CLCON-10/CLCON-S-10

Easy to Use

- Central monitoring and control of string inverters
- Standardized Modbus interface for use with superior communication devices

Versatile

- Complies with national and international requirements for grid integration
- Analog and digital interfaces for active and reactive power setpoints

Professional

- Optimized for industrial applications with robust enclosure and high-quality components
- Sensor technology integration

Safe

- Immediate email notification in the event of a failure
- Remote monitoring and maintenance via the integrated user interface and Sunny Portal

SMA CLUSTER CONTROLLER

Professional monitoring and control for decentralized PV systems

Combined with highly efficient SMA inverters, the SMA Cluster Controller is the central communication unit for system monitoring, recording data and controlling large-scale PV plants.
Through a variety of analog and digital in and outputs as well as fast data exchange via an Ethernet-based data interface (e.g., Modbus TCP), a wide range of applications can be realized, from feed-in management to sensor technology integration.
Alongside the standard solution for large-scale commercial PV plants equipped with up to 75 devices, SMA now also offers a version for small-scale commercial PV systems with up to 25 devices.
The SMA Cluster Controller is the professional system interface for power supply companies, direct marketers, service technicians and PV system operators.

Technical Data	SMA Cluster Controller
Communications	
Inverter	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 ports, type A
Voltage supply/analog and digital signals	Connector/push-in spring-cage terminal
Max. number of SMA devices	
Speedwire	75/25*
Maximum radio ranges	
Speedwire/LAN	100 m (between two devices)
Voltage supply	
Voltage supply	External power supply unit (available as an accessory)
Input voltage	18 V DC to 30 V DC
Power consumption	Typ. 12 W/max. 30 W
Ambient conditions in operation	
Ambient temperature	-25°C to +60°C (-13°F to +140°F)
Relative humidity	4% to 95%, non-condensing
Elevation above MSL	0 m to 3,000 m
Display	
Type	LC display, monochromatic, back-lit
Display languages	German, English
Storage	
Internal	1.7 GB as ring buffer
External	USB mass storage (optional, available as an accessory)
USB interfaces	
Quantity/specification/ports	2/USB 2.0 high-speed/type A
Digital inputs	
Quantity	8
Use	Setpoints for active and reactive power
Analog inputs	
Quantity	3 x current signal, 1 x voltage signal
Measurement range	0 mA to 20 mA or 0 V to +10 V
Use	Irradiation measurement, setpoints for active/reactive power or current/voltage measurement
Temperature measurement	
Quantity/sensor type	2 / PT100 / PT1000 (two or four-cable connection)
Measurement range	-40°C to +85°C (-40°to +185°F)
Use	Measurement of ambient and cell temperature
Digital outputs	
Quantity/design	3/potential-free relay contacts
Max. load tolerance	48 V DC/30 W
Use	Error message, warning and active power limitation
Analog outputs	
Number/signal current	2/4 mA to 20 mA
Use	Feedback of the active and reactive power setpoints
General data	
Dimensions (W/H/D)	275/133/71 mm (10.8/5.2/2.8 inch)
Weight	0.9 kg (2.0 lb)
Installation site/degree of protection provided by enclosure	Indoors/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
Time	Real-time clock (RTC) with maintenance-free buffering
Advanced functions using the Sunny Portal	PV system and yield monitoring, measured value processing, performance analysis, presentation, status reports, mobile data access
Warranty	5 years
Certificates and approvals	www.SMA-Solar.com
Accessories (optional)	
Top-hat rail power supply unit	Input: 100 V to 240 V AC / 45 to 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/*CLCON-S-10