

# SINGLE PHASE HYBRID INVERTER

## SE 3.6KHB-60, SE 4.6/5/6KHB-120

Energy Storage Inverter



### EXCELLENT PERFORMANCE

- Maximum efficiency of 97.3% and battery efficiency of 94.3%
- Maximum 9kW PV input power
- Maximum battery charge/discharge current of 120A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international renowned brands
- IP65 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections, with optional Type II SPD



### INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings
- Optional generator and smart load functions



www.senergytec.com

Shenzhen Senergy Technology Co., Ltd.

Tel: +86-755-8524-5541 ext. 2800

Email: salesglobal@senergytec.com

Address: 11th floor, Building 6, Skyworth Innovation Valley, No. 8 Tangtou No. 1 Road, Bao'an District, Shenzhen, P.R.China

Model	SE 3K6HB-60	SE 4K6HB-120	SE 5KHB-120	SE 6KHB-120
<b>Efficiency</b>				
Max. Efficiency (PV to AC)			97.3%	
Eur. Efficiency (PV to AC)			96.8%	
Max. Efficiency (BAT to AC)			94.3%	
<b>Input (PV)</b>				
Max. PV Configuration			200%	
Max. PV Input Power	6,300W			9,000W
Max. PV 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	
String per MPPT			2 (1/1)	
Nos. of MPPT			2	
<b>Input/Output (BAT)</b>				
Battery Type			Lithium-ion/Lead-acid	
Nominal Battery Voltage			48V	
Battery Voltage Range			40V-65V	
Max. Charge/Discharge Current	60A/60A	120A/120A	120A/120A	120A/120A
Max. Charge/Discharge Power	3,000W/3,000W	6,000W/6,000W	6,000W/6,000W	6,000W/6,000W
<b>Output (Grid)</b>				
Nominal AC Output Power	3,600W	4,600W	5,000W	6,000W
Max. AC Output Apparent Power	3,960VA	4,600VA	5,500VA	6,000VA
Max.AC Output Power (PF=1)	39,60W	4,600W	5,500W	6,000W
Max. AC Output Current	18A	22A	25A	27.2A
Nominal Grid Voltage			Single Phase 220V/230V/240V, L+N+PE	
Grid Voltage Range			150V-300V (Adjustable)	
Nominal 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)	
THDI			<3% (Rated Power)	
<b>Output (Back up)</b>				
Nominal Output Power	3,000W	4,600W	5,000W	6,000W
Nominal Output Current	13.1A	20A	21.7A	26.1A
Peak Output Apparent Power (>1s)	4,500VA	6,900VA	7,500VA	9,000VA
Nominal Output Voltage			Single Phase 220V/230V/240V, L+N+PE	
Nominal Output Frequency			50Hz/60Hz	
Transfer Time			<10ms	
THDV			<3% @100% R Load	
<b>Protection</b>				
Protection Category			Class I	
DC Switch			Yes	
Anti-islanding Protection			Yes	
AC Overcurrent Protection			Yes	
DC/AC Overvoltage Protection			DC Type II, AC Type III	
AC Short Circuit Protection			Yes	
DC Reverse Protection			Yes	
Surge Arrester			DC Type III, AC Type III (optional Type II)	
Insulation Resistance Detection			Yes	
Leakage Current Protection			Yes	
Generator			Optional	
<b>General</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			Wall bracket	
Dimensions (W*H*D)			570mm*495mm*175mm	
Weight	20Kg			25Kg
PV Connection Way			MC4/H4	
Battery Connection Way			Dedicated DC connector	
AC Connection Way (Grid & Back up)			Dedicated AC connector	
<b>HMI &amp; COM</b>				
Display			Bluetooth & APP + LED, LCD (optional)	
Communication Interface			RS485/CAN (for BMS), RS485, USB, Ethernet, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN	
<b>Certification</b>				
Safety			IEC 62109-1&2, IEC62040-1, IEC 62477-1	
Grid			VDE 4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G98/G99/G100, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002	
Warranty			5 Years	

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