



tel. 0048 56 686 93 05
 fax 0048 56 686 23 05
 www.elterm.pl



	EKW AsP 4 ÷ 24 kW
	EKW AsBN 4 ÷ 24 kW
	EKW AsZN 4 ÷ 24 kW
	EKW AsD 4 ÷ 24 kW
	EKW AsZN-W 4 ÷ 24 kW
	EKW AsB/90°C 30 ÷ 144 kW
	ECO Driers 70 + 110 W
	ECOTERM Heaters 320 + 800 W
	Hydraulic fittings and connections Central heating and hot utility water
	Room controllers
	Pump controllers

EKW boilers are adapted for use with various room and weather compensator units.

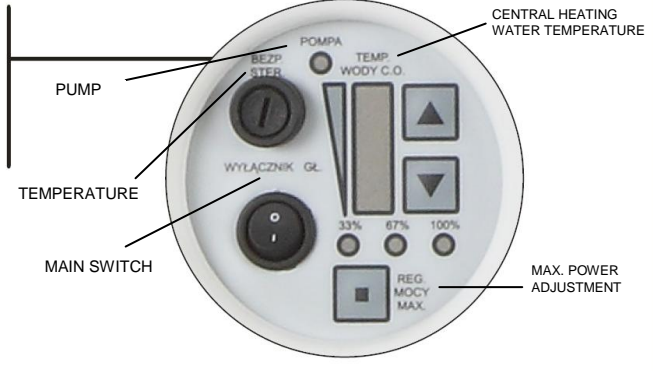
Manufacturer reserves the right to introduce structural modifications to the boiler.

ELECTRIC WATER BOILER

EKW – AsZN

HEATING AND FLOOR VERSION

Microprocessor control system ensures optimization of the boiler's operational algorithm for providing maximum energy saving, functional comfort and increasing the appliance's reliability and durability.



- for any type of room temperature control unit (normally opened contact)
- microprocessor control system
- thermally insulated, zinc coated tank
- boiler power distribution: 16 ÷ 100% (3-part, 6-part)
- small overall dimensions, easily walled off
- manometer, safety valve, vent
- overheating protection
- heater load with suitable margin of safety < 13 W/cm²
- stainless steel heating unit (extra protection against boiler scale)
- quiet operation, no contactors
- laser-cut boiler elements
- circulating pump, pump control
- built-in membrane vessel

Technical Data:

- Hanging boiler.
- Air temperature adjustment range – depending on the type of room temperature control unit.
- Electronic system fuse – 500 mA,
- Water temperature adjustment:
 - 20 – 70 °C – standard
 - 20 – 40 °C – floor heating
 - 20 – 90 °C – individual order
- Factory test pressure – 12 at.; design pressure – 6 at.
- Weight – 25 kg (depending on power rating).
- Water volume inside the boiler – 3 l.
- Double protection – 70 °C, 100 °C.
- Efficiency 99.5% (tested at the Warsaw University of Technology [Politechnika Warszawska])
- Boiler body wall thickness – 3.6 – 4 mm, zinc coated body, thermally insulated, stainless steel heaters.
- Protection IPX 2, class I.

Electronic system functions:

- Automatic power selection:
 - a) 3-level version for 4 – 12 kW power rating
 - b) 6-level version for 15 – 24 kW power rating
- Manual power reduction option (33-67-100% each version)
- Control voltage stabilization.
- Water temperature measurement – smooth adjustment.
- Diode boiler operation displays: water temperature, max. power level.
- Adjustable sequence of turning the heaters on – heater wear optimization (microprocessor controlled meter measuring the heaters' working time orders the heater with the least working hours to switch on).
- Pump operation time-lag.
- Option for operating without a room temperature control unit (fixed-temperature automation only).
- Smooth on/off section switching.
- Adjustable temperature range, hysteresis value, pump rundown time (per individual order).
- „Watch Dog” Function – processor control system.

In accordance with the following directives:

- LVD – low voltage – electrical safety
- RoHS – restriction of use of certain hazardous substances

EMC – electromagnetic compatibility
 WEEE – regarding the waste electrical and electronic equipment,
 G10S reg. no.: E0001767W

