The LG ESS is a state-of-the-art energy management system designed to help small commercial enterprises manage their energy supply, reduce bills and contribute to a sustainable future. The LG ESS offers both an AC-coupled and DC-coupled configuration. Both systems can provide backup power in case of an emergency. The 7.6kW DC-coupled solution with an integrated high-efficiency PV inverter is well-suited for new solar PV + storage installations. The system is ideal for businesses looking to install a ESS with an existing PV system, or with no PV system at all. The system offers a cost-effective way to manage Time of Use (TOU) rates and Peak Shaving.

Product features include quick and easy installation, a compact and elegant design, and an integrated smart energy management system (EMS). The EMS enables businesses to control electric bills through self-consumption of solar and TOU rate smart scheduling, and includes an off-grid mode to protect the customer’s building in the event of a power outage.

The LG ESS is provided as an integrated energy storage system, complete with PCS, ATS and Energy Meter. In the case of a DC-coupled system, RSD will also be included. For either the AC- or DC-coupled system, a second battery pack is optional.

The LG ESS is offered as both an AC-coupled solution and a DC-coupled solution. The 7.6kW DC-coupled product offers unparalleled solar + storage performance, allowing business owners to seamlessly store excess solar energy to power their business both day and night. The 5kW AC-coupled product can be easily added to an existing PV system, offering a reliable and cost-effective way to manage Time of Use (TOU) rates and provide backup power.

**Features at a glance**

- **Easy Two-Person Installation**
- **High-Efficiency PCS**
  - 97.5% CEC Efficiency, Multi-String options & MPPTs for multi-angled roofs
- **Extremely Reliable Battery; Scalable System**
  - Up to 19.6kWh for longer backup time;
  - Compatible with LG Chem RESU 10H
- **Smart Energy Management and Remote System Monitoring**
  - Emergency Backup, 24/7 energy monitoring
- **One-stop Service & 10-Year Warranty**
  - ESS can be paired with LG PV modules for a single provider for all warranty issues
- **Flexible Installation**
  - DC-coupled or AC-coupled solution options to pair with a standard power grid, an existing PV system or a brand new PV system

**Contact**

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**Specifications**

**Power Conversion System**

**PV Input**
- AC Nom.: 330V DC
- DC Nom.: 1000V DC
- Absolute Maximum Voltage: 1500V DC

**Input Terminal**
- RGM: Optional Built-in RGM
  - UL 1741 SA, CA Rule 21, HECO

**Grid Support Compliance**
- Harmonics Distortion: TRD < 3%
- Cos phi = 0.85a~0.85i Adjustable
- Frequency Range: 57 ~ 63 Hz

**DC Disconnect**
- Integrated

**Output Terminal**
- Spring Type

**Battery Expansion**
- LG Energy Storage System can connect RESU 10H battery up to 2 each without additional battery expansion kit.

**Battery**
- 9.3 kWh
- 9.8 kWh@25°C (77°F), 100% State of Energy

**General PV to AC**
- MPPT3+/-
- MPPT2+/-
- MPPT1+/-

**Technical Specifications**

**Mechanical Design**
- Dimensions (WxHxD): 15 in x 26 in x 11 in
- Weight: 33 lbs
- Power: 2400 W

**Power Conversion System**
- Type of Converter: DC/AC
- Transformer-less

**Input Power**
- Maximum Input Power: 3000 VA
- Maximum Output Power: 5000 W

**Output Power**
- Maximum Output Power: 6000 W
- Peak Output Power (10 sec): 7000 W

**Battery Input / Output**
- Compatible Battery Pack Size: 9.8 to 19.6 kWh @ 77°F (25°C) Max.
- Number of Battery packs: 2 in parallel
- Maximum Allowable MPPT MPP Tracker: 12 A DC

**Operational DC Voltage Range**
- 50 ~ 450 V DC

**DC Disconnect**
- Integrated

**Rapid Shutdown System**
- Through Cloud (Optional)

**Human Machine Interface (HMI)**
- BLE (Support 4.0 or higher)
- Ethernet (optional)
- Modbus (SunSpec)

**User Interface**
- 5 LEDs Indicator

**Settings can be done through APP from Mobile phone**

**Mechanical Drawing and Cable Ports**

**Certification**
- Battery Pack: UL1973 / CE / RCM / TUV (IEC 62619)
- UL1642

**Safety**
- Safety Mark: CSA
- FCC: Class B

**Battery Energy Capacity**
- 9.6 kWh

**Battery Capacity**
- 69 Ah

**Operating Time**
- 18.9 A@370 V for 10 sec.

**Emissions**
- FCC

**Energy**
- Max. Charge/Discharge Current:
  - 11.9 A@420 V
  - 14.3 A@350 V

**Block Diagram of LG PCS**

**Mechanical Drawing and Cable Ports**

**Diagram of LG PCS**

**Battery Expansion**

**Additional Information**
- * Energy is measured under specific conditions from LGC (0.3CCCV/0.3CC).
- * Energy is measured under specific conditions from LGC (0.3CCCV/0.3CC).
- * Tolerance: Battery Cell Only (Start of Discharge 80%)
- * 80% Cycle remanence, with the autoranging function.
- * Peak currents excludes repeated short duration (less than 19 sec. of current pattern).