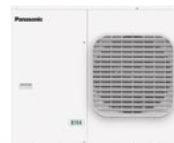




## Panasonic condensing units with natural refrigerant - Food retail

Panasonic's CR Series of CO<sub>2</sub> condensing units provide the ideal solution for supermarkets, convenience stores and gas stations. Helping to ensure food is always kept fresh, and at the right temperature, whilst supporting to reduce expensive implications of refrigeration breakdowns which can result in costly product wastage!



# The benefits of CO<sub>2</sub>

CO<sub>2</sub> refrigerants = Natural = Sustainable solution.

CO<sub>2</sub> is a future-proven solution in refrigeration, because it is not impacted by any current legal restriction, nor quota, taxes, price increasing or shortage.

Panasonic is ready to provide a solution in Europe with CO<sub>2</sub> refrigeration systems to help prevent global warming and support environmentally-friendly and cost saving retail operations.

- CO<sub>2</sub> is an environmentally-friendly solution, with zero ODP and GWP (Global Warming Potential)=1
- No Quota, no shortage, no obsolescence
- CO<sub>2</sub> also fits well to future legal evolution and bans
- European subsidies can be applied for better ROI
- Meets the latest F-gas regulation and Eco-design efficiency requirements

## A sustainable refrigeration system in your food retail application

Panasonic professionals strongly support your projects to meet customer's requests!



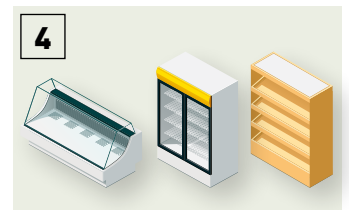
**1**  
10 HP MT TYPE  
(OCU-CR1000VF8).



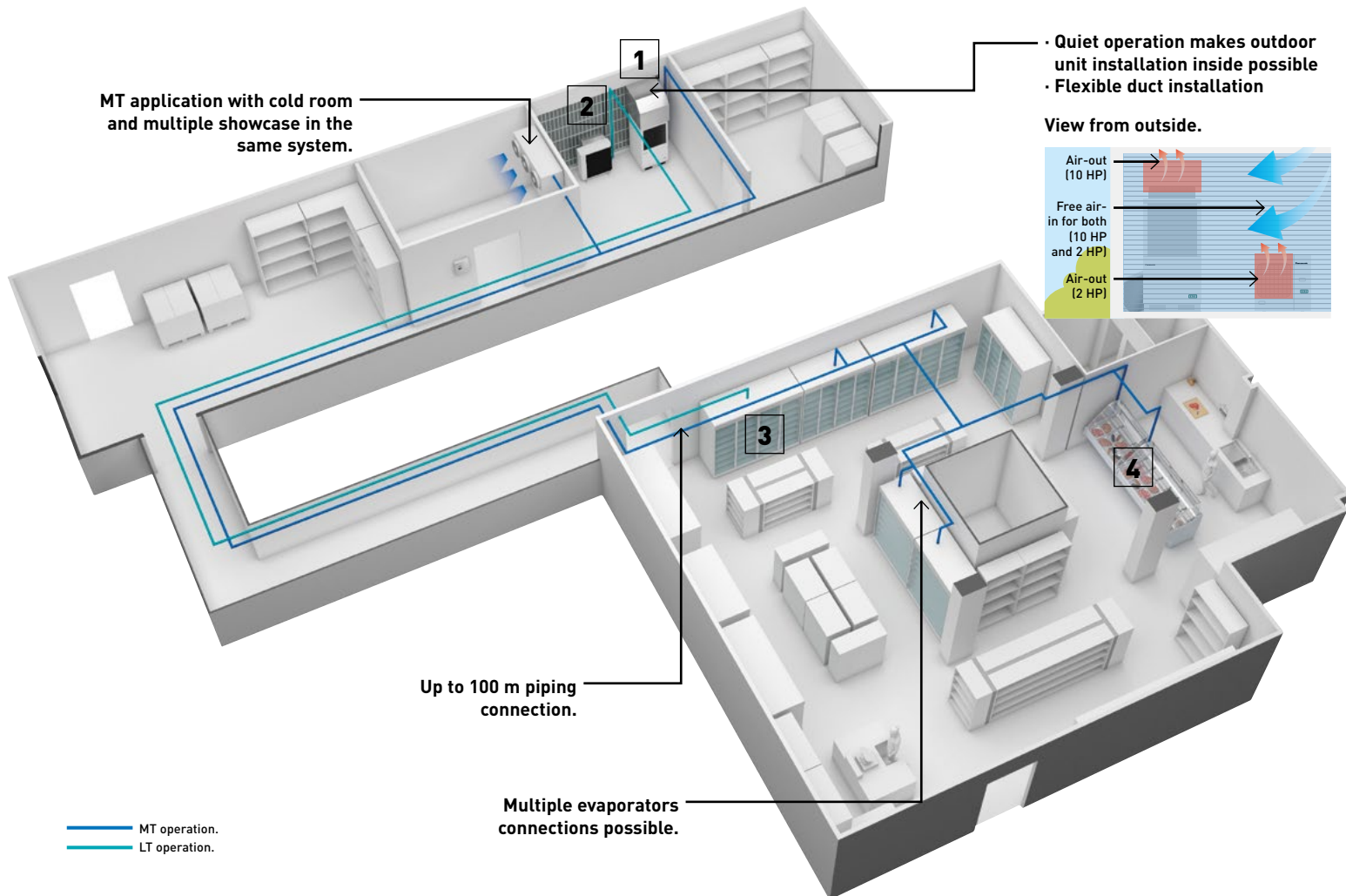
**2**  
2 HP MT/LT TYPE  
(OCU-CR200VF5A).



