

HB SERIES THREE-PHASE HYBRID INVERTER

HB3085EH600 ~ HB3200EH600

8.5kW~20kW / BAT125~600V / IP66

220/380Vac , 230/400Vac



Reliable performance

- Both the battery side and the load side have super strong load capacity, smooth voltage and current waveforms, and can drive inductive loads such as air conditioning, supporting unlimited load
- Independent intelligent load/generator interface, compatible with existing PV system access, can operate without batteries (PV+grid combined power supply).
- Even without a battery, it can be bypassed for output, and important loads will not be powered off; Dynamically adapt to high-power demands.

Super Protection

- AICOT islanding protection, IP66 protection, PV reverse connection alarm, external CT reverse connection alarm and open circuit detection, three-phase independent anti backflow, three-phase phase sequence detection, and zero ground detection.

Economic benefits

- 2 MPPT channel, PV input can exceed twice times the rated power, supporting simultaneous full power charging and load, maximizing economic benefits.

- Supports grid connected, off grid, and grid connected switching modes, with adaptive frequency and the ability to set charging and discharging strategies based on time of use electricity prices to achieve economical energy use.

Friendly Design

- High definition touch screen supports multiple languages; Charge discharge three-level transformation technology; Customized AC output voltage standard; Battery closing soft start and battery activation function.

Parameters

MODEL	HB3085EH600	HB3105EH600	HB3125EH600	HB3155EH600	HB3200EH600
PV Input					
Max PV Input Power	17000W	21000W	25000W	31000W	40000W
Max PV Input Voltage	1000Vdc				
PV Input Starting Voltage	120Vdc				
MPPT Input Voltage	120~850Vdc				
MPPT Full Load Voltage Range	320~850Vdc	400~850Vdc	320~850Vdc	400~850Vdc	400~850Vdc
PV Max Input Current	15A+15A		30A+15A	30A+30A	30A+30A
PV Short-circuit Current	17A+17A		34A+17A	34A+34A	34A+34A
Number of MPPT / Strings per MPPT	2/1+1		2/2+1	2/2+2	2/2+2
AC Output					
Rated Output Voltage	220/380Vac, 230/400Vac				
Grid Voltage Range	Local grid standard mode / Custom mode: 220Vac~400Vac (configurable)				
Output Frequency Range	50/60Hz(±5), Intelligent adaptive/Settable				
Rated Output Current	12.3A	15.2A	18.2A	22.4A	28.9A
Max Grid-connected Current	14.2A	17.5A	20.8A	25.8A	31.8A
Rated Grid-connected Power	8500W	10500W	12500W	15500W	20000W
Max Grid-connected Viewing Power	9350VA	11550VA	13750VA	17050VA	21000VA
Max Grid-connected Active Power	9350W	11550W	13750W	17050W	21000W
DC Component	< 0.5% In (Rated current)				
Grid Type	Three-phase, 3L+N+PE / 3L+PE (Adjustable)				
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 Input					
Battery Type	Lead-acid, lithium batteries, gel batteries, etc				
Charging Mode	3-section Type/Equilibrium/Self-adaption BMS				
Battery Voltage	125~600V				
Max Discharge/Charging Current	50A				
Rated Discharge/Charging Current	40A				
Efficiency					
Max PV Conversion Efficiency	97.6%		98.2%		
European Efficiency	97.0%		97.5%		
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)	< 30				< 65
Cooling	Natural cooling				Intelligent forced air cooling
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)	590*200*488				
Weight (kg)	33				
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.