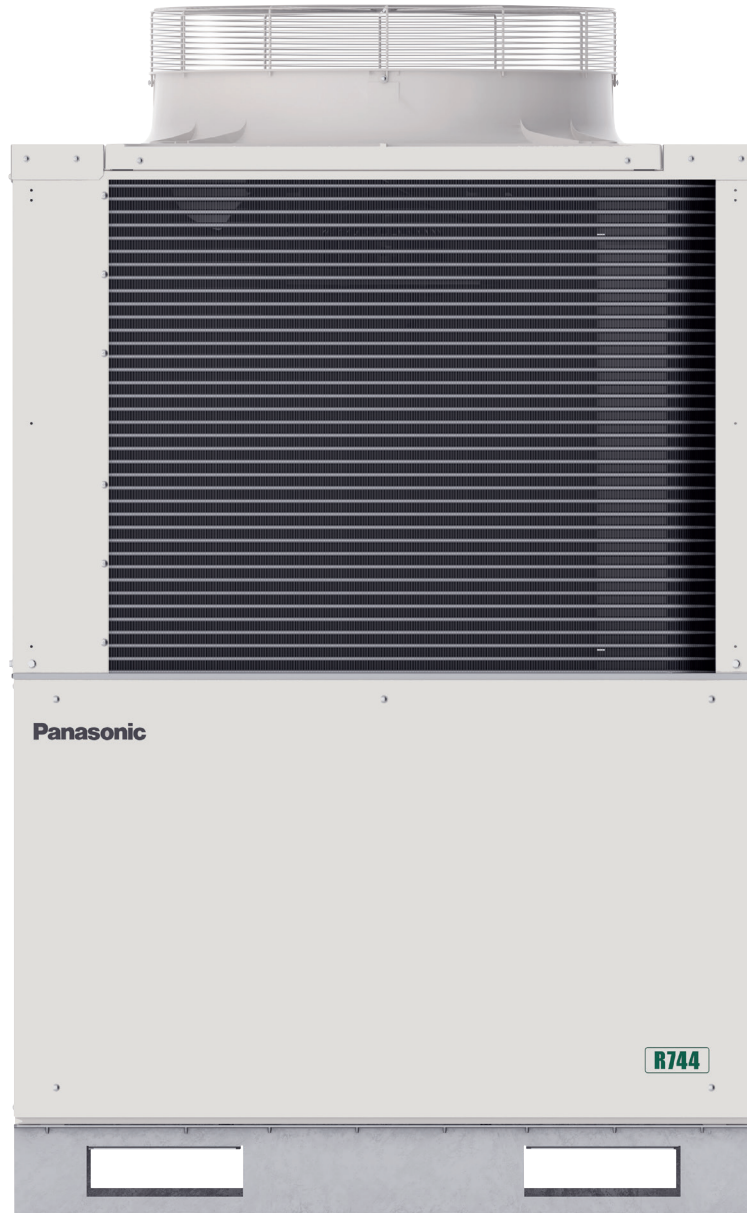


PANASONIC TRANSCRITICAL CO2 OUTDOOR CONDENSING UNIT

20HP MT/LT

OCU-CR2000F8A STANDARD COATING



ENHANCED ENERGY EFFICIENCY
& VERSATILITY

HUSSmann®



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
Refrigerant	R744	The charge supply amount shall be adequate
Evaporating temperature	-45 °C to -5 °C	Temperature conversion of inlet pressure
Suction pressure	0.73 MPa to 2.95 MPa	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 below	Difference between evaporating temperature and compressor inlet temperature
Discharge pressure	12 MPa	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	494 kg	
Intermediate cooler	10.71 L × 2 units	
Maximum refrigerant charge for the entire refrigeration system	32 kg	Adequate charge amount should be calculated by tool provided by Panasonic
Sound pressure level (A-weight)	38.9 dB(A)	10m distance (calculated value from a measured value at a distance of 1m)

* Operation may not be possible depending on the installed condition.

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)

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

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
Power source	50 Hz 380 V / 400 V / 415 V 3N ~	V
Power input	15.7 / 15.7 / 15.7	kW
Current	25.1 / 24.3 / 23.1	A

CONDITIONS

1. Evaporating temperature: -10 °C
2. Ambient temperature: 32 °C
3. Compressor rotational speed : 60 s⁻¹
4. Suction superheat : 10K

PERFORMANCES (400 V)

Ambient temperature	Item	Symbol	Evaporating temperature		Unit
			ET-10 °C	ET-35 °C	
	Annual electricity consumption	Q	56306	66660	kWh/a
	Seasonal energy performance ratio	SEPR	3.14	1.64	-
32 °C	Rated Cooling capacity	P _A	28.76	14.61	kW
	Rated Power input	D _A	14.80	13.73	kW
	Rated COP	COP _A	1.94	1.06	-
25 °C	Cooling capacity	P _B	30.16	15.32	kW
	Power input	D _B	13.12	12.18	kW
	COP	COP _B	2.30	1.26	-
15 °C	Cooling capacity	P _C	32.03	16.27	kW
	Power input	D _C	10.77	9.99	kW
	COP	COP _C	2.97	1.63	-
5 °C	Cooling capacity	P _D	34.55	17.55	kW
	Power input	D _D	9.03	8.38	kW
	COP	COP _D	3.83	2.09	-
43 °C	Cooling capacity	P ₃	25.57	12.99	kW
	Power input	D ₃	16.93	15.71	kW
	COP	COP ₃	1.51	0.83	-

Compressor rotational speed: 60 s⁻¹, 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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