# 10HP MT

OCU-1000VF8 STANDARD COATING



ENHANCED ENERGY EFFICIENCY & VERSATILITY





# **SCOPE OF APPLICATION, SPECIFICATIONS**

This refrigeration unit operates with a rotary compressor.

	Standard Value				
Item	OCU-C1400VF8	OCU-CR100VF8A	Remarks		
Refrigerant	R744		The charge supply amount shall be adequate		
Evaporating temperature	-20 °C to -5 °C	-45 °C to -5 °C	Temperature conversion of inlet pressure		
Suction pressure	1.87MPa to 2.95MPa	0.73MPa to 2.95MPa	Unit inlet pressure		
Compressor rotational speed	30 s-1 to 60 s-1		*(RPS)		
Suction gas temperature	18 °C or below		Unit inlet (suction gas) pipe temperature		
Superheat at suction	10 K or above		Difference between evaporating temperature as compressor inlet temperature		
Discharge pressure	12 MPa or below		Compressor outlet pressure		
Discharge gas temperature	115 °C or below		Compressor outlet temperature		
Oil temperature	100 °C or below (Ambient temperatur	re +10 K or above)			
Ambient temperature	-20°C to +43 °C		Gas cooler intake air temperature		
Power source	50 Hz 380 V / 400 V /	415 V 3N ~	Within ± 10 % of Rate Voltage		
Installation inclination angle	1° or below				
ON/OFF cycle period	10 minutes or longer	for ON/OFF cycle	Oil return shall be ensured		
Installation	Outdoor		The foundation shall be rigid enough		
Climatic class	0/1/2/3/4/6/8		Please see below "CLIMATIC CLASS"		
Net Weight	293kg	320kg			
Intermediate cooler	8.28 L	10.71 L			
Maximum refrigerant charge for the entire refrigeration system	17.0 kg		Adequate charge amount should be calculated by tool provided by Panasonic		
Sound pressure level(A-weight)	36.0dB(A)		10m distance (calculated value from a measured value at a distance of 1m)		

<sup>\*</sup> Operation may not be possible depending on the installed condition.

CLIMATIC CLASS					
Test room Climate class	Dry bulb temperature °C	Relative humidity %	Dew point °C	Water vapour mass in dry air g/kg	
0	20	50	9.3	7.3	
1	16	80	12.6	9.1	
2	22	65	15.2	10.8	
3	25	60	16.7	12.0	
4	30	55	20.0	14.8	
6	27	70	21.1	15.8	
8	23.9	55	14.3	10.2	

Excerpt from: EN ISO 23953

ERFORMANCES	(400 V)					
	Item	Symbol	Evaporating temperature			
Ambient temperature			OCU-CR100VF8	OCU-CR100VF8A		Unit
			ET-10 °C	ET-10 °C	ET-35 °C	
	Annual electricity consumption	Q	32815	32409	39985	kWh/a
	Seasonal energy performance ratio	SEPR	2.62	2.86	1.49	-
32 °C	Rated Cooling capacity	P <sub>A</sub>	13.92	14.98	7.61	kW
	Rated Power input	$D_{A}$	8.19	8.12	7.36	kW
	Rated COP	COP	1.70	1.84	1.03	-
25 °C	Cooling capacity	P <sub>B</sub>	14.05	15.44	7.84	kW
	Power input	$D_{B}$	7.16	7.15	6.48	kW
	СОР	COPB	1.96	2.16	1.21	-
	Cooling capacity	P <sub>c</sub>	14.22	15.52	7.88	kW
15°C	Power input	D <sub>c</sub>	5.76	5.72	5.60	kW
	COP	$COP_c$	2.47	2.71	1.41	-
5°C	Cooling capacity	P <sub>D</sub>	14.41	15.90	8.08	kW
	Power input	$D_{_{\mathrm{D}}}$	4.44	4.53	5.53	kW
	COP	COPD	3.25	3.51	1.46	-
43°C	Cooling capacity	P <sub>3</sub>	10.36	12.59	6.39	kW
	Power input	D <sub>3</sub>	9.41	9.23	8.37	kW
	COP	COP <sub>3</sub>	1.10	1.36	0.76	-

Compressor rotational speed: 60 s-1, Suction superheat: 10K

#### NOTE

In case Heat Recovery is to be installed, please contact your sales representative.

External heat exchanger is to be selected and delivered by installer to the end user.

Safety and compliance of installation is under the sole responsibility of installer.

### SOUND PRESSURE LEVEL

The A-weighted sound pressure level does not exceed 70 dB(A). (at a distance of 1m from surface of product)

# CO2 REFRIGERANT GRADE

Charge CO2 refrigerant (R744) that is compatible with following specifications.

Item	Specifications
Purity	> 99.9 % (volume)
Moisture	< 0.005 % (volume)
Total sulfur	< 0.03 ppm (weight)
Inert gas (H2, N2, O2, Ar)	< 0.01 % (volume)

# COUNTERMEASURES IN A COLD WEATHER OPERATION

In order to prevent excessive reduction of high pressure in a cold weather location, surrounding around the refrigeration unit should be made.

RATED SPECIFICATIONS					
Item	Rating				
iteiii	OCU-CR100VF8	OCU-CR100VF8A	Unit		
Power source	50 Hz 380 V / 400 V / 415 V 3N ~				
Power input	8.200/8.200/8.200	8.200/8.200/8.200	kW		
Current	13.1/12.6/12.2	13.3/12.6/12.2	Α		

# CONDITIONS

- 1. Evaporating temperature: -10 °C
- 2. Ambient temperature: 32  $^{\circ}\text{C}$
- 3. Compressor rotational speed: 60 s-1
- 4. Suction superheat : 10K



# **Additional Information**

All Dimensions shown in Millimetres (mm) unless otherwise stated. Dimensions and features are subject to change. Please obtain current technical information prior to order confirmation.

**NOTE:** We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or Shipped.

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