

# OMEGA INVERTER TECHNOLOGY

INVERTER  
TECHNOLOGY  
EXPERT

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



IECS

## IECS SERIES

Round-Flow Cassette

Inverter Air Conditioners 50Hz

Cooling Nominal: 18,000-60,000 BTU/h (5.3-16.0 kW)

Long Piping Distance (80 ~ 160 ft)

### Product Features

- ✓ 16 SEER in Cooling Mode.
- ✓ Piping Distance up to 160 ft.
- ✓ Ideal for Small Commercial & industrial Applications
- ✓ Auto Restart.
- ✓ Heat Pump.
- ✓ Low-Voltage Start Up.
- ✓ Factory Tested.
- ✓ Low Temperature Cooling Down to  $-5^{\circ}\text{C}$  & High Temperature Cooling up to  $50^{\circ}\text{C}$  ambient.

### Outdoor Unit Features

- ✓ DC Inverter Rotary Compressor.
- ✓ Electronic Expansion Valve.
- ✓ Super Quiet Operation.
- ✓ High-Efficiency Coils with Hydrophilic Fins.
- ✓ Corrosion-Resistant Cabinet with Protective Coating.
- ✓ High & Low Pressure Protection.
- ✓ Discharge Temperature Protection.
- ✓ Phase Loss & Overcurrent Protection.
- ✓ PFC & IPM Module Protection.
- ✓ Self-Diagnostics.

### Indoor Unit Features

- ✓ Wired-Remote Control (Optional).
- ✓ Wireless Remote Control (Standard).
- ✓ 360-Degree Airflow.
- ✓ Fresh Air Intake.
- ✓ Side Outlet Duct Connection (4 Sides).
- ✓ Auto Setting for Cooling, Heating, Dehumidifying, Fan.
- ✓ Sleep Mode.
- ✓ Turbo Cooling Function with Multi-Speed Fan Control.
- ✓ Built-in Drain Pump.
- ✓ Easy Maintenance and Cleanable Cartridge Filters.
- ✓ Easy-Connect Flare Connections.
- ✓ Low Temperature Dry Function.
- ✓ Anti-Freezing & Anti-High Temperature Protection.
- ✓ Sensor Malfunction Alarm.
- ✓ Communication Malfunction Alarm.
- ✓ Programmable 24 hours On/Off Timer.
- ✓ Under/Over Voltage protection.
- ✓ Built-in Surge protector.



OMEGA

DC INVERTER

OTEC  
AIR CONDITIONING

A Product of  
OMEGA  
Environmental  
Technologies LLC.

ISO 14001 ISO 9001

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## INDOOR UNIT

MODEL NO.	IECS	018J 3A-DWG053	024J 3A-DWG071	031J 3A-DWG090	036J 3A-DWG105	042J 3A-DWG120	048J 3A-DWG140	060J 3A-DWG160
Cooling Capacity BTU/h (kW)	Nominal	18,000 (5.3)	24,000 (7.1)	31,000 (9.0)	36,000 (10.5)	42,000 (12.0)	48,000 (14.0)	60,000 (16.0)
	Minimum	3,755 (1.1)	8,190 (2.4)	9,555 (2.8)	10,920 (3.2)	10,920 (3.2)	14,330 (4.2)	15,010 (4.4)
	Maximum	21,155 (6.2)	27,980 (8.2)	32,070 (9.4)	38,215 (11.2)	42,650 (12.5)	48,450 (14.2)	54,590 (16.0)
Efficiency	SEER	16.0 (4.69)						
Refrigerant Control		Electronic Expansion Valve @ Outdoor Unit						
Fan	Type	Coaxial Turbo Fan						
	Speed / QTY	3 / 1	3 / 1	3 / 1	3 / 1	3 / 1	3 / 1	3 / 1
	Air Flow CFM (m <sup>3</sup> /hr) - Hi	530 (900)	590 (1000)	705 (1200)	940 (1600)	940 (1600)	1010 (1720)	1180 (2000)
	Noise Level (dBa) Lo/Hi	35 / 38	38 / 41	38 / 43	38 / 46	38 / 46	39 / 48	39 / 48
Coil Type:		Grooved Copper Tubes - Aluminum Blue Slit Fin						
Air Filter		Cleanable Cartridge Type						
Electrical	Voltage-Phase-Frequency	220-240 / 1Ph / 50Hz						
	Range (min-max)	198 ~ 264						
	FLA	0.38	0.38	0.38	0.78	0.79	0.95	0.96
Controls		Wireless Remote Control						
Refrigerant Connections inches (mm)		See Outdoor Unit Data						
Drain Connections inches (mm)		1 1/4 (32)						
Body Dimensions inches (mm)	Height	9 1/8 (230)	9 1/8 (230)	9 1/8 (230)	11 3/4 (300)	11 3/4 (300)	11 3/4 (300)	11 3/4 (300)
	Width	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)
	Depth	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)
Body Net Weight Lbs (kgs)		49.6 (22.5)	50.3 (22.8)	51.4 (23.3)	63.3 (28.7)	63.3 (28.7)	67.9 (30.8)	67.9 (30.8)
Panel Dimensions inches (mm)	Height	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)
	Width	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)
	Depth	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)	40 3/4 (1035)
Panel Net Weight Lbs (kgs)		12.8 (5.8)	12.8 (5.8)	12.8 (5.8)	12.8 (5.8)	12.8 (5.8)	12.8 (5.8)	12.8 (5.8)

