

# COMMERCIAL EVAPORATORS

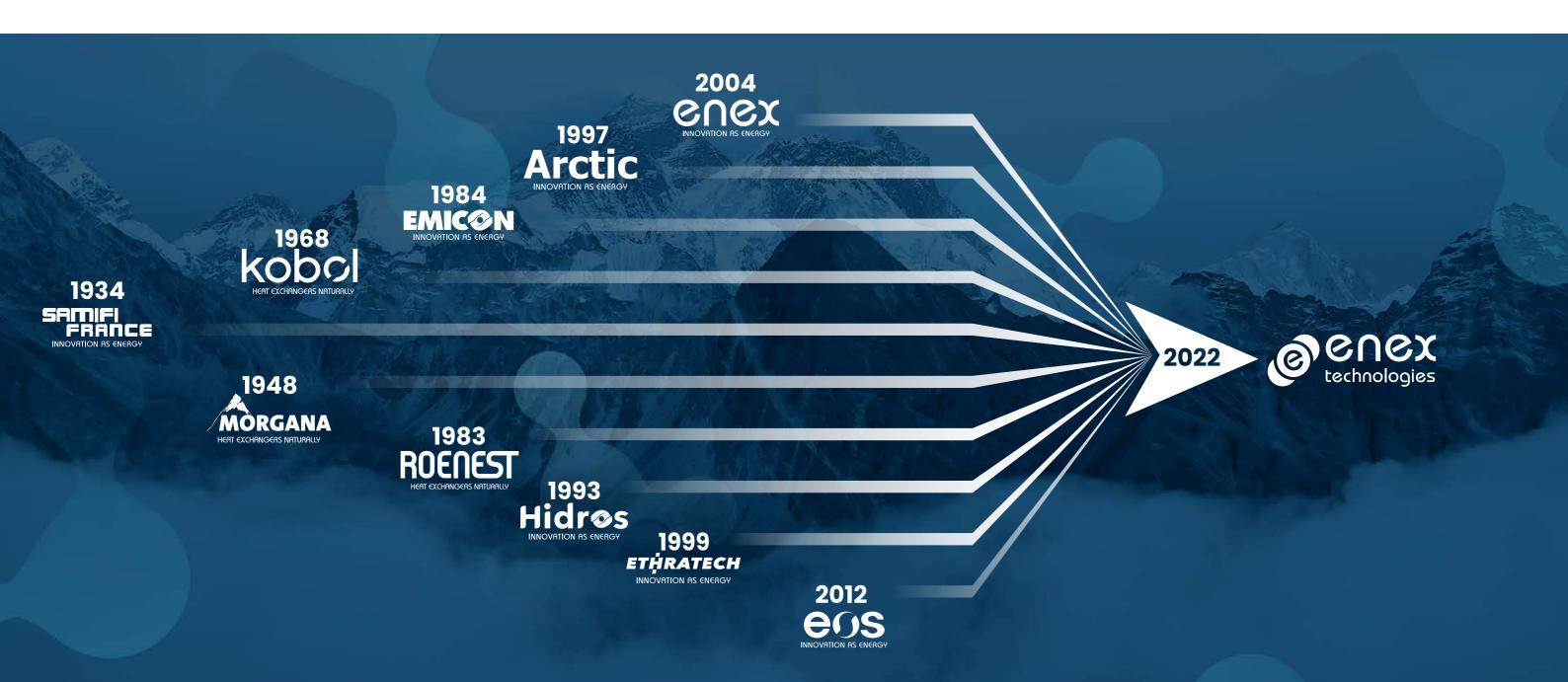
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# **About**

# Pioneers and innovators in natural HVACR since the 1930s

Enex Technologies is a transformative world leader in natural and energy efficient cooling, heating, ventilation and refrigeration equipment that began in the 1930s by producing ammonia natural refrigeration equipment, later adding  ${\rm CO_2}$ , water and propane as natural refrigerants with low global warming potential.





1000+ Employees

**200M€** 

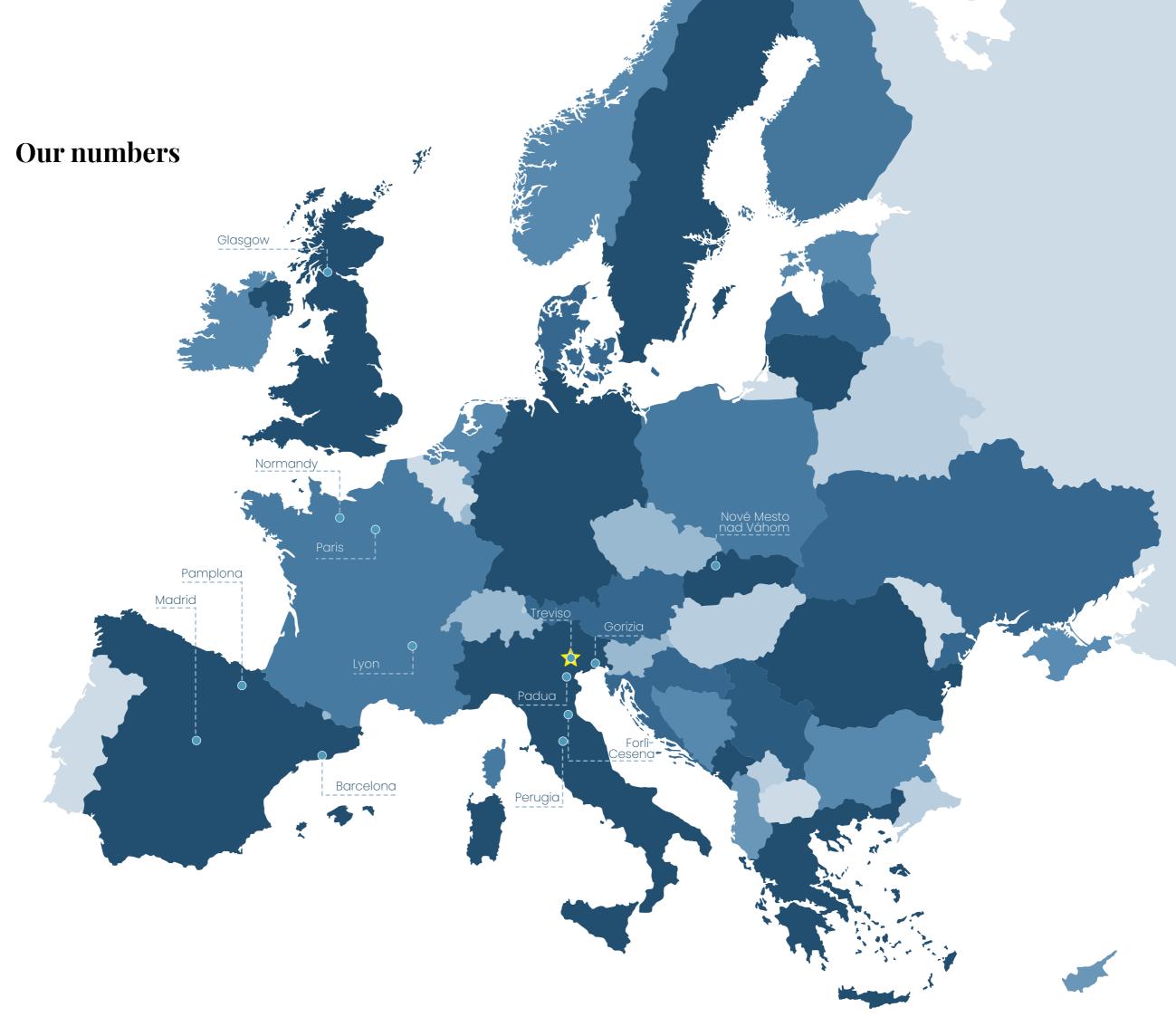
Revenues

12 Factories

125 Countries

+ Headquarter

Manufacturing, R&D site and commercial office



# **Our segments**

Our leading natural refrigerant, energy efficiency and energy transition technologies transform the HVACR industry.

# We are driven by strong values to create a better and more sustainable world







#### COOLING

Our chillers are designed to operate efficiently with all refrigerants, generating cold water for climatization or industrial processes.

#### **REFRIGERATION**

Our commercial and industrial refrigeration systems are designed for high performance, quality, reliability and carbon footprint reduction through the use of natural refrigerants Ammonia and CO<sub>2</sub>.

#### **HEATING**

Our high efficiency heat pump range using natural refrigerant  $CO_2$  is a simple-to use, elegant solution for applications requiring high quantities of sanitary hot water.



#### **SUSTAINABILITY**

Buildings consume 40% of the energy used in the developed world. HVACR systems use 60% of the energy in buildings. Our high efficiency solutions are central to reducing global warming, and we strive every day to help our customers reduce their carbon footprint by using natural refrigerants.



#### **COMMUNITIES**

We are a European industrial champion, building clean factories that support new jobs, growth and expansion to new markets.



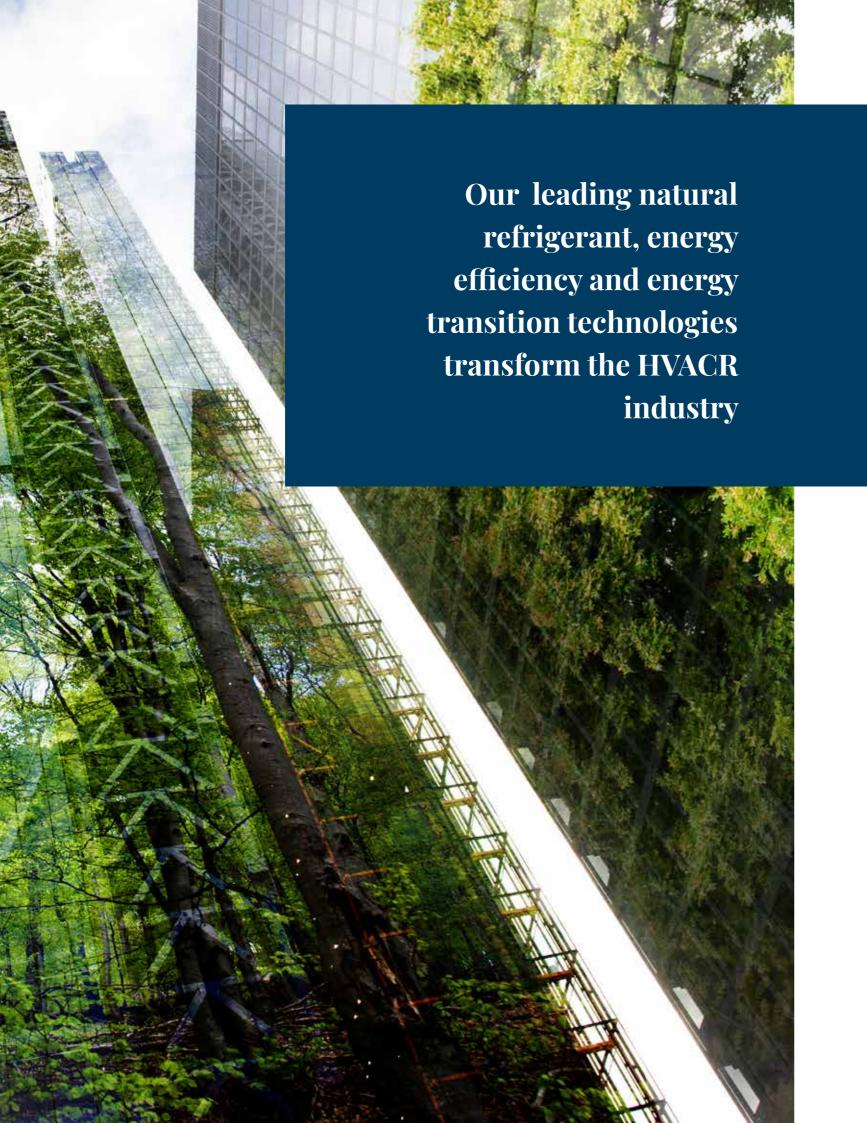
#### **INNOVATION**

Always leading. From pioneering the efficient and safe use of natural refrigerants to helping the industry move away from gas heat towards systems that use electricity.



#### **DIVERSITY & INCLUSION**

At Enex Technologies we ensure that every colleague feels respected, valued and motivated to support our customers, every day.



Enex Technologies is committed to developing and improving innovative and efficient low global warming technologies in HVAC, commercial and industrial refrigeration systems that re-

duce energy consumption and environmental impact.

# **Natural refrigerants**

## CO, (R744)

CO<sub>2</sub> is a naturally occurring, non-ozone-depleting refrigerant that addresses today's concerns about the global warming potential (GWP) of common F-gases. With a GWP of 1, CO<sub>2</sub> is widely and effectively used in commercial and industrial refrigeration systems.

# **AMMONIA (R717)**

Ammonia is the most widely used natural refrigerant for large industrial applications. With a GWP of 0, ammonia is a cost-effective, efficient, and sustainable alternative refrigerant.

