



户用储能系统

Household Energy Storage

裂相混合储能逆变器

HB2050UH048~2080UH048系列

应用场景

北美户用混合储能系统，小型工商业储能系统，光伏系统改造提升消纳率，交流120/208/240V输出

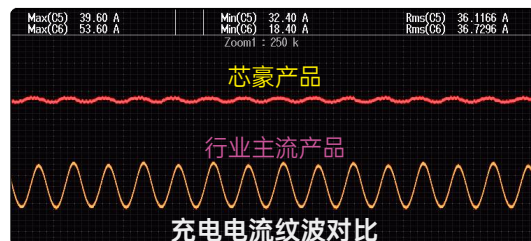
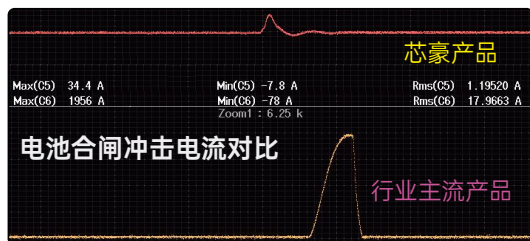


产品特性

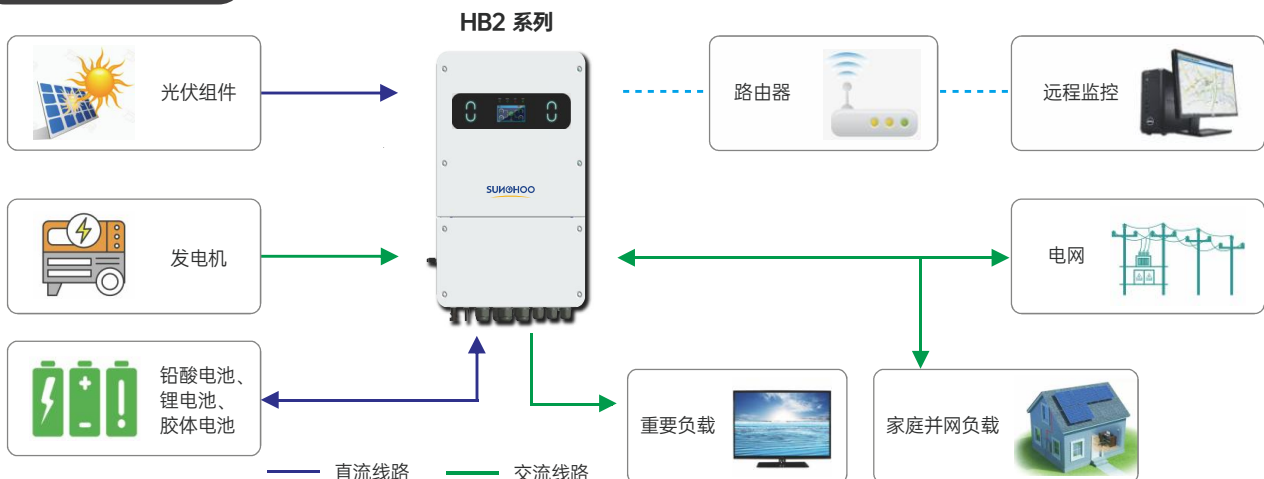
- ◎ 集成双路MPPT 控制器，MPPT 效率高达 99.9%
- ◎ 拥有并网、离网、旁路三种输出模式
- ◎ 具备 UPS 功能切换时间≤ 10ms
- ◎ 具备两种防逆流功能
- ◎ IP66 防护等级，可户外安装
- ◎ 无风扇设计，噪音小
- ◎ 多种工作模式满足不同场景用户需求：
 - 自发自用，售电优先，后备模式，分时模式，组合模式
- ◎ 具备过载、过温、短路、过欠压、过欠频等安全保护功能
- ◎ 可选 4G、WIFI 或 GPRS 远程通讯模块，24 小时负载监控
- ◎ 兼容铅酸电池、锂电池、胶体电池等，具有电池管理功能

产品亮点

- ◎ 熊猫外观搭配智能呼吸灯，新颖形象，活力亲切
- ◎ 充放电三级变换，电流纹波小，提高电池使用寿命
- ◎ 双继电器串联方案，多重安全保障
- ◎ 可定制化设计，满足客户不同需求
- ◎ 智能电网自适应，支持弱电网情况下正常发电
- ◎ 电池合闸软起功能，无启动冲击电流，保护机器和电池
- ◎ 4.3寸65K色高清触摸屏，内容丰富，人机界面友好
- ◎ 多功能油机接口，智能切换和控制，节约额外投入
- ◎ 支持15台并机，并支持单相组网裂相，满足用户的扩容需求
- ◎ 具备升维驱动功能，带载功率更大，带载种类更多