## OUTDOOR UNIT

MODEL NO.	ICHD	018J 0A-DMG053	024J 0A-DMG071	031J 0A-DMG090	036J 0A-DMG105	042J 0A-DMG120	048J 0A-DMG140	060J 0A-DMG160
Compressor Type		DC Inverter Rotary						
Outdoor Fan	No of Fans	1	1	1	1	1	1	1
	Noise Level (dba)	54	55	55	59	59	59	60
Coil Type:		Grooved Copper Tubes - Aluminum Blue Slit Fin						
Compressor	Rated Amps (RLA)	7.85	8.85	11.8	14.5	23.0	27.5	27.1
	Power Input Nom. (W)	1602	2115	3060	3109	4559	5809	6600
Electrical	Voltage-Phase-Frequency	220-240V / 1Ph / N/A 3D						
	Range (min-max)	198 ~ 264						
	Min. Circuit Amps (MCA)	12.9	17.5	23.0	27.0	27.0	32.0	33.0
	Max Fuse Amps (MOCP)	20	25	30	30	30	40	40
Refrigerant R410 (oz./kgs. )		51.2 / 1.45	56.5 / 1.60	70.6 / 2.00	105.9 / 3.00	105.9 / 3.00	112.9 / 3.20	134.1 / 3.80
Refrigerant Connections inches (mm)	Type	Flare						
	Suction	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
MAX Pipe Distance Ft.(m)	Height	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Length	49.2 (15)	49.2 (15)	65.6 (20)	65.6 (20)	82.0 (25)	82.0 (25)	82.0 (25)
	Depth	82.0 (25)	82.0 (25)	98.4 (30)	98.4 (30)	98.4 (30)	164.0 (50)	164.0 (50)
Dimensions inches (mm)	Height	21 1/8 (555)	28 (712)	28 (712)	33 1/8 (840)	33 1/8 (840)	33 1/8 (840)	34 1/8 (865)
	Width	31 1/4 (798)	35 7/8 (910)	35 7/8 (910)	37 3/8 (950)	37 3/8 (950)	37 3/8 (950)	41 (1040)
	Depth	11 1/4 (287)	13 5/8 (345)	13 5/8 (345)	14 1/8 (360)	14 1/8 (360)	14 1/8 (360)	16 1/8 (410)
Net Weight Lbs (kgs)		73.9 (33.5)	103.6 (47.0)	112.4 (51.0)	149.9 (68.0)	149.9 (68.0)	173.1 (78.5)	200.6 (91.0)

## IECS SERIES

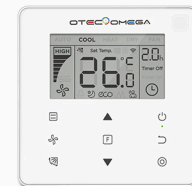
Round-Flow Cassette  
Inverter Air Conditioners 50Hz  
Cooling Nominal: 18,000-60,000 BTU/h (5.3-16.0 kW)  
Long Piping Distance (80 ~ 160 ft)



5.3 - 9.0 kW



10.5 - 16.0 kW



Wired Controller  
VAECR-D001 (Optional)



Wireless Controller  
IAECR-D001 (Standard)

### 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.
- Ratings are based on indoor and outdoor connected by 16ft (5m) of tubing.
- Refrigerant metering device is installed at the outdoor unit as standard.
- Flare fittings are provided for connecting indoor and outdoor units.
- Insulation of both liquid and suction line is required.
- Outdoor units are shipped with full operating charge.
- For details of model number nomenclature, please refer to publication OMGNM-0221

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