

Deye SUN-6K-SG01HP3-EU-AM2

Product code: F.Deye.3F.H.6K-SG01HP3-EU-AM2



Deye SUN-6K-SG01HP3-EU-AM2 – Reliable 6 kW Hybrid Inverter for Residential PV Systems

The Deye SUN-6K-SG01HP3-EU-AM2 is a three-phase hybrid inverter with a power output of 6 kW, perfectly suited for small to medium photovoltaic installations. It combines grid-tied operation, backup power, and energy storage capabilities, providing users with maximum energy independence and optimal use of solar power. Compatibility with high-voltage batteries and numerous intelligent energy management features make it a versatile and modern solution for households.

Product variants

Index	Price
Deye SUN-6K-SG01HP3-EU-AM2 F.Deye.3F.H.6K-SG01HP3-EU-AM2	Product prices only visible after login. If you do not have an account, please register.

Product description

Deye SUN-6K-SG01HP3-EU-AM2 – Reliable 6 kW Hybrid Inverter for Residential PV Systems

The Deye SUN-6K-SG01HP3-EU-AM2 is a three-phase hybrid inverter with a power output of 6 kW, perfectly suited for small to medium photovoltaic installations. It combines grid-tied operation, backup power, and energy storage capabilities, providing users with maximum energy independence and optimal use of solar power. Compatibility with high-voltage batteries and numerous intelligent energy management features make it a versatile and modern solution

for households.

Key Advantages of Deye SUN-6K-SG01HP3-EU-AM2

High efficiency up to 97.6% with MPPT tracking accuracy of 99.9%

Support for high-voltage batteries ranging from 160 to 700 V

Maximum charge/discharge current of 50 A ensures fast and efficient energy management

Parallel operation of up to 16 units – ideal for future system expansion

Compatibility with diesel generators – reliable source of backup power

Up to 6 configurable charging and discharging time periods for battery management

AC Coupling function – allows upgrading existing PV systems without replacing infrastructure

Advanced protection features: Type II AC/DC surge protection, AFCI, leakage current detection, OVP, OCP

Technical Specifications

Nominal AC power: 6,000 W

Maximum PV power: 9,120 W

Number of MPPT trackers: 2 (2+2 strings)

MPPT voltage range: 150–850 V

Maximum PV input voltage: 1000 V

Battery voltage range: 160–700 V

Supported battery types: lithium-ion, lead-acid

Maximum 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)

Maximum / EU efficiency: 97.6% / 96.5%

Power factor: adjustable from 0.8 (inductive / capacitive)

Communication: 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: intelligent air cooling

Warranty: 5 years (extendable to 10 years)

The Deye SUN-6K-SG01HP3-EU-AM2 is a compact, efficient, and highly functional hybrid inverter perfectly tailored to

meet the needs of modern households. Thanks to its advanced energy management features, support for energy storage, and reliable operation under various conditions, it offers users not only cost savings but also real energy independence.
