



USER'S AND INSTALLATION MANUAL

APARICI – SCxxxT



Dear buyer, we thank you for purchase of our product.

Prior to installation and first use of the electric water heater, please carefully read these instructions.

This water heater has been manufactured in compliance with the relevant standards and tested by the relevant authorities as indicated by the Safety Certificate and the Electromagnetic Compatibility Certificate. The technical characteristics of the product are listed on the label affixed between the inlet and outlet pipes. The installation must be carried out by qualified staff. All repairs and maintenance work within the water heater, e.g. lime removal or inspection/replacement of the protective anticorrosion anode, must be carried out by the authorised maintenance service provider.

INSTALLATION MANUAL

Technical Information:

MODEL	SC030T	SC050T	SC080T	SC100T
CAPACITY	30	50	80	100
ELECTRICAL CHARACTERISTICS:				
VOLTAGE (V)	230	230	230	230
FREQUENCY (Hz)	50/60	50/60	50/60	50/60
POWER (W)	2000 (1200W + 800W)	2000 (1200W + 800W)	2000 (1200W + 800W)	2000 (1200W + 800W)
CLASS	I	I	I	I
PROTECTION DEGREE	IPX4	IPX4	IPX4	IPX4
REGULATION THERMOSTAT TEMPERATURE (°C)	75	75	75	75
KIND OF REGULATION THERMOSTAT	PTC SENSOR	PTC SENSOR	PTC SENSOR	PTC SENSOR
KIND OF SAFETY THERMOSTAT	BULB	BULB	BULB	BULB
EXTERNAL TEMPERATURE REGULATION	YES	YES	YES	YES
KIND OF HEATING ELEMENT	YES - ELECTRONIC	YES - ELECTRONIC	YES - ELECTRONIC	YES - ELECTRONIC
KIND OF HEATING ELEMENT	IN DIRECT CONTACT WITH WATER	IN DIRECT CONTACT WITH WATER	IN DIRECT CONTACT WITH WATER	IN DIRECT CONTACT WITH WATER
HYDRAULIC CHARACTERISTICS:				
ENAMELLED TANK	YES	YES	YES	YES
MAGNESIUM ANODE	YES	YES	YES	YES
NOMINAL PRESSURE	7.5 bar	7.5 bar	7.5 bar	7.5 bar
SAFETY VALVE PRESSURE	8.5 bar	8.5 bar	8.5 bar	8.5 bar

DIMENSIONS				
MODELO	SC030T	SC050T	SC080T	SC100T
WATER CONNECTIONS	G1/2'	G1/2'	G1/2'	G1/2'
A	470	470	570	570
B	575	860	900	1090
C	282	282	332	332
D	415	415	415	415
E	204	204	255	255
F	249	470	365	550
G	140	205	287	287
H	380	380	470	470

