



户用储能系统

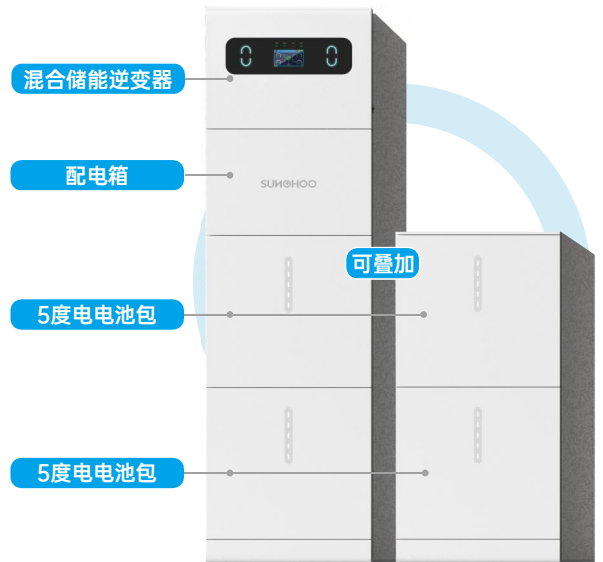
Household Energy Storage

并网一体机

HB1050EH48-5H~1050EH48-20H系列

应用场景

户用单相混合储能系统，光伏系统改造提升光伏消纳率，交流220/230V输出

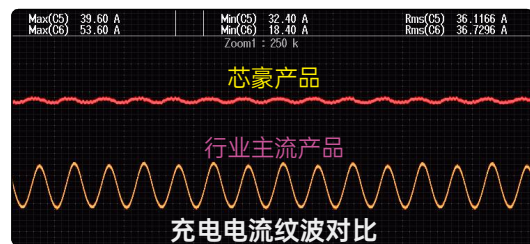
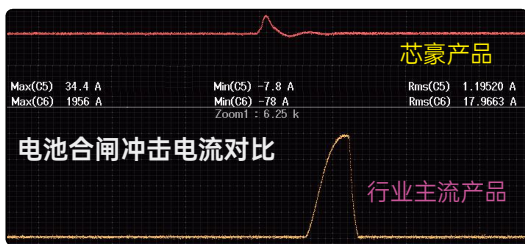


产品特性

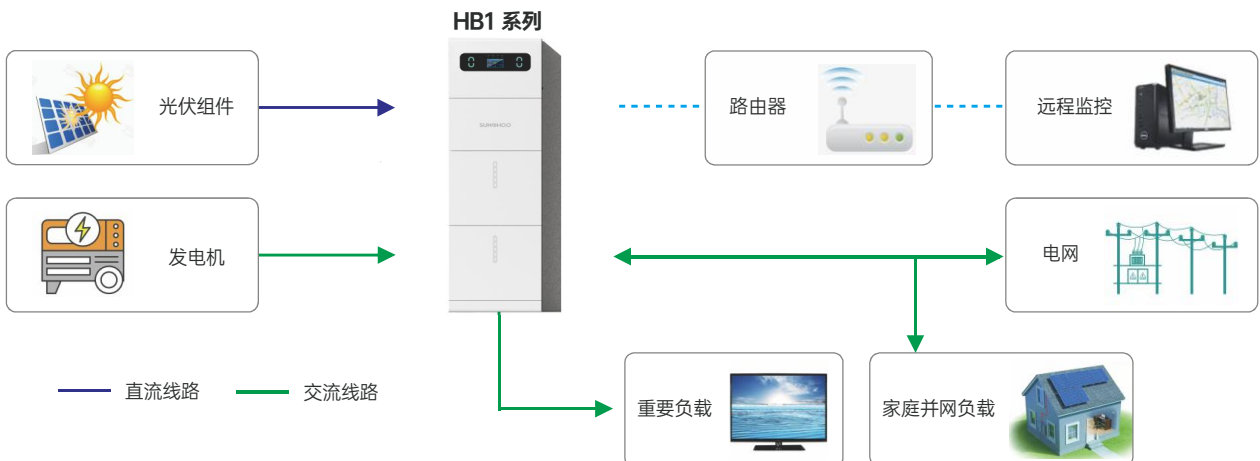
- ◎ 集成双路MPPT 控制器，MPPT 效率高达 99.9%
- ◎ 拥有并网、离网、旁路三种输出模式
- ◎ 具备 UPS 功能切换时间 $\leq 10\text{ms}$
- ◎ 具有电池管理功能
- ◎ 具备两种防逆流功能
- ◎ 无风扇设计，噪音小
- ◎ 多种工作模式满足不同场景用户需求：
自发自用，售电优先，后备模式，分时模式，组合模式
- ◎ 具备过载、过温、短路、过欠压、过欠频等安全保护功能
- ◎ 可选 4G、WIFI 或 GPRS 远程通讯模块，24 小时负载监控
- ◎ IP66 防护等级，可户外安装

