BIASI

INSTALLATION MANUAL

Pro-Electric Boiler Range

HIGHLY EFFICIENT, EASY TO INSTALL AND CARBON-FREE

Please read through the installation manual before unpacking and installing the appliance

INTRODUCTION

Electric boilers provide many benefits to homeowners, not least the ability to become carbon free when used with a renewable energy supply.

With Government legislation banning the installation of gas boilers in new-build properties from 2025, the Biasi Pro-Electric range of boilers is the perfect alternative.

Seamlessly switch

Our electric boilers work in a very similar way to a traditional gas boiler but can also be installed in properties where a gas boiler is not possible or where there is no gas supply to the property. It doesn't need a flue, so can be sited anywhere. It is easy to install, comes pre-wired and fits seamlessly into the existing pipework and radiator system. There are minimum moving parts, making our Pro-Electric boilers very quiet, offering low-cost servicing and less need for repairs.

Environmental advantages The Biasi Pro-Electric boilers are almost 100% efficient, with power modulating from 2kw to full power, using less energy and therefore making the boiler cost-effective to run.

Benefits of the Biasi Pro-Electric Boiler Range

- ✔ Almost 100% efficient and power modulates to use less energy
- ✔ Carbon-free with renewable energy tariff
- ✔ Very few moving parts, so almost silent, minimal repairs and low servicing costs
- ✔ Easy to install, no flue required and comes pre-wired
- ✔ No carbon monoxide, gas leaks or condensate
- ✔ Neat and compact design with stylish touchscreen control and digital display

Safety first

Because our boilers are electric, there is no risk of a gas leak or carbon monoxide.

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INSTALLATION REGULATIONS

Under the Consumer Protection Act 1987 and the Health & Safety at Work Act 1974, it is a requirement to provide information on substances hazardous to health (COSHH Regulations 1988).

The company takes every reasonable care to ensure that these products are designed and constructed to meet these general safety requirements, when properly used and installed. To fulfil this requirement products are comprehensively tested and examined before dispatch.

The Appliance must be fitted in accordance with the following: -

- **The local building regulations**
- **UK building regulations**

BS EN 12828
Heating systems in buildings: Design for water-based heating systems.

BS EN 12831
Heating systems in buildings: Method for calculation of the design heat load

BS EN 14336
Heating systems in buildings: Installation and commissioning of water-based heating systems

BS7671
Requirements for electrical installations. IEE Wiring Regulations. Seventeenth edition

BS EN 7593
Code of practice for treatment of water in heating systems

1. Load Check

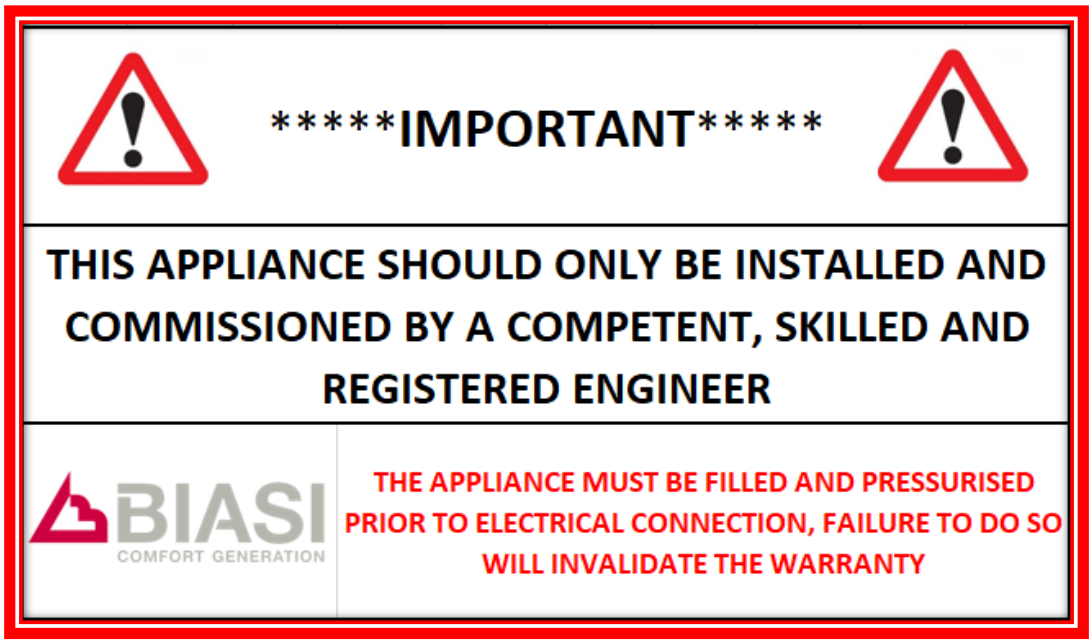
- Check that the power supply to the premises meets the minimum requirements of the appliance and application

2. System Design

- check the system design is suitable for the installation, Design Recommendations are provided in BS EN 12828 and BS EN 6700

3. Location

- the appliance must be installed in an upright position. The boiler must be mounted on a suitable wall that can bear the weight when full. When installing the boiler please ensure permanent clearance from the front face of the boiler. Also ensure sufficient clearance to allow free access for servicing and the removal of the front control cover.



BY INSTALLING THE APPLIANCE, YOU AGREE

- YOU ARE CONFIDENT THAT THIS APPLIANCE IS APPROPRIATE FOR THE INSTALLATION AND THAT ALL HEAT LOSS CALCULATIONS HAVE BEEN CARRIED OUT
- A VOLTAGE AND LOAD TEST CALCULATION HAS BEEN COMPLETED TO DETERMINE THE CORRECT BREAKER SIZE.
- YOU HAVE CHECKED THAT THE HOT WATERFLOW RATE IS SUFFICIENT FOR THE INSTALLATION.
- TO VALIDATE THE WARRANTY. AN ELECTRICAL CERTIFICATE MUST BE ISSUED IMMEDIATELY AFTER A LIVE CONNECTION HAS BEEN MADE TO THE APPLIANCE. AS STATED IN PART P REGULATION A CERTIFICATE MUST BE PROVIDED.
- A PART P CERTIFICATE WILL BE ISSUED IN ACCORDANCE WITH BUILDING REGULATIONS UK.
- YOU ARE STRONGLY ADVISED TO THE BRITISH STANDARD BS 7593-2006 CODE OF PRACTICE, FLUSH OUT THE SYSTEM BOTH COLD AND HOT IN ORDER TO REMOVE SYSTEM AND INSTALLATION DEBRIS
- THE GUARANTEE REGISTRATION MUST BE COMPLETED WITHIN 45 DAYS OF PURCHASE, FAILURE TO COMPLY WILL AFFECT THE GUARANTEE.
- TO VALIDATE THE WARRANTY THE APPLIANCE MUST BE SERVICED ANNUALLY BY A REGISTERED ELECTRICIAN

PLEASE NOTE BIASI UK ARE NOT RESPONSIBLE FOR ANY FAILURES SHOULD THE ABOVE TERMS NOT BE MET

TECHNICAL SPECIFICATION

Power: 6KW, 8KW, 10KW, 12KW, 14KW, 16KW, 20KW, 25KW

Phase: 1 Phase Voltage Frequency: 230V～50Hz

Phase: 3 Phase Voltage Frequency: 400V～50Hz

Mode: System Type, Combi System

Waterproof Level: 1PX4

Function: Heating, Hot Water

The electrical environment must meet the following requirements: (Notice: The following electrical parameters are only for this machine, not for other electrical appliances and all wires are copper core wires of national standard.)

