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™ iCO_2 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

CAN bus gateway devices enable scalable connectivity, allowing the unit to operate in stand alone mode (4.6kW MT unit only), 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

Reduced indirect emissions

↑

Low energy consumption

↑

High energy efficiency

* Depending on condensing unit type ** Brushless direct current

Optyma™ iCO_2

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 Reciever
- Stacking up to 2 units
- Night mode operation
- Variable speed scroll compressor: 30% to 100%

Performance/cooling capacity for Optyma™ iCO_2

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			
Ambient temperature [°C]			27	32	38	43*	46*		27	32	38	43*	46*
Cooling capacity Q [kW] *	Evaporating temperature [°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™ iCO_2

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™ iCO_2

Model			OP-UPAC015COP04E															
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**								**Max speed**							
Ambient temperature [°C]			**5**	**10**	**15**	**27**	**32**	**38**	**43**		**5**	**10**	**15**	**27**	**32**	**38**	**43**
Cooling capacity Q [kW] *	Evaporating temperature [°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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Optyma™ iCO_2

Features and benefits

Up to 37kW* MBP and 19kW 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 III
- Sub cooling coil
- Relief valve
- 7 L Suction accumulator
- 1 x 19.3 L Receiver
- Top lift airflow
- Oil pod
- Two two-stage BCLD variable speed compressors from 38% to 100%

Performance/cooling capacity for Optyma™ iCO_2

Model			OP-UPAC030COP04E													
Code no.			114X6005													
Version			P04													
Compressor technology			Two brushless rotary scroll compressors													
Electrical code			E - Compressor 400V/3~/50Hz, fan 230V/1~/50Hz													
Compressor load			**Min speed**								**Max speed**					
Ambient temperature [°C]			**5**	**10**	**15**	**27**	**32**	**38**	**43**		**5**	**10**	**15**	**27**	**32**	**38**	**40**	**43**
Cooling capacity Q [kW] *	Evaporating temperature [°C]	-45 °C	5,85	5,70	5,53	5,38	4,98	4,81	4,24		16,86	16,80	16,28	15,69	15,67	15,31	12,36	-
		-25 °C	11,06	10,64	10,38	9,32	8,74	8,65	7,53		30,04	29,77	29,19	27,26	26,00	25,33	21,90	22,95
		-20 °C	12,71	12,24	11,94	10,69	10,03	9,34	8,17		33,68	33,62	32,91	30,90	29,60	28,34	24,41	24,73
		-10 °C	16,34	15,81	15,40	13,78	13,14	11,95	10,16		40,46	41,15	38,72	38,72	37,12	34,89	29,48	-
		5 °C	21,91	21,49	20,97	18,92	17,53	16,49	12,82		45,14	43,46	45,93	48,82	-	-	-	-
SEPR			3.65													
Sound power level dB(A)			79 dB(A)													
Sound pressure level 10 m dB(A)			47 dB(A)													

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

** At maximum speed and working conditions EN13215

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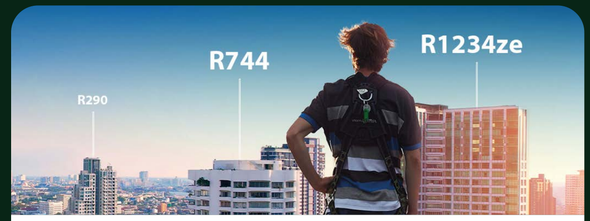
Ready to take the green route to compliance?
Danfoss is with you all the way.

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

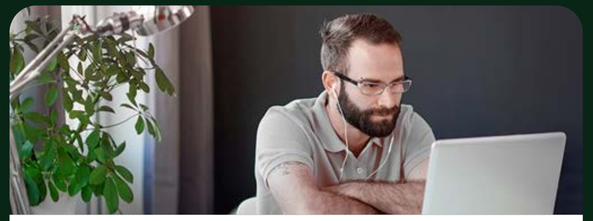
Learn how Danfoss supports your journey to compliance

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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