CUBIC COMPACT HFC-HFO

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

EC

Cooling capacity from 1,5 kW to 21 kW

LOW GWP REFRIGERANT

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 1,5 and 21 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)
EC	1,5 - 21	0,7 - 14

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

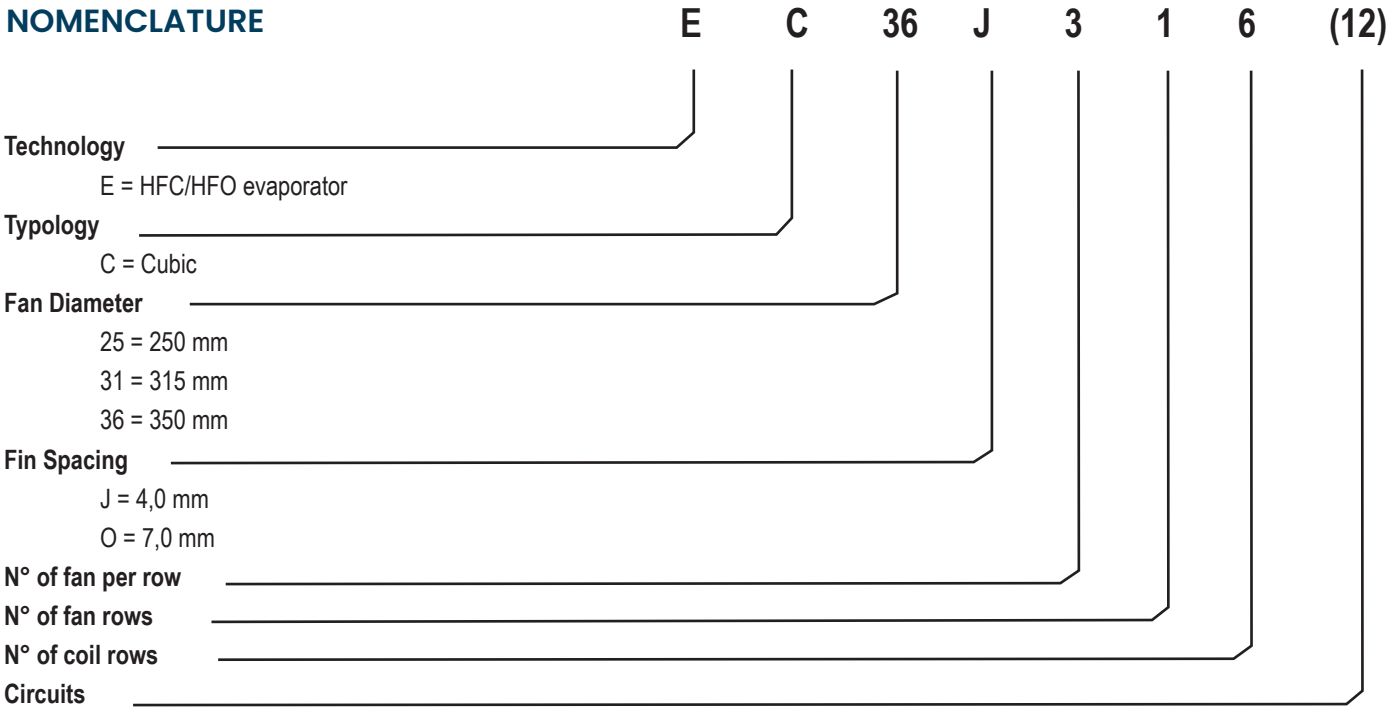
• Strong and robust design using high-quality components ensure long life.

SUSTAINABILITY

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

TECHNICAL FEATURES

NOMENCLATURE



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: 4mm / 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 EC 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

