



Air-cooled condensers Drycoolers

EUROPA 2

Excellent transfer
capacity/sound **level ration**
Corrosion proof quality
Wide range of options



Capacity (air-cooled condenser) :
30 to 800 kW (R407C)

USE

The air-cooled condensers from the EUROPA 2 range are mainly designed for the condensation of refrigerant fluids for the cold water production units, in "Split System". They ensure the functions of desuperheating, condensation and sub-cooling.

The drycoolers from the range EUROPA 2 are mainly designed for cooling the water circuit of the cold water production units condenser, and also for cooling the thermal motors of generating sets in co-generation.

These units are designed for outdoor installation

DESCRIPTION

■ Optimisation

EUROPA 2 is available with :

- Up to 14 fans (condenser), up to 16 fans (dry-cooler).
- 2 fin pitches: 2.1, 2.5 mm.
- 2, 3 or 4 rows of tubes.
- 6 rotation speeds.

This flexibility allows the best thermal and acoustic performance for the best price.

■ Resistance to corrosion

- In the standard version, all the steel sheets are galvanised and coated with a protective lacquer (graphite grey colour RAL 7024 and light grey RAL 7035).
- Bolts are "DACROMET" coated.
- Additional options :
 - For hostile environments, anticorrosion treatment of the fins (pre-enamalled aluminium or Blygold).

■ Optional power regulation

- Factory wired two speed motors.
- Thermostatic and pressostatic control.
- Continuous variation of motor speed by frequency or voltage variation.

■ According to their use, a large number of specific options is available

- Double circuit (HT - BT).
- Raised feet.
- Hail protection screen (for forced draught).
- Anti-recycling hood.
- Expansion vessel (for generating sets applications).
- Flange connection.

■ Easy installation

EUROPA 2 is optionally equipped with :

- Proximity switches.
- Non-wired emergency stop.
- Motor thermal cut-out connection.
- An electrical panel.

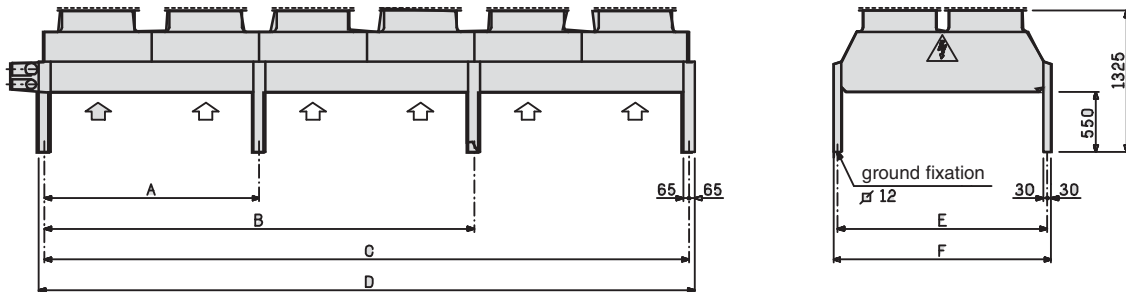
In the standard version, the motors are wired on an integral electrical terminal box.

■ Quality control of the product

- Test of fan rotation under voltage and intensity control.
- Water tightness test by air under water.

