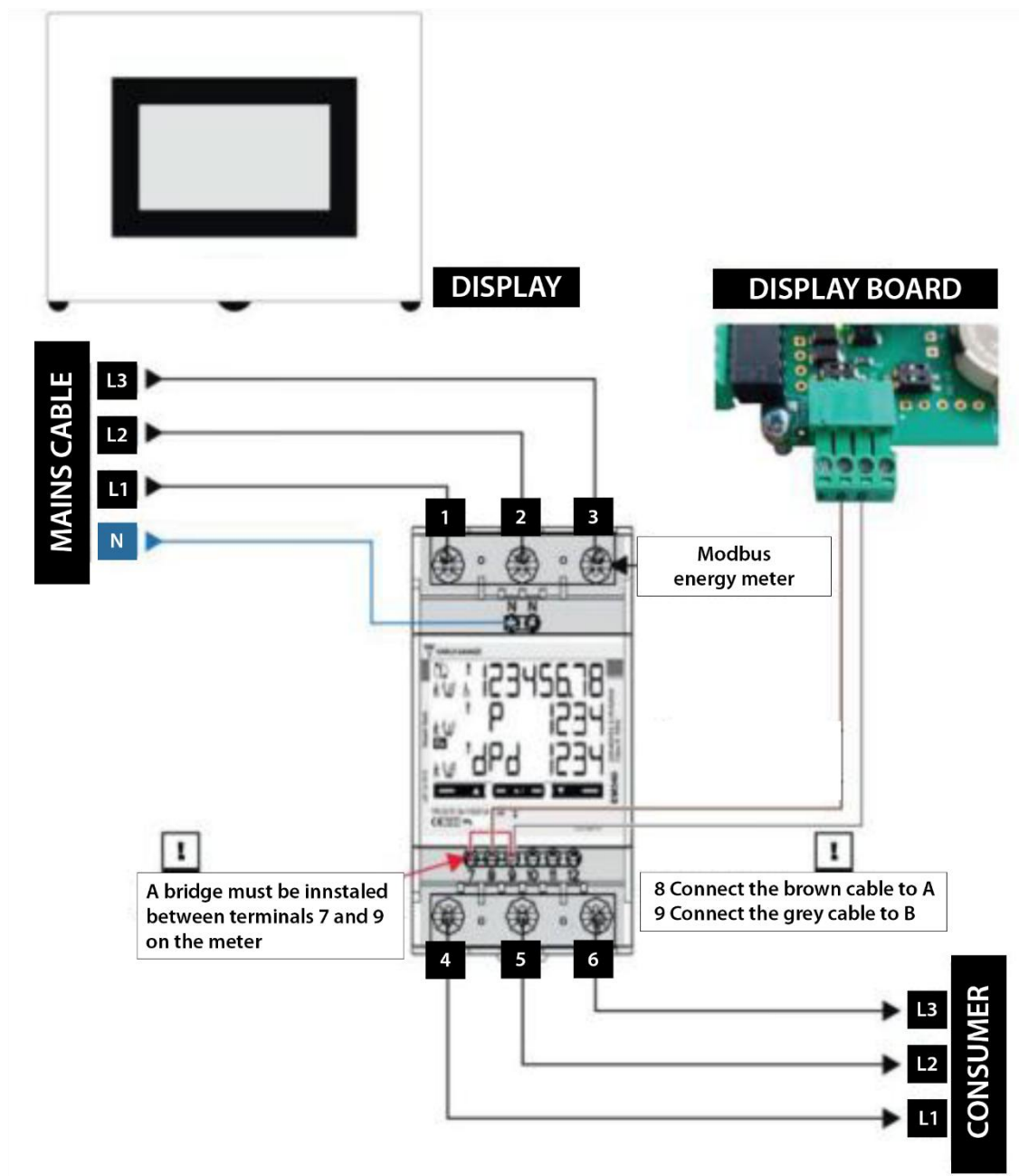


Description of modbus electricity meter



Description of modbus electricity meter

E-manager communication start

For a Modbus electricity meter, ModBus EM300 must be selected. If the electricity surplus is transmitted via an external energy management system (Modbus TCP or RTU), "Modbus Client" must be selected.

Communication Types in Emanager:

- **Case 1: Energy Input Measurement:**

The energy meter is used to measure the input of an energy generator (e.g., PV system). The meter is installed directly in front of the PV system inverter. The heat pump attempts to consume the generated energy through speed control.

- **Case 2: Negative Energy Surplus Measurement:**

The energy meter measures the amount of energy in the building's grid connection.

The heat pump attempts to use the surplus energy (PV production minus all electrical consumers in the building) that would otherwise have to be fed into the grid.

