

Ideal as a peak heat source in heat pump systems



Ideal for use with PV installations in combination with:



Ideal for use with gas boilers and solid fuel boilers

as an alternative heating device, e.g. in the case of a lack of gas or fuel



Ideal for use with a gas boiler,

the operating counter switches on gas boiler when the energy consumption limit ends off – setted on the Boatswain LED panel.



1. General recommendations for safety and proper use:

- ⚠ The user manual is intended for the user of the heating system. In order to avoid risks to life and health and damage to property, please read all the enclosed instructions and strictly follow the information contained therein.
- ⚠ Follow the safety instructions. Failure to comply with this information may result in personal injury, including death. You should never put yourself in danger. Your own safety is always the most important thing. In addition, non-compliance with safety rules may lead to material and environmental damage.
- ⚠ It should be ensured that only people who are able to operate the equipment properly.
- ⚠ Electrical and hydraulic installation, start-up and maintenance should be performed only by qualified persons with the required legal qualifications. The manufacturer is not responsible for improper connection of the device to the central heating and electrical installation. The warranty and service does not cover works resulting from improper operation of the central heating system.
- ⚠ For safe operation of the boiler it is absolutely necessary to provide adequate overcurrent and differential current protection. Security installation is carried out by an electrician with appropriate qualifications.
- ⚠ The heater should always be operated at the appropriate recommended working pressure. An overpressure protection device must be provided in the hydraulic circuit.
- ⚠ If thermostatic valves are present, on all terminals or zone valves, a bypass and a minimum operating flow rate shall be provided. The installation must also be equipped with vent valves and properly vented before starting.
- ⚠ Do not expose the device to ambient temperatures below zero and above 35°C. The installation site should protect it from the above microclimatic conditions.
- ⚠ The heater should be mounted in easily accessible place that provide access from every side.
- ⚠ When assembly the heater, provide shut off valves in the installation at the inlet and outlet boiler, so that it can be disassembled if necessary.
- ⚠ Flammable materials or liquids can't be stored near the boiler.
- ⚠ For proper operation of the additional heater, it is necessary to provide water of appropriate quality in the heating system. Water quality may affect the operation of the appliance. Too hard water causes limescale to settle on the heating elements of the boiler. This reduces its efficiency and increases energy consumption. Over time, this could lead to its failure. In addition, at the entrance to the boiler, a particulate filter should be used.
- ⚠ Once a year, especially before the heating season, the entire heating system should be cleaned and maintained. The installation must be prepared for proper operation, including being checked. Defects detected shall be rectified immediately.
- ⚠ Before starting the device, make sure is your heater correctly selected for the installation and will fulfil its function.
- ⚠ After unpacking the heater, check the completeness of its equipment.
- ⚠ Before starting any work on the heater, the device must be completely disconnected from power supply and protected from unintentional re-activation.
- ⚠ Incorrect connection of the heater may lead to damage for which the manufacturer is not responsible.
- ⚠ The manufacturer is not liable for damages resulting from the use of non-original parts. Only original spare parts and accessories from the manufacturer should be used.

2. Device description

The Rifleman/Rifleman Pro reheater is an device which, thanks to its built-in heating element, can act as an additional/peak heat source in a domestic hot water system. - This is most often used in combination with heat pumps which are not adapted to efficient operation at very low temperatures, but also in combination with a fireplace, solid-fuel or gas boiler. The device can also provide protection against water freezing in the system in occasionally used buildings. By using electricity for reheating, it is ideal for photovoltaic systems, increasing the level of self-consumption and reducing the payback period. In the case of the latter application, it is worth considering configuring the Rifleman module with the Navigator multifunctional controller dedicated to it. It will then be possible to connect an inverter, a room thermoregulator, a circulation pump and a second heat source. The unit is equipped with an emergency reset switch - if this temperature is exceeded, the emergency switch will disconnect the unit from the power supply. Before the unit is switched on again, the cause of the overheating must be found and eliminated.

