



Electric boilers, 26-750 kW (10 MW)
Electric cartridges, 13-15 kW
Immersion heaters, 1.5-9 kW

www.varmebaronen.com

**ELECTRIC
BOILERS**
INDUSTRY & PROPERTY

Facts about Värmebaronen

✓ Värmebaronen began operations in 1975 and is now one of the leading manufacturers of heating systems in Sweden. Our products are known for their high quality and long service life. An extensive product range makes it possible to create carefully considered, reliable heating systems.

✓ Our development department works constantly to adapt our products to market requirements and demand.

✓ Our product range meets the maximum requirements for technical reliability, eco-friendliness and cost efficiency.

✓ Our products provide heating for satisfied customers on our Scandinavian domestic market and in the rest of Europe, Asia and the USA.

✓ Värmebaronen OEM manufactures customised solutions. We share all the knowledge and experience we possess.

Please contact us!



Connect several EP boilers together. This produces an extremely reliable heating package that also produces heat during repair or service.



EP 31-750

EK 13, EK 15 E, EP 26/42 E,
IMMERSION HEATERS, 1.5-9 kW

Wide range



Värmebaronen has the widest range of electric heating products on the market. Everything from a 1.5 kW immersion heater to the largest electric boiler with an output of 750 kW.

Not so long ago, electric heating was often installed as the primary heat source in houses and other properties. It is now often used as additional heating to one or more heat pumps, for example. The cost of installing an electric boiler is low and the job is fast and easy. When it is cold outside and the heat pump does not manage to maintain the heat, the topup heat from the electric boiler is invaluable.

Immersion heaters

Economical and reliable. Suitable for most heating systems. Also for customised solutions for industry, for example.

Electric cartridges

Output 13-15 kW. Easy to connect to the heating system.

Electric boilers, EP 26 E & EP 42 E

Output 26-42 kW. An outdoor temperature compensator, UTK-E, is available as an accessory.

Electric boilers, EP 31-750 kW

For a block of flats, business premises or hotel or simply as

a supplement/additional heating for a heat pump system.

Interconnectable to 10 MW

Several EP electric boilers can be connected together to 10 MW.

Customised

We also build boilers in different materials with different temperatures and voltage options (230-690 V).

Anti-freeze

All electric boilers works well with anti-freeze liquids.



VISBY
Corvette
Photo: Kockums

Celsius corvettes of type VISBY are fitted with stainless, modified EP 42 that have to cope with 6 G, among other things.



Additional heating, industry & process



TELESCOPE, CHILE
CUSTOMER:
ESO

The world's largest telescope, VLT, was put into use in Chile in March 1999. The customer chose Värmebaronen's EP electric boilers for the telescope's heating requirements.



ANTI-ICING
CUSTOMER:
SWEDISH NATIONAL RAILWAYS

The heated anti-icing fluid is sprayed on the trains' bogies and other selected areas to remove ice and prevent ice formation.



WAVE POOL
CUSTOMER:
SKARA SOMMARLAND

The wave pool, Skara Sommarland. The water in the pool is heated with two EP 255 and a heat exchanger of titanium that can cope with the chlorinated water.
Photo: Skara Sommarland.



**STAINLESS STEEL
HEAT EXCHANGER.**
CUSTOMER: VOLVO PV

A boiler and heat exchanger are used to heat engine blocks placed on a test bench. They are used to simulate various operating conditions for the engines.



Bäckaskog castle in north-eastern Skåne is perhaps best known as King Karl XV's summer palace.



**ADDITIONAL
HEATING
CUSTOMER:
BÄCKASKOG**

The main building is heated by three NIBE Fighter 1320 of 40 kW each. A Värmebaronen EP 52 electric boiler provides topup heating when it is needed.



**GRAIN DRYING
CUSTOMER:
KLF**

Drying plant. Kristianstadsortens Lagerhusförening uses 6 x EP 750 kW, 690 V to dry grain during the harvesting season.



**ADDITIONAL
HEATING
CUSTOMER:
FORMPLAST**

Formplast in Broby uses four NIBE Fighter 1330 ground-source heat pumps, along with a Värmebaronen EP 112 electric boiler.



**ADDITIONAL
HEATING
CUSTOMER:
EG-BYGG**

Block of flats. 12 flats. Heating is provided by three Nibe Fighter 2010 air/water heat pumps and a Värmebaronen EP 42.

Save more than SEK 20,000 by making the right choice



Factory-fitted safety equipment,
fully connected internally.



We have unique expertise
in waterborne electric heating.

Approved for installation without a steam-collecting vessel



Thanks to factory-fitted
safety equipment,
VÄRMEBARONEN is able to
offer electric boilers approved
for installation without a steam-
collecting vessel.

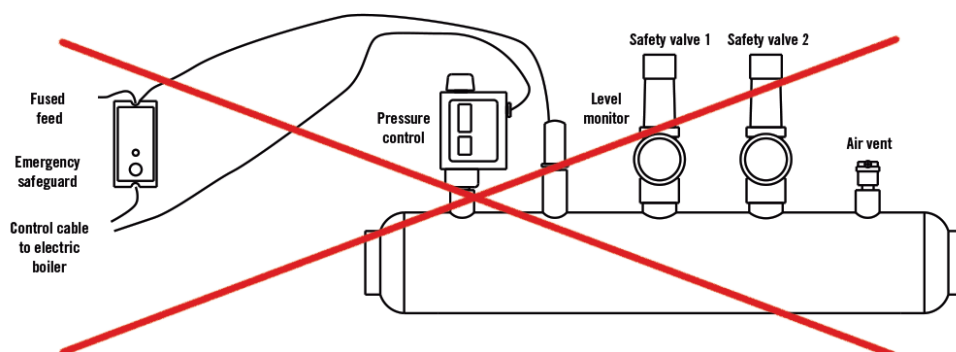
All electric boilers tolerate zero
flow and can be installed without
a steam-collecting vessel, level
sensor, twin pumps and flow guard.
The boilers can be supplied with

