



## Panasonic condensing units with natural refrigerant – Warehouses / Industry

A peace of mind with refrigeration systems for  
warehouses and industries.

CO<sub>2</sub> is non-toxic refrigerant. It means products has no  
contamination risk as well as safety working environment.  
Independent refrigeration system is the safe and resilient  
installation.



heating & cooling solutions



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

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

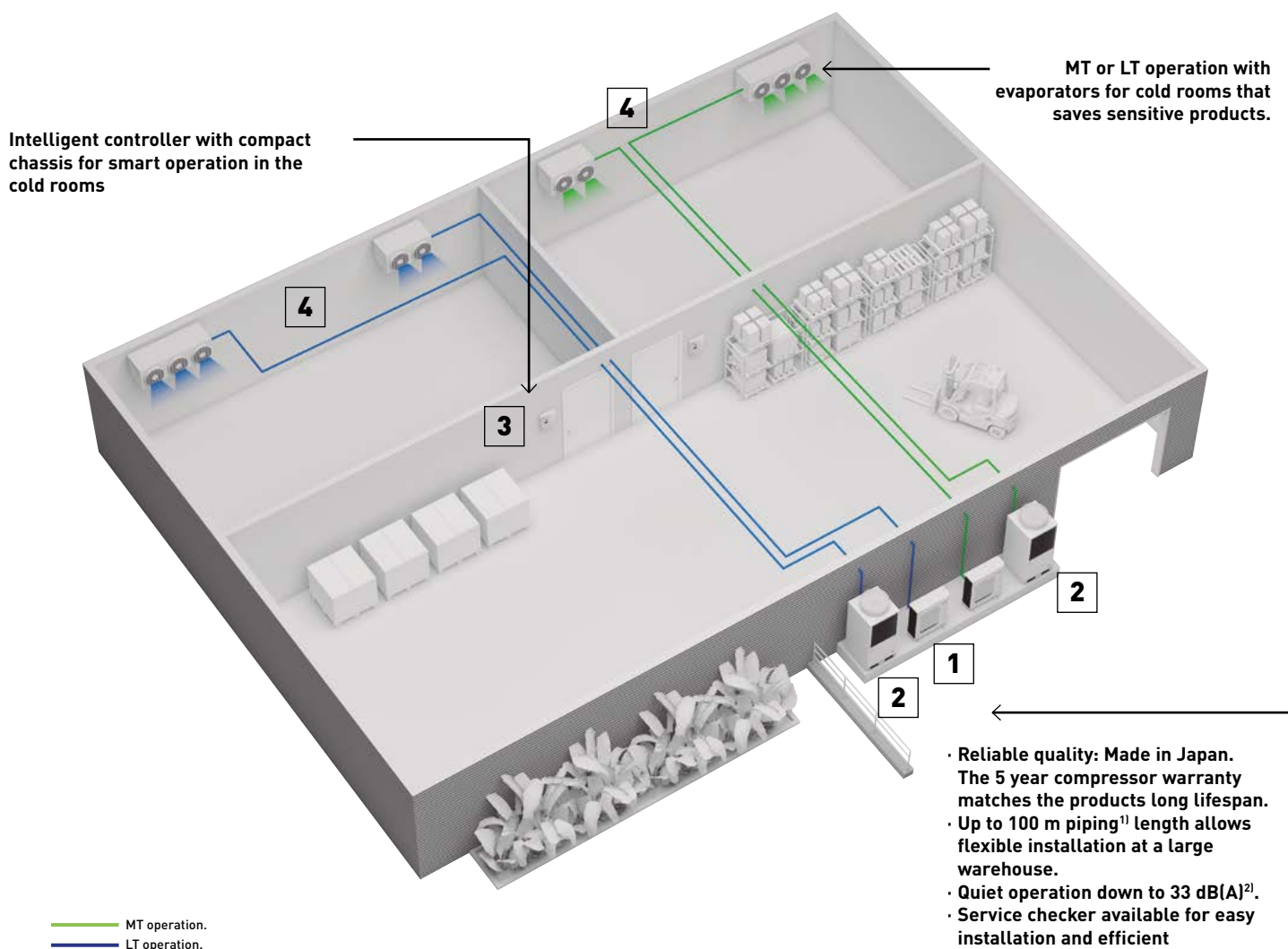
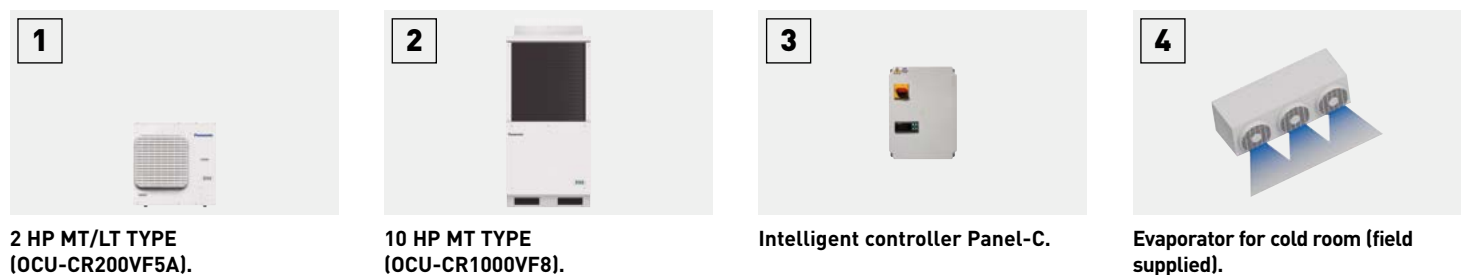
CO<sub>2</sub> is a future-proof solution in refrigeration, because it is not impacted by any current legal restriction, nor quota, taxes, strong price increases or shortage.

