

# TSPI Solar MAX



**Overview:** TSPI Solar MAX – the ultimate solution for seamless teleinformation signal exchange between large-scale solar power plants and grid operators (DSO or TSO). Specifically designed for solar plants with capacities starting at 5 MW, the TSPI Solar MAX ensures real-time monitoring and control, bringing unmatched performance and reliability to solar plant operations.

The TSPI Solar MAX efficiently manages inputs from sensors, inverters, meters, and weather stations, delivering precise control signals to plant equipment. Integrated with SCADA, it sends critical data to grid operators for optimized performance. Key features include synthetic inertia, Power Oscillation Damping (POD), frequency control, voltage droop, and reactive and active power management.

The TSPI Solar MAX can be fully integrated with Battery Energy Storage Systems (BESS) and Energy Management Systems (EMS).

The data collected by the TSPI Solar MAX is sent to a cloud-based system where it is processed, stored, and analyzed. This system helps ensure optimal performance and compliance with grid regulations, providing a robust solution for remote monitoring and control of power plants.

TSPI Solar MAX supports most industrial communication protocols, including IEC 60870-5-104 and DNP3.

## Physical and mechanical data

<b>Cabinet size</b>	600x1800x505.92mm
<b>Average weight</b>	100 kg
<b>Conformity marking</b>	CE
<b>Working temperature</b>	-25°C to +70°C
<b>Dust/water protection</b>	IP66

# Technical data

<b>Power supply</b>	100 - 400V AC (50/60Hz) or 12-300V DC
<b>Battery</b>	24V, scalable beyond 12Ah to meet application demands
<b>Time synchronization</b>	NTP protocol
<b>Serial</b>	RS232, RS485 half/full-duplex
<b>Mobile</b>	2G,3G,4G, LTE
<b>Protocols</b>	IEC 60870-5-104, IEC 60870-5-101, Modbus TCP, Modbus RTU, OPC UA, MQTT
<b>Administration privileges</b>	Configure Device Settings, User Management, Access Security Settings, Firmware and Software Updates, View System Logs and Diagnostics, Execute Control Commands, Communication and control configuration or Custom
<b>Control interface</b>	GUI, SCADA, Historian
<b>Supported inverters</b>	ABB, ASW, Delta, Fronius, Huawei, SMA, SofarSolar, SolarEdge, Solis, Solutronic, Sungrow
<b>Supported meters</b>	Acrel, Elseta ConMod, Eastron, Janitz, Lumel, Nemo, Rail, Satec, Shneider, Wago or Custom