CUBIC COMPACT CO2

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

OC

Cooling capacity from 1 kW to 21 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 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 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)
oc	1 - 21	0,5 - 16

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 self-spaced 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

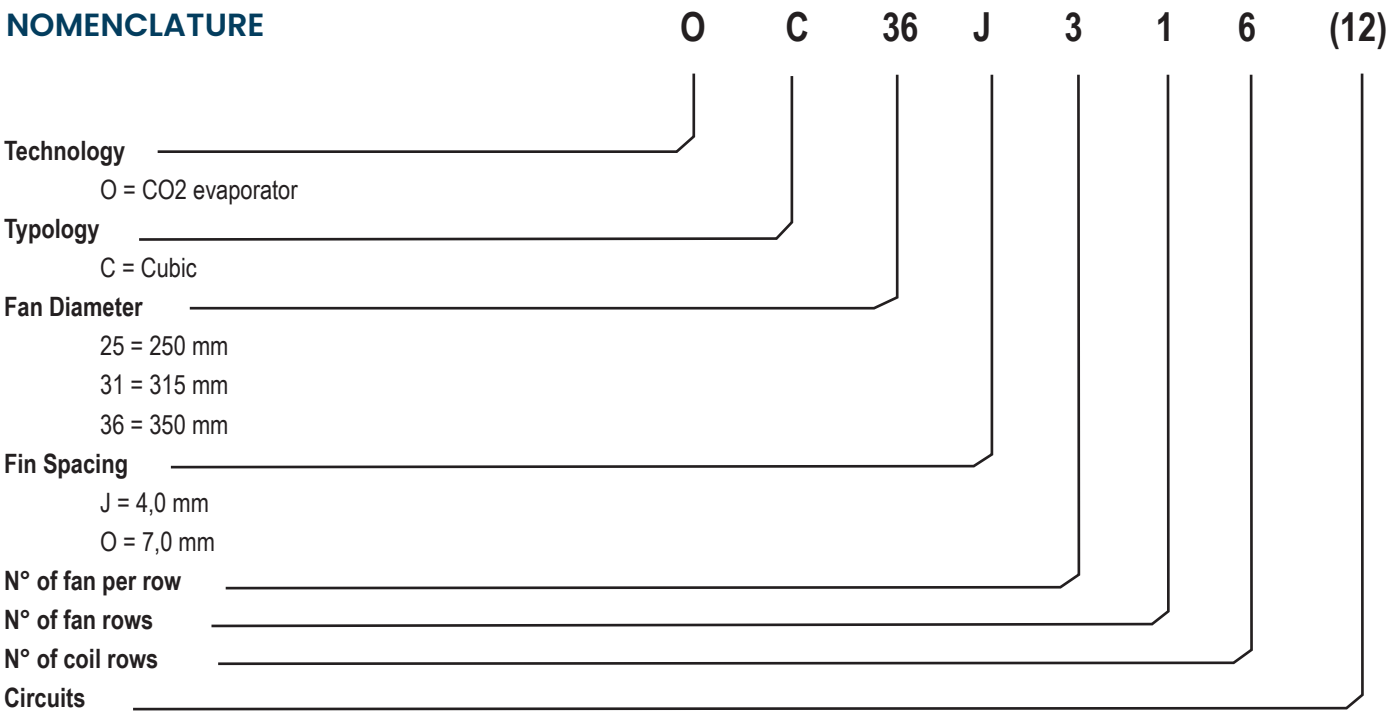
• Strong and robust design using high-quality components ensure long life.

SUSTAINABILITY

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

TECHNICAL FEATURES

NOMENCLATURE



FINNED COILS

• Built with copper tubes Ø 3/8" and 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: 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.

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 OC 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

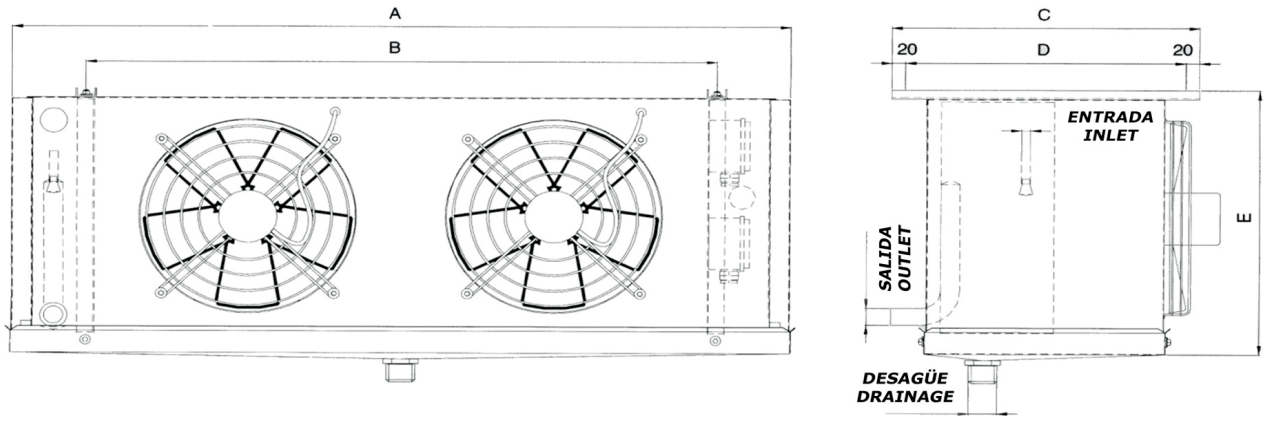
COIL
- PS=80bar
- Copper Fins
- Coated Fins
- Other material
- AquaAero treatment
- Blygold treatment
- Cataphoresis treatment