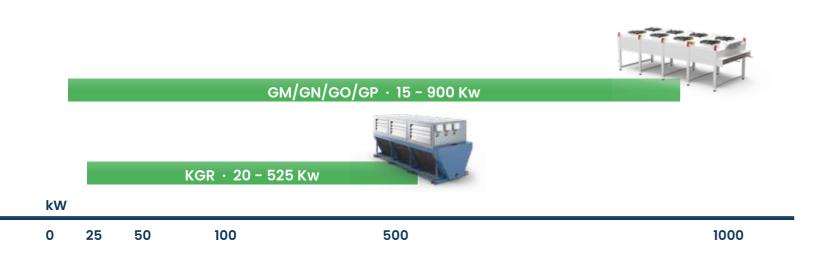
# PROPANE (R290)

With its excellent thermodynamic properties and a GWP of 3, Propane is an energy efficient, reliable, versatile, and cost-effective natural refrigerant.

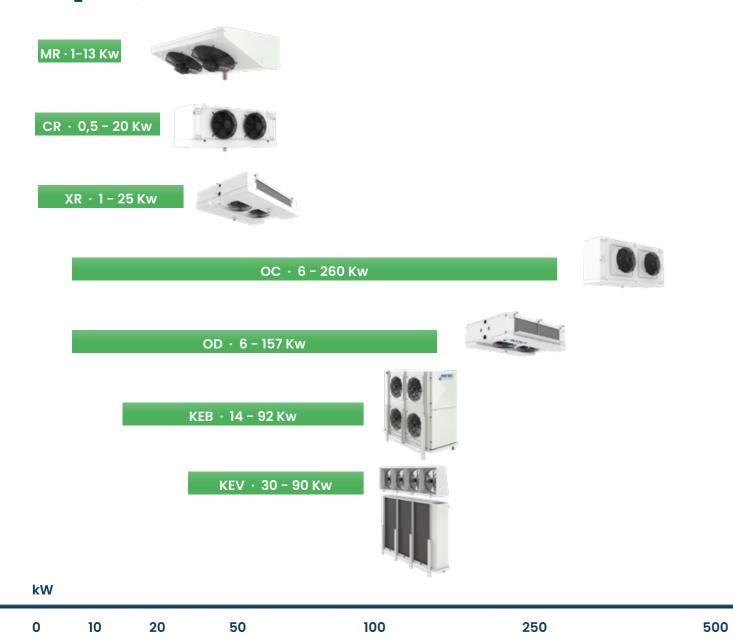
# **WATER (R718)**

Indirect systems using pure water or brine mixtures to transfer heat are simple to install and easy to service in all applications.

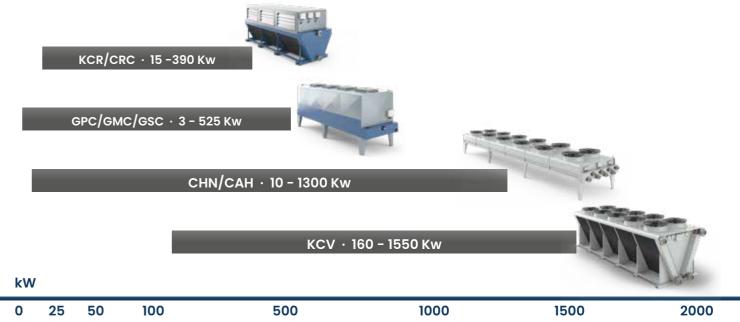
# CO<sub>2</sub> Gas coolers



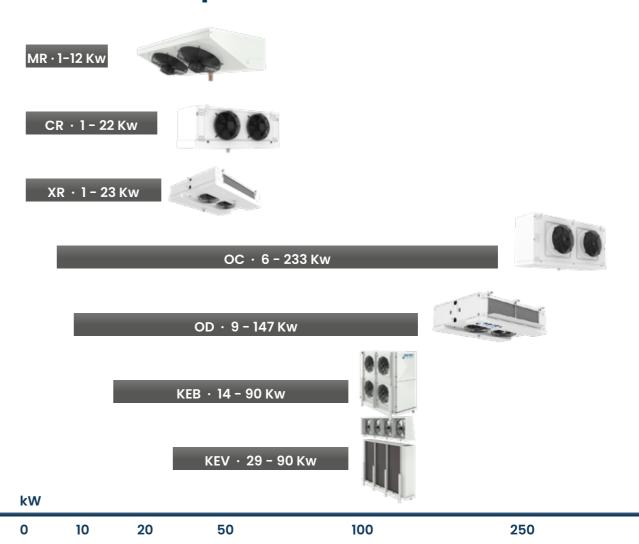
# **CO<sub>2</sub> Evaporators**



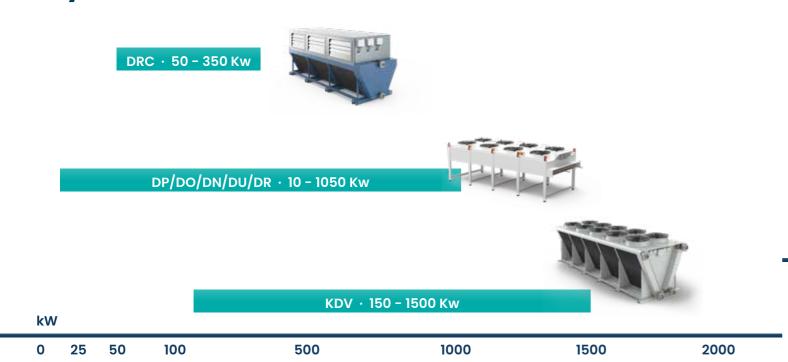
# **HFC-HFO Condensers**



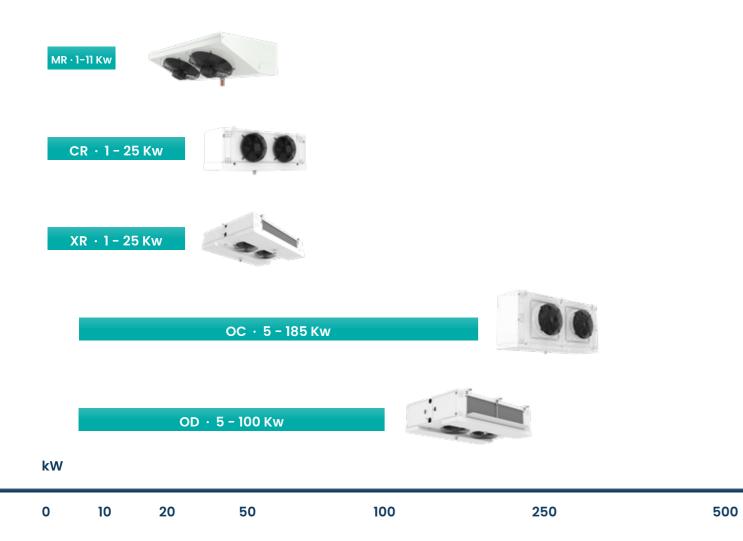
# **HFC-HFO Evaporators**

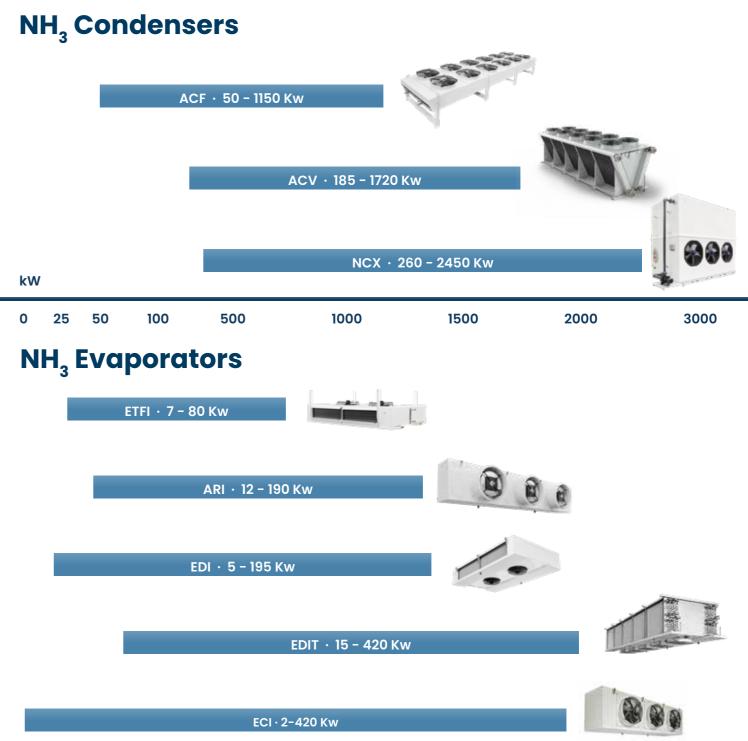


# **Dry Coolers**



# **Brine Coolers**









kW

BF · 35 - 800 Kw



# CO<sub>2</sub> Evaporators

Enex Technologies'  $\mathrm{CO_2}$  Evaporating Coil heat exchangers cover all the needs related to the maximum achievable pressures and the specifications related to  $\mathrm{CO_2}$  system design in terms of thermodynamic performance and frame conformation, so that they can be perfectly integrated into the customer's machine or system.











# **SLIM COMPACT CO**

The reliable, efficient, and eco-friendly cooling solution, ideal for small cold rooms for cooling and freezing applications

MR/MC CO<sub>2</sub>

Cooling capacity from 0,8 kW to 4,8 kW PS=60 bar (80bar as optional)





ENEX TECHNOLOGIES presents the **Slim Compact CO2 Evaporator** range for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

**Ready to use in CO2 subcritical and transcritical installations**, our Slim Compact CO2 line consists of more than 20 models, available in cooling capacities between 0,8 and 4,8 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Slim Compact CO2 Evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our SLIM COMPACT CO2 EVAPORATORS range which can beare segmented into following ranges:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
MR / MC CO <sub>2</sub>	0,8 - 4,8	0,4 - 2,7

SC2: Air Inlet Temperature 0°C, Evaporating Temperature -8°C SC3: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Slim Compact CO<sub>2</sub> Evaporator line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of copper tubes across self-spaced corrugated fins.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

•Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=80bar
- Resistance and leaks tests up to 115 bar
- Burst tests up to 240 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

• Strong and robust design using high-quality components ensure long life.

#### SUSTAINABILITY

• With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.





NOMENCLATURE	M R 35 CO2 6	60E
Typology —		
M = Mini - Slim Compact		
Fin Spacing		
<b>R</b> = 4,2 mm		
<b>c</b> = 7,0 mm		
Model code		
Technology —		
CO2 = CO2 evaporator		
Service pressure		
<b>60B</b> = PS 60bar		
<b>80B</b> = PS 80bar		

#### **FINNED COILS**

- Built with copper tubes Ø 3/8" (MR) and Ø 12mm (MC), manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 86 bar (PS=60bar) and 115 bar (PS=80bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings is available: 4,2mm / 7mm.

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and fans plate are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FANS MOTORS**

- Fan diameter available: Ø 250 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to + 40°C.
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all MR/MC series. Recommended for use below 2°C air inlet temperature.
- They are shielded by a stainless steel tube and their terminals are vulcanised over it to avoid electric shunts; every heater includes a single ground wireThey are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- PS=80bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

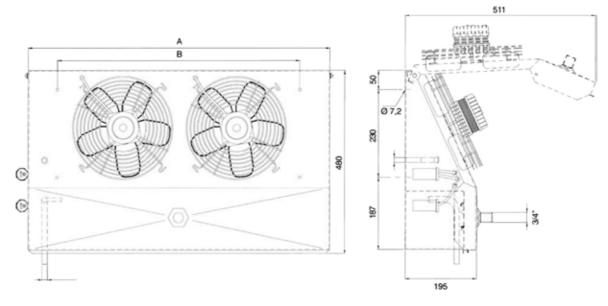
#### **DEFROST**

- Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

#### **OTHER**

• High efficiency fans / EC fans

## **PRODUCT RANGE OVERVIEW**



		Fo	ins	Dimensions			
М	ODEL	N°	Ø (mm)	Α	В		
MR-6	MC-4	1	250	520	348		
MR-12	MC-11	2	250	825	653		
MR-21	MC-17	3	250	1.130	958		
MR-28	MC-23	4	250	1.435	1.263		
MR-35	MC-30	5	250	1.740	1.568		





## **TECHNICAL DATA**

# Fin pitch = 4,2 mm

## Fan Ø= 250 mm, RPM = 1.300

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dat	ta	Elect		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
MR-6 CO2	0,8	0,6	0,5	3,5	0,63	440	3,5	1	0,04	0,3	0,3	1,3	3/8"	3/8"	9
MR-12 CO2	1,9	1,4	1,2	7	1,26	880	4,5	2	0,07	0,5	0,5	2,3	3/8"	3/8"	15
MR-21 CO2	3,0	2,1	1,8	10,5	1,89	1.320	5,5	3	0,11	0,8	0,7	3,3	3/8"	3/8"	21
MR-28 CO2	3,9	2,8	2,3	14	2,51	1.760	6,5	4	0,14	1,0	1,0	4,4	3/8"	3/8"	27
MR-35 CO2	4,9	3,5	3,0	17,5	3,14	2.200	7,5	5	0,18	1,3	1,2	5,4	3/8"	3/8"	33

