

Deye SUN-3K-SG04LP1-24-EU-SM1

3kW single phase hybrid inverter with 24V battery support and 140A charging current.

Models Covered: SUN-3K-SG04LP1-24-EU-SM1

Manufacturer: Ningbo Deye Technology Co., Ltd. (Stock Code: 605117.SH)

Application: The Deye SUN-3K-SG04LP1-24-EU-SM1 is a compact 3kW single phase hybrid inverter designed for 24V battery systems. With 140A max charging/discharging current, IP65 protection, colorful touch LCD, and support for up to 16 units in parallel, it's perfect for small residential solar installations.

Technical Specifications

Parameter	SUN-3K-SG04LP1-24-EU-SM1
PV String Input Data	
Max PV Array Power	6000 W
Max PV Input Power	4800 W
Max PV Input / Array Open Circuit Voltage	500 V
Max PV Input Current	18 A
MPPT Efficiency	>99%
MPPT Voltage Range	150 V – 425 V
MPPT Voltage Range at Full Load	300 V – 425 V
Number of MPP Trackers	1
Start-up Voltage	125 V
Max PV Short-Circuit Current	27 A
MPPT Nominal Voltage	370 V
Electrical / AC Output Data	
European Efficiency	96.5%
Max AC Apparent Power	3300 VA
Max Efficiency	97.6%
Peak / Surge Power (W)	2 times of rated power, 10s
Rated AC Power	3000 W
AC Frequency Range	50Hz/45Hz-55Hz
AC Grid Connection Type	L+N+PE
Grid / AC Frequency	50/60 Hz
Max Parallel Units	16
Nominal AC Voltage Range	0.85 V – 1.1 V
Phase	L+N+PE
Rated AC Output Current	13.7/13.1 A

Parameter	SUN-3K-SG04LP1-24-EU-SM1
THD / THDi	<3% (of nominal power)
Adjustable Power Factor Range	0.8 leading to 0.8 lagging
Max AC Output Current	15/14.4 A
Max Continuous AC Pass-Through	35 A
Topology	Non-Isolated
Max Inverter Backfeed Current	0 A
Battery Data	
Battery Voltage	20-30 V
Battery Voltage Range	20 V – 30 V
Max Charge Current	140 A
Max Discharge Current	140 A
Supported Battery Type	Lead-acid or Lithium-ion
Number of Battery Inputs	1
Protection Features	
IP Rating	IP65
AC/DC Surge Protection	TYPE II(DC), TYPE II(AC)
Grid Connection Standards	IEC 61727, IECOVE-Richtlinie62116,CEI0-21,R25EN,G9850549,,G99,NRSVDE-AR-N097,RD4105140,UNE 217002,
Over-Temperature / Thermal Protection	Yes
Overvoltage Category	OVC II(DC), OVC III(AC)
Safety / EMC Standards	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Mechanical Data	
Cooling Method	Natural Cooling
Operating Conditions	
Max Altitude	2000m
Noise Level	<30 dB
Operating Temperature	-40 to +60°C, >45°C Derating °C

Parameter	SUN-3K-SG04LP1-24-EU-SM1
Relative Humidity	0-100%
Communication	
Communication Interface	RS485/RS232/CAN
Display	Colorful Touch LCD
Monitoring Module	GPRS/WIFI/Bluetooth/4G/LAN(optional)

Note: Specifications are based on the official Deye SUN-3K-SG04LP1-24-EU-SM1 datasheet. Values may be subject to change; always verify against the latest manufacturer documentation before system design and procurement.

Availability & grid compliance in UAE

Market	UAE
Grid authority / regulator	DEWA, ADDC, SEWA
Quotation currency	AED
Support hours timezone	Asia/Dubai
Delivery & installation coverage	Dubai, Abu Dhabi, Sharjah, Ajman, Ras Al Khaimah

Figures on this page are the manufacturer's own, measured at the test conditions the datasheet states — they do not change by country. What changes is the approval that has to be met before the unit is energised: in UAE that is DEWA, ADDC, SEWA. Confirm the grid code, import requirements and any local certification with them, or with us, before you order.

Key Features & Technical Highlights

- **140A Charging:** High-speed battery charging
- **24V Battery System:** Supports lead-acid and lithium
- **Touch LCD Display:** Colorful intuitive interface
- **IP65 Protection:** Outdoor rated installation
- **16 Units Parallel:** Scale up to 48kW
- **Generator Support:** Store energy from diesel generator

Frequently Asked Questions

- ▶ Is the DEYE SUN-3K-SG04LP1-24-EU-SM1 suitable for the Middle East climate?
- ▶ What battery voltage does this inverter support?
- ▶ Can I connect multiple inverters?

Official Source & Documentation

This technical datasheet is derived from official manufacturer documentation provided by **Ningbo Deye Technology Co., Ltd.**. For the latest specifications, firmware updates, and official documentation, visit the manufacturer's website.

- **Manufacturer Website:** www.deyeinverter.com
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Disclaimer: All specifications and technical data presented on this page are based on the official Deye SUN-3K-SG04LP1-24-EU-SM1 datasheet published by Ningbo Deye Technology Co., Ltd. Specifications are subject to change without notice. Always verify against the latest manufacturer documentation at deyeinverter.com before system design, procurement, or installation. Compliance with local regulations, grid codes (DEWA, ADDC, SEWA) and utility requirements in UAE is the responsibility of the system designer/installer.

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