C DB/19.5°C WB) return air.

Cooling Performance (BTUH) at Various Outdoor Temperatures

Model Number	OUTDOOR AMBIENT DRY BULB TEMPERATURES								
	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
24	27,840	26,880	25,920	24,960	24,000	23,040	22,080	21,120	20,640
30	34,800	33,600	32,400	31,200	30,000	28,800	27,600	26,400	25,800
36	41,295	39,870	38,450	37,025	35,600	32,965	32,750	31,330	30,615
42	48,720	47,040	45,360	43,680	42,000	40,320	38,640	36,960	36,120
48	53,360	51,520	49,680	47,840	46,000	44,160	42,320	40,480	39,560
60	63,800	61,600	59,400	57,200	55,000	52,800	50,600	48,400	47,300

Based upon ANSI/AHRI std. 390 return air conditions of 80°F Dry Bulb/67° Wet Bulb (26.5°C DB/19.5°C WB) at various outdoor temperatures.

Heating Efficiency and Capacity Ratings*

Input	45,000 BTUH	67,500 BTUH	90,000 BTUH	75,000 BTUH	100,000 BTUH	125,000 BTUH
Output	32,000 BTUH	52,000 BTUH	69,000 BTUH	57,000 BTUH	77,000 BTUH	96,000 BTUH
Thermal Heating Efficiency	80.0	80.0	80.0	80.0	80.0	80.0
Temperature Rise Range (°F)	25 to 55	40 to 70	50 to 80	25 to 55	40 to 70	50 to 80
Mid Range Air Flow (CFM)	840	1,000	1,220	1,450	1,450	1,450
Acceptable Air Flow Range (CFM)	650 to 1,050	750 to 1,250	1,000 to 1,500	925 to 1,750	1,060 to 1,750	1,150 to 1,750

*Heating ratings in accordance with AHRI Efficiency Certification Program. Temperature rise (°F) at .035" Water Gauge External Static Pressure.

Air Flow: CFM vs. ESP (Wet Coil)

Model Number	0.10	0.20	0.25	0.30	0.40	0.50
AVG24	860	810	740	670		
AVG30	1,100	1,000	960	920	810	
AVG36	1,310	1,220	1,185	1,150	1,060	
AVG42	1,550	1,525	1,500	1,470	1,420	1,370
AVG48		1,600	1,535	1,470	1,400	1,310
AVG60		1,650	1,585	1,520	1,450	1,360

Natural Gas Heating Capacity by Altitude (ft.)

NATURAL GAS DERATE CAPACITIES - Btu/Hr											
	Altitude (Feet)										
Rated Input	Sea Level	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
40,500	40,500	39,204	37,908	36,612	35,640	34,992	34,182	33,696	33,048	32,643	32,076
45,000	45,000	43,560	42,120	40,680	39,600	38,880	37,980	37,440	36,720	36,270	35,640
60,750	60,750	58,806	56,862	54,918	53,460	52,488	51,273	50,544	49,572	48,965	48,114
67,500	67,500	65,340	63,180	61,020	59,400	58,320	56,970	56,160	55,080	54,405	53,460
75,000	75,000	72,600	70,200	67,800	66,000	64,800	63,300	62,400	61,200	60,450	59,400
81,000	81,000	78,408	75,816	73,224	71,280	69,984	68,364	67,392	66,096	65,286	64,152
90,000	90,000	87,120	84,240	81,360	79,200	77,760	75,960	74,880	73,440	72,540	71,280
100,000	100,000	96,800	93,600	90,400	88,000	86,400	84,400	83,200	81,600	80,600	79,200
112,500	112,500	108,900	105,300	101,700	99,000	97,200	94,950	93,600	91,800	90,675	89,100
125,000	125,000	121,000	117,000	113,000	110,000	108,000	105,500	104,000	102,000	100,750	99,000

Propane (LP) Heating Capacity by Altitude (ft.)