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



MODEL		Fans		Dimensions				
		Nº	Ø (mm)	A	B	c	D	E
OC25J114	OC25O113	1	250	575	335	410	370	375
OC25J116	OC25O116	1	250	575	335	410	370	375
OC25J213	---	2	250	905	685	410	370	375
OC31J114	OC31O114	1	315	695	475	450	410	440
OC25J314	OC25O313	3	250	1.235	1.015	410	370	375
OC36J114	OC36O114	1	350	905	685	490	450	565
OC31J214	OC31O214	2	315	1.145	925	450	410	440
OC31J216	OC31O216	2	315	1.145	925	450	410	440
OC31J314	OC31O314	3	315	1.595	1.375	450	410	440
OC36J214	OC36O214	2	350	1.565	1.345	490	450	565
OC36J216	OC36O216	2	350	1.565	1.345	490	450	565
OC36J314	OC36O314	3	350	2.225	2.005	490	450	565
OC36J316	OC36O316	3	350	2.225	2.005	490	450	565

TECHNICAL DATA

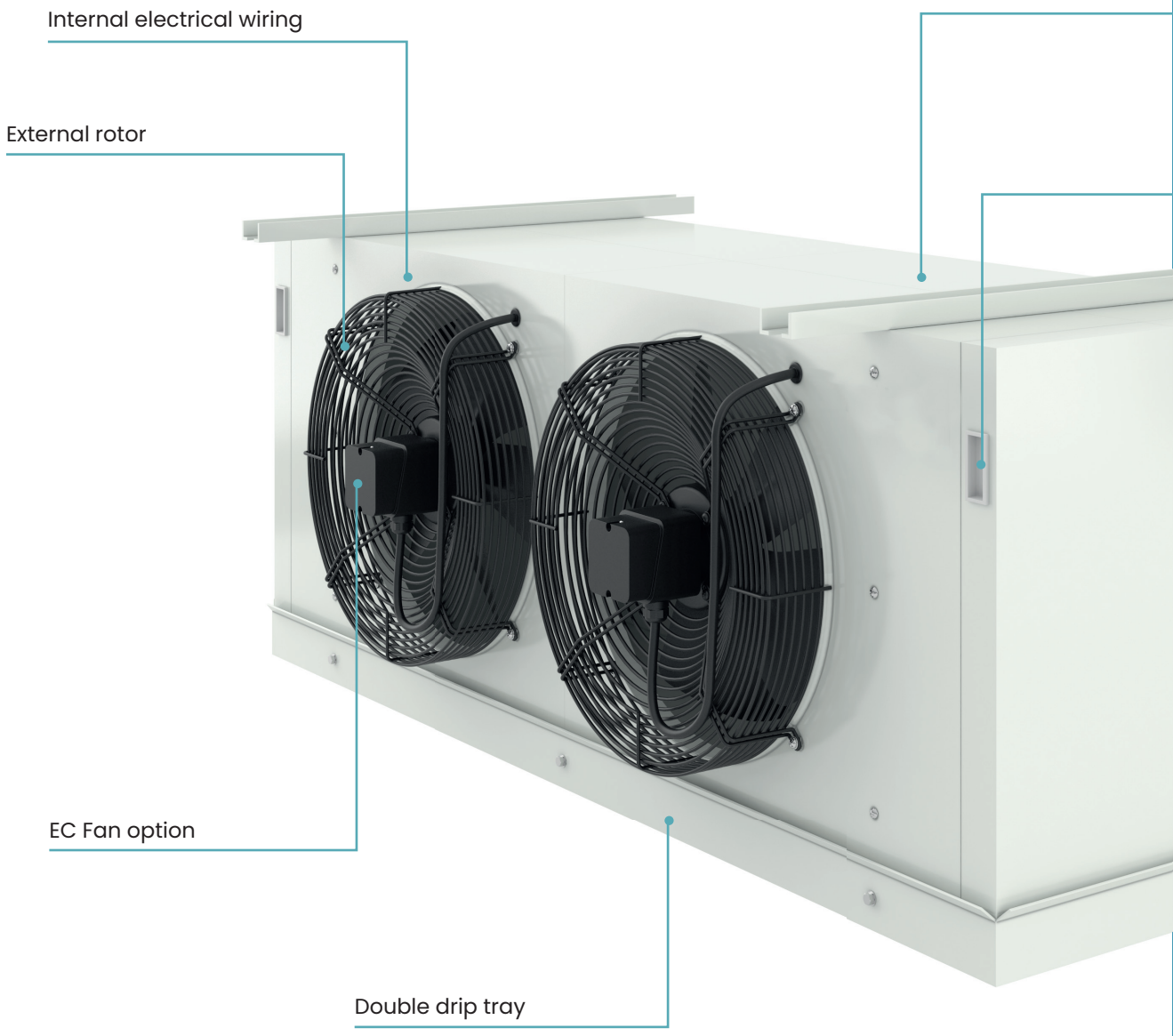
Fin pitch = 4 mm

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
OC25J114	1,3	0,9	0,8	4,6	1,1	508	2	1	250	1.300	0,04	0,3	0,9	1,5	9,52	9,52	10
