

ORION W

Indoor C&I ESS Solutions

GB-W

SUN-30~125K Series Hybrid Inverter

SUN-100/125K PCS+MPPT+STS Series Module

High Integration, Easy Scalability

- Modular cable-free stacking design enables efficient and convenient installation, drastically cutting installation costs.
- The battery pack is equipped with a quick-release service panel; wearing parts replaceable on-cluster without battery removal — efficient, hassle-free maintenance.
- Single-cluster capacity ranges from 60 to 192kWh, covering diverse energy storage scenarios for small and medium commercial & industrial applications.

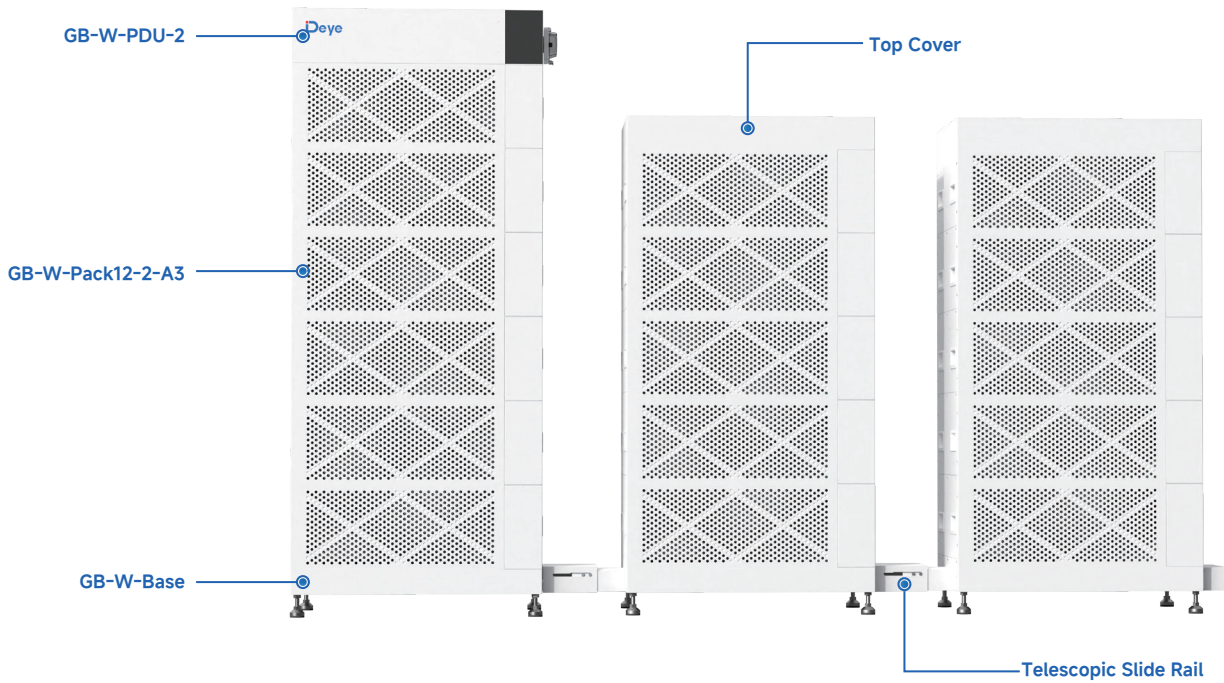
High Performance, Ultimate Safety

- Supports a maximum continuous discharge current of 230A, highly compatible with DEYE 30–125kW high-voltage inverters and 100/125kW PCS.
- Cell-level thermal isolation, pack-level aerosol fire suppression system, and dual temperature monitoring for cells and connections build a full-dimensional safety protection barrier.
- Equipped with a natural air cooling system with directional air ducts and dust filtration, the system keeps cell temperature difference below 4°C, ensuring cycle life and extending service life.

Intelligent Management, Simplified O&M

- Adopts pack-level and cell-level balancing technology, supporting seamless pack replacement for capacity expansion to simplify operation and maintenance.
- DEYE integrated BMS+EMS collaborative control realizes real-time full-link linkage from cells to the system, intelligently optimizing power consumption strategies.
- Supports dual access via local Bluetooth and remote cloud platform, providing 7×24h real-time monitoring, fault diagnosis and remote upgrade.

