



CONDENCIAT CL2

Condensing units



*Outdoor condensing unit
for direct expansion applications
Variable speed propeller fan*

Cooling capacity : 6,8 to 18,6 kW



Cooling

UTILISATION

The **CONDENCIAT CL2** units with air-cooled condensers are designed for small sized refrigerating installations.

They are particularly suitable for industrial process, small shops, offices, restaurants.

Installed outdoors (propeller fan), they are directly connected, through refrigerant piping, to a direct water or air expansion exchanger.

They can be combined with a wide variety of indoor exchangers:

- Air handling box coil
- Separate water-cooling evaporator, EXEL, HF, FYN types.
- Integrated into a precision air handling cabinet such as Expair.
- Any type of comfort unit of equivalent capacity

We remind you that the control of air handling units should be studied with care when the direct expansion solution has been selected.

DESCRIPTION

Standard equipment

- Scroll compressor
- Crankcase heater on all models
- Air-cooled condenser, copper tubes coil, aluminium fins
- Propeller fan(s) (1 or 2 depending on models) with EC motor
- Year-round operation
- Condensing pressure control through fan speed variation (pressure sensor)
- Operation for outside temperatures between: -15°C and +45°C
- Casing in "ABS" synthesis material, recyclable and UV-stabilised, light and sturdy. Its exclusive and high-quality design facilitates its integration into its surroundings.

- Conforms to norms and directives:
 - CEM 2004/108/CE
 - BT 2006/95/CE
 - DEP 97/23/CE

Optional equipment

- Antivibration mounts kit
- Wall support kit (models 28, 35)
- Thermostatic expansion
- Altena or Heresite treatment on request

QUICK SELECTION

CONDENCIAT CL2

CONDENCIAT CL2	Number of circuits	Number of compressors	Cooling capacity (kW)	Power consumption (kW)
28	1	1	6,8	2,6
35	1	1	8,6	3,5
50	1	1	12,1	4
65	1	1	14,5	4,9
75	1	1	18,6	6,8

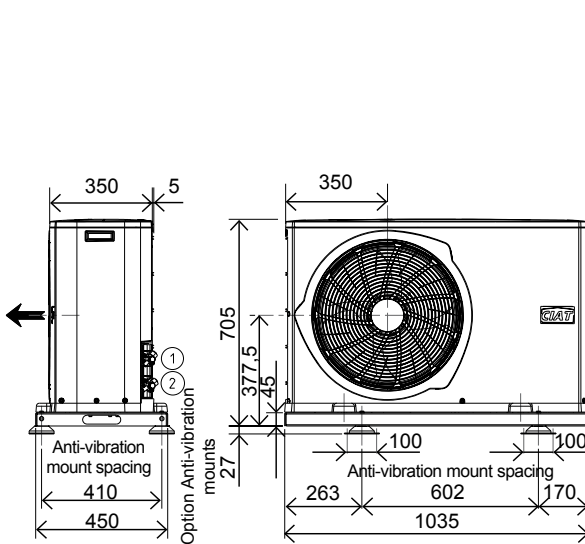
CL2 refrigerant fluid R410A

Evaporation temperature + 2 °C

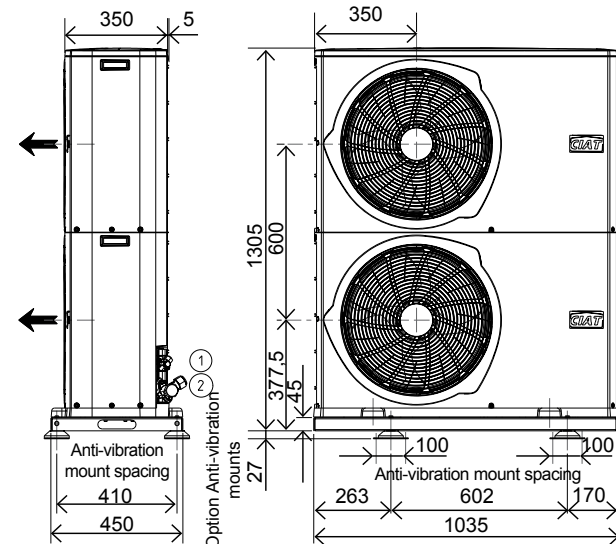
DB air temperature at condenser = + 35 °C

