

# CHA/HT 182÷604

AIR COOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHALL AND TUBE EXCHANGERS FOR INSTALLATIONS WITH RADIANT PANELS AND COLD RAILS.

FROM 63 kW TO 220 kW.



## UNIT DESCRIPTION

The air-condensing water coolers and heat pumps of the CHA/HT 182÷604 series are used in radiant panel and cold beam systems and combined with primary air terminals. These units have been particularly designed to meet the cooling and heating needs of medium-large applications in commercial and industrial buildings; they are equipped with Scroll compressors and tube-bundle evaporators and are available in 7 sizes, also in the super silent version, with tank, with pump or with tank and pump. The wide range of accessories, particularly the dynamic set point that adapts the temperature of the unit's output water to the thermohygrometric conditions of the room, satisfies every plant-engineering need for a range of extremely flexible machines, produced to simplify the on-site installation.



## VERSIONS

### CHA/HT

Cooling only

### CHA/HT/SSL

Super silenced cooling only

### CHA/HT/WP

Reversible heat pump

### CHA/HT/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
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
ST	Dynamic set-point (WP excluded)
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 (except WP)
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

## ACCESSORIES

### Factory fitted accessories:

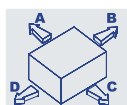
IM	Protection module
SL	Unit silencing
CT	Condensing control down to 0 °C
CC	Condensing control down to -20°C

CHA/HT			182	202	262	364	404	524	604
Cooling	Cooling capacity (1)	kW	63,4	73,7	90,2	126,0	146,3	180,8	220,1
	Absorbed power (1)	kW	16,2	18,1	22,5	31,5	36,6	45,4	54,8
Heating	Heating capacity (2)	kW	55,8	64,5	79,4	111,6	129,0	158,8	193,6
	Absorbed power (2)	kW	14,1	15,8	19,3	27,3	32,0	39,0	47,2
Compressors	Quantity	n°	2	2	2	4	4	4	4
	Type		----- Scroll -----						
	Refrigerant circuits	n°	2	2	2	2	2	2	2
	Capacity steps	n°	2	2	2	4	4	4	4
Evaporator	Water flow	l/s	3,03	3,52	4,31	6,02	6,98	8,64	10,52
	Pressure drops	kPa	35	25	21	29	40	26	29
	Water connections	"G	2½" G	2½" G	PN16/DN80	PN16/DN80	PN16/DN100	PN16/DN100	PN16/DN125
Electrical characteristics	Power supply	V/Ph/Hz	----- 400 / 3 / 50 -----						
	Max. running current	A	43	47	57	83	96	116	139
	Max. inrush current	A	146	152	197	186	201	256	305
STD version and with SL accessory	Fans	n°	2	2	2	3	3	3	4
	Air flow	m³/s	7,66	7,66	7,50	11,66	15,55	16,38	20,73
	Sound pressure (3)	dB(A)	62	62	62	62	66	66	67
	SL sound pressure (3)	dB(A)	57	57	58	57	63	63	64
SSL version	Fans	n°	2	2	3	3	---	---	---
	Air flow	m³/s	5,65	5,65	9,20	8,50	---	---	---
	Sound pressure (3)	dB(A)	51	51	52	51	---	---	---
Unit with tank and pump	Pump nominal power	kW	0,75	0,75	1,85	1,85	1,85	3,0	3,0
	Pump static pressure	kPa	115	115	200	160	130	210	170
	Storage water volume	l	470	470	470	660	660	660	660
	Expansion vessel	l	18	18	18	24	24	24	24
	Water connections	"G	3/2"	3/2"	3/2½"	3/3"	3/3"	3/3"	4/4"
Weights	Transport weight (4)	Kg	680	750	875	1250	1365	1415	1580
	Transport weight (5)	Kg	788	900	1025	1450	1565	1665	1880
	Operating weight (4)	Kg	697	769	905	1290	1415	1470	1680
	Operating weight (5)	Kg	1258	1370	1495	2110	2225	2325	2540

DIMENSIONS

CHA/HT			182	202	262	364	404	524	604
L	STD	mm	2350	2350	2350	3550	3550	4700	4700
P	STD	mm	1100	1100	1100	1100	1100	1100	1100
H	STD	mm	2220	2220	2220	2220	2275	2275	2275

DIMENSIONAL



CLEREANCE AREA

CHA/HT	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.
- N.B. Weights of SSL and WP versions are indicated on the technical book.