

# ESS Solution

SE-F5 & SE-F5 Plus & SE-F5 Pro & SE-F12 & SE-F12 Max & SE-F16 & SE-F16 Max



## SE-F5 & SE-F5 Plus & SE-F5 Pro & SE-F12 & SE-F12 Max & SE-F16 & SE-F16 Max

- 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  $-20^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ , natural cooling

# ESS Solution



Model					
Main Parameters		SE-F12	SE-F12 Max	SE-F16	SE-F16 Max
Battery Chemistry		LiFePO <sub>4</sub>			
Capacity		230 Ah		314 Ah	
Scalability <sup>[1]</sup>		Max. 32 pcs in parallel			
Nominal Voltage		51.2 V			
Operating Voltage		44.8 V ~ 57.6 V			
Nominal Energy		11.8 kWh		16 kWh	
Charge Current <sup>[2]</sup>	Max. Continuous	230 A		160 A	
	Peak	280 A ( 10 sec )			
Discharge Current <sup>[2]</sup>	Max. Continuous	230 A			
	Peak	280 A ( 10 sec )			
Other Parameter					
Recommend Depth of Discharge		90% DoD			
Dimension ( W × H × D ) (Without hanging board)mm		400 × 559 × 233	464 × 821 × 267	400 × 708 × 233	464 × 970 × 267
Weight Approximate		84 kg	≈95 kg	109 kg	≈123 kg
LED Indicator		LED ( SOC, working, protecting ) & Buzzer	LCD(SOC, Alarm), LED (Working)	LED ( SOC, working, protecting ) & Buzzer	LCD(SOC, Alarm), LED (Working)
IP Rating of Enclosure		IP21	IP65	IP21	IP65
Operating Temperature		Charge: 0~55°C ( -20~55°C, 12 Max/16 Max with Optional heating )			Discharge: -20~55°C
Storage Temperature		0°C~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	CAN2.0, RS485, Bluetooth+APP	CAN2.0, RS485, Bluetooth+APP	CAN2.0, RS485, Bluetooth+APP
Warranty Period <sup>[3]</sup>		10 years	10 years	10 years	10 years
Energy Throughput <sup>[3]</sup>		37 MWh	37 MWh	50 MWh	50 MWh
Certification		UN38.3, CE, CB	UN38.3, CE, CB	UN38.3, CE, CB	UN38.3, CE, CB, UL1973, UL9540A, UL9540-DC, FCC

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

[2] Operating current is affected by temperature and SOC.

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

## Product comparison

Model	Nominal Energy	Charge / Discharge 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-F5 Pro	5.12kWh, 51.2V, 100Ah	1C/1C	90%	10years	404 x 547 x 141 mm
SE-F12	11.8kWh, 51.2V, 230Ah	1C/1C	90%	10years	400 x 583 x 233 mm
SE-F12 Max	11.8kWh, 51.2V, 230Ah	1C/1C	90%	10years	464 x 778 x 267 mm
SE-F16	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	10years	400 x 708 x 233 mm
SE-F16 Max	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	10years	464 x 925 x 267 mm

## Mounting example

### Stacked

Supports 6 layers in parallel ( 4 layers for SE-F16/F12 Max/F16 Max ), allows multiple clusters in parallel



