INSTANT ELECTRONIC WATER HEATER 12KW

UNLIMITED HOT WATER, INSTANTLY!

NORWIK®

POWERFUL
Heats water instantly

COMPACT
Space-saver design

SMART
Automatic electronic regulation

IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY.
USE THIS PRODUCT PROPERLY AND RESPONSIBLY, ONLY FOR ITS INTENDED PURPOSE.
The installation must be carried out by a qualified plumbing and electrical installer.
The heater must not be installed outdoors, or be exposed to direct sunlight and rain.

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Manufacturer's responsibility shall not apply in the following cases:

1. Failure to follow the instructions for use of the product.
2. Failure to follow the installation instructions.
3. Faulty or insufficient maintenance of the product.

INSTALLER'S LIABILITY

The Installer is responsible for the installation and the commissioning of the product. The Installer must comply with the following instructions:

1. Read and follow all instructions provided in the product manual.
2. Carry out installation in accordance with applicable legislation and standards.
3. Perform the initial start-up and carry out all necessary checks.
4. Explain the installation to the user.
5. If maintenance is required, inform the user about the need to regularly check and keep the product in good working condition.
6. Provide the user with the instruction manual.

USERS' LIABILITY

To ensure optimal operation of the product, the user must follow the instructions below:

- Read and follow all instructions provided in the product manual.
- Engage qualified professionals to carry out the installation and initial start-up.
- Ask your Installer to explain the installation to you.
- Carry out all required maintenance on the product.
- Keep the instruction manual in good condition and close to the appliance.

INSTANT ELECTRONIC WATER HEATER 12KW

PRODUCT FEATURES

1. Read and follow all instructions provided in the product manual.
2. Carry out the installation in accordance with applicable legislation and standards.
3. Perform the initial start-up and carry out all necessary checks.

1. PROTECTION SYSTEMS:

Equipped with an electronic safety system that provides protection against overheating, low water flow, and electrical leakage.

2. PERFORMANCE & FEATURES:

The unit includes a touch control panel with memory function, ensuring stable and reliable operation.

It heats instantly when turned on, offering energy efficiency and user convenience. The water and electricity pathways are fully separated for safety, and the product is corrosion-resistant, highly efficient, responsive, and durable.

3. CIRCUIT COMPONENTS:

The circuit board uses a thyristor rated for 12 KW.
A 60A relay is employed to ensure safe and stable operation.