System Accessories



| Model | GB-W-PDU-2 |
|-------|------------|
|-------|------------|

| | |
|----------------------------------|--------------------------------------|
| Operating Voltage | 200~1000Vdc |
| Nominal Charge/Discharge Current | 230A |
| Operating Temperature | -20~55°C |
| Ingress Protection | IP20 |
| Details | 690 x 436 x 151.2(W x D x H), 20.8kg |

| Model | GB-W-Pack12-2-A3 |
|-------|------------------|
|-------|------------------|

| | |
|-----------------------------------|----------------------------------|
| Nominal Capacity | 235Ah |
| Nominal Energy | 12.03kWh |
| Nominal Voltage | 51.2Vdc |
| Max Charge/Discharge Current | 230A |
| Ingress Protection | IP20 |
| Operating Temperature (Charge) | 0~55°C |
| Operating Temperature (Discharge) | -20~55°C |
| Storage Temperature | -30~60°C |
| Details | 690 x 436 x 270(W x D x H), 93kg |

| Model | GB-W-Base |
|-------|-----------|
|-------|-----------|

| | |
|---------|----------------------------------|
| Details | 690 x 436 x 117(W x D x H), 14kg |
|---------|----------------------------------|

| Model | Telescopic Slide Rail |
|-------|-----------------------|
|-------|-----------------------|

| | |
|---------|--------------------|
| Details | Stroke: 200-300 mm |
|---------|--------------------|

| Model | Top Cover |
|-------|-----------|
|-------|-----------|

| | |
|---------|---------------------------------|
| Details | 690 x 436 x 90 (W x D x H), 6kg |
|---------|---------------------------------|

Battery System Data

| | | | | | | | | | | | | |
|--|--------------------------------|-------------|-------------|-------------|-------------|---------|-------------|-------------|-------------|-------------|---------|-------------|
| Cell Chemistry | LiFePO ₄ | | | | | | | | | | | |
| Module Energy (kWh) | 12.03 | | | | | | | | | | | |
| Module Capacity (Ah) | 235 | | | | | | | | | | | |
| Module Nominal Voltage (V) | 51.2 | | | | | | | | | | | |
| Battery Module Qty in series (Optional) | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Battery Model Number | GB-W60 | GB-W72 | GB-W84 | GB-W96 | GB-W108 | GB-W120 | GB-W132 | GB-W144 | GB-W156 | GB-W168 | GB-W180 | GB-W192 |
| System Nominal Voltage (Vdc) | 256 | 307.2 | 358.4 | 409.6 | 460.8 | 512 | 563.2 | 614.4 | 665.6 | 716.8 | 768 | 819.2 |
| System Operating Voltage (Vdc) | 208-292 | 249.6-350.4 | 291.2-408.8 | 332.8-467.2 | 374.4-525.6 | 416-584 | 457.6-642.4 | 499.2-700.8 | 540.8-759.2 | 582.4-817.6 | 624-876 | 665.6-934.4 |
| System Energy (kWh) | 60.1 | 72.1 | 84.2 | 96.2 | 108.2 | 120.3 | 132.3 | 144.3 | 156.4 | 168.4 | 180.4 | 192.5 |
| System Usable Energy (kWh) | 54.1 | 64.9 | 75.8 | 86.6 | 97.4 | 108.2 | 119.1 | 129.9 | 140.7 | 151.6 | 162.4 | 173.2 |
| System Nominal Charge/Discharge Power (kW) | 58.8 | 70.6 | 82.4 | 94.2 | 105.9 | 117.7 | 129.5 | 141.3 | 153 | 164.8 | 176.6 | 188.4 |
| Charge / Discharge | Max.Continuous | | | | | | | | | | | 230 |
| Current | Peak | | | | | | | | | | | 322 (1s) |
| Working Temperature (°C) | Charge:0~55 / Discharge:-20~55 | | | | | | | | | | | |
| Communication Port | CAN / RS485 | | | | | | | | | | | |
| Thermal Management | Natural air cooling | | | | | | | | | | | |
| Recommend Depth of Discharge | 90% | | | | | | | | | | | |
| Cycle Life | 25±2°C,0.5C/0.5C,70%EOL≥6000 | | | | | | | | | | | |
| Warranty | 10 years | | | | | | | | | | | |