PROPANE (LP GAS) DERATE CAPACITIES - Btu/Hr											
	Altitude (Feet)										
Rated Input	Sea Level	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
40,500	40,500	39,852	39,528	39,204	38,556	38,232	37,584	36,612	35,640	34,344	32,724
45,000	45,000	44,280	43,920	43,560	42,840	42,480	41,760	40,680	39,600	38,160	36,360
60,750	60,750	59,778	59,292	58,806	57,834	57,348	56,376	54,918	53,460	51,516	49,086
67,500	67,500	66,420	65,880	65,340	64,260	63,720	62,640	61,020	59,400	57,240	54,540
75,000	75,000	73,800	73,200	72,600	71,400	70,800	69,600	67,800	66,000	63,600	60,600
81,000	81,000	79,704	79,056	78,408	77,112	76,464	75,168	73,224	71,280	68,688	65,448
90,000	90,000	88,560	87,840	87,120	85,680	84,960	83,520	81,360	79,200	76,320	72,720
100,000	100,000	98,400	97,600	96,800	95,200	94,400	92,800	90,400	88,000	84,800	80,800
112,500	112,500	110,700	109,800	108,900	107,100	106,200	104,400	101,700	99,000	95,400	90,900
125,000	125,000	123,000	122,000	121,000	119,000	118,000	116,000	113,000	110,000	106,000	101,000

Orifice and Altitude Selection Tables for Factory Standard Input Models

HMG 22,500 BTUH/ Burner (Used with AVGA24/30/36 Heat Exchangers)				
	Orifice- Natural		Orifice- Propane	
Altitude	Drill Size	Dia.	Drill Size	Dia.
0-1999 ft	#43	0.089	#54	0.055
2000-2999 ft	2.2	0.0866	1.35	0.531
3000-3999 ft	2.15	0.0846	#55	0.052
4000-4999 ft	2.1	0.0827	1.3	0.0511
5000-5999 ft	#45	0.082	1.25	0.0492
6000-6999 ft	2.05	0.087	1.2	0.0472

HMG 25,000 BTUH/ Burner (Used with AVGA42/48/60 Heat Exchangers)				
	Orifice- Natural		Orifice- Propane	
Altitude	Drill Size	Dia.	Drill Size	Dia.
0-1999 ft	2.30	0.0906	1.5	0.0591
2000-2999 ft	#43	0.0890	#54	0.0550
3000-3999 ft	2.20	0.0866	1.35	0.0531
4000-4999 ft	2.15	0.0846	#55	0.0520
5000-5999 ft	2.10	0.0827	1.30	0.0511
6000-6999 ft	#45	0.0820	1.25	0.0492

Burner Input	Number of Orifices
40,500	2
45,000	2
60,750	3
67,500	3
75,000	3
81,000	4
90,000	4
100,000	4
112,500	5
125,000	5

Orifice Size (mm)	Orifice Diameter	Orifice Size (mm)	Orifice Diameter
2.10	0.0826	2.45	0.0964
2.15	0.0846	2.50	0.0984
2.20	0.0866	2.60	0.1024
2.25	0.0885	2.70	0.1063
2.30	0.0905	2.75	0.1082
2.35	0.0925	2.80	0.1102
2.40	0.0945	2.90	0.1142

Electrical Characteristics - Compressor, Fan & Blower Motors - AVGA Air Conditioners