Power Supply	1 Phase 230V~50HZ	3 Phase 400V~50HZ
6KW	Wire Size: ＞6mm^2 Meter Requirement: ＞32A Electrical Leakage Switch: ＞32A	Wire Size: ＞2.5mm^2 Meter Requirement: ＞10A Electrical Leakage Switch: ＞10A
8KW	Wire Size: ＞6mm^2 Meter Requirement: ＞40A Electrical Leakage Switch: ＞50A	Wire Size: ＞2.5mm^2 Meter Requirement: ＞20A Electrical Leakage Switch: ＞20A
10KW	Wire Size: ＞10mm^2 Meter Requirement: ＞60A Electrical Leakage Switch: ＞63A	Wire Size: ＞2.5mm^2 Meter Requirement: ＞20A Electrical Leakage Switch: ＞20A
12KW	Wire Size: ＞10mm^2 Meter Requirement: ＞60A Electrical Leakage Switch: ＞63A	Wire Size: ＞4mm^2 Meter Requirement: ＞20A Electrical Leakage Switch: ＞20A
14KW	Wire Size: ＞10mm^2 Meter Requirement: ＞80A Electrical Leakage Switch: ＞80A	Wire Size: ＞4mm^2 Meter Requirement: ＞30A Electrical Leakage Switch: ＞30A

Power Supply	3 Phase 400V~50HZ
16KW	Wire Size: > 4mm^2 Meter Requirement: > 30A Electrical Leakage Switch: > 32A
20KW	Wire Size: > 4mm^2 Meter Requirement: > 40A Electrical Leakage Switch: > 40A
25KW	Wire Size: > 6mm^2 Meter Requirement: > 40A Electrical Leakage Switch: > 50A

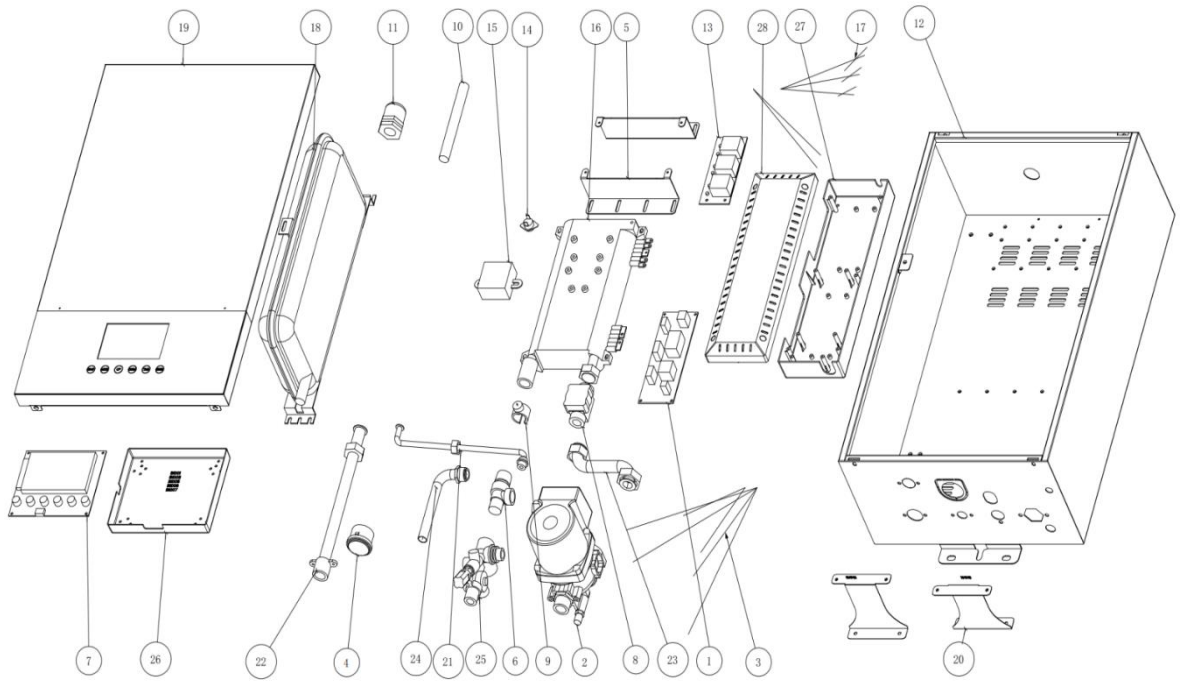
Warning: The above electrical parameters are only for this boiler, not for other electrical appliances and the wires are all copper core wires.
This machine indicates that:
L is a Live line.
N is a Neutral line.
E is an Earth wire.

CONTENTS OF PACKAGING

- One wall mounted Biasi Pro-Electric Boiler
- One Instruction Manual
- A set of mounting bolts

ELECTRIC BOILER SCHEMATICS

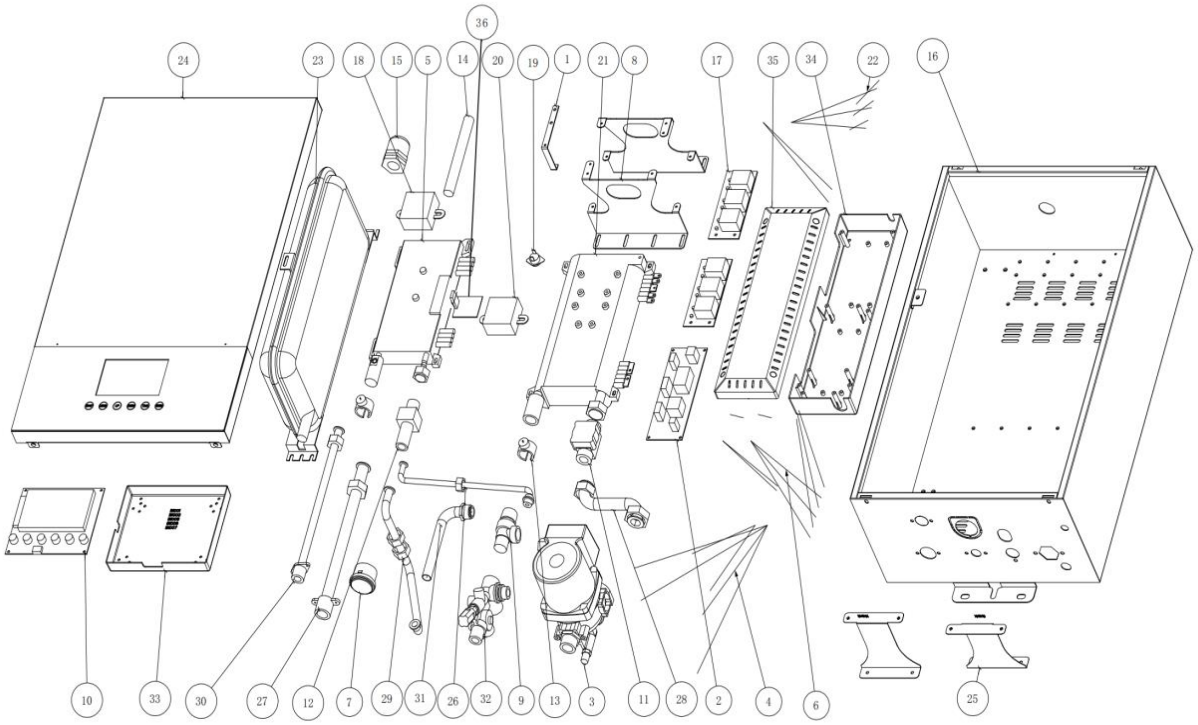
6kW to 14kW System Boiler-Exploded View



NO.	Name	QTY
1	Main Board	1
2	Side insertion water pump	1
3	Signal Cable	1
4	Pressure Gauge	1
5	Double layer heater bracket	2
6	Safety Valve	1
7	Display Board B1006	1
8	Water flow switch for heating	1
9	Water temperature probe 50K	1
10	Water flow switch for DHW	1
11	Waterproof clamp for power cable	1
12	Box Component	1
13	Relay Board	1
14	High limit thermostat 110℃10A	1