Other Data

| | | | | | | | | | | | | |
|--------------------------|--------------|--|--|--|--|--|--|--|--|--|--|--|
| Humidity | 0~85% | | | | | | | | | | | |
| Altitude (m) | ≤3000 | | | | | | | | | | | |
| IP Rating of Enclosure | IP20 | | | | | | | | | | | |
| Noise (dB) | ≤60@25°C, 1m | | | | | | | | | | | |
| Storage Temperature (°C) | -30~60 | | | | | | | | | | | |
| Installation Location | Floor Mount | | | | | | | | | | | |



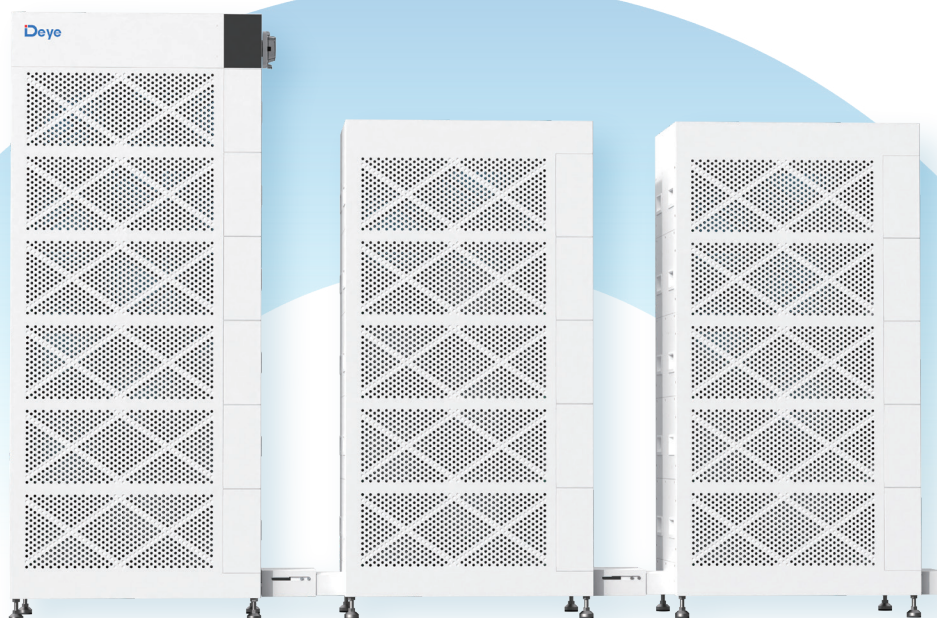
Hybrid Inverter

| Model | SUN-60K-SG02HP3-EU-EM6 | SUN-70K-SG02HP3-EU-EM6 | SUN-80K-SG02HP3-EU-EM6 | SUN-100K-SG02HP3-EU-GM10 | SUN-125K-SG02HP3-EU-GM10 |
|--|--|------------------------|------------------------|---|--------------------------|
| Battery Input Data | | | | | |
| Battery Type | Lithium-ion | | | | |
| Battery Voltage Range (V) | 160-1000 | | | | |
| Max. Charging Current (A) | 80+80 | | | 100+100 | |
| Max. Discharging Current (A) | 80+80 | | | 100+100 | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | |
| Number of Battery Input | 2 | | | | |
| PV String Input Data | | | | | |
| Max. PV Access Power (W) | 120000 | 140000 | 160000 | 200000 | 250000 |
| Max. PV Input Power (W) | 96000 | 112000 | 128000 | 160000 | 200000 |
| Max. PV Input Voltage (V) | 1000 | | | | |
| Start-up Voltage (V) | 180 | | | | |
| MPPT Voltage Range (V) | 150-850 | | | | |
| Rated PV Input Voltage (V) | 650 | | | | |
| Max. Operating PV Input Current (A) | 36+36+36+36+36+36 | | | 42+42+42+42+42+42+42+42+42+42 | |
| Max. Input Short-Circuit Current (A) | 54+54+54+54+54+54 | | | 63+63+63+63+63+63+63+63+63+63 | |
| No. of MPP Trackers/ | 6/2+2+2+2+2+2 | | | 10/2+2+2+2+2+2+2+2+2 | |
| No. of Strings MPP Tracker | | | | | |
| AC Input/Output Data | | | | | |
| Rated AC Input/Output Active Power (W) | 60000 | 70000 | 80000 | 100000 | 125000 |
| Max. AC Input/Output Apparent Power (VA) | 66000 | 77000 | 88000 | 110000 | 135000 |
