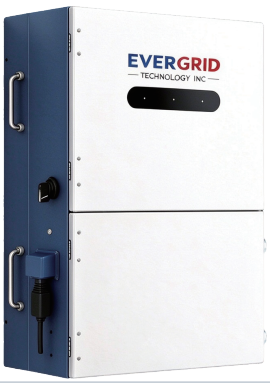
EVERGRID
TECHNOLOGY INC

CLEAN ENERGY
A BRIGHTER TOMORROW



INTEGRATED RESIDENTIAL ENERGY STORAGE SYSTEM

EGH-8KSP-LB / 10KSP-LB / 12KSP-LB

All-in-one hybrid inverter and battery system for PV, generator, on/off-grid and AC/DC-coupled residential energy storage.

KEY FEATURES

All-in-One Solution
PV, Generator, On/Off Grid, AC/DC Coupling in a single integrated system.

Parallel Expansion
Supports up to 10 units in parallel for larger installations.

Integrated Protection
Integrated AC & DC breakers for fast installation and commissioning, with integrated AFCI & EVERGRID RSD.

Power & Backup
Max. 18 kW PV power delivered to battery & AC outputs, with whole-home 200A AC passthrough and backup.

Multiple Applications
Generator input mode, micro/string inverter input mode, and SmartLoad.

Smart Monitoring
Integrated panel-level monitoring and intelligent management with remote Wi-Fi and local monitoring.

TYPICAL APPLICATION

PV + Battery + Load



CERTIFICATION

ETL Listed (Intertek) · UL 1741 · IEEE 1547 · NEC 2024 compliant

EGH-8KSP-LB / 10KSP-LB / 12KSP-LB

FULL SPECIFICATIONS

Model	EGH-8KSP-LB	EGH-10KSP-LB	EGH-12KSP-LB
INPUT | PV DC			
Maximum Utilized Solar Power	12000 W	15000 W	18000 W
Rated PV Input Voltage	360 V		
PV Input Voltage Range	100 - 600 V		
MPPT Operating Voltage Range	120 - 500 V		
Start-up Voltage	140 V		
No. of MPP Trackers	2	2	3
No. of Strings per MPPT	1/1	1/1	2/1/1
Max. Input Current per MPPT	25A/25A	25A/25A	25A/15A/15A
Max. Short Circuit Current per MPPT	31A/31A	31A/31A	31A/19A/19A
BATTERY			
Battery Type	Lithium-ion / Lead-Acid		
Rated Battery Voltage	48 V		
Battery Voltage Range	40 - 60 V		
Max. Charging/Discharging Current	167 A	210 A	250 A
Max. Charging/Discharging Power	8000 W	10000 W	12000 W
Force Wake-up Battery from PV Function	YES		
GRID			
Rated AC Voltage	120V/240V; 120V/208V		
Rated AC Frequency	50 Hz / 60 Hz		
Rated AC Output Current	33.3A @240V / 38.5A @208V	41.6A @240V / 48A @208V	50 A
Rated AC Output Power	8000 W	10000 W	12kW @240V / 10.4kW @208V
Max. AC Input Current	200 A		
Max. AC Input Power	48000 W		
PF	0.99 (adjustable, 0.9 leading to 0.9 lagging)		
THDi	<3%		
AC Bypass (Grid)	200 A		
EPS			
Rated Output Voltage	120V/240V; 120V/208V; 240V		
Rated Output Frequency	50 Hz / 60 Hz		
Rated Output Current	33.3A @240V / 38.5A @208V	41.6A @240V / 48A @208V	50 A
Rated Output Power	8000 W	10000 W	12kW @240V / 10.4kW @208V

EPS			
Peak Power	With PV: 8.8kW (2h), 9.6kW (15min), 10.4kW (7.5min), 13.2kW (750ms); Without PV: 8.8kW (10min)	With PV: 11kW (2h), 12kW (15min), 13kW (7.5min), 16.6kW (750ms); Without PV: 11kW (10min)	With PV: 13.2kW (2h), 14.4kW (15min), 15.6kW (7.5min), 20kW (750ms); Without PV: 13.2kW (10min)
Switching Time	15 ms		
THDv	<3%		
AC Bypass (Generator)	90 A		
EFFICIENCY			
Max. MPPT Efficiency	99.9%		
Max. Efficiency	97.5%		
Max. Battery Charging/Discharging Efficiency	94.5%		
CEC Efficiency	96.5%		
PROTECTION			
PV Reverse Polarity Protection	YES		
Over Current/Voltage Protection	YES		
Anti-Islanding Protection	YES		
AC Short-circuit Protection	YES		
Ground Fault Monitoring	YES		
Leakage Current Protection	YES		
AC/DC Surge Protection Type II	YES		
AFCI	YES		
RSD	YES		
DC Switch	YES		
Load Switch (Current)	200 A		
Battery Switch (Current/Voltage)	2×200A / 80VDC		
GENERAL			
Dimensions (W×H×D)	500×860×290mm / 19.68×33.86×11.42in		
Weight	52 kg / 114.6 lbs		
Ingress Protection Rating	NEMA 4X		
Relative Humidity	0 - 100%		
Operating Temperature Range	-25 - 60°C, >45°C derating		
Storage Temperature Range	-25 - 60°C		
Communication Interface	RS485 / CAN / Wi-Fi		
Display	Color Touch LCD		
Cooling Method	Smart Cooling		
Topology	Transformer-less		
Altitude	<2000m		
Warranty	10 years		
Standards & Certification	ETL Listed (Intertek) · UL 1741 · IEEE 1547 · NEC 2024		