INSTANT ELECTRONIC WATER HEATER 12KW

TECHNICAL DATA

Instant electronic water heater

NK12E

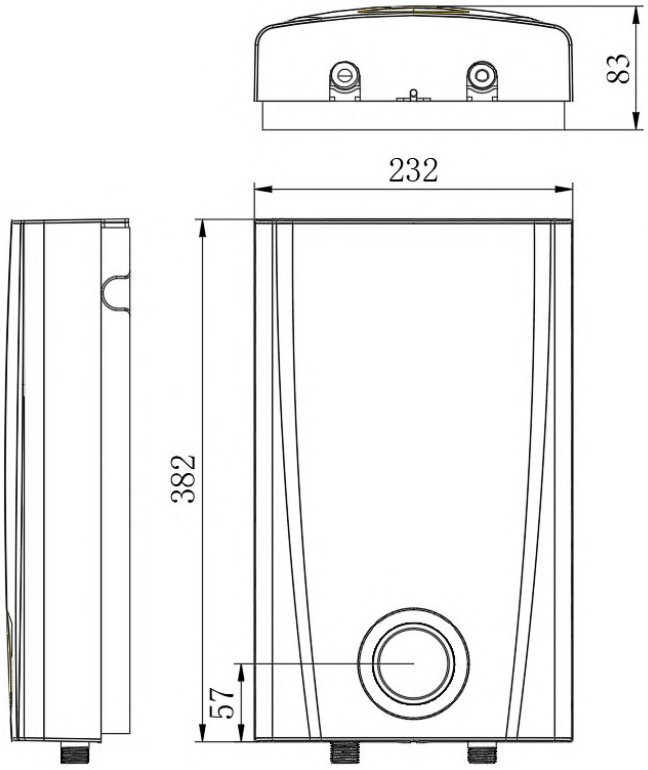
PRODUCT APPEARANCE

PRODUCT CONFIGURATION	NAME OF MAJOR COMPONENTS	MATERIAL / SPECIFICATIONS	NAME OF MAJOR COMPONENTS	MATERIAL / SPECIFICATIONS
	Hull	Plastic casing (ABS)	**Power panel**	FR 14 double panel-220V
	Inner tank	Stainless steel inner tank	**Heating element**	220V - 12 KW / 316L
	Inlet and outlet joints	Stainless steel G1/2 thread	**Control panel**	Liquid Crystal Display
	Internal plumbing	Stainless Steel	**Thermostat**	T7-95˚ 250V 60A
	Temperature probe	304 + copper / S8*25 / 400mm wire length with 350mm glass fiber tube / 100K	**Internal connection line**	8AWG + 10AWG temperature resistance 150˚C
	Flow sensor	5VDC/G1/2 external tooth	**Power line**	/
TECHNICAL CHARACTERISTICS	**Start**	1.5L/min	**Rated pressure**	0.1-1.2Mpa
	Rated voltage/ current/frequency	220-240V/50~60Hz	**Temperature Settings**	25-55 ˚C
	Max Power	12 KW	**Protection level**	IPX4
COMPLIES WITH INTERNATIONAL STANDARDS	GB4706.1-2024 GB4706.11-2024 and related environmental requirements.			

DIMENSIONS(mm)

