

Electric Heating Boilers Catalogue 2019























Continuous improvement



100% pressure control

Electric System and Combination Boilers

Earth Save Products is a leading supplier of award winning renewable energy products, including mono and combi electric heating boilers for central heating systems, as well as a wide range of hydraulic armature products.

Our experienced and professional technical personnel deal with the most challenging, unusual and special orders in a prompt manner. We provide free assistance in the general scope of heating technology and take a great pride in the almost zero level of failure frequency of our products.



Vast range of Products



Continuous improvement

See also our hydraulic armature products

51 516

available combinations for two or three way hydraulic sets

Low loss headers: **5** types, **11** sizes Connecting manifolds: **8** types, **9** sizes

Pump groups: **18** types

Insulated and non-insulated magnetic filters and safety heat exchangers







ESP Electric Heating Boilers – basic information

All our heating boilers



Can cooperate with **Wi-Fi** and **GSM** controllers



Have **nearly 100%** operating efficiency



Can operate in both: **sealed** and **open vented** central heating systems

Series



Basic - SilverLine

LED display
Intelligent heaters controller (PID)
Boiler non-volatile memory
Build-in activation frequency limiter
Four-way protection against overheating
Build-in energy consumption meters
Protection system against pump stoppage
Watchdog processor control system



Advanced – GoldLine

SilverLine features +
LCD display
Weather compensation control
Room temperature sensor
Build-in weekly CH programming
Build-in weekly DHW programming*
Build-in weekly circulation
programming*
* with DHW set



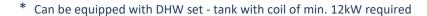
Industrial – RedLine

SilverLine*/GoldLine** features +
Industrial automatics
Increased components durability
Up to 90°C operating temperature
Breaker with undervoltage trip release
Additional cooling system

- * AsHZ and AsBIII
- ** AsHN and AsBIV

Electric heating boiler application

Alto	ernative sc	ource of h	eat	Main source of heat				Intensive performance/Industr			
For heat	For heat pumps and other application				o boilers	Comb	oi boilers	Up to 24kW	Over	24kW	
	ESPP		ESPBN*		ESPZN*		ESPC **	ESPHZ*		ESPBI*	
					ESPZNW*		AsC-W **	ESPHN*		ESPBII*	
									10 24 10	₽ ∩ A .	



^{**} Build-in instantaneous water heater

All boilers with GoldLine automatics can also work with our Smartphone controlled app.



	Most common applications	Description	Recommended
1	For heat pumps	Lower cost of heat pump purchase (lower power) Back-up for extremely low temperatures	ESPP
2	For wood burning stoves	Electric heating mostly in lower tariff Ideal solution for holiday cottages	ESPP ESPBN
3	For coal/pellet boilers	Ideal solution as an emergency heating in case of main heating source malfunction or your longer absence	ESPP ESPBN
4	For "green energy" applications	Our electric heating boilers can cooperate with renewable energy sources such as windmills or photovoltaic systems	All
5	For solar panels heating systems	Ideal as an alternative source of heat to be used in hotels, commercial bathrooms, back-up during cloudy days	ESPZN ESPBN (+ vessel)
6	For temporary use	Used while waiting for main source of heat installation (gas), later kept as an alternative heating source	ESPZN, ESPZN-W ESPBN (+ vessel)
7	Operating as mono boilers	Main source of heat Central heating function only	ESPZN, ESPZN-W ESPBN (+ vessel)
8	Operating as system boilers	Central heating and domestic hot water (priority) functions. DHW through tank with coil or instantaneous flow heater	All units + DHW set (exc. ESPP) ESPC, ESPC-W (with flow heater)
9	For industrial application	For intensive performance, operating temperature up to 90°C Used while main source of heat malfunction or maintenance	ESPHZ, ESPHN ESPBI, ESPBII, ESPBIV

