

Deye

Clean Power For You

Ningbo Deye Inverter Technology Co., Ltd.

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Note: The technical data above mentioned may be updated or revised due to product development. The data in this brochure is subject to change without notice. The latest datasheet and catalogue can be acquired via market@deye.com.cn

Ver: 3.0 2022



World-leading Residential Energy Storage System Provider

Stock Code: 605117.SH

Choose Deye — Choose a Green and Healthy Life

Deye
2022



Deye

Company Profile

- 1** Ningbo Deye Inverter Technology Co., Ltd, founded in 2007 with registered capital 46 million USD, is one of the China's high-tech enterprises and a subsidiary of Deye Group. With a plant area over 15,000 m² and complete production and testing equipment, Deye has become a major player in the global solar inverter market.
- 2** Ningbo Deye Inverter Technology Co., Ltd is dedicated to providing complete photovoltaic power system solutions, including residential and commercial power plants solutions. Also, Deye offers solar energy storage system solutions. Among them, PV grid-connected inverter power range from 1.5-110kW, Hybrid inverter 3kW-12kW, and microinverter 300W-2000W.
- 3** As a technology-oriented company, Deye has always been committing to research and develop new cutting-edge technologies to provide efficiency and reliable products. For example, Deye adopts T-type three-level topology and enhanced SVPWM algorithm to further improve the conversion efficiency by 0.7% compared with common SPWM. With frequency droop control technology, Deye string inverter is able to work with diesel generator, which greatly expands the scope of the product application.



Read more

Milestones

2021

Deye Group was successfully listed on SSE of China in 2021, Stock Code 605117.SH.

30,000 pcs +

By the end of 2019, with total shipments 30,000+, Deye hybrid inverter has become Top 3 in South Africa, Pakistan and Top 1 Chinese brand in USA.

2017

Deye has launched first generation hybrid inverter and attracted a lot of attention with many unique features such as V/f droop control technology and battery DC / DC topology etc...

2007

Founded in 2007 with registered capital of 46 million USD.

LIMITLESS

Core Technology

Deye hybrid inverter 3-50kW with 208/230/240/400Vac

4

Automatic switching time 4ms

6

6 time periods for battery charging/discharging

16

V/f droop control, Max. 16pcs in parallel

24

Supports using diesel generator to charge battery directly, ensuring system energy supply 7* 24H

95.5

Max. conversion efficiency of 97.6%;
Max. battery charge efficiency of 95.5%

240

Max. charging/discharging current of 240A





World-Class Components Suppliers

Deye chooses world-class suppliers to ensure the high quality of its products.

MOSFET, IGBT



Complete Manufacturing System



IC



Capacitor, Inductor



Diode



Relay



FAN



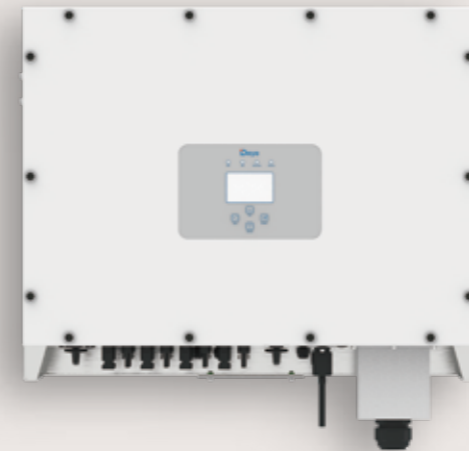
Deye Inverter Portfolio



Single Phase
String Inverter



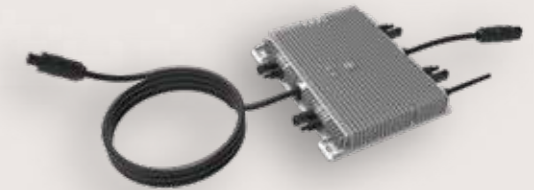
Three Phase
String Inverter



Three Phase
String Inverter (LV)



