

Deye SUN-3-6-10K-SG05LP1-SM2/3.6K-SG05LP1-EU-SM2-P/5K-SG05LP1-EU-SM2-P/6K-SG05LP1-EU-SM2-P/7.6K-SG05LP1-EU-SM2-P/7K-SG05LP1-EU-SM2-P/8K-SG05LP1-EU-SM2-P/10K-SG05LP1-EU-SM2-P

3.6-10kW Single Phase Hybrid Inverter for residential and commercial solar installations.

Models Covered: SUN-3-6-10K-SG05LP1-SM2, SUN-3.6K-SG05LP1-EU-SM2-P, SUN-5K-SG05LP1-EU-SM2-P, SUN-6K-SG05LP1-EU-SM2-P, SUN-7.6K-SG05LP1-EU-SM2-P, SUN-7K-SG05LP1-EU-SM2-P, SUN-8K-SG05LP1-EU-SM2-P, SUN-10K-SG05LP1-EU-SM2-P

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

Application: The Deye SUN-3-6-10K-SG05LP1-SM2 is a high-efficiency single phase hybrid inverter designed for solar installations. With 3.6-10kW power output, it offers excellent performance, reliability, and easy installation for both residential and commercial applications.

Technical Specifications

Parameter	SUN-3-6-10K-SG05LP1-SM2	SUN-3.6K-SG05LP1-EU-SM2-P	SUN-5K-SG05LP1-EU-SM2-P	SUN-6K-SG05LP1-EU-SM2-P	SUN-7.6K-SG05LP1-EU-SM2-P	SUN-7K-SG05LP1-EU-SM2-P
General Data						
Inverter Type	Hybrid Inverter	—	—	—	—	—
PV String Input Data						
Max PV Array Power	20000 W	7200 W	10000 W	12000 W	15200 W	14000 W
Max PV Input Power	16000 W	5760 W	8000 W	9600 W	12160 W	11200 W
Max PV / DC Voltage	—	500 V	500 V	500 V	500 V	500 V
Max PV Input / Array Open Circuit Voltage	500 V					
Max PV Input Current	32+32 A	18+18 A	18+18 A	18+18 A	32+32 A	32+32 A
MPPT Efficiency	>99%					
MPPT Voltage Range	150 V – 425 V					
MPPT Voltage Range at Full Load	250 V – 425 V	300 V – 425 V	300 V – 425 V	300 V – 425 V	200 V – 425 V	200 V – 425 V
Number of MPP Trackers	—	2	2	2	2	2
PV Operating Voltage Range	—	125 V – 500 V	—	—	—	—
Start-up Voltage	125 V					
Max PV Short-Circuit Current	48+48 A	27+27 A	27+27 A	27+27 A	48+48 A	48+48 A
MPPT Nominal Voltage	370 V					

Parameter	SUN-3-6-10K-SG05LP1-SM2	SUN-3.6K-SG05LP1-EU-SM2-P	SUN-5K-SG05LP1-EU-SM2-P	SUN-6K-SG05LP1-EU-SM2-P	SUN-7.6K-SG05LP1-EU-SM2-P	SUN-7K-SG05LP1-EU-SM2-P
Electrical / AC Output Data						
European Efficiency	96.50%					
Max AC Apparent Power	11000 VA	3960 VA	5500 VA	6600 VA	8360 VA	7700 VA
Max Efficiency	97.60%					
Peak / Surge Power (W)	2 times of rated power, 10s					
Rated AC Power	10000 W	3600 W	5000 W	6000 W	7600 W	7000 W
AC Frequency Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz					
AC Grid Connection Type	L+N+PE					
Max Parallel Units	—	16	16	16	16	16
Nominal AC Voltage Range	220V/230V 0.85Un-1.1Un					
Phase	Single Phase	Single-phase	Single-phase	Single-phase	Single-phase	Single-phase
Rated AC Output Current	16.4/15.7 22.8/21.8 27.3/26.1 31.9/30.5 34.6/33.1 36.4/34.8 45.5/43.5 A					
THD / THDi	<3% (of nominal power)					
Adjustable Power Factor Range	0.8 leading-0.8 lagging					
Max AC Output Current	50/47.9 A	18/17.3 A	25/24 A	30/28.7 A	38/36.4 A	35/33.5 A
Max Continuous AC Pass-Through	50 A	35 A	35 A	40 A	50 A	40 A
Topology	Non-Isolated	—	—	—	—	—

