

Applications

- **Inverter Monitoring**  
Inspect generation and efficiency of grid-tie and hybrid inverters.
- **AC/DC Power Monitoring**  
Supervise load and performance of substations and mini-grids, and monitor battery voltage natively.
- **Weather Station Monitoring**  
Observe irradiation, temperature and other atmospheric conditions.
- **Zero Feed-In & DG Protection**  
Reduce active output power of multiple inverters to regulate energy generation.
- **Remote Control**  
Remotely control the inverters generation.



Specifications- PowerAMR Watt Mega

Inputs & 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: 6-60VDC High Efficiency DC-DC converter Low Power Consumption of < 2 Watt	
Communication	RS-485 Modbus RTU port for communication with up to 30 devices Modbus TCP for communication with up to 10 devices RS-232 Serial Port Dallas 1-Wire bus	
Network	100 Mbit Ethernet 3G and 4G LTE via external USB Stick	
Storage	16 GB MicroSD Card 512 KB RAM	
Data Collection & Export	CSV format HTTP / HTTPS / FTP / SFTP / MQTT / MQTTS	
Characteristics	Cover Material	ABS Polycarbonate (FR -UL94V-0)
	Base Material	ABS Noryl (FR - UL94V-0)
	Degree of Protection	IP20 (Finger Protected)
	Operating Temperature	0-65 °C
	DIN Standard / Rail	DIN 43 880 / EN 50022
	Dimensions (L x W x H)	130 x 70 x 75 mm
	Weight	200 g

## Introduction

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The Mega Data Logger 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.

It supports the following data types:

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

## Benefits

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- **Versatile**  
Easily Configurable
- **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*

## Zero Feed-In & DG Protection

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The Power Control Solution can throttle the active power output of inverters on sites with no Net Metering or with Diesel Generators, securing against grid export or reverse-feeding. The supported brands are :

- ABB
- Polycab
- Delta
- Refusol
- Emerson
- SofarSolar
- Fronius
- Schneider
- Goodwe
- SMA
- Growatt
- SolarEdge
- Huawei
- Solis Ginlong
- Ingeteam
- Sungrow
- Kaco
- Zegersolar
- Kstar
- and more...

## Energy Monitoring Solution (EMS)

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The Mega is capable of storing several years worth of data on the MicroSD card. It can also upload the logged data to the Energy Monitoring Solution (EMS), a highly customizable cloud portal that displays real-time data in the form of graphs and widgets, allowing users to select the parameters they wish to monitor, and create separate accounts for individual clients.

## Conformity- EU Declaration of Conformity

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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