Single Phase
Hybrid Inverter



Microinverter



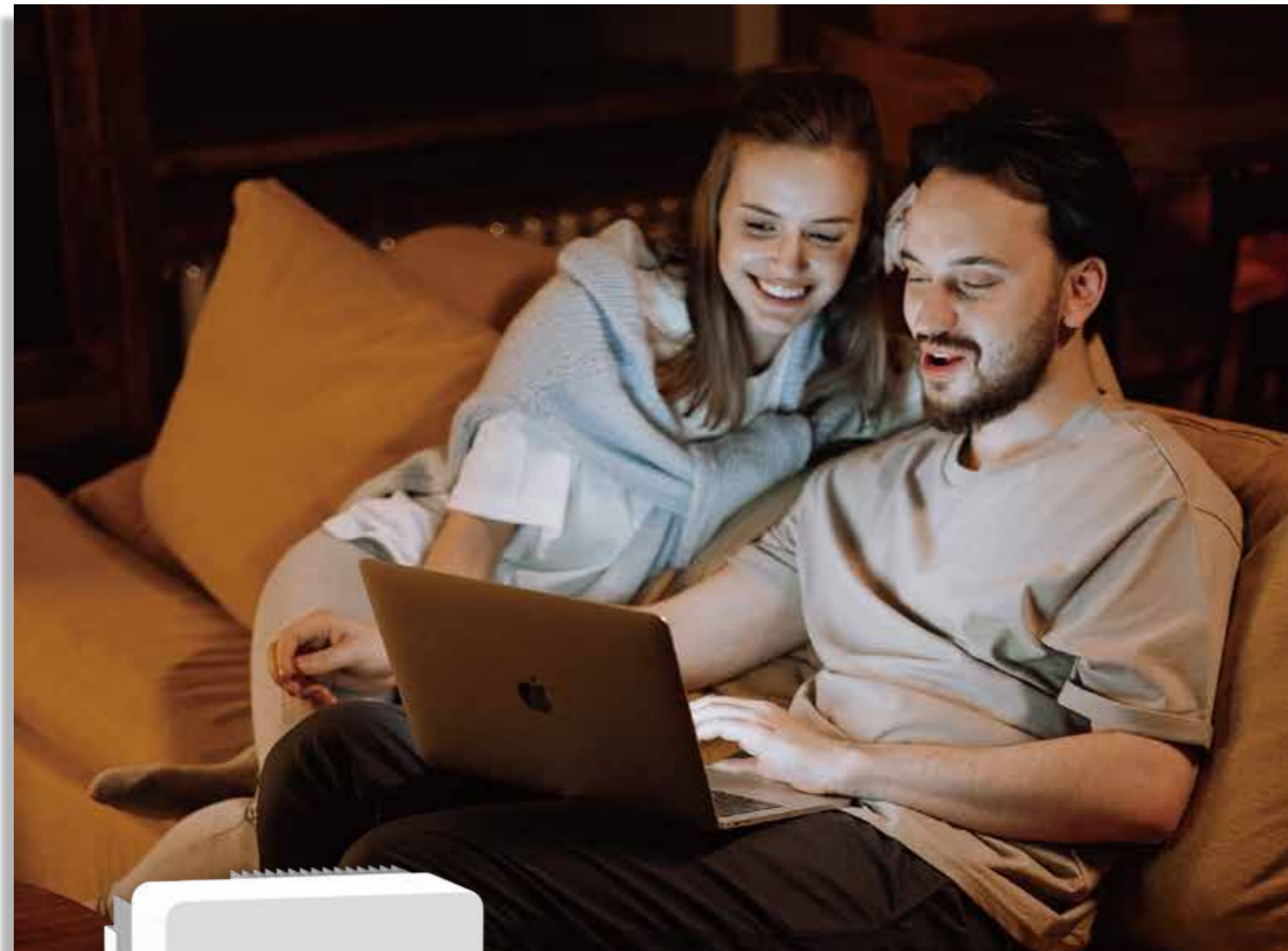
Three Phase
Hybrid Inverter






Accessory &
monitoring

Hybrid Inverter

SUN- 3 / 3.6 / 5 / 6 K-SG04LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 140** Max. charging/discharging current of 140A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator




Technical Data

Model	SUN-3K -SG04LP1-24-EU	SUN-3K -SG04LP1-EU	SUN-3.6K -SG04LP1-EU	SUN-5K -SG04LP1-EU	SUN-6K -SG04LP1-EU
Battery Input Data					
Battery Type	Lead-acid or Li-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
Number of battery input	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	3900	3900	4680	6500	7800
Rated PV Input Voltage (V)	370 (125~500)				
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Full Load DC Voltage Range (V)	300-425				
PV Input Current (A)	13		13+13		
Max. PV ISC (A)	17		17+17		
Number of MPPT / Strings per MPPT	1/1		2/1+1		
AC Output Data					
Rated AC Output and UPS Power (W)	3000		3600	5000	6000
Max. AC Output Power (W)	3300		3690	5500	6600
AC Output Rated Current (A)	13.6		16.4	22.7	27.3
Max. AC Current (A)	15		18	25	30
Max. Continuous AC Passthrough (A)			35		40
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)				
Grid Type	Single Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	96.50%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-45~60°C, >45°C derating				
Cooling	Natural cooling				
Noise (dB)	<30 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	14		15.1		
Size (mm)	330W x 433H x 238D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Hybrid Inverter

SUN- 3.6 / 5 / 6 K-SG03LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 135** Max. charging/discharging current of 135A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator




Technical Data

Model	SUN-3.6K-SG03LP1-EU	SUN-5K-SG03LP1-EU	SUN-6K-SG03LP1-EU
Battery Input Data			
Battery Type	Lead-acid or Li-Ion		
Battery Voltage Range (V)	40~60		
Max. Charging Current (A)	90	120	135
Max. Discharging Current (A)	90	120	135
External Temperature Sensor	Yes		
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	4680	6500	7800
Rated PV Input Voltage (V)	370 (125~500)		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150-425		
Full Load DC Voltage Range (V)	300-425		
PV Input Current (A)	13+13		
Max. PV ISC (A)	17+17		
Number of MPPT / Strings per MPPT	2/1+1		
AC Output Data			
Rated AC Output and UPS Power (W)	3600	5000	6000
Max. AC Output Power (W)	3690	5500	6600
AC Output Rated Current (A)	16.4	22.7	27.3
Max. AC Current (A)	18	25	30
Max. Continuous AC Passthrough (A)	35		
Peak Power (off grid)	2 time of rated power, 10 S		
Power Factor	0.8 leading to 0.8 lagging		
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)		
Grid Type	Single Phase		
DC injection current (mA)	THD<3% (Linear load<1.5%)		
Efficiency			
Max. Efficiency	97.60%		
Euro Efficiency	96.50%		
MPPT Efficiency	99.90%		
Protection			
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection		
Output Over Voltage Protection	DC Type II/AC Type III		
Certifications and Standards			
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11		
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
General Data			
Operating Temperature Range (°C)	-45~60°C, >45°C derating		
Cooling	Natural cooling		
Noise (dB)	<30 dB		
Communication with BMS	RS485; CAN		
Weight (kg)	20.5		
Size (mm)	330W x 580H x 232D		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 years		

Hybrid Inverter

SUN- 3.6 / 5 / 6 / 7.6 / 8 K-SG05LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 190** Max. charging/discharging current of 190A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator




Technical Data

Model	SUN-3.6K -SG05LP1-EU	SUN-5K -SG05LP1-EU	SUN-6K -SG05LP1-EU	SUN-7.6K -SG05LP1-EU	SUN-8K -SG05LP1-EU
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	40~60				
Max. Charging Current (A)	90	120	135	190	190
Max. Discharging Current (A)	90	120	135	190	190
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	4680	6500	7800	9880	10400
Rated PV Input Voltage (V)	370 (125~500)				
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Full Load DC Voltage Range (V)	300-425		200-425		
PV Input Current (A)	13+13			26+26	
Max. PV ISC (A)	17+17			34+34	
Number of MPPT / Strings per MPPT	2/1+1			2/2+2	
AC Output Data					
Rated AC Output and UPS Power (W)	3600	5000	6000	7600	8000
Max. AC Output Power (W)	3690	5500	6600	8360	8800
AC Output Rated Current (A)	16.4	22.7	27.3	34.5	36.4
Max. AC Current (A)	18	25	30	38	40
Max. Continuous AC Passthrough (A)	35		40	50	
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)				
Grid Type	Single Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	96.50%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-45~60°C, >45°C derating				
Cooling	Natural cooling				
Noise (dB)	<30 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	24				
Size (mm)	330W x 580H x 232D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Hybrid Inverter

SUN- 5 / 6 K-SG01LP1-US SUN- 7.6 / 8 K-SG01LP1-US/EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 190** Max. charging/discharging current of 190A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	SUN-5K -SG01LP1-US	SUN-6K -SG01LP1-US	SUN-7.6K -SG01LP1-US/EU	SUN-8K -SG01LP1-US/EU
Battery Input Data				
Battery Type	Lead-acid or Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	120	135	190	190
Max. Discharging Current (A)	120	135	190	190
External Temperature Sensor	Yes			
Charging Curve	3 Stages / Equalization			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. DC Input Power (W)	6500	7800	9880	10400
Rated PV Input Voltage (V)	370 (125~500)			
Start-up Voltage (V)	125			
MPPT Voltage Range (V)	150-425			
Full Load DC Voltage Range (V)	300-425	200-425		
PV Input Current (A)	13+13	26+13	26+26	
Max. PV ISC (A)	17+17	34+17	34+34	
Number of MPPT / Strings per MPPT	2/1+1	2/2+1	2/2+2	
AC Output Data				
Rated AC Output and UPS Power (W)	5000	6000	7600	8000
Max. AC Output Power (W)	5500	6600	8360	8800
AC Output Rated Current (A)	20.8/24	25/28.8	31.7/36.5	34.5
Max. AC Current (A)	22.9/26.4	27.5/31.7	34.8/40.2	38
Max. Continuous AC Passthrough (A)	40		50	
Peak Power (off grid)	2 time of rated power, 10 S			
Power Factor	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	50 / 60Hz; L1/L2/N(PE) 120/240Vac (split phase), 208Vac (2/3 phase), L/N/PE 220/230Vac (single phase)			
Grid Type	Split phase; 2/3 phase; Single Phase			
DC injection current (mA)	THD<3% (Linear load<1.5%)			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	99.90%			
Protection				
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection			
Output Over Voltage Protection	DC Type II/AC Type III			
Certifications and Standards				
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11			
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
General Data				
Operating Temperature Range (°C)	-45~60°C, >45°C derating			
Cooling	Smart cooling			
Noise (dB)	<30 dB			
Communication with BMS	RS485; CAN			
Weight (kg)	32			
Size (mm)	420W×670H×233D			
Protection Degree	IP65			
Installation Style	Wall-mounted			
Warranty	5 years			

