

Water chiller

WSAT-XIN: cooling only
 WSAN-XIN: reversible heat pump
 Air cooled
 Outdoor installation
Capacity from 15,4 to 49,2 kW

HYDRONIC

DC Inverter

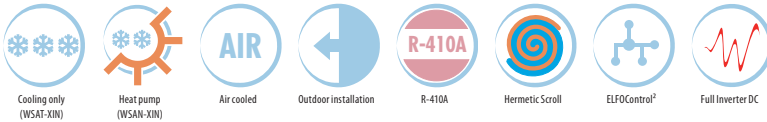


ELFOEnergy Extended Inverter

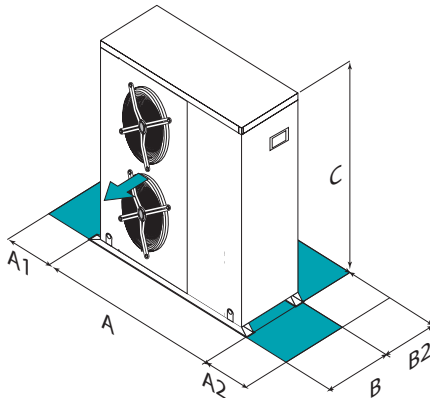
- ▶ **SEASONAL EFFICIENCY:** Guaranteed by DC Inverter technology applied to the compressor, which can modulate its speed to the energy needs required. This solution allows a further reduction in consumption and a significant improvement of the seasonal efficiency.
- ▶ **ADVANCED TECHNOLOGY:** Clivet's continuous improving has allowed to realize ELFOEnergy Extended Inverter with special design features: Hydrophilic battery for a guarantee of efficiency in all conditions, electronic expansion valve to optimize the operation of the cooling circuit with DC inverter compressor, water kit to simplify the hydronic circuit and make it easier to maintain. The unit can be equipped with a DC Inverter circulator (optional), providing further energy savings through the modulation of water flow depending on the building thermal load and pressure drop.
- ▶ **MAXIMUM SILENCE:** ELFOEnergy Extended Inverter is at the top of its class, thanks to the optimized profile of the fan, and through the modulation of the fan and compressor depending on the external conditions and building thermal load.
- ▶ **COMPACT SIZE:** The continued research in product industrialization, has allowed to realize a very compact unit, a decisive factor to meet the requirements of flexibility to suit the characteristics of each building.



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-XIN		81	91	101	121	131	141	151	161	171
EXC	A - Length	mm	1731	1731	1731	1731	1341	1341	1341	1341
EXC	B - Width	mm	724	724	724	724	1159	1159	1159	1146
EXC	C - Height	mm	1137	1137	1137	1517	1520	1520	1520	1770
EXC	A1	mm	400	400	400	400	1000	1000	1000	1000
EXC	A2	mm	600	600	600	600	1000	1000	1000	1000
EXC	B2	mm	400	400	400	400	1000	1000	1000	1000
EXC	Operating weight	kg	230	230	230	300	290	300	320	390

Size – WSAT-XIN		81	91	101	121	131	141	151	161	171
PRM	A - Length	mm	1731	1731	1731	1731	1341	1341	1341	1341
PRM	B - Width	mm	724	724	724	724	724	724	724	724
PRM	C - Height	mm	1137	1137	1137	1517	1517	1517	1517	1517
PRM	A1	mm	400	400	400	400	400	400	400	400
PRM	A2	mm	600	600	600	600	600	600	600	600
PRM	B2	mm	400	400	400	400	400	400	400	400
PRM	Operating weight	kg	230	230	230	300	300	300	300	300

Size – WSAN-XIN		81	91	101	121	131	141	151	161	171
EXC	A - Length	mm	1731	1731	1731	1731	1341	1341	1341	1341
EXC	B - Width	mm	724	724	724	724	1159	1159	1159	1146
EXC	C - Height	mm	1137	1137	1137	1517	1520	1520	1520	1770
EXC	A1	mm	400	400	400	400	1000	1000	1000	1000
EXC	A2	mm	600	600	600	600	1000	1000	1000	1000
EXC	B2	mm	400	400	400	400	1000	1000	1000	1000
EXC	Operating weight	kg	240	240	240	310	300	310	330	400

Size – WSAN-XIN		81	91	101	121	131	141	151	161	171
PRM	A - Length	mm	1731	1731	1731	1731	1341	1341	1341	1341
PRM	B - Width	mm	724	724	724	724	724	724	724	724
PRM	C - Height	mm	1137	1137	1137	1517	1517	1517	1517	1517
PRM	A1	mm	400	400	400	400	400	400	400	400
PRM	A2	mm	600	600	600	600	600	600	600	600
PRM	B2	mm	400	400	400	400	400	400	400	400
PRM	Operating weight	kg	240	240	240	310	310	310	310	310

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.