DIMENSIONS

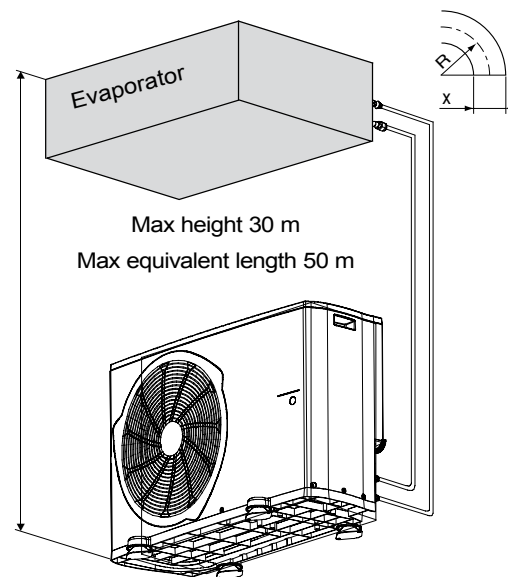
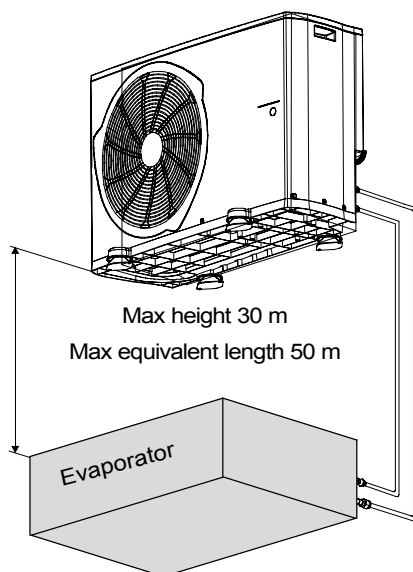
Models 28 and 35



Models 50, 65 and 75



CONNECTION



Equivalent length for 90° angle:

Tube diameter (inches)	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
Equivalent length (m)	0,25	0,35	0,45	0,55	0,65	0,7

All the network accessories must be taken into account.

COOLING CAPACITIES

CL2		Condenser inlet temperature (°C)									
		25		30		35		40		45	
		Pf kW	Pa kW	Pf kW	Pa kW	Pf kW	Pa kW	Pf kW	Pa kW	Pf kW	Pa kW
28	Evaporating temperature (°C)										
	-2	6,8	2,0	6,4	2,3	5,9	2,6	5,6	2,9	5,1	3,3
	0	7,4	1,9	6,9	2,3	6,4	2,6	5,9	2,9	5,5	3,2
	2	7,9	1,9	7,3	2,3	6,8	2,6	6,3	3,0	5,8	3,3
	4	8,3	2,1	7,8	2,3	7,3	2,6	6,8	2,9	6,3	3,3
	6	8,8	2,1	8,3	2,4	7,8	2,6	7,2	3,0	6,6	3,4
	8	9,5	2,1	8,8	2,4	8,2	2,7	7,7	3,0	7,1	3,4
	10	9,9	2,2	9,3	2,4	8,7	2,7	8,1	3,1	7,6	3,4
35	-2	8,5	2,8	8,0	3,1	7,4	3,5	6,9	3,9	6,4	4,3
	0	9,1	2,8	8,5	3,1	8,0	3,5	7,4	4,0	6,9	4,3
	2	9,7	2,8	9,1	3,2	8,6	3,5	7,9	4,0	7,3	4,4
	4	10,3	2,9	9,7	3,2	9,1	3,6	8,4	4,0	7,7	4,5
	6	11,2	2,8	10,5	3,1	9,6	3,6	9,0	4,0	8,3	4,5
	8	11,6	3,0	10,9	3,3	10,2	3,7	9,5	4,1	8,7	4,6
	10	12,2	3,0	11,5	3,4	10,8	3,8	10,1	4,1	9,3	4,6
	50	-2	12,0	3,1	11,3	3,5	10,6	3,9	9,9	4,4	9,0
0		12,9	3,1	12,1	3,5	11,4	3,9	10,6	4,4	9,8	5,0
2		13,6	3,2	12,9	3,6	12,1	4,0	11,3	4,5	10,5	5,0
4		14,4	3,2	13,7	3,6	12,9	4,0	12,0	4,5	11,1	5,1
6		15,5	3,2	14,5	3,6	13,7	4,1	12,8	4,5	11,9	5,1
8		16,5	3,2	15,4	3,7	14,5	4,1	13,6	4,6	12,6	5,1
10		17,1	3,4	16,3	3,8	15,3	4,2	14,4	4,6	13,4	5,2
65		-2	14,4	3,9	13,6	4,3	12,7	4,7	11,7	5,2	10,8
	0	15,4	3,9	14,5	4,3	13,6	4,8	12,6	5,3	11,7	5,8
	2	16,7	3,9	15,5	4,4	14,5	4,9	13,5	5,3	12,4	5,9
	4	17,4	4,1	16,4	4,5	15,4	4,9	14,4	5,4	13,4	5,9
	6	18,5	4,1	17,5	4,6	16,4	5,0	15,4	5,5	14,2	6,1
	8	19,9	4,1	18,8	4,5	17,4	5,1	16,3	5,6	15,2	6,1
	10	21,1	4,2	19,6	4,7	18,5	5,2	17,3	5,7	16,1	6,2
	75	-2	18,7	5,4	17,5	6,0	16,3	6,6	14,9	7,4	13,5
0		19,7	5,6	18,4	6,2	17,4	6,7	16,0	7,5	14,7	8,2
2		21,2	5,6	19,9	6,2	18,6	6,8	17,1	7,6	15,8	8,3
4		22,5	5,7	21,1	6,3	19,7	7,0	18,4	7,6	16,7	8,5
6		23,9	5,8	22,4	6,4	20,9	7,1	19,3	7,9	18,0	8,5
8		26,0	5,7	23,8	6,5	22,2	7,2	20,5	7,9	18,8	8,8
10		26,7	6,1	25,1	6,7	23,5	7,3	21,8	8,1	19,9	8,9