Three Phase Hybrid Inverter

SUN- 5 / 6 / 8 / 10 / 12 K-SG04LP3-EU



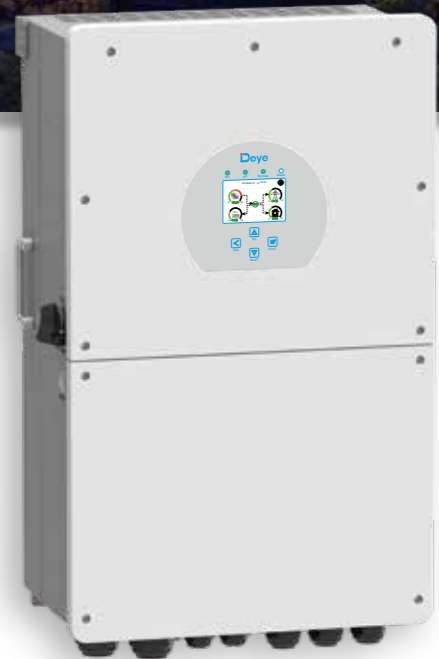
- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 240** Max. charging/discharging current of 240A
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
- Generator** Support storing energy from diesel generator




Technical Data

Model	SUN-5K -SG04LP3-EU	SUN-6K -SG04LP3-EU	SUN-8K -SG04LP3-EU	SUN-10K -SG04LP3-EU	SUN-12K -SG04LP3-EU
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	40~60				
Max. Charging Current (A)	120	150	190	210	240
Max. Discharging Current (A)	120	150	190	210	240
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	6500	7800	10400	13000	15600
Rated PV Input Voltage (V)	550 (160~800)				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-650				
Full Load DC Voltage Range (V)	350-650				
PV Input Current (A)	13+13			26+13	
Max. PV ISC (A)	17+17			34+17	
Number of MPPT / Strings per MPPT	2/1+1			2/2+1	
AC Output Data					
Rated AC Output and UPS Power (W)	5000	6000	8000	10000	12000
Max. AC Output Power (W)	5500	6600	8800	11000	13200
AC Output Rated Current (A)	7.6	9.1	12.1	15.2	18.2
Max. AC Current (A)	11.4	13.6	18.2	22.7	27.3
Max. Continuous AC Passthrough (A)	45				
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-45~60°C, >45°C derating				
Cooling	Smart cooling				
Noise (dB)	<45 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	33.6				
Size (mm)	422W x 699.3H x 279D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Hybrid Inverter

SUN- 12 / 14 / 16 K-SG01LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 290** Max. charging/discharging current of 290A
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	SUN-12K-SG01LP1-EU	SUN-14K-SG01LP1-EU	SUN-16K-SG01LP1-EU
Battery Data			
Battery Type	Lead-acid or Li-Ion		
Battery Voltage Range (V)	40~60		
Max. Charging Current (A)	220	250	290
Max. Discharging Current (A)	220	250	290
UPS Power (W)	12000	14000	16000
External Temperature Sensor	Yes		
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	15600	18200	20800
Max. DC Input Voltage (V)	500		
Start-up Voltage (V)	150		
MPPT Range (V)	150-425		
Rated DC Input Voltage (V)	370		
PV Input Current (A)	26+26	26+26+26	26+26+26
Max. PV ISC (A)	44+44	44+44+44	44+44+44
Number of MPPT / Strings per MPPT	2/2	3/2	3/2
AC Output Data			
Rated AC Output (W)	12000	14000	16000
AC Output Rated Current (A)	52.2	60.9	69.6
Max. Continuous AC Passthrough (A)	100		
Peak Power (off grid)	2 time of rated power, 5 S		
Power Factor	0.8 leading to 0.8 lagging		
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)		
Grid Type	Single Phase		
DC injection current (mA)	<0.5%1n		
Backup Data			
Backup Power (W)	10000	12000	14000
Backup Rated Current (A)	43.5	52.2	60.9
Backup UPS	6ms Automatic switchover time		
Efficiency			
Max. Efficiency	97.60%		
Euro Efficiency	96.50%		
MPPT Efficiency	99.90%		
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection		
Output Over Voltage Protection	DC Type II/AC Type III		
Certifications and Standards			
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11		
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
General Data			
Operating Temperature Range (°C)	-45~60°C, >45°C derating		
Cooling	Smart cooling		
Noise (dB)	<30 dB		
Communication with BMS	RS485; CAN		
Weight (kg)	48.5		
Size (mm)	464W×798.4H×300D		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 years		
Features			
Max. Number of Parallel (PCS)	16		

