

SPINchiller³

Water chiller

WSAT-XSC3: cooling only

WSAN-XSC3: reversible heat pump

Air cooled

Outdoor installation

Capacity from 243 to 1350 kW



Unit listed on
www.eurovent-certification.com



ErP compliant

The **SPINchiller³** heat pumps and liquid chillers are high efficiency packaged units for medium and big-sized applications in the services sector. Designed for outdoor installation, they ensure the highest energy efficiency over the entire operating cycle, especially under load staging conditions that coincide with the unit's longer operating time, **thanks to the modular scroll technology** that adapts the capacity supplied to the actual energy demand required by the system.

■ **DUAL ENERGY VERSION** The standard EXCELLENCE version with a class A Eurovent rating offers the highest energy efficiency both during the seasonal cycle and under full load conditions. The PREMIUM version also provides excellent performance under partial load conditions, but has a compact design which gives it an additional competitive edge.

■ **HIGH UNIT RELIABILITY**, thanks to the double refrigerant circuit, to the proven architecture and to the components produced at high volumes.

■ **MODULARITY AND MANAGEMENT OF MORE UNITS IN CASCADE:** The compact construction allows to combine multiple units in confined spaces, realizing a high power system. The control allows to coordinate up to 7 units managing automatically the operation with maximum efficiency.

functions and features



Cooling only
(WSAT-XSC3)



Heat pump
(WSAN-XSC3)



AIR



Outdoor
installation



R-410A



Hermetic Scroll



HYDRO
PACK

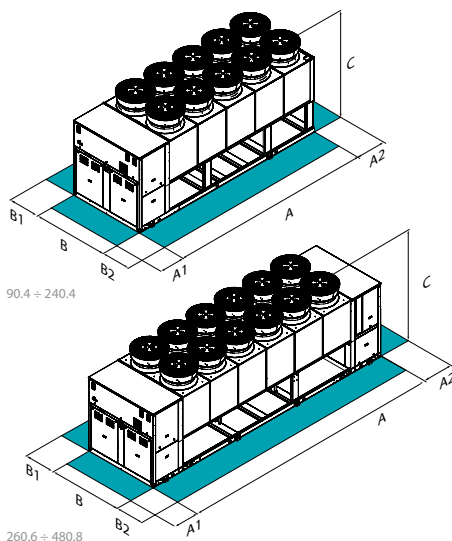


AxiTop



Electronic
expansion
valve

dimensions and clearances



SIZE – WSAT-XSC3

		90.4	100.4	110.4	120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.6	280.6	300.6	320.6	340.6	360.6	400.8	440.8	480.8
SC-EXC	A - Length	mm	4149	4149	4149	4149	5124	5124	5124	5994	5994	5994	7948	7948	9900	9900	9900	9900	11989	11989
SC-EXC	B - Width	mm	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243
SC-EXC	C - Height	mm	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668
SC-EXC	A1	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-EXC	A2	mm	700	700	700	700	700	700	700	700	700	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-EXC	B1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	B2	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	Operating weight	kg	2704	2836	2869	2979	3428	3528	3899	4384	4538	4676	5837	5963	6692	6881	7138	7375	8768	9076

SIZE – WSAN-XSC3

		120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.6	280.6	300.6	320.6	340.6	360.6	400.8	440.8	480.8
SC-PRM	A - Length	mm	4149	4149	4149	5124	5124	5994	5994	6973	6973	7948	7948	7948	7948	10243	11989
SC-PRM	B - Width	mm	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243	2243
SC-PRM	C - Height	mm	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668
SC-PRM	A1	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-PRM	A2	mm	700	700	700	700	700	700	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-PRM	B1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-PRM	B2	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-PRM	Operating weight	kg	2839	2984	3070	3609	3754	4296	4510	5413	5527	5982	6119	6338	6537	7508	8592

SIZE – WSAN-XSC3

		90.4	100.4	110.4	120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.8	280.8	300.8	320.8	340.8	360.8	400.8	440.8	480.8
SC-EXC	A - Length	mm	4149	4149	4149	4149	5124	5124	6050	6050	6400	6400	9268	10243	10243	10243	11114	11989	11989	12822
SC-EXC	B - Width	mm	2243	2243	2243	2243	2243	2243	2243	2243	2243	2246	2246	2246	2246	2246	2246	2246	2246	2246
SC-EXC	C - Height	mm	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668	2668
SC-EXC	A1	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-EXC	A2	mm	700	700	700	700	700	700	700	700	700	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-EXC	B1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	B2	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	Operating weight	kg	2928	2968	3028	3162	3588	3602	4347	4399	4816	4956	6750	7175	7189	7203	7948	8693	8797	9631

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

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

SC-PRM

Compressors soundproofing (SC)-Premium

versions and configurations

LOW TEMPERATURE:

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

ENERGY RECOVERY:

- Energy recovery: not required (Standard)
- D** Partial energy recovery
- R** Total energy recovery (WSAT-XSC3 only)

ACOUSTIC CONFIGURATION:

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

VERSION:

- EXC** Excellence (Standard)
- PRM** Premium (WSAT-XSC3 only) (sizes 120.4÷480.8)

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 – WSAT-XSC3			90.4	100.4	110.4	120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.6	280.6	300.6	320.6	340.6	360.6	400.8	440.8	480.8	
SC-EXC	▶ Cooling capacity (EN14511:2018)	(1)	kW	267	290	316	353	405	459	513	572	621	675	734	791	852	905	961	1016	1143	1242	1350
SC-EXC	Total power input (EN14511:2018)	(1)	kW	85,8	92,9	102	114	130	145	165	181	200	218	236	253	274	292	309	328	362	400	435
SC-EXC	EER (EN14511:2018)	(1)	-	3,11	3,12	3,10	3,10	3,11	3,16	3,10	3,16	3,10	3,10	3,11	3,12	3,11	3,10	3,10	3,10	3,16	3,10	3,10
SC-EXC	SEER	(4)	-	4,64	4,65	4,62	4,56	4,66	4,65	4,59	4,64	4,62	4,56	4,61	4,59	4,60	4,65	4,62	4,56	4,66	4,62	4,56
SC-EXC	Refrigeration circuits		Nr	2																		
SC-EXC	No. of compressors		Nr	4																		
SC-EXC	Type of compressors		-	SCROLL																		
SC-EXC	Standard power supply		I/s	36628	36204	36187	34999	48272	46666	45657	58332	57703	57073	73120	72035	97494	96046	95118	94191	116663	115405	114147
SC-EXC	Water flow-rate (User side)		I/s	12,8	13,9	15,2	16,9	19,4	22,0	24,6	27,4	29,8	32,4	35,0	37,8	40,7	43,3	45,9	48,5	54,6	59,4	64,5
SC-EXC	Standard power supply		V	400/3~/50																		
SC-EXC	Sound pressure level	(3)	dB(A)	72	72	72	72	72	73	74	74	74	75	73	73	75	75	75	76	75	75	76
SIZE – WSAT-XSC3			120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.6	280.6	300.6	320.6	340.6	360.6	400.8	440.8	480.8				
SC-PRM	▶ Cooling capacity (EN14511:2018)	(1)	kW	333	379	421	490	529	594	645	693	742	798	848	895	942	1058	1187	1291			
SC-PRM	Total power input (EN14511:2018)	(1)	kW	120	136	151	174	189	211	229	246	265	287	306	326	346	382	427	462			
SC-PRM	EER (EN14511:2018)	(1)	-	2,77	2,80	2,78	2,82	2,80	2,81	2,82	2,81	2,79	2,78	2,77	2,75	2,72	2,77	2,78	2,80			
SC-PRM	SEER	(4)	-	4,21	4,19	4,17	4,32	4,22	4,19	4,15	4,42	4,39	4,37	4,35	4,35	4,34	4,22	4,19	4,15			
SC-PRM	Refrigeration circuits		Nr	2																		
SC-PRM	No. of compressors		Nr	4																		
SC-PRM	Type of compressors		-	SCROLL																		
SC-PRM	Standard power supply		I/s	37459	37103	36017	49946	49471	62135	60028	60934	60029	73120	72035	71339	70643	98941	124271	120057			
SC-PRM	Water flow-rate (User side)		I/s	15,9	18,1	20,1	23,4	25,3	28,4	30,8	32,9	35,3	38,0	40,3	42,6	44,8	50,3	56,5	61,5			
SC-PRM	Standard power supply		V	400/3~/50																		
SC-PRM	Sound pressure level	(3)	dB(A)	72	72	73	74	74	74	75	72	73	74	74	75	75	76	75	76			
SIZE – WSAN-XSC3			90.4	100.4	110.4	120.4	140.4	160.4	180.4	200.4	220.4	240.4	260.8	280.8	300.8	320.8	340.8	360.8	400.8	440.8	480.8	
SC-EXC	▶ Cooling capacity (EN14511:2018)	(1)	kW	243	262	290	322	369	416	473	518	557	593	692	739	785	831	888	945	1037	1115	1186
SC-EXC	Total power input (EN14511:2018)	(1)	kW	88,7	96,1	105	119	137	151	175	189	206	226	256	273	288	303	326	350	378	412	453
SC-EXC	EER (EN14511:2018)	(1)	-	2,74	2,73	2,75	2,70	2,70	2,75	2,70	2,74	2,70	2,62	2,70	2,70	2,73	2,75	2,72	2,70	2,74	2,70	2,62
SC-EXC	SEER	(4)	-	4,13	4,12	4,11	4,13	4,14	4,12	4,20	4,21	4,19	4,11	4,16	4,21	4,20	4,19	4,20	4,20	4,21	4,19	4,11
SC-EXC	▶ Heating capacity (EN14511:2018)	(2)	kW	283	312	340	378	426	471	543	600	646	696	803	852	897	942	1014	1086	1201	1292	1391
SC-EXC	Total power input (EN14511:2018)	(2)	kW	88,5	97,1	105	115	131	145	169	184	202	217	246	261	275	290	314	338	369	404	435
SC-EXC	COP (EN 14511:2018)	(2)	-	3,20	3,22	3,22	3,28	3,26	3,25	3,22	3,25	3,20	3,20	3,27	3,26	3,26	3,25	3,23	3,22	3,25	3,20	3,20
SC-EXC	Refrigeration circuits		Nr	2																		
SC-EXC	No. of compressors		Nr	4																		
SC-EXC	Type of compressors		-	SCROLL																		
SC-EXC	Standard power supply		I/s	37357	37357	36797	36365	49807	49063	62677	61219	60854	60489	86172	99614	98871	98127	111741	125354	122438	121708	120979
SC-EXC	Water flow-rate (User side)		I/s	11,7	12,6	13,9	15,4	17,7	19,9	22,7	24,8	26,7	28,4	33,0	35,3	37,5	39,7	42,4	45,2	49,5	53,3	56,7
SC-EXC	Standard power supply		V	400/3~/50																		
SC-EXC	Sound pressure level	(3)	dB(A)	72	72	72	72	72	73	74	74	74	75	73	73	74	74	74	75	75	75	75
Directive ErP (Energy Related Products)																						
SCOP - AVERAGE Climate W35	(4)	-	3,80	3,81	3,82	3,72	3,85	3,71	-	-	-	-	-	-	-	-	-	-	-	-	-	

