



Pursue A Green Life

Shenzhen Polinovel Tech Co., Ltd

Reliable Manufacturer . China
2025 Version



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Who We Are

Polinovel is an innovative Chinese lithium battery manufacturer, integrating research, development, design, and production, committed to providing professional, safe, and reliable clean energy solutions and services worldwide.

2006
Established

10000m²
Floorspace

50+
R&D Engineers

80%
Export Coverage

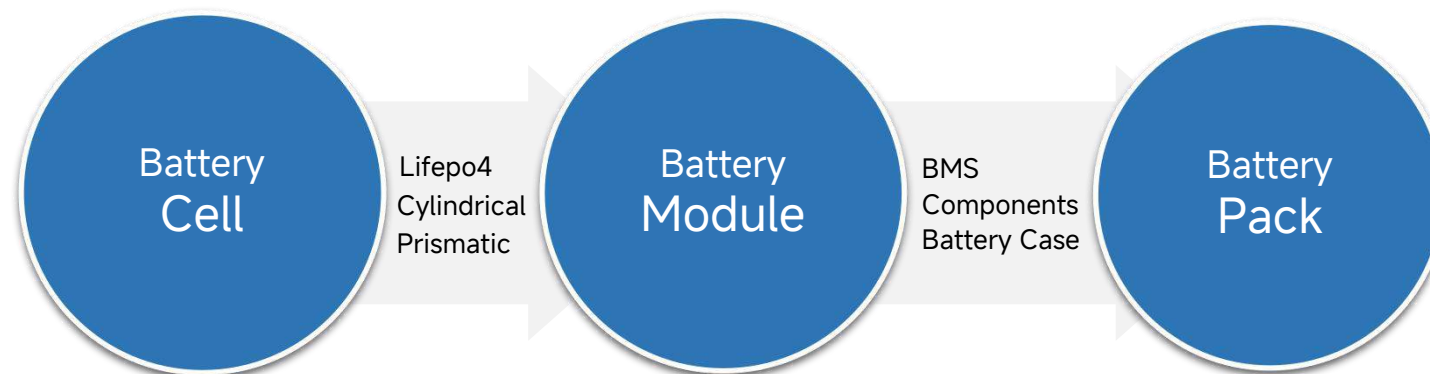


◆ Motive Power Batteries

Provide lithium battery solutions and services for motive power applications across land and sea.

◆ Energy Storage Systems

Provide lithium battery solutions and services for clean energy storage systems.



Material

Innovation in material and chemistry

Technology

Intelligent technology innovation



Design

Structure design innovation

Manufacturing

Exquisite manufacturing innovation

R&D Capability



100%
Proprietary
Technology

Continuous research in materials, structure design, production process, and product innovation to provide customers with market-oriented reliable lithium batteries and solutions comprehensively enhance the core competitiveness.

50+
R&D Engineers



Material



Structure Design



Production Process

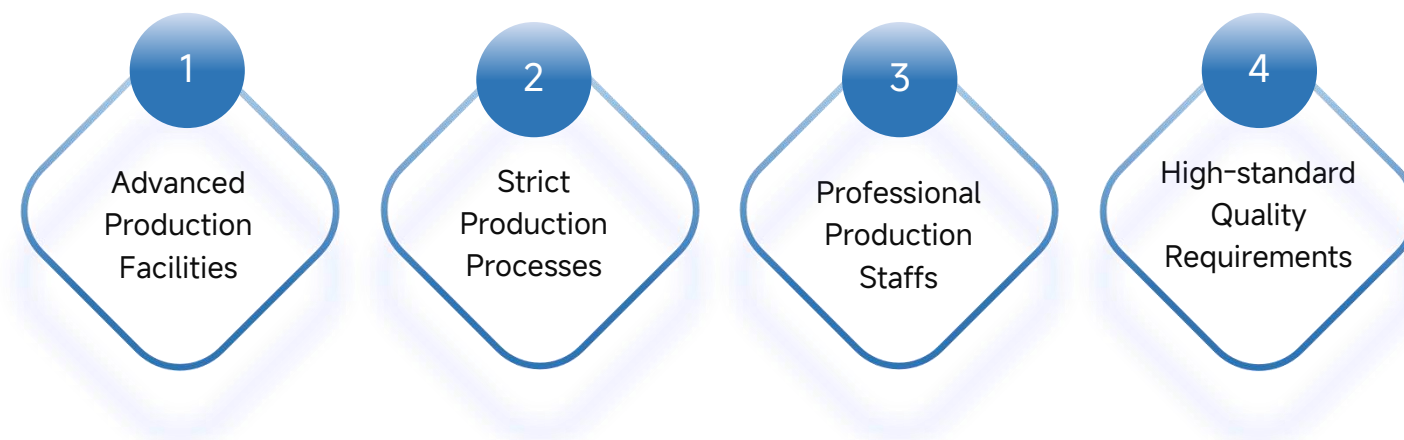


Product Innovation

Quality Assurance

◆ Exquisite Manufacturing

Compliance rate of battery pack reaches 100%.