Three Phase Hybrid Inverter

SUN- 6 / 8 / 10 / 12 / 15 K-SG01HP3-EU



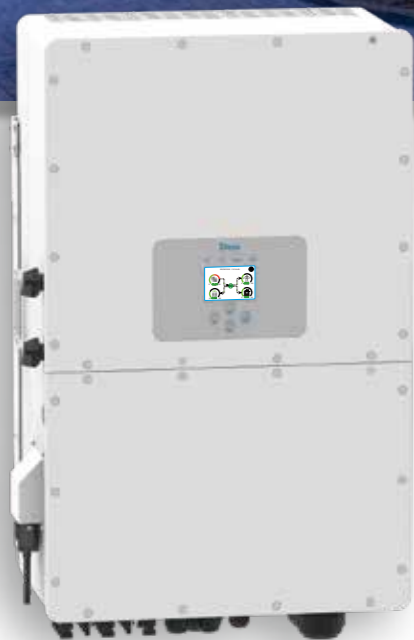
- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 37** Max. charging/discharging current of 37A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- GEN** Support storing energy from diesel generator

Technical Data

Model	SUN-6K -SG01HP3-EU	SUN-8K -SG01HP3-EU	SUN-10K -SG01HP3-EU	SUN-12K -SG01HP3-EU	SUN-15K -SG01HP3-EU
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	96~600				
Max. Charging Current (A)	37				
Max. Discharging Current (A)	37				
Number of battery input	1				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	7800	10400	13000	15600	19500
Max. DC Input Voltage (V)	1000				
Start-up Voltage (V)	160				
MPPT Range (V)	200-850				
Full Load DC Voltage Range (V)	300-850				
Rated DC Input Voltage (V)	150				
PV Input Current (A)	26+26				
Max. PV ISC (A)	40+40				
Number of MPPT / Strings per MPPT	2/2+1				
AC Output Data					
Rated AC Output and UPS Power (W)	6000	8000	10000	12000	15000
Max. AC Output Power (W)	6600	8800	11000	13200	16500
AC Output Rated Current (A)	9.1	12.1	15.2	18.2	22.7
Max. AC Current (A)	13.6	18.2	22.7	27.3	34.1
Max. Continuous AC Passthrough (A)	50				
Peak Power (off grid)	2 time of rated power, 10 S				
Generator input/Smart load /AC couple current (A)	9.1 / *180 / 9.1	12.1 / *180 / 12.1	15.2 / *180 / 15.2	18.2 / *180 / 18.2	22.7 / *180 / 22.7
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
DC injection current (mA)	<0.5%In				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-45~60°C, >45°C derating				
Cooling	Smart cooling				
Noise (dB)	<45 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	26				
Size (mm)	396W×580H×230D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

Three Phase Hybrid Inverter

SUN- 20 / 25 / 30 / 40 / 50 K-SG01HP3-EU



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 74** Max. charging/discharging current of 74A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- GEN** Support storing energy from diesel generator

Technical Data

Model	SUN-20K -SG01HP3-EU	SUN-25K -SG01HP3-EU	SUN-30K -SG01HP3-EU	SUN-40K -SG01HP3-EU	SUN-50K -SG01HP3-EU
Battery Input Data					
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	200~700				
Max. Charging Current (A)	37		37+37		
Max. Discharging Current (A)	37		37+37		
Number of battery input	1		2		
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. DC Input Power (W)	26000	32500	39000	52000	65000
Max. DC Input Voltage (V)	1000				
Start-up Voltage (V)	160				
MPPT Range (V)	200-850				
Min. DC Input Voltage (V)	150				
Full Load DC Voltage Range (V)	360-850	365-850	435-850	450-850	450-850
Rated DC Input Voltage (V)	500	625	500	500	625
PV Input Current (A)	36+36		36+36+36	36+36+36+36	
Max. PV ISC (A)	55+55		55+55+55	55+55+55+55	
Number of MPPT / Strings per MPPT	2/2+2		3/2+2+2	4/2+2+2+2	
AC Output Data					
Rated AC Output and UPS Power (W)	20000	25000	30000	40000	50000
Max. AC Output Power (W)	22000	27500	33000	44000	55000
AC Output Rated Current (A)	30.3	38	45.6	60.8	75.8
Max. AC Current (A)	45.5	56.8	68.2	90.9	113.6
Max. Continuous AC Passthrough (A)	100				
Peak Power (off grid)	2 time of rated power, 10 S				
Generator input/Smart load /AC couple current (A)	30.3 / *180 / 30.3	38 / *180 / 38	45.6 / *180 / 45.6	60.8 / *180 / 60.8	75.8 / *180 / 75.8
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
DC injection current (mA)	<0.5%1n				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				
Protection					
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection				
Output Over Voltage Protection	DC Type II/AC Type III				
Certifications and Standards					
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
General Data					
Operating Temperature Range (°C)	-45~60°C, >45°C derating				
Cooling	Smart cooling				
Noise (dB)	<45 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	60				
Size (mm)	560.5Wx837Hx319D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

