

## ■ Operating and installation instructions

To users/professionals

### Operating and installation instructions



EIWH  
mini VED series

VED E 6/1-P IN  
VED E 6/1-B IN

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# 1 Safety

## 1.1 Classification of action-related warnings

The action-related warnings are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

Warning symbols	Signal words	Explanation
	Danger !	Imminent danger to life or risk of severe personal injury
	Danger !	Risk of death from electric shock
	Warning.	Risk of minor personal injury
	Caution.	Risk of material or environmental damage

Table 1.1 Warning symbols and symbol words

## 1.2 Intended use

Vaillant EIWH miniVED plus/pro comply with current technology and safety requirements. There is a risk of injury or death to the users or others, or of damage to the product and other property in the event if improper use or use for which it is not intended.

The appliance is not designed to be used by persons limited in physical, sensory or mental capacity (including children) or persons lacking experience and / or knowledge unless there are guardians to explain how to use the equipment to those persons. Children must be taken care of to ensure that they will not play with the appliance.

Vaillant EIWH miniVED plus/pro is only allowed to heat domestic water. Vaillant EIWH miniVED plus/pro is only suitable for household use of frost free closed indoor. Vaillant EIWH miniVED plus/pro is not intended as hot water circulation system.

Any other use that is not specified in these instructions, or use beyond that specified in this document shall be considered improper use. Any direct commercial or industrial use is also deemed to be improper.

The manufacturer/supplier is not responsible for damage caused by improper use. The users also shall bear the risk alone.

Intended use including the following:

- Observance of accompanying operating, installation and maintenance instructions for the product and any other system components
- Compliance with all inspection and maintenance conditions listed in the instructions.



**Caution.**  
Prohibit any improper use.

## 1.3 General safety information

### Installation, operating, maintenance and repair

Only persons from professional company who are sufficiently qualified are allowed to conduct installation, commissioning, maintenance and repairing of Vaillant EIWH mini VED plus/pro. It is only allowed to install Vaillant EIWHmini VED plus/pro according to the instructions.

- ▶ When the appliance is frozen or suspected to be frozen, don't switch on the appliance until it is thawed.
- ▶ Please check if the electrical meter type and its capacity meets the requirements of the purchased appliance.

mini VED power	electrical meter type and capacity (A)		
	General electrical meter	Intelligent electrical meter	Mechanical electrical meter
5.5 kW	≥5/40	≥10/60	≥5/40

- ▶ Please make sure that air switch rating value of main power control box is no lower than C25.

mini VED power	Air-break switch parameter(A)
5.5 kW	≥25

- ▶ Connect the water supply and check if it is unobstructed. Connect the circuit after confirm that there is no leakage.
- ▶ Good grounding.
- ▶ Please distribute power separately when decorating the bathroom (depending on the installation position of EIWH) and embed a copper core dedicated line between the main switch and the bathroom that meets the requirements of the appliance.

mini VED power	Dedicated copper line cross section (mm <sup>2</sup> )
5.5 kW	≥2.5

- ▶ The appliance shall be installed on the solid wall. The gap between appliance and the wall surface shall be 3mm.
- ▶ Please stop using the appliance immediately when the water flow stops.
- ▶ Please reserve water inlet and outlet piping.

### Risk of death from electric shock due to power supply wire and connector

When performing all operations on working appliance, especially on power supply wire and connector, there is risk of death caused by electric shock.

- ▶ Users are allowed to disassemble the appliance.

# 1 Safety

- ▶ If miniVED plus/pro fail to work normally, please contact a professional.

## **Risk of death from electric shock due to power supply wire and connector**

The resistance of domestic water shall be no less than  $1300\Omega\cdot\text{cm}$  (15 °C) , otherwise the appliance is not allowed to use.

## **Risk of scalding caused by hot water**

The outlet temperature of hot water could be as high as 60°C.

- ▶ When using mini VED plus/ pro, pay attention to the scalding risk caused by the high water temperature.
- ▶ To ensure that there is no risk of scalding, set the water temperature lower than 43 °C when using mini VED plus.

