PRODUCT DATASHEET

RB Technik

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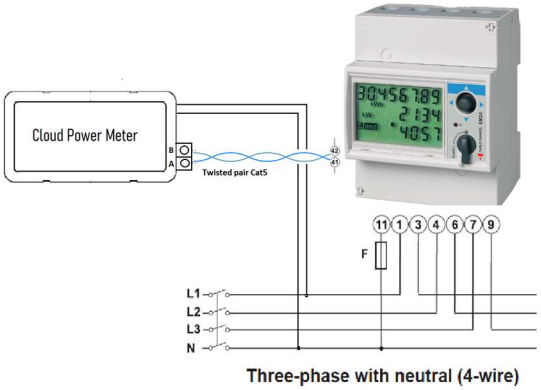
Cloud Power Meter 3Ph



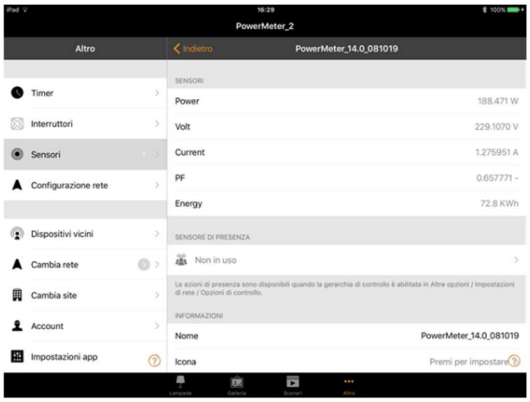
Three-phase with neutral (4-wire)

Features:

- Mains Power Meter Modbus RTU interface compatible with Casambi ecosystem.
- 3 phase power meter. Measure Power, Volt, Amp, PF, Energy, Led Fixtures Hours
- Data are visible on Casambi App and stored in Casambi Cloud
- Cloud stored data can be retrieved with the included app that allow display, charting, analyzing of all parameters.
- Works with Carlo Gavazzi EM23/EM 24 direct insertion Wattmeter (Under request it is possible interface with most commercial wattmeter Modbus RTU available on the market)
- Small dimension and low self consumption allow to be easily installed and hidden.

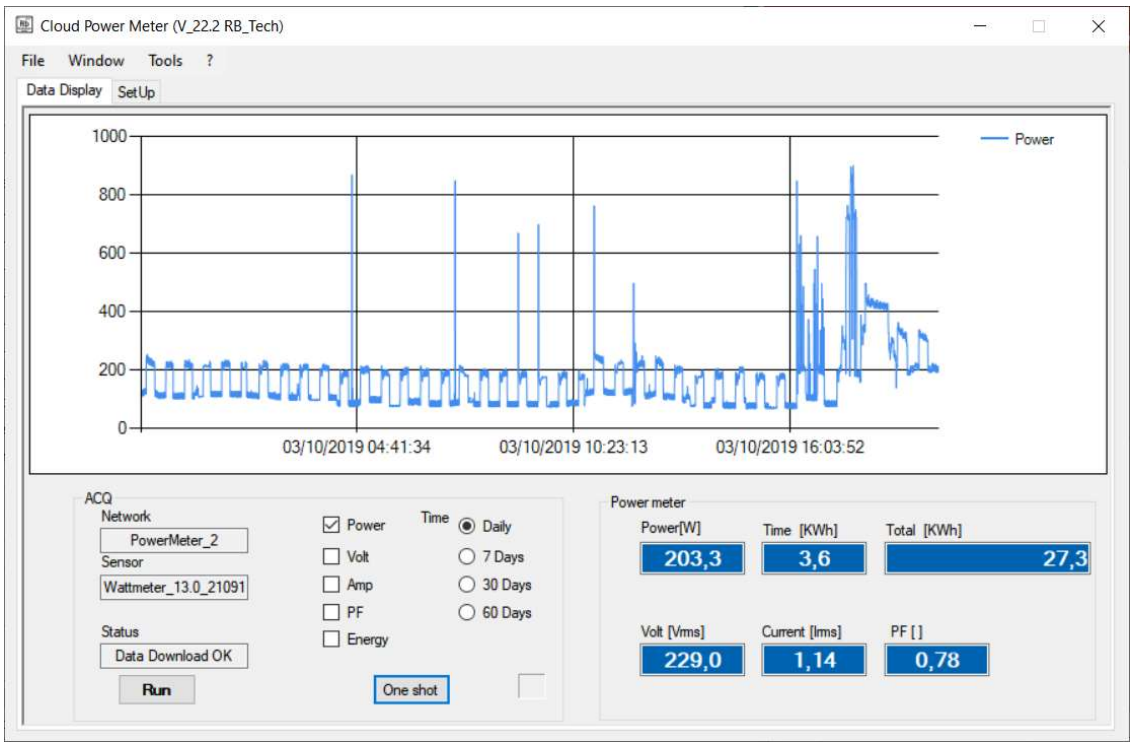
Description

Cloud Power Meter 3Ph is a Casambi ecosystem RS 485 Modbus RTU interface that allow to connect with commercial Mod bus Power Meters (Carlo Gavazzi EM24) to measure mains parameter and report energy savings that a Casambi lighting control system allows to get.
It is housed in a very small box with main socket and a 2 pole terminal block for Modbus RTU RS 485 wiring.