Electric Heating Boilers – comparison table

Series	Model	5	рнw	Display	Air-vent	Manometer	Pump	Safety valve	Expansion vessel	Room temp. controller	Weather compensation	Electro valve/ Flow heater
	ESPP	##		LED «Ae	- 1		ģi		•	: 31°C		4
	ESPBN	#		LED OPP		②	ģi					4
	ESPZN	#		LED «Ae	1	②	ģi		•			ı.
	ESPC	#	OPCJA.	LED de	1	©	ģi		•			
	ESPBI	#	1	LED «A»	1	@	ģi			 51°C		4
	ESPZN-W	#	1	LCD		©	ģi			 51°C		4
	ESPC-W	#	OPCJA.	LCD dp	1	Ø	ģi		•	21°C	*	
	ESPBII	#	OPCJA,	LCD		@	ģi			21°C		4
	ESPHZ	#		LED de	1	@	ģi			:: .: 31°C		4
	ESPHN	#	OPCJA,	LCD		@	ģi			 51°C		4
	ESPBIII	#		LED ^Q P	1	©	ģi		•	:: ·:		4
P	ESPBIV	#	OPCJĄ	LCD 4P	Ţ	©	ģi		#	:: :: 51°C		4

Electric heating boilers – quick look

The richest series of electric heating boilers in Europe





Electric Heating Boilers technical data

Producer reserves the right to modify its products without any advance notice

Data apply to all types of Elterm electric heating boilers – see also basic information on page 3

- Hanging device
- Room temperature adjustment range depends on the type of room thermostat
- Electronic system fuse 500 mAT
- Hydraulic resistance negligible (below 0,001 bar)
- Factory test pressure 12 at.
- Design pressure 6 at. (safety valve 3 bar, other on request)
- Water volume in tank 3l, AsC/AsC-W 1,8l, AsBI-AsBIV 6l
- Efficiency 99,5%

- IPX 2, class I
- Stepless CH temperature adjustment 5÷70°C, for underfloor heating 5÷40°C (RedLine series 5÷90°C)
- Stepless DHW temperature adjustment 5÷65°C (boilers with DHW set), 30÷60°C (AsC, AsC-W)
- Automatic power selection by 1/6 or 1/3, power dependant
- Manual power reduction 33-67-100%
- Can cooperate with Wi-Fi and GSM controllers
- All boilers can work in sealed and open vented installations

All our boilers are in conformity with the following EC directives: LVD, RoHS, EMC, WEEE and ErP

Boiler			Power supply	Safety	Power cord	Heated area A	Heated area B
power	distribution (%)	modulation	230/400V	fuses (A)	(mm²)	(m²)*	(m²)**
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 4,0	~ 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 1/3	1 phase	1 x 40	3 x 10,0	~ 110	~ 150
9 kW	100 – 67 – 33	by 1/3	3 phases	3 x 16	5 x 2,5	~ 110	~ 150
12 kW	100 – 67 – 33	by 1/3	1 phase	1 x 63	3 x 10,0	~ 150	~ 210
12 kW	100 – 67 – 33	by 1/3	3 phases	3 x 20	5 x 4,0	~ 150	~ 210
15 kW	100 – 67 – 33	by 1/6	1 phase	1 x 80	3 x 10,0	~ 180	~ 250
15 kW	100 – 67 – 33	by 1/6	3 phases	3 x 25	5 x 4,0	~ 180	~ 250
18 kW	100 – 67 – 33	by 1/6	3 phases	3 x 32	5 x 6,0	~ 220	~ 310
21 kW	100 – 67 – 33	by 1/6	3 phases	3 x 40	5 x 6,0	~ 260	~ 360
24 kW	100 – 67 – 33	by 1/6	3 phases	3 x 40	5 x 10,0	~ 300	~ 400
27 kW	100 – 67 – 33	by 1/6	3 phases	3 x 50	5 x 16,0	~ 220 - 380	
30 kW	100 – 67 – 33	by 1/6	3 phases	3 x 50	5 x 16,0	~ 240 - 400	
33 kW	100 – 67 – 33	by 1/6	3 phases	3 x 50	5 x 16,0	~ 260 - 450	
36 kW	100 – 67 – 33	by 1/6	3 phases	3 x 63	5 x 16,0	~ 280 - 480	
39 kW	100 – 67 – 33	by 1/6	3 phases	3 x 80	5 x 25,0	~ 290 - 500	
42 kW	100 – 67 – 33	by 1/6	3 phases	3 x 80	5 x 25,0	~ 300 - 520	
45 kW	100 – 67 – 33	by 1/6	3 phases	3 x 80	5 x 25,0	~ 320 - 570	
48 kW	100 - 67 - 33	by 1/6	3 phases	3 x 80	5 x 25,0	~ 340 - 600	
* Heated a	rea A – hoiler as m	ain source of hea	t ** Heated are	a R – hoiler as alterna	tive source of her	n+	