3. Technical data

The Rifleman/Rifleman Pro heater is equipped with a heating element. Its characteristics are described in the table below and in the instructions supplied with the device:

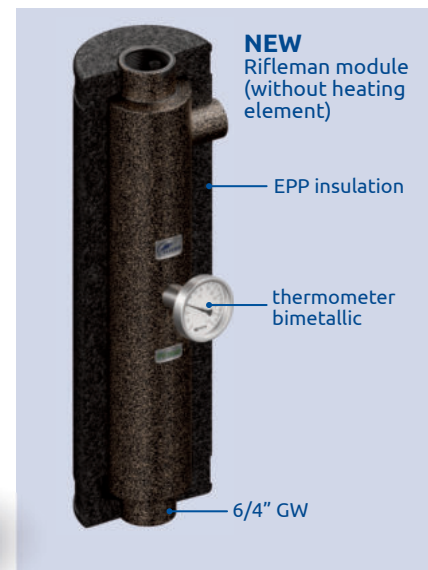
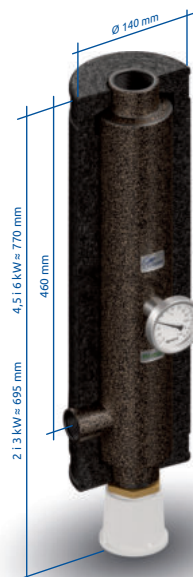
Rifleman data	212302	212303	214003	214004	214006
Rifleman PRO data	222302	222303	224003	224004	224006
Connection thread of the heating element	DN 40 IW	DN 40 IW	DN 40 IW	DN 40 IW	DN 40 IW
Power/supply of heating element	3kW/230V	3kW/230V	3kW/400V	4.5kW/400V	6kW/400V
Power cord	3 x 2,5mm ²	3 x 2,5mm ²	5 x 1,0mm ²	5 x 1,0mm ²	5 x 1,5mm ²
Selfa	Electrical protection	1 x 16A	1 x 16A	3 x 10A	3 x 10A
	Operating temperature range of the heater	0-60°C	0-60°C	5-75°C	5-70°C
	Protection class	IP44	IP44	IP44	IP44
Gwarant	Power cord	3 x 1mm ²	3 x 1,5mm ²	5 x 1,5mm ²	5 x 1,5mm ²
	Electrical protection	1 x 16A	1 x 16A	3 x 10A	3 x 10A
	Operating temperature range of the heater	10-70°C	10-70°C	30-75°C	30-75°C
	Protection class	IP24	IP24	IP24	IP24
Hottech	Power cord	3 x 1mm ²	3 x 1,5mm ²	5 x 1,5mm ²	5 x 1,5mm ²
	Electrical protection	1 x 16A	1 x 16A	3 x 10A	3 x 10A
	Operating temperature range of the heater	10-65°C	10-65°C	10-80°C	10-80°C
	Protection class	IP44	IP44	IP44	IP44

Central heating system reheater RIFLEMAN

- Ideal as an alternative heat source in PV systems
- Built-in electric heater with thermostat
- Anti-freeze system
- Continuous control of the central heating water temperature
- Emergency reset switch

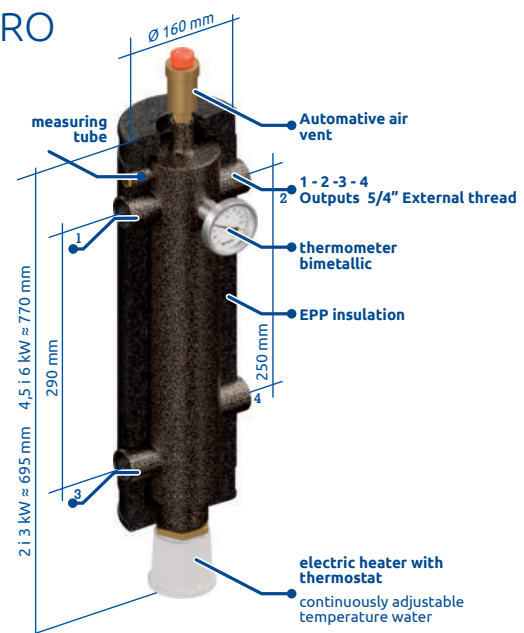


Rifleman / 400V	
4,5 kW / 400 V	Rifleman 400/4
Product code	214004
6 kW / 400 V	Rifleman 400/6
Product code	214006
Rifleman / 230V	
2 kW / 230 V	Rifleman 230/2
Product code	212302
3 kW / 230 V	Rifleman 230/3
Product code	212303

