Three Phase Hybrid Inverter

SUN-5/6/8/10/12K-SG04LP3-EU-AM2-P

Safe

- 48V low voltage battery, transformer isolation design

Intelligent

- 6 time periods for battery charging/discharging

Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

Reliable

- Max. charging/discharging current of 240A
- Support storing energy from diesel generator
- 100% unbalanced output, max. output up to 50% rated power for each phase

Technical Data

Model	SUN-5K-SG04LP3 -EU-AM2-P	SUN-6K-SG04LP3 -EU-AM2-P	SUN-8K-SG04LP3 -EU-AM2-P	SUN-10K-SG04LP3 -EU-AM2-P	SUN-12K-SG04LP3 -EU-AM2-P
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging/Discharging Current (A)	120	130	190	210	240
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV access power (W)	10000	12000	16000	20000	24000
Max. PV Input Power (W)	8000	9000	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			36+20	
Max. Input Short-Circuit Current (A)	30+30			54+30	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1			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)	5500	6600	8800	11000	13200
Rated AC Input/Output Current (A)	7.6/7.2	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/15.9	20/19.1
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	220/380V, 230/400V 0.85Un-1.1Un 3L+N+PE				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 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	97.0%				
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	WIFI, RS485, CAN				
General Data					
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 (solar), Isolated (battery)				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	422×658×254 (Excluding Connectors and Brackets)				
Weight (kg)	39.8				
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, G99, VDE-AR-N 4105				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				

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