Model Number	COMPRESSOR			OUTDOOR FAN MOTOR				INDOOR FAN MOTOR				GREENWHEEL® ERV	
	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]	VOLTS-HZ-PH	RLA[1]
AVGA24ACA	208/230-60-1	12.8	64.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA30ACA	208/230-60-1	14.1	77.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA36ACA	208/230-60-1	17.9	112.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA42AC1A	208/230-60-1	19.8	109.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA48AC2A	208/230-60-1	21.8	117.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA60AC1A	208/230-60-1	26.2	134.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	5.2	1/2	208/230-60-1	2.2
AVGA24ACC	208/230-60-3	8.3	61.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA30ACC	208/230-60-3	9.0	71.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA36ACC	208/230-60-3	13.2	88.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA42AC1C	208/230-60-3	13.6	83.1	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA48AC2C	208/230-60-3	13.7	83.1	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA60AC1C	208/230-60-3	15.6	111.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	5.2	1/2	208/230-60-1	2.2
AVGA24ACD	460-60-3	5.1	28.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA30ACD	460-60-3	5.6	38.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA36ACD	460-60-3	6.0	44.0	208/230-60-1	1075	1.8	1/4	208/230-60-1	1050	2.5	1/4	208/230-60-1	2.2
AVGA42AC1D	460-60-3	6.1	41.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA48AC2D	460-60-3	6.2	41.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	3.1	1/2	208/230-60-1	2.2
AVGA60AC1D	460-60-3	7.7	52.0	208/230-60-1	825	2.8	1/3	208/230-60-1	1075	5.2	1/2	208/230-60-1	2.2

[1]RLA = Rated Load Amps [2]LRA = Locked Rotor Amps [3]RPM = Revolutions per Minute [4]FLA = Full Load Amps [5]HP = Horsepower
The 460 volt units will have a step down transformer for the 230 volt motors.

Summary Electrical Ratings (Wire Sizing) - AVGA Gas / Electric Air Conditioners

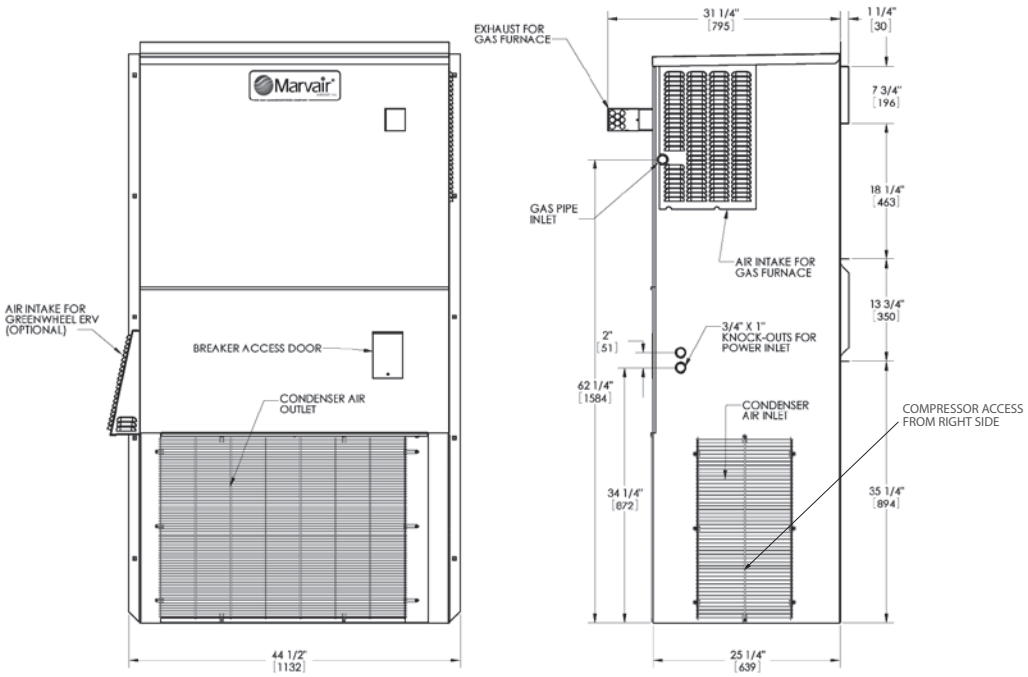
Ventilation Configuration "N" - Manual Damper or
Ventilation Configuration "Z" - Motorized Damper or
Ventilation Configuration "Y" - Manual Damper with up to 450 CFM of Outside Air or
Ventilation Configuration "B" - Motorized 2 Position Damper or
Ventilation Configuration "C" - Economizer or
Ventilation Configuration "H" - GreenWheel® Energy Recovery Ventilator

