WSA-XEE WSN-XEE

122÷402

Water chiller
WSA-XEE: cooling only
WSN-XEE: reversible heat pump
Air cooled
Indoor installation
Capacity from 36 to 102 kW

ELFOEnergy Duct Medium

ELFOEnergy Duct Medium *water chillers and heat pumps are indoor units with ducted condensation.*
Thanks to his special design ELFOEnergy Duct Medium main features are:

- ***Versatility****: different combinations of inlet and outlet plug fans enable to connect easily the unit to the air ducts and to have high available head;*
- ***High energy efficiency****: ELFOEnergy Duct Medium besides being in Eurovent efficiency class A at full load grants high seasonal power efficiency thanks to the innovative cooling circuit optimized for partial load operation and the DST (Dynamic Supply Temperature) return control logic;*
- ***Easy installation****: the units are very compact and are supplied on request with high efficiency pumps on board; therefore the available space for other purposes is increased and the installations costs are reduced.*

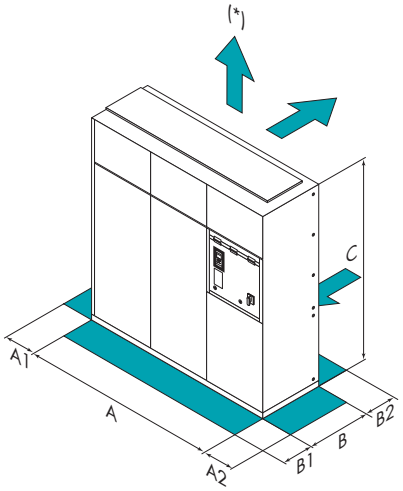
EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Unit listed on
www.eurovent-certification.com

functions and features

Cooling only (WSA-XEE) | Heat pump (WSN-XEE) | Air cooled | Indoor installation | R-410A | Hermetic Scroll | ECOBREEZE | Electronically commutated Plug Fan | Electronic expansion valve

dimensions and clearances



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

Size – WSA-XEE		122	162	182	222	262	302	352	402
A - Length	mm	1450	1450	1875	1875	2650	2650	2650	2650
B - Width	mm	780	780	780	780	780	780	780	780
C - Height	mm	1995	1995	1955	1955	1955	1955	1955	1955
A1	mm	500	500	500	500	500	500	500	500
A2	mm	500	500	500	500	500	500	500	500
B1	mm	1000	1000	1000	1000	1000	1000	1000	1000
B2	mm	1300	1300	1300	1300	1300	1300	1300	1300
Operating weight	kg	463	513	572	578	676	711	836	836

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B - Width	mm	780	780	780	780	780	780	780	780
C - Height	mm	1995	1995	1995	1995	1995	1995	1995	1995
A1	mm	500	500	500	500	500	500	500	500
A2	mm	500	500	500	500	500	500	500	500
B1	mm	1000	1000	1000	1000	1000	1000	1000	1000
B2	mm	1300	1300	1300	1300	1300	1300	1300	1300
Operating weight	kg	501	555	617	625	732	771	901	902

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

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

LOW TEMPERATURE (WSA-XEE ONLY):
- **-** Low temperature: not required (Standard)
- **B** Water low temperature

CONFIGURATION:
- **EV** Vertical air expulsion (Standard)
- **EO** Horizontal exhaust air

technical data

Size – WSA-XEE			122	162	182	222	262	302	352	402
Cooling capacity (EN14511:2013)	(1)	kW	36,1	41,7	49,3	58,3	67,5	78,6	89,8	102
Total power input (EN14511:2013)	(1)	kW	12,8	14,9	17,6	21,4	24,7	27,9	32,1	37,7
EER (EN 14511:2013)	(1)	-	2,83	2,80	2,81	2,72	2,74	2,81	2,79	2,70
ESEER	(1)	-	4,24	4,39	4,42	4,37	4,34	4,32	4,45	4,41
Refrigeration circuits		Nr	1	1	1	1	1	1	1	1
No. of compressors		Nr	2	2	2	2	2	2	2	2
Type of compressors	(2)	-	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Standard airflow		l/s	4444	4444	5000	5000	6667	7500	7500	8333
Max external static pressure		Pa	570	570	450	450	570	450	420	240
Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Sound power in the duct		dB(A)	76	77	80	81	79	82	84	87
Sound pressure level	(3)	dB(A)	59	60	63	64	61	65	66	70