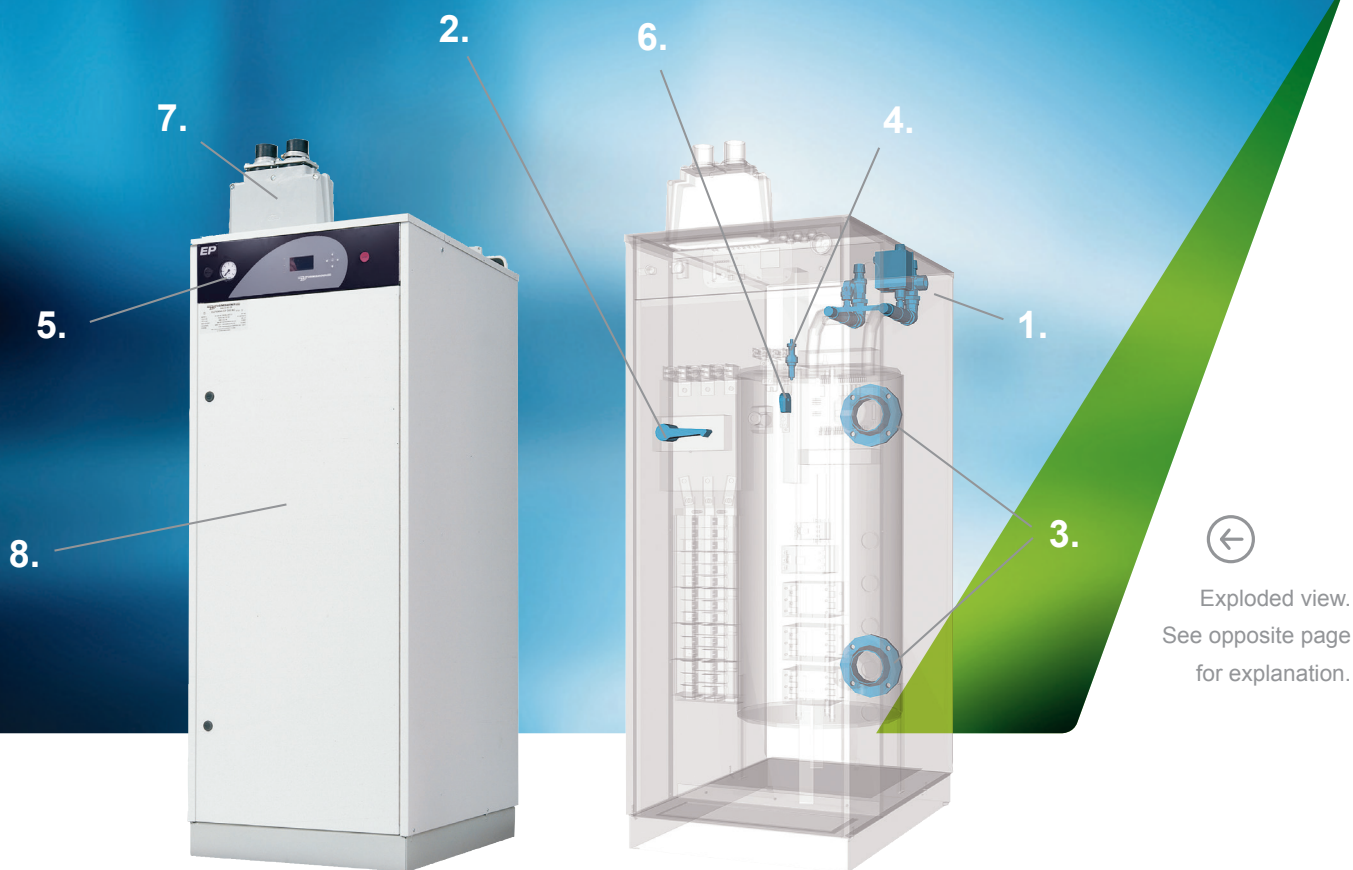
factory-fitted safety equipment
and meet the requirements in
EN 12828, AFS 2002:1, 2016:1
for periodic monitoring of a boiler
system, checked by a third party.

The safety equipment, combined
with the uniquely simple installation,
means that the costs of labour and
planning are reduced dramatically.

Where the safety equipment is

factory-fitted, it does not require any
special inspection either. It meets
the requirements when it leaves
the factory.





EP advantages



THE EP SERIES, boilers for waterborne heating systems and industrial processes. Output from 31 to 750 kW. Interconnectable.

The boilers' output is divided into 7, 15 or 30 steps, which are connected gradually in the event of temperature shortfall.

The flow temperature can be set between 20 and 95°C. The boilers are supplied with thermostats to maintain constant flow temperature. Outdoor temperature compensation for variable flow temperature is available as an accessory.

Smart temperature control adjusts the power supplied to increase the service life of the boiler's contactors.

For safety reason, the EP series copes with flows down to zero, i.e. the boilers do not need to be fitted with flow guards or twin pumps.

The output of the boilers can be limited down to one power step. A load guard is integrated to protect the main fuse. The boilers have a connection for external blocking and for control via a current/voltage signal and external display of the power connected and temperature.

Alarms are indicated on the front panel. The boilers also have a connection for an external buzzer alarm.

