AENOR
Empresa Registrada
ER-0170/1996

DOMUSA TEKNIK

INSTALLATION AND OPERATING INSTRUCTIONS

HDCS
HDCSM

These installation and operating instructions contain all the necessary details for correctly installing and using your appliance. Thank you for choosing a **DOMUSA TEKNIK** boiler.

HYDRAULIC INSTALLATION

The boiler must be installed in a premises that complies with the requirements of current legislation.

If the boiler is on a lower level than any of the heating pipes, it is recommendable to install supply and return taps so that the installation does not need to be drained when maintenance work is carried out.

Before making the hydraulic connection for the boiler, clean the pipes thoroughly.

Remember to provide for a filling tap connected to the heating supply or return circuit.

ELECTRICAL INSTALLATION

Ensure the home voltage is the same as that indicated on the boiler.

The electrical connections are to be made in accordance with the electrical diagrams figuring in this manual.

We recommend you install a master switch on the power lines enabling all the supply phases to the boiler to be cut off.

To connect the boiler at III 380 V, a neutral connection will be necessary.

STARTING UP THE BOILER

Filling the installation

Using the fill tap, slowly fill up the installation until the pressure indicated on the thermohydrometer is between 1 and 1.5 bars.

Checking the circulation pump functioning

Unscrew the cover of the circulation pump, so that the turning shaft is visible. Connect the boiler master switch and check the pump shaft is turning. Replace the cover.

If the shaft is not turning, disconnect the boiler master switch and use a suitably-sized screwdriver to turn the pump shaft in both directions in order to unblock it. Connect the master switch again and check the shaft is turning. Replace the cover.

Draining the air from the installation

Connect the boiler master switch and drain the air from the installation and the boiler, using the drain-valves provided on the installation and boiler.

Selecting the power

The total power to the boiler may be reduced by half, using the half-power switches on the control panel. When both switches are connected, the boiler will function at maximum power.

Selecting the temperatures

This is done using the control thermostat command on the control panel. Turn it to the right for a higher temperature, or to the left for a lower temperature. On the HDCS and HDCSM models both the heating temperature and the domestic hot water storage temperature can be selected. On the HDEE and HDEEM models, only the heating temperature can be selected.

When the selected temperature is reached, it will automatically be kept constant by the thermostat.

To regulate the ambient temperature of the premises, you will need to install an ambient thermostat. This switches off the boiler when the selected temperature is reached, and starts it up again when the temperature drops.

The boiler is pre-wired for connection of an ambient thermostat. To do this, remove the bridge from the connector block and connect the ambient thermostat.

Functioning with programmer (Optional)

The boiler may optionally be supplied with a time programmer, which can be fixed to the main control panel. Both the boiler and the programmer are equipped with a quick fixing system using the 12-way connector ***(X12)*** shown on the electrical diagram. The procedure for this is described in the installation and operating instructions enclosed with the programmer.

DELIVERY OF THE INSTALLATION

The installer will explain to the user how the boiler works, describing all necessary points such as filling, draining and emptying.

OBSERVATIONS

If the boiler does not start up when you have checked that the power is reaching it, the installation is filled with water at the correct pressure, the circulation pump is turning and the thermal safety switch has not disconnected the boiler, turn off the master switch and contact the installer.

ELECTRICAL DIAGRAMS

The boiler models described in this manual are modular type, and both the input voltage and the maximum heating power can therefore be very easily modified.

Any modifications to power and voltage must be carried out by qualified personnel, carefully following the instructions below:

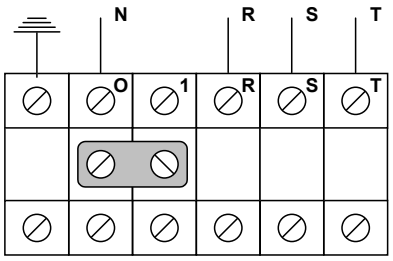
Changing the VOLTAGE

If the network voltage is different from the voltage the boiler is designed to work with, the boiler must be adapted accordingly. To do this, **before connecting the boiler to the mains**, the position of the bridges on the connector block are to be changed as shown in the figures below.

