







Hybrid Inverter

SUN-3.6/5/6K-SG03LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  AC couple to retrofit existing solar system
-  Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
-  Max. charging/discharging current of 135A
-  6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	SUN-3.6K-SG03LP1-EU	SUN-5K-SG03LP1-EU	SUN-6K-SG03LP1-EU
Battery Input Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	40-60		
Max. Charging Current (A)	90	120	135
Max. Discharging Current (A)	90	120	135
External Temperature Sensor	Yes		
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	4680	6500	7800
Rated PV Input Voltage (V)	370 (125-500)		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150-425		
Full Load DC Voltage Range (V)	300-425		
PV Input Current (A)	13+13		
Max. PV I _{sc} (A)	17+17		
No. of MPP Trackers	2		
No. of Strings per MPP Tracker	1+1		
AC Output Data			
Rated AC Output Active Power (W)	3600	5000	6000
Max. AC Output Active Power (W)	3960	5500	6600
AC Output Rated Current (A)	16.4/15.7	22.7/21.7	27.3/26.1
Max. AC Output Current (A)	18/17.2	25/23.9	30/28.7
Max. Continuous AC Passthrough (A)	35		
Peak Power (off grid)	2 time of rated power, 10 S		
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Power Factor	1		
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac		
Grid Type	Single Phase		
Total Harmonics Current Distortion (THDI)	<3% (of nominal power)		
DC Current Injection	<0.5% I _n		
Efficiency			
Max. Efficiency	97.60%		
Euro Efficiency	96.50%		
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		
Over Voltage Category	DC Type II/AC Type III		
Certifications and Standards			
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		
General Data			
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating		
Cooling	Smart Cooling		
Noise (dB)	≤30 dB		
Communication with BMS	RS485; CAN		
Weight (kg)	20.5		
Cabinet Size (WxHxD mm)	330×580×232 (Excluding Connectors and Brackets)		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 Years (10 Years Optional)		