**3**  
Reach-in freezer (field supplied).



**4**  
Serve-over counters, showcase and  
walk-in refrigerator (field supplied).



A sustainable refrigeration system in your convenience stores.  
CO<sub>2</sub> is the refrigerant of choice to curb the carbon footprint of any business organization, especially food retailers, to whom it brings key advantages.



## 1 Highly flexible and durable CO<sub>2</sub> condensing units

Compact unit profile and 100 m piping length deliver unparalleled flexibility to stores with limited space for installation. Each unit has been through strict Panasonic quality control to secure long product lifetimes.

## 2 Fresh food without any contamination risk

CO<sub>2</sub> is non-toxic refrigerant. There is no risk of food contamination in the case of a leakage inside cold rooms and/or showcases.

## 3 Safety first

As a non-toxic and non-flammable refrigerant, CO<sub>2</sub> ensures high levels of safety from commissioning to maintenance, without any heavy administrative workload.

## 4 Remote monitoring to secure your business

Panasonic collaborates with major monitoring systems, such as Carel, Danfoss, Dixell, Eliwell and RDM.



### Case studies

Panasonic CR series was selected thanks to high seasonal efficiency and quality reliability, on top of the environmental factor - friendly and natural credentials. The range offers unique benefits, allowing an easy switch between either freeze or chill mode.

#### Nolan's Supermarket.

Country: Ireland.  
Units: 3 x 400VF8, 1 x 1000VF8A,  
1x 200VF5A.



#### Factors of success:

- 1| A particular focus of the project was to create a state-of-the-art refrigeration system operating on the 'Zero Ozone Depletion' plus ultra-low GWP of 1 natural refrigerant CO<sub>2</sub> and as part of the scheme
- 2| Panasonic units also has several unique thermo-physical properties
- 3| The high performance, reliable and ultimately very efficient

#### Tanpopo Japanese Food Factory.

Country: UK.  
Project size: 5 x 200VF5A.



