

Water chiller

WSAT-XEE: cooling only
 WSAN-XEE: reversible heat pump
 Air cooled
 Outdoor installation
Capacity from 24,7 to 73 kW

ELFOEnergy Medium



Liquid chillers and heat pumps of the **ELFOEnergy Medium** range, ideal for the small-scale commercial sector, are specifically designed for outdoor installation.

- ▶ **High energy efficiency**, especially during operation at partial loads, thanks to the use of two compressors of different capacity operating on a single cooling circuit
- ▶ **Ideal for systems with radiant panels or hydronic terminal units**
- ▶ **Hydronic assembly supplied as standard**, available with pumps with non-standard available head and/or with double pump
- ▶ **Storage tank not normally necessary**, but available for applications where the quantity of water in the system has values not fairs.

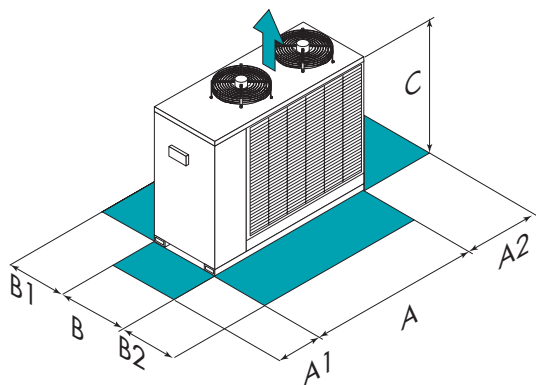


Unit listed on
www.eurovent-certification.com

functions and features



dimensions and clearances



Size – WSAT-XEE		82	102	122	162	182	222	262	302
A - Length	mm	1703	1703	1703	1932	1932	1932	2332	2332
B - Width	mm	675	675	675	1100	1100	1100	1100	1100
C - Height	mm	1209	1209	1209	1417	1417	1417	1417	1417
A1	mm	700	700	700	700	700	700	700	700
A2	mm	700	700	700	700	700	700	700	700
B1	mm	700	700	700	700	700	700	700	700
B2	mm	700	700	700	700	700	700	700	700
Operating weight	kg	298	303	323	456	469	490	547	561

Size – WSAN-XEE		82	102	122	162	182	222	262	302
A - Length	mm	1703	1703	1703	1932	1932	1932	2332	2332
B - Width	mm	675	675	675	1100	1100	1100	1100	1100
C - Height	mm	1209	1209	1209	1417	1417	1417	1417	1417
A1	mm	700	700	700	700	700	700	700	700
A2	mm	700	700	700	700	700	700	700	700
B1	mm	700	700	700	700	700	700	700	700
B2	mm	700	700	700	700	700	700	700	700
Operating weight	kg	315	320	370	530	550	580	675	690

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.

versions and configurations

LOW TEMPERATURE:

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

DOUBLE SET POINT:

- ▶ - Double set point: not required (Standard)
- ▶ **DSPB** Double set point for water low temperature

ENERGY RECOVERY:

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

FREE-COOLING (WSAT-XEE ONLY):

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

EXTERNAL SECTION FAN CONSUMPTION REDUCTION (WSAT-XEE ONLY):

- ▶ - Device for fan consumption reduction of the external section: not required (Standard)
- ▶ **CREFB** Device for consumption reduction of the external section ECOBREEZE fans

OPERATION (WSAN-XEE ONLY):