产品亮点

- ◎ 模块化堆叠设计，即插即用，安装便捷
- ◎ 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
- ◎ 模块化电池组，支持电池扩容，最高可达20.48kWh
- ◎ 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
- ◎ 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	HB1050EH48-5H	HB1050EH48-10H	HB1050EH48-15H	HB1050EH48-20H
AC输出				
额定输出功率	5500VA/5000W			
额定输出电压	220/230Vac			
额定输出频率	50/60Hz(±5), 智能自适应 / 可设置			
额定输出电流	22.7A			
最大并网视在功率	5500VA			
直流分量	< 0.5%In			
电网类型	单相, L+N+PE			
输出功率因数	> 0.99,@额定功率 (可调超前0.8~滞后0.8)			
并网总谐波电流 (THDi)	< 3%			
离网总谐波电流 (THDu)	< 2% (线性负载)			
切换时间	10ms(典型值)			
离网过载能力	100%-110% 3min, 110%-125% 1min, >125% 10S			
电池				
电池类型	磷酸铁锂电池			
电池电压	51.2V (16S)			
电池容量	5.12kWh	10.24KWh	15.36KWh	20.48KWh
电池规格	100Ah	200Ah	300Ah	400Ah
最大充/放电电流	100A			
放电深度	80%			
循环寿命	5000次充放电循环后电池剩余容量 > 80%			
PV输入				
最大PV输入功率	6500W			
最大PV开路电压	550Vdc			
MPPT电压范围	120~500Vdc			
最大PV输入电流	13A+13A			
MPPT数量/每路组串数量	2/1+1			
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				
尺寸 W*D*H(mm)	540*190*1300	540*190*1800	540*190*1300	540*190*1800
重量(kg)	80	120	160	200
显示方式	触摸屏+LED			
通讯方式	RS485/ CAN /DRM, 可选 WIFI/GPRS/4G			
过电压类型	DC Type II / AC Type III			
工作环境温度	-25°C~60°C, (大于45°C降额运行)			
相对湿度	0%~100%			
操作环境	室内			

电池循环寿命为实验室25摄氏度环境下测得, 实际寿命由实际适用中电池温度决定。
规格指标若有变动, 恕不另行通知。



HOUSEHOLD ENERGY STORAGE SYSTEM

ALL-IN-ONE ENERGY STORAGE SYSTEM (ON-GRID)

Application Scenarios

Small household single-phase hybrid energy storage system, suitable for new installation or modification of photovoltaic energy storage system, AC 220V/230V output.

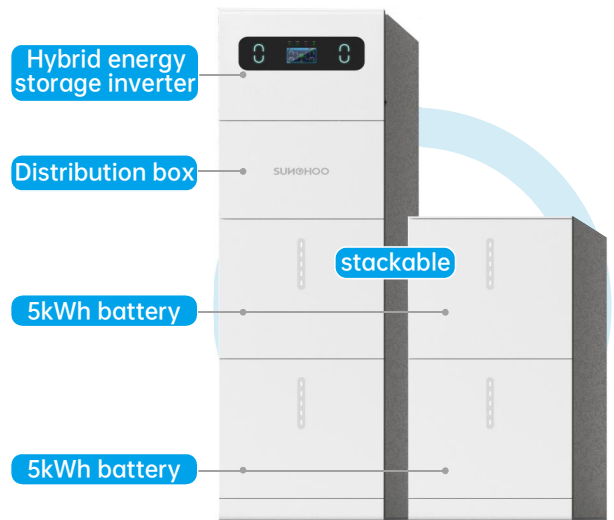


Product Features

- ⊙ 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 ≤ 10 ms.
- ⊙ With battery management function.
- ⊙ It has two anti-reflux functions
- ⊙ Optional 4G, WIFI or GPRS remote communication module, 24-hour load monitoring.

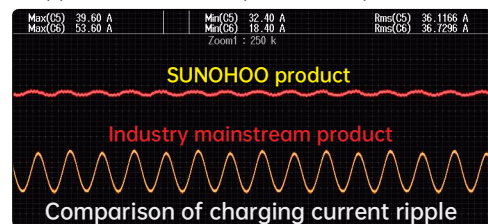
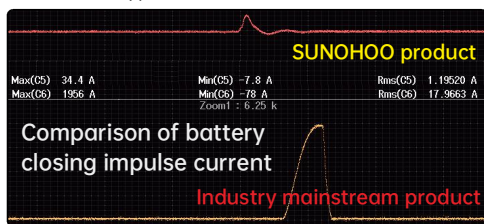
Product Highlight

- ⊙ Modular stacking design, plug and play, convenient installation.
- ⊙ 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.