Size – WSN-XEE			122	162	182	222	262	302	352	402
Cooling capacity (EN14511:2013)	(1)	kW	33,2	38,7	44,4	51,8	65,4	73,6	82,2	93,0
Total power input (EN14511:2013)	(1)	kW	14,9	17,1	19,8	24,3	25,8	30,5	36,2	41,3
EER (EN 14511:2013)	(1)	-	2,23	2,26	2,25	2,13	2,54	2,41	2,27	2,25
ESEER	(1)	-	3,44	3,55	3,63	3,63	4,19	3,79	3,85	3,92
Heating capacity (EN14511:2013)	(5)	kW	39,4	46,9	56,7	65,4	78,7	88,8	91,1	108
Total power input (EN14511:2013)	(5)	kW	12,2	14,1	17,1	19,8	22,9	26,2	29,8	34,4
COP (EN 14511:2013)	(5)	-	3,23	3,32	3,32	3,29	3,43	3,39	3,05	3,13
Refrigeration circuits		Nr	1	1	1	1	1	1	1	1
No. of compressors		Nr	2	2	2	2	2	2	2	2
Type of compressors	(2)	-	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Standard airflow		l/s	4444	4444	5000	5000	6667	7500	7500	7500
Max external static pressure		Pa	510	510	390	390	570	390	390	390
Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Sound power in the duct		dB(A)	84	84	87	87	84	87	87	87
Sound pressure level	(3)	dB(A)	61	62	65	67	67	68	69	70

Notes

(1) Data calculated in compliance with Standard EN 14511:2013 referred to the following conditions: Internal exchanger water temperature = 12/7°C; Entering eExternal exchanger air temperature = 35°C

(2) SCROLL = scroll compressor

(3) Sound levels refer to units at full load. The sound pressure is measured at 1 m from the external surface of the ducted unit operating in an open field. (standard UNI EN ISO 9614-2); Data referred to the following conditions: Internal exchanger water temperature = 12/7°C; Outdoor air temperature 35°C; Static available pressure 120 Pa; Please note that when the unit is installed in conditions different from nominal test conditions (e.g. near walls or obstacles in general), the sound levels may undergo substantial variations.

(4) Data referred to the following conditions: Internal exchanger water temperature = 12/7°C; Entering eExternal exchanger air temperature = 35°C

(5) Data calculated in compliance with Standard EN 14511:2013 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.

WSN-XEE: PRELIMINARY DATA

accessories

- **1PUHE** High efficiency single inverter pump for primary circuit.
- **1PUB** Single pump at low discharge head
- **1PUA** Single pump at high discharge head
- ■ **IFWX** Steel mesh strainer on the water side
- **ABU** Flush hydraulic connections
- **CCCA** Copper / aluminium condenser coil with acrylic lining
- ■ **AMRX** Rubber antivibration mounts
- **PGFC** Finned coil protection grill
- **CMSC10** Serial communication module to LonWorks supervisor
- **CMSC11** Serial communication module for BACnet-IP supervisor
- **PFCP** Power factor correction capacitors (cosfi > 0.9)
- **SFSTR** Disposal for inrush current reduction
- **FANQE** Electrical panel ventilation
- **MHP** High and low pressure gauges
- **SCP4** Set-point compensation with signal 0-10 V
- **SPC1** Set point compensation with 4-20 mA signal
- **SPC2** Set-point compensation with outdoor air temperature probe
- ■ **CSVX** Couple of manual shut-off valves

WSA-XEE only:
- **PM** Phase monitor
- ■ **KRIX** Kit to remote the control interface by microprocessor
- **CMSC12** Serial communication module for BACnet-MSTP supervisor
- **CFSC** Potential-free contacts for compressor status
- **CLSCLR** Free contacts compressor state and local / remote management
- **SDV** Cutoff valve on compressor supply and return
- **SCP3** Set point compensation according to the outside enthalpy

WSN-XEE only:
- **MF2** Multi-function phase monitor
- **STSOL** Additional lifting brackets
- **CONTA2** Energy meter
- ■ **RCMRX** Remote control via microprocessor control
- ■ **PSX** Mains power supply
- **DML0-10** Demand limit with signal 0-10V
- **DML4-20** Demand limit with signal 4-20mA
- **ECS** ECOSHARE function for the automatic management of a group of units
- **OHE** Limit extension kit in heating up to -10°C (W.B.)

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.