

Deye SUN-12K-SG01HP3-EU-AM2

Product code: F.Deye.3F.H.12K-SG01HP3-EU-AM2



Deye SUN-12K-SG01HP3-EU-AM2 – Versatile 12 kW Hybrid Inverter for Modern PV Installations

The Deye SUN-12K-SG01HP3-EU-AM2 is a next-generation three-phase hybrid inverter designed for maximum efficiency, flexibility, and reliability. It supports grid-connected operation, energy storage, and backup power, making it ideal for both residential and commercial applications. With intelligent energy management and wide compatibility with high-voltage batteries, it meets the highest standards of modern renewable energy systems.

Product variants

Index	Price
Deye SUN-12K-SG01HP3-EU-AM2 F.Deye.3F.H.12K-SG01HP3-EU-AM2	Product prices only visible after login. If you do not have an account, please register.

Product description

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Key Advantages of the Deye SUN-12K-SG01HP3-EU-AM2

- High efficiency up to 97.6% with MPPT tracking accuracy of 99.9%
- Supports high-voltage batteries (160–700 V) for better compatibility and performance
- Charge/discharge current up to 50 A ensures fast and efficient energy storage
- Parallel operation of up to 16 units – ideal for large and scalable PV systems
- Diesel generator support – ensures backup power and energy security
- Configurable charging/discharging with up to 6 independent time periods
- AC Coupling function – easily upgrade existing PV systems to hybrid functionality
- Advanced protection features: AFCI, OVP, OCP, leakage current monitoring, Type II AC and DC surge protection

Technical Specifications

- Nominal power output: 12,000 W
- Maximum PV input power: 18,200 W
- MPPT trackers: 2 (2+2 strings)
- MPPT voltage range: 150–850 V
- Max. PV input voltage: 1000 V
- Battery voltage range: 160–700 V
- Supported battery types: Li-ion, Lead-acid
- Max. charge/discharge current: 50 A
- Nominal AC voltage: 3-phase 230/400 V
- AC voltage range: 0.85Un – 1.1Un
- Grid frequency: 50 Hz (adjustable 45–55 Hz)
- Max. / European efficiency: 97.6% / 96.5%
- Power factor: adjustable 0.8 (inductive/capacitive)
- Communication interfaces: RS485, CAN, RS232, WiFi, LAN, Bluetooth, 4G (optional)
- Protection rating: IP65
- Dimensions (W × H × D): 408 × 638 × 237 mm
- Weight: 30.5 kg
- Noise level: ≤55 dB
- Operating temperature range: -40°C to +60°C
- Cooling method: intelligent air cooling
- Warranty: 5 years (extendable to 10 years)

Summary

The Deye SUN-12K-SG01HP3-EU-AM2 is an advanced hybrid inverter built for users who demand high performance,

energy independence, and smart energy management. Its broad functionality and compatibility with various energy sources make it a top-tier choice for scalable and modern PV systems.