







ESS Solution

SE-F5 & SE-F5 Plus & SE-F12 & SE-F16

SE-F5 & SE-F5 Plus & SE-F12 & SE-F16

-  **Comprehensive Protection**
 - Advanced BMS with active fuse
-  **Superior Performance**
 - Support Max. 1C charge & 1.2C discharge (SE-F5 & F5 Plus), GaN MOSFETs: 50% loss reduction, high-temp resistance
-  **Optimized Energy Density**
 - Integrated PACK: reduced line loss, enhanced energy density
-  **Flexible Expansion**
 - Max. 32 units in parallel
-  **Easy Maintenance**
 - Auto-networking, Local monitoring mode for battery, remote monitoring mode for ESS
-  **Reliable Durability**
 - Operates reliably in -20°C to 55°C , natural cooling

ESS Solution



• SE-F5 & SE-F5 Plus

• SE-F12

• SE-F16

Model		SE-F5	SE-F5 Plus	SE-F12	SE-F16
Main Parameters					
Battery Chemistry		LiFePO ₄			
Capacity		100 Ah	230 Ah	314 Ah	
Scalability ^[1]		Max. 32 pcs in parallel			
Nominal Voltage		51.2 V			
Operating Voltage		44.8 V ~ 57.6 V			
Nominal Energy		5.12 kWh	11.8 kWh	16 kWh	
Charge Current ^[2]	Max. Continuous	100 A	230 A	160 A	
	Peak	120 A (10 sec)	280 A (10 sec)		
Discharge Current ^[2]	Max. Continuous	120 A	230 A		
	Peak	150 A (10 sec)	280 A (10 sec)		
Other Parameter					
Recommend Depth of Discharge		80% DoD	90% DoD		
Dimension (W × H × D) (Without hanging board)		370 × 548 × 140 mm	400 × 559 × 233 mm	400 × 708 × 233 mm	
Weight Approximate		41 kg	84 kg	109 kg	
LED Indicator		LED (SOC, working, protecting) & Buzzer			
IP Rating of Enclosure		IP21			
Operating Temperature		Charge: 0~55°C / Discharge: -20~55°C	Charge / Discharge: -20~55°C	Charge: 0~55°C / Discharge: -20~55°C	
Storage Temperature		0~35°C			
Relative Humidity		95% (non-condensing)			
Altitude		≤3000m			
Cycle Life		≥6000(25°C±2°C,70%EOL)			
Installation		Wall-Mounted, Floor-Mounted, Stack-Mounted			
Communication		CAN2.0, RS485, Bluetooth+APP			
Warranty Period ^[3]		5 years	10 years	5 years / 10 years (extended warranty)	
Energy Throughput ^[3]		8 MWh	16 MWh	18 MWh	25 MWh
Certification		UN38.3, MSDS, CE, CB			

[1] Max. 64 pcs can parallel with CAN-Box.

[2] Operating current is affected by temperature and SOC. This max. continuous current is only supported in lithium battery mode; for lead-acid mode, please refer to the manual for the max. continuous current.

[3] Conditions apply, refer to Deye Warranty Letter.

Product comparison

Model	Nominal Energy	Charge / Discharge C rate	DoD	Warranty	Size
SE-F5	5.12kWh, 51.2V, 100Ah	1C/1.2C	80%	5years	370 x 548 x 140 mm
SE-F5 Plus	5.12kWh, 51.2V, 100Ah	1C/1.2C	90%	10years	370 x 548 x 140 mm
SE-F12	11.8kWh, 51.2V, 230Ah	1C/1C	90%	5years / 10years(extended)	400 x 583 x 233 mm
SE-F16	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	5years / 10years(extended)	400 x 708 x 233 mm

Mounting example

Stacked

Supports 6 layers in series (4 layers for SE-F16), allows multiple clusters in parallel



SE-F5 & SE-F5 Plus



SE-F12



SE-F16

Wall mounted

All support wall mounted installation, and support for multiple packs in parallel



SE-F5 & SE-F5 Plus



SE-F12



SE-F16

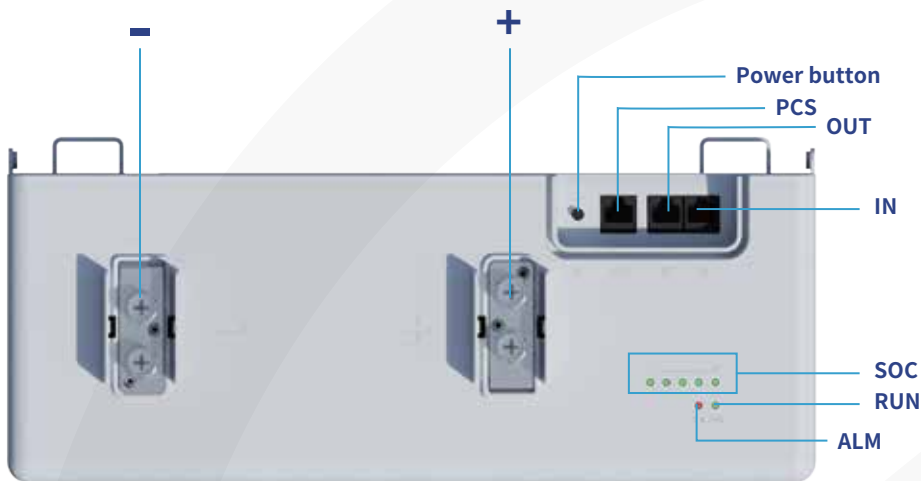
Optional wheels available for SE-F12 & SE-F16



