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					
Charge/Discharge Current(A)*2 Max. Continuous	180					
Charge/Discharge Current(A)*2 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)*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	2765
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
Battery Input Data					
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				
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/ No. of Strings MPP Tracker	6/2+2+2+2+2+2			10/2+2+2+2+2+2+2+2+2+2	
AC Input/Output Data					
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				
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				
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
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	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

+

Coming soon

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

SUN-30K-SG01HP3-AU-BM3
SUN-40K-SG01HP3-AU-BM4

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*

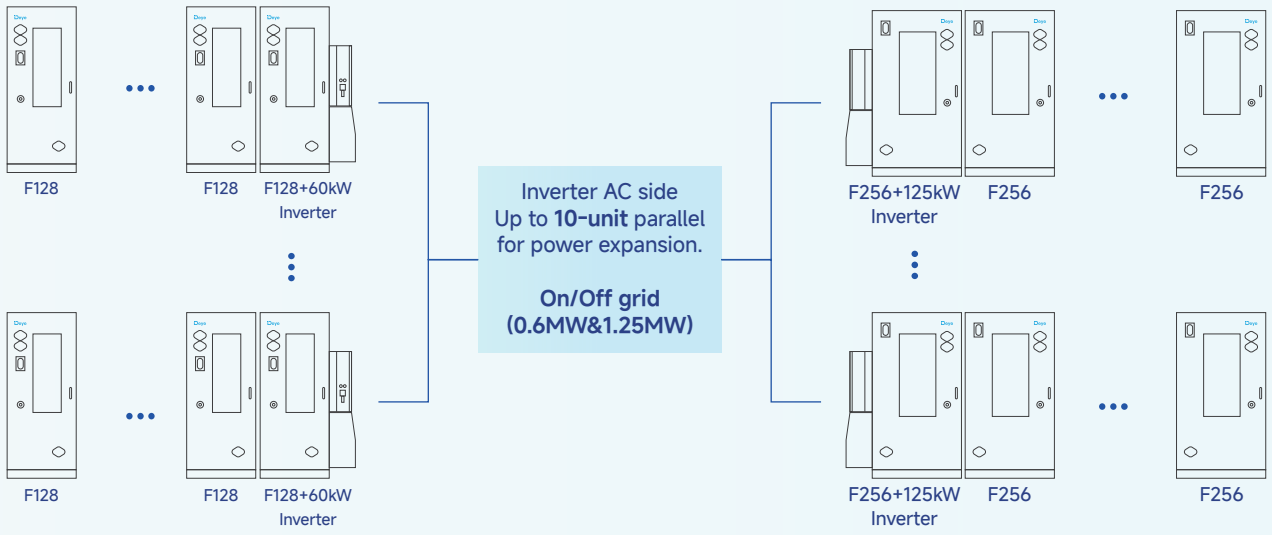
Or

SUN-100K/125K-PCS01HP3+
SUN MPPT-L01-AU-AM8+
SUN-STS500L

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-STS500L	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

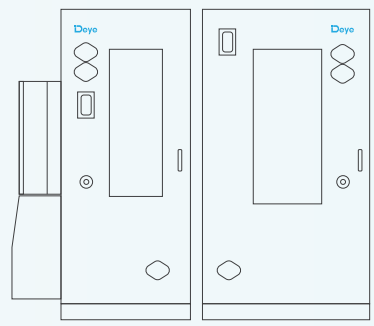
AC/DC Side Parallel Expansion (Capacity & Power)

HESS HYBRID ENERGY STORAGE SYSTEM



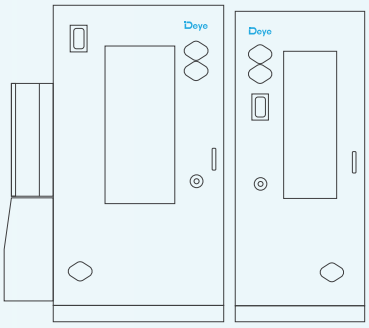
Battery Cabinet DC side
Up to**10-unit** parallel for capacity expansion
(1.28MWh)

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



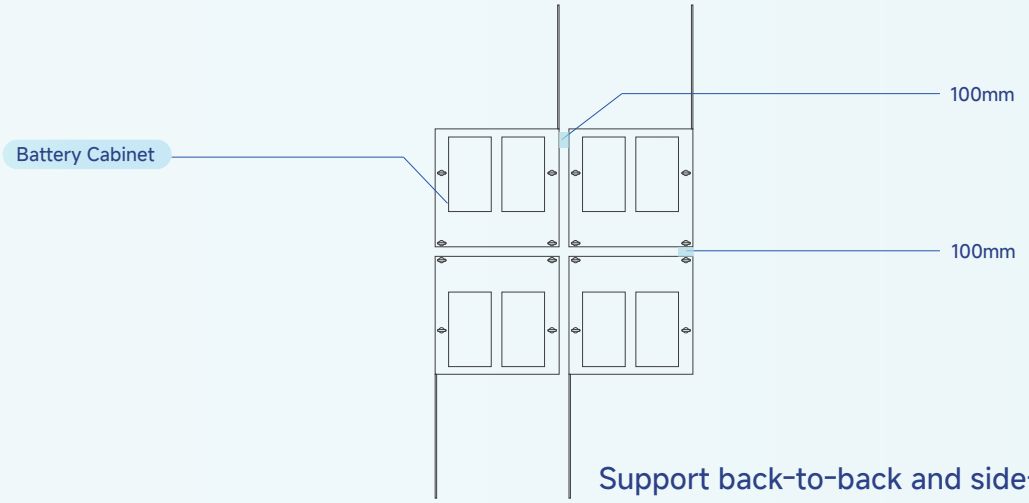
Compatible with battery cabinets of different specifications