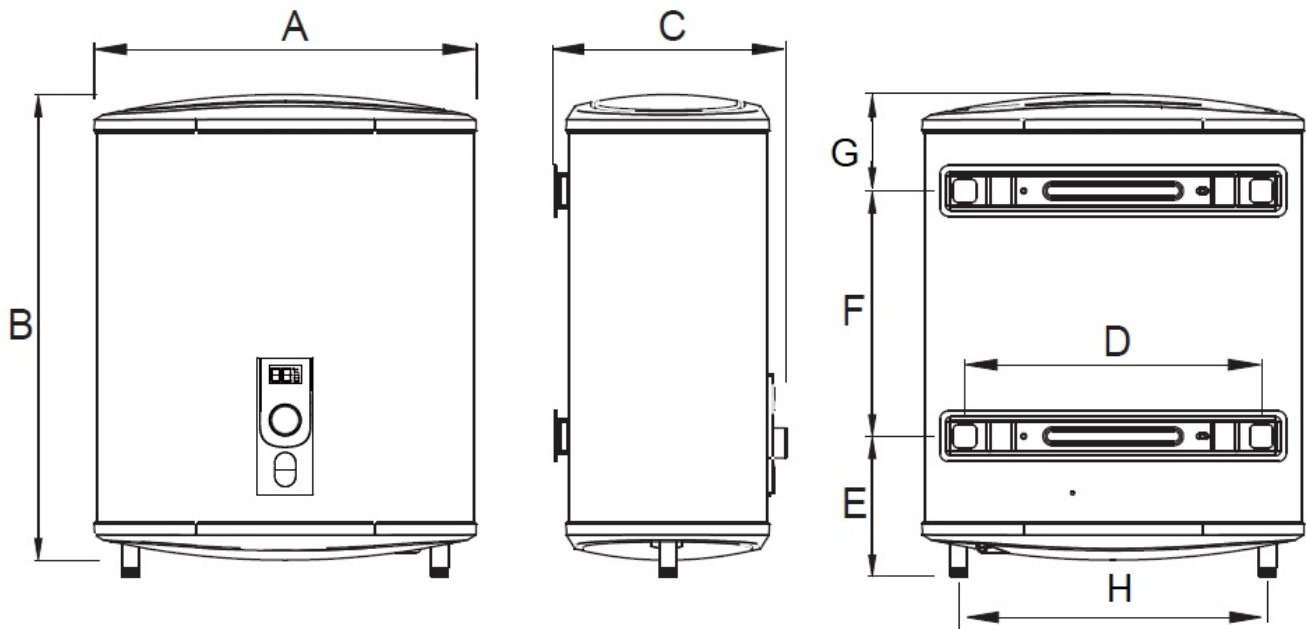


fig.-1 – Model APARICI SCxxxT

1.- BUILDING-IN.

The water heater shall be built-in as close as possible to the outlets in order to reduce the heat losses.

The building place must be chosen considering the maximum reductions of 90° elbows in water connections and, at the same time, make easy the substitution of the heating element.

2.- APPLIANCE WALL HANG.

Due to its particular design, the NOFER electrical water heaters could be installed in two positions as you could see at fig-2:

1. *Vertical.* At this position cold water inlet pipe (F) is on the right side and hot water outlet pipe (C) on the left side. The hydraulic safety valve supplied with the appliance must be installed at the inlet cold water pipe (F)..
2. *Horizontal with maintenance cover on left side.* In this case inlet cold water pipe (F) will be placed every time in the bottom pipe and hot water outlet pipe (C) in the upper part. The safety valve must be installed in the bottom pipe

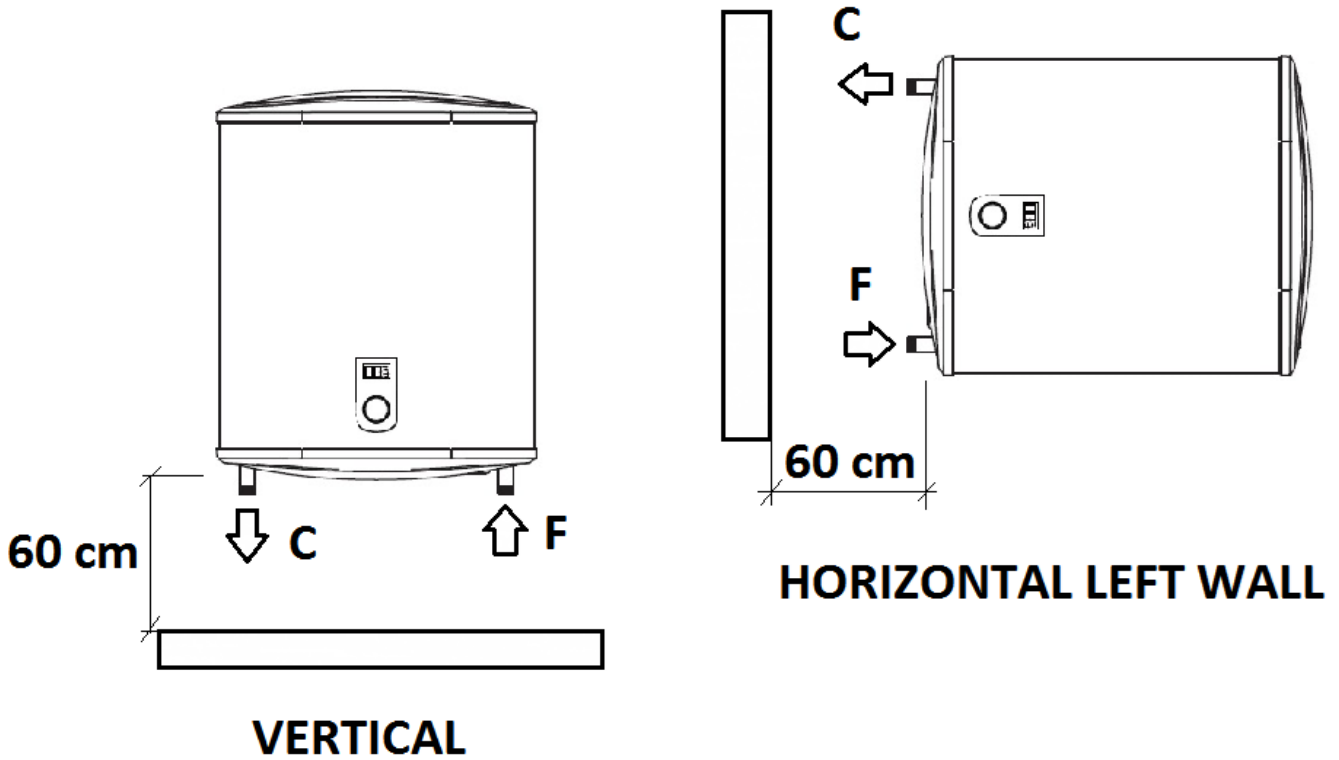


Fig. 2 Model APARICI SCxxxT

In every case the distance between water heater maintenance cover and the closer wall must be minimum 60 cm.

