



**SPECIALISED
BATTERY SYSTEMS**

A MEMBER OF THE **Hudaco** GROUP

SBS-ESS BACK-UP SOLUTION

SBS 3.6KH-60, SBS 4.6/5/6KHB-120



HIGH YIELD

- Maximum efficiency of 97.3% & battery efficiency of 94.3%
- Maximum charge/discharge current of 120A
- Reasonable energy control to increase spontaneous usage proportion



HIGH RELIABILITY

- BMS system to ensure longer battery life
- Natural cooling design



INTELLEGENENT MAINTAINANCE

- Compatible with both lead-acid and lithium battery energy storage systems
- Remote configuration and upgrade

Model	SBS 3K6HB-60	SBS 4K6HB-120	SBS 5K6HB-120	SBS 6K6HB-120
Efficiency				
Max. Efficiency (PV to AC)	97.3%			
Max. Efficiency (BAT to AC)	94.3%			
Input (PV)				
Max. PV Power	6300W	9000W		
Max. PV Voltage	550V			
Max. Input Current (input A/input B)	15A/15A			
Max. Output Current (input A/input B)	20A/20A			
Start Operating Voltage	90V			
MPPTVoltage Range	70V-540V			
No. of MPPT Trackers	2			
String Per MPP Tracker	1			
Input (BAT)				
Compatible 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	3000W/3000W	6000W/6000W	6000W/6000W	6000W/6000W
Lithium Battery Charge Curve	Self-adaptation to BMS			
Output (Grid)				
Nominal AC Output Power	3600W	4600W	5000W	3600W
Max. AC Output Apparent Power	3600VA	4600VA	5500VA	3600VA
Max. AC Output Power (PF=1)	3600W	4600W	5500W	3600W
Max. AC Output Current	16A	22A	25A	16A
Rated AC Voltage	230V,L+N+PE			
AC Voltage Range	150V-300V(Adjustable)			
Rated Grid Frequency	50Hz/60Hz			
AC Frequency Range	45Hz-55Hz/55Hz-65Hz(Adjustable)			
Grid Connection	Single Phase			
Power Factor	>0.99 @rated power (Adjustable 0.8LD - 0.8LG)			
THDI	<3% (Rated Power)			
Output (Back up)				
Nominal Output Power	3000W	4600W	5000W	6000W
Nominal Output Current	13A	20A	21.7A	26A
Maximum Power (Is)	6000VA	9200VA	10000VA	12000VA
Nominal Output Voltage	230V,L+N+PE			
Nominal Output Frequency	50Hz/60Hz			
Transfer Time	10ms (typ)/20ms(max)			
THDV	<3% @100& R Load			
Protection				
Protection Category	Class I			
DC Switch	Support			
Anti-Islanding Protection	Support			
AC Overcurrent Protection	Support			
AC Short Circuit Protection	Support			
DC Reverse Connection	Support			
Surge Arrester	DC Type III, AC Type III			
Insulation Detection	Support			
Leakage Current Protection	Support			
PV Overvoltage Category	II			
AC Overvoltage Category	III			
Gen	Optional			
General				
Max. Operation Altitude	4000m			
Noise Emission	<35dB			
Ingress Protection Degree	IP65			
Operating Temperature Range	-25°C~60°C			
Relative Humidity	0~100%			
Cooling Concept	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	515mm*485mm*175mm			
Weight	20kg	25kg		
PV Connection Way	MC4/H4			
Battery Connection Way	Dedicated DC Connector			
AC Connection Way (grid & back up)	Dedicated AC Connector			
HMI & COM				
Display	LED+APP			
Communication Interface	RS485/CAN(for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WiFi/GPRS/LAN			
Certification				
Grid	VDE-AR-N4105,IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G99, CEI 0-21, NRS 097-2-1, RD 1699/661/413			
Safety	IEC62109-1&2, IEC62477-1			
Warranty	5 YEARS/10 YEARS (OPTIONAL)			

Remarks:

- The range of output voltage & frequency may vary of different grid codes
- Specifications are subject to change without advanced noticed