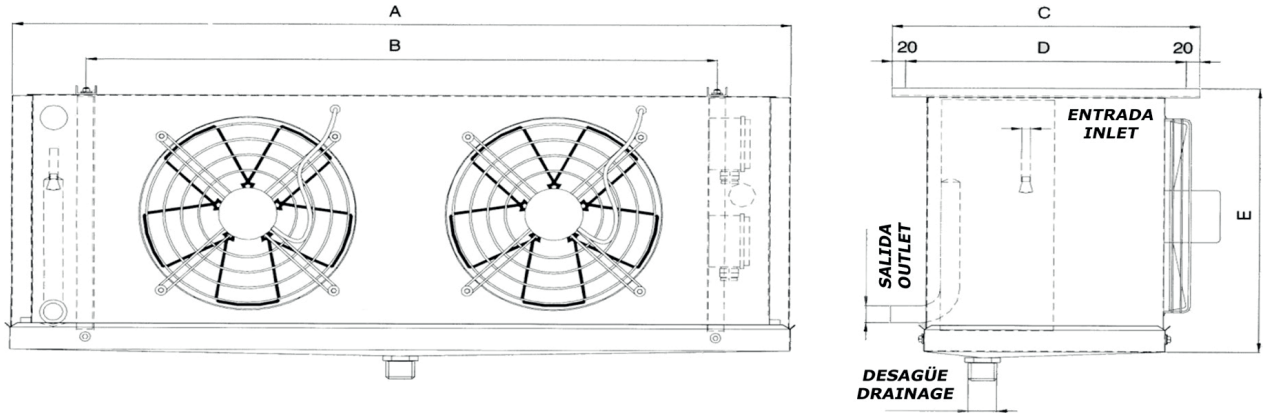
COIL
- PS=45bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

CASING
- Aluminium 5052
- White painted

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



MODEL		Fans		Dimensions				
		Nº	Ø (mm)	A	B	c	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

