



# Three Phase Hybrid Inverter

SUN-3/4/5/6/8/10/12K-SG05LP3-EU-SM2



- 100** 100% unbalanced output, max. output up to 50% rated power for each phase
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 240** Max. charging/discharging current of 240A
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Model	SUN-3K-SG05 LP3-EU-SM2	SUN-4K-SG05 LP3-EU-SM2	SUN-5K-SG05 LP3-EU-SM2	SUN-6K-SG05 LP3-EU-SM2	SUN-8K-SG05 LP3-EU-SM2	SUN-10K-SG05 LP3-EU-SM2	SUN-12K-SG05 LP3-EU-SM2
<b>Battery Input Data</b>							
Battery Type	Lead-acid or Lithium-ion						
Battery Voltage Range (V)	40-60						
Max. Charging Current (A)	70	95	120	135	190	210	240
Max. Discharging Current (A)	70	95	120	135	190	210	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS						
Number of Battery Input	1						
<b>PV String Input Data</b>							
Max. PV Access Power (W)	6000	8000	10000	12000	16000	20000	24000
Max. PV Input Power (W)	4500	6400	8000	9600	12800	16000	19200
Max. PV Input Voltage (V)	800						
Start-up Voltage (V)	160						
MPPT Voltage Range (V)	200-650						
Rated PV Input Voltage (V)	550						
Max. Operating PV Input Current (A)	20+20					26+26	
Max. Input Short-Circuit Current (A)	30+30					39+39	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1					2/2+2	
<b>AC Input/Output Data</b>							
Rated AC Input/Output Active Power (W)	3000	4000	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	3300	4400	5500	6600	8800	11000	13200
Rated AC Input/Output Current (A)	4.6/4.4	6.1/5.8	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current (A)	5/4.8	6.7/6.4	8.4/8	10/9.6	13.4/12.8	16.7/16	20/19.2
Max. Continuous AC Passthrough (grid to load) (A)	45						
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/Range (V)	220/380V, 230/400V 0.85Un-1.1Un						
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65						
Grid Connection Form	3L+N+PE						
Total Current Harmonic Distortion THDi	<3% (of nominal power)						
DC Injection Current	<0.5% In						
<b>Efficiency</b>							
Max. Efficiency	97.6%						
Euro Efficiency	97.0%						
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 (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection						
Surge Protection Level	TYPE II(DC), TYPE II(AC)						
<b>Interface</b>							
Communication Interface	RS485/RS232/CAN						
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)						
<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)	≤55						
Ingress Protection(IP) Rating	IP 65						
Inverter Topology	Non-Isolated						
Over Voltage Category	OVC II(DC), OVC III(AC)						
Cabinet Size (WxHxD mm)	386×660×250 (Excluding Connectors and Brackets)						
Weight (kg)	35.2						
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	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105						
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						