With its CO<sub>2</sub> refrigeration systems, Panasonic provides a solution in Europe which helps prevent global warming and supports environmentally-friendly and cost saving retail operations.

- CO<sub>2</sub> is an environmentally-friendly solution, with a zero ODP (Ozone Depletion Potential) and a GWP (Global Warming Potential) = 1
- No Quota, no shortage, no obsolescence
- CO<sub>2</sub> will not be affected by future legal evolutions and bans
- European subsidies can be applied for better ROI
- CO<sub>2</sub> meets the latest F-gas regulation and Eco-design efficiency requirements

## A sustainable refrigeration system for your warehouse

Panasonic professionals strongly support your projects to meet customers' requests!



1) 10 HP model, 2) @10 m with 4 HP model.

CO<sub>2</sub> (R744) is the choice of the refrigerant to curb the carbon footprint of any business organisation, especially owners of restaurants to whom it brings key advantages.



**1 Highly flexible & resilient CO<sub>2</sub> condensing units**  
Maximum 10HP capacity and up to 100m piping length deliver high flexibility in order to satisfy entire needs of warehouses / Medium & Low temperature operation possibilities adapt the several needs of different cold rooms. Independent refrigeration systems secure the safety in the case any breakdown happens.

**2 Fresh food without any contamination risk**  
CO<sub>2</sub> is a non-toxic refrigerant. There is no risk of food contamination in the case of a leakage inside cold rooms.

**3 Safety first**  
As a non-toxic and non-flammable refrigerant, CO<sub>2</sub> ensures high levels of safety from commissioning to maintenance.

**4 Remote monitoring to secure your business**  
Panasonic is compatible with major monitoring systems, such as Carel, Danfoss, Dixell, Eliwell and RDM.



## Case studies

Beyond the environmentally friendly aspects of the natural refrigerant CO<sub>2</sub>, Panasonic's CR series was also selected for its high seasonal efficiency, product quality and reliability. The series offers unique advantages by allowing easy switching between medium temperature and low temperature operation.

