

ELECTRIC WATER BOILER EKW AsBN

**New design
Additional
electronics:**

PID
proportional-
integral-
derivative
controller

BM
program
non-volatile
memory

SC
protection against
increased
frequency of boiler
activation

OSC
four-element
protection against
overheating

DM
double
energy meter
(of EKW boiler)

PAS
pump
protection
system

Watch Dog
processor
control
system



SilverLine



Microprocessor control system optimizes boiler operational algorithm and provides maximum energy saving, functional comfort as well as increased reliability and durability of the appliance.

Technical data:

1. Hanging boiler
2. Air temperature adjustment range – depending on the type of room thermostat
3. Electronic system fuse – 500 mA
4. Hydraulic resistance – negligible, small
5. Factory test pressure – 12 at., design pressure – 6 at. (safety valve 3 bar, other valve on request)
6. Weight: ~16kg (depending on power rating)
7. Water volume in tank – 3l
8. Efficiency 99.5%
9. IPX2, class 1
10. Stepless temperature adjustment 5+70°C (floor 5+40°C)

Electronic system functions:

1. Control: room, floor
2. Multi-functional LCD display
3. Automatic power selection – by 1/6 (by 1/3)
4. Manual power reduction 33-67-100%
5. Heater operation time measurement – wear optimization
6. Smooth on/off section switching
7. Pump operation time-lag
8. Water temperature measurement and stepless adjustment
9. Diode boiler operation displays
10. Compatible with all types of room thermostats (dry contact). Recommendation: ThermLine RT

Complies with the following directives:

LVD – low-voltage directive – electric safety,
RoHS – restrictions of hazardous substances

EMC – electromagnetic compatibility,
WEEE – waste electrical and electronic equipment
Inspection for Environmental Protection
register no.: E0001767W

Power	Manual power distribution on the boiler	Boiler power electronic modulation	Power supply 230/400V	Fuse safety devices (A)	Power cord in mm ²	Heated area (m ²) height 2,7m U=0,3	Alternative heating boiler (m ²)
4 kW	100% - 67% - 33%	by 1/3	1 phase*	1 x 20	3 x 2,5	~ 50	~ 70
4 kW	100% - 67% - 33%	by 1/3	3 phases*	3 x 6	5 x 1,5	~ 50	~ 70
6 kW	100% - 67% - 33%	by 1/3	1 phase*	1 x 32	3 x 4	~ 70	~ 100
6 kW	100% - 67% - 33%	by 1/3	3 phases*	3 x 10	5 x 2,5	~ 70	~ 100
9 kW	100% - 67% - 33%	by 1/6	1 phase*	1 x 40	3 x 6	~ 110	~ 150
9 kW	100% - 67% - 33%	by 1/6	3 phases*	3 x 16	5 x 2,5	~ 110	~ 150
12 kW	100% - 67% - 33%	by 1/6	3 phases	3 x 20	5 x 4	~ 150	~ 210
15 kW	100% - 67% - 33%	by 1/6	3 phases	3 x 25	5 x 4	~ 180	~ 250
18 kW	100% - 67% - 33%	by 1/6	3 phases	3 x 32	5 x 6	~ 220	~ 310
21 kW	100% - 67% - 33%	by 1/6	3 phases	3 x 40	5 x 6	~ 260	~ 360
24 kW	100% - 67% - 33%	by 1/6	3 phases	3 x 40	5 x 10	~ 300	~ 400

* Boilers EKW with 4, 6 and 9 kW are preset to work on 230V. In case 400V work is essential one should protrude bridge out of clamp bar.



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All ELTERM boiler subassemblies come from reputable manufacturers:



boiler insulation – mineral wool
ROCKWOOL $\lambda 0,042W/mK$

SELFA stainless steel heaters

$\varnothing 114 \times 3.6$ steel body
long life
(Polish laser cut steel)



