

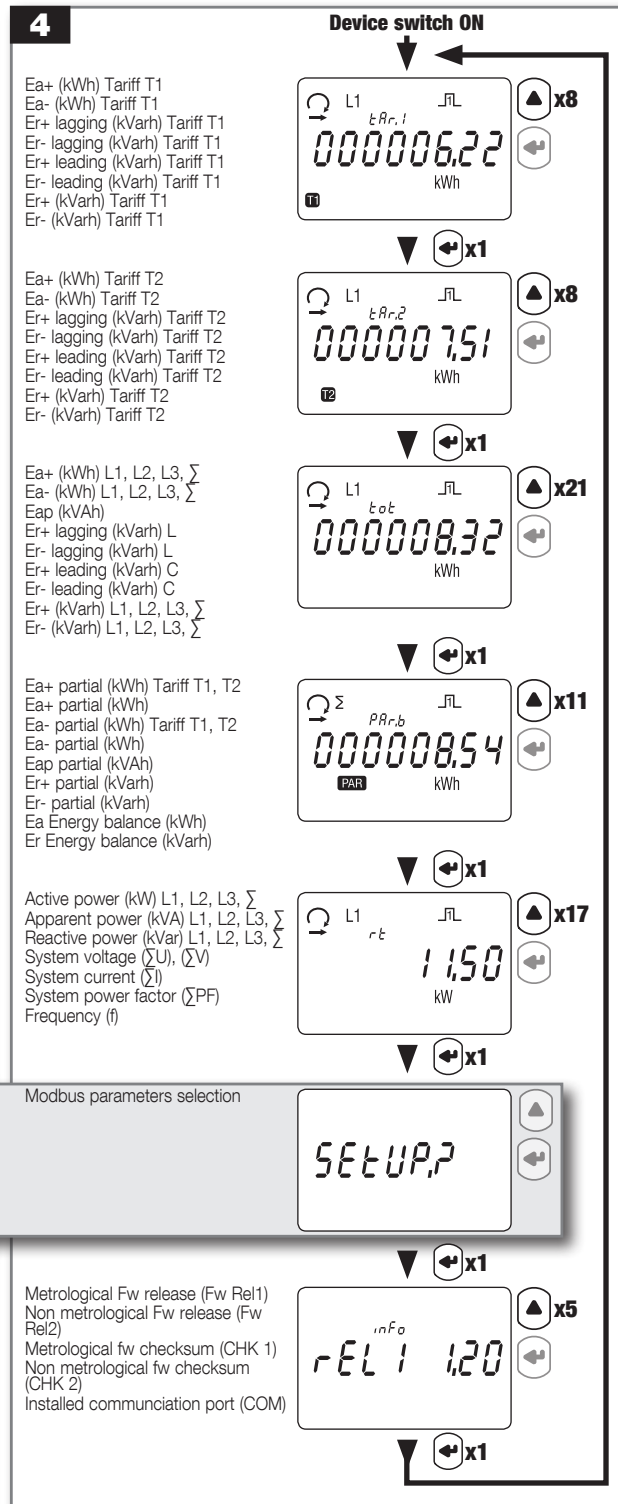
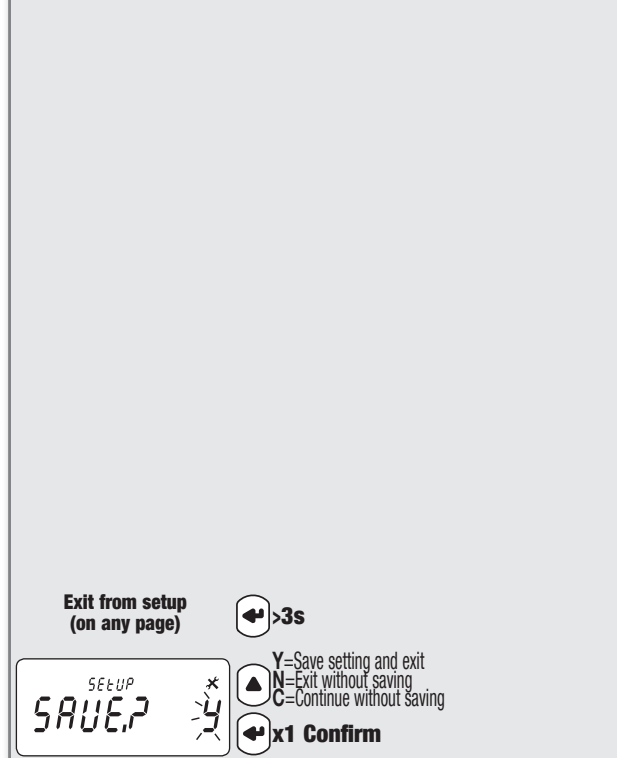
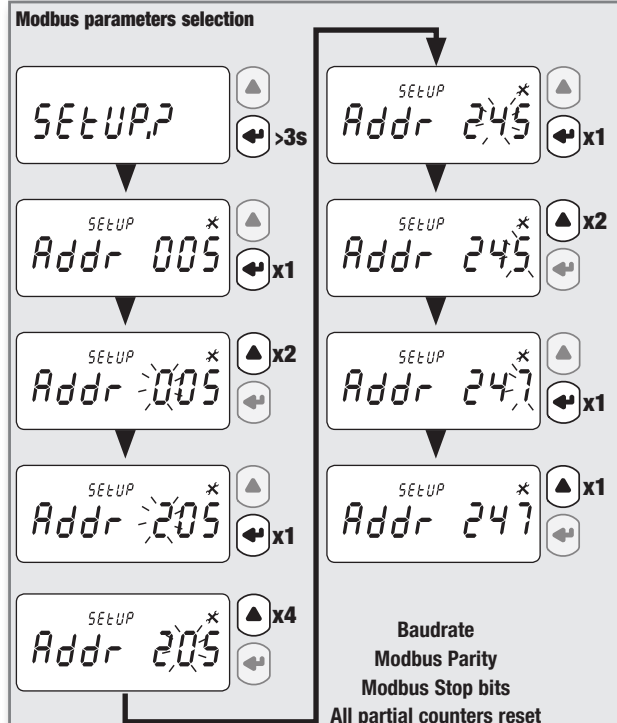
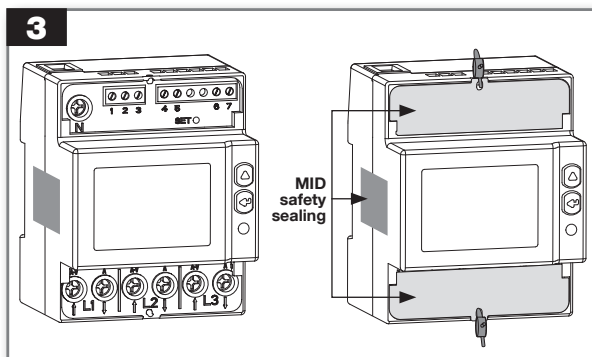
