



# SMALL-SCALE C&I ESS SOLUTION HYBRID ENERGY STORAGE SYSTEM

GE-F128/F240/F256 Series Outdoor Battery Cabinet

+

SUN-30~125K 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 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			GE-F256 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
<b>Main Parameters</b>							
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	257.22	
System Usable Energy (kWh) <sup>1</sup>	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) <sup>2</sup>	Recommend	157					
	Max. Continuous	180					
	Peak discharge @15s/20~45°C	285					
<b>Other Parameters</b>							
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 2405.5		1303 x 1240 x 2405.5			1303x1240x2510	
Weight(kg)	1585	1690	2190	2400	2610	2770	
Installation Location	Floor mount						
Cycle Life	≥8000 (25±2°C,0.5P,EOL70%)						
Warranty	10 years						
Certification	UN38.3, IEC62619, IEC62040, IEC62477						

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-60K- SG02HP3-AU-EM6	SUN-70K- SG02HP3-AU-EM6	SUN-80K- SG02HP3-AU-EM6	SUN-100K- SG02HP3-AU-GM10* Coming soon	SUN-125K- SG02HP3-AU-GM10* Coming soon
<b>Battery Input Data</b>					
Battery Type	Lithium-ion Coming soon				
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				
<b>PV String Input Data</b>					
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/ No. of Strings MPP Tracker	6/2+2+2+2+2+2			10/2+2+2+2+2+2+2+2+2	
<b>AC Input/Output Data</b>					
Rated AC Input/Output Active Power (W)	60000	70000	80000	100000	125000
Max. AC Input/Output Apparent Power (VA)	60000	70000	80000	110000	135000
Rated AC Input/Output Current (A)	87/87	101.5/101.5	116/116	151.6/145.0	189.4/181.2
Max. AC Input/Output Current (A)	87/87	101.5/101.5	116/116	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)	230/400V 240/415V 0.85Un-1.1Un				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55				
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	98.7%				
Euro Efficiency	98.10%				
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 (AFCI) (Optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC),TYPE II(AC)				
<b>Interface</b>					
LCD/LED Display	LCD+LED				
Communication Interface	RS485,RS232,CAN				
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)				
<b>General Data</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)				
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				
Warranty	5 Years/10 Years				
Grid Regulation	AS/NZS 4777.2				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				

Model	SUN-30K-SG02HP3 -AU-BM3(-P)* Coming soon	SUN-40K-SG02HP3 -AU-BM4(-P)* Coming soon	SUN-50K-SG02HP3 -AU-BM4(-P)* Coming soon
<b>Battery Input Data</b>			
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		
<b>PV String Input Data</b>			
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	
<b>AC Input/Output Data</b>			
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		
<b>Efficiency</b>			
Max. Efficiency	97.60%		
Euro Efficiency	97.0%		
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)		
<b>Interface</b>			
LCD/LED Display	LCD		
Communication Interface	WIFI/RS485 /CAN		
Monitor Mode	GPRS/WIFI/Bluetooth/4G		
<b>General Data</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	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	AS/NZS 4777.2		
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		

# HESS Solution (Recommend)



GE-F128 Series

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Coming soon

SUN-30K-SG02HP3-AU-BM3\*  
SUN-40K-SG02HP3-AU-BM4\*  
SUN-50K-SG02HP3-AU-BM4-P\*

Or



SUN-60K-SG02HP3-AU-EM6



GE-F240 Series

+



Coming soon

SUN-50K-SG02HP3-AU-BM4\*  
SUN-50K-SG01HP3-AU-BM4\*

Or



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

Or



Coming soon

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



GE-F256 Series

+



Coming soon

SUN-125K-SG02HP3-AU-GM10\*

Or



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

## Power Unit

## Battery Cabinet Model

## Specification

### 2h HESS Solution

SUN-50K-SG02HP3-AU-BM4-P*	GE-F112-BC-2-A3	50kW/112kWh
SUN-60K-SG02HP3-AU-EM6	GE-F128-BC-2-A3	60kW/128kWh
SUN-80K-SG02HP3-AU-EM6	GE-F176-BC-2-A3	80kW/176kWh
SUN-100K-SG02HP3-AU-GM10*	GE-F208-BC-2-A3	100kW/208kWh
SUN-125K-SG02HP3-AU-GM10*	GE-F240/F256-BC-2-A3	125kW/241&257kWh
SUN-100/125K-PCS01HP3+SUN-MPPT-L01-AU-AM8+SUN-ST500L	GE-F256-BC-2-A3	100&125kW/257kWh

