1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as [% rdg + (number of dgt) x resolution]. It is referred to 23°C ± 5°C, <80%RH

DC Voltage

Range	Resolution	Accuracy	Input impedance	Overload protection
0.5 ÷ 999.9V	0.1V	±(1.0%rdg + 4dgt)	2.6MΩ	1000VDC/ACrms

(AC+DC) TRMS Voltage

Range	Resolution	Accuracy		Overload protection
0.5 ÷ 999.9V	0.1V	43 ÷ 63Hz	10 ÷ 43Hz, 63 ÷ 400Hz	1000VDC/ACrms
		±(1.0%rdg + 3dgt)	±(3.5%rdg + 3dgt)	

Input impedance: 2.6MΩ; Max. Crest factor: 1.41

AC/DC Voltage – MAX/MIN/CREST

Range	Resolution	Accuracy	Response time	Overload protection
0.5 ÷ 999.9V	0.1V	±(3.5%rdg + 5dgt)	1s	1000VDC/ACrms

Input impedance: 2.6MΩ; Max. Crest factor: 1.41

DC Current

Range	Resolution	Accuracy	Overload protection
0.5 ÷ 999.9A	0.1A	±(2.0%rdg + 5dgt)	2000ADC/ACrms

AC (AC+DC) TRMS Current

Range	Resolution	Accuracy		Overload protection
0.5 ÷ 999.9A	0.1A	43 ÷ 63Hz	10 ÷ 43Hz, 63 ÷ 400Hz	2000VDC/ACrms
		±(2.0%rdg + 4dgt)	±(3.5%rdg + 5dgt)	

Max. Crest factor: 3

AC/DC Current – MAX/MIN/CREST

Range	Resolution	Accuracy	Response time	Overload protection
0.5 ÷ 999.9A	0.1A	±(3.5%rdg + 5dgt)	1s	1000VDC/ACrms

Max. Crest factor: 3

Resistance and Continuity test

Range	Resolution	Accuracy	Buzzer	Overload protection
0.0Ω ÷ 59.9kΩ	0.1Ω	±(1.0%rdg + 5dgt)	1Ω ÷ 150Ω	1000VDC/ACrms x 60s

Frequency with test leads and jaws

Range	Resolution	Accuracy	Overload protection
10.0 ÷ 99.9Hz	0.1Hz	±(1.0%rdg + 5dgt)	1000VDC/ACrms
100 ÷ 400Hz	1Hz		2000ADC/ACrms

Voltage range for frequency measurement with test leads : 0.5 ÷ 1000V / Current range for frequency measurement with jaws: 0.5 ÷ 1000A

DC Power

Range [kW]	Resolution [kW]	Accuracy
0.00 ÷ 99.99	0.01	±(3.0%rdg + 3dgt)
100.0 ÷ 999.9	0.1	

Accuracy defined for: Voltage > 10V, Current ≥ 2A

Active, Reactive, Apparent Power

Range [kW, kVAR, KVA]	Resolution [kW, kVAR, kVA]	Accuracy
0.00 ÷ 99.99	0.01	±(2.0%rdg + 3dgt) (*)
100.0 ÷ 999.9	0.1	±(3.0%rdg + 3dgt) (**)

(*) Accuracy defined for: sinusoidal waveform 10..65Hz, Voltage > 10V, Current ≥ 2A, Pf: 0.5
(**)Accuracy defined for: sinusoidal waveform >65Hz, Voltage > 10V, Current ≥ 5A, Pf: 0.5

Active, Reactive Energy

Range [kWh, kVARh]	Resolution [kWh, kVARh]	Accuracy
0.00 ÷ 99.99	0.01	±(2.0%rdg + 3dgt) (*)
100.0 ÷ 999.9	0.1	±(3.0%rdg + 3dgt) (**)

(*) Accuracy defined for: sinusoidal waveform 10..65Hz, Voltage > 10V, Current ≥ 2A, Pf: 0.5
(**) Accuracy defined for: sinusoidal waveform >65Hz, Voltage > 10V, Current ≥ 5A, Pf: 0.5

Power Factor

Range	Resolution	Accuracy
0.20 ÷ 1.00	0.01	±3°

Accuracy defined for: sinusoidal waveform 10..65Hz, Voltage > 10V, Current ≥ 2A, Pf: 0.5
Accuracy defined for: sinusoidal waveform >65Hz, Voltage > 10V, Current ≥ 5A, Pf: 0.5

Voltage / Current Harmonics

Harmonic order	Fund. Frequency[Hz]	Resolution [V], [A]	Accuracy
1 ÷ 25	10 ÷ 75	0.1	±(5.0%rdg + 5dgt)
1 ÷ 8	76 ÷ 400		

Phase sequence indication and phase conformity with 1-wire (*)

Voltage range	Frequency range	Input impedance
100 ÷ 1000V	40 ÷ 70Hz	1.3MΩ

(*) On standard conditions: instrument correctly gripped, standard shoes, standard floor, etc

2. GENERAL SPECIFICATIONS

Internal memory and recording parameters conditions	
Number of saved parameters:	60 parameters
Integration period (IP):	1, 5, 10, 30, 60, 120, 300, 600 or 900s programmable
Inrush current acquiring threshold:	programmable between 5A and 900A in steps of 1A
Inrush current detection modes:	Fix, Variable
Inrush current sample window acquiring:	1/1 (acquiring samples each half period) 1/2 (acquiring samples one half period every two) 1/4 (acquiring samples one half period every four)
Max number of saved events:	10
Max number of saved recordings:	20
Memory capacity:	2Mbytes
Recording autonomy:	approx. 2.1 days (@ 60 parameters & IP = 900s)
Interface to PC:	Bluetooth protocol
Radio module characteristics	
Radio:	Bluetooth ™ 2.00
Frequency:	2.4 GHz (2400-2483.5MHz)
Power:	Class 2
Baud rate:	57600 baud
Mechanical characteristics	
Size:	252(L) x 88(La) x 44(H)mm
Weight (including battery):	420g
Max conductor size:	45mm
Supply	
Battery type:	2 batteries 1.5V type AAA IEC LR03
Battery life:	approx. 53 hours of continuous use in power/energy measures
Auto Power Off:	approx. 5 minutes of idleness
Display	
Characteristics:	graphic dot matrix, 128x128pxl with backlight
Sample rate:	128 samples/period (@ 50Hz)
Display update rate:	1 times/sec
Conversion mode:	TRMS
Climatic conditions	
Reference temperature:	23°C ± 5°C
Operating temperature:	0 ÷ 40 °C
Operating humidity:	<80%RH
Storage temperature:	-10 ÷ 60 °C
Storage humidity:	<70%RH
Reference standards	
Comply with:	IEC/EN 61010-1, IEC/EN61010-2-032
Safety of test leads:	IEC/EN61010-031
Insulation:	double insulation
Pollution:	level 2
For inside use, max height:	2000m
Installation category:	CAT IV 600V to ground, max 1000V between inputs

This product conforms to the prescriptions of the European directive on low voltage 2006/95/EEC and to EMC directive 2004/108/EEC