area Cooling Solutions

Smart Solutions for a Green Future®

iCOOL™ CO_2

Inverter refrigeration condensing units

Different by Nature

Designed and manufactured in the EU

iCOOL™

TÜVRheinland CERTIFIED

INVERTER TECHNOLOGY

ECO DESIGN

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iCOOL™ CO_2

What are our differences?

Launched in 2010, iCOOL™ soon became the benchmark of inverter condensing unit in Europe. Its reliability, low noise level, and easy commissioning through its intuitive user interface, make the success story of the iCOOL™ family. Today iCOOL™ is powering smoothly refrigeration equipment of more than a total of 100 MW capacity!

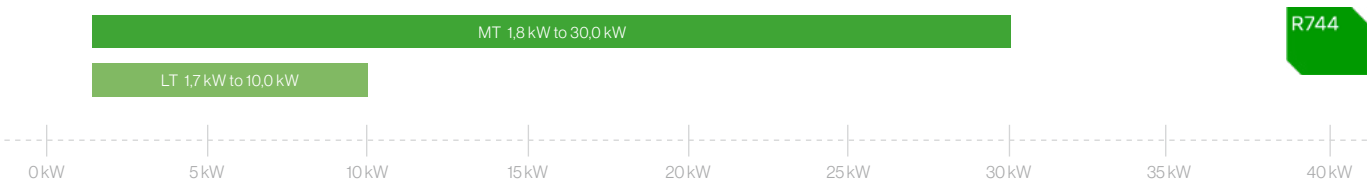
When developing iCOOL™ CO_2 range, we wanted to keep the functionality of our proven iCOOL™ family products. Furthermore, we developed unique solutions that make our iCOOL™ CO_2 different.

Product range

Silent Inverter condensing units

Designed to operate at 43ºC ambient temperature

iCOOL™ CO_2



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A deep market feedback helped us to focus on the key factors:

Reliability in oil management:

One of the characteristics of CO2 as refrigerant is its high miscibility with oil. If a safety valve must open, it releases CO_2 as well as oil, much more than in HFC applications. To deal with this issue, iCOOL™ CO_2 features an standard oil level intelligence control.

- Build in software to push back the oil to compressor
- Oil separator as a standard
- Electronic oil level control

A sustainable solution:

A GWP 0 solution.

High SEPR efficiency. The use of BLDC technology allows us to reach up to 30% of energy savings during operation.

The iCOOL™ range is certified by TÜV Rheinland, guarantee regular external audit of our production process.

Low noise level:

The noise level is a key decision driver.

As every square meter counts, especially in retail business, the technical room comes at the expense of a reduction of the storage space capability.

On the other hand, the requirements of neighborhood, to not be disturbed by the HVAC-R devices, are higher every day.

The iCOOL™ has been designed to be the quietest unit on the market for outdoor instalations, with 6 faces insulated housing, large EC fans with low rotation speed and a silent compressor/inverter operation.

Operation under high ambient temperature:

Our compressor choice went for the double stage BLDC Panasonic technology. This choice was not only guided by our strong partnership with Panasonic, but mainly because the BLDC double stage technology is the most advanced in the market.

In a double stage compressor the effort is divided in two cycles. This is a very favorable feature for the efficiency of the system, specially in part loading conditions. It also allows the unit to operate within a wider working envelope.

All our iCOOL™ CO_2 range are lab tested under 43°C ambient temperature. Many units were succesfully running in field tests in ambient temperatures up to 46°C during the hot 2019 summer.

Online selection

Access in one click to the Technical Information of our units, including Capacities and Working Envelopes.