SE-F5 & SE-F5 Plus

SE-F5 Pro

SE-F12

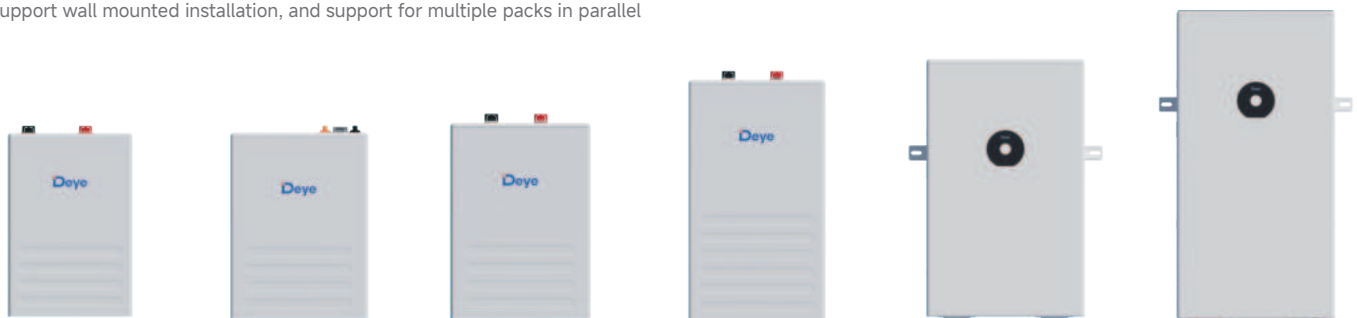
SE-F16

SE-F12 Max

SE-F16 Max

### Wall mounted

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



SE-F5 & SE-F5 Plus

SE-F5 Pro

SE-F12

SE-F16

SE-F12 Max

SE-F16 Max

### Optional wheels available for SE-F12 & SE-F12 Max & SE-F16 & SE-F16 Max

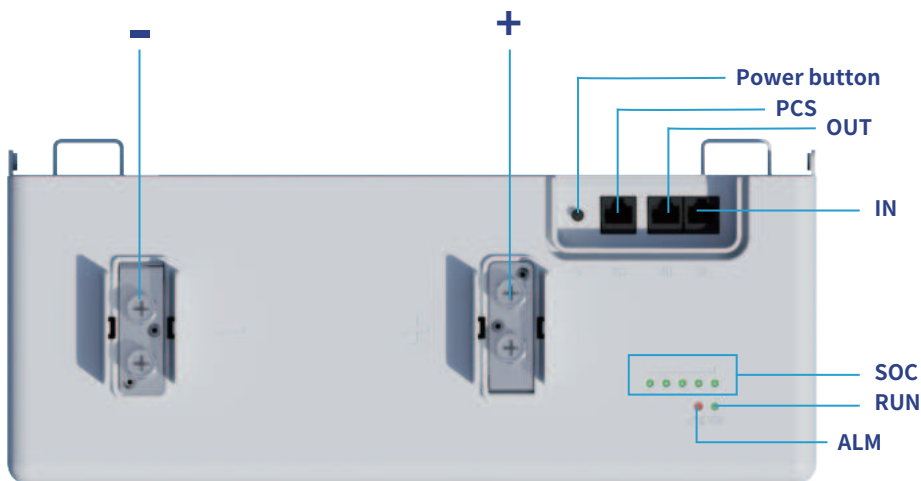


SE-F12

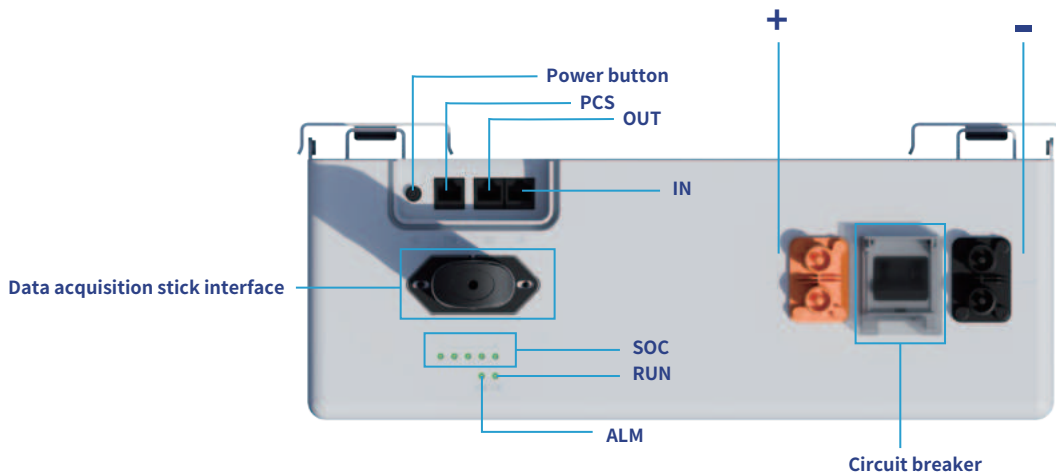
SE-F16

SE-F12 Max

SE-F16 Max



- ⊙ -: 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.



- ⊙ -: Battery negative terminal connection position(Quickly plug and unplug).
- ⊙ +: Battery positive terminal connection position(Quickly plug and unplug).
- ⊙ 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 .
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- ⊙ Circuit breaker: Used to manually control the connection between the battery rack and external devices.
- ⊙ Data acquisition stick interface: The location to connect with your Data Logger that is used for data acquisition via WIFI or Bluetooth.

**Without Junction Box(SE-F12 Max & F16 Max)(For EU, AS, AF, LATAM)**