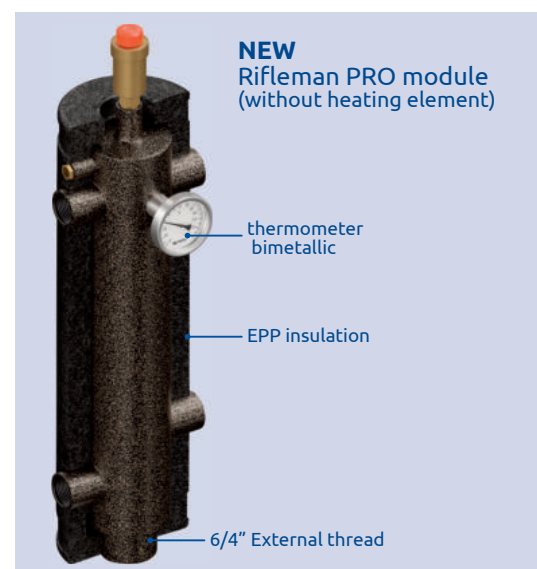
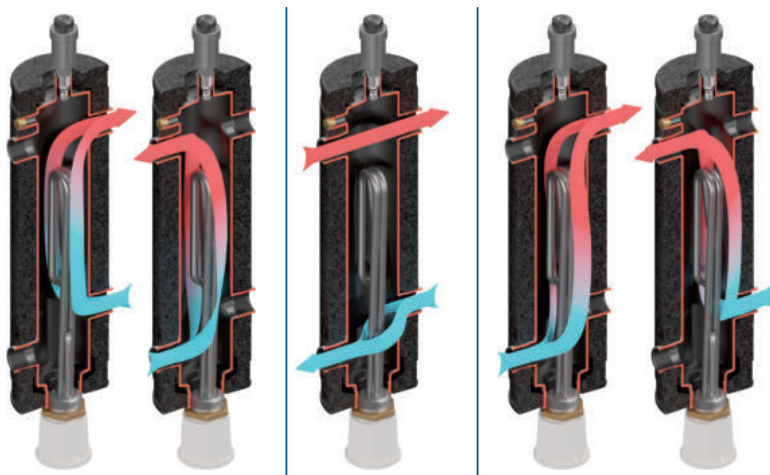


Central heating system reheater RIFLEMAN PRO with hydraulic coupling function

Rifleman PRO / 400V	
4,5 kW / 400 V	Rifleman PRO 400/4
Product code	224004
6 kW / 400 V	Rifleman PRO 400/6
Product code	224006
Rifleman PRO / 230V	
2 kW / 230 V	Rifleman PRO 230/2
Product code	222302
3 kW / 230 V	Rifleman PRO 230/3
Product code	222303



Universal connection - 5 variants

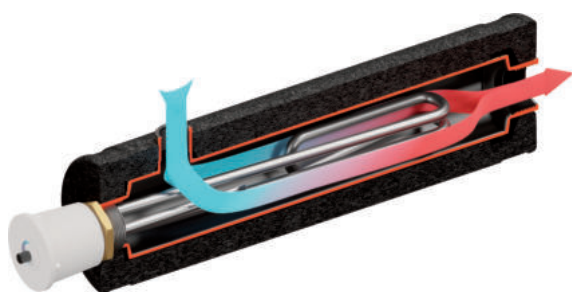


energy efficiency class D

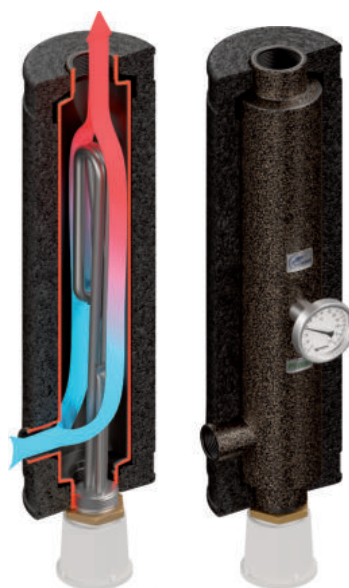
3. Assembly

The Rifleman/Rifleman Pro must be installed as recommended by the manufacturer of the heating element. To ensure correct venting of the device and operation of the safety element, with which the heating element is equipped, it is permissible to mount the Rifleman vertically - with the heater facing down. It is permissible to mount the Rifleman/ Rifleman Pro heater horizontally, but efficient venting of the hydraulic system must be ensured. **Assembly with the heater facing up causes overheating of the heating element and, in the course of time, damage to it.**

horizontal assembly



vertical assembly



4. Absolute conditions for the assembly of the Rifleman:

- ⚠ The Rifleman/Rifleman Pro is a dedicated device to be used only in a central heating system and may not be used to heat DHW. Before starting operation remember to fill the unit with water or glycol-based fluid of max. max. 50%.
- ⚠ The maximum immersion depth of the heating element is 500mm.
- ⚠ The maximum power of the heating element used is 6kW.
- ⚠ Absolute conditions for the installation of the Rifleman/Rifleman PRO
- ⚠ The Rifleman/Rifleman PRO is equipped with a heating element which must cooperate with the central heating pump so that a continuous flow of liquid in the central heating system is ensured when the device is heated. Otherwise, the device will overheat locally and the thermal switch of the heater will be tripped or the heater will be damaged. It is also essential that the pump run a few minutes longer than the heater. This is due to the fact that it continues to be warm after heating is completed.
- ⚠ Make sure that the system is properly vented so that the heater does not run without liquid or the insufficient amount.

