Deye 德業®

Stock code: 605117



WORLD-LEADING ENERGY STORAGE SYSTEM PROVIDER

CHOOSE DEYE - CHOOSE A GREEN AND HEALTHY LIFE

ABOUT
THE COMPANY

Ningbo Deye Technology Co., Ltd is a large-scale manufacturing technology enterprise integrating R&D, design, production, sales and services. Deye has five core industrial chains:

- The solar inverter system.
- The Li battery energy storage system.
- The frequency conversion control system.
- The environmental electrical appliance series.
- The heat exchanger series.

Deye Ess base in Cixi city of Ningbo. More than 170,000 square meter R&D center, battery pack, BMS, sheet metal processing, and spray factory. DeyeESs has 15,000 sets (100,000 sets before 2025) ESS product capacity per month. Deye ESS product iscertified by UL, CE etc.



DEYE MILESTONES

2022

After a year and a half of energy storage product development and accumulaion, up to now, Accumulative orders of energy storage products have exceeded 10,000 sets.

2021

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

2020

Founded Deye ESS company and prepared to build a team with senior industry experience, Devoted to make ESS better.

2019

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

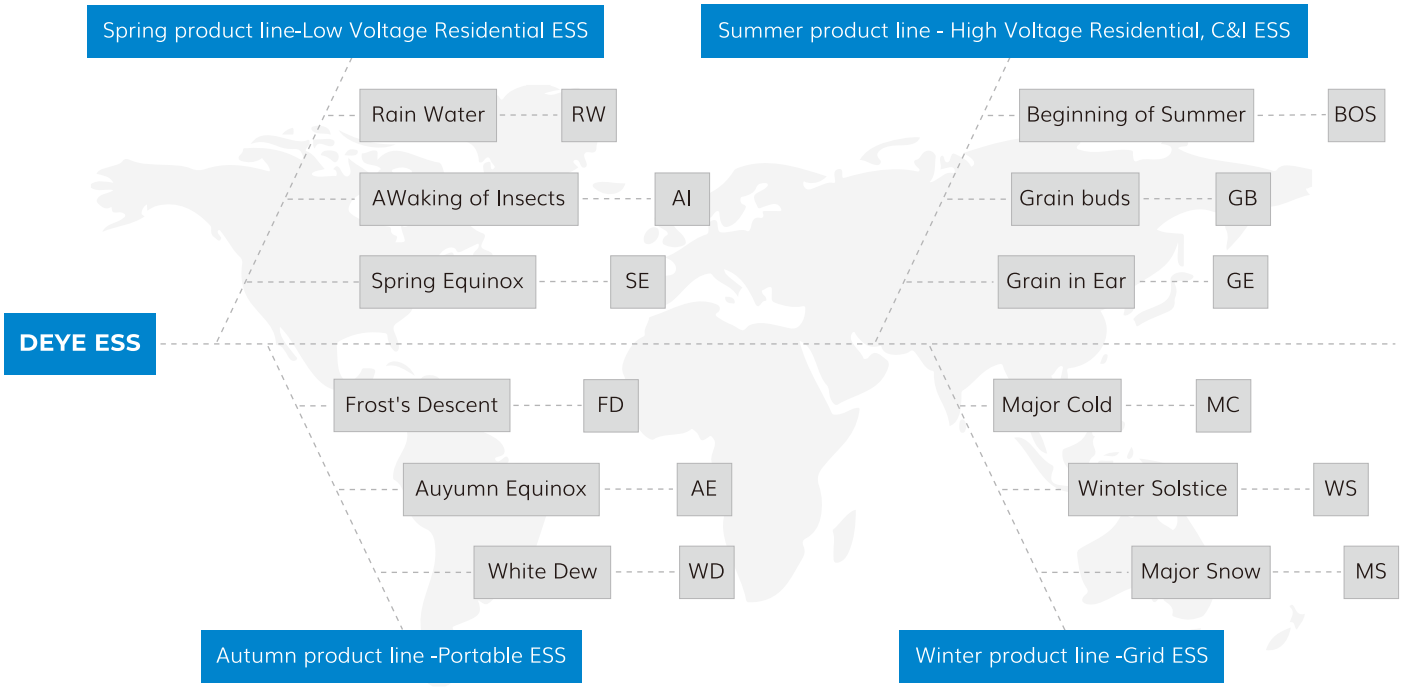
Deye has launched first generation hybrid inverter and attracted a lot of attention with many unique features such as V/f droop control technology and battery DC/DC topology etc...

