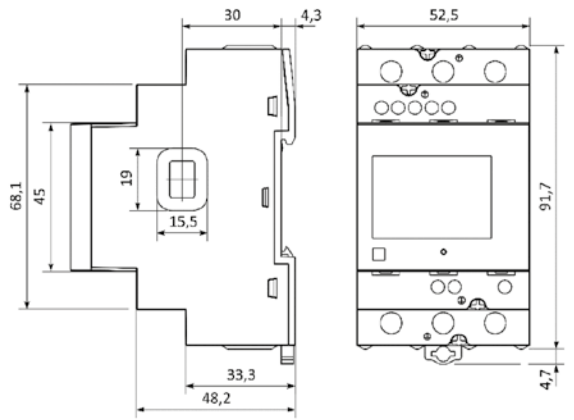
**7M.38**



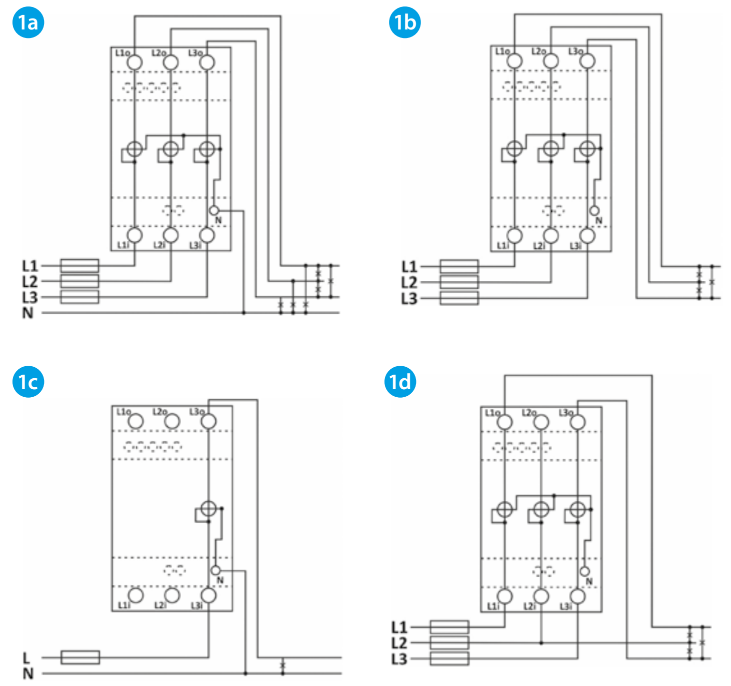
| **M-Bus** | |
|---|---|
| Type | M-Bus |
| Speed | 300 to 9600 bit/s, default 2400 bit/s |
| Primary address | 0 - default |

| **Modbus** | |
|---|---|
| Type | RS485 |
| Speed | 1200 to 115200, default 19200 bit/s |
| Frame | 8, N, 2 |
| Protocol | Modbus RTU |
| Address | 33 (default) |

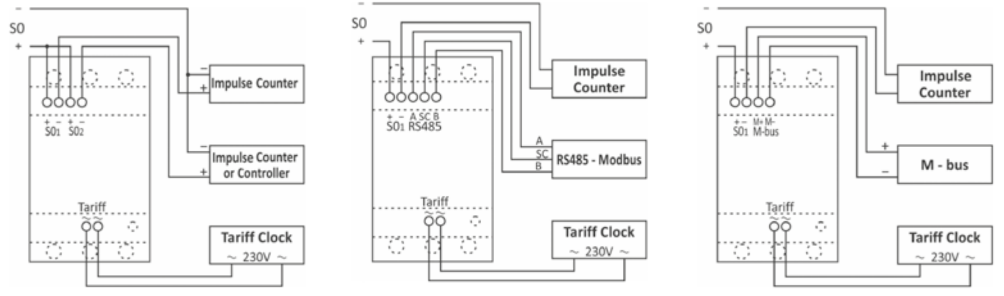
| **IR communication<br>All settings are fixed** | |
|---|---|
| Type | IR |
| Speed | 19200 |
| Frame | 8, N, 2 |
| Protocol | Modbus RTU |
| Address | 33 |

| **NFC** | |
|---|---|
| Protocol | ISO/IEC 14443 Part 2 and 3 compliant |
| Frequency range | 13.56 MHz |
| Baudrate | 106 kbps |
| Operating distance | 15mm Max |