OC25J116	1,5	1,1	0,9	6,8	1,6	456	2	1	250	1.300	0,04	0,3	1,1	1,9	9,52	9,52	13
OC25J213	2,2	1,6	1,4	6,7	1,4	1.085	2	2	250	1.300	0,07	0,6	1,5	2,6	9,52	9,52	14
OC31J114	3,3	2,4	2,0	7,2	1,7	1.645	6	1	315	1.350	0,11	0,5	1,4	2,3	9,52	9,52	16
OC25J314	3,9	2,8	2,4	13,6	3,2	1.523	2	3	250	1.300	0,11	0,9	2,1	3,8	12	12	22
OC36J114	5,9	4,2	3,6	13,9	3,3	2.743	9	1	350	1.340	0,15	0,7	2,4	5,1	12	12	26
OC31J214	6,7	4,7	4,0	14,3	3,4	3.279	6	2	315	1.350	0,21	1,0	2,4	3,9	12	12	27
OC31J216	7,6	5,4	4,6	21,4	5,0	2.779	5	2	315	1.350	0,22	1,0	3,2	6,9	12	12	32
OC31J314	9,6	7,0	6,0	21,4	5,0	4.892	5	3	315	1.350	0,32	1,5	3,4	5,4	12	12	38
OC36J214	11,7	8,2	7,0	27,5	5,9	5.492	9	2	350	1.340	0,30	1,4	4,5	9,3	12	12	43
OC36J216	14,0	10,1	8,4	41,7	9,9	5.023	8	2	350	1.340	0,31	1,4	5,5	9,7	12	12	53
OC36J314	17,2	12,2	10,4	41,2	8,9	8.228	9	3	350	1.340	0,45	2,1	6,4	13,5	16	22	62
OC36J316	21,0	15,1	12,7	62,5	14,7	7.511	8	3	350	1.340	0,46	2,1	8,0	14,2	16	22	76

