



ELECTRONICS PRODUCTS > ENERGY MANAGEMENT PRODUCTS > ENERGY ANALYZERS

POWYS 3100

Stock Keeping Unit (SKU): 606300

Energy Analyzer

Commercial Information

Product Sales Code	606300
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	1

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	+
----------------	----------

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

Measuring Accuracy Iec 62053 22

Total Active Energy	Class 0.5S
---------------------	-------------------

Measuring Accuracy Iec 62053 23

Total Reactive Energy	Class 2
-----------------------	----------------

Alarm Relay Outputs

Number Of Outputs	
Type	
Max Switching Current	
Max Switching Voltage	
Max Switching Power	

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	
----------------	--

Daily Records	
Monthly Records	
Demand	
Alarm Records	

Digital Output

Isolation Level	
Number Of Outputs	
Type	
Voltage Switching Range	
Minimum Switching Frequency	

Digital Input

Number Of Inputs	
Isolation Level	
Minimum Counting Frequency	
Input Type	

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 Io 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

+
