

SolarEdge CSS-OD 107 Battery Cabinet 107 kWh

For Europe

Battery Inverter BU 50 / BU 30
CSS-OU-107 / PCS050B / PCS030B

Energy storage solution with integrated backup-ready capability, for C&I sites

Easy Installation and Deployment

- Pre-assembled and factory-tested for quick setup
- Compact cabinet that can be installed indoors or outdoors with top-lifting eye bolts for easier placement
- Accelerated configuration and commissioning via SolarEdge Go mobile application
- Scales up to 2.1 MWh storage capacity

Optimized Savings

- Integrated with SolarEdge ONE for C&I, for site energy optimization and O&M
- Supports multiple optimization modes, including self-consumption, peak shaving, tariff optimization, export and import limits
- Battery inverter designed to deliver backup power during grid outages*

Built-in Safety and Resilience

- Layered protection approach implemented at cell, module, cluster, and cabinet levels
- Integrated fire detection and suppression mechanisms
- Built-in electrical safeguards, including reverse polarity protection, earth fault, leakage fault, surge protection
- Multi-sensor physical security: flood, door, heat, CO, and smoke sensors

Single Trusted Vendor

- PV, storage and energy management system from a single vendor
- One source for warranty, support, and training
- 10-year/8000 cycle product and performance warranty

* Backup functionality limited to one Battery Inverter per site and requires a firmware update expected later in 2026.



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CSS-OU-107

Battery Cabinet 107 kWh	CSS-OU-107	Units
TECHNICAL SPECIFICATIONS		
Cell Chemistry	Lithium Iron Phosphate (LFP)	
Total Battery Capacity	107.52	kWh
Usable Battery Capacity	102.14	kWh
Battery Module Total Capacity	17.92	kWh
Number of Modules	6	
Maximum C-Rate (Charge / Discharge)	0.5	C-rate
Operating Voltage	342-432	Vdc
Nominal Voltage	384	Vdc
A/C Auxiliary Input ⁽¹⁾	230 / 50	Vac / Hz
MECHANICAL SPECIFICATIONS		
Battery Cabinet Dimensions (W x D x H)	1050 x 1371 x 2085	mm
Battery Cabinet Weight	1435	kg
IP Protection	IP54	
Corrosion Protection	C4	
Cooling Method	Built-in HVAC	
STANDARD COMPLIANCE		
Safety	IEC 62619 / IEC 62040 / IEC 62477 / IEC 63056 / UL 9540A	
Ingress Protection	IEC 60529	
Transportation	UN 38.3	
Emissions	EN IEC 61000-6-2:2019 / EN IEC 61000-6-4:2019 / EN IEC 61000-3-2:2019 / EN 61000-3-3:2013+A1:2019	
ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature ⁽²⁾	-30 to +50 (>45 derating)	°C
Operating Humidity	5 – 95 (non-condensing)	%
Maximum Operating Altitude	3000	m
Noise ⁽³⁾	<70	dBA

(1) Single-phase power is required for Battery Cabinet HVAC operation.

(2) Power derating may also apply in the temperature range of -30 to -10 °C

(3) Measured at a height of 1.2 meters, one meter from a single CSS-OD Battery Cabinet and Battery Inverter.

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CSS-OU-107

Battery Cabinet 107 kWh	CSS-OU-107	Units
SAFETY		
Fire Safety	Heat & Humidity	
	Photoelectric Smoke Detector	
	Cabinet level 2xaerosol + support external DM65 water pipe	
	Energy Module integrated with Novec 1230 fire suppression system	
Electrical Safety	Reverse polarity protection	
	Earth fault and leakage fault detection	
	AC and DC surge protection	
Operator Safety	Toxic Gas Detector (CO)	
Integrated Safety Components	Emergency Power Off Pushbutton (EPO) / Flood Detector / Door Contact Switch / Pressure Relief Valves / Deflagration Panels	
Battery Input (DC / DC) Isolation	Yes	
Protective Class	I	
TRANSPORTATION		
Forklift	Integrated slots	
Crane	Integrated / supplied 4 eye bolts	
WARRANTY⁽⁴⁾		
System	10	Years
Performance	8000 cycles or 10 years up to 70% SoH	

(4) For warranty details, conditions, and exclusions, refer to the Limited Product Warranty for SolarEdge CSS-OD