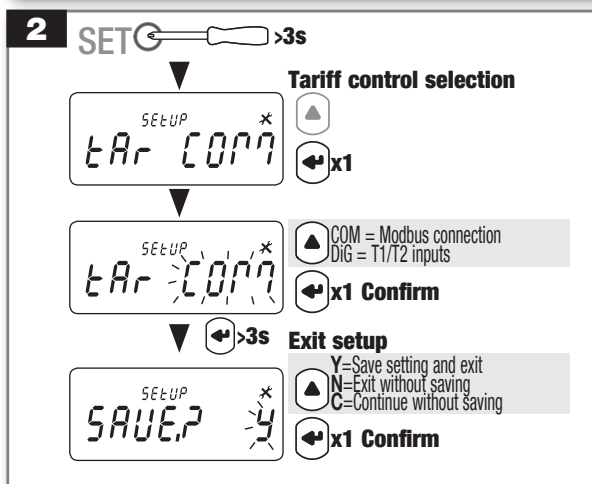
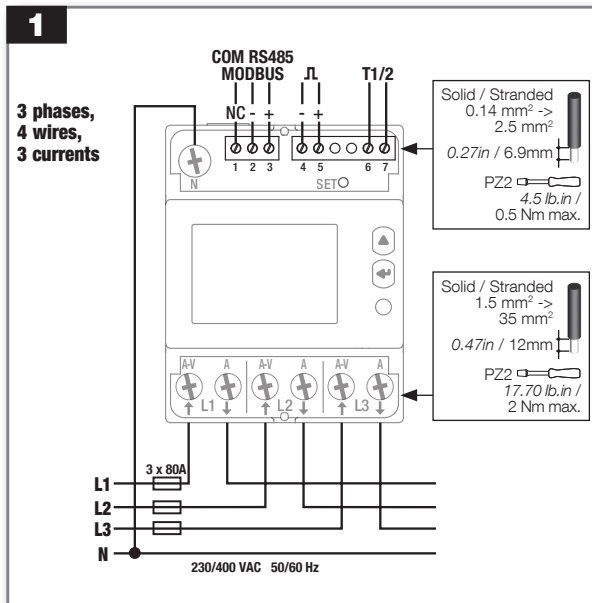
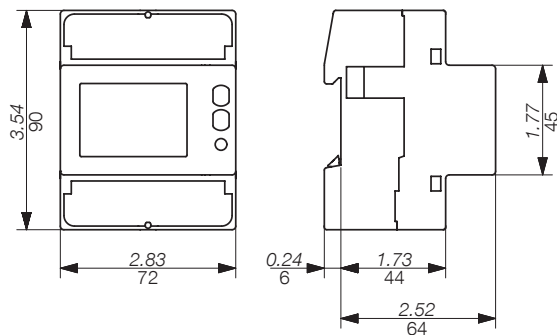
Measurements
The parameters are available according to the device model.

