

# CHA/K 182-P÷604-P

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

FROM 47 kW TO 178 kW.



## UNIT DESCRIPTION

The water coolers and heat pumps of the CHA/K 182-P÷604-P AQUAPLUS series, with R410A refrigerant, 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 plate-type 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.

**AQUA  
PLUS**



## VERSIONS

### CHA/K

Cooling only

### CHA/K/SSL

Super silenced cooling only

### CHA/K/WP

Reversible heat pump

### CHA/K/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.
- Evaporator AISI 316 stainless steel braze welded plate type: With one circuit on the refrigerant side and one on the water side in models 182-P ÷ 453-P; with two independent circuits on the refrigerant side and one on the water side in models 524-P ÷ 604-P.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, overload protection for compressors and thermocontacts for fans.
- Microprocessor control and regulation system.

## ACCESSORIES

### Factory fitted accessories:

IM	Protection module
SL	Unit silencing
CT	Condensing control down to 0 °C
CC	Condensing control down to -20°C
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Single circulating pump
PD	Double circulating pump

### Loose accessories:

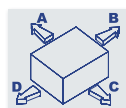
MN	High and low gauges
CR	Remote control panel
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA/K			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
Cooling	Cooling capacity (1)	kW	47,6	54,9	63,5	72,9	83,4	95,9	110,4	126,8	147,4	177,8
	Absorbed power (1)	kW	16,1	18,8	21,8	25,0	28,3	31,6	37,9	43,3	50,1	58,2
Heating	Heating capacity (2)	kW	54,1	61,8	71,4	80,3	90,4	105,5	120,2	134,9	154,3	187,0
	Absorbed power (2)	kW	17,3	19,6	23,1	25,4	28,8	33,4	38,5	43,8	50,5	60,4
Compressors	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Type		----- Scroll -----									
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2	2	2	2	2	3	3	3	4	4
Evaporator	Water flow	l/s	2,27	2,62	3,03	3,48	3,98	4,58	5,27	6,06	7,04	8,49
	Pressure drops	kPa	45	48	43	48	43	58	46	53	48	48
	Water connections	"G	1½"	1½"	1½"	1½"	1½"	2½"	2½"	2½"	2½"	2½"
Electrical characteristics	Power supply	V/Ph/Hz	----- 400 / 3 / 50 -----									
	Max. running current	A	50	61	64	76	78	94	114	117	149	157
	Max. inrush current	A	182	162	182	199	202	212	237	241	272	281
STD version and with SL accessory	Fans	n°	1	1	2	2	2	2	2	2	2	3
	Air flow	m³/s	4,8	4,7	7,1	7,1	7,3	7,1	9,7	9,7	11,4	15,0
	Sound pressure (3)	dB(A)	56	56	60	60	60	60	61	61	61	61
	SL sound pressure (3)	dB(A)	54	54	58	58	58	58	59	59	59	59
SSL version	Fans	n°	2	2	2	2	2	2	2	2	3	---
	Air flow	m³/s	4,1	3,9	5,7	5,7	6,0	7,7	9,2	8,9	11,8	---
	Sound pressure (3)	dB(A)	52	52	56	56	56	55	55	55	56	---
Unit with tank and pump	Pump nominal power	kW	0,75	0,75	0,75	0,75	1,1	1,5	1,5	1,5	1,5	1,85
	Pump static pressure	kPa	120	110	110	110	150	150	140	130	150	120
	Tank water volume	l	400	400	400	400	400	400	400	400	600	600
	Expansion vessel	l	12	12	12	12	12	12	12	12	18	18
	Water connections	"G	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"
Weights	Transport weight (4)	Kg	595	624	663	682	791	878	927	1036	1135	1374
	Transport weight (5)	Kg	600	630	670	690	800	890	940	1050	1150	1390
	Operating weight (4)	Kg	745	774	813	832	941	1033	1082	1191	1375	1614
	Operating weight (5)	Kg	1145	1174	1213	1232	1341	1433	1482	1591	1975	2214

DIMENSIONS

CHA/K			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
L	STD	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550
	SSL	mm	2350	2350	2350	2350	2350	2350	3550	3550	3550	---
P	STD	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	SSL	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	---
H	STD	mm	1920	1920	1920	1920	2220	2220	2220	2220	2220	2220
	SSL	mm	1920	1920	1920	1920	2220	2220	2220	2220	---	---

DIMENSIONAL



CLEREANCE AREA

CHA/K	182-P ÷ 604-P
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.