## **Risk of appliance damage caused by unqualified domestic water**

Vaillant EIWH miniVED plus/pro is only used to heat domestic water. The domestic water shall comply with national domestic water quality requirement, otherwise the appliance may rust.

- ▶ If you have any doubts about the water quality, please consult the professional.

## **Risk of freezing**

If EIWH mini VED plus/pro is kept in non-heated area for a long time, the water inside the appliance and pipe may freeze in winter.

- ▶ Ensure that EIWH mini VED plus/pro is installed in area protected from freezing risk.

## **Risk of damage caused by appliance modification**

It is not allowed to make modifications on the appliance.

## **If there are failures**

- ▶ If miniVED plus/pro fails to produce hot water or there are any other failures, please contact a professional.
- ▶ Any failure occurs, please contact a professional.
- ▶ Only a professional is allowed to repair the appliance.
- ▶ Only professionals are allowed to open the panel of the appliance.

## 2 Notes on the documentation

The following description is a general guide covering the entire document.

Other information must be used in conjunction with this operation and installation instructions.

We do not undertake any liability for damage caused by non-compliance with these instructions.

### Reference

When operating the water heater, be sure to notice all the operating instructions attached to the other components of the appliance.

These instructions are attached to the corresponding appliance components.

### 2.1 Information storage

- ▶ Transfer the operation, installation instructions, all references and necessary auxiliary tools to the appliance users.
- ▶ Users are responsible for keeping them in order to use instructions and auxiliary tools as required.

### 2.2 Scope of the instructions

This instructions are only applicable to appliance with the following types:

Appliance type
VED E 6/1-P IN
VED E 6/1-B IN

Table 2.1 Appliance and type name

The types of the appliance please refer to the nameplates.

### 2.3 Appliance type

The type of appliance to install can be determined according to technical data of the installation instructions. The installation personnel will make the mark after the installation work is finished.

## 3 Product description

### 3.1 Main components

#### 3.1.1 miniVED plus series (VED E 6/1-P IN)

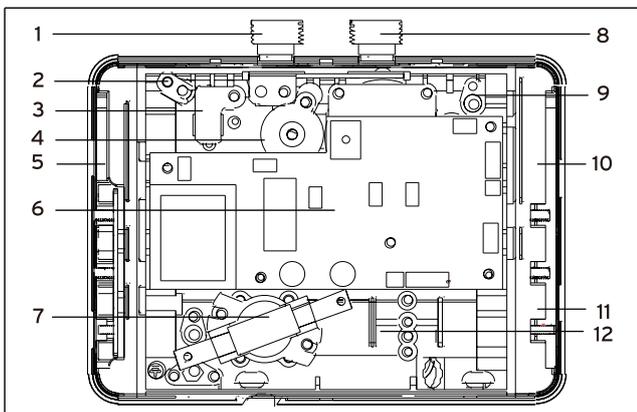


Fig.3.1 miniVED plus series main components

### Remark

1 Inlet pipe	7 temperature controller
2 Inlet temperature sensor	8 Outlet pipe
3 Flow sensor	9 Outlet temperature sensor
4 Water resistance detection	10 Right side panel
5 Left side panel	11 Heater strip
6 Circuit board	12 Eater body

#### 3.1.2 miniVED pro series (VED E 6/1-B IN)

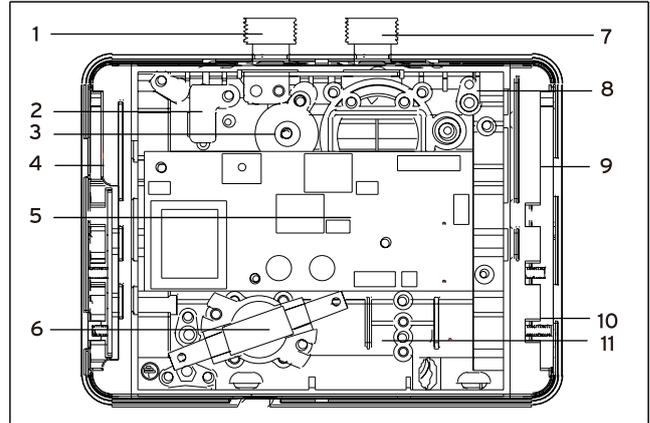


Fig. 3.2 mini VED pro series main components

### Reamrk

1 Inlet pipe	7 Outlet pipe
2 Flow sensor	8 Outlet temperature sensor
3 Water resistance detection	9 Right side panel
4 Left side panel	10 Heater strip
5 Circuit board	11 Heater body
6 Temperature controller	

### 3.2 Product features

#### 3.2.1 miniVED plus series

Temperature control: built-in constant temperature mode, default temperature is 38°C.