Instant electronic water heater

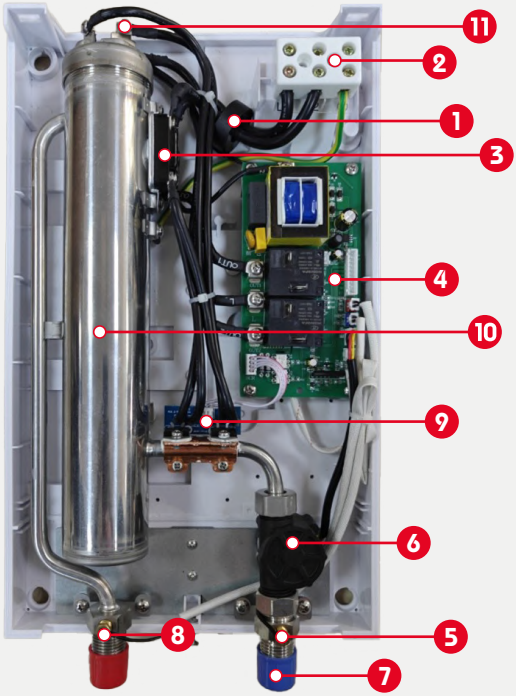
NK12E



MAIN COMPONENTS

Instant electronic water heater

NK12E

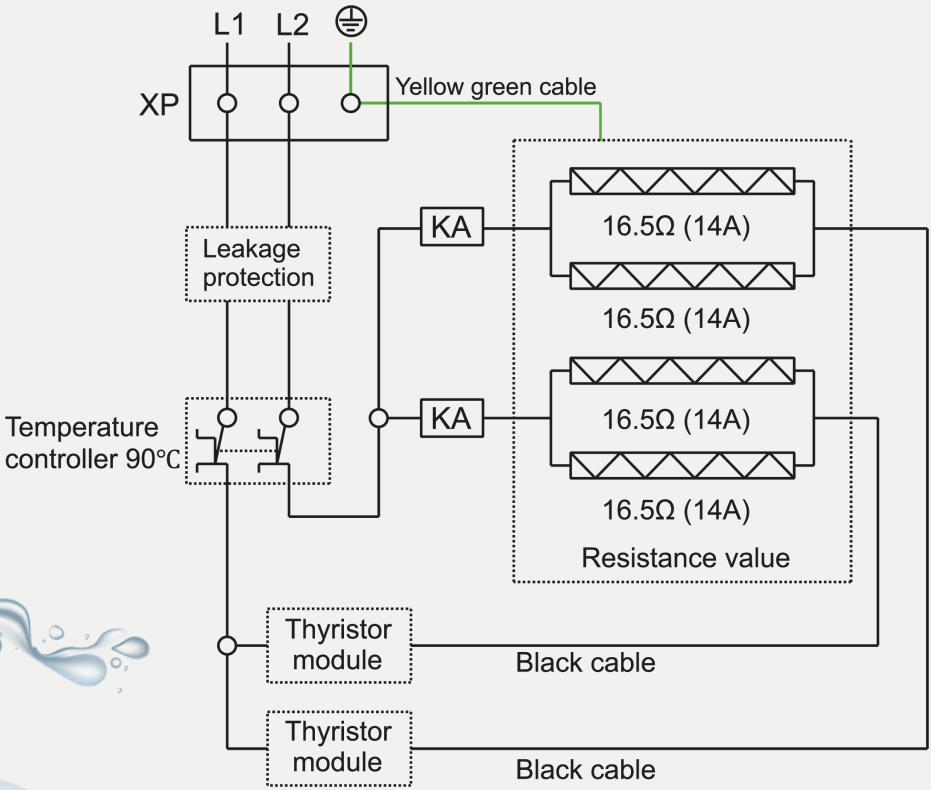


1. INDUCTION SPOON
2. CERAMIC CONNECTION UNIT
3. OVERHEATING PROTECTION SYSTEM
4. ELECTRONIC BOARD
5. COLD WATER SENSOR
6. WATER IGNITION SYSTEM
7. WATER FILTER
8. HOT WATER SENSOR
9. TRIAC MODULE
10. HEATING RESISTANCE CASE
11. RESISTANCE

ELECTRIC DIAGRAM

Instant electronic water heater

NK12E



INSTALLATION

1. It is recommended to locate the heater as close as possible to the hot water source.
2. Thoroughly flush the water supply pipes before installation to remove any water residue.This helps eliminate impurities in the pipes and prevent possible future blockages in the heater.
3. Hold the appliance against the wall and mark the drill points at the top, bottom, left and right, corresponding to the small notches along the edge of the cover.
4. Drill the holes, then insert the wall plugs and screws provided in the box.
5. Feed the connection wires through the heater, then hang it up on the wall (see Electrical Installation).
6. Make sure all air is removed from the water heater by opening and closing the hot water tap until only water flows and no more air comes out.

The hot and cold-water pipes in the house must be clearly identified.

On the heater, the cold-water connection is located on the lower right-hand side, while the hot water connection is on the left-hand side. Both connections are 1/2" male NPT threaded.

The connection can be made using hot water-resistant flexible hoses - or preferably with a rigid pipe.

The hoses must have an adequate internal diameter that does not restrict water flow.

In both cases, a ball valve should be fitted to the cold-water pipe in the home.

Before making the connection, ensure that the FILTER is properly installed at the cold-water inlet of the water heater.

The minimum water pressure must be 5 PSI (0.3 bar).

If the pressure is below this, the heater will not run in order to prevent internal damage.

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ELECTRIC INSTALLATION

Verify that the supply voltage to the heater is between 208 and 240 volts. Disconnect the electrical supply at the main panel. Install a dedicated double-pole 60 Amp breaker for the heater on the main panel, and run three electrical wires from the breaker to the heater:

- Two wires 8# AWG for power
- One wire 10# AWG for ground connection

These wires should be connected to the heater via the terminal block located at the top inside the heater, as shown in the electric diagram.

- **Line (L)**
- **Line (L2)**
- **Ground Connection (⏚)**

Once the wires are connected, ensure that the screws on the terminal strip and the breaker in the panel are tightened securely to prevent “hot spots”.

UNLIMITED HOT WATER, INSTANTLY!