### 3h HESS Solution

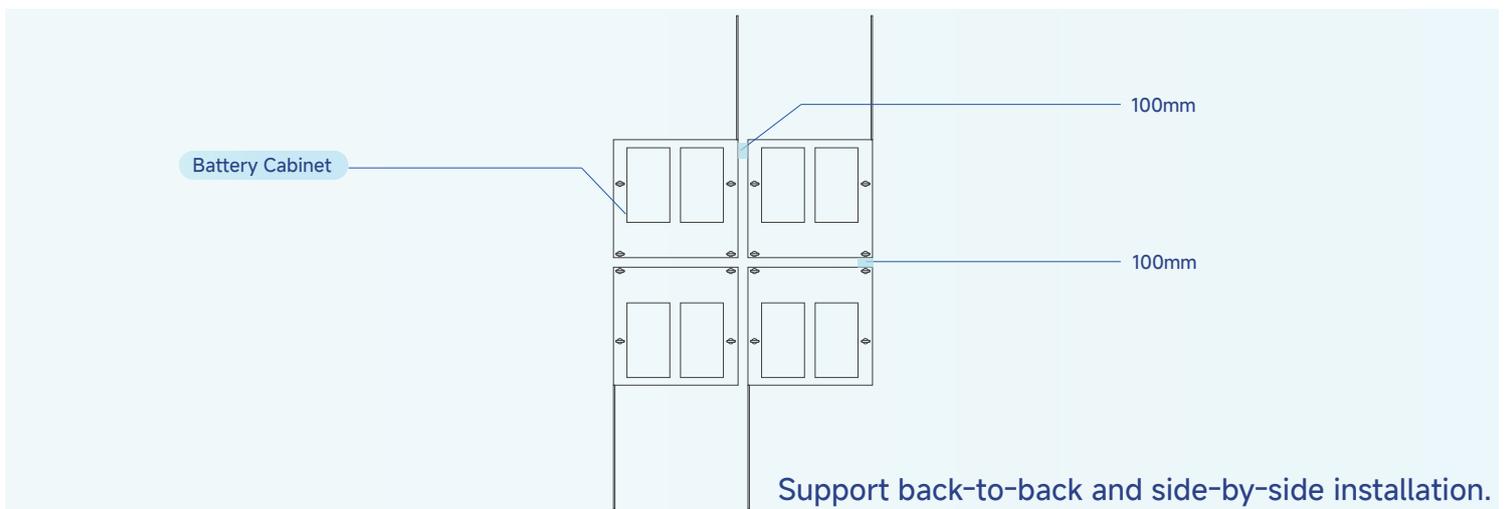
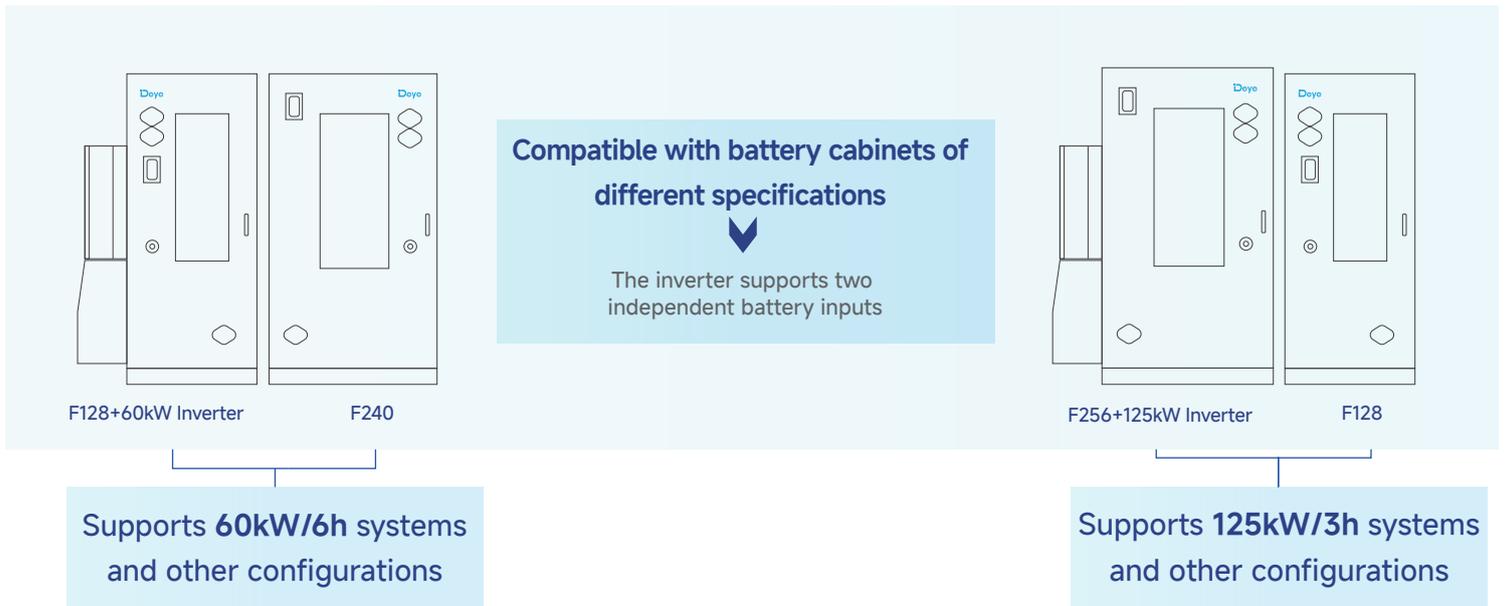
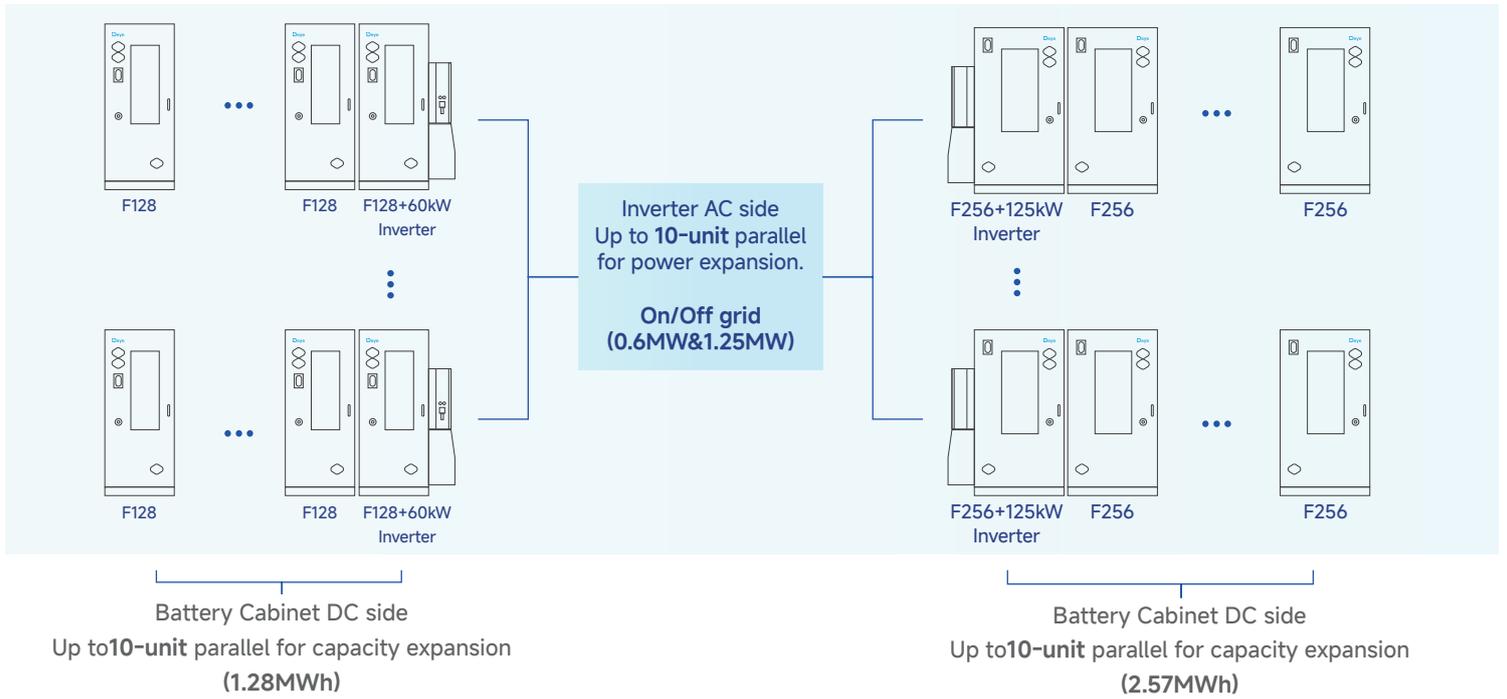
SUN-40K-SG02HP3-AU-BM4*/SUN-40K-SG01HP3-AU-BM4	GE-F128-BC-2-A3	40kW/128kWh
SUN-60K-SG02HP3-AU-EM6	GE-F176-BC-2-A3	60kW/176kWh
SUN-70K-SG02HP3-AU-EM6	GE-F208-BC-2-A3	70kW/208kWh
SUN-80K-SG02HP3-AU-EM6	GE-F240-BC-2-A3	80kW/241kWh

### 4h HESS Solution

SUN-30K-SG02HP3-AU-BM3*/SUN-30K-SG01HP3-AU-BM3	GE-F128-BC-2-A3	30kW/128kWh
SUN-50K-SG02HP3-AU-BM4*/SUN-50K-SG01HP3-AU-BM4	GE-F208-BC-2-A3	50kW/208kWh
SUN-60K-SG02HP3-AU-EM6	GE-F240-BC-2-A3	60kW/241kWh

# AC/DC Side Parallel Expansion (Capacity & Power)

## HESS HYBRID ENERGY STORAGE SYSTEM



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



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