SolarEdge Commercial Storage Systems

CSS-OD 197 - 197 kWh / 50 or 100 kW
Scalable to 4 MWh

CSS-OD 107 - 107 kWh / 29.9 or 49.9 kW
Scalable to 2.1 MWh

Storage is how C&I businesses unlock the full value of solar.

Returns on exported energy are shrinking, tariffs are turning dynamic and time-based, demand charges are climbing. Storing self-generated solar energy lets businesses use more of what they produce and cut energy costs. The SolarEdge CSS-OD product line is built to capture that opportunity: two outdoor-ready systems, one intelligent platform.

CSS-OD Advantages

- High energy density and scalability
- Integrated intelligence for maximum savings
- Seamless installation and commissioning
- Comprehensive safety and cybersecurity
- Peace of mind

Two ways to scale

The CSS-OD product line brings two purpose-built, outdoor-ready storage solutions to commercial and industrial sites: The backup-ready* CSS-OD 107 and the high-capacity CSS-OD 197 — both installable indoors or outdoors and both managed by SolarEdge ONE for C&I to integrate seamlessly with your SolarEdge PV system. Choose the model and inverter power that match your requirements, and scale from a single cabinet to megawatt-hour deployments.

CSS-OD 107		CSS-OD 197
		
107	**Energy storage capacity (kWh)**	197
2.1	**Scales up to (MWh)**	4
29.9 or 49.9	**Battery inverter (kW)**	50 or 100
280 LFP	**Cell technology (Ah)**	280 LFP
8,000 cycles / 10 years @ 70% SoH	**Performance warranty**	8,000 cycles / 10 yrs @ 70% SoH
Indoor / outdoor, pre-assembled	**Deployment**	Indoor / outdoor, pre-assembled
Yes	**Tested to UL 9540A**	Yes
Yes*, < 20 ms transition	**Integrated backup**	—
105 x 137 x 209	**Cabinet dimensions (cm)**	130 x 120 x 236
1435	**Cabinet weight (Kg)**	2360

See the CSS-OD 107 and CSS-OD 197 datasheets for detailed specifications.
* Backup functionality requires a firmware update expected later in 2026.

Slash energy costs and maximize solar energy ROI

CSS-OD and our intelligent energy management platform, ONE for C&I, work in concert to orchestrate PV production, storage, and grid export in real time — continuously deciding when to store, use, or sell each kilowatt-hour to extract the most value from your solar system and drive down energy costs. They can leverage a full range of energy optimization strategies including maximum self-consumption, peak shaving, and tariff optimization, and take into account energy export and import restrictions. Multiple optimization strategies can be active simultaneously. One system, multiple objectives, and a faster return on investment.

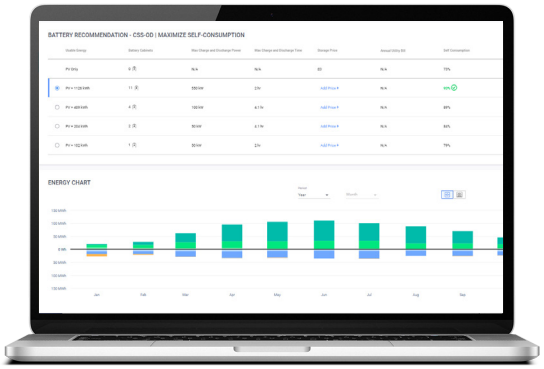
- **Maximum self-consumption**
- **Peak shaving**
- **Tariff optimization**
- **Export and import restrictions**

Integrated intelligence

Every CSS-OD system comes with an integrated set of SolarEdge applications that accelerate and optimize storage planning, commissioning, and day-to-day energy management to form a highly synchronized operations ecosystem.

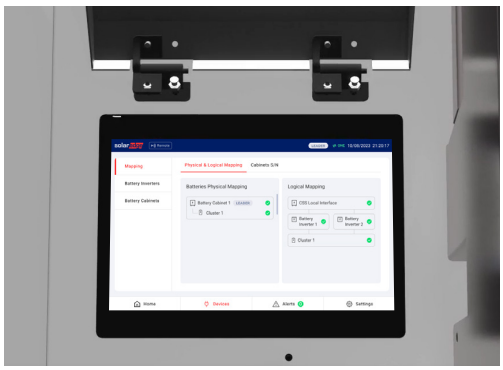
1 SolarEdge Designer

Recommends the optimal deployed CSS-OD storage capacity for maximum system ROI, according to site characteristics such as installed solar capacity and energy consumption patterns.



