

# LG Energy Storage System



### Reliable Power from a Reliable Brand

The LG Electronics ESS is a state-of-the-art home energy system designed for homeowners ready to take control of their home energy usage. It offers reliable power both day and night from a highly efficient system. Expertly designed, the battery usable capacity can be expanded up to 28.5kWh without any additional devices.



## Highly Efficient Energy Storage System



# One brand, one warranty

LG is a single manufacturer of both the battery and PCS (inverter)



# Compatibility with LG Therma V, air-to-water heat pump

Expertly designed with compatibility in mind. Plug & Play with SG Ready heat pump



# Quick and easy installation

Thanks to the modular design, transportation and installation become easy



# Large storage capacity

No additional device required for expanding usable capacity (10.7/14.2/21.4/28.5kWh)



# Using more sunlight with 3 MPPT advanced feature

With flexible 3 MPPT, Home ESS can capture more energy for a multi-angled roof



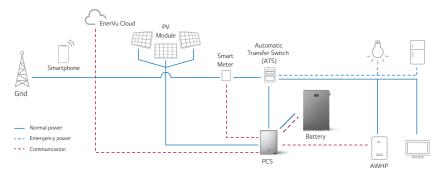
# Smart Management using EnerVu

User-friendly app enables to easily check electricity generation, self-consumption and other valuable information



# LG Energy Storage System

### **System Layout**



For safe ESS system operation, it is recommended to register EnerVu Cloud (https://enervu.lq-ess.com) and stay connected

### **PCS Specifications**

#### DC Input

Model	LG ESS Home 8	LG ESS Home 10
Input Voltage Range	150 ~ 1,000V <sub>DC</sub>	
Max. DC Power (Per string)	12kW (6kW)	13.5kW (7.5kW)
Usable MPP Voltage Range	150~	800V
Input Voltage Range MPPT at Rated AC Output Power	275~800V	
Number of MPPT	3	3
Number of String per MPPT	1	
Max Input Current Impp	13 A	
Max Short Circuit Current Isc	15	δA

#### **AC Output**

Rated Grid Voltage	3-NPE 400V / 230V	
AC Voltage Range	312 ~ 458 V / 195.5 ~ 287.5 V	
Frequency (Range)	50Hz (47.5 ~ 52.0Hz)	
Rated Output Power	8kVA	10kVA
Rated Output Current	11.5A	14.4A
THD / Power Factor	< 5% / ±0.8	
Max. Efficiency (PV to Grid)	> 97.7%	

### General Data

Dimension (W/H/D, mm)	450/599/210	
Weight	34kg	
Operation Temperature	$0^{\circ}$ C ~ $60^{\circ}$ C (derating at $40^{\circ}$ C)	
Typical Noise Emission	40dB	
Topology	Transformer-less	
Cooling Type	Forced Convection	
Degree of Protection	IP21	
Warranty	10 years	

## **Battery Specifications**

### DC Input / Output

Model	LG HBC 11H	LG HBC 15H	
Battery Type	Lithiu	Lithium Ion	
Total Capacity	11.9kWh	15.8kWh	
Usable Capacity <sup>1)</sup>	10.7kWh	14.2kWh	
Max. Charge (Single/Dual) <sup>2)</sup>	4kW/7kW	5kW/7kW	
Max. Discharge (Single/Dual) <sup>2)</sup>	5kW/7kW	5kW/7kW	
Peak Power (Single/Dual)	7kW / 10kW for 10sec	7kW / 10kW for 10sec	
Capacity Options (Usable) <sup>3)</sup>	10.7 / 14.2 / 21.4 / 28.5 kWh		
Efficiency	>95.5%		

- 1) Value for battery cell only (depth of discharge 90%) capacity may be limited to protect system. The capacity may decrease as the battery ages.
- 2) Charging and discharging may take longer depending on ambient temperature and SoC.
- 3) Expansion of the battery is only possible within 12 months after the initial installation.

### General Data

Dimension (W/H/D, mm)	698 / 1,073 / 205
Weight (HBC 11H   15H)	112kg/138kg
Operating Temperature Range (Charging)	-10 to 45°C
Operating Temperature Range (Discharging)	-20 to 50°C
Cooling Type	Natural Convection
Degree of Protection	IP55
Warranty	10 years (SOH 80%)

#### Compatibility Product List

Compatibility i roduce List	
Energy Meter	ABB (B23 112-100, B23 212-100, B23 312-100)
Air to Water Heat Pump	LG Electronics (Therma V Monobloc, Spilt-Hydro Box) SG Ready
Automatic Transfer Switch (ATS)	Enwitec (Type 10013677, 10013678, 10016021, 10016022)
Smart Gateway	3 <sup>rd</sup> party compatible

#### Certifications

Battery	UN38.3, IEC62619, IEC63056, IEC60730-1 Annex H, IEC61000(CE), IP55, UL1973
rcs	TOR Erzeuger Type A, OVE-R25, C10/C11, RD 1699, TED 749, NTS 2.0, UNE 206007-1, UNE 217002, UNE 217001, TF 3.3.1, AS/NZS 4777.2
PCS	IEC/EN 62109-1/-2, EN 61000 Series, EN 55011, EN 301, 2014/53/EU RED, EN 50549-1, VDE-AR4105:11-2018, DIN VDE V 0124-100,