Model Number	VOLTAGE PHASE	Ventilation Configuration				Gas Heat Capacities (Btu/Hr)					
		N, Z, Y, B or C		H		045		067		090	
		MCA	MFS	MCA	MFS	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT
AVGA24ACA	208-230/1	20.3	30	22.5	35	45,000	32,000	67,500	52,000	90,000	69,000
AVGA30ACA	208-230/1	21.9	35	24.1	35	45,000	32,000	67,500	52,000	90,000	69,000
AVGA36ACA	208-230/1	26.7	40	28.9	45	45,000	32,000	67,500	52,000	90,000	69,000
AVGA24ACC	208-230/3	14.7	20	16.9	25	45,000	32,000	67,500	52,000	90,000	69,000
AVGA30ACC	208-230/3	15.6	20	17.8	25	45,000	32,000	67,500	52,000	90,000	69,000
AVGA36ACC	208-230/3	20.8	30	23.0	35	45,000	32,000	67,500	52,000	90,000	69,000
AVGA24ACD	460/3	8.5	15	10.1	15	45,000	32,000	67,500	52,000	90,000	69,000
AVGA30ACD	460/3	9.2	15	10.3	15	45,000	32,000	67,500	52,000	90,000	69,000
AVGA36ACD	460/3	9.7	15	10.8	15	45,000	32,000	67,500	52,000	90,000	69,000

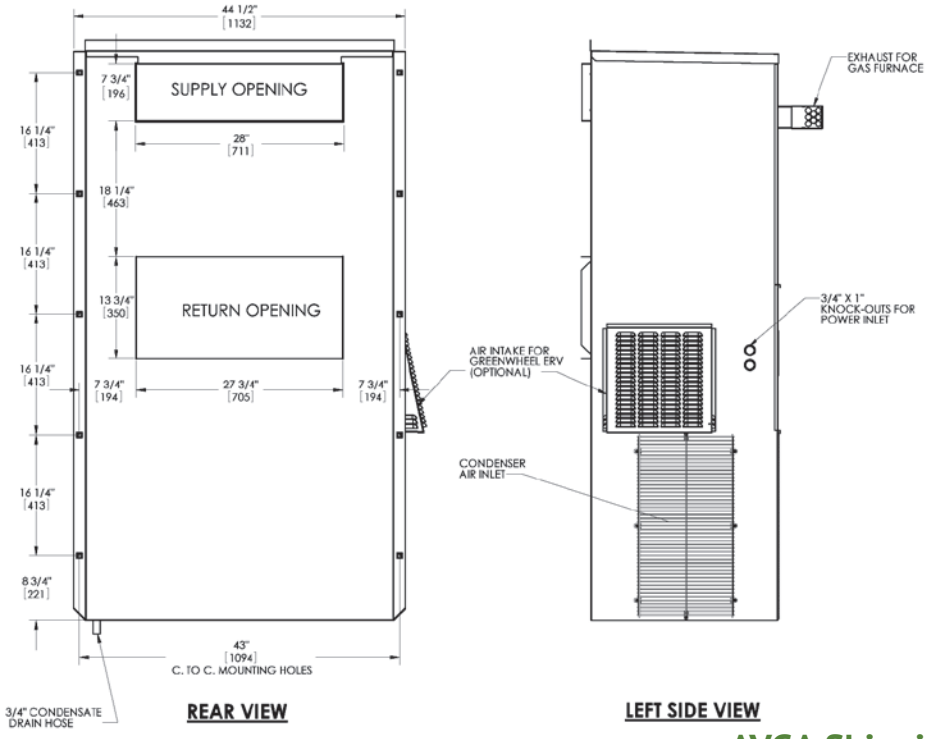
Model Number	VOLTAGE PHASE	Ventilation Configuration				Gas Heat Capacities (Btu/Hr)					
		N, Z, Y, B or C		H		075		100		125	
		MCA	MFS	MCA	MFS	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT
AVGA42AC1A	208-230/1	30.7	50	32.9	50	75,000	57,000	100,000	77,000	125,000	96,000
AVGA48AC2A	208-230/1	33.2	50	35.4	50	75,000	57,000	100,000	77,000	125,000	96,000
AVGA60AC1A	208-230/1	40.8	60	43.0	60	75,000	57,000	100,000	77,000	125,000	96,000
AVGA42AC1C	208-230/3	22.9	35	25.1	35	75,000	57,000	100,000	77,000	125,000	96,000
AVGA48AC2A	208-230/3	23.0	35	25.2	35	75,000	57,000	100,000	77,000	125,000	96,000
AVGA60AC1C	208-230/3	27.5	40	29.7	45	75,000	57,000	100,000	77,000	125,000	96,000
AVGA42AC1D	460/3	10.6	15	11.7	15	75,000	57,000	100,000	77,000	125,000	96,000
AVGA48AC2A	460/3	10.7	15	11.8	15	75,000	57,000	100,000	77,000	125,000	96,000
AVGA60AC1D	460/3	13.6	20	14.7	20	75,000	57,000	100,000	77,000	125,000	96,000

