

PV-Monitor

Photovoltaic monitoring datalogger



Description

The **PV-Monitor** is an energy manager used to monitor instantaneous self-consumption photovoltaic energy installations. It features a datalogger and web server with PowerStudio Embedded and a SCADA application for this purpose.

This unit provides real-time information about the photovoltaic energy production levels, energy savings and the consumption of a building, home, office, etc., as well as storing historical data to perform periodic analyses.

In addition, the following accessories can be installed with the **PV-Monitor-M**: a surface temperature sensor (photovoltaic modules), a solar radiation sensor and an ambient temperature sensor. These accessories can be used to calculate the installation's efficiency.

The **PV-Monitor** offers the following advantages:

- Detection of low performance of the PV installation (performance rate)
- Instantaneous energy balance of consumption compared to PV energy generation
- Calculation of the current month's self-consumption percentage (solar fraction)
- General alarms of the PV installation warn about anomalous operation (email alerts)
- Reduction of energy consumed from the electrical network
- Reduction of CO₂ emissions into the atmosphere.

Applications

- Photovoltaic energy installations for self-consumption (with or without injection into the grid)
- Remote energy balance monitoring and recording system (with or without injection into the grid)

References

Type	Code	Description
PV-Monitor	E8100*	Photovoltaic monitoring datalogger
PV-Monitor-M	E8110*	Photovoltaic monitoring datalogger with meteorological monitoring system

* 1=Spanish / 2= French / 3=Anglais **Examples:** E81001=Spanish / E81102= French

Accessories

RT-N150	EX0056	CIRCUTOR Router
TR16-RS485	E80002	Current and multi-channel DC voltage and current analyzer for photovoltaic strings
M/TR-25 x2	E80010	Measuring module for 2 current circuits with max 25 Adc
M/TR-25 x4	E80011	Measuring module for 4 current circuits with max 25 Adc
TH-DG-RS485	M61310	Ambient temperature sensor
STS	EX0036	Temperature sensor for photovoltaic panels
SRS	EX0033	Solar radiation sensor
PS-24	M60415	230 Vac / 24 Vdc power supply
PSC-120-24	M40180	Power supply for TR16 (120 Vac / 24 Vdc)

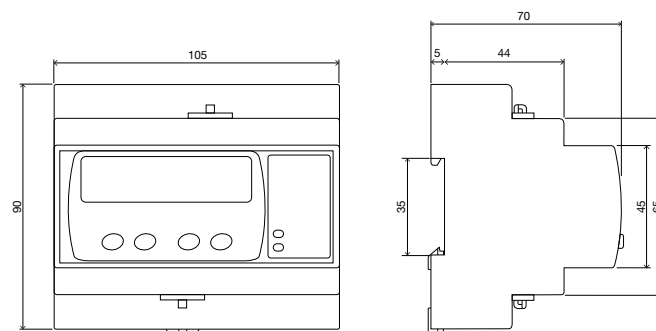


PV-Monitor



PV-Monitor M

Dimensions



Technical features

Power circuit	Power supply voltage	85...264 V _{ac} / 120...374 V _{dc}
	Frequency	47...63 Hz
	Maximum power consumption	5...8 VA
Output features	Type	Relay
	Number	6 outputs
	Maximum operating power	740 VA
	Maximum operating voltage	250 V _{ac}
	Max. switching current	5 A with resistive load
	Electrical working life (250 V _{ac} / 5 A)	3 x 10 ⁴ switching operations
	Mechanical working life	2 x 10 ⁷ switching operations
	Input features	Type
Number		8 inputs
Max. activation current		50 mA
Insulation		1500 V
Display		Backlit LCD
Build features	Box material	UL94 V0 self-extinguishing plastic
	Protection degree	IP 51
	Dimensions (mm)	105 x 70 x 90 mm (6 modules)
	Weight	280 g
Environmental conditions	Operating temperature	-10°C ... 60°C
	Humidity (non-condensing)	5 ... 95% (non-condensing)
	Maximum altitude	2,000 m
Network interface	Type	Ethernet 10BaseTX
	Connector	RJ-45
	Network protocols	HTTP / Modbus/RTU
	Connector	RS-485
Server	Built-in Web and XML server	
Memory	Type	Internal
	Size	256 MB
Serial interface	Type	Three-wire RS-485 (A/B/S)
	Transmission speed	4,800, 9,600, 19,200, 34,800, 57,600, 115,200 bps
	Data bits	8
	Parity	No parity, even, odd
	Stop bit	1 / 2
	Safety	Designed for CAT III 300/520 V _{ac} installations, in accordance with EN 61010 . Double-insulated electric shock protection, class II
Standards	IEC 60664, VDE 0110, UL 94, EN 61010-1, EN 55011, EN 61000-4-3, EN 61000-4-11, EN 61000-6-4, EN61000-6-2, EN 61000-6-1, EN 61000-6-3, EN 61000-4-5	

Connections