NO.	Name	QTY
15	High limit thermostat 140℃ 60A	1
16	Heater for heating	1
17	Cable for heating	1
18	Expansion water tank 5L	1
19	Cover Component	1
20	Electronic control box bracket	2
21	Water tank connecting pipe	1
22	Heating outlet water pipe	1
23	Heating inlet water pipe	1
24	Pressure relief pipe 15mm	1
25	Side valve	1
26	Display cover	1
27	Electric control box bottom shell	1
28	Electric control box cover	1

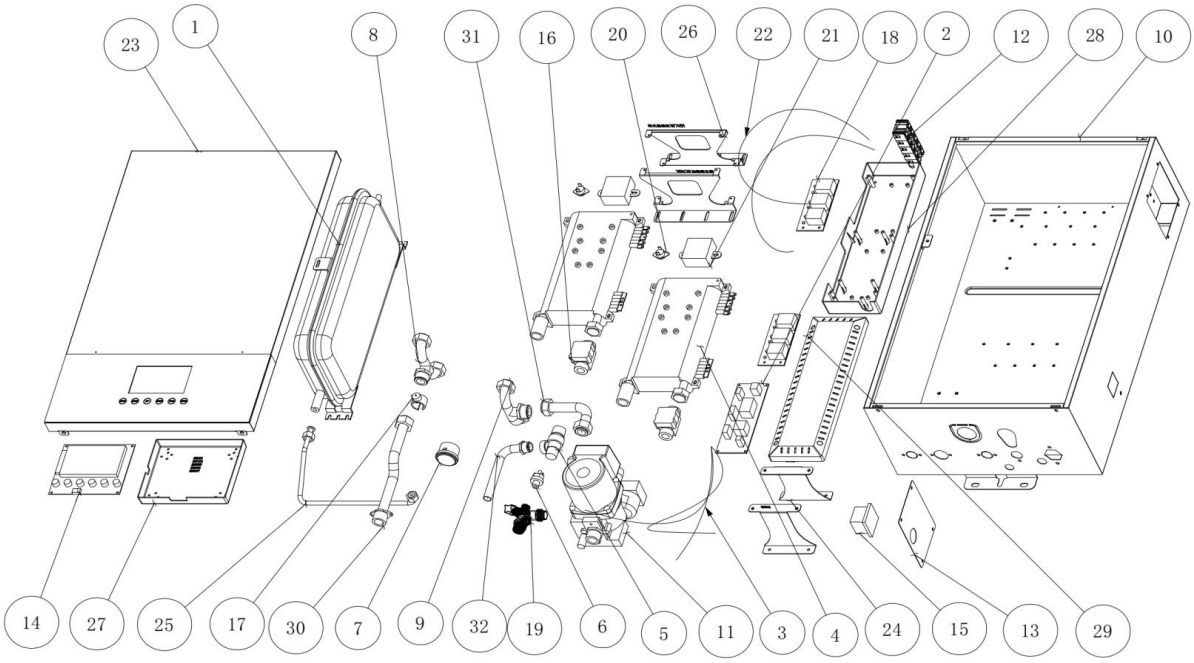
6kW to 14kW Combi Boiler-Exploded View



NO.	Name	QTY
1	L-shaped connecting piece	1
2	Main Board	1
3	Side insertion water pump	1
4	Signal Cable	1
5	Heater for DHW	1
6	Cable for DHW	1
7	Pressure Gauge	1
8	Double layer heating bracket	2
9	Safety Valve	1
10	Display Board B1006	1
11	Water flow switch for heating	1
12	Water flow switch for DHW	1
13	Water temperature probe 50K	2
14	Power Cable	1
15	Waterproof clamp for power cable	1
16	Box Component	1
17	Relay Board	2
18	High limit thermostat 105℃ 60A	1

NO.	Name	QTY
19	High limit thermostat 110℃10A	1
20	High limit thermostat 140℃ 60A	1
21	Heater for heating	1
22	Cable for heating	1
23	Expansion water tank 5L	1
24	Cover Component	1
25	Electronic control box bracket	2
26	Water tank connecting pipe	1
27	Heating outlet water pipe	1
28	Heating inlet water pipe	1
29	DHW inlet water pipe	1
30	DHW outlet water pipe	1
31	Pressure relief pipe 15mm	1
32	Side valve	1
33	Display cover	1
34	Electric control box bottom shell	1
35	Electric control box cover	1
36	SCR for DHW	1

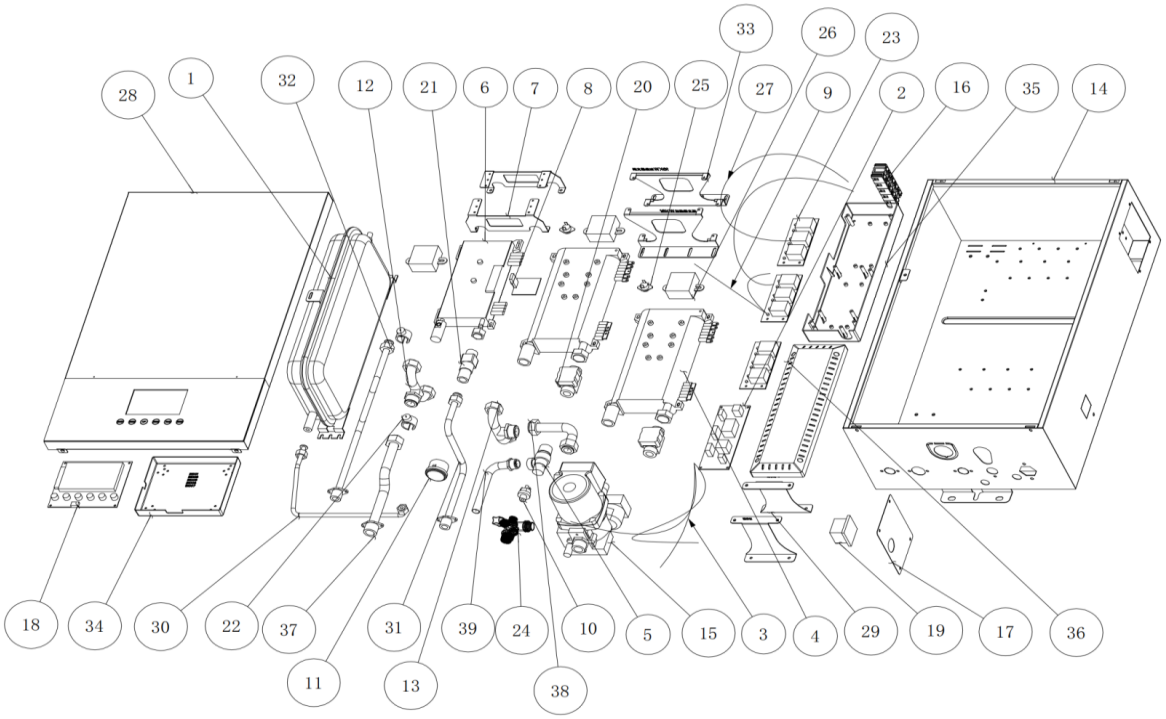
16kW to 25kW System Boiler-Exploded View



NO.	Name	QTY
1	Expansion water tank 6L	1
2	Main Board	1
3	Signal Cable	1
4	Heater for heating	2
5	Pressure relief valve	1
6	Pressure Switch	1
7	Pressure Gauge	1
8	Y-shaped outlet water pipe	1
9	Y-shaped inlet water pipe	1
10	Bottom shell components	1
11	Circulating water pump	1
12	Terminal block	1
13	Terminal block cover	1
14	Display Baord	1
15	Water pump socket	1
16	Water flow switch for heating	2

NO.	Name	QTY
17	Water temperature probe 50K	1
18	Relay Board	2
19	Replenish water valve	1
20	High limit thermostat 110℃10A	2
21	High limit thermostat 140℃ 60A	2
22	Cable for heating	1
23	Cover Component	1
24	Electronic control box bracket	2
25	Water tank connecting pipe	1
26	Heater for heating bracket	2
27	Display cover	1
28	Electric control box bottom shell	1
29	Electric control box cover	1
30	Heating outlet water pipe	1
31	Heating inlet water pipe	1
32	Pressure relief pipe 15mm	1