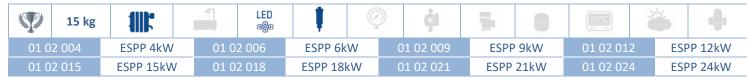
^{*} Heated area A – boiler as main source of heat Exact cable cross section must be matched by qualified electrician based on local conditions analysis

Why boilers from Earth Save Products?

- We are an established company, stable, awarded multiple times;
- Our product line is the most comprehensive on the market;
- We use only renowned components from top suppliers;
- Our boilers are equipped with manual power reduction possibility (besides automatic one);
- We have installed quadruple overheating protection + safety valve;
- Our products are sold accross whole Europe;
- We try harder! ©



ESP Electric Heating Boilers – more info



Height: 470mm, width: 255mm, depth: 200mm





Perfect as an alternative source of heat

Cooperates with any other source of heat

Cooperates with GSM and Wi-Fi controller

Energy class D





T	18kg			LED Ge	ı,	@	ģi		-	:: :: :::C	-6	5	4
01 0	3 004	ESPBN 4kW	01 03	3 006	ESPBN 6	kW	01 03 009	ESPB	N 9kW	01 03 01	2	ESPE	3N 12kW
01 0	3 015	ESPBN 15kW	01 0	3 018	ESPBN 18	3kW	01 03 021	ESPBN	l 21kW	01 03 02	4	ESPE	3N 24kW

Height: 530mm, width: 300mm, depth: 190mm, supply/return spacing: 165mm

AsBN - SilverLine series

Compact dimensions

Perfect as an alternative source of heat

Cooperates with any other source of heat

Cooperates with GSM and Wi-Fi controller

Energy class D





	24 kg			LED de	Ţ	@	ģi			:: .: 51.C	-	5	4
01 0	4 004	ESPZN 4kW	010	4 006	ESPZN 6	kW	01 04 009	ESPZN	9kW	01 04 01	2	ESPZ	N 12kW
01 0	4 015	ESPZN 15kW	010	4 018	ESPZN 18	3kW	01 04 021	ESPZN	21kW	01 04 02	4	ESPZ	N 24kW

Height: 600mm, width: 410mm, depth: 260mm, supply/return spacing: 240mm

AsZN - SilverLine series

Most popular boiler on the market

The least expensive main source of heat

Used frequently as an alternative source of heat

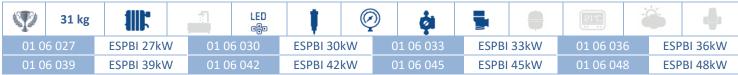
Cooperates with any other source of heat

Cooperates with GSM and Wi-Fi controller

Energy class D







Height: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm



The least expensive boiler with increased power

Dedicated to heat larger buildings

Can be part of larger cascades up to 31 boilers

Cooperates with GSM and Wi-Fi controllers

Energy class D





	24 kg	##:	1	LED de	1	Œ.) ģi		-	 51°C	3	5	
01 1	L5 104	ESPC 4kW/6,2kV	W 01 1	5 106	ESPC 6kW/6	5,2kW	01 15 404	ESPC 4k	:W/15kW	01 15 40	6	ESPC	6kW/15kW
01 1	L5 409	ESPC 9kW/15k\	V 01 1	5 412	ESPC 12kW/1	15kW	01 15 504	ESPC 4k	:W/18kW	01 15 50	6	ESPC	6kW/18kW
01 1	L5 509	ESPC 9kW/18k\	V 011	5 512	ESPC 12kW/1	18kW	01 15 604	ESPC 4k	:W/21kW	01 15 60	6	ESPC	6kW/21kW
01 1	L5 609	ESPC 9kW/21k\	V 01 1	5 612	ESPC 12kW/2	21kW	Trade dress V	V. 12654	1 Compac	t combi elec	ctric h	eating	g boiler