The inverter supports two independent battery inputs



Supports **60kW/6h** systems and other configurations

Supports **125kW/3h** systems and other configurations

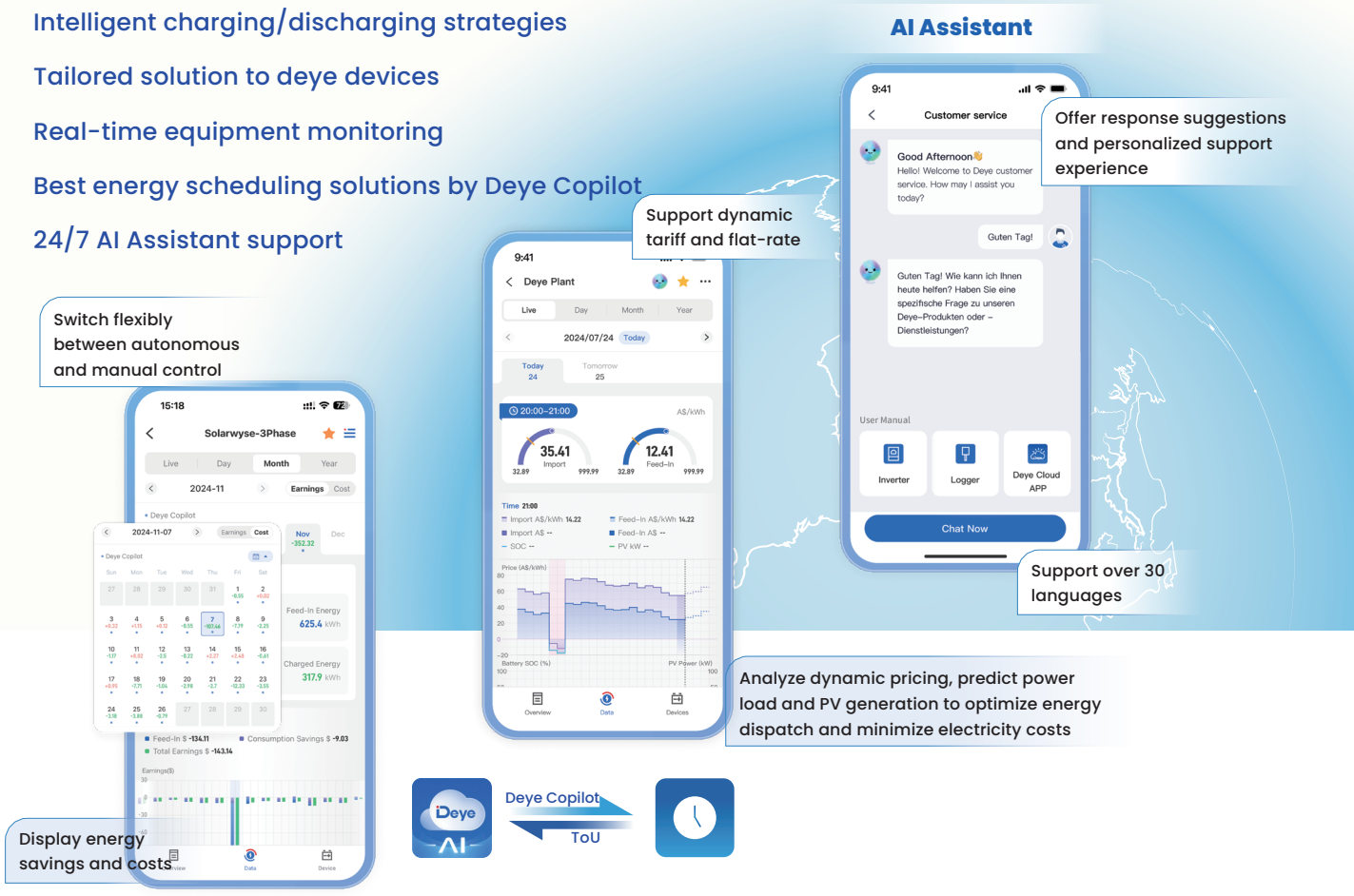


Support back-to-back and side-by-side installation.

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



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

Deye

POWERING YOUR LIFE

www.deyeess.com / www.deyeinverter.com

Deye ESS / Deye New Energy