When used with, for example, a plate heat exchanger, the boilers can be controlled directly via the temperature in the secondary circuit.

If more power is required, several boilers can be controlled in series. Series control is an accessory.



1. Safety equipment

The boilers can be supplied with factory-fitted safety equipment for installation without emergency protection, a steam-collecting vessel, level sensor, etc. Accessory.



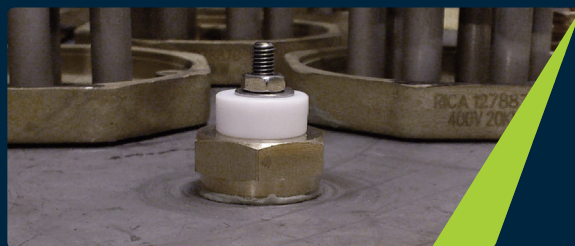
2. All-pole switch

The all-pole main switch cuts all incoming power if a fault is detected by the boiler's controller. This is important to maintain high safety.



3. Flanges or threads

All pipe connections are threaded or flanged. This results in cheaper valves and fewer pipe welds. The boiler can be disconnected more easily. Wider diameter connections result in smaller circulation pumps.



4. Level sensor

The built-in float switch immediately produces an alarm if the boiler is not completely full of water. This eliminates the risk of the boiler boiling dry, which can cause damage to the boiler and other consequential faults.



5. Panel

Simple monitoring of the boiler. You can easily find all the information you need on the boilers' panels, plus all the adjustment options.



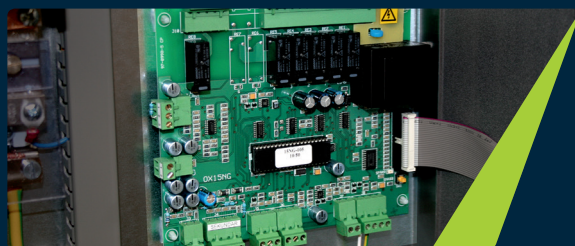
6. Earth fault monitor

An earth fault meter monitors the immersion heaters so that there is an early indication of any fault. This avoids expensive emergency replacements and any consequential faults.



7. Divisible flange

A divisible cable flange, give the ability to open the panel and hatch and the large distance to the power connection help simplify installation.



8. Smart control

A controller with many functions, including the option to obtain information from the boiler such as temperature, pressure, alarms, etc.



EP

31-750 kW



ELECTRIC BOILERS
for heating systems and industrial processes. The electric boiler series consists of twenty-four different boilers with output from 31 to 750 kW.

7, 15 or 30 power steps

The boilers' output is divided into 7, 15 or 30 steps. The temperature control adapts the power supplied to heating requirements. When the boiler is used with a heat pump, it is an advantage to have many steps as the boiler can initially supply low power to act as a support heat

source. In a process, it may be more suitable to have fewer steps so that the boiler immediately supplies high power. The boilers' control range is 20-95 °C and the output of the boilers can be limited down to one power step.

With or without outdoor temperature compensation

The boilers are supplied with controller to maintain a constant boiler temperature. An outdoor temperature compensator is available as an option for variable flow temperature.

Aluminium and copper

To facilitate installation, the boilers are fitted with terminals that make it possible to connect both aluminium and copper cables. No splicing from aluminium is required.

Reliability

The boilers are fitted with a level sensor and earth fault measurement, which provides an early indication of any faults in the immersion heaters so that faults can rapidly be dealt with without unplanned stoppages.



In series or parallel

The boilers can be connected together in serie up to 1,5 MW or in parallel up to 10 MW. A smart series controller is available as an accessory. This ensures that the boilers' operating time is evenly distributed between all boilers.

Stainless steel immersion heaters

The immersion heaters are made of stainless steel with brass heads as standard. Also available in other materials and qualities.

External control (e.g. heat pump)

Output can be externally blocked or controlled with a voltage or current signal. A 0-10V output signal for power step in operation can also be received. The EP VP controller is available to control the cartridge's output from a heat pump with binary control of additional heating. (Accessory).

Pump maintenance operation

In pump maintenance operation mode, the heating is switched off, but the circulation pump, single phase, is operated for a few minutes every day.



We heat all types
of liquid medium



EP 26 E, RSK 623 00 00
EP 42 E, RSK 623 00 32



UTK E
RSK 621 11 06

EP E 26-42 kW



Compact, high-efficiency electric boilers. The

EP E series for radiator heating, additional heating or industrial processes.

The EP E series is available in outputs of 26 and 42 kW. The principal features are the compact design and high reliability. The EP E series is used to heat waterborne systems, as a supplement to heat pumps or in various industrial processes.

The maximum power can be limited:

- EP 26 E to, for example, 22.5 kW, 18.75 kW or 15 kW.
- EP 42 E to, for example, 36 kW, 30 kW or 24 kW.

Stainless steel immersion heaters

The immersion heaters are made of stainless steel with brass heads as standard. The pressure vessel is made of sheet steel and approved

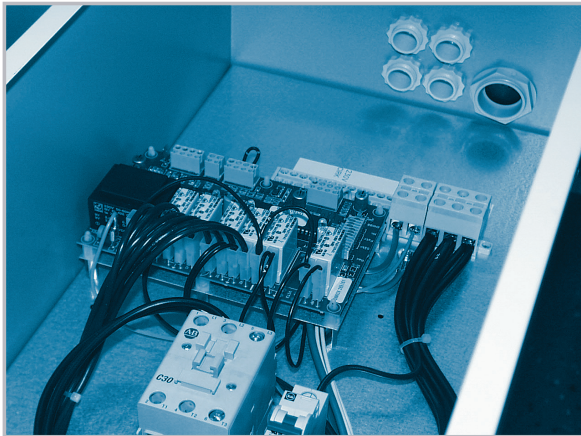
for 4 bar operating pressure.

