



Residential ESS Solution

SUN-3K-SG04LP1-24-EU-SM1 / SUN-6K-SG04LP1-EU-SM2 / SUN-12K-SG05LP3-EU-SM2

RW-L2.5A / RW-L5.1 / RW-L10.2

SUN-3K-SG04LP1-24-EU-SM1 / SUN-6K-SG04LP1-EU-SM2 / SUN-12K-SG05LP3-EU-SM2

Interactive Display

Colorful touch LCD, IP65 protection degree

High Efficiency

Max. efficiency of 97.6%

Ultimate Flexibility

AC couple to retrofit existing solar system

Smart Electricity Strategy

6 time periods for battery charging/discharging

Parallel Scalability

Supports 16/10 pcs parallel (on grid & off-grid)

Generator Integration

Support storing energy from diesel generator

RW-L2.5A / RW-L5.1 / RW-L10.2

Automatic Recovery Function

Minimum cold-start capability of 9V

1C Charge, 1.2C Discharge

Compared to traditional products, performance improve by 20%

Smart Fuse, Safe Power

Prevents thermal runaway in key circuits for ultimate safety

Reverse Polarity Protection

Prevents battery and BMS damage from incorrect wiring

Flexible Expansion

Max. 32 units in parallel, ideal for backup power

Seamless Convenience

Automatic battery networking and remote monitoring/upgrade support

Residential Energy Storage Solution

Model	SUN-3K-SG04LP1 -24-EU-SM1	SUN-3K-SG04LP1 -EU-SM1	SUN-3.6K-SG04LP1 -EU-SM2	SUN-5K-SG04LP1 -EU-SM2	SUN-6K-SG04LP1 -EU-SM2				
Battery Input Data									
Battery Type	Lead-acid or Lithium-ion								
Battery Voltage Range (V)	20-30	40-60	40-60	40-60	40-60				
Max. Charging Current (A)	140	70	90	120	135				
Max. Discharging Current (A)	140	70	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	6000	7200	10000	12000				
Max. PV Input Power (W)	4800	4800	5760	8000	9600				
Max. PV Input Voltage (V)	500								
Start-up Voltage (V)	125								
MPPT Voltage Range (V)	150-425								
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							
AC Input/Output Data									
Rated AC Input/Output Active Power (W)	3000	3600	5000	6000	6000				
Max. AC Input/Output Apparent Power (VA)	3300	3960	5500	6600	6600				
Rated AC Input/Output Current (A)	13.7/13.1	16.4/15.7	22.8/21.8	27.3/26.1	27.3/26.1				
Max. AC Input/Output Current (A)	15/14.4	18/17.3	25/24	30/28.7	30/28.7				
Max. Continuous AC Passthrough (grid to load) (A)	35				40				
Peak Power (off-grid) (W)	2 times of rated power, 10s								
Power Factor Adjustment Range	0.8 leading to 0.8 lagging								
Rated Input/Output Voltage/Range (V)	220/230 0.85Un-1.1Un								
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65								
Grid Connection Form	L+N+PE								
Total Current Harmonic Distortion THDi	<3% (of nominal power)								
DC Injection Current	<0.5% In								
Efficiency									
Max. Efficiency	97.6%								
Euro Efficiency	96.5%								
MPPT Efficiency	>99%								
Equipment Protection									
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level								
Surge Protection Level	TYPE II(DC), TYPE II(AC)								
Interface									
Communication Interface	RS485/RS232/CAN								
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)								
General Data									
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating								
Permissible Ambient Humidity	0-100%								
Permissible Altitude	2000m								
Noise (dB)	<30								
Ingress Protection(IP) Rating	IP 65								
Inverter Topology	Non-Isolated								
Over Voltage Category	OVC II(DC), OVC III(AC)								
Cabinet Size (WxHxD mm)	376x470x241.5 (Excluding Connectors and Brackets)								
Weight (kg)	17.6	19							
Type of Cooling	Natural 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, G98, G99, VDE-AR-N 4105								
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2								