Pa: Total absorbed capacity of the CL2 unit (compressor + fan + control)
Pf: Cooling capacity

TECHNICAL CHARACTERISTICS

CONDENCIAT CL2		28	35	50	65	75	
Compressor	Quantity	1					
	Type	SCROLL					
	Oil capacity	l	1.25		1.7		
	Oil type	POE					
Refrigerant	R410a						
Refrigerant charge	Refrigerant not supplied (nitrogen charge)						
Crankcase heater power and current	W/A	40 W/0.17 A	45 W/0.2 A	45 W/0.2 A			
Coil type	Grooved copper tubes - aluminium fins						
Fan	Type	Propeller					
	Quantity	1		2			
	Nominal flow rate	m ³ /h	2350	2770	4700	5540	5000
	Speed	RPM	700	904	700	904	
Weight	kg	69	69	101	112	118	
Refrigerant connections	Liquid line	inch	3/8"			1/2"	
	Gas line	inch	5/8"	3/4"		7/8"	

ELECTRICAL CHARACTERISTICS

CONDENCIAT CL2		28	35	50	65	75	
Compressor	Voltage	400 V - 3 Ph - 50 Hz					
	Maximum current	A	6.9	8.0	10.3	15.0	15.0
Fans	Maximum current	A	0.46	0.97	0.92	1.94	
Rated voltage of unit	V	400 V - 3 Ph+N - 50 Hz					
Total current	A	7.5	9.0	11.3	17.0	17.0	
Starting current	A	38	43	65.5	75.5	102.5	
Electrical cables not supplied *	mm ²	5G1.5	5G2.5	5G4	5G6	5G6	
Recommended rating for the proximity switch	Am	10		16	20	20	

* cable with 2 or 3 conductors in a raceway or exposed mounting, for temperatures below 60°C, 30 m max. length

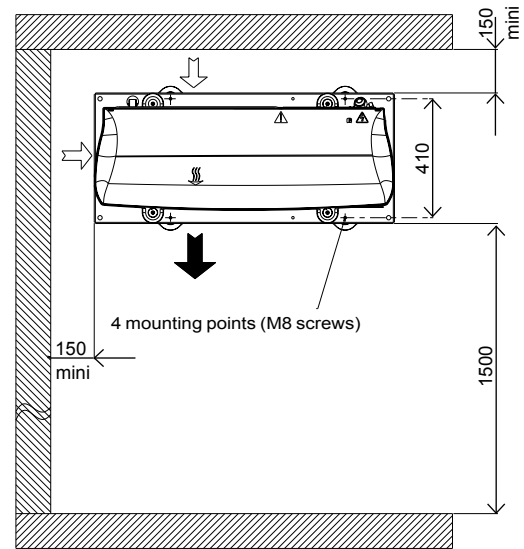
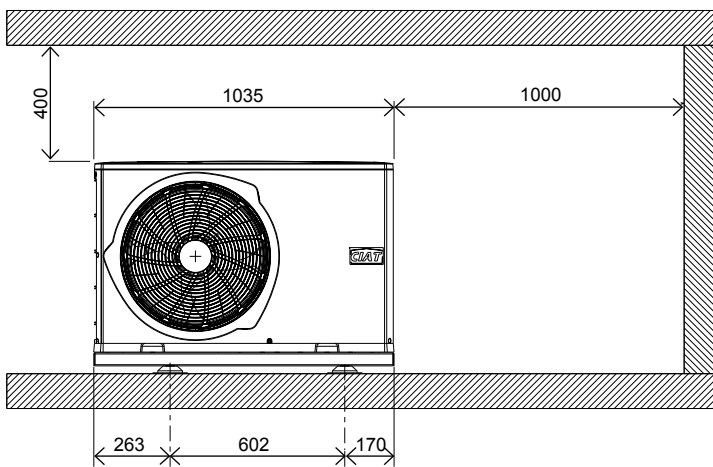
Note : For other conditions, refer to the norm applied in the country of installation (example for France: NFC 15.100)

