Photovoltaic

Photovoltaic plant engineers need constant technical and management information. ET has therefore designed X-MeterSun24, an effective control system for measuring the efficiency of the entire Photovoltaic plant. With X-MeterSun24, alarms can be programmed to deliver system diagnostics and management via SMS and email. The alarms can be set.

The Monitoring System, X-MeterSun24h, thanks to its modularity and expandability, can be used both for a small plant (3-6kW -Supply LV) and for a large one (> 250 kW - Supply MV).

Briefly, the system offers the following functions:
> Measure and acquire the DC power coming from the panels with a greater accuracy ±2%
> Measure and acquire the AC power coming from the inverter with a greater accuracy ±2%
> Acquire and sample sun radiance (W/m²) from the solarimeter
> Acquire the average temperature of the photovoltaic panels
> Acquire and display all the electric values in AC in Class 1
> Measure both the energy produced by the plant (promoted through the Energy Bill) and the energy exchanged through electrical network in order to define the cost.

Forwarding of reports of anomalies and warnings via Email and SMS
> State MV, LV switch, thermal-magnetic etc
> State/ fault Inverter
> Environment temperature, panel temperature, field switchboard temperature, alarm antitheft
> Other threshold parameters and configurable states.

In relation to these sizes and signals, X-MeterSun24 Module allows to:
> Measure and store the energy upstream and downstream of the Inverter, calculating the efficiency of the Inverter
> Estimate the panel efficiency in function of temperature and solar radiance
> Measure and store the energy produced by the plant
> Measure and store the energy sent into the electrical network
> Calculate and store the purchased energy
> Indicate the errors and alarm status via SMS/Email
> The possibility to connect online to the system and verify the functional parameters
> The possibility to connect more devices to each other, on electrical network (Ethernet/RS485)
> Fill automatically UTF Module
> Make data available through a Website.