







Hybrid Inverter

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



-  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 250A
-  6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	SUN-5K-SG02 LP1-EU-AM2	SUN-6K-SG02 LP1-EU-AM2	SUN-7.6K-SG02 LP1-EU-AM2	SUN-8K-SG02 LP1-EU-AM2	SUN-10K-SG02 LP1-EU-AM3	SUN-12K-SG02 LP1-EU-AM3
Battery Input Data						
Battery Type	Lead-acid or Lithium-ion					
Battery Voltage Range (V)	40-60					
Max. Charging Current (A)	120	135	190	190	220	250
Max. Discharging Current (A)	120	135	190	190	220	250
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)	6500	7800	9880	10400	13000	15600
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	200-425				
PV Input Current (A)	13+13	26+13	26+26	26+26	26+26+26	26+26+26
Max. PV I _{SC} (A)	22+22	44+22	44+44	44+44	44+44+44	44+44+44
No. of MPP Trackers	2				3	
No. of Strings per MPP Tracker	1+1	2+1	2+2	2+2	2+2+2	2+2+2
AC Output Data						
Rated AC Output Active Power (W)	5000	6000	7600	8000	10000	12000
Max AC Output Active Power (W)	5500	6600	8360	8800	11000	13200
AC Output Rated Current (A)	22.8/21.8	27.3/26.1	34.6/33.1	36.4/34.8	45.5/43.5	54.6/52.2
Max. AC Output Current (A)	25/24	30/28.7	38/36.4	40/38.3	50/47.9	60/57.4
Max. Continuous AC Passthrough (A)	35	40	50	50	60	60
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	Split Phase; 2/3 phase; 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	97.00%					
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	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150					
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2					
General Data						
Operating Temperature Range ()	-40 to +60°C, >45°C Derating					
Cooling	Smart Cooling					
Noise (dB)	≤30 dB					
Communication with BMS	RS485; CAN					
Weight (kg)	32					
Cabinet Size (WxHxD mm)	420×670×233 (Excluding Connectors and Brackets)					
Protection Degree	IP65					
Installation Style	Wall-mounted					
Warranty	5 Years (10 Years Optional)					