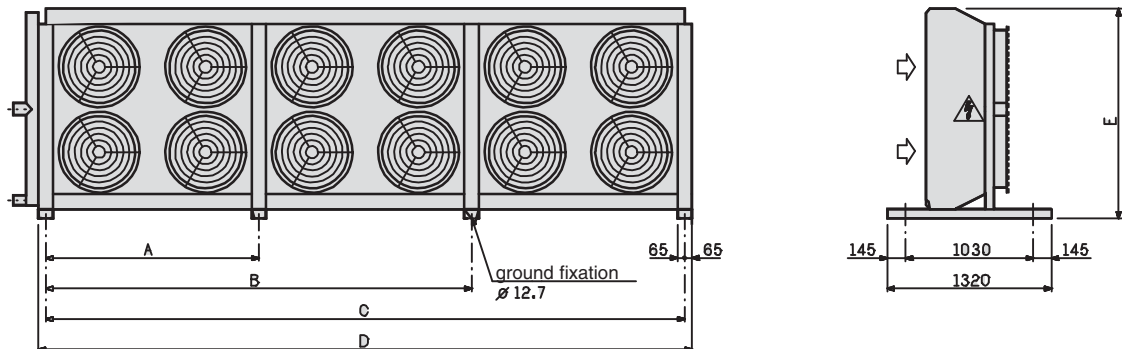
DIMENSIONS

Horizontal units



EUROPA 2	9010	9020	9030	9040	9050	9K40	9060	9080	9100	9120	9140	9160
A	-	-	-	-	-	-	-	-	-	2880	2880	2880
B	-	-	-	2880	2880	-	-	2880	2880	5760	7200	8640
C	1440	2880	4320	5760	7200	2880	4320	5760	7200	8640	10080	11520
D	1570	3010	4450	5890	7330	3010	4450	5890	7330	8770	10210	11650
E	1310	1310	1310	1310	1310	2340	2340	2340	2340	2340	2340	2340
F	1370	1370	1370	1370	1370	2400	2400	2400	2400	2400	2400	2400

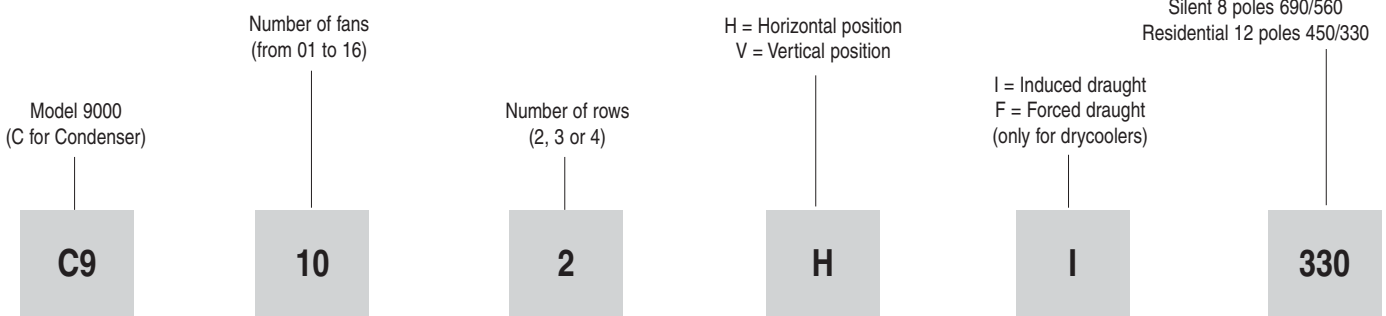
Vertical units



EUROPA 2	9010	9020	9030	9040	9050	9K40	9060	9080	9100	9120	9140	9160
A	-	-	-	-	2880	-	-	-	2880	2880	2880	2880
B	-	-	-	2880	5760	-	-	2880	5760	5760	7200	8640
C	1440	2880	4320	5760	7200	2880	4320	5760	7200	8640	10080	11520
D	1570	3010	4450	5890	7330	3010	4450	5890	7330	8770	10210	11650
E	1340	1340	1340	1340	1340	2430	2430	2430	2430	2430	2430	2430

DESCRIPTION (EXAMPLE)