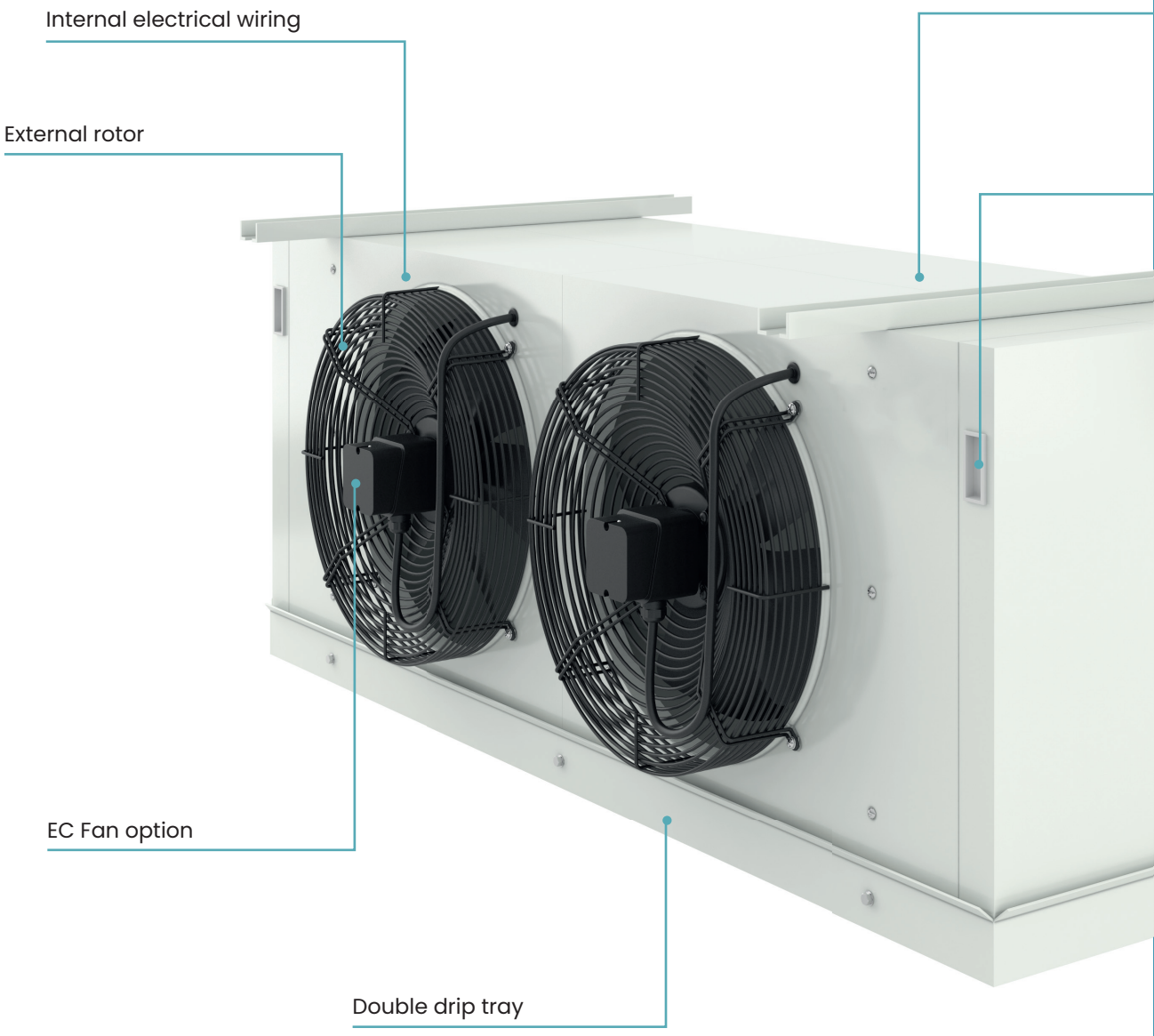
Fin pitch = 4 mm

Model	Capacity (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	A	kW	A	mm	mm	kg
EC25J114	1,4	1,0	0,9	5,6	1,5	504	2	1	250	1.300	0,04	0,30	0,9	1,5	12	12	10
EC25J116	1,5	1,1	1,0	8,4	2,2	452	2	1	250	1.300	0,04	0,30	1,1	1,9	12	12	12
EC25J213	2,4	1,8	1,5	8,4	2,1	1.100	2	2	250	1.300	0,07	0,60	1,5	2,6	12	12	14
EC31J114	3,4	2,6	2,2	9,2	2,4	1.612	5	1	315	1.350	0,11	0,50	1,4	2,3	12	12	16
EC25J314	4,1	3,1	2,6	16,8	4,4	1.511	2	3	250	1.300	0,11	0,90	2,1	3,8	22	16	21
EC36J114	6,0	4,6	3,9	17,9	4,7	2.667	9	1	350	1.340	0,15	0,70	2,4	5,1	22	16	24
EC31J214	6,8	5,2	4,4	18,3	4,8	3.213	5	2	315	1.350	0,22	1,00	2,4	3,9	22	16	26
EC31J216	7,7	5,8	5,0	27,4	7,2	2.724	4	2	315	1.350	0,22	1,00	3,2	6,9	22	16	30
EC31J314	10,2	7,8	6,6	27,4	7,2	4.795	5	3	315	1.350	0,32	1,50	3,4	5,4	22	16	36
EC36J214	12,1	9,2	7,8	35,7	9,4	5.361	9	2	350	1.340	0,30	1,40	4,5	9,3	28	22	41
EC36J216	13,7	9,7	8,2	53,5	14,1	5.086	9	2	350	1.340	0,31	1,40	5,5	9,7	28	22	49
EC36J314	18,1	13,5	11,4	53,2	13,2	8.017	9	3	350	1.340	0,45	2,10	6,4	13,5	35	28	58
EC36J316	20,6	14,7	12,4	80,3	21,1	7.613	9	3	350	1.340	0,46	2,10	8,0	14,2	35	28	71

Fin pitch = 7 mm

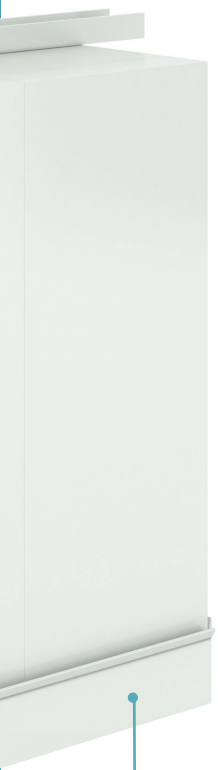
Model	Capacity (kW)			Surface	Internal Volume	Air Flow	Air Throw	Fans Data					Electrical defrost		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	Ø	RPM	kW	A	kW	A	mm	mm	kg
EC25O113	0,9	0,7	0,6	2,8	1,1	559	2	1	250	1300	0,04	0,30	0,9	1,5	12,0	12	9
EC25O116	1,2	0,9	0,8	5,5	2,2	477	2	1	250	1300	0,04	0,30	1,1	1,9	12,0	12	11
EC25O313	2,6	2,1	1,7	8,2	3,3	1.676	2	3	250	1300	0,11	0,90	1,4	2,3	16,0	12	18
EC31O114	2,7	2,0	1,7	6,0	2,4	1.725	6	1	315	1350	0,11	0,50	2,4	5,1	12,0	12	15
EC36O114	4,9	3,7	3,0	11,6	4,7	2.791	10	1	350	1340	0,15	0,60	2,1	3,8	22,0	16	23
EC31O214	5,4	4,1	3,4	11,9	4,8	3.443	6	2	315	1350	0,21	1,00	2,4	3,9	22,0	16	25
EC31O216	6,6	5,0	4,2	17,8	7,2	2.976	5	2	315	1350	0,22	1,00	3,2	6,9	22,0	16	28
EC31O314	8,1	6,2	5,1	17,8	7,2	5.144	6	3	315	1350	0,32	1,50	3,4	5,4	22,0	16	34
EC36O214	9,7	7,3	6,1	23,2	9,4	5.568	10	2	350	1340	0,30	1,20	4,5	9,3	28,0	22	39
EC36O216	12,0	9,1	7,7	34,7	14,1	5.159	9	2	350	1340	0,31	1,40	5,5	9,7	35,0	28	46
EC36O314	14,0	10,5	8,7	34,4	13,2	8.334	10	3	350	1340	0,44	1,80	6,4	13,5	35,0	28	55
EC36O316	17,0	12,4	10,4	52,1	21,1	7.738	9	3	350	1340	0,46	2,10	8,0	14,2	35,0	28	65

DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



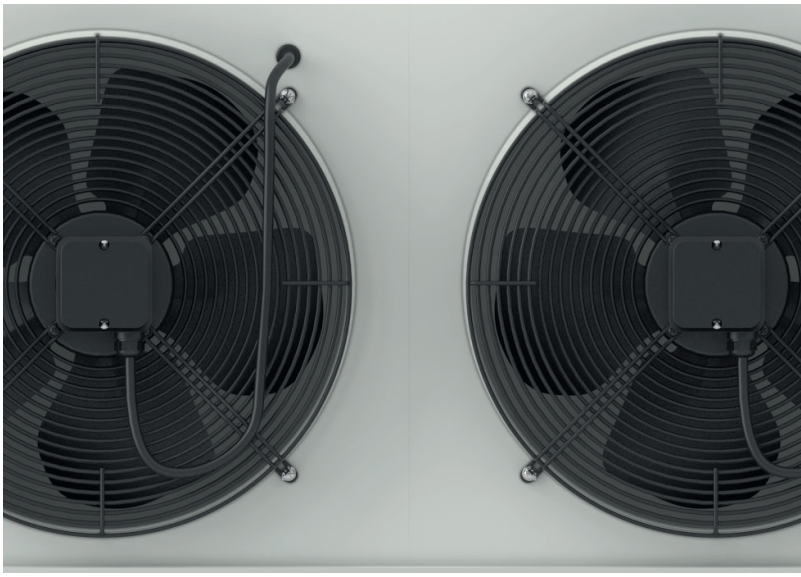
Aluminium-Magnesium casing or painted galvanized for high corrosion protection

End plates with impact fasteners to easy maintenance

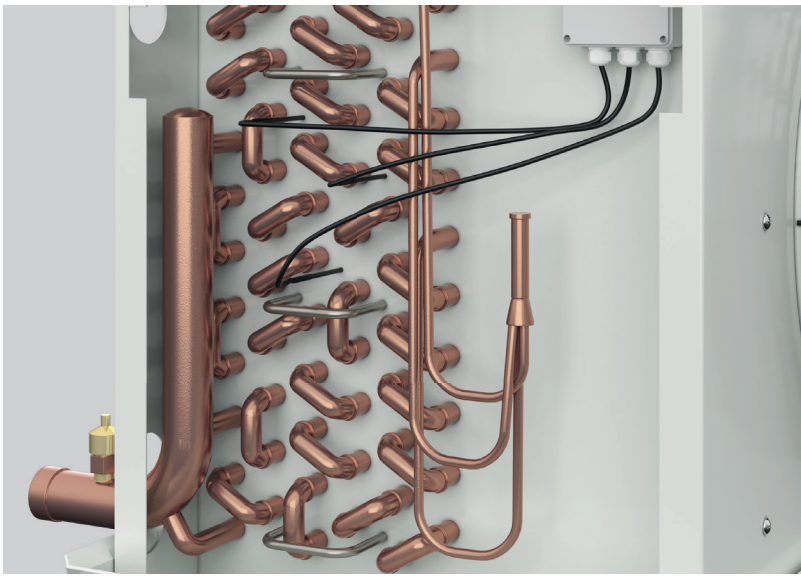


Large choice of configurations and accessories

EC Fan option



PS = 45 bar Coil option



End plates with impact fasteners to easy maintenance