| Rated AC Input/Output Current (A) | 91/87 | 106.1/101.5 | 121.3/116 | 151.6/145.0 | 189.4/181.2 |
| Max. AC Input/Output Current (A) | 100/95.7 | 116.7/111.6 | 133.4/127.6 | 166.7/159.5 | 204.6/195.7 |
| Max. Continuous AC Passthrough (grid to load)(A) | 200 | | | 250 | |
| Peak Power (off-grid) (W) | 1.5 Times Of Rated Power,10s | | | | |
| Power Factor Adjustment Range | 0.8 Leading to 0.8 Lagging | | | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | |
| Grid Connection Form | 3L+N+PE | | | | |
| Total Current Harmonic Distortion THDi | <3% (Of Rated Power) | | | | |
| DC Injection Current | <0.5% In | | | | |
| Efficiency | | | | | |
| Max. Efficiency | 98.7% | | | | |
| Euro Efficiency | 98.10% | | | | |
| MPPT Efficiency | > 99% | | | | |
| Equipment Protection | | | | | |
| Integrated | DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (Optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection | | | | |
| Surge Protection Level | TYPE II(DC),TYPE II(AC) | | | | |
| Interface | | | | | |
| LCD/LED Display | LCD+LED | | | | |
| Communication Interface | RS485,RS232,CAN | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| General Data | | | | | |
| Operating Temperature Range (°C) | -40 to +60, >45 Derating | | | | |
| Permissible Ambient Humidity | 0-100% | | | | |
| Permissible Altitude | 3000m | | | | |
| Noise (dB) | ≤ 65 | | | | |
| Ingress Protection(IP) Rating | IP65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet Size (WxHxD mm) | 606×927×314 (Excluding Connectors and Brackets) | | | 734×1091×344 (Excluding Connectors and Brackets) | |
| Weight (kg) | 105 | | | 161.7 | |
| Type of Cooling | Intelligent Air Cooling | | | Intelligent Air Cooling | |
| Warranty | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | |
| Grid Regulation | IEC 61727,IEC 62116,CEI 0-21,EN 50549, NRS 097,RD 140,UNE 217002,OVE-Richtlinie R25,G99,VDE-AR-N 4105 | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