2007

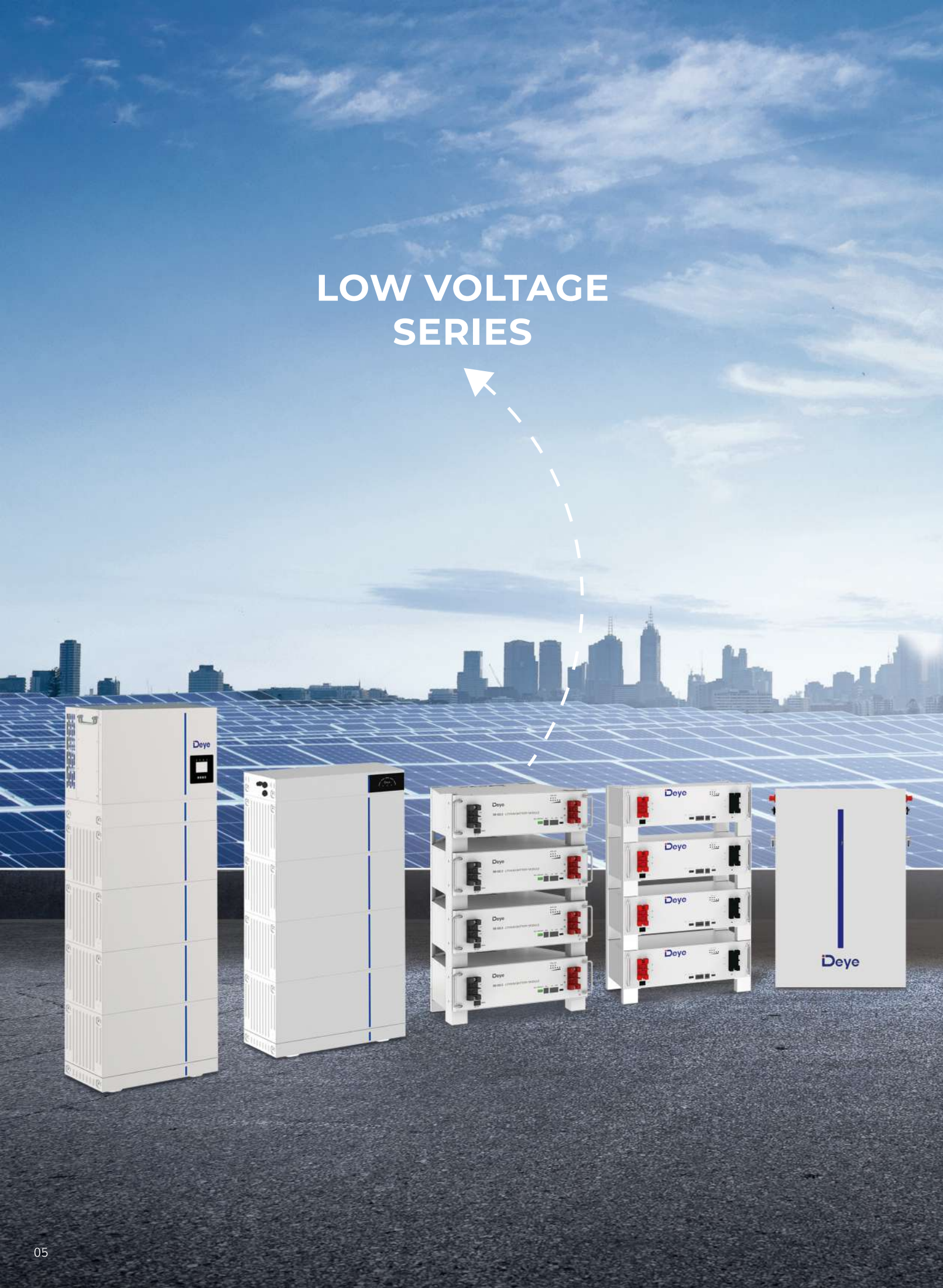
Founded in 2007 with registered capital of 46 million USD.

CORE TECHNOLOGY

SAFER	Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.
RELIABLE	Support high discharge power. IP65, natural cooling, wide temperature range: -20℃ to 55℃.
FLEXIBLE	Modular design, easy to expand, Max. 32 units in parallel,Max. capacity of 163.8 kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.
CONVENIENT	Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.
ECO-FRIENDLY	Use environmental protection materials, the whole module non-toxic, pollution-free.



LOW VOLTAGE SERIES

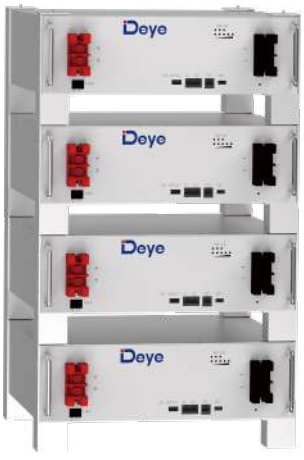


HIGH VOLTAGE SERIES



SE-G5.1 Pro & SE-G5.3







- **Safer**
  Cobalt Free Lithium Iron Phosphate (LFP) Battery, safety and long lifespan and high-energy density. Low Voltage safety connection.

- **High Performance**
  Support 1C/1C continual charge and discharge. 6000 cycles at 90% DOD, and 10 years standard warranty.

- **Reliable**
  Built-in intelligent BMS, providing complete protection. Natural cooling, IP20, wide temperature range: -20°C to 55°C.

- **Flexible**
  Modular design, easy to expand, Max. 64 units in parallel (support batteries in parallel with different SOC, auto balance). Suited to residential and commercial applications for increasing the self-consumption ratio.

- **Convenient**
  Battery module auto networking (No need to set DIP switches), easy maintenance, support Deye remotely monitoring and upgrade, support USB drive upgrade the firmware.

- **Eco-Friendly**
  Use environmental protection materials, the whole module non-toxic, pollution-free.

- **Multiple Mounting Methods**
  Standard 19 inch 3U design, support rack mounting, floor-mounted and wall-mounted with wall bracket, saving installation space.

Technical Data

Model		SE-G5.1 Pro	SE-G5.3
Main Parameter			
Battery Chemistry		LiFePO 4	
Capacity (Ah)		100	104
Scalability		Max. 64 pcs pack in parallel (Max. 32 pcs no external setup)	
Nominal Voltage (V)		51.2	
Operating Voltage(V)		43.2~57.6	
Energy (kWh)		5.32	
Usable Energy (kWh) [1]		4.79	
Charge/Discharge Current (A) [2]	Recommend	50	
	Max	100	
	Peak	150 (2mins, 25°C)	120 (30s, 25°C)
Other Parameter			
Recommend Depth of Discharge		90%	
Dimension (W/H/D, mm)		445×133×430	440*133*560
Weight Approximate (kg)		44	45
Master LED Indicator		5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)	
IP Rating of Enclosure		IP20	
Operating Temperature		Charge:0~ 55°C (Optional heating) / Discharge: -20°C～55°C	
Storage Temperature		0°C~35°C	
Humidity		5%~95%	
Altitude		≤2000m	
Cycle Life		≥6000(25°C±2°C , 0.5C/0.5C, 90%DOD, 70%EOL)	≥6000(25°C±2°C , 0.3C/0.3C, 90%DOD, 70%EOL)
Installation		19-inch standard rack (depth ≥600mm), Floor -Mounted, Wall -Mounted	
Communication Port		CAN2.0, RS485	
Warranty Period [3]		10 years	
Energy Throughput [3]		16MWh@70%EOL	
Certification		UN38.3, UL1973, UL9540A, IEC62619, VDE2510-50, CE, FCC, CEI 0 -21, CEC	UN38.3, CE, IEC62619

[1] DC Usable Energy, test conditions: 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or energy throughput.

RW-M6.1





- **Safer**
  Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.
- **Reliable**
  Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.
- **Flexible**
  Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 196kWh.
  Suited to residential and commercial applications for increasing the self-consumption ratio.
- **Convenient**
  Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.
- **Eco-Friendly**
  Use environmental protection materials, the whole module non-toxic, pollution-free.
- **Wall-Mounted**
  High-power density: Flat design, wall-mounted, saving installation space.

Technical Data

Model		RW-M6.1
Main Parameter		
Battery Chemistry		$LiFePO_4$
Capacity (Ah)		120
Scalability (max. in 1 battery group)		Max.32 in Parallel(196kWh)
Nominal Voltage (V)		51.2
Operating Voltage(V)		43.2~57.6
Energy (kWh)		6.14
Usable Energy (kWh)[1]		5.53
Charge/Discharge Current (A)	Recommend[2]	60
	Max[2]	100
	Peak (2 mins,25°C)	150
Other Parameter		
Recommend Depth of Discharge		90%
Dimension (W/H/D,mm)		460×720×143
Weight Approximate (kg)		55
Master LED Indicator		5LED(SOC:20%~100%), 3LED (working, alarming, protecting)
IP Rating of Enclosure		IP65
Working Temperature (°C)		Charge: 0~55/Discharge: -20~55
Storage Temperature		0°C ~ 35°C
Humidity		5%~95%
Altitude		≤2000m
Cycle Life		25°C±2°C, 0.5C/0.5C, 70%EOL≥6000
Installation		Wall-Mounted, Floor-Mounted
Communication Port		CAN2.0, RS485
Warranty		10 years
Life Cycle Power During Warranty Period[3]		20MWh@70%EOL
Certification		UL1973, FCC, IEC62619, CEI 0-21, UN38.3, UKCA, VDE 2510-50

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
[2] The current is affected by temperature and SOC.
[3] The warranty is due whichever reached first of warranty period or life cycle power.

Introduction

This series lithium iron phosphate battery is one of new energystorage products developed and produced by Deye , it can be used to support reliable power forvarious types of equipment and systems.
This series is especially suitable for application scene of high power,limited installation space, restricted load- bearing and long cycle life.
This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.
Multiple batteries can connect in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.

AI-W5.1-5/6/8P1-EU & AI-W5.1-8/10/12P3-EU





- **Safer**
  Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan,high efficiency and high-Power density. Intelligent BMS, providing complete protection.

- **Reliable**
  Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.

- **Flexible**
  Modular design, easy to expand, Max. 6 clusters in parallel(36 pcs), Max. capacity of 184kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.

- **Convenient**
  Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.

- **Eco-Friendly**
  Use environmental protection materials, the whole module non -toxic, pollution-free.

- **Quick Installation**
  Flat and stackable design, floor or wall mount, no wiring and extra fixing screws, quick and easy installation.

Technical Data

Model	AI-W5.1-5P1-EU	AI-W5.1-6P1-EU	AI-W5.1-8P1-EU	AI-W5.1-8P3-EU	AI-W5.1-10P1-EU	AI-W5.1-12P3-ES
System Specification						
Nominal Output Power/UPS Power (W)	5000 / 5000	6000 / 6000	8000 / 8000		10000 / 10000	12000 / 12000
AC Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac			50/60Hz; 3L/N/PE 220/380, 230/400Vac		
Grid Type	Single Phase			Three Phase		
Energy Range	5kWh~30kWh(Single system)					
Recommended Energy Configuration	5kWh (Min.)		10kWh (Min.)			15kWh (Min.)
Max. Charging/Discharging Current (A)	120	135	190		210	240
Battery Operating Voltage (V)	43.2~57.6					
Battery Chemistry	LiFePO4					
IP Rating of Enclosure	IP65					
System Certification	IEC62619,IEC60730,CE,VDE2510-10, CEI 0-21					
Warranty	10 years					
Inverter Technical Specification						
Max. PV Input Power (W)	6500	7800	10400		15600	19500
Max. PV Input Current (A)	13+13		26+26	13+13	26+13	
Rated PV Input Voltage (Vdc)	370 (125~500)				550 (160~800)	
Start Up DC Voltage (Vdc)	125				160	
MPPT Voltage Range (Vdc)	150-425				200-650	
Max. PV Short-circuit Current (A)	17+17		34+34	17+17	34+17	
No. of MPP Tracker	2					
Peak Power (off grid)	2 time of rated power, 10s					
Power Factor	0.8 leading to 0.8 lagging					
DC injection current (mA)	THD<3% (Linear load<1.5%)					
Display	LCD					
Operating Temperature Range (°C)	-40~60(>45°C derating)					
Relative Humidity	15%~85% (No Condensing)					
Dimension (W×D×H,mm)	720×255×330			720×255×440		
Weight Appr. (kg)	32			36		
Communication with BMS	CAN					
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4,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					
Max. Efficiency	97.60%					
Max. charging/discharging efficiency	95.50%					
Battery Technical Specification						
Nominal Voltage (V)	51.2					
Battery Module Energy (kWh)	5.12					
Scalability	Max.6 systems in parallel (36 pcs), Max. capacity of 184kWh					
Battery Module Dimension (W×D×H,mm)	720×255×285					
Battery Base Dimension (W×D×H,mm)	720×255×85					
Battery PDU Dimension (W×D×H,mm)	720×255×110					
Battery Module Weight Appr.(kg)	53					
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~+55°C					
Cycle Life	≥6000 (@25°C±2°C,0.5C/0.5C,70%EOL)					
Battery Module Certification	IEC62619, CE, VDE2510-10, CEI 0-21, UN38.3, UL1973, FCC					

AIO-Cabinet-EU/US





All-in-one Energy Storage System

- All-in-one design, could integrated 3kW~16kW low voltage hybrid inverterand 5kWh~30kWh battery
- Comfortable and easy control via App,PC or Touch-Display
- Leading smart application: peak-shaving, smart load, AC couple etc.
- Modular lithium iron phosphatebattery,module capacity 5kWh, scalable and safety.
- Flat design, floor mount, Simple linedesign, quick and easy i nstaliation.
- Fast switching time of 4ms, ensuringyour energy security.

Technical Data

Model	AIO-Cabinet-EU		AIO-Cabinet-US
System Specification			
Hybrid Inverter Model	SUN-3/3.6/5/6K-SG04LP1-EU SUN-3.6/5/6K-SG03LP1-EU SUN-3.6/5/6/7.6/8K-SG05LP1-EU SUN-12/14/16K-SG01LP1-EU	SUN-5/6/8/10/12K-SG04LP3-EU	SUN-5/6K-SG01LP1-US SUN-7.6/8K-SG01LP1-US
Grid Type	Single phase	Three phase	Split phase
AC Input/Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac	50/60Hz; 3L/N/PE 220/380, 230/400Vac	60Hz(55Hz-65Hz); L1/L2/N(PE) 120/240/208Vac
Battery Energy Configuration	5kWh ~ 30kWh		
Dimension (W×D×H, mm)	Cabinet Type Ⅰ: 39.4" × 13.8" × 61.8" (1,000×350×1,570 mm) Cabinet Type Ⅱ: 25.6" × 19.1" × 78.7" (650×485×2,000 mm)		
Cabinet Weight Approximate	Cabinet Type Ⅰ: 198 lbs.(90kg) Cabinet Type Ⅱ: 187 lbs.(85kg)		
Max. Charging/Discharging Current (A)	Depends on the inverter model and Battery QTY. (70A ~ 250A)		
Battery Operating Voltage (V)	43.2 ~ 57.6		
Battery Chemistry	LiFePO4		
Enclosure Protection Rating	NEMA 3R (IP54)		
Display	LCD(inverter)		
Installation Style	Floor-Mounted		
Warranty	5 years		
Inverter Technical Specification	**Depends on the inverter model**		
Communication with BMS	CAN		
Safety EMC / Standard	UL1741, FCC, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 610006-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4		
Grid Regulation	VDE4105, IEC61727/62116, VDEO126, AS4777.2, CEI 0 21, EN505491, G98, G99, C10-11, UNE217002, NBR16149/NBR16150		
Max. Efficiency	97.60%		
Max. charging/discharging efficiency	95.00%		
Battery Technical Specification			
Nominal Voltage (V)	51.2		
Battery Module Energy (kWh)	5.12		
Battery Module Dimension	16.5"×9.2"×26.4"(445×430×133mm)		
Battery Module Weight	97 lbs.(44kg)		
Operating Temperature Range	Charge: 32°F~131°F (0~55°C), Optional Heating (Charge: -20°C~55°C) Discharge: -4°F~131°F (-20°C~55°C)		
Operating Temperature (Recommended)	59°F~86°F (15°C~ 30°C)		
Storage Temperature	32°F~95°F (0°C~ 35°C)		
Humidity	5%~95%		
Altitude	≤Max. 6562 ft (2,000m)		
Cycle Life	≥6,000 (@25°C±2°C, 0.5C/0.5C, 70%EOL)		
Battery Module Certification	UN38.3, IEC62619, CE, VDE2510-50, CEI 0-21, UL1973, UL9540A, FCC		

BOS-G





- **Convenient**
  Quick installation, standard of 19-inch embedded designed module is comfortable for installationand maintenance.

- **Safe And Reliable**
  Cathode material is made from LiFePO4 with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

- **Intelligent BMS**
  It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The systemcan automatically manage charge and discharge state and balance current and voltage of each cell.

- **Eco-friendly**
  The whole module is non-toxic, non-polluting and environmentally friendly.

- **Flexible Configuration**
  Multiple battery modules can be in parallel for expanding capacity and power.Support USB upgrade,wifi upgrade (optional), remote upgrade (Compatible with Deye inverter).

- **Wide Temperature**
  Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

Technical Data

Model		B0S-G		
Main Parameter				
Cell Chemistry		LiFePO4		
Module Energy (kWh)		5.12		
Module Nominal Voltage (V)		51.2		
Module Capacity (Ah)		100		
Battery Module Qty in series. (Optional)		3 (Min)	8 (Standard US Cluster)	12 (Standard EU Cluster)
System Nominal Voltage (V)		153.6	409.6	614.4
System Operating voltage (V)		124.8~175.2	332.8~467.2	499.2~700
System Energy (kWh)		15.36	40.96	61.44
System Usable Energy (kWh)[1]		13.8	36.86	55.29
Charge/Discharge Current (A)[2]	Recommend	50		
	Max	100		
	Peak Discharge (2 mins, 25°C)	125		
Working Temperature (°C)		Charge: 0~55/Discharge: -20~55		
Status Indicator		Yellow: Battery High Voltage Power On Red: Battery System Alarm		
Communication Port		CAN2.0/RS485		
Humidity		5~85%RH		
Altitude		≤2000 m		
IP Rating of Enclosure		IP20		
Dimension (W×D×H, mm)		589×590×1640		589×590×2240
Weight Approximate (kg)		258	434	628
Installation Location		Rack Mounting		
Storage Temperature (°C)		0~35		
Recommend Depth of Discharge		90%		
Cycle Life		25±2°C, 0.5C/0.5C, EOL70%≥6000		
Warranty[3]		10 years		
Certification		CE, IEC62619, UL1973, UL9540A, UN38.3		

[1] DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

GB-L





- **Structural Safety**
  Meet high seismic grade zone 4.
- **High-voltage Stack**
  Modules are connected in series without cable connection, and high -voltage platform improves system efficiency.
- **Thermal Management**
  Temperature detection of key parts, cell, power plug-in, etc.
- **Wide Temperature Operation**
  The heating function is optional to meet the application scenarios with low temperature and no sense.
- **Environmental Friendliness**
  IP protection grade 65, anti-corrosion grade ≥C2, environmental protection battery.
- **Intelligent And Visual**
  Support remote upgrade, real-time battery warning information push, LCD data display.

Technical Data

Model		GB-L				
Main Parameter						
Cell Chemistry		$LiFePO_4$				
Module Energy (kWh)		4.09				
Module Nominal Voltage (V)		102.4				
Module Capacity (Ah)		40				
Battery Module Qty In Series (Optional)		2	3	4	5	6
System Nominal Voltage (V)		204.8	307.2	409.6	512	614.4
System Operating voltage (V)		166.4~700				
System Energy (kWh)		8.18	12.27	16.36	20.45	24.56
System Usable Energy (kWh)[1]		7.36	11.04	14.72	18.40	22.10
Charge/Discharge Current (A)[2]	Recommend	20				
	Max	40				
	Peak Discharge (2 mins,25°C)	50				
Working Temperature (°C)		Charge: 0~55/Discharge: -20~55				
LCD Display		SOC%, Power, Total Voltage				
Communication Port		CAN2.0, RS485				
Humidity		5%~90%				
Altitude		≤2000m				
IP Rating of Enclosure		IP65				
Storage Temperature (°C)		0~35				
Dimension (W×D×H, mm)		540×385×650	540×385×870	540×385×1090	540×385×1310	540×385×1530
Weight(kg)		97	136	175	214	253
Installation Location		Floor Mount				
Recommend Depth of Discharge		90%				
Cycle Life		25±2,0.5C/0.5C, EOL70%≥6000				
Warranty[3]		10 years				
Certification		CE, IEC62619, VDE2510-50, UL1973, UL9540A, UN38.3				

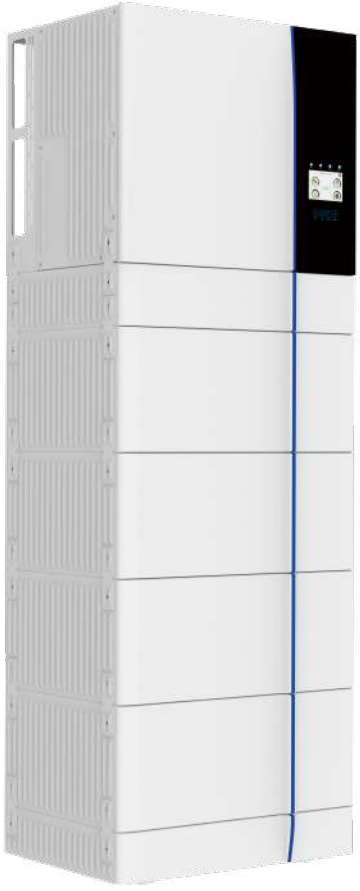
[1] DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

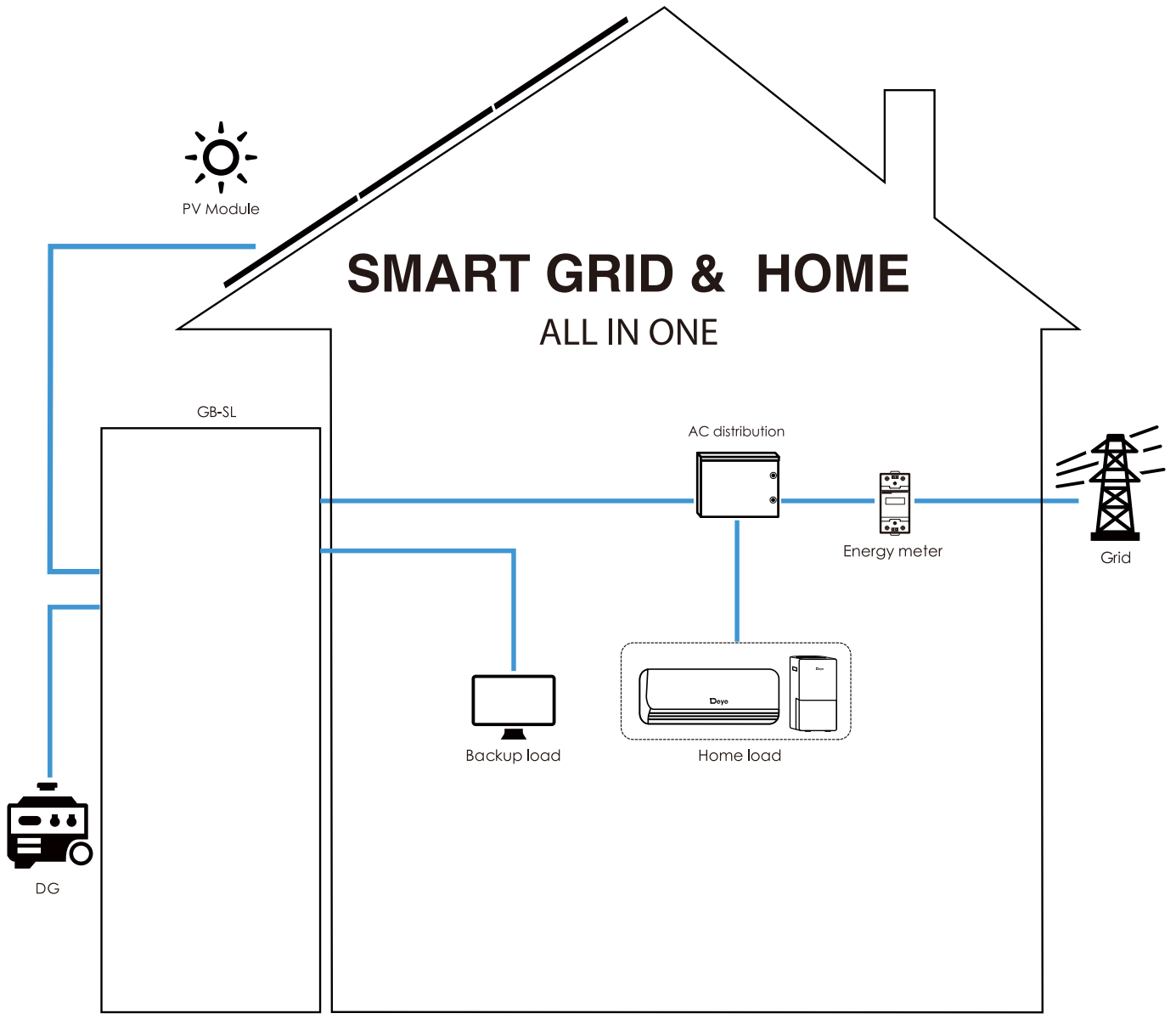
GB-SL-EU





- **All In One**
  Integrated design.beautiful appearance and scene integration.
- **Maximum Output**
  100% unbalanced output, each phase; Max. output up to 50% rated power.
- **Maximum Connection**
  Max. 10pcs parallel for on-grid and off-grid operation.
- **More Support**
  Support storing energy from diesel generator.
- **High-voltage Stack**
  Modules are connected in series without cable connection, and high-voltage platform improves system efficiency.
- **Thermal Management**
  Temperature detection of key parts, cell, power plug-in, etc.
- **Wide Temperature Operation**
  The heating function is optional to meet the application scenarios with low temperature and no sense.

TYPICAL APPLICATION DIAGRAM



Technical Data GB-SL-EU

Model	GB-S6K-EU	GB-S8K-EU	GB-S10K-EU	GB-S12K-EU	GB-S15K-EU	GB-S20K-EU
Battery Input Data						
Battery Type	Li-ion					
Battery Voltage Range (V)	150~700					
Max. Charging Current (A)	37					
Max. Discharging Current (A)	37					
Number of battery input	1					
Charging Strategy for Li-Ion Battery	Self-adaption to BMS					
PV String Input Data						
Max. DC Input Power (W)	7800	10400	13000	15600	19500	26000
Max. DC Input Voltage (V)	1000					
Start-up Voltage (V)	150					
MPPT Range (V)	150-850					
Full Load DC Voltage Range (V)	195-850	260-850	325-850	340-850	423-850	500-850
Rated DC Input Voltage (V)	600					
PV Input Current (A)	20+20			26+20		26+26
Max. PV I_{SC} (A)	23+23			32+23		32+32
No.of MPP Trackers	2					
No.of Strings per MPP Tracker	1			2+1		2
AC Output Data						
Rated AC Output and UPS Power (W)	6000	8000	10000	12000	15000	20000
Max. AC Output Power (W)	6600	8800	11000	13200	16500	22000
AC Output Rated Current (A)	9.1	12.2	15.2	18.2	22.8	30.3
Max. AC Current (A)	13	18	22	25	30	35
Max. Continuous AC Passthrough (A)	80					
Peak Power (off grid)	1.5 time of rated power, 10 S					
Generator input/Smart load /AC couple current (A)	9.1 / 80 / 9.1	12.2 / 80 / 12.2	15.2 / 80 / 15.2	18.2 / 80 / 18.2	22.8 / 80 / 22.8	30.3 / 80 / 30.3
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	EN50549, AS4777.2:2015, VDE0126-1-1, IEC61727, VDEN4105-2018, G99					
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)	-40~60°C, >45°C derating					
Cooling	Smart cooling					
Communication with BMS	RS485; CAN					
Warranty	5 years					

Technical Data GB-SL-EU

Model		GB-L				
Battery System Data						
Cell Chemistry		LiFePO4				
Module Energy (kWh)		4.09				
Module Nominal Voltage (V)		102.4				
Module Capacity (Ah)		40				
Battery Module Qty in series. (Optional)		2	3	4	5	6
System Nominal Voltage (V)		204.8	307.2	409.6	512	614
System Operating voltage (V)		179.2~691.2				
System Energy (kWh)		8.18	12.27	16.36	20.45	24.57
System Usable Energy (kWh)		7.36	11.04	14.72	18.40	22.11
Charge/Discharge Current (A)	Recommend	20				
	Max	40				
	peak (2mins, 25°C)	50				
Working Temperature (°C)		Charge/Discharge:-20~55				
Communication Port		CAN2.0/RS485				
Thermal Management		Natural Cooling/Smart Heating				
Recommend Depth of Discharge		90%				
Cycle Life		25±2°C,0.5C/0.5C,70%EOL≥6000				
Warranty		10 years				
Certification		CE/IEC 62619/VDE 2510-50/UN38.3				
Other Data						
Humidity		5~85%RH				
Altitude (m)		≤2000				
IP Rating of Enclosure		IP65				
Noise (dB)		<45				
Storage Temperature (°C)		0~35				
Dimension (W×D×H, mm)		540×385×1100	540×385×1320	540×385×1540	540×385×1760	540×385×1980
Weight Approximate (kg)		137	176	215	254	293
Installation Location		Floor Mount				

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

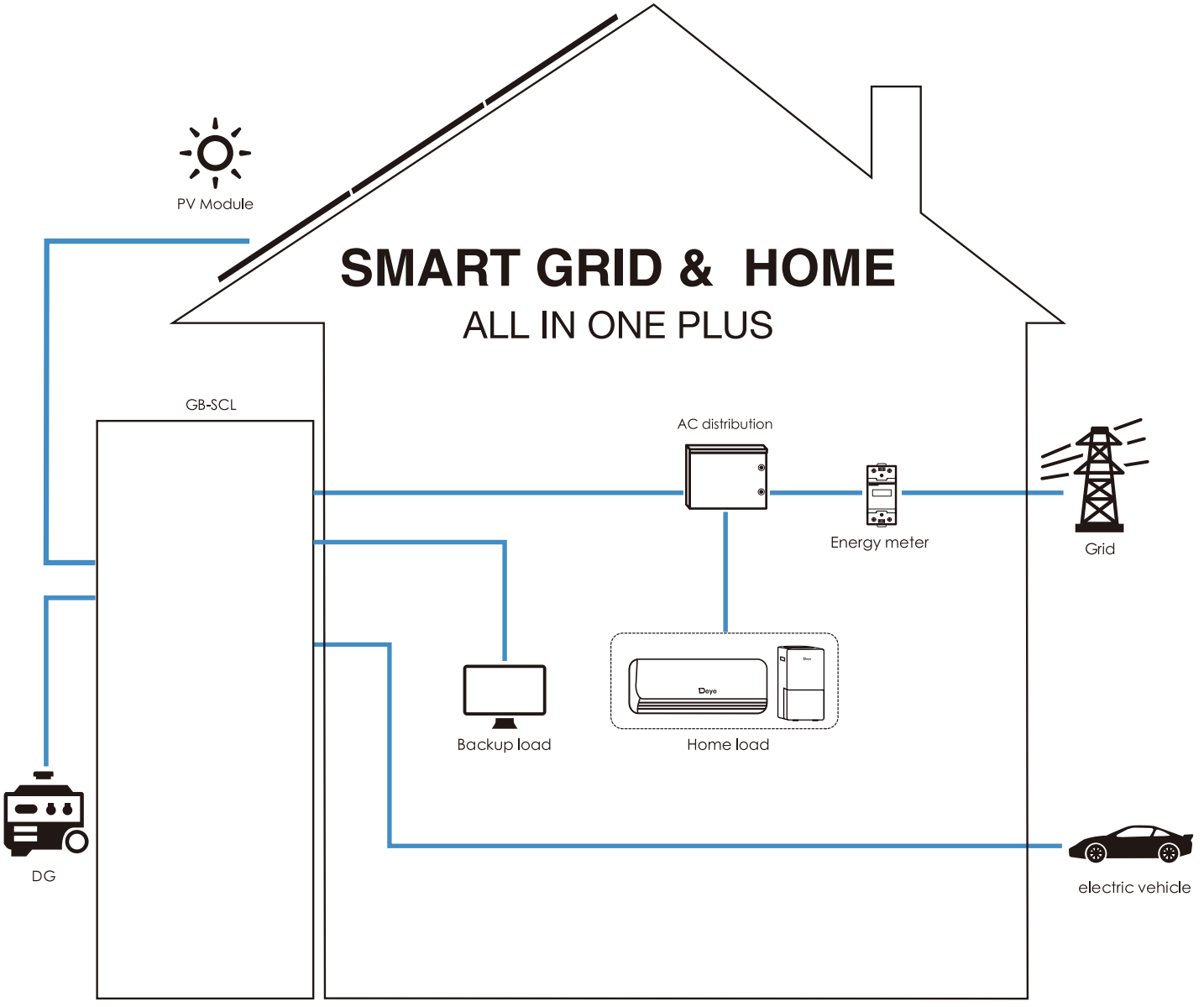
Summer GB-SCL-EU





- **All In One Plus**
  Solar storage and charging integrated solution,one-stop service.
- **Maximum Output**
  100% unbalanced output, each phase; Max. output up to 50% rated power.
- **Maximum Connection**
  Max. 10pcs parallel for on-grid and off-grid operation;
- **More Support**
  Support storing energy from diesel generator.
- **High-voltage Stack**
  modules are connected in series without cable connection, and high-voltage platform improves system efficiency.
- **Thermal Management**
  temperature detection of key parts, cell, power plug-in, etc.
- **Wide Temperature Operation**
  The heating function is optional to meet the application scenarios with low temperature and no sense.

TYPICAL APPLICATION DIAGRAM



Technical Data

Model	GB-S6K-EU	GB-S8K-EU	GB-S10K-EU	GB-S12K-EU	GB-S15K-EU	GB-S20K-EU
Battery Input Data						
Battery Type	Li-ion					
Battery Voltage Range (V)	150~700					
Max. Charging Current (A)	37					
Max. Discharging Current (A)	37					
Number of battery input	1					
Charging Strategy for Li-Ion Battery	Self-adaption to BMS					
PV String Input Data						
Max. DC Input Power (W)	7800	10400	13000	15600	19500	26000
Max. DC Input Voltage (V)	1000					
Start-up Voltage (V)	150					
MPPT Range (V)	150-850					
Full Load DC Voltage Range (V)	195-850	260-850	325-850	340-850	423-850	500-850
Rated DC Input Voltage (V)	600					
PV Input Current (A)	20+20			26+20		26+26
Max. PV I sc (A)	23+23			32+23		32+32
No. of MPP Trackers	2					
No. of String sper MPP Tracker	1			2+1		2
AC Output Data						
Rated AC Output and UPS Power (W)	6000	8000	10000	12000	15000	20000
Max. AC Output Power (W)	6600	8800	11000	13200	16500	22000
AC Output Rated Current (A)	9.1	12.2	15.2	18.2	22.8	30.3
Max. AC Current (A)	13	18	22	25	30	35
Max. Continuous AC Pass through (A)	80					
Peak Power (off grid)	1.5timeof rated power, 10S					
Generator input/Smart load /AC couple current (A)	9.1/80/9.1	12.2/80/12.2	15.2/80/15.2	18.2/80/18.2	22.8/80/22.8	30.3/80/30.3
Power Factor	0.8leading to 0.8lagging					
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 StringInput Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection					
Output Over Voltage Protection	DC TypeII/AC TypeIII					
Certifications and Standards						
Grid Regulation	CEIO-21, VDE-AR-N 4105, NRS 097, IEC62116, IEC61727, G99, G98 VDE0126-1-1, RD 1699, C10-11					
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN62109-2					
General Data						
Operating Temperature Range (°C)	-40~60°C, >45°C derating					
Cooling	Smart cooling					
Communication with BMS	RS485; CAN					
Warranty	5years					

Technical Data

Model	GB-C11K-EU
Charger Data	
Rate Power (kw)	11
Output Voltage Range (V)	400AC
Output Current Range (A)	16A
Communication Port	RS485
Charging standard	Type 2
Standards/regulations	IEC61851-1
Operating Temperature Range (°C)	-30~50
Thermal Management	Natural Cooling
Warranty	2years
Certification	CE/CB

Model	GB-LM 4.0			
Battery System Data				
Cell Chemistry	LiFePO4			
Module Energy (kWh)	4.09			
Module Nominal Voltage (V)	102.4			
Module Capacity (Ah)	40			
Battery Module Qtyin series. (Optional)	3	4	5	6
System Nominal Voltage (V)	307.2	409.6	512	614.4
System Operating Voltage (V)	268.8~691.2			
System Energy (kWh)	12.27	16.36	20.45	24.57
System Usable Energy (kWh)[1]	11.04	14.72	18.40	22.08
Charge/Discharge[2] Current(A) – Recommend	20			
Charge/Discharge[2] Current(A) – Max	40			
Charge/Discharge[2] Current(A) – peak (2mins, 25°C)	50			
Working Temperature (°C)	Charge: 0~55/Discharge: -20~60			
Communication Port	CAN2.0/RS485			
Thermal Management	Natural Cooling			
Recommend Depth of Discharge	90%			
Cycle Life	25±2°C, 0.5C/0.5C, 70%EOL≥6000			
Warranty[3]	10years			
Certification	CE/IEC 62619/VDE2510-50/UN38.3			
Other Data				
Humidity	5~85%RH			
Altitude (m)	≤2000			
IP Rating of Enclosure	IP65			
Noise (dB)	<45			
Storage Temperature (°C)	0~35			
Dimension (W/D/H,mm)	540×385×1320	540×385×1450	540×385×1760	540×385×1980
Weight Approximate (kg)	176	215	254	293
Installation Location	Floor Mount			

[1] DCU sable Energy, test conditions: 90% DOD, 0.2C charged dischargeat 25°C. System usable energy may vary dueto system configuration parameter.

[2] The currentis affected by temperature and soC.

[3] The warranty is due whicheverreached first of warranty periodor life cycle power.

GE-F60





High Voltage All-In-One Hybrid ESS GE-F60 (50KW/60KWh)

- **Intelligent temperature control**
  Built-in air conditioner, the maximum temperature of the battery is less than 40°C.

- **Reliable**
  Positive Balance Intelligent BMS, providing complete protection, can effectively extend cycle life of battery packs.

- **Flexible**
  EMS and BMS integrated technology, AC/DC power supply redundancy design, support black start function.

- **Safer**
  Prismatic Lithium Iron Phosphate (LFP) Battery, The battery pack and system adopt an aerosol fire extinguishing solution.

Technical Data

Model	GE-F60
System Specification	
Nominal Output Power/UPS Power (W)	50000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Three phase
Energy Configuration (kWh)	61.4
Dimension (W × D × H,mm)	735×1050×2250 (no contain inverter)
Weight Appr. (kg)	950 (no contain inverter)
AC Output Rated Current (A)	75.8
Battery Operating Voltage (V)	500 ~ 700
Battery Chemistry	LiFePO4
IP Rating of Enclosure	IP55
System Certification	UN38.3, IEC62619, CE, CEI 0-21, VDE-AR-N 4105, IEC 62109
Installation Style	Floor-Mounted
Warranty	10 years
Inverter Technical Specification	
Max. PV Input Power (W)	65000
Max. PV Input Current (A)	36+36+36+36
Rated PV Input Voltage (Vdc)	600
Start Up DC Voltage (Vdc)	180
MPPT Voltage Range (Vdc)	150-850
Max. PV Short-circuit Current (A)	44+44+44+44
Number of MPPT	4
Peak Power (off grid)	1.5 time of rated power, 10s
Power Factor	0.8 leading to 0.8 lagging
THD	<3%
DC injection current (mA)	<0.5In
Display	LCD
Operating Temperature Range (°C)	-40~60(>45°C derating)
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W×D×H, mm)	420×233×670
Inverter Communication	CAN,RS485,WIFI,ETH
Safety EMC / Standard	UL1741, FCC, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Max. Efficiency	97.6%
Max. charging/discharging efficiency	91%
Battery Technical Specification	
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimension (W×D×H mm)	440×570×133
Battery Module Weight (kg)	44
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~55°C
Cycle Life	≥6000(@25°C±2°C, 0.5C/0.5C, 70%EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3

MS-G230





Micro Grid System
MS-G230 (100KW/230KWh)

- **Multi fusion**
  EMS converter and BMS inside, power supply redundancy design, support black start function.

- **Intelligent temperature control**
  Rated power operation, the maximum temperature of the Zbattery is less than 38°C.

Scalable
- Support the expansion of MPPT module, charging module, and diesel generator connection.

Reliable
- Intelligent BMS provides complete protection， proactive balancing solutions, effectively extending the cycling life of battery.

Reliable
Lithium Iron Phosphate (LFP) Battery， system adopt an aerosol fire extinguishing solution.

Technical Data

Model	MS-G230
System Specification	
Nominal Output Power (KW)	100
AC Output Frequency and Voltage	50/60Hz; 380/400Vac
Grid Type	3L/N/PE
Energy (kWh)	230
Dimension (W × D × H,mm)	1700×1000×2500
Weight Appr. (kg)	2.8T
Battery Operating Voltage (V)	DC: 600~935(grid on)/DC:700 ~ 935(grid off)
Max. RTE	88%
System Communication	ETH/4G
System Operating temperature range(°C)	-30~45
Max. working altitude(m)	3000
IP Rating of Enclosure	IP55
Anti-corrosion grade	C5
System Certification	UN38.3, IEC62619, IEC61000, IEC62477
Installation Style	Floor-Mounted
Warranty	10 years
Converter Specification	
AC Output Rated Current (A)	152
MAX. AC Output Current (A)	167
MAX. number of parallel	12 PCS
Peak Power (off grid)	1.1 time of rated power
Power Factor	-1~1
THD	<3%
DC injection current	<0.5In
Display	LCD
Operating Temperature Range (°C)	-25~65(>45°C derating)
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W×D×H, mm)	506×772×310
Communication	CAN,RS485, ETH
Overvoltage protection	DC Type II / AC Type II
Protection level	Class 1
Safety EMC / Standard	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Grid Regulation	IEC62477, VDE4105, CEI 0-21, G98, G99
Max. Efficiency	97.6%
Battery Specification	
Battery Chemistry	LiFePO4
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	14.3
Communication	CAN
Battery Module Dimension (W×D×H mm)	526×784.5×230
Battery Module Weight (kg)	100
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~55°C
Cycle Life	≥6000(@25°C±2°C,0.5C/0.5C,70%EOL)
Battery Module Certification	IEC61000, IEC60730, IEC62619, IEC62477, UN38.3

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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 saless@deye.com.cn

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