

# aHMonitor. Datasheet



Real-time monitoring system of the thermal and electrical energy production of hybrid solar panels.

## Hybrid monitor



Analysis of hybrid solar facilities

⊕ A combined photovoltaic and thermal monitoring system makes it easier to detect potential faults in an installation in advance. Plug&Play design for easy installation.

## Annalise your PV facility



Communication with Fronius, Huawei and SMA inverters

⊕ Collection of data measured by the inverter via ModBus RTU (RS-485) and ModBus TCP/IP. Visualization of inverter data and variables that allow the status of the installation to be known.

## Annalise your PV facility



Communication with Resol and Roth solar thermal regulators

⊕ Collection of the operating parameters of solar controllers via the LAN/IP protocol. Visualization of the parameters collected by the controller in the thermal installation, which are very useful for preventive maintenance tasks.

## Visualization platform

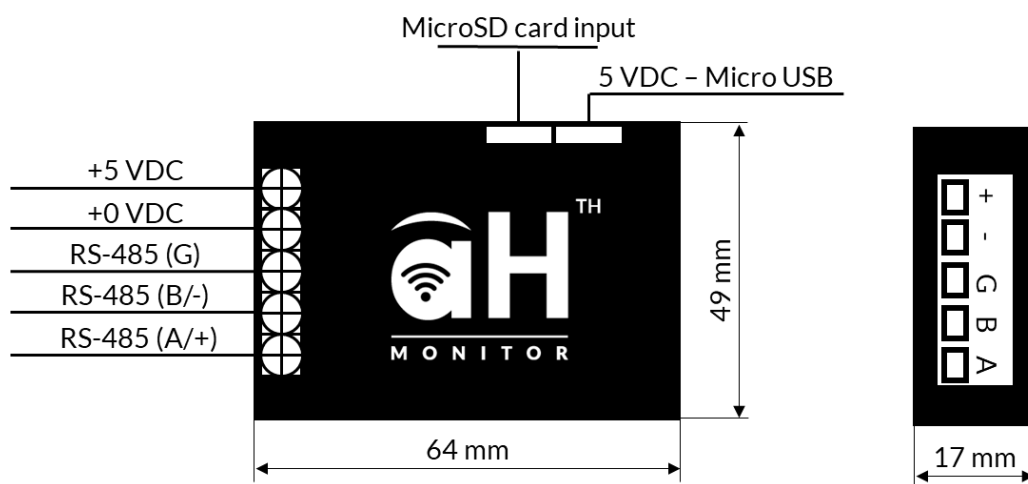


Calculation of the production and savings accumulated by the installation.

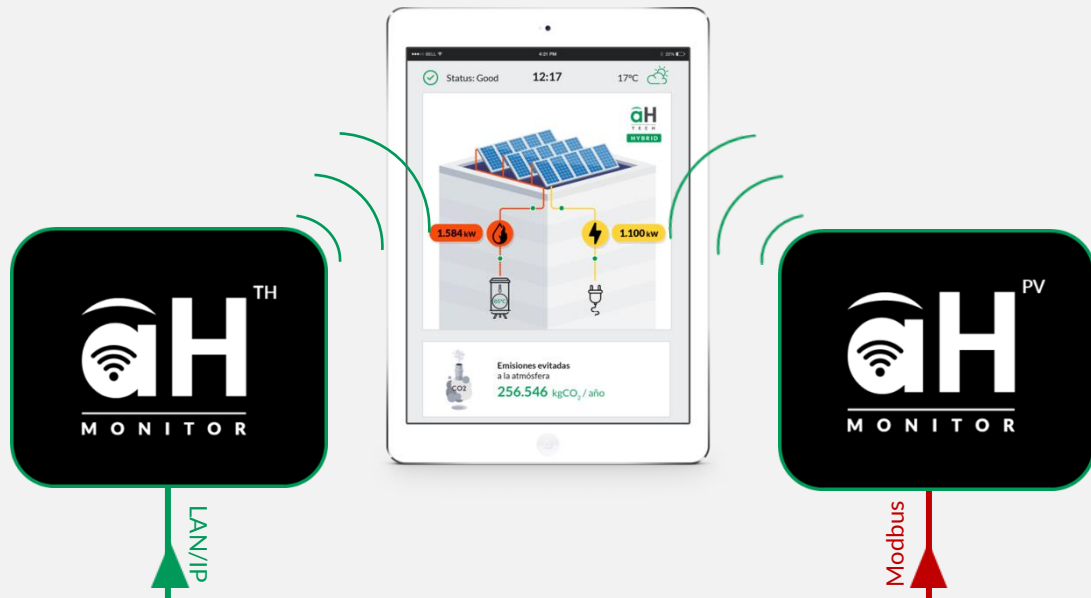
⊕ Tools for performance analysis. Status alarms with inverter and controller error codes. Possibility of exporting reports and files in csv format.

## Product features

Product type	Hybrid solar monitor, two devices thermal and photovoltaic
Power supply voltage	5 VDC (screw terminal or Micro USB input)
Internet connection type	WIFI
Integrated connection type	RS485 interface (screw terminal)
Communication services (Check compatible models)	ModBus TCP, ModBus RTU (Huawei, SMA and Fronius PV inverters) LAN/IP (Resol solar thermal controllers)
Operating temperature range	[-10...55]°C
Grado de protection IP	IP20
Height	49 mm
Width	64 mm
Depth	17 mm



# Compatibility specifications aHMonitor



## Solar controller Resol or Roth

A controller that performs thermal energy calculations is needed.



### Compatible models:

#### Resol Deltasol

- SL\*
- BX
- BX Plus
- MX

#### Roth

- BW/H v3\*
- BW/Konfort AE

## PV inverter Huawei, Fronius or SMA

Communication can be via Modbus TCP or Modbus RTU.



All models are compatible Huawei via Modbus TCP requires Smart Logger 3000  
If a zero injection system is connected, it must be connected via Modbus TCP.

## Necessary elements for energy calculation



**Flowmeter Resol V40**  
The exact model will depend on the flow rate of the installation.



**Temperature sensor**  
One is required at the inlet and the other at the outlet of the heat exchanger.

## Recommended elements for monitoring



**Pressure sensor Resol Grundfos Direct sensor**  
The model changes depending on the regulator

\* Preconfigured models will lose certain regulation scenarios when configuring the energy metering option.