Single Phase Hybrid Inverter

SUN-3.6/5/6/7/7.6/8K-SG05LP1-EU-SM2





- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- 16 — Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 190 — Max. charging/discharging current of 190A
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Technical Data

Model	SUN-3.6K-SG05 LP1-EU-SM2	SUN-5K-SG05 LP1-EU-SM2	SUN-6K-SG05 LP1-EU-SM2	SUN-7K-SG05 LP1-EU-SM2	SUN-7.6K-SG05 LP1-EU-SM2	SUN-8K-SG05 LP1-EU-SM2
Battery Input Data						
Battery Type	Lead-acid or Lithium-ion					
Battery Voltage Range (V)	40-60					
Max. Charging Current (A)	90	120	135	175	190	190
Max. Discharging Current (A)	90	120	135	175	190	190
Charging Strategy for Li-ion Battery	Self-adaption to BMS					
Number of Battery Input	1					
PV String Input Data						
Max. PV Input Power (W)	4680	6500	7800	10000	9880	10400
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			26+26		
Max. Input Short-Circuit Current (A)	27+27			34+34		
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/1+1			2/2+2		
AC Input/Output Data						
Rated AC Input/Output Active Power (W)	3600	5000	6000	7000	7600	8000
Max. AC Input/Output Apparent Power (VA)	3960	5500	6600	7700	8360	8800
Rated AC Input/Output Current (A)	16.4/15.7	22.8/21.8	27.3/26.1	31.9/30.5	34.6/33.1	36.4/34.8
Max. AC Input/Output Current (A)	18/17.3	25/24	30/28.7	35/33.5	38/36.4	40/38.3
Max. Continuous AC Passthrough (grid to load) (A)	35		40	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/Range (V)	220/230 0.85Un-1.1Un					
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65					
Grid Connection Form	L+N+PE					
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 Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level					
Surge Protection Level	TYPE II(DC), TYPE II(AC)					
Interface						
Communication Interface	RS485/RS232/CAN					
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)					
General Data						
Operating Temperature Range (℃)	-40 to +60°C, >45°C Derating					
Permissible Ambient Humidity	0-100%					
Permissible Altitude	2000m					
Noise (dB)	<30					
Ingress Protection(IP) Rating	IP 65					
Inverter Topology	Non-Isolated					
Over Voltage Category	OVC II(DC), OVC III(AC)					
Cabinet Size (WxHxD mm)	366×589.5×237 (Excluding Connectors and Brackets)					
Weight (kg)	26.8					
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					