

SUNGATE

Innovative module for communicating energy data

Reading energy data from solar panels efficiently and problem free.



Product overview

Communicating energy data independently of the internet connections of residents and at low cost: the Sungate communication module by Xemex maximises the yield of solar panels on the roofs of ground-level and highrise homes. The cloud software by Cast4All analyses the data and makes it possible to communicate this via an Application Programming Interface (API) with external software applications.

The Sungate is a handy and stylish communication module – fitted with a sim card – that is easy to install beside the inverter already present in the dwelling. The device is connected via a cable to the inverter's RS485 communication port, enabling it to read data directly from the inverter.

Brand-independent

What if there is no power supply present at the RS485 port of the inverter? Then a grid power adapter is a solution (optional). Thanks to this adapter, the module is available 24 hours a day. This is particularly beneficial in case of inverters that only supply power to the RS485 when energy is being generated. The action of the module – during both installation and use – is easy to control thanks to LED indication. The Sungate is brand-independent and works with any inverter.

Secure GPRS communication

Communication runs via standard GPRS, but the module is suitable for future communication technologies, such as 4G, NB-IoT, LTE-M and LTE Cat

1. To keep the monthly data volume low, the log files are read twice a day. A higher frequency is of course also possible.

Integration with external information systems

The Cast4All web portal offers 24/7 access to the measurement data. Or would you rather interface the energy data to an existing CRM application, for instance to connect the invoicing system to customer and measurement data? That too is possible thanks to the API.

Basis for optimal yield

To optimise the yield of the solar panels, you naturally have to start by adequately monitoring yields. The Sungate contains an application with integrated problem detection and optimisation algorithms. The Clear Sky Performance Index is a unique, accurate and fast method for detecting performance losses. It identifies any performance losses fast by analysing trends. The last-gasp option also contributes to optimal yields. If the power to the inverter goes down, then the Sungate immediately sounds the alarm by sending an alarm SMS to the server application.

Transparent mode

Programme extra security, implement changes to the firmware or alter parameters remotely? This is all possible using the transparent mode (optional). Transparent mode is an extra configuration tool for modifying the inverter yourself.

Technology | Interfaces

Connection

- RJ45 interface to inverter
- Power jack for optional DC power connection

User Interface

- S4 leds for indication : LED for WAN connectivity, strength, inverter connectivity, error

Communication Technology

- GPRS (roadmap: LTE-M, NB IoT) Dual band EGSM 900MHz / 1800MHz
Output power: Class 4 (2W) @ 900Mhz (1W) / Class 2 @ 1800MHz
- Internal antenna

Communication Protocols

- Inverter interface: Sunspec / Zegersolar RS485 WAN: DLMS over IP

Technology | Technical

Operating voltage

- RJ45 interface: nominal 7V DC (range 6,5V .. 18V) Power jack: nominal 12V DC (range 6,5V .. 18V)

Power consumption Temperature range

- idle: 0,6W / transmit: 2,6W

Technology | Mechanical

Temperature range

- -20°C .. +55°C

Dimensions

- 20x120x25mm

Material

- ABS

IP Rating

- IP54