



HB SERIESSINGLE-PHASE HYBRID INVERTER

HB1100EH048~HB1120EH048

10kW~12kW / BAT48V /230Vac/IP66



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 level, anti backflow (internal/external), PV reverse alarm, External CT reverse connection alarm and open circuit detection functions.

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; Charging and discharging three-level transformation technology, battery closing soft start and battery activation functions, extend battery life.

1 Parameters

MODEL	HBT100EH048	HB1114EH048	HB1120EH048
PV Input			
Max PV Input Power	J 20000W	22800W	24000W
Max PV Input Voltage	J	550Vc	
PV Input Starting Witage	J	90Wc	
MPPT Input Witage	J	370Wc(90~550V)	
MPPT Full Load Witage Range J		150~425Wc	
PV Max Input Current	J	30A+30A	
PV Short-circuit Current		34A+34A	
Number of MPPT / Strings per MPPTJ		2/2+2	
AC Output			
Rated Output Witage	220/230Wc (single phase)		
Grid Voltage Range	Local grid standard mode / Custom mode: 90Vac~280Vac (configurable)		
Output Frequency Range	50/60Hz(±5), Intelligent adaptive/Settable		
Rated grid-connected current	43.5A/45.5A	49.5A/51.8A	52.1A/54.5A
Max off-grid current	45.6A/47.7A	52A/54.4A	54.7A/57.3A
Rated Grid-connected Active Power	10000W	11400W	12000W
Rated Grid-connected Apparent Power	10000VA	11400VA	12000VA
Max Off-grid Power	10500W	11970W	12600W
DC Component	< 0.5% In (Rated current)		
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 Input			
Battery Type	Lead-acid, lithium batteries, gel batteries, etc		
Charging Mode	3-section type/Equilibrium/Self-adaption BMS		
Battery Witage	48Wc(40~60V)		
Max Discharge Current	210A	250A	
Max Charging Current	210A(1~210Adjustable)	250A(1~250Adjustable)	
Max Charge/Discharge Power	10000W	11400W	12000W
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 Prob Insul Imped Prot, Grd Fault Prot, PV Rev Conn Alarm		
Surge Protection	DC Type II / AC Type III		
Noise (dB)	<45		
Cooling	Intelligent fan		
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)	474*246*835		
Weight (kg)	35.6		
Warranty	5 years standard/10 years optional		
Certifications			
Certification standard	IEC 62109-2 2011, IEC 62109-1 2010, EN/IEC 50549-10,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.