Height: 700mm, width: 540mm, depth: 265mm, supply/return spacing: 100mm



Electric heating boiler with build-in instantaneous flow heater

Modern heating block with several power variants

No need to install additional domestic hot water tank

Cost and space saving compared to boiler + tank solution

Cooperates with GSM and Wi-Fi controllers

Energy class D





	24 kg	##:		<u>f</u>	LCD dep		Ø	ģi		-	 51°C	ä	5	
01 1	8 104	ESPC-W 4kW/6,2	kW	01 18	3 106	ESPC-W 6kW/6	6,2kW	01 18 404	ESPC-W 4	kW/15kW	01 18 40	6	ESPC-V	V 6kW/15kW
01 1	8 409	ESPC-W 9kW/15	kW	01 18	3 412	ESPC-W 12kW/	15kW	01 18 504	ESPC-W 4	kW/18kW	01 18 50	6	ESPC-V	V 6kW/18kW
01 1	8 509	ESPC-W 9kW/18	kW	01 18	3 512	ESPC-W 12kW/	18kW	01 18 604	ESPC-W 4	kW/21kW	01 18 60	6	ESPC-V	V 6kW/21kW
01 1	8 609	ESPC-W 9kW/21	kW	01 18	3 612	ESPC-W 12kW/	'21kW	Trade dress \	W. 12654	1 Compa	ct combi ele	ctric h	eatin	g boiler

Height: 700mm, width: 540mm, depth: 265mm, supply/return spacing: 100mm



Main source of heat with more advanced automatics

ldealny do współpracy z ogrzewaniem podłogowym

Electric heating boiler with build-in instantaneous flow heater

Modern heating block with several power variants

No need to install additional domestic hot water tank

Cost and space saving compared to boiler + tank solution

Cooperates with GSM and Wi-Fi controllers

Energy class D





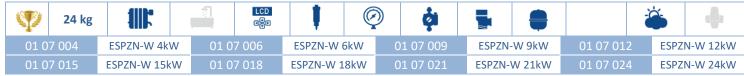
Sample Combi Boiler connection schematics





Smaller (6,2kW) units for 2 plumbing fixtures

Bigger (15, 18 i 21kW) units for several plumbing fixtures



Height: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm

- ESPZN-W- GoldLine
- Main source of heat with more advanced automatics
- Perfect for cooperation with underfloor heating
- Build-in weather compensation control
- Build-in weekly CH programming
- Cooperates with GSM and Wi-Fi controllers
- Energy class D



	31 kg	4111:	LCD GDD	I C	þ		€1°C	4
01 1	LO 027	ESPBII 27kW	01 10 030	ESPBII 30kW	01 10 033	ESPBII 33kW	01 10 036	ESPBII 36kW
01 1	LO 039	ESPBII 39kW	01 10 042	ESPBII 42kW	01 10 045	ESPBII 45kW	01 10 048	ESPBII 48kW
01 1	LO 054	ESPBII 54kW	01 10 060	ESPBII 60kW	01 10 066	ESPBII 66kW	01 10 072	ESPBII 72kW
01 1	LO 096	ESPBII 96kW	01 10 144	ESPBII 144kW	G	– reater powers ava	ilable upon requ	est

Single boiler dimensions: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm

- **ESPBII** GoldLine series
- Boiler with increased power and more advanced automatics
- Dedicated to heat larger buildings
- Can be part of larger cascades up to 31 boilers (see below)
- One electric heating boiler has maximum 48kW
- Build-in weather compensation control
- Build-in weekly CH programming
- Build-in weekly DHW programming (optional)
- Cooperates with GSM and Wi-Fi controllers
- Energy class D







Each boiler needs to be individually connected to electric switchboard

Electric switchboard and power cable are not included in cascade set

See also BIV model below for higher operating temperatures and increased performance requirements

