



Panasonic condensing units with natural refrigerant - Food retail

Panasonic's CR Series of CO₂ condensing units provide the ideal solution for supermarkets, convenience stores and gas stations.

Keeping food always fresh at right temperature in showcases or cold rooms is a very critical point. And one of the biggest challenges for those retailers has been the expensive effects of refrigeration breakdowns which can result in costly product wastage.



The benefits of CO₂

CO₂ refrigerants = Natural = Sustainable solution.

CO₂ is a future-proven solution in refrigeration, because CO₂ is not impacted by any current legal restriction, nor quota, taxes, price increasing or shortage. CO₂ also fits well to future legal evolution and bans.




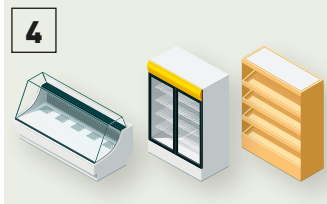
Panasonic is ready to provide a solution in Europe with CO₂ refrigeration systems to prevent global warming and to support environment-friendly and cost saving retail operations.

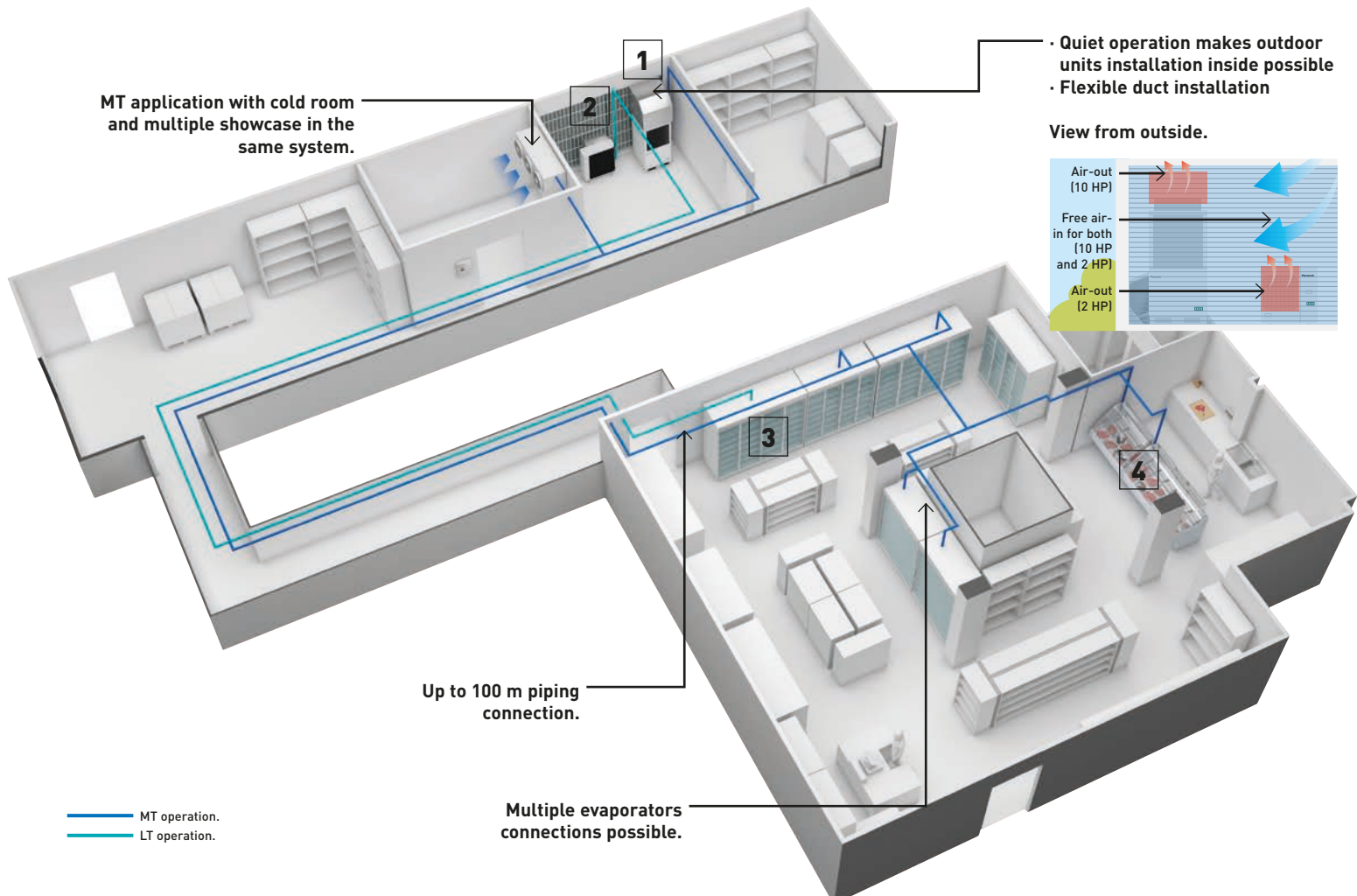
- CO₂ is an environmentally-friendly solution, with zero ODP and GWP (Global Warming Potential)=1
- No Quota, no shortage, no obsolescence
- European subsidies can be applied for better ROI
- Meets the latest F-gas regulation and Eco-design efficiency requirements

A sustainable refrigeration systems in your food retail

CO₂ refrigerant is the choice to curb carbon footprint of any business organization, especially to food retailers, to whom it brings key advantages.

