



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



cr.danfoss.com

EcoDesign

Optyma™
by Danfoss

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

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



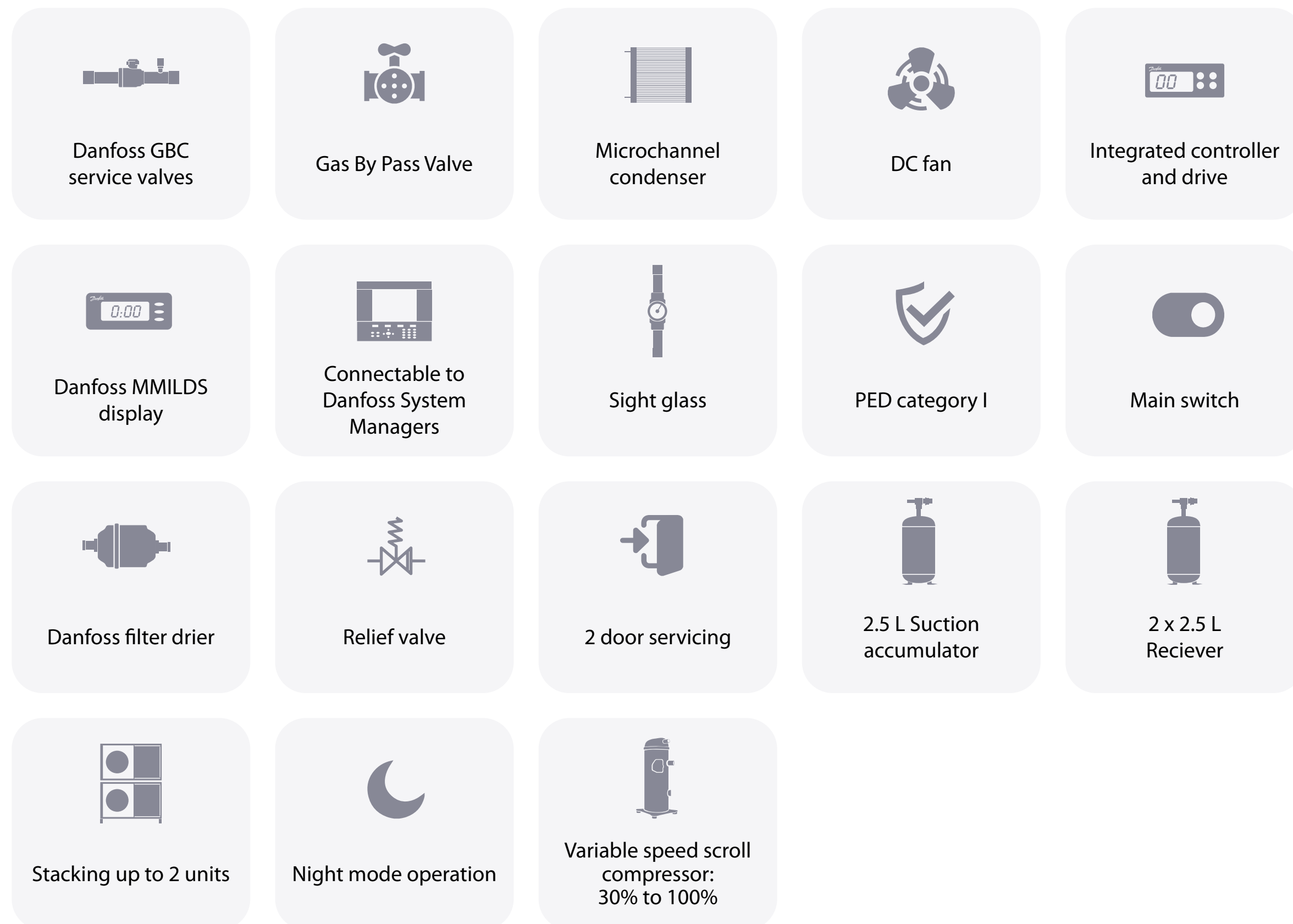
High energy efficiency

* Depending on condensing unit type ** Brushless direct current

Optyma™ iCO₂

Features and benefits

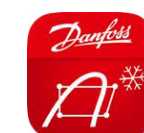
MBP – 1.5 to 4.6 kW*



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					
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 RefTools

Optyma™ iCO₂

Features and benefits

Up to 20kW* MBP and 10kW LBP



Performance/cooling capacity for Optyma™ iCO₂



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)**		72 dB(A)														
Sound pressure level 10 m dB(A)**		42 dB(A)														

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

** At maximum speed and working conditions EN13215



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Optyma™ iCO₂

Features and benefits

Up to 37kW* MBP and 20kW 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™ iCO₂

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)		72 dB(A)															
Sound pressure level 10 m dB(A)		42 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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