Single Phase Hybrid Inverter

SUN-3K-SG06LP1-24-EU-BM1 SUN-3K-SG06LP1-EU-BM1
SUN-3.6/4/4.6/5/6K-SG06LP1-EU-BM2



Intuitive

- Colorful touch LCD, IP65 protection degree

Intelligent

- 6 time periods for battery charging/discharging

Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

Reliable

- Max. charging/discharging current of 140A
- Support storing energy from diesel generator

Technical Data

Model	SUN-3K-SG06 LP1-24-EU-BM1	SUN-3K-SG06 LP1-EU-BM1	SUN-3.6K-SG06 LP1-EU-BM2	SUN-4K-SG06 LP1-EU-BM2	SUN-4.6K-SG06 LP1-EU-BM2	SUN-5K-SG06 LP1-EU-BM2	SUN-6K-SG06 LP1-EU-BM2
Battery Input Data							
Battery Type	Lead-acid or Lithium-ion						
Battery Voltage Range (V)	20-30	40-60					
Max. Charging/Discharging Current (A)	140	70	90	95	120	120	135
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	6000	7200	8000	9200	10000	12000
Max. PV Input Power (W)	4800	4800	5760	6400	7360	8000	9600
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 MPP Tracker	1/1		2/1+1				
AC Input/Output Data							
Rated AC Input/Output Active Power (W)	3000	3000	3600	4000	4600	5000	6000
Max. AC Input/Output Apparent Power (VA)	3300	3300	3960	4400	4600	5500	6600
Rated AC Input/Output Current (A)	13.7/13.1	13.7/13.1	16.4/15.7	18.2/17.4	21/20	22.8/21.8	27.3/26.1
Max. AC Input/Output Current (A)	15/14.4	15/14.4	18/17.3	20/19.2	21/20	25.0/24.0	30/28.7
Max. Continuous AC Passthrough (grid to load) (A)	50						
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	220/230V 0.85Un-1.1Un L+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	96.5%						
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)	<45						
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)	310×460×218 (Excluding Connectors and Brackets)						
Weight (kg)	15.6						
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						

Preliminary

Single Phase Hybrid Inverter

SUN-7/7.6/8/10/12K-SG06LP1-EU-BM3



Intuitive

- Colorful touch LCD, IP65 protection degree

Intelligent

- 6 time periods for battery charging/discharging

Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

Reliable

- Max. charging/discharging current of 250A
- Support storing energy from diesel generator

Technical Data

Model	SUN-7K-SG06 LP1-EU-BM3	SUN-7.6K-SG06 LP1-EU-BM3	SUN-8K-SG06 LP1-EU-BM3	SUN-10K-SG06 LP1-EU-BM3	SUN-12K-SG06 LP1-EU-BM3
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging/Discharging Current (A)	175	185	185	220	250
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV access power (W)	14000	15200	16000	20000	24000
Max. PV Input Power (W)	11200	12160	12800	16000	19200
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)	36+18+18				36+36+18
Max. Input Short-Circuit Current (A)	54+27+27				54+54+27
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+1+1				3/2+2+1
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	7000	7600	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	7700	8360	8800	11000	13200
Rated AC Input/Output Current (A)	31.9/30.5	34.6/33.1	36.4/34.8	45.5/43.5	54.6/52.2
Max. AC Input/Output Current (A)	35.0/33.5	38/36.4	40/38.3	50/47.9	60/57.4
Max. Continuous AC Passthrough (grid to load) (A)	65				70
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	220/230V 0.85Un-1.1Un L+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	96.5%				
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)	<45				
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)	340×580×227 (Excluding Connectors and Brackets)				
Weight (kg)	23.7			24.5	
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, 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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