Residential Energy Storage Solution

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Model	RW-L2.5A	RW-L5.1	RW-L10.2
Main Parameter			
Battery Chemistry			LiFePO ₄
Built-in Circuit Breaker	125A 1P, 60Vdc		125A 2P, 60Vdc
Capacity (Ah) ^[1]	100		200
Scalability	Max. 32 pcs in parallel		
Nominal Voltage (V)	25.6		51.2
Operating Voltage (V)	22.4 ~ 28.8		44.8 ~ 57.6
Nominal Energy (kWh) ^[1]	2.56	5.12	10.24
Usable Energy (kWh@90%DoD) ^[1]	2.3	4.61	9.22
Charge / Discharge Current (A) ^[2]	Max. Continuous Peak	100 / 120 200 / 200 (10 sec)	200 / 240 300 / 300 (10 sec)
Main Parameter			
Recommend Depth of Discharge			90%
Dimension (W × H × D, mm) (Without hanging board)	350 × 680 × 160	420 × 680 × 160	745 × 745 × 170
Weight Approximate (kg)	32	50	100
Master LED Indicator	LED (SOC and working state)		
IP Rating of Enclosure	IP65		
Operating Temperature	Charge : 0 ~ 55°C / Discharge : -20°C ~ 55°C		
Recommend Operating Temperature	15°C ~ 35°C		
Storage Temperature	0 ~ 35°C		
Relative Humidity	95%		
Altitude	≤2000m		
Cycle Life	≥6000 (25°C±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL)		
Installation	Wall-Mounted, Floor-Mounted		
Communication Port	CAN2.0, RS485		
Warranty Period ^[3]	10 years		
Energy Throughput ^[3]	4MWh	8MWh	16MWh
Certification	UN38.3, MSDS		

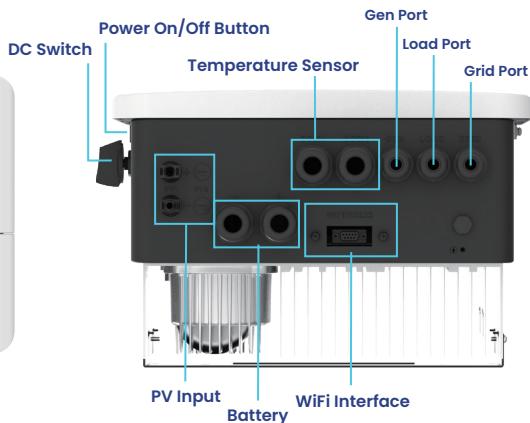
[1] Test conditions : 25°C±2°C, at beginning of life and calibration mode, 0.5C charge & 0.5C discharge,100% DOD.

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

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

Model

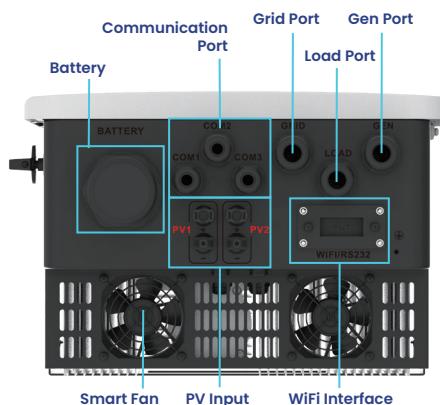
SUN-3.6/5/6K-SG04LP1-EU-SM2



- ◎ Battery Port: Connects to the battery for energy storage, enabling max.135A charging and discharging current to ensure stable power supply.
- ◎ Temperature Sensor: Monitors real-time temperature data to optimize inverter performance and ensure system safety.
- ◎ WiFi Interface: Connects to a WiFi data logger, enabling wireless communication and remote monitoring of the inverter's performance.
- ◎ Load Port: Offer AC power to connected loads.
- ◎ Grid Port: Connect to utility grid, for bidirectional power transfer: importing from and exporting to the grid.
- ◎ Generator Port: Connect to diesel generator for backup power supply during outages, also can connect with existing solar inverter for AC Coupling.
- ◎ PV Input: Connect to PV panels with 2 MPPTs.