# Fin pitch = 7 mm

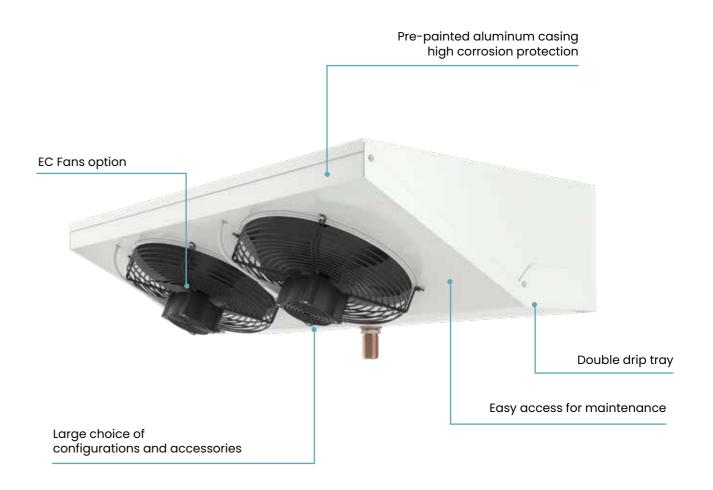
## Fan Ø = 250 mm, RPM = 1.300

Model	Capacity (kW)				Internal Volume	Air Flow	Air Throw	Fans Data		Fans Data		Fans Data		Fans Data		Fans Data		Fans Data		ans Data		Fans Data		rical rost	Inlet	Outlet	Weight												
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg																								
MC-4 CO2	0,6	0,5	0,4	2,3	0,63	455	4,5	1	0,04	0,3	0,6	2,6	3/8"	3/8"	9																								
MC-11 CO2	1,5	1,1	0,9	4,6	1,26	910	5,5	2	0,07	0,5	1,0	4,7	3/8"	3/8"	15																								
MC-17 CO2	2,4	1,7	1,5	6,8	1,89	1.365	6,5	3	0,11	0,8	1,5	6,7	3/8"	3/8"	21																								
MC-23 CO2	3,2	2,3	1,9	9,1	2,51	1.820	7,5	4	0,14	1,0	1,9	8,8	3/8"	3/8"	27																								
MC-30 CO2	3,9	2,8	2,4	11,3	3,14	2.275	8,5	5	0,18	1,3	2,4	10,8	3/8"	3/8"	33																								

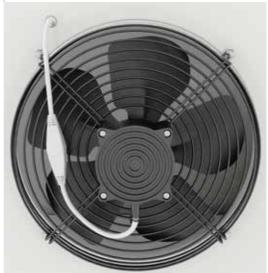




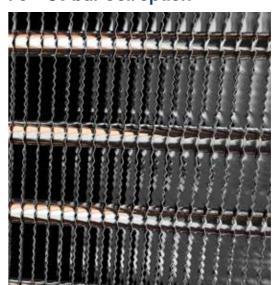
## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



**EC Fan option** 



PS = 80 bar Coil option



Easy access for maintenance







# **CUBIC COMPACT CO2**

The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications

# CR/CC

Cooling capacity from 1 kW to 19 kW PS 60 bar (80bar as optional)





ENEX TECHNOLOGIES presents the **Cubic Compact CO2 Evaporator** range for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

**Ready to use in CO2 subcritical and transcritical installations**, our Cubic Compact CO2 line consists of more than 100 models, available in cooling capacities between 1 and 19 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Cubic Compact CO2 Evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our CUBIC COMPACT CO2 EVAPORATORS are segmented into two ranges:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
CR/CC CO2	1 - 19	0,4 - 11

**SC2**: Air Inlet Temperature 0°C, Evaporating Temperature -8°C **SC3**: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Cubic Compact CO2 Evaporator line offers customers a wide spectrum of benefits including, but not limited to:

#### HIGH PERFORMANCE

- Square arrangement of copper tubes across selfspaced corrugated fins.
- Optimization of circuits for maximum efficiency.
- Optional EC fans adapt to the needs of the installation application with minimal energy consumption

#### **SELECTION SOFTWARE**

 Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS 80 bar
- Resistance and leak tests up to 115 bar
- Burst tests up to 240 bar
- Equipment pressurized with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

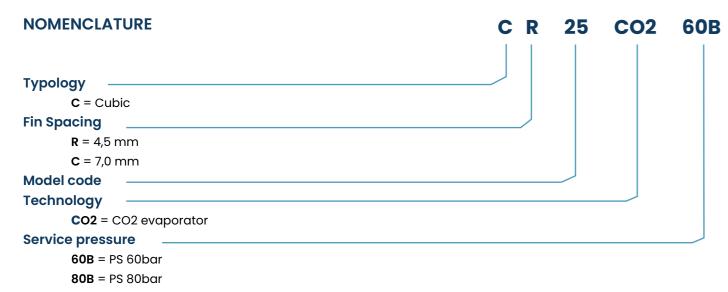
• Strong and robust design using high-quality components ensure long life.

#### **SUSTAINABILITY**

• With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.







#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 86 bar (PS=60bar) and 115 bar (PS=80bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 4,5mm / 7mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FANS MOTORS**

- Fan diameter available: Ø 250/315/350 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to + 40°C (from -25°C up to + 40°C for EC fan)
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all CR/CC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





#### **OPTIONS & ACCESORIES**

#### COIL

- PS=80bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing
- · Insulated drip tray

#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

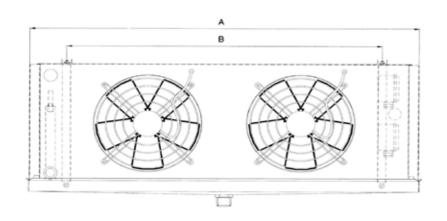
#### **OTHER**

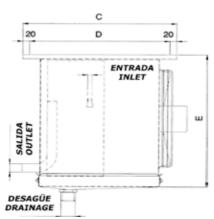
• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**





		Fo	ans			Dimensions	S	
M	ODEL	N°	ø (mm)	Α	В	С	D	E
CR-9	CC-5	1	250	575	335	410	370	375
CR-12	CC-9	1	250	575	335	410	370	375
CR-18		2	250	905	685	410	370	375
CR-25	CC-15	1	315	695	475	450	410	440
CR-32	CC-19	3	250	1.235	1.015	410	370	375
CR-39	CC-27	1	350	905	685	490	450	565
CR-44	CC-33	2	315	1.145	925	450	410	440
CR-52	CC-41	2	315	1.145	925	450	410	440
CR-67	CC-50	3	315	1.595	1.375	450	410	440
CR-79	CC-56	2	350	1.565	1.345	490	450	565
CR-96	CC-75	2	350	1.565	1.345	490	450	565
CR-119	CC-85	3	350	2.225	2.005	490	450	565
CR-148	CC-114	3	350	2.225	2.005	490	450	565





# **TECHNICAL DATA**

# Fin pitch = 4,5 mm

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw		Fc	ıns Da	ta			trical rost	Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	Nº	Ø	RPM	kW	Α	kW	Α	mm	mm	kg
CR-9 CO <sub>2</sub>	1,1	0,8	0,7	5,7	1,3	800	8,0	1	250	1.300	0,04	0,3	0,9	1,5	3/8"	3/8"	11
CR-12 CO <sub>2</sub>	1,5	1,1	0,9	8,5	2,0	650	7,0	1	250	1.300	0,04	0,3	1,1	1,9	3/8"	3/8"	14
CR-18 CO <sub>2</sub>	2,2	1,6	1,3	8,5	2,0	1.600	9,0	2	250	1.300	0,07	0,5	1,5	2,6	3/8"	3/8"	17
CR-25 CO <sub>2</sub>	3,4	2,5	2,1	13,9	3,2	1.500	14,5	1	315	1.350	0,11	0,5	1,4	2,3	3/8"	3/8"	22
CR-32 CO <sub>2</sub>	4,4	3,1	2,7	17	3,9	2.200	10,0	3	250	1.300	0,11	0,8	2,1	3,8	3/8"	3/8"	27
CR-39 CO <sub>2</sub>	5,2	3,7	3,2	18,1	4,2	2.825	20,0	1	350	1.350	0,15	0,7	2,4	5,1	3/8"	3/8"	29
CR-44 CO <sub>2</sub>	6,0	4,3	3,6	18,5	4,3	3.500	17,0	2	315	1.350	0,22	1,1	2,4	3,9	3/8"	3/8"	34
CR-52 CO <sub>2</sub>	6,6	4,8	4,1	27,8	6,4	2.870	16,0	2	315	1.350	0,22	1,1	3,2	6,9	3/8"	1/2"	44
CR-67 CO <sub>2</sub>	8,7	6,4	5,4	27,8	6,4	5.250	18,0	3	315	1.350	0,33	1,6	3,4	5,4	1/2"	1/2"	49
CR-79 CO <sub>2</sub>	10,4	7,5	6,3	36,2	8,3	5.650	24,0	2	350	1.350	0,33	1,5	4,5	9,3	1/2"	1/2"	56
CR-96 CO <sub>2</sub>	12,7	9,0	7,5	54,3	12,4	5.200	22,0	2	350	1.350	0,33	1,5	5,5	9,7	1/2"	1/2"	71
CR-119 CO <sub>2</sub>	15,6	11,2	9,5	54,3	12,4	8.475	27,0	3	350	1.350	0,50	2,2	6,4	13,5	5/8"	5/8"	81
CR-148 CO,	19,1	13,5	11,3	81,4	18,7	7.800	25,0	3	350	1.350	0,50	2,2	8,0	14,2	5/8"	5/8"	105

# Fin pitch = 7 mm

Model	Capacity (kW)		(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fans Data				Electrical defrost		Inlet	Outlet	Weight	
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	Ø	RPM	kW	Α	kW	Α	mm	mm	kg
CC-5 CO <sub>2</sub>	0,5	0,4	0,3	2,9	1,0	800	9,0	1	250	1.300	0,04	0,3	0,9	1,5	3/8"	3/8"	9
CC-9 CO <sub>2</sub>	1,2	0,9	0,7	5,8	2,0	650	8,0	1	250	1.300	0,04	0,3	1,1	1,9	3/8"	3/8"	12
CC-15 CO <sub>2</sub>	2,1	1,5	1,2	6,3	2,1	1.800	19,0	1	315	1.350	0,11	0,5	1,4	2,3	3/8"	3/8"	18
CC-19 CO <sub>2</sub>	2,8	2,0	1,7	8,7	2,9	2.400	16,0	3	250	1.300	0,11	0,8	2,1	3,8	3/8"	3/8"	23
CC-27 CO <sub>2</sub>	4,1	2,9	2,5	12,4	4,2	2.800	22,0	1	350	1.350	0,15	0,7	2,4	5,1	3/8"	3/8"	28
CC-33 CO <sub>2</sub>	4,9	3,5	2,9	12,6	4,3	3.670	19,0	2	315	1.350	0,22	1,1	2,4	3,9	3/8"	3/8"	32
CC-41 CO <sub>2</sub>	5,8	4,2	3,5	18,9	6,4	3.200	17,0	2	315	1.350	0,22	1,1	3,2	6,9	3/8"	1/2"	39
CC-50 CO,	7,0	5,1	4,3	18,9	6,4	5.490	20,0	3	315	1.350	0,33	1,6	3,4	5,4	1/2"	1/2"	46
CC-56 CO,	8,2	5,8	4,9	24,7	8,3	5.600	25,0	2	350	1.350	0,33	1,5	4,5	9,3	1/2"	1/2"	52
CC-75 CO,	10,7	7,5	6,4	37	12,4	5.360	23,0	2	350	1.350	0,33	1,5	5,5	9,7	5/8"	5/8"	67
CC-85 CO,	12,5	8,8	7,5	37	12,4	8.545	28,0	3	350	1.350	0,50	2,2	6,4	13,5	5/8"	5/8"	78
CC-114 CO <sub>2</sub>	16,2	11,4	9,7	55,5	18,7	8.050	26,0	3	350	1.350	0,50	2,2	8,0	14,2	5/8"	5/8"	98



EC Fan option

Double drip tray



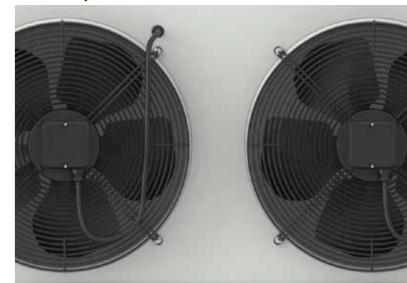


## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



Large choice of configurations and accessories

## **EC Fan option**



PS = 80 bar Coil option



End plates with impact fasteners to easy maintenance









The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications.

