



NINGBO HAIYU INTELLIGENT ELECTRICAL APPARATUS CO.,LTD.



HY-HL8~15K-P2SA Series

Split Phase | 3 MPPTs Hybrid Inverter (LV)

The HY-HL8~15K-P2SA 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.



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

TECHNICAL SPECIFICATION				
Model	HY-HL8K-P2SA/ HY-HL8K-P2SA-S	HY-HL10K-P2SA/ HY-HL10K-P2SA-S	HY-HL12K-P2SA/ HY-HL12K-P2SA-S	HY-HL15K-P2SA/ HY-HL15K-P2SA-S
INVERTER INPUT / OUTPUT (GRID)				
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~0.8lagging			
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
BATTERY				
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			
PV INPUT				
No. of MPPT Tracker / Strings	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2
Max. PV Array 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 (A d.c.)	26+26+26			
Isc PV (Absolute Maximum) (A d.c.)	39			
AC OUTPUT (EPS)				
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			
EFFICIENCY				
MPPT Efficiency	99.50%			
California-efficiency	96.50%			
Max.Efficiency	97.50%			
PROTECTION & FEATURE				
Insulation Monitoring	Yes			
Residual Current Monitoring	Yes			
Parallel Function	Yes			
Protection Degree	NEMA 4X			
Certifications	UL1741, FCC Part 15B, UL1547, UL1998, UL1699B, HECO SRD 2.0, CEC efficiency			
Other Protection	Overload, Over temperature, Short circuit, Anti-islanding			
GENERAL PARAMETER				
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)			
DISPLAY & COMMUNICATION				
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.



HY-HL8~15K-P2US Series

Split Phase | 3 MPPTs Hybrid Inverter (LV)

The HY-HL8~15K-P2US series is a split-phase, low-voltage hybrid inverter for residential use. It delivers 275A max charge/discharge, <10ms switching, and supports AC-coupled retrofits. With dual AC inputs for grid and generator, it enables direct diesel-to-battery charging. Featuring smart load with programmable control, a 200A bypass current for safe peak load handling, A rugged **NEMA 4X** enclosure, and 150% PV over-paneling, it is ideal for whole-home backup and future expansion.



275A Max Charge/Discharge for Heavy Loads



<10ms UPS-Level Switching for Backup Power



Dual AC Ports: Grid & Generator / Smart Load with Programmable Control



AC-Coupling Ready Retrofit Without Rebuild



3-Phase Support Parallel up to 6 Units



200A Bypass Current Ensures Safe Peak Load Use

TECHNICAL SPECIFICATION				
Model	HY-HL8K-P2US/ HY-HL8K-P2US-S	HY-HL10K-P2US/ HY-HL10K-P2US-S	HY-HL12K-P2US/ HY-HL12K-P2US-S	HY-HL15K-P2US/ HY-HL15K-P2US-S
INVERTER INPUT / OUTPUT (GRID)				
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~0.8lagging			
Switch Time (ms)	<10			
Max. Input Current (A a.c.)	200			
Max. Output Current (A a.c.)	33.4	41.7	50	62.5
Max Output Overcurrent Protection	250 V a.c / 250A a.c			
GEN Max. Input Current (A a.c.)	80			
BATTERY				
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			
PV INPUT				
No. of MPPT Tracker / Strings	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2
Max. PV Array 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 (A d.c.)	26+26+26			
Isc PV (Absolute Maximum) (A d.c.)	39			
AC OUTPUT (EPS)				
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			
Smart Load Rated Output Power (kW)	8	10	12	15
EFFICIENCY				
MPPT Efficiency	99.50%			
California-efficiency	96.50%			
Max.Efficiency	97.50%			
PROTECTION & FEATURE				
Insulation Monitoring	Yes			
Residual Current Monitoring	Yes			
Parallel Function	Yes			
Protection Degree	NEMA 4X			
Certifications	UL1741, FCC Part 15B, UL1547, UL1998, UL1699B, HECO SRD 2.0, CEC efficiency			
Other Protection	Overload, Over temperature, Short circuit, Anti-islanding			
GENERAL PARAMETER				
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)	522*826*265.5			
Machine Weight / N.W. (kg)	50			
DISPLAY & COMMUNICATION				
Display	App+ LED / LCD (-S version)			
Interface	RS485 / WiFi / CAN (Optional: Bluetooth / LAN / 4G / Meter)			