### Riverford Organic Farmers.

Country: UK.

Units: 4 x 1000VF8A.



### Factors of success:

- 1| Minimizing the impact of refrigerant gas leakage on carbon emissions and achieves new levels of energy efficiency in line with the company's sustainability aims.
- 2| The total energy savings at the butchery is at least 50%, compared to a standard refrigeration system using R452A as a refrigerant.

### Mushroom storage facility.

Country: France.

Units: 14 x 1000VF8A.



### Factors of success:

- 1| Independent refrigeration systems are safer and resilient installation with a backup.
- 2| Quiet sound experience by Panasonic CO<sub>2</sub> technologies.
- 3| Easy commissioning, plug-and-play approach.
- 4| Centralized monitoring and supervision.

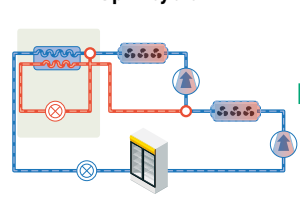
## High performance and reliable quality by Panasonic

All condensing units have been subjected to strict quality controls to meet high-quality expectations. The excellent performance of the CR series condensing units is the result of the combination of superior Panasonic technology and over 20 years of experience with CO<sub>2</sub> refrigerant!

### 2-stage rotary compressor



### Split cycle



### Excellent quality control



Find out more!



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

- Split cycle\* enhancing the 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 temperature, LT: low temperature)			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	380/400/415
	Phase		Single phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Cooling capacity at ET -10 °C AT 32 °C	kW		3,70	7,10	7,7	14,00	15,10
Cooling capacity at ET -35 °C AT 32 °C	kW		1,80	—	3,8	—	8,00
SEPR cooling at ET -10 °C AT 32 °C			3,83	2,68	2,45	2,62	2,82
SEPR freezing at ET -35 °C AT 32 °C			1,92	—	1,56	—	1,66
Annual electricity consumption at ET -10 °C AT 32 °C	kWh/a		6797	16337	19302	32815	32409
Annual electricity consumption at ET -35 °C AT 32 °C	kWh/a		8021	—	30424	—	39985
Evaporator connection			Multiple	Multiple	Multiple	Multiple	Multiple
Evaporation temperature	Min ~ Max	°C	-45 ~ -5	-20 ~ -5	-45 ~ -5	-20 ~ -5	-45 ~ -5
Ambient temperature	Min ~ Max	°C	-20 ~ +43	-20 ~ +43	-20 ~ +45	-15 ~ +43	-15 ~ +43
Refrigerant			R744	R744	R744	R744	R744
Design pressure, liquid line			12	8	8	8	8
Design pressure, suction line			8	8	8	8	8
User system external alarm. Digital input. Non-voltage contact			Yes	Yes	Yes	Yes	Yes
Liquid tube electromagnetic valve			V AC	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	Yes
Modbus communication ports (RS485)			Yes	Yes	Yes	Yes	Yes
Compressor type			2- stage rotary	2- stage rotary	2- stage rotary	2- stage rotary	2- stage rotary
Dimensions	H x W x D	mm	930 x 900 x 437	948 x 1143 x 609	948 x 1143 x 609	1941 x 890 x 890	1941 x 890 x 890
Net weight	kg		70	136	149	293	320
Piping diameter <sup>1)</sup>	Suction pipe	Inch (mm)	3/8 (9,52)	1/2 (12,70)	1/2 (12,70)	3/4 (19,05)	3/4 (19,05)
	Liquid pipe	Inch (mm)	1/4 (6,35)	3/8 (9,52)	3/8 (9,52)	5/8 (15,88)	5/8 (15,88)
Max. length of connection piping			25	50 <sup>2)</sup>	50 <sup>2)</sup>	100 <sup>3)</sup>	100 <sup>3)</sup>
PED category			I	II	II	II	II
Air flow			m <sup>3</sup> /min	54	59	59	220
External static pressure			Pa	17	50	58	58
Heat recovery port			—	—	Yes	—	Yes
Standard performance	Ambient temperature	°C	32	32	32	32	32
	Evaporating temperature	°C	-10	-35	-10	-35	-10
	Cooling capacity	kW	3,70	1,80	7,10	7,7	3,8
	Power consumption	kW	1,79	1,65	4,00	4,5	3,8
	Nominal current	A	7,94	7,26	6,14	7,2	6,2
	Sound pressure	dB(A)	35,5 <sup>4)</sup>	35,5 <sup>4)</sup>	33 <sup>5)</sup>	36,1 <sup>5)</sup>	36,1 <sup>5)</sup>
Necessary accessories							
Filter dryer, liquid line, Ø6,35 mm			D-152T/DCY-P12	Yes (included)	Yes (included)	Yes (included)	—
Filter dryer, liquid line, Ø15,88 mm			D-155T/DCY-P8	—	—	—	Yes (included)
Suction filter, Ø19,05 mm (outer Ø welding)			S-008T/S-008T1	—	Yes (included)	Yes (included)	Yes (included)