The water heater includes anti-electric wall, which is fully insulated and safe.

Appliance will automatically power off when outlet temperature is over 80°C, dry burning and safe grounding protection.

Water quality tester. When the appliance is switched on, the inlet water resistance will be detected. If the water resistance does not meet the requirements, the appliance will stop and display E7.

#### 3.2.2 miniVED pro series

Constant power design: build-in power constant mode, adjust the temperature by adjusting water mixing tap. Safety, energy saving, high efficiency, beauty and convenience are the design objectives of this product. The nickel gold heater designed by the patent is integrated with the anti-electric wall, which is fully insulated and safe. Over temperature protection (over 55°C, automatic power cut, water heater no longer heating).

Anti-dry burning, safe grounding protection.

The build-in water quality test is used to test water quality. After the appliance is switched on, the inlet water is detected. When the water resistance does not meet the

## 4 Installation

requirements, the appliance will stop.

### 4 Installation

#### 4.1 Packing list

EIWH	1 set
Manual	1 EA
T-cock	1 piece
Wall hang plate	1 piece
Screw	2 pieces
Expansion pipe	2 pieces
Gasket	4 pieces
Filter	1 piece
Terminal	1 piece

#### 4.2 Installation method



##### Note

This product shall be installed by a qualified professional.

##### 4.2.1 Installation position of water heater

Confirm water heater installation position according to water connection and electrical connections. The installation position of the water heater is not more than 50mm from the power cord connection, and not more than 50mm from the cold water outlet.

Use the hanging bracket fixing it to the wall with screws, or directly fix the water heater to the wall with screws.



##### Caution.

Before fastening, make sure there is no water pipe or cable under the wall.

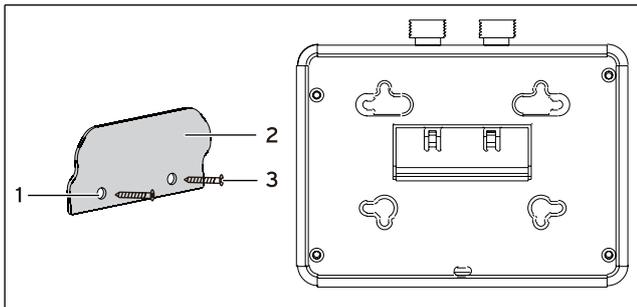


Fig. 4.1 Water heater wall hang plate

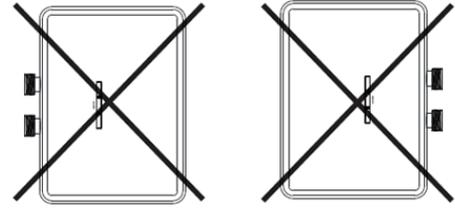
Remark

- 1 Screw hole
- 2 Wall hang plate
- 3 Screw



##### Warning.

Do not install at the place directly sprayed by water!  
Do not install outdoor!  
Do not install at the place where the water cannot be drained!  
Do not install water heater vertically!



##### 4.2.2 Water connection (before connecting the circuit)

Connect the inlet of triplet to the cold tap on the wall, connect the outlet of the triplet to the cold tap and the water heater inlet; Connect the hot tap to water heat outlet.

##### 4.2.3 Electrical connection (after the water connection)

Screw the phase, neutral and ground wire from the installation to the appliance connector.