POWERFUL — Heats water instantly

COMPACT — Space-saver design

SMART — Automatic electronic regulation

HOW TO USE

Before switching on the heater, ensure all air is removed from inside the unit by opening the nearest hot water tap for at least one minute.

Ensure there are no water leaks at the connections.

Working environment temperature range: -10~55˚C
Switch on the breaker on the main panel.

01.

When the product is powered on for the first time, the water heater's buzzer will beep once. The LCD screen and all key lights will turn on.

The LCD will briefly display "12" for two seconds, then switch to "OF" (**see Fig. 1**). At this point, the heating and cooling buttons and the screen backlight will turn off, and the unit will enter standby mode.

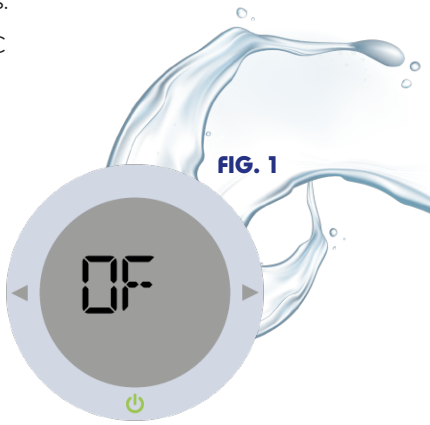


FIG. 1

standby mode

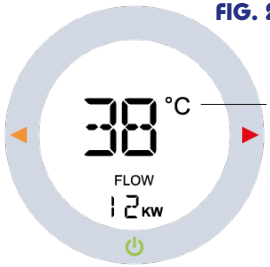
02.

Press the power button (⏻) to activate the water heater. When the water valve is closed, you can set the temperature on the digital display. The heating and cooling buttons will light up, and the LCD will show the default temperature setting of 38˚C. You can adjust the temperature using the touch screen display: Tap the right arrow (▸) to increase the temperature (red light), and the left arrow (◂) to decrease it (yellow/orange light).

The temperature range is from 25 to 55˚C.

Each tap on the touch screen will trigger a beep from the buzzer. To make quicker adjustments, press and hold the heating or cooling button. Once the setting is complete and no further actions are detected, the screen will flash twice, to confirm the temperature selection. The display will appear as shown in the image (**Fig.2**):

FIG. 2



Display the set temperature

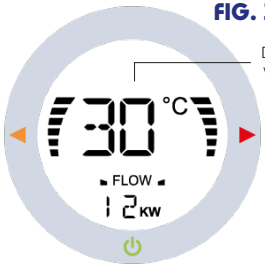
Power on status
No flow/no heating status display

03.

Open the water valve. The temperature displayed on the screen will switch from the set temperature to the current outlet water temperature. When the flow reaches 1.5L/min, the unit will enter the heating state. At the first start-up, the water heater will delay heating for 20 seconds.

The display shows the current outlet water flow, while the heating and power indicators show the current power state. The screen will appear as follows **(Fig. 3)**

FIG. 3



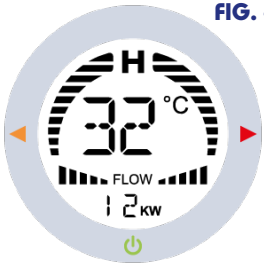
Power on status
There is a water flow display/heating display

04.

During the heating process, press the temperature up or down buttons.

The screen will switch from the outlet water temperature to the set temperature. Each time you press either button, the buzzer will beep once. Holding down the temperature up or down button allows for quick adjustment. After you finish adjusting, if no button is pressed for two seconds, the screen will flash twice, to confirm that the temperature setting is complete. The display will then automatically switch back to showing the current outlet water temperature.

FIG. 4



Power on status
Full power heating/maximum water flow display

05.