SUNB-5.0-G01/C01/E01-48



- ◆ Modular design, scalable from 5 kWh to 20 kWh
- ◆ Compact size and easy installation
- ◆ High energy density and efficiency
- ◆ Excellent safety of LiFePO4 battery
- ◆ Remote firmware upgrade
- ◆ Long lifespan, 10 years warranty

Technical Data

Model	SUNB-5.0-G01-48				SUNB-5.0-C01-48				SUNB-5.0-E01-48			
Battery Data												
Cell Technology	LFP (LiFePO4)											
Battery Module Capacity (kWh)	4.91				5.12				5.12			
Battery Module Voltage(V)	51.2											
Battery Module Capacity(Ah)	96				100				100			
Battery Module Charging/Discharging Current (A)	96				100				100			
Battery Group Voltage(V)	51.2											
Battery Module Quantity(pcs)	1	2	3	4	1	2	3	4	1	2	3	4
Battery Group Total Capacity (kWh)	4.91	9.82	14.73	19.64	5.12	10.24	15.36	20.48	5.12	10.24	15.36	20.48
Battery Group Usable Capacity (kWh)	4.42	8.84	13.26	17.68	4.61	9.22	13.83	18.44	4.61	9.22	13.83	18.44
Battery Group Charging/Discharging Current (A)	96	192	250	250	100	200	250	250	100	200	250	250
Battery Group Rated Capacity (Ah)	96	192	288	372	100	200	300	400	100	200	300	400
General Data												
Depth of Discharge(%)	90%											
Efficiency(%, 1C)	96%											
Dimension (W/H/D,mm) / Weight (kg)	1: 430×440×339 / 50.7 2: 430×670×339 / 98.7 3: 430×1080×339 / 146.7 4: 430×1400×339 / 194.7				1: 430×440×339 / 50.7 2: 430×670×339 / 98.7 3: 430×1080×339 / 146.7 4: 430×1400×339 / 194.7				1: 430×440×339 / 50.7 2: 430×670×339 / 98.7 3: 430×1080×339 / 146.7 4: 430×1400×339 / 194.7			
Master LED indicator	5LED (20%40%, 60%100%), 3LED (working, warning, protecting)											
IP Protection	IP65											
Altitude	≤2000m											
Working temperature	Charge: 0~50°C/Discharge: -30~50°C				Charge: 0~60°C/Discharge: -30~60°C				Charge: 0~55°C/Discharge: -20~55°C			
Storage Temperature	-20°C ~ 45°C											
Humidity	≤90%											
Features												
Cycle Life	>4000@25±2°C, 1C/1C, 100%DOD				>3500@25±2°C, 1C/1C, 100%DOD				>4000@25±2°C, 1C/1C, 100%DOD			
Installation Location	Ground-Mounted											
Communication Port	CAN2.0 / RS485											
Warranty	5 years				10 years							

SUN-5/8/12K-SG03LP1-EU-ESS



All-in-one Energy Storage System

- ◆ All-in-one design, integrated 5/8/12KW hybrid inverter and battery
- ◆ Comfortable and easy control via App, PC or Touch-Display
- ◆ Leading smart application: peak-shaving, smart load, AC couple etc
- ◆ Modular lithium iron phosphate battery, capacity of 5kWh~20kWh, scalable and safety
- ◆ Fast switching time of 4ms, ensuring your energy security