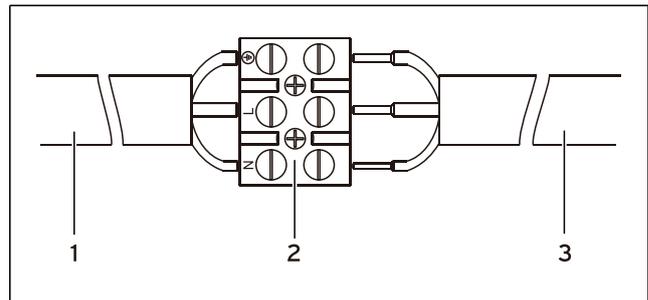


Fig. 4.2 Circuit connection

Remark

- 1 Water heater external power line
- 2 Wiring board
- 3 Power line



##### Warning.

It is strictly prohibited to dismantle the wiring and using a plug to connect the appliance.

4.2.4 Water route and circuit schematic diagram

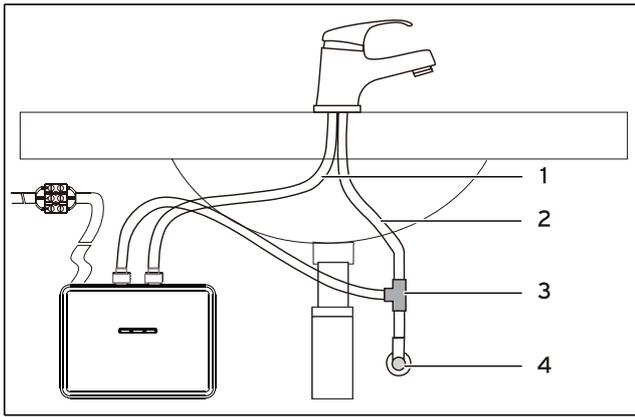


Fig 4.3 water route and circuit connection diagram

Remark

- 1 Hot water pipe
- 2 Cold water pipe
- 3 T-cock
- 4 Cold water nozzle

4.2.5 Electrical schematic diagram

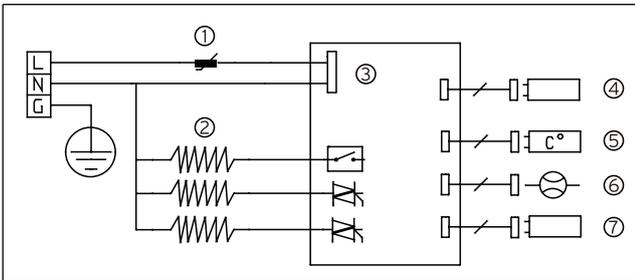


Fig 4.4 miniVED plus series electrical schematic diagram

Remark

- 1 Temperature controller
- 2 Heating body
- 3 Control panel
- 4 Display board
- 5 Temperature sensor
- 6 Flow sensor
- 7 Water resistance detection

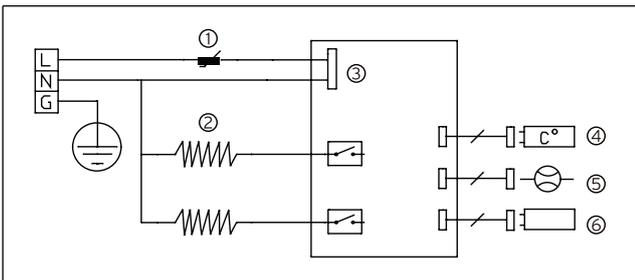


Fig.4.5 miniVED pro series electrical schematic diagram

Remark

- 1 Temperature controller
- 2 Heating body
- 3 Control panel
- 4 Temperature sensor
- 5 Flow sensor
- 6 Water resistance detection

4.3 Technical parameters

Product type	VED E 6/1-P IN	VED E 6/1-B IN
Rated voltage (V) Rated frequency (Hz)	220~/50	220~/50
Rated power (kW)	5.5	5.5
Electrical current (A)	25	25
Temperature setting range (°C)	30~48	-
Rated pressure (Mpa)	0.75	0.75
Water resistance ( $\Omega \cdot \text{cm}$ ) (15°C)	$\geq 1300$	$\geq 1300$
Mini. start flow(L/min)	2.0	2.0
Water protection level	IP24	IP24
Net weight(Kg)	1.6	1.4
Dimension (mm) L*W*H	190×85×154.5	190×80×154.5
Water connection	G1/2"	G1/2"

