WSAN-XES

Reversible heat pump Air cooled Outdoor installation Capacity from 56,5 to 85,0 kW

ELFOEnergy STORM





The **ELFOEnergy STORM** heat pumps are high efficiency packaged units for small and medium-sized applications in the services sector. Designed for outdoor installation, they ensure the highest energy efficiency over the entire operating cycle, especially under load staging conditions that coincide with the unit's longer operating time, thanks to the continuous capacity **modulation** that adapts the capacity supplied to the actual energy demand required by the system.ELFOEnergy STORM offers the highest energy efficiency both during the seasonal cycle and under full load conditions.

- ▶ ADVANCED TECHNOLOGY: Clivet's continuous improving has allowed to realize ELFOEnergy STORM with special design features: DC Inverter technology for the compressor and fans, hydrophilic battery for a guarantee of efficiency in all conditions, electronic expansion valve to optimize the operation of the cooling circuit.
- ▶ EXTENDED OPERATING RANGE: ELFOEnergy STORM is able to meet the strictest requirements in terms of operating temperatures, with great efficiency. In cooling, its operation is guaranteed even with very low outside temperatures (from 52°C to -10°C), ideal for the requirements of IT applications. In heating, its operation is guaranteed down to external air temperatures of -15°C producing hot water of up to 55°C.





functions and features









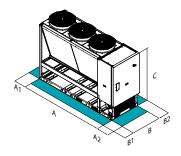








dimensions and clearances



Size – WSAN-XES		18.2	20.2	25.2	30.2	35.2
A - Length	mm	2375	2375	3230	3230	3230
B - Width	mm	1130	1130	1130	1130	1130
C - Height	mm	2155	2155	2155	2155	2155
A1	mm	800	800	800	800	800
A2	mm	800	800	800	800	800
B1	mm	500	500	500	500	500
B2	mm	500	500	500	500	500
Operating weight	kg	580	580	780	780	780

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

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



versions and configurations

TYPE OF FANS:

VENDC DC high efficiency fan (Standard)

technical data

Size – WSAN-XES			18.2	20.2	25.2	30.2	35.2		
Cooling capacity (EN14511:2013)	(1)	kW	53,0	58,5	71,5	77,5	81,9		
Total power input (EN14511:2013)	(1)	kW	17,1	20,1	22,7	25,0	29,1		
EER (EN 14511:2013)	(1)	-	3,10	2,91	3,15	3,10	2,82		
SEER	(4)	-	4,34	4,21	4,70	4,69	4,67		
▶ Heating capacity (EN14511:2013)	(2)	kW	53,0	65,0	79,0	85,0	86,0		
Total power input (EN14511:2013)	(2)	kW	16,6	21,7	24,2	26,6	22,0		
COP (EN 14511:2013)	(2)	-	3,20	3,00	3,26	3,20	3,90		
Refrigeration circuits Nr			2						
No. of compressors		Nr			1				
Type of compressors			ROTARY	INVERTER	SCROLL INVERTER				
Standard airflow		I/s	6889	6889	10333	10333	10333		
Standard power supply V			400/3/50+N						
Sound pressure level	(3)	dB(A)	64	65	62	65	67		
Directive ErP (Energy Related Produ	cts)								
ErP Energy Class - AVERAGE Climate - W35		-	A++	A++	A++	A++	A++		
SCOP - AVERAGE Climate - W35	(4)	-	3,83	3,82	4,18	4,08	3,94		

Notes

- Data compliant to Standard EN 14511:2013 referred to the following conditions: Internal exchanger water temperature = 12/7°C Entering external exchanger air temperature = 35°C Data compliant to Standard EN 14511:2013 referred to the following conditions: Internal exchanger water temperature = 40/45°C Entering external exchanger air temperature = 7°C (1)
- D.B./6°C W.B
- 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 (rate heat output \le 70 kW at specified reference conditions) and the Commission delegated Regulation (EU) No 813/2013 (rated heat output \le 400 kW at specified reference conditions). kW at specified reference conditions).

accessories

→ CCCA Copper / aluminium condenser coil with acrylic lining

CCCA1 Condenser coil with Aluminium Energy Guard DCC treatment

→ AMOD Water fittings for modular unit

→ 3DHW VBuilt-in 3-way valve for domestic hot water on the unit

 $\label{thm:equilibrium} \mbox{Hydronic assembly with 1 ON/OFF pump}$ → HYG1

→ HYGU1V User side hydronic assembly with 1 inverter pump **ACIMP** Steel inertial storage tank

· → IFWX Steel mesh strainer on the water side

· → AVIBX Anti-vibration mount support

PGFC Finned coil protection grill

Key to symbols:

· Accessories separately supplied