Technical Data

Model	SUN-5K-SG03LP1-EU-ESS	SUN-8K-SG02LP1-EU-ESS	SUN-12K-SG04LP3-EU-ESS
System Specification			
Nominal Output Power/UPS Power (W)	5000 / 5000	8000 / 8000	12000 / 12000
Capacity Range	5 ~ 20 kWh		
Usable Capacity Range	9.2kWh	13.8kWh	18.4kWh
Battery Chemistry	LFP (LiFePO4)		
IP Protection	IP21 (Indoor) / IP65 (Outdoor)		
Warranty	5 Year Product Warranty, 10 Year Battery Warranty		
Inverter Technical Specification			
Model	SUN-5K-SG03LP1-EU	SUN-8K-SG02LP1-EU	SUN-12K-SG04LP3-EU
Max. PV Input Power (W)	6500	10400	15600
Max. PV Input Current (A)	2 x 13	2 x 22	26+13
Max. PV Input Voltage (V)	500	500	800
Start Up DC Voltage (V)	125	125	160
MPPT Voltage Range (V)	150-425	150-425	200-650
Max. PV Short-circuit Current (A)	2 x 17	2 x 28	34+17
MPPT Number	2	2	2
Max. Charging/Discharging Current (A)	120	190	240
Max. Charging/Discharging Power (W)	5000	8000	12000
Rated Voltage (V)	230		230/400
Phase	Single Phase		Three Phase
Rated Frequency	50 / 60 Hz		
Peak Power (off grid)	2 time of rated power, 10 S		
DC injection current (mA)	THD<3% (Linear load<1.5%)		
Display	LCD		
Relative Humidity	15% ~ 85% (No Condensing)		
Dimension (W x D x H)	430W x 1370H x 339D	430W x 1710H x 339D	430W x 2139H x 339D
Weight (kg)	118.5	178	227.6
Communication with BMS	RS485; CAN		
EMC	IEC/EN 61000-6-1/2/3/4		
Safety	IEC/EN 62109-1, IEC/EN 62109-2		
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11		
Efficiency			
Max. Efficiency	97.6%		
Max. charging/discharging efficiency	95.5%		
Battery Technical Specification			
Module Model	SUNB-5.0-C01-48		
Module Capacity	200Ah	300Ah	400Ah
Module Nominal Voltage	51.2V		
Operating Temperature Range	Charge: 0~55°C / Discharge: -20~55°C		
Max. Modules in Parallel	50		
Max. Charging/Discharging Current (A)	200	250	250
Cycle Life	>6000		

Stick Logger

GPRS / WIFI / 4G / Ethernet
Monitor your system anywhere in the world.



- ◆ External light indicator, logging status at a glance;
- ◆ Plug & play, pick power within inverter, no external power needed, easy to install;
- ◆ Independent from inverter to protect parts inside inverter, eliminate potential problems;
- ◆ IP65 water-proof design, resistant to bad weather, enhance stability;
- ◆ External design, easier to replace faulty equipment;
- ◆ End-user can monitor yields at any time with SOLARMAN APP.

Technical Data

Product Model	LSG-3	LSG-4	LSW-3	LS4G-3	LSE-3
Remote Communication Interface	GPRS	GPRS	WiFi	4G	LAN
Working Frequency	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	2.142GHz~2.484GHz	704MHZ-960MHZ 1710MHZ-2690MHZ	Adaptive Network; 10M / 100M
Satellite Positioning	/	GPS / Beidou < 15m	/	/	/
Antenna	External GPRS Stick Antenna	External GPRS Stick Antenna	External WiFi Stick Antenna	External 4G Stick Antenna	/
Data Interface	RS485 / RS232 / TTL				
Working Voltage	DC4.7V~DC15V				
Working Power	3W	3W	1.5W	5W	1W
SIM Card	Chip Card / MicroSIM	Chip Card / MicroSIM	/	MicroSIM	/
Memory	2M Flash (2M-16M Optional)				
Working Temperature	-40℃~+85℃				
Working Humidity	< 90% (No Condensing)				
No.of Connections	One				
Serial Communication Rate	bps (1200-115200bps Configurable)				
Data Acquisition Interval	Default 5min (1-15min Configurable)				
User Configuration	AT+InstructionSet				
	Remote Server				
	Bluetooth	APP / Web	Local Serial Port	Web	
Firmware Upgrade	Remote Upgrade				
Others	Real-time Control, Data resuming				

Stick logger supports GPRS, WIFI, 4G, Ethernet and other communication modes. Its bluetooth function enables local debugging configuration to collect operation and power generation data from inverters.

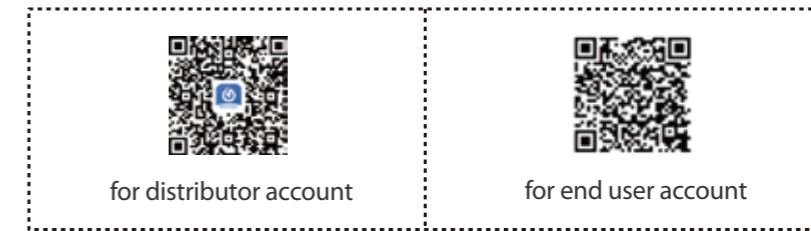
It pairs with solarman professional platform to enable remote PV system monitoring and to realize distributed power station management with lower cost and higher efficiency.

Smart PV Management Platform



Deye residential monitoring solution takes great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offer you details information of your power generating plant including Today energy, Monthly energy, yearly energy, total energy etc, through wireless communication with your router to the internet by a smart wifi plug. User can easily access to the monitoring page via PC web or phone APP.

Maximum your energy output while minimizing your costs. Scan the QR code to build your power station !

