

HB SERIES SINGLE-PHASE HYBRID INVERTER

HB1030EH048 ~ HB1080EH048

3kW~8kW / 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.

Parameters

MODEL	HB1030 EH048	HB1036 EH048	HB1040 EH048	HB1046 EH048	HB1050 EH048	HB1055 EH048	HB1060 EH048	HB1080 EH048	
PV Input									
Max PV Input Power	6000W	7200W	8000W	9200W	10000W	11000W	12000W	16000W	
Max PV Input Voltage	550Vdc								
PV Input Startup voltage	90Vdc								
MPPT Input Voltage	370Vdc(90~550V)								
MPPT Full Load Voltage Range	210~550Vdc	250~550Vdc	140~550Vdc	160~550Vdc	175~550Vdc	195~550Vdc	210~550Vdc	280~550Vdc	
PV Max Input Current	15A		15A+15A						
PV Short-circuit Current	20A		20A+20A						
Number of MPPT / Strings per MPPT	1/1		2/1+1						
AC Output									
Rated Output Voltage/Frequency	220Vac/230Vac/240Vac, 50Hz/60Hz								
Grid Voltage Range	Local grid standard mode / Custom mode: 90Vac~280Vac (configurable)								
Rated Output Frequency	45Hz~55Hz,55Hz~65Hz, Intelligent adaptive								
Rated grid-connected current	13A	15.6A	17.4A	20A	21.7A	23.9A	26A	34.8A	
Max off-grid current	13.7A	16.4A	18.3A	21A	22.8A	25A	27.4A	38.2A	
Rated Grid-connected Active Power	3000W	3600W	4000W	4600W	5000W	5500W	6000W	8000W	
Rated Grid-connected Apparent Power	3000VA	3600VA	4000VA	4600VA	5000VA	5500VA	6000VA	8000VA	
Max Off-grid Power	3150W	3780W	4200W	4830W	5250W	5775W	6300W	8400W	
DC Component	< 0.5% In (Rated current)								
Grid Type	Single-phase, L+N+PE								
Output Power Factor	1 (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								
Battery Voltage	48Vdc(40V~60V)								
Max Discharge Current	70A	90A	100A	115A	120A	120A	120A	150A	
Max Charging Current	70A	90A	100A	100A	100A	100A	100A	150A	
Max Discharge Power	3000W	3600W	4000W	4600W	5000W	5500W	6000W	8000W	
Max Charging Power	3000W	3600W	4000W	4600W	5000W	5500W	6000W	8000W	
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 Prot., Insul Imped Prot., Grd Fault Prot., PV Rev Conn Alarm								
Surge Protection	DC Type II / AC Type III								
Noise (dB)	< 30							< 58	
Cooling	Natural convection							Intelligent fan	
Operating Ambient Temperature	-25℃ ~ 60℃(> 45℃ Derating)								
Humidity	0~100%								
Altitude	3000m (>2000m Derating)								
Electricity Consumption At Night	15W								
Protection Degree	IP66								
Installation Method	Wall-mounted								
Dimension. W*D*H(mm)	505*188*413								
Gross Weight (kg)	20				24.5				25
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.