

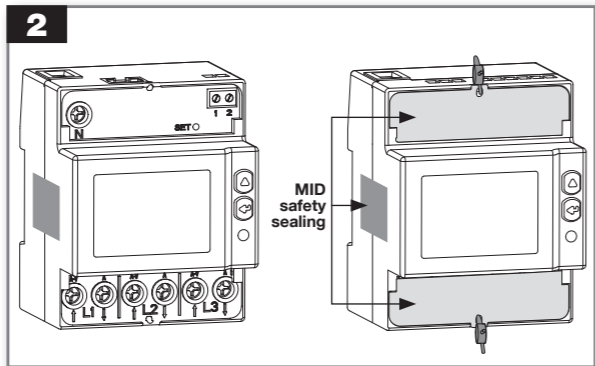
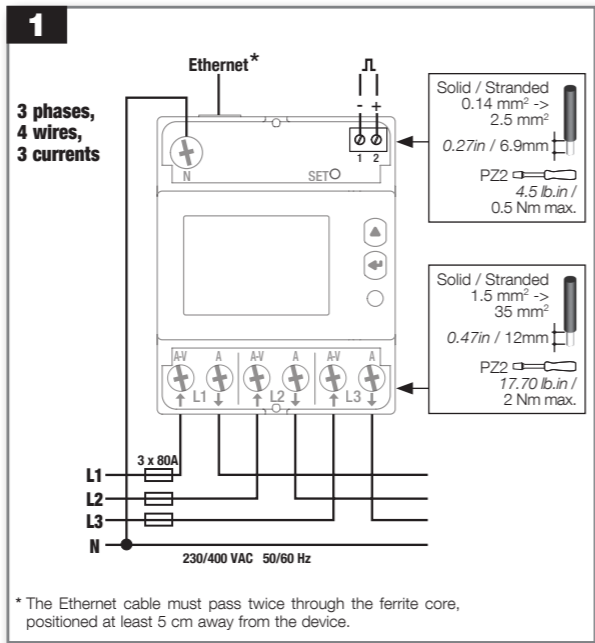
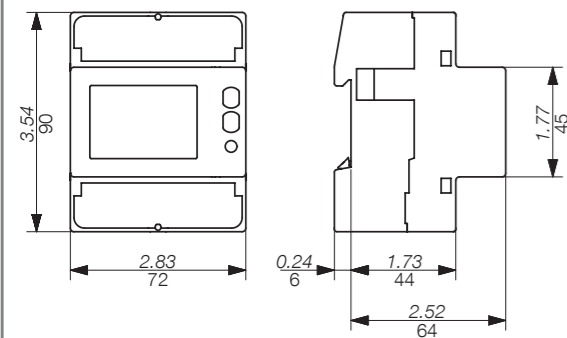
Measurements
The parameters are available according to the device model.

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	↔		●	
Recorded data				
Total energy counters	Ea, Er (\sum & per phase)	kWh, kvarh	●	●
	Eap (\sum)	kVAh	●	●
Total apparent energy	Eap (per phase)	kVAh	●	●
	Er (\sum)	kvarh	●	●
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)	kvarh	●	●
T1/T2 tariff resettable partial energy counters	Ea (\sum)	kWh	●	●
	Ea, Er, Eap (\sum)	kWh, kvarh, kVAh	●	●
Energy balance	\sum	kWh, kvarh	●	●
Other information				
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



* The Ethernet cable must pass twice through the ferrite core, positioned at least 5 cm away from the device.

Ethernet parameters selection

SETUP

Eth SDEF

CONF.2

IP 1 192

IP 1 192

IP 1 007

IP 1 007

IP 1 052

IP 1 052

IP 1 002

IP 1 002

Exit from setup (on any page)

SAVEP

Y=Save setting and exit
 N=Exit without saving
 C=Continue without saving

IP address 2'nd figure
 IP address 3'rd figure
 IP address 4'th figure
 Netmask 1'st figure
 Netmask 2'nd figure
 Netmask 3'rd figure
 Netmask 4'th figure
 Gateway 1'st figure
 Gateway 2'nd figure
 Gateway 3'rd figure
 Gateway 4'th figure
 All partial counters reset

3

Device switch ON

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

L1 kWh

PAR kWh

L1 kWh

PAR kWh

SETUP

Metrological Fw release (Fw Rel1)
 Non metrological Fw release (Fw Rel2)
 Metrological fw checksum (CHK 1)
 Non metrological fw checksum (CHK 2)
 Installed communication port (Eth)

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.) Pv	3.5VA - 1W
Overload capability	
Voltage Un continuous	288 VAC
Voltage Un momentary (1 s)	300 VAC
Current Imax continuous / momentary	80 A / 30 Imax 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 Un	230/240 VAC
Current Iref / Imin	5 A / 0.25A
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 - 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	
Ethernet Modbus TCP	10/100 Mbps
Webserver login	Username: admin/Password: Admin
Default IP address	192.168.0.4
Default Gateway IP address	192.168.0.1
Default Netmask	255.255.255.000
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.