

## Water chiller

WSAT-XEE: cooling only  
 WSAN-XEE: reversible heat pump  
 Air cooled  
 Outdoor installation  
**Capacity from 95,6 to 216 kW**



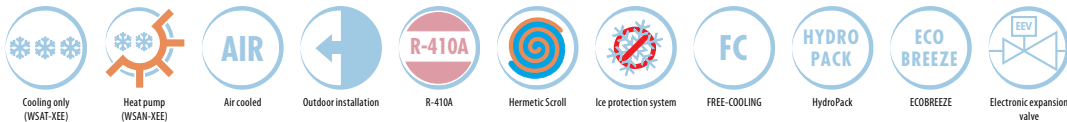
## ELFOEnergy Large<sup>2</sup>

**ELFOEnergy Large<sup>2</sup>** water chillers and heat pumps provide the highest seasonal efficiency. They're designed to be installed outdoor and feature uneven scroll compressors mounted in the same circuit, electronic expansion valves and high efficiency plate type evaporators.

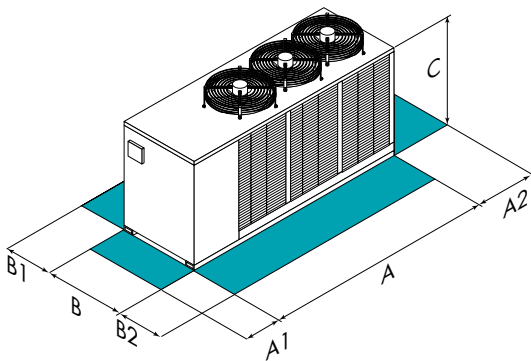
**ELFOEnergy Large<sup>2</sup>** shows an unmatched seasonal efficiency SEER and is available in two versions: EXCELLENCE and PREMIUM. The standard version EXCELLENCE offers the highest efficiency both at full and at part load. Also the PREMIUM version offers high efficiency at part load but favour also the compact dimensions being therefore extremely competitive. Thanks to its features, ELFOEnergy Large<sup>2</sup> offers:

- ▶ **self-adaptability in different load conditions**, thanks to the availability of several capacity steps and the adjustment logic developed for maximum efficiency and minimum wear
- ▶ **very high overall reliability**, thanks to the consolidated construction choices and the use of industrially-made products
- ▶ **lower sound emissions**, achieved thanks to the optimal sizing of the exchange surfaces and the use of high efficiency fans with "winglets"
- ▶ **quick and easy installation** thanks to the quick connections with the main circuit, electrical wiring enablement and complete functional testing before delivery. The units can also be supplied with pump assemblies, partial heat recovery and inertial storage tank already installed on board, bringing together all the system's main components in a single solution.

## 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-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	kg	896	933	1024	1207	1234	1256	1302	1497	1544

Size - WSAT-XEE		352	402	432	452	502	552	602	702	802
SC-PRM A - Length	mm	2710	2710	2710	2710	2710	2710	3075	4025	4025
SC-PRM B - Width	mm	1097	1097	1097	1097	1097	1097	1097	1097	1097
SC-PRM C - Height	mm	1805	1805	1805	1805	1805	1805	1805	1805	1805
SC-PRM A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
SC-PRM A2	mm	700	700	700	700	700	700	700	700	700
SC-PRM B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-PRM B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-PRM Operating weight	kg	778	802	892	924	963	984	1087	1295	1324

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	kg	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-PRM Compressors soundproofing (SC)-Premium  
 SC Compressors soundproofing (SC)

## 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

### ACOUSTIC CONFIGURATION:

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

### EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

- ▶ CREFB Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)
- ▶ CREFP Device for fan consumption reduction of the external section at variable speed (phase-cutting)

