

EXECUTION CH

HEAT EXCHANGER

especial designed copper tubes diameter 12 mm with high efficiency pure aluminium fins with a fin spacing 4 and 7 mm. Tube die 35x35 mm inline (PROFESSIONAL LINE).

On request: stainless steel tubes, several coated fins according costumer requirement. Schrader-valve at outlet.

CASING

Powder coated aluminium in RAL 9010, brackets for ceiling installation, drip tray with a folded down execution for easy cleaning and maintenance. Accessories and alternative: casing available in different materials such as double drip tray (insulated), electrical defrost in coil and drip tray, hot gas defrost, mounting box and cabling of the fan(s) and electrical defrost.

FANS

Axial fans designed for low noise level operation, with external or internal rotor system motors, wired on costumer requirement onto clamping device, motors 230V / 1 / 50 Hz, protection class IP44 according DIN 40050. Ambient temperature of operation: -30 °C up to +40° C. Protection grill according EN 294. For protection of fans, they are equipped with internal thermal contacts. The fans are suction versions. The data concerning the motors such as absorption and power may vary depending on environmental conditions and pressure drops. We reserve the right to use fans of different manufactors we have approved and tested. CABERO Efficiency Stream System (ESS) are available on request.

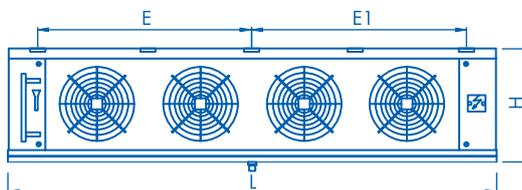
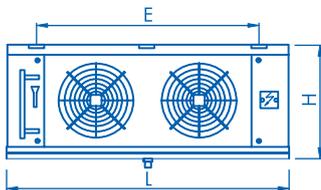
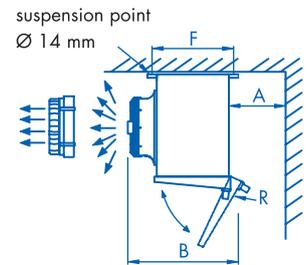
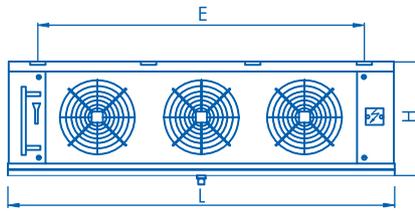
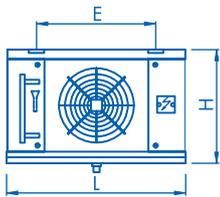
SOUND PRESSURE LEVEL

Using the enveloping surface method (open area = according EN 13487 at 1 m). As cooling rooms only have a very low absorbing capacity, we recommend that calculations are carried out with only slight reduction in the sound pressure level for other distance.



