EN

Preliminary

LG Energy Storage System

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

10 yrs Warranty

PCS

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

Battery

LG
Life's Good

LG Energy Storage System

DC Input

Model	LG ESS Home 8	LG ESS Home 10
Input Voltage Range (U_{DCmin} ~ U_{DCmax})	150 ~ 1,000V_{DC}	
Max. DC Power (per channel)	12kW(6kW)	13.5kW (7.5kW)
Usable MPP Voltage Range	150 ~ 800V	
Number of MPPT	3	
Number of String per MPPT	1	
Max. Input Current per MPPT	13 A	

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

Device	Manufacturer (Model)
Energy Meter	ABB (B23 112-100, B23 212-100, B23 312-100)
AWHP (Air to Water Heat Pump)	LGE (Monobloc, Spilt-Hydro Box)
Auto Transfer Switch (Option)	Enwitec (10005950)

DC input/output (Battery)

Model	LG HB 7H	LG HB 10H
Battery Type	Lithium Polymer High Voltage	
Total Capacity	7kWh	9.8kWh
Usable Capacity[1)]	6.6kWh	9.3kWh
Max. Charge/Discharge power[2)] (Single/Dual)	3.5kW / 7kW	5kW / 7kW
Peak Power (Single/Dual)	5kW / 10kW for 5sec.	7kW / 10kW for 10sec.

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

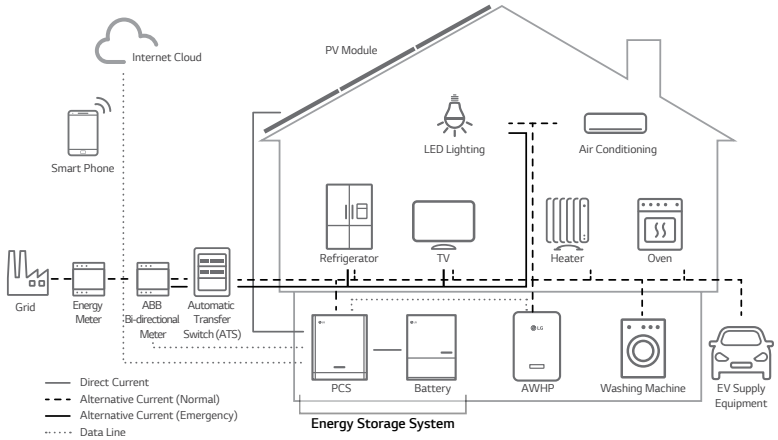
General Data

Dimension (W/H/D, mm)	450 / 599 / 210 (PCS) 746 / 688 / 206 (Battery 7kWh) 746 / 903 / 206 (Battery 10kWh)
Weight (PCS/Battery7kWh/10kWh)	34kg / 78kg / 99kg
Operation Temperature (PCS)	0℃ ~ 60℃ (derating at 40℃)

Feature & Function

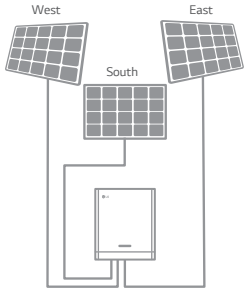
Typical Noise emission (PCS)	40dB
Cooling Type	Forced Convection
Topology	Transformer-less
Degree of Protection (PCS/Battery)	IP21 / IP55
Max. Permissible value of RH	85%
Warranty (PCS)	10 years
Warranty (Battery)	10 years (SOH 80%)
Certification (PCS)	IEC/EN 62109-1/-2, VDE-AR-N 4105: 2018, VDE 0126-1-1, ÖVE/ÖNORM E 8001-4-712, TOR D4:2016, IEC61000
Backup power (Single/Dual)	5kVA / 7kVA

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



No additional devices required for expansion
7.0kWh, 9.8kWh Battery combination
5-step capacity:7.0 / 9.8 / 13.8 / 16.8 / 19.6 kWh

LG Life's Good

LG Electronics Deutschland GmbH
EU Solar Business Group
Alfred-Herrhausen-Allee 3–5
65760 Eschborn, Deutschland
E-Mail: solar@lge.de
www.lg.com/global/business/ess

All details in this data sheet comply with DIN EN 50380.
The specifications are subject to change without prior notice.
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