ESS Solution

SE-F5 & SE-F5 Plus & SE-F12 & SE-F16 &SUN-3/3.6/5/6K-OG01LP1-EU-AM2

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℃ to 55℃, natural cooling

SUN-3/3.6/5/6K-OG01LP1-EU-AM2

High Performance
Support a peak output of 2 times the rated power for up to 10 seconds

High Efficiency
4ms UPS-level switching time
Max. efficiency of 97.6% for optimal performance

Parallel Scalability
Supports 16 pcs parallel (off-grid)

Outdoor-Ready
IP65-rated, built to withstand tough environments

Smart MPPT Technology
2 MPPTs, supports 1.6x PV oversizing (18A+18A), optimizing energy from panels at various angles

Generator Integration
Support storing energy from diesel generator

Durable & Reliable
Independent cooling design reduces dust accumulation and extends lifespan

Long-Term Assurance
5-year warranty, extendable to 10 years for peace of mind

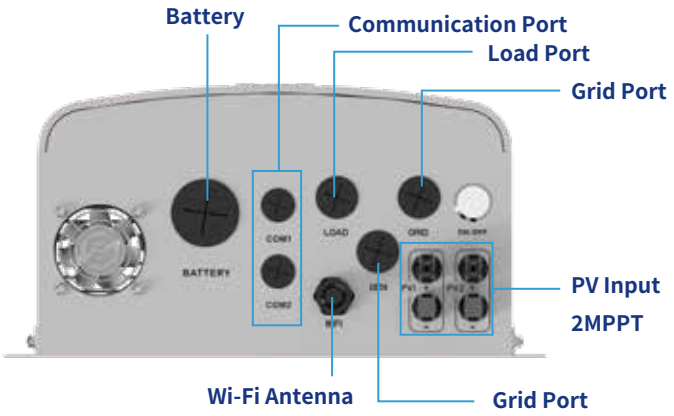
Model	SUN-3K-OG01LP1 -24-EU-AM2	SUN-3.6K-OG01LP1 -EU-AM2	SUN-5K-OG01LP1 -EU-AM2	SUN-6K-OG01LP1 -EU-AM2
Battery Input Data				
Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range (V)	20-30	40-60		
Max. Charging Current (A)	130	90	120	135
Max. Discharging Current (A)	130	90	120	135
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1			
PV String Input Data				
Max. PV Access Power (W)	6000	7200	10000	12000
Max. PV Input Power (W)	4800	5760	8000	9600
Max. PV Input Voltage (V)	500			
Start-up Voltage (V)	125			
PV Input Voltage(V)	125-500			
MPPT Voltage Range(V)	150-425			
Full Load MPPT Voltage Range(V)	300-425			
Rated PV Input Voltage (V)	370			
Max. Operating PV Input Current (A)	18	18+18		
Max. Input Short-Circuit Current (A)	27	27+27		
No. of MPP Trackers/No. of Strings MPP Tracker	1/1	2/1+1		
Max. Inverter Backfeed Current to The Array(A)	0			
AC Output Data				
Rated AC Output Power (VA/W)	3000	3600	5000	6000
Max. AC Output Power (VA/W)	3000	3600	5000	6000
Max. AC Output Current (A)	13.1	15.7	21.8	26.1
Peak Power (W)	2 times of rated power, 10s			
Rated Output Voltage (V)	230			
Output Type	L+N+PE			
Rated Output Frequency	50Hz / 60Hz			
Output Voltage Waveform	Pure Sine Wave			
Total Current Harmonic Distortion THDi	＜3%			
AC Input Date(Grid and Generator)				
Max. Input Power to Battery (W)	3000	3600	5000	6000
Rated Input Voltage (V)	230			
Rated Input Frequency	50Hz / 60Hz			
Gird Input Current (A)	35			
Generator Input Current (A)	35			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	96.50%			
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), Insulation Impedance Detection, DC Switch			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Interface				
LCD/LED Display	LCD			
Communication Interface	WIFI/RS485/CAN/Bluetooth			
General Data				
Max. Operating Frequency(Hz)	200M			
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	3000m			
Noise (dB)	<55			
Ingress Protection(IP) Rating	IP 65			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD mm)	306×427.5×175.77 (Excluding Connectors and Brackets)			
Weight (kg)	12.65			
Type of Cooling	Intelligent Air Cooling			
Warranty	Standard 5 years, extended warranty			
Safety / EMC Standard	IEC62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3,EN61000-6-4			

ESS Solution

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 × 583 × 233 mm	400 × 708 × 233 mm
Weight Approximate		41 kg		82 kg	107 kg
LED Indicator		LED (SOC, working, protecting) & Buzzer			
IP Rating of Enclosure		IP21			
Operating Temperature		Charge: 0～55°C / Discharge: -20°C～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			

