

ELECTRONICS PRODUCTS > ENERGY MANAGEMENT PRODUCTS > ENERGY ANALYZERS



POWYS 3101

Stock Keeping Unit (SKU): 606303

Energy Analyzer

Commercial Information

Product Sales Code	606303
Package Unit	1 pcs.
Customs Tariff Number	902830900011

Technical Information

General	
Lcd Screen	
Language Support	
Password Protection	+
Voltage Transformer Ratio Vtr	1 - 5000
Current Transformer Ratio Ctr	1 - 5000
Number Of Measurements In One Period	256
Lcdscreen Refresh Rate	sn.
Networks	TT, TN, IT
Signal Waveforms	
Connection Type	3F4T, 3F3T, Aron
Battery	
Real Time Clock	
Four Quadrant Measurement	+

Demand Period	1-60 min. adjustable
Phase Diagram	
Minmaxdemand Values	+
Protection Class	IP20
Weight G	
Mounting Type	Rail Mounted
Seven Segment Display	

Energy Measurement

Multiple Sub Tariffs Peak On Peak And Off Peak	
1 Phase Energy Measurement	+
3 Phase Energy Measurement	+
4 Quadrant Reactive Energy Measurement	
Number Of Tariffs	2

Current Measurement Input

Measuring Range	10mA - 6A AC
Overvoltage Category	300 V Cat II
Voltage Fluctuation Measurement	2 kV
Power Consumption	<0.2 VA
Intermittent Overload	100 A for 1 sec
Sampling Frequency Between 45 65 Hz	12,8 kHz

Voltage Measurement Input

Overvoltage Category	300 V Cat III
Measuring Range L N	1-300 Vrms
Measuring Range L L	2-500 Vrms
Frequency Measuring Range	45-65 Hz
Power Consumption	<0.1 VA
Sampling Frequency Between 45 65 Hz	12,8 kHz

Power Quality Measurements

Thd Voltage As	+
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Thd Current As	+
Harmonics For Current And Voltage Phases	Up to 31st

Measuring Accuracy Iec 61557 12

Total Active Power	Class 0.5
Total Reactive Power	Class 1
Total Reactive Energy	Class 2
Frequency	Class 0.1
Current	Class 0.5
Neutral Current	Class 0.5
Voltage	Class 0.2
Power Factor	Class 0.5
Thdv Thdi	Class 1
Total Apparent Power	Class 0.5
Total Active Energy	Class 0.5

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Total Active Energy	Class 0.5S
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Total Reactive Energy	Class 2
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Alarm Relay Outputs

Number Of Outputs	2
Type	NO (SPST)
Max Switching Current	10 A
Max Switching Voltage	250 VAC
Max Switching Power	1250 VA

Power Supply

Voltage	85-300V AC / 85-300V DC
Frequency	45-65Hz
Consumption	<6VA AC / <3W

Environmental Conditions

Operating Temperature	-20 to +70°C
Storage Temperature	-30°C +80°C
Relative Humidity Non Condensing	Max. 95%

Emc Emi

300 Vac Cat II According To IEC 61010 1	
EN 55011A1	2010, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11

Diagrams

Mains Connection	
Digital I/O And Alarm Output Connections	
3 Wires With 3CT	
4 Wires With 3CT	
3 Wires With 2CT Note	CTs can be connected to any phase. In the figure, they are connected to Phase-1 and Phase-3.
Single Phase With 1CT Note	CT and VT can be connected to any phase. In the figure, they are connected to Phase-1.
Digital Output Connection	
Digital Input Connection	
Alarm Output Connection	
Analog Output Connection	

Communication

Protocol	Modbus RTU
Baud Rate	1200-57600 bps adjustable
Parity	Odd, Even, None
Stop Bit	1
Slave Id	1-247
Isolation	2750V RMS

Time Recorded Data Storage

Hourly Records	
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Daily Records	
Monthly Records	
Demand	
Alarm Records	

Digital Output

Isolation Level	5000 Vrms
Number Of Outputs	2
Type	Transistor
Voltage Switching Range	5-30 VDC
Minimum Switching Frequency	20 Hz, 50 ms

Digital Input

Number Of Inputs	2
Isolation Level	5000 Vrms
Minimum Counting Frequency	100 Hz, 10 ms
Input Type	Dry Contact

Analog Output

Number Of Outputs	
Output Ranges 0 5 V 0 10 V 5 5 V 10 10V 0 20 Ma 4 20 Ma	
Isolation	

Cable Cross Sections Power Supply Voltage Current Relay Outputs

Loaded	2.5mm² - 14AWG
Unloaded	4mm² - 12AWG, 2x1.5mm² - 2x16AWG

Cable Cross Sections Digital I/O RS485 Analog Outputs

Loaded	1.5mm² - 16AWG
Unloaded	1.5mm² - 16AWG, 2x0.75mm² - 2x18AWG

Other Measurements

Operating Hours Operating Time Under Load	+
Open Time Open Time Without Load	+

Interruption Counter Number Of Power
Interruptions

+
