

ELFOEnergy Large²

Liquid chiller

WSAT-XEE: cooling only

WSAN-XEE: Reversible heat pump

Air cooled

Outdoor installation

Capacity from 84,9 to 217 kW



- ✓ Scroll compressors and EC Axial fans
- ✓ First investment driven and refurbishment applications
- ✓ Refrigerant R410A - GWP = 2088
- ✓ High efficiency with compact dimensions
- ✓ Two acoustic configurations: standard and super-silenced
- ✓ Partial or total energy recovery
- ✓ Direct free-cooling for chiller version
- ✓ Integrated hydronic assembly and system tank



Unit listed on
www.eurovent-certification.com

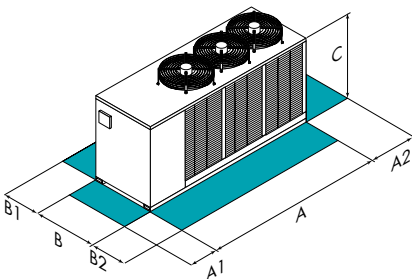


compliant
ErP

functions and features

Cooling only (WSAT-XEE)	Heat pump (WSAN-XEE)	Air cooled	Outdoor installation	R-410A	Hermetic Scroll	Electronic expansion valve	Ice protection system	FREE- COOLING	HydroPack	ECOBREEZE	Intelliplant

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-XEE	352	402	432	452	502	552	602	702	802
SC-EXC A - Length	mm	3075	3075	3075	4025	4025	4025	4025	5025	5025
SC-EXC B - Width	mm	1097	1097	1097	1097	1097	1097	1097	1097	1097
SC-EXC C - Height	mm	1805	1805	1805	1805	1805	1805	1805	1805	1805
SC-EXC A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
SC-EXC A2	mm	700	700	700	700	700	700	700	700	700
SC-EXC B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-EXC B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-EXC Operating weight	mm	896	933	1024	1207	1234	1256	1302	1497	1544

Size	▶▶ WSAN-XEE	352	402	432	452	502	552	602	702	802
SC A - Length	mm	3075	3075	3075	3075	3075	4025	4025	5025	5025
SC B - Width	mm	1097	1097	1097	1097	1097	1097	1097	1097	1097
SC C - Height	mm	1805	1805	1805	1805	1805	1805	1805	1805	1805
SC A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
SC A2	mm	700	700	700	700	700	700	700	700	700
SC B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC Operating weight	mm	915	975	1059	1101	1126	1326	1341	1549	1564

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 Compressors soundproofing (SC)

versions and configurations

LOW TEMPERATURE:

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

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

- CREFB** Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)
- CREFP** Variable speed outdoor section fans consumption reduction device (phase cutting)

ENERGY RECOVERY:

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

ACOUSTIC CONFIGURATION:

- SC** Acoustic configuration with compressor soundproofing (Standard)
- EN** Super-silenced acoustic configuration

VERSION (WSAT-XEE ONLY):

- EXC** Excellence (Standard)

FREE-COOLING (WSAT-XEE ONLY):

- FREE-COOLING: not required (Standard)
- FCD** Direct FREE-COOLING

technical data

Size		▶▶ WSAT-XEE	352	402	432	452	502	552	602	702	802	
SC-EXC	♦ Cooling capacity (EN 14511:2018)	(1) kW	95,8	109	120	129	141	152	175	195	217	
SC-EXC	Total power input (EN 14511:2018)	(1) kW	30,5	34,7	38,7	40,8	45,0	48,9	55,7	62,2	69,5	
SC-EXC	EER (EN 14511:2018)	(1) -	3,14	3,14	3,11	3,17	3,13	3,11	3,13	3,14	3,12	
SC-EXC	SEER	(4) -	4,12	4,24	4,11	4,22	4,17	4,11	4,14	4,22	4,00	
SC-EXC	η_{sc}	(4) %	161,9	166,7	161,6	165,8	163,9	161,5	162,4	165,8	156,8	
SC-EXC	Refrigeration circuits						1					
SC-EXC	No. of compressors						2					
SC-EXC	Type of compressors						SCROLL					
SC-EXC	Refrigerant						R-410A					
SC-EXC	Standard airflow		l/s	12327	12248	12182	18373	18373	18216	18102	24227	24069
SC-EXC	Water flow-rate (User side)		l/s	4,56	5,19	5,73	6,15	6,69	7,24	8,31	9,30	10,30
SC-EXC	Standard power supply							400/3~/50				
SC-EXC	Sound pressure level	(3) dB(A)	67	67	68	68	68	69	69	70	70	
Size		▶▶ WSAN-XEE	352	402	432	452	502	552	602	702	802	
SC	♦ Cooling capacity (EN 14511:2018)	(1) kW	84,9	97,0	106	114	122	140	155	183	202	
SC	Total power input (EN 14511:2018)	(1) kW	32,7	36,3	41,3	43,5	48,5	51,2	60,7	66,8	76,6	
SC	EER (EN 14511:2018)	(1) -	2,60	2,67	2,56	2,62	2,53	2,74	2,56	2,74	2,64	
SC	SEER	(4) -	3,37	3,50	3,40	3,57	3,52	3,62	3,47	3,66	3,50	
SC	η_{sc}	(4) %	131,7	137,1	133,0	140,0	137,7	141,6	135,7	143,3	136,9	
SC	♦ Heating capacity (EN 14511:2018)	(2) kW	99,3	115	126	134	144	165	181	211	233	
SC	Total power input (EN 14511:2018)	(2) kW	32,6	36,7	40,5	42,1	45,7	51,0	57,2	65,3	72,5	
SC	COP (EN 14511:2018)	(2) -	3,05	3,15	3,11	3,19	3,16	3,24	3,17	3,23	3,21	
SC	Refrigeration circuits						1					
SC	No. of compressors						2					
SC	Type of compressors						SCROLL					
SC	Refrigerant						R-410A					
SC	Standard airflow		l/s	12497	12281	12281	12217	12105	18255	18255	24267	24267
SC	Water flow-rate (User side)		l/s	4,04	4,62	5,03	5,42	5,82	6,68	7,40	8,69	9,62
SC	Standard power supply							400/3~/50				
SC	Sound pressure level	(3) dB(A)	67	67	67	67	67	68	68	71	71	
Directive ErP (Energy Related Products)												
SCOP - AVERAGE Climate - W35		-	3,40	3,41	3,48	3,54	3,54	3,48	3,49	3,44	3,40	
η_{sh}		(4) %	133,0	133,0	136,0	139,0	139,0	136,0	137,0	135,0	133,0	

(1) Data calculated in compliance with Standard EN 14511:2018 referred to the following conditions: Internal exchanger water = 12/7°C; External exchanger entering air = 35°C

(2) Data calculated in compliance with Standard EN 14511:2018 referred to the following conditions: Internal exchanger water temperature = 40/45°C. External exchanger air temperature 7 D.B. /6 (°C) W.B.

(3) The sound levels refer to the unit at full load, in the rated test conditions. The sound pressure level refers to a distance of 1m from the external surface of the units operating in an open field. Measures according to UNI EN ISO 9614-2 regulations, with respect to the EUROVENT 8/1 certification. Data referred to the following conditions: Internal exchanger water temperature = 12/7°C; Outdoor air temperature=35°C

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

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.

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