5. Thermal protection of the heating element.

If the conditions for installation of the heater described in section 4 are not met, the heater may overheat and thermal protection will be triggered. This safety device disconnects it when the limit heating temperature is exceeded. **In order to get the heater working again, the switch must be pressed.** The method for doing this is specified in the separate heating element manual supplied with the device.

Electronic controller Navigator

for controlling the heater of the central heating system Rifleman, Rifleman PRO or electric heater with a bimetallic switch.

Product code 811001



PV ready

0V input 1 and 2 can cooperate with :



room thermoregulator 0V



signal from the inverter



automation heat pumps



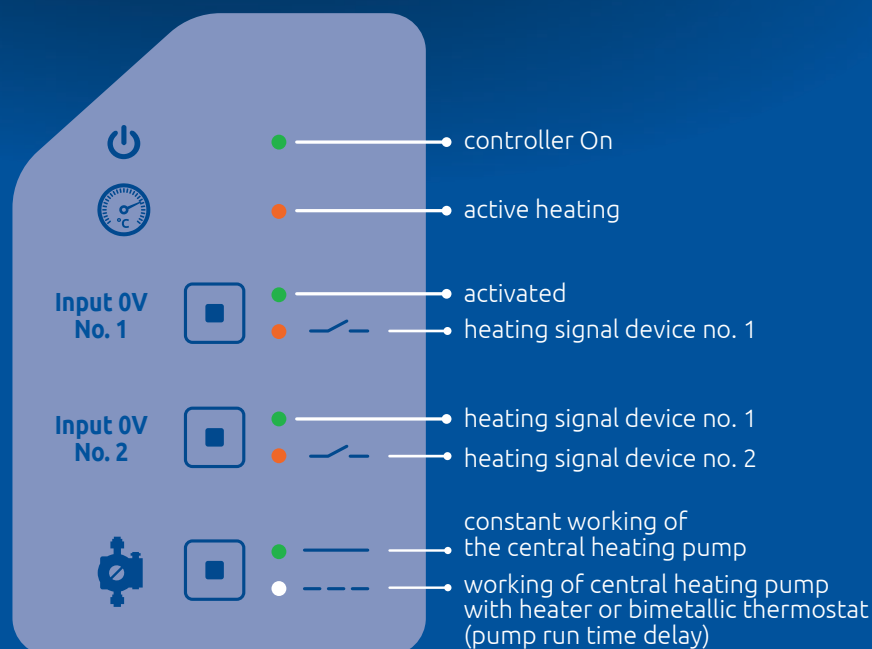
buffer-thermostat with NC output



automation of another heat source



thermostat with NC output



Technical Data:

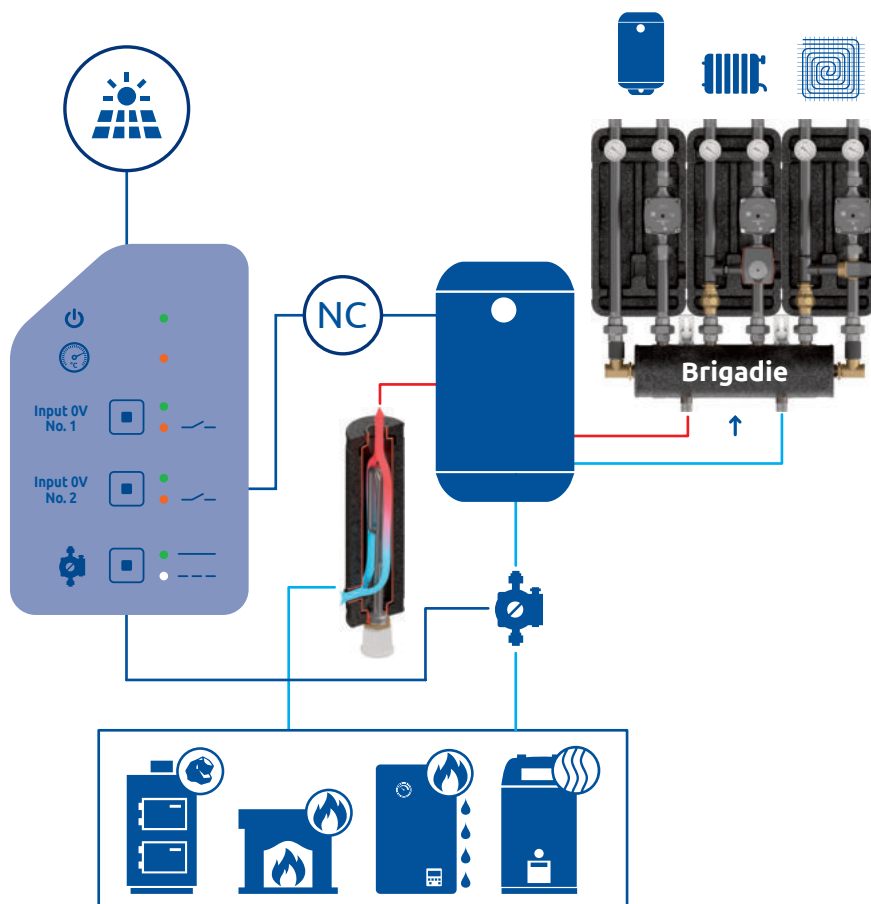
- voltage supply 230V (3x230V)
- maximum heating power 3 x 2 kW
- 2 x 0 volt-free input
- dimensions: 225 x 175 x 80 mm

Rifleman + Navigator optimises the use of energy from photovoltaic installations:

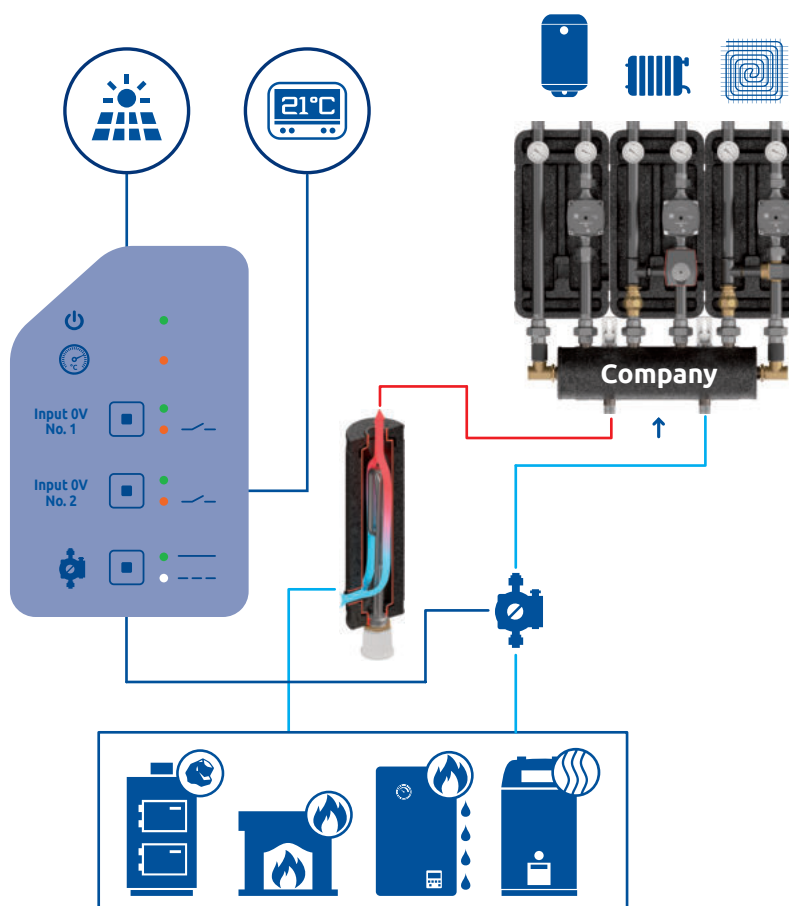
PV ready

- during the temporary heating period, they can increase the level of auto consumption of energy (reducing the 20-30% loss in energy storage)
- through their use for central heating or DHW heating, accelerate the payback period of the investments in photovoltaics
- can be combined with an existing heat source

I working variant
 we use 1 of the contacts
 alternately or 2 contacts
 together 2 input 0V



II working variant
 2 contacts are used,
 when one of the
 contacts is inactive
 Navigator switches off
 2 input 0v



6. Guarantee

Manufacturer's stamp

Sale date

Seller's stamp and signature

Stamp of the plumbing company
assembling the boiler

Stamp of the electrical company assembling
the boiler (concerns installation of heating
element supplied 3-phase current)

I declare that I have read and
understood with the conditions
of guarantee and assembly. I accept.

