

OMEGA VRF TECHNOLOGY

INVERTER
TECHNOLOGY
EXPERT

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

VNSF SERIES MINI VRF Outdoor Unit With Anti-Corrosion Protection Inverter Heat Pump

Cooling Capacity Min~Max Single Module: 13,650~59,835 Btuh (4.0~17.5 kW)
Heating Capacity Min~Max Single Module: 15,355~69,185 Btuh (4.5~20.3 kW)

Product Features

- ✓ Full DC Inverter Technologies.
- ✓ Up to 8 Indoor Units Can be Connected.
- ✓ Intelligent Temperature Control Technology.
- ✓ Non-polarity communication wiring.
- ✓ Refrigerant-cooled IPM module.
- ✓ Factory-Tested up to 55°C/131°F Ambient.
- ✓ Ultra Long Piping Runs Up to 390 ft.
- ✓ Automatic Address Setting .
- ✓ Small Installation Space.

Outdoor Unit Features

- ✓ Low-Noise Design with DC Fan Motor.
- ✓ Advance Torque Control Technology.
- ✓ Sensorless DC Inverter Fan Motor.
- ✓ High Efficiency Digital PFC Control.
- ✓ Wider Operation Condition Range.
- ✓ Compressor Oil Storage Technology.
- ✓ Four-direction piping connection.
- ✓ Automatic Fault Detection.



Anti-Corrosion Protection

- ✓ **Anti-Corrosion** Coating on the Casing.
- ✓ **Anti-Corrosion** GOLD FIN Condenser.
- ✓ **Anti-Corrosion** Coating on Motor Bracket.
- ✓ **Anti-Corrosion** Coating for Electronic Control Box.
- ✓ **Stainless Steel** Screws.
- ✓ **Conformal PCB Coating** for Corrosion Protection.

OMEGA



DC INVERTER

ISO 14001 ISO 9001

OTEC
AIR CONDITIONING

A Product of
OMEGA
Environmental
Technologies LLC.

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MINI VRF Outdoor Unit

MODEL NO.	VNSF	002Q0A -G04V080	253Q0A -G05V100	003Q0A -G06V125	004Q0A -G07V140	345Q0A -G08V160
System Cooling with Indoor Unit Ratio @ 100% Btuh (kW)						
System Heating with Indoor Unit Ratio @ 100% Btuh (kW)						
EER @ 100% IDU	Btuh/W (W/W)	10.5 (3.08)	11.4 (3.33)	12.8 (3.74)	12.1 (3.55)	11.9 (3.50)
COP @ 100% IDU	Btuh/W (W/W)	11.6 (3.39)	12.1 (3.55)	13.1 (3.83)	12.7 (3.72)	12.3 (3.61)
System Cooling with Indoor Unit Ratio @ 50% Btuh (kW)						
System Cooling with Indoor Unit Ratio @ 70% Btuh (kW)						
System Cooling with Indoor Unit Ratio @ 130% Btuh (kW)						
Maximum of Indoor Unit Connectable per Module		4	5	6	7	8
Coil Type		Grooved Cooper Tubes - Aluminum Blue Slit Fin				
DC Fan Motor	Type	Axial Fan - Direct Drive				
	Qty	1	1	1	1	1
	Motor (FLA)	0.34	0.41	0.82	0.82	0.82
	Air Flow CFM (m³/hr) (Hi)	5,605 (3,300)	6,795 (4,000)	13,590 (8,000)	13,590 (8,000)	13,590 (8,000)
	Noise Level Hi (dBa)	54	56	56	57	57
Electrical	Voltage-Phase	220-240-1Ph				
	Frequency	50-60Hz				
	Rated Input / Cooling (kW)	2.6	3.0	3.3	3.9	4.6
	Rated Input / Heating (kW)	2.7	3.1	3.5	4.0	4.4
	Rated Current / Cooling (A)	11.8	13.6	15.0	17.7	20.9
	Crankcase Heater (W)	25	35	35	35	35
	Comp. Rated Load Amps (RLA)	8.90	9.27	18.0	18.0	18.0
	Compressor Power Input (W)	1,960	2,040	3,960	3,960	3,960
	Minimum Circuit Amps (MCA)	11.5	12.0	23.3	23.3	23.3
	Maximum Fuse Amps (MOCP)	20.0	20.0	40.0	40.0	40.0
Refrigerant Charge R410A (oz / kgs)		70.5 / 2.0	91.7 / 2.6	105.8 / 3.0	134.0 / 3.8	134.0 / 3.8
Refrigerant Connections inches (mm)	Type	Flare				
	Liquid	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Suction	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Farthest Indoor Pipe Length ft (m)		230 (70)				
Maximum Total Pipe Length ft (m)		390 (120)				
Height Difference between IDU & ODU ft (m)		98.4 (30) & 65.6 (20) see note (5*)				
Dimensions inches (mm)	Height	27 5/8 (702)	31 7/8 (810)	34 1/4 (870)	34 1/4 (870)	34 1/4 (870)
	Width	38 7/8 (935)	40 5/8 (1032)	43 3/8 (1100)	43 3/8 (1100)	43 3/8 (1100)
	Depth	15 1/4 (383)	17 1/2 (445)	20 3/4 (528)	20 3/4 (528)	20 3/4 (528)
Net Weight Lbs (kgs)		103.6 (47)	132.3 (60)	187.4 (85)	198.4 (90)	198.4 (90)

Applicable Indoor Units



- Notes:**
- Nominal capacities are based on ARI standards 210/240-89, air entering the indoor coil operating at high fan speed for 220V-240V 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.
 - Flare fittings are provided for connecting indoor and outdoor units.

- Insulation of both liquid and suction line is required (Heat Pump Model).
- ODU's installed above IDU's 98 ft (30m) & ODU's installed below IDU's 66 ft (20m).
- Refer to individual indoor unit spec sheets for details.
- For details of model number nomenclature, please refer to publication OGMNM-0320.

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ISO 14001 ISO 9001

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