SolarEdge ONE Controller

For C&I

CLC1



An on-site manager that integrates local devices for maximized energy optimization

- Optimizing the use of locally generated energy to reduce electricity costs, enabled by the SolarEdge ONE for C&I optimization platform*
- Local communication gateway that connects the site's energy assets, including PV inverters, batteries, meters, and more**
- Interfaces with environmental sensors to enable in-depth analysis for O&M and energy optimization
- PPC platform, designed to comply with grid regulations to enable safe, reliable electricity generation
- A cyber secured gateway for external communications designed to protect against unauthorized access
- Includes extended local data retention in case of cloud connectivity interruptions
- Supports secure over-the-air firmware upgrades

* Coming soon in selected regions.
** For a list of the devices supported in your region, see the Devices Supported with SolarEdge ONE Controller application note.

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	CLC1			Units
COMMUNICATION I/O				
USB	2 x USB 2.0 ports and 1 x USB 3.0 port, type-A connectors			
RS485	2 x isolated, terminal-block connectors			
CAN Bus	1 x isolated, terminal-block connector			
Digital I/O	4 x digital outputs + 4 x digital inputs Isolated, 24 V compliant with EN 61131-2, terminal-block connector			
LAN	2 x RJ45 connectors 2 x 1000 Mbps			
Wireless	802.11ax WiFi and Bluetooth 5.3 BLE 2 x 2.4 GHz / 5 GHz antenna sockets (for rubber duck antenna)			
Security	TPM 2.0			
PROTOCOL				
Over RS485	Modbus RTU			
Over LAN	TCP/IP, Modbus TCP			
ELECTRICAL				
Power Supply	Included, 100 – 240 Vac, 50 / 60 Hz, EU / UK / US / AUS Interchangeable			
Supply Voltage	Unregulated 8 – 36			V
Typical Power Consumption	Linux Idle	Current	200	mA
		Power	2.4	W
	CPU, memory stress test, and connectivity activity	Current	450	mA
		Power	5.4	W
MECHANICAL				
Dimensions	132 x 84 x 25			mm
Weight	550			g
Button	1 x Power			
LED	3 x Power, Local, and Cloud Communication indicators			
Cooling	Passive cooling, fanless design			
ENVIRONMENTAL				
Operation Temperature	-40 to 80			°C
IP Rating	IP30			
Relative Humidity	Commercial: 0 to 60; Industrial: -40 to 80			°C
Maximum Altitude	3000			m
STANDARD COMPLIANCE				
Safety	US/Canada	UL 62368- 1:2019; CSA-C22.2 No.62368-1:19		
	EU/UK	EN 62368-1: A11:2020; IEC 62368-1:2018 (Ed.3)		
EMC	US/Canada	FCC 47CFR Part 15: 2021, Subpart B, Class B; ICES-003: 2020 Issue 7, Class B		
	EU/UK	EN 55032: 2015 + A1(20) + A11(20), Class B; EN 55035: 2017 + A11(20); EN 61000-3-2: 2014; EN 61000-3-3: 2013; EN IEC 61000-6-2: 2019; EN IEC 61000-6-3: 2021 Class B; EN 301 489-1: V2.2.3: 2019, Class B; EN 301 489-17: V3.2.4: 2020, Class B; EN 301 489-52: V1.2.1: 2021		
RED (RF) WiFi / BT	US/Canada	FCC ID: PD9AX210NG		
	EU/UK	EN 300 328 v2.2.2 (WLAN & BT); EN 301 893 v2.1.1; EN 300 440 v2.2.1; EN 303 687 V1.0.0		
INSTALLATION SPECIFICATIONS				
Mounting	DIN Rail or Wall Mount			
Kit Content	Power supply unit, 2 x WiFi / BT rubber duck antennas 2 x 11-pin dual-raw plug Wall mounting bracket DIN-rail mounting kit			
APPLICATIONS				
Power Control	Export / Import Limit			