16kW to 25kW Combi Boiler-Exploded View



NO.	Name	QTY
1	Expansion water tank 6L	1
2	Main Board	1
3	Signal Cable	1
4	Heater for heating	2
5	Pressure relief valve	1
6	Heater for DHW	1
7	DHW heater bracket	2
8	SCR for DHW	1
9	Cable for DHW	1
10	Pressure Switch	1
11	Pressure Gauge	1
12	Y-shaped outlet water pipe	1
13	Y-shaped inlet water pipe	1
14	Bottom shell components	1
15	Circulating water pump	1
16	Terminal block	1
17	Terminal block cover	1
18	Display Board	1
19	Water pump socket	1
20	Water flow switch for heating	2

NO.	Name	QTY
21	Water flow switch for DHW	1
22	Water temperature probe 50K	2
23	Relay Board	3
24	Replenish water valve	1
25	High limit thermostat 110℃10A	2
26	High limit thermostat 140℃ 60A	3
27	Cable for heating	1
28	Cover Component	1
29	Electronic control box bracket	2
30	Water tank connecting pipe	1
31	DHW inlet water pipe	1
32	DHW outlet water pipe	1
33	Heater for heating bracket	2
34	Display cover	1
35	Electric control box bottom shell	1
36	Electric control box cover	1
37	Heating outlet water pipe	1
38	Heating inlet water pipe	1
39	Pressure relief pipe 15mm	1

INSTALLATION DRAWINGS

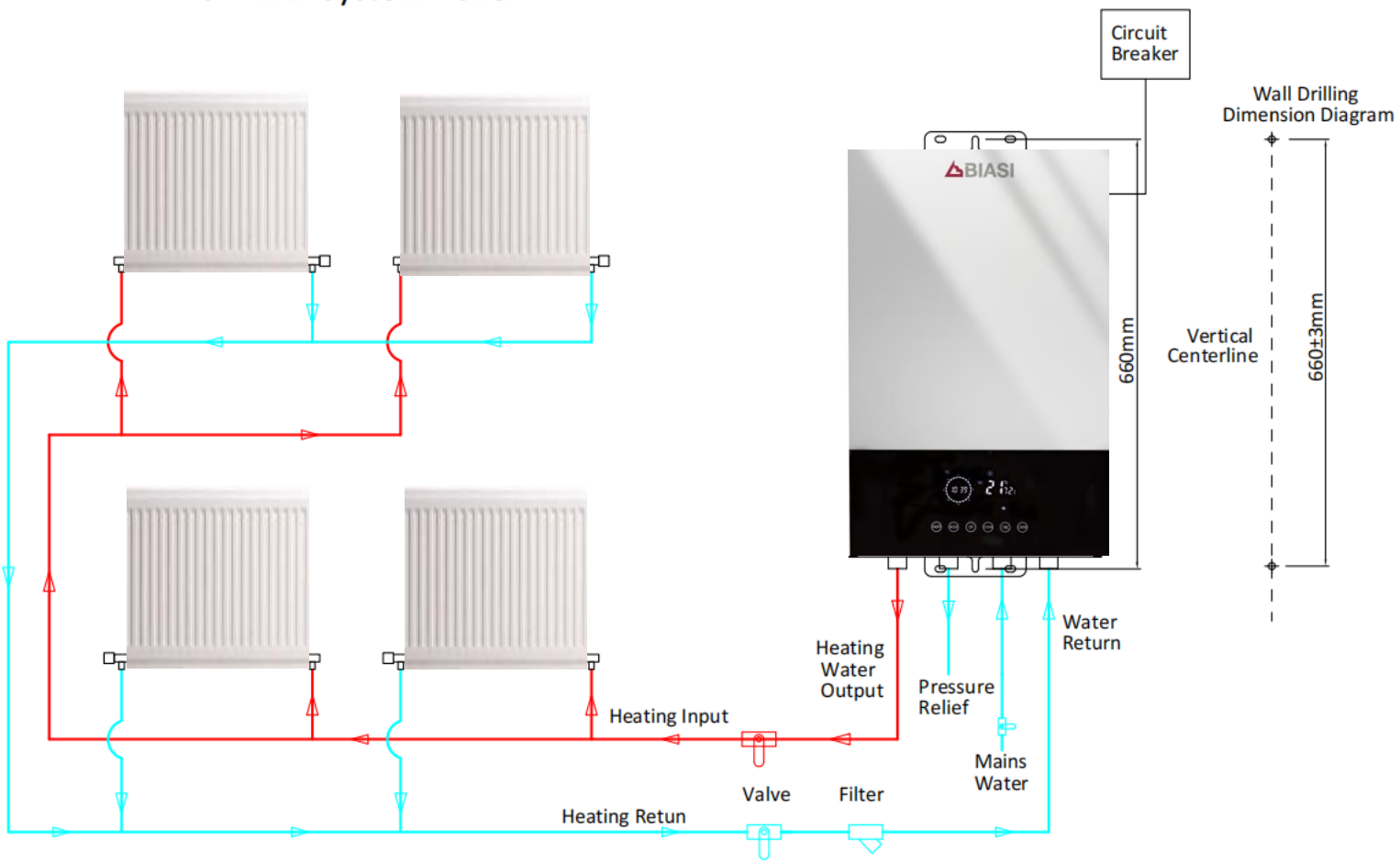
Installation Steps

1. Determine installation location.
2. Draw the vertical centerline and drilling center point.
3. Drill holes with an impact drill (drill bit Ø 10mm).
4. Insert the expansion screw (M8X70), tighten the nut, confirm it is secure, and then remove the nut and gasket.
5. Hang the electric boiler, reinstall the nuts and washers and tighten them.

System Boiler

16-25kW Boiler uses water pump that the lift is 12 meters and power is ≥320W.
Attention: Do not plug the water pump exceeding 320W into the wall mounted stove socket.
6-14kW Boiler can also refer to this installation.
6-14kW Boiler uses ⩾230W water pump with 10 meters lift.