| Instantaneous values | Symbol | Measure unit | Display | Com. |
|-------------------------------------------------|-----------------------------------|-------------------|---------|------|
| Phase to Neutral voltages | $\sum V$ | V | ● | ● |
| | V1, V2, V3 | | | |
| Phase to Phase voltages | $\sum U$ | | ● | ● |
| | U12, U23, U31 | | | |
| Current | $\sum I$ | A | ● | ● |
| | I1, I2, I3, IN | | | |
| Power factor | $\sum PF$ | ● | ● | |
| | PF1, PF2, PF3 | | | |
| Apparent power | $\sum S, S1, S2, S3$ | kVA | ● | ● |
| Active power | $\sum P, P1, P2, P3$ | kW | ● | ● |
| Reactive power | $\sum Q, Q1, Q2, Q3$ | kvar | ● | ● |
| Frequency | f | Hz | ● | ● |
| Phase sequence | CW / CCW | ● | ● | |
| Power direction | \rightleftarrows | ● | ● | |
| Recorded data | | | | |
| Total energy counters | Ea, Er (\sum & per phase) | kWh, kvarh | ● | ● |
| | Eap (\sum) | kVAh | ● | ● |
| Eap (per phase) | | | | |
| Total ind. and cap. reactive energy | Er (\sum) | kvarh | ● | ● |
| | Er (per phase) | | | |
| T1/T2 tariff energy counters | Ea, Er (\sum) | kWh, kvarh | ● | ● |
| | Ea, Er, Eap (\sum & per phase) | kWh, kvarh, kVAh | ● | ● |
| T1/T2 tariff ind. and cap. reactive energy | Er (\sum) | kvarh | ● | ● |
| | Er (per phase) | | | |
| T1/T2 tariff resettable partial energy counters | Ea (\sum) | kWh | ● | ● |
| | Ea, Er, Eap (\sum) | | | |
| Resettable partial energy counters | \sum | kWh, kvarh | ● | ● |
| Other information | Symbol | Value/status | Display | Com. |
| Present tariff | T | 1/2 | ● | ● |
| Partial counters | PAR | START/STOP | ● | ● |
| S0 output status | \square | Active/Not active | ● | ● |