Model

SUN-12K-SG05LP3-EU-SM2



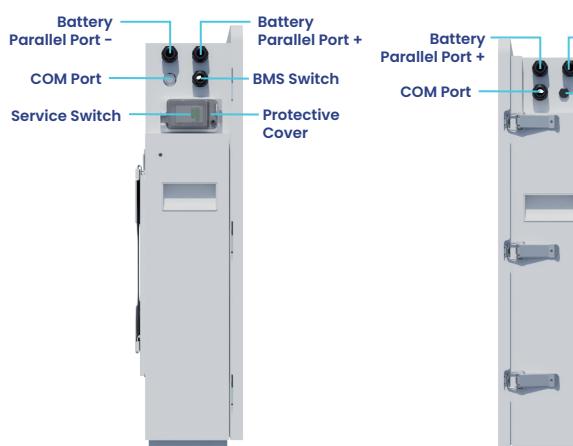
- ◎ Battery Port: Connects to the battery for energy storage, enabling max.240A charging and discharging current to ensure stable power supply.
- ◎ Communication Port: Serve as communicate with battery and data exchange between inverter and extra devices.
- ◎ WiFi Interface: Connects to a WiFi data logger, enabling wireless communication and remote monitoring of the inverter's performance.
- ◎ Smart Fan: Cools the heatsink to ensure optimal inverter temperature and performance.
- ◎ Load Port: Offer AC power to connected loads.
- ◎ Grid Port: Connect to utility grid, for bidirectional power transfer: importing from and exporting to the grid.
- ◎ Generator Port: Connect to diesel generator for backup power supply during outages, also can connect with existing solar inverter for AC Coupling.
- ◎ PV Input: Connect to PV panels with 2 MPPTs.

Model

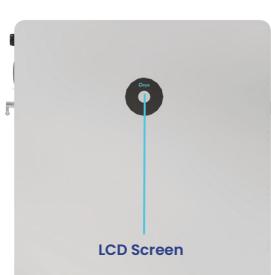
RW-L2.5A / RW-L5.1 / RW-L10.2



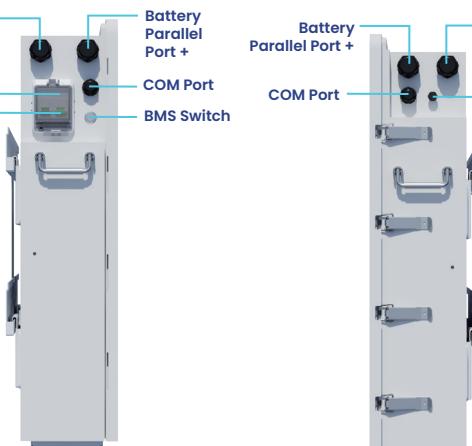
RW-L2.5A / RW-L5.1



- ◎ Battery Parallel Port + : Connect "+" port of inverter or previous/next battery among multiple parallel batteries.
- ◎ Battery Parallel Port - : Connect "-" port of inverter or previous/next battery among multiple parallel batteries.
- ◎ COM Port: Follow the CAN protocol (baud rate: 500K), used to output battery information to the PCS through connection between COM port of the battery and BMS1 port of the PCS.
- ◎ BMS Switch: To turn ON/OFF the BMS of the battery.
- ◎ Service Switch: To power ON/OFF the battery.
- ◎ Protective Cover: To protect against extreme weather.
- ◎ LCD Screen: To indicate the state of the battery system.
- ◎ Breather Valve: To regulates internal pressure.



RW-L10.2



- ◎ Battery Parallel Port + : Connect "+" port of inverter or previous/next battery among multiple parallel batteries.
- ◎ Battery Parallel Port - : Connect "-" port of inverter or previous/next battery among multiple parallel batteries.
- ◎ COM Port: Follow the CAN protocol (baud rate: 500K), used to output battery information to the PCS through connection between COM port of the battery and BMS1 port of the PCS.
- ◎ BMS Switch: To turn ON/OFF the BMS of the battery.
- ◎ Service Switch: To power ON/OFF the battery.
- ◎ Protective Cover: To protect against extreme weather.
- ◎ LCD Screen: To indicate the state of the battery system.
- ◎ Breather Valve: To regulates internal pressure.

