

LG Energy storage system

LG ESS Home 5



The Smartest Way to use Solar Energy

LG Electronics provides energy storage system to enhance self-consumption rate of photovoltaic systems. LG's DC-coupled ESS converts power 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. Above all, the user-friendly 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.



PCS
D005KD1N111

COMPACT DC COUPLED ENERGY STORAGE



High Efficiency

97.7 % of maximum PV to grid conversion efficiency by three-level topology



Slim and Luxury Design

More compact, and lighter, but luxury and durable with stainless steel cover



Battery Scalability

Battery capacity can be doubled by using expansion kit
Battery expansion kit is soled separately



Wireless Communication

Smartphone app installation via direct wireless connection is included
(iOS & android app is available)



Battery
ED00064CN00

LG Energy storage system

DC Input

| | |
|---|--------------------------|
| Max. Input Voltage | 800 V |
| Min. Input Voltage | 210 V |
| Max. DC Power | 6.6 kW (3.3 kW per MPPT) |
| Input Voltage Range MPPT at Rated AC Output Power | 210 ~ 680 V |
| Number of MPPT | 2 |
| Number of String per MPPT | 1 |
| Max. Input Current per MPPT | 13 A |

AC Output

| | |
|---|------------------------------|
| Rated Grid Voltage | 3-NPE 400 V/230 V |
| AC Voltage Range | 319 ~ 458 V 184 ~ 264.5 V |
| Frequency (Frequency Range) | 50 Hz (47,5 Hz ~ 51.5 Hz) |
| Max. Output power | 5.6 kVA |
| Rated Output Power | 5 kW |
| Max. Output Current | 8 A |
| Total Harmonic Distortion / Power Factor with Rated Power | < 5 %/±0.9 |
| Phases | 3 |

Battery

| | |
|-----------------------|-------------------------|
| Battery Type | Lithium Polymer |
| Max. Charger Power | 3.0 kW |
| Capacity (Expandable) | 6.4 kWh (max. 12.8 kWh) |
| DoD | 90% |
| Current Capacity | 31.5 Ah |
| Rated Input Voltage | 207.2 V |

Energy Meter Compatibility List

| Manufacturer | Model |
|--------------|--|
| ABB | B23 112-100, B23 212-100, B23 312-100 |

Efficiency (PCS)

| | |
|----------------------------------|--------|
| Max. Efficiency (PV to Grid) | 97.7 % |
| European Efficiency (PV to Grid) | 96 % |

General Data

| | |
|-----------------------|--|
| Dimension (W/H/D, mm) | 408/490/185 (PCS) 408/682/180 (Battery) |
| Weight (PCS/Battery) | 25 kg/58 kg |
| Operation Temperature | 0°C ~ 40°C |

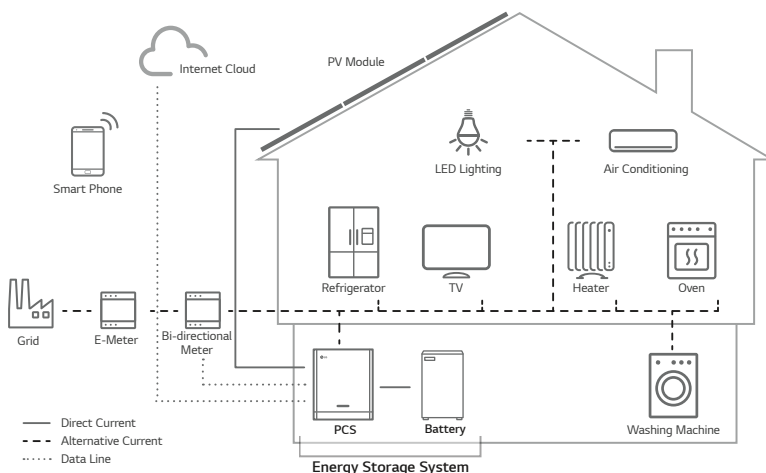
Feature & Function

| | |
|--|--|
| Noise emission (Typical) | < 40 dB |
| Cooling Type | Forced Convection |
| Topology | Transformerless |
| Degree of Protection | IP21 |
| Max. Permissible Value of Relative Humidity (Non-condensing) | 85 % (Climate Class 3K5) |
| Warranty (PCS) | 10 years |
| Warranty (Battery) | 10 years (SOH 80%) |
| Certification (PCS) | IEC/EN 62109-1/-2, VDE-AR-N 4105, VDE 0126-1-1, ÖVE/ÖNORM E 8001-4-712, TOR D4:2016, IEC 61000 Reihe |
| Certification (Battery) | CE/IEC 62133/IEC 62619/UN38.3 |

Battery Expansion Kit (option) Model: APEPT000008

| | |
|-----------------------------------|-----------------|
| Dimension (W/H/D, mm) | 300/270/85 |
| Weight | 3.7 kg |
| Operating Voltage Range | 168 - 232.4 Vdc |
| Max. Charging/Discharging Current | 19 A |
| Communication | CAN |
| Safety | IEC 62477-1 |
| Degree of Protection | IP21 |
| Warranty | 10 years |

System Block Diagram



System Line-Up



* Expansion pack includes one expansion kit and one battery pack
 ** If you wish to install additional batteries, we recommend within 1 year after the first ESS installation date.