The connections for the flow/safety line and return line and drain valve are on the rear of the boiler.

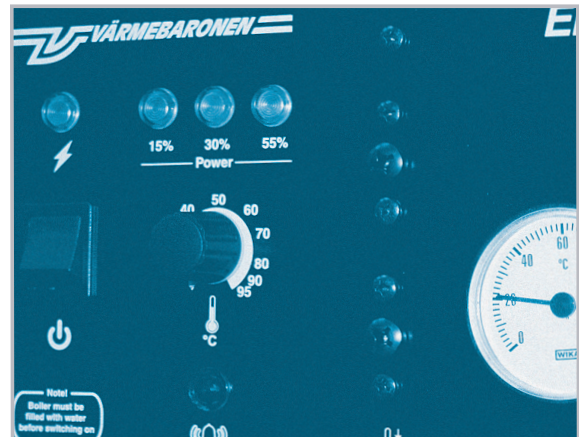
Compact design

The height is only 78 cm, the width 28 cm and the depth 63 cm.

Despite this, there is adequate space for electrical connection under the boiler's cover where the electronics are located.



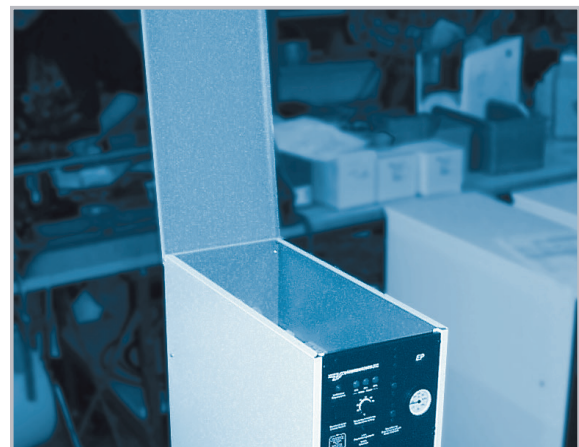
All electrical connections are easily accessible under the cover, which makes the boiler easy to connect.



Simple monitoring of the boiler. Settings, indications and meters are on the front panel.



Boiler can be placed on the floor or mounted on the wall with brackets. (Accessory).



Adjust the boiler, lay the cables, lift the cover and connect up. It could not be easier.

7 power steps

The boiler's output is divided into 7 steps which are connected gradually in the event of temperature shortfall. The boiler temperature can be set between 20 and 95°C.

Load guard included

A load guard and current transformers for measurement (35-125 A) are included in the supply.

UTK E

A UTK E outdoor temperature compensator is available as an accessory to control the flow temperature as a function of the outdoor temperature. Provides simpler handling, pump maintenance operation and frost protection.

External control (e.g. heat pump)

Output can be externally blocked or controlled with a voltage or current

signal. A 0-10V output signal for power step in operation can also be received. The EP VP controller is available to control the cartridge's output from a heat pump with binary control of additional heating. (Accessory).

Brackets for wall mounting

Boiler can be placed on the floor or mounted on the wall with brackets. (Accessory).

EK 13-15 kW



Electric cartridges are used today mainly as a supplement to heat pumps for additional heating.

EK 13

EK 13 has an output of 13 kW, divided into three steps, 6+4+3 kW. A main switch, time delay and fused power outlet for a circulation pump are built in.

EK 15 E

EK 15 E has an output of 14.7 kW, divided into seven steps, 7x2.1 kW. A main switch, time delay and load guard are built in. The cartridge has 0-10 V control, which means that it is suitable as backup for a heat pump.

UTK E

A UTK E outdoor temperature compensator is available for EK 15 E to control the flow temperature as a function of the outdoor temperature.

Provides simpler handling, pump maintenance operation and frost protection. Accessory.

External control (e.g. heat pump)

Output from the EK 15E can be externally blocked or controlled with a voltage or current signal. A 0-10V output signal for power step in operation can also be received. The EP VP controller is available to control the cartridge's output from a heat pump with binary control of additional heating. Accessory to EK 15E.

ACCESSORIES

- EP VP, control the cartridges output from a heat pump with binary control of additional heating (EK 15 E).
- UTK-E, outdoor temperature compensator (EK 15E).
- VBB 12 TX, load guard (EK 13).



Electric cartridge	RSK no.	Power (kW)	Weight (kg)	Volume (l)	Pressure (bar)	Enc. class	Conn. diff.*	Temp. range (°C)	Main switch	Time delay	Load guard	Outdoor temp. compensator
K-060	621 09 34	1.5-9***	5.7	2.6	1.5**							
K-060 Stainless	621 09 35	1.5-9***	5.7	2.6	10							
EK 13	621 10 08	13 (6+4+3)	12.8	4.5	3	IP X1	5°	30-85	Yes	Yes	Accessory (VBB12TX)	
EK 15 E	621 10 11	14.7 (7x2.1)	12.8	4.5	3	IP X1	1°/step	20-95	Yes	Yes	Yes	Accessory (UTK E)

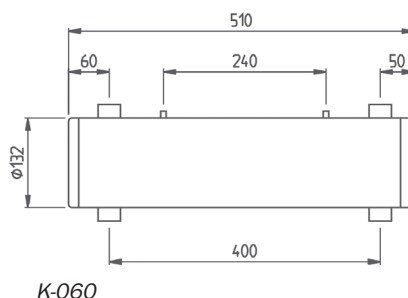
** Connection difference = temperature difference in °C between thermostat being switched on and off