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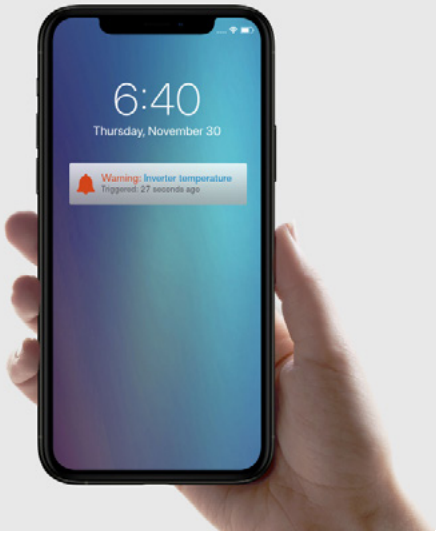
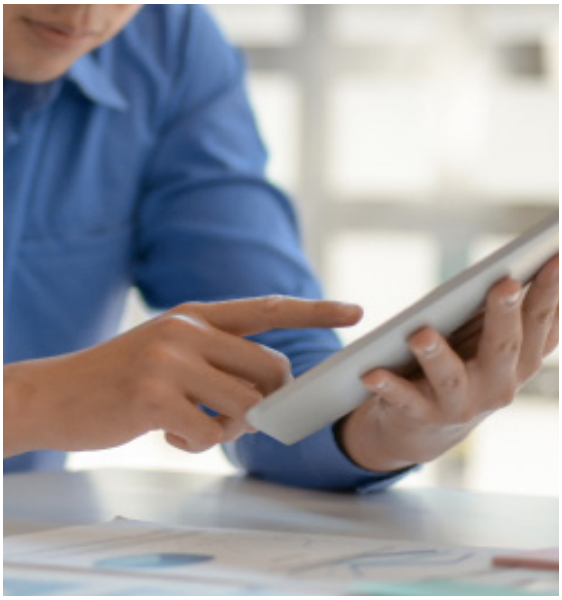
Area Academy

Area Academy, our on & offline training center will provide you with detailed information about operation, comissioning and trouble shooting of the iCOOL™ CO_2. It is also the place for sharing, where you will create your own experience with our factory experts.

Remote control features

Allowing our engineers and factory experts to be at your side, inside your iCOOL™ CO_2 to support during maintenance and service. You and our support team are able to remotely read, record and modify all digital parameters of the unit. With IoT technology and our expertise, we are able to detect problems and provide preventive maintenance services.





Simple Cloud Interface

Keep the control on you installation from any devices connected to Internet

Main features:

- Monitoring of the installation in real time & from any devices (internet connection)
- Preventive maintenance with remote diagnostics
- Alarms: customized settings
- Graphs and Data Compilation
- Indefinite storage of installation data
- Parameters settings modification at distance

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Modularity
Optional capacity modulation feature down to 500 W.

Reliability
Fewer start-ups, oil return control function, working envelope managment.

Silence
The most silent unit on the market.

Peace of mind
Remote control and preventive maintenance features (optional).

Energy saving
Up to 30% lower consumption than ON/OFF units. ECOdesign 2018.

Advanced and easy control
Controller with advanced regulation algorithms.
Easy commissioning process.

Plug & Play
Compact unit.
100% factory tested.

Easy maintenance
180º acces to components through large doors.

Spare parts availability

All spare parts available at AREA and agreed wholesalers network in Europe. Delivery within 24/48 hours.

Technical support

Technical Support and documentation in your language to develop your next generation of products.

Presential, or via the web, phone, mail, chat, and videoconferencing.

Assisting you in achieving seamless integration between compressor, inverter drive, and the full control of your unit.