### VERSION (WSAT-XEE ONLY):

- ▶ EXC Excellence (Standard)
- ▶ PRM Premium

### 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 (EN14511:2013)	(1) kW	95,6	109	120	129	140	152	174	195	216
SC-EXC	Total power input(EN14511:2013)	(1) kW	30,7	34,8	38,8	40,9	45,0	49,0	55,8	62,3	69,6
SC-EXC	EER (EN14511:2013)	(1) -	3,12	3,13	3,10	3,15	3,12	3,10	3,12	3,13	3,11
SC-EXC	SEER	(4) -	4,12	4,24	4,11	4,22	4,17	4,11	4,14	4,22	4,00
SC-EXC	Refrigeration circuits	Nr	1								
SC-EXC	No. of compressors	Nr	2								
SC-EXC	Type of compressors	-	SCROLL								
SC-EXC	Standard airflow	l/s	12327	12248	12182	18373	18373	18216	18102	24227	24069
SC-EXC	Water flow-rate (User Side)	l/s	4,60	5,20	5,80	6,20	6,70	7,30	8,40	9,30	10,40
SC-EXC	Standard power supply	V	400/3/50								
SC-EXC	Sound pressure level	(3) dB(A)	67	67	68	68	68	69	69	70	70
Size - WSAT-XEE			352	402	432	452	502	552	602	702	802
SC-PRM	▶ Cooling capacity (EN14511:2013)	(1) kW	89,8	101	111	119	130	143	159	185	203
SC-PRM	Total power input(EN14511:2013)	(1) kW	32,6	37,7	42,0	44,2	48,0	53,2	61,0	66,9	75,9
SC-PRM	EER (EN14511:2013)	(1) -	2,75	2,67	2,64	2,70	2,71	2,69	2,61	2,76	2,67
SC-PRM	SEER	(4) -	3,81	3,80	3,80	3,85	3,85	3,81	3,82	3,89	3,81
SC-PRM	Refrigeration circuits	Nr	1								
SC-PRM	No. of compressors	Nr	2								
SC-PRM	Type of compressors	-	SCROLL								
SC-PRM	Standard airflow	l/s	12474	12474	12394	12119	11871	11871	12268	18536	18536
SC-PRM	Water flow-rate (User Side)	l/s	4,30	4,80	5,30	5,70	6,20	6,90	7,60	8,90	9,70
SC-PRM	Standard power supply	V	400/3/50								
SC-PRM	Sound pressure level	(3) dB(A)	67	67	67	67	68	68	68	69	69
Size - WSAN-XEE			352	402	432	452	502	552	602	702	802
SC	▶ Cooling capacity (EN14511:2013)	(1) kW	84,4	96,7	105	114	122	140	156	183	202
SC	Total power input(EN14511:2013)	(1) kW	32,7	36,5	41,3	43,6	48,5	51,3	60,8	66,9	76,5
SC	EER (EN14511:2013)	(1) -	2,58	2,65	2,55	2,61	2,52	2,73	2,56	2,73	2,64
SC	SEER	(4) -	3,37	3,50	3,40	3,57	3,52	3,62	3,47	3,66	3,50
SC	▶ Heating capacity (EN14511:2013)	(2) kW	101	116	127	136	147	165	183	212	234
SC	Total power input (EN14511:2013)	(2) kW	32,6	36,7	40,4	42,1	45,8	51,1	57,1	65,3	72,6
SC	COP (EN14511:2013)	(2) -	3,08	3,16	3,14	3,23	3,20	3,24	3,21	3,25	3,23
SC	Refrigeration circuits	Nr	1								
SC	No. of compressors	Nr	2								
SC	Type of compressors	-	SCROLL								
SC	Standard airflow	l/s	12497	12281	12281	12217	12105	18255	18255	24267	24267
SC	Water flow-rate (User Side)	l/s	4,10	4,60	5,10	5,50	5,90	6,70	7,40	8,70	9,70
SC	Standard power supply	V	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	(4) -		3,23	3,27	3,33	3,38	3,38	3,33	3,34	3,29	3,26

### Notes

- (1) Data calculated in compliance with Standard EN 14511:2013 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 14511:2013 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 = 12/7°C; Outdoor air temperature 35°C
- (4) Data calculated according to the EN 14825:2016 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-PRM Compressors soundproofing (SC)-Premium
- SC Compressors soundproofing (SC)