Energy balance values calculation

| Energy balance | Formula |
|----------------|-------------------------------------------------------|
| kWh | (+kWh T1) - (-kWh T1) + (+kWh T2) - (-kWh T2) |
| kvarh | (+kvarh T1) - (-kvarh T1) + (+kvarh T2) - (-kvarh T2) |

Dual dimensions : in/mm



Technical characteristics
Data in compliance with EN 50470-1, EN 50470-3

| General | |
|-----------------------------------------------------------------|---------------------------------------------------------|
| Housing | 4 modules DIN 43880 |
| Mounting | DIN rail EN 60715 |
| Operating features | |
| Connectivity | 4 wires 3x 230/400V to 3x 240/415V |
| Storage of energy values and configuration | FRAM |
| Display tariffs identifier | T1 and T2 |
| Supply | |
| Autosupplied | |
| Operating voltage range | 184 ... 288 VAC |
| Operating frequency range | 45 ... 65 Hz |
| Rated power dissipation (max.) P _v | 3.5VA - 1W |
| Overload capability | |
| Voltage U _n continuous | 288 VAC |
| Voltage U _n momentary (1 s) | 300 VAC |
| Current I _{max} continuous | 80 A |
| Current I _{max} momentary | 30 I _{max} for 1/2c |
| Display | |
| Display type | LCD 8 digits with backlight |
| Active energy: 1 display, 8-digit | 000000.00 ... 999999.99 kWh |
| Reactive energy: 1 display, 8-digit | 000000.00 ... 999999.99 kvarh |
| Apparent energy: 1 display, 8-digit | 000000.00 ... 999999.99 kVAh |
| Instantaneous active power: 1 display, 4-digit | 00.00 ... 99.99 kW |
| Instantaneous reactive power: 1 display, 4-digit | 00.00 ... 99.99 kvar |
| Instantaneous apparent power: 1 display, 4-digit | 00.00 ... 99.99 kVA |
| Instantaneous voltage: 1 display, 4-digit | 000.0 ... 999.9 V |
| Instantaneous current: 1 display, 4-digit | 00.00 ... 99.99 A |
| Power Factor: 1 display, 4-digit | 0.000 ... 1.000 |
| Frequency: 1 display, 4-digit | 45.00 ... 65.00 Hz |
| Display period refresh | 1 s |
| Measuring accuracy | |
| Active energy | class B acc. to EN 50470-3 |
| Active energy | class 1 acc. to EN 62053-21 |
| Reactive energy | class 2 acc. to EN 62053-23 |
| Measuring input | |
| Type of connection | direct phase/N |
| Certified voltage U _n | 230/240 VAC |
| Current I _{ref} | 5 A |
| Current I _{min} | 0.25 A |
| Operating range current (I _{st} ... I _{max}) | 0.020 ... 80 A |
| Certified frequency f _n | 50/60 Hz ± 1 Hz |
| Starting current for energy measurement (I _{st}) | 20 mA |
| Optical interfaces (LED) | |
| Meter constant | 1 Wh/imp |
| S0 Output | |
| Type | Optoisolated - 5 to 27VDC 27mA acc. to EN 62053-31 |
| Pulse weight | 100 Wh |
| Safety | |
| Indoor meter | yes |
| Degree of pollution | 2 |
| Operational voltage | 300 VAC |
| AC voltage test (EN 50470-3, 7.2) | 4 kV |
| Impulse voltage test | 6 kV 1.2/50µs |
| Protection class (EN 50470) | class II |
| Housing material flame resistance | UL 94 class V0 |
| Embedded communication | |
| Modbus RTU | 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps |
| Isolation class | SELV Circuit |
| Environmental conditions | |
| Mechanical environment | M1 |
| Electromagnetic environment | E2 |
| Operating temperature | -25 ... +55 °C |
| Limit temperature of transportation and storage | -25 ... +75 °C |
| Relative humidity (not condensation) | ≤80 % |
| Vibrations | ±0.075 mm |
| Degree protection | IP51(*)/IP20 |

(*) For the installation in a cabinet at least with IP51 protection.