

Deye SUN-9-10-5K-G02P1/9K-G02P1-EU-AM2/10.5K-G02P1-EU-AM2/10K-G02P1-EU-AM2

9-10.5kW Single Phase String Inverter for residential and commercial solar installations.

Models Covered: SUN-9-10-5K-G02P1, SUN-9K-G02P1-EU-AM2, SUN-10.5K-G02P1-EU-AM2, SUN-10K-G02P1-EU-AM2

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

Application: The Deye SUN-9-10-5K-G02P1 is a high-efficiency single phase string inverter designed for solar installations. With 9-10.5kW power output, it offers excellent performance, reliability, and easy installation for both residential and commercial applications.

Technical Specifications

Parameter	SUN-9-10-5K-G02P1	SUN-9K-G02P1-EU-AM2	SUN-10.5K-G02P1-EU-AM2	SUN-10K-G02P1-EU-AM2
General Data				
Inverter Type	String Inverter	—	—	—
PV String Input Data				
Max PV Array Power	—	—	—	20000 W
Max PV Input Power	—	13.5 kW	15.8 kW	15 kW
Max PV / DC Voltage	80 V			
Max PV Input / Array Open Circuit Voltage	550 V			
Max PV Input Current	26+26 A			
MPPT Efficiency	>99%			
MPPT Voltage Range	70 V – 500 V			
MPPT Voltage Range at Full Load	—	—	—	350 V – 650 V
Number of MPP Trackers	—	2	2	2
PV Operating Voltage Range	—	—	—	160 V – 800 V
Start-up Voltage	80 V			
Max PV Short-Circuit Current	39+39 A			
MPPT Nominal Voltage	360 V			
Electrical / AC Output Data				
European Efficiency	97.2%			
Max AC Apparent Power	—	9.9 kVA	11.55 kVA	11000 VA
Max Efficiency	97.7%			
Rated AC Power	9-10.5 W	9 kW	10.5 kW	10 kW
AC Grid Connection Type	—	—	—	3L+N+PE
Grid / AC Frequency	50/45-55, 60/55-65 Hz			
Max Operating Current	—	26+26 A	26+26 A	26+26 A

Parameter	SUN-9-10-5K-G02P1	SUN-9K-G02P1-EU-AM2	SUN-10.5K-G02P1-EU-AM2	SUN-10K-G02P1-EU-AM2
Nominal AC Voltage	220/230 0.85Un-1.1Un L/N/PE V			
Phase	Single Phase	Single-phase	Single-phase	Single-phase
Rated AC Output Current	—	41/39.2 A	47.8/45.7 A	45.5/43.5 A
THD / THDi	<3%			
Adjustable Power Factor Range	0.8 leading to 0.8 lagging			
Max AC Output Current	—	45/43.1 A	52.5/50.3 A	50/47.9 A
Max Continuous AC Pass-Through	—	—	—	45 A
Topology	Non-Isolated			
Battery Data				
Max Charge Current	—	—	—	210 A
Max Discharge Current	—	—	—	210 A
Number of Battery Inputs	—	—	—	1
Protection Features				
IP Rating	IP65			
AC/DC Surge Protection	TYPE II(DC), TYPE II(AC)			
Anti-Islanding Protection	Yes			
DC Reverse Polarity Protection	—	—	—	Yes
Grid Connection Standards	IEC 61727, IEC 62116, EN 50549, NRS 097, RD 140, UNE 217002, G99			
Insulation Resistance Monitoring	—	—	—	Yes
Over-Temperature / Thermal Protection	Yes			
Overvoltage Category	OVC II(DC), OVC III(AC)			
Residual Current Monitoring Unit	Yes			
Safety / EMC Standards	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
Mechanical Data				

Parameter	SUN-9-10-5K-G02P1	SUN-9K-G02P1-EU-AM2	SUN-10.5K-G02P1-EU-AM2	SUN-10K-G02P1-EU-AM2
Cooling	—	Natural Cooling	Natural Cooling	Natural Cooling
Cooling Method	Natural Cooling			
Operating Conditions				
Max Altitude	3000m			
Noise Level	≤35 dB			
Operating Temperature	-25 to +60 °C	-25 to +60°C, >45°C Derating °C	-25 to +60°C, >45°C Derating °C	-25 to +60°C, >45°C Derating °C
Relative Humidity	0-100%			
Communication				
Communication Interface	RS485/RS232 /WiFi/LAN			
Display	LCD1602			

Note: Specifications are based on the official Deye SUN-9-10-5K-G02P1/9K-G02P1-EU-AM2/10.5K-G02P1-EU-AM2/10K-G02P1-EU-AM2 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

- **9-10.5kW Output:** High efficiency power conversion
- **Wide MPPT Range:** Optimized for various solar configurations
- **IP65 Protection:** Suitable for outdoor installation
- **Smart Monitoring:** Real-time performance tracking
- **97.7% Efficiency:** High energy conversion
- **Dual MPPT:** Two independent trackers
- **80V Start-up:** Works in low-light conditions
- **Zero Export:** Manage grid export limits
- **Anti-PID:** Prevents panel degradation
- **Multiple Comms:** GPRS, WiFi, Bluetooth, 4G, LAN

Frequently Asked Questions

- ▶ Is the DEYE SUN-9-10-5K-G02P1 suitable for the Middle East climate?
- ▶ What is the warranty period?
- ▶ Can this be used for off-grid systems?
- ▶ What is the maximum PV input power?
- ▶ Is this suitable for commercial applications?

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-9-10-5K-G02P1/9K-G02P1-EU-AM2/10.5K-G02P1-EU-AM2/10K-G02P1-EU-AM2 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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