SolarEdge CSS-OD 107

Battery Inverter BU 50 kW / 30 kW

PCS050B / PCS030B

Battery Inverter	PCS050B	PCS030B	Units
AC SPECIFICATIONS			
Rated AC Active Power Output	49.9	29.9	kW
Maximum AC Apparent Output Power	49.9	29.9	kVA
Maximum Continuous Input / Output Current Protection (Per Phase)	144/72	87/44	Aac
Maximum Inverter Efficiency	97.5		%
AC Output Voltage – Line to Line / Line to Neutral (Nominal)	230/400V		Vac
AC Output Voltage – Line to Line / Line to Neutral (Range)	340 – 440 / 196 – 253		Vac
Overall Response Time	0.8 - 1.1		sec
AC Frequency	50 ± 5		Hz
AC Line Connections	3L+PE+N / 4W + PE		
Total Harmonic Distortion (THDi)	<3 (From current load)		%
Power Factor Range	-0.8 to 0.8 / leading, lagging		
DC SPECIFICATIONS			
Maximum DC Input Power	55	33	kW
Maximum DC Current	80 x 2	60 x 2	Adc
Number of DC Input Interfaces	2		
BACKUP OUTPUT⁽⁵⁾			
Rated AC Voltage	230 / 400 V; 220 / 380 Vac; 3L+PE+N		
Rated AC Output Power	49.9	29.9	kW
Max. AC Output Power / Current (Per Phase)	25 ⁽⁶⁾ / 110	20 ⁽⁷⁾ / 91	kW/A
Rated AC Output Current	72	44	A
ATS Control	Built-in		
Diesel Generator Control	Supported by Dry Contact (N.O)		
Overall System Transition Time	< 20		ms
Max Generator Input Current	110		A
SAFETY FEATURES			
Reverse Polarity Protection	Yes		
Grid Monitoring	Yes		
Earth Fault and Leakage Protection	Yes		
DC / AC Surge Protection	Type III / Type II integrated		
Battery Input (DC / DC) Isolation	Yes		
Overvoltage Category (Mains)	OVC III		
Protective Class	I		
MANAGEMENT⁽⁸⁾ AND COMMUNICATION			
Site Management, Optimization & Tracking	SolarEdge ONE Controller for Commercial and Industrial (C&I) sites		
Communication Ports	RS-485 / CAN		

(5) Backup functionality requires a firmware upgrade, available soon.

(6) Supports up to 25 kW on a single phase during unbalanced backup operation, without exceeding 50 kW total output power across all phases.

(7) Supports up to 20 kW on a single phase during unbalanced backup operation, without exceeding 30 kW total output power across all phases

(8) SolarEdge ONE controller is required for system operation.

SolarEdge CSS-OD 107

Battery Inverter BU 50 kW / 30 kW

PCS050B / PCS030B

Battery Inverter	PCS050B	PCS030B	Units
MECHANICAL SPECIFICATIONS			
Inverter Dimensions (W x D x H)	900 x 322 x 650 (Mounting Bracket not included)		mm
Inverter Weight	93.3		kg
IP Protection	IP66		
Cooling Method	Intelligent Air Cooling		
AC Input Cable Cross Section ⁽⁹⁾ / Lugs Size	35-50 / M8	20-35 / M6	mm ²
STANDARD COMPLIANCE			
Safety	IEC 62109-1 / IEC 62109-2		
Emissions	IEC 61000-6-4 / IEC 61000-3-11 / EN/IEC 61000-3 / CISPR 11		
Grid Connection	CEI-016 / CEI 0-21 / VDE AR-N-4105 / VDE AR-N 4110 ⁽¹⁰⁾ / EN 50549-1/10 / RfG / NC RfG / PTPIREE / TorA / TorB / EN-50549-2		
ENVIRONMENTAL SPECIFICATIONS			
Operating Temperature	-25 to + 60 (>45 derating)		°C
Operating Humidity	0 – 100 (non-condensing)		%
Maximum Operating Altitude	4000 (>3000 derating)		m
WARRANTY⁽¹¹⁾			
System	10		Years

(9) Only copper cables should be used. It is recommended to use flexible conductors: multi-stranded, class 5 and 6.

(10) Certified for grid connection with a minimum Short Circuit Ratio (SCR) of 10 at PCC.

(11) For warranty details, conditions, and exclusions, refer to the Limited Product Warranty for SolarEdge Commercial Storage System CSS – OD 107.