Single Phase Hybrid Inverter

SUN-5/6/7.6/8K-SG02LP1-AU-AM2
SUN-10/12K-SG02LP1-AU-AM3



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-5K-SG02 LP1-AU-AM2	SUN-6K-SG02 LP1-AU-AM2	SUN-7.6K-SG02 LP1-AU-AM2	SUN-8K-SG02 LP1-AU-AM2	SUN-10K-SG02 LP1-AU-AM3	SUN-12K-SG02 LP1-AU-AM3
Battery Input Data						
Battery Type	Lead-acid or Lithium-ion					
Battery Voltage Range (V)	40-60					
Max. Charging/Discharging Current (A)	120	135	190	190	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)	10000	12000	15200	16000	20000	24000
Max. PV Input Power (W)	7500	9000	11400	12000	15000	18000
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)	20+20		26+26		26+26+26	
Max. Input Short-Circuit Current (A)	44+44		44+44		44+44+44	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/2+2				3/2+2+2	
AC Input/Output Data						
Rated AC Input/Output Active Power (W)	5000	6000	7600	8000	9999	12000
Max. AC Input/Output Apparent Power (VA)	5000	6000	7600	8000	9999	12000
Rated AC Input/Output Current (A)	21.8	26.1	31.1	34.8	43.5	52.2
Max. AC Input/Output Current (A)	21.8	26.1	31.1	34.8	43.5	52.2
Max. Continuous AC Passthrough (grid to load) (A)	35	40	50		60	
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	230V 0.85Un-1.1Un L+N+PE					
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55					
Total Current Harmonic Distortion THDi	<3% (of nominal power)					
DC Injection Current	<0.5% In					
Generator Data						
Nominal Input Voltage (V)	230V					
Rated Input Current (A)	40		50		60	
Power Factor	0.8 leading-0.8 lagging					
Frequency	50Hz					
Backup Data						
Nominal Output Voltage (V)	230V					
Rated Output Current (A)	21.8	26.1	31.1	34.8	43.5	52.2
Rated Apparent Power (VA)	5000	6000	7600	8000	9999	12000
Power Factor	0.8 leading-0.8 lagging					
Frequency	50Hz					
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(Active Frequency shift), 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	2000m					
Noise (dB)	<45					
Ingress Protection(IP) Rating	IP 65					
Protection Level	Class I					
Inverter Topology	Non-Isolated					
Over Voltage Category	OVC II(DC), OVC III(AC)					
Cabinet Size (WxHxD mm)	420×670×233 (Excluding Connectors and Brackets)					
Weight (kg)	35.6					
Type of Cooling	Intelligent Air Cooling					
Warranty	10 Years					
Grid Regulation	AS/NZS 4777.2					
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2					

Deye
Ningbo Deye Inverter Technology Co., Ltd.
Made in China
Address: No. 26 South YongJiang Road, Daqi, Beilun, NingBo, Zhejiang, China. | Tel: +86 (0)574 86228841 | E-mail: market@deye.com.cn