CLCON-10

Easy to use

- Monitoring and controlling up to 75 string inverters
- Exchange realtime data with other devices and systems using the standard Modbus® communications protocol

Versatile

- Complies with national and international requirements for grid integration
- Integrated analog and digital interfaces for sensors and active / reactive power setpoints

Professional

- Easy installation due to top-hat rail mounting and connectors
- Optimized for industrial use thanks to a robust enclosure and high-quality components

Safe

- Immediate e-mail notification in the event of a failure
- Remote monitoring and maintenance over the integrated online interface and Sunny Portal

SMA CLUSTER CONTROLLER

Professional monitoring and controlling for decentralized large-scale PV plants

The SMA Cluster Controller is the ideal system solution for decentralized large-scale PV plants when combined with the highly efficient SMA string inverters. The SMA Cluster Controller offers reliable monitoring and control of up to 75 string inverters thanks to the Ethernet-based Speedwire fieldbus and the high-performance dual-core processor. Plant operators receive advantages such as the optimum data transmission rates for plant monitoring and a fast processing of the measured values, status updates, and plant control commands. Furthermore, the many different connection options for the sensors allow you to evaluate the plant power more precisely. In addition to the status updates, the relevant plant power can be viewed using the Sunny Portal with a variety of features.

Technical data	SMA Cluster Controller
Communication	
Inverters	Speedwire, 10 / 100 Mbit/s
Data network (LAN)	Fast Ethernet, 10 / 100 Mbit/s
Data interfaces	HTTP, FTP, Modbus TCP/UDP, SMTP, Sunny Portal
Connections	
Inverters / data network (LAN)	2 Ports, 10BASE-T or 100BASE-TX, RJ45, switched
Data storage	2 USB 2.0 High-Speed sockets, Type A
Voltage supply / analog/digital signals	Connector, push-in cage clamp terminal
Max. number of SMA devices	
Speedwire	75
Max. communication range	
Speedwire / LAN	100 m (between two devices)
Voltage supply	
Voltage supply	External power supply unit (available as an accessory)
Input voltage	18 V DC ... 30 V DC
Power consumption	Typical 12 W / max. 30 W
Ambient conditions in operation	
Ambient temperature	−25 °C ... +60 °C (−13 °F ... +140 °F)
Relative air humidity	4 % ... 95 %, not condensing
Altitude above sea level	0 m ... 3000 m
Display	
Type	LC display, monochromatic, back-lit
Display languages	English, German
Memory	
Internal	1.7 GB as ring buffer
External	USB mass storage (optional, available as an accessory)
USB-Interfaces	
Quantity / specification / sockets	2 / USB 2.0 High-Speed / Type A
Digital inputs	
Quantity	8
Usage	Specification for active and reactive power
Analog inputs	
Quantity	3 x current signal, 1 x voltage signal
Measuring range	0 mA ... 20 mA or 0 V ... +10 V
Usage	Irradiation measurement, specification for active and reactive power or current/voltage measurement
Temperature Measurement	
Quantity / sensor type	2 / PT100 / PT1000 (two or four-cable connection)
Measuring range	−40 °C ... +85 °C (−40 °F ... +185 °F)
Usage	Measurement of ambient and module temperature
Digital outputs	
Quantity / design	3 / potential-free relaycontacts
Max. load tolerance	48 V DC / 30 W
Usage	Error message, warning and active power limitation
Analog outputs	
Number / signal current	2 / 4 mA ... 20 mA
Usage	Feedback of the active and reactive power setpoints
General data	
Dimensions (W / H / D)	275 / 133 / 71 mm (10.8 / 5.2 / 2.8 inches)
Weight	0.9 kg (2.0 lb)
Installation site / degree of protection provided by enclosure	Indoor / IP20
Mounting type	Top-hat rail mounting
Status display	LC-Display, LEDs
Software languages, languages of the manual	German, English, Italian, Spanish, French, Dutch, Portuguese, Greek, Czech
Features	
Operation	Integrated web server, display, keypad
Clock	Real time clock (RTC) with maintenance-free buffering
Advanced functions using the Sunny Portal	Plant and yield monitoring, measured value processing, performance analyses, presentation, status reports, mobile data access
Warranty	5 years
Certificates and approvals	www.SMA-Solar.com
Accessories (optional)	
Top-hat rail power supply	Input: 100 V ... 240 V AC / 45 ... 65 Hz, Output: 24 V DC / 2.5 A
USB flash drive	4 GB or 8 GB, highly reliable industrial quality
Type designation	CLCON-10