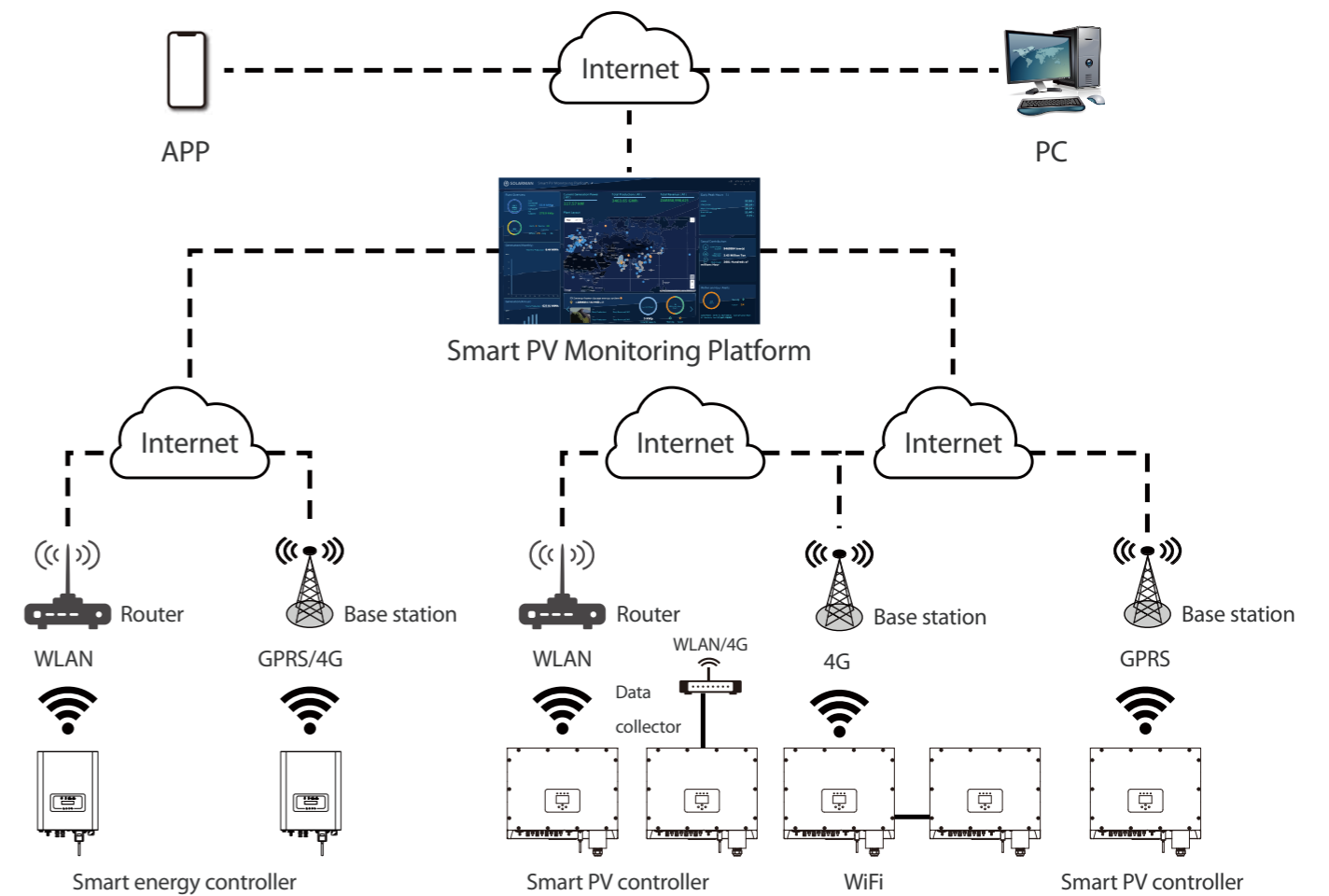


Efficiency

- Open station supports one-click installation and registration;
- Problem support one-click dispatch and navigation.

Safe

- Safe operation, traceable logs, etc;
- Support full lifecycle data storage to ensure data security and reliability.



Project cases



- ▶ 5KW
- ▶ Brazil
- ▶ SUN-5K-G



- ▶ 20KW
- ▶ Brazil
- ▶ SUN-10K-G



- ▶ 50KW
- ▶ Brazil
- ▶ SUN-25K-G



- ▶ 200KW
- ▶ Brazil
- ▶ SUN-50K-G



- ▶ 200KW
- ▶ Vietnam
- ▶ SUN-50K-G

Project cases



- ▶ 320KW
- ▶ Brazil
- ▶ SUN-80K-G



- ▶ 16KW
- ▶ South Africa
- ▶ SUN-8K-SG



- ▶ 30KW
- ▶ China
- ▶ SUN 1200G

- ▶ 32KW
- ▶ South Africa
- ▶ SUN-8K-SG



- ▶ 91KW
- ▶ USA
- ▶ SUN 1300G2