

Split Phase Hybrid Inverter

SUN-5/6/8K-SG05LP2-US-SM2

SUN-10/12K-SG05LP2-US-SM3



Intuitive

- Colorful touch LCD, IP65 protection degree



Intelligent

- 6 time periods for battery charging/discharging



Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



Reliable

- Max. charging/discharging current of 220A
- 4ms on/off-grid switching
- Support storing energy from diesel generator

Model	SUN-5K-SG05 LP2-US-SM2	SUN-6K-SG05 LP2-US-SM2	SUN-8K-SG05 LP2-US-SM2	SUN-10K-SG05 LP2-US-SM3	SUN-12K-SG05 LP2-US-SM3
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging/Discharging Current (A)	120	135	190	220	220
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	2				
PV String Input Data					
Max. PV Input Power (W)	8000	9600	12800	16000	19200
Max. PV Input Voltage (V)	500				
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Rated PV Input Voltage (V)	370				
Max. Operating PV Input Current (A)	18+18		32+32	32+32+32	
Max. Input Short-Circuit Current (A)	27+27		60+60	60+60+60	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1		2/2+2	3/2+2+2	
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	5000	6000	8000	10000	12000
Rated AC Input/Output Current (A)	20.9	25	33.4	41.7	50
Max. AC Input/Output Current (A)	20.9	25	33.4	41.7	50
Max. Continuous AC Passthrough (grid to load) (A)	100				
Peak Power (off-grid) (W)	2 times of rated power, 10s				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Rated input/output voltage	120/240, 120/208 0.88Un<U<1.1Un 2L+N+PE				
Rated Input/Output Grid Frequency/Range(Hz)	60/55-65				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5% In				
Efficiency					
Max. Efficiency	97.6%				
Euro Efficiency	96.5%				
MPPT Efficiency	>99%				
Equipment Protection					
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Interface					
LCD/LED Display	LCD				
Communication Interface	RS485/RS232/CAN				
General Data					
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	3000m				
Noise (dB)	<45				
Ingress Protection(IP) Rating	TYPE 3R				
Inverter Topology	Non-Isolated (solar), Isolated (battery)				
Over Voltage Category	OVC II(DC), OVC IV(AC)				
Cabinet Size (WxHxD mm)	386×606.5×240 (Excluding Connectors and Brackets)				
Weight (kg)	29.2				
Type of Cooling	Intelligent Air Cooling				
Warranty	5 Years / Up to 10 Years* *Warranty period varies by installation country. Refer to the Warranty Policy for details.				
Grid Regulation	IEEE 1547.1, SRD V2.0				
Safety / EMC Standard	FCC, UL 1741				