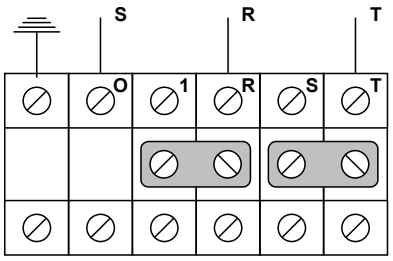
To remove a bridge, first loosen its screws and then pull it out of its housing. To place a bridge, follow the same procedure, in reverse order.

When the bridges are correctly in place, connect the electrical supply to the boiler as shown in the corresponding figure. **Remember it must be earthed**.

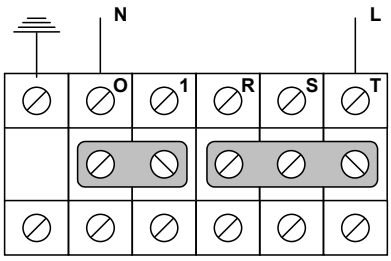
III 380 V



III 220 V



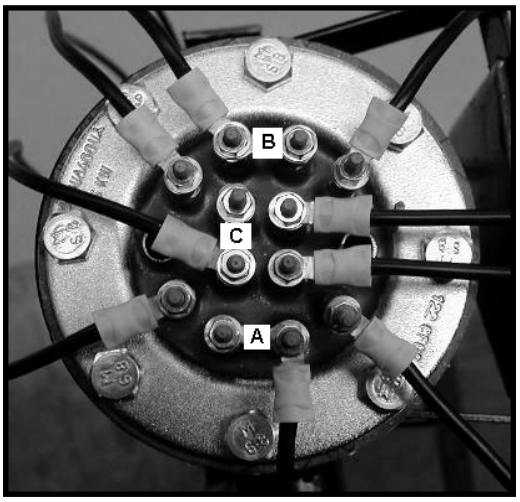
II 220 V



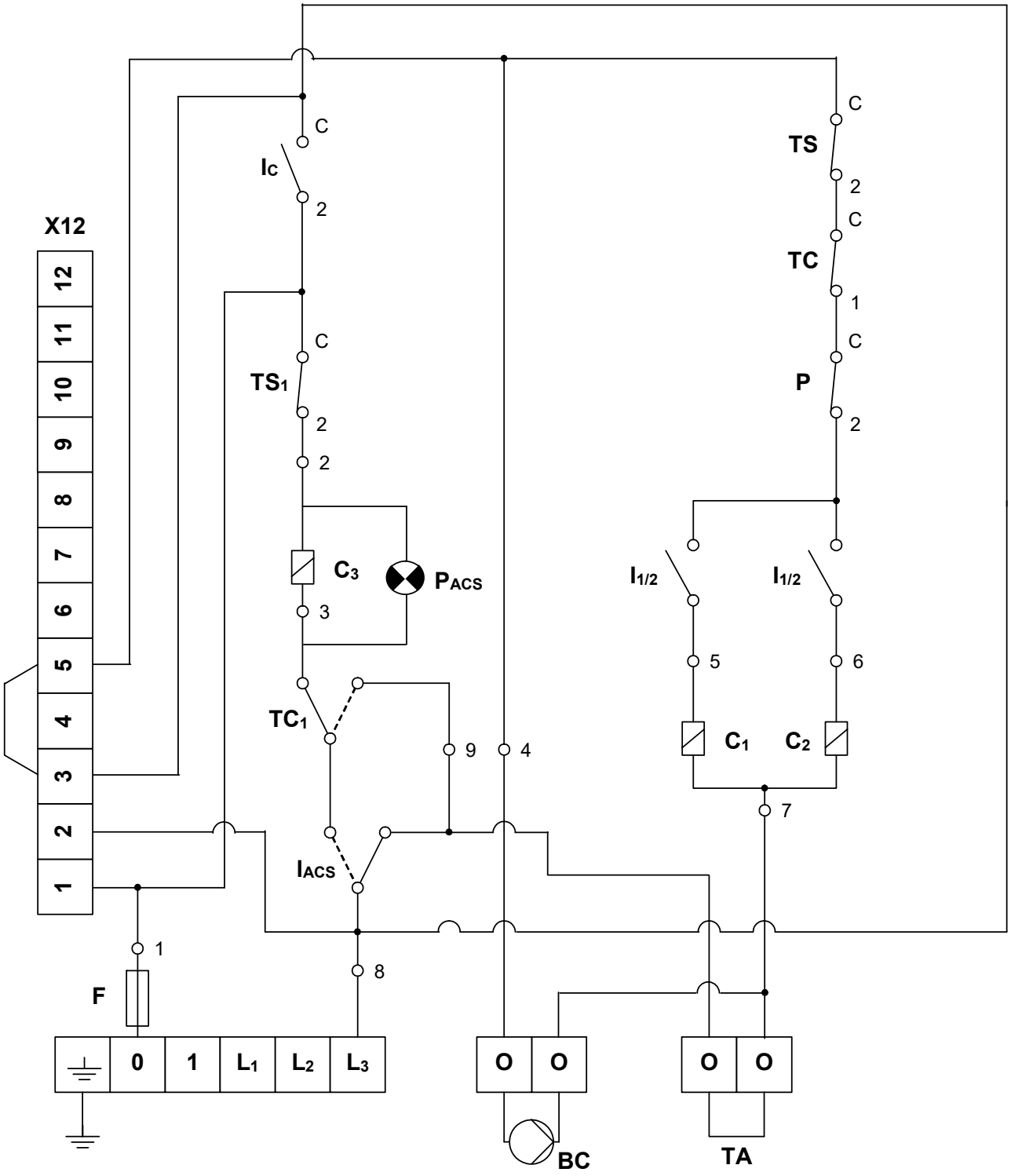
Changing the boiler POWER

The maximum heating power of this boiler may be changed depending on your needs. To do this, simply remove some of the bridges from the heat exchanger element, as shown in the table below.

Total power according to model (kW)		Bridges
45/90	**10/15**	
9	15	Leave
7.5	12.5	Remove A
6	10	Remove A and B
4.5	-	Remove A, B and C

