



ALL IN ONE HESS HYBRID ENERGY STORAGE SYSTEM

GE-F128/F240 Series Outdoor Battery Cabinet

SUN-30~125K Series Hybrid Inverter

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+ESS, PV+ESS+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 30~125kW**, 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-F128 Series			GE-F240 Series			
Model	GE-F112-BC-2-A3	GE-F128-BC-2-A3	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 Capcity (Ah)	314					
Module Nominal Voltage (Vdc)	51.2					
Module Energy (kWh)	16.08					
Module Qty In Series	7	8	11	13	15	16
System Nominal Energy (kWh)	112.53	128.61	176.84	208.99	241.15	257.22
System Usable Energy (kWh) ¹	112.53	128.61	176.84	208.99	241.15	257.22
System Nominal Voltage (Vdc)	358.4	409.6	563.2	665.6	768	819.2
System Operating Voltage (Vdc)	280-408.8	320-467.2	440-642.4	520-759.2	600-876	640-934.4
Rated DC Power (kW)	56	64	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)	998 x 1240 x 2400		1303 x 1240 x 2405.5			1303x1240×2510
Weight(kg)	1595	1700	2190	2400	2610	2720
Installation Location	Floor mount					
Cycle Life	≥8000 (25±2°C,0.5P,EOL70%)					
Warranty	10 years					
Certification	UN38.3, CE, IEC, VDE, 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-30K-
SG02HP3-EU-BM3

SUN-50K-
SG02HP3-EU-BM4-P

SUN-80K-
SG02HP3-EU-EM6

SUN-100K-
SG02HP3-EU--GM10*
(Coming soon)

SUN-125K-
SG02HP3-EU-GM10*
(Coming soon)

Battery Input

Battery Type

Lithium-ion

Battery Voltage Range (V)

160~800

160~1000

Max.Charge/Discharge Current (A)

100

160

80+80

100+100

100+100

Number of Battery Input

2

PV Input

Max. PV Access Power (W)

6000

100000

160000

200000

250000

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 Per MPPT (A)

36

36

36

42

42

Max. Input Short-Circuit Current Per MPPT (A)

55

55

54

63

63

No. of MPP Trackers/Strings Per MPP Tracker

3/2

4/2

6/2

10/2

10/2

AC Input/Output

Rated AC Input/Output Active Power (W)

30000

50000

80000

100000

125000

Max. AC Input/Output Apparent Power (VA)

33000

55000

88000

110000

137500

Rated AC Input/Output Current (A)

45.5/43.5

75.8/72.5

121.3/116

151.6/145.0

189.4/181.2

Max. AC Input/Output Current (A)

50/47.9

83.4/79.8

133.4/127.6

166.7/159.5

208.4/199.3

Max. Continuous AC Passthrough (grid to load) (A)

200

200

200

250

250

Peak Power (off-grid) (W)

1.5 Times Of Rated Power,10s

Power Factor Adjustment Range

0.8 Leading-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

97.60%

98.7%

Euro Efficiency

97%

98.1%

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)

TYPE II(DC), TYPE II(AC)

Interface

Communication Interface

RS485, RS232, CAN

LCD/LED Display

GPRS/WIFI/Bluetooth/4G/LAN (Optional)

General

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)

Dimension

528*793*278

528*793*278

606*927*314

TBD

TBD

(WxHxD mm, excluding connectors and brackets)

Weight (kg)

65

65

105

TBD

TBD

Type of Cooling

Smart Air Cooling

Warranty

5 Years/10 Years

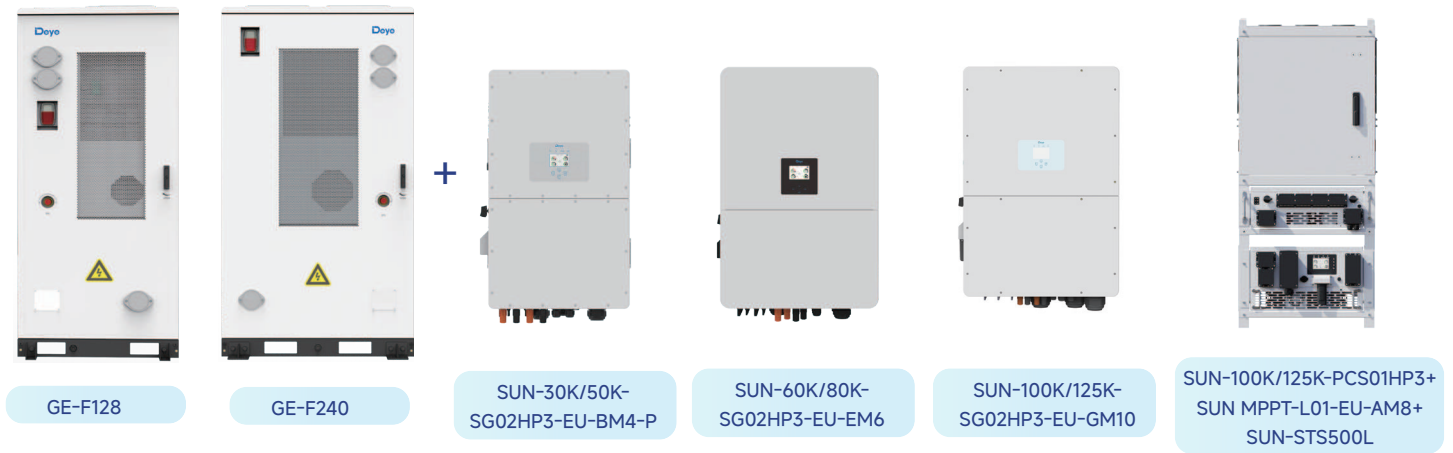
Grid Regulation

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



Power Unit	Battery Cabinet Model	Specification
2h HESS Solution		
SUN-50K-SG02HP3-EU-BM4-P	GE-F112-BC-2-A3	50kW/112kWh
SUN-60K-SG02HP3-EU-EM6	GE-F128-BC-2-A3	60kW/128kWh
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-BC-2-A3	125kW/241kWh
SUN-100/125K-PCS01HP3+SUN-MPPT-L01-EU-AM8+SUN-STS500L	GE-F256-BC-2-A3	100&125kW/257kWh
3h HESS Solution		
SUN-40K-SG02HP3-EU-BM4	GE-F128-BC-2-A3	40kW/128kWh
SUN-60K-SG02HP3-EU-EM6	GE-F176-BC-2-A3	60kW/176kWh
SUN-80K-SG02HP3-EU-EM6	GE-F240-BC-2-A3	80kW/241kWh
4h HESS Solution		
SUN-30K-SG01HP3-EU-BM3	GE-F128-BC-2-A3	30kW/128kWh
SUN-50K-SG02HP3-EU-BM4	GE-F208-BC-2-A3	50kW/208kWh
SUN-60K-SG02HP3-EU-EM6	GE-F240-BC-2-A3	60kW/241kWh

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
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