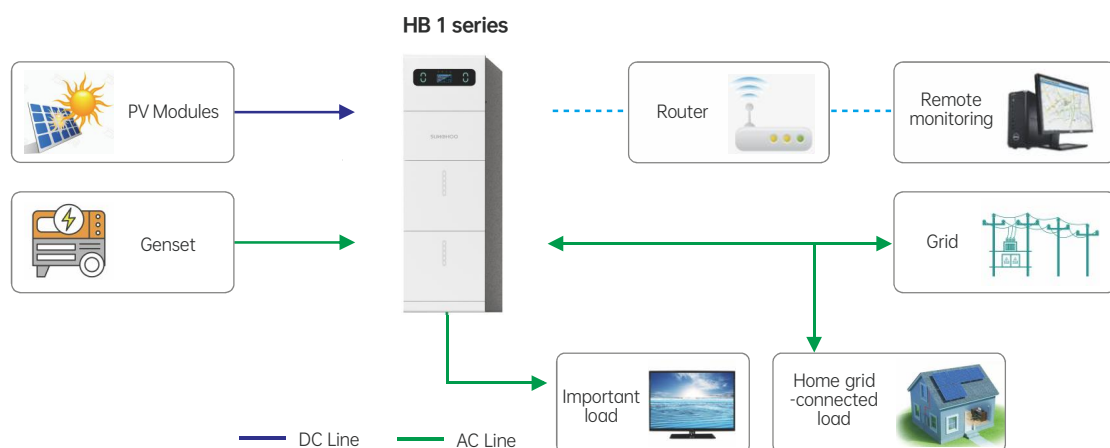


- ⊙ Multiple working modes to meet the needs of users in different scenarios: Self Use, Selling First, Back-Up Mode, Force Time Use, Composite Pattern.
- ⊙ It has overload, short circuit, overvoltage and undervoltage, underfrequency, overfrequency and other safety protections.
- ⊙ With IP66 protection degree, it can be installed outdoors.
- ⊙ The design is fanless and low noise.

- ⊙ Modular battery pack, supporting battery expansion, up to 20.48kWh.
- ⊙ 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.
- ⊙ Power grid self-adaptation, supporting normal power generation under weak grid conditions.
- ⊙ Customizable design to meet different customer needs.
- ⊙ The appearance is like a panda, lively and friendly.



Application System Diagram





HB1050EH48-5H ~ 1050EH48-20H SERIES

MODEL	HB1050EH48-5H	HB1050EH48-10H	HB1050EH48-15H	HB1050EH48-20H
Output				
Rated Output Power	5500VA/5000W			
Rated Output Voltage	220/230Vac			
Rated Output Frequency	50/60Hz(±5), Intelligent adaptive/Settable			
Rated Output Current	22.7A			
Max Grid-connected Viewing Power	5500VA			
DC Component	< 0.5% In			
Grid Type	Single-phase, L+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	100%-110% 3min , 110%-125% 1min , >125% 10S			
Battery				
Battery Type	LiFePO4			
Battery Rated Voltage	51.2V (16S)			
Battery Energy	5.12KWh	10.24KWh	15.36KWh	20.48KWh
Battery Capacity	100Ah	200Ah	300Ah	400Ah
Max Charing/Discharing Current	100A			
DOD	80%			
Designed Life-span	5000			
PV Input				
Max Input Power	6500W			
Max PV Open-circuit Voltage	550Vdc			
MPPT Input Voltage	370Vdc(125~500V)			
Max PV Input Current	13A+13A			
Number of MPPT / Strings per MPPT	2/1+1			
Efficiency				
Max PV Conversion Efficiency	97.6%			
European Efficiency	97.0%			
MPPT Efficiency	> 99%			
General Parameters				
Dimension. W*D*H(mm)	540*190*1300	540*190*1800	540*190*1300	540*190*1800
Weight (kg)	80kg	120kg	160kg	200kg
Communication Mode	RS485/CAN/DRM, Optional 4G/WIFI/GPRS			
Display	Touch Screen+LED			
Surge Protection	DC Type II / AC Type III			
Operating Ambient Temperature	-25°C ~ 60°C(> 45°C Derating)			
Humidity	0~100%			
Protection Degree	IP66			

Specifications are subject to change without advance notice.