Other configurations and larger sets can also be produced

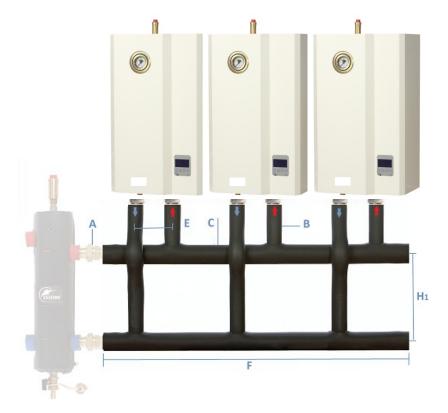
There is a possibility to produce insulated version of connecting set as well

Low loss header (LLH) is not included in set, however strongly recommended to install

Connecting sets for electric heating boiler cascades

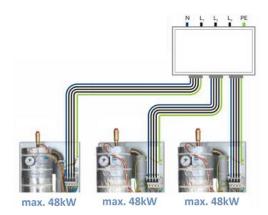
RS 485 communication interface enables connecting up to 31 units – **power up** to 1,5MW

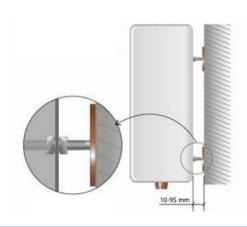
(see below schematics and data for hydraulic and electrical connection)



Connecting set	Boilers qty	Item code	А	В	С	H ₁ mm		F mm	Insulated LLH
Up to 66 kW	2	05 04 070	1¼" ext.	1" ext.	6/4"	340	235	1010	04 02 070
Up to 96 kW	2	05 04 100	1½" ext.	1" ext.	6/4"	340	235	1010	04 02 100
Up to 144 kW	3	05 05 156	2" ext.	1" ext.	2"	400	235	1515	04 02 156

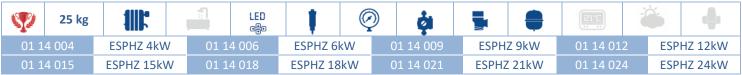
^{*} Each connecting set contains distance screws to hang boiler and pipe unions to connect boilers and low loss header (LLH not included in set)





Cascade power	Boilers qty.	Item code	Power modulation	Power supply 400V	Safety fuses (A)	Power cord (mm²)
66 kW	33 + 33 kW	01 10 066	by 1/6	3 phases	3 x 125	5 x 50
96 kW	48 + 48 kW	01 10 096	by 1/6	3 phases	3 x 160	5 x 70
144 kW	48 + 48 + 48 kW	01 10 144	by 1/6	3 phases	3 x 240	5 x 120

^{*} Exact cable cross section must be matched by qualified electrician based on local conditions analysis.



Height: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm



Height: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm

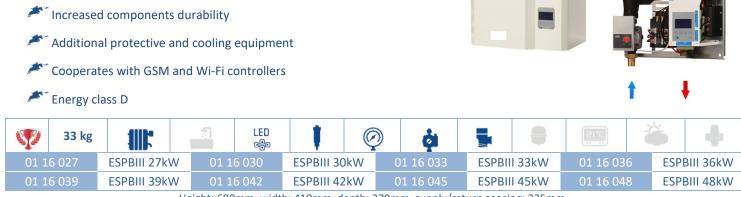
ESPHN - RedLine series - dedicated to industrial use

More advanced automatics

Build-in weather compensation control

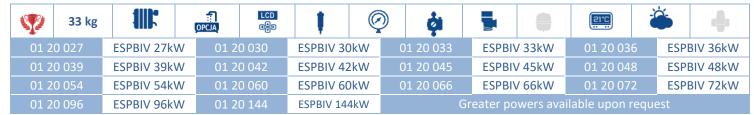
Build-in weekly CH programming

Operation temperature up to 90°C



Height: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm





Single boiler dimensions: 680mm, width: 410mm, depth: 270mm, supply/return spacing: 225mm



Please check pages 10-11 for ESPBIV cascade connecting sets and electrical connection guidance

Most updated information available always at www.earthsaveproducts.com



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