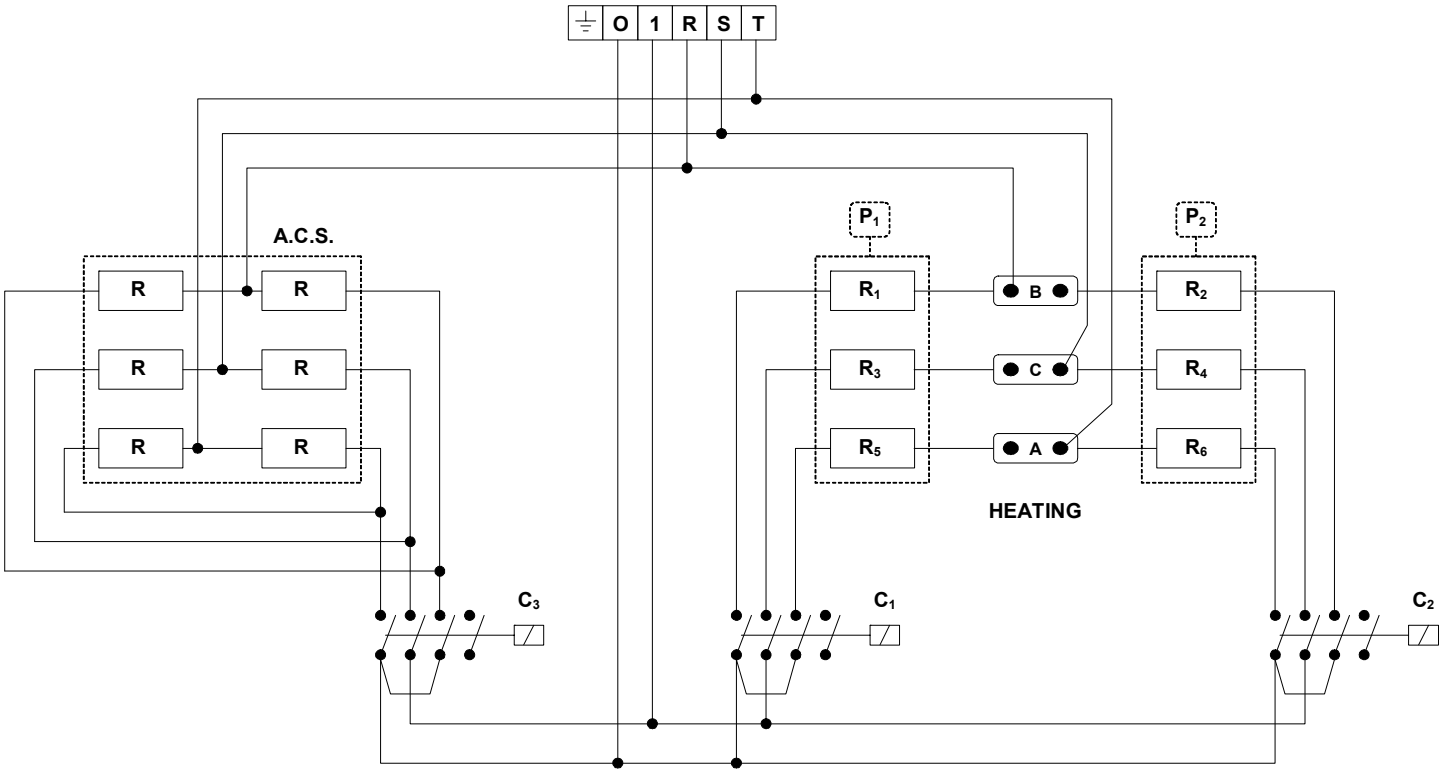


CONTROL Diagram



BC: Heating pump.
TA: Ambient thermostat.
F: Fuse.
X12: 12-way connector for programmer (optional).
I_C: Heating master switch.
I_{ACS}: Domestic hot water switch.
$I_{1/2}$: Half-power switch.
P_{ACS}: Domestic hot water pilot light.
TC_1: Domestic hot water regulation thermostat.
TS_1: Domestic hot water thermal safety switch.