This chart should be used as a general guideline for estimating the conductor size and overcurrent protection. Always refer to the data label on the unit for sizing the conductors and overcurrent protection.
MCA = Maximum Continuous Current (Wiring Size Amps) MFS = Maximum Fuse Size or HACR breaker.
MCA & MFS are calculated at 240v. for "A" & "C" models. For 460 v. units ("D" models), MCA & MFS calculated at 460v.
All 460v. units have a step down transformer for 230v. motors.

Dimensional Data (in inches) - AVGA24-30-36

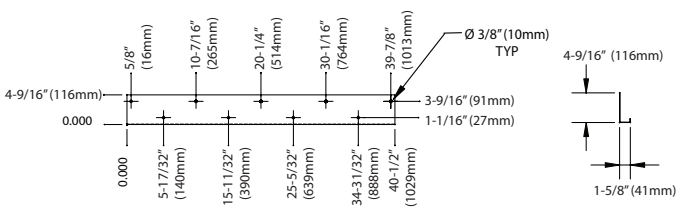


FRONT VIEW **RIGHT SIDE VIEW**



REAR VIEW **LEFT SIDE VIEW**

BOTTOM MOUNTING BRACKET



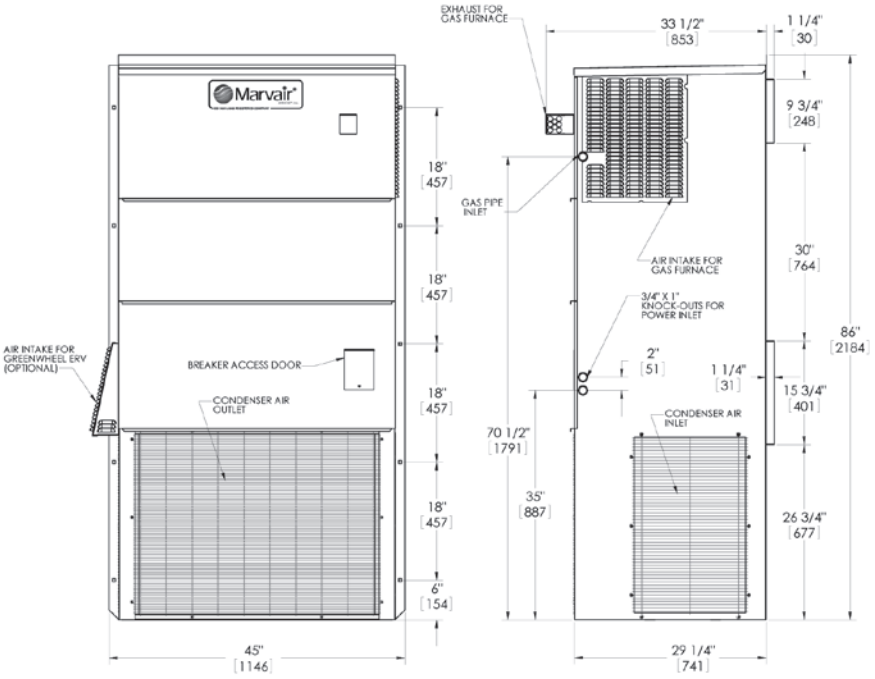
AVGA Shipping Weight

BASIC MODEL	AVGA24	AVGA30	AVGA36
SHIP WEIGHT - LBS	335	415	415