The included Windows App (an web app version is in progress) allow to establish a Cloud Casambi API Session to retrieve data from cloud to display, chart and report mains parameters and installation energy consumption.

Software is intuitive and all setup settings are stored and retrieved on App closing and opening.



Technical specification:

Input Voltage :	200-260 Vac
Protocol:	RS 485-Modbus RTU
Power consumption:	0,7 W
Allowed Wattmeter:	Carlo Gavazzi EM24
Dimensions:	131x65x30 mm
Max RS 485 line length	100 mt

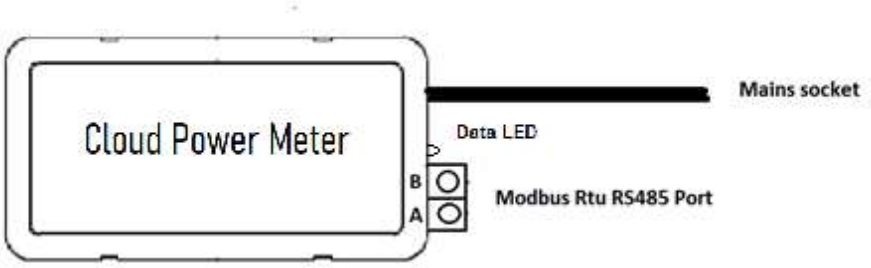
Standards: Electromagnetic compatibility (EMC) - emissions and immunity: EN 62052-11

Electrical safety: EN 61010-1, EN 50470-1 (MID), UL 61010-1

Approvals: CE

Warning: Not suitable for legal metrology.

Contact: info@RBTechnik.eu



Installation

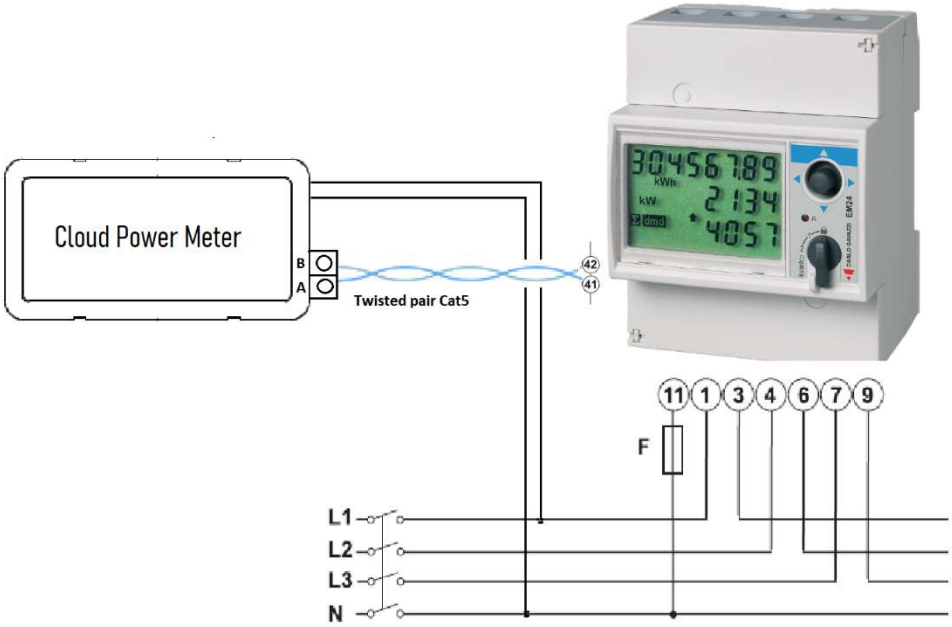
1) Caution! Electric shock hazard. Trained personnel are required for installation.
2) Caution! Install commercial wattmeter following manufacturer instruction.
3) Connect Cloud power RS 485 output to the RS 465 Wattmeter terminal block using twisted pair cable. (Connect A to A and B to B RS 485 ports with Cat 5 cable, one pair. Max length 50mt)
4) Set wattmeter serial baud rate = 9600. Modbus Address =1.
   Led Data blinking signal the correct Modbus data incoming.
5) Connect Cloud Power Meter to mains.
6) Cloud Power Meter has to be in the radio range of at least one Casambi network node. Don't install inside metallic electric boxes.
7) Pair the device with a Casambi network.
8) An active Casambi network gateway is needed to delivery data to the cloud. Data will be available with some delay (up some hours)
9) To measure LED Fixtures operation hours must be set the self-consumption fixture power in the OFF-Power :
   1) Set all lamps to dimmer level 0%
   2) Take note of measured installation self-consumption power
   3) Set the Power Meter OFF_power parameter in the Casambi APP to a level of measured self-consumption power + 20%

