LG ESS Commercial

A Complete LG Solution

LG's ESS Commercial Solution provides a complete, all-in-one, turnkey solution with components from the ESS itself to the PCS, PMS, LG ESS Battery, and energy management applications. With LG ESS offering you can supplement your existing demand for power with a more innovative, reliable, and reputable solution that can aid your business in its efforts to work towards energy efficiencies, sustainability and decarbonization goals.

Pure Independence with LG ESS

Experience Increased Sustainability

With LG ESS you can pursue increased sustainability, helping to adhere to governmental or industry-based energy mandates while contributing towards corporate ESG goals.

Interact with Innovation

LG ESS provides a top of the line, innovative, ready-to-deploy technology solution from storage with ESS, to management with the PMS, to additional solutions like HVAC. LG ESS can help your organization offset peak shifts, maintain an emergency backup solution, and limit or decrease reliance on diesel generators and fossil fuels.

Count on Confidence

When you choose LG ESS, you're choosing a partner with a history steeped in developing top-of-the-line technology. With LG ESS you can rest assured that you're choosing a partner who provides long-term bankability through a lasting solution.

The All-in-One LG Energy Solution

Why LG ESS?

LG ESS provides a complete ESS solution for your corporation, organization, or business. Manufactured and tested in South Korea, one of the world's leading hubs of technological innovation, the LG ESS system is engineered to be user friendly, robustly designed, and reliably built. Explore some of the LG ESS core differentiators below.

LG Energy Solution & Service

With the LG Energy package solution, you have the option for a one-stop service, for everything from the LG ESS package to the energy management solution to a commercial HVAC solution.

Features at a Glance

Virtually Seamless Backup Functionality
- wide temperature range operation -22 to 122°F / (Derating> 113°F)
- earthquake resistant structure & architecture
- totally sealed cabin for protecting electronics against dust & moisture

Robust Design & Reliable Multi System
- 7 inch touch screen / comport performance viewer
- self-registration : parameter setting & mode control

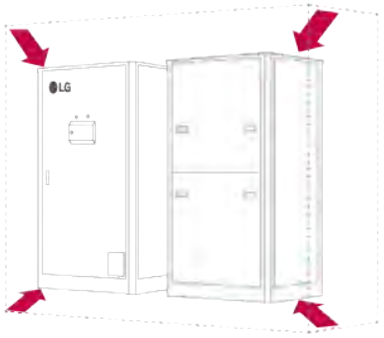
Compliance / NA Certification
- UL924, UL1741SA
- CA Rule 21 Phase 1,2,3
- Hawaiian Rule 14H

User-Friendly HMI[1] / LCD Touch Panel
- black start capability for power backup & safety operation
- seamless power transfer / system response time (<20ms[2])

[1]HMI : Human Machine Interface
[2]System response time (20ms) is the result of LG facility, environment, and test conditions.

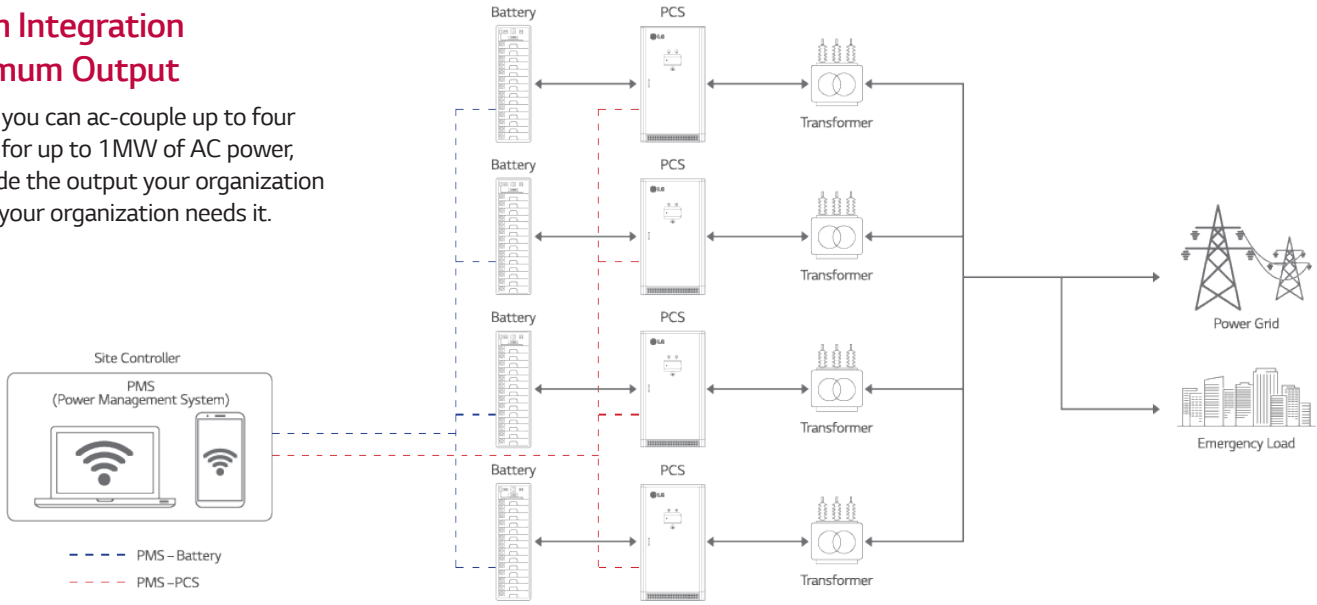
Minimized Cabinet Size & Spacious Architecture Design

Whether you're looking to install LG ESS system within your walls or onsite, LG proudly offers sleek, modern designs and frame structures to fit your organization's needs.



