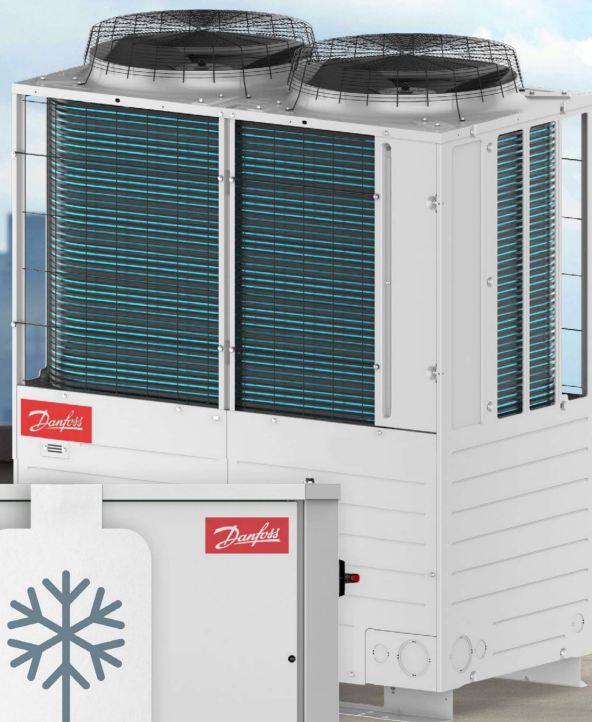


Natural refrigerant

compatible
condensing units



cr.danfoss.com

EcoDesign

Optyma™
by Danfoss

ENGINEERING
TOMORROW

Danfoss

Danfoss Optyma™ iCO₂ condensing units

The natural next step in cooling —available today

As sustainability is top of mind for our customers, the Danfoss Optyma™ natural refrigerant condensing units are designed with a focus on reliability and convenience to allow for a safe and complexity-free transition to ultra-low GWP refrigerants. Best-in-class quality, silent operation, and intelligent features ensure cost savings compared to existing systems—plus the easy installation, trouble-free maintenance, and improved food preservation that characterize the Optyma™ range.

Discover our natural refrigerant condensing units and start your green transition with ease today.

> **START HERE**

Choose a green route with Optyma™ natural refrigerant condensing units

The **Optyma™ iCO₂** natural refrigerant condensing units are ready for the green transition when you are—they are designed to offer a safe and future-proof route to F-Gas regulation compliance.



**Adaptable
monitoring and
management**

Scalable connectivity thanks to CAN bus gateway devices. The unit can operate stand alone, through evaporator management, and/or connected to the System Manager.



**Robust,
reliable,
and efficient**

- Reliable operation up to 43/46 °C ambient* thanks to best-in-class components
- Higher food safety by matching load fluctuations
- One unit can handle multiple cold rooms or meters of display cases —reducing operational costs



**Silent
operation**

Noise level < 35/45 dB(A)* at 10 meters—decreasing by nearly two times from other variable load systems—thanks to best-in-class BLDC** scroll compressor, high performance sound insulation, and low noise level fan



**Optimized
cooling for
the future**

High energy
efficiency

Low energy
consumption

Reduced indirect
emissions





















* Depending on
condensing unit type
** Brushless direct current

Optyma™ iCO₂

Features and benefits

MBP - 1.5 to 4.6 kW*



 Danfoss GBC service valves	 Gas By Pass Valve	 Microchannel condenser	 DC fan	 Integrated controller and drive
 Danfoss MMILDS display	 Connectable to Danfoss System Managers	 Sight glass	 PED category I	 Main switch
 Danfoss filter drier	 Relief valve	 2 door servicing	 2.5 L Suction accumulator	 2 x 2.5 L Receiver
 Stacking up to 2 units	 Night mode operation	 Variable speed scroll compressor: 30% to 100%		