| Model | SUN-30K-SG02HP3 -EU-BM3(-P) | SUN-40K-SG02HP3 -EU-BM4(-P) | SUN-50K-SG02HP3 -EU-BM4(-P) |
|--|---|--------------------------------|--------------------------------|
| Battery Input Data | | | |
| Battery Type | Lithium-ion | | |
| Battery Voltage Range (V) | 160-800 | | |
| Max. Charging Current (A) | 100(160) | 100(160) | 100(160) |
| Max. Discharging Current (A) | 100(160) | 100(160) | 100(160) |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | |
| Number of Battery Input | 1 | | |
| PV String Input Data | | | |
| Max. PV Access Power (W) | 60000 | 80000 | 100000 |
| Max. PV Input Power (W) | 48000 | 64000 | 80000 |
| Max. PV Input Voltage (V) | 1000 | | |
| Start-up Voltage (V) | 180 | | |
| MPPT Voltage Range (V) | 150-850 | | |
| Rated PV Input Voltage (V) | 600 | | |
| Max. Operating PV Input Current (A) | 36+36+36 | 36+36+36+36 | |
| Max. Input Short-Circuit Current (A) | 55+55+55 | 55+55+55+55 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 3/2+2+2 | 4/2+2+2+2 | |
| AC Input/Output Data | | | |
| Rated AC Input/Output Active Power (W) | 30000 | 40000 | 50000 |
| Max. AC Input/Output Apparent Power (VA) | 33000 | 44000 | 55000 |
| Rated AC Input/Output Current (A) | 45.5/43.5 | 60.7/58 | 75.8/72.5 |
| Max. AC Input/Output Current (A) | 50/47.9 | 66.7/63.8 | 83.4/79.8 |
| Max. Continuous AC Passthrough (grid to load)(A) | 200 | | |
| Peak Power (off-grid) (W) | 1.5 times of rated power, 10s | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V, 0.85Un-1.1Un | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | |
| Grid Connection Form | 3L+N+PE | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | |
| DC Injection Current | <0.5% In | | |
| Efficiency | | | |
| Max. Efficiency | 97.60% | | |
| Euro Efficiency | 97.0% | | |
| MPPT Efficiency | >99% | | |
| Equipment Protection | | | |
| Integrated | DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | |
| Interface | | | |
| LCD/LED Display | LCD | | |
| Communication Interface | WIFI/RS485 /CAN | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G | | |
| General Data | | | |
| Operating Temperature Range (°C) | -40 to +60, >45 Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude | 3000m | | |
| Noise (dB) | ≤ 65 | | |
| Ingress Protection(IP) Rating | IP 65 | | |
| Inverter Topology | Non-Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Cabinet Size (WxHxD mm) | 528×793×278 (Excluding Connectors and Brackets) | | |
| Weight (kg) | 65 | | |
| Type of Cooling | Intelligent Air Cooling | | |
| Warranty | Standard 5 years, extended warranty | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

| PCS Model | SUN-100K-PCS01HP3 | SUN-125K-PCS01HP3 |
|---|---|-------------------|
| Battery Data | | |
| Battery Type | Lithium-ion | |
| Battery Voltage Range (V) | 630-1000 | |
| Max. Charging Current (A) | 175 | 200 |
| Max. Discharging Current (A) | 175 | 200 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | |
| Number of Battery Input | 1 | |
| DC Input Data | | |
| DC Input Voltage Range(V) | 630-1000 | 630-1000 |
| Max. DC Input Current(A) | 200 | 200 |
| AC Input/Output Data | | |
| Rated AC Input/Output Active Power (kW) | 100 | 125 |
| Max. AC Input/Output Apparent Power (kVA) | 110 | 125 |
| Rated AC Input/Output Current (A) | 151.6/145 | 189.4/181.2 |
| Max. AC Input/Output Current (A) | 166.7/159.5 | 189.4/181.2 |
| Rated Input/Output Voltage/Range(V) | 220/380, 230/400 0.85Un-1.1Un | |
| Grid Connection Form | 3L+N+PE | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | |
| Power Factor Adjustment Range | -1~1 | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | |
| DC Injection Current | <0.5% In | |
| Efficiency | | |
| Max. Efficiency | 98.5% | |
| Euro Efficiency | 97.8% | |
| Equipment Protection | | |
| Integrated | AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Anti-islanding Protection, Insulation Impedance Detection, Residual Current Detection | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | |
| Interface | | |
| LCD/LED display | LCD | |
| Communication Interface | WIFI, RS485, CAN, Meter | |
| General Data | | |
| Operating Temperature Range(°C) | -40°C-60°C, >45°C Derating | |
| Permissible Ambient Humidity | 0-95% | |
| Permissible Altitude | 4000m | |
| Noise | <75dB | |
| Ingress Protection(IP) Rating | IP 65(PCS Module) | |
| Cabinet Size[W×H×D] (mm) | 543x310x775 (Excluding connectors and brackets) | |
| Weight (kg) | 81.86 | |
| Inverter Topology | Non-Isolated | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | |
| Type of Cooling | Intelligent Air Cooling | |
| Warranty | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | |
| Safety/EMC Standard | IEC/EN 62477-1 | |

HESS Solution (Recommend)



GB-W
(60~192kWh)



