SMALL-SCALE C&I ESS SOLUTION

HYBRID ENERGY STORAGE SYSTEM

GE-F240/F256 Series Outdoor Battery Cabinet

+

SUN-50~125K 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 50~125kW**, 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-F240 Series			GE-F256 Series
Model		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		11	13	15	16
System Nominal Energy (kWh)		176.84	208.99	241.15	257.23
System Usable Energy (kWh)*1		176.84	208.99	241.15	257.23
System Nominal Voltage (Vdc)		563.2	665.6	768	819.2
System Operating Voltage (Vdc)		440~642.4	520~759.2	600~876	640~934.4
Rated DC Power (kW)		88	104	121	129
Charge/Discharge Current(A)*2	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, RS485			
Communication protocol		CAN2.0, Modbus485			
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)		1303 x 1240 x 2405.5			1303x1240×2510
Weight(kg)		2150	2380	2610	2770
Installation Location		Floor mount			
Cycle Life		≥8000 (25±2°C,0.5P,EOL70%)			
Warranty		10 years			
Certification		UN38.3，CE，CB，IEC62933，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-50K-SG02HP3-EU-BM4	SUN-60K-SG02HP3-EU-EM6	SUN-70K-SG02HP3-EU-EM6	SUN-80K-SG02HP3-EU-EM6
Battery Input Data				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	160-800	160~1000		
Max. Charging Current (A)	100	80+80		
Max. Discharging Current (A)	100	80+80		
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1	2		
PV String Input Data				
Max. PV Access Power (W)	100000	120000	140000	160000
Max. PV Input Power (W)	80000	96000	112000	128000
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 (A)	36+36+36+36	36+36+36+36+36+36		
Max. Input Short-Circuit Current (A)	55+55+55+55	54+54+54+54+54+54		
No. of MPP Trackers/ No. of Strings MPP Tracker	4/2+2+2+2	6/2+2+2+2+2+2		
AC Input/Output Data				
Rated AC Input/Output Active Power (W)	50000	60000	70000	80000
Max. AC Input/Output Apparent Power (VA)	55000	66000	77000	88000
Rated AC Input/Output Current (A)	75.8/72.5	91/87	106.1/101.5	121.3/116
Max. AC Input/Output Current (A)	83.4/79.8	100/95.7	116.7/111.6	133.4/127.6
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)	<3% (Of Rated Power)		
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.60%	98.7%		
Euro Efficiency	97.0%	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	LCD+LED		
Communication Interface	WIFI/RS485/CAN	RS485,RS232,CAN		
Monitor Mode	GPRS/WIFI/Bluetooth/4G	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)	528×793×278 (Excluding Connectors and Brackets)	606×927×314 (Excluding Connectors and Brackets)		
Weight (kg)	65	105		
Type of Cooling	Intelligent Air Cooling			
Warranty	Standard 5 years, extended warranty	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-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)	100+100	
Max. Discharging Current (A)	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)	200000	250000
Max. PV Input Power (W)	160000	200000
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)	42+42+42+42+42+42+42+42+42+42	
Max. Input Short-Circuit Current (A)	63+63+63+63+63+63+63+63+63+63	
No. of MPP Trackers/ No. of Strings MPP Tracker	10/2+2+2+2+2+2+2+2+2+2	
AC Input/Output Data		
Rated AC Input/Output Active Power (W)	100000	125000
Max. AC Input/Output Apparent Power (VA)	110000	135000
Rated AC Input/Output Current (A)	151.6/145.0	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	204.6/195.7
Max. Continuous AC Passthrough (grid to load)(A)	250	
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V	
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	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	IP 65	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)	734×1091×344 (Excluding Connectors and Brackets)	
Weight (kg)	161.7	
Type of Cooling	Smart cooling	
Warranty	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	

HESS Solution (Recommend)