- (1) Data calculated in compliance with Standard EN 14511:2018 referred to the following conditions: Internal exchanger water temperature = 12/7°C; Entering external exchanger air temperature = 35°C
- (2) Data calculated in compliance with Standard EN 14511:2018 referred to the following conditions: Internal exchanger water temperature = 40/45°C. Entering external exchanger air temperature = 7°C D.B./6°C W.B.
- (3) Sound levels refer to full load units, in test nominal conditions. The sound pressure level refers to 1 m. from the standard unit outer surface operating in open field. Measurements are carried out according to the UNI EN ISO 9614-2 standard, in compliance with the EUROVENT 8/1 certification. Data refer to the following conditions: internal water exchanger = 12/7 °C; outdoor air temperature 35°C
- (4) Data calculated according to the EN 14825:2016 Regulation

SC-EXC Compressors soundproofing (SC)-Excellence
SC-PRM Compressors soundproofing (SC)-Premium

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 811/2013 (rated heat output ≤70 kW at specified reference conditions), the Commission delegated Regulation (EU) No 813/2013 (rated heat output ≤400 kW at specified reference conditions) and the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

accessories

HYDRONIC

CREFB	Device for fan consumption reduction of the external section, ECOBREEZE type
2PM	Hydropack user side with 2 pumps
3PM	Hydropack user side with 3 pumps
2PMV	Hydropack user side with no.2 of inverter pumps
3PMV	Hydropack user side with no.3 of inverter pumps
4PM	Hydropack user side with 4 pumps
6PM	Hydropack user side with 6 pumps
6PMV	Hydropack user side with 6 inverter pumps
IVFDT	Inverter driven variable flow-rate user side control depending on the temperature differential
✓ IFWX	Steel mesh strainer on the water side
✓ CSVX	Couple of manually operated shut-off valves
A550	550 l. storage tank
A700	700 l. storage tank
CCCA	Copper / aluminium condenser coil with acrylic lining
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment
✓ AMMX	Spring antivibration mounts
PGFC	Finned coil protection grill
PGCCH	Anti-hail protection grilles
CONTA2	Energy meter
RPRPDI	Refrigerant leak detector with pump down function in the casing
✓ RCMRX	Remote control via microprocessor control
✓ PSX	Mains power supply
CMSC10	Serial communication module for LonWorks supervisor
CMSC9	Serial communication module for Modbus 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

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.

ECS	ECOSHARE function for the automatic management of a group of units
PFCP	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
MHP	High and low pressure gauges
SDV	Cutoff valve on compressor supply and return
A900	900 l. storage tank
A1800	1800 l. storage tank
PM	Phase monitor
MF2	Multi-function phase monitor
PSPS	Set up for single power supply

WSAT-XSC3 only:

CREFO	Device for fan consumption reduction of the external section, on/off type
REGBT	Device for the condensing coil partialization

WSAN-XSC3 only:

A1200	1200 l. storage tank
A1400	1400 l. storage tank
A1600	1600 l. storage tank
OHE	Limit extension kit in heating up to -10°C (W.B.)

