



# HYBRID SOLAR STORAGE INVERTER

## SunExpert-HL8-15K-P2US

The SunExpert-HL8-15K-P2US series is a split-phase, low-voltage hybrid inverter for residential use. It delivers 275A max charge/discharge, <10ms UPS-level switching, and supports AC-coupled retrofits. With dual AC inputs for grid and generator, it enables direct diesel-to-battery charging. A rugged NEMA 4X enclosure and 150% PV over-paneling make it ideal for essential residential backup and future expansion.


Split Phase

4 MPPTs

US Standard (LV)

 275A Max Charge/Discharge for Heavy Loads

 <10ms UPS-Level Switching for Backup Power

 Dual AC Ports: Grid & Generator/Smart Load

 AC-Coupling Ready Retrofit Without Rebuild

 3-Phase Support Parallel up to 6 Units

 Rugged NEMA 4X Enclosure for Enhanced Durability

# DATA SHEET

Model	SunExpert-HL8K-P2US	SunExpert-HL10K-P2US	SunExpert-HL12K-P2US	SunExpert-HL15K-P2US
<b>INVERTER INPUT / OUTPUT(GRID)</b>				
Rated Power (kW)	8	10	12	15
Rated Voltage	120 V a.c. / 240 V a.c. (Split Phase),208 V a.c. (2/3Phase)			
Rated Frequency (Hz)	60			
Power Factor Range	0.8 leading~0.8 lagging			
Switch Time (ms)	<10			
Max. Input Current (A a.c.)	50			62.5
Max. Output Current (A a.c.)	33.4	41.7	50	62.5
Max Output Overcurrent Protection	250 V a.c / 125 A a.c			
GEN Rated Power (kW)	8	10	12	15
<b>BATTERY</b>				
Battery Type	Lithium / Lead-acid			
Battery Voltage Range (V d.c.)	40-60			
Rated Battery Voltage (V d.c.)	51.2			
Max.Charge Current (A d.c.)	167	210	250	275
Max.Discharge Current (A d.c.)	167	210	250	275
Reverse Connect Protection	Yes			
<b>PV INPUT</b>				
No.of MPPT Tracker / Strings	3 / 2+2+2			
Max.PV Input Power (kW)	12	15	18	22.5
Max.DC Voltage (V.d.c.)	550			
MPPT Voltage Range (V d.c.)	100-500			
Start-up Voltage (V d.c.)	120			
Max.Input Current / string (A d.c.)	26+26+26			
Isc PV (Absolute Maximum) / string (A d.c.)	39			
<b>AC OUTPUT(EPS)</b>				
EPS Rated Output Voltage	120 V a.c./240 V a.c. (Split Phase),208 V a.c. (2/3Phase)			
EPS Rated Output Frequency (Hz)	60			
EPS Rated Output Active Power (kW)	8	10	12	15
EPS Rated Output Apparent Power (kVA)	8	10	12	15
EPS Rated Output Current (A a.c.)	33.4	41.7	50	62.5
Overload Capacity (Off Grid)	200% 10s			
<b>EFFICIENCY</b>				
MPPT Efficiency	99.50%			
California-efficiency	96.50%			
Max.Efficiency	97.50%			
<b>PROTECTION &amp; FEATURE</b>				
Insulation Monitoring	Yes			
Residual Current Monitoring	Yes			
Parallel Function	Yes			
Protection Degree	NEMA 4X			
Certifications	IEC 62116			
Other Protection	Overload, Over temperature, Short circuit, Anti-islanding			
<b>GENERAL PARAMETER</b>				
Storage Temperature	-25°C~60°C (-13°F~140°F)			
Operating Temperature	-25°C~60°C (-13°F~140°F), >45°C (113°F) Derating to 60%			
Humidity	0~95% (Non-condensing)			
Operating Altitude (m)	4000 (>2000 Derating)			
Noise (dB)	<45			
Machine Dimensions(W*H*D) (mm)	466*756* 242 (18.35*29.76*9.35 in)			
Machine Weight / N.W. (kg)	45 (99.21 lbs)			
<b>DISPLAY &amp; COMMUNICATION</b>				
Display	App+ LED/ LCD (-S version)			
Interface	RS485 / WiFi / CAN (Optional: Bluetooth / LAN / 4G / Meter)			

\* The AC voltage and frequency range can differ according to the grid standards of each country.  
 \* Please note that all specifications are subject to change without prior notice.