



工商业储能系统

L & C Energy Storage

三相工商业混合储能逆变器



应用场景

小型工商业储能系统，光伏系统改造提升光伏消纳率，交流380/400V输出

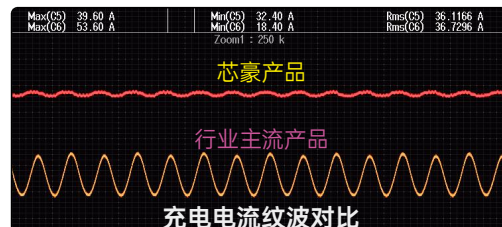
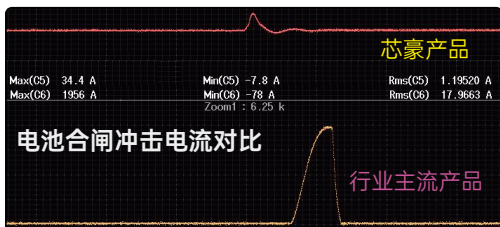


产品特性

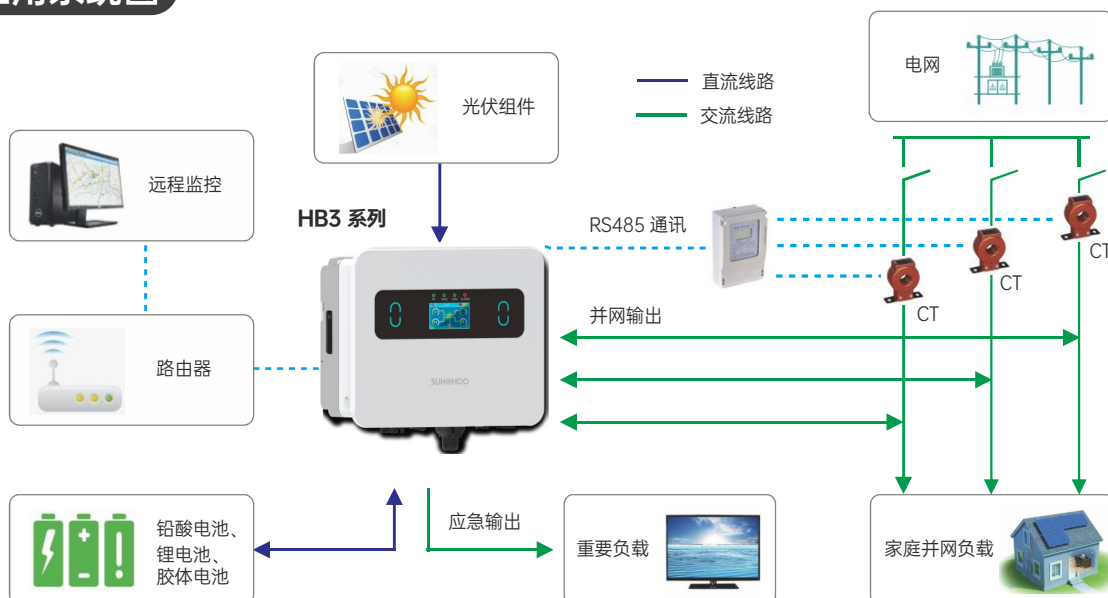
- ◎ 集成双路MPPT 控制器，MPPT 效率高达 99.9%
- ◎ 拥有并网、离网、旁路三种输出模式
- ◎ 具备 UPS 功能切换时间 $\leq 10\text{ms}$
- ◎ 支持 100% 三相不平衡输出
- ◎ 具备两种防逆流功能
- ◎ 无风扇设计，噪音小
- ◎ 多种工作模式满足不同场景用户需求：
自发自用，售电优先，后备模式，分时模式，组合模式
- ◎ 具备过载、过温、短路、过欠压、过欠频等安全保护功能
- ◎ 兼容铅酸电池、锂电池、胶体电池等，具有电池管理功能
- ◎ 可选 4G、WIFI 或 GPRS 远程通讯模块，24 小时负载监控
- ◎ IP66 防护等级，可户外安装

