



# 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
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### Main Parameters

Cell Type	LiFePO <sub>4</sub>					
Module Capacity (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	257.23
System Usable Energy (kWh) <sup>1</sup>	112.53	128.61	176.84	208.99	241.15	257.23
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	129
Charge/Discharge Current(A) <sup>2</sup>	Recommend	157				
	Max. Continuous	180				
	Peak discharge @15s/20~45°C	285				

### 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) <sup>3</sup>	-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			1303x1240x2510
Weight(kg)	1595	1690	2190	2400	2610	2770
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.

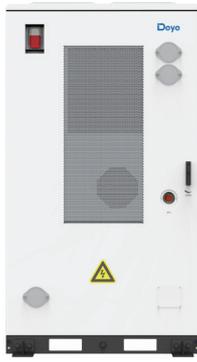
# Hybrid Inverter

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)
<b>Battery Input</b>					
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				
<b>PV Input</b>					
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
<b>AC Input/Output</b>					
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				
<b>Efficiency</b>					
Max. Efficiency	97.60%		98.7%		
Euro Efficiency	97%		98.1%		
MPPT Efficiency	> 99%				
<b>Equipment Protection</b>					
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)		
<b>Interface</b>					
Communication Interface	RS485, RS232, CAN				
LCD/LED Display	GPRS/WIFI/Bluetooth/4G/LAN (Optional)				
<b>General</b>					
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 (WxHxD mm, excluding connectors and brackets)	528*793*278	528*793*278	606*927*314	TBD	TBD
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



GE-F128



GE-F240

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SUN-30K/50K-  
SG02HP3-EU-BM4-P



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



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



SUN-100K/125K-PCS01HP3+  
SUN MPPT-L01-EU-AM8+  
SUN-ST500L

## 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-ST500L	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



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