Fin pitch = 7 mm

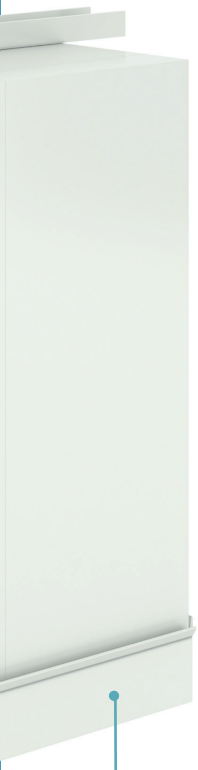
Model	Capacity (kW)			Surface	Internal Volume	Air Flow	Air Throw	Fans Data					Electrical defrost		Inlet	Outlet	Weight
	SC2	SC3	SC4	m²	dm³	m³/h	m	N°	Ø	RPM	kW	A	kW	A	mm	mm	kg
OC25O113	0,6	0,5	0,4	2,8	1,0	562	2	1	250	1.300	0,04	0,3	0,9	1,5	12	12	10
OC25O114	1,2	0,9	0,8	5,5	2,0	479	2	1	250	1.300	0,04	0,3	1,1	1,9	12	12	14
OC25O115	2,9	2,1	1,8	6	2,1	1.734	6	1	315	1.350	0,11	0,5	1,4	2,3	12	12	18
OC25O116	3,0	2,1	1,8	8,2	2,9	1.686	2	3	250	1.300	0,11	0,9	2,1	3,8	12	12	22
OC25O117	5,1	3,6	3,1	11,6	4,2	2.813	10	1	350	1.340	0,15	0,6	2,4	5,1	12	12	29
OC25O118	5,7	4,2	3,5	11,9	4,3	3.464	6	2	315	1.350	0,21	1,0	2,4	3,9	12	12	30
OC25O119	7,1	5,1	4,4	17,8	6,4	2.990	5	2	315	1.350	0,22	1,0	3,2	6,9	12	12	37
OC25O120	8,8	6,3	5,4	17,8	6,4	5.217	6	3	315	1.350	0,32	1,5	3,4	5,4	12	12	42
OC25O121	10,3	7,3	6,2	23,2	8,3	5.617	10	2	350	1.340	0,29	1,2	4,5	9,3	12	12	50
OC25O122	13,1	9,4	7,9	34,7	12,4	5.199	9	2	350	1.340	0,31	1,4	5,5	9,7	12	12	62
OC25O123	15,6	11,2	9,5	34,7	12,4	8.376	10	3	350	1.340	0,44	1,8	6,4	13,5	16	22	71
OC25O124	19,2	13,8	11,7	52,1	18,7	7.778	9	3	350	1.340	0,46	2,1	8,0	14,2	16	22	89

DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



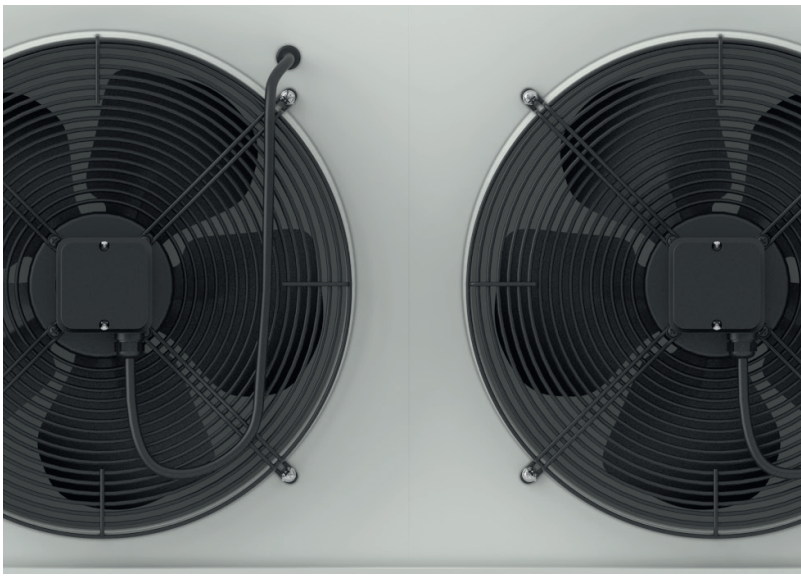
Aluminium-Magnesium casing or painted galvanized for high corrosion protection

End plates with impact fasteners to easy maintenance

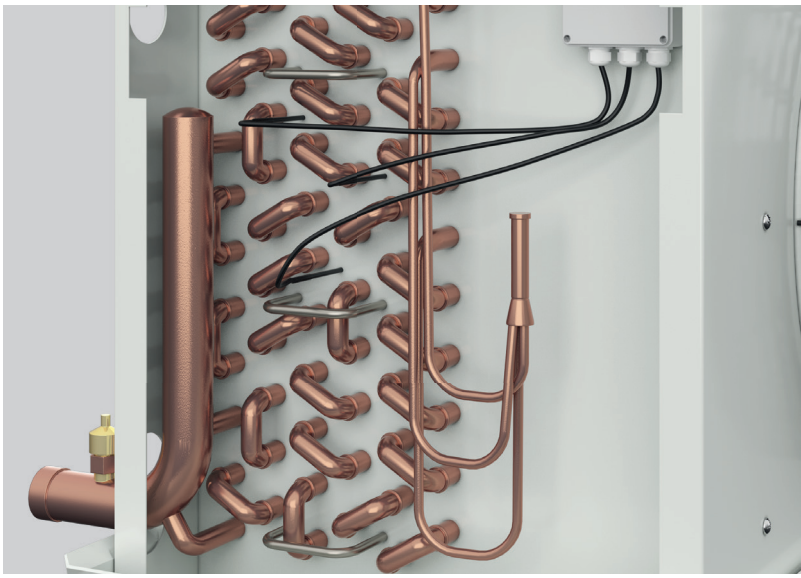


Large choice of configurations and accessories

EC Fan option



PS = 80 bar Coil option



End plates with impact fasteners to easy maintenance