

CHA 182÷604

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

FROM 47 kW TO 162 kW.



UNIT DESCRIPTION

The water coolers and heat pumps of the CHA 182÷604 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, Scroll 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.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater if needed.
- 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.

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

ACCESSORI

Factory fitted accessories:

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

Loose accessories:

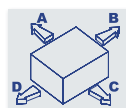
MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
FP	Metallic guards for condenser with filter (except WP)
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

CHA			182	202	262	302	393	453	524	604
Cooling	Cooling capacity (1)	kW	46,8	54,4	71,2	82,0	105,8	121,8	140,3	161,6
	Absorbed power (1)	kW	14,9	17,2	22,4	26,1	32,9	39,0	44,2	53,4
Heating	Heating capacity (2)	kW	53,0	61,6	80,6	92,9	119,7	137,9	158,8	182,9
	Absorbed power (2)	kW	15,0	17,6	23,2	27,1	33,5	42,0	45,0	56,2
Compressors	Quantity	n°	2	2	2	2	3	3	4	4
	Type		<----- Scroll ----->							
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2
	Capacity steps	n°	2	2	2	2	3	3	4	4
Evaporator	Water flow	l/s	2,24	2,60	3,40	3,92	5,05	5,81	6,70	7,72
	Pressure drops	kPa	35	32	46	32	29	37	42	48
	Water connections	"G	1½"	2½"	2½"	2½"	<----- PN16/DN80 ----->			PN16/DN100
Electrical characteristics	Power supply	V/Ph/Hz	<----- 400 / 3 / 50 ----->							
	Max. running current	A	42	46	57	67	84	101	113	139
	Max. inrush current	A	145	151	198	234	224	267	253	305
STD version and with SL accessory	Fans	n°	1	1	2	2	2	3	3	3
	Air flow	m³/s	4,15	4,10	7,89	7,66	7,50	11,66	11,66	15,55
	Sound pressure (3)	dB(A)	60	60	62	62	62	62	62	66
	SL sound pressure (3)	dB(A)	56	56	57	57	57	57	58	63
SSL version	Fans	n°	2	2	2	2	3	3	3	---
	Air flow	m³/s	3,55	3,45	6,05	5,65	9,20	8,50	8,50	---
	Sound pressure (3)	dB(A)	50	50	52	51	52	51	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
	Pump static pressure	kPa	120	113	76	75	126	113	101	79
	Storage water volume	l	190	190	470	470	470	470	660	660
	Expansion vessel	l	8	8	18	18	18	18	24	24
	Water connections	"G	1½"	1½"	2"	2"	2½"	2½"	3"	3"
Weights	Transport weight (4)	Kg	580	640	730	850	950	1220	1280	1470
	Transport weight (5)	Kg	688	748	880	1000	1130	1400	1529	1719
	Operating weight (4)	Kg	594	655	747	871	979	1252	1316	1516
	Operating weight (5)	Kg	878	938	1350	1470	1600	1870	2189	2379

DIMENSIONS

CHA			182	202	262	302	393	453	524	604
L	STD	mm	2350	2350	2350	2350	2350 (**)	3550	3550	3550
	SSL	mm	2350	2350	2350	2350	3550	3550	3550	---
P	STD	mm	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
	SSL	mm	1920	1920	2220	2220	2275	2275	2275	---

DIMENSIONAL



CLEREANCE AREA

CHA 182 ÷ 604		
A	mm	800
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.
 - (**) 3550 mm for WP version.
- N.B. Weights of SSL and WP versions are indicated on the technical book.