

HYBRID INVERTER 30/50kW Three-Phase High Voltage Battery

Higher yields
Safe and reliable
Smart
User-friendly

Deye

SUN-30K-SG01HP3-EU-BM3 (30kW)
SUN-50K-SG01HP3-EU-BM4 (50kW)



The DEYE SUN-30/50K-SG01HP3-EU represents a cutting-edge three-phase hybrid inverter crafted to accommodate high-voltage batteries (160-800V), optimizing system efficiency and minimizing the necessity for heat dissipation.

Characterized by its compact design and remarkable power density, this series enables a 1.3 DC/AC ratio, thereby lowering the equipment investment needed. Moreover, the DEYE SUN-30/50 hybrid inverter enables three-phase unbalanced output, broadening its scope of utility.

Features

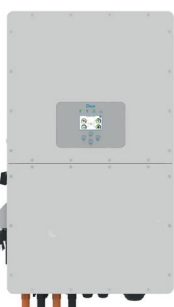
- 100% unbalanced output, each phase
- AC connections to integrate existing solar energy systems
- Max. charge/discharge current: 100A
- Max. 10 pieces parallel for on-grid and off-grid systems; supports parallel use of multiple batteries
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Supports energy storage via generator

Dimensions

527 x 894 x 294 (W x H x D, in mm)

Weight

80 kg



HYBRID INVERTER

30/50kW Three-Phase HV



Technical Data

Model	SUN-30K-SG01HP3-EU-BM3	SUN-50K-SG01HP3-EU-BM4
Battery Input Data		
Battery Type	Li-Ion	
Battery Voltage Range (V)	160-800	
Max. Charging Current (A)	50+50	
Max. Discharging Current (A)	50+50	
Number of Battery Input	2	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	39000	65000
Max. DC Input Voltage (V)	1000	
Start-up Voltage(V)	180	
MPPT Range (V)	150-850	
Full Load DC Voltage Range (V)	360-850	450-850
Rated DC Input Voltage (V)	600	
PV Input Current (A)	36+36+36	36+36+36+36
Max. PV Isc (A)	55+55+55	55+55+55+55
No. of MPPT Trackers	3	4
No. of Strings Per MPPT Tracker	2+2+2	2+2+2+2
AC Output Data		
Rated AC Output Active Power (W)	30000	50000
Max. AC Output Active Power (W)	33000	55000
AC Output Rated Current (A)	45.5/43.5	75.8/72.5
Max. AC Output Rated Current (A)	50/47.8	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	60	83.3
Max. Continuous AC Passthrough (A)	200	
Peak Power (Off Grid)	1.5 times of rated power, 10 s	
Generator Input/Smart Load/AC Couple Current (A)	45.5/200/45.5	75.8/200/75.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac	
Grid Type	Three-Phase	
Total Harmonic Distortion (THD)	<3% (of nominal power)	
DC current injection	<0.5% In	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
Protection		
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection	
Over Voltage Category	DC Type II / AC Type III	
Certifications and Standards		
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150	
EMC/Safety Regulation	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
General Data		
Operating Temperature Range (°C)	-40~60°C, >45°C Derating	
Cooling	Smart cooling	
Noise (dB)	<65 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	80	
Cabinet size (mm)	527×894×294 WxHxD (Excluding connectors and brackets)	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 years	

Note: We have successfully connected five units in parallel, and we are currently conducting tests on connecting ten units in parallel. It is essential to use inverters of the same model for parallel connections.