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Technical Data

Model		Tamb (°C)	Cooling capacity (kW) at Te								Dimensions (mm)	Weight (kg)	MCC (A)	Connections		Receiver (dm³)	Nº x diameter of fan (mm)	Sound level at 10m (dB(A))
			-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	W x L x H			Suction	Liquid			
iCOOL 5 CO_2 MT	Qmin	32	-	-	-	-	1,5	1,8	2,1	2,4	510 x 1289 x 963	160	7,5	3/8"	1/4"	10,0	1x630	37
		38	-	-	-	-	1,2	1,6	1,9	2,2								
		43	-	-	-	-	-	1,2	1,5	1,7								
	Qmax	32	-	-	-	-	3,7	4,4	5,0	5,9								
		38	-	-	-	-	3,0	3,9	4,6	5,3								
		43	-	-	-	-	-	3,0	3,6	4,1								
iCOOL 7 CO_2 MT/LT	Qmin	32	1,3	1,6	-	-	2,7	2,9	3,1	-	541 x 1426 x 1091	200	17,5	3/8"	1/4"	10,0	1x710	38
		38	1,3	1,5	-	-	2,5	2,6	2,9	-								
		43	1,2	1,4	-	-	2,3	2,4	2,7	-								
	Qmax	32	3,2	3,8	-	-	6,0	6,3	7,0	-								
		38	3,1	3,5	-	-	5,5	5,9	6,4	-								
		43	2,9	3,2	-	-	5,1	5,4	5,9	-								
iCOOL 15 CO_2 MT/LT	Qmin	32	3,1	3,8	-	5,3	-	6,9	7,9	8,8	541 x 1426 x 1516	300	26	1/2"	1/2"	12,4	2x630	39
		38	2,9	3,5	-	4,8	-	6,2	7,0	7,8								
		43	-	3,3	-	4,3	-	5,5	6,2	6,9								
	Qmax	32	7,3	8,7	-	11,8	-	15,1	16,8	18,3								
		38	7,0	8,2	-	11	-	14,0	15,3	16,6								
		43	-	7,8	-	10,3	-	12,8	13,9	14,9								
iCOOL 22 CO_2 MT/LT	Qmin	32	Under development															
		38																
		43																
	Qmax	32	Under development															
		38																
		43																
iCOOL 30D CO_2 MT	Qmin	32	TBC				TBC				1100 x 1580 x 1670	470				32,0	2x710	
		38																
		43																
	Qmax	32	26,9	30,3	33,5	36,5	26,9	30,3	33,5	36,5								
		38	25,0	28,0	30,7	33,1	25,0	28,0	30,7	33,1								
		43	23,1	25,6	27,8	29,8	23,1	25,6	27,8	29,8								
iCOOL MAX 15 CO_2 MT/LT	Qmin	32	3,1	3,8	-	-	-	6,9		8,8	790 x 1326 x 1720	270	18	1/2"	1/2"	12,4	1x560	120
		38	2,9	3,5	-	-	-	6,2		7,8								
		43	-	3,3	-	-	-	5,5		6,9								
	Qmax	32	7,3	8,7	-	-	-	15,1		18,3								
		38	7,0	8,2	-	-	-	14,0	-	16,6								
		43	-	7,8	-	-	-	12,8	-	14,9								

Tamb oC - Ambient temp. · Te oC - Evaporating temp.
Qo [kW] (max) - Nominal cooling capacity
Qo [kW] (min) - Minimum cooling capacity

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Case Study

Freezing chamber (up to 80 m3)

Higher efficiency of the system thanks to low oil migration and the limitation of defrost cycles are the major challenge faced by refrigeration in the HORECA sector.

Gourmet shop (up to 600 sqm)

Managing several small evaporators (down to 500 W) thanks to a centralized solution with low energy consumption.

Convenience store (up to 2 500 sqm)

Redundancy of inverter cooling units to increase reliability of the installation.

Delicatessen application (meat, chocolate, cheese)

Managing a precise evaporating temperature (+/-0,1°C) to supply proper cooling needs to static evaporators without the need of electronic expansion valve.

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We are AREA, the HVAC and Refrigeration Company

Scan the code
And learn more
about who are we

Multilingual, native speaker team

Design and production in the EU

Technical support Field/Online

Application expertise

Spare parts management

areacademy
Online/Offline training

Since 1986 @ your side for HVAC and Refrigeration projects

Sustainability is a core value of AREA, iCOOL family is designed to help retailers in the food sector, food service and cold storage segments comply with ECOdesign and F-Gas regulations.

We understand your business, and provide you with the best solutions for your new shop.

INVERTER TECHNOLOGY

ECO DESIGN

EU Designed and manufactured in Europe

ISO 9001:2015 CERTIFIED COMPANY

TÜVRheinland CERTIFIED

CE

REACH COMPLIANT • COMPLIANT

RoHS compliant