Performance/cooling capacity
for **Optyma™ iCO₂**

Model			OP-MPAM005COP04G										
Code no.			114X6001										
Version			P04										
Compressor technology			Brushless scroll compressor										
Electrical code			G power supply (230V~1N~50Hz Compressor & fan)										
Compressor load			Min speed						Max speed				
Tamb [°C]			27	32	38	43*	46*		27	32	38	43*	46*
Cooling capacity Q [kW] *	Te [°C]	-15 °C	1.45	1.26	1.02	0.80	0.66	4.46	3.89	3.15	2.01	1.65	
		-10 °C	1.68	1.49	1.24	1.03	0.89	5.16	4.58	3.83	2.58	2.24	
		-5 °C	1.87	1.66	1.40	1.17	1.03	5.76	5.11	4.30	2.94	2.60	
		0 °C	2.05	1.79	1.50	1.25	1.10	6.61	6.30	4.61	3.13	2.76	
		5 °C	2.22	1.92	1.56	1.27	1.11	6.84	5.90	4.81	3.20	2.78	
SEPR									3.2				
Sound power level dB(A)									67				
Sound pressure level 10 m dB(A)									35				

* Working conditions EN13215 SH 10k, 0K subcooling (with updated software)



For regular updates and detailed capacities, please refer to Coolselector*2 software coolselector.danfoss.com


















Get the information and tools you need, access and order spare parts with **Ref Tools**

Optyma™ iCO₂

Features and benefits

Up to 20kW* MBP
and 10kW LBP



 Service valves	 Gas By Pass Valve	 Coated channel tube	 DC fan
 Integrated drive and available module controller	 Connectable to Danfoss System Managers	 Sight glass	 PED category II
 Sub cooling coil	 Relief valve	 7 L Suction accumulator	 2 x 7.6 L Receiver
 Top lift airflow	 Oil pod	 Two-stage BCLD variable speed compressor from 38% to 100%	

Performance/cooling capacity
for **Optyma™ iCO₂**

Model			OP-UPAC015CO														
Code no.			114x6003														
Version			P04														
Compressor technology			Brushless rotary scroll compressor														
Electrical code			E - Compressor 400V/3~/50Hz, fan 230V/1~/50Hz														
Compressor load			Min speed							3.95	Max speed						
Tamb [°C]			5	10	15	27	32	38	43		5	10	15	27	32	38	43
Cooling capacity Q [kW] *	Te [°C]	-45 °C	3.09	2.67	2.62	1.56	1.71	1.29	-0.19		9.55	8.53	8.37	6.49	7.09	5.72	6.11
		-35 °C	4.48	4.31	4.23	3.15	2.81	1.22	1.00		12.56	12.37	12.13	10.19	10.20	9.29	8.63
		-20 °C	6.93	6.71	6.55	5.91	5.61	4.28	3.90		17.90	18.27	17.83	16.75	15.80	15.07	12.76
		-10 °C	8.89	8.62	8.37	7.51	7.07	6.51	6.22		21.81	22.01	21.37	20.70	19.60	19.71	15.43
5 °C		12.76	12.11	11.46	9.97	9.06	8.99	7.09	32.81	30.73	28.65	25.03	21.19	21.44	17.09		
SEPR			3.95														
Sound power level dB(A)**			77 for LT / 76 for MT														
Sound pressure level 10 m dB(A)**			46 for LT / 45 for MT														

* Working conditions EN13215 SH 10k, 0K subcooling (with updated software)

** At maximum speed and working conditions EN13215



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Get the information and tools you need, access and order spare parts with **Ref Tools**

Ready to take the green route to compliance?

Danfoss is with you all the way.

Cooling professionals contribute to a sustainable future by installing highly efficient solutions and choosing ultra-low GWP refrigerants.

> Learn how Danfoss supports your journey to compliance



For low-GWP options, discover our range of A2L and A1-compatible condensing units



Learn more about the EU regulations impacting condensing units – and how you can integrate efficient and compliant solutions into your application



Accelerate the refrigerant transition and turn down climate impact



The Danfoss Learning center offers courses, webinars, and materials designed to sharpen your knowledge and skills in refrigeration and air conditioning

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