



/ COM-WS-100-10 / COM-WS-200-10



SMA Commercial Weatherstation

Dependable yields thanks to real-time system monitoring

Compact all-in-one solution

- Quick and easy installation
- Plug and play with Modbus RTU (sunspec-compliant)

Comprehensive equipment

- Two expansion stages
- Sensors for global and POA solar irradiation
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- Sensors for global and POA solar irradiation

With the professional SMA Commercial Weatherstation, system operators can monitor and ensure the hassle-free operation of their PV system.

Thanks to accurate solar irradiation and weather data in real time, any deviation from the expected yield data can be instantly identified and rectified. This ensures maximum operating time and straightforward plant O&M. The anemometers available in the full expansion stage reliably detect hazards arising from strong winds and wind chill effects and thus ensure a high degree of operational safety and dependable yields over the long term.

Technical data	COMMERCIAL WEATHERSTATION 100	COMMERCIAL WEATHERSTATION 200
Irradiation sensor		
Sensor range	0 W/m ² to 1750 W/m ²	
No. of sensors	1	2
Accuracy	+/-5%	
Operating temperature	-25°C to +55°C (-13°F to +131°F)	
Resolution	1 W/m ²	
Ambient air temperature sensor		
Sensor range	-40°C to +80°C (-40°F to +176°F)	
Accuracy	+/-0.3°C (+/-0.54°F)	
Thermal time constant	30 s	
Resolution	0.1°C	
Wind speed sensor		
Sensor range	–	0 m/s to 67 m/s
Accuracy	–	> 0.45 m/s or 5%
Resolution	–	1 m/s
Threshold	–	0.45 m/s with 10% deflection
Wind direction sensor		
Sensor range	–	360°, no deadband
Accuracy	–	+/-11.25°
Resolution	–	22.5°
Back-of-module (BOM) temperature sensors		
Sensor range	-40°C to +80°C (-40°F to +176°F)	
Accuracy	+/-0.3°C (+/-0.54°F)	
Thermal time constant	270 s	
Cable length	7.62 m (25 ft)	
Resolution	0.1°C	
Serial interface RS-485/RS-422		
Operating mode	2-wire half duplex	
Connector	4-position screw terminal (A(-), B(+), signal and ground)	
Max. speed	9600 baud	
Termination	120 ohm	
General data		
Energy supply	10 V DC to 30 V DC at 50 mA	
Operating temperature range	-40°C to +60°C (-40°F to +140°F)	
Relative humidity, condensing	0% to 100%	
Dimensions, packaged (W/H/D)	58.4 cm x 25.4 cm x 20.3 cm (23 in / 10 in / 8 in)	74 cm x 35.6 cm x 20.3 cm (29 in / 14 in / 8 in)
Weight, including packaging	2.26 kg (5 lb)	3.17 kg (7 lb)
Warranty	2 years	2 years
Type designation	COM-WS-100-10	COM-WS-200-10

● Standard equipment ○ Optional – Not available Data at nominal conditions Last revised: 10/2023