Hybrid Inverter

SUN-30/40/50K-SG02HP3-EU-BM3/4-P



Hybrid Inverter

SUN-60/70/80K-SG02HP3-EU-EM6



Hybrid Inverter

SUN-100/125K-SG02HP3-EU-GM8/10



PCS+MPPT+STS

SUN-100/125K-PCS01HP3+MPPT

Power Unit

Battery Model

Specification

Primary Recommended Solution

| | | |
|--|---------|----------------|
| SUN-125K-SG02HP3-EU-GM10 (100A+100A) | GB-W156 | 125kW/156.4kWh |
| SUN-100K-SG02HP3-EU-GM8/10 (100A+100A) | GB-W120 | 100kW/120.3kWh |
| SUN-80K-SG02HP3-EU-EM6 (80A+80A) | GB-W120 | 80kW/120.3kWh |
| SUN-70K-SG02HP3-EU-EM6 (80A+80A) | GB-W108 | 70kW/108.2kWh |
| SUN-60K-SG02HP3-EU-EM6 (80A+80A) | GB-W96 | 60kW/96.2kWh |
| SUN-50K-SG02HP3-EU-BM4-P (160A) | GB-W72 | 50kW/72.1kWh |
| SUN-40K-SG02HP3-EU-BM4-P (160A) | GB-W60 | 40kW/60.1kWh |

Other Solution

| | | |
|----------------------------------|---------|----------------|
| SUN-100K-PCS01HP3+MPPT (175A) | GB-W192 | 100kW/192.5kWh |
| SUN-125K-PCS01HP3+MPPT (200A) | | 125kW/192.5kWh |
| SUN-50K-SG02HP3-EU-BM4 (100A) * | GB-W120 | 50kW/120.3kWh |
| SUN-50K-SG01HP3-EU-BM4 (50A+50A) | GB-W120 | 50kW/120.3kWh |
| SUN-40K-SG02HP3-EU-BM4 (100A) * | GB-W96 | 40kW/96.2kWh |
| SUN-40K-SG01HP3-EU-BM4 (50A+50A) | GB-W96 | 40kW/96.2kWh |
| SUN-30K-SG02HP3-EU-BM3-P (160A) | GB-W60 | 30kW/60.1kWh |
| SUN-30K-SG02HP3-EU-BM3 (100A) * | GB-W72 | 30kW/72.1kWh |
| SUN-30K-SG01HP3-EU-BM3 (50A+50A) | GB-W72 | 30kW/72.1kWh |

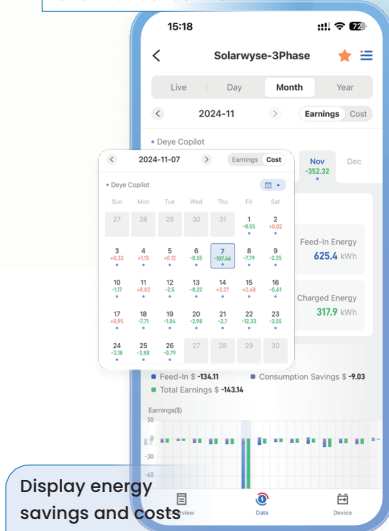
Notice: GB-W is standardly equipped with 1/0 AWG power cables and dedicated quick-plug connectors. For solutions marked with an asterisk (*), the BAT port of the matched inverter is incompatible. The required power cables and accessories shall be provided by the user.

Deye Cloud

All-in-one Energy & Device Management Platform

- Unlock significant savings
- Individual Add-on for dynamic tariff
- Intelligent charging/discharging strategies
- Tailored solution to deye devices
- Real-time equipment monitoring
- Best energy scheduling solutions by Deye Copilot
- 24/7 AI Assistant support

Switch flexibly between autonomous and manual control



Display energy savings and costs



Support dynamic tariff and flat-rate

AI Assistant



Offer response suggestions and personalized support experience

Support over 30 languages

Analyze dynamic pricing, predict power load and PV generation to optimize energy dispatch and minimize electricity costs



Smarten Up Your Hybrid Energy Storage System

Download Deye Cloud APP to join us!

Embrace a seamless, effortless energy experience that's both eco-friendly and budget-friendly with our intelligent assistant



APP & Web
Manage your energy effortlessly

Cloud-edge Collaboration
Faster and more efficient

Accelerated Connection
Optimized for speed and performance

Localized Data Centers
Ensure data sovereignty and compliance in EU & US

Deye Copilot
AI-powered energy analysis and control

AI Assistant
24/7 support, fast, efficient, in your language