



## Measurements

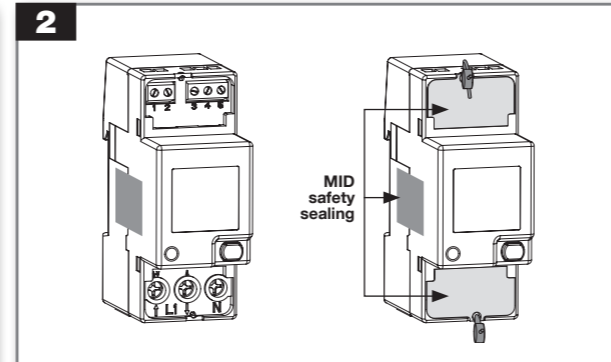
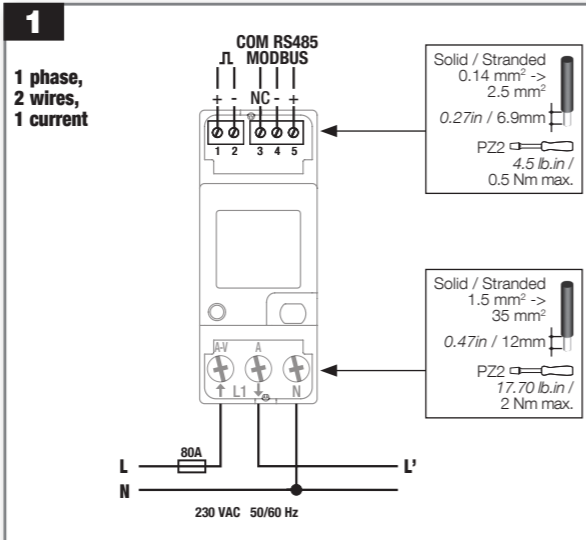
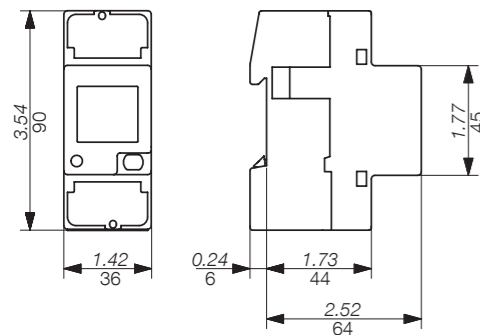
The parameters are available according to the device model.

Instantaneous values	Symbol	Measure unit	Display	Com.
Phase to Neutral voltages	V	V	●	●
Current	I	A	●	●
Power factor	PF		●	●
Apparent power	S	kVA	●	●
Active power	P	kW	●	●
Reactive power	Q	kvar	●	●
Frequency	f	Hz	●	●
Power direction	↔		●	●
Recorded data				
Total energy counters	Ea, Er	kWh, kvarh	●	●
Total apparent energy	Eap	kVAh	●	●
Total ind. and cap. reactive energy	Er	kvarh	●	●
T1/T2 tariff energy counters	Ea, Er	kWh, kvarh	●	●
T1/T2 tariff ind. and cap. reactive energy	Eap	kVAh	●	●
T1/T2 tariff resettable partial energy counters	Ea	kWh	●	●
Resettable partial energy counters	Ea, Er	kWh, kvarh	●	●
	Eap	kVAh	●	●
Energy balance	Σ	kWh, kvarh	●	●
Other information	Symbol	Value/status	Display	Com.
Present tariff	T	1/2	●	●
Partial counters	PAR	START/STOP	●	●
S0 output status		Active/Not active	●	●