❶



❷



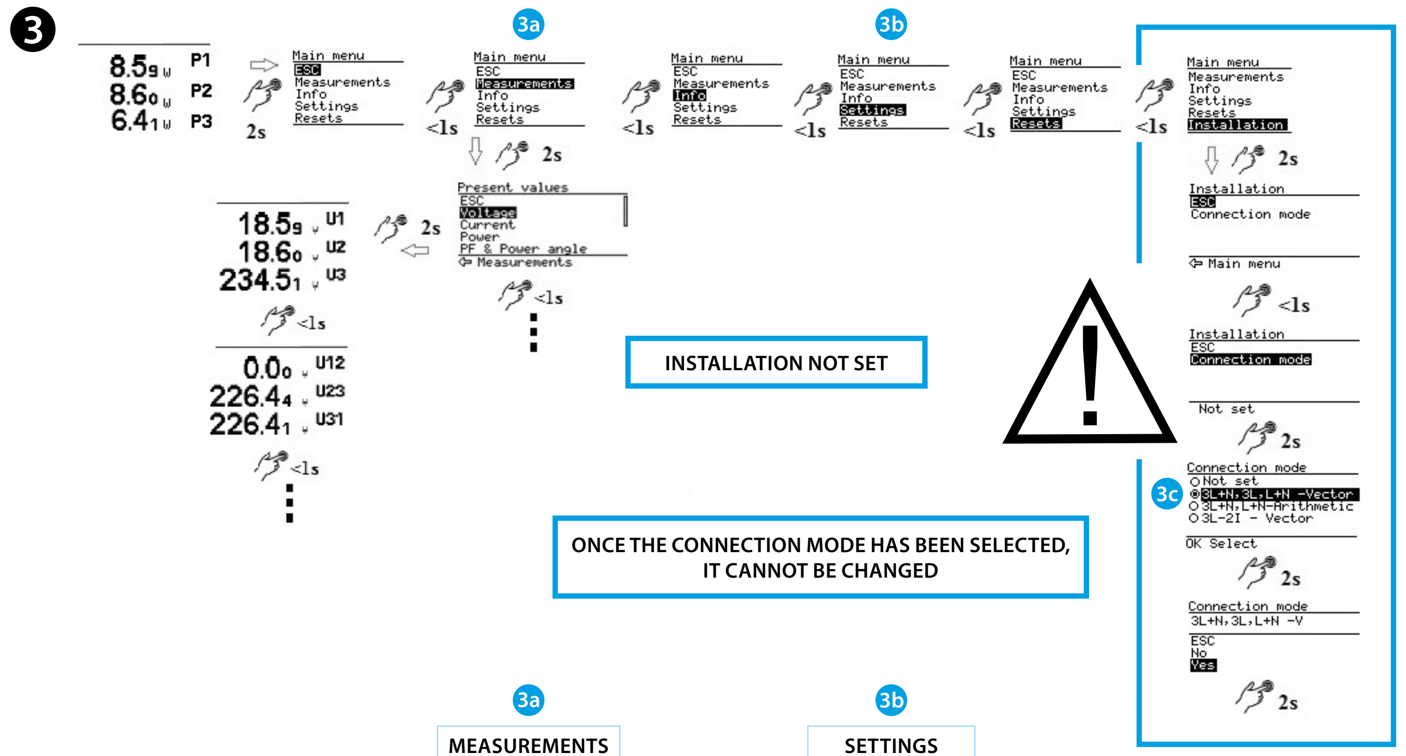
7M.38.8.400.0112
MID - S0

7M.38.8.400.0212
Modbus RS485 - MID - S0

7M.38.8.400.0312
M-Bus - MID - S0

❸

**INITIAL CONFIGURATION**



**INSTALLATION NOT SET**

**ONCE THE CONNECTION MODE HAS BEEN SELECTED, IT CANNOT BE CHANGED**

3a

| MEASUREMENTS |
|---|
| ESC |
| Voltage |
| Current |
| Power |
| PF & Power angle |
| Frequency |
| Energy |
| THD |
| Custom |
| Overview |

3b

| SETTINGS |
|---|
| ESC |
| General |
| Date & Time |
| Connection |
| Communication |
| LCD |
| Security |
| Energy |

# ENGLISH

## 7M.38
## Multifunction bi-directional three phase MID approved energy meter for the measurement of consumed energy suitable for electrical systems with and without a neutral conductor.
## It can be also used as an 80 A single phase energy meter.

These energy meters are for installation by qualified personnel, on 35 mm rail within an electrical enclosure.

❶ 1a 3L+N: three phase with Neutral
1b 3L: three phase without Neutral
1c L+N: single phase 80 A. Use L3-N terminal for connection to the system
1d 3L-2I Vector: Aron connection. Use L1 - L3 terminal for connection to the system

❷ Connection to the communications port

❸ 3c If you select 3L+N, L+N Aritmetic or 3L-2I (Aron connection) Vector you need to insert the password: DCBA
Once confirmed, the selection can no longer be changed

**ELECTRICAL CONNECTION**

The installation must be carried out by a qualified person.
The mains voltage must be disconnected during the installation and connection of the energy meter.
It is recommended to protect the supply line with suitable protective devices such as 3 x 80 A fuses or circuit beakers.
An incorrect or incomplete connection to the power supply terminals can lead to malfunction or damage to the energy meter.

| **Technical data** | | |
|---|---|---|
| Nominal current/Maximum current | In/Imax | 5/80 A |
| Minimum measured current | | 0.25 A |
| Supply (& monitored) voltage | $U_N$ | 3x230 V/400 V |
| Operating range | | (0.8…1.15)$U_N$ |
| Frequency | | 50/60 Hz |
| Accuracy class EN 50470-3 MID | | B |
| S0 Output Specification | | 3.3…27 V DC/27 mA |
| Pulses per kWh | | 500 pulses 32 ± 2 ms |
| Maximum cable length @ 27 V/27 mA | | 1000 m |
| Main inputs - wiring size | | 2.5...16 mm$^2$ |
| Length of removed isolation | | 10 mm |
| Screw torque | | 2 Nm - PZ2 |
| S0 terminals interface - wiring size | | 0.5...1.5 mm$^2$ |
| Screw torque | | 0.4 Nm - PZ2 |
| Length of removed insulation | | 8 mm |
| Ambient temperature | °C | –25°C…+70°C (in the absence of condensation) |