

SCREWLine³ FC

Liquid chiller with FREE-COOLING

Air cooled

Outdoor installation

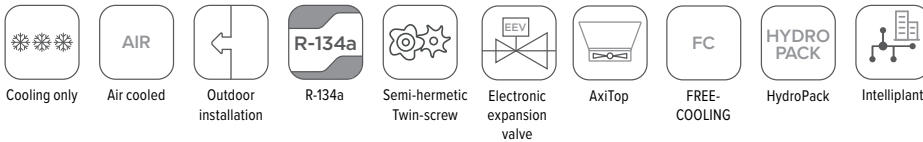
Capacity from 520 to 1523 kW

It can only be sold in an industrial application

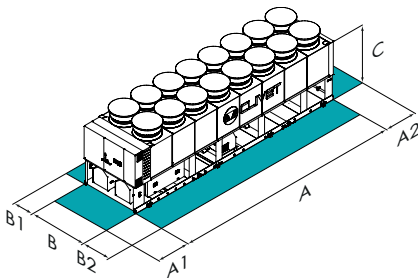


- ✓ Double independent circuits for high reliability with screw compressors
- ✓ Solution for cold climates and industrial application
- ✓ Refrigerant R134a - GWP = 1430
- ✓ Operation down to -39°C outdoor air temperature, low water temperature down to -8°C
- ✓ Direct Free-cooling and No-glycol Free-cooling
- ✓ Two acoustic configurations
- ✓ Modular operation management, up to 7 units in cascade
- ✓ Integrated hydronic assembly and partial recovery

functions and features



dimensions and clearances



Size	▶▶ WDAT-SL3 FC	200.2	210.2	220.2	240.2	260.2	280.2	320.2	340.2	360.2	400.2	440.2	500.2	540.2	580.2
SC-FCD-EXC A - Length	mm	5316	5316	6468	6468	6468	7265	7265	8241	8241	9217	9217	11166	11166	11166
SC-FCD-EXC B - Width	mm	2246	2246	2246	2246	2246	2246	2246	2246	2246	2246	2246	2246	2246	2246
SC-FCD-EXC C - Height	mm	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668
SC-FCD-EXC A1	mm	1535	1535	1535	1535	1535	1535	1535	1535	1535	1535	1535	1535	1535	1535
SC-FCD-EXC A2	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700
SC-FCD-EXC B1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-FCD-EXC B2	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-FCD-EXC Operating weight	kg	6102	6134	7214	7255	7344	8112	8163	9213	9710	11012	11074	12035	12169	12245

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-FCD-EXC Compressors soundproofing (SC)-Direct FREE-COOLING-Excellence

CAUTION!

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

versions and configurations

VERSION:

EXC Excellence (Standard)

LOW TEMPERATURE:

- Low temperature: not required (Standard)
B Water low temperature

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 (sizes 200.2=500.2)

FREE-COOLING:

FCD Direct FREE-COOLING (Standard)
FCI No-glycol FREE-COOLING

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

CREFF Device for fan consumption reduction of the external section at variable speed (phase-cutting) (standard in the SC acoustic config.)
CREFB Device for fan consumption reduction of the external section, ECOBREEZE type (standard in the EN acoustic config.)

TYPE FAN EXTERNAL SECTION:

AXIX High efficiency diffuser for axial fan - AxiTop (Standard)
NAXI High efficiency diffuser for axial fan - AxiTop: not required

technical data

Size		▶▶	WDAT-SL3 FC	200.2	210.2	220.2	240.2	260.2	280.2	320.2	340.2	360.2	400.2	440.2	500.2	540.2	580.2
Free-Cooling Off																	
SC-EXC	Cooling capacity	(1)	kW	520	557	579	624	685	746	825	900	961	1049	1164	1311	1409	1523
SC-EXC	Total power input	(1)	kW	144	155	163	175	194	211	236	248	270	297	338	369	406	441
SC-EXC	EER at full load	(1)	-	3,61	3,59	3,55	3,56	3,53	3,53	3,5	3,62	3,56	3,53	3,44	3,55	3,47	3,45
SC-EXC	SEPR - FCD	(5)	-	6,09	6,16	6,16	6,24	6,20	6,10	6,11	6,00	6,00	6,07	6,12	6,16	6,12	6,26
SC-EXC	SEPR - FCI	(5)	-	5,76	5,84	5,90	5,86	6,02	5,84	6,00	5,93	5,81	6,05	5,90	5,87	5,83	5,96
Direct Free-cooling on																	
SC-EXC	Cooling capacity	(2)	kW	403	411	519	527	536	649	663	684	695	814	835	1066	1080	1093
SC-EXC	Total power input	(2)	kW	13	13	16	16	16	19	20	22	23	25	26	31	32	32
SC-EXC	EER at full load	(2)	-	31,1	31,4	32,6	32,8	33	33,8	33,8	30,5	30,5	32	32,2	34	34,1	33,8
SC-EXC	Refrigeration circuits		Nr	2													
SC-EXC	No. of compressors		Nr	2													
SC-EXC	Type of compressors	(3)	-	DSW													
SC-EXC	Refrigerant		-	R-134a													
SC-EXC	Standard power supply		V	400/3~/50													
SC-EXC	Sound power level	(4)	dB(A)	98	98	98	98	98	98	98	100	100	102	104	105	106	106
EN-EXC	Sound power level	(4)	dB(A)	94	94	94	94	94	94	94	95	96	98	100	100	-	-

(1) Data referred to the following conditions: internal exchanger water temperature = 15/10 °C; glycol 30%; entering external exchanger air temperature 30°C

(2) Free-Cooling only data (compressors OFF) referred to the following conditions: internal exchanger water temperature = 15/10°C; entering external exchanger air temperature = 2°C D.B./1°C W.B.; glycol 30%

(3) DSW = twin-screw compressor

(4) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to UNI EN ISO 9614-1 at nominal standard conditions defined in respective regulations: EU 2016/2281, UE 813/2013, UE 811/2013

(5) Data calculated according to the EN 14825:2018 Regulation)

accessories

2PM Hydropack user side with 2 pumps
3PM Hydropack load side with 3 pumps
CSVX Couple of manually operated shut-off valves
CCCA Copper / aluminium condenser coil with acrylic lining
CCCA1 Condenser coil with Aluminium Energy Guard DCC treatment
AMMX Rubber antivibration mounts
PGCC Finned coil protection grilles and compressor compartment
PGCCH Anti-hail protection grilles
CONTA2 Energy meter
RCMRX Remote control via microprocessor control
PSX Mains power supply
CMSC9 Serial communication module for Modbus supervisor
CMSC10 Serial communication module for LonWorks supervisor
CMSC11 Serial communication module for BACnet-IP supervisor
SCP4 Set-point compensation with 0-10 V signal
SPC2 Set-point compensation with outdoor air temperature probe

SPC1 Set point compensation with 4-20 mA signal
ECS ECOSHARE function for the automatic management of a group of units
PFCP Power factor correction capacitors (cosφ > 0.9)
SFSTR2 Progressive compressor start-up device
CBS Overload circuit breakers
WOGLY Unit supplied without glycol solution (FCI only)
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

Accessories whose code ends with "X" are supplied separately