

Reversible heat pump
 Air cooled
 Outdoor installation
Capacity from 4,65 to 15,3 kW

ELFOEnergy Edge

DC Inverter



► **SEASONAL EFFICIENCY:** Guaranteed by DC Inverter technology applied to the compressor and fans, 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.

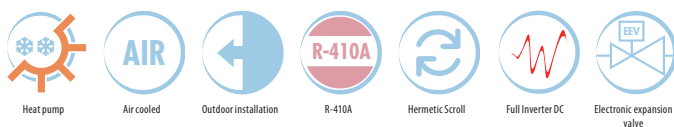
► **ADVANCED TECHNOLOGY:** Clivet's continuous improving has allowed to realize ELFOEnergy Edge with special design features: Hydrophilic battery for a guarantee of efficiency in all conditions, electronic expansion valve to optimize the operation of the cooling circuit with DC inverter compressor and fans. The unit can be equipped with a standard DC Inverter circulator, providing further energy savings through the modulation of water flow depending on the building thermal load and pressure drop.

► **EXTENDED OPERATING RANGE:** ELFOEnergy Edge 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 46°C to -5°C), ideal for the requirements of IT applications. In heating, its operation is guaranteed down to external air temperatures of -20°C producing hot water of up to 60°C.

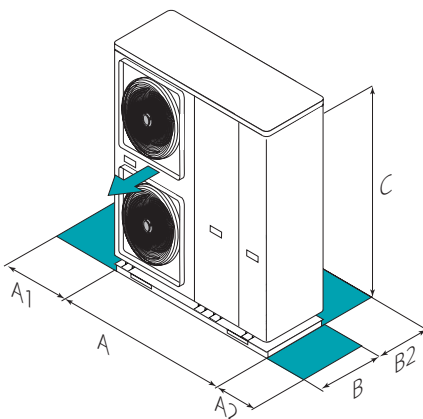
► **DOMESTIC HOT WATER ALL YEAR ROUND:** ELFOEnergy Edge is able to produce domestic hot water at 60°C both in winter with outdoor temperatures down to -20°C and in summer with outdoor temperatures up to 43°C



functions and features



dimensions and clearances



Size - WSAN-XMi		21	31	41	51	61	71	81
A - Length	mm	1210	1210	1210	1404	1404	1404	1404
B - Width	mm	402	402	402	405	405	405	405
C - Height	mm	945	945	945	1414	1414	1414	1414
A1	mm	400	400	400	400	400	400	400
A2	mm	400	400	400	400	400	400	400
B2	mm	600	600	600	1100	1100	1100	1100
230/1/50	Operating weight	kg	99	99	162	162	162	162
400/3/50+N	Operating weight	kg	-	-	-	177	177	177

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.
 230/1/50 Supply voltage 230/1/50
 400/3/50+N Supply voltage 400/3/50+N

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

versions and configurations

VOLTAGE:

- ▶ **230M** Supply voltage 230/1/50 (Standard)
- ▶ **400TN** Supply voltage 400/3/50+N (sizes 61÷81 only)

technical data

Size – WSAN-XMi			21	31	41	51	61	71	81
230/1/50	▶ Cooling capacity (EN14511:2013) (1)	kW	4,65	6,69	8,06	9,90	12,2	13,0	13,8
230/1/50	Total power input (EN14511:2013) (1)	kW	1,56	2,48	3,50	3,09	4,14	4,50	5,13
230/1/50	EER (EN 14511:2013) (1)	-	2,98	2,70	2,30	3,20	2,95	2,89	2,68
230/1/50	SEER (4)	-	4,61	4,75	4,52	5,24	5,34	4,86	4,34
230/1/50	▶ Heating capacity (EN14511:2013) (2)	kW	4,72	6,72	9,19	10,20	12,6	14,1	16,1
230/1/50	Total power input (EN14511:2013) (2)	kW	1,01	1,46	2,63	2,08	2,60	3,18	3,64
230/1/50	COP (EN 14511:2013) (2)	-	3,29	3,35	3,49	3,35	3,26	3,16	3,09
230/1/50	Water flow-rate (User Side)	l/s	0,22	0,32	0,39	0,49	0,58	0,59	0,63
230/1/50	Useful pump discharge head	kPa	61,5	48,0	36,9	54,5	41,6	40,1	34,8
230/1/50	Sound pressure level (3)	dB(A)	49	51	53	52	55	58	58
400/3/50+N	▶ Cooling capacity (EN14511:2013) (1)	kW	-	-	-	-	12,3	13,8	15,3
400/3/50+N	Total power input (EN14511:2013) (1)	kW	-	-	-	-	4,22	5,12	6,42
400/3/50+N	EER (EN 14511:2013) (1)	-	-	-	-	-	2,91	2,70	2,38
400/3/50+N	SEER (4)	-	-	-	-	-	5,02	4,88	4,92
400/3/50+N	▶ Heating capacity (EN14511:2013) (2)	kW	-	-	-	-	12,0	14,1	16,1
400/3/50+N	Total power input (EN14511:2013) (2)	kW	-	-	-	-	2,72	3,24	3,75
400/3/50+N	COP (EN 14511:2013) (2)	-	-	-	-	-	3,25	3,18	3,07
400/3/50+N	Water flow-rate (User Side)	l/s	-	-	-	-	0,58	0,60	0,63
400/3/50+N	Useful pump discharge head	kPa	-	-	-	-	41,9	38,2	34,8
400/3/50+N	Sound pressure level (3)	dB(A)	-	-	-	-	55	58	58
Refrigeration circuits	Nr					1			
No. of compressors	Nr					1			
Type of compressors	-					ROTARY INVERTER DC			
Standard airflow	l/s		847	847	847	1708	1708	1708	1708
Directive ErP (Energy Related Products)									
ErP Energy Class - AVERAGE Climate - W35			A++	A++	A++	A++	A++	A++	A++
ErP Energy Class - AVERAGE Climate - W55			A++	A++	A++	A++	A++	A++	A++
230/1/50	SCOP - AVERAGE Climate - W35 (4)	-	4,48	4,53	4,16	4,13	4,23	4,40	4,25
230/1/50	SCOP - AVERAGE Climate - W55 (4)	-	3,30	3,30	3,25	3,25	3,25	3,25	3,20
400/3/50+N	SCOP - AVERAGE Climate - W35 (4)	-	-	-	-	-	4,45	4,28	4,18
400/3/50+N	SCOP - AVERAGE Climate - W55 (4)	-	-	-	-	-	3,25	3,28	3,23

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 (rate heat output ≤70 kW at specified reference conditions) and the Commission delegated Regulation (EU) No 813/2013 (rated heat output ≤400 kW at specified reference conditions).

230/1/50 Supply voltage 230/1/50
400/3/50+N Supply voltage 400/3/50+N

accessories

- ▶ **IBHX** Backup electric heater (sizes 21÷41)
- ▶ **KTFLX** Hose kit for connection to the chiller/heat pump
- ▶ **KSAX** 100-litre circuit breaker
- ▶ **QERAX** Connection electrical panel of the DHW storage heater
- ▶ **ACS500X** 500-litre domestic hot water storage tank
- ▶ **ACS300X** 300-litre domestic hot water storage tank (sizes 21÷51)
- ▶ **ACS55X** 500-litre domestic hot water storage tank with solar coil
- ▶ **ACS35X** 300-litre domestic hot water storage tank with solar coil (sizes 21÷51)
- ▶ **3DHWX** Three-way valve for domestic hot water

Key to symbols:

- Accessories separately supplied