

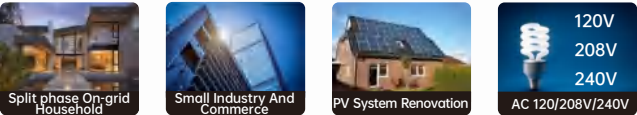
HOUSEHOLD ENERGY STORAGE SYSTEM

SPLIT-PHASE HYBRID SOLAR INVERTER

U 5kW~12kW/48V

Application Scenarios

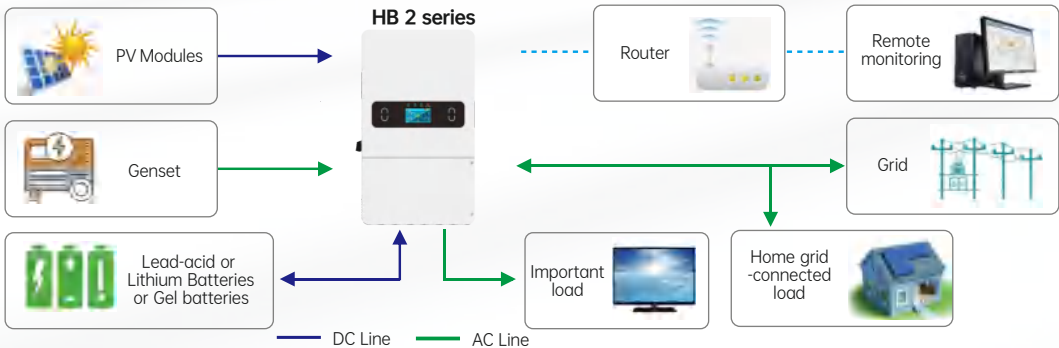
North American household or light commercial hybrid energy storage system is applicable to newly installed installed or modified photovoltaic energy storage system with AC 120V/208V/240V



Product Highlights

- It has the function of soft start when closing the battery switch, which can eliminate the starting inrush current, protecting both the machine and the battery.
- The PV power can reach up to twice the rated power, and it simultaneously supports full-power grid connection as well as charging and energy storage.
- It adopts three - stage charge - discharge conversion, which results in low current ripple and prolongs the service life of the battery.
- The Maximum Supports up to 12 parallel machines,Meet users' capacity expansion needs.
- It is equipped with a multi-functional generator interface, enabling intelligent switching and control, thus saving additional investment.
- Both the AC input port and the generator interface can be connected to the PV grid -connected inverter for renovating the original PV system.
- 4.3-inch 65K-color HD touch screen, supporting customization of languages worldwide
- Set the charging and discharging time periods according to the time-of-use electricity price.
- With an IP66 protection rating, it can be installed outdoors.

Application System Diagram



HB2050UH048 ~ HB2120UH048 Parameters

MODEL	HB2050 UH048	HB2060 UH048	HB2076 UH048	HB2080 UH048	HB2100 UH048	HB2114 UH048	HB2120 UH048
PV Input							
Max PV Input Power	10000W	12000W	15200W	16000W	20000W	22800W	24000W
Max PV Input Voltage	550Vdc						
PV Input Starting Voltage	90Vdc						
MPPT Input Voltage	370Vdc(90~550V)						
MPPT Full Load Voltage Range	170~550Vdc	210~550Vdc	175~550Vdc	185~550Vdc	175~550Vdc	200~550Vdc	210~550Vdc
PV Max Input Current	15A+15A		30A+15A		30A+30A		
PV Short-circuit Current	17A+17A		34A+17A		34A+34A		
Number of MPPT / Strings per MPPT	2/1+1		2/2+1		2/2+2		
AC Output							
Rated Output Voltage	120/240Vac (Split Phase) , 208Vac (2/3phase) , 220/230Vac (single phase)						
Grid Voltage Range	Local grid standard mode / Custom mode: 90Vac~280Vac (configurable)						
Output Frequency Range	50/60Hz(±5) , Intelligent adaptive/Settable						
Rated Output Current	20.8A/24A	25A/28.8A	31.6A/36.5A	33.3A/38.5A	41.7A/48.1A	47.5A/54.8A	50A/57.7A
Max Grid-connected Current	22.9A/26.4A	27.5A/31.7A	34.8A/40.2A	36.7A/42.3A	45.9A/53A	52.3A/60.3A	55A/63.5A
Rated Grid-connected Power	5000W	6000W	7600W	8000W	10000W	11400W	12000W
Max Grid-connected Viewing Power	5500VA	6600VA	8360VA	8800VA	11000VA	12540VA	13200VA
Max Grid-connected Active Power	5500W	6600W	8360W	8800W	11000W	12540W	13200W
DC Component	< 0.5% In						
Grid Type	Split Phase;2/3 Phase;Single Phase						
Output Power Factor(cosφ)	> 0.99 @ Rated power (Adjustable 0.8 leading~0.8 lagging)						
THDi	< 3%						
THDu	< 2%(Linear load)						
Transfer Time	10ms(Typical value)						
Off-grid Overload Capability	<110%Long-term work , 110%-125% 3min , >125% 10S						
Battery Input							
Battery Type	Lead-acid, lithium batteries, gel batteries, etc						
Charging Mode	3-section type/Equilibrium/Self-adaption BMS						
Battery Voltage	48Vdc(40~60V)						
Max Discharge Current	120A	135A	170A	170A	210A	250A	
Max Charging Current	120A(1~120Adjustable)	135A(1~135Adjustable)	170A(1~170Adjustable)	170A(1~170Adjustable)	210A(1~210Adjustable)	250A(1~250Adjustable)	
Max Charge/Discharge Power	5000W	6000W	7600W	8000W	10000W	11400W	12000W
Efficiency							
Max PV Conversion Efficiency	97.6%						
European Efficiency	97.0%						
MPPT Efficiency	> 99%						
General Parameters							
Display	Touch Screen+LED						
Communication Mode	Standard: RS485/CAN/DRM, Optional 4G/WIFI/GPRS						
Protection function	Over/Under Volt Prot. , Over/Under Freq Prot. , AC Out SC/OL Prot. , Anti-Island Prot. , Batt Chg/Dchg OC Prot. , Leakage Curr Prot. , Insul Imped Prot. , Grd Fault Prot. , PV Rev Conn Alarm						
Surge Protection	DC Type II / AC Type III						
Noise (dB)	< 45						
Cooling	Intelligent fan						
Operating Ambient Temperature	-25℃ ~ 60℃(> 45℃ Derating)						
Humidity	0~100%						
Altitude	4000m (>2000m Derating)						
Electricity Consumption At Night	15W						
Protection Degree	IP66						
Installation Method	Wall-mounted						
Dimension. W*D*H(mm)	420*233*670				420*233*670		
Weight (kg)	30				35.6		
Warranty	5 years standard/10 years optional						
Certifications							
Certification	FCC, UL						
Certifications standard	FCC 47 CFR Part 15, UL1741, TSCA, CA65						

Specifications are subject to change without advance notice.