XR/XC CO<sub>2</sub>

Cooling capacity from 1,8 kW to 18,5 kW PS=60 bar (80bar as optional)





ENEX TECHNOLOGIES presents the **Dual Flow Compact CO2 Evaporator** range for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

**Ready to use in CO2 subcritical and transcritical installations**, consists of more than 20 models, available in cooling capacities between 1,8 and 18,5 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Dual Flow Compact CO2 Evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our DUAL FLOW COMPACT CO2 EVAPORATORS can be segmented into two ranges:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
XR/XC CO2	1,8 - 18,5	1 - 11

**SC2**: Air Inlet Temperature 0°C, Evaporating Temperature -8°C **SC3**: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Dual Flow Compact CO2 Evaporator line offers customers a wide spectrum of benefits including, but not limited to:

#### HIGH PERFORMANCE

- Staggered arrangement of the copper tubes across selfspaced fins, the accurate link between tubes and fins as well as the use of corrugated fins allow our finned coils to reach high performance.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

•Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### SAFETY

- Ready up to PS=80bar
- Resistance and leaks tests up to 115 bar
- Burst tests up to 240 bar
- Equipment pressurised with nitrogen at 2 bar

#### QUALITY: ROBUSTNESS + RELIABILITY

High-quality components guarantee a long life product. Strong and robust design

#### **SUSTAINABILITY**

• With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.





NOMENCLATURE	X R	41	CO2	60B
Typology ————				
X = Dual flow				
Fin Spacing				
<b>R</b> = 3,5 mm				
<b>c</b> = 6,0 mm				
Model code				
Technology —				
CO2 = CO2 evaporator				
Service pressure				
<b>60B</b> = PS 60bar				
<b>80B</b> = PS 80bar				

#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 86 bar (PS=60bar) and 115 bar (PS=80bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 3,5mm / 6mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FANS MOTORS**

- Fan diameter available: Ø 300 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to +40°C (from -25°C up to +60°C for EC fan)
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all XR/XC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- PS=80bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

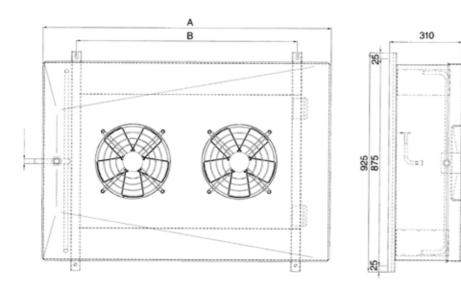
#### **OTHER**

• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**



_		F	Dimensions		
M	IODEL	N°	ø (mm)	Α	В
XR-20	XC-17	1	300	768	480
XR-41	XC-35	2	300	1.218	930
XR-71	XC-49	3	300	1.668	1.380
XR-87	XC-71	4	300	2.188	1.830
XR-115	XC-87	5	300	2.568	2.280
XR-137	XC-107	6	300	2.920	2.730





# **TECHNICAL DATA**

# Fin pitch = 3,5 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dat	ta	Elect defi		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XR-20 LS CO <sub>2</sub>	1,9	1,4	1,2	13,6	2,48	1.100	2x5,0	1	0,08	0,3	1,1	1,9	3/8"	3/8"	26
XR-41 LS CO <sub>2</sub>	4,9	3,6	3,0	27,1	4,95	2.200	2x6,0	2	0,15	0,7	2,0	3,5	3/8"	3/8"	44
XR-71 LS CO <sub>2</sub>	7,8	5,6	4,8	40,7	7,43	3.300	2x7,0	3	0,23	1,0	2,8	5,0	1/2"	1/2"	59
XR-87 LS CO <sub>2</sub>	10,6	7,5	6,4	54,2	9,9	4.400	2x8,0	4	0,30	1,4	3,6	6,5	1/2"	1/2"	86
XR-115 LS CO <sub>2</sub>	12,6	9,2	7,8	67,8	12,37	5.500	2x9,0	5	0,38	1,7	4,5	8,0	5/8"	5/8"	98
XR-137 LS CO <sub>2</sub>	15,5	11,1	9,5	81,3	14,84	6.600	2x11,0	6	0,46	2,0	5,3	9,5	5/8"	5/8"	120

## Fan Ø= 300 mm, RPM = 1.390

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ins Dat	ta	Elect	rical rost	Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XR-20 HS CO <sub>2</sub>	2,2	1,7	1,3	13,6	2,48	1.450	2x7,0	1	0,08	0,3	1,1	1,9	3/8"	3/8"	26
XR-41 HS CO <sub>2</sub>	5,8	4,3	3,6	27,1	4,95	2.900	2x8,0	2	0,15	0,7	2,0	3,5	3/8"	3/8"	44
XR-71 HS CO <sub>2</sub>	9,3	6,7	5,7	40,7	7,43	4.350	2x9,0	3	0,23	1,0	2,8	5,0	1/2"	1/2"	59
XR-87 HS CO <sub>2</sub>	12,6	8,9	7,6	54,2	9,9	5.800	2x10,0	4	0,30	1,4	3,6	6,5	1/2"	1/2"	86
XR-115 HS CO <sub>2</sub>	15,1	11,0	9,4	67,8	12,37	7.250	2x12,0	5	0,38	1,7	4,5	8,0	5/8"	5/8"	98
XR-137 HS CO <sub>2</sub>	18,6	13,4	11,4	81,3	14,84	8.700	2x14,0	6	0,46	2,0	5,3	9,5	5/8"	5/8"	120

# Fin pitch = 6 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Capacity (kW)		Surface	Internal Volume	Air Flow	Air Throw	Fans Data		nta -		rical ost	Inlet	Outlet	Weight	
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XC-17 LS CO <sub>2</sub>	1,4	1,0	0,8	7,8	2,48	1.130	2x6,0	1	0,08	0,3	1,1	1,9	3/8"	3/8"	25
XC-35 LS CO <sub>2</sub>	4,0	2,8	2,3	15,5	4,95	2.260	2x7,0	2	0,15	0,7	2,0	3,5	3/8"	3/8"	42
XC-49 LS CO <sub>2</sub>	6,4	4,5	3,8	23,2	7,43	3.390	2x8,0	3	0,23	1,0	2,8	5,0	1/2"	1/2"	56
XC-71 LS CO <sub>2</sub>	8,7	6,1	5,2	30,9	9,9	4.520	2x9,0	4	0,30	1,4	3,6	6,5	1/2"	1/2"	82
XC-87 LS CO <sub>2</sub>	10,3	7,4	6,1	38,7	12,37	5.650	2x10,0	5	0,38	1,7	4,5	8,0	5/8"	5/8"	94
XC-107 LS CO <sub>2</sub>	12,7	9,0	7,7	46,4	14,84	6.780	2x12,0	6	0,46	2,0	5,3	9,5	5/8"	5/8"	114

## Fan Ø= 300 mm, RPM = 1.390

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dat	ta	Elect		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XC-17 HS CO <sub>2</sub>	1,6	1,2	1,0	7,8	2,48	1.500	2x8,0	1	0,08	0,3	1,1	1,9	3/8"	3/8"	25
XC-35 HS CO <sub>2</sub>	4,7	3,4	2,8	15,5	4,95	3.000	2x9,0	2	0,15	0,7	2,0	3,5	3/8"	3/8"	42
XC-49 HS CO <sub>2</sub>	7,6	5,4	4,6	23,2	7,43	4.500	2x10,0	3	0,23	1,0	2,8	5,0	1/2"	1/2"	56
XC-71 HS CO <sub>2</sub>	10,4	7,3	6,2	30,9	9,9	6.000	2x11,0	4	0,30	1,4	3,6	6,5	1/2"	1/2"	82
XC-87 HS CO <sub>2</sub>	12,2	8,9	7,5	38,7	12,37	7.500	2x13,0	5	0,38	1,7	4,5	8,0	5/8"	5/8"	94
XC-107 HS CO <sub>2</sub>	15,1	10,8	9,2	46,4	14,84	9.000	2x15,0	6	0,46	2,0	5,3	9,5	5/8"	5/8"	114

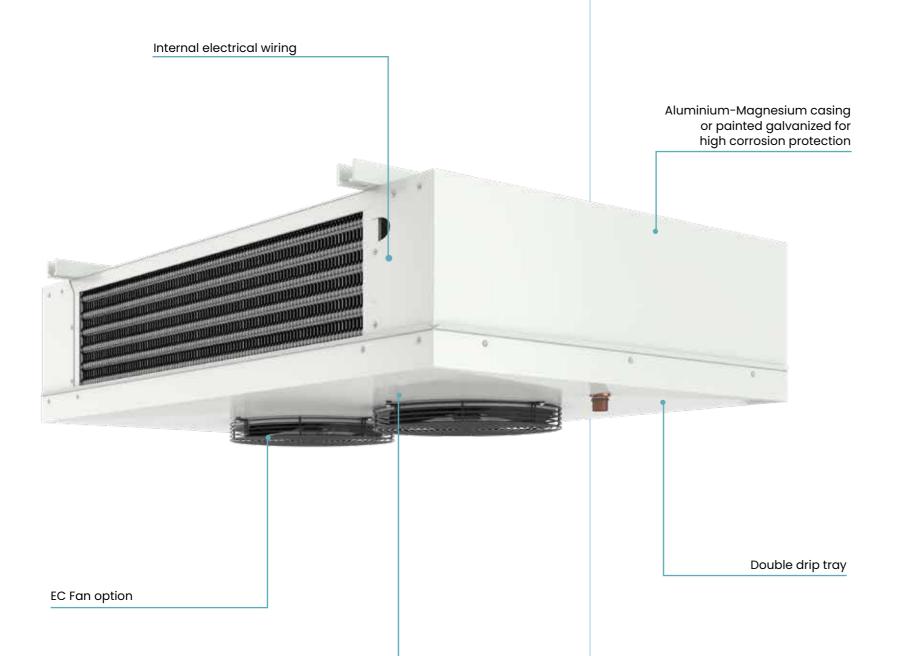




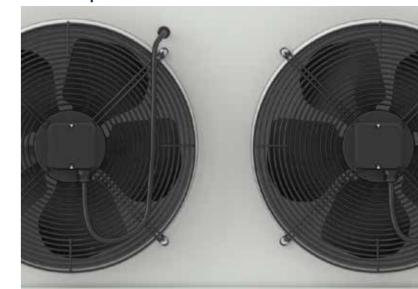
Easy access for maintenance



## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



## **EC Fan option**



PS = 80 bar Coil option



End plates with impact fasteners to easy maintenance





# HFC-HFO Evaporators

Enex Technologies' Evaporating Coil heat exchangers are compatible with all design requirements from the current low-GWP refrigerants available today. They are made according to customer specifications in terms of thermodynamic, structural and frame conformation performance, so that they can be perfectly integrated into the customer's machine or system.

Reliable and low GWP solutions for industrial and commercial applications









# **SLIM COMPACT HFC-HFO**

The reliable, efficient, and eco-friendly cooling solution, ideal for small cold rooms for cooling and freezing applications

# MR/MC

Cooling capacity from 0,7 kW to 4,2 kW





ENEX TECHNOLOGIES presents the **Slim Compact Evaporator** range for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

**Ready to use in installations with Low-GWP refrigerants**, our Slim Compact Evaporator HFC-HFO line consists of more than 20 models, available in cooling capacities between 0,7 and 4,2 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of slim compact evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our SLIM COMPACT EVAPORATOR line is segmented into two ranges:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
MR / MC	0,7 - 4,2	0,4 - 2,6

SC2: Air Inlet Temperature 0°C, Evaporating Temperature -8°C SC3: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Slim Compact HFC-HFO line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of copper tubes across self-spaced corrugated fins.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

 Available for ENEX TECHNOLOGIES customers, for greater comfort and dynamism in the day-to-day activities.

#### **SAFETY**

- Ready up to PS=30bar
- Resistance and leaks tests up to 43 bar
- Burst tests up to 90 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

• Strong and robust design using high-quality components ensure long life.

#### **SUSTAINABILITY**

- A2L READY
- Low GWP refrigerants:
  - R1234yf: GWP=4
  - R1234ze: GWP=6
  - R455A: GWP=145
  - R454C: GWP=146





NOMENCLATURE	M R 35
Typology	
M = "Mini" / Slim Compact	
Fin Spacing	
R = 4.2  mm	
<b>c</b> = 7,0 mm	
Model code	

#### **FINNED COILS**

- Built with copper tubes Ø 3/8" (MR) and Ø 12mm (MC), manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 43 bar (PS=30bar) and 65 bar (PS=45bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings is available: 4,2mm / 7mm.

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and fans plate are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FAN MOTORS**

- Fan diameter available: Ø 250 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to + 40°C.

• Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all MR/MC series. Recommended for use below 2°C air inlet temperature.
- They are shielded by a stainless steel tube and their terminals are vulcanised over it to avoid electric shunts; every heater includes a single ground wireThey are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- PS=45bar
- Copper Fins
- Coated Fins
- · Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

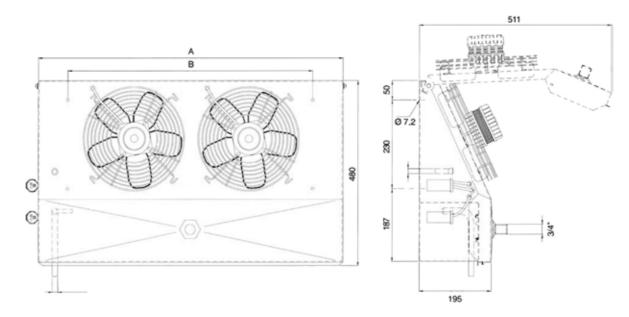
#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

#### **OTHER**

• High efficiency fans / EC fans

# PRODUCT RANGE OVERVIEW



		Fc	ins	Dimensions				
МС	DDEL	N°	Ø (mm)	Α	В			
MR-6	MC-4	1	250	520	348			
MR-12	MC-11	2	250	825	653			
MR-21	MC-17	3	250	1.130	958			
MR-28	MC-23	4	250	1.435	1.263			
MR-35	MR-35 MC-30		250	1.740	1.568			





## **TECHNICAL DATA**

# Fin pitch = 4,2 mm

## Fan Ø= 250 mm, RPM = 1300

Model	Capacity (kW)		(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fans Data		Electrical defrost		Inlet	Outlet	Weight	
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
MR-6	0,8	0,6	0,5	3,6	1,1	440	3,5	1	0,04	0,3	0,3	1,3	3/8"	3/8"	7
MR-12	1,6	1,1	0,9	7,1	1,9	880	4,5	2	0,07	0,5	0,5	2,3	3/8"	3/8"	12
MR-21	2,5	1,8	1,5	10,6	2,7	1.320	5,5	3	0,11	0,8	0,7	3,3	1/2"	5/8"	16
MR-28	3,2	2,2	1,8	14,1	3,5	1.760	6,5	4	0,14	1,0	1,0	4,4	1/2"	5/8"	21
MR-35	4,1	3,0	2,4	17,6	4,3	2.200	7,5	5	0,18	1,3	1,2	5,4	1/2"	5/8"	26

# Fin pitch = 7 mm

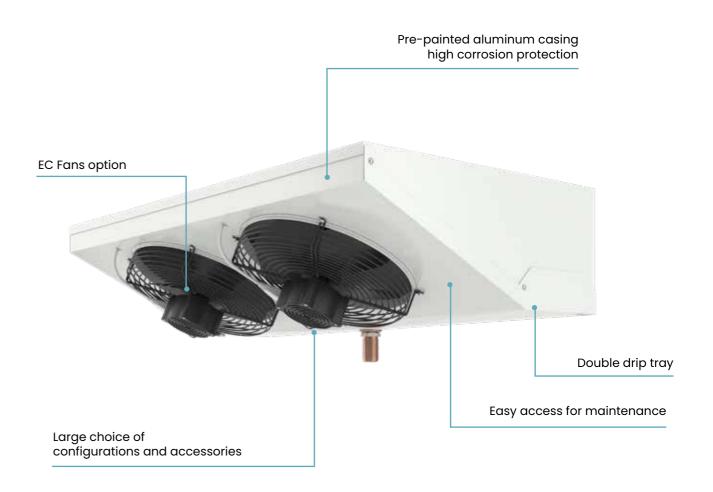
## Fan Ø= 250 mm, RPM = 1300

Model	Capacity (kW)		(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fans Data		Fan		ıns Data		Fans Data		Fans Data		rical rost	Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg						
MC-4	0,6	0,5	0,4	2,8	1,5	455	4,5	1	0,04	0,3	0,6	2,6	1/2"	1/2"	8						
MC-11	1,6	1,2	1,0	5,5	2,5	910	5,5	2	0,07	0,5	1,0	4,7	1/2"	1/2"	13						
MC-17	2,3	1,7	1,4	8,3	3,5	1.365	6,5	3	0,11	0,8	1,5	6,7	1/2"	5/8"	19						
MC-23	3,2	2,3	1,9	11	4,5	1.820	7,5	4	0,14	1,0	1,9	8,8	1/2"	5/8"	24						
MC-30	3,9	2,8	2,3	13,7	6	2.275	8,5	5	0,18	1,3	2,4	10,8	1/2"	5/8"	30						





## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



**EC Fan option** 



PS = 80 bar Coil option



Easy access for maintenance





# **CUBIC COMPACT HFC-HFO**

The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications

# CR/CC

Cooling capacity from 1 kW to 17 kW





ENEX TECHNOLOGIES presents the **Cubic Compact Evaporator r**ange for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

**Ready to use in installations with Low-GWP refrigerants**, our Cubic Compact HFC-HFO line consists of more than 100 models, available in cooling capacities between 1 and 17 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Cubic Compact HFC-HFO Evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our CUBIC COMPACT HFC-HFO EVAPORATORS are segmented into two ranges:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
CR/CC	1 - 17	0,5 - 10

SC2: Air Inlet Temperature 0°C, Evaporating Temperature -8°C SC3: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Cubic Compact HFC-HFO Evaporator line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of the copper tubes across selfspaced fins, the accurate link between tubes and fins as well as the use of corrugated fins allow our finned coils to reach high performance.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

•Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=30bar
- Resistance and leaks tests up to 43 bar
- Burst tests up to 90 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

Strong and robust design using high-quality components ensure long life.

#### **SUSTAINABILITY**

- A2L READY
- Low GWP refrigerants:
  - R1234yf: GWP=4
  - R1234ze: GWP=6
  - R455A: GWP=145
  - R454C: GWP=146

4/





NOMENCLATURE			CF	3	25
Typology					
<b>C</b> = Cubic					
Fin Spacing					
R = 4.5  mm					
c = 7,0  mm					
Model code					

#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 43 bar (PS=30bar) and 65 bar (PS=45bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 4,5mm / 7mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FAN MOTORS**

- Fan diameter available: Ø 250/315/350 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to + 40°C (from -25°C up to + 40°C for EC fan)
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all CR/CC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- PS=45bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- · Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Insulated drip tray

#### DEFROST

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

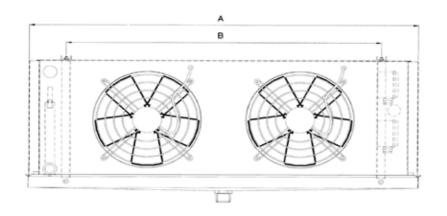
#### **OTHER**

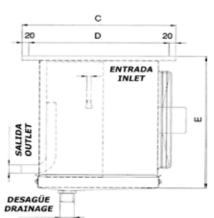
• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**





		Fo	ans			Dimensions	5	
Mo	DDEL	N°	Ø (mm)	Α	В	С	D	E
CR-9	CC-5	1	250	575	335	410	370	375
CR-12	CC-9	1	250	575	335	410	370	375
CR-18		2	250	905	685	410	370	375
CR-25	CC-15	1	315	695	475	450	410	440
CR-32	CC-19	3	250	1.235	1.015	410	370	375
CR-39	CC-27	1	350	905	685	490	450	565
CR-44	CC-33	2	315	1.145	925	450	410	440
CR-52	CC-41	2	315	1.145	925	450	410	440
CR-67	CC-50	3	315	1.595	1.375	450	410	440
CR-79	CC-56	2	350	1.565	1.345	490	450	565
CR-96	CC-75	2	350	1.565	1.345	490	450	565
CR-119	CC-85	3	350	2.225	2.005	490	450	565
CR-148	CC-114	3	350	2.225	2.005	490	450	565





# **TECHNICAL DATA**

# Fin pitch = 4,5 mm

Model	Саро	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fans Data			Elect def	rical rost	Inlet	Outlet	Weight		
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	Ø	RPM	kW	Α	kW	Α	mm	mm	kg
CR-9	1,2	0,9	0,8	5,7	1,9	800	8,0	1	250	1.300	0,04	0,25	0,9	1,5	1/2"	1/2"	9
CR-12	1,5	1,1	0,9	8,5	2,8	650	7,0	1	250	1.300	0,04	0,25	1,1	1,9	1/2"	1/2"	11
CR-18	2,1	1,6	1,3	8,5	2,4	1.600	9,0	2	250	1.300	0,07	0,50	1,5	2,6	1/2"	1/2"	14
CR-25	2,9	2,2	1,8	13,9	2,8	1.500	14,5	1	315	1.350	0,11	0,54	1,4	2,3	1/2"	5/8"	18
CR-32	3,7	2,8	2,3	16,9	4,5	2.200	10,0	3	250	1.300	0,11	0,75	2,1	3,8	1/2"	5/8"	22
CR-39	4,3	3,2	2,6	18,1	5,2	2.825	20,0	1	350	1.350	0,15	0,73	2,4	5,1	1/2"	5/8"	24
CR-44	4,9	3,6	2,9	18,5	5	3.500	17,0	2	315	1.350	0,22	1,08	2,4	3,9	1/2"	5/8"	28
CR-52	5,9	4,3	3,5	24,2	7,5	2.870	16,0	2	315	1.350	0,22	1,08	3,2	6,9	1/2"	7/8"	36
CR-67	7,4	5,4	4,4	27,7	7,2	5.250	18,0	3	315	1.350	0,33	1,62	3,4	5,4	1/2"	7/8"	40
CR-79	8,7	6,4	5,3	36,1	9,4	5.650	24,0	2	350	1.350	0,33	1,46	4,5	9,3	1/2"	7/8"	45
CR-96	11,0	8,1	6,6	54,1	14	5.200	22,0	2	350	1.350	0,33	1,46	5,5	9,7	5/8"	11/8"	55
CR-119	13,1	9,7	8,0	54,1	12,8	8.475	27,0	3	350	1.350	0,50	2,19	6,4	13,5	5/8"	11/8"	65
CR-148	16,6	11,9	9,8	81,1	20,4	7.800	25,0	3	350	1.350	0,50	2,19	8,0	14,2	5/8"	13/8"	81

# Fin pitch = 7 mm

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw		Fc	ıns Da	ta		Elect	rical rost	Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	Nº	Ø	RPM	kW	Α	kW	Α	mm	mm	kg
CC-5	0,8	0,6	0,5	3	1,4	800	9,0	1	250	1300	0,04	0,25	0,9	1,5	1/2"	1/2"	8
CC-9	1,4	1,0	0,8	5,9	2,8	650	8,0	1	250	1300	0,04	0,25	1,1	1,9	1/2"	1/2"	10
CC-15	1,9	1,5	1,2	6,5	2,8	1.800	19,0	1	315	1350	0,11	0,54	1,4	2,3	1/2"	5/8"	15
CC-19	2,7	1,9	1,6	8,9	3,2	2.400	16,0	3	250	1300	0,11	0,75	2,1	3,8	1/2"	5/8"	19
CC-27	3,7	2,7	2,2	12,7	4,8	2.800	22,0	1	350	1350	0,15	0,73	2,4	5,1	1/2"	5/8"	23
CC-33	4,4	3,2	2,6	13	5	3.670	19,0	2	315	1350	0,22	1,08	2,4	3,9	1/2"	5/8"	27
CC-41	5,6	4,0	3,3	19,4	7,5	3.200	17,0	2	315	1350	0,22	1,08	3,2	6,9	1/2"	5/8"	31
CC-50	6,7	4,9	4,0	19,4	7,2	5.490	20,0	3	315	1350	0,33	1,62	3,4	5,4	1/2"	7/8"	38
CC-56	7,4	5,3	4,4	25,2	8,7	5.600	25,0	2	350	1350	0,33	1,46	4,5	9,3	1/2"	7/8"	42
CC-75	9,9	7,0	5,8	38	14	5.360	23,0	2	350	1350	0,33	1,46	5,5	9,7	5/8"	11/8"	51
CC-85	11,5	8,3	6,8	38	14	8.545	28,0	3	350	1350	0,50	2,19	6,4	13,5	5/8"	11/8"	62
CC-114	14,9	10,5	8,8	56,9	20	8.050	26,0	3	350	1350	0,50	2,19	8,0	14,2	5/8"	11/8"	75

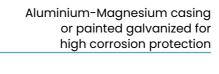






**EC Fan option** 

## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



End plates with impact fasteners to easy maintenance





End plates with impact fasteners to easy maintenance



Internal electrical wiring External rotor EC Fan option Double drip tray

Large choice of configurations and accessories



# **DUAL FLOW COMPACT HFC-HFO**

The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications.

# XR/XC

Cooling capacity from 2 kW to 16,5 kW





ENEX TECHNOLOGIES presents the **Dual Flow Compact Evaporator** range for commercial applications. This unit was designed to meet every need: energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

This line of product, **ready to use in installations with Low GWP refrigerants**, consists of more than 20 models, available in cooling capacities between 2 and 16,5 KW.