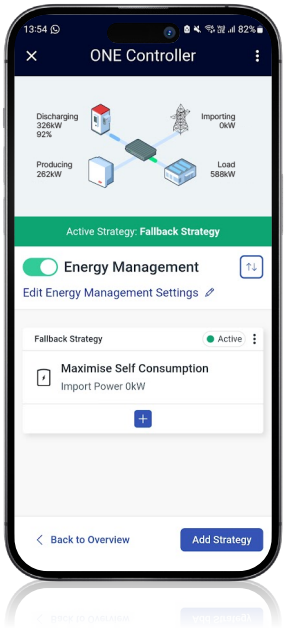
2 CSS-OD Local Interface

Located on the front of the system cabinet, the Local Interface is a user-friendly touch-screen with a step-by-step wizard and error diagnostics that enable smooth on-site installation, configuration, and maintenance.



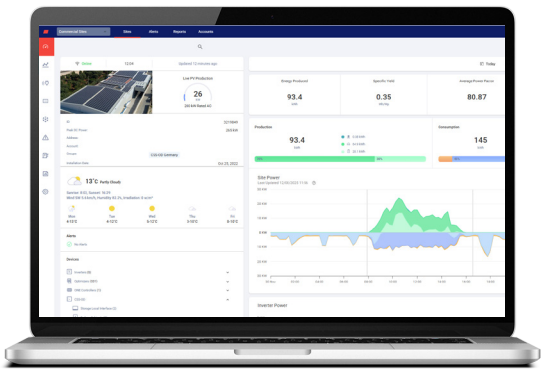
3 SolarEdge Go

A mobile application that enables remote and fast CSS-OD commissioning and connection of related site devices, such as ONE Controller for C&I and SolarEdge inverters. SolarEdge Go has a user-friendly, step-by-step wizard and error diagnostics that enable smooth remote system configuration.



4 SolarEdge ONE for C&I

A cloud-based energy optimization platform that provides advanced monitoring and management of a site's entire energy footprint. It supports multiple energy optimization modes including maximum self-consumption, peak shaving, tariff optimization, export and import limits.



Comprehensive safety and cybersecurity

Both CSS-OD models are engineered with an integrated, multi-layer safety architecture that monitors for potential issues at the cell, module, cluster, and cabinet levels, enabling earlier detection, isolation, and containment before issues can propagate. They are tested to multiple safety standards including UL 9540A.

Protection layer	Safety mechanism	Cell	Module	Cluster	Cabinet
Thermal Runaway prevention	Cell Passive Balancing	✓	✓	✓	
	Cell Temperature Sensors	✓			
	Module Fire Suppression (NOVEC 1230)		✓	✓	
	CO Detector				✓
	Smoke Detector				✓
	Heat and Humidity Sensor				✓
	Fire Extinguishers 1 and 2				✓
	Fire-fighting Valve				✓
	EPO (Emergency Power-off)				✓
	Pressure-relief Valve				✓
	Pressure Relief Panel				✓
Electrical Safety	DC Relay			✓	
	DC Breaker (MCCB)			✓	
	Reverse Polarity Protection				✓
	DC Busbar Temp. Sensing			✓	
	DC Surge Protection Device			✓	
	AC SPD (HVAC AUX)				✓
	Flood Detector				✓
Enclosure Protection	Module Physical Enclosure		✓		
	HVAC System				✓
	Door Switch				✓
	Ingress Protection				✓
	Acoustic Visual Alarm				✓

Cybersecurity by design

All CSS-OD external communications flow through a single onsite gateway — the SolarEdge ONE Controller for C&I — an onsite device designed to provide integrated cyber defenses and secure communications for the battery and other elements of a site's solar energy infrastructure.

Peace of mind

The system is backed by an extensive performance warranty that guarantees 70 % SoH for 8000 cycles or 10 years. It has a powerful, air-cooled HVAC system that keeps internal components operating within an optimal temperature range over a wide range of ambient temperatures.