It has to be fitted to the wall using appropriate rag bolts with minimum diameter of 8 mm. The wall with feeble charging ability must be on the spot where the water heater shall be hanged suitably reinforced.

3.- CONNECTION TO THE WATER SUPPLY.

The water heater may be connected to a closed-circuit pressure system which enables several points of use. For safety reasons the supply pipe must be fitted with a return safety valve or alternatively, a valve of the safety class that prevents the pressure in the tank from exceeding the nominal pressure by more than 0.1 MPa. The heating of water in the heater causes the pressure in the tank to increase to the level set by the safety valve. As the water cannot return to the water supply system, this can result in the dripping from the outlet of the safety valve. The drip can be piped to the drain by installing a catching unit just below the safety valve. The drain installed below the safety valve outlet must be piped down vertically and located in the environment that is free from the onset of freezing conditions. In case the existing plumbing does not enable you to pipe the dripping water from the return safety valve into the drain, you can avoid the dripping by installing a 3-litre expansion tank on the inlet water pipe of the boiler. You should ensure that the return safety valve is functioning properly by checking it on a regular basis i.e. every 14 days. To check the valve, you should open the outlet of the return safety valve by turning the. The valve is operating properly if the water comes out of the nozzle when the outlet is open.

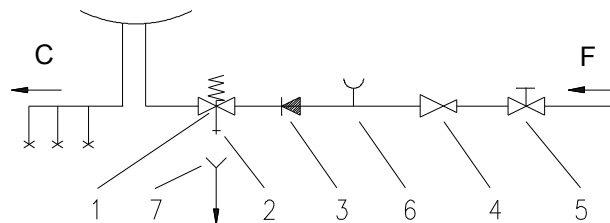


Fig-3 Hydraulic installation

Legend:

- 1- Return safety valve
- 2- Checking valve connection
- 3- Non-return valve
- 4- Pressure reduction valve
- 5- Closing valve

- 6- Checking fitting
- 7- Funnel with outlet connection

F - Cold water
C - Hot water

Putting into service:

Before connect hydraulically the water heater to water network lets the water flow some to time to remove all dirty which could damage the safety valve and block the diffuser.

To fill the water heater properly leave a hot water tap open to drain the water heater tank and only close it when water comes out fluently. When water become hot after the necessary time tight again all connections to assure a correct water sealing.

If the water network pressure is higher than the nominal pressure of the water heater, it is compulsory to install special valve to reduce the water inlet pressure between 2 and 3 bar.

4.- CONNECTION OF THE WATER HEATER TO THE ELECTRIC NETWORK.

The connection of water heater to the electric network must be performed according to standards for electric installation and made by authorized installers.

These models must be connected to electrical network using a plug supplied assembled to the water heater. According to this the sole necessary operation from electrical point of view is to plug the water heater to a socket. If the flexible cord is damaged, it must be substituted by an especial plug cord APARICI reference 91027.

Because the water heater has no components which would permanently separate it from the electric network, upon the cable connection between it and permanent installation a switch must be installed which breaks both power supply poles having between the open contacts a gap at least 3 mm wide.

The below drawing shows the electrical water heater diagram:

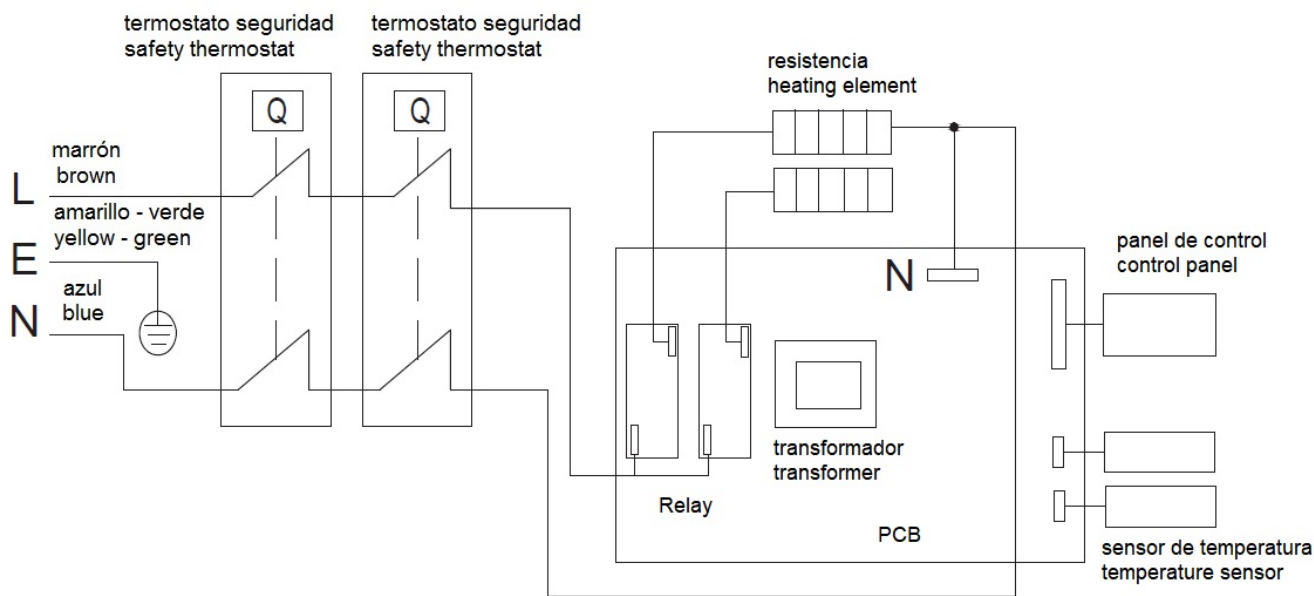


Fig. – 4 APARICI – SCxxxT electrical diagram

5.- ELECTRICAL CONNECTIONS STANDARDS.

The electrical installation must fulfil the international standards CEI 64-8. According to this standards, electrical appliances must be installed following the below indications at bathrooms and WC:

- 1.- zone 0: Installation is totally forbidden at this area. It is also forbidden at zone 1 if it is a prefabricated shower cabin.
- 2.- zones 1 and 2: IPX4 appliances with a wire which allows connections 1,2 m from shower vertical and with an additional RCS switch.
- 3.- zone 3: IPX1 appliances allowed.
- 4.- The earth connection of the water heaters is compulsory.

We recommend the installation of the water heaters at zone 3 (fig.- 5).

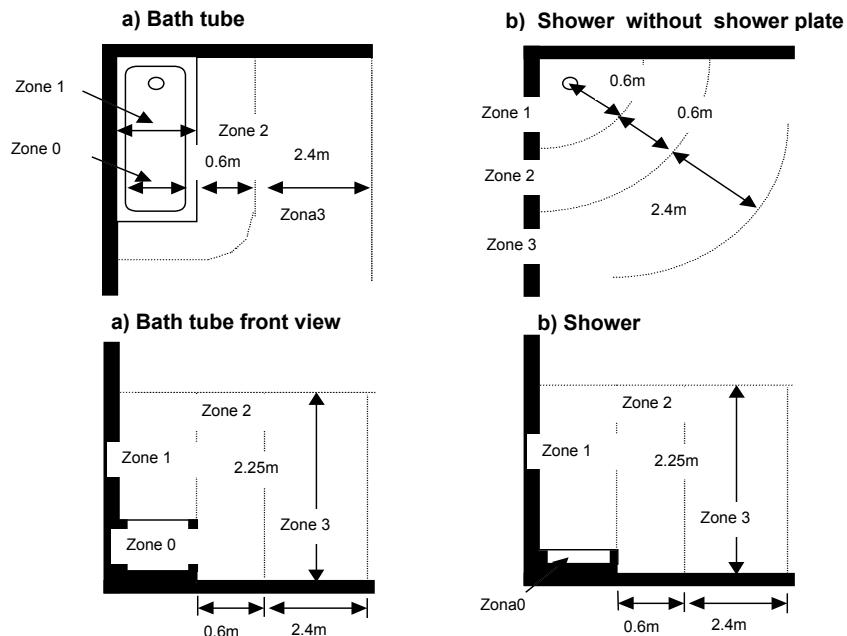


Fig. – 5

6.- INSTALLATION RECOMMENDATIONS

In order to have a correct operation of the APARICI electric water heater, please take into account the below considerations:

1. Water pressure at electric water heater inlet must be between 1.5 and 5 bar. Also all considerations explained at point 3) of this manual must be taken into account.
2. It is compulsory to install a drain pipe to evacuate water drops from safety valve. Possible damages caused at home due to this drops are not responsibility of APARICI.
3. If water pressure is higher than 2.5 bar we recommend the installation of a pressure reduction valve and a expansion vessel. The pressure reduction valve must be installed as close as possible from the house water inlet pipe.
4. The network water must have a minimum quality characteristics to be acceptable under corrosion point of view. The limits established by APARICI are the below ones:
 - Ryznar index less than 7.
 - Conductivity at 25 °C < 350 $\mu/\Omega\cdot\text{cm}$
 - Chlorine (Cl^-) and sodium (Na^+) less than 75 mg/l
5. The use of chemical scale eliminators is allowed but the hardness must be regulated between 12°F and 31 °F.