#### Factors of success:

- 1| Stable operation under high ambient temperature because the cooking and manufacturing process in the factory results in ambient temperatures of up to 43 °C, so units must be able to operate efficiently even in these extreme conditions
- 2| The compatibility with a range of control systems
- 3| No additional leak detection equipment was necessary for this application

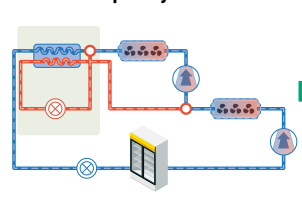
### High performance and reliable quality by Panasonic

All units have been through strict quality control to meet high-quality expectations. The excellent performance of the CR Series condensing units is the result of Panasonic technology, and over 20 years of experience in CO<sub>2</sub>!

#### 2-stage rotary compressor



#### Split cycle



#### Excellent quality control



Find out more!

[https://youtu.be/MyRkqbdnN\\_0](https://youtu.be/MyRkqbdnN_0)



- Unique Panasonic 2-stage rotary compressor with more than 20 years experience
- 5 year compressor warranty

- Split cycle\* enhancing cooling effect
- Strict quality control by skilled team
- Local support by skilled and trained experts

\* Available for 200VF5, 400VF8A and 1000VF8A models.

# CO<sub>2</sub> Condensing units - CR Series



Standard outdoor unit		OCU-CR200VF5A	OCU-CR400VF8	OCU-CR400VF8A	OCU-CR1000VF8	OCU-CR1000VF8A
Anti corrosion coating outdoor unit		OCU-CR200VF5ASL	OCU-CR400VF8SL	OCU-CR400VF8ASL	OCU-CR1000VF8SL	OCU-CR1000VF8ASL
Type (MT: medium temp. LT: low temp.)		MT (4 kW) / LT (2 kW)	MT (7,5 kW)	MT (8 kW) / LT (4 kW)	MT (15 kW)	MT (16 kW) / LT (8 kW)
Power supply	Voltage	V	220/230/240	380/400/415	380/400/415	380/400/415
	Phase		Single phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50
Cooling capacity at ET -10 °C AT 32 °C		kW	3,70	7,10	7,7	14,00
		kW	1,80	—	3,8	—
Cooling capacity at ET -35 °C AT 32 °C		kW	3,70	7,10	7,7	14,00
		kW	1,80	—	3,8	—
Evaporator connection			Multiple	Multiple	Multiple	Multiple
Evaporation temperature		Min ~ Max	°C	-45 ~ -5	-20 ~ -5	-45 ~ -5
Ambient temperature		Min ~ Max	°C	-20 ~ +43	-20 ~ +43	-15 ~ +43
Refrigerant			R744	R744	R744	R744
Design pressure liquid line		Mpa	12	8	8	8
Design pressure suction line		Mpa	8	8	8	8
User system external alarm. Digital input. Non-voltage contact			Yes	Yes	Yes	Yes
Liquid tube electromagnetic valve		Vac	220/230/240	220/230/240	220/230/240	220/230/240
Showcase operation ON / OFF signal. Digital input. Non-voltage contact			Yes	Yes	Yes	Yes
Modbus communication line (RS485)		Ports	2	2	2	2
Compressor type			2- stage rotary	2- stage rotary	2- stage rotary	2- stage rotary
Dimension		H x W x D	mm	930 x 900 x 437	948 x 1143 x 609	948 x 1143 x 609
Net weight		Kg	70	136	149	293
Piping diameter	Suction pipe	Inch (mm)	3/8(9,52)	1/2(12,70)	1/2(12,70)	3/4(19,05)
	Liquid pipe	Inch (mm)	1/4(6,35)	3/8(9,52)	3/8(9,52)	5/8(15,88)
Length of connection piping		m	25	50	50	100 <sup>1)</sup>
PED		CAT	I	II	II	II
Air flow		m <sup>3</sup> /min	54	59	59	220
External static pressure		Pa	17	50	50	58
Heat recovery port			—	—	Yes	—
<b>Standard performance</b>						
Ambient temperature		°C	32	32	32	32
Evaporating temperature		°C	-10	-35	-10	-35
Cooling capacity		kW	3,70	1,80	7,10	7,7
Power consumption		kW	1,79	1,65	4,00	4,5
Nominal load ampere		A	7,94	7,26	6,14	7,2
Sound pressure		dB(A)	35,5 <sup>2)</sup>	35,5 <sup>2)</sup>	33 <sup>3)</sup>	36,1 <sup>3)</sup>
<b>Necessary accessories</b>						
Drier filter liquid line, diameter 6,35 mm		D-152T / DCY-P12	Yes (included: delivered with the unit)	Yes (included: delivered with the unit)	Yes (included: delivered with the unit)	—
Drier filter liquid line, diameter 15,88 mm		D-155T / DCY-P8	—	—	—	Yes (included: delivered with the unit)
Suction filter, diameter 19,05 mm (outer diameter welding)		S-008T / S-008T1	—	Yes (included: delivered with the unit)	Yes (included: delivered with the unit)	Yes (included: delivered with the unit)

