







# Hybrid Inverter

SUN-3/3.6/5/6K-SG04LP1-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 140A
-  6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

## Technical Data

Model	SUN-3K -SG04LP1-24-EU	SUN-3K -SG04LP1-EU	SUN-3.6K -SG04LP1-EU	SUN-5K -SG04LP1-EU	SUN-6K -SG04LP1-EU
<b>Battery Input Data</b>					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	20-30	40-60	40-60	40-60	40-60
Max. Charging Current (A)	140	70	90	120	135
Max. Discharging Current (A)	140	70	90	120	135
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)	3900	3900	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+13		
Max. PV I <sub>sc</sub> (A)	17		17+17		
No. of MPP Trackers	1		2		
No. of Strings per MPP Tracker	1		1+1		
<b>AC Output Data</b>					
Rated AC Output Active Power (W)	3000		3600		6000
Max. AC Output Active Power (W)	3300		3960		6600
AC Output Rated Current (A)	13.6/13		16.4/15.7		22.7/21.7
Max. AC Output Current (A)	15/14.3		18/17.2		25/23.9
Max. Continuous AC Passthrough (A)			35		40
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 <sub>n</sub>				
<b>Efficiency</b>					
Max. Efficiency	97.60%				
Euro Efficiency	96.50%				
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	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				
<b>General Data</b>					
Operating Temperature Range ( )	-40 to +60°C, >45°C Derating				
Cooling	Free Cooling				Smart Cooling
Noise (dB)	≤30 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	14			15.1	
Cabinet Size (WxHxD mm)	330x433x238 (Excluding Connectors and Brackets)				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 Years (10 Years Optional)				