TC: Heating control thermostat.
TS: Heating thermal safety switch.
P: Pressure switch.
C_3: Domestic hot water contactor.
C_1,C_2: Heating contactors.

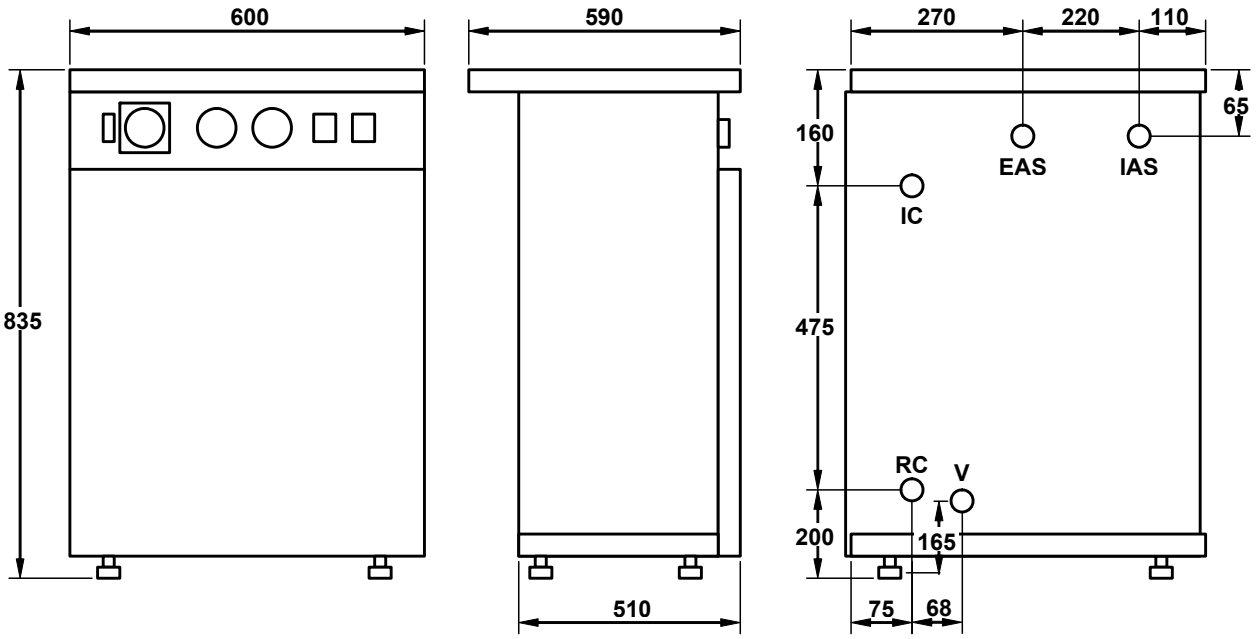
POWER Diagram



C_1,C_2: Heating contactors.
P_1,P_2: Heating element units.
A,B,C: Bridges for changing heating power.
A.C.S.: Domestic hot water element unit.