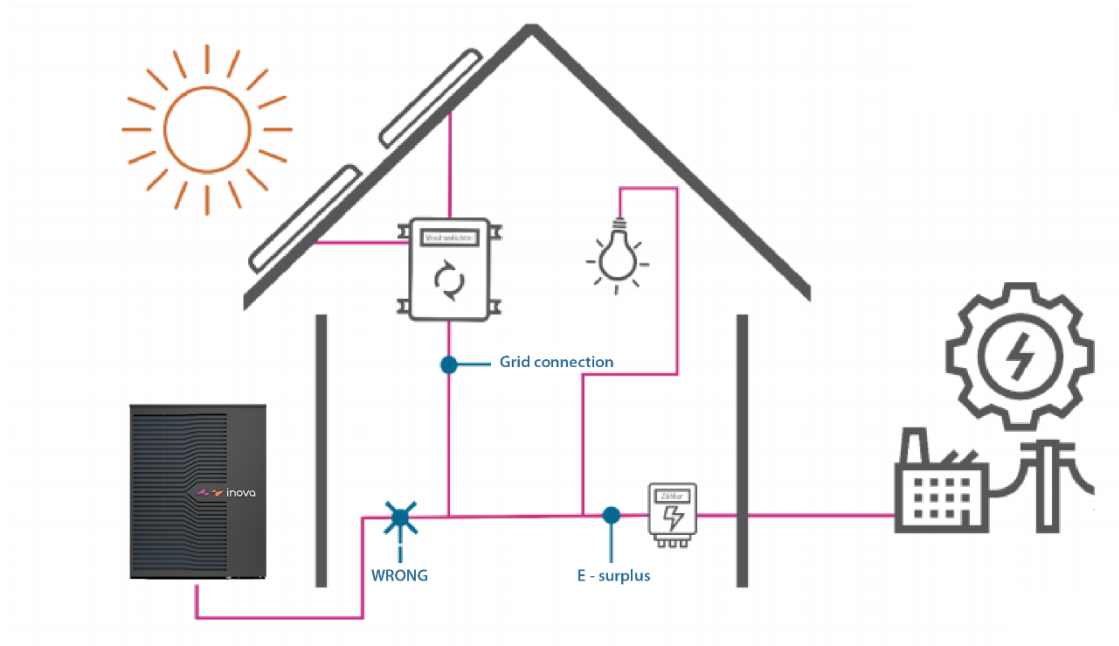
Negative here means that when a surplus is measured (electricity fed into the grid), a negative value is displayed. This represents the standard scenario.

- **Case 3: Positive Energy Surplus Measurement:**

The energy meter measures the amount of energy in the building's grid connection.

The heat pump attempts to use the surplus energy (PV production minus all electrical consumers in the building) that must be fed into the grid. Positive here means that when a surplus is measured (electricity fed into the grid), a positive value is displayed.

Description of modbus electricity meter



Description of modbus electricity meter

Depending on the case, the measuring point must be defined in the Emanager configuration menu on the display. If the smart meter is installed as suggested previously, the energy surplus measurement is negative → “Neg. E-Surplus.”



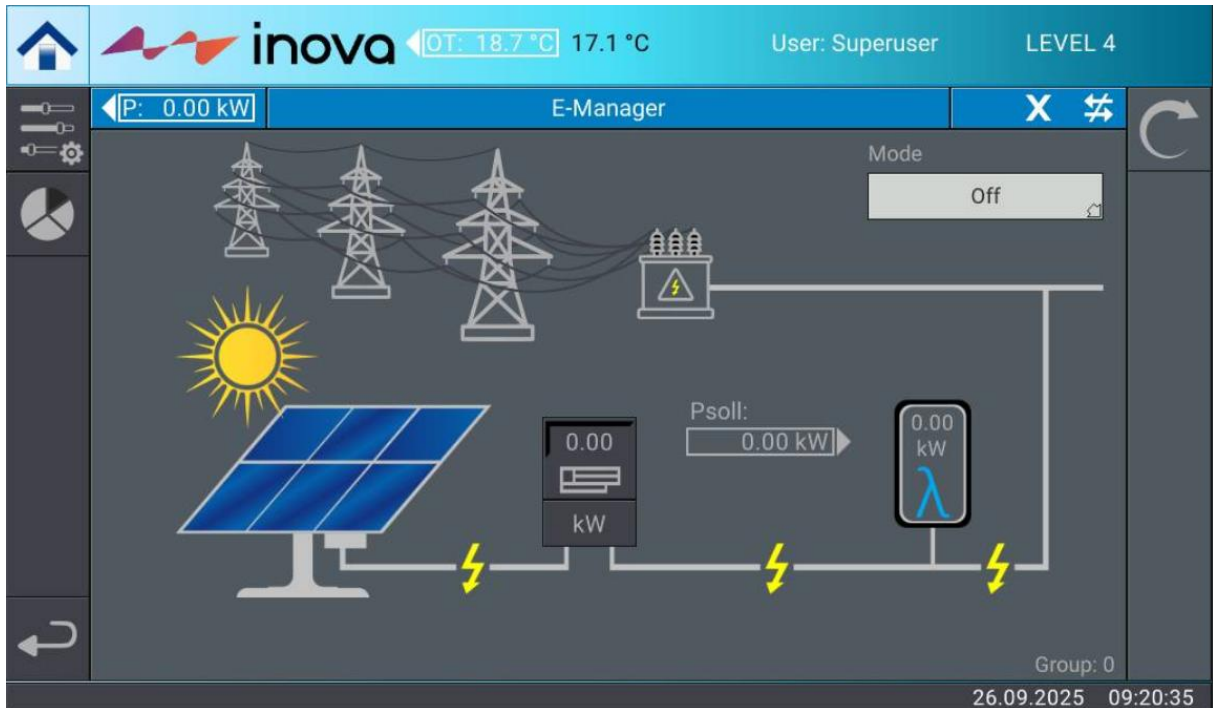
The screenshot shows the inova E-Manager configuration interface. The top status bar displays the inova logo, a temperature reading of 17.0 °C (with a setpoint of 18.7 °C), the user 'Superuser', and 'LEVEL 4'. The main menu is titled 'Modbus RTU' and 'E-Manager'. It lists several configuration parameters for the electricity meter, each with a corresponding value or selection box.