EUROPA 2 C9102 HI 320 RESIDENTIAL





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SOUND LEVEL

SOUND POWER LEVELS*/SOUND PRESSURE LEVELS** dB(A)						
Rotation speed (rpm)	920	750	690	560	450	330
9010	86 / 53	81 / 48	80 / 47	73 / 40	66 / 33	60 / 27
9020	89 / 56	84 / 51	83 / 50	76 / 43	69 / 36	63 / 30
9030	91 / 58	86 / 53	85 / 52	78 / 45	71 / 38	65 / 32
9040 & 9K40	92 / 59	87 / 54	86 / 53	79 / 46	72 / 39	66 / 33
9050	93 / 60	88 / 55	87 / 54	80 / 47	73 / 40	67 / 34
9060	94 / 61	89 / 56	88 / 55	81 / 48	74 / 41	68 / 35
9080	95 / 62	90 / 57	89 / 56	82 / 49	75 / 42	69 / 36
9100	96 / 63	91 / 58	90 / 57	83 / 50	76 / 43	70 / 37
9120	97 / 64	92 / 59	91 / 58	84 / 51	77 / 44	71 / 38
9140	98 / 65	93 / 60	92 / 59	85 / 52	78 / 45	72 / 39
9160	98 / 65	93 / 60	92 / 59	85 / 52	78 / 45	72 / 39

(*) Only the sound power level is characteristic of the unit. These values are obtained in conformity with the ISO 3744 standard.

(**) Values measured at 10m for horizontal units in free field, directivity 2, in the bundle axis. Tolerance ± 3 dB.

The difference between the sound power level and the sound pressure level depends on the site. To know the sound pressure level of the installation, re-calculate it from the sound power level of the unit and the site characteristics (the advice of a sound technician might be necessary)

The sound emission of the unit not being uniform in all directions, for a point from 10 m in the fans axis, the re-calculation pressure value must be increased by approximately 4 dB.

RECOMMENDATION FOR ASSEMBLY

■ These units are designed for outside operation.

When starting, snow and frost can be harmful for the correct operation of the horizontal units.

In general, take all necessary steps for avoiding air recycling risks, in particular, when the installation includes several units. It is not advisable to install the units at a hot air extraction duct outlet or close to deciduous vegetation (take the fouling factor into account).

■ A horizontal unit will be positioned with a free space of 1.5m all around.

In the case where anti-vibration mounts are required, use a rigid chassis keeping the feet interdependent.

■ A vertical unit will be positioned parallel to the prevailing wind direction. Its use is not recommend for fan low rotation speeds. Furthermore, we recommended stabilising these units with struts connecting the 2 upper ends to fixed supports (wall or frame).

■ If using speed variators other than the ones recommended by CIAT, their compatibility with the electrical motors must be checked.

■ In the case of air-cooled condensers, the calculation of the capacity to be discharged by the air-cooled condenser will be made according to the rules of art, and namely as a function :

- of the installation compressor type (hermetic, semi-hermetic or open type)

- of the horizontal and vertical lengths of the connecting pipings, and their diameter.

■ Starting and maintenance: consult the installation, operation and maintenance guide.

■ These units conform to the European directives. The installer is responsible for the conformity of the unit. He will supervise the positioning and the accessibility of the protection and safety devices (emergency stop, isolating valves, lightning protection).

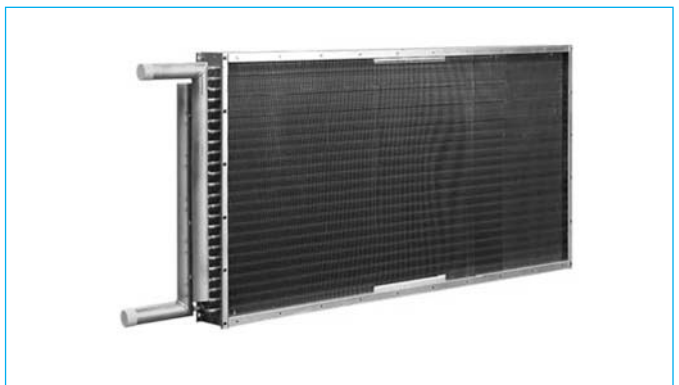
OTHER RANGES AND APPLICATIONS

For capacity lower than those of the EUROPA 2 range, we propose the AIRIAL range in drycooler and air cooled condenser versions.

OTHER PRODUCTS

Exchanger coils

Large range, from the standard coil on stock to the coil on request according to client's specifications.



This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

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