

# SUNSYNK 8KW HYBRID INVERTER

## Features and Benefits

- It has the following inputs:
  - PV solar
  - AC grid power
  - Batteries
  - Generator
  - Wind turbine
- Output power - 230V AC
- Continuous power - 8000W
- Start-up power - 16000W
- DC - 48V
- Battery charger - 190A
- Transfer time <=10ms
- Battery charger adjustable for battery bank size and type
  - Li-ion battery charging self-adapts to BMS
  - Can charge Lead Acid and Li-ion batteries
- Solar Input
  - Max Power Input: 8800W
  - Max VDC Input: 500V DC
  - Max Current input: 18A + 9A
  - MPPTs - 2
- Multi-core processor design and advanced MPPT control
- High reliability and response speed
- Multiple operating modes:
  - Batteries only
  - Grid tie only
  - Hybrid
  - Off grid
- Additional Features
  - AC couple
  - 6 stages time of use settings
  - IP65
- Protections
  - PV input lightning protection
  - Anti-islanding
  - Insulation resistor detection
  - Residual current
  - Output short circuit
  - Output over volt
  - Arc detection



**IP65**  
weather  
proofing

## Overview

Ideal for hybrid / off-grid / backup / applications

## Packaging Contents

- 1 x 8kW Hybrid Inverter
- 1 x Installation Screws (1 pack)
- 1 x Temperature Sensor Probe
- 1 x CT 100Amp 50mA

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- Certifications
  - NRS097-2-1: 2017 Edition 2
  - Grid Regulation: UL1741, IEC62109-1&2, VDE-ARN 4105
  - Safety Regulation: IEC62109-1&2, IEC62040-1
  - EMC: EN61000-6-1, EN61000-6-3, FCC 15 class B

# Technical Data

## Specifications

### Battery Input Data

Batter Type	Lead-Acid or Li-Ion
Battery Voltage Range (V)	40V-60V
Max.Charging Current (A)	190A
Max.Discharging Current (A)	190A
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 (W)	8800W
Max.DC Input Voltage (V)	500V
MPPT Range (V)	125V-425V
Start-up Voltage (V)	150V
Max.Input Current (A)	18A+9A
No.of MPPT Trackers	2
No.of Strings Per MPPT Tracker	2/1

### AC Output Data

Rated AC Output and UPS Power (W)	8000W
Peak Power (off grid)	2 Times Rated Power for 10 Seconds
Max. AC Current (A)	33A
Output Frequency and Voltage	50, 230 Vac (Single Phase)
Grid Type	Single Phase
Current Harmonic Distortion	THD<3% (Linear Load<1.5%)

### Efficiency

Max.Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	99.90%

### Protection

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

### Certifications and Standards

Grid Regulation	UL1741,IEEE1547, VDE-ARN 4105, VDE0126
Safety Regulation	IEC62109-1&2, IEC62040-1
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B
South African Certifications	NRS097-2-1: 2017 Edition 2

### General Data

Operating Temperature Range (°C)	-25-60°C, >45 Derating
Cooling	Fan
Noise (dB)	<30
Communication with BMS	RS485; CAN
Weight (kg)	32KG
Size (Length*Width*Height mm)	680*420*233mm
Protection Degree	IP65
Installation Style	Wall-Mounted
Warranty	5 Years

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