- ▶ **OHP** Operation in heat pump
- ▶ **OHO** Heating-only operation

technical data

Size – WSAT-XEE		82	102	122	162	182	222	262	302
Terminal units									
A35/W7									
▶ Cooling capacity	kW	24,7	28,7	34,2	40,5	46,4	55,2	65,0	73,1
Total power input	kW	9,25	10,7	12,8	14,6	17,1	20,8	24,0	27,2
EER (EN 14511:2011)	-	2,67	2,67	2,68	2,78	2,72	2,65	2,70	2,69
ESEER	-	3,95	3,93	3,88	4,09	3,99	3,90	3,97	3,92
Water flow rate (Utility Side)	(1) l/s	1,20	1,30	1,60	1,90	2,20	2,60	3,10	3,40
Useful pump discharge head	(1) kPa	132	126	120	104	88	148	139	131
Standard power supply	V	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
Sound Pressure Level (10m)	dB(A)	44	44	44	46	47	47	49	49
Return air min. temperature	(2) °C	-10	-10	-10	-10	-10	-10	-10	-10
Max water outlet temperature	°C	18	18	18	18	18	18	18	18
Size – WSAN-XEE									
Unit for radiant panels									
A7/W35									
▶ Heating capacity	kW	28,8	33,2	37,5	46,5	53,7	62,5	73,1	84,5
Total power input	kW	7,49	8,37	9,50	11,6	13,8	16,3	18,8	21,7
COP (EN 14511:2011)	-	3,84	3,96	3,95	3,99	3,89	3,84	3,88	3,89
A35/W18									
▶ Cooling capacity	kW	31,9	37,1	44,2	52,9	60,4	73,1	83,9	98,0
Total power input	kW	10,4	12,3	14,8	17,3	19,6	23,4	27,3	31,2
EER (EN 14511:2011)	-	3,08	3,02	3,00	3,05	3,08	3,12	3,08	3,14
Water flow rate (Utility Side)	l/s	1,50	1,80	2,10	2,50	2,90	3,50	4,00	4,60
Useful pump discharge head	(3) kPa	92	80	73	43	17	111	102	83
Standard power supply	V	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
Sound Pressure Level (10m)	dB(A)	44	44	44	46	47	47	49	49
Min air inlet temperature (W.B.)	(4)(5) °C	-10	-10	-10	-10	-10	-10	-10	-10
Max water outlet temperature	(4) °C	55	55	53	55	55	55	55	55
Terminal units									
A7/W45									
▶ Heating capacity	kW	28,4	32,5	37,0	45,1	52,6	61,1	71,5	82,8
Total power input	kW	9,42	10,7	12,1	14,5	17,0	19,7	22,8	26,2
COP (EN 14511:2011)	-	3,01	3,04	3,06	3,11	3,10	3,10	3,13	3,16
A35/W7									
▶ Cooling capacity	kW	24,0	28,0	33,2	39,9	46,1	53,7	63,9	72,8
Total power input	kW	9,75	11,2	13,4	15,7	18,2	21,7	25,6	29,0
EER (EN 14511:2011)	-	2,46	2,49	2,48	2,55	2,54	2,47	2,49	2,51
ESEER	-	3,77	3,84	3,85	3,95	4,01	3,83	3,86	3,91
Water flow rate (Utility Side)	(1) l/s	1,10	1,30	1,60	1,90	2,20	2,50	3,00	3,40
Useful pump discharge head	(1) kPa	136	129	125	107	89	150	141	131
Standard power supply	V	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N	400/3/50+N
Sound Pressure Level (10m)	dB(A)	44	44	44	46	47	47	49	49
Min air inlet temperature (W.B.)	(4)(6) °C	-7,0	-7,0	-7,0	-7,0	-7,0	-7,0	-7,0	-7,0
Max water outlet temperature	(4)(7) °C	55	55	53	55	55	55	55	55

Notes

- (1) Data referred to the following conditions : Internal exchanger water = 12/7°C; External exchanger air return 35°C
- (2) External exchanger air in quiet
- (3) Data referred to the following conditions : Internal exchanger water = 23/18°C; External exchanger air return 35°C
- (4) Internal exchanger water = 12/7°C
- (5) Exchanger water outlet 35°C
- (6) Outlet water internal exchanger 45°C

- (7) Room temperature = 7°C (RH = 85%)

Performances according to EN 14511:2011

A7/W35 internal exchanger water 30/35°C; external air temperature 7°C D.B./ 6°C W.B.

A7/W45 internal exchanger water 40/45°C; external air temperature 7°C D.B./ 6°C W.B.

A35/W18 internal exchanger water 23/18°C; external air temperature 35°C

A35/W7 internal exchanger water 12/7°C; external air temperature 35°C



accessories

- ▶ **CCCA** Copper / aluminium condenser coil with acrylic lining
- ▶ **CCCA1** Copper / aluminium condenser coil with Energy Guard DCC Aluminum
- ▶ **1PUR** Single-pump with reduced available head
- ▶ **1PUM** Single-pump with larger available head
- ▶ **2PUS** Standard double pump
- ▶ **2PUR** Double pump with reduced available head (sizes 222÷302)
- ▶ **2PUM** Double pump with larger available head
- ▶ **ACC1** Teflon steel storage device
- ▶ **IFWX** Water steel mesh strainer
- ▶ **MHPX** High and low pressure gauges
- ▶ **AMRX** Rubber antivibration mounts
- ▶ **PGCEX** Coil protection grilles external air side
- ▶ **SFSTR4N** Disposal for inrush current reduction, for unit 400/3/50+N
- ▶ **PM** Phase monitor
- ▶ **PMX** Phase monitor
- ▶ **RCMRX** Remote control via microprocessor control
- ▶ **CMMBX** Serial communication module to supervisor (MODBUS)
- ▶ **CMSC7** MODBUS/LON WORKS serial converter kit
- ▶ **PCDWX** Daily and weekly programming clock
- ▶ **SCP3X** Set point compensation according to the outside enthalpy
- ▶ **CLSE** Free contacts for alarm
- ▶ **PFCP** Power factor correction capacitors (cosφ > 0.9)

WSAT-XEE only:

- ▶ **SPCX** Set point compensation with outside temperature probe

Key to symbols:

- Accessories supplied separately.