应用系统图





产品参数

型号	HB2050UH048	HB2060UH048	HB2076UH048	HB2080UH048
PV 输入				
PV 输入最大功率	6500W	7800W	9880W	10400W
PV 输入最大电压	500Vdc			
PV 输入启动电压	90Vdc			
MPPT 输入电压	370Vdc(125~500V)			
MPPT 满载电压范围	150~425Vdc			
PV 最大输入电流	13A+13A	26A+13A	26A+26A	
PV 短路电流	17A+17A	34A+17A	34A+34A	
MPPT 数量 / 每路组串数量	2/1+1	2/2+1	2/2+2	
AC 输出				
额定输出电压	120/240Vac (Split Phase) , 208Vac (2/3phase) , 220/230Vac (single phase)			
输出频率范围	50/60Hz(±5) , 智能自适应 / 可设置			
额定输出电流	20.8A/24A	25A/28.8A	31.6A/36.5A	33.3A/38.5A
最大并网电流	22.9A/26.4A	27.5A/31.7A	34.8A/40.2A	36.7A/42.3A
额定并网功率	5000W	6000W	7600W	8000W
最大并网视在功率	5500VA	6600VA	8360VA	8800VA
最大并网有功功率	5500W	6600W	8360W	8800W
直流分量	< 0.5% In			
电网类型	两相, 2L+N+PE			
输出功率因数 (cosφ)	> 0.99 @ 额定功率 (可调 0.8 超前 ~0.8 滞后)			
并网总电流谐波 (THDi)	< 3%			
离网总电压谐波 (THDu)	< 2%(线性负载)			
切换时间	10ms(典型值)			
离网过载能力	<110% 长期工作, 110%-150% 3min, >150% 10S			
电池输入				
电池类型	铅酸电池、锂电池、胶体电池等			
充电方式	3 段式 / 均衡 / 自适应 BMS			
电池电压	48Vdc(40~60V)			
最大放电电流	120A	135A	190A	190A
最大充电电流	120A(1~120 可调)	135A(1~135 可调)	190A(1~190 可调)	190A(1~190 可调)
最大充 / 放电功率	5000W	6000W	7600W	8000W
效率				
PV 最大转换效率	97.6%			
欧洲效率	97.0%			
MPPT 效率	> 99%			
常规参数				
显示方式	LCD+LED			
通讯方式	标配: RS485/CAN/DRM, 可选 4G/WIFI/GPRS/ 温度补偿模			
过电压类型	DC Type II / AC Type III			
噪声 (dB)	< 45			
冷却方式	智能强制风冷			
工作环境温度	-25°C~60°C(> 45°C降额运行)			
相对湿度	0~100%			
海拔高度	4000m (>2000m 降额运行)			
夜间自耗电	15W			
防护等级	IP66			
安装方式	壁挂式			
尺寸 W*D*H (mm)	440*280*700		440*280*700	
重量 (kg)	33		36	
质保期	5 年标配 / 10 年可选			

规格指标若有变动, 恕不另行通知。



HOUSEHOLD ENERGY STORAGE SYSTEM

SPLIT-PHASE HYBRID SOLAR INVERTER

HB2050UH048 ~ 2080UH048 SERIES



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 output.

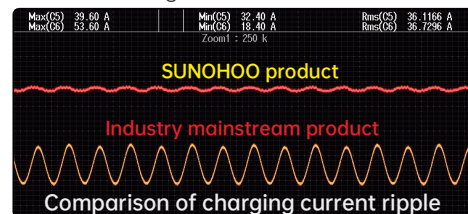
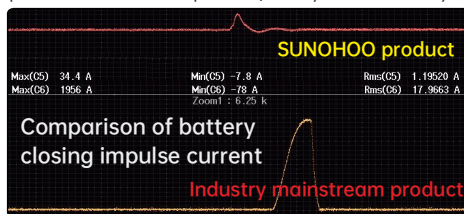


