

SUN-5/6/8/10/12K-SG04LP3

Description



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

Technical Specifications

Model	SUN-5K-SG04LP3-EU	SUN-6K-SG04LP3-EU	SUN-8K-SG04LP3-EU	SUN-10K-SG04LP3-EU	SUN-12K-SG04LP3-EU
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Battery Input Data

Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40~60				
Max. Charging Current (A)	120	150	190	210	240
Max. Discharging Current (A)	120	150	190	210	240
Charging Curve	3 Stages / Equalization				
External Temperature Sensor	Yes				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				

PV String Input Data

Max. DC Input Power (W)	6500	7800	10400	13000	15600
Rated PV Input Voltage (V)	550(160V _{DC} ±14%)				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-650				
Full Load DC Voltage Range (V)	350-650				
PV Input Current (A)	13+13		26+13		
Max. PV ISC (A)	17+17		34+17		
No.of MPP Trackers	2				
No.of Strings per MPP Tracker	1+1		2+1		

AC Output Data

Rated AC Output Active Power (W)	5000	6000	8000	10000	12000
Max AC Output Active Power (W)	5500	6600	8800	11000	13200
AC Output Rated Current (A)	7.6/7.2	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max AC Output Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/15.9	20/19.1
Max. AC Current (A)	11.4/10.9 13.6/13 18.2/17.4 22.7/21.7 27.3/26.1				
Max Output short circuit current(A)	75				
Max. Continuous AC Passthrough (A)	45				

Peak Power (offff grid)	2 time of rated power, 10 S				
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Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50/60Hz;3L/N/PE 220/380Vac/400Vac
Grid Type	Three Phase
Total Harmonic Distortion (THD)	<3% (of nominal power)
DC Current Injection	<0.5% In

Efficiency

Max. Efficiency 97.60%

Euro Efficiency 97.00%

MPPT Efficiency 99.90%

Protection

Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection
Surge protection	DC Type III / AC Type III
Over Voltage Category	DC Type II/AC Type III

Certifications and Standards

Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

General Data

Operating Temperature Range (°C)	-40~60°C, >45°C Derating
Cooling	Smart Cooling
Noise (dB)	≤45 dB
Communication with BMS	RS485; CAN
Weight (kg)	33.6
Cabinet Size (WxHxD mm)	422~702~281 (Excluding Connectors and Brackets)
Protection Degree	IP65

Installation Style
Warranty

Wall-mounted
5 Years (10 Years Optional)