Three Phase Hybrid Inverter

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



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

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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
Battery Input Data							
Battery Type	Lead-acid or Lithium-ion						
Battery Voltage Range (V)	40-60						
Max. Charging/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						
PV String Input Data							
Max. PV access power (W)	6000	8000	10000	12000	16000	20000	24000
Max. PV Input Power (W)	4800	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	
AC Input/Output Data							
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	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)	386×660×250 (Excluding Connectors and Brackets)						
Weight (kg)	35.2						
Type of Cooling	Intelligent Air Cooling						
Warranty	5 Years / Up to 10 Years* *Warranty period varies by installation country. Refer to the Warranty Policy for details.						
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, G98, VDE-AR-N 4105						
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						