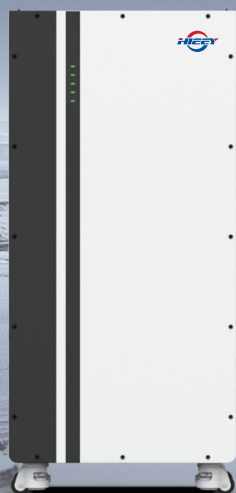
- The AC voltage and frequency range can differ according to the grid standards of each country.
- Please note that all specifications are subject to change without prior notice.



Vault16

Li FePO₄ Battery ESS

IP65



Top Cover (Optional)



PRODUCT FEATURES



≥8000

Longer cycle life@25°C



200A

Fast Charge/Discharge, maximum discharge current 200A



Multiple Protection

Built-in smart BMS, breaker and fuse



Remote Monitoring

Real time monitoring of battery



IP 65

Both indoor and outdoor installation



Fire Protection

Ultra safe with built-in fire extinguisher



Self-heating

Automatic self-heating -20°C to 55°C operating temperature



Parallel Connection

High scalability 16 parallel

● Technical Specifications

Model		Vault16
Battery Type		LiFePO4 Prismatic
Nominal Energy		16.07kWh
Usable Energy*		14.95kWh
Nominal Capacity		314Ah
Nominal Voltage		51.2V
Operating Voltage		48~56V
Under Lead-acid Mode	Recommended Current	80A
	Recommended Voltage	47.6~55.2V
Recommended Charge&Discharge Current		157A/157A
Max Charge/Discharge Current		157A/200A
Peak Discharge Current		240A(3S)
Peak Discharge Power		12kW(3S)
Recommended Depth of Discharge (DOD)		93%
Charge Temp. Range		From 0~50 ℃
Discharge Temp. Range		From -20~55 ℃
Cycle Life		≥8000@25 ℃
Scalability		16 Parallel
WIFI Module		Built-in
Fire Protection		Built-in aerosol
Communication		CAN/ RS485
IP Rating		IP65
Recommended Humidity		5%~95%(No condensed water)
Cooling Type		Natural cooling
Color		White(Optional)
Installation		Floor-mounting/Stacked mounting
Net Weight		145kg
Dimension(L*W*D)		480*1225*235mm
Protection		Over-current/Over-voltage/Short circuit/Under-voltage/Over temperature
Top Cover		Yes (Optional)
Heating Module		Yes (Optional)
Warranty		5/10 years* (Optional)
Certification		UN38.3/CE/IEC 62619(Cell)
Testing conditions based on temperature 25℃ at the beginning of life. *Total Energy/Usable Energy measured under specific conditions from Uhome 0.2C CC-CV and based on recommended DOD(93%); Information may be subject to change without notice during product improvement.		



9.6-16K

SOLARATOR SERIES

Operates Seamlessly with Generator: Experience Uninterrupted Power, Even in Areas with Grid Instability

S6-EH2P(9.6-16)K03-SV-YD-L-US

Split Phase | Low Voltage

NEW



- 48V hybrid can function on-grid, off-grid or act as a microgrid
- High input current (20A) supports larger modules, improving power density and eliminating clipping
- Integrated 200A pass-through and bypass function fully integrated to limit external hardware, save costs and streamline storage
- The battery's DC side can handle a maximum charge/discharge current of up to 290A, allowing it to store more surplus energy generated by PV systems for better efficiency
- Smart port for supporting flexible configurations like AC coupling or generator