6-14kW System Boiler



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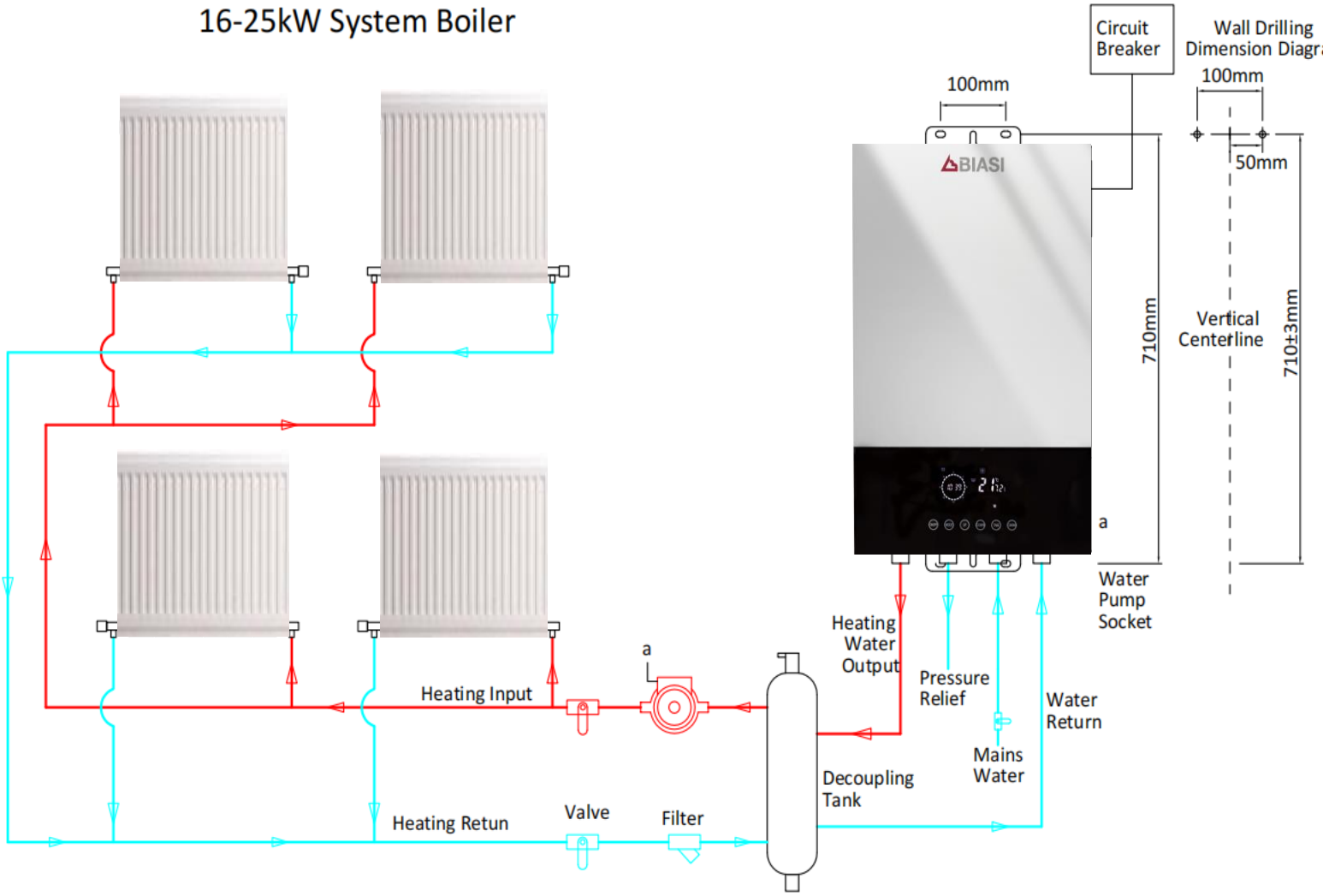
System Boiler



	Single phase			Three phase
Model	6kw	8kw	12kw	16kw
Voltage	230v	230v	230v	400v
Current (Amps)	26	35	52	23
Recommended breaker (Amps)	32	40	63	32
Recommended cable size	6mm²	6mm²	10mm²	3x4mm²
Max. heating pressure	2.5 bar			
Min. heating pressure	0.5 bar			
Max. flow temp	80°C			
Min. flow temp	30°C			
Heating connection size	¾" male connectors			
PRV connection size	15mm			

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Combi Boiler

16-25kW Boiler uses water pump that the lift is 12 meters and power is ≥320W.
Attention: Do not plug the water pump exceeding 320W into the wall mounted stove socket.
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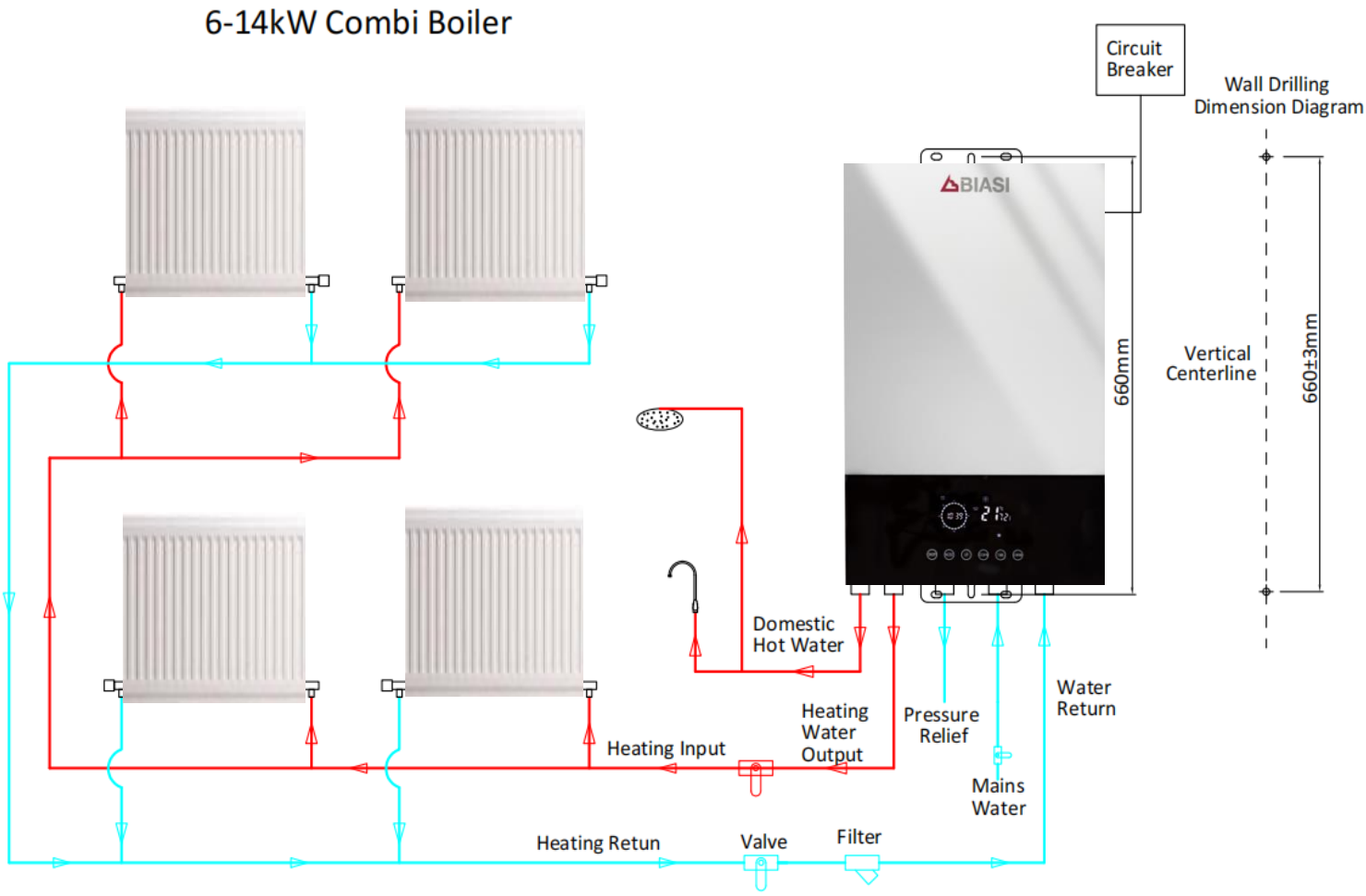
6-14kW Boiler uses ⩾230W water pump with 10 meters lift.