** Other pressure classes as ordered

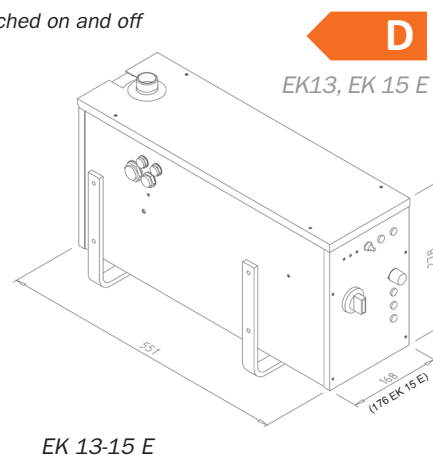
*** Tank K-060 is supplemented with immersion heater 1.5-9 kW.
Wall brackets are included with all electric cartridges.

K-060

K-060 is an insulated container for immersion heaters. All immersion heaters with R50 connection and maximum insertion length 470 mm can be installed in the container, i.e. from 1.5 kW to 9 kW.



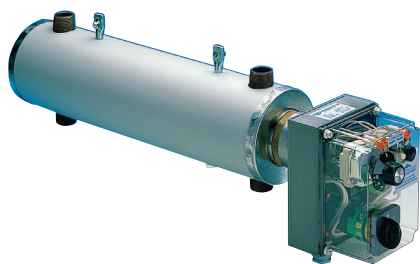
K-060



EK 13-15 E

The manufacturer reserves the right to make design changes without notice.
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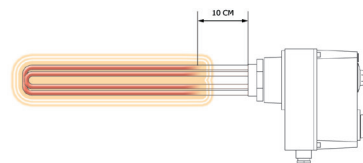
Immersion heaters



VB 9003 F immersion heater installed in K-060

VB 1510 - VB 6010

These immersion heaters are suitable if you need no more than 6 kW or if you want to supplement an F model immersion heater to achieve more power.



VB 6010 L, VB 9003 FL
For applications with long sleeves.

VB 6002 - VB 9002

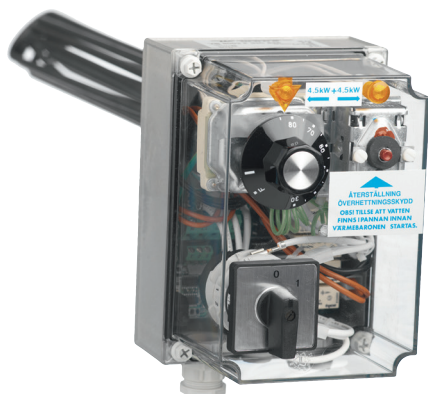
If you have heavily loaded main fuses and do not need more than 6 kW, VB 6002 is a good alternative as it has the power divided. Usually only one power stage is connected.

VB 6003 F - VB 9003 F

These F models are fitted with time delay for full or half power. They can also be fitted with a load guard, VBB 12 TX, or outdoor temperature compensator, UTK 2000.

Customised

Heating element comes in stainless steel. EN 1.4435, as standard. We are able to customise immersion heaters to suit different needs and requirements.



Immersion heater	RSK no.	Power (kW)	Length (mm)*	Enc. class	Conn. diff.**	Temp. range (°C)	Main switch	Time delay #	Load guard
VB 1510	621 08 86	1.5	295	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 2210	621 08 87	2.25	295	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 3010	621 07 02	3	295	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 4510	621 07 10	4.5	410	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 6010	621 07 28	6	410	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 6010 L##	621 07 27	6	490	IP X1	7	30-85	Yes	Accessory	Accessory (VBB 222)
VB 6002	621 07 51	6 (3+3)	410	IP X1	5	30-85	Yes	Accessory	Accessory (VBB 222)
VB 9002	621 08 56	9 (4.5+4.5)	415	IP X1	5	30-85	Yes		
VB 6003 F	621 07 78	6 (3+3)	410	IP X1	5	30-85	Yes	Yes	Accessory (VBB 12 TX)
VB 9003 F	621 08 57	9 (4.5+4.5)	415	IP X1	5	30-85	Yes	Yes	Accessory (VBB 12 TX)
VB 9003 FL##	621 07 35	9 (4.5+4.5)	480	IP X1	5	30-85	Yes	Yes	Accessory (VBB 12 TX)