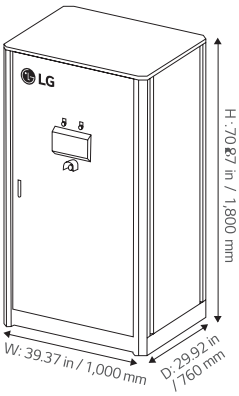
Maximum Integration for Maximum Output

With LG ESS you can ac-couple up to four LG ESS units for up to 1MW of AC power, helping provide the output your organization needs, when your organization needs it.

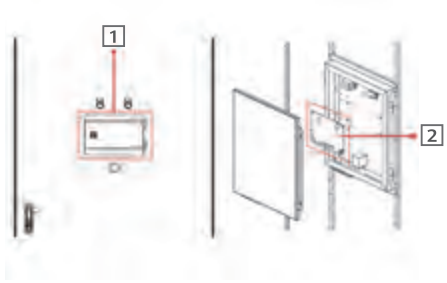


Specifications

Dimensions & HMI



Weight: 1,102.3lb / 500kg



Human Machine Interface (HMI)
1. HMI
2. LCD Control Board

AC Grid Connection

Rated Grid Voltage	480 Vac, 3 Phase
Grid Voltage Range	422.4~528 (-12%,+10%)
Rated Grid Frequency	60 Hz
Frequency Range	58.5~61.2 Hz
Rated AC Power	250 kW
Rated AC Current	300 A
Max. Continuous AC Current	342A, <104°F (<40°C)
Current THD	<2%
Power Factor	>0.99 @ Rated Power

DC Connection

DC Voltage Range	750~1000 Vdc
Rated DC Voltage	881 Vdc
Rated Discharge Power	255 kW
Rated Charge Power	250 kW
Max. Discharge DC Current	340 A
Max. Charge DC Current	333 A

Standalone Operation

Rated Output Voltage	480 Vac, 3 Phase
Rated Output Power	175 kVA
Rated Output Current	211 A
Rated Output Frequency	60 Hz
Power Factor	-0.8~0.8
Output Voltage Accuracy	2%
Output Voltage THD	<5%

Environmental

Max Altitude	1,000m
Operating Temperature	-30 to +50° C (-22 to 122° F) Derating > +45° C (113°F) @ Rated Output Current Derating > +40° C (104°F) @ Max Output Current
Storage Temperature	-30 to +50° C (-22 to 122° F)
Humidity	0 to 95% RH, No Condensing
Cooling	Forced Air
Acoustic Noise	<65 dB*
Ingress Rating	Type 3R / IP55

*Measure point is center of the front with 1.0m distance from product and base. There may be differences from the actual environment due to self-test standards.

Interface

User Interface	7 inch Touch LCD Screen, Operating, Fault LEDs
Emergency Stop	Local EPO Button
Communication	RS-485 / Moddbus / Can

Performance

Peak Efficiency	98.4%
Standby Loss	90 W

Mechanical

Dimensions (W x D x H)	39.37 x 29.92 x 70.87 in (1,000 x 760 x 1,800 mm)
Weight	1,102.3 lb (500 kg)

