

# OMEGA

## VRF

### TECHNOLOGY

INVERTER  
TECHNOLOGY  
EXPERT

Engineered to elevate efficiency and comfort .....  
..... to the next level!

## VMEX SERIES

### MODULAR VRF Outdoor Unit

(380~415V/3/50-60Hz)

#### Inverter Heat Pump

Cooling Capacity Min~Max Single Module: 42,990~221,780 BTU/h (12.6~65.0 kW)  
Heating Capacity Min~Max Single Module: 46,060~278,760 BTU/h (13.5~81.7 kW)

### Product Features

- ✓ DC Inverter Technologies.
- ✓ Up to 64 Indoor Units Could be Connected per System.
- ✓ Intelligent Temperature Control Technology.
- ✓ Oil Balance Control Technology.
- ✓ Refrigerant Cooling for Inverter Board.
- ✓ Network Connection Technology.
- ✓ Backup function
- ✓ Factory Tested up to 55°C/131°F Ambient.
- ✓ Automatic Address Setting.
- ✓ Anticorrosive Hydrophilic Coated Fins.
- ✓ Modules Rotation Operating to Improve Lifetime.
- ✓ Up to 88HP combined

### Outdoor Unit Features

- ✓ Low Noise Design with Sensorless Inverter DC Fan Motor.
- ✓ Advance Torque Control Technology.
- ✓ Multi Electronic Expansion Valves Control.
- ✓ High Efficiency Digital PFC Control.
- ✓ Wider Operation Condition Range.
- ✓ Compressor Oil Storage Technology.
- ✓ Two Stage Oil Separation Technology.
- ✓ Auto Refrigerant Charge Function.
- ✓ Automatic Fault Detection.



8 - 10 HP



12 - 20 HP

OMEGA



ISO 14001 ISO 9001

OTEC  
AIR CONDITIONING

A Product of  
**OMEGA**  
Environmental  
Technologies LLC.

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### MODULAR VRF OUTDOOR UNIT