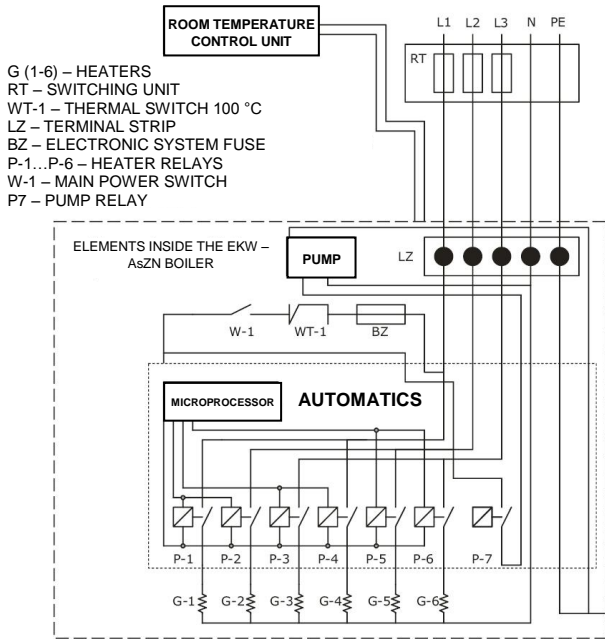
Type of the AsP boiler	Boiler's max. power	Manual power distribution (kW) (on the boiler)	Automatic power distribution (kW) (microp. control)	Power supply 230 / 400 V	Fuse safety devices (A)	Power cord in mm ² (*)	Heated area m ² height 2.7 m, U = 0.3	Alternative heating boiler m ²
EKW 4 AsZN	4 kW	1.3 + 2.7 ÷ 4	1.3 + 2.7 ÷ 4	1 phase	1 x 20	3 x 25	~ 50	~ 70
EKW 6 AsZN	6 kW	2 + 4 + 6	2 + 4 + 6	1 phase	1 x 32	3 x 4	~ 70	~ 100
EKW 6 AsZN	6 kW	2 + 4 + 6	2 + 4 + 6	3 phases	3 x 10	5 x 2.5	~ 70	~ 100
EKW 9 AsZN	9 kW	3 + 6 + 9	3 + 6 + 9	3 phases	3 x 16	5 x 2.5	~ 100	~ 150
EKW 12 AsZN	12 kW	4 + 8 + 12	4 + 8 + 12	3 phases	3 x 20	5 x 4	~ 150	~ 210
EKW 15 AsZN	15 kW	5 + 10 + 15	3 + 5 + 8 ÷ 10 + 13 + 15	3 phases	3 x 25	5 x 4	~ 180	~ 250
EKW 18 AsZN	18 kW	6 + 12 + 18	3 + 6 + 9 ÷ 12 + 15 + 18	3 phases	3 x 32	5 x 6	~ 220	~ 310
EKW 21 AsZN	21 kW	7 + 14 + 21	4 + 7 + 11 ÷ 14 + 18 + 21	3 phases	3 x 40	5 x 6	~ 260	~ 360
EKW 24 AsZN	24 kW	8 + 16 + 24	4 + 8 + 12 ÷ 16 + 20 + 24	3 phases	3 x 40	5 x 10	~ 300	~ 400

(*) Please bear in mind the length of the power cord and the heat removal properties when selecting the actual diameter of the power cord.



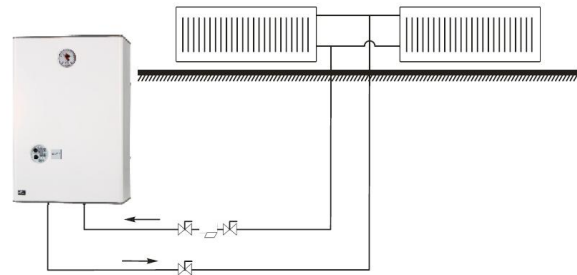
ELECTRIC WATER BOILER EKW - AsZN

EKW - AsZN boiler circuit diagram

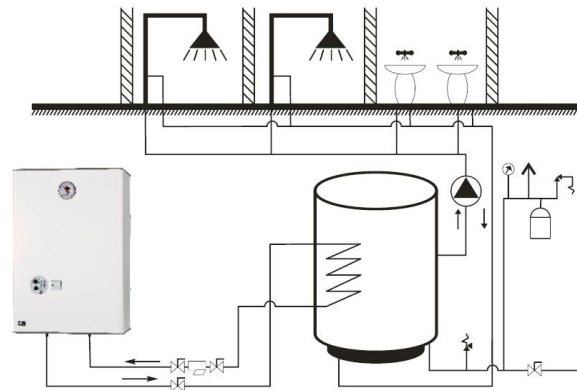


Sample applications of the EKW-AsZN boiler

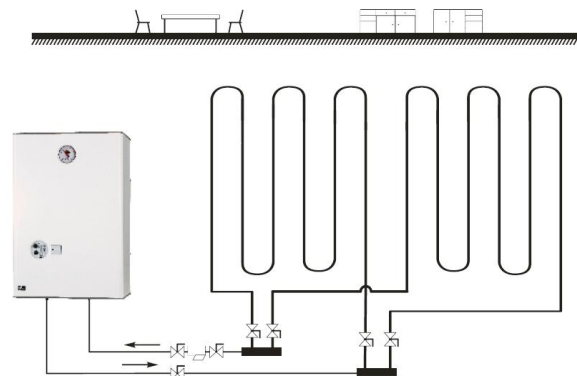
EKW-AsZN boiler as an independent heat source



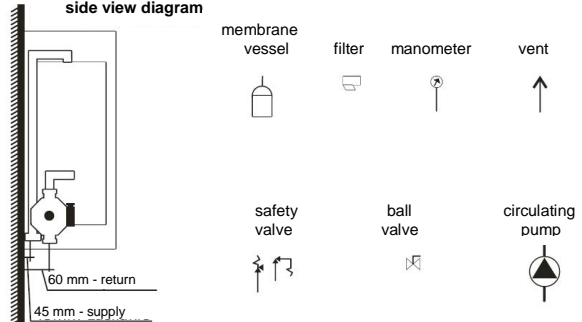
EKW-AsZN boiler with a hot utility water storage tank - heating large quantities of hot utility water in a short period of time



EKW-AsZN boiler in a floor heating system



EKW-AsZN boiler side view diagram



Inside view - EKW-AsZN boiler

Control panel (microprocessor automatics behind the panel)



Boiler insulation (PUR foam)

Thermal fuse

Automatic vent

Sensor input

Manometer

Boiler body (zinc coated) Ø 114.3 x 3.6 (stainless steel heaters inside)

Membrane vessel 8 litres

Central heating pump

Safety valve 2.5 bar

Stub pipe Ø 1/2" GZ

175

235

Room temperature controller terminal strip

Terminal strip

Application:



detached houses, holiday cottages



old buildings, block of flat apartments



industrial process water

... and as a support for other heat sources