

skylog[®] CP



Data logger system configured for feed-in control

Our powerful and compact data logging system skylog[®] CP, has been designed for small-scale and medium-scale photovoltaic power plants (< 1 MWp). Communicating with the plant via Ethernet or RS485 bus half duplex, skylog[®] CP can read and save all plant data transmitted by inverters, field sensor equipment, and any other status and measurement information, irrespective of make.

In locations having unreliable internet connections, local data storage

is secured by skylog[®] CP's substantial data buffering capacity. skylog[®] CP therefore forms an indispensable component of any monitoring system where dependable operation is key. Beyond that skylog[®] CP ensures controlled grid injection through the establishment of grid stability management functions with active power curtailment and static cos phi setpoint.



skylog[®] CP



Powder-coated steel cabinet with mounting frames

PRODUCT FEATURES

- > Data logger component of a complete monitoring system for power plants < 1 MWp
- > Grid stability management:
 - Active power curtailment via ripple control receiver (not included in delivery)
 - Setting a fixed Cos-Phi
 - Feedback channels to the grid operator (4 digital contacts)
- > Data buffer in case of Internet breakdown, depending on system configuration (string or central inverters): 1–4 weeks
- > Monitoring and control of up to two central inverters and approx. 100 string inverters (depending on the type and manufacturer).
- > Monitoring of module and ambient temperature
- > Irradiation measurement with up to two different radiation sensors
- > Support of inverters from various manufacturers as listed in the skytron[®] energy compatibility list
<http://www.skytron-energy.com>

EXPANDABILITY

- > Connecting digital weather sensors or energy meter via RS485
- > Connection to the Internet (industry router DSL or UMTS)





TECHNICAL DATA

HARDWARE	
1 Industry-PC	Flash Card up to 1 GB, battery-backed clock
USB-RS485 converter	2x (PV02.01 only)
SOFTWARE	
System Software	Linux
Access	Internet Browser, Java V1.6
INTERFACES	
Ethernet	1x for connection to the power plant data network
RS485 HD	4x for inverter monitoring (PV02.01 only) 1x to connect an energy meter or a sensor (Vaisala WXT 520 or NES SOZ-03 RS485 or Kipp & Zonen SMP 11 Pyranometer)
Digital inputs	4x for grid stability management, active power curtailment
Digital outputs	4x for feedback signals to the grid operator
Temperature measurement channels	2x for resistance temperature measurement, Pt1000 or Pt100
Voltage measurement channels	2x for reference cells (0-150 mV) or pyranometer (0-25 mV)
INTERNAL PLANT COMMUNICATION	
Protocol	IP Ethernet
Data rate	10/100 MBit/s
ELECTRICAL DATA	
Power supply	24 V DC / 30 W from external power supply device
MECHANICAL DATA	
Degree of protection	IP66
Dimensions h x w x d	400 x 400 x 200 mm / 15.7 x 15.7 x 7.9 in
Weight	12 kg; 14 kg with package / 26.5 lb; 30.9 lb with package
Cabinet	powder-coated steel, mounting frames, for indoor use only
AMBIENT CONDITIONS	
Operating temperature	-20 °C to +50 °C / -4 °F to 122 °F
Storage temperature	-20 °C to +50 °C / -4 °F to 158 °F
Relative air humidity	up to 95 % non-condensing
OPTIONAL UPGRADE	
Grid stability management	Establishment of grid stability management functions with active power curtailment and static cos phi setpoint
UMTS router	for mobile Internet connection
DSL router	Annex A & B, to connect to the Internet via an existing DSL connection

ACCESSORIES

Module temperature sensor	PT1000 incl. mounting set, cable length: 3 m/10 m/20 m
Ambient temperature sensor	PT1000 incl. radiation shield and incl. mounting set, cable length: 3 m/10 m/20 m
Pyranometer	Type CMP11 from Kipp & Zonen, ±2% accuracy, secondary standard, cable length 10 m
	Type SMP10, SMP11 from Kipp & Zonen, Secondary Standard, RS485 ¹⁾
	Typ SR11 from Hukseflux, first class, cable length 5 m
Reference cell	Typ SR20-D1 from Hukseflux, Secondary Standard, RS485 ¹⁾
	Type SOZ 03 from NES, monocrystalline, cable length 10 m
Mounting bracket	Stainless steel bracket for mounting of up to two radiation sensors (inclined and horizontal)
Reference-Module-Adapter	Adapter devices to connect a thin-film reference module, cable length: 10 m
Weather station	Type WXT520 from Vaisala ¹⁾
Power supply device	24 V DC, type HLG-40H-24 from Mean Well

¹⁾ Power supply device required