

# Single Phase Hybrid Inverter

SUN-3K-SG04LP1-24-EU-SM1

SUN-3K-SG04LP1-EU-SM1

SUN-3.6/5/6K-SG04LP1-EU-SM2



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system

16

Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

140

Max. charging/discharging current of 140A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

# Technical Data

Model	SUN-3K-SG04LP1 -24-EU-SM1	SUN-3K-SG04LP1 -EU-SM1	SUN-3.6K-SG04LP1 -EU-SM2	SUN-5K-SG04LP1 -EU-SM2	SUN-6K-SG04LP1 -EU-SM2
<b>Battery Input Data</b>					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	20-30	40-60	40-60	40-60	40-60
Max. Charging Current (A)	140	70	90	120	135
Max. Discharging Current (A)	140	70	90	120	135
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
<b>PV String Input Data</b>					
Max. PV Input Power (W)	3900	3900	4680	6500	7800
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+18	
Max. Input Short-Circuit Current (A)	27			27+27	
No. of MPP Trackers/ No. of Strings per MPP Tracker	1/1			2/1+1	
<b>AC Input/Output Data</b>					
Rated AC Input/Output Active Power (W)	3000		3600	5000	6000
Max. AC Input/Output Apparent Power (VA)	3300		3960	5500	6600
Rated AC Input/Output Current (A)	13.7/13.1		16.4/15.7	22.8/21.8	27.3/26.1
Max. AC Input/Output Current (A)	15/14.4		18/17.3	25/24	30/28.7
Max. Continuous AC Passthrough (grid to load) (A)	35				40
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)	220/230 0.85Un-1.1Un				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
Grid Connection Form	L+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	96.5%				
MPPT Efficiency	>99%				
<b>Equipment Protection</b>					
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level				
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 ( )	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	2000m				
Noise (dB)	<30				
Ingress Protection(IP) Rating	IP 65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	376×470×241.5 (Excluding Connectors and Brackets)				
Weight (kg)	17.6				19
Type of Cooling	Natural 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, G99, VDE-AR-N 4105				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				