Product Features

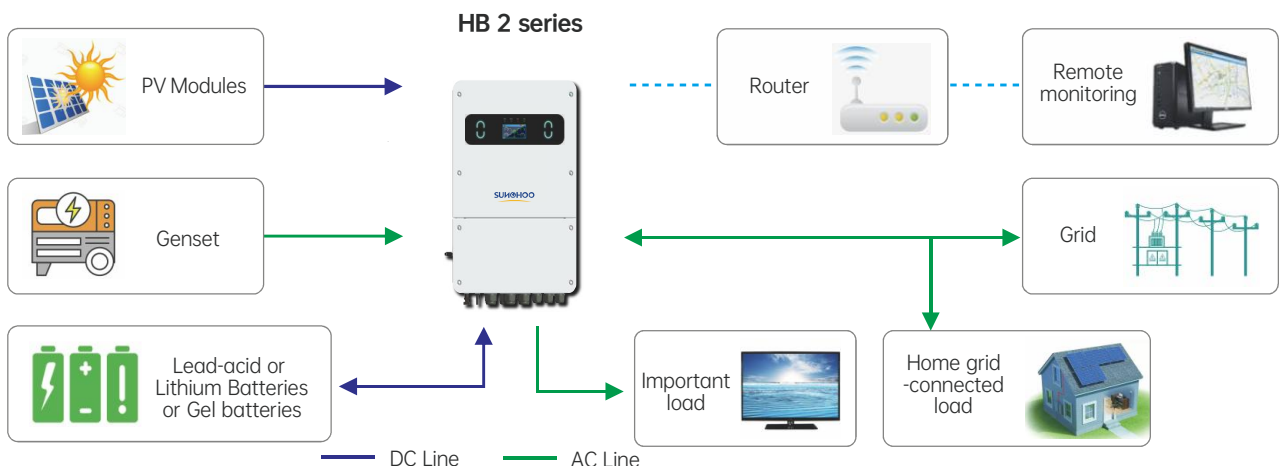
- ⊙ Integrated MPPT controller, MPPT efficiency up to 99.9%.
- ⊙ Three output modes: grid-connected, off-grid, and bypass.
- ⊙ It has the function of UPS, and the switching time ≤ 10ms.
- ⊙ Compatible with lead-acid battery, lithium battery, gel battery, etc., with battery management function.
- ⊙ It has two anti-reflux functions
- ⊙ Optional 4G, WIFI or GPRS remote communication module, 24-hour load monitoring.
- ⊙ Multiple working modes to meet the needs of users in different scenarios: Self Use, Selling First, Back-Up Mode, Force Time Use, Composite Pattern.
- ⊙ It has overload, short circuit, overvoltage and undervoltage, underfrequency, overfrequency and other safety protections.
- ⊙ With IP66 protection degree, it can be installed outdoors.
- ⊙ The design is fanless and low noise.

Product Highlight

- ⊙ Charge and discharge current three-stage conversion, low current ripple, improving battery life.
- ⊙ The grid port adopts a dual relay series scheme for multiple safety guarantees.
- ⊙ Independent multi-function generator interface, intelligent switching, saving additional investment.
- ⊙ Equipped with uphill driving function, with higher load power and more types of loads.
- ⊙ The appearance is like a panda, lively and friendly.
- ⊙ Soft start function of battery, without starting impact current, protect the machine and battery.
- ⊙ 4.3-inch 65K color high-definition touch screen, rich content, friendly human-computer interface.
- ⊙ The Maximum Supports up to 15 parallel machines, and split-phase group grid.
- ⊙ Power grid self-adaptation, supporting normal power generation under weak grid conditions.
- ⊙ Customizable design to meet different customer needs.



Application System Diagram





Product Data Sheet

MODEL	HB2050UH048	HB2060UH048	HB2076UH048	HB2080UH048
PV Input				
Max PV Input Power	6500W	7800W	9880W	10400W
Max PV Input Voltage	500Vdc			
PV Input Starting Voltage	90Vdc			
MPPT Input Voltage	370Vdc(125~500V)			
MPPT Full Load Voltage Range	150~425Vdc			
PV Max Input Current	13A+13A	26A+13A	26A+26A	
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)			
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
Max Grid-connected Current	22.9A/26.4A	27.5A/31.7A	34.8A/40.2A	36.7A/42.3A
Rated Grid-connected Power	5000W	6000W	7600W	8000W
Max Grid-connected Viewing Power	5500VA	6600VA	8360VA	8800VA
Max Grid-connected Active Power	5500W	6600W	8360W	8800W
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%-150% 3min , >150% 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	190A	190A
Max Charging Current	120A(1~120Adjustable)	135A(1~135Adjustable)	190A(1~190Adjustable)	190A(1~190Adjustable)
Max Charge/Discharge Power	5000W	6000W	7600W	8000W
Efficiency				
Max PV Conversion Efficiency	97.6%			
European Efficiency	97.0%			
MPPT Efficiency	> 99%			
General Parameters				
Display	LCD+LED			
Communication Mode	Standard: RS485/CAN/DRM, Optional 4G/WIFI/GPRS/Temperature compensation module			
Surge Protection	DC Type II / AC Type III			
Noise (dB)	< 45			
Cooling	Intelligent forced air cooling			
Operating Ambient Temperature	-25°C ~ 60°C(> 45°C 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)	440*280*700		440*280*700	
Weight (kg)	33		36	
Warranty	5 years standard/10 years optional			

Specifications are subject to change without advance notice.