1) These diameters refer to the unit connection ports. The required piping diameters must be calculated with Refrigeration designer available on PRO Club. 2) PZ-68S (refrigeration oil) must be added according to Refrigeration designer available on PRO Club. 3) PZ-68S (refrigeration oil) must be added if >50 m. 4) ET-10 °C, 65 S-1, 10 m from product. 5) ET-10 °C, 80 S-1, 10 m from product. 6) ET -10 °C, 60 S-1, 10 m from product.

### Accessories

<b>KIT-C02-PANEL-C-03</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V03CWAC0
<b>KIT-C02-PANEL-C-05</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V05CWAC0
<b>KIT-C02-PANEL-C-09</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V09CWAC0
<b>KIT-C02-PANEL-C-11</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V11CWAC0
<b>KIT-C02-PANEL-C-14</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V14CWAC0
<b>KIT-C02-PANEL-C-18</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V18CWAC0
<b>KIT-C02-PANEL-C-24</b>	Panel-C + MPXPRO control, stator, probes, etc + EEV 3/8" ODF high pressure, size E2V24CWAC0
<b>SPK-TU125</b>	Service adaptor for vacuum and service (HP and LP port), for 2 HP, 4 HP and 10 HP
<b>PAW-C02-CHECKER</b>	Service Checker for commissioning, maintenance and service, for 2 HP, 4 HP and 10 HP
<b>CZ-C02LBROL500</b>	Lubrication Oil PZ-68S (0,5L)*, for 2 HP, 4 HP and 10 HP

\* You can find the PZ-68S oil "Safety Sheet" in the SAFETY section of our pipe selection software, available on our PRO Club platform.



### Spare parts for service and maintenance

<b>80203514138000</b> <sup>1)</sup>	S-008T Suction filter, Ø19,05 (outer Ø welding) for 4 HP and 10 HP
<b>80203514139000</b> <sup>2)</sup>	S-008T1 Suction filter, Ø19,05 (outer Ø welding) for 4 HP and 10 HP
<b>80203513180000</b> <sup>3)</sup>	D-155T Filter dryer, Ø5/8 (15,88) (in Ø welding) (type CO-085-S) for 10 HP
<b>80203513187000</b> <sup>4)</sup>	DCY-P8 165 S Filter dryer, Ø 5/8 (16,10) (in Ø welding) for 10 HP
<b>80203513179000</b> <sup>5)</sup>	D-152T Filter dryer, Ø1/4 (6,35) (in Ø welding) (type CO-082-S) for 2 HP and 4 HP
<b>80203513186000</b> <sup>6)</sup>	DCY-P12 092 S Filter dryer, Ø1/4 (6,40) (in Ø welding) for 2 HP and 4 HP

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®

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