

Hybrid Inverter

SHS6K-US / SHS7.5K-US / SHS12K-US

SH-HI-US Series split-phase hybrid inverters (6/7.5/12kW) are built for residential solar-storage systems. Featuring 3 MPPT trackers, 98% peak efficiency and up to 210A charge / discharge current, they deliver outstanding performance. With IP65 rating, built-in protection and optional AFCI. they work reliably indoors and outdoors. Supporting up to 9 units parallel, multiple battery types and smart monitoring, they offer a flexible, worry-free home energy solution.



3 MPPTs for multi-angle arrays, 210A battery & 30A PV input



IP65 indoor / outdoor, built-in DC /AC breakers opt. AFCI & RSD



Works battery-free; PV & grid jointly power loads.



Smart mgmt.local/ remote monitoring, 3 modes & battery scheduling



40-60 V batts, 9 parallel on / off-grid, smart load, gen / AC coupling



Hybrid grid inverter, withstand instantaneous surge loads

Efficiency	SHS6K-US	SHS7.5K-US	SHS12K-US
Max. Efficiency (PV to AC)	98.0%		
Input (PV)			
Max. PV Usable Power	9,000W	12,000W	15,000W
Max. PV Voltage		600V	
Start-up Voltage		90V	
MPPT Operating Voltage Range		70V-540V	
Max. Input Current Per MPPT	30A / 22A	30A / 22A /22A	30A / 22A /22A
Max Short Curent Per MPPT	40A / 30A	40A / 30A / 30A	40A / 30A / 30A
String Per MPPT	2 / 2	2 / 2 / 2	2 / 2 / 2
Nos ofMPPT	2	3	3
Input / Output (BAT)			
Battery Type	Lithium-ion/Lead-acid		
Nominal Battery Voltage	48V		
Battery Voltage Range	40V-60V		
Max. Charge / Discharge Current	210A / 130A	210A / 180A	210A / 210A
Max. Charge / Discharge Power	10,000W / 6,000W	10,000W / 7,500W	10,000W / 10,000W
Output (Grid)			
Nominal AC Output Power	6,000W	7,500W	12,000W
Max. AC Output Apparent Power	6,600VA	7,500VA	12,000VA
Max. AC Output Power (PF=1)	6,600W	7,500W	12,000W
Nominal AC Output Current	25A	31.3A	50.0A
Max. AC Output Current	27.5A	31.3A	50.0A
Nominal Grid Voltage	120V/240V (Split phase), 120V/208V, 127V/220V (2/3 phase)		
Nominal Grid Frequency	50Hz/60Hz		
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)		
Power Factor	> 0.99 @rated power (Adjustable 0.8 LG - 0.8 LD)		
THDI	<3% (Rated Power)		
Output (Back Up)			
Nominal Output Power	6,000W	7,500W	12,000W
Max. AC Output Power (PF=1)	6,600W	7,500W	12,000W
Nominal Output Current	25.0A	31.3A	50.0A
Peak Output Apparent Power (1s)	12,000VA	15,000VA	20,000VA
Nominal Output Voltage	120V/240V (Split phase), 120V/208V, 127V/220V (2/3 phase)		
Nominal Output Frequency	50Hz/60Hz		
Transfer Time	<10ms		
THDV	<3% @100% R Load		
Protection			
Protection Category	Class I		
DC Switch	Yes		
Anti-islanding Protection	Yes		
AC Overcurrent Protection	Yes		
DC/AC Overvoltage Protection	DC Type II,AC Type IV		
AC Short Circuit Protection	Yes		
DC Reverse Connection	Yes		
Surge Arrester	DC Type II,AC Type IV		
Insulation Resistance Detection	Yes		
Leakage Current Protection	Yes		
AFCI2.0 / RSD Monitoring	Optional		
General			
Max. Operation Altitude	4,000m(>2,000m derating)		
Ingress Protection Degree	NEMA 3R/IP65		
Operating Temperature Range	-25°C-60°C(>45°C derating)		
Relative Humidity	0~100%		
Cooling Method	Smart Cooling		
Mounting	Wall bracket		
Dimensions (W*H*D)	16.5*31.1*10.0 inch (420mm*790mm*255mm)		
Weight	44kg/971b		
HMI & COM			
Display	4.3 inch Touch LCD		
Communication Interface	CAN (for BMS), RS485 (for meter), RS485, CAN (for parallel), Optional: WiFi/LAN		
Warranty	5 Years/10 Years (optional)		

Remarks: ·The range of output voltage and frequency may vary depending on different grid codes.

·Specifications are subject to change without advanced notice.

