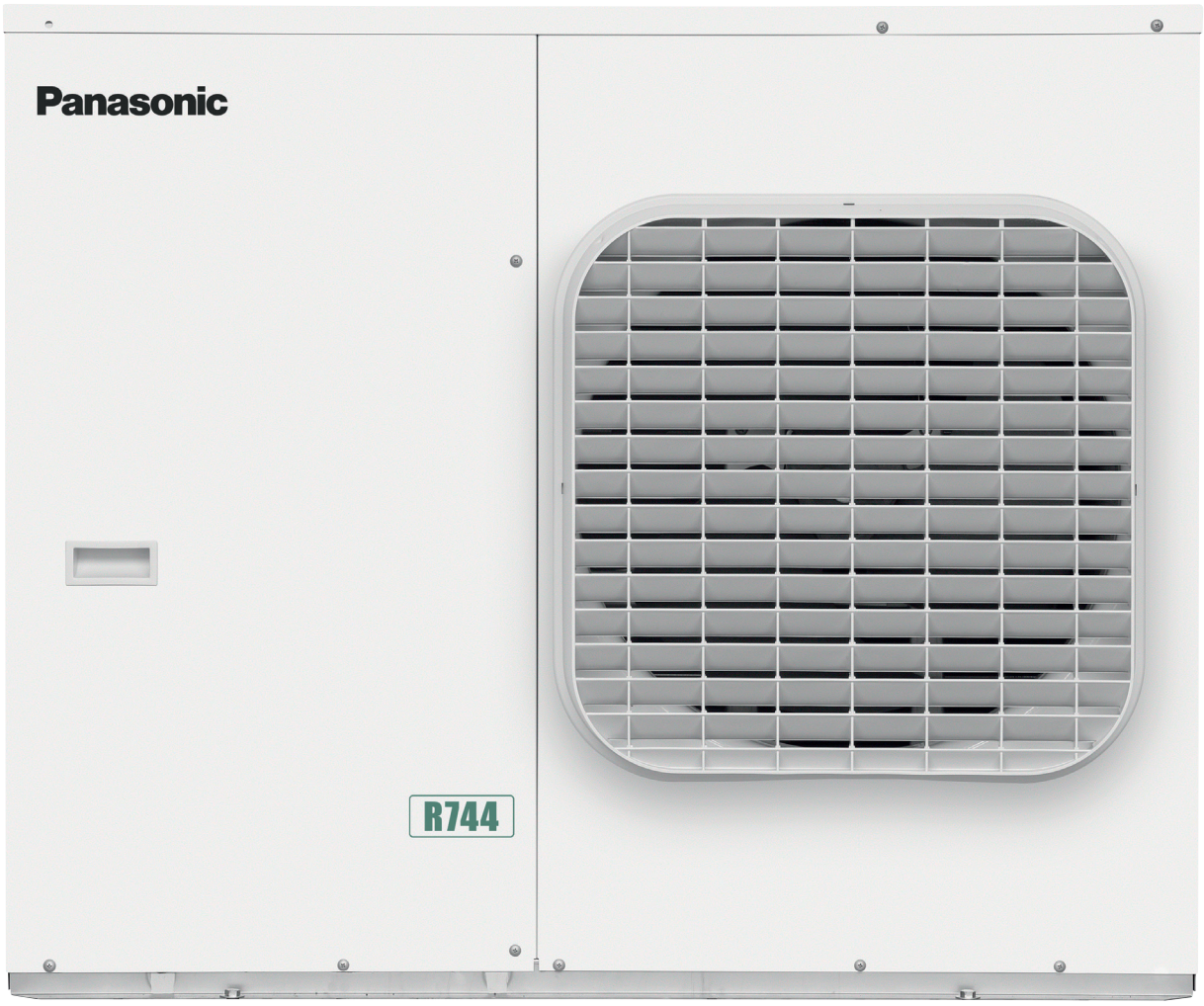
PANASONIC TRANSCRITICAL CO2 OUTDOOR CONDENSING UNIT

4HP MT/LT

OCU-CR400VF8ASL SALT PROOF COATING



ENHANCED ENERGY EFFICIENCY
& VERSATILITY

HUSSMANN®

NATURAL SOLUTIONS CO_2

SCOPE OF APPLICATION, SPECIFICATIONS

This refrigeration unit operates with a rotary compressor.

USE THE REFRIGERATION UNIT WITHIN THE RANGE SHOWN BELOW

Item	Standard Value		Remarks
	OCU-CR400VF8	OCU-CR400VF8A	
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	40 s^{-1} to 80 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 and 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 temperature +10 K or above)		
Ambient temperature	-20°C to +45 °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	136 kg	149kg	
Intermediate cooler	8.28 Liter		
Maximum refrigerant charge for the entire refrigeration system	12.0 kg		Adequate charge amount should be calculated by tool provided by Panasonic
Sound pressure level(A-weight)	33.0dB(A)	36.1dB(A)	10m distance (calculated value from a measured value at a distance of 1m)

* 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

PERFORMANCES (400 V)

Ambient temperature	Item	Symbol	Evaporating temperature			Unit
			OCU-CR400VF8	OCU-CR400VF8A		
			-10 °C	-10 °C	-35 °C	
	Annual electricity consumption	Q	13384	14488	16255	kWh/a
	Seasonal energy performance ratio	SEPR	3.17	3.20	1.73	-
32 °C	Rated Cooling capacity	P_A	6.90	7.64	3.80	kW
	Rated Power input	D_A	3.97	4.22	3.67	kW
	Rated COP	COP_A	1.74	1.81	1.04	-
25 °C	Cooling capacity	P_B	7.41	8.14	4.05	kW
	Power input	D_B	3.50	3.88	3.38	kW
	COP	COP_B	2.12	2.10	1.20	-
15°C	Cooling capacity	P_C	7.87	8.64	4.29	kW
	Power input	D_C	2.76	3.23	2.81	kW
	COP	COP_C	2.85	2.67	1.53	-
5°C	Cooling capacity	P_D	8.35	9.25	4.60	kW
	Power input	D_D	1.93	2.11	1.84	kW
	COP	COP_D	4.33	4.38	2.50	-
43°C	Cooling capacity	P_3	5.42	4.76	3.10	kW
	Power input	D_3	4.63	3.66	4.17	kW
	COP	COP_3	1.17	1.30	0.74	-

Compressor rotational speed : Variable speed, 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		Unit
	OCU-CR400VF8	OCU-CR400VF8A	
Power source	50 Hz 380 V / 400 V / 415 V 3N ~		V
Power input	4.00/4.00/4.00	4.51/4.51/4.51	kW
Current	6.48/6.14/5.93	7.18/6.91/6.67	A

CONDITIONS

1. Evaporating temperature: -10 °C
2. Ambient temperature: 32 °C
3. Compressor rotational speed : 80 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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