

# 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
- 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-SM2	SUN-12K-SG05 LP2-US-SM2
<b>Battery Input Data</b>					
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				
<b>PV String Input Data</b>					
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
<b>AC Input/Output Data</b>					
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				
<b>Efficiency</b>					
Max. Efficiency	97.6%				
Euro Efficiency	96.5%				
MPPT Efficiency	>99%				
<b>Equipment Protection</b>					
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)				
<b>Interface</b>					
LCD/LED Display	LCD				
Communication Interface	WIFI, RS485, CAN				
<b>General Data</b>					
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/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy				
Grid Regulation	IEEE 1547.1, SRD V2.0				
Safety / EMC Standard	FCC, UL 1741				