Product Expansion

RW-L2.5A

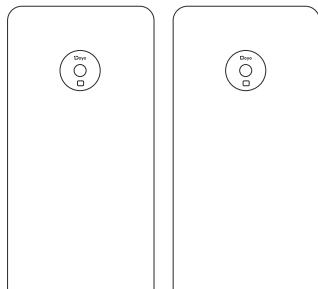
Battery backup time	1h	2h	3h	4h
SUN 3K SG04LP1 24 EU	2 units	3 units	4 units	5 units
SUN 3.6K SG04LP1 EU	2 units	3 units	4 units	5 units
RW-L5.1				
Battery backup time	1h	2h	3h	4h
SUN 5KW SG 04LP1	1 units	2 units	3 units	4 units
SUN 5KW SG 03LP1				
SUN 5KW SG 04LP3				
SUN 6KW SG 04LP1	2 units	3 units	4 units	5 units
SUN 6KW SG 03LP1				
SUN 6KW SG 05LP1				
SUN 8KW SG 02LP1	2 units	4 units	5 units	7 units
SUN 8KW SG 05LP3				
SUN 8KW SG 04LP3				

RW-L10.2

Battery backup time	1h	2h	3h	4h
SUN 8KW SG 02LP1	1 units	2 units	3 units	4 units
SUN 8KW SG 05LP3				
SUN 8KW SG 04LP3				
SUN 10KW SG 04LP3	1 units	2 units	3 units	4 units
SUN 10KW SG 02LP1				
SUN 12KW SG 04LP3				
SUN 12KW SG 02LP1	2 units	3 units	4 units	5 units
SUN 12KW SG 05LP3				
SUN 16KW SG 01LP1				
SUN-15KSG05LP3	2 units	3 units	5 units	6 units
SUN-18KSG05LP3	2 units	4 units	6 units	8 units
SUN-20KSG05LP3	2 units	4 units	6 units	8 units

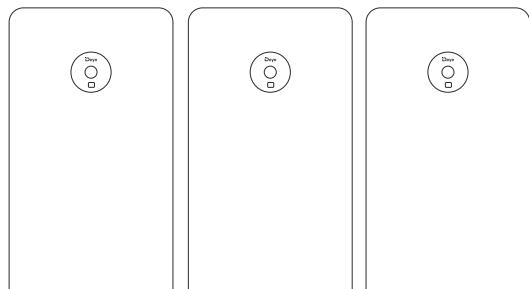
Typical Application Scenarios

RW-L2.5A



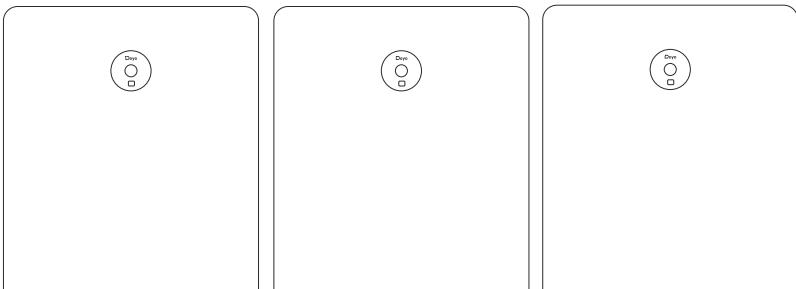
2 h

RW-L5.1



2 h

RW-L10.2



2 h

SUN-12K-SG05LP3-EU-SM2

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**

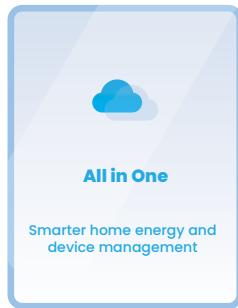


Smarten Up Your Home Energy



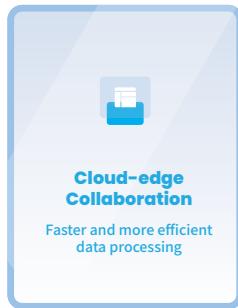
Download Deye Cloud APP to join us!

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



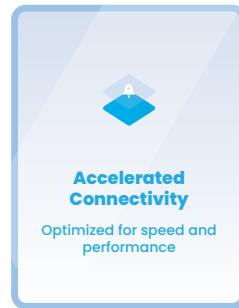
All in One

Smarter home energy and device management



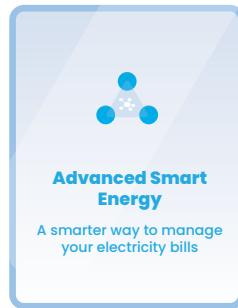
Cloud-edge Collaboration

Faster and more efficient data processing



Accelerated Connectivity

Optimized for speed and performance



Advanced Smart Energy

A smarter way to manage your electricity bills



POWERING YOUR LIFE



www.deyeess.com / www.deyeinverter.com