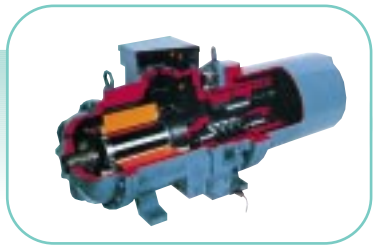
AIR COOLED LIQUID CHILLERS
WITH AXIAL FANS

R22 REFRIGERANT



APPLIED SYSTEM

TC/SRAT

0401 - 1202

UNIT DESCRIPTION

This series of air cooled liquid chillers with axial fans finds a wide range of applications in modern air-conditioning systems in civil and industrial contexts calling for medium capacity systems. They incorporate all the features required for outdoor location. In particular the semi-hermetic screw compressors are housed in a purpose built soundproofed closed compartment. The control panel is protected by a double enclosure designed specifically for outdoor locations.

MODELS

TC/SRAT	This range of units features cooling only.
TC/SRAD	Chiller units with partial heat recovery.
TC/SRAR	Chiller units with total heat recovery.

COMPOSIZIONE UNITÀ STANDARD

- Base of galvanized hot-painted sheet steel.
- Outer casing made of paraluman and frame of aluminium structural sections.
- 1 or 2 semi-hermetic screw compressors.
- Axial fans with six-pole motors and die-cast aluminium blades, with IP54 protection ratio.
- Thermally insulated evaporator, with asymmetric refrigerant paths.
- Thermostatic heating element for evaporator anti-frost protection.
- Condensing coil with copper tubes and aluminium fins, complete with sub-cooling circuit.
- Thermostatic expansion valves. Dryer filters. Sight glasses. Solenoid valves on the liquid line.
- Electrical power and control panel complying with EN 60204-1/IEC 204-1 standards.
- Microprocessor control system.
- Freeze-proof oil charge and refrigerant charge.
- Interlock door mains isolator.
- General testing and operational test carried out in the factory in accordance with European Standard EN 12055.

VERSIONS

B	Standard unit.
HT	High ambient air-temperature units.
LN	Low noise units.
SL	SuperLow noise units.

CERTIFIED QUALITY SYSTEM IQNet

CE

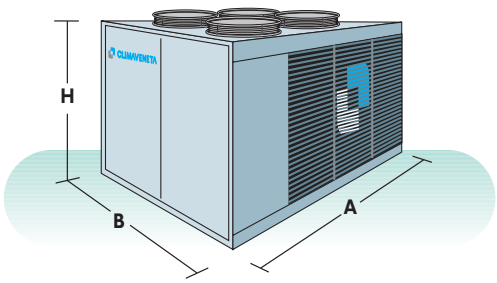
ICIM ISO 9001

CLIMAVENETA

GENERAL TECHNICAL DATA

R22

MODELS			0401	0501	0601	0802	1002	1202
TC/SRAT								
Cooling capacity	①	kW	112	139	170	227	268	333
Compressor power input	①	kW	40	51	61	81	100	122
TC/SRAD - TC/SRAR								
Desuperheater heating capacity	②	kW	36	46	54	72	90	109
Recuperator heating capacity	③	kW	153	194	232	309	372	457
TC/SRAT - SL								
Cooling capacity	①	kW	107	131	160	219	246	316
Power input	①	kW	43	55	66	85	111	131
OPERATING WEIGHT								
TC/SRAT - B		Kg.	1440	1710	1810	2240	2630	2810
TC/SRAD - B		Kg.	1490	1790	1860	2340	2730	2920
TC/SRAR - B		Kg.	1530	1820	1930	2410	2850	3060
DIMENSIONS								
A	④	mm	3110	3110	3110	3610	4610	4610
B	④	mm	2220	2220	2220	2220	2220	2220
H		mm	1540	1540	1540	1990	1990	1990



① **Data referred to:**
Chilled water 12/7 °C
Condensing air 35 °C

② **Data referred to:**
Chilled water 12/7 °C
Hot water (desuperheater) 40/45 °C
Condensing air 35 °C

③ **Data referred to:**
Chilled water 12/7 °C
Hot water (recovery) 40/45 °C

④ **Free areas required:**
Condensing coil side minimum 2000 mm
Opposite side to conden.coil 1500 mm
Electrical panel side 1100 mm
Opposite side to electrical panel 1100 mm

MAIN FUNCTIONS OF THE CONTROLS

	20	300	300	20	
Voltage and frequency supply control	–	•	•	•	Compressor working-hours control and display
Missing external consens led signal	•	•	•	•	Compressor working hours balance system
Remote on/off by external volt-free contact	•	•	•	•	Pump-down when stopped
Cumulative fault warning alarm	•	•	•	•	Led display of interface board correct operation
Evaporator inlet/outlet water temperature display	•	•	•	•	Auto-diagnostic of the electrical part
Recuperator inlet/outlet water temperature display	–	▲	Par.	–	CVM-Master connection
Compressor/circuit failure signal	•	•	Par.	–	CVM-Interface connection
Unit general-alarm signal	•	•	Opt.	–	Landis Staefa comunication gateway
Print-out of the temperature and pressure values (if any)	•	•	•	–	Johnson Controls comunication gateway
Configuration parameters print-out	•	•	•	–	Comunication protocol
Historical alarms and events memory and print-out	25	200			
Propor. regulating algorithm on the inlet water temp.	•	•			
Proportional + Integral regulating algorithm	Par.	Par.			
Compressors start sequence at unit start-up	–	Par.			
Delayed compressor start	•	•			
Compressor start per hour and restarting time control	•	•			

TC/SRAT-D with CVM 20; TC/SRAR with CVM 300
•: standard
-: not available
▲: only for TC/SRAR
Opt: available upon request
Par.: available modifying a value of the configuration parameters