	Single phase		Three phase
Model	12kw	14kw	25kw
Voltage	230v	230v	400v
Current (Amps)	52	61	36
Recommended breaker (Amps)	63	80	40
Recommended cable size	10mm²	10mm²	3x6mm²
Max. heating pressure	2.5 bar		
Min. heating pressure	0.5 bar		
Max. flow temp	80°C		
Min. flow temp	30°C		
HW connections	½" male connectors		
Heating connection size	¾" male connector		
PRV connection size	15mm		

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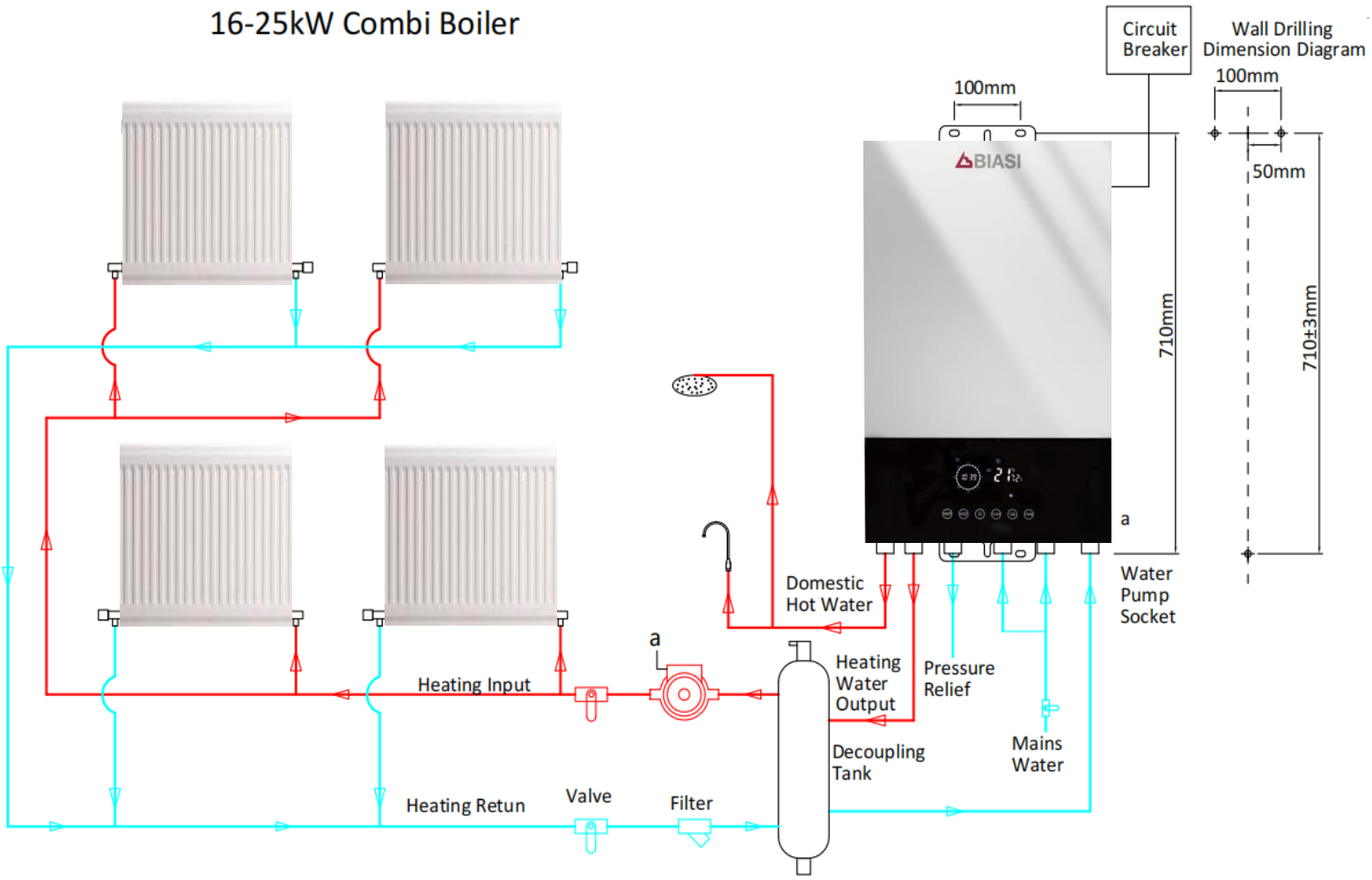
16-25kW Combi Boiler



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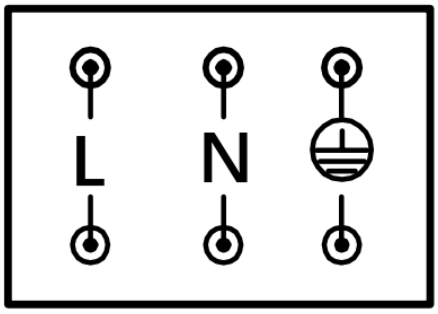
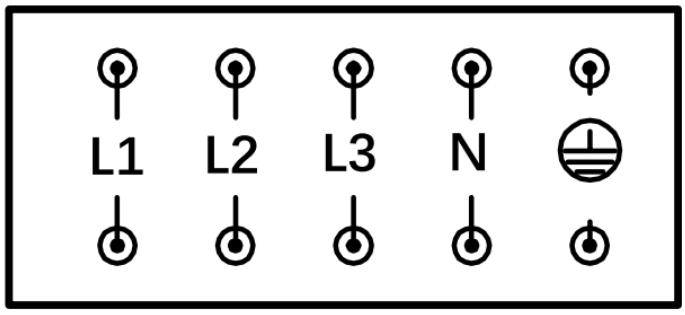
ELECTRICAL SUPPLY CONNECTION

Power Cable Connecting Attention

Single Phase 230V~
Wiring Diagram



Three Phase 400V 3N~
Wiring Diagram



Note: If the rated voltage of the installed model is 400V, as shown in the figure, connect "N", "L1", "L2", "L3" and "⏚" respectively.

If the rated voltage of the installed model is 230, connect "N", "L", and "⏚" respectively

1. The leakage protection switch calibrated in the parameter table must be used. Use calibrated wire specifications and choose a larger size for long-distance lines.
2. It is necessary to correctly measure, distinguish, and identify the attributes of external input wires before connecting them to this wiring block: L1, L2, L3, L are live wires, N is neutral wire, and ⏚ is earth wire.
3. The wire connector must be pressed with a copper sleeve, a straight terminal, or a folded wire head to increase the contact area before use. When wiring, extend and tighten the screws to prevent loosening. Pay attention to regular power outage and maintenance of sturdy wire ends.

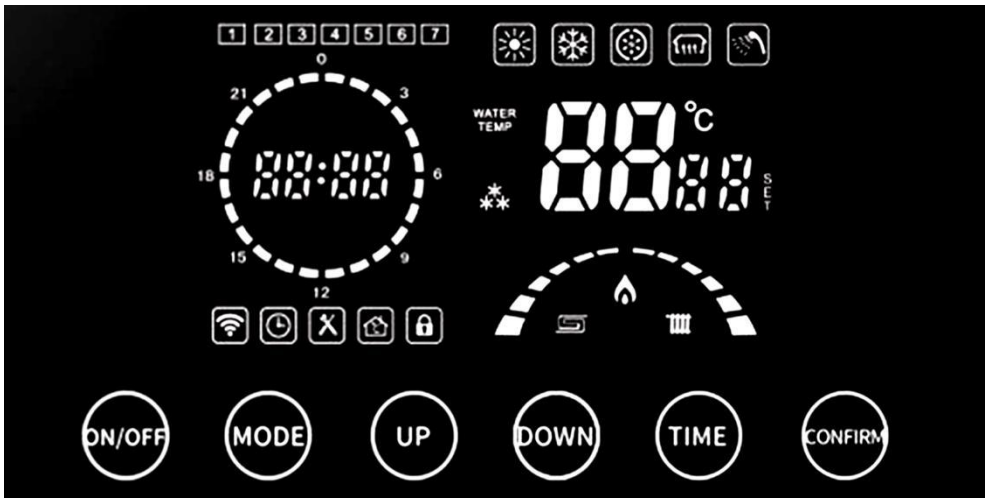
Connecting Instructions

Before connecting the power cable, the installation personnel must confirm whether the power supply provided by the user is correct. Wiring can only be carried out according to the phase sequence identification of the power supply provided by the user. It is necessary to reconfirm the user's power supply to prevent mislabeling and other situations from causing wiring errors. Find the neutral wire (N) of the power supply and correctly connect it to the neutral wire (N) of the boiler terminal block. The phases wires (L1, L2, L3) of the power supply can be connected in the normal order. Then set the multi-meter to the AC750V position and measure any two phases of the power supply L1, L2, L3, N, and any two phases between phase wires (L1, L2, L3). The multi-meter should display 400V for testing, while any phase between neutral wire (N) and phase wires (L1, L2, L3) should display 230V for testing. Please refer to the table below for details. By continuously testing the voltage between each power line, the neutral wire (N) can be distinguished.