Compatible Carlo Gavazzi Modbus Wattmeters:

In lighting installation we suggest the use EM24DIM AV9 3xIS X due the simplicity of direct insertion (no current transformers)

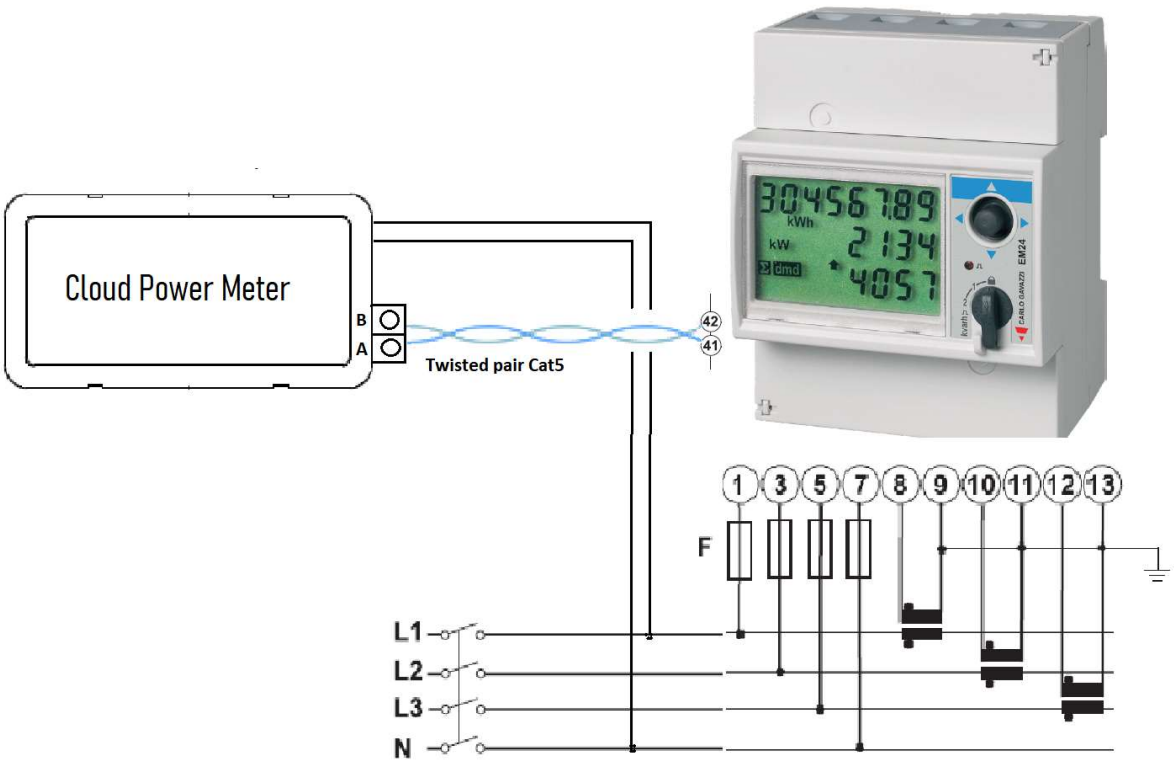
Component name/part number	I/O communication	Voltage inputs	Current inputs	Power supply
EM24DIN AV5 3D IS X	3 digital inputs + RS485 Modbus RTU	230V L-N 400V L-L	5(10) A via CT	115/230 V ac
EM24DIN AV5 3L IS X	3 digital inputs + RS485 Modbus RTU	230V L-N 400V L-L	5(10) A via CT	From 24 to 48 V ac/dc
EM24DIN AV6 3D IS X	3 digital inputs + RS485 Modbus RTU	From 57.7 to 120 V L-N From 100 to 208 V L-L	5(10) A via CT	115/230 V ac
EM24DIN AV6 3L IS X	3 digital inputs + RS485 Modbus RTU	From 57.7 to 120 V L-N From 100 to 208 V L-L	5(10) A via CT	From 24 to 48 V ac/dc
EM24DIN AV2 3X IS X	3 digital inputs + RS485 Modbus RTU	From 133 to 230 V L-N From 230 to 400 V L-L	10 (65) A	Self power supply
EM24DIN AV9 3X IS X	3 digital inputs + RS485 Modbus RTU	230V L-N 400V L-L	10 (65) A	Self power supply

Carlo Gavazzi LM24 AV9 (direct insertion)



Three-phase with neutral (4-wire)

Carlo Gavazzi LM24 AV5 (CT insertion)



Three-phase with neutral (4-wire)