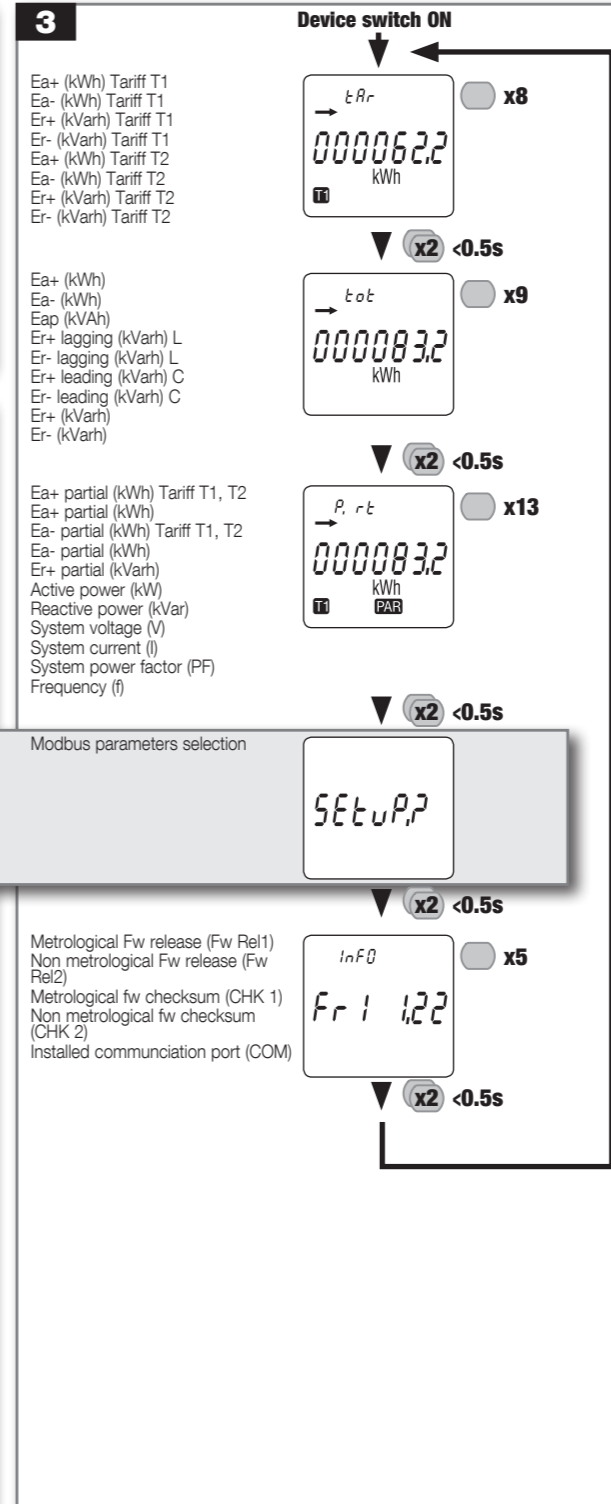
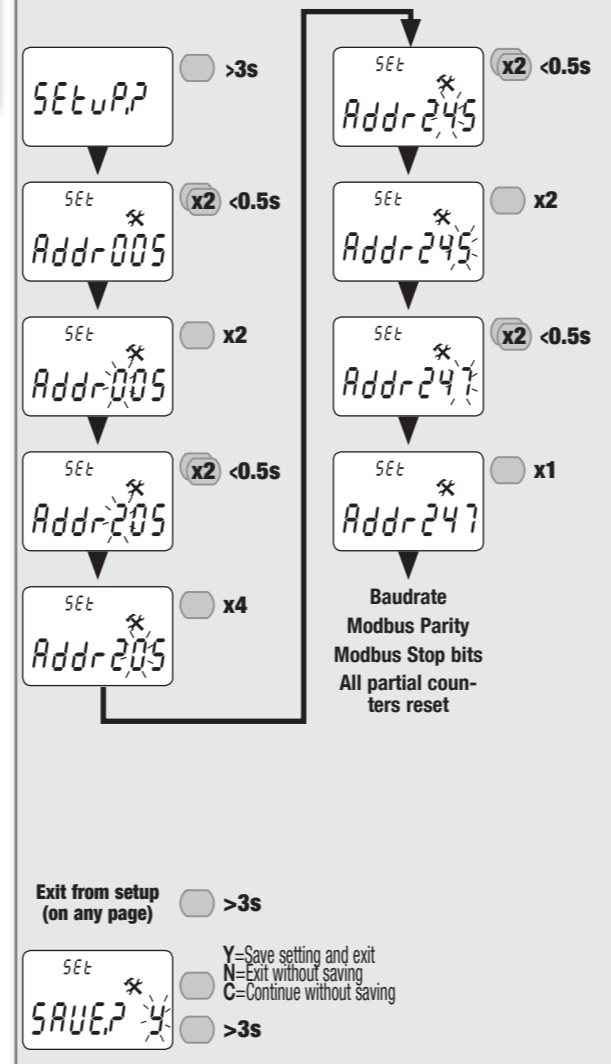
## Balance counter values calculation

Balance counter	Formula
kWh	(+kWh T1) - (-kWh T1) + (+kWh T2) - (-kWh T2)
kvarh	(+kvarh T1) - (-kvarh T1) + (+kvarh T2) - (-kvarh T2)

Dual dimensions : in/mm



## Modbus parameters selection



## Technical characteristics

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

General	
Housing	2 modules DIN 43880
Mounting	DIN rail EN 60715
Operating features	
Connectivity	2 wires 230 to 240V
Storage of energy values and configuration	yes 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.) Pv	7.5VA - 0.5W
Overload capability	
Voltage Un continuous	276 VAC
Voltage Un momentary (1 s)	300 VAC
Current Imax continuous	80 A
Current Imax momentary	30 Imax for 1/2c
Display	
Display type	LCD 7 digits with backlight
Active energy: 1 display, 7-digit	000000.0 ... 999999.9 kWh
Reactive energy: 1 display, 7-digit	000000.0 ... 999999.9 kvarh
Apparent energy: 1 display, 7-digit	000000.0 ... 999999.9 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 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	0.001 ... 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 Un	230/240 VAC
Current Iref	5 A
Current Imin	0.25 A
Operating range current (Ist ... Imax)	0.020 ... 80 A
Certified frequency fn	50/60 Hz ± 1 Hz
Starting current for energy measurement (Ist)	20 mA
Optical interfaces (LED)	
Meter constant	1 Wh/imp
S0 Output	
Type	Optoisolated - 27VDC 27mA acc. to EN 62053-31
Pulse weight	100Wh
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.