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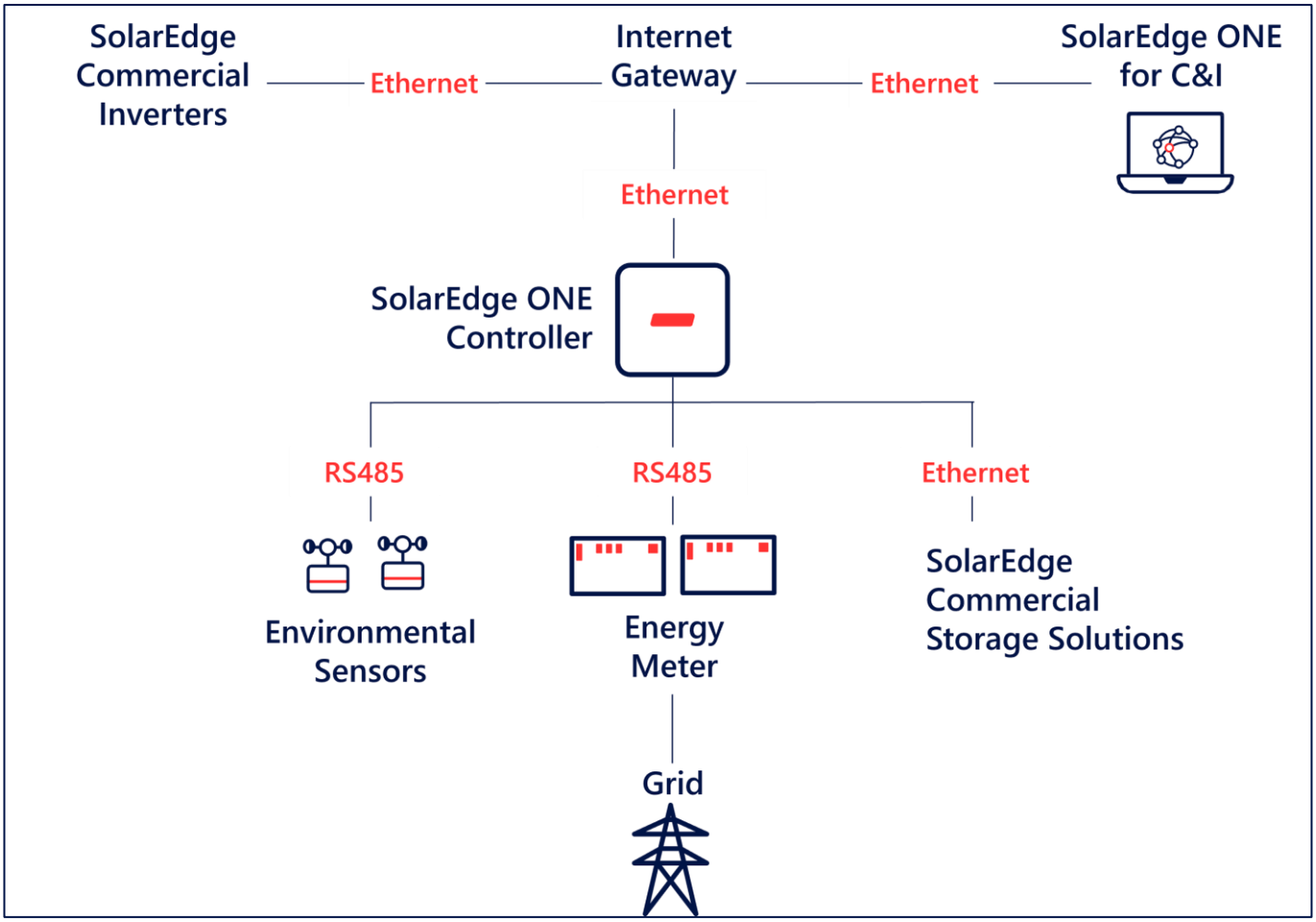
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Connection Scenarios

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



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