



SMALL-SCALE C&I ESS SOLUTION

HYBRID ENERGY STORAGE SYSTEM

GE-F240/F256 Series Outdoor Battery Cabinet

+

SUN-50~125K Hybrid Inverter

Or

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



Ultimate Protection, Continuing "0" safety accidents

- Six-dimensional safety design, eliminating the risk of fire and explosion
- **D1 electrical isolation + D2 physical insulation + D3 active exhaust + D4 directional venting + D5 aerosol suppression + D6 water fire sprinkler**
- High-intensity cabinet, **unique patented door latch design**, eliminates structural weak points
- **Hour-level fire resistance**, prevent heat spread



Highly Integrated, All-in-one quick deployment

- Outer cabinet wall preset inverter bracket installation position, **no wall bearing concerns, no need to drill**
- **Hybrid inverter**, covering PV, grid, load, generator, and battery interfaces
- Single cabinet can easily deploy **PV+BESS, PV+BESS+DG**



Stable Efficient, Excellent performance ensures returns

- Long-life lithium iron phosphate battery, **≥ 8000 cycles**
- High-efficiency thermal management, **no derating at 45°C**, cell temperature difference **≤ 6°C**
- **100%** unbalanced output, up to **200%** PV over-matching access



Intelligent Management, Flexible adaptation and expansion

- Leading **rack-level + pack-level + cell-level** energy balancing algorithm, non-inductive pack change and cabinet expansion
- Single cabinet can be configured with a **2/3/4h system of 50~125kW**, up to **10 units** AC-side on/off-grid parallel or **10 units** DC-side battery parallel
- Integrated energy platform, **24/7 AI** smart customization of optimal power usage strategies

Outdoor Battery Cabinet

| | | GE-F240 Series | | | GE-F256 Series |
|--|---|---------------------|-----------------|-----------------|-----------------|
| Model | | GE-F176-BC-2-A3 | GE-F208-BC-2-A3 | GE-F240-BC-2-A3 | GE-F256-BC-2-A3 |
| Main Parameters | | | | | |
| Cell Type | | LiFePO ₄ | | | |
| Module Capacity (Ah) | | 314 | | | |
| Module Nominal Voltage (Vdc) | | 51.2 | | | |
| Module Energy (kWh) | | 16.08 | | | |
| Module Qty In Series | | 11 | 13 | 15 | 16 |
| System Nominal Energy (kWh) | | 176.84 | 208.99 | 241.15 | 257.22 |
| System Usable Energy (kWh) ¹ | | 176.84 | 208.99 | 241.15 | 257.22 |
| System Nominal Voltage (Vdc) | | 563.2 | 665.6 | 768 | 819.2 |
| System Operating Voltage (Vdc) | | 440~642.4 | 520~759.2 | 600~876 | 640~934.4 |
| Rated DC Power (kW) | | 88 | 104 | 121 | 128 |
| Charge/Discharge Current(A) ² | Recommend | 157 | | | |
| | Max. Continuous | 180 | | | |
| | Peak discharge | 285 | | | |
| | @15s/20~45°C | | | | |
| Other Parameters | | | | | |
| Fire Protection System | Aerosol and Water fire interface CO gas detection, Active exhaust and Explosion venting | | | | |
| Cooling Method | Smart Air Cooling | | | | |
| Communication Port | CAN | | | | |
| Communication protocol | CAN2.0, TCP/IP | | | | |
| Operating Temperature(°C) ³ | -30~55 | | | | |
| Recommend Storage Temperature(°C) | 0~35 | | | | |
| Humidity | 5% ~ 95%RH (No Condensing) | | | | |
| Altitude | 3000m | | | | |
| IP Protection | IP55 | | | | |
| Anti Corrosion Level | C4-M | | | | |
| Dimension(W x D x H,mm) | 1303 x 1240 x 2405.5 | | | | 1303x1240x2510 |
| Weight(kg) | 2190 | 2400 | 2610 | 2770 | |
| Installation Location | Floor mount | | | | |
| Cycle Life | ≥8000 (25±2°C,0.5P,EOL70%) | | | | |
| Warranty | 10 years | | | | |
| Certification | UN38.3, CE,CB(IEC62619), IEC62933(UL9540A), ROHS, REACH | | | | |

1. Test conditions : 100% DOD, 0.5P charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2. The current is affected by temperature and SOC.

