




# 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
- 16** Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 250** Max. charging/discharging current of 250A
- 6** 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
<b>Battery Input Data</b>						
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					
<b>PV String Input Data</b>						
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 <sub>SC</sub> (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
<b>AC Output Data</b>						
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 <sub>n</sub>					
<b>Efficiency</b>						
Max. Efficiency	97.60%					
Euro Efficiency	97.00%					
MPPT Efficiency	99.90%					
<b>Protection</b>						
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					
<b>Certifications and Standards</b>						
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					
<b>General Data</b>						
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)	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)					