SOUND PRESSURE LEVELS **

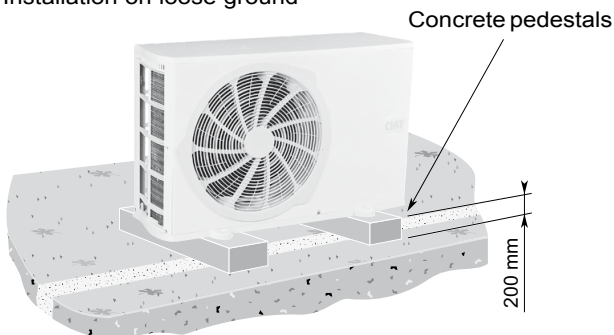
CL2	28	35	50	65	75
Acoustic pressure dB(A)	39	45	43	47	47

** at 5 m from the unit, 1.5 m from the ground, free field, directivity 2.

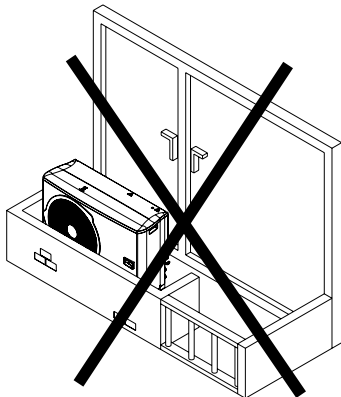
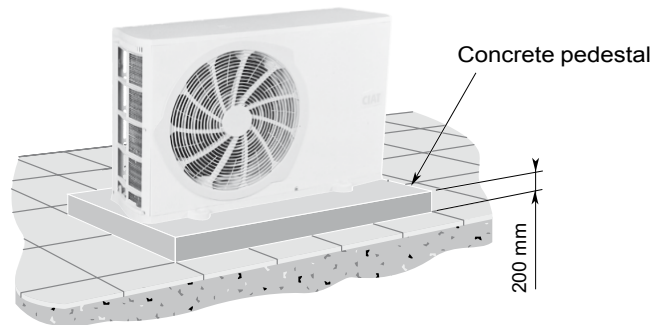
RECOMMENDATIONS FOR ASSEMBLY



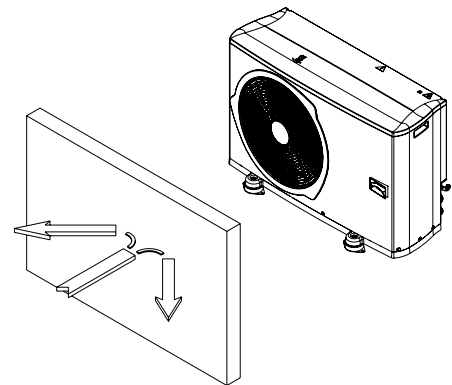
Installation on loose ground



Installation on a concrete basement



There must be no obstacles preventing free air circulation around the air heat exchanger. Follow the minimum distances given above. Avoid prevailing winds.



- The external unit must be installed outdoors, on a terrace or in a garden. It has been designed to operate under all types of weather, even adverse conditions, but can also be installed under a 4-side open shelter.
- It is preferable to orientate the unit to the north or place it in the shade in order to avoid the condenser coil being in direct sunlight.
- Avoid placing obstacles at the fan intake and discharge. There should be no obstacle blocking the coil air intake. la batterie.

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. Ref. : NA 20.742 A

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