

# CHA/Y 1202-B÷4202-B

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCREW COMPRESSORS AND SHALL AND TUBE EXCHANGERS.

FROM 221 kW TO 954 kW.



## UNIT DESCRIPTION

The water coolers and heat pumps of the CHA/Y 1202-B÷4202-B series, with R134a refrigerant, are intended to satisfy the needs of large-sized service sector or industrial environments.

They are used, in combination with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes. Equipped with axial fans, screw compressors and tube-bundle exchangers, even in the super silent version, these units can be completed by a hydraulic circuit with tank, with pump, or with tank and pump. The use of large condensing batteries and fans with high unit efficiency, as well as the optimization of the hydraulic and cooling circuit and the use of latest generation screw compressors, combined with a suitable sizing of the user system, allows to obtain high efficiency during operation with remarkably reduced energy consumption.

A wide range of accessories, factory-assembled or supplied separately, complete the outstanding versatility and functionality of the series.



## VERSIONS

### CHA/Y

Cooling only

### CHA/Y/SSL

Super silenced cooling only

### CHA/Y/WP

Reversible heat pump

### CHA/Y/WP/SSL

Super silenced reversible heat pump

## FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and stepless capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Shell and tube type evaporator, with two independent refrigerants circuits and one water circuit.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device allows also the cooling functioning of the unit by external temperature till 0°C.

## ACCESSORIES

### Factory fitted accessories:

IM	Protection module
SL	Unit silencing
CC	Condensing control down to -20°C
HR	Desuperheater
HRT/S	Total heat recovery in series
HRT/P	Total heat recovery in parallel
SP	Inertial tank
PU	Single circulating pump
PD	Double circulating pump
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
RF	Cooling circuit shut off valves
FE	Evaporator heater
FU	Evaporator heater for SPU
FD	Evaporator heater for SPD
SS	Soft start
CP	Potential free contacts

### Loose accessories:

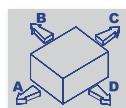
MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
FP	Metallic guards for condenser with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

CHAY			1202-B	1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	3002-B	3602-B	4202-B
Cooling	Cooling capacity (1)	kW	221	262	302	348	393	453	549	684	806	954
	Absorbed power (1)	kW	80	88	112	126	146	155	197	231	284	334
Heating	Heating capacity (2)	kW	225	255	289	338	390	457	536	662	767	850
	Absorbed power (2)	kW	75	78	91	105	120	134	160	191	225	260
Compressors	Quantity	n°	2	2	2	2	2	2	2	2	2	2
	Type		<----- Screw ----->									
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	<----- Stepless ----->									
Evaporator	Water flow	l/s	10,56	12,52	14,43	16,63	18,77	21,64	26,23	32,68	38,51	45,58
	Pressure drops	kPa	50	49	38	50	53	43	54	57	55	53
	Water connections	DN	100	100	125	125	125	125	150	150	200	200
Electrical characteristics	Power supply	V/Ph/Hz	<----- 400 / 3 / 50 ----->									
	Max. running current	A	169	169	203	227	257	309	380	464	530	571
	Max. inrush current	A	244	244	261	317	332	451	491	612	766	900
STD version and with SL accessory	Fans	n°	4	4	4	4	4	4 (**)	6	6 (**)	8	10
	Air flow	m³/s	21,66	21,66	21,66	20,55	23,89	23,33	31,11	33,33	40,55	48,61
	Sound pressure (3)	dB(A)	68	68	68	68	68	67	69	69	70	69
	SL sound pressure (3)	dB(A)	65	65	65	65	65	64	65	65	66	64
SSL version	Fans	n°	4	4	4	4	4	6	8	8	10	12
	Air flow	m³/s	13,56	13,56	13,56	16,12	15,56	20,66	26,66	26,66	35,58	35,84
	Sound pressure (3)	dB(A)	57	57	57	57	57	58	59	59	59	60
Unit with tank and pump	Pump nominal power	kW	3,0	4,0	5,5	5,5	5,5	7,5	7,5	7,5	11,0	11,0
	Pump static pressure	kPa	150	170	230	195	165	195	165	130	165	130
	Storage water volume	l	1110	1110	1110	1110	1110	2000	2000	2000	2000	2000
	Expansion vessel (4)	l	35	35	35	35	35	80	80	80	80	80
	Water connections	"G	4"	4"	4"	4"	5"	5"	6"	6"	6"	8"
Weights	Transport weight (5)	Kg	2640	2730	2780	2920	3120	3800	4070	5270	5480	6250
	Transport weight (6)	Kg	2740	2820	2920	3060	3250	3930	4330	5500	5770	6600
	Operating weight (5)	Kg	3200	3310	3380	3520	3560	4290	4560	5760	6070	6880
	Operating weight (6)	Kg	4300	4410	4480	4620	4660	6290	6560	7760	8070	8880

DIMENSIONS

CHAY			1202-B	1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	3002-B	3602-B	4202-B
L	STD	mm	3350 (***)	3350 (***)	3350 (***)	3350 (***)	4400	5550	5550	6700	6700	7750
	WP	mm	4400	4400	4400	4400	5550	6700	6700	7750	7750	8900
	SSL	mm	3350 (***)	3350 (***)	3350 (***)	4400 (***)	5550	6700	6700	7750	7750	10050
	WP/SSL	mm	4400	4400	4400	5550	5550	6700	6700	7750	8900	----
P	STD	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	WP	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
	WP	mm	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100

DIMENSIONAL



CLEREANCE AREA

CHAY	1202-B ÷ 4202-B
A (*)	mm 1000
B	mm 1800
C	mm 500
D	mm 1800

NOTES

- Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
- Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
- Sound pressure level measured in free

field conditions at 1 m from the unit and according to ISO 3744.

- 24 l water volume for expansion vessel for only pump versions.
- Unit without tank and pump.
- Unit with tank and pump.
- A SIDE: Electrical board side.
- (\*\*) 6 fans for CHAY/WP 2002-B version. 8 fans for CHAY/WP 3002-B version.
- (\*\*\*) 4400 mm for version with tank and pump. N.B. Weights of SSL and WP versions are indicated on the technical book.