LG Energy Storage System

LG ESS Home 8  |  LG ESS Home 10
8kW  |  10kW

The Smartest Way to use Solar Energy

LG Electronics provides energy storage system to enhance self-consumption rate of photovoltaic systems. LG’s high power DC-coupled ESS converts energy more efficiently than AC-coupled ESS. Thus, LG ESS can achieve higher efficiency. Furthermore LG ESS generates the three-phase AC current producing the balanced grid power. Also emergency power to protect the customer’s home in the event of a sudden power outage. Above all the user-friendly EnerVu mobile application helps the easy system set-up. The web monitoring function also allows installers and users to check their system status anytime and anywhere.

High power DC Coupled Energy Storage System

10-year Warranty & One-Stop Service
ESS can be combined with LG PV modules for a single provider for all warranty issues.

Powerful Back-up power
In the event of a sudden power outage LG ESS will keep the PV system operating ensuring that power is available to support critical loads.

Flexible Installation
Multi-String & advanced 3MPPTs for flexible design for rooftop systems. Easy expandable battery capacity (up to 19.6kW)

Luxury & Durability Design
Full stainless steel ESS feature an elegant appearance and enhanced durability compared to plastic models.

Smart Energy Management
Remote Firmware upgrade and System Monitoring Maximize self-consumption through compatible with LG Air to Water Heat Pump
### LG Energy Storage System

#### DC Input

<table>
<thead>
<tr>
<th>Model</th>
<th>LG ESS Home B (D008KE1N211)</th>
<th>LG ESS Home 10 (D010KE1N211)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage Range ($U_{in, min} - U_{in, max}$)</td>
<td>150 – 1,000V/60</td>
<td>150 – 800V/60</td>
</tr>
<tr>
<td>Max. DC Power (per channel)</td>
<td>12kW (6kW)</td>
<td>13.5kW (7.5kW)</td>
</tr>
<tr>
<td>Usable MPP Voltage Range</td>
<td>150 – 800V</td>
<td></td>
</tr>
<tr>
<td>Number of MPPT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Number of String per MPPT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Max. Input Current per MPPT</td>
<td>13 A</td>
<td></td>
</tr>
</tbody>
</table>

#### AC Output

- Rated Grid Voltage: 3-NPE 400V / 230V
- AC Voltage Range: 319 – 458V / 184 – 264.5V
- Frequency (Range): 50Hz (47.5Hz – 51.5Hz)
- Rated Output Power: 8kVA / 10kVA
- Rated Output current: 11.5A / 14.4A
- THD / Power Factor: < 5% / ±0.8

#### Efficiency (PCS)

- Max. Efficiency (PV to Grid): > 97.7%
- European Efficiency (PV to Grid): > 97.0%

#### Compatibility List

- Energy Meter: ABB (B23 112-100, B23 212-100, B23 312-100)
- AWHP (Air to Water Heat Pump): LG (Monobloc, Split-Hydro Box)
- Auto Transfer Switch (Option): Enwitec (10013677, 10013678, 10013679)

#### DC input/output (Battery)

<table>
<thead>
<tr>
<th>Model</th>
<th>LG HB 7H (BLGRESU7H)</th>
<th>LG HB 10H (BLGRESU10H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Type</td>
<td>Lithium Polymer High Voltage</td>
<td></td>
</tr>
<tr>
<td>Total Capacity:</td>
<td>7kWh</td>
<td>9.8kWh</td>
</tr>
<tr>
<td>Usable Capacity</td>
<td>6.6kWh</td>
<td>9.3kWh</td>
</tr>
<tr>
<td>Max. Charge/Discharge power:</td>
<td>3.5kW / 7kW</td>
<td>5kW / 7kW</td>
</tr>
<tr>
<td>Peak Power (Single/Dual):</td>
<td>5kW / 10kW for 5sec.</td>
<td>7kW / 10kW for 10sec.</td>
</tr>
</tbody>
</table>

1) Value for battery cell only (Depth of Discharge 95%)
2) Same as Backup Power

#### General Data

- Dimension (W/H/D, mm): 746 / 688 / 206 (Battery 7kWh)
- Weight (PCS/Battery): 78kg / 99kg
- Operation Temperature (PCS): 0℃ – 60℃ (derating at 40℃)

#### Feature & Function

- Typical Noise emission (PCS): 40dB
- Cooling Type: Forced Convection
- Topology: Transformer-less
- Degree of Protection (PCS/Battery): IP21 / IP55
- Max. Permissible value of RH: 85%
- Warranty (PCS): 10 years
- Warranty (Battery): 10 years (SOH 80%)
- Backup power (Single/Dual): 5kVA / 7kVA

#### System Block Diagram

- System Block Diagram: High install flexibility with PV module and Battery
- Each PV channel capacity: 7.5kW
- DC/AC Power Ratio: 135%
- DC Input: 13.5kW / AC Output: 10kW
- 5-step capacity: 7.0kWh / 9.8kWh / 14.0kWh / 16.8kWh / 19.6kWh
- No additional devices required for expansion
- 7.0kWh, 9.8kWh Battery combination
- 5-step capacity: 7.0kWh Parallel / 9.8kWh Parallel

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The specifications are subject to change without prior notice.
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