PRM Premium EXC Excellence

versions and configurations

VERSION:

- **PRM** Premium (sizes 81=141 only, Standard)
- **EXC** Excellence

VOLTAGE:

- **400TN** Supply voltage 400/3/50+N

technical data

Size – WSAT-XIN			81	91	101	121	131	141	151	161	171
EXC	► Cooling capacity (EN14511:2013)	(1) kW	15,5	17,4	19,6	25,3	26,8	32,4	36,4	43,2	48,1
EXC	Total power input (EN14511:2013)	(1) kW	5,18	6,26	7,83	8,69	8,56	10,2	12,2	14,4	16,4
EXC	EER (EN 14511:2013)	(1) -	2,99	2,78	2,50	2,91	3,13	3,18	2,99	3,00	2,93
EXC	SEER	(4) -	5,62	5,26	4,49	5,65	6,15	5,83	5,94	5,61	5,66
EXC	Refrigeration circuits	Nr	1								
EXC	No. of compressors	Nr	1								
EXC	Type of compressors	-	SCROLL INVERTER								
EXC	Standard airflow	l/s	2222	2306	2444	2778	4694	4694	5139	5649	5833
EXC	Water flow-rate (User Side)	l/s	0,74	0,83	0,94	1,21	1,28	1,55	1,74	2,06	2,30
EXC	Useful pump discharge head	kPa	64	62	58	72	124	122	112	98	83
EXC	Standard power supply	V	400/3/50+N								
EXC	Sound pressure level	(3) dB(A)	56	56	57	55	63	69	70	73	73
Size – WSAT-XIN			81	91	101	121	131	141	151	161	171
PRM	► Cooling capacity (EN14511:2013)	(1) kW	15,5	17,5	19,6	25,3	27,8	30,6			
PRM	Total power input (EN14511:2013)	(1) kW	5,53	6,53	8,03	9,57	10,8	12,8			
PRM	EER (EN 14511:2013)	(1) -	2,81	2,68	2,44	2,64	2,58	2,38			
PRM	SEER	(4) -	4,55	4,58	4,21	4,23	4,31	4,32			
PRM	Refrigeration circuits	Nr	1								
PRM	No. of compressors	Nr	1								
PRM	Type of compressors	-	SCROLL INVERTER								
PRM	Standard airflow	l/s	2167	2389	2444	3333	3889	4167			
PRM	Water flow-rate (User Side)	l/s	0,74	0,84	0,94	1,21	1,33	1,46			
PRM	Useful pump discharge head	kPa	77	73	69	70	65	58			
PRM	Standard power supply	V	400/3/50+N								
PRM	Sound pressure level	(3) dB(A)	56	56	57	55	56	57			
Size – WSAN-XIN			81	91	101	121	131	141	151	161	171
EXC	► Cooling capacity (EN14511:2013)	(1) kW	15,4	16,8	19,4	24,1	28,2	32,5	38,2	43,6	49,2
EXC	Total power input (EN14511:2013)	(1) kW	5,52	6,06	8,15	9,41	10,3	12,2	14,4	16,2	19,1
EXC	EER (EN 14511:2013)	(1) -	2,79	2,77	2,38	2,56	2,74	2,66	2,69	2,58	2,58
EXC	SEER	(4) -	4,87	4,81	4,19	4,76	5,69	5,39	5,17	5,34	5,22
EXC	► Heating capacity (EN14511:2013)	(2) kW	16,2	18,6	20,5	25,8	27,2	31,9	36,7	43,0	49,3
EXC	Total power input (EN14511:2013)	(2) kW	5,05	5,92	7,00	8,04	8,58	9,88	11,5	13,6	15,7
EXC	COP (EN 14511:2013)	(2) -	3,21	3,14	2,93	3,21	3,17	3,23	3,20	3,17	3,14
EXC	Refrigeration circuits	Nr	1								
EXC	No. of compressors	Nr	1								
EXC	Type of compressors	-	SCROLL INVERTER								
EXC	Standard airflow	l/s	2222	2306	2444	2778	4694	4694	5648	6672	6861
EXC	Water flow-rate (User Side)	l/s	0,74	0,80	0,93	1,15	1,35	1,55	1,83	2,08	2,35
EXC	Useful pump discharge head	kPa	64	62	58	74	118	122	107	97	79
