

CHA 201÷702

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SEMI-HERMETIC COMPRESSORS AND SHALL AND TUBE EXCHANGERS.

FROM 48 kW TO 181 kW.



UNIT DESCRIPTION

The water coolers and heat pumps of the CHA 201÷702 series are intended to satisfy the needs of medium-large service sector or industrial environments.

They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes; they can be supplied with RS 485 ModBus connection to integrate, if necessary, the innovative monitoring and control system CLIMAFRIEND that allows to program up to 30 different environments in order to obtain a level of comfort intuitively and efficiently without compromises.

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



VERSIONS

CHA

Cooling only

CHA/SSL

Super silenced cooling only

CHA/WP

Reversible heat pump

CHA/WP/SSL

Super silenced reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Semi-hermetic compressors type complete with crankcase heater, oil sight glass, incorporated thermal protection and shut off valves.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with two independent refrigerants circuits and one water circuit.
- R407C refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, overload protection for compressors and thermocontacts for fans.
- Microprocessor control and regulation system.

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
MF	Muffler
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
MO	Compressor oil gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
FP	Metallic guards for condenser with filter (except WP)
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

ACCESSORIES

Factory fitted accessories:

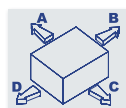
IM	Protection module
SL	Unit silencing
CT	Condensing control down to 0 °C
CC	Condensing control down to -20°C
HR	Desuperheater

CHA			201	251	301	321	401	501	602	642	702
Cooling	Cooling capacity (1)	kW	48,3	59,5	70,8	79,4	104,8	126,9	141,5	158,7	180,7
	Absorbed power (1)	kW	15,6	19,8	24,5	27,8	35,2	42,5	48,0	57,6	63,2
Heating	Heating capacity (2)	kW	53,3	65,6	78,1	87,6	115,6	140,0	156,1	175,1	199,4
	Absorbed power (2)	kW	16,4	20,6	25,6	29,0	36,6	44,2	50,2	60,0	65,8
Compressors	Quantity	n°	1	1	1	1	1	1	2	2	2
	Type	<----- Semi-hermetics ----->									
	Refrigerant circuits	n°	1	1	1	1	1	1	2	2	2
	Capacity steps	n°	2	2	2	2	2	2	4	4	4
Evaporator	Water flow	l/s	2,31	2,84	3,38	3,79	5,01	6,06	6,76	7,58	8,63
	Pressure drops	kPa	35	38	42	29	26	34	40	24	33
	Water connections	"G	1½"	2½"	2½"	2½"	DN80	DN80	3"	DN100	DN100
Electrical characteristics	Power supply	V/Ph/Hz	<----- 400 / 3 / 50 ----->								
	Max. running current	A	36	50	60	61	88	98	117	126	156
	Max. inrush current	A	100	116	130	140	219	244	188	205	237
STD version and with SL accessory	Fans	n°	1	1	2	2	2	3	3	3	3
	Air flow	m³/s	4,2	4,1	7,9	7,7	7,5	11,7	11,1	15,6	15,6
	Sound pressure (3)	dB(A)	60	60	62	62	62	62	62	66	66
	SL sound pressure (3)	dB(A)	56	56	57	57	58	57	58	63	63
SSL version	Fans	n°	2	2	2	2	3	3	3	---	---
	Air flow	m³/s	3,5	3,4	6,0	5,6	9,2	8,5	8,5	---	---
	Sound pressure (3)	dB(A)	50	50	52	52	52	52	52	---	---
Unit with tank and pump	Pump nominal power	kW	0,75	0,75	0,75	0,75	1,85	1,85	1,85	1,85	1,85
	Pump static pressure	kPa	127	108	89	85	138	116	101	107	84
	Storage water volume	l	190	190	470	470	470	470	660	660	660
	Expansion vessel	l	8	8	18	18	18	18	24	24	24
	Water connections	"G	1½"	1½"	2"	2"	2½"	2½"	3"	3"	3"
Weights	Transport weight (4)	Kg	575	635	725	835	885	1030	1290	1400	1485
	Transport weight (5)	Kg	683	743	875	985	1065	1210	1539	1649	1734
	Operating weight (4)	Kg	587	650	742	855	915	1060	1325	1445	1530
	Operating weight (5)	Kg	873	933	1345	1455	1535	1680	2199	2309	2394

DIMENSIONS

CHA			201	251	301	321	401	501	602	642	702
L	STD	mm	2350	2350	2350	2350	2350	3550	3550	3550	3550
	SSL	mm	2350	2350	2350	2350	3550	3550	3550	---	---
P	STD	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100
	SSL	mm	1100	1100	1100	1100	1100	1100	1100	---	---
H	STD	mm	1920	1920	2220	2220	2220	2220	2220	2275	2275
	SSL	mm	1920	1920	2220	2220	2220	2220	2220	---	---

DIMENSIONAL



CLEREANCE AREA

CHA 201 ÷ 702		
A	mm	300
B	mm	1800
C (*)	mm	800
D	mm	800

NOTES

- (1) Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - (2) Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - (3) Sound pressure level measured in free field conditions at 1 m from the unit and. According to ISO 3744.
 - (4) Unit without tank and pump.
 - (5) Unit with tank and pump.
 - (*) C SIDE: Electrical board side.
- N.B. Weights of SSL and WP versions are indicated on the technical book.