◆ Comprehensive Testing

Multi-Level Testing

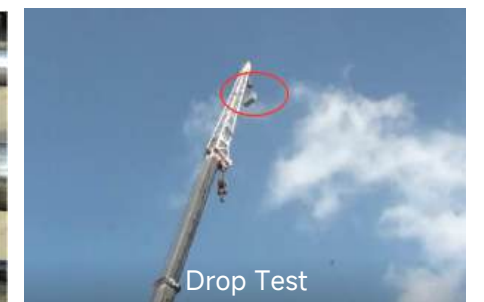
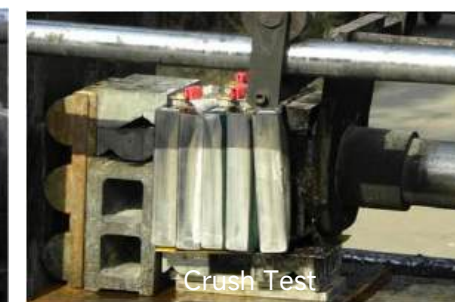
Materials, Cells, Modules,
BMS, Packs

Multi Dimensional Testing

Structure, Craft, Electrical
Performance, Safety

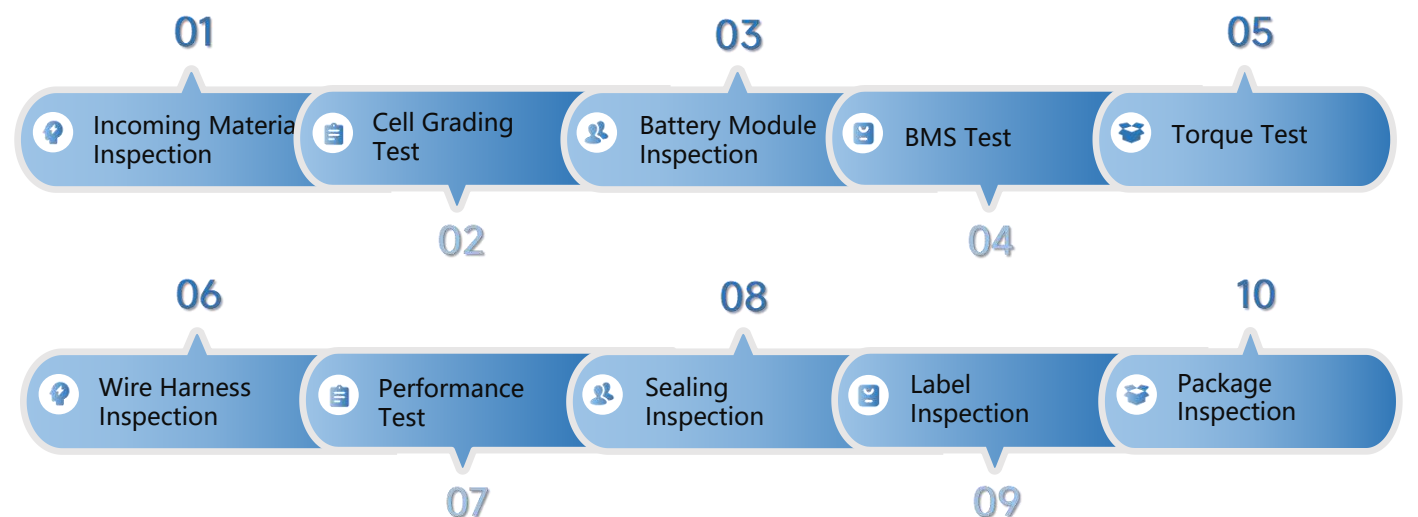
International Standards

Comply with international
industry ISO, GB/T, CE,
MSDS, UN38.3 standards



◆ Quality Control System

From incoming materials and production to delivery, the whole process contains 10 rounds of inspection and testing to ensure battery quality.



◆ International Certifications



ISO9001



ISO14001

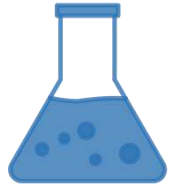


ISO45001

Competitiveness

◆ Safety And Reliability

Material safety, electrical safety, and system safety are taken as the basis for product development and manufacturing to ensure the safety and reliability of the product throughout the life cycle.