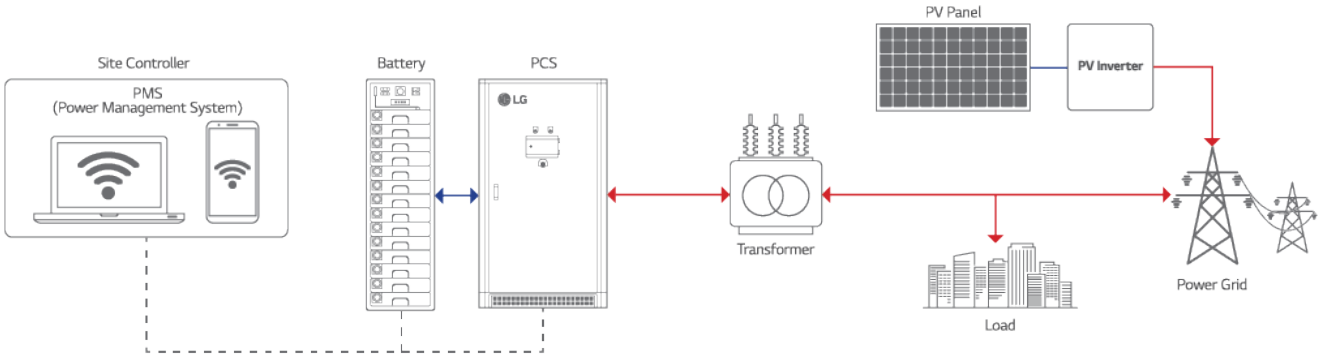
Standards

Certification	Safety	UL1741 : 2018 / CSA C22.2 NO. 107.1-16 : 2016
	EMC	FCC Part 15 Subpart B Class A / ICES-003
	Grid	IEEE 1547 : 2018/IEEE1547a : 2020/IEEE 1547.1 : 2020
	SRDs	UL 1741SA / CA Rule 21 Phase 1, 2, 3 / Hawaiian Rule 14H
	Seismic	IEEE 693 High Level : 2005
	Enclosure	IEC 60529 : 2013

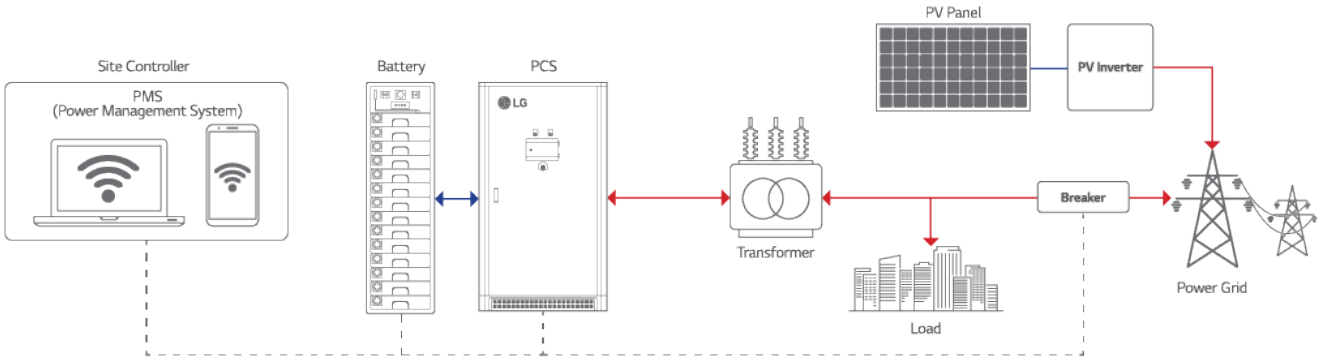
How it Works

LG ESS PCS Function, Configuration, and Interconnection with the Grid

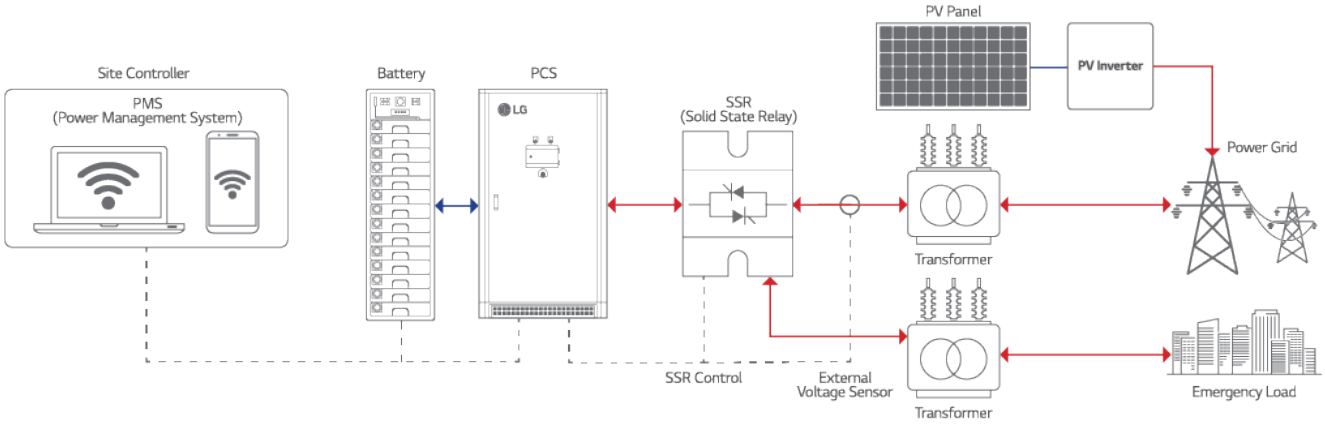
How can LG ESS support your commercial needs?
Whether you're looking to respond to external power demands, schedule peak shaving for demand charge reduction, improve grid power quality, or serve as a backup for reliable emergency power and reduce reliance on diesel fuel, LG ESS can help support your organization's power needs.



<AC Coupled Configuration> — AC Power — DC Power - - - Communication



<AC Coupled / Backup Configuration> — AC Power — DC Power - - - Communication



<AC Coupled / Virtually Seamless Configuration> — AC Power — DC Power - - - Communication

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