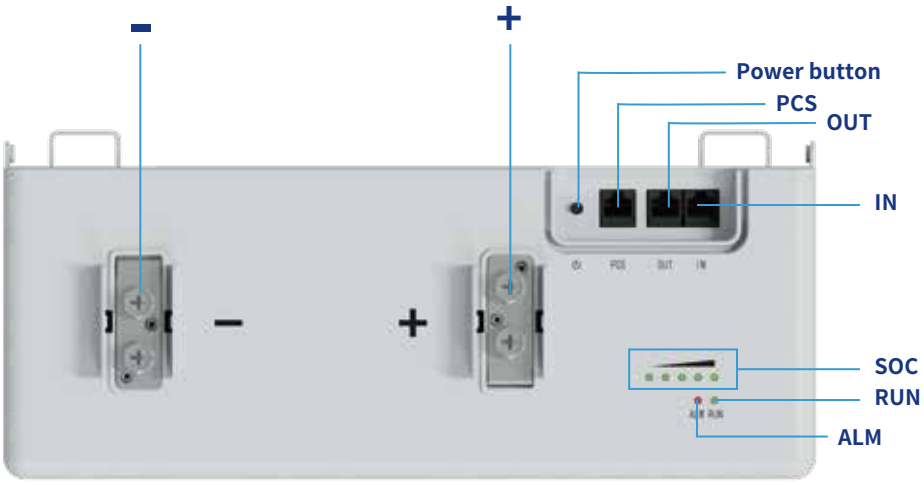
[1] Max. 64 pcs can parallel with CAN-Box.
[2] The current is affected by temperature and SOC.
[3] Conditions apply, refer to Deye Warranty Letter.

Model	SUN-3K-OG01LP1-24-EU-AM2	SUN-3.6K-OG01LP1-EU-AM2	SUN-5K-OG01LP1-EU-AM2	SUN-6K-OG01LP1-EU-AM2



◎ Battery Port: Connects to the battery for energy storage, supporting 40-60V DC with a max charge/discharge current of 135A.
◎ Communication Port: Enables data exchange and system monitoring for seamless operation.
◎ Load Port: Delivers stable AC power to connected household loads.
◎ Grid Port: Links to the utility grid for energy exchange and system stability.
◎ Generator Port: Connects to a backup generator for additional power supply during outages.
◎ PV Input: Supports solar panel connection with 2 MPPTs, handling up to 9600W input power.
◎ Wi-Fi Antenna: Allows wireless connectivity for remote monitoring and system management.

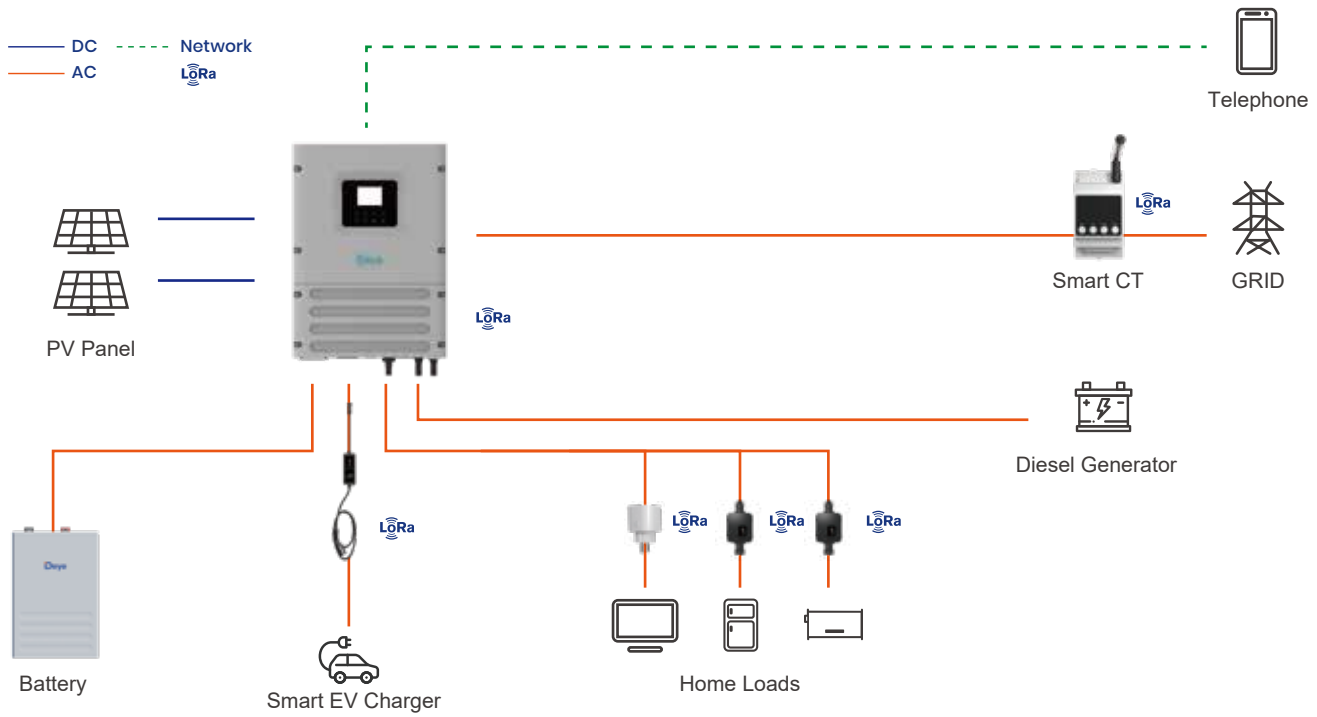
Model	SE-F5 & SE-F5 Plus & SE-F12 & SE-F16



◎ -: 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.

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

Local monitoring mode for battery

- Bluetooth APP Monitoring
- Low Power (Bluetooth LE)
- Automated upgrade

- 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