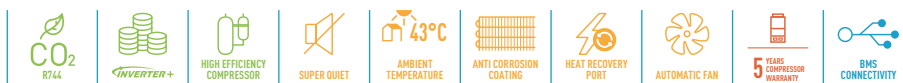
1) PZ-685 (refrigeration oil) must be added if >50 m. 2) ET-10 °C, 65 S-1, 10 m from product. 3) ET-10 °C, 80 S-1, 10 m from product. 4) ET -10 °C, 60 S-1, 10 m from product.

## Accessories

<b>PAW-CO2-PANEL</b>	Panel with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 12-12 ODF high pressure, size E2V09CSFC1
<b>KIT-CO2-PANEL-C-03</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V03CWAC0
<b>KIT-CO2-PANEL-C-05</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V05CWAC0
<b>KIT-CO2-PANEL-C-09</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V09CWAC0
<b>KIT-CO2-PANEL-C-11</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V11CWAC0
<b>KIT-CO2-PANEL-C-14</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V14CWAC0
<b>KIT-CO2-PANEL-C-18</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V18CWAC0
<b>KIT-CO2-PANEL-C-24</b>	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V24CWAC0
<b>SPK-TU125</b>	Service adaptor for vacuum and service (HP port and LP port) , valid for 2HP, 4HP and 10HP models.
<b>PAW-CO2-CHECKER</b>	Service Checker for commissioning, maintenance and service, valid for 2HP, 4HP and 10HP models.
<b>CZ-CO2LBROL500</b>	Lubrication Oil PZ-685 (0.5L)*, valid for 2HP, 4HP and 10HP models.

\* You can find the PZ-685 oil "Safety Sheet" in the SAFETY section of our pipe selection software, available on our PRO Club platform.

**Stock availability:** PAW-CO2-PANEL until end of stock.



## Spare parts for service and maintenance

<b>80203514138000</b> <sup>1)</sup>	S-008T Suction filter, ø 19,05 mm (outer ø welding), valid for 4HP and 10HP models.
<b>80203514139000</b> <sup>2)</sup>	S-008T1 Suction filter, ø 19,05 mm (outer ø welding), valid for 4HP and 10HP models.
<b>80203513179000</b> <sup>3)</sup>	D-155T Filter dryer, ø 15,88mm - 5/8" (in ø welding) (type CO-085-S), valid for 10HP model.
<b>80203513187000</b> <sup>4)</sup>	DCY-P8 165 S Filter dryer, ø 16,1mm - 5/8" (in ø welding), valid for 10HP model.
<b>80203513180000</b> <sup>5)</sup>	D-152T Filter dryer, ø 6,35mm - 1/4" (in ø welding) (type CO-082-S), valid for 2HP and 4HP models.
<b>80203513186000</b> <sup>4)</sup>	DCY-P12 092 S Filter dryer, ø 6,4mm - 1/4" (in ø welding), valid for 2HP and 4HP models.

**Compatibility relationship:** 1) and 2) are compatible; 3) and 4) are compatible; 5) and 6) are compatible.

**Stock availability:** 1), 3) and 5) until end of stock.

# Panasonic

To find out how Panasonic cares for you, log on to: [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu)

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heating & cooling solutions