Table 4.1 Technical parameter

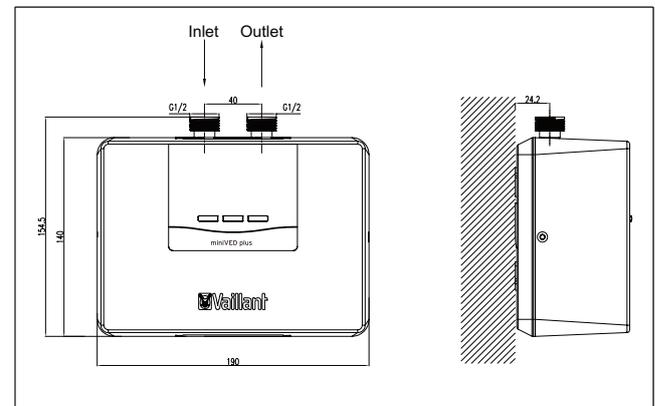


Fig. 4.6 miniVED plus series dimensions

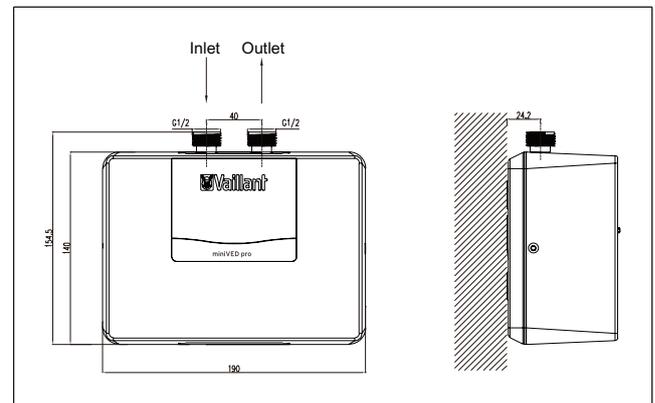


Fig. 4.7 miniVED pro series dimensions

## 5 Water heater use

### 4.4 Special points related to installation

Clean the pipe by water before installation to prevent residual sediment from clogging the appliance

- Water heater inlet could be either upward or downward. Water heater will not work normally if the inlet is on the left or right.
- Filter shall be installed at the inlet. Filter is included in gasket package. - Fix hanging bracket at the appliance installation position inside the cabinet. The appliance should directly hang on the bracket.
- Connect water heater power line and power line on the wall by wiring board.
- After completing installation, please open the water firstly without turning on the power.
- Turn on the power when outlet water flows smoothly without bubbles.
- miniVED plus temperature can be adjusted by using plus and minus buttons. (normal the temperature setting is 38°C).
- Display temperature will blink if the water temperature can't reach the setting temperature then the water flow needs to be reduced.
- When using miniVED plus, use only hot water and do not mix hot and cold water.
- 2.5 mm<sup>2</sup> copper core electric wires are required for installation. Air-break switch ≥25A.

## 5 Water heater use

### 5.1 Usage of water heater

After installation of water heater, please turn on water mixing tap. Only after confirming that outlet water flows continuously and there is no water leakage at each joints can the water heater be turned on.

#### ► Starting up

Close the air-break switch (only for the first time use after installation), adjust the water mixing tap to the appropriate flow.

- miniVED plus series:

Press the "ON/ OFF" button, the display is bright, and enter the instant heating mode. The display shows the current setting temperature.

- miniVED pro series:

Turn on the water tap and start heating.



#### Caution.

The water heater is heated only when the water flows and the flow rate is larger than 2L/ Min.

#### ► miniVED plus series (VED E 6/1-P IN)

This appliance is a constant temperature type. The default setting temperature is 38°C.

#### ► miniVED pro series (VED E 6/1-B IN)

This appliance has built-in power constant setting, adjusting the outlet temperature by adjusting the mixing tap.

#### ► Temperature adjustment (miniVED plus)

The water temperature is adjusted by "+" button of temperature, and 1°C rise by one press until 48°C ; the temperature "-" button is adjusted to reduce the water temperature, 1 °C down by one press. The temperature adjustment range for users is 30°C-48°C.

