



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
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 2405.5		1303 x 1240 x 2405.5			1303x1240×2510
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, 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-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					

HESS Solution (Recommend)



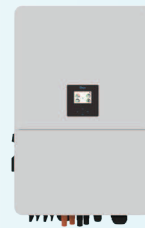
GE-F128 Series

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SUN-30K-SG02HP3-EU-BM3
SUN-40K-SG02HP3-EU-BM4
SUN-50K-SG02HP3-EU-BM4-P

Or



SUN-60K-SG02HP3-EU-EM6



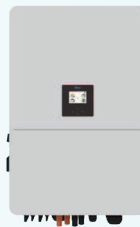
GE-F240 Series

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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-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/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-40K-SG02HP3-EU-BM4

GE-F128-BC-2-A3

40kW/128kWh

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-30K-SG02HP3-EU-BM3

GE-F128-BC-2-A3

30kW/128kWh

SUN-50K-SG02HP3-EU-BM4

GE-F208-BC-2-A3

50kW/208kWh

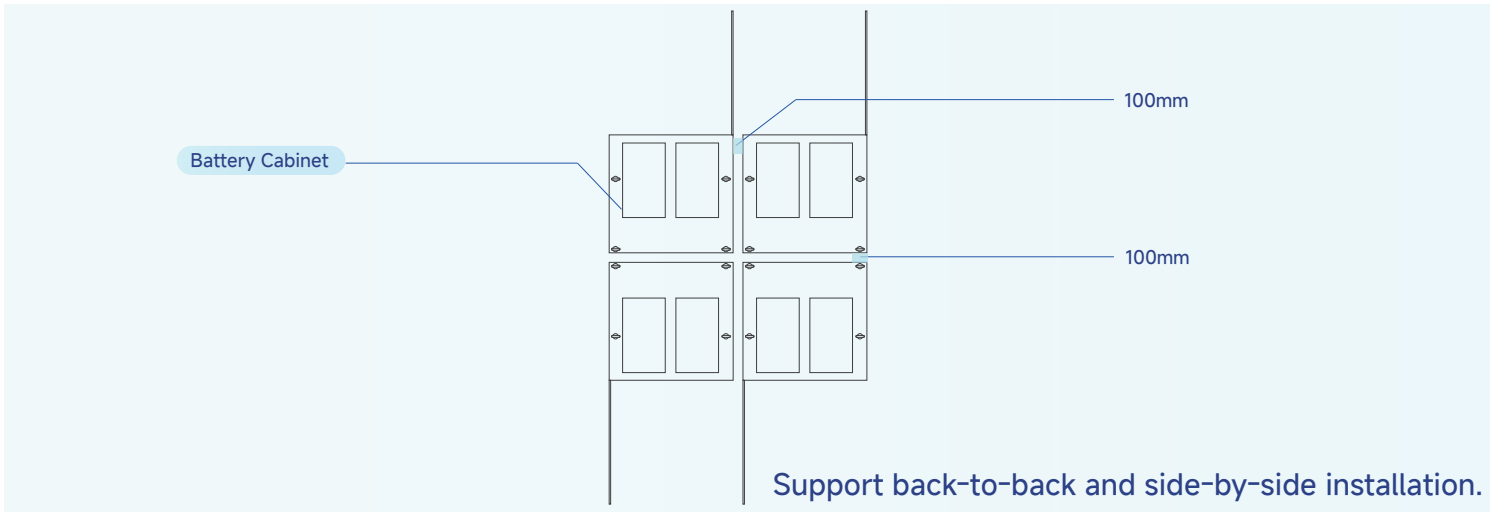
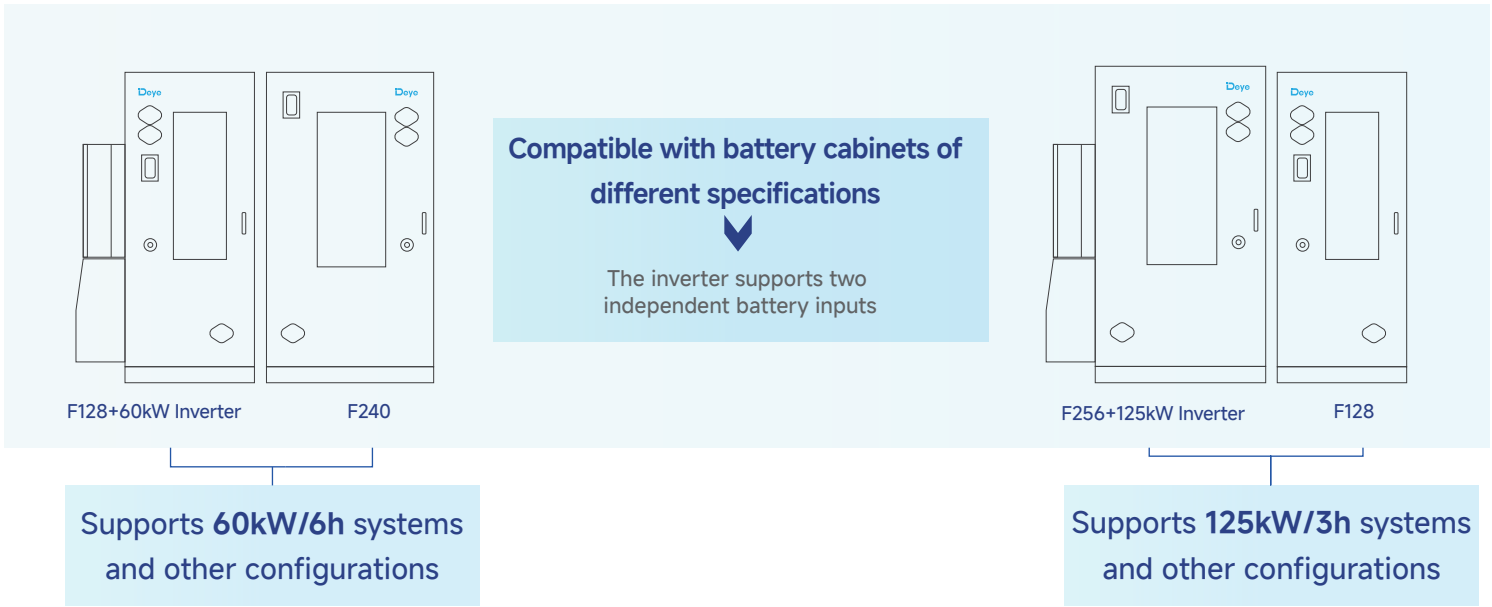
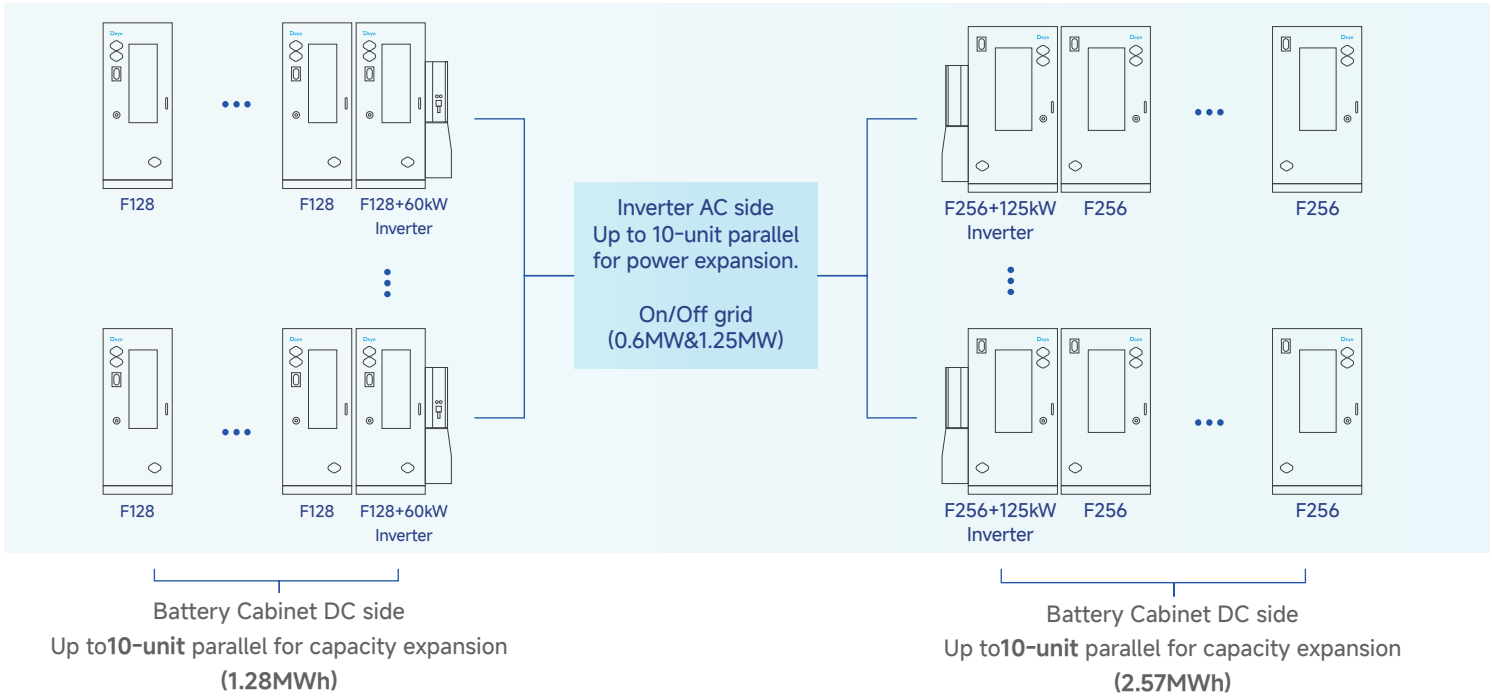
SUN-60K-SG02HP3-EU-EM6

GE-F240-BC-2-A3

60kW/241kWh

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



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



POWERING YOUR LIFE



www.deyeess.com / www.deyeinverter.com



Deye ESS / Deye New Energy