



Three Phase Hybrid Inverter

SUN-8/10/12K-SG01LP3



DATASHEET

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INTRODUCTION

Thank you for choosing Sunsynk.

This manual provides the technical specifications of the Three Phase Hybrid Inverter SUN-8/10/12K-SG01LP3. Please read this manual carefully before using the equipment and keep this manual handy for reference.

MAIN FEATURES

- 48V low-voltage battery.
- Isolation transformer design.
- 6 time periods for battery charging/discharging.
- Maximum charging/discharging current of 250A.
- Frequency droop control.
- Up to 16 inverters in parallel.
- DC and AC couple to retrofit existing solar system.
- Support storing energy from diesel generator.
- Interactive Display.

TECHNICAL SPECIFICATIONS

Model	SUN-8K-SG01LP3	SUN-10K-SG01LP3	SUN-12K-SG01LP3
Battery Input Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range	40~60V		
Max. Charging Current	190A	210A	240A
Max. Discharging Current	190A	210A	240A
Charging Curve	3 Stages/Equalization		
External Temperature Sensor	Optional		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power	9880W	13000W	15000W
PV Input Voltage	370V (100V~500V)		
MPPT Range	125V~425V		
Start-up Voltage	150V		
PV Input Current	12.5A+12.5A	12.5A+12.5A	22A+12.5A
No. of MPPT Trackers	2		
No. of Strings Per MPPT Tracker	1+1	1+1	1+1
AC Output Data			
Rated AC Output and UPS Power	8000W	10000W	12000W
Max. AC Power	8800W	11000W	13000W
Peak Power (off-grid)	2 times of rated power, 10 S		
AC Output Rated Current	11.6A	14.5A	17.4A
Max AC Output Current	17.4A	21.7A	26A
Max Continuous AC Passthrough	48A	48A	48A
Output Frequency and Voltage	50-60Hz; 230/400Vac (Three Phase)		
Grid Type	Three Phase		
Current Harmonic Distortion	THD<3% (Linear load<1.5%)		
Efficiency			
Max. Efficiency	97.6%		
MPPT Efficiency	97.0%		
Euro Efficiency	99.9%		
Protection			
PV Arc Fault Detection	Integrated (Except European Type)		
PV Input Lightning Protection	Integrated		
Anti-islanding Protection	Integrated		
PV String Input Reverse Polarity Protection	Integrated		
Insulation Resistor Detection	Integrated		
Residual Current Monitoring Unit	Integrated		
Output Over Current Protection	Integrated		

Output Shorted Protection	Integrated
Output Over Voltage Protection	Integrated
Surge Protection	DC Type II / AC Type II
Certifications and Standards	
Grid Regulation	UL1741, IEEE1547, RULE21, VDE0126, AS4777, NRS2017, G98,G99, IEC61683, IEC62116, IEC61727
Safety Regulation	IEC2109-1, IEC62109-2
EMC	EN61000-6-1, EN61000-6-3, FCC 15 Class B
General Data	
Operating Temperature Range	-25~60°C, >45°C Derating
Cooling	Fan
Noise	<30dB
Communication with BMS	RS485; CAN
Weight	45kg
Size (Length x Width x Height)	673 x 462 x 265mm
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years

DISPLAY

The Sunsynk Three Phase Hybrid Inverter has an amazing navigation and information screens.

0 W	0 W	0 W
0V	0.0 Hz	0.0 Hz
0V	0.0A	0V
0V	0.1A	0V
0V	0.1A	0V
HM:	LD:	INV_P:
-10W	0W	DC_T:
-10W	0W	0W
-10W	0W	0W
-10W	0W	0W
-5W	Grid	Inverter
BAT_V:49.15 V	DC_P1: 0W	DC_P2: 0W
BAT_I:-0.12 A	DC_V1: 0V	DC_V2: 0V
BAT_T:25.0 C	DC_I1: 0.2A	DC_I2: 0.2A
Battery	PV1	PV2