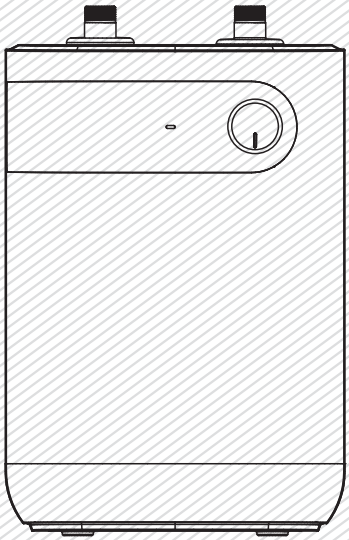
Storage Electric Water Heater

QuadroFlex

Instruction Manual

For Model: QFE 5 U DRY



The diagram above is just for reference. Please take the appearance of the actual product as the standard.

Thank you very much for purchasing our water heater.
Before installing and operating your water heater, please read this manual carefully and keep it for future reference.

General Remark

- The installation and maintenance has to be carried out by qualified professionals or authorized technicians.
- The manufacturer shall not be held responsible for any damage or malfunction caused by wrong installation or failing to comply with following instructions included in this pamphlet.
- For more detailed installation and maintenance guidelines, please refer to below chapters.

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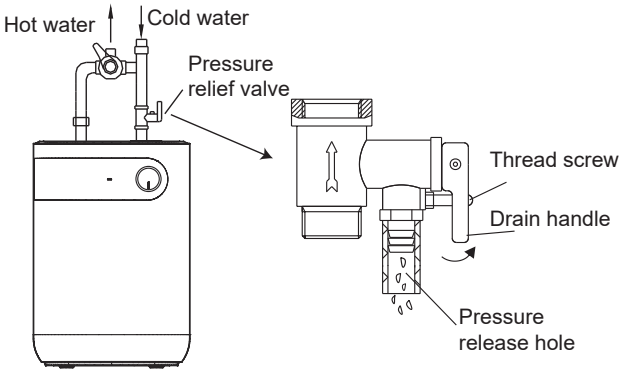
1. CAUTIONS

Before installing this water heater,check and confirm that the earthing on the supply socket is reliably grounded. Otherwise, the electrical water heater can not be installed and used. Do not use extension boards. Incorrect installation and use of this electrical water heater may result in serious injuries and loss of property.

Special Cautions

- The water heater is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the heater.
- The wall in which the electrical water heater is installed must be able to bear the load more than two times of the heater filled fully with water without distortion and cracks. Otherwise, other strengthening measures must be adopted.
- The supply socket must be earthed reliably. The installation height of the supply socket must not be lower than 1.8m. The rated current of the socket must not be lower than 16A. The socket and plug must be kept dry to prevent electrical leakage. If the flexible power supply cord is damaged, the special supply cord provided by the manufacturer must be selected, and replaced by the professional maintenance personnel.
- The maximum inlet water pressure is 0.5MPa; the minimum inlet water pressure is 0.1MPa, if this is necessary for the correct operation of the appliance.
- When using the heater for the first time (or the first use after maintenance), the heater can not be switched on until it has been filled fully with water. When filling the water, at least one of the outlet valves at the outlet of the heater must be opened to exhaust the air. This valve can be closed after the heater has been filled fully with water.
- The pressure relief valve attached with the heater must be installed at the cold water inlet of this heater, and make sure it is not exposed in the foggy. The water may be outflowed from pressure relief valve, so the outflow pipe must open wide in the air. In order to drain away the water inside the inner container, it can be drained away from the pressure release valve. Twist the thread screw of the pressure release valve off, and lift the drain handle upwards(See Fig.1) . The drainage pipe connected to the pressure release hole must be kept sloping downwards and in a frost-free environment. The water may drip from the discharge pipe of the pressure-relief device and that this pipe must be left open to the atmosphere.
- During heating, there may be drops of water dripping from the pressure release hole of the pressure relief valve, this is a normal phenomenon. The pressure release hole shall not be blocked under no circumstances, otherwise, the heater may get damaged, even resulting in accidents. If there is a large amount of water leak, please contact customer care center for repair.
- The pressure relief valve need to be checked and cleaned regularly, so as to make sure it will not be blocked.
- Since the water temperature inside the heater can reach up to 75℃, the hot water must not be exposed to human bodies when it is initially used. Adjust the water temperature to a suitable temperature to avoid scalding.
- If any parts and components of this electrical water heater are damaged please contact customer care center for repair.