fin spacing	Model CH	nom. capacity		tube volume	exchange surface	airflow	Air throw	noise pressure level	connections		electrical defrosting				fan(s) 50 Hz				dimensions in mm						net weight		
		R 404a	SC2						SC3	inlet	outlet	Coil	Drip tray	Total	connection diagramm	capacity	current	current type	drain	L	B	H	E	E1		F	A
																				generation key		mm					
		kW	kW	dm ³	m ²	m ³ /h	m	dB(A)	mm	W	W	kW	Type	W	A	V	NW ^{II}										
		DTI = 8K ENV 328 T evapor. = -5 °C (ENV 328) T evapor. = -4 °C (CMAA)		DTI = 7K T evap. = -25 °C																							
4.0 mm	4 B 1/30 .1	2.12	1.59	2.3	9.6	1580	6	59	12	12	900	450	1.40	A	85	0.38	230	G1	780	560	470	490		415	400	19	
	4 C 1/30 .1	2.59	1.82	3.1	12.8	1540	6	59	12	12	900	450	1.40	A	85	0.38	230	G1	780	560	470	490		415	400	22	
	4 B 1/35 .1	3.06	2.31	3.3	13.9	2480	7	63	12	12	1300	650	1.95	A	140	0.60	230	G1	980	560	470	690		415	400	26	
	4 C 1/35 .1	3.98	2.95	4.4	18.5	2390	7	63	12	16	1300	650	1.95	A	140	0.60	230	G1	980	560	470	690		415	400	28	
	4 D 1/35 .1	4.53	3.31	5.5	23.2	2240	6	63	12	19	2600	650	3.25	A	140	0.60	230	G1	980	560	470	690		415	400	30	
	4 E 1/35 .1	4.85	3.45	6.6	27.8	2110	6	63	12	19	2600	650	3.25	A	140	0.60	230	G1	980	560	470	690		415	400	32	
	4 B 2/30 .1	4.24	3.18	4.6	19.2	3160	7	62	12	19	1700	850	2.55	A	170	0.76	230	G1	1230	560	470	940		415	400	34	
	4 C 2/30 .1	5.17	3.65	6.2	25.6	3080	7	62	12	19	1700	850	2.55	A	170	0.76	230	G1	1230	560	470	940		415	400	38	
	4 B 2/35 .1	6.48	5.04	6.4	27.8	4980	9	65	12	19	2400	1200	3.60	A	280	1.20	230	G1	1630	560	470	1340		415	400	43	
	4 C 2/35 .1	7.97	6.10	8.5	37.0	4760	9	65	12	22	2400	1200	3.60	A	280	1.20	230	G1	1630	560	470	1340		415	400	47	
	4 D 2/35 .1	9.00	6.89	10.6	46.3	4430	8	65	16	22	4800	1200	6.00	B	280	1.20	230	G1	1630	560	470	1340		415	400	53	
	4 E 2/35 .1	9.89	7.21	12.8	55.6	4260	8	65	16	28	4800	1200	6.00	B	280	1.20	230	G1	1630	560	470	1340		415	400	58	
	4 C 3/35 .1	11.91	9.08	12.6	55.6	6970	10	67	16	28	3500	1750	5.25	B	420	1.80	230	G1	2340	560	470	1990		415	400	69	
	4 D 3/35 .1	13.85	10.29	15.7	69.5	6620	9	67	16	28	7000	1750	8.75	B	420	1.80	230	G1	2340	560	470	1990		415	400	75	
4 E 3/35 .1	14.94	10.79	18.9	83.3	6340	9	67	16	28	7000	1750	8.75	B	420	1.80	230	G1	2340	560	470	1990		415	400	82		
4 D 4/35 .1	18.47	13.76	20.8	92.6	8780	9	68	22	35	9200	2300	11.50	B	560	2.40	230	G1	2990	560	470	1340	1300	415	400	98		
4 E 4/35 .1	20.80	14.90	25.0	111.1	8490	9	68	22	35	9200	2300	11.50	B	560	2.40	230	G1	2990	560	470	1340	1300	415	400	107		