* The insertion length of the immersion heater

** Connection difference = temperature difference in °C between thermostat being switched on and off.

Recommendation with total power over 6 kW ## With extended inactive part

EP 31-350

Technical data



Front EP 99



EP 99



EP 31

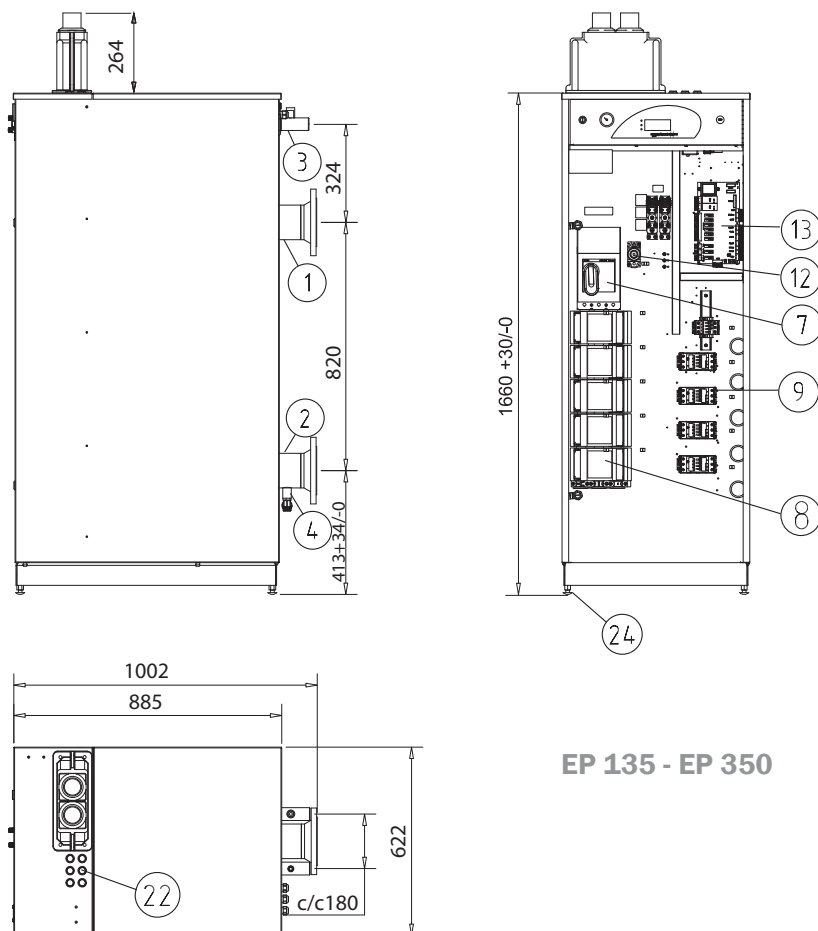
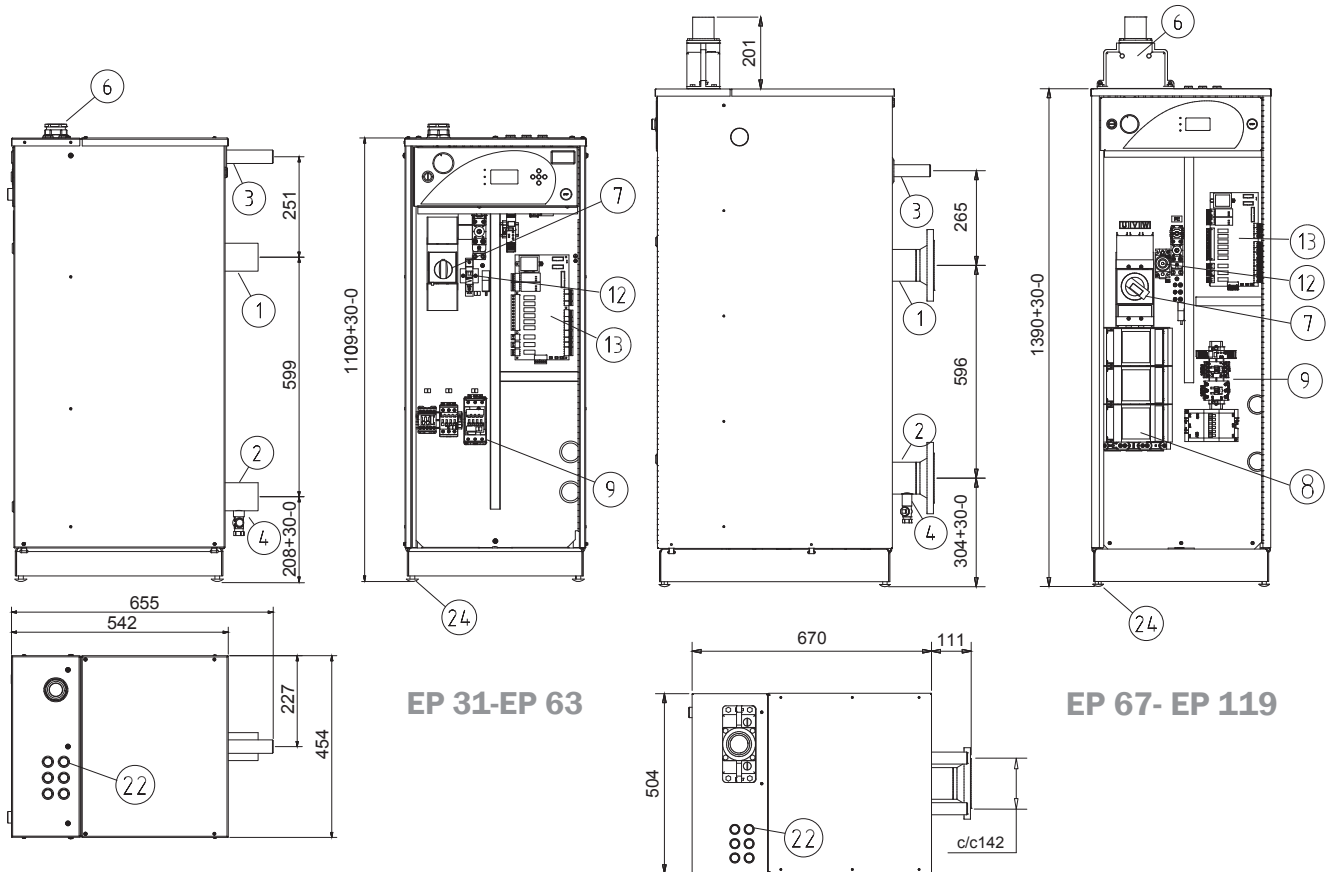
7-stage electric boilers	EP 31	EP 42	EP 52	EP 63	EP 70	EP 84	EP 98	EP 119
RSK no.	6230060	6230061	6230062	6230063	6230064	6230065	6230066	6230067
Max. power (kW)	32	42	53	63	70	84	98	119
Voltage (V)	400 V 3N~ / 400 V3~ + external control 230 V~							
Current at max. power (A)	45	61	76	87	101	121	141	172
Power/stage (kW)	4.5	6	7.5	9	10	12	14	17
Cable flange	Coupling Ø 34 mm				KF 121-60 max Ø 60 mm			
Cable connection mm²	16-95 Cu/Al		35-95 Cu/Al			70-240 Cu/Al		
Water volume/Operating pressure	31 l / 0.6 MPa (6 Bar)				60 l / 0.6 MPa (6 Bar)			
Pipe connection, flow/return	R 50 int.				DN 80 PN 16			
Safety pipe	R25 ext.				2xR25 ext.			
Height x width x depth (mm)	1105 x 455 x 540 + pipe connections				1390 x 504 x 670 + pipe connections			
Weight, not filled with water (kg)	80	80	80	80	135	140	140	145
Min. roof height* (mm)	1720	1700	1700	1720	1805	1805	1805	1825
Enclosure protection class	IP X1							