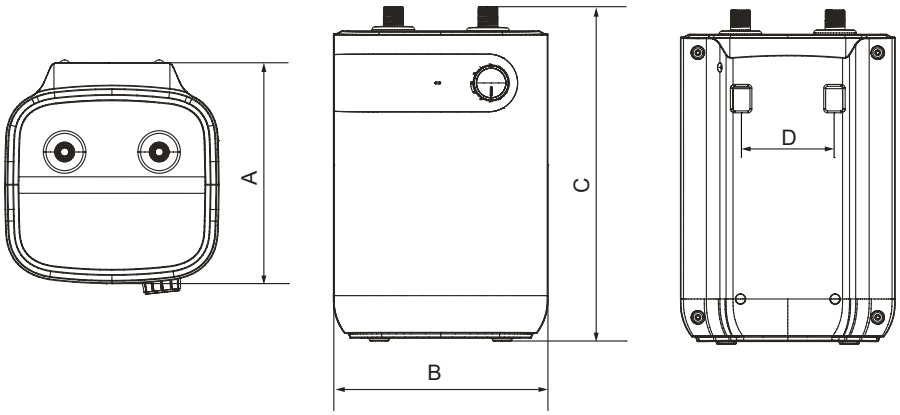
(Fig.1)

2. PRODUCT INTRODUCTION

2.1 Technical Performance Parameters

Model	Volume (L)	Rated Power (W)	Rated Voltage (ACV)	Rated Pressure (MPa)	Rated Of Water Temperature (°C)	Rated Thermostat SET(°C)	Protection Class	Waterproof Grade
QFE 5 U DRY	5	1500	230	0.75	65	65	I	IPX4

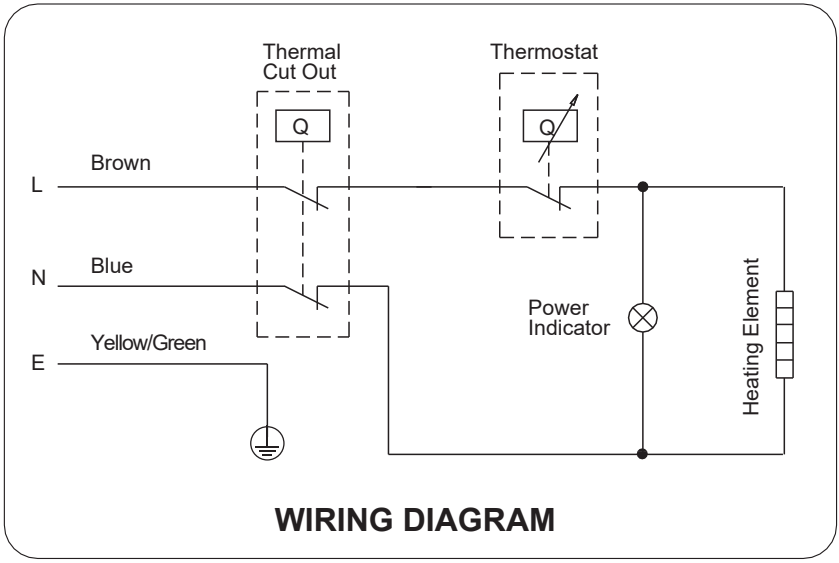
2.2 Brief introduction of product structure



