Deye SUN-10K-SG01HP3-EU-AM2

Product code: **F.Deye.3F.H.10K-SG01HP3-EU-AM2**

Deye SUN-10K-SG01HP3-EU-AM2 – 10 kW Three-Phase Hybrid Inverter with High Voltage Support and Full Energy Independence

The Deye SUN-10K-SG01HP3-EU-AM2 is a modern 10 kW hybrid inverter designed for advanced residential and commercial installations. It supports operation with HV batteries, generators, and PV systems, enabling intelligent energy management from multiple sources. Thanks to its full off-grid power supply function, parallel operation, and integration with existing installations (AC coupling), the device ensures flexibility and maximum energy efficiency.

Product variants

Index	Price
Deye SUN-10K-SG01HP3-EU-AM2 **F.Deye.3F.H.10K-SG01HP3-EU-AM2**	Product prices only visible after login. If you do not have an account, please register.

Product description

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integration with existing installations (AC coupling), the device ensures flexibility and maximum energy efficiency.

Key Advantages of Deye SUN-10K-SG01HP3-EU-AM2:

High Voltage Battery Support (160–700 V) – enables higher charging efficiency and lower system losses.

Off-grid and On-grid Operation Mode with Parallel Connection of up to 10 Units – an ideal solution for large hybrid systems.

Dynamic Load and Storage Management – 6 independent battery charge and discharge periods to maximize self-consumption.

Full Integration with Generators and Retrofit Systems (AC-coupled) – allows for the modernization of existing installations without component replacement.

100% Unbalanced Output on Phases – each phase can independently handle up to 50% of the nominal power.

Extensive Protections and Monitoring – built-in overvoltage, overheating, RCD protection, and RS485/CAN/Wi-Fi/LAN communication.

Technical Specification:

General Parameters:

Rated AC Power: 10,000 W

Apparent AC Power: 11,000 VA

Max. Efficiency: 97.6%

European Efficiency: 97.0%

MPPT Efficiency: >99%

Topology: Transformerless

Cooling: Intelligent ventilation

Dimensions: 408 × 638 × 237 mm

Weight: 30.5 kg

Protection Class: IP65

Noise Level: ≤55 dB

Operating Temperature: -40°C ~ +60°C

Humidity: 0–100%

Installation Altitude: up to 2000 m a.s.l.

Warranty: 5 / 10 years

PV Side:

Max. PV Power: 13,200 W

PV Input Voltage: 150–850 V

Start-up PV Voltage: 180 V

Number of MPPTs: 2

Number of Strings: 2 (1+1)

Max. Input Current: 26 A (total 52 A)

Max. Short-Circuit Current: 39 A

Battery Side:

Battery Type: Lithium-ion (HV)

Battery Voltage Range: 160–700 V

Max. Charge/Discharge Current: 30 A

Number of Battery Inputs: 1

Automatic BMS Communication

AC Side:

Voltage: 220/380 V or 230/400 V (3L+N+PE)

Frequency: 50/60 Hz (adjustable 45–65 Hz)

Rated Current: 15.2 A

Max. Current: 16.7 A

Operating Mode: On-grid / Off-grid / Hybrid

AC Passthrough (grid to load): Max 40 A

Peak Power (off-grid): 1.5 × nominal power for 10 s

Protections:

Surge Protection: Type II (DC and AC)

Overcurrent, Overvoltage, Short-Circuit, Thermal Protection

Built-in RCD, DC switch, Arc Fault Circuit Interrupter (AFCI - optional)

Grounding Monitoring, Leakage Current, Insulation, DC Component Monitoring

Interface and Communication:

Communication: RS485 / RS232 / CAN

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

Configuration: Locally or Remotely

Choose Energy Independence with Deye SUN-10K-SG01HP3-EU-AM2

The Deye 10 kW inverter from the AM2 series is a professional solution for modern PV hybrid systems. Its high compatibility, safety, and flexibility make it an ideal choice for demanding users who want to combine efficiency with full control over their energy.