Parameter	SUN-3-6-10K-SG05LP1-SM2	SUN-3.6K-SG05LP1-EU-SM2-P	SUN-5K-SG05LP1-EU-SM2-P	SUN-6K-SG05LP1-EU-SM2-P	SUN-7.6K-SG05LP1-EU-SM2-P	SUN-7K-SG05LP1-EU-SM2-P
Max Inverter Backfeed Current	0 A					
Battery Data						
Battery Voltage Range	40 V – 60 V					
Max Charge Current	210 A	90 A	120 A	135 A	190 A	175 A
Max Discharge Current	210 A	90 A	120 A	135 A	190 A	175 A
Supported Battery Type	Lead-acid or Lithium-ion					
Number of Battery Inputs	1					
Protection Features						
IP Rating	IP65					
AC/DC Surge Protection	TYPEII(DC),TYPEII(AC)	—	—	—	—	—
DC Reverse Polarity Protection	—	Yes	—	—	—	—
Grid Connection Standards	IEC 61727, IECOVE-Richtlinie62116,CEI0-21,R25,ENG98,50549,G99,NRSVDE-AR-N097,RD4105'140, UNE 217002,	—	—	—	—	—
Insulation Resistance Monitoring	—	—	—	—	—	—
Over-Temperature / Thermal Protection	Yes					
Overvoltage Category	OVCII(DC),OVCIII(AC)	—	—	—	—	—

Parameter	SUN-3-6-10K-SG05LP1-SM2	SUN-3.6K-SG05LP1-EU-SM2-P	SUN-5K-SG05LP1-EU-SM2-P	SUN-6K-SG05LP1-EU-SM2-P	SUN-7.6K-SG05LP1-EU-SM2-P	SUN-7K-SG05LP1-EU-SM2-P
Protection Features	—	Yes	—	—	—	—
Safety / EMC Standards	IEC/EN61000-6-1/2/3/4,IEC/EN62109-1,IEC/EN62109-2	—	—	—	—	—
Mechanical Data						
Cooling	—	Intelligent Air Cooling	Intelligent Air Cooling	Intelligent Air Cooling	Intelligent Air Cooling	Intelligent Air Cooling
Cooling Method	IntelligentAirCooling	—	—	—	—	—
Operating Conditions						
Max Altitude	2000ml	2000 m	2000 m	2000 m	2000 m	2000 m
Noise Level	<45 dB	<30 dB	<30 dB	<30 dB	<30 dB	<30 dB
Operating Temperature	-25 to +60 °C	-40 to 60 °C	-40 to 60 °C	-40 to 60 °C	-40 to 60 °C	-40 to 60 °C
Relative Humidity	0-100%	0% – 100%	0% – 100%	0% – 100%	0% – 100%	0% – 100%
Communication						
Communication Interface	RS485/RS232/CAN	—	—	—	—	—
Display	—	Colorful Touch LCD	Colorful Touch LCD	Colorful Touch LCD	Colorful Touch LCD	Colorful Touch LCD
Monitoring Module	GPRS/WIFI/Bluetooth/4G/LAN(optional)	—	—	—	—	—

Note: Specifications are based on the official Deye SUN-3-6-10K-SG05LP1-SM2/3.6K-SG05LP1-EU-SM2-P/5K-SG05LP1-EU-SM2-P/6K-SG05LP1-EU-SM2-P/7.6K-SG05LP1-EU-SM2-P/7K-SG05LP1-EU-SM2-P/8K-SG05LP1-EU-SM2-P/10K-SG05LP1-EU-SM2-P 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

- **3.6-10kW 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
- **90A Charging:** Ultra-high battery charging
- **Touch LCD Display:** Colorful intuitive interface
- **16 Units Parallel:** Scale up to 57.6kW
- **AC Coupling:** Retrofit existing systems
- **6 Time Periods:** Advanced battery management
- **Generator Support:** Store diesel generator energy
- **120A Charging:** Ultra-high battery charging
- **135A Charging:** Ultra-high battery charging

Frequently Asked Questions

- ▶ Is the DEYE SUN-3-6-10K-SG05LP1-SM2 suitable for the Middle East climate?
- ▶ What is the warranty period?
- ▶ Can this be used for off-grid systems?
- ▶ What makes this the SM2-P version?
- ▶ How many time periods can I set?

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
- **Technical Support:** sales@deyeinverters.net | +971 4 255 0887
- **Sales Inquiries:** sales@deyeinverters.net | +971 4 255 0887

Disclaimer: All specifications and technical data presented on this page are based on the official Deye SUN-3-6-10K-SG05LP1-SM2/3.6K-SG05LP1-EU-SM2-P/5K-SG05LP1-EU-SM2-P/6K-SG05LP1-EU-SM2-P/7.6K-SG05LP1-EU-SM2-P/7K-SG05LP1-EU-SM2-P/8K-SG05LP1-EU-SM2-P/10K-SG05LP1-EU-SM2-P 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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