	QFE 5 U DRY
A	234
B	227
C	328
D	98

(Note:All dimensions are in mm)

2.3 Internal Wire Diagram



WIRING DIAGRAM

3. UNIT INSTALLATION

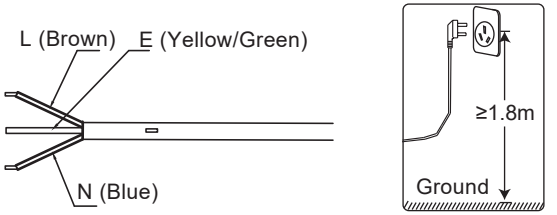
3.1 Installation Instruction

- Just place the water heater on a horizontal surface that can bear more than 27kg.

NOTE

1. When installing the electric water heater, the electric water heater must be installed in vertical direction of the trademark QUADROFLEX on the casing. If the electric water heater is not installed in the regulated direction, the product may be damaged or even cause other losses.

① Install the supply socket in the wall. The requirements for the socket are as follows: 250V/10A, single phase, three electrodes. It is recommended to placed the socket on the right above the heater. The height of the socket to the ground shall not be less than 1.8m (see Fig.2).



(Fig.2)

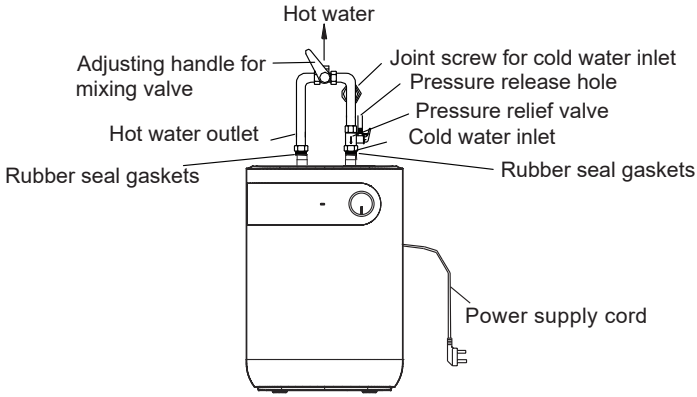
② If the bathroom is too small, the heater can be installed at another place. However, in order to reduce the pipeline heat losses, the installation position of the heater shall be closed to the location shall be as near as possible to the heater.

3.2 Pipelines Connection

① The dimension of each pipe part is G1/2" ; The massive pressure of inlet should use Pa as the unit; The minimum pressure of inlet should use Pa as the unit.

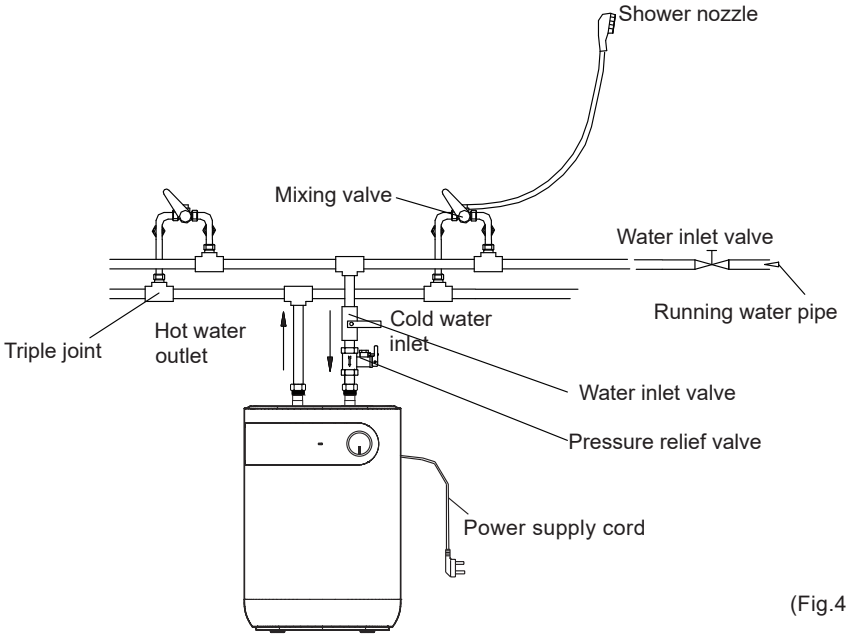
② Connection of pressure relief valve with the heater on the inlet of the water heater.