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

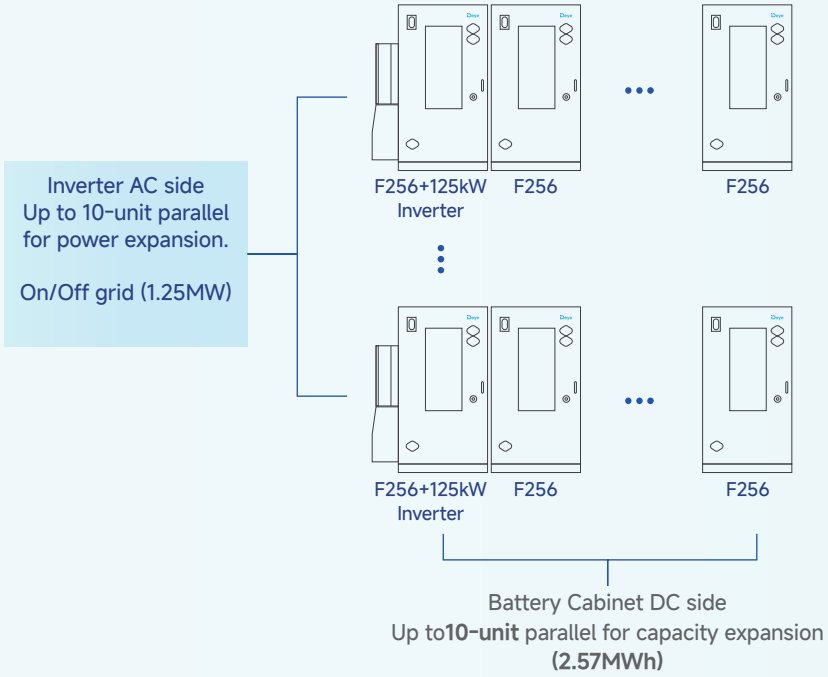
Or

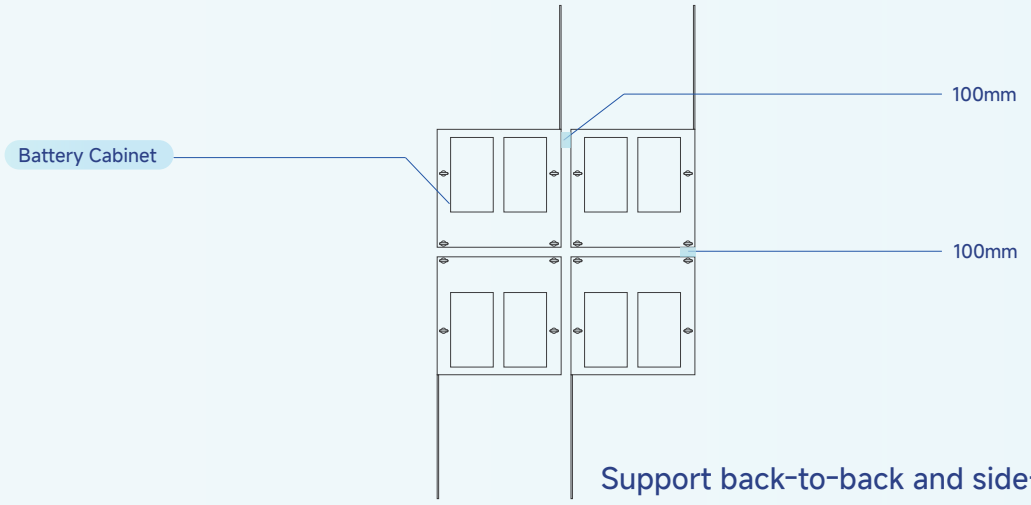
SUN-100K/125K-PCS01HP3+
SUN MPPT-L01-EU-AM8+
SUN-STS500L

Power Unit	Battery Cabinet Model	Specification
2h HESS Solution		
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-STS500L	GE-F256-BC-2-A3	100&125kW/257kWh
3h HESS Solution		
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-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