SHIP WEIGHT - KG	152	189	189

AVGA Filter Size (inches)

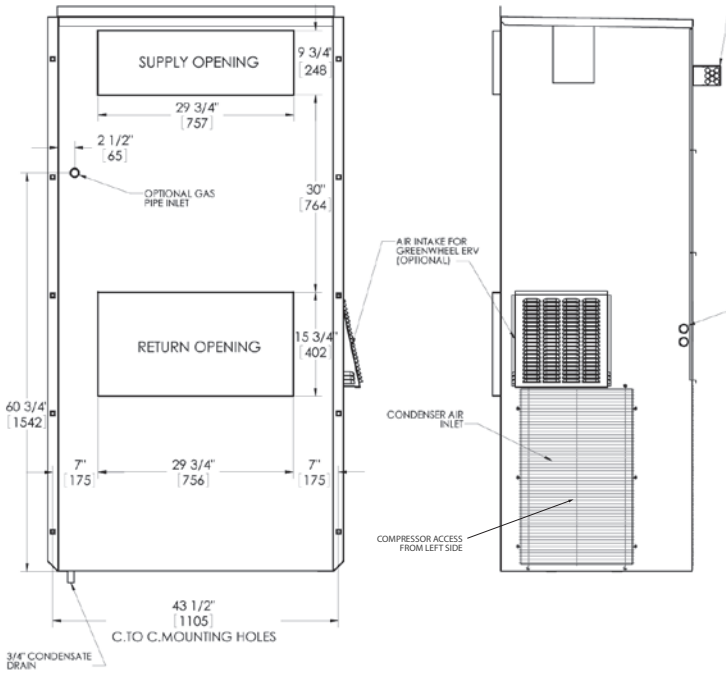
BASIC MODEL	AVGA24	AVGA30	AVGA36
FILTER SIZE - IN	30 x 16 x 1		
FILTER SIZE - MM	762 x 406 x 25		
FILTER PART #	80136		

Dimensional Data (in inches) - AVGA42-48-60



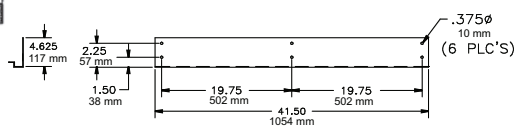
FRONT VIEW

RIGHT SIDE VIEW



REAR VIEW

LEFT SIDE VIEW



BOTTOM MTG. BRKT. W/MTG. HOLE LOCATIONS

AVGA Shipping Weight

BASIC MODEL	AVGA42	AVGA48	AVGA60
SHIP WEIGHT - LBS	555	580	595
SHIP WEIGHT - KG	252	264	270

AVGA Filter Size (inches)

BASIC MODEL	AVGA42	AVGA48	AVGA60
FILTER SIZE - IN	18 x 24 x 1		
FILTER SIZE - MM	457 x 610 x 25		
FILTER PART # (2 FILTERS/UNIT)	81199		

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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