EXC	Standard power supply	V	400/3/50+N								
EXC	Sound pressure level	(3) dB(A)	56	56	57	55	63	69	70	73	73
Directive ErP (Energy Related Products)											
EXC	ErP Energy Class - AVERAGE Climate - W35		A++	A+	A+	A++	A+	A+	A+	A+	A+
EXC	ErP Energy Class - AVERAGE Climate - W55		A++	A++	A+	A++	A+	-	-	-	-
EXC	SCOP - AVERAGE Climate - W35	(4) -	3,93	3,73	3,65	3,89	3,21	3,21	3,20	3,21	3,22
EXC	SCOP - AVERAGE Climate - W55	(4) -	3,40	3,34	3,11	3,38	2,83	-	-	-	-
Size – WSAN-XIN			81	91	101	121	131	141	151	161	171
PRM	► Cooling capacity (EN14511:2013)	(1) kW	15,5	16,8	19,5	24,0	26,6	29,1			
PRM	Total power input (EN14511:2013)	(1) kW	5,92	6,36	8,37	10,3	11,5	13,3			
PRM	EER (EN 14511:2013)	(1) -	2,62	2,64	2,33	2,33	2,32	2,18			
PRM	SEER	(4) -	3,99	4,12	3,94	3,65	3,78	3,83			
PRM	► Heating capacity (EN14511:2013)	(2) kW	16,2	18,5	20,4	25,8	28,2	31,5			
PRM	Total power input (EN14511:2013)	(2) kW	5,44	6,23	7,16	8,93	9,79	11,4			
PRM	COP (EN 14511:2013)	(2) -	2,98	2,97	2,85	2,89	2,88	2,77			
PRM	Refrigeration circuits	Nr	1								
PRM	No. of compressors	Nr	1								
PRM	Type of compressors	-	SCROLL INVERTER								
PRM	Standard airflow	l/s	2222	2306	2444	2778	3056	3172			
PRM	Water flow-rate (User Side)	l/s	0,74	0,80	0,93	1,15	1,27	1,39			
PRM	Useful pump discharge head	kPa	77	75	70	73	68	62			
PRM	Standard power supply	V	400/3/50+N								
PRM	Sound pressure level	(3) dB(A)	56	56	57	55	56	57			
Directive ErP (Energy Related Products)											
PRM	ErP Energy Class - AVERAGE Climate - W35		A+	A+	A+	A+	A+	A+	A+	A+	A+
PRM	ErP Energy Class - AVERAGE Climate - W55		A+	A+	A+	A+	A+	A+	A+	A+	A+
PRM	SCOP - AVERAGE Climate - W35	(4) -	3,56	3,66	3,72	3,26	3,62	3,59			
PRM	SCOP - AVERAGE Climate - W55	(4) -	2,84	2,92	2,89	2,82	2,84	2,83			

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.

- PRM Premium
- EXC Excellence



accessories

- ▶ **AMRX** Rubber antivibration mounts
- ▶ **HEDIF** Diffuser for high efficiency axial fan (sizes 131÷171)
- ▶ **RCTX** Remote control
- ▶ **CMSC2X** Serial communication module with RS485 serial converter kit
- ▶ **KSAX** 100-litre circuit breaker
- ▶ **PGFCX** Finned coil protection grill (sizes 131÷171)
- ▶ **KFTLX** Hose kit for connection to the chiller/heat pump.

- ▶ **KG4UPX** Management kit up to 4 units in parallel by the two set point available for each unit

WSAN-XIN only:

- ▶ **CMACSX** Domestic hot water module
- ▶ **ACS500X** 500-litre domestic hot water storage tank (sizes 81÷101)
- ▶ **ACS55X** 500-litre domestic hot water storage tank with solar coil (sizes 81÷101)
- ▶ **3DHWX** Three-way valve for domestic hot water

Key to symbols:

- Accessories separately supplied