Parameter	Value/Selection
E-Meter Communicationtype	None
E-Meter Meassuerpoint	Energy input
Systembaseload	0.30 kW
Power requirement Minimum	0.5 kW
Power requirement Maximum	4.0 kW
Power requirement Switch-on delay	15 min
Power requirement Switch-off delay	15 min
Battery storage available	☐

The bottom status bar shows the date and time: 26.09.2025 09:18:03.

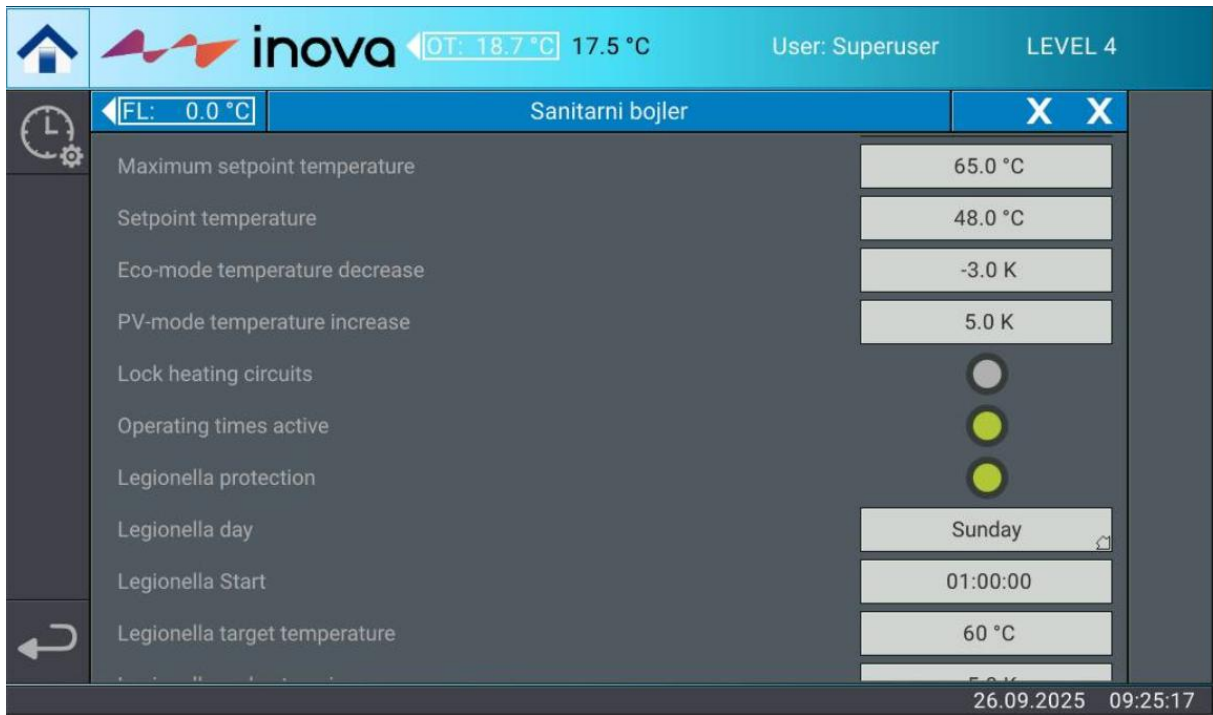
Description of modbus electricity meter

With correct wiring, no error messages appear when switching to automatic mode.



Description of modbus electricity meter

In the settings of the domestic hot water, buffer, and heating circuits, individual temperature increases can be set for surplus operation.



Setting	Value
Maximum setpoint temperature	65.0 °C
Setpoint temperature	48.0 °C
Eco-mode temperature decrease	-3.0 K
PV-mode temperature increase	5.0 K
Lock heating circuits	☐
Operating times active	☒
Legionella protection	☒
Legionella day	Sunday
Legionella Start	01:00:00
Legionella target temperature	60 °C