6.8 mm	7 B 1/30 .1	1.48	1.17	2.3	5.9	1610	6	59	12	12	900	450	1.40	A	85	0.38	230	G1	780	560	470	490		415	400	18
	7 C 1/30 .1	1.98	1.43	3.1	7.9	1560	6	59	12	12	900	450	1.40	A	85	0.38	230	G1	780	560	470	490		415	400	20
	7 B 1/35 .1	2.35	1.73	3.3	8.5	2530	7	63	12	12	1300	650	1.95	A	140	0.60	230	G1	980	560	470	690		415	400	24
	7 C 1/35 .1	2.81	2.17	4.4	11.4	2360	7	63	12	16	1300	650	1.95	A	140	0.60	230	G1	980	560	470	690		415	400	26
	7 D 1/35 .1	3.45	2.55	5.5	14.2	2280	6	63	12	19	2600	650	3.25	A	140	0.60	230	G1	980	560	470	690		415	400	28
	7 E 1/35 .1	4.05	2.87	6.6	17.1	2220	6	63	12	19	2600	650	3.25	A	140	0.60	230	G1	980	560	470	690		415	400	30
	7 B 2/30 .1	2.98	2.34	4.6	11.8	3220	7	62	12	19	1700	850	2.55	A	170	0.76	230	G1	1230	560	470	940		415	400	32
	7 C 2/30 .1	4.24	3.04	6.2	15.8	3120	6	62	12	19	1700	850	2.55	A	170	0.76	230	G1	1230	560	470	940		415	400	36
	7 B 2/35 .1	4.70	3.64	6.4	17.1	5200	9	65	12	19	2400	1200	3.60	A	280	1.20	230	G1	1630	560	470	1340		415	400	41
	7 C 2/35 .1	5.87	4.65	8.5	22.8	5050	9	65	12	22	2400	1200	3.60	A	280	1.20	230	G1	1630	560	470	1340		415	400	44
	7 D 2/35 .1	7.32	5.48	10.6	28.4	4820	8	65	16	22	4800	1200	6.00	B	280	1.20	230	G1	1630	560	470	1340		415	400	48
	7 E 2/35 .1	8.26	5.98	12.8	34.1	4510	8	65	16	28	4800	1200	6.00	B	280	1.20	230	G1	1630	560	470	1340		415	400	51
	7 C 3/35 .1	9.25	6.92	12.6	34.1	7430	10	67	16	28	3500	1750	5.25	B	420	1.80	230	G1	2340	560	470	1990		415	400	62
	7 D 3/35 .1	11.02	8.27	15.7	42.7	7220	9	67	16	28	7000	1750	8.75	B	420	1.80	230	G1	2340	560	470	1990		415	400	67
7 E 3/35 .1	12.59	9.16	18.9	51.2	6950	9	67	16	28	7000	1750	8.75	B	420	1.80	230	G1	2340	560	470	1990		415	400	73	
7 D 4/35 .1	13.71	10.74	20.8	56.9	9230	9	68	22	35	9200	2300	11.50	B	560	2.40	230	G1	2990	560	470	1340	1300	415	400	87	
7 E 4/35 .1	16.94	12.40	25.0	68.3	9610	9	68	22	35	9200	2300	11.50	B	560	2.40	230	G1	2990	560	470	1340	1300	415	400	94	





SPECIAL FEATURES AND STANDARDS

COMMERCIAL COOLERS:

STANDARDS:

- Unit casing are manufactured from high grade aluminium and powder coated white – for greater corrosion protection and hygiene
- Drip tray double side painted for easy cleaning
- Drip tray executed with triple folded edges for easy cleaning
- Drip tray thermally decoupled and detachable from the heat exchanger casing
- Improved and optimum condensate drainage
- Less dehumidification (moisture) and ice formation according professional inline pattern
- Separate fan compartments
- Deeper fan suction compartment
 - improved and optimum distribution of air with constant air speed over the heat exchanger resulting in a reduction of energy consumption.
- Junction box and wiring with cable glands
- Air by pass sheet with unique drainage system
- Units with modern and creative design for easier cleaning and minimum dirt accumulation
- Side cover sheet prepared for easy maintenance
- High efficiency fans adapted to the technical requirements
- Low maintenance and long service life
- Robust design
- Reduced defrosting power according new heater generation
- Adapted for normal and deep-freeze refrigeration-fin spacing 4.0 mm or 7.0 mm
- Cooler totally flash mounted to the ceiling – no gap
- all terminal boxes IP54

WIDE RANGE OF ACCESSORIES:

- Blue fins (anti corrosion)
- Increment of air throw property trough CABERO ESS
- Double (insulated) drip tray
- Mounted expansion valve
- etc.

Correction factors acc. to Eurovent

Q_N = evaporator nominal catalogue capacity

Q_0 = evaporator capacity

$$Q_0 = Q_N \times F_1 \times F_2$$

F_1 correction factor for refrigerant

	refrigerant	R404A	R507	R134a	R22
F_1	$t_0 = -8 \text{ }^\circ\text{C}$	1.0	1.0	0.91	0.95
	$t_0 = -25 \text{ }^\circ\text{C}$	1.0	1.0	0.85	0.95

F_2 correction factor for fin material

	F_2 material
1.00	aluminium
0.97	coated aluminium
1.03	copper

