

KCCJ

WSAT-XSC2

90D÷240F

Water chiller with free cooling

Air cooled

Outdoor installation

Capacity from 283 to 729 kW

HYDRONIC

| SPINchiller² FC

SPINchiller² water chillers provide the highest seasonal efficiency. They are designed to be installed outdoor and feature uneven scroll compressors mounted in the same circuit, electronic expansion valves and high efficiency plate type evaporators.

The standard version EXCELLENCE offers the highest efficiency both at full and at part load.

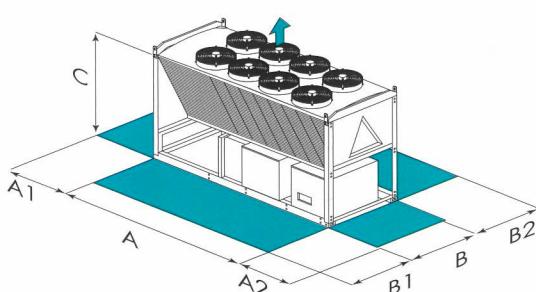
Thanks to its features, SPINchiller² offers:

- ▶ **selfadaptivity in different load conditions**, thanks to high number of capacity steps and to the management logic that has been developed to increase the efficiency and reduce the wear of the compressors;
- ▶ **high unit reliability**, thanks to the double refrigerant circuit, to the proven architecture and to the components produced at high volumes;
- ▶ **low noise**, thanks to the sizing of the coil and to the high efficiency fans having blade profiles with "winglets";
- ▶ **easy and quick installation**, thanks to the quick connections to the system, to the easy electrical connections and to the complete functional test undertaken before the shipment. The units can also be supplied with inbuilt pumps, desuperheater and storage tank, allowing all the main components of the plant to be in the unit.

functions and features



dimensions and clearances



CAUTION! For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size - WSAT-XSC2	90D	100D	110D	120D	140D	160D	170E	180F	200F	220F	240F
SC-EXC A - Length	mm	4750	5800	5800	5800	4765	4765	4765	5815	5815	5815
SC-EXC B - Width	mm	1115	1171	1171	1171	2233	2233	2233	2288	2288	2288
SC-EXC C - Height	mm	2241	2241	2241	2241	2276	2276	2276	2276	2276	2276
SC-EXC A1	mm	750	700	700	700	700	700	700	700	700	700
SC-EXC A2	mm	750	700	700	700	1911	1911	1911	1911	1911	1911
SC-EXC B1	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
SC-EXC B2	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
SC-EXC Operating weight	kg	1703	2142	2206	2374	2955	3078	3388	3575	4039	4284

The above mentioned data are referred to standard units for the constructive configurations indicated. For all the other configurations, refer to the relative Technical Bulletin.

SC-EXC Compressors soundproofing (SC)-Excellence

versions and configurations

FREE-COOLING:

- **FCD** Direct FREE-COOLING

VERSION:

- **EXC** Excellence (Standard)

ENERGY RECOVERY:

- - Energy recovery: not required (Standard)
- **D** Partial energy recovery

ACOUSTIC CONFIGURATION:

- **SC** Acoustic configuration with compressor soundproofing (Standard)
- **EN** Extremely low noise acoustic configuration

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

- **CREFB** Device for consumption reduction of the external section ECOBREEZE fans (Standard)

DOUBLE SET POINT:

- - Double set point: not required (Standard)
- **DSP** Double set point
- **DSPB** Double set point for water low temperature

technical data

Size - WSAT-XSC2	90D	100D	110D	120D	140D	160D	170E	180F	200F	220F	240F
FREE-COOLING OFF (FCD)											
SC ► Cooling capacity (1) kW	283	309	341	390	435	482	523	571	622	675	729
SC Total power input (1) kW	79,8	87,5	96,5	111	122	136	149	162	177	190	207
SC EER (1) -	3,55	3,53	3,53	3,53	3,58	3,56	3,52	3,54	3,52	3,56	3,53
FREE-COOLING (FCD)											
SC ► Cooling capacity (2) kW	172	202	226	235	269	318	310	319	418	442	451
SC Total power input (2) kW	30,9	30,3	33,4	42,6	42,8	45,1	58,0	67,9	57,4	66,0	78,4
SC EER (2) -	9,16	10,20	10,21	9,15	10,16	10,69	9,02	8,41	10,8	10,2	9,30
Refrigeration circuits	Nr	2	2	2	2	2	2	2	2	2	2
No. of compressors	Nr	2	2	2	2	2	2	2	2	2	2
Type of compressors	(3)	-	DSW								
Standard power supply	V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50

Notes

(1) Data referred to the following conditions: internal exchanger water = 15/10 °C; glycol 30%; entering external exchanger air temperature 30°C
 (2) Internal exchanger water temperature = 15 / 10°C; External exchanger entering air temperature = 2°C D.B. / 1°C W.B.; Glycol 30%

(3) DSW = twin-screw compressor

accessories

- **IFWX** Steel mesh strainer on the water side
- **CSVX** Couple of manual shut-off valves
- **CCCA** Copper / aluminium condenser coil with acrylic lining
- **AMMX** Spring antivibration mounts
- **PGCT** Coil and technical compartment guards
- **MF2** Multi-function phase monitor
- **CONT2** Energy meter
- **RCMRX** Remote control via microprocessor control
- **CMSC8** Serial communication module to BACnet supervisor
- **CMSC10** Serial communication module to LonWorks supervisor
- **CMSC9** Serial communication module to Modbus supervisor
- **SCP4** Set-point compensation with signal 0-10 V
- **SPC2** Set-point compensation with outdoor air temperature probe
- **ECS** ECOSHARE function for the automatic management of a group of units

- **PFPC** Power factor correction capacitors (cosfi > 0.9)
- **SFSTR** Disposal for inrush current reduction
- **RE-20** Electrical panel antifreeze protection for min. outdoor temperature down to -20°C
- **RE-25** Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
- **RE-30** Electrical panel antifreeze protection for min. outdoor temperature down to -30°C
- **RE-35** Electrical panel antifreeze protection for min. outdoor temperature down to -35°C
- **RE-39** Electrical panel antifreeze protection for min. outdoor temperature down to -39°C
- **FANQE** Electrical panel ventilation
- **MHP** High and low pressure gauges
- **SDV** Cutoff valve on compressor supply and return

Key to symbols and notes

- Accessories separately supplied

For compatibility between the various accessories, please refer to the dedicated Technical Bulletin or our website in the Systems and Products section.