vent, manometer, safety valve and Flamco 8 l membrane vessel



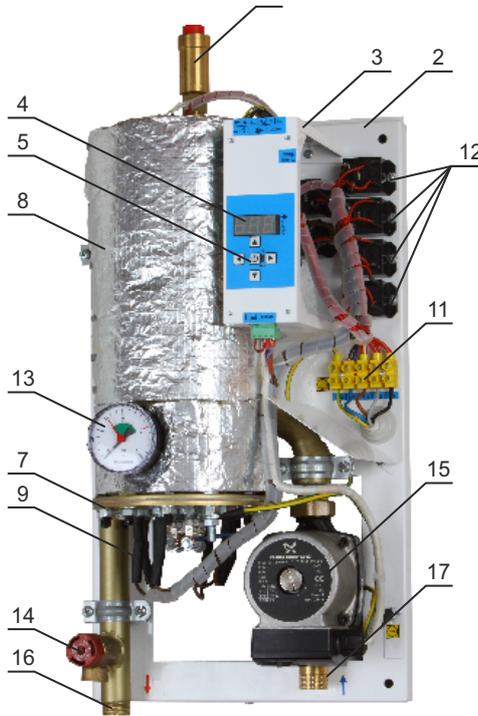
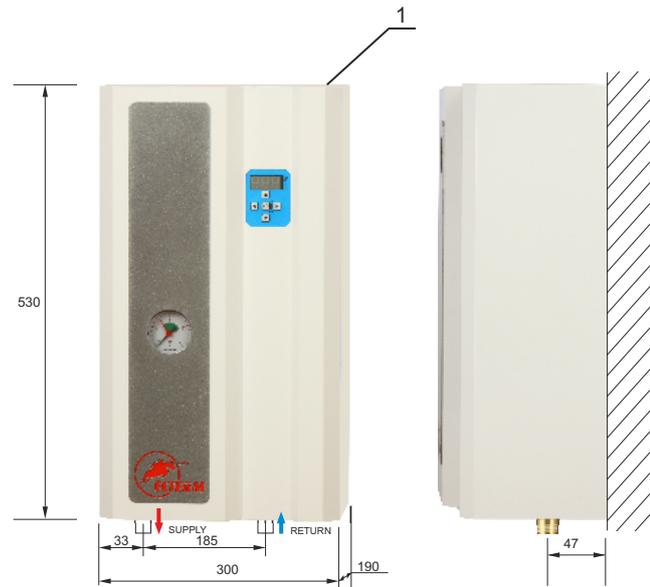
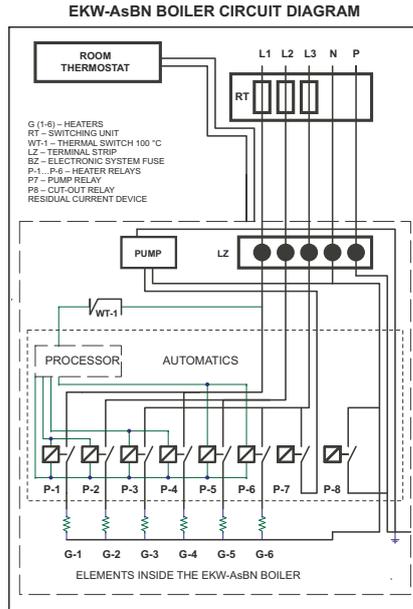
Grundfos pump



galvanized sheet case (CNC pressed)



TIMEL software
OMRON subassemblies

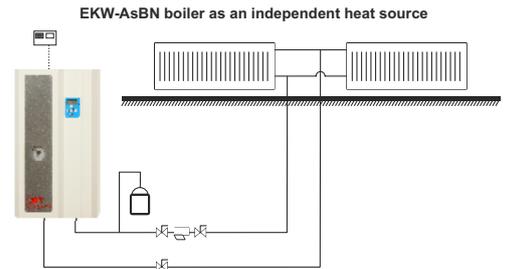


EKW AsBN boiler equipment

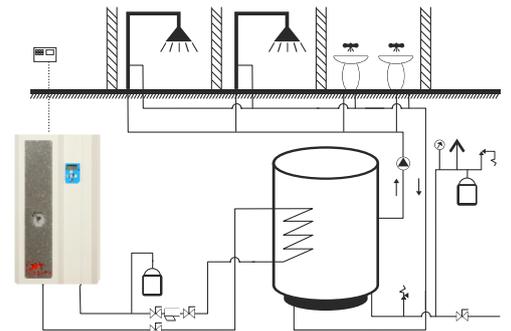
1. External case
2. Mounting plate
3. Automatics mounting bracket
4. LED display
5. Control panel
6. Room thermostat terminal strip
7. Boiler body (tank)
8. Boiler insulation
9. Heating unit
10. Automatic vent 3/8 "male thread
11. TLZ 16² (10²) terminal strip
12. Relays
13. 4 bar manometers
14. 3 bar safety valve
15. Central heating pump
16. Supply connector pipe GZ 3/4" male thread
17. Return connector pipe GZ 3/4" male thread

REFERENCE DIAGRAMS

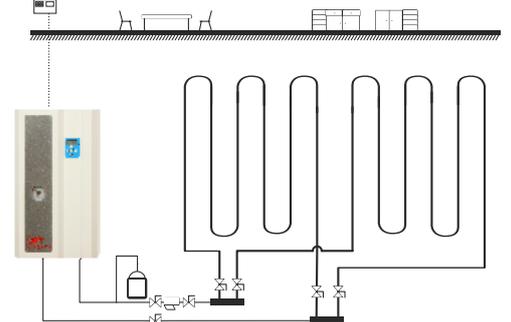
Examples of EKW-AsBN boiler use



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



EKW-AsBN boiler in a floor heating system



The manufacturer reserves the right to make changes to the boiler design.