

Deye SUN-12K-SG04LP3-EU

Product code: F.Deye.3F.H.12K-SG04LP3-EU



The Deye SUN-12K-SG04LP3-EU hybrid inverter is a three-phase, low-voltage (48V) inverter that enables increased energy independence and optimizes the direction of energy flow between various sources and consumers. Its compact design and high power density result in a favorable DC/AC ratio of 1.3, which translates into investment savings. Additionally, the inverter supports three-phase unbalanced output, broadening its range of application scenarios.

Product variants

Index	Price
Deye SUN-12K-SG04LP3-EU F.Deye.3F.H.12K-SG04LP3-EU	Product prices only visible after login. If you do not have an account, please register.

Product description

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Advantages of the Deye SUN-12K-SG04LP3-EU three-phase hybrid inverter:

Full unbalanced power for each phase, reaching maximum output up to 50% of rated power.

Integration of both AC and DC power to upgrade existing solar systems.

Supports simultaneous operation of up to 16 units on-grid and off-grid; supports parallel connection of multiple batteries.

Max. charging/discharging current: 240 A

48 V low-voltage battery with transformer isolation.

6 periods for battery charging/discharging.

Diesel generator energy storage support.

Technical specifications of the Deye SUN-12K-SG04LP3-EU three-phase hybrid inverter:

Battery type: Lead-acid or lithium-ion

Battery voltage range (V): 40~60

Max. charging current (A): 240

Max. discharging current (A): 240

External temperature sensor: Yes

Charging curve: 3 stages / equalization

Max. DC input power (W): 15600

PV nominal input voltage (V): 550 (160~800)

Start-up voltage (V): 160

MPPT range (V): 200-650

DC voltage range at full load (V): 350-650

PV input current (A): 26+13

Max. PV ISC (A): 34+17

Number of MPPT / strings per MPPT: 2/2+1

AC Output Data

Rated AC output & UPS power (W): 12000

Max. AC output power (W): 13200

Rated AC output current (A): 18.2

Max. AC current (A): 20

Max. continuous AC passthrough current (A): 45

Peak power (off-grid): 2x rated power for 10s

Power factor: 0.8 leading to 0.8 lagging

Output frequency & voltage: 50/60Hz; 3L/N/PE 220/380, 230/400Vac

Grid type: Three-phase

Max. efficiency: 97.60%

Output overvoltage protection: DC Type II / AC Type III

Operating temperature range (°C): -45~60°C, >45°C derating

Noise (dB): < 45 dB

Communication with BMS: RS485; CAN

Weight (kg): 33.6

Dimensions (mm): 422 W x 699.3 H x 279 D

Protection rating: IP65

Mounting style: Wall-mounted

Warranty: 5 years