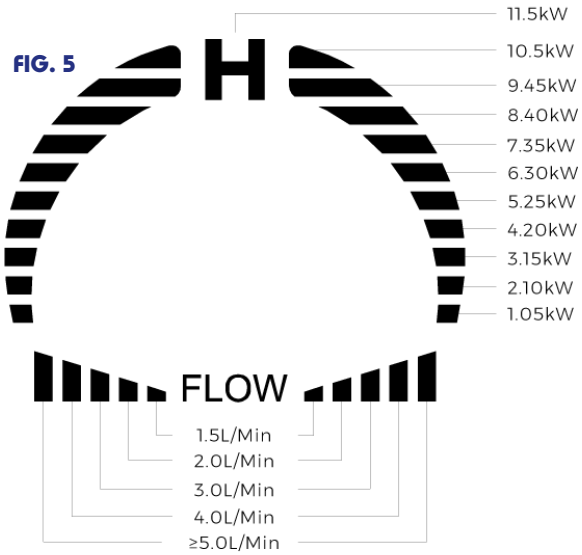
During the heating process, when the water flow rate exceeds 5L/Min under full power working state, the screen will appear as follows **(Fig. 4):**

Open the hot water tap to automatically start the heater.
When you close the tap, the heater will switch to standby mode.

AUXILIARY FUNCTIONS

The display logic for the water flow position and the heating power position is as follows **(Fig.5):**

FIG. 5



- The buzzer beeps once each time a key is pressed.
- Temperature settings can be adjusted in increments of 1°C.
- The product maintains a constant temperature.
- The product has a memory function.
- The product's start flow rate is 1.5 L/min.

FAULT CODES

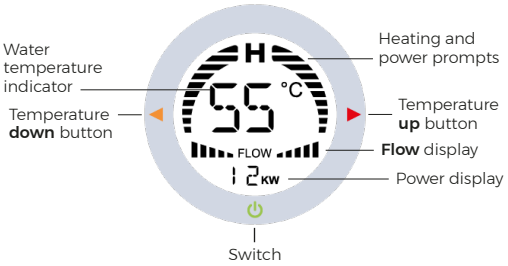
- **E1:** Water inlet temperature sensor is short-circuited or open-circuited.
- **E2:** Water outlet temperature sensor is short-circuited or open-circuited.
- **E3: Over-temperature protection is activated.** This occurs when the temperature exceeds 60˚C and remains above 65˚C for more than 10 seconds, or if the temperature exceeds 65˚C immediately.

  When over-temperature protection is activated, the screen displays "**E3**" and the machine waits until the temperature drops to 50˚C, at which point it restarts automatically.
- **E5:** Leakage protection activated.

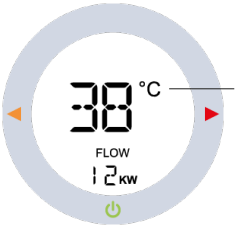
  If any of the following error codes appear, please contact a qualified plumber or electrician to resolve the issue: **E1, E2, E5.**

  If the **E3** error code appears, first try opening the tap to allow water to flow and check if the error disappears automatically. If it does not, please contact a qualified installer.

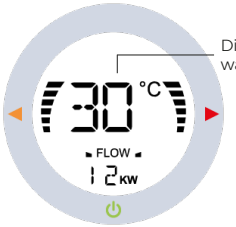
SCREEN DISPLAY INSTRUCTIONS



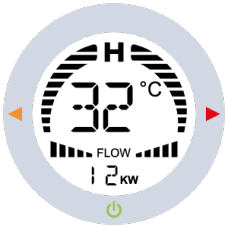
standby mode



Power on status
No flow/no heating
status display



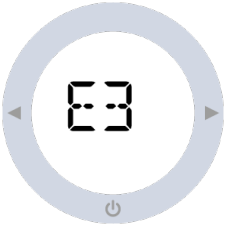
Power on status
There is a water flow
display/heating display



Power on status
Full power heating/maximum
water flow display

Fault code display
water inlet temperature
sensor short circuit

Fault code display
outlet water temperature
sensor short circuit



Fault code display
Over-temperature protection

Fault code display
Leakage protection

NORWIK®

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POWERFUL COMPACT SMART

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