Panasonic professional strongly supports your projects to meet customer's request!

 <p>1</p> <p>10 HP MT TYPE (OCU-CR1000VF8).</p>	 <p>2</p> <p>2 HP MT/LT TYPE (OCU-CR200VF5A).</p>	 <p>3</p> <p>Reach-in freezer (field supplied).</p>	 <p>4</p> <p>Serve-over counters, showcase and walk-in refrigerator (field supplied).</p>
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A sustainable refrigeration systems in your convenient stores.
CO₂ is the refrigerant of choice to curb carbon footprint of any business organization, especially to food retailers, to whom it brings key advantages.



1 Highly flexible and durable CO₂ condensing units

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

2 Always fresh foods without any contamination risk

CO₂ 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 for working environment

As a non-toxic and non-flammable refrigerant, CO₂ ensures high level 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 has been chosen thanks to high seasonal efficiency and quality reliability on the top of environmental factor – friendly and natural credentials. Unique benefit of the range being able to easily switch from either freeze or chill mode.

Nolan's Supermarket.

Country: Ireland.
Units: 3 x 400VF8, 1 x 1000VF8A,
1x 200VF5.



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 CO₂ 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 200VF5.


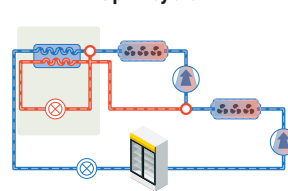




Factors of success:

- 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 passed the strict quality control to meet high-quality expectation. Excellent performance of condensing units CR Series is the result of Panasonic technology and over 20 years of experience in CO₂.

<p>2-stage rotary compressor</p> 	<p>Split cycle</p> 	<p>Excellent quality control</p> 	<p>The video for detailed information is ready!</p>  <p>https://youtu.be/MyRkqbdnN_0</p>
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- Unique Panasonic 2-stage rotary compressor with more than 20 years experience
- 5 years warranty on compressor

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

* Available for 200VF5 and 1000VF8A models.

CO₂ Condensing units.



Standard model			OCU-CR200VF5A	OCU-CR400VF8	OCU-CR1000VF8	OCU-CR1000VF8A
Anti corrosion coating model			OCU-CR200VF5ASL	OCU-CR400VF8SL	OCU-CR1000VF8SL	OCU-CR1000VF8ASL
Type (MT: medium temp. LT: low temp.)			MT (4 kW) / LT (2 kW)	MT (7,5 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	14,00	15,10
Cooling capacity at ET -35 °C AT 32 °C		kW	1,80	—	—	8,00
Evaporator connection			Multiple	Multiple	Multiple	Multiple
Evaporation temperature		Min ~ Max	-45 ~ -5	-20 ~ -5	-20 ~ -5	-45 ~ -5
Ambient temperature		Min ~ Max	-15 ~ +43	-15 ~ +43	-15 ~ +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		HxWxD	930 x 900 x 437	948 x 1143 x 609	1941 x 890 x 890	1941 x 890 x 890
Net weight		Kg	70	136	293	320
Pipe diameter	Suction pipe	Inch (mm)	3/8(9,52)	1/2(12,70)	3/4(19,05)	3/4(19,05)
	Liquid pipe	Inch (mm)	1/4(6,35)	3/8(9,52)	5/8(15,88)	5/8(15,88)
Length of connection piping		m	25	50	100 ¹⁾	100 ¹⁾
Standard performance	Ambient temperature	°C	32	32	32	32
	Evaporating temperature	°C	-10	-35	-10	-10
	Cooling capacity	kW	3,70	1,80	7,10	14,00
	Power consumption	kW	1,79	1,65	4,00	8,20
	Nominal load ampere	A	7,94	7,26	6,14	12,60
PED	Sound pressure	dB(A)	35,5 ²⁾	35,5 ²⁾	33 ³⁾	36,0 ⁴⁾
	CAT		I	II	II	II
Air flow		m ³ /min	54	59	220	220
External static pressure		Pa	17	50	58	58
Heat recovery port			—	—	—	Yes

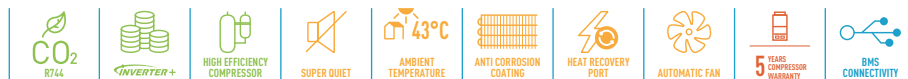
Accessories

PAW-CO2-PANEL	Room and superheat control including both panel + expansion valve
SPK-TU125	Tube connector adaptor for vacuum and service
CZ-CO2LBROL500	Lubrication oil PZ-68S (0,5 L)

Spare parts for service and maintenance

80203513179000	Suction filter, diameter 19,05 mm (outer diameter welding)
80203517115003	Lubrication oil PZ-68S (4 L)
80203517117000	Lubrication oil PZ-68S (0,5 L)
80203513180000	Filter dryer D-152T (type CO-082-S)
80203513179000	Filter dryer D-155T (type CO-085-S)

1) PZ-68S (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.



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heating & cooling solutions