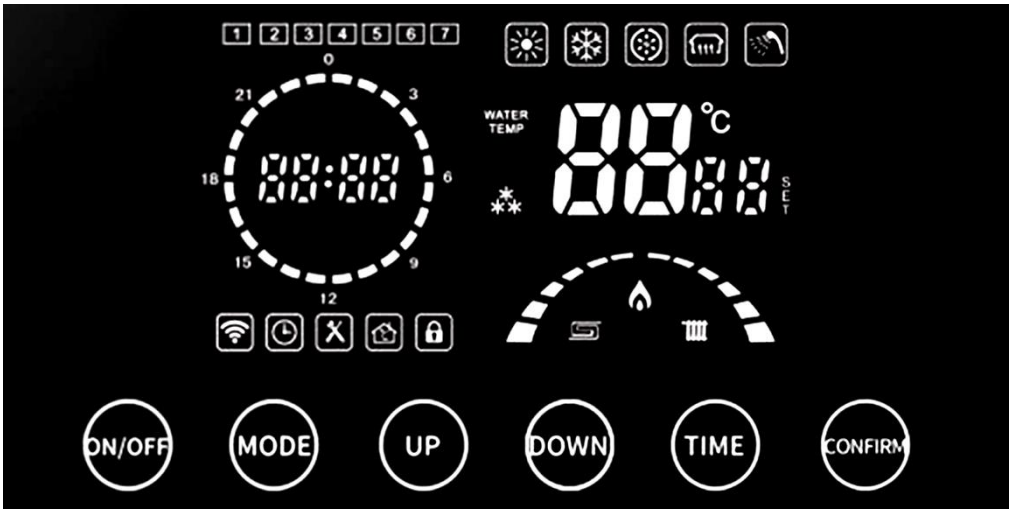
Power Cable / Voltage / Power Cable	N	L1	L2	L3
N		230V	230V	230V
L1	230V		400V	400V
L2	230V	400V		400V
L3	230V	400V	400V	

Attention: ① The neutral wire (N) is absolutely not allowed to be confused with the earth wire (⏚), and the neutral wire and earth wire cannot be connected together.

OPERATING INSTRUCTIONS



1	ON/OFF Key	Turn on / off key (winter / summer mode) to enter the function menu setting
2	MODE Key	Go to each functional menu
3	UP Key	Up-Increase function parameter key
4	DOWN Key	Down-decrease function parameter key
5	TIME Key	Enter the Daily 24hr Timing Menu Key
6	CONFIRM Key	Confirm and exit / Fault clear key



	Summer mode	On--In the summer mode, hot water function is on, but heating is off.
	Time	Shows the current 24hr time in hours and the minute
	Timing function status	On—Heating timing is controlled by the boiler. Off-- Heating timing is not controlled by the boiler
	Heating status	On--In heating. Off--No heating
	Heating setting temperature, Bathroom setting temperature, Fault code	In winter mode--Shows the heating setting temperature. In summer mode--Shows the Hot water setting temperature. Shows Fault Code when a fault occurs.
	Indoor temperature thermostat	On--Heating is required when the room temperature thermostat is closed Off--The room temperature thermostat is disconnected and heating is not required
	Anti-freezing function	On- Boiler in Anti-freeze mode – heating at 5 degrees
	Timed period Icon	When the timing mode is turned on, and the blocks are lit, heating is required during the solid periods When the timing mode is turned on, and the blocks are blank, no heating is required in this period
	The heating indicator icon	On and flashing-In heating status Off and no flashing-Not in heating status

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	Fault protection icon	On- Failure protection needs to view the fault code table Off- Failure-free
	Period display area	Light up at the specified day of the week. 1~7
	Actual temperature	Heating actual outlet temperature, bathroom actual outlet temperature.
	Water pump operation status	On--the pump is running. Off--the pump is not running.
	Bathroom function	Lit—Hot water demand/function is running. Off—Hot water function is not currently required.
	Heating status	The equipment is in a heating condition.
	Winter mode	On--In winter mode. Have heating function and bath function in this mode.
	Bathroom function	On- In floor heating mode Off-Not in floor heating mode
	CH mode	On- In radiator mode Off-Not in radiator mode
	Child lock function	On-In child lock function Off-Not in child lock function

FUNCTION SETTINGS

1. Summer mode： Press the key screen on to illuminate the actual set temperature, Actual water supply temperature, Indoor temperature control icon  ,Week  , Time  , The Summer Mode icon is in standby mode  .

2. Winter mode: Press the Turn on / off key to light up the  winter mode icon, the actual setting temperature, the actual water outlet temperature, indoor temperature control  , heating icon  , water pump icon  , time  , week  is the boot mode.

3. Heating State: Press the Turn on / off key to light up the  winter mode icon, actual setting temperature , actual water outlet temperature, indoor temperature control icon  , heating icon  , water pump icon  , Time  , heating icon, for the start-on heating state.

4. Set Temp: Press the “UP/DOWN” Key to adjust the temperature. Then, press the “CONFRIM” Key to take effect.

5. Heating return difference Temperature Setting: Long press “MODE” until the Display show the “CH” return temperature menu. Press “UP/DOWN” adjust the return temperature setting. And press “CONFIRM” to take effect (Note: Heating return difference Temperature Setting is from 5 ℃ ~30 ℃, Factory default is 15℃)

6. Radiator  mode/ Floor heating  mode setting: Press the “MODE” key twice in the standby state to enter the radiator / floor heating mode selection, press the “UP / DOWN” to select the set and press the “CONFIRM” to take effect.

7. Time Setting: Press “MODE” key in standby summer mode state 3 times and set by pressing “UP / DOWN” adjustment hour set, then press “MODE” key at “UP / DOWN” adjustment. At last, press “CONFIRM” to complete the setting.

8. Week Settings: In standby status, press “MODE” 5 times and is flashing. Press “UP / DOWN” to set the week. At last, press “CONFIRM” to complete the setting.

9. 24 Period timing and each timing temperature set: Press “TIME” key to enter the on / off time setting, the time period flashes. Press “UP / DOWN” to make the on / off hour setting. (Note: Press “UP” Select this segment time on-the segment lamp is on  , Press “DWON” Cancel the segment timing-segment light off  . And then press “MODE” and the  flashes. Press “UP / DOWN” to set the temperature. Long press “TIME” for 3 seconds until the  icon is light and timing function starts.
(1-24) Time on / off / temperature setting is completed. After the appointment time / temperature setting, press the “TIME” for 3 seconds to enter the reservation time / temperature on / off. If there is no need to set the timing function, press the 3-second “TIME” key to exit the reservation function.
Note: (The second grid from left to right is the first hour).

10. Heating temperature setting: In radiator mode  , the heating water temperature can be set 30℃-80℃. In floor heating mode  , the heating water temperature can be set 30℃-60℃

11. Bath water temperature setting range: bath water temperature can be set up the temperature range: 30℃ -60℃.

12. Fault deletion Function: If there is a fault code on the screen, press “CONFIRM” key to delete the fault. (Note: After pressing the “Confirm” Key to delete the fault, if the fault code still on, need to check fault according to the fault code sheet.)

13. Anti-freezing function: The boiler turns on the antifreeze icon on constant standby.

14. Child lock function: Long press the “CONFIRM” for 5 seconds to open the  child lock lighting function, unlock the child lock function, long press the “CONFIRM” for 5 seconds to unlock the child lock function.

AFTER SALES SERVICE

1. Biasi UK offer a three years warranty with the appliance (excluding damage done by human error, natural and other reasons). Subject to the date of purchase invoice and registration.

2. If you find anything wrong or other problems with the product, please contact the distributor or after sales. Do Not repair yourself.

3. Don't forget to register your boiler, failure to do so can invalidate your warranty (registration must occur within the first 45 days of purchase).

4. To validate the warranty. An electrical certificate must be issued immediately after a live connection has been made to the appliance. As stated in PART P regulations a certificate must be provided.