SE-F12






SE-F16



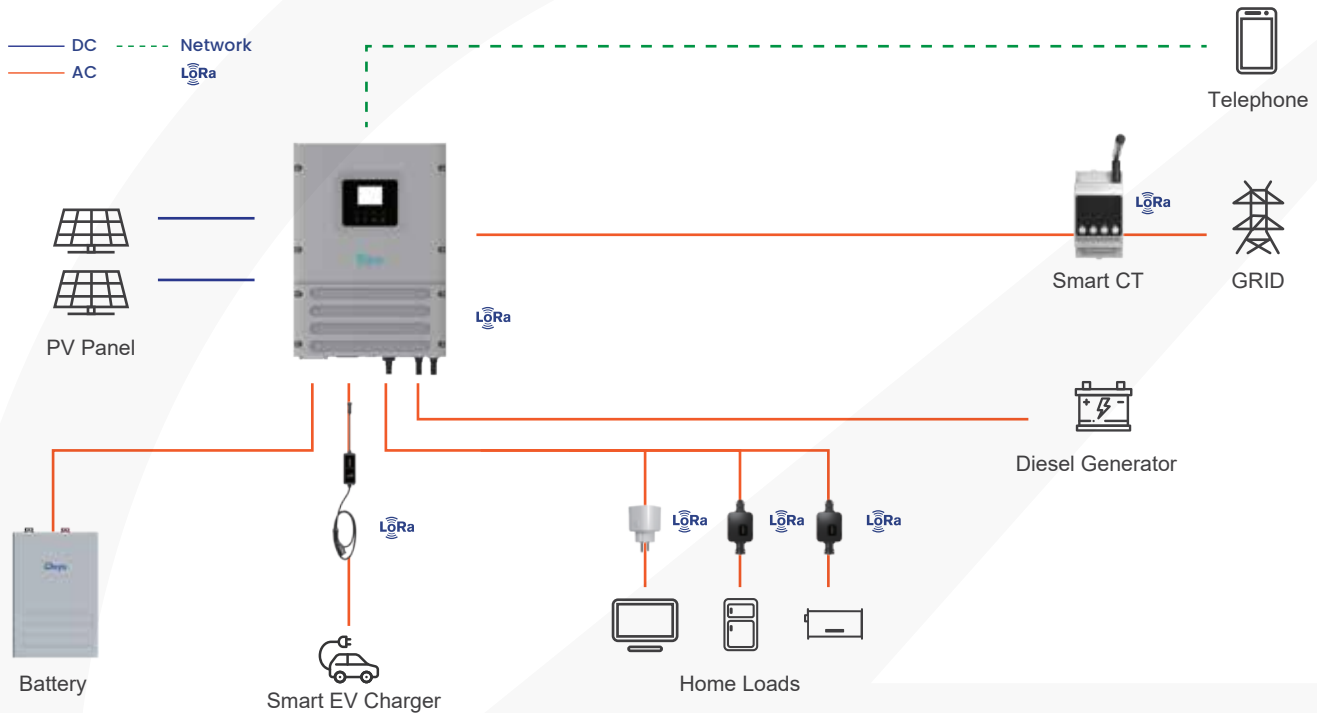
- ⊙ -: Battery negative terminal connection position.
- ⊙ +: Battery positive terminal connection position.
- ⊙ SOC: These 5 LEDs are used to display the pack SOC and charge or discharge state.
- ⊙ RUN light: green LED lighting to show the battery running status.
- ⊙ ALM light: red LED lighting to show the battery has been alarmed .
- ⊙ Power button: Power on or off the control battery.
- ⊙ PCS: Inverter communication terminal:(RJ45port) follow the CAN protocol (baud rate:500kbps),and RS485(baud rate:9600bps),used to output battery information to the inverter.
- ⊙ OUT: parallel Communication Terminal:(RJ45port) Connect "IN"Terminal of Next battery,for Communication between multiple parallel batteries.
- ⊙ IN: parallel Communication Terminal: (RJ45 port) Connect "OUT" Terminal of Previous battery,for Communication between multiple parallel batteries.

SE-F Series Model Selection and Appearance Reference

Model	Config Version	Reference
SE-F5/F5Plus/F12/F16	L	
SE-F5/F5Plus/F12/F16	E	
SE-F5/F5Plus/F12/F16	C	

Deye Smart Energy Management System(Optional)

The Deye Smart Energy Management System enables seamless control with smart CT, smart plug, smart switch and solar EV charging, ensuring efficiency and full compatibility with Deye inverters.



Key Features

- **Wireless Zero Export Control**

Enables seamless zero export without the need for complex wiring, simplifying installation.

- **Intelligent Load Control**

Automatically manages loads based on time schedules and battery SOC, optimizing energy distribution.

- **Solar-Powered EV Charging**

Supports 100% solar charging with dynamic power adjustment for enhanced efficiency and sustainability.

- **Full Compatibility**

All Deye hybrid inverters can be upgraded to support this system, ensuring seamless integration with existing setups.

- **Precise Off-Grid Load Management**

Ensures that only non-essential loads are disconnected during off-grid operation, maintaining power supply for critical applications.



Deye APP



Bluetooth APP Monitoring



Low Power (Bluetooth LE)



Automated upgrade



Local monitoring mode for battery



Quick Pairing



No Internet Needed



Portable Control



Remote monitoring mode for ESS(Inverter&Battery)



Real-time Equipment Monitoring



Intelligent Charging/Discharging Strategies



AI Data Analytics



Customized Maintenance

Smarten Up Your Home Energy



Download Deye APP to join us!

Embrace a seamless, effortless energy experience that's both ecofriendly and budget-friendly with our intelligent assistant