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EP 31-EP 70

15-stage electric boilers	EP 67	EP 90	EP 99	EP 112	EP 135	EP 150	EP 180	EP 225	EP 255	EP 270	EP 300	EP 350
RSK no.	6230068	6230069	6230070	6230071	6230072	6230073	6230074	6230075	6230076	6230077	6230078	6230079
Max. power (kW)	68	90	99	113	135	150	180	225	255	270	300	350
Voltage (V)	400V 3N~ / 400 V3~ + external control 230V~											
Current at max. power (A)	97	130	143	162	195	217	260	325	368	390	433	505
Power/stage (kW)	4.5	6	6.6	7.5	9	10	12	15	17	18	20	23.3
Cable flange	KF 121-60 max 60 mm					FL 33 2x Ø 60 mm						
Cable connection mm²	35-95 Cu/Al	70-240 Cu/Al					2 x 95-240 Cu/Al, PEN or 5 cores					
Water volume (litre)	60 l / 0.6 MPa (6 Bar)				180 l / 0.6 MPa (6 Bar)							
Pipe connection, flow/return	DN 80 PN 16				DN 100 PN 16							
Safety pipe	2xR25 ext.				2xR32 ext.							
Height x width x depth (mm)	1390 x 504 x 670 + pipe connections				1655 x 622 x 885 + pipe connections							
Weight, not filled with water (kg)	140	140	140	140	230	230	260	260	270	270	275	275
Min. roof height* (mm)	1825	1805	1825	1825	2170	2370	2150	2370	2170	2170	2370	2430
Enclosure protection class	IP X1											

* Roof height may not be less than this dimension to allow any immersion heater replacement to take place.

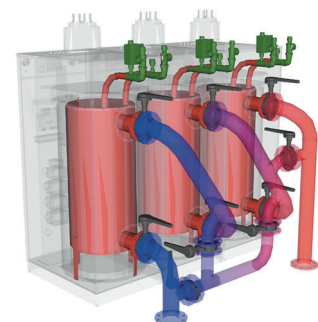
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1. Flow line
2. Return line
3. Safety pipe
4. Drain cock, R15
6. Cable flange
7. Main switch with shunt solution
8. Power stage fuses
9. Contactors
12. Control fuse
13. Motherboard
22. Cable openings
24. Adjustable foot bolts

ACCESSORIES

- Safety equipment
- UTK, outdoor temp. compensator
- Series controller
- Secondary temp. controller
- Internal cooling fan

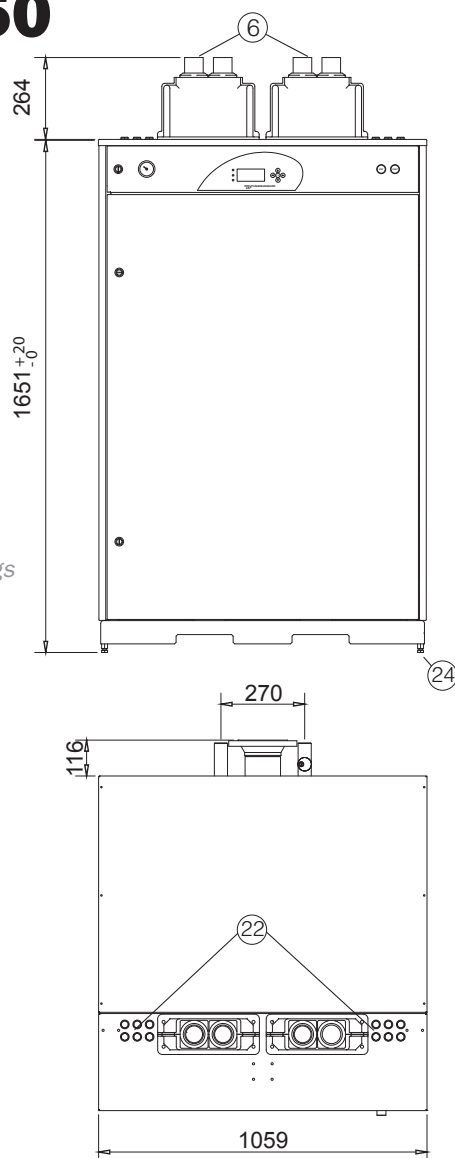


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EP 450-750

Technical data

For technical data and drawings of connectable boilers, please contact Värmebaronen.