Our complete portfolio offers a large range of accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Dual Flow Compact HFC-HFO Evaporator performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our DUAL FLOW COMPACT EVAPORATOR is offered in a single range:

RANGE	STANDARD CONDITIONS SC2 (kW)	STANDARD CONDITIONS SC3 (kW)
XR/XC	2 - 16,5	1 - 10

**SC2**: Air Inlet Temperature 0°C, Evaporating Temperature -8°C **SC3**: Air Inlet Temperature -18°C, Evaporating Temperature -25°C

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES Dual Flow Compact CO2 Evaporator line offers customers a wide spectrum of benefits including, but not limited to:

#### HIGH PERFORMANCE

- Staggered arrangement of the copper tubes across selfspaced fins, the accurate link between tubes and fins as well as the use of corrugated fins allow our finned coils to reach high performance.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

•Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=30bar
- Resistance and leaks tests up to 43 bar
- Burst tests up to 90 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

• Strong and robust design using high-quality components ensure long life.

#### SUSTAINABILITY

- A2L READY
- Low GWP refrigerants:
  - R1234yf: GWP=4
  - R1234ze: GWP=6
  - R455A: GWP=145
  - R454C: GWP=146





NOMENCLATURE	X R	4
	1 1	
Typology		
<b>X</b> = Dual flow		
Fin Spacing —		
R = 3.5  mm		
<b>c</b> = 6,0 mm		
Model code		

#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 43 bar (PS=30bar) and 65 bar (PS=45bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 3,5mm / 6mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FANS MOTORS**

- Fan diameter available: Ø 300 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to +40°C (from -25°C up to +60°C for EC fan)
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all XR/XC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- PS=45bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

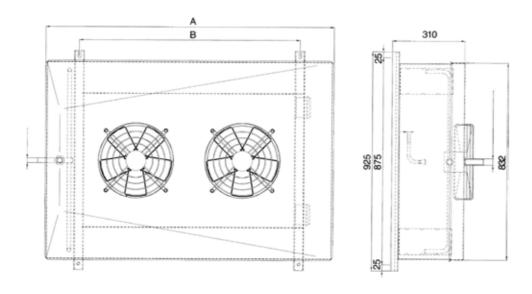
#### **OTHER**

• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**



		Venti	Dimensions		
М	ODEL	N°	ø (mm)	Α	В
XR-20	XC-17	1	300	768	480
XR-41	XC-35	2	300	1.218	930
XR-71	XC-49	3	300	1.668	1.380
XR-87	XC-71	4	300	2.188	1.830
XR-115	XC-87	5	300	2.568	2.280
XR-137	XC-107	6	300	2.920	2.730





# **TECHNICAL DATA**

# Fin pitch = 3,5 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dai	ta	Elect		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XR-20 LS	2,2	1,6	1,4	13,9	3,4	1.100	2x5,0	1	0,08	0,3	1,1	1,9	1/2"	5/8"	22
XR-41 LS	4,3	3,2	2,7	27,7	6	2.200	2x6,0	2	0,15	0,7	2,0	3,5	1/2"	7/8"	37
XR-71 LS	6,9	5,0	4,2	41,5	8,5	3.300	2x7,0	3	0,23	1,0	2,8	5,0	1/2"	7/8"	48
XR-87 LS	9,2	6,7	5,6	55,4	9,7	4.400	2x8,0	4	0,30	1,4	3,6	6,5	5/8"	11/8"	71
XR-115 LS	11,6	8,3	6,9	69,2	11,8	5.500	2x9,0	5	0,38	1,7	4,5	8,0	5/8"	11/8"	80
XR-137 LS	13,8	10,1	8,3	89	13,9	6.600	2x11,0	6	0,46	2,0	5,3	9,5	5/8"	13/8"	98

## Fan Ø= 300 mm, RPM = 1.390

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Da	ta	Elect		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XR-20 HS	2,6	2,0	1,6	13,9	3,4	1.450	2x7,0	1	0,08	0,3	1,1	1,9	1/2"	5/8"	22
XR-41 HS	5,2	3,9	3,2	27,7	6	2.900	2x8,0	2	0,15	0,7	2,0	3,5	1/2"	7/8"	37
XR-71 HS	8,1	5,9	4,9	41,5	8,5	4.350	2x9,0	3	0,23	1,0	2,8	5,0	1/2"	7/8"	48
XR-87 HS	10,7	8,0	6,7	55,4	9,7	5.800	2x10,0	4	0,30	1,4	3,6	6,5	5/8"	11/8"	71
XR-115 HS	13,5	9,7	8,0	69,2	11,8	7.250	2x12,0	5	0,38	1,7	4,5	8,0	5/8"	11/8"	80
XR-137 HS	16,2	11,9	9,8	89	13,9	8.700	2x14,0	6	0,46	2,0	5,3	9,5	5/8"	13/8"	98

# Fin pitch = 6 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dat	ta	Elect defi		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XC-17 LS	1,8	1,3	1,1	8,1	3,4	1.130	2x6,0	1	0,08	0,3	1,1	1,9	1/2"	5/8"	21
XC-35 LS	3,5	2,6	2,2	16,2	6	2.260	2x7,0	2	0,15	0,7	2,0	3,5	1/2"	7/8″	35
XC-49 LS	5,9	4,1	3,4	24,2	8,5	3.390	2x8,0	3	0,23	1,0	2,8	5,0	5/8"	7/8"	45
XC-71 LS	7,8	5,5	4,6	32,3	9,7	4.520	2x9,0	4	0,30	1,4	3,6	6,5	5/8"	7/8″	67
XC-87 LS	9,8	7,0	5,7	40,4	11,8	5.650	2x10,0	5	0,38	1,7	4,5	8,0	5/8"	11/8"	75
XC-107 LS	11,7	8,3	6,9	51,9	13,9	6.780	2x12,0	6	0,46	2,0	5,3	9,5	5/8″	11/8"	92

## Fan Ø= 300 mm, RPM = 1.390

Model	Сар	acity (	(kW)	Surface	Internal Volume	Air Flow	Air Throw	Fo	ans Dat	ta	Elect		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	kW	Α	kW	Α	mm	mm	kg
XC-17 HS	2,1	1,6	1,3	8,1	3,4	1.500	2x8,0	1	0,08	0,3	1,1	1,9	1/2"	5/8"	21
XC-35 HS	4,2	3,1	2,6	16,2	6	3.000	2x9,0	2	0,15	0,7	2,0	3,5	1/2"	7/8"	35
XC-49 HS	6,9	5,0	4,1	24,2	8,5	4.500	2x10,0	3	0,23	1,0	2,8	5,0	5/8"	7/8"	45
XC-71 HS	9,1	6,6	5,5	32,3	9,7	6.000	2x11,0	4	0,30	1,4	3,6	6,5	5/8"	7/8"	67
XC-87 HS	11,6	8,2	6,8	40,4	11,8	7.500	2x13,0	5	0,38	1,7	4,5	8,0	5/8"	11/8"	75
XC-107 HS	13,8	9,9	8,2	51,9	13,9	9.000	2x15,0	6	0,46	2,0	5,3	9,5	5/8"	11/8"	92

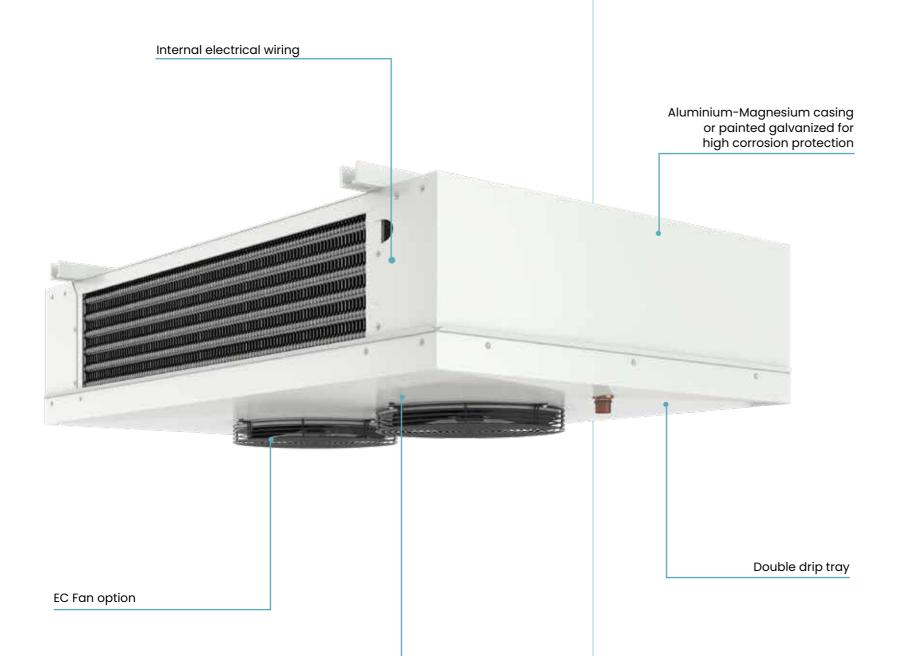




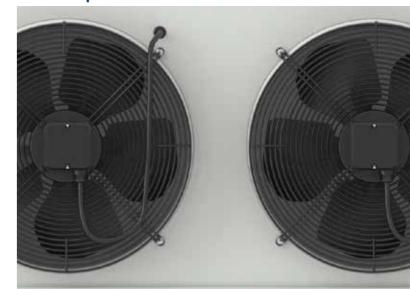
Easy access for maintenance



## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



## **EC Fan option**



PS = 80 bar Coil option



End plates with impact fasteners to easy maintenance





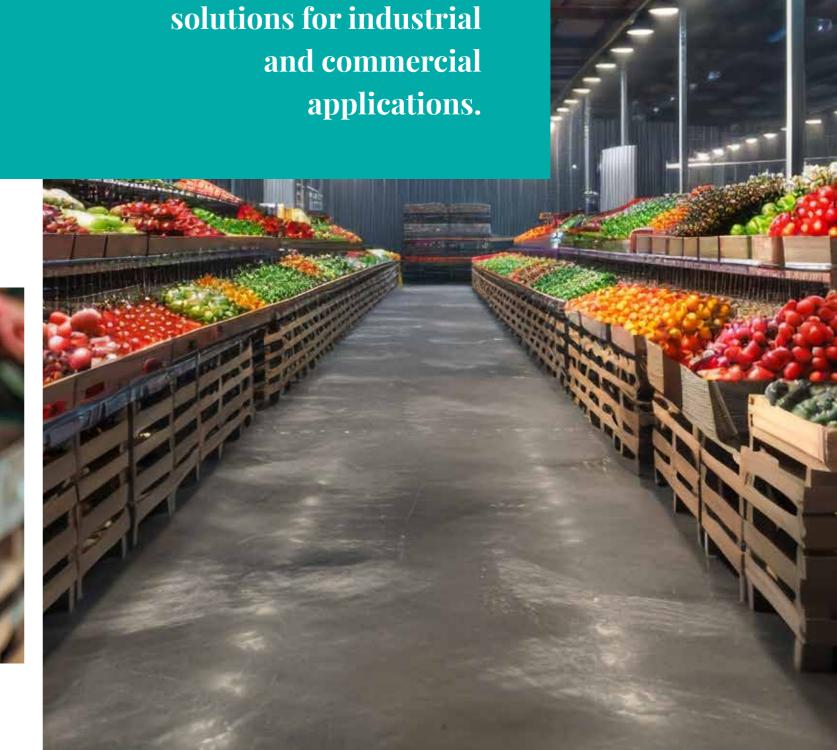
# Brine Coolers

Enex Technologies' Brine Coolers are installed inside cold rooms, process rooms and refrigerated cabinets. Multiple configurations allow adaptation to different applications, available spaces and layouts. The use of a mixture of water and glycol as a carrier fluid provides an excellent alternative to more traditional refrigeration cycle systems, and by following the design logic of a traditional cooling coil exchanger, temperatures and cooling capacities suitable for the refrigeration sector can be obtained.

Reliable and environmentally sustainable cooling solutions for industrial and commercial applications.











# **SLIM COMPACT**

The reliable, efficient, and eco-friendly cooling solution, ideal for small cold rooms for cooling and freezing applications

# MR/MC GLY

Cooling capacity from 0,9 kW to 3,5 kW





ENEX TECHNOLOGIES presents the **Slim Compact Brine Cooler** range for commercial applications. This product line is designed to meet or exceed customer needs including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

Our Slim Compact Brine Cooler line consists of more than 20 models available in cooling capacities between 0,9 and 3,5 kW.

Our complete portfolio offers a large range of configurations and accessories to meet any specification and can be customized according to the application.





## LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Slim Compact performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our SLIM COMPACT BRINE COOLERS are segmented into two ranges:

RANGE	*CONDITIONS (kW)
MR / MC GLY	0,9 - 3,5

\*Conditions: Air Inlet Temperature 2°C, Fluid Inlet Temperature -8°C, Fluid Outlet Temperature -4°C, Ethylene Glycol 35%.

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES slim compact brine cooler line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of copper tubes across self-spaced corrugated fins.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

• Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=16bar
- Resistance and leaks tests up to 23 bar
- Burst tests up to 48 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

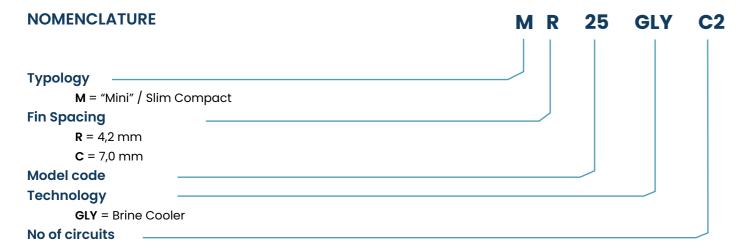
Strong and robust design using high-quality components ensure long life.

