

# HB L1 SERIES | SINGLE PHASE HYBRID INVERTER

## PV 4.6/5/6KHB-120

Energy Storage Inverter



200% PV  
overload



Fanless design,  
long lifespan



Export control  
(zero export)



< 10 ms UPS-  
level switching



Up to 120A  
max. charging/  
discharging current



100% load  
backup



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Model	PV 4K6HB-120	PV 5KHB-120	PV 6KHB-120
<b>Efficiency</b>			
Max. Efficiency (PV to AC)		97.3%	
Max. Efficiency (BAT to AC)		94.3%	
<b>PV String Input Data</b>			
Max. Input Power		9,000W	
Max. PV Configuration (STC)		200%	
Max. Input Voltage		550V	
Start-up Voltage		90V	
MPPT Operating Voltage Range		70V-540V	
Max. Input Current per MPPT		15A/15A	
Max. Short Circuit Current per MPPT		20A/20A	
Number of MPP Trackers		2	
Number of String per MPPT		1/1	
<b>Battery Input/output Data</b>			
Battery Type		Lithium-ion, Lead-acid	
Nominal Battery Voltage		48V	
Battery Voltage Range		40V-65V	
Max. Continuous charging/Discharging Current		120A/120A	
Max. Charging/Discharging Power		6,000W/6,000W	
<b>AC Output Data (On-grid)</b>			
Nominal AC Output Power	4,600W	5,000W	6,000W
Rated Output Apparent Power	4,600VA	5,000VA	6,000VA
Max. AC Apparent Power	4,600VA	5,500VA	6,000VA
Max.AC Output Power (PF=1)	4,600W	5,500W	6,000W
Max. AC Output Current	22A	25A	27.2A
Nominal Output Voltage	220V/230V/240V, L+N+PE		
Output Voltage Range	150V-300V (Adjustable)		
Nominal AC Grid Frequency	50Hz/60Hz		
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)		
Power Factor	> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)		
Max. Total Harmonic Distortion	<3% (Rated Power)		
<b>AC Output Data (Back up)</b>			
Nominal Output Power	4,600W	5,000W	6,000W
Nominal Output Current	20A	21.7A	26A
Peak Output Apparent Power (>1s)	6,900VA	7,500VA	9,000VA
Nominal Output Voltage	220V/230V/240V, L+N+PE		
Nominal Output Frequency	50Hz/60Hz		
Transfer Time	<10ms		
Output THDV	<3% @100% R Load		
<b>Protection</b>			
Protection Category	Class I		
DC Switch	Yes		
Anti-Islanding Protection	Yes		
AC Over Current Protection	Yes		
AC Over Voltage Protection	Yes		
AC Short Circuit Protection	Yes		
DC Reverse Protection	Yes		
Surge Protection	DC Type III, AC Type III		
PV Insulation Resistance Detection	Yes		
Leakage Current Protection	Yes		
GEN	Optional		
<b>General Data</b>			
Max. Operating Altitude	4000m (>2000m derating)		
Ingress Protection Rating	IP65		
Operating Temperature Range	-25°C~60°C (>45°C derating)		
Relative Humidity	0~100%		
Cooling Method	Natural Cooling		
Mounting Method	Wall bracket		
Advanced Parallel	Up to 9 Pcs		
Dimension (W*H*D)	570mm*495mm*175mm		
Weight	25Kg		
PV Connection	MC4/H4		
Battery Connection	Dedicated DC connector		
AC Connection	Dedicated AC connector		
<b>HMI &amp; COM</b>			
Display	LED+APP		
Communication Interface	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN		
<b>Certification</b>			
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G99/G100, CEI 0-21, NRS 097-2-1, RD 1699/661/413		
Safety	IEC 62109-1&2, IEC 62477-1		
Warranty	10 Years		
Country of Manufacture	China		

- Remarks:**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced notice.