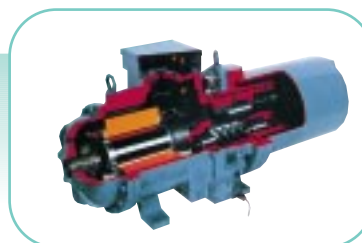




AIR COOLED LIQUID CHILLERS WITH AXIAL FANS



FE/SRAT

1303 - 4808

UNIT DESCRIPTION

This series of air cooled water chillers, equipped with axial fans, uses multiple semi-hermetic screw compressors capable of meeting the needs of large scale systems. They are units whose characteristics make them suitable for outdoor installation. For these units, an innovative building know-how has been applied, with modular elements, to obtain a large range of products and to cover a large cooling capacity range. The compressors are housed in a special acoustically insulated protection case. Insulation of the externally located evaporator incorporates a surface treatment that provides protection against the elements.

STANDARD UNIT COMPOSITION

- Base and supporting structure and panels are made of galvanized epoxy powder coated steel with high thickness.
- From 3 or 8 semi-hermetic screw compressors, are protected by an enclosure for an adequate acoustic insulation.
- Axial fans with IP54 protection grade.
- Silencers on the compressor discharge lines.
- 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.

MODELS

- FE/SRAT** This range of units features cooling only.
- FE/SRAD** This range of units features cooling and partial recovery of the heat rejection.
- FE/SRAR** This range of units features cooling and total recovery of the heat rejection.

VERSIONS

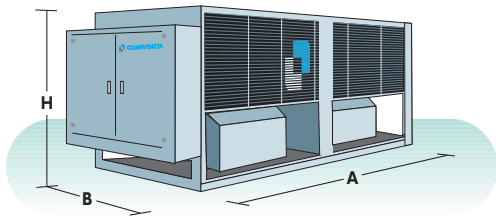
- B** Standard unit.
- HT** Unit for high ambient temperature.
- LN** Unit with reduced noise.
- SL** SuperLow noise units.



GENERAL TECHNICAL DATA

R22
NON FLUORANT

MODELS		1303	1603	1803	2004	2204	2404	2606	2806	3006	3206	3406	4008	4408	4808
FE/SRAT															
Cooling capacity	① kW	373	459	508	569	621	671	753	801	846	914	964	1138	1243	1342
Compressor power input	① kW	128	156	179	197	219	241	252	270	288	313	335	393	437	483
Heating capacity	① kW	501	615	687	766	840	912	1005	1071	1134	1227	1299	1531	1680	1825
FE/SRAD - FE/SRAR															
Desuperheater heating capacity	② kW	114	140	160	175	195	215	225	241	257	279	299	351	390	431
Recuperator heating capacity	③ kW	502	615	688	768	842	915	1003	1067	1131	1225	1300	1536	1685	1830
FE/SRAT - SL															
Cooling capacity	① kW	370	438	502	546	600	650	731	774	814	888	936	1092	1199	1300
Power input	① kW	130	166	183	207	230	253	263	283	304	326	350	414	460	506
OPERATING WEIGHT															
FE/SRAT - B	Kg.	4500	4930	5120	5920	6000	6150	7940	8300	8560	8680	8840	11420	11680	11940
FE/SRAD - B	Kg.	4760	5210	5440	6270	6390	6550	8420	8780	9050	9090	9420	12050	12380	12720
FE/SRAR - B	Kg.	4960	5490	5720	6670	6690	6870	8900	9260	9640	9680	9760	12860	13040	13380
FE/SRAT - SL	Kg.	4740	5100	5440	6160	6360	6600	8420	8740	9000	9240	9460	11960	12440	12920
DIMENSIONS															
A	④ mm	5800	5800	5800	5800	5800	5800	8500	8500	8500	8500	8500	11200	11200	11200
B	④ mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	mm	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350



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	1800 mm
Electrical panel side	1800 mm
Opposite side to electrical panel	1500 mm

MAIN FUNCTIONS OF THE CVM CONTROLS

	3000	3000	
Voltage and frequency supply control	•	•	Delayed compressor start
Missing external consens led signal	•	•	Compressor start per hour and restarting time control
Remote on/off by external volt-free contact	•	•	Compressor working-hours control and display
Cumulative fault warning alarm	•	•	Compressor working hours balance system
Evaporator inlet/outlet water temperature display	•	•	Pump-down when stopped
Recuperator inlet/outlet water temperature display	▲	•	Fan speed control
Compressor/circuit failure signal	•	•	Led display of interface board correct operation
Unit general-alarm signal	•	•	Auto-diagnostic of the electrical part
Print-out of the temperature and pressure values (if any)	•	Par.	CVM-Master connection
Configuration parameters print-out	•	Par.	CVM-Interface connection
Historical alarms and events memory and print-out	200	Par.	Supervising software connection
Propor. regulating algorithm on the inlet water temp.	•	Opt.	Landis Staefa communication gateway
Proportional+Integral regulating algorithm	Par.	Par.	Johnson Controls communication gateway
Compressors start sequence at unit start-up	Par.	•	Communication protocol
Real-time internal clock	•		
Programmable timer function	Par.		
Double-set mode connected to programmable timer	Par.		

•: standard
▲: only for FE/SRAR
Opt: available upon request
Par.: available modifying a value of the configuration parameters