Deye SUN-8K-SG05LP3-EU

Product code: **F.deye.3f.H.8k-SG05LP3-EU**

Deye SUN-8K-SG05LP3-EU – Three-Phase 8 kW Hybrid Inverter with 48V Battery Support and Advanced Off-Grid Functionality

The Deye SUN-8K-SG05LP3-EU is a modern hybrid inverter designed for comprehensive energy management in photovoltaic systems. It combines the functions of a grid-tied and off-grid inverter with support for parallel operation of up to 10 units, compatibility with low-voltage 48V batteries, and integration with a backup generator. It is ideal for households and commercial facilities where energy independence and high performance are essential.

Product variants

Index	Price
Deye SUN-8K-SG05LP3-EU **F.deye.3f.H.8k-SG05LP3-EU**	Product prices only visible after login. If you do not have an account, please register.

Product description

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households and commercial facilities where energy independence and high performance are essential.

Key Benefits:

Versatile application – supports PV, grid, energy storage, generator, and off-grid operation.

100% phase asymmetry – allows powering each phase independently, even with unbalanced loads.

Wide voltage range and high PV capacity – supports up to 12 kW PV input, voltage up to 650 V, and two independent MPPT trackers.

Supports multiple batteries and generators – works with lithium and lead-acid batteries; capable of charging and powering from a generator.

Flexible charging – allows configuration of 6 independent time slots for battery charging and discharging.

Communication and monitoring – RS485/RS232/CAN ports, with support for Wi-Fi, GPRS, Bluetooth, 4G, and LAN.

Technical Specifications:

PV Parameters:

Max. PV input power: 12,000 W

Max. PV input voltage: 650 V

MPPT voltage range: 200–650 V

Nominal voltage: 360 V

PV operating current: 2 × 20 A

Number of MPPTs / strings: 2 / 1+1

Battery Parameters:

Battery type: Li-ion / lead-acid

Voltage range: 40–60 V

Max. charge/discharge current: 240 A

Battery inputs: 1

BMS compatibility: automatic adaptation

AC Parameters (grid and output):

Nominal AC power: 8000 W

Max. apparent AC power: 8800 VA

Nominal AC current: 13.4 A per phase

Max. AC current: 18.2 A per phase

Max. AC throughput from grid: 45 A

Off-grid peak power: 2 × nominal power for 10 s

Grid connection: 3L + N + PE

Efficiency and Power Quality:

Max. efficiency: 97.6%

European efficiency: 97.0%

MPPT efficiency: >99%

THDi: <3%

DC leakage current: <0.5% In

Safety and Protection:

Surge protection: Type II (DC & AC)

Protections: reverse polarity, overcurrent, overvoltage, short-circuit, overheating, leakage current detection

Certifications: IEC 62109-1/-2, IEC 61000-6, IEC 61727, EN 50549, CEI 0-21, G99, VDE-AR-N 4105, and others

Operating Conditions:

Temperature range: -40°C to +60°C (derating above 45°C)

Humidity: 0–100%

Installation altitude: up to 3000 m a.s.l.

Noise level: ≤55 dB

Ingress protection rating: IP65

Cooling: intelligent air cooling

Dimensions and Mounting:

Dimensions (W × H × D): 386 × 660 × 253 mm

Weight: 35.2 kg

Mounting: wall-mounted

Monitoring:

Communication: RS485, RS232, CAN

Monitoring options: Wi-Fi, GPRS, Bluetooth, LAN, 4G (optional)

Choose Energy Independence with the Deye SUN-8K Inverter
The Deye SUN-8K-SG05LP3-EU is a versatile solution for users who require stable power, high efficiency, and full control over energy production and consumption. It is ideal for modern hybrid systems with expandability and integration with energy storage and backup generators.