#### **SUSTAINABILITY**

• With a GWP of 0







#### **FINNED COILS**

- Built with copper tubes Ø 3/8" (MR) and Ø 12mm (MC), manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 23 bar (PS=16bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings is available: 4,2mm / 7mm.

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and fans plate are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FAN MOTORS**

- Fan diameter available: Ø 250 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excel-

lent acoustic performance.

- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to + 40°C.
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all MR/MC series. Recommended for use below 2°C air inlet temperature.
- They are shielded by a stainless steel tube and their terminals are vulcanised over it to avoid electric shunts; every heater includes a single ground wireThey are strategically located across the finned coil in order to provide suitable and uniform defrosting.





#### **OPTIONS & ACCESORIES**

#### COIL

- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

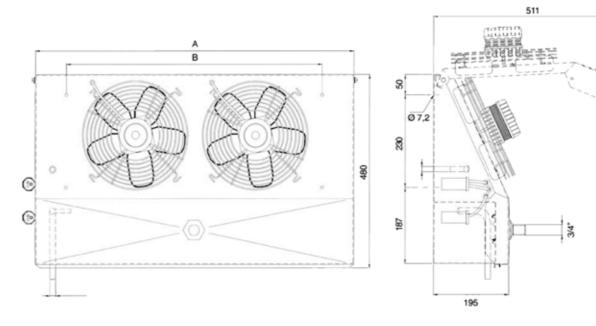
#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

#### OTHER

• High efficiency fans / EC fans

## **PRODUCT RANGE OVERVIEW**



		Fa	ins	Dimensions				
МО	DEL	N°	ø (mm)	Α	В			
MR-6	MC-4	1	250	520	348			
MR-12	MC-11	2	250	825	653			
MR-21	MC-17	3	250	1.130	958			
MR-28	MC-23	4	250	1.435	1.263			
MR-35	MC-30	5	250	1.740	1.568			





## **TECHNICAL DATA**

# Fin pitch = 4,2 mm

#### Fan Ø = 250 mm, RPM = 1.300

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	F	ans Dat	ta	Elect defi		Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
MR 6 GLY C2	0,8	3,5	0,8	0,19	440	3,5	1	0,04	0,3	0,3	1,3	7/8"	7
MR 12 GLY C2	1,6	7,0	1,6	0,38	880	4,5	2	0,07	0,5	0,5	2,3	7/8"	12
MR 21 GLY C3	2,2	10,5	2,3	0,52	1.320	5,5	3	0,11	0,8	0,7	3,3	7/8"	16
MR 28 GLY C4	2,8	14,0	3,1	0,66	1.760	6,5	4	0,14	1,0	1,0	4,4	7/8"	21
MR 35 GLY C4	3,4	17,5	3,9	0,82	2.200	7,5	5	0,18	1,3	1,2	5,4	7/8"	26

# Fin pitch = 7 mm

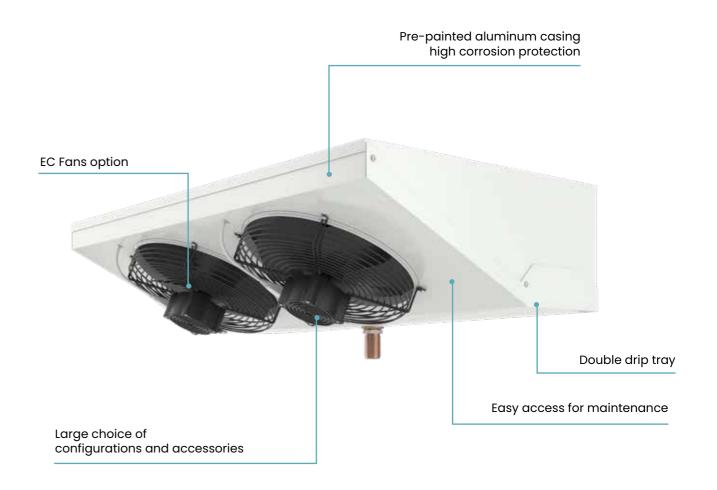
#### Fan Ø = 250 mm, RPM = 1.300

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	Fo	ans Dai	ta		trical rost	Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
MC 4 GLY C1	0,8	2,7	1,0	0,18	455	4,5	1	0,04	0,3	0,6	2,6	1/2"	8
MC 11 GLY C1	1,5	5,4	2,0	0,35	910	5,5	2	0,07	0,5	1,0	4,7	1/2"	13
MC 17 GLY C2	2,0	8,1	3,1	0,47	1.365	6,5	3	0,11	0,8	1,5	6,7	7/8"	19
MC 23 GLY C2	2,6	10,7	4,1	0,62	1.820	7,5	4	0,14	1,0	1,9	8,8	7/8"	24
MC 30 GLY C3	3,0	13,4	5,1	0,72	2.275	8,5	5	0,18	1,3	2,4	10,8	7/8"	30





## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



## **EC Fan option**



Easy access for maintenance







<sup>\*</sup>Conditions: Air Inlet Temperature 2°C, Fluid Inlet Temperature -8°C, Fluid Outlet Temperature -4°C, Ethylene Glycol 35%.

\*\* Sections size can change drastically by fluid used and boundary conditions





# **CUBIC COMPACT**

The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications

# CR/CC GLY

Cooling capacity from 1,3 kW to 20 kW





ENEX TECHNOLOGIES presents the **Cubic Compact Brine Cooler** range for commercial applications. This product line is designed to meet or exceed customer needs including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

This line of product, consists of more than 25 models, available in cooling capacities between 1,3 and 20 KW.

Our complete portfolio offers a large range of configurations and accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Cubic Compact performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our CUBIC COMPACT BRINE COOLERS are segmented into two ranges:

RANGE	*CONDITIONS (kW)
CR/CC GLY	1,3 - 20

<sup>\*</sup>Conditions: Air Inlet Temperature 2°C, Fluid Inlet Temperature -8°C, Fluid Outlet Temperature -4°C, Ethylene Glycol 35%.

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES cubic compact brine cooler line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of the copper tubes across selfspaced fins, the accurate link between tubes and fins as well as the use of corrugated fins allow our finned coils to reach high performance.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

 Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=16bar
- Resistance and leaks tests up to 23 bar
- Burst tests up to 48 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

• High-quality components guarantee a long life product. Strong and robust design

#### **SUSTAINABILITY**

• With a GWP of 0

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#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 23 bar (PS=16bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 4,5mm / 7mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FAN MOTORS**

- Fan diameter available: Ø 250/315/350 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a

temperature range from  $-40^{\circ}$ C up to +  $40^{\circ}$ C (from  $-25^{\circ}$ C up to +  $40^{\circ}$ C for EC fan)

• Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all CR/CC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





#### **OPTIONS & ACCESORIES**

#### COIL

- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing
- · Insulated drip tray

#### **DEFROST**

- · Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

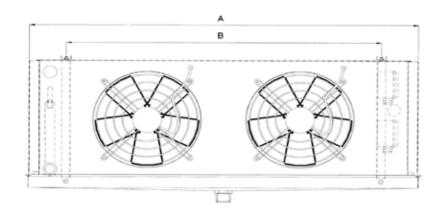
#### **OTHER**

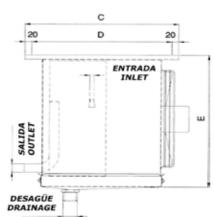
• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**





		Fe	ans			Dimension	S	
МС	DDEL	N°	ø (mm)	Α	В	С	D	Е
CR-9	CC-5	1	250	575	335	410	370	375
CR-12	CC-9	1	250	575	335	410	370	375
CR-18		2	250	905	685	410	370	375
CR-25	CC-15	1	315	695	475	450	410	440
CR-32	CC-19	3	250	1.235	1.015	410	370	375
CR-39	CC-27	1	350	905	685	490	450	565
CR-44	CC-33	2	315	1.145	925	450	410	440
CR-52	CC-41	2	315	1.145	925	450	410	440
CR-67	CC-50	3	315	1.595	1.375	450	410	440
CR-79	CC-56	2	350	1.565	1.345	490	450	565
CR-96	CC-75	2	350	1.565	1.345	490	450	565
CR-119	CC-85	3	350	2.225	2.005	490	450	565
CR-148	CC-114	3	350	2.225	2.005	490	450	565

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# **TECHNICAL DATA**

# Fin pitch = 5 mm

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw		Fc	ıns Da	ta		Elect defi		Manifolds	Weight
	SC*	m²	dm³	m³/h	m³/h	m	Nº	Ø	RPM	kW	Α	kW	Α	mm	kg
CR-9 GLY C1	1,3	5,7	1,5	0,31	800	8,0	1	250	1.300	0,04	0,3	0,9	1,5	1/2"	9
CR-12 GLY C2	1,6	8,5	2,2	0,36	650	7,0	1	250	1.300	0,04	0,3	1,1	1,9	7/8"	11
CR-18 GLY C2	1,7	8,5	2,2	0,4	1.600	9,0	2	250	1.300	0,07	0,5	1,5	2,6	7/8"	14
CR-25 GLY C3	2,9	13,9	3,6	0,68	1.500	14,5	1	315	1.350	0,11	0,5	1,4	2,3	7/8"	18
CR-32 GLY C3	3,1	17,0	4,4	0,73	2.200	10,0	3	250	1.300	0,11	0,8	2,1	3,8	7/8"	22
CR-39 GLY C3	3,9	18,1	4,7	0,93	2.825	20,0	1	350	1.350	0,15	0,7	2,4	5,1	7/8"	24
CR-44 GLY C3	4,0	18,5	4,8	0,95	3.500	17,0	2	315	1.350	0,22	1,1	2,4	3,9	7/8"	28
CR-52 GLY C4	5,2	27,8	7,2	1,26	2.870	16,0	2	315	1.350	0,22	1,1	3,2	6,9	7/8"	36
CR-67 GLY C4	5,6	27,8	7,2	1,33	5.250	18,0	3	315	1.350	0,33	1,6	3,4	5,4	7/8"	40
CR-79 GLY C5	6,9	36,2	9,4	1,65	5.650	24,0	2	350	1.350	0,33	1,5	4,5	9,3	11/8"	45
CR-96 GLY C7	9,3	54,3	14,1	2,25	5.200	22,0	2	350	1.350	0,33	1,5	5,5	9,7	11/8"	55
CR-119 GLY C7	13,9	54,3	14,1	3,35	8.475	27,0	3	350	1.350	0,50	2,2	6,4	13,5	13/8"	65
CR-148 GLY C9	18,8	81,4	21,1	4,52	7.800	25,0	3	350	1.350	0,50	2,2	8,0	14,2	15/8"	81

# Fin pitch = 7 mm

•															
Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw		Fc	ins Da	ta			trical rost	Manifolds	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	Ø	RPM	kW	Α	kW	Α	mm	kg
CC-5 GLY C1	0,9	2,9	1,1	0,2	800	5,7	1	250	1.300	0,04	0,3	0,9	1,5	1/2"	8
CC-9 GLY C2	1,3	5,8	2,2	0,31	650	8,0	1	250	1.300	0,04	0,3	1,1	1,9	7/8"	10
CC-15 GLY C2	1,9	6,3	2,4	0,45	1.800	19,0	1	315	1.350	0,11	0,5	1,4	2,3	7/8"	15
CC-19 GLY C2	2,2	8,7	3,3	0,51	2.400	16,0	3	250	1.300	0,11	0,8	2,1	3,8	7/8"	19
CC-27 GLY C3	3,3	12,4	4,7	0,78	2.800	22,0	1	350	1.350	0,15	0,7	2,4	5,1	7/8"	23
CC-33 GLY C3	3,5	12,6	4,8	0,84	3.670	19,0	2	315	1.350	0,22	1,1	2,4	3,9	7/8"	27
CC-41 GLY C4	4,8	18,9	7,2	1,14	3.200	17,0	2	315	1.350	0,22	1,1	3,2	6,9	7/8"	31
CC-50 GLY C4	4,9	18,9	7,2	1,17	5.490	20,0	3	315	1.350	0,33	1,6	3,4	5,4	7/8"	38
CC-56 GLY C5	5,9	24,7	9,4	1,42	5.600	25,0	2	350	1.350	0,33	1,5	4,5	9,3	7/8"	42
CC-75 GLY C7	8,3	37,0	14,1	1,98	5.360	23,0	2	350	1.350	0,33	1,5	5,5	9,7	11/8"	51
CC-85 GLY C7	8,3	37,0	14,1	1,99	8.545	28,0	3	350	1.350	0,50	2,2	6,4	13,5	11/8"	62
CC-114 GLY C9	11,8	55,5	21,1	2,83	8.050	26,0	3	350	1.350	0,50	2,2	8,0	14,2	11/8"	75

<sup>\*</sup>Conditions: Air Inlet Temperature 2°C, Fluid Inlet Temperature -8°C, Fluid Outlet Temperature -4°C, Ethylene Glycol 35%.