产品亮点

- ◎ 熊猫外观搭配智能呼吸灯，新颖形象，活力亲切
- ◎ 具有电池反接保护，安装过程安全保障
- ◎ 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，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	HB3200EH800	HB3300EH800	HB3350EH800	HB3400EH800	HB3500EH800
PV 输入					
PV 输入最大功率	28kW	42kW	52kW	56kW	65kW
PV 输入最大电压	1000Vdc				
PV 输入启动电压	180Vdc				
MPPT 输入电压	150~850Vdc				
MPPT 满载电压范围	300~850Vdc	360~850Vdc	420~850Vdc	420~850Vdc	450~850Vdc
PV 最大输入电流	40A+40A+40A			40A+40A+40A+40A	
PV 短路电流	60A+60A+60A			60A+60A+60A+60A	
MPPT 数量 / 每路组串数量	3/2+2+2			4/2+2+2+2	
AC 输出					
额定输出电压	220/380Vac, 230/400Vac				
输出频率范围	50/60Hz(±5), 智能自适应 / 可设置				
额定输出电流	30.4/29A	45.5/43.5A	53.1/50.8A	60.7/58A	75.8/72.5A
最大并网电流	43.3/31.9A	50/47.9A	58.4/55.8A	66.7/63.8A	83.4/79.8A
额定并网功率	20kW	30kW	35kW	40kW	50kW
最大并网视在功率	22kVA	33kVA	35VA	40kVA	55kVA
最大并网有功功率	20kW	30kW	35kW	40kW	50kW
直流分量	< 0.5% In				
电网类型	三相, 3L+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%-120% 1min, >120% 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	160-800V				
最大放电电流	50A+50A				
最大充电电流	50A+50A				
电池输入路数	2				
效率					
PV 最大转换效率	97.6%				
欧洲效率	97.0%				
PV 充电效率	98.5%				
电池最大充放电效率	97.5%				
常规参数					
显示方式	触摸屏+LED				
通讯方式	标配: RS485/CAN/DRM, 可选 4G/WIFI/GPRS/ 温度补偿模块				
孤岛保护	具备				
交流输出过电流保护	具备				
交流短路保护	具备				
直流反接保护	具备				
集成 AFCI (直流电弧故障保护)	可选				
过电压类型	DC Type II / AC Type III				
噪声 (dB)	< 65				
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	25W				
防护等级	IP66				
安装方式	壁挂式				
尺寸 W*D*H (mm)	527*294*897				
重量 (kg)	75				
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。



INDUSTRIAL & COMMERCIAL ENERGY STORAGE SYSTEM

THREE-PHASE INDUSTRIAL & COMMERCIAL HYBRID SOLAR INVERTER



Application Scenarios

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



Product Features

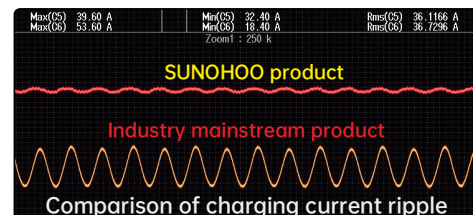
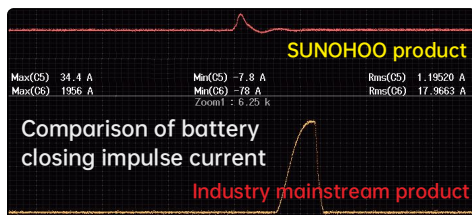
- ⊙ Integrated MPPT controller, MPPT efficiency up to 99.9%.
- ⊙ Three output modes: grid-connected, off-grid, and bypass.
- ⊙ It has the function of UPS, and the switching time ≤ 10ms.
- ⊙ Compatible with lead-acid battery, lithium battery, gel battery, etc., with battery management function.
- ⊙ Support 100% three-phase unbalanced output.
- ⊙ It has two anti-reflux functions
- ⊙ With IP66 protection degree, it can be installed outdoors.

- ⊙ 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.
- ⊙ Optional 4G, WIFI or GPRS remote communication module, 24-hour load monitoring.
- ⊙ The design is fanless and low noise.