DATASHEET

Models	9.6K	11.4K	12K	14K	16K
Input DC (PV side)					
Recommended max. PV power	15.36 kW	18.24 kW	19.2 kW	22.4 kW	25.6 kW
Max. input voltage	550 V				
Rated voltage	380 V				
Start-up voltage	100 V				
MPPT voltage range	100-450 V				
Full load MPPT voltage range	160-450 V			186-450 V	
Max. input current per MPPT	40 A				
Max. short circuit current per MPPT	50 A				
Number of MPPTs / Number of strings per MPPT	3 / 2				
Battery					
Battery type	Li-ion / Lead-acid				
Battery voltage range	40 - 60 V				
Max. charge / discharge current	200 A	237.5 A	250 A	290 A	
Communication	CAN / RS485				
Number of batteries per inverter	See Battery Compatibility Sheet				
Output AC (Grid side)					
Rated output power	9.6 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power	9.6 kVA	11.4 kVA	12 kVA	14 kVA	16 kVA
Rated output voltage	240 V				
Rated frequency	60 Hz				
Rated grid output current	40 A	47.5 A	50 A	58.3 A	66.7 A
Max. output current	40 A	47.5 A	50 A	58.3 A	66.7 A
Locked rotor amp rating	120 A	142.5 A	150 A	174.9 A	200.1 A
THDi	< 3%				
Input AC (Grid side)					
Input voltage range	211 - 264 V				
Max. input current	200 A				
Frequency range	58.8 - 61.2 Hz				
Output AC (Back-up and Off-grid)					
Rated output power	9.6 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power	3x the rated power for 1 second & 2x the rated power for 10 seconds				
Back-up switch time	< 10 ms				
Phase power	L1/L2/N(PE), 120 V / 240 V (split phase)				
Rated output voltage (L1-L2)	240 V				
AC output voltage range	211 - 264 V				
Rated frequency	60 Hz				
Rated output current	40 A	47.5 A	50 A	58.3 A	66.7 A
Max. output over current protection, 10 sec	80 A	95 A	100 A	116.7 A	133.3 A
Max. continuous AC passthrough	200 A				
Max. allowable phase imbalance	50%				
Backup support configurations	Dedicated loads and whole-home				
Power factor	> 0.99 (0.8 leading - 0.8 lagging)				
THDv (@linear load)	< 3%				
Input Generator					
Max. input power	24 kW				
Max. input current	100 A				
Rated input frequency	60 Hz				
Efficiency					
Max. efficiency	96.02%				
CEC efficiency	95.45%				
Battery charged by PV max. efficiency	96.21%				
Battery charged / discharged to AC max. efficiency	94.16%/94.22%				
Protection					
Ground fault monitoring	Yes				
Integrated AFCI	Yes				
DC reverse-polarity protection	Yes (PV only)				
Rapid shutdown NEC 2017	Integrated SunSpec-certified Transmitter				
Compatible RSD receivers	See MLRSD compatibility Sheet				
Protection class / Over voltage category	I / II				
General Data					
Dimensions (W × H × D)	21.02 × 36.61 × 11.69 in (534 × 930 × 297 mm)				
Weight	145.06 lbs (65.8 kg)				
Inverter topology	Non-isolated (PV), Isolated (Battery)				
Operating ambient temperature range	-13°F to 140°F (-25°C to 60°C)				
Ingress protection	TYPE 4X				
Self-consumption (night)	< 35 W				
Noise emission (typical)	<65 dB(A)				
Cooling concept	Intelligent fan-cooling				
Relative humidity range	0 - 100%				
Mounting type	Wall Bracket				
Max. operation altitude	13120 ft (4000 m)				
Safety Certifications	UL 1741 PVRSS, UL 1699B, UL 1998 (US), UL 1741, UL 1741 SB, CSA C22.2107.1-1				
Grid Certifications	IEEE 1547-2018, IEEE1547.1-2020, CA Rule 21, SRD 2.0, Puerto Rico LUMA, Hawaii HECO				
Emissions	FCC Part 15 Class B				
Features					
DC connection	Terminal Block (PV port) / Terminal Block (BAT port)				
AC connection	Terminal Block				
Interface	7.0" LCD display & Bluetooth + APP				
Revenue grade meter	Optional				
Monitoring platform	SolisCloud (modbus map and API sharing available upon request)				
Communication	RS485, Optional: Cellular, Wi-Fi, LAN				



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<http://www.hieey-ne.cn>

📍 Factory Add:

Xiapu industrial area, Beilun district, Ningbo, China

Warehouse Add:

ONT1 - 5450 E. Francis Street, Ontario CA 91761

HOU2 - 645 Independence Pkwy, La Porte TX 77571

EWS1 - 28 Gateway Commerce Center Dr. W, Edwardsville IL 62025

SAV1 - 1001 Trade Center Parkway building 4A, Rincon GA 31326

DYT2 - 839 Railroad Ave, Roebling NJ 08554