

SCREWLINE3 FC

Air-cooled liquid chiller with FREE-COOLING for 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

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 Supersilenced acoustic configuration (sizes 200.2 to 500.2)

FREE-COOLING:

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

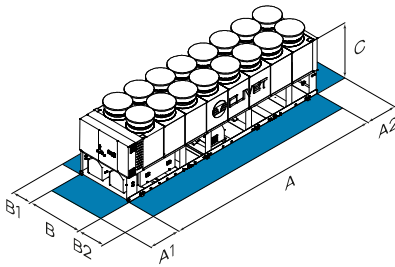
RIDUZIONE CONSUMO VENTILATORI SEZ. EXT.:

CREFP 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.)

TIPO VENTILATORE SEZIONE ESTERNA:

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

Dimensions and connections



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.

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

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

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	(4)	-	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	(4)	-	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		-	SCREW													
SC-EXC	Refrigerant		-	R-134a													
SC-EXC	Standard power supply		V	400/3~/50													
SC-EXC	Sound power level	(3)	dB(A)	98	98	98	98	98	98	98	100	100	102	104	105	106	106
EN-EXC	Sound power level	(3)	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) 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.

(4) Data calculated according to the EN 14825:2022 Regulation

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

Accessories

2PM	Hydropack user side with 2 pumps	SPC1	Set point compensation with 4-20 mA signal
3PM	Hydropack load side with 3 pumps	ECS	ECOSHARE function for the automatic management of a group of units
CSVX	Couple of manually operated shut-off valves	PFCP	Power factor correction capacitors (cosfi > 0.9)
CCCA	Copper / aluminium condenser coil with acrylic lining	SFSTR2	Progressive compressor start-up device
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment	CBS	Overload circuit breakers
AMMX	Spring antivibration mounts	WOGLY	Unit supplied without glycol solution (FCI only)
PGCC	Finned coil protection grilles and compressor compartment	RE-20	Electrical panel antifreeze protection for min. outdoor temperature down to -20°C
PGCCH	Anti-hail protection grilles	RE-25	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
CONTA2	Energy meter	RE-30	Electrical panel antifreeze protection for min. outdoor temperature down to -30°C
RCMRX	Remote control via microprocessor control	RE-35	Electrical panel antifreeze protection for min. outdoor temperature down to -35°C
PSX	Mains power supply	RE-39	Electrical panel antifreeze protection for min. outdoor temperature down to -39°C
CMSC9	Serial communication module for Modbus supervisor	IOTX	IoT industrial module for cloud based interoperability & services
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		

Accessories whose code ends with "X" are supplied separately