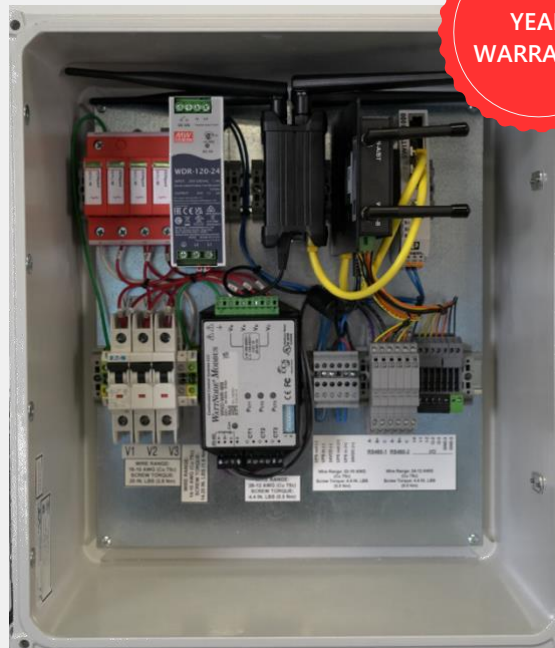


SolarEdge ONE Manager

For North America¹

Datasheet

COMMUNICATION



The ONE Manager is the hardware component of SolarEdge ONE for C&I—a fully wired outdoor communication gateway that seamlessly integrates the site's sensors, meters, and energy infrastructure for centralized monitoring and control.

- All-in-one, easily installed solution including the SolarEdge ONE Controller, production meter, cellular modem, and field terminal blocks
- Acts as a cyber-secured gateway for external communication, designed to protect against unauthorized access
- Supports both 208VAC and 480VAC voltage levels
- Supports integration of additional meters and sensors, including consumption monitoring
- Offers improved telemetry for tracking performance ratio and system availability using local sensors.

(1) Assembled and warranted by Continental Control Systems, (excluding the SolarEdge ONE Controller and software features)

/ SolarEdge ONE Manager

For North America

Specifications²

		Units
ELECTRICAL AND METER		
Nominal Input Voltage	208 / 480	L-L VAC (3 Phase)
Surge Protection	Surge protection devices for input circuit and low-voltage communication circuits	
Short-Circuit Current Rating (SCCR)	10	kA
Measurement Circuit (CT Rating)	0.33Vac at full scale (split-core or Rogowski coils)	
Meter Voltage Range	100 – 600	L-L VAC (3 Phase)
Meter Frequency Range	48 – 62	Hz
Meter Accuracy	± 0.5% revenue grade accuracy	
ENCLOSURE SPECIFICATIONS		
Dimensions (W x H x D)	16 x 18 x 10 / 406 x 457 x 254	in / mm
Weight	22 / 10	lb / kg
Mounting	Mounting brackets with four bolt holes	
Sensor Connections	Terminal blocks for easy connection of external sensors like meteorological sensors and consumption power meters	
Ambient Operating Temperature	-4 to +113 / -20 to +45	°F / °C
Weather Rating	NEMA 4X	
STANDARD COMPLIANCE		
Certification	UL508A Listed	
COMPONENTS		
Cellular Modem	4G / 3G / 2G / LTE Cellular Router and 2.4 Ghz WiFi for the North American market (SIM cards with data plan optional and ordered separately)	
Networking Switch	Industrial Unmanaged Ethernet Switch with 2 x RJ45 available ports @ 10/100Mbps Tx 1 x SFP available port @ 100 Mbps (full duplex)	
Power Production Meter	WND-WR-MB: Used for production, consumption or import/export monitoring, and for Export Limitation. Option for installation of additional WND-WR-MB meters in RS-485-1 channel	
Data Logger and Controller	Ruggedized, industrial computer for plant controls and data logger capabilities	
COMMUNICATION I/O		
RS485	2 x isolated, terminal-block connectors	
Digital I/O (for future use)	2 x digital outputs (DO) + 3 x digital inputs (DI) Isolated, 24V compliant with EN 61131-2, terminal-block connector	
SENSOR INTERFACE		
Weather Sensor Connection	Standard Weather Sensors: <ul style="list-style-type: none"> • IMT Si-RS485TC-3T-MB (POA, BOM, T_{ambient}), • IMT Si-RS485TC-2T-v-MB (POA, Wind, BOM) + IMT Ta-ext-RS485-MB (T_{ambient}) For the integration of other weather sensors, please consult SolarEdge. 100W @ 24VDC available for weather sensor power supply	
Energy Meter Connection	Modbus RTU	
Rogowski coils	Connection of up to 3 Rogowski coils with integrated 12VDC power supply	
COMMUNICATION		
RS485	Modbus RTU	
LAN	Modbus TCP/IP	
Internet Connectivity	Wired Ethernet, Cellular	

(2) Specifications and information presented in this preliminary specification are subject to extended validation and change. This preliminary specification specifies features but cannot promise to deliver any specific characteristics. No warranty, implied or explicit, is given regarding delivery, accuracy, fitness or performance. SolarEdge reserves the right to modify its technical information and product specifications at any time without notice.

/ SolarEdge ONE Manager

For North America

Connection Scenarios

The following diagram shows a typical system architecture that includes the cloud-based SolarEdge ONE for C&I optimization platform, the local SolarEdge ONE Controller and the connection with additional devices, including SolarEdge inverters, energy meters, and environmental sensors.