MODEL NO.	VMEX	008Q	009Q	010Q	012Q	014Q	016Q	018Q	020Q
		7A-D13V252	7A-D16V280	7A-D20V335	7A-D23V400	7A-D26V450	7A-D29V500	7A-D33V560	7A-D36V615
Cooling Indoor Unit Ratio @ 100% BTU/h (kW)		85,980 (25.2)	95,535 (28.0)	114,300 (33.5)	136,480 (40.0)	153,540 (45.0)	170,600 (50.0)	191,070 (56.0)	209,840 (61.5)
System Heating Indoor Unit Ratio @ 100% BTU/h (kW)		92,125 (27.0)	107,480 (31.5)	127,950 (37.5)	153,540 (45.0)	170,600 (50.0)	191,070 (56.0)	214,955 (63.0)	235,430 (69.0)
EER @ 100%	BTU/h / W (W/W)	16.0 (4.70)	15.4 (4.50)	14.7 (4.30)	14.7 (4.30)	14.0 (4.10)	13.3 (3.90)	13.2 (3.86)	12.8 (3.74)
COP	(W/W)	5.60	5.30	4.90	4.80	4.60	4.25	4.12	4.03
System Cooling Indoor Unit Ratio @ 50% BTU/h (kW)		42,990 (12.6)	47,770 (14.0)	57,320 (16.8)	68,240 (20.0)	76,770 (22.5)	85,300 (25.0)	95,535 (28.0)	105,090 (30.8)
System Cooling Indoor Unit Ratio @ 70% BTU/h (kW)		60,050 (17.6)	66,875 (19.6)	80,180 (23.5)	95,535 (28.0)	107,480 (31.5)	119,420 (35.0)	133,750 (39.2)	147,060 (43.1)
System Cooling Indoor Unit Ratio @ 130% BTU/h (kW)		90,760 (26.6)	100,995 (29.6)	120,785 (35.4)	144,330 (42.3)	162,410 (47.6)	180,495 (52.9)	201,990 (59.2)	221,780 (65.0)
Max No. Indoor Unit Connectable per Module / System		13 / 64	16 / 64	20 / 64	23 / 64	26 / 64	29 / 64	33 / 64	36 / 64
Total Number of Outdoor Modules Connectable		4							
Max. Cooling Capacity 4 modules @ 100% BTU/h (kW)		914,415 (268)							
Coil Type		Grooved Cooper Tubes - Hydrophilic Aluminum Fins							
Fan	Type	Axial Fan							
	Qty	1	1	1	2	2	2	2	2
	Motor (FLA) each	4.6	4.6	4.5	2.8 + 2.4	2.8 + 2.4	3.9 + 3.5	4.0 + 3.4	4.0 + 3.4
	Air Flow CFM (m³/hr) (Hi)	6,604 (12,000)	6,604 (12,000)	6,604 (12,000)	9,185 (14,000)	9,185 (14,000)	9,185 (16,000)	9,185 (16,000)	9,185 (16,000)
	Ext. Sta. Pressure. In.W.G. (Pa)	0 - 0.08 (0 - 20)							
Electrical	Noise Level Hi (dba)	58	59	60	62	62	63	63	63
	Voltage-Phase	380~415V - 3Ph							
	Frequency	50-60Hz							
	Power Input / Cooling (kW)	5.36	6.22	7.79	9.30	11.0	12.8	14.5	16.4
	Power Input / Heating (kW)	4.82	5.94	7.65	9.38	10.9	13.2	15.3	17.1
	Rated Current / Cooling (A)	11.8	13.3	14.3	19.4	20.8	23.4	29.2	30.8
	Rated Current / Heating (A)	11.6	14.3	18.4	22.6	26.3	31.8	36.9	41.2
	Crankcase Heater (W)	27.6 x 2				27.6 x 4			
	Min. Circuit Amps (MCA)	20	21	23	27.3	29.9	34.4	41.2	44.9
	Max. Fuse Amps (MOCP)	25	25	25	30	35	40	50	50
Refrigerant Charge R410A (oz / kgs)		317.5 / 9.0	317.5 / 9.0	388.0 / 11.0	458.6 / 13.0	458.6 / 13.0	458.6 / 13.0	564.4 / 16.0	564.4 / 16.0
Connections inches (mm)	Refrigerant Type	Flare							
	Liquid	1/2 (12.7)	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	3/4 (19.1)	3/4 (19.1)	3/4 (19.1)
Farthest Indoor Pipe Length Ft. (m)	Suction	1 (25.4)	1 (25.4)	1 1/8 (28.6)	1 1/4 (31.8)	1 1/4 (31.8)	1 1/4 (31.8)	1 1/4 (31.8)	1 1/4 (31.8)
	Maximum Total Pipe Length Ft. (m)	656 (200)							
Height Difference between IDU above ODU Ft. (m)		3280 (1000)							
Dimensions inches (mm)	Height	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)	64 3/8 (1635)
	Width	39 (990)	39 (990)	39 (990)	52 3/4 (1340)	52 3/4 (1340)	52 3/4 (1340)	52 3/4 (1340)	52 3/4 (1340)
	Depth	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)	31 1/8 (790)
Net Weight Lbs (kgs)		483 (219)	483 (219)	523 (237)	655 (297)	655 (297)	673 (305)	750 (340)	750 (340)

#### Notes:

- Nominal capacities are based on ARI standards 210/240-89, air entering the indoor coil operating at high fan speed for 380V-415V setting. Cooling: 80/67° F (27/19° C) DB/WB indoor & 95° F (35° C) outdoor ambient temperature.
- Refrigerant metering device is installed at the indoor unit as standard.
- Sweat fittings are provided for connecting indoor and outdoor units.
- Insulation of both liquid and suction line is required (Heat Pump Model).
- Total Height difference could reach 656 ft (200m) with ODU's installed above & below IDU's levels. See Technical Manual for other length limitations.
- Max Capacities per Module based on 130% Indoor Loading.
- For details of model number nomenclature, please refer to publication OMGNM-1021.

**OMEGA**  
ENVIRONMENTAL  
TECHNOLOGIES LLC.  
17702 Mitchell North, #101  
Irvine, CA 92614, USA  
Tel: 714 795 2830  
Fax: 714 966 1649  
info@omegavrf.com  
www.omegavrf.com



ISO 14001 ISO 9001

**OTEC**  
AIR CONDITIONING  
Showroom & Technology Center  
11380 Interchange Circle North  
Miramar, FL 33025, USA  
Tel: 305 731 2140, 888 840 7550  
Fax: 954 212 8280  
info@otecomega.com  
www.otecomega.com