3. Derated operation at > 45°C.

Hybrid Inverter

| Model | SUN-50K-SG02HP3-EU-BM4 | SUN-60K-SG02HP3-EU-EM6 | SUN-70K-SG02HP3-EU-EM6 | SUN-80K-SG02HP3-EU-EM6 |
|--|--|------------------------|---|------------------------|
| Battery Input Data | | | | |
| Battery Type | Lithium-ion | | | |
| Battery Voltage Range (V) | 160-800 | | 160-1000 | |
| Max. Charging Current (A) | 100 | | 80+80 | |
| Max. Discharging Current (A) | 100 | | 80+80 | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | |
| Number of Battery Input | 1 | | 2 | |
| PV String Input Data | | | | |
| Max. PV Access Power (W) | 100000 | 120000 | 140000 | 160000 |
| Max. PV Input Power (W) | 80000 | 96000 | 112000 | 128000 |
| Max. PV Input Voltage (V) | 1000 | | | |
| Start-up Voltage (V) | 180 | | | |
| MPPT Voltage Range (V) | 150-850 | | | |
| Rated PV Input Voltage (V) | 600 | | 650 | |
| Max. Operating PV Input Current (A) | 36+36+36+36 | | 36+36+36+36+36+36 | |
| Max. Input Short-Circuit Current (A) | 55+55+55+55 | | 54+54+54+54+54+54 | |
| No. of MPP Trackers/ | | | | |
| No. of Strings MPP Tracker | 4/2+2+2+2 | | 6/2+2+2+2+2 | |
| AC Input/Output Data | | | | |
| Rated AC Input/Output Active Power (W) | 50000 | 60000 | 70000 | 80000 |
| Max. AC Input/Output Apparent Power (VA) | 55000 | 66000 | 77000 | 88000 |
| Rated AC Input/Output Current (A) | 75.8/72.5 | 91/87 | 106.1/101.5 | 121.3/116 |
| Max. AC Input/Output Current (A) | 83.4/79.8 | 100/95.7 | 116.7/111.6 | 133.4/127.6 |
| 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) | | <3% (Of Rated Power) | |
| DC Injection Current | <0.5% In | | | |
| Efficiency | | | | |
| Max. Efficiency | 97.60% | | 98.7% | |
| Euro Efficiency | 97.0% | | 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 | | LCD+LED | |
| Communication Interface | WiFi/RS485/CAN | | RS485,RS232,CAN | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G | | 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) | 528×793×278 (Excluding Connectors and Brackets) | | 606×927×314 (Excluding Connectors and Brackets) | |
| Weight (kg) | 65 | | 105 | |
| Type of Cooling | Intelligent Air Cooling | | | |
| Warranty | Standard 5 years, extended 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 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | |

| Model | 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) | 100+100 | |
| Max. Discharging Current (A) | 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) | 200000 | 250000 |
| Max. PV Input Power (W) | 160000 | 200000 |
| 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) | 42+42+42+42+42+42+42+42+42+42 | |
| Max. Input Short-Circuit Current (A) | 63+63+63+63+63+63+63+63+63+63 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 10/2+2+2+2+2+2+2+2+2+2 | |
| AC Input/Output Data | | |
| Rated AC Input/Output Active Power (W) | 100000 | 125000 |
| Max. AC Input/Output Apparent Power (VA) | 110000 | 135000 |
| Rated AC Input/Output Current (A) | 151.6/145.0 | 189.4/181.2 |
| Max. AC Input/Output Current (A) | 166.7/159.5 | 204.6/195.7 |
| Max. Continuous AC Passthrough (grid to load)(A) | 250 | |
| 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 | IP 65 | |
| Inverter Topology | Non-Isolated | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | |
| Cabinet Size (WxHxD mm) | 734×1091×344 (Excluding Connectors and Brackets) | |
| Weight (kg) | 161.7 | |
| 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 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | |

HESS Solution (Recommend)



GE-F240 Series

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SUN-50K-SG02HP3-EU-BM4

Or



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

Or



SUN-100K/125K-SG02HP3-EU-GM10



GE-F256 Series

+



SUN-125K-SG02HP3-EU-GM10

Or



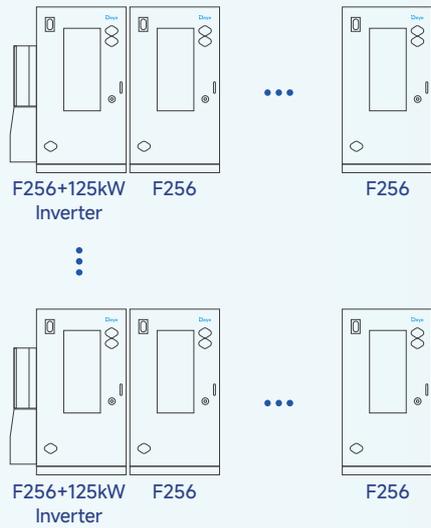
SUN-100K/125K-PCS01HP3+
SUN MPPT-L01-EU-AM8+
SUN-ST5500L

| Power Unit | Battery Cabinet Model | Specification |
|---|-----------------------|------------------|
| 2h HESS Solution | | |
| SUN-80K-SG02HP3-EU-EM6 | GE-F176-BC-2-A3 | 80kW/176kWh |
| SUN-100K-SG02HP3-EU-GM10 | GE-F208-BC-2-A3 | 100kW/208kWh |
| SUN-125K-SG02HP3-EU-GM10 | GE-F240/F256-BC-2-A3 | 125kW/241&257kWh |
| SUN-100/125K-PCS01HP3+SUN-MPPT-L01-EU-AM8+SUN-ST5500L | GE-F256-BC-2-A3 | 100&125kW/257kWh |
| 3h HESS Solution | | |
| SUN-60K-SG02HP3-EU-EM6 | GE-F176-BC-2-A3 | 60kW/176kWh |
| SUN-70K-SG02HP3-EU-EM6 | GE-F208-BC-2-A3 | 70kW/208kWh |
| SUN-80K-SG02HP3-EU-EM6 | GE-F240-BC-2-A3 | 80kW/241kWh |
| 4h HESS Solution | | |
| SUN-50K-SG02HP3-EU-BM4 | GE-F208-BC-2-A3 | 50kW/208kWh |
| SUN-60K-SG02HP3-EU-EM6 | GE-F240-BC-2-A3 | 60kW/241kWh |

AC/DC Side Parallel Expansion (Capacity & Power)

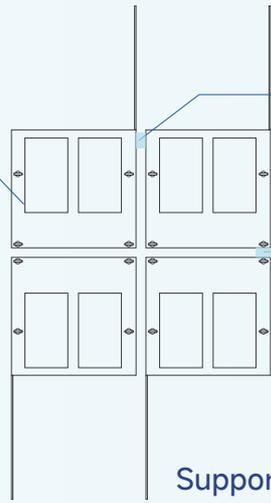
HESS HYBRID ENERGY STORAGE SYSTEM

Inverter AC side
Up to 10-unit parallel
for power expansion.
On/Off grid (1.25MW)



Battery Cabinet DC side
Up to 10-unit parallel for capacity expansion
(2.57MWh)

Battery Cabinet



100mm

100mm

Support back-to-back and side-by-side installation.

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



| | | | | | |
|--|---|---|---|--|---|
|  <p>APP & Web</p> <p>Manage your energy effortlessly</p> |  <p>Cloud-edge Collaboration</p> <p>Faster and more efficient</p> |  <p>Accelerated Connection</p> <p>Optimized for speed and performance</p> |  <p>Localized Data Centers</p> <p>Ensure data sovereignty and compliance in EU & US</p> |  <p>Deye Copilot</p> <p>AI-powered energy analysis and control</p> |  <p>AI Assistant</p> <p>24/7 support, fast, efficient, in your language</p> |
|--|---|---|---|--|---|



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