

ES AW air-to-water heat pumps with EVI

AW 30, 45 & 90 kW Monobloc

Economic and effective air-to-water heat pump, designed for a Nordic climate

- High energy efficiency and stable performance. With inverter + EVI technology, it reaches A++ energy level and COP up to 4,5
- Monobloc design for easy installation.
- Low noise solution with EC fan motor and improved air duct system.
- Supply high water temperature up to 60 °C.
- Cascade control of heat pumps – one operation panel can control up to 16 units.
- Can be connected to ES NordFlex for total control of your energy system.
- Modbus – easy to communicate with BMS for smart building.
- Control via Wi-Fi – easy for service.

- Four mixing circuits control for different temperature zones.
- Heating curve – adjust water temperature based on ambient temperature automatically.
- Run in rotation – when two or more units are connected in the system, every unit runs alternately.
- Smart defrosting in cascade – maximum 1/3 of the units may defrost at the same time, for stable temperature of the whole system.
- Emergency operation – if master unit is off-line, by turning on the emergency switch, each heat pump unit can work individually according to last working settings.



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The heat pump converts energy from the outdoor air to heat and domestic hot water for your warehouse, residential, office or industrial building

By converting the energy from the outdoor air, you lower your energy cost in an environmentally friendly way at the same time you create the perfect indoor climate. AW-EVI-M series is developed to replace or complete an existing heat source and for new production with demands for higher inlet temperatures.

AW-EVI-M series is developed to give biggest possible energy saving and quiet operation

Components from leading manufacturers and smart control enables big energy savings and quiet operation. All AW-EVI-M series are labelled A++.

Top quality defrost – nano-coated outdoor evaporator unit

Large volumes of air circulate thru the outdoor unit and energy is collected from this air. This results in ice forming on the outdoor unit's heat exchanger. With the nano-coating the condensing water drain faster from the outdoor unit.

Complete heat control of your heating system

Connected to ES NordFlex, the heat pumps and your energy system can be controlled locally or remotely via smartphone or computer. On the user-friendly display, you can make all the necessary settings for an effective and problem free operation and at the same time control present status of your system. Even when you are not on site you have total control through smartphone or laptop.

Keep your old boiler

All correctly designed heat pump systems need back up to manage the energy needs during the coldest days of the year. The AW-EVI-M series enables you to keep your current electric, oil, pellet, or wood boiler.

(1) Heating conditions: water inlet/outlet temperature in/out: 30°C/35°C, Ambient temperature: DB 7°C /WB 6°C

(2) Heating conditions: water inlet/outlet temperature in/out: 40°C/45°C, Ambient temperature: DB 7°C /WB 6°C

(3) Cooling conditions: water inlet/outlet temperature in/out: 23°C/18°C, Ambient temperature: DB 35°C /24°C

(4) Cooling conditions: water inlet/outlet temperature in/out: 12°C/7°C, Ambient temperature: DB 35°C /24°C

(5) A part of Mitsubishi Group

(6) Heating conditions: water inlet/outlet temperature in/out: 50°C/55°C, Ambient temperature: DB 7°C /WB 6°C

If your present system works – keep it as backup. Under normal circumstances the heat pump capacity should be enough to provide approximately half of the necessary heat on the coldest days.

- The dockable solution means that the heat pump can be connected to the other

heating device, which can deliver the heat demand alone.

- If the heat pump can deliver half of the heat demand on the coldest days, then it is usually capable of fulfilling 80–90 % of the heat demand on every day of the year.

	AW 30-EVI-M	AW 45-EVI-M	AW 90-EVI-M
Min/max heating capacity (1)	kW	15.2–28.7	13.7–43.7
Min/max input power (1)	kW	3.5–7.5	3.3–12.1
COP min/max (1)	W/W	3.83–4.43	3.62–4.42
Min/max heating capacity (2)	kW	12.2–29.4	13.6–43.2
Min/max input power (2)	kW	3.8–9.0	4.2–14.3
COP min/max (2)	W/W	3.26–3.43	2.99–3.38
SCOP – Average climate, low temperature (1)	W	4.21	4.18
Energy class (1)		A++	A++
SCOP – Average climate, high temperature (6)	W	3.31	3.62
Energy class (6)		A++	A++
Min/max cooling capacity (3)	kW	15.2–26.8	17.7–32.0
Min/max input power (3)	kW	3.3–8.8	3.15–11.6
E.E.R min/max (3)		3.06–4.68	2.72–5.09
Min/Max cooling capacity (4)	kW	7.3–21.2	11.2–29.9
Min/Max input power (4)	kW	3.1–8.0	3.5–11.6
E.E.R min./max. (4)	W/W	2.33–2.84	2.6–3.3
Min/Max ambient working temperature in heating mode	°C	-30°–55°	-30°–55°
Min/Max ambient working temperature in cooling mode	°C	15°–55°	15°–55°
Max flow temperature in heating mode	°C	60°	60°
Min flow temperature in heating mode	°C	20°	20°
Min flow temperature in cooling mode	°C	7°	7°
Sound power level LwA – Average climate, low temperature (1)	Outdoor	dB (A)	66
Sound power level LwA – Average climate, high temperature (6)	Outdoor	dB (A)	71
	Quantity	pcs	2
Fan	Airflow	m ³ /h	5 250 x 2
	Rated power	W	93 x 2
	Blade diameter	mm	552 x 2
Plate heat exchanger	Water press. drop	kPa	60
	Pipe connection	inch	1 1/2" female
Refrigerant	Type	R410A	R410A
	Charge	kg	5.2
	GWP	CO ₂ /kg	2088
Compressor	t CO ₂ Equiv		10.9
	Manufacturer	Panasonic, twin rotary	SIAM (5)
	Type	Inverter + EVI	Inverter + EVI
Power supply – Outdoor unit	V/Ph/Hz	400V/3N/50	400V/3N/50
Fuse Outdoor unit	A	3p/25A/C	3p/40A/C
Electrical compressor heater	W	30	30
Nominal water flow	m ³ /h	5.2	8
Hydraulic connections	inch	1 1/2" female	2" female
Flow switch		Yes	Yes
Net dimensions (L x D x H)	Outdoor unit	mm	1295 x 455 x 1447
	Indoor unit	Cascade AWS	389 x 476 x 165
		NordFlex	400 x 400 x 200
Packaging dimensions (L x D x H)	Outdoor unit	mm	1325 x 475 x 1580
	Indoor unit	Cascade AWC	400 x 490 x 180
		NordFlex	420 x 420 x 250
Net weight	Outdoor unit	kg	191
	Indoor unit	Cascade AWC	9
		NordFlex	12
Packaging weight	Outdoor unit	kg	215
	Indoor unit	Cascade AWC	10
		NordFlex	13
Article number	Outdoor unit		120314
	Indoor unit	Cascade AWC	120301
		NordFlex	120223