Pioneering Sustainable Energy Solutions

World's leading Supplier of PV Inverter

NINGBO DEYE INVERTER TECHNOLOGY CO.,LTD

Ver 20240704
Issued by Shunyao Zhang

Deye Inverter

NINGBO DEYE INVERTER TECHNOLOGY CO.,LTD

Deye, established in 2007, is a wholly-owned subsidiary of the publicly traded Deye Group (stock code: 605117.SH). Deye is dedicated to delivering reliable inverter solutions for residential and commercial photovoltaic power stations and energy storage systems, encompassing 1kW-136kW string grid-tied inverters, 3kW-50kW hybrid inverters, and 300W-2.2kW microinverters.

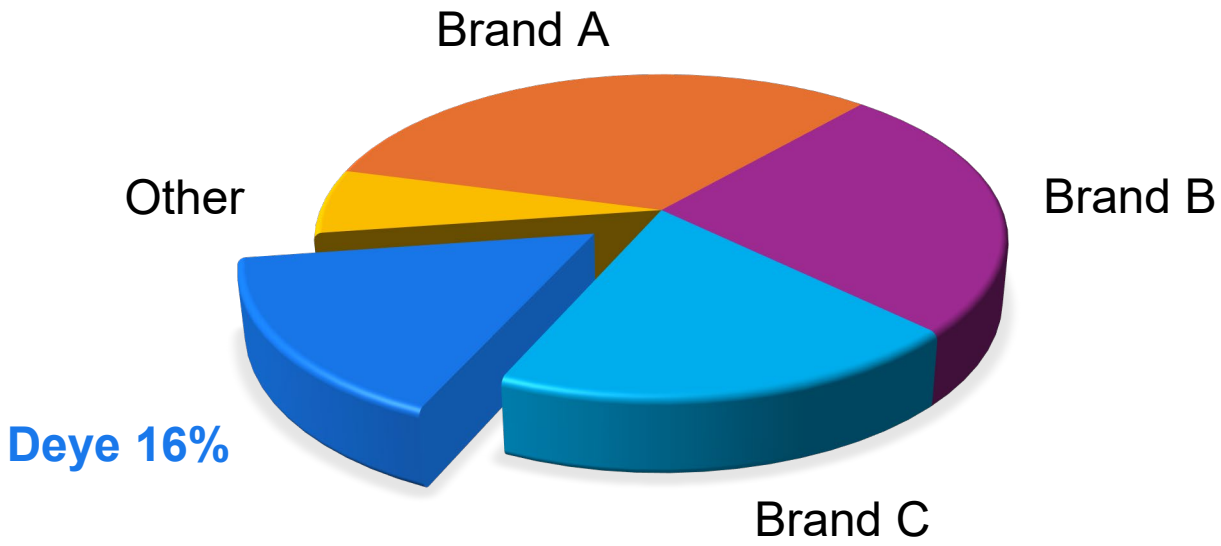
As a product-centric organization, Deye consistently strives to meet market demands, continuously iterating and enhancing existing products, while expediting the development of new offerings. Deye is committed to crafting advanced and efficient solutions for photovoltaic and energy storage systems, contributing to the achievement of global energy transformation objectives, and providing reliable, affordable, and sustainable clean energy to users across various countries and regions.

- High-tech enterprises
- The registered capital exceeds 400 million RMB (55.6 Million USD)
- The production workshop area exceeds 600,000 m^2
- More than 300 technical talents

Industry Status

Following years of relentless product innovation and the expansion of sales channels, Deye has ascended to its current position as one of the **Top 4** manufacturers of residential PV inverters globally.

THE 2022 GLOBAL RANKING OF RESIDENTIAL PV INVERTER MANUFACTURERS

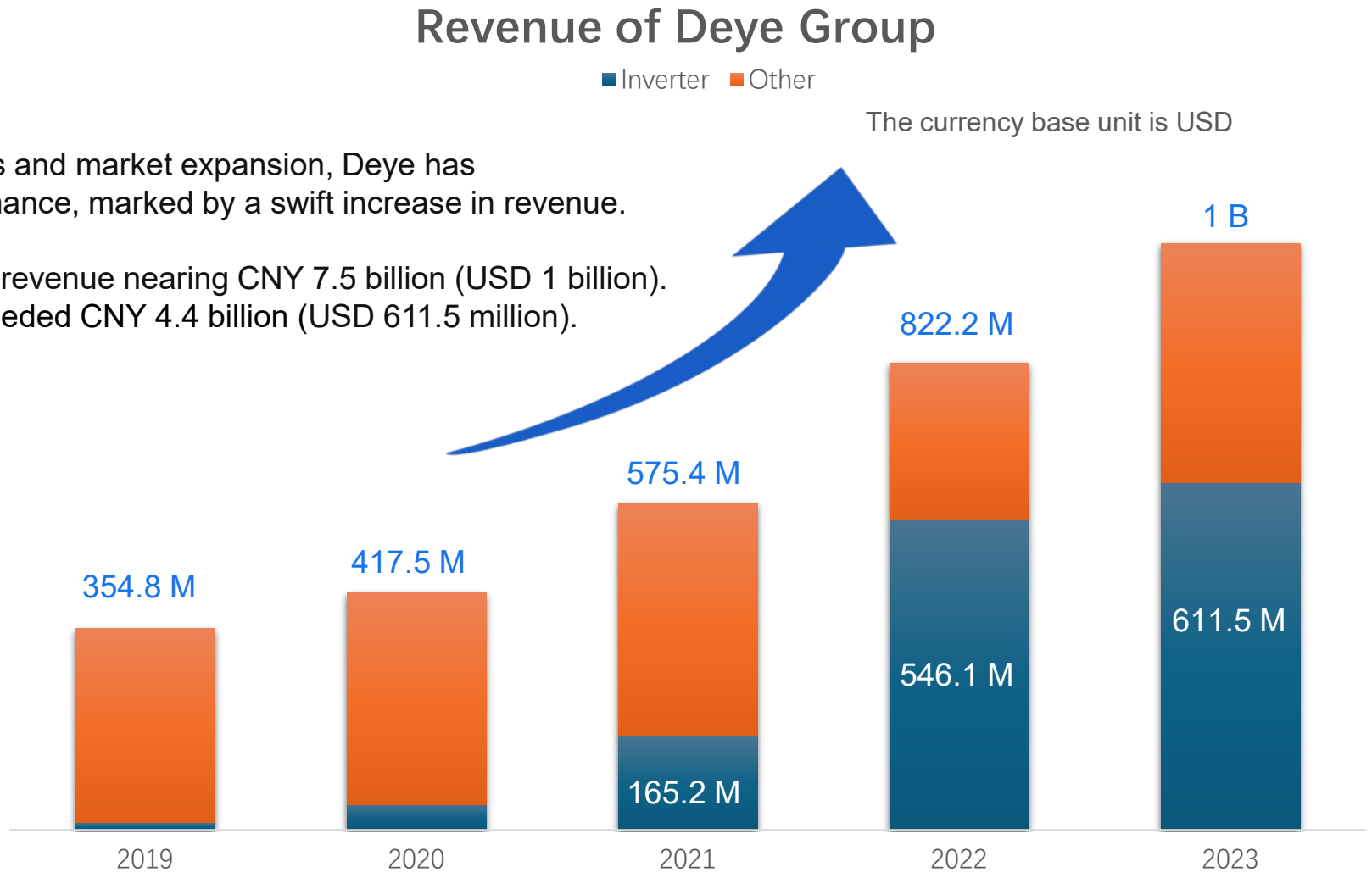


*. by shipment volume is based on the 2022 Photovoltaic Inverter Industry Analysis Report by S&P Global (IHS)

Outstanding Performance

Through years of persistent efforts and market expansion, Deye has demonstrated remarkable performance, marked by a swift increase in revenue.

In 2023, Deye Shares garnered a revenue nearing CNY 7.5 billion (USD 1 billion). Of this, the inverter business exceeded CNY 4.4 billion (USD 611.5 million).



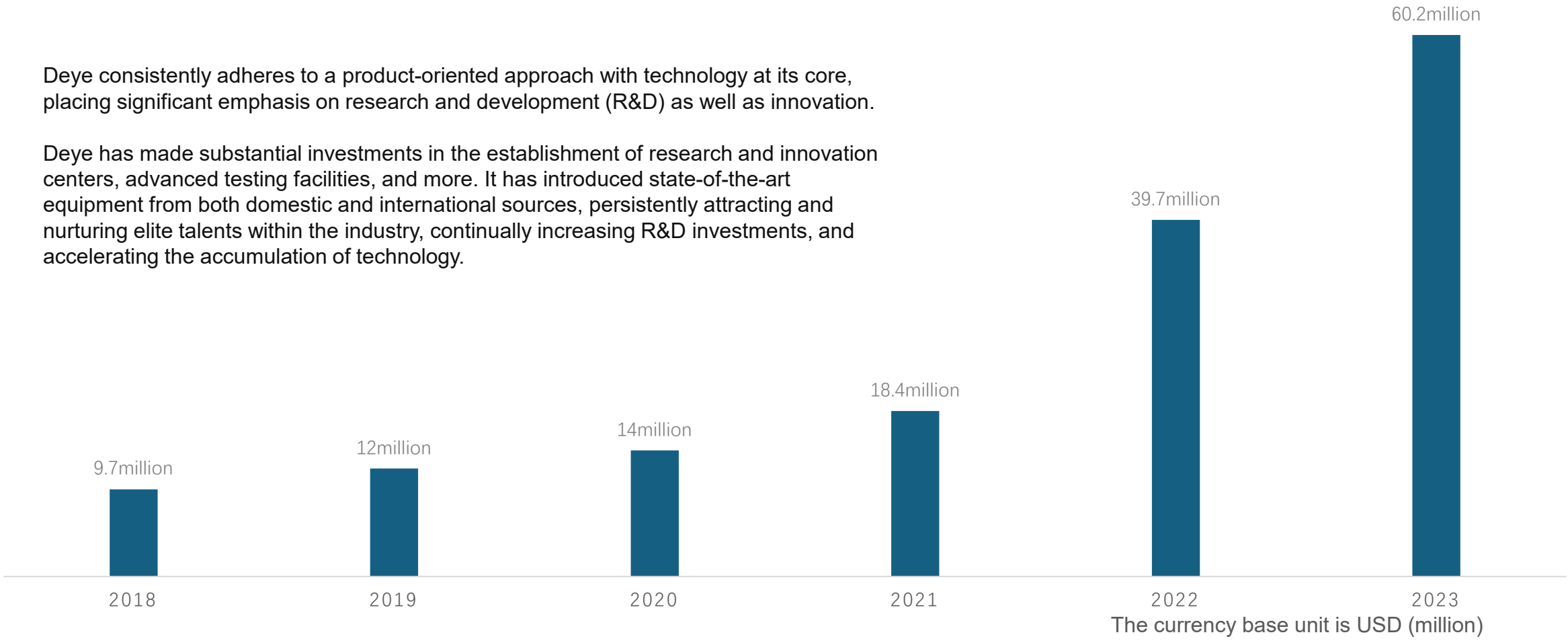
*The reference exchange rate is 1 USD = 7.24 CNY

Continuous Increase in R&D Investment

Deye consistently adheres to a product-oriented approach with technology at its core, placing significant emphasis on research and development (R&D) as well as innovation.

Deye has made substantial investments in the establishment of research and innovation centers, advanced testing facilities, and more. It has introduced state-of-the-art equipment from both domestic and international sources, persistently attracting and nurturing elite talents within the industry, continually increasing R&D investments, and accelerating the accumulation of technology.

R&D Expenses of Deye Group



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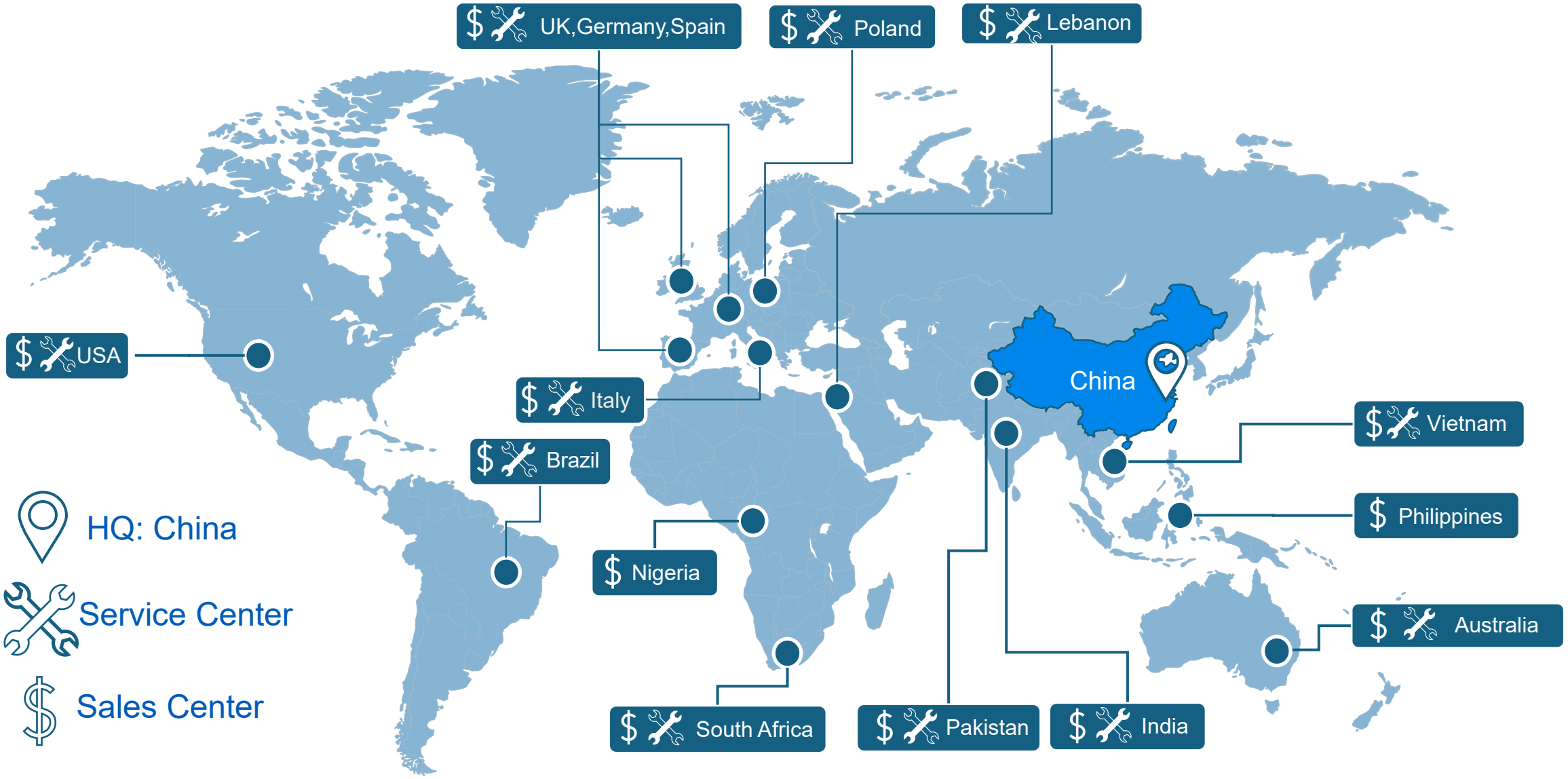
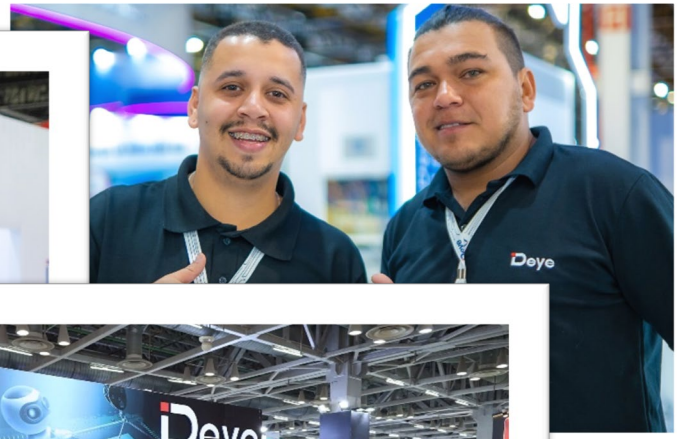
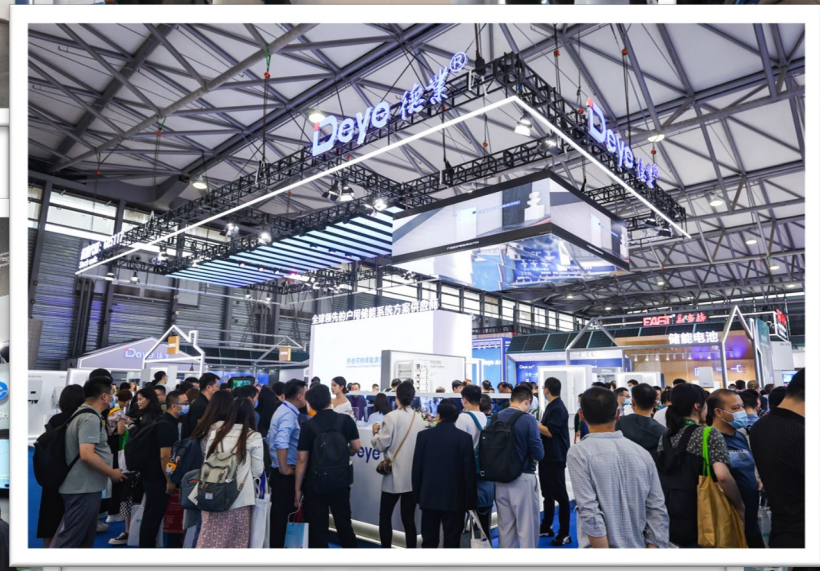
Global Layout

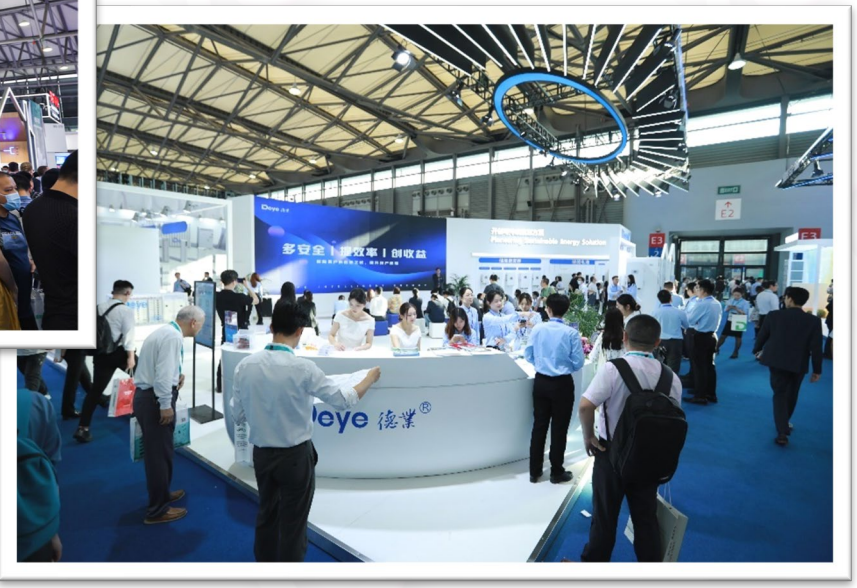


International Team

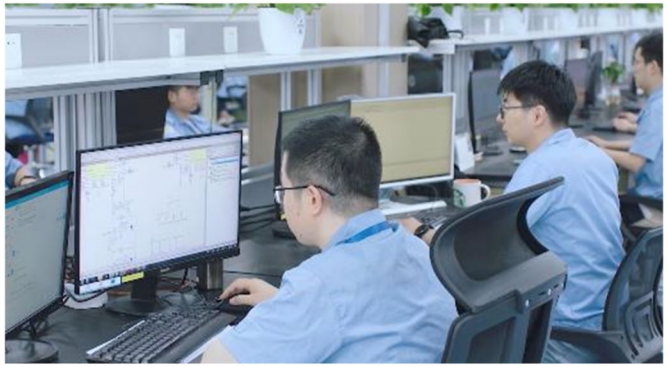


Global Exhibitions





Product is King, Technology Leads



Elite Talent Team

Advanced Inverter R&D Testing Platform

Performance Testing Platform

Functional R&D Laboratory

Reliability Laboratory

Microwave Anechoic Chamber

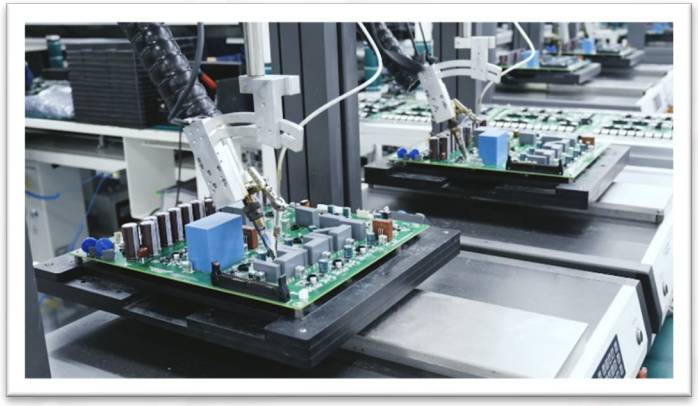
Own Factory, Lean Manufacturing

Electronic Workshop

Ultra-high Speed SMT Mounting

Lead-free Hot Air Reflow Soldering

Automatic Optical Inspection



Automatic Spot Welding Equipment

Three-proof Paint Spraying Workshop

Own Factory, Lean Manufacturing

Assembly Workshop

Assembly Line

Automated Guided Vehicle

ATE Work shop

Automatic Test Equipment

Packaging and Warehousing

Hybrid Inverter

Single Phase / Three Phase

Low Voltage / High Voltage

3-50kW
Power Range

4ms
Switching Time


16 Units in Parallel[1]


Peak Shaving


AC Coupling[2]

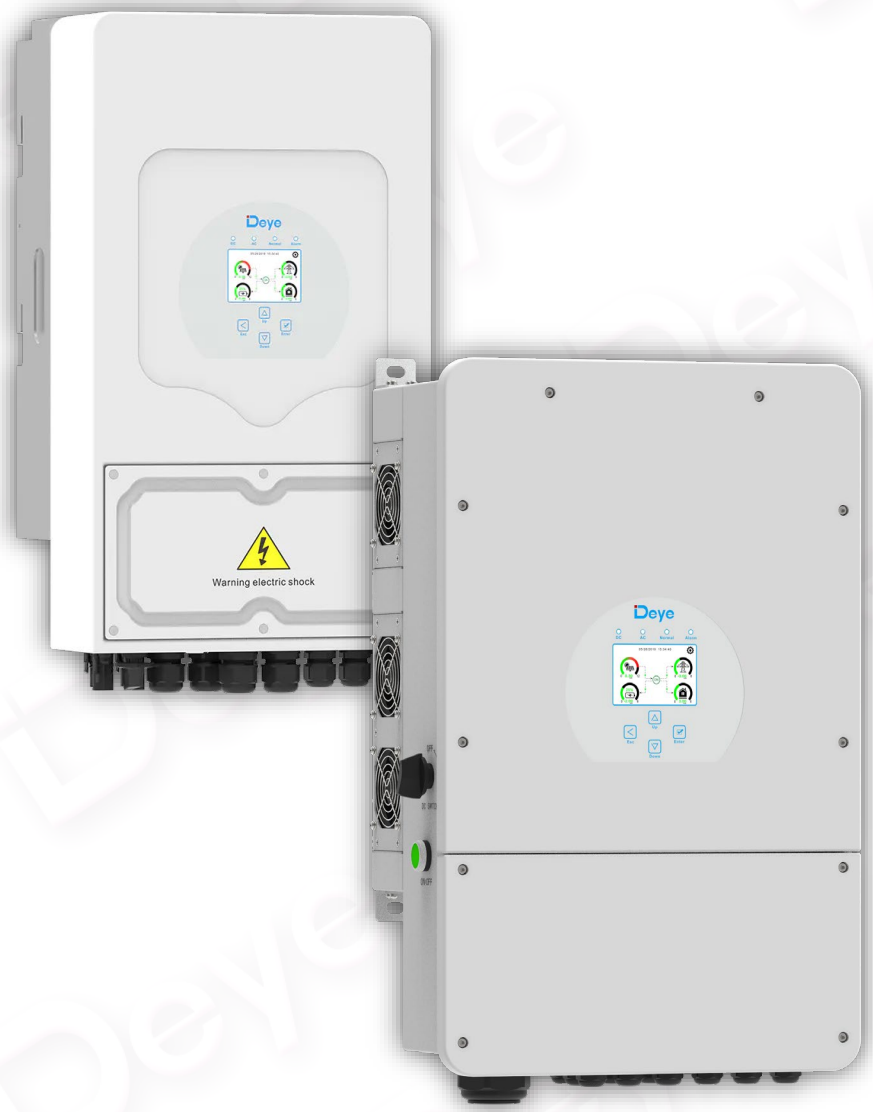

Diesel Generators

Deye's hybrid inverters are globally acclaimed, commanding a leading market share in countries such as South Africa. They provide accessible, highly reliable, and sustainable energy solutions for users situated in areas with weak grid infrastructure or high electricity costs. These solutions cater to a variety of needs, including residential energy storage and commercial building energy storage.

Single Phase Low Voltage Hybrid Inverter

SUN-3.6/5/6K-SG03LP1-EU
SUN-8K-SG01LP1-EU

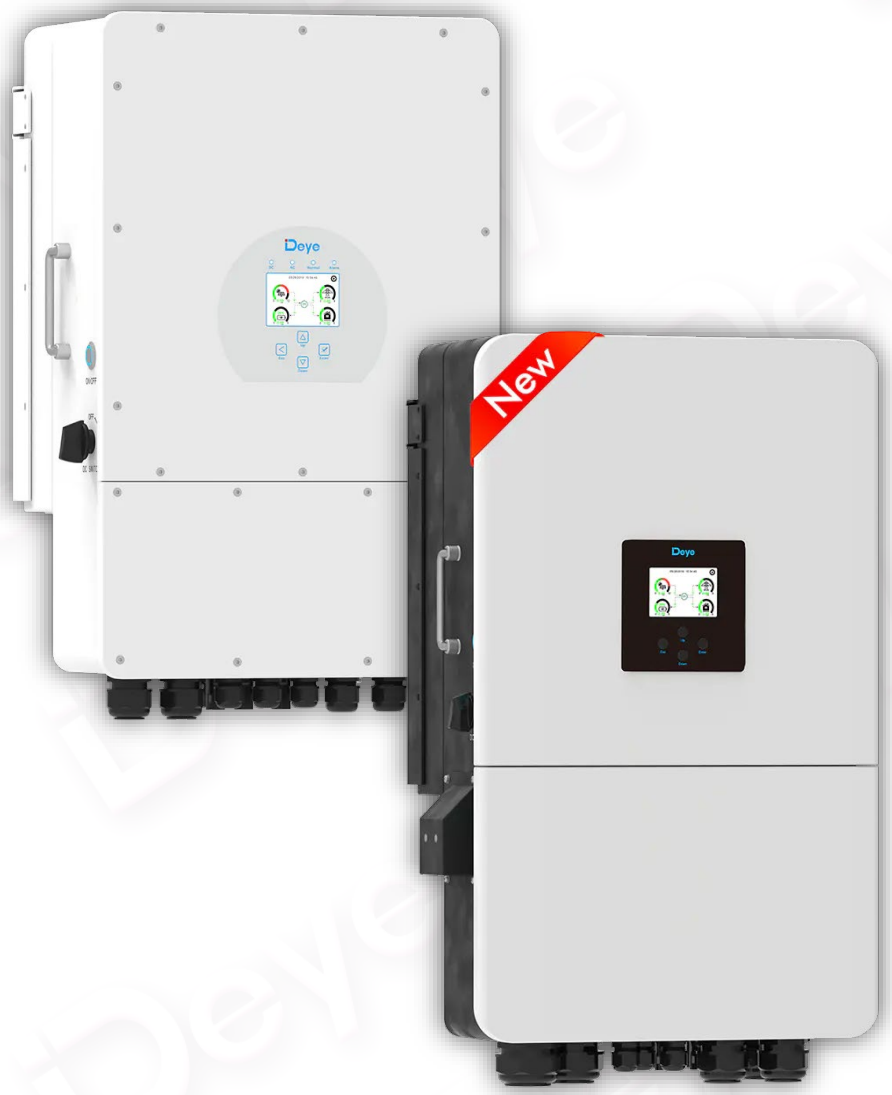
Technical Data	3.6-6k	8k
Battery Voltage Range (V)	40-60	
Max. Charging Current (A) Max. Discharging Current (A)	90 for 3.6k 120 for 5k 135 for 6k	190 for 8k
Number of Battery Input	1	
Max. PV Input Power	1.3*Rated Power	
MPPT Voltage Range (V)	150-425	
No. of MPPT	2	
No. of Strings Per MPPT	1+1	2+2
Grid Connection Form	L+N+PE	
Max. AC Input/Output Power	1.1*Rated Power	



Three Phase Low Voltage Hybrid Inverter

SUN-5/6/8/10/12K-SG04LP3-EU
SUN-14/15/16/18/20K-SG05LP3-EU-SM2

Technical Data	5-12k	14-20k
Battery Voltage Range (V)	40-60	
Max. Charging Current (A) Max. Discharging Current (A)	120 for 5k 150 for 6k 190 for 8k 210 for 10k 240 for 12k	260 for 14k 280 for 15k 300 for 16k 330 for 18k 350 for 20k
Number of Battery Input	1	
Max. PV Input Power	1.3*Rated Power	
MPPT Voltage Range (V)	200-650	160-650
Grid Connection Form	3L+N+PE	
Max. AC Input/Output Power	1.1*Rated Power	



Unique Three-Phase Low-Voltage Hybrid System

Deye's three-phase low-voltage hybrid inverter supports the connection of low-voltage energy storage batteries. Spanning a power range of 3-20kW, it supports 100% three-phase unbalanced output. It serves as an excellent choice for household users aiming to establish a safer, more reliable energy storage system with a superior return on investment.

Enhanced Safety

The battery system voltage is within 60V, ensuring exceptional safety while mitigating the risk of arc faults on the battery side.

Greater Economy

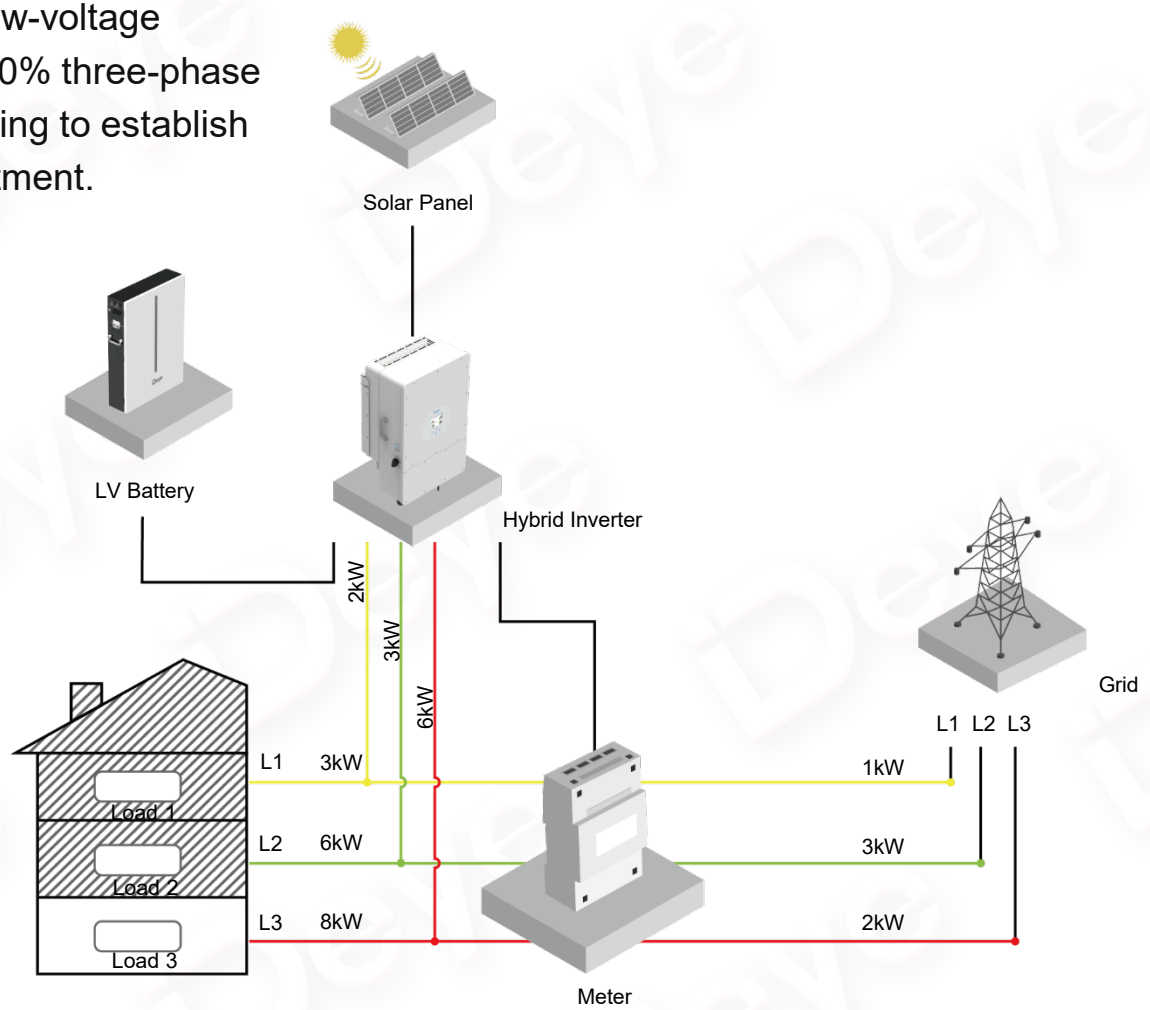
Constructed with low-voltage energy storage batteries, it curtails costs, rendering the entire energy storage system more affordable and shortening the overall payback period.

Increased Convenience

With lower technical prerequisites for constructing a low-voltage energy storage system, the installation process is more convenient.
There is no need for a separate BMS control box, making battery expansion more straightforward.

Superior Performance

It supports 20A high current photovoltaic components and accommodates up to 350A charging and discharging current.



Three Phase High Voltage Hybrid Inverter

SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2
SUN-29.9/30/35K-SG01HP3-EU-BM3
SUN-40/50K-SG01HP3-EU-BM4

Technical Data	5-25k	29.9-50k
Battery Voltage Range (V)	160-700	160-800
Max. Charging Current (A) Max. Discharging Current (A)	30 for 5-6k 37 for 8-20k 50 for 25k	50+50
Number of Battery Input	1	2
Max. PV Input Power	1.3*Rated Power	
MPPT Voltage Range (V)	150-850	
Grid Connection Form	3L+N+PE	
Max. AC Input/Output Power	1.1*Rated Power	

Multi-Functional GEN Port of Deye Hybrid Inverter

Supports the connection of Diesel Generators as a supplementary power source

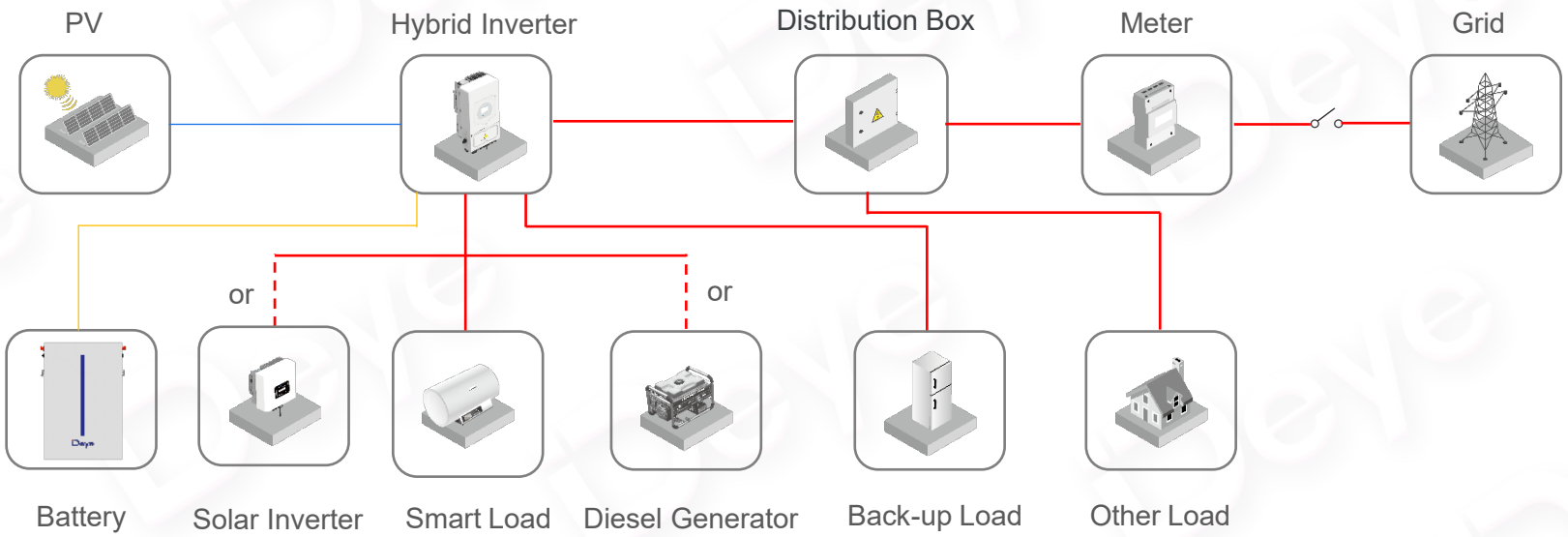
In areas with weak grids, it fully utilizes photovoltaic power generation while retaining diesel generators as backup power sources, effectively reducing electricity costs and promoting sustainable development.

Smart Load Application

The GEN port can be customized as an smart load port when not connected to a diesel generator. When the battery power is sufficient and there is substantial photovoltaic power generation, the inverter will autonomously supply power to the intelligent load (such as water heaters, AC charging piles, etc.).

Supports AC Coupling

The GEN port can serve as an AC coupling port when not connected to a diesel generator, thereby upgrading the conventional grid-tie photovoltaic system to a photovoltaic energy storage system.



Intuitive Touch Screen and Buttons

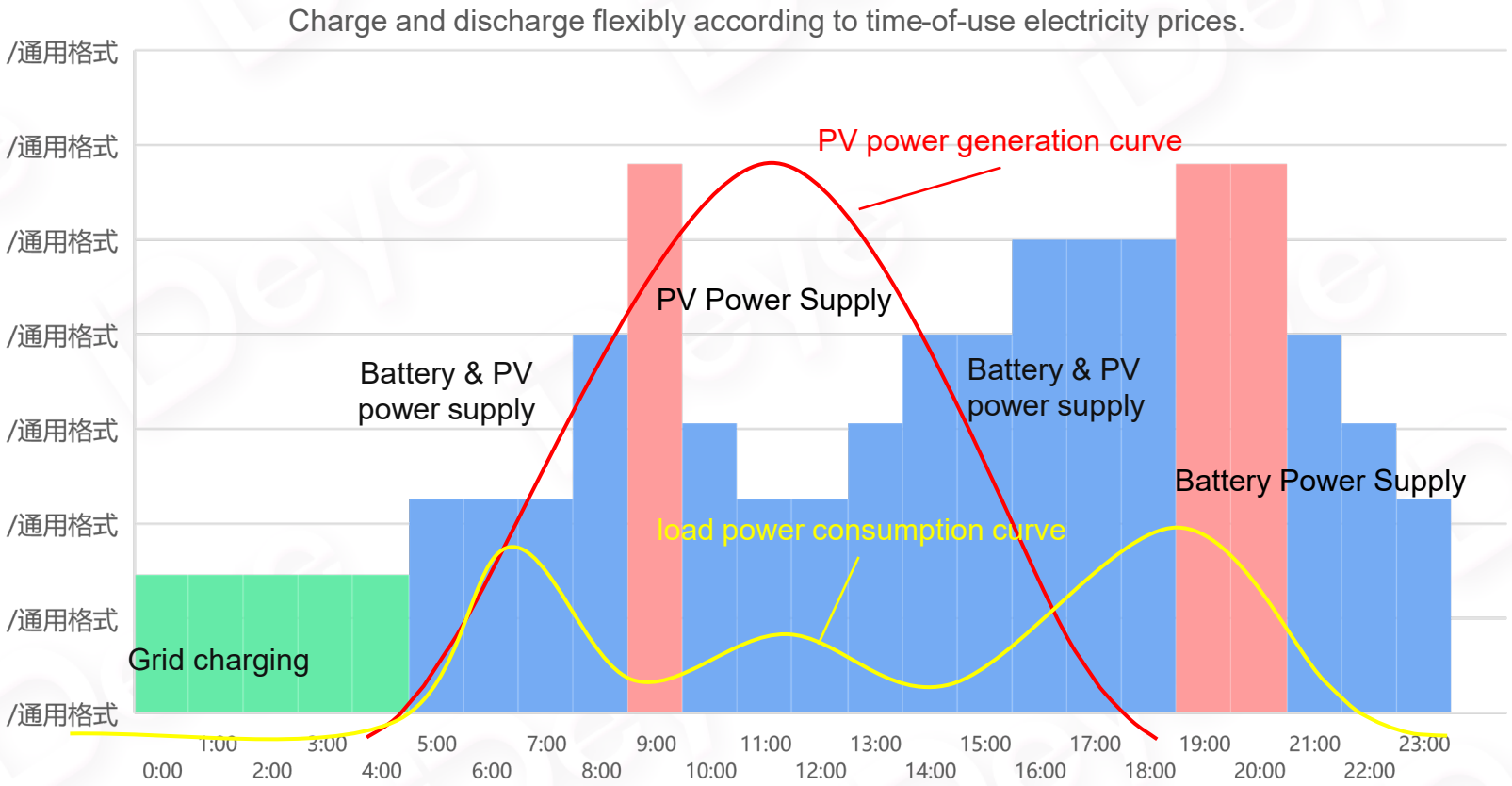
Deye not only facilitates cloud-based operation and maintenance via Web and mobile Apps, but also preserves the functionality of physical buttons and a touch screen.

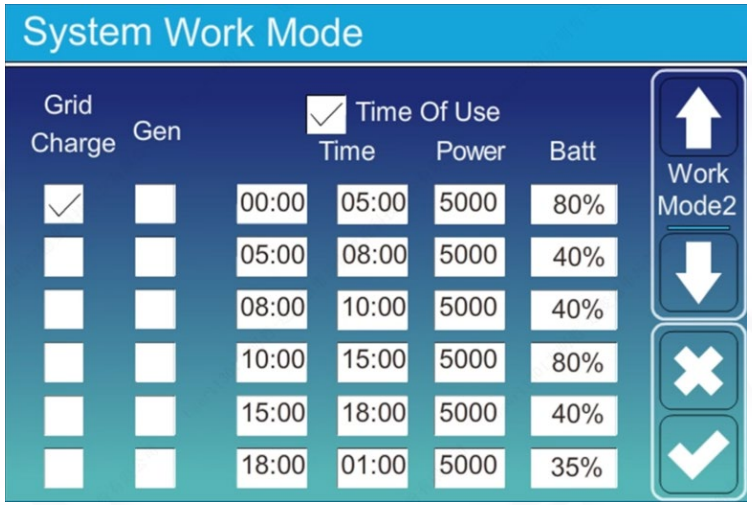
The operational status of the device is instantly discernible, and the menu navigation experience is intuitive.

The retention of the screen and buttons symbolizes the preservation of user autonomy.

Customizable Charging and Discharging Function

You have the flexibility to customize up to six distinct charging and discharging time periods, thereby maximizing the utilization of peak and off-peak electricity rates and effectively reducing your electricity expenses.

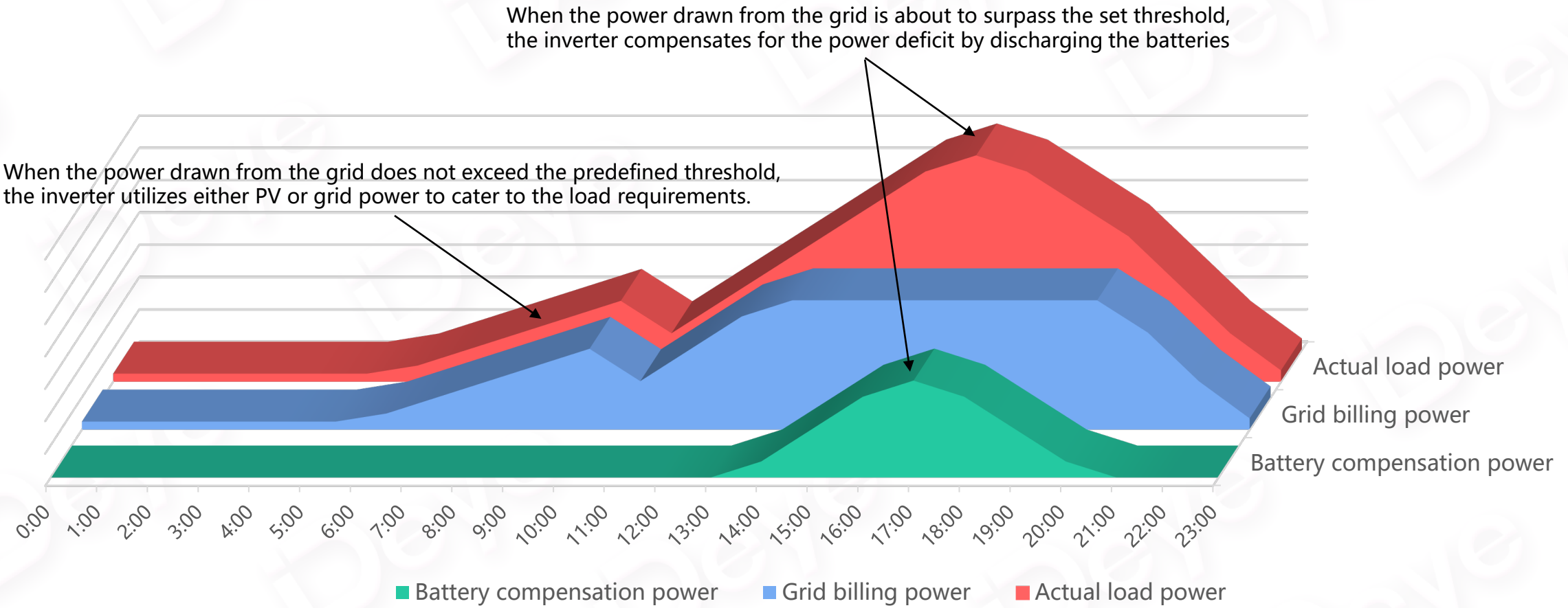




Inverter Setting Interface

Grid Peak Shaving Function

Grid peak shaving, when the power drawn from the grid is about to exceed the set value, the battery discharges to supplement part of the power, preventing the power drawn from the grid from entering a high-rate band, thereby reducing electricity expenses.



Storage Solutions

Low Voltage / High Voltage

Wall-Mounted / Rack / Floor-Mounted

With over 20 years of experience in PV systems, Deye Group provides high-quality energy storage products for residential, commercial, and utility applications. Our lithium iron phosphate (LFP) solar battery systems offer safe, long-lasting, and efficient energy storage.

Product Features:

Safe LFP chemistry: Non-toxic, stable and safe LFP batteries, no risk of thermal runaway

Long 10+ year lifetime: LFP batteries retain 70% capacity after 6000+ cycles

Flexible and modular: Scalable battery capacity from 5kWh up to 360kWh

Intelligent BMS: Actively balances cells and monitors battery parameters for protection

Efficient: High round-trip efficiencies up to 95%

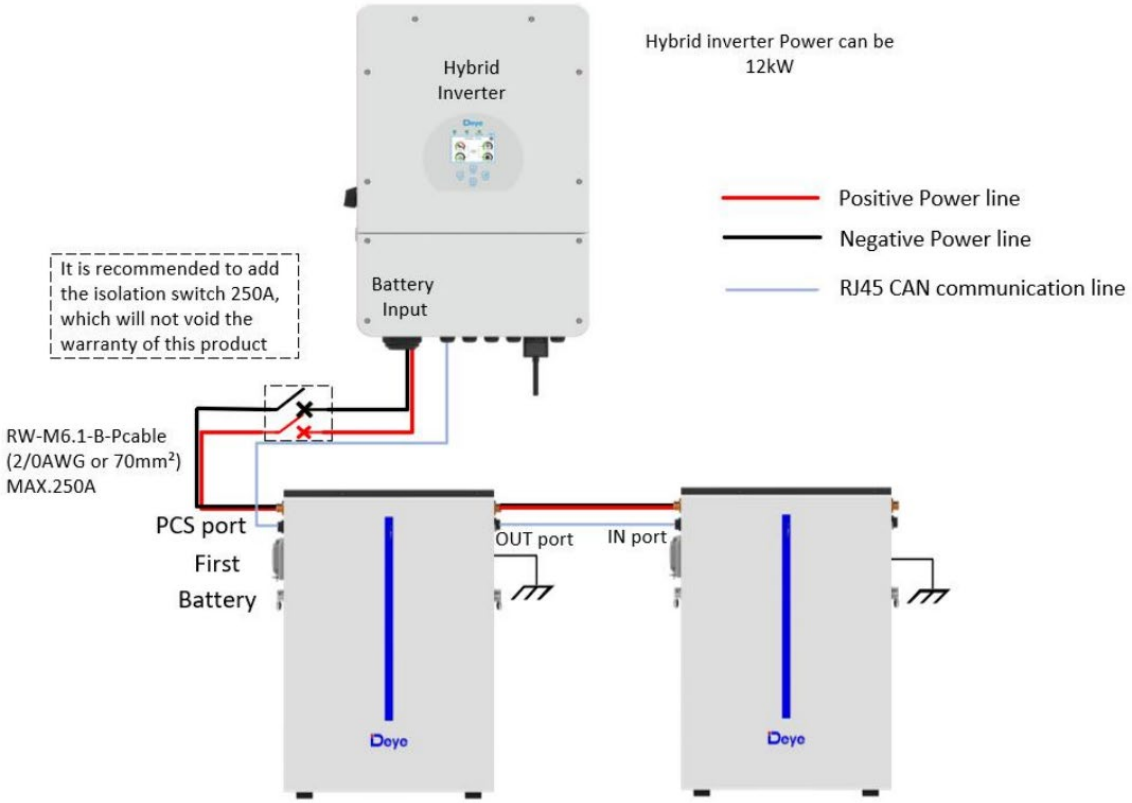
Low Voltage Battery

Deye ESS LV-Wall-Mounted Battery RW-M6.1-B

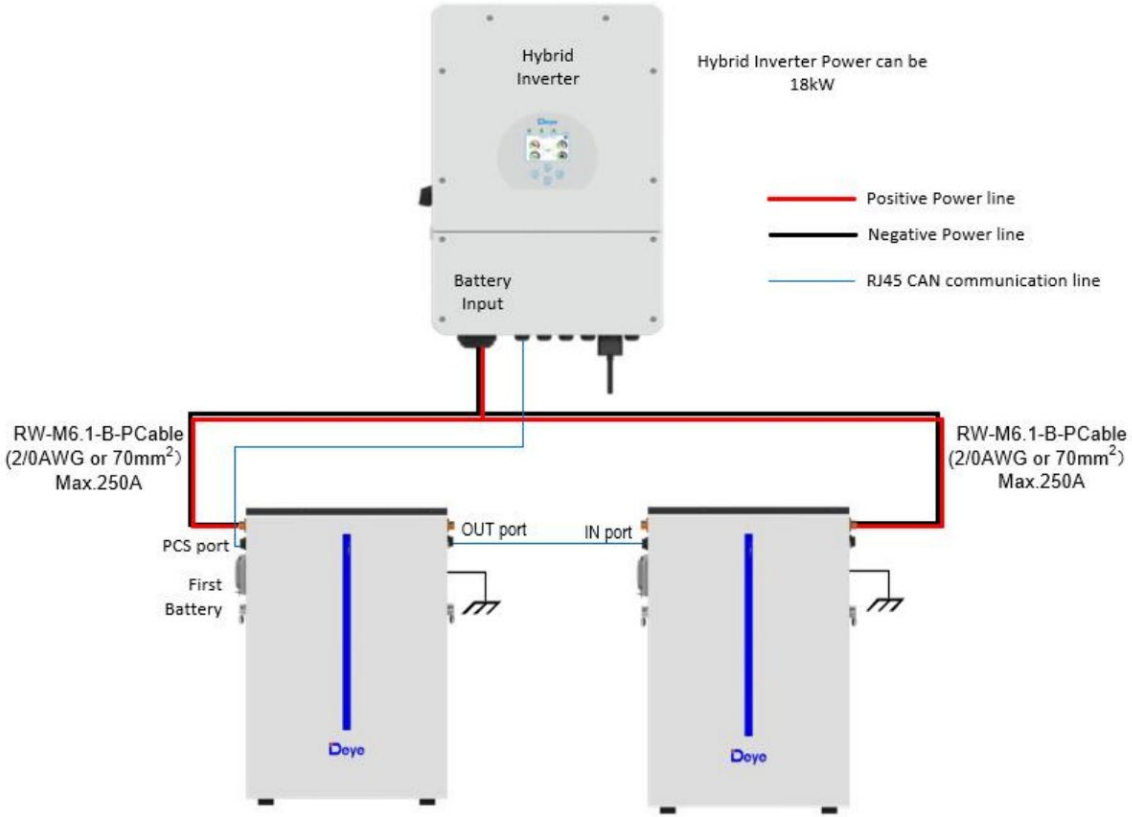
Technical Data		RW-M6.1-B
Battery Chemistry		LiFePO4
Capacity (Ah)		120
Nominal Voltage (V)		51.2
Operating Voltage (V)		43.2-57.6
Charge/discharge Current (A)	Recommend	60
	Max	100
Nominal/Usable Energy		6.14/5.53
Scalability		Max. 32 pcs in parallel
IP Rating of Enclosure		IP65

Different connections of RW-M6.1-B

Parallel mode 1: Suitable for scenarios where the inverter power <=12 kW.

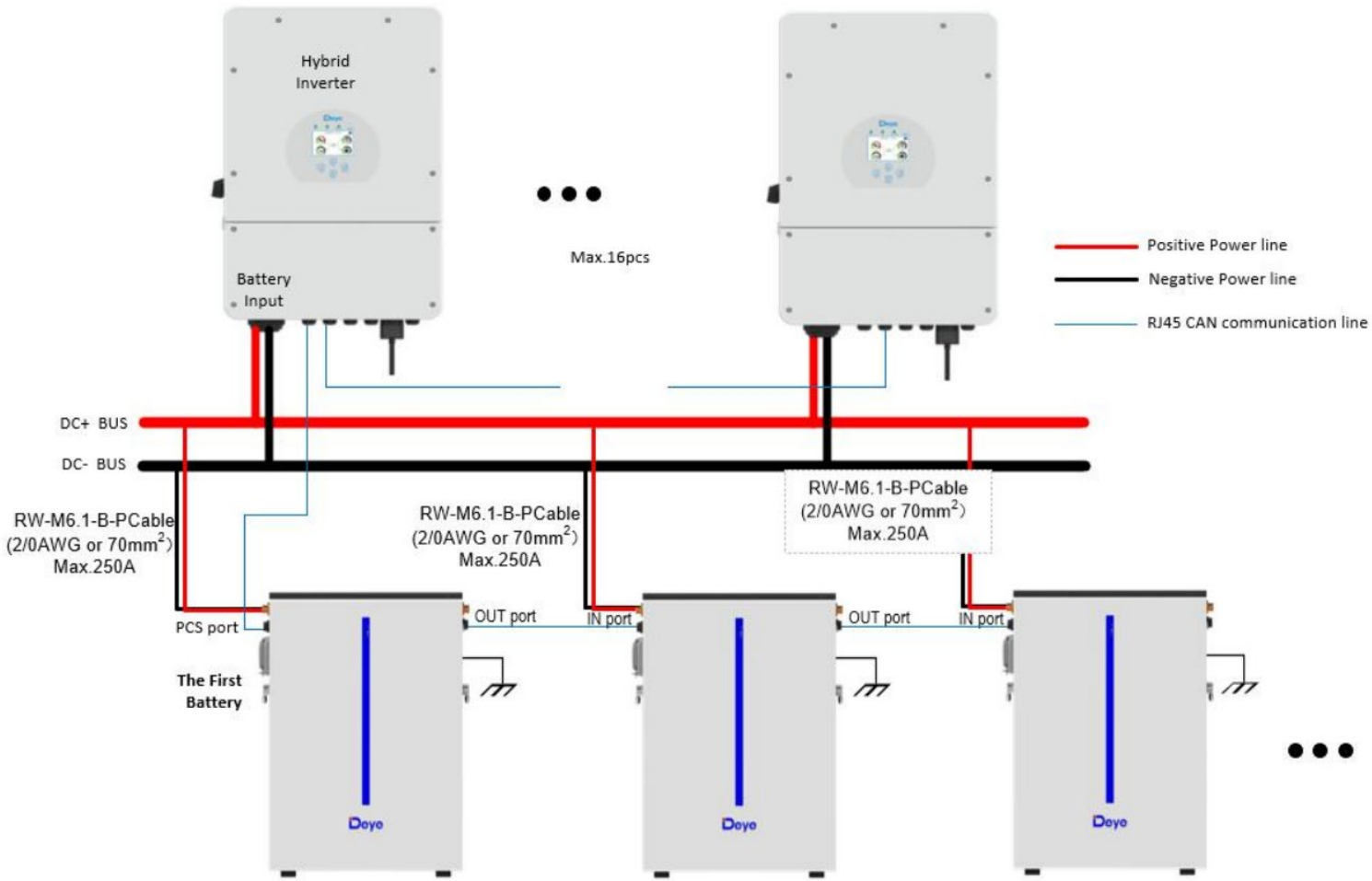


Parallel mode 2: Suitable for the inverter with a power > 12kW.



Different connections of RW-M6.1-B

Parallel mode 3: Suitable for the larger capacity systems



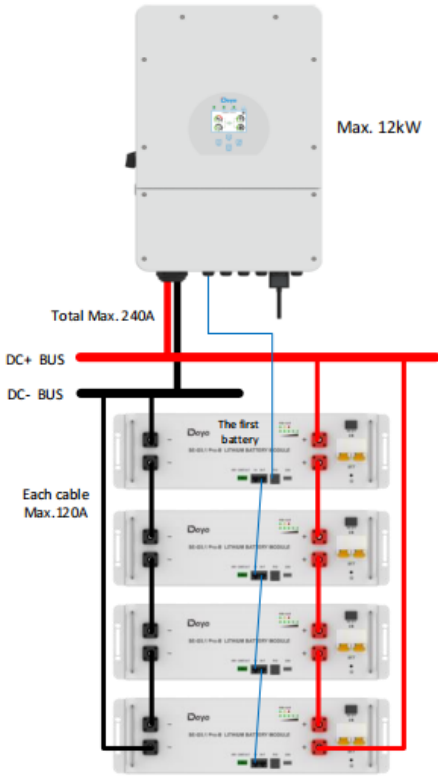
Low Voltage Battery

Deye ESS LV-Rack Battery SE-G5.1 Pro-B

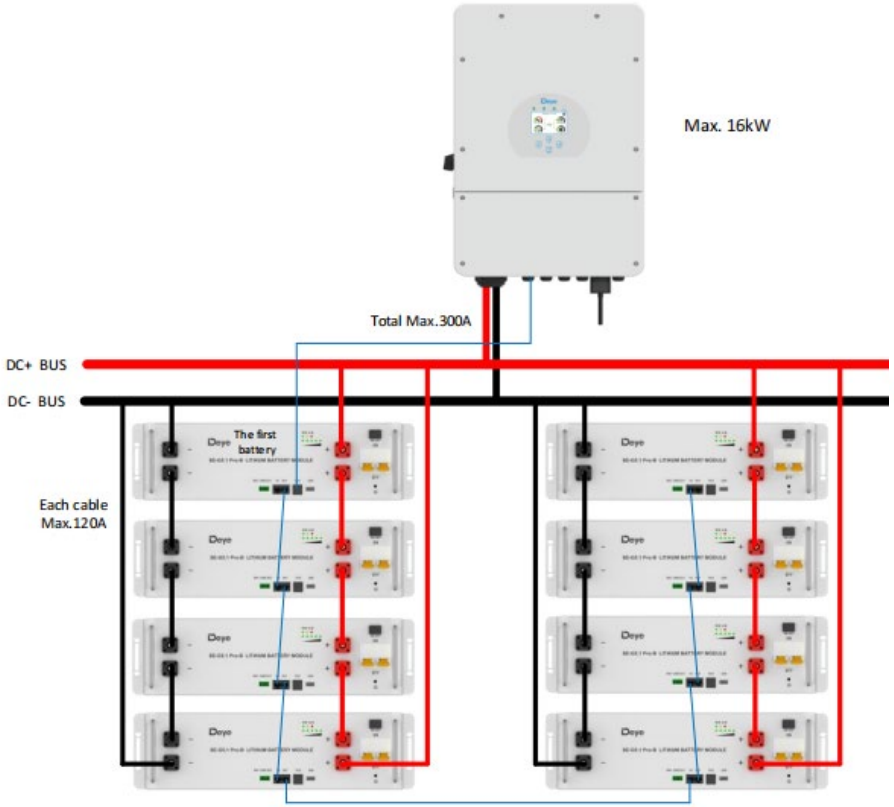
Technical Data		SE-G5.1 Pro-B
Battery Chemistry		LiFePO4
Capacity (Ah)		100
Nominal Voltage (V)		51.2
Operating Voltage (V)		43.2-57.6
Charge/Discharge Current (A)	Recommend	50
	Max	100
Nominal/Usable Energy		5.12/4.6
Scalability		Max. 64 pcs pack in parallel
IP Rating of Enclosure		IP20

Different connections of SE-G5.1 Pro-B

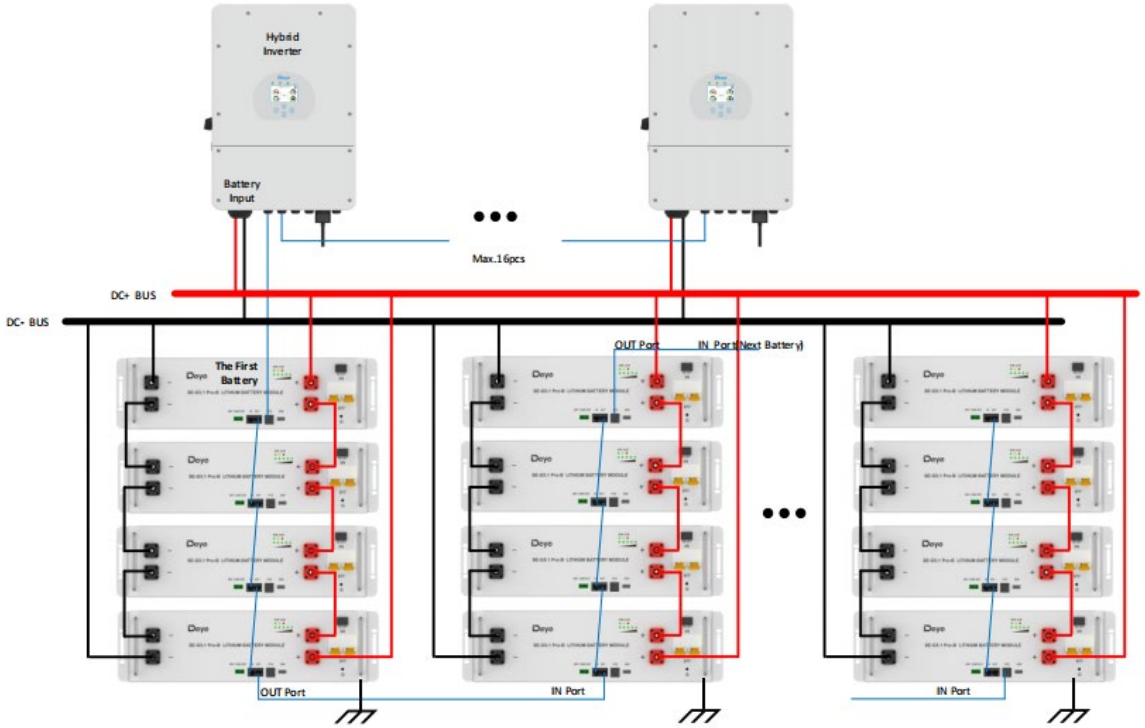
Parallel mode 1: Suitable for scenarios where the inverter power <=12 kw



Parallel mode 2: Suitable for scenarios where the inverter power > 12 kw



Parallel mode 3: Suitable for the larger capacity systems



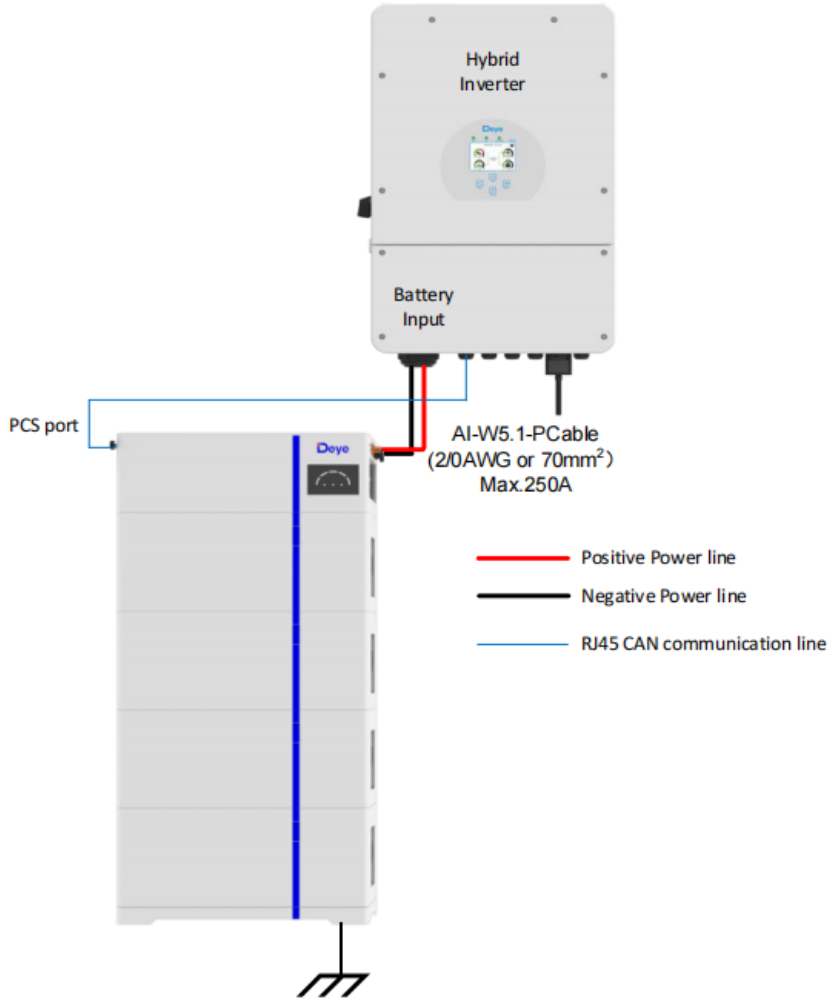
Low Voltage Battery

Deye ESS LV-Floor-Mounted Battery AI-W5.1-B

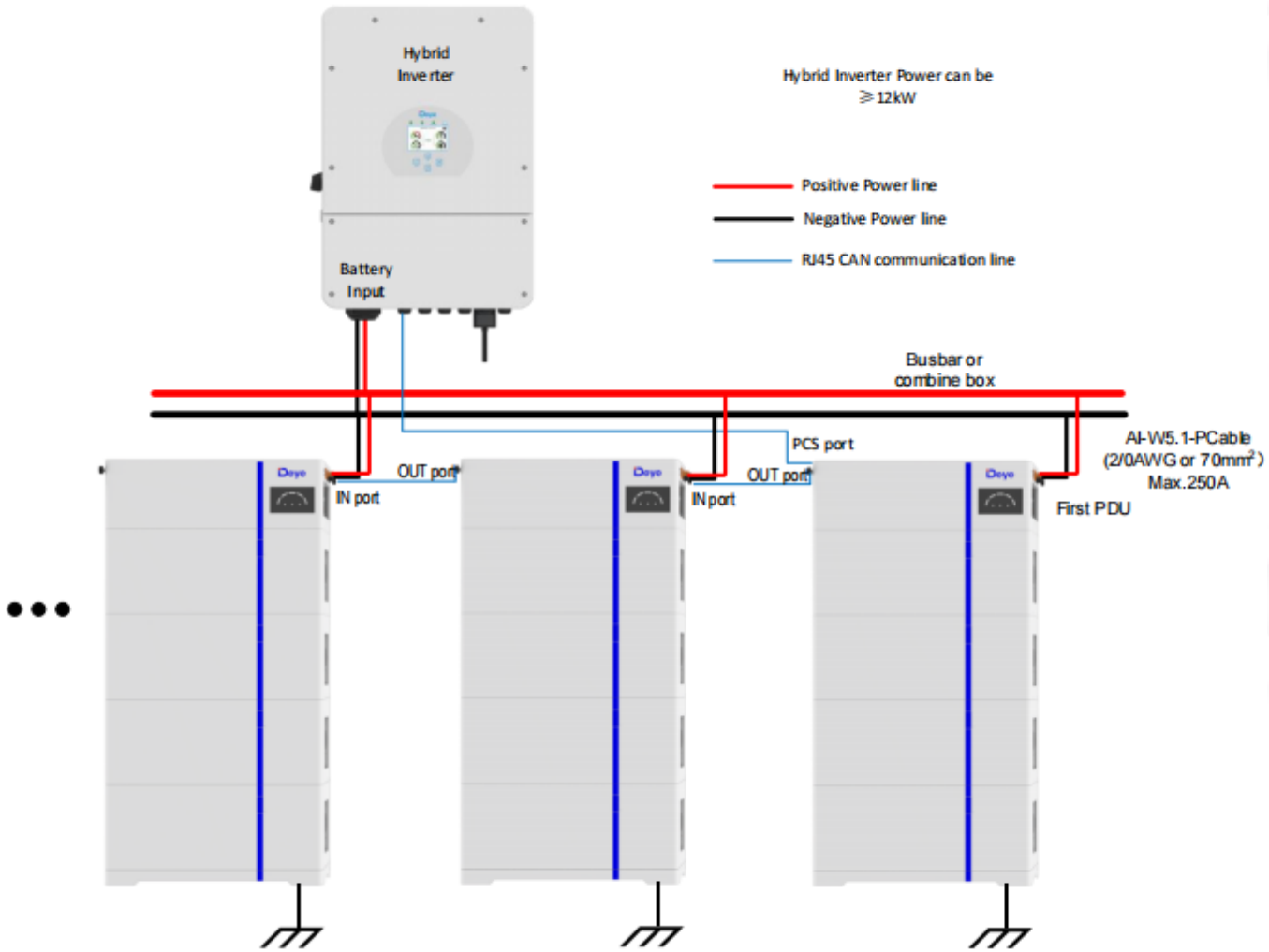
Technical Data		AI-W5.1-B				
Battery Chemistry		LiFePO4				
Capacity (Ah)		100				
Nominal Voltage (V)		51.2				
Operating Voltage (V)		43.2-57.6				
Charge/Discharge Current (A)	Pcs in stack	1	2	3	4	5
	Recommend	50	100	150	200	250
	Max	100	180	250	250	250
Nominal/Usable Energy		5.12/4.6				
Scalability		Maximum 6 stacks in parallel, maximum 6 pcs in one stack				
IP Rating of Enclosure		IP65				

Different connections of AI-W5.1-B

Parallel mode 1: connection of single battery system



Parallel mode 2: connection of multiple batteries system



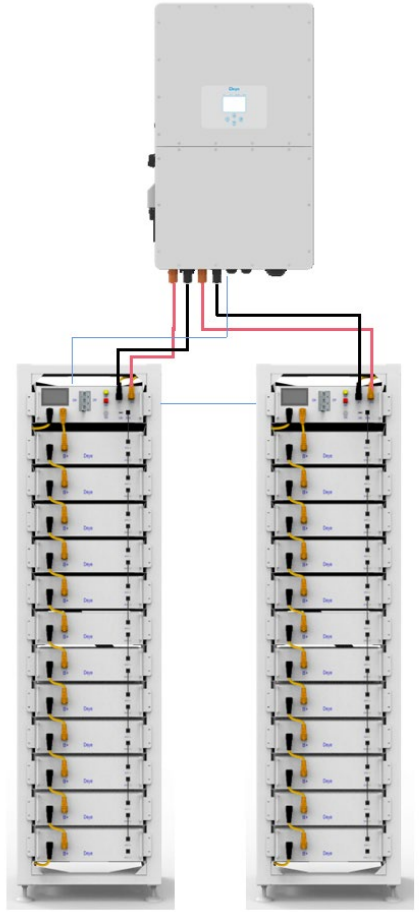
High Voltage Battery

Deye ESS HV-Rack-Mounted Battery BOS-G

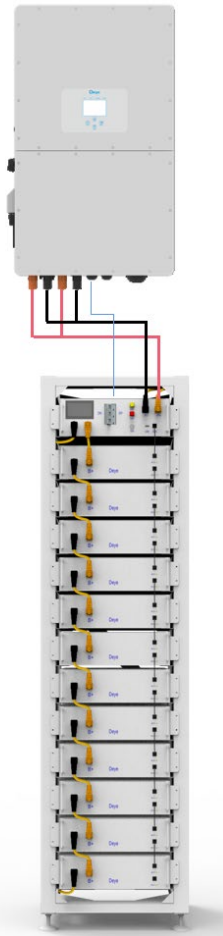
Technical Data		BOS-G	
Battery Chemistry		LiFePO4	
Module Energy (kWh)		5.12	
Module Capacity (Ah)		100	
Nominal Voltage (V)		51.2	
Battery Module Qty in Series		3(min)	12(max)
System Nominal Voltage (V)		153.6	614.4
System Operating Voltage (V)		124.8-175.2	499.2-700
Charge/Discharge Current (A)	Recommend	50	
	Max	100	
Scalability		Maximum 16 stacks in parallel	
IP Rating of Enclosure		IP20	

Different connections of BOS-G

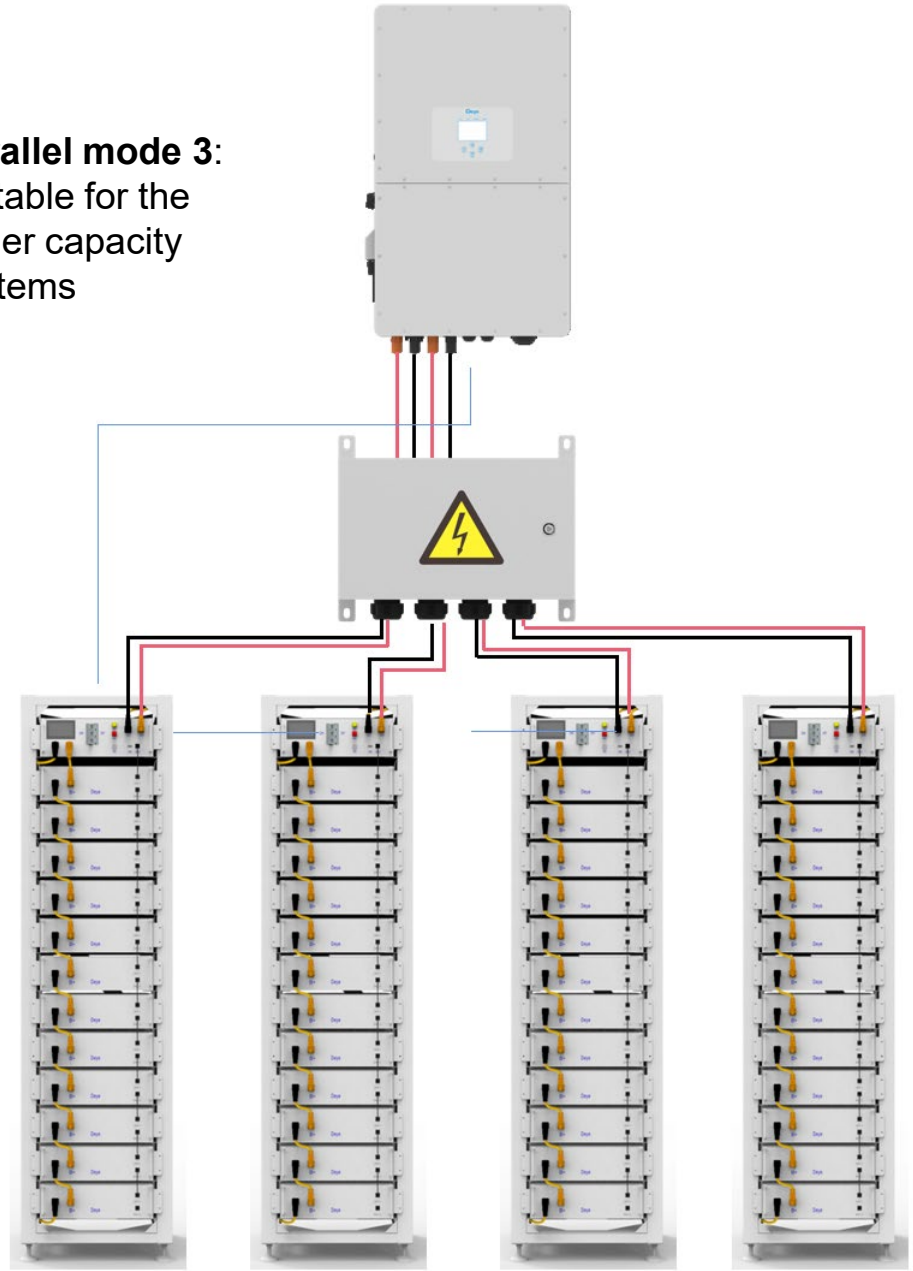
Parallel mode 1: Suitable for inverter
SUN-29.9/30/35K-SG01HP3-EU-BM3
SUN-40/50K-SG01HP3-EU-BM4



Parallel mode 2: If BOS-G is connected to two battery input ports at the same time, the charge and discharge current can reach 100A.



Parallel mode 3: Suitable for the larger capacity systems



High Voltage Battery

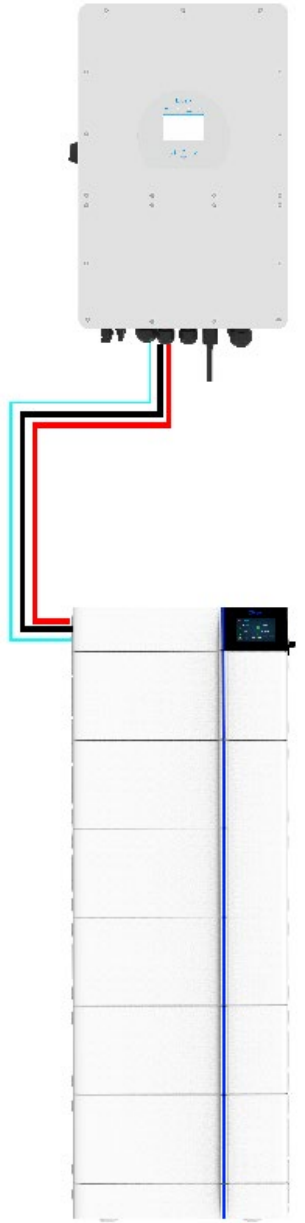
Deye ESS HV-Floor-Mounted Battery GB-L

Technical Data		BOS-G	
Battery Chemistry		LiFePO4	
Module Energy (kWh)		4.09	
Module Capacity (Ah)		40	
Nominal Voltage (V)		102.4	
Battery Module Qty in Series		2(min)	6(max)
System Nominal Voltage (V)		204.8	614.4
System Operating Voltage (V)		166.4-700	
Charge/Discharge Current (A)	Recommend	20	
	Max	40	
Scalability		Maximum 16 stacks in parallel	
IP Rating of Enclosure		IP65	

Connections of GB-L

Suitable for inverter
SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2

Maximal 16 stacks in parallel connection.



Deye Cloud Monitoring Platform

A newly independently developed APP, aesthetically pleasing and practical

Software update within 20 minutes

Remotely inverter parameter setting

Not need engineer on site for checking and operation

Deye Cloud

Brand New Upgrade,
Empower Deye Equipment!

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

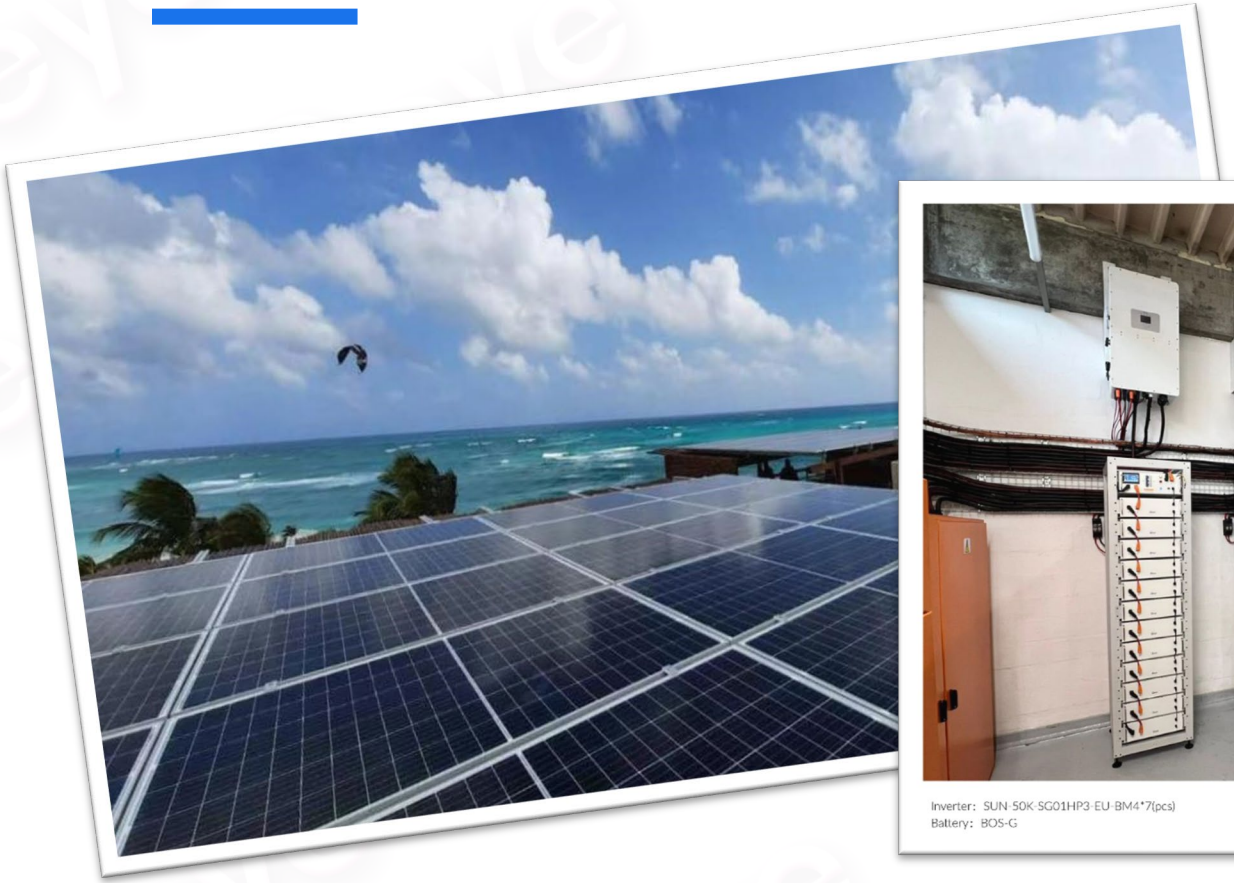
All in One
Smarter home energy and device management

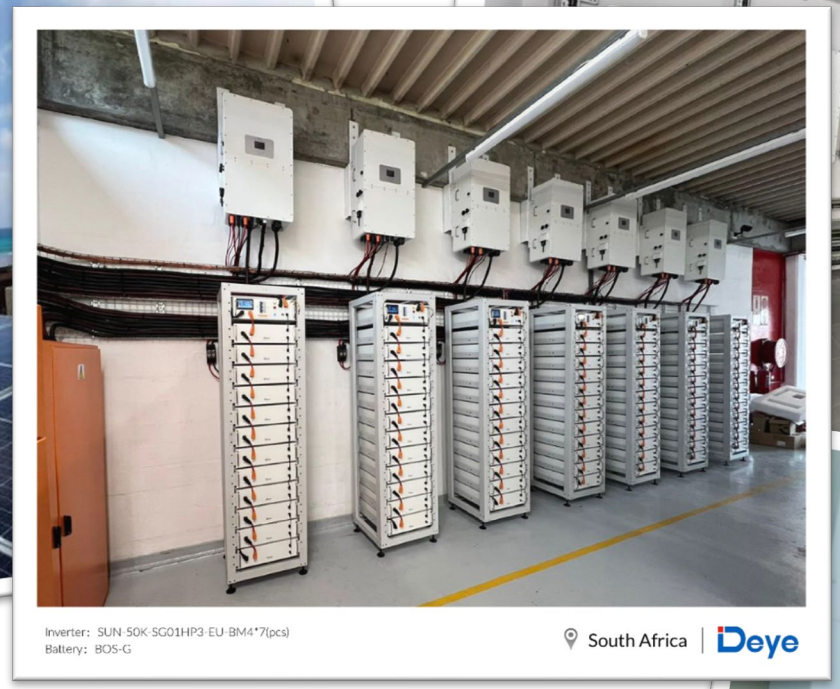
Brand new design
Intuitive and simplified new interface design

Accelerated Connectivity
Optimized for speed and performance

Advanced Smart Energy Usage AI
A smarter way to manage your electricity bills

Global Cases, Widely Applied





Deye inverters have been deployed in over a hundred countries and regions worldwide, with their unrivaled reliability and adaptability being validated in a multitude of projects. The exceptional functional features have garnered recognition and admiration from tens of thousands of users.

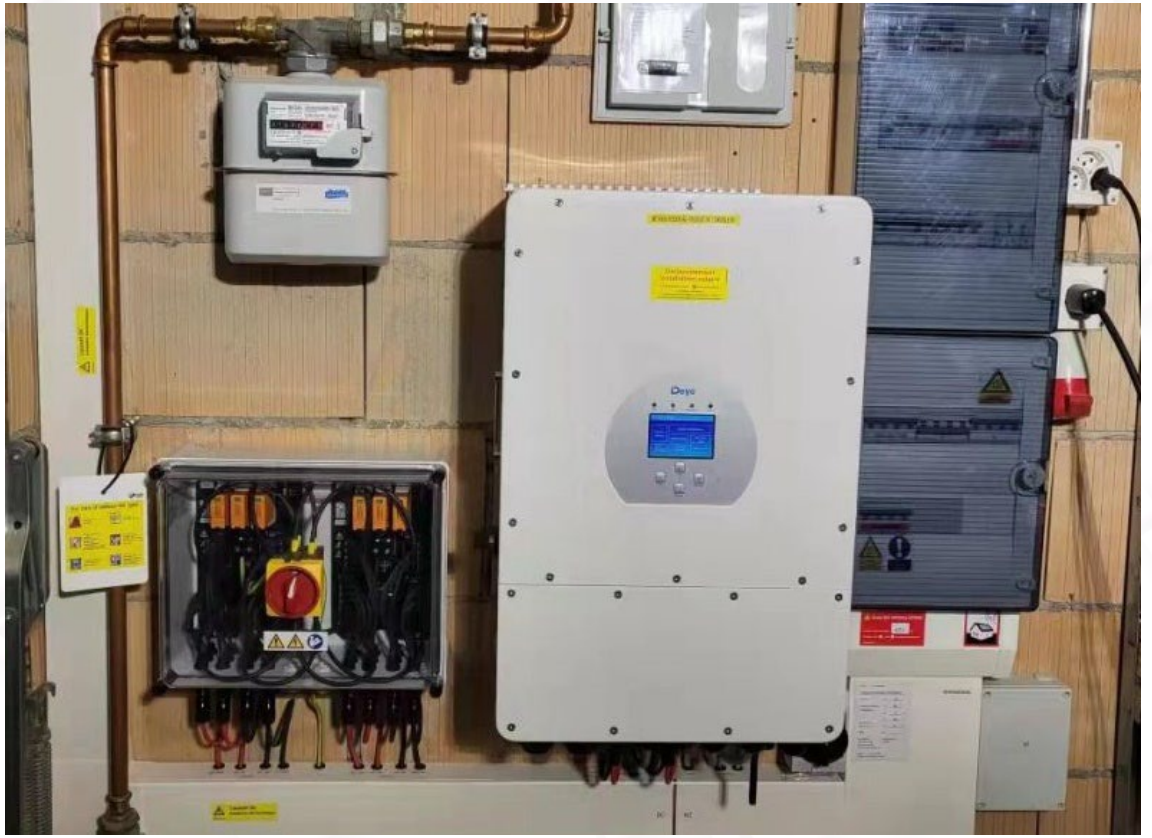
Global Cases, Widely Applied

6kW Photovoltaic Energy Storage Power Station
Location: Italy **Capacity:**6kW/12kWh **Inverter:** Deye SUN-6K-SG **Battery:** Deye RW-M6.1
ESS Voltage: Low-voltage 48V

Global Cases, Widely Applied

24kW Photovoltaic Energy Storage Power Station
Location: Germany
Capacity:24kW/46kWh
Inverter: Deye SUN-8K-SG
ESS Voltage: Low-voltage 48V

10kW Photovoltaic Energy Storage Power Station
Location: Switzerland
Capacity:10kW/20kWh
Inverter: Deye SUN-10K-SG
ESS Voltage: Low-voltage 48V



Global Cases, Widely Applied

20kW Photovoltaic Energy Storage Power Station
Location: Czech **Inverter:** Deye SUN-10K-SG **Battery**：Deye SE-G5.1
Capacity:20kW/30kWh **ESS Voltage:** Low-voltage 48V

Global Cases, Widely Applied

350kW Photovoltaic Energy Storage Power Station
Location: South Africa
Inverter: Deye SUN-50K-SG01 **Battery**：Deye BoS-G
Capacity: 350kW/420kWh **ESS Voltage:** High-voltage

Inverter：SUN-50K-SG01HP3-EU-BM4*7(pcs)
Battery：BOS-G

South Africa | Deye

40kW Photovoltaic Energy Storage Power Station
Location: USA
Inverter: SUN-8K-SG **Capacity:** 40kW

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