- 1. Flow pipe
- 2. Return pipe
- 3. Safety pipe
- 4. Drain cock, R15
- 6. Cable flange
- 22. Cable openings
- 24. Adjustable foot bolts

ACCESSORIES

- Safety equipment
- UTK, outdoor temp. compensator
- Series controller
- Secondary temp. controller
- Internal cooling fan

30-stage electric boilers	EP 450	EP 510	EP 540	EP 600	EP 750
RSK no.	6230056	6230057	6230058	6230059	-
Power (kW)	450	510	540	600	750
Voltage (V)	400 V 3N~/400 V3~*				690V 3~
Current (A)	648	735	778	865	628
Power/stage (kW)	15	17	18	20	25
Cable flange	2xFL 33 2xØ 60 mm				
Cable connection	4 x 95-240 Cu/Al, PEN or 5 cores				
Water volume/Operating pressure	315 l / 0.6 MPa (6 bar)				
Pipe connection, flow/return	DN 100 PN 16				
Safety pipe	2xR32 ext.				
Height x width x depth (mm)	See drawing				
Weight, not filled with water (kg)	467	470	470	485	480
Min. roof height** (mm)	2430				
Enclosure protection class	IP X1				

* Also available in 690 Volt version.

** Roof height may not be less than this dimension to allow any immersion heater replacement to take place.

EP 26 E, EP 42 E

EP 26 E RSK 623 00 00 • EP 42 E RSK 623 00 32.

Technical data

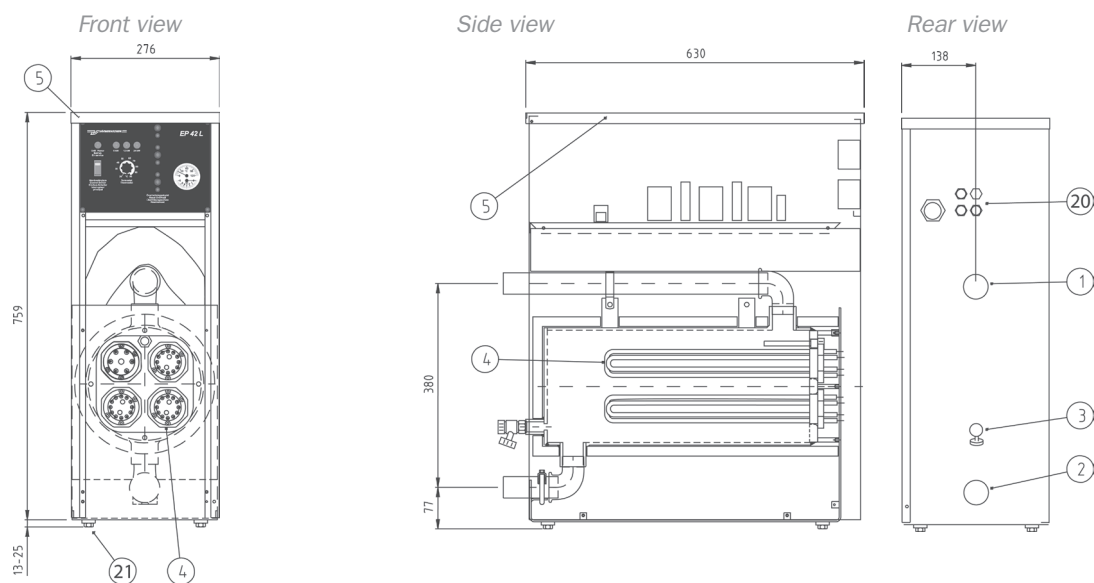
Common data

Type	EP 26 E	EP 42 E		Voltage	400 3N~	V	Enclosure protection class	IP X4
Power	26.25	42	kW	Frequency	50	Hz	Pipe connection	R 32 ext.
Current	37.9	61	A	Cable fitting	Ø 37	mm	Height	775 mm
Stage size	3.75	6	kW	Water volume	17	l	Width	280 mm
Current/stage	5.4	8.7	A	Test pressure	5.2	bar	Depth	630 mm
Cable area	16	25*	mm ²	Operating pressure	4**	bar	Weight	50 kg

* With a 5-core cable, the jumper on the zero terminal block is removed

** Other pressure classes as ordered.

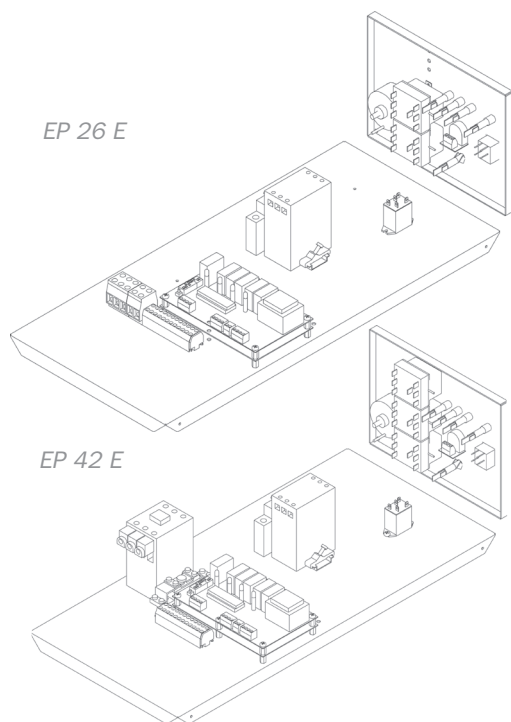
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1. Flow/safety pipe, R32 ext.
2. Return pipe, R32 ext.
3. Drain valve, R15 int.
4. Immersion heaters.
5. Opening roof plate for access to connection space.
20. Cable openings.
21. Foot bolts.

ACCESSORIES

- EP VP, heat pump controller
- UTK E, outdoor temp. compensator
- Wall brackets



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Contact us!

Värmebaronen AB

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