Without the above stamps and signatures, the guarantee is invalid

Guarantee conditions:

1. The manufacturer provides a guarantee for the efficient operation of the product for a period of 2 years (24 months) from the date of sale.
2. Guarantee repairs are carried out by the manufacturer or its authorised representative.
3. The guarantee expires if any modifications are made to the product without the manufacturer's consent, or if the product is not used as intended. In this case, the manufacturer is not responsible for any negative effects of the product's operation.
4. The Rifleman/ Rifleman Pro assembly and operating instructions must be strictly followed, in particular the maximum technical parameters stated in the data sheet.
5. Failure to follow the above will void the guarantee.
6. A guarantee filled in incompletely is invalid.



We declare with full responsibility that the products:

- Rifleman: ~ 230V, 50Hz, power max. 2kW or 3kW, 3N~400V, 50Hz, power max. 3kW or 4.5kW or 6kW
- Rifleman PRO: ~ 230V, 50Hz, power max. 2kW or 3kW, 3N~400V, 50Hz, power max. 3kW or 4.5kW or 6kW

manufactured by ELTERM, comply with the provisions of the Pressure Directive 2014/68/EU; harmonised standard: PN-EN 13445(U): Unfired pressure vessels with as amended, and in accordance with Decree of the Minister of Economy of 11.02.2015 on the essential requirements for pressure equipment and assemblies of pressure equipment (Journal of Laws 2015 pos. 244).

Applications conformity assessment procedure: Internal production control - module A (in accordance with 2014/68/EU - equipment of category not greater than I). Use for water with T<110°C, other maximum parameters operation and dimensions on the back of the manual or in the data sheets available at www.elterm.pl.

In addition, we declare with full responsibility that the devices Rifleman and Rifleman PRO manufactured in the ELTERM company, comply with the provisions of the following EC directives:

Directive/Regulation number	Title
2014/35/UE as amended	Low Voltage Directive (LVD)
2014/30/UE as amended	Electromagnetic compatibility (EMC) directive
2011/65/UE as amended	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
2012/19/UE as amended	Waste Electrical and Electronic Equipment (WEEE) Directive, GIOŚ register number E0001767
2009/125/UE	General principles for setting ecodesign requirements for energy-related products (Annex 13)

Chełmno, 1 March 2019

Maciej Kaszuba

Environmental protection and recycling

Environmental protection issues are very important to Elterm. We carry out tasks resulting from the Environmental Protection Act and other relevant legal regulations.

Packaging

The materials used as packaging are all recyclable. When disposing of them, compliance with the applicable local regulations. Keep plastic bags, cardboard or polystyrene and other materials used out of the reach of children, as they may be a danger to children.

Waste electrical and electronic equipment

The symbol means that this product cannot be thrown away and placed together with other waste, but must be taken to your local separate collection point for take-back, recycling or disposal. This is free of charge. This applies to countries with legal regulations related to electronic waste management, e.g. the "European Directive 2012/19/EC on waste electrical and electronic equipment". The regulations set the framework conditions applicable to the return and recycling of waste electronic equipment in each country. All electrical and electronic equipment may contain hazardous substances, and care must be taken to recycle them in a sustainable manner. These activities are intended to minimise the risk of potential harm to the environment and human health and contribute to the conservation of natural resources. They also make it possible to recover valuable resources. Incorrect disposal of waste is punishable by penalties under the relevant legislation. For further information on recycling and disposal of waste electrical and electronic equipment, please contact the relevant local authorities, the waste disposal facility or the vendor from whom you purchased the product. (BDO registration number - 000010881)



NOTES

A series of horizontal dotted lines for taking notes.

Advanced heater of central heating water Boatswain LED



Ideal as a peak heat source in heat pump systems



Independent heating device of a central heating system

e.g.: while waiting for a heat pump or other heat source to be mounted



Ideal for use with PV installations in combination with:



Ideal for use with gas and solid fuel boilers as an alternative heating appliance, e.g. in the absence of gas or fuel



Ideal for use with a gas boiler, the operating counter switches on gas boiler when the energy consumption limit ends off – setted on the Boatswain LED panel.



Countdown meter



Maximum power lock



Normally open contact 0V



PID on/off

PV Ready
Boatswain LED



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