



SINGLE-PHASE HYBRID INVERTER



DATASHEET

SUNSYNK-10K-SG02LP1
SUNSYNK-12K-SG02LP1

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Model	SUNSYNK-10K-SG02LP1	SUNSYNK-12K-SG02LP1
Battery Input Data		
Battery Type	Lead-acid or Lithium-ion	
Battery Voltage Range	40~60V	
Max. Charge Current	220A	250A
Max. Discharge Current	220A	250A
Charging Curve	3 Stages/Equalisation	
External Temperature Sensor	Yes	
Charging Strategy for Li-Ion Battery	Self-Adaptation to BMS	
PV String Input Data		
Max. PV Input Power	15000W	18000W
Max. PV Input Voltage	500V	
MPPT Voltage Range	150V~425V	
Start-up Voltage	125V	
Rated PV Input Voltage	370V	
Max. Operating PV Input Current	26A+26A+26A	
Max. PV Isc	44A+44A+44A	
No. of MPPT / Strings Per MPPT	3 / 2+2+2	
AC Input/Output Data		
Rated AC Input/Output Active Power	10000W	12000W
Max. AC Input/Output Apparent Power	11000VA	13200VA
Rated AC Input/Output Current	45.5/43.5A	54.6/52.2A
Max. AC Input/Output Current	45.5/43.5A	54.6/52.2A
Max Continuous AC Passthrough	60A	
Peak Power (Off-Grid)	2 times of rated power, 10 S	
Power Factor	0.8 leading to 0.8 lagging	
Rated Input/Output Voltage/Range	220/230V 0.85Un-1.1Un	
Rated Input/Output Grid Frequency/Range	50/45-55Hz, 60/55-65Hz	
Grid Connection Form	L+N+PE	
Total Current Harmonic Distortion (THDi)	<3% (of nominal power)	
DC Current Injection	<0.5% In	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	96.50%	
MPPT Efficiency	>99%	
Protection		
Integrated	PV Arc Fault Detection, PV Input Lightning Protection, 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.	
Surge Protection Level	TYPE II(DC), TYPE II(AC)	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Certifications and Standards		
Grid Regulation	EN 50549-1, AS-NZS 4777.2, NRS 097-2-1; Additional connections available upon request	
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	Intelligent Air Cooling
Noise	<45dB
Communication with BMS	RS485; CAN
Net Weight	36 kg
Gross Weight	42 kg
Size	420W×670H×233D mm (Excluding connectors and brackets)
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years (10 years when installed with a Sunsynk battery)



NOTE:

Safe Transport and Handling of Inverter:

When transporting the equipment, use its original packaging and keep it as a complete unit. Store the product in a dry environment, avoiding direct sunlight, and maintain a temperature range between -40°C and 60°C. Since the equipment can be quite heavy, always consider its total weight when moving, transporting, or installing it, ensuring that the installation site has adequate load-bearing capacity. Transporting and installing the inverter should be carried out solely by qualified personnel.



Contact Us

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