



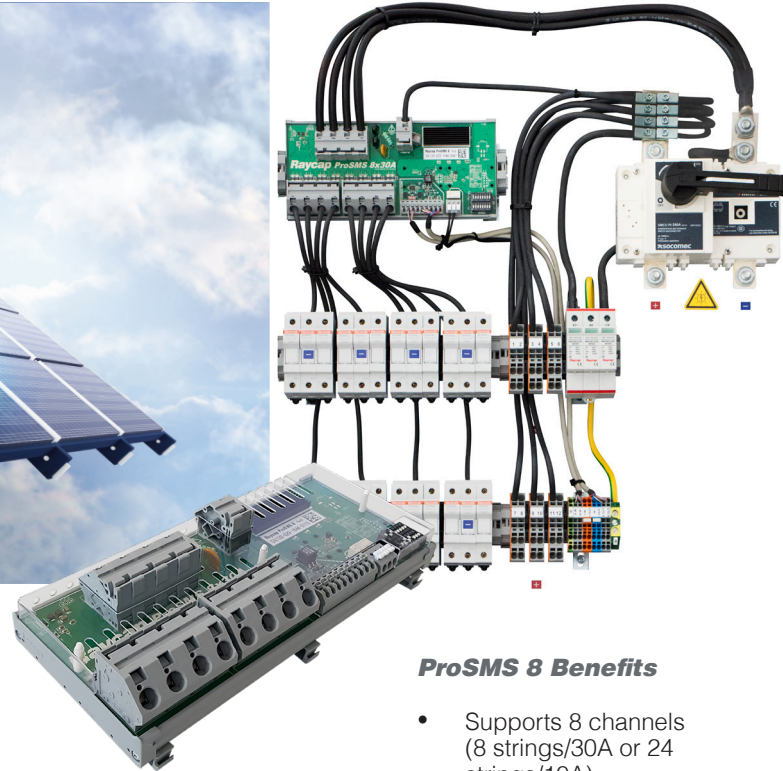
P R O D U C T A P P L I C A T I O N N O T E

ADVANCED STRING MONITORING
Photovoltaic Solutions ProSMS

ProSMS 8

Monitoring Solutions for Photovoltaic Applications

The Raycap ProSMS 8 string monitoring device compares and analyzes minimum and maximum current per string from information collected between two master readings. Such analytics helps to detect preconditions for arcing.



Substantially improving PV plant output

- Precise Energy measurements per channel
- Dynamic average values (true values of I and U)
- Min-Max values reporting for any read-out period
- Indirect monitoring of also other PV equipment (PV Plant Profit Control)

Substantially decreasing operational costs by better predictive maintenance

- Lightning detection and localization
- Bipolar measurements (reverse currents detection)
- Precise Energy comparison between Strings, against Inverter and Transformer.
- Power terminals and Power supply under monitoring
- Modbus Communication Diagnostics

ProSMS 8 Benefits

- Supports 8 channels (8 strings/30A or 24 strings/10A)
- 30 A per channel
- No external power supply needed
- Integrated surge protection for signalling /data lines and inputs
- Detects bad contacts which may be preconditions to arcing

Raycap

I N N O V A T I N G S O L U T I O N S W O R L D W I D E

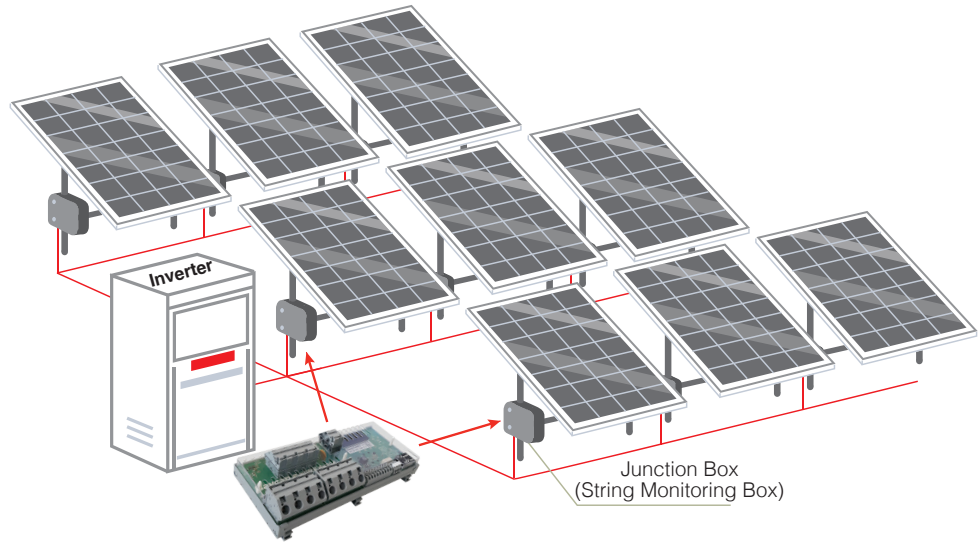




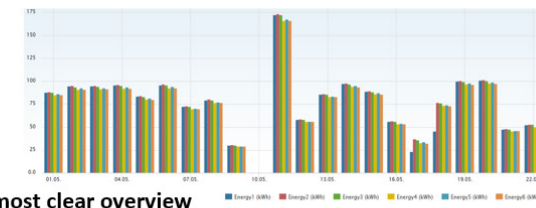
Operation of Raycap string monitoring system tracks the production losses in a very accurate way and helps operators to make good business decisions.

Unique Features

- Clear overview over strings but also over Inverters, connections, Transformer
- Long lifetime, due to NO electrolytic capacitors, thick Fiberglass base and High Temperature plastic enclosure.
- According to new IEC PV standard, released in April 2017.



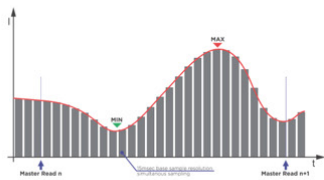
Accurate E per String/most clear overview



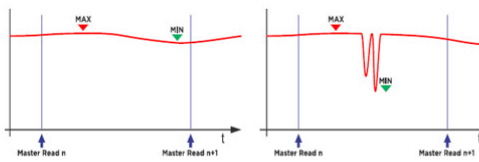
Effective Soiling detection



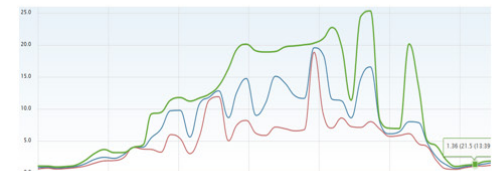
Accuracy over whole range



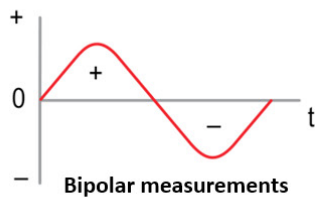
Dynamic AVG values



Min/Max value of every period is recorded



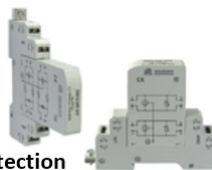
AVG (blue), Max (green), Min (red) current of one string



Bipolar measurements



Integrated PS and RS485 Surge protection



Robust Relay DIO



True and integrated

Raycap

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