WattmonMEGA

Remote Monitoring & Control Solution

Specifications

Communication

- RS-485 Modbus RTU port for communication with up to 32 devices
- Modbus TCP for communication with up to 10 devices
- RS-232 Serial Port
- Dallas 1-Wire bus

Inputs and Outputs

- 3 Analog Inputs: 0-5V, 6-60V, 0-330V DC
- 4 Digital Inputs (3 with pulse counting)
- 4 Digital Outputs
- 1 Integrated 5A relay

Power

- Wide input voltage range: 6-60V DC
- High Efficiency DC-DC converter
- Low Power Consumption of < 2 Watts

Network

- 100 Mbit Ethernet
- GPRS, 3G and 4G LTE via external USB cellular dongle

Storage

- 16 GB MicroSD Card
- 512 KB RAM

Applications

- **Inverter Monitoring**
  Inspect generation and efficiency of grid-tie and hybrid inverters
- **AC Power Monitoring**
  Supervise load and performance of substations and mini-grids
- **Off-Grid Battery Monitoring**
  Observe battery voltage, current, SoC, charging Trends and health over time
- **Zero Export & DG Protection**
  Reduce active output power of multiple inverters to regulate energy generation

Material

Cover	ABS (Black)
Base	ABS Noryl (Black)

Dimensions & Weight

Length	130 mm
Width	70 mm
Height	75 mm
Weight	200 g

WattmonMEGA IoT Data Logger Specifications

Introduction

The Wattmon hardware and software platform is the most flexible in the industry. It can be used for monitoring Grid-Tie, Hybrid and Off-Grid setups, Solar Water Pumping, Building Loads, and features a manufacturer-agnostic Zero Feed-in and Diesel Generator Protection solution compatible with the leading inverter brands of today.

The WattmonMEGA acts as a Modbus master and can interface with up to 32 Modbus RTU and 10 Modbus TCP slave devices. A simple configuration tool allows for the setting up of the device quickly for a range of inverters and energy meters from various manufacturers.

It supports the following data types:

- IEEE754 Float (Big and Little Endian)
- INT32 (Big and Little Endian)
- UINT32 (Big and Little Endian)
- INT16

Benefits

- **Versatile**
  Configurable by anyone using the built-in *EZConfig* function
- **Multilingual**
  Features an interface in English, Español, Deutsch, Français, हिन्दी, தமிழ்
- **Remotely Accessible**
  Log into the device remotely through the Wattmon Proxy server using a 3G/4G USB dongle or via Ethernet
- **Industry Compliant**
  Integrate new and existing devices over Modbus RTU/TCP with the on-board device driver creator
- **Local Storage**
  Securely store several years worth of data locally in CSV format and control who can view it
- **Programmable**
  Write scripts in the built-in editor using the uPHP language or the *Visual Script Builder*

Compatibility

Wattmon currently has drivers for devices from the following manufacturers:

- ABB
- Consul Neowatt
- Delta
- Eastron
- Emerson
- Fronius
- Growatt
- Hitachi
- Huawei
- Ingeteam
- Kaco
- Kernel sistemi
- L&T
- Polycab
- Refusol
- Schneider
- Secure
- SMA
- SolarEdge
- Solis Ginlong
- Studer
- Sungrow
- Victron Energy
- Zeversolar

Energy Monitoring Solution (EMS)

The WattmonMEGA is capable of storing several years worth of data locally on the MicroSD card. However, it can also upload the logged data to the Wattmon Energy Monitoring Solution (EMS) is a customizable cloud portal that displays real-time data in the form of graphs and widgets. Users can select the parameters they wish to monitor and create separate accounts for individual clients. Data can be downloaded in CSV format.

Conformity

Emissions	CISPR 22, Class A CISPR 32, Class A
Electrostatic Discharge	IEC EN 61000-4-2
Electrical Fast Transient	IEC EN 61000-4-4
Surge Immunity	IEC EN 61000-4-5

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