

# LG Energy Storage System



**LG ESS Home 8**  
(D008KE1N211)

**LG ESS Home 10**  
(D010KE1N211)

**LG HBP 10H** BLGRESU10HP

**LG HBP 16H** BLGRESU16HP

## The Smartest Way to use Solar Energy

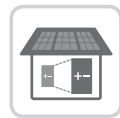
LG ESS is a DC-coupled system that uses a simpler energy conversion process for greater energy efficiency. Compared with the AC-coupled product, it operates more simply and needs no PV inverter, saving on installation costs and time. In addition, LG ESS has 3-phase connection to prevent power imbalance and overload, so it is able to supply power more steadily.

## High power DC Coupled Energy Storage System



### 10-year Warranty & One-Stop Service

LG ESS can be combined with LG PV, PCS and Battery by a single provider. LG can provide integrated service faster than others



### More Flexibility with 3 MPPT Channel

With multi-string and advanced 3 MPPTs, Home ESS provide easily expandable battery capacity for a multi-angled roof.



### Smart mode according to weather forecast

Home ESS helps you make the most of battery by controlling the charging mode according to weather condition of the day. It can save your money by maximizing self-consumption.



### Reliable Back-up Power

Home ESS can provide a black-free, eco-friendly living environment. Don't worry about the sudden black out!

\*Together only optional component: ATS Box -> See compatibility list



### Smart Management using by EnerVu

User-friendly UI enables you to check self consumption rate, PV generation, feed-in electricity, load consumption, charging/discharging power.

## Quick & Easy Handling

The modular design makes easy transportation, handling and installation for battery!

	Carry & Handle	Workload
Conventional	 Lift needed	 2-3 Installers
LG HBP Battery	 No Lift	 1-2 Installers



**PCS**  
(D008KE1N211)  
(D010KE1N211)



**LG HBP battery**  
(BLGRESU10HP)  
(BLGRESU16HP)

# LG Energy Storage System

## DC Input

Model	LG ESS Home 8	LG ESS Home 10
Input Voltage Range	150 ~ 1,000V <sub>DC</sub>	
Max. DC Power (per channel)	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 MPPTs	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	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	

## Efficiency (PCS)

Max. Efficiency (PV to Grid)	> 97.7%
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## Compatibility List (Option)

Device	Manufacturer (Model)
Energy Meter	ABB (B23 112-100, B23 212-100, B23 312-100)
AWHP (Air to Water Heat Pump)	LG Electronics (Monobloc, Spilt-Hydro Box)
Auto Transfer Switch	Enwitec (Type 10013677, Type 10013678, Type 10013679)
Smart Gateway	Smart1, Smartfox PRO

## DC Input / Output (Battery)

Model	LG HBP 10H	LG HBP 16H
Battery Type	Lithium Polymer High Voltage	
Total Capacity	9.87kWh	16.45kWh
Usable Capacity <sup>1)</sup>	9.6kWh	16kWh
Max. Charge/Discharge power <sup>2)</sup> (Single)	5kW	5kW
Max. Charge/Discharge power <sup>2)</sup> (Dual)	7kW	7kW

1) Value for battery cell only (depth of discharge 97.5%). Approximately 10% of the battery usable capacity is used by system for battery protection. The capacity may decrease as the battery ages.

2) Charging and discharging may take longer depending on ambient temperature and SoC.

## General Data

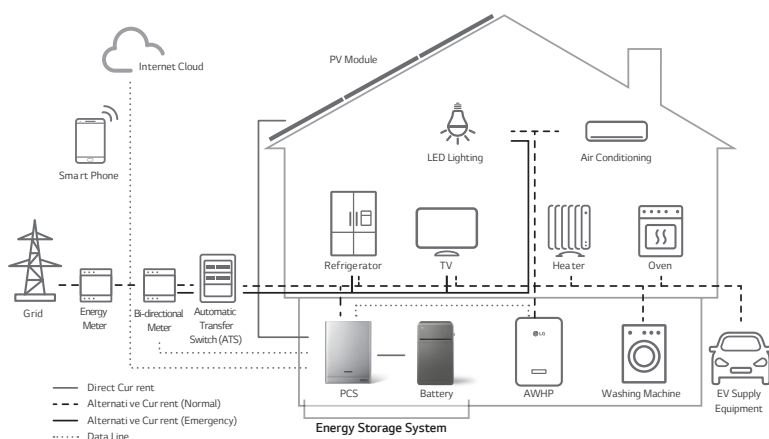
Dimension (W/H/D, mm)	450 / 599 / 210 (PCS) 504 / 816 / 295 (Battery HBP 10H) 504 / 1086 / 295 (Battery HBP 16H)
Weight (PCS/Battery HBP 10H/HBP 16H)	34kg / 112kg / 160kg
Operation Temperature (PCS)	0°C ~ 60°C (derating at 40°C)

## 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) <sup>1)</sup>	10 years
Warranty (Battery)	10 years (SOH 80%)
Certification (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, 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
Certification (Battery)	UL1642, CE, RCM, IEC 62619, UL1973, IEC 62477-1, UN38.3

1) For safe ESS system operation, it is recommended to sign up Enervu Cloud (<https://enervu.lg-ess.com>) and stay connected.

## 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  
10kWh, 16kWh battery combination.  
4 step capacity: 9.6 / 16.0 / 19.2 / 32.0 kWh  
(Dual installation is possible only with batteries of the same capacity)