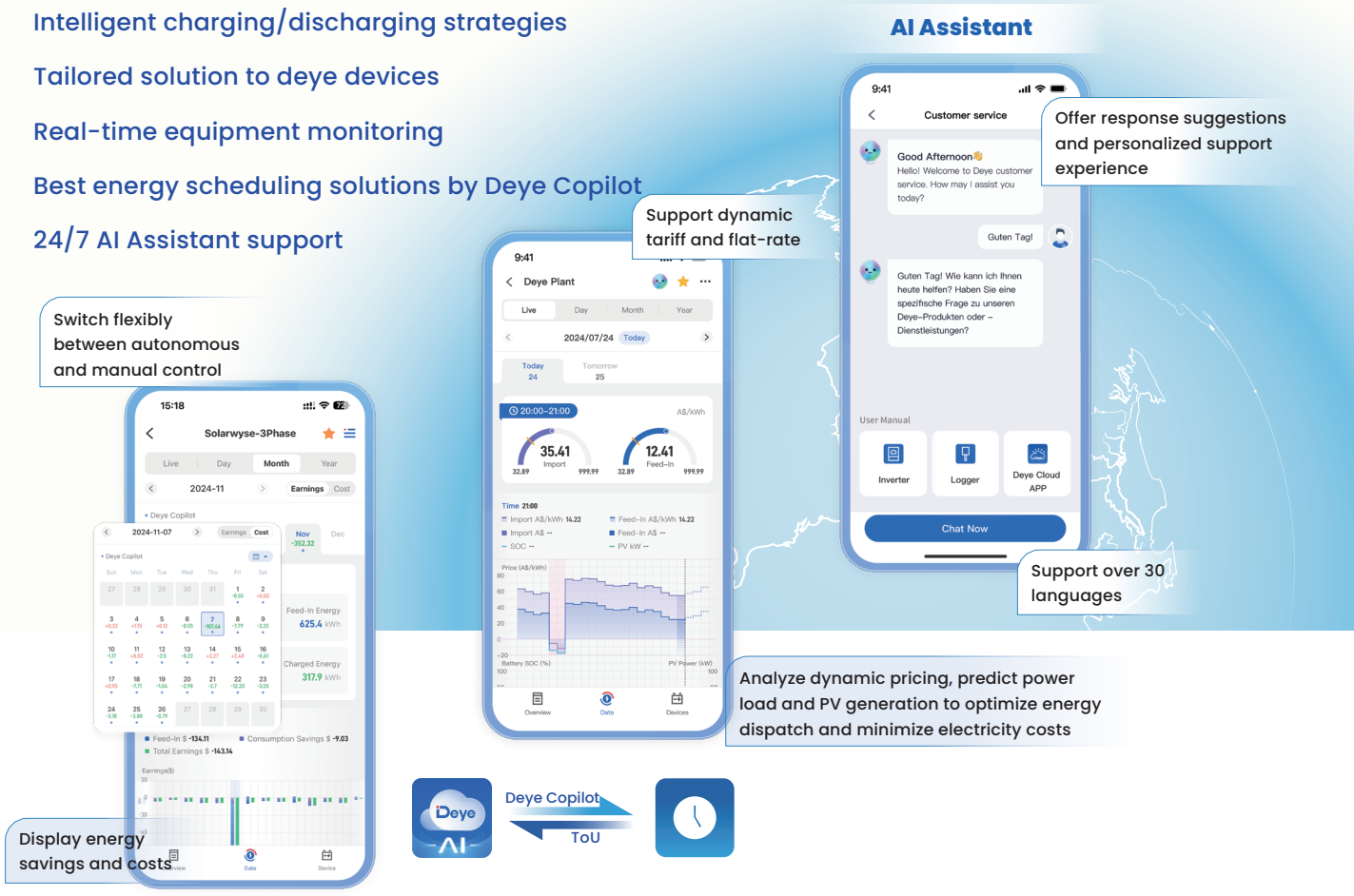


Support back-to-back and side-by-side installation.

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

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