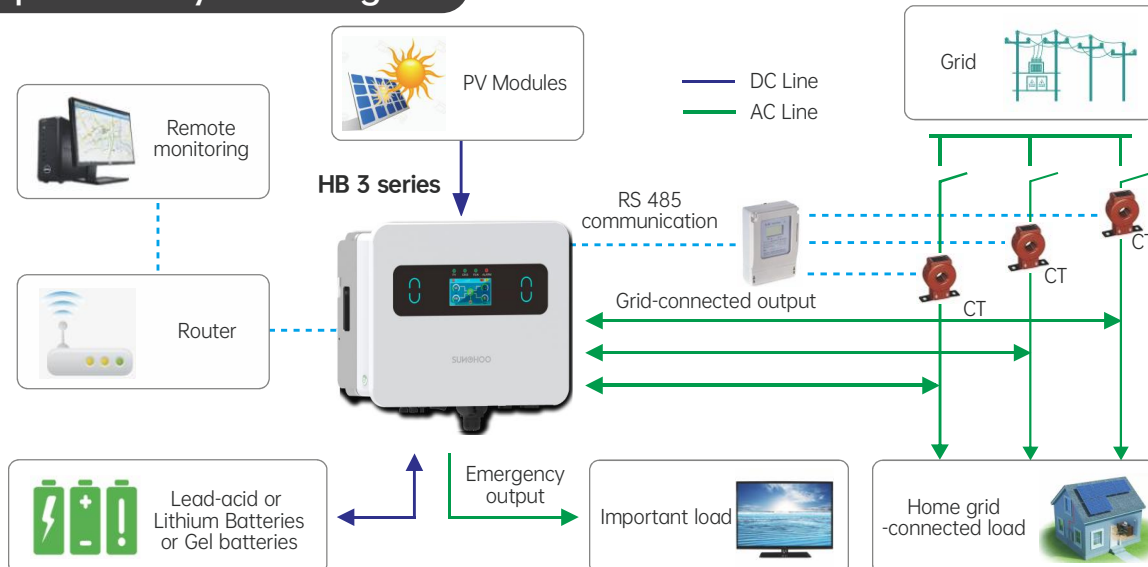
Product Highlight

- ⊙ 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
- ⊙ 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	HB3200EH800	HB3300EH800	HB3350EH800	HB3400EH800	HB3500EH800
PV Input					
Max PV Input Power	28kW	42kW	52kW	56kW	65kW
Max PV Input Voltage	1000Vdc				
PV Input Starting Voltage	180Vdc				
MPPT Input Voltage	150~850Vdc				
MPPT Full Load Voltage Range	300~850Vdc	360~850Vdc	420~850Vdc	420~850Vdc	450~850Vdc
PV Max Input Current	40A+40A+40A			40A+40A+40A+40A	
PV Short-circuit Current	60A+60A+60A			60A+60A+60A+60A	
Number of MPPT / Strings Per MPPT	3/2+2+2			4/2+2+2+2	
AC Output					
Rated Output Voltage	220/380Vac, 230/400Vac				
Output Frequency Range	50/60Hz(±5), Intelligent adaptive/Settable				
Rated Output Current	30.4/29A	45.5/43.5A	53.1/50.8A	60.7/58A	75.8/72.5A
Max Grid-connected Current	43.3/31.9A	50/47.9A	58.4/55.8A	66.7/63.8A	83.4/79.8A
Rated Grid-connected Power	20kW	30kW	35kW	40kW	50kW
Max Grid-connected Viewing Power	22kVA	33kVA	35VA	40kVA	55kVA
Max Grid-connected Active Power	20kW	30kW	35kW	40kW	50kW
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	<110%Long-term work, 110%-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	160~800V				
Max Discharge Current	50A+50A				
Max Charging Current	50A+50A				
Max Charge/Discharge Power	2				
Efficiency					
Max PV Conversion Efficiency	97.6%				
European Efficiency	97.0%				
PV Charging Efficiency	98.5%				
Max Battery Charging/discharging Efficiency	97.5%				
General Parameters					
Display	Touch Screen+LED				
Communication Mode	Standard: RS485/CAN/DRM, Optional 4G/WIFI/GPRS/Temperature compensation module				
Island Protection	Yes				
AC Output Overcurrent Protection	Yes				
AC Short Circuit Protection	Yes				
DC Reverse Connection Protection	Yes				
Integrated AFCI (DC arc fault protection)	Optional				
Surge Protection	DC Type II / AC Type III				
Noise (dB)	< 65				
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	25W				
Protection Degree	IP66				
Installation Method	Wall-mounted				
Dimension. W*D*H(mm)	527*294*987				
Weight (kg)	75				
Warranty	5 years standard/10 years optional				

Specifications are subject to change without advance notice.