

Deye SUN-29-9-35K-SG01HP/29.9K-SG01HP3-EU-BM/30K-SG01HP3-EU-BM/35K-SG01HP3-EU-BM3

29.9-35kW Three Phase Hybrid Inverter for residential and commercial solar installations.

Models Covered: SUN-29-9-35K-SG01HP3, SUN-29.9K-SG01HP3-EU-BM3, SUN-30K-SG01HP3-EU-BM3, SUN-35K-SG01HP3-EU-BM3

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

Application: The Deye SUN-29-9-35K-SG01HP3 is a high-efficiency three phase hybrid inverter designed for solar installations. With 29.9-35kW power output, it offers excellent performance, reliability, and easy installation for both residential and commercial applications.

Technical Specifications

Parameter	SUN-29-9-35K-SG01HP3	SUN-29.9K-SG01HP3-EU-BM3	SUN-30K-SG01HP3-EU-BM3	SUN-35K-SG01HP3-EU-BM3
General Data				
Inverter Type	Hybrid Inverter	—	—	—
PV String Input Data				
Max PV Array Power	70000 W	59800 W	60000 W	70000 W
Max PV Input Power	45500 W	38870 W	39000 W	45500 W
Max PV / DC Voltage	1000 V			
Max PV Input / Array Open Circuit Voltage	1000 V			
Max PV Input Current	36+36+36 A			
MPPT Efficiency	>99%			
MPPT Voltage Range	150 V – 850 V			
MPPT Voltage Range at Full Load	420 V – 850 V	360 V – 850 V	360 V – 850 V	420 V – 850 V
Number of MPP Trackers	—	3	3	3
Start-up Voltage	180 V			
Max PV Short-Circuit Current	55+55+55 A			
MPPT Nominal Voltage	600 V			
Nominal DC Voltage	600 V			
Electrical / AC Output Data				
European Efficiency	97.0%			
Max AC Apparent Power	38500 VA	29900 VA	33000 VA	38500 VA
Max Efficiency	97.60%			
Peak / Surge Power (W)	1.5 times of rated power, 10s			
Rated AC Power	35000 W	29900 W	30000 W	35000 W
AC Frequency Range	50Hz/45Hz-55Hz			
AC Grid Connection Type	3L+N+PE			

Parameter	SUN-29-9-35K-SG01HP3	SUN-29.9K-SG01HP3-EU-BM3	SUN-30K-SG01HP3-EU-BM3	SUN-35K-SG01HP3-EU-BM3
Max Parallel Units	—	10	10	10
Nominal AC Voltage Range	220/380V, 230/400V 0.85Un-1.1Un			
Phase	Three Phase	Three-phase	Three-phase	Three-phase
Rated AC Output Current	53.1/50.8 A	45.4/43.4 A	45.5/43.5 A	53.1/50.8 A
THD / THDi	<3% (of nominal power)			
Adjustable Power Factor Range	0.8 leading to 0.8 lagging			
Max AC Output Current	58.4/55.8 A	45.4/43.4 A	50/47.9 A	58.4/55.8 A
Max Continuous AC Pass-Through	200 A			
Topology	Non-Isolated			
Unbalanced Output	—	100%	100%	100%
Max Inverter Backfeed Current	0 A			
Battery Data				
Battery Voltage	—	160-800 V	160-800 V	160-800 V
Battery Voltage Range	160 V – 800 V			
Max Charge Current	50+50 A			
Max Discharge Current	50+50 A			
Supported Battery Type	Lithium-ion			
Number of Battery Inputs	2			
Protection Features				
IP Rating	IP65	IP 65	IP 65	IP 65
AC/DC Surge Protection	TYPE II(DC), TYPE II(AC)			
Grid Connection Standards	IEC 61727, IEC 62116,OVE-RichtlinieCEI0-21,R25,EN50549,G99,VDE-AR-NNRS097,RD4105140, UNE 217002,			
Over-Temperature / Thermal Protection	Yes			
Overvoltage Category	OVC II(DC), OVC III(AC)			

Parameter	SUN-29-9-35K-SG01HP3	SUN-29.9K-SG01HP3-EU-BM3	SUN-30K-SG01HP3-EU-BM3	SUN-35K-SG01HP3-EU-BM3
Safety / EMC Standards	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
Mechanical Data				
Cooling Method	Intelligent Air Cooling			
Operating Conditions				
Max Altitude	2000m			
Noise Level	≤65 dB			
Operating Temperature	-25 to +60 °C	-40 to +60°C, >45°C Derating °C	-40 to +60°C, >45°C Derating °C	-40 to +60°C, >45°C Derating °C
Relative Humidity	0-100%			
Communication				
Communication Interface	WIFI, RS485, CAN			

Note: Specifications are based on the official Deye SUN-29-9-35K-SG01HP/29.9K-SG01HP3-EU-BM/30K-SG01HP3-EU-BM/35K-SG01HP3-EU-BM3 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

- **29.9-35kW 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
- **High Voltage Battery:** 160-800V lithium-ion support
- **100A Charging:** Dual 50A battery inputs
- **100% Unbalanced:** Full flexibility per phase
- **10 Units Parallel:** Scale up to 299kW
- **AC Coupling:** Retrofit existing solar systems
- **Generator Support:** Store energy from diesel generator

Frequently Asked Questions

- ▶ Is the DEYE SUN-29-9-35K-SG01HP3 suitable for the Middle East climate?
- ▶ What is the warranty period?
- ▶ Can this be used for off-grid systems?
- ▶ Why use high voltage batteries?
- ▶ Can I expand this system?

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-29-9-35K-SG01HP/29.9K-SG01HP3-EU-BM/30K-SG01HP3-EU-BM/35K-SG01HP3-EU-BM3 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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