#### ► Turn off the appliance

After using the appliance, press lightly OFF to turn off the appliance (miniVED plus).

Turn off the appliance by turning off the water mixing tap (miniVED pro).

## 6 Water heater maintenance

The power supply must be disconnected before cleaning the water heater. Use a damp cloth to dip a small amount of neutral detergent and gently wipe the water heater, do not use gasoline or other solutions. Dry the water heater with a dry cloth and keep the water heater dry.

## 7 Troubleshooting

miniVED plus series

Fault phenomenon	Possible reasons	Troubleshooting measures
The water is too cold	<ol style="list-style-type: none"> <li>Excessive water flow or low temperature of tap water.</li> <li>When the water flow is too low, the water heater does not start.</li> <li>Voltage is instable or lower than the required voltage of the product.</li> </ol>	<ol style="list-style-type: none"> <li>Adjust the water mixing tap to reduce the water flow.</li> <li>Check whether the water pressure is adequate, if additional pressure is needed, close the other water sources or increase the pressure of the booster pump to increase the water pressure.</li> <li>Contact a professional to check the power supply voltage.</li> </ol>
Power supply indicator is off	<ol style="list-style-type: none"> <li>The water heater is not open.</li> <li>There is a problem with the supply of power.</li> <li>The water heater is not started.</li> <li>The internal parts are not working or damaged.</li> </ol>	<ol style="list-style-type: none"> <li>Press power button to start.</li> <li>Check the power switch and the circuit.</li> <li>Check whether the water pressure is adequate, if additional pressure is needed, close the other water sources or add a booster pump to increase the water pressure.</li> <li>Checked by the professional.</li> </ol>
Water temperature can't reach required high temperature	Inlet water temperature is too low, the water flow is too large.	Adjust water mixing tap to lower water flow.
E1	Outlet water temperature sensors short circuit or open circuit.	Check outlet water temperature sensor by a professional.
E2	Inlet water temperature sensor short circuit or open circuit.	Check the inlet water temperature sensor by a professional.
E5	Overheating sensor short circuit or open circuit.	Check by a professional.
E7	<ol style="list-style-type: none"> <li>Medium detection short circuit or open circuit.</li> <li>Water resistance too high.</li> </ol>	Contact a professional to check appliance and installation.

Table 7.1 mini VED plus troubleshooting

miniVED pro series

Fault phenomenon	Possible reasons	Troubleshooting measures
The water is too cold	<ol style="list-style-type: none"> <li>The water flow is too large or the external tap water temperature is too low.</li> <li>When the water flow is too low, the water heater does not start.</li> <li>Voltage is instable or lower than the required voltage of the product.</li> </ol>	<ol style="list-style-type: none"> <li>Adjust water mixing tap to reduce water flow.</li> <li>Check whether the water pressure is adequate, if additional pressure is needed, close the other water sources or add a booster pump to increase the water pressure.</li> <li>Contact a professional to check the power supply voltage.</li> </ol>
The water temperature cannot reach the required temperature	<p>The inlet water temperature is too low.</p> <p>The water flow is too large.</p>	Adjust the water tap to reduce the water flow.

Table 7.2 miniVED pro troubleshooting



### Danger!

#### Electric shock hazard!

Before checking the internal fault of the electric water heater, remember to disconnect the power supply.



### Caution.

If the user cannot complete troubleshooting, please contact a professional.

## 8 Recycling and disposal

### 8 Recycling and disposal

- ▶ The competent person who installed your product is re-sponsible for the disposal of the packaging.



If the product is identified with this symbol:

- ▶ In this case, do not dispose of the product with the household waste.
- ▶ Instead, hand in the product to a collection centre for old electrical or electronic appliances.



If the product contains batteries that are marked with this symbol, these batteries may contain substances that are hazardous to human health and the environment.

- ▶ In this case, dispose of the batteries at a collection point for batteries.

## 9 Guarantee and customer service

### 9.1 Guarantee

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.

### 9.2 Customer service

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.



**Aquagreen Solutions LLP**

1st Floor, Raj Palace Building, Bhandarkar Road, Lane 11, Deccan, Pune 411 004.

TEL.:+91 9619506391

cs@aquagreensolutions.in

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