③ In order to avoid leakage when connecting the pipelines, the rubber seal gaskets provided with the heater must be added at the end of the threads to ensure leak proof joints (see Fig.3).



(Fig.3)

④ If the users want to realize a multi-way supply system, refer to the method shown in fig.4 for connection of the pipelines.



(Fig.4)

NOTE

Please be sure to use the accessories provided by our company to install this electric water heater. This electric water heater can not be hung on the support until it has been confirmed to be firm and reliable. Otherwise, the electric water heater may drop off from the wall, resulting in damage of the heater, even serious accidents of injury. When determining the locations of the bolt holes, it shall be ensured that there is a clearance not less than 0.2m on the right side of the electric heater, to convenient the maintenance of the heater, if necessary.

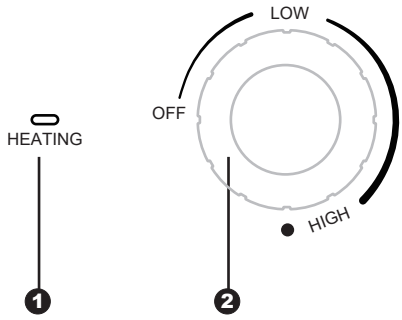
4. METHODS OF USING

- First, open any one of the outlet valves at the outlet of the water heater, then, open the inlet valve. The water heater gets filled with water. When water flows out of the outlet pipe it implies that the heater has been filled fully with water, and the outlet valve can be closed.

NOTE

During normal operation, the inlet valve shall be always kept open.

- Insert the supply plug into the socket.
- If the indicator light (1) switches on, the thermostat will control the water temperature automatically. When the appliance is operating and heating the water, the indicator light is white. The indicator light switches off when the heating process is terminated.
  When the water in the appliance reaches the set temperature, the water heater switches off automatically.
  When the water temperature falls to below the set value, the water heater will switch on automatically to resume the heating process.
- Turn the temperature control knob (2) to raise or lower the water temperature in accordance with the symbols on the knob.



(Fig.5)

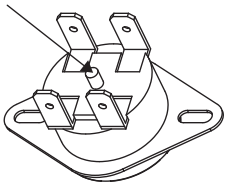
5. MAINTENANCE

⚠ WARNING

Do cut off power supply before maintenance, to avoid danger like electric shock.

- Check the power plug and outlet as often as possible. Secure electrical contact and also proper grounding must be provided. The plug and outlet must not heat excessively.
- If the heater is not used for a long time, especially in regions with low air temperature(below 0℃), it is necessary to drain water from the heater to prevent damage of the water heater, due to water freezing in the internal tank.(Refer Cautions in this manual for the method to drain away the water from the inner container).
- To ensure long reliable water heater operation, it is recommended to regularly clean the internal tank and remove deposits on the electric heating element of the water heater, as well as check condition (fully decomposed or not) of the magnesium anode and, if necessary, replace it with a new one in case of full decomposition.Tank cleaning frequency depends on hardness of water located in this territory. Cleaning must be performed by special maintenance services. You can ask the seller for address of the nearest service center.
- The water heater is equipped with a thermal switch, which cuts off power supply of the heating element upon water overheating or its absence in the water heater. If the water heater is connected to the mains, but water is not heated and the indicator doesn't light up, then the thermal switch was switched off or not switched on. To reset the water heater to the operating condition, it is necessary to:
  1. De-energize the water heater, remove the plate of the side/lower cover.
  2. Press the button, located at the center of the thermal switch, see Fig.6;
  3. If the button is not pressed and there is no clicking, then you should wait until the thermal switch cools down to the initial temperature.