5. To uphold the warranty, a recorded annual service must be carried out to maintain the appliance.

6. Please keep all documents in a safe place as they can be called upon anytime during the warranty period.

PLUMBERS CHECK LISTS

CUSTOMER NAME: _____

ADDRESS:_____

TELEPHONE NUMBER: _____ **EMAIL:** _____

BOILER MODEL: _____ **BOILER SERIAL NUMBER:** _____

DATE OF INSTALLATION: _____

COMPANY NAME: _____ **PLUMBERS NAME:** _____

COMPANY ADDRESS: _____

COMPANY TELEPHONE: _____ **EMAIL:** _____

IS THIS A NEW INSTALL OR EXISTING INSTALL? _____

HAS AN AUTOMATIC BYPASS VALVE BEEN FITTED? _____

HAS A WRAS APPROVED FILLING LOOP BEEN USED? _____

WHAT IS THE INCOMING MAINS PRESSURE? _____

HAS AN MAGNETIC FILTER BEEN FITTED TO THE RETURN SIDE? _____ (failure to do so will affect your warranty)

THE HEATING AND HOT WATER SYSTEM COMPLIES WITH THE APPROPRIATE BUILDING REGULATION Yes ☐

THE BOILER AND ITS ASSOCIATED PRODUCTS HAVE BEEN INSTALLED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS Yes ☐

THE OPERATIONS OF THE BOILER HAVE BEEN DEMONSTRATED TO AND UNDERSTOOD BY THE CUSTOMER Yes ☐

THE MANUFACTURERS LITERATURE, INCLUDING CHECKLIST HAS BEEN EXPLAINED AND LEFT WITH THE CUSTOMER Yes ☐

SIGNED: _____ DATE: _____

ELECTRICIANS CHECK LISTS

COMPANY NAME: _____ **ELECTRICIANS NAME:** _____

COMPANY ADDRESS: _____

COMPANY TELEPHONE: _____ **EMAIL:** _____

DATE OF INSTALLATION _____ **REGISTRATION NUMBER**_____

WHAT IS THE INCOMING MAINS VOLTAGE AT THE FUSE BOARD? _____ VAC

WHAT IS THE INCOMING MAINS VOLTAGE AT THE APPLIANCE? _____ VAC

WHAT SIZE BREAKER HAS BEEN FITTED FOR THE BOILER? _____ AMPS

WHAT IS THE DRAW OF THE APPLIANCE FOR HEATING? _____ AMPS

WHAT IS THE DRAW OF THE APPLIANCE FOR HOT WATER? _____AMPS

WHAT SIZE CABLE WAS INSTALLED TO THE APPLIANCE? _____ MM2

WHAT IS THE APPROXIMATE CABLE RUN TO THE BOILER? _____M

WHAT TYPE OF CABLE HAS BEEN USED? _____

ADDITIONAL NOTES:

SIGNED: _____ DATE: _____

MAINTENANCE AND SERVICE RECORDS

Annual inspections should be carried out by a registered Electrical engineer

1. Check if the power cord and circuit breaker (electric leakage switch) are in good contact, and if the earth wire is in good condition.

2. Check if the pipeline connection interface is in sound condition with no signs of leaks

3. Check the pipeline magnetic filter is clean and free from any debris and impurities.

4. Check the water pressure of the electric boiler system. The pressure gauge pointer should be between 1 bar and 1.5 bar when the boiler is cold. If the water pressure is low, please replenish the water through the replenish water valve.

5. Check whether the installation of the electric boiler is stable and free of obstructions, and whether flammable, explosive, and volatile corrosive materials are not stacked next to the electric boiler.

6. Checking the internals of the appliance, open the front panel of the electric boiler, and check if internal connecting wires are sound and secure. If there is any damage to the internal power cord, please address it immediately. Check for any water leaks at the internal water connection of electric boiler, and if so, tighten it.

7. Use a brush to clean the interior of the electric boiler to remove any dust that may have built up

8. Check the pressure of the expansion vessel within the electric boiler. When the pressure gauge fluctuates significantly during cold and heated conditions, a car tire pressure monitor can be used to monitor the pressure of the expansion water tank. When the pressure is below 0.7 bar, please use an air pump to replenish the pressure to around 1.2 bar. (Main: This inspection is required for system boiler and combi boiler models)

9. After maintenance, conduct safety checks on water, electricity, and associated equipment, please clean the machine casing.

Failure to carry out the above will significantly reduce the life span of your appliance and void your warranty

SERVICE RECORD

It is recommended that your Boiler and Heating System is serviced regularly and that the appropriate Service Interval Record is completed.

Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions. Always use the manufacturer's specified spare part when replacing controls

Service 1

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

Service 2

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

Service 3

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

Service 4

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

Service 5

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

Service 6

Engineers Name:_____

Company Name:_____

Telephone Number:_____

Registration Number:_____

Comments: _____

Date:_____

Signature:_____

ERROR CODES

Code	Function	Fault Description	Action
E0	Self-checking fault of leakage circuit	Circuit board is damp, or temperature change causes water mist.	1. Check whether a signal line on the electric leakage protection coil has fallen off or not. 2. Replace PCB.
E2	Electric leakage on system	Check whether the external power supply has leakage or whether the boiler has leakage or not.	1. Switch off all other home application and switch off the boiler 2. Open the cover to check whether the machine heating element has leakage or not.
E3	Heating water temperature sensor broken	If the temperature changes too much, the resistance of the sensor will increase. This loosening could be caused by transportation.	1. Check whether the socket at the connection joint is loose or not. 2. Contact customer service to replace sensor.
E5	Domestic hot water temperature sensor broken	If the temperature changes too much, the resistance of the sensor will increase. This loosening could be caused by transportation.	1. Check whether the socket at the connection joint is loose or not. 2. Contact customer service to replace sensor.

E9	Antifreeze fault	Heating water temperature is too low then cause ice	1. If the heating is cut off in winter, the boiler will not be able to work. 2. Clean pipe line, refill the water then switch on.
EC	Display Disconnected with PCB	Display Disconnected with PCB	1. Check whether the wire between the cable and the PCB is broken or whether the plug is loosened or not. 2. Contact customer service to replace PCB.
F1	Dry Burning Fault	Heater temperature is too high	1. Check whether the water flow circle is ok or not. 2. Change the thermostat.
F4	Water Pressure Fault	System lacking water pressure, not enough pressure, possible air lock.	1. Check whether the water pressure of the system is normal or not. If it is not, it needs to be replenished water. 2. Check whether the pressure switch is blocked by garbage or it has fault.
F6	No water flow circulation	There is air in the pipe, no water or water pumper does not work, water pumper does not match, pump installation errors, pump stacked by garbage, water flow switch blocked, water flow switch is broken, etc.	1. Check the flow circle. Exhausting the air inside the pipe and refill the water. 2. Check whether the pump specification is match, whether the installation is correct, whether there is debris in the system.

Code	Function	Fault Description	Action
E6	Neutral wires not connect well	No heating	1. Check whether the neutral wire of the machine has false connection. 2. Check whether the neutral wire end of the leakage protection switch is damaged. 3. Measure whether the voltage between the neutral wire and the live wire is 230 v. 3. Contact the customer after sales to replace the motherboard.
	External leakage protector trip	Display screen does NOT light up.	1. Check whether the leakage protector is damaged and replace it. 2. Check whether the heater has leakage and change it. 3. Check whether there is leakage situation in the external input power wires and repair the line.
	Dry burning temperature controller trip	Display screen does NOT light up.	1. Check whether the temperature controller trips. If it trips, press the reset button. 2. Check whether the waterway is blocked. Clean and unblock the pipeline. 3. Check the flow of water pump.
	No heating	Equipment temperature does NOT rise.	1. Water temperature setting too low. 2. Return temperature setting too high. 3. Timing and opening 4. Indoor temperature control setting too low.