\*\* Sections size can change drastically by fluid used and boundary conditions









**EC Fan option** 

## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE

Aluminium-Magnesium casing or painted galvanized for high corrosion protection

End plates with impact fasteners to easy maintenance

PS = 45 bar Coil option



End plates with impact fasteners to easy maintenance



Internal electrical wiring External rotor EC Fan option Double drip tray

Large choice of configurations and accessories





# **DUAL FLOW COMPACT**

The reliable, efficient, and sustainable cooling solution, ideal for small and medium cold rooms for cooling and freezing applications.

# XR/XC GLY

Cooling capacity from 2 kW to 10 kW





ENEX TECHNOLOGIES presents the **Dual Flow Compact Brine Cooler** range for commercial applications. This product line is designed to meet or exceed customer needs including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

This line of product, consists of more than 20 models, available in cooling capacities between 2 and 10 kW

Our complete portfolio offers a large range of configurations and accessories to meet any specification and can be customized according to the application.





#### LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Dual Flow Compact performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our DUAL FLOW COMPACT BRINE COOLERS are offered in a single range:

RANGE	*CONDITIONS (kW)
XR/XC GLY	2 - 10

<sup>\*</sup>Conditions: Air Inlet Temperature 2°C, Fluid Inlet Temperature -8°C, Fluid Outlet Temperature -4°C, Ethylene Glycol 35%.

#### **MAIN FEATURES**

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES dual flow compact brine cooler line offers customers a wide spectrum of benefits including, but not limited to:

#### **HIGH PERFORMANCE**

- Staggered arrangement of the copper tubes across selfspaced fins, the accurate link between tubes and fins as well as the use of corrugated fins allow our finned coils to reach high performance.
- Optimization of circuits for maximum efficiency.
- The EC fans adapt to the needs of the installation with minimal energy consumption (available as optional).

#### **SELECTION SOFTWARE**

• Our proprietary selection software gives customers flexibility in adjusting settings as parameters of the application change.

#### **SAFETY**

- Ready up to PS=16bar
- Resistance and leaks tests up to 23 bar
- Burst tests up to 48 bar
- Equipment pressurised with nitrogen at 2 bar

#### **QUALITY: ROBUSTNESS + RELIABILITY**

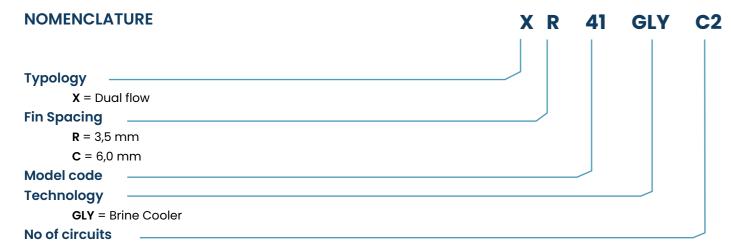
• High-quality components guarantee a long life product. Strong and robust design

#### **SUSTAINABILITY**

• With a GWP of 0







#### **FINNED COILS**

- Built with copper tubes Ø 12mm, manufactured in compliance with the CUPROCLIMA specifications. The staggered arrangement of copper tubes across self-spaced fins, the accurate link between tubes and fins as well as the use of corrugated fins, all this configuration allows our coils to reach the highest performance.
- All coils are subjected to a resistance & leakage test under a rated pressure of 23 bar (PS=16bar), also pressurized using nitrogen at 2 bar to avoid the corrosion of the inner surface of the copper tubes.
- Fin spacings available: 3,5mm / 6mm

#### **CASING**

- The case structure of the unit is manufactured from plate of aluminium-magnesium alloy (97.5% Al-2.5% Mg), giving it a high protection against corrosion, even in extreme environmental conditions; moreover this casing allows to meet more demanding food hygiene standards.
- Includes double drip tray to make the drainage of the water (resulting from defrost) easier.
- For better maintenance the drip tray and endplates are readily dismounted from the casework giving an easy and fast access to the inside of the unit cooler.

#### **FANS MOTORS**

- Fan diameter available: Ø 300 mm.
- Axial fans with external rotor (230V I @ 50/60Hz).
- Equipped as standard with AC fan motors with excellent acoustic performance.
- All motors have class B insulation, grade IP-44 protection, thermal protection device and working on a temperature range from -40°C up to +40°C (from -25°C up to +60°C for EC fan)
- Painted fan guards are made of zinc plated steel wire and support a water tight terminal box where the fans' motors are wired.

#### **ELECTRIC DEFROST**

- Electric heaters are optional for all XR/XC series. Recommended for use below 2°C air inlet temperature.
- They are strategically located across the finned coil in order to provide suitable and uniform defrosting.





## **OPTIONS & ACCESORIES**

#### COIL

- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

#### **CASING**

- Aluminium 5052
- White painted
- Stainless-steel casing

#### **DEFROST**

- Hot gas defrost
- · Hot gas defrost in coil and electric in tray
- Electric defrost (wired)
- Fan ring heaters

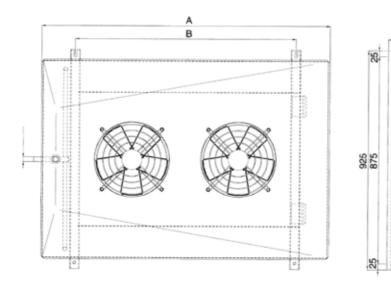
#### **OTHER**

• High efficiency fans / EC fans





# **PRODUCT RANGE OVERVIEW**



_		F	ans	Dime	ensions
N	IODEL	N°	ø (mm)	Α	В
XR-20	XC-17	1	300	768	480
XR-41	XC-35	2	300	1.218	930
XR-71	XC-49	3	300	1.668	1.380
XR-87	XC-71	4	300	2.188	1.830
XR-115	XC-87	5	300	2.568	2.280
XR-137	XC-107	6	300	2.920	2.730

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# **TECHNICAL DATA**

# Fin pitch = 4 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	Fo	ans Da	ta	Elect		Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
XR 20 LS GLY C2	2,2	13,6	2,8	0,52	1.100	2x5,0	1	0,08	0,3	1,1	1,9	7/8"	22
XR 41 LS GLY C4	3,8	27,1	5,6	0,91	2.200	2x6,0	2	0,15	0,7	2,0	3,5	7/8"	37
XR 71 LS GLY C4	5,7	40,7	8,4	1,37	3.300	2x7,0	3	0,23	1,0	2,8	5,0	7/8"	48
XR 87 LS GLY C6	6,9	54,2	11,2	1,67	4.400	2x8,0	4	0,30	1,4	3,6	6,5	1 1/8"	71
XR 115 LS GLY C8	8,1	67,8	14,0	1,95	5.500	2x9,0	5	0,38	1,7	4,5	8,0	1 1/8"	80
XR 137 LS GLY C8	9,7	81,3	16,8	2,33	6.600	2x11,0	6	0,46	2,0	5,3	9,5	1 1/8"	98

## Fan Ø= 300 mm, RPM = 1.390

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	Fo	ans Da	ta	Elect def	rical rost	Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
XR 20 HS GLY C2	2,5	13,6	2,8	0,59	1.450	2x7,0	1	0,08	0,3	1,1	1,9		22
XR 41 HS GLY C4	4,3	27,1	5,6	1,02	2.900	2x8,0	2	0,15	0,7	2,0	3,5		37
XR 71 HS GLY C6	5,8	40,7	8,4	1,38	4.350	2x9,0	3	0,23	1,0	2,8	5,0		48
XR 87 HS GLY C6	7,7	54,2	11,2	1,84	5.800	2x10,0	4	0,30	1,4	3,6	6,5		71
XR 115 HS GLY C8	8,9	67,8	14,0	2,14	7.250	2x12,0	5	0,38	1,7	4,5	8,0		80
XR 137 HS GLY C8	17,8	81,3	16,8	4,29	8.700	2x14,0	6	0,46	2,0	5,3	9,5		98

# Fin pitch = 6 mm

## Fan Ø= 300 mm, RPM = 1.050

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	Fo	ans Dat	ta	Elect	rical rost	Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
XC 17 LS GLY C2	1,8	7,8	2,8	0,41	1.130	2x6,0	1	0,08	0,3	1,1	1,9	7/8"	21
XC 35 LS GLY C4	3,1	15,5	5,6	0,73	2.260	2x7,0	2	0,15	0,7	2,0	3,5	7/8"	35
XC 49 LS GLY C4	4,6	23,2	8,4	1,1	3.390	2x8,0	3	0,23	1,0	2,8	5,0	7/8"	45
XC 71 LS GLY C6	5,7	30,9	11,2	1,36	4.520	2x9,0	4	0,30	1,4	3,6	6,5	7/8"	67
XC 87 LS GLY C6	7,1	38,7	14,0	1,7	5.650	2x10,0	5	0,38	1,7	4,5	8,0	1 1/8"	75
XC 107 LS GLY C6	11,7	46,4	16,8	2,81	6.780	2x12,0	6	0,46	2,0	5,3	9,5	1 1/8"	92

## Fan Ø= 300 mm, RPM = 1.390

Model	Capacity (kW)	Surface	Internal Volume	Fluid Flow	Air Flow	Air Throw	Fo	ans Dat	ta	Elect	trical rost	Manifolds**	Weight
	SC*	m²	dm³	m³/h	m³/h	m	N°	kW	Α	kW	Α	mm	kg
XC 17 HS GLY C2	2,0	7,8	2,8	0,47	1.500	2x8,0	1	0,08	0,3	1,1	1,9		21
XC 35 HS GLY C4	3,5	15,5	5,6	0,83	3.000	2x9,0	2	0,15	0,7	2,0	3,5		35
XC 49 HS GLY C4	5,2	23,2	8,4	1,24	4.500	2x10,0	3	0,23	1,0	2,8	5,0		45
XC 71 HS GLY C6	6,4	30,9	11,2	1,52	6.000	2x11,0	4	0,30	1,4	3,6	6,5		67
XC 87 HS GLY C6	7,9	38,7	14,0	1,9	7.500	2x13,0	5	0,38	1,7	4,5	8,0		75
XC 107 HS GLY C8	8,9	46,4	16,8	2,14	9.000	2x15,0	6	0,46	2,0	5,3	9,5		92

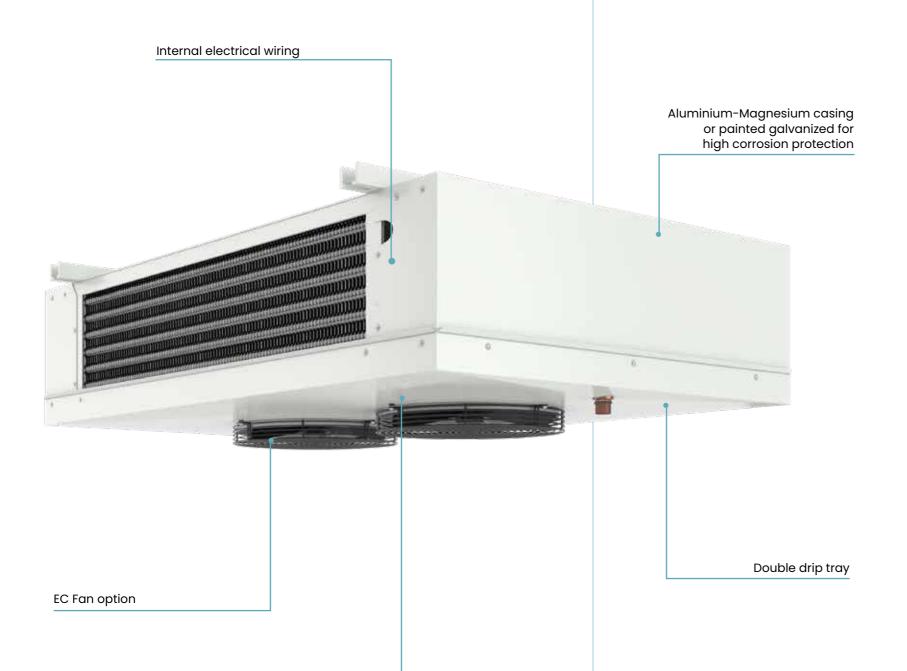




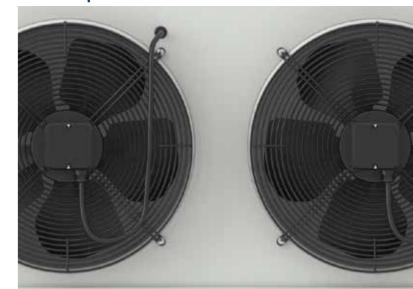
Easy access for maintenance



## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



## **EC Fan option**



PS = 80 bar Coil option



End plates with impact fasteners to easy maintenance





#### **COMMERCIAL EVAPORATORS** | Rev.3 Version March 2025 | ENG

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