HOUSEHOLD ENERGY STORAGE SYSTEM

THREE-PHASE HYBRID SOLAR INVERTER

Batt Low Volt 5kW~15.5kW/48V

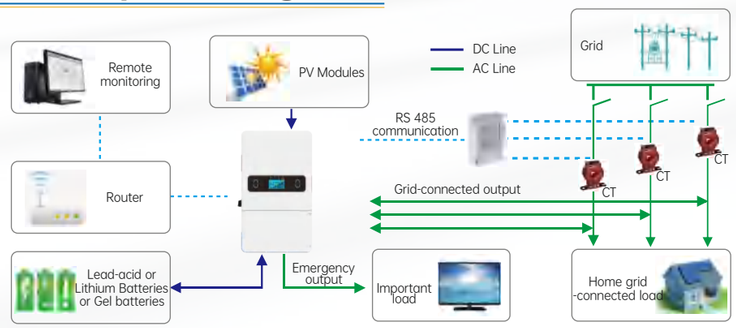
Application Scenarios

Household or light commercial three-phase hybrid energy storage system,is applicable to newly installed or modified photovoltaic energy storage system, AC 380V/400V

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 15 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



HB3050EH048~HB3155EH048 Parameters

MODEL	HB3050EH048	HB3060EH048	HB3085EH048	HB3105EH048	HB3125EH048	HB3155EH048
PV Input						
Max PV Input Power	10000W	12000W	17000W	21000W	25000W	31000W
Max PV Input Voltage	1000Vdc					
PV Input Starting Voltage	120Vdc					
MPPT Input Voltage	120~850Vdc					
MPPT Full Load Voltage Range	175~850Vdc	210~850Vdc	300~850Vdc	245~850Vdc	295~850Vdc	272~850Vdc
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	220/380Vac, 230/400Vac					
Grid Voltage Range	Local grid standard mode / Custom mode: 90Vac~280Vac (configurable)					
Output Frequency Range	50/60Hz(±5), Intelligent adaptive/Settable					
Max Output Current	8A	9.5A	13.5A	16.7A	19.9A	24.7A
Rated Grid-connected Current	7.2/7.6A	8.7/9.1A	12.9/12.3A	15.9/15.2A	18.9/18.1A	23.5/22.5A
Rated Grid-connected Power	5000W	6000W	8500W	10500W	12500W	15500W
Max Grid-connected Viewing Power	5250VA	6300VA	8925VA	11025VA	13125VA	16275VA
Max Grid-connected Active Power	5250W	6300W	8925W	11025W	13125W	16275W
DC Component	< 0.5% In					
Grid Type	Three-phase, 3L+N+PE					
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	<105%Long-term work, 105%-120% 1min , >120% 10S					
Battery Input						
Battery Type	Lead-acid, lithium batteries, gel batteries, etc					
Charging Mode	3-section Type/Equilibrium/Self-adaption BMS					
Battery Voltage range	40~60V					
Max Discharge/Charging Current	120A	145A	180A	220A	250A	280A
Rated Discharge/Charging Current	5000W	6000W	8500W	10500W	12500W	15500W
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)	< 55					
Cooling	Intelligent forced air cooling					
Operating Ambient Temperature	-25°C ~ 60°C(> 45°C Derating)					
Humidity	0~100%					
Altitude	4000m (>2000m Derating)					
Protection Degree	IP66					
Installation Method	Wall-mounted					
Dimension. W*D*H(mm)	420*233*670					
Weight (kg)	34	35	38	40	42	
Warranty	5 years standard/10 years optional					
Certifications						
Certification standard	IEC 62109-2 2011, IEC 62109-1 2010, EN/IEC 50549-10, VDE-4105, EC 60529:1989/AMD:2013, GB/T 4208-2017 EN/IEC 61000-6-3:2021, EN 61000-3-12:2011, EN/IEC 61000-3-12:2019, EN/IEC 61000-6-1:2019, RoHS					

Specifications are subject to change without advance notice.