USER'S MANUAL

1.- USER'S INSTRUCTIONS

IMPORTANT: Be sure that the water heater is filled with water before plug in. You could be sure that the water heaters if completely filled when water come out from a hot water tap.

To operate the appliance proceed as it is indicated below and consider the display showed at next figure:

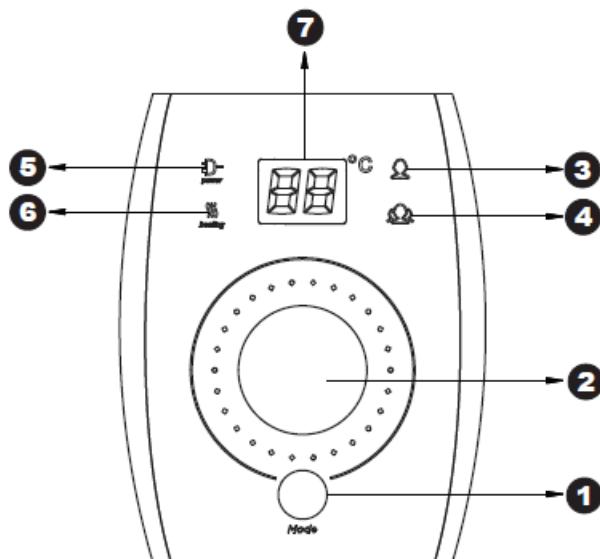


Fig. – 6

- 1) The "1" refers to the water heater power switch button and mode button. In the shutdown state, long press this button for 3 seconds, the system boot, the display light, and vice versa. At boot mode: press this button, then switch between "single tank mode", "double tank mode" or "smart mode". If electricity fall dawn suddenly, the water heater restarts in previous selected mode. Only if model is "smart" one, appliance starts again in "single tank" mode.
- 2) The "2" refers to the temperature regulating knob of the water heater. This knob is adjusted by 360 degrees, clockwise rotation, increasing temperature, anticlockwise rotation, and decreasing temperature. During the rotation, the "7" number of the display screen changes accordingly. When you enter the smart mode, you can't adjust the setting temperature, and the system starts the intelligent control program by default
- 3) The "3" is a single tank model indicator lamp. When the user sets the water heater as a single tank mode, the indicator light is lit and the display is white
- 4) The "4" is the double tank model indicator lamp. When the user sets the water heater as the double tank mode, the indicator light is lit and the display is white.
- 5) The "5" for the power indicator. The water heater is energized and the indicator light is lit to show blue. If users choose smart mode, flashing display.
- 6) The "6" as the heating indicator light, water heater in the heating state, indicator light shows red; if the water heater is not heated, the lights go out.

2.- CLEANING.

The external parts of the water heater may be cleaned with a mild detergent solution. Do not use solvents and abrasives.

Never try to repair any possible faults of the water heater by yourself, but inform about it the nearest authorised service workshop.

3.- WATER HEATER DRAIN IN CASE OF FROST

At any risk for freezing of water in the water heater, the water must be emptied from it. In order to do it, please follow the below instructions:

- Unplug the appliance from electrical network.
- Close the water inlet to the water heater.
- Drain the water heater using the safety valve..
- Protect the safety valve from freezing.
- Fill the water heater before plug in it again to electrical network.

4.- TROUBLE SHOOTING

When the water heater fails, automatically the heating element stops working and the display shows the corresponding fault code. At that moment, if you press any button, there is not answer from the water heater. Only disconnect the power, call to after sales service to solve the problem and repair the water heater and connect it again makes that the fault code will be eliminated.

The fault code meaning is the below one:

FAULT ERROR	CAUSE	ACTION
E2	Dry burning protection. The water heater operates without water at tank	Disconnect the appliance power, fill the water heater tank and, then, plug it again. If the fault cannot be removed, contact a qualified service technician.
E3	Over-temperature protection	contact a qualified service technician
E4	Temperature sensor failure.	contact a qualified service technician