Manual reset button



(Fig.6)

⚠ WARNING

Non-professionals are not allowed to disassemble the thermal switch to reset. Please contact professionals to maintain. Otherwise our company will not take responsibility if any quality accident happens because of this.

6. TROUBLESHOOTING

Faults		Possible reasons	Elimination methods
The outlet water is cold water	Heating indicator is not on	Outage of power supply line	Power supply shall be restored
		Poor contact of power socket	Replace the power socket
		Damage to temperature limiter or thermostat	Inform the professional to repair
	Heating indicator is on	Insufficient heating time	Wait for heating
		Open circuit of or damage to heater	Inform the professional to repair
	Heating indicator is not on	Action of temperature limiter caused by dry burning or too high water temperature	Inform the professional to repair
		Damage to temperature limiter	Inform the professional to repair
		Damage to thermostat	Inform the professional to repair
		Damage to wire control switch	Inform the professional to repair
No warm water is out from the warm water outlet		The water supply is cut off	Wait for the normal providing of water supply
		The water pressure is too low	Use until the water pressure is raised
		The inlet valve of water supply is not opened	Open the inlet valve
Water temperature is too high		Failure of temperature control system	Inform the professional to repair
Water leakage		The seal of the connection position of all the pipe orifices is not good	Seal the connection position

NOTE

Parts illustrated in this use and care manual are indicative only, parts provided with the product may differ with illustrations.This product is intended for household use only. Specifications are subject to change without notice.

7. Produce information with EU regulation

The electrical storage water heater QFE 5 U DRY of the company QUADROFLEX was tested with a declared load profile of the size **"XXS"**

The product fulfills and corresponds to the requirements of the commission regulation standards (No 814/2013) for electrical storage water heater and achieved a water heating energy efficiency of η_{wh}**=36%**

that correspond to the water heating efficiency class **"A"**

In accordance with Annex II Enercy Efficiency Classes article 1 of the commission regulation (No 812/2013)

The evaluation of the result of this report with respect of conformity with the related commission regulation (No 812/2013 and 814/2019) is only a part of the conformity assessment to achieve the ErP-Label.

Electricity consumption Q_{elec}、water heating energy efficiency η_{wh} and mixed water at 40℃ (V40)

Description	**Parameter**	**Value**	**Unit**
k-Value	k	0.23	
Smart control compliance	smart	0	
Smart control factor	SCF	0	
Conversion coefficient	CC	2.5	
Ambient correction term	Q_{cor}	-0.179	kWh
Referenct energy	Q_{ref}	2.1	kWh
Useful energy content	Q_{H2O}	2.123	kWh
Correction ratio of reference and useful energy	Q_{ref}/Q_{H2O}	0.989	kWh
Daily electricity consumption (measured)	Q_{test_elec}	2.386	kWh
Water temperature at the beginning of the 24h measurement cycle	T3	45.3	℃
Water temperature at the end of the 24h measurement cycle	T5	38.8	℃
Storage volume	M_{act}	6.1	kg
Storage volume	C_{act}	6.1	L
Daily electricity consumption (corrected)	Q_{elec}	2.411	kWh
Water heating energy efficiency	η_{wh}	35.91	
Annual Electricity Consumption	AEC	513.68	kWh
Water heating energy efficiency class		A	
Description	**Parameter**	**Value**	**Unit**
Water temperature without tapping	T_{set}	45.8	℃
Average water temperature of outlet warm water	θ'_p	44.4	℃
Average water temperature of inlet cold water	θ_c	10.2	℃
Normalised value of the average temperature	θ_p	44.3	℃
Volume that delivered water of at least 40℃	V_{40exp}	3.2	L
Calculated volume that delivered hot water of at least 40℃	V_{40}	4	L

The product is subject to change without notice.
Please keep this manual properly.