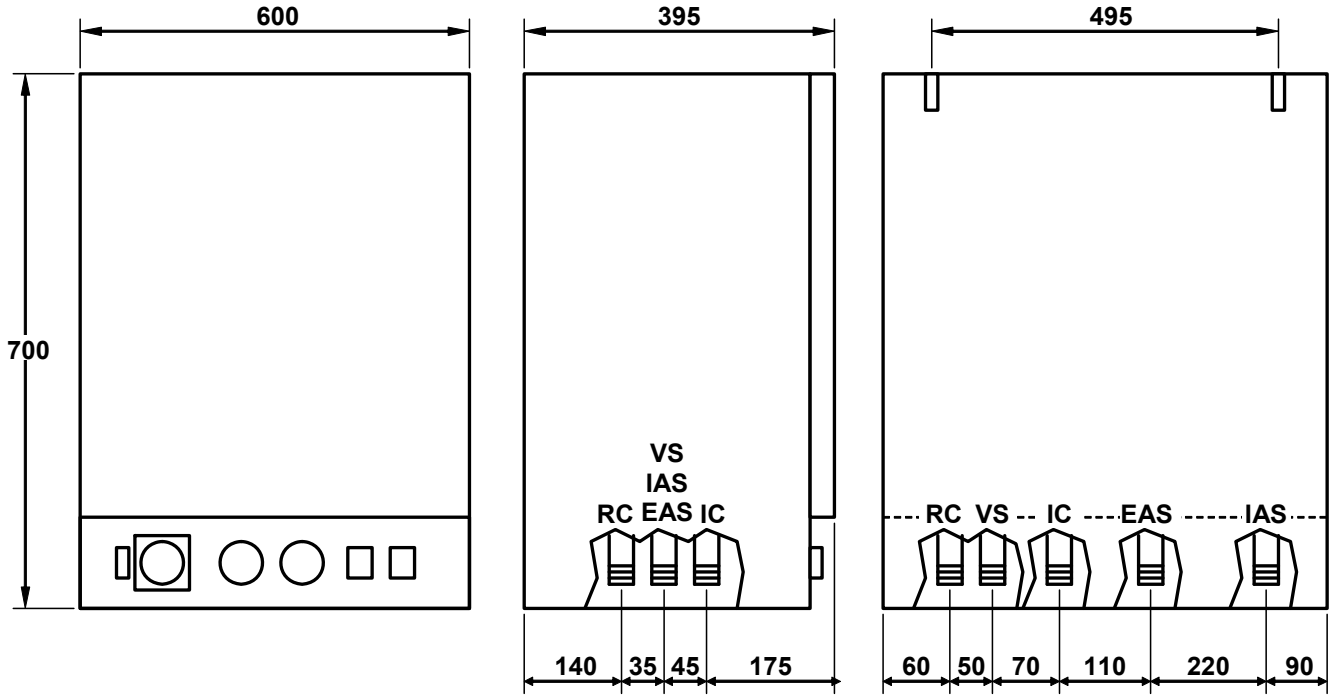
DRAWINGS AND MEASUREMENTS

HDCS



IC: Heating supply, HDCSM 1" H, HDCS 3/4" M.
RC: Heating return, 3/4" M.
VS: Safety valve, 1/2" H.
EAS: Domestic cold water input, 1/2" M.
IAS: Domestic hot water supply, 1/2" M.
V: 1/2" M drain outlet.

HDCSM



IC: Heating supply, HDCSM 1" H, HDCS 3/4" M.
RC: Heating return, 3/4" M.
VS: Safety valve, 1/2" H.
EAS: Domestic cold water input, 1/2" M.
IAS: Domestic hot water supply, 1/2" M.

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