Material Safety



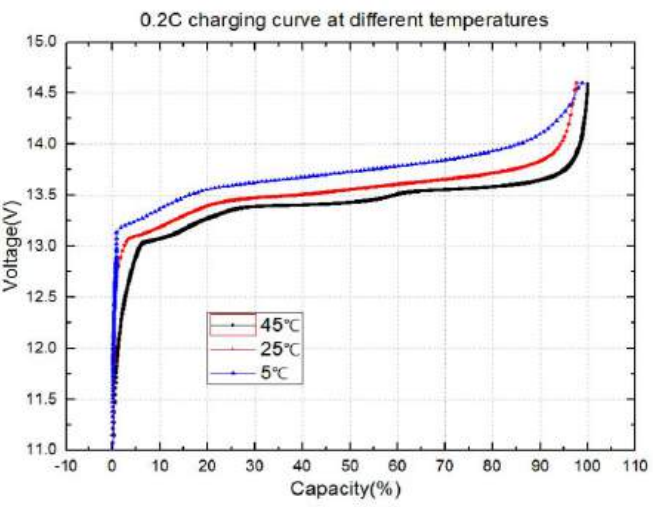
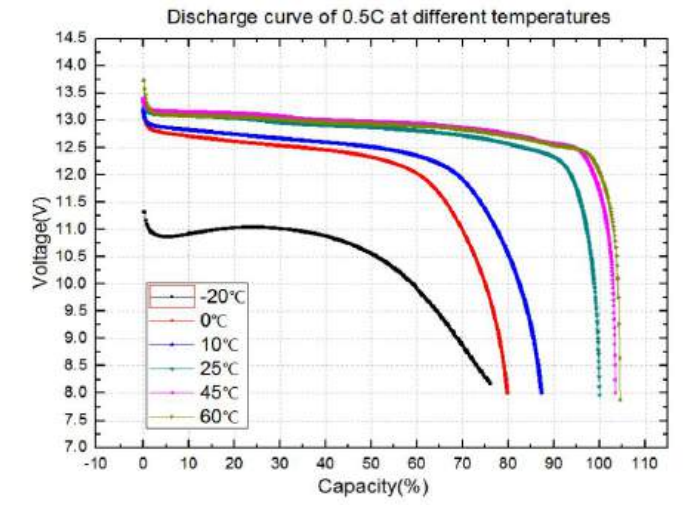
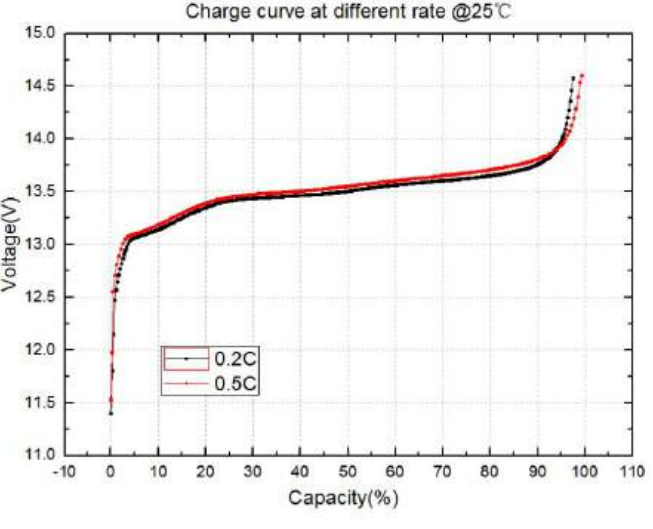
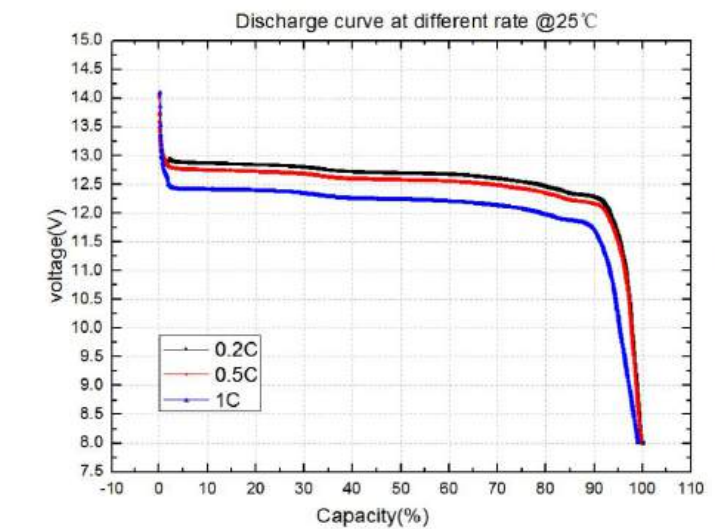
System Safety



Electrical Safety

◆ Long Service Life

Provide lithium batteries that deliver high performance, maximum usable energy, and long service life of 10+ years.



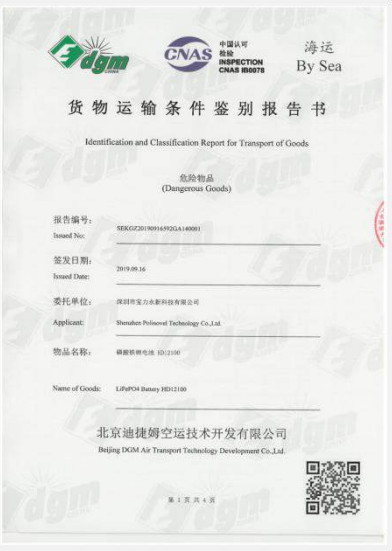
CE



E-mark



MSDS



UN38.3-Sea



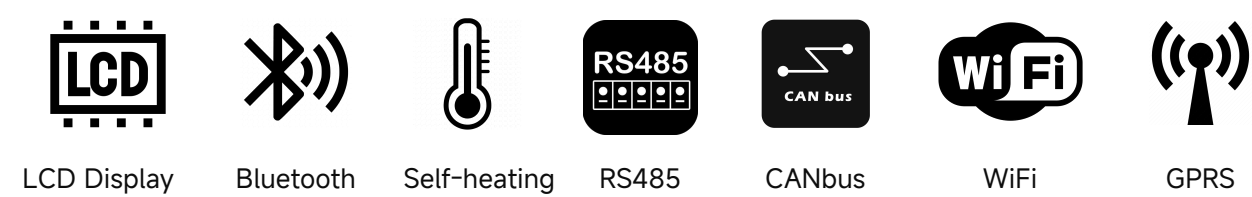
UN38.3-Air



Insurance

◆ Innovative Technology

Polinovel successfully developed Bluetooth monitoring, self-heating function, RS232, RS485, CANbus, WiFi, and GPRS communication technology on lithium batteries and has stayed at the forefront of market trends.



◆ Flexible Application

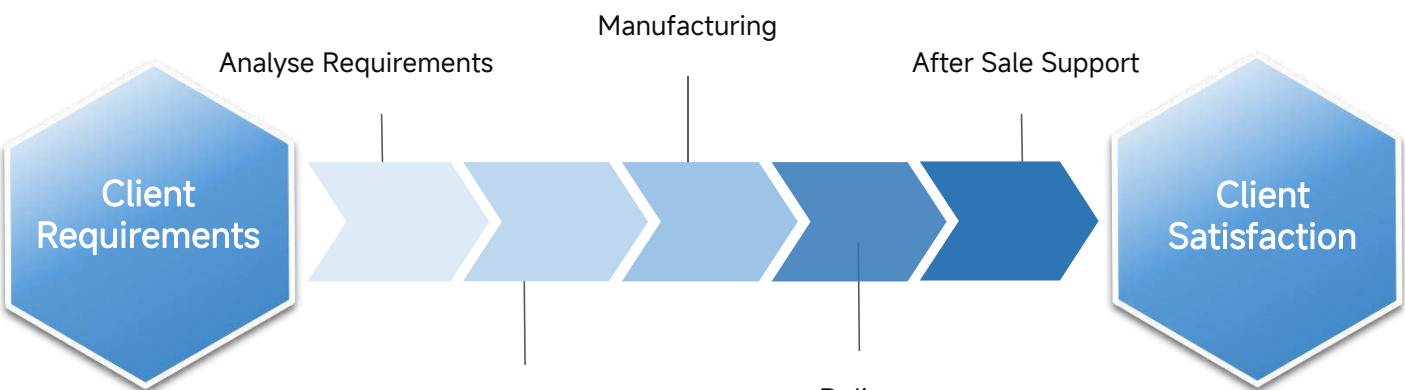
Polinovel lithium battery solutions are suitable for various scenarios such as camping, fishing, sailing, short-distance riding, material handling, floor cleaning, residential and commercial power supply.

Five Star Service From Start To Finish



- ◆ Professional
- ◆ Efficient
- ◆ Comprehensive

Polinovel maintains a customer-centric service attitude whenever and wherever possible. We firmly believe that providing customers with good products and services to help customers succeed is the surest way to achieve win-win cooperation in the long term.



Pre-sale Service

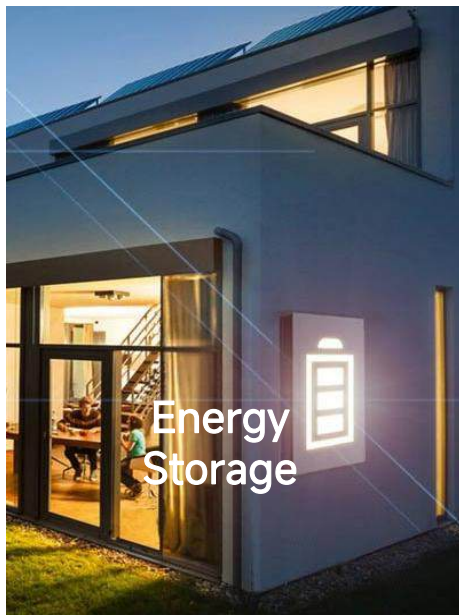
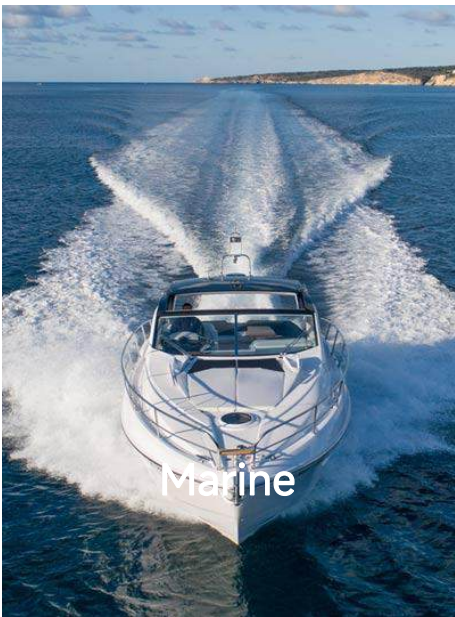
Project manager and engineers work with the customers to create the most feasible lithium battery solutions.

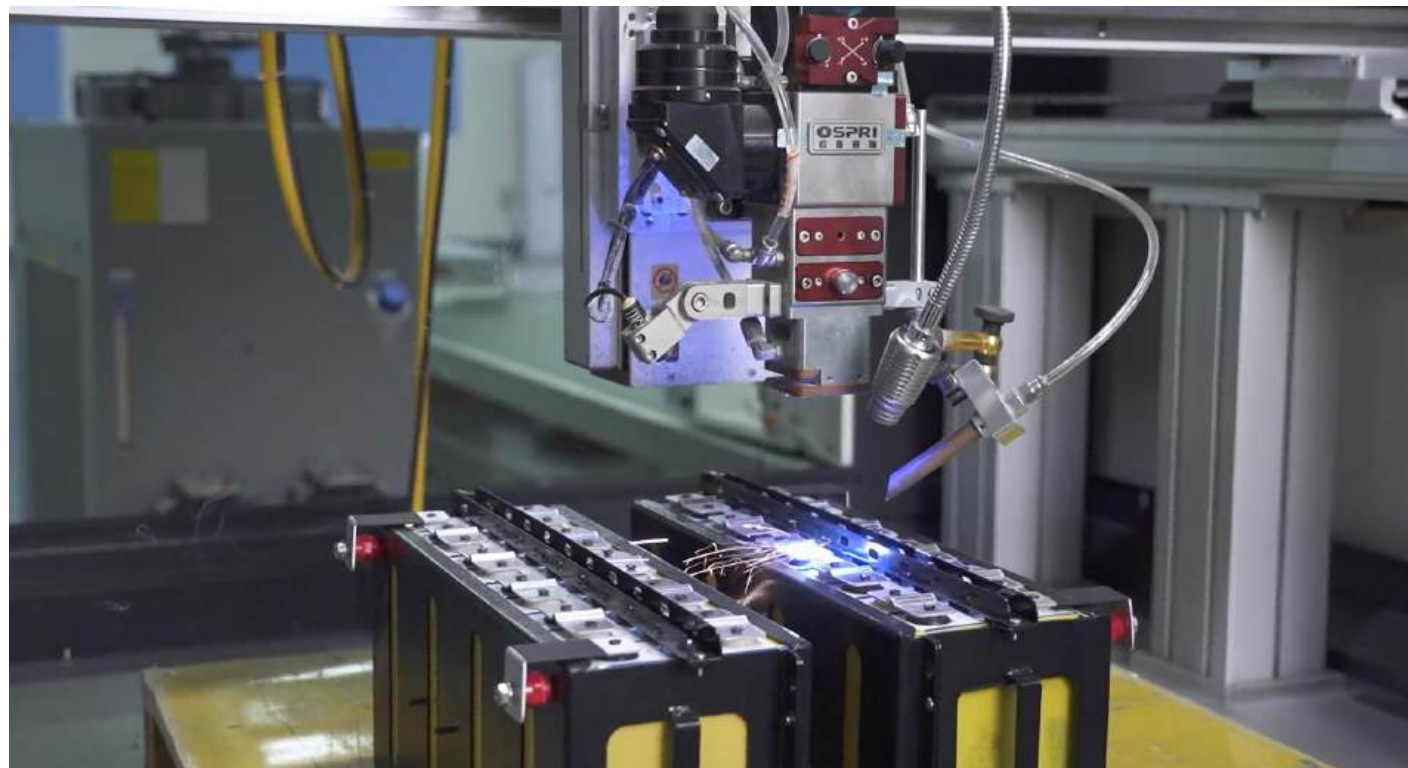
Sales Service

Technical engineers follow up on the production, debugging, assembly, and testing processes to ensure the quality of inspection.

After-sale Service

Experienced service team provides 7x24 online technical support and guidance to give quick responses to battery use, maintenance and repair questions.





Trusted Lithium Batteries You Can Count On

Polinovel develops and manufactures traction and energy storage batteries for a variety of applications, including RVs, marine vessels, golf carts, forklifts, floor cleaning machines, AGVs (Automated Guided Vehicles), residential and commercial energy storage systems. These solutions help optimize energy structure and reduce energy costs.



Tailored Customization

With extensive experience in lithium batteries, Polinovel understands customers and market requirements well, and provides satisfactory solutions.

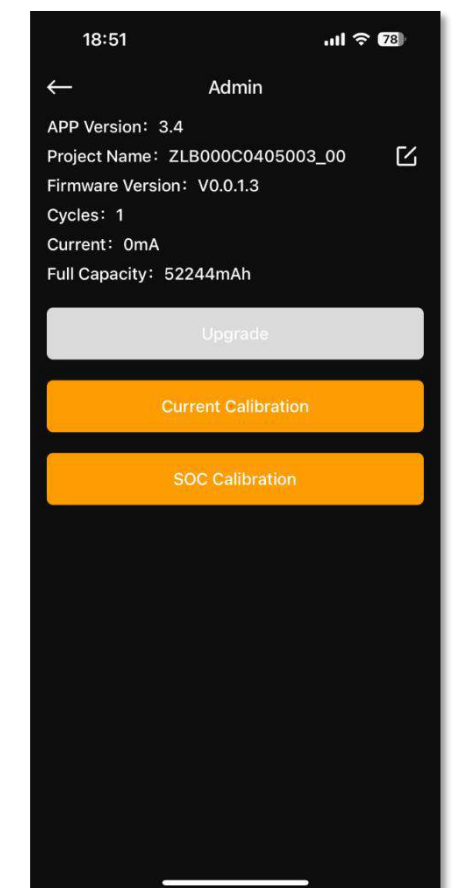
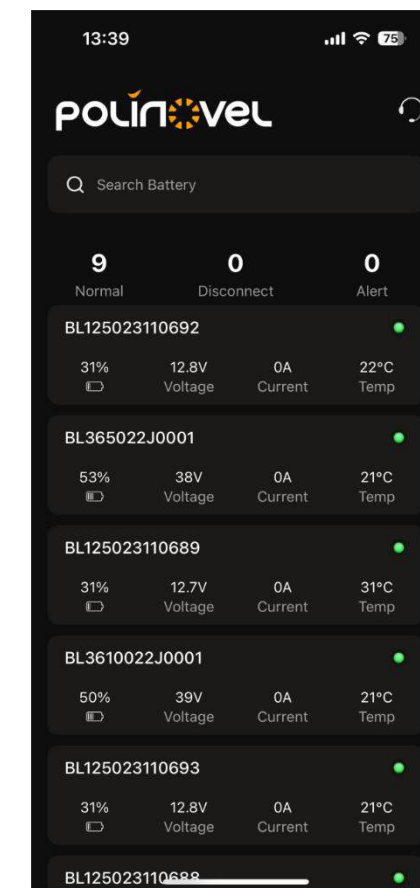
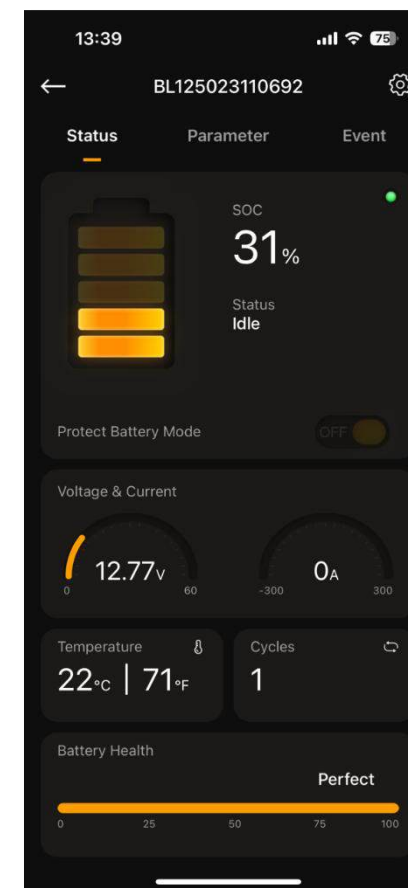
◆ What Can Be Customized?

- ① Voltage
- ② Capacity
- ③ Discharge Current
- ④ Dimension
- ⑤ Communication

⑥ Custom Label



APP "iPolinovel"





BL Series | Bluetooth Lithium Battery

Polinovel BL Series smart lithium iron phosphate (LiFePO4) batteries are designed as direct replacements for standard BCI group-size deep-cycle lead-acid batteries. They offer excellent cycle life, lighter weight, more usable energy, and superior performance. The Bluetooth feature enables monitoring of battery status, controlling the power switch, and wireless troubleshooting via a mobile phone.

Key Features

Monitor the real-time status of multiple batteries simultaneously on your phone and easily manage battery inventory.

Remotely turn on or off battery discharge to enhance safety during charging and reduce self-consumption during storage.

Wireless upgrade program, calibrate current, and SOC for more efficient and cost-effective troubleshooting.

Works well in parallel with lead-acid and other conventional batteries for easy compatibility.

Model	Nominal Voltage	Nominal Capacity	Energy	Recommen d Charge Voltage	Max. Charge Current	Max. Constant Discharge Current	Peak Discharge Current	Dimension (L*W*H) mm/in	Weight kg/lbs	Qty/ 20GP pcs	Qty/ 40GP pcs
BL1250	12.8V	50Ah	640Wh	14.6V	50A	50A	100A@5s	230*145*210 (9*5.7*8.3")	8kg/18lbs	840	1680
BL12105	12.8V	105Ah	1344Wh	14.6V	100A	100A	200A@5s	329*172*214 (13*6.8*8.4")	11.5kg/25lbs	700	1400
BL12105LA	12.8V	105Ah	1344Wh	14.6V	100A	100A	200A@5s	329*172*214 (13*6.8*8.4")	11.5kg/25lbs	700	1400
BL12210	12.8V	210Ah	2688Wh	14.6V	100A	200A	400A@5s	522*240*218 (20.5*9.4*8.6")	25kg/55lbs	250	500
BL12304	12.8V	304Ah	3891Wh	14.6V	100A	200A	400A@5s	522*269*218 (20.5*10.6*8.6")	34kg/75lbs	250	500
BL12460	12.8V	460Ah	5888Wh	14.6V	100A	200A	400A@5s	522*269*218 (20.5*10.6*8.6")	45kg/99lbs	250	500
BL12525	12.8V	525Ah	6720Wh	14.6V	100A	200A	400A@5s	640*245*220 (25.2*9.6*8.6")	60kg/132lbs	200	400
BL2450	25.6V	50Ah	1280Wh	29.2V	50A	50A	100A@5s	329*172*214 (13*6.8*8.4")	13kg/29lbs	700	1400
BL24105	25.6V	105Ah	2688Wh	29.2V	100A	100A	200A@5s	522*240*218 (20.5*9.4*8.6")	25kg/55lbs	250	500
BL24230	25.6V	230Ah	5888Wh	29.2V	100A	200A	400A@5s	522*269*218 (20.5*10.6*8.6")	45kg/99lbs	250	500
BL3640	38.4V	40Ah	1536Wh	43.8V	40A	50A	100A@5s	329*172*214 (13*6.8*8.4")	15kg/33lbs	700	1400
BL3660	38.4V	60Ah	2304Wh	43.8V	60A	100A	200A@5s	329*172*214 (13*6.8*8.4")	20kg 44lbs	700	1400
BL36105	38.4V	105Ah	4032Wh	43.8V	100A	100A	200A@5s	522*269*218 (20.5*10.6*8.6")	29kg/64lbs	250	500
BL48105	51.2V	105Ah	5376Wh	58.4V	100A	200A	420A@30s	522*269*218 (20.5*10.6*8.6")	50kg/110lbs	250	500

General Data

Casing Material	ABS
IP Rating	IP67
Battery Type	Lithium Iron Phosphate (LiFePO4)
Cycle Life	>2500 (1C@DOD100%); >4000 (0.2C@DOD100%)
Temperature	Charge: 0~60°C; Discharge: -20~60°C; Storage: 10~45°C

Specifications are subject to change without notice. Please contact us to get the latest information



DUAL Series | Dual Purpose Lithium Battery

Polinovel DUAL Series consists of high-performance dual-purpose lithium batteries designed for **starting and deep cycling**. These batteries deliver a surge of high current to start the engine and provide consistent power to operate equipment with high power requirements. The smart BMS with Bluetooth functionality allows users to monitor, and troubleshoot the batteries via a mobile phone, they are ideal for marine boats, trolling motors, cars, trucks, and more outdoor scenarios.

Key Features

Monitor the real-time status of multiple batteries simultaneously on your phone and easily manage battery inventory.

Remotely turn on or off battery discharge to enhance safety during charging and reduce self-consumption during storage.

Wireless upgrade program, calibrate current, and SOC for more efficient and cost-effective troubleshooting.

Works well in parallel with lead-acid and other conventional batteries for easy compatibility.

Battery Specification

VERRIDE button can release some power for emergency use when the battery occasionally enters over-discharge protection.

RESET button can boost dead batteries to life again and restore the Bluetooth connection in case of signal loss.



Model	Nominal Voltage	Nominal Capacity	Energy	Starting Current	Max Charge Current	Max. Constant Discharge Current	Peak Discharge Current	Dimension (L*W*H) mm/in	Weight kg/lbs	Qty/ 20GP pcs	Qty/ 40GP pcs
DUAL1260	12.8V	60Ah	768Wh	800CAA	60A	100A	150A@30s	230*175*183 (9.1*6.9*7.2")	6.5kg/14.3lbs	840	1680
DUAL12105	12.8V	105Ah	1344Wh	1200CCA	100A	200A	300A@30s	307*174*220 (12.1*6.9*8.7")	11kg/24.2lbs	700	1400
DUAL12105LA	12.8V	105Ah	1344Wh	1200CCA	100A	200A	300A@30s	307*169*208 (12.1*6.7*8.2")	11kg/24.2lbs	700	1400
DUAL12210	12.8V	210Ah	2688Wh	2000CCA	100A	250A	350A@30s	522*240*218 (20.6*9.4*8.6")	20kg/44.1lbs	250	500
DUAL1660	16.0V	60Ah	960Wh	1200CCA	60A	100A	150A@30s	230*175*183 (9.1*6.9*7.2")	7.5kg/16.5lbs	840	1680
DUAL24105	25.6V	105Ah	2688Wh	1200CCA	100A	200A	300A@30s	522*240*218 (20.6*9.4*8.6")	25kg/55lbs	250	500
DUAL24230	25.6V	230Ah	5888Wh	1200CCA	100A	200A	350A@30s	640*245*220 (25.2*9.6*8.7")	42kg/92.6lbs	200	400

General Data

Casing Material	ABS
IP Rating	IP67
Battery Type	Lithium Iron Phosphate (LiFePO4)
Cycle Life	>2500 (1C@DOD100%); >4000 (0.2C@DOD100%)
Temperature	Charge: 0~60°C; Discharge: -20~60°C; Storage: 10~45°C

Specifications are subject to change without notice. Please contact us to get the latest information.



NA Series | Sodium-ion Battery

Polinovel NA Series sodium-ion battery is a revolutionary drop-in replacement for lead-acid batteries, engineered to deliver superior performance in cold conditions. These maintenance-free and high-rate batteries are an ideal complement to lithium for starting and cycling marine, cars, trucks, motorcycles, and off-road vehicles.

Key Features

Excellent Cold Performance

Operates reliably in low temperatures down to -30°C (-22°F), ideal for extreme climates.

High-Rate Discharge

Provides Instant high-power cranking for quick engine starts in marine and automotive applications.

Inherent Safety

Stable chemistry and the robust BMS eliminate the thermal runaway risks, ensuring strong safety.

Battery Specification

Model	Nominal Voltage	Nominal Capacity	Energy	Starting Current	Max Charge Current	Max. Constant Discharge Current	Peak Discharge Current	Dimension (L*W*H) mm/in	Ter minal	Weight kg/lbs	Replace Lead-acid Model
NA1230	12V	30Ah	360Wh	400CAA	30A	100A	200A @5s	196*128*220 (7.7*5.0*8.7")	SAE	6kg (13.2lbs)	M42 60B20L
NA1250	12V	50Ah	600Wh	600CCA	50A	100A	200A @5s	238*138*208 (9.4*5.4*8.2")	M8	7.5kg (16.5lbs)	N55 80B24L
								207*175*190 (8.2*6.9*7.5")	SAE	7.5kg (16.5lbs)	LN1 LN2 DIN50 DIN60
NA1260	12V	60Ah	720Wh	800CCA	60A	100A	200A @5s	278*175*172 (11.0*6.9*6.8")	SAE	9kg (19.8lbs)	LN3 DIN70
NA1270	12V	70Ah	840Wh	800CCA	70A	100A	200A @5s	230*175*220 (9.1*6.9*8.7")	SAE	11.5kg (25.4lbs)	Q85 115D23L
								278*175*188 (11.0*6.9*7.4")	SAE	11.5kg (25.4lbs)	LN3 DIN70
NA1280	12V	80Ah	960Wh	900CCA	80A	200A	400A @5s	260*175*220 (10.2*6.9*8.7")	SAE	13kg (28.7lbs)	S95 135D26L
								314*175*188 (12.4*6.9*7.2")	SAE	13kg (28.7lbs)	LN4 DIN80
NA1290	12V	90Ah	1080Wh	1000CCA	90A	200A	400A @5s	355*175*188 (14.0*6.9*7.2")	SAE	14.5kg (32lbs)	LN5 DIN95
NA12100	12V	100Ah	1200Wh	1200CCA	100A	200A	400A @5s	306*175*220 (20.6*6.9*8.7")	SAE	16kg (35.3lbs)	T110 145D31L
								398*175*188 (15.7*6.9*7.2")	SAE	16kg (35.3lbs)	LN6 DIN110
General Data											
Casing Material				ABS							
IP Rating				IP67							
Battery Type				Sodium-ion							
Cycle Life				>2500 (1C@DOD100%); >4000 (0.2C@DOD100%)							
Temperature				Charge: -20~60°C; Discharge: -30~65°C; Storage: 0~45°C							

Specifications are subject to change without notice. Please contact us to get the latest information.



GOLF Series | Golf Cart Lithium Battery

Polinovel GOLF Series are lithium battery packs with an integrated BMS, designed to replace lead-acid batteries for golf carts and utility vehicles. They provide less weight, more power, and zero maintenance, which allows you to enjoy more mileage on a single charge and stronger acceleration uphill with improved safety.

Key Features

Robust construction with increased power, offering longer mileage and stronger uphill performance.

Intelligent BMS protect your golf cart from reverse current during braking when the battery is fully charged.

Custom size solution for a seamless drop-in replacement and easy installation.

Plug-and-play gauge allows for real-time monitoring of the remaining SOC.

Battery Specification

Model	GOLF38105	GOLF38230
Nominal Voltage	38.4V	38.4V
Nominal Capacity	105Ah	230Ah
Energy	4032Wh	8832Wh
Standard Charge Voltage	43.8V	43.8V
Discharge Cut-off Voltage	30V	30V
Standard Charge Current	50A	50A
Max. Charge Current	100A	100A
Max. Constant Discharge Current	150A	200A
Peak Discharge Current	320A@30s	400A@10s
Dimension (L*W*H) mm/in	436*334*243 (17.2*13.1*9.6")	670*278*280 (26.4*10.9*11")
Weight	40kg/88.2lbs	75kg/165.3lbs
Qty/20GP/40GP	300/520pcs	170/240pcs
Case Material	Metal	
Cycle Life	>2500 (1C@ DOD100%); >4000 (0.2C@ DOD100%)	
Temperature	Charge: 0~60°C, Discharge: -20~60°C, Storage: 10~45°C	

Model	GOLF51105	GOLF73105
Nominal Voltage	51.2V	73.6V
Nominal Capacity	105Ah	105Ah
Energy	5376Wh	7728Wh
Standard Charge Voltage	58.4V	83.95V
Discharge Cut-off Voltage	40V	57.5V
Standard Charge Current	50A	50A
Max. Charge Current	100A	100A
Max. Constant Discharge Current	200A	200A
Peak Discharge Current	420A@30s	420A@30s
Dimension (L*W*H) mm/in	520*334*243 (20.5*13.1*9.6")	674*334*243 (26.5*13.1*9.6")
Weight	50kg/110lbs	78kg/172lbs
Qty/20GP/40GP	225/410pcs	170/240pcs
Case Material	Metal	
Cycle Life	>2500 (1C@ DOD100%); >4000 (0.2C@ DOD100%)	
Temperature	Charge: 0~60°C; Discharge: -20~60°C; Storage: 10~45°C	

Specifications are subject to change without notice. Please contact us to get the latest information.

FL Series | Forklift Lithium Battery

Polinovel FL Series lithium batteries are ideal power meets the performance of forklifts and other industrial vehicles. Compared to lead-acid batteries, the improved efficiency and longer run time of lifepo4 forklift batteries can save substantial time and cost through increased productivity, smarter use of resources and a lower cost of ownership.

Key Features

Utilizes high-rate lithium iron phosphate battery developed for special working conditions of industrial vehicles.

Integrated with an intelligent BMS to scientifically manage the battery, realize automatic balance, and extend the service life.

Key components have undergone rigorous reliability testing and market validation to ensure the safe and stable performance of the entire machine.

CAN bus data transmission, enables seamless docking with the vehicle control and charging systems.

Model	FL25210	FL25440	FL51315
Nominal Voltage	25.6V	25.6V	51.2V
Nominal Capacity	210Ah	440Ah	315Ah
Energy	5376Wh	11264Wh	16128Wh
Charge Voltage	29.2V	29.2V	58.4V
Discharge Cut-off Voltage	22V	22V	44V
Charge Current	≤100A	≤150A	≤150A
Constant Discharge Current	100A	200A	150A
Peak Discharge Current	200A@20s	400A@10s	300A@20s
Dimension (mm)	624*212*627	830*320*625	827*625*627
Dimension (in)	24.6*8.3*24.7"	32.7*12.6*24.6"	32.6*24.6*24.7"
Weight	210kg/463lbs	445kg/981lbs	852kg/1878lbs
Cycle Life	>2000 (1C@DOD100%); >4000 (0.2C@DOD100%)		
Temperature	Charge: 0~45°C; Discharge: -20~55°C; Storage: 20~45°C		
Model	FL51525	FL80420	FL83630
Nominal Voltage	51.2V	80V	83.2V
Nominal Capacity	525Ah	420Ah	630Ah
Energy	26880Wh	33600Wh	52416Wh
Charge Voltage	58.4V	91.2V	94.9V
Discharge Cut-off Voltage	44V	68.6V	71.5V
Charge Current	≤200A	≤200A	≤200A
Constant Discharge Current	200A	200A	200A
Peak Discharge Current	400A@20s	400A@20s	400A@20s
Dimension (mm)	1100*410*655	1015*682*550	1028*999*784
Dimension (in)	43.3*16.1*25.8"	40*26.9*21.7"	40.5*39.3*30.9"
Weight	535kg/1180lbs	335kg/739lbs	2100kg/4630lbs
Cycle Life	>2000 (1C@DOD100%); >4000 (0.2C@DOD100%)		
Temperature	Charge: 0~45°C; Discharge: -20~55°C; Storage: 20~45°C		

Specifications are subject to change without notice. Please contact us to get the latest information.



Battery Specification

LSV Series | Mining Locomotive Lithium Battery

Efficiency and safety are paramount in the demanding environment of modern mining operations. Polinovel's cutting-edge lithium battery solutions for mining locomotives deliver unmatched performance while addressing the specific challenges of underground transportation.

Key Features

Explosion-Proof Design

Engineered with Mining Safety MA® certified cells and a robust thermal management system, ensuring safe operation in confined spaces.

Rapid Charging Capability

With fast-charging technology, the battery can achieve a full charge in hours. An optional opportunity charging compatibility minimizes downtime between shifts.

Intelligent Power Management

Integrated BMS with real-time monitoring includes cell-level voltage/temperature tracking, State-of-Charge (SOC), and CANBUS communication interface.

High Energy Density

With 2-3x higher energy density than traditional lead-acid batteries, LiFePO4 cells provide >4,000 cycles. Maximize payload capacity without compromising runtime.

Model	LSV51315	LSV96300
Nominal Voltage	51.2V	96V
Nominal Capacity	315Ah	300Ah
Energy	16.128kWh	28.8kWh
Charge Voltage	58.4V	105V
Discharge Cut-off Voltage	44V	82.5V
Standard Charge Current	≤ 100A	≤ 100A
Constant Discharge Current	150A	150A
Peak Discharge Current	300A@20s	300A@10s
Vehicle Model	2.5T Locomotive	5T Locomotive
Dimension (L*W*H) mm/inch	910*910*400 (35.8*35.8*15.8")	1370*920*410 (53.9*36.2*16.1")
Weight	235kg/518.1lbs	420kg/925.9lbs
Qty/20GP/40GP	30/60pcs	18/36pcs
IP Rating	IP54	
Temperature	Charge: 0~55°C; Discharge: -20~ 60°C; Storage: 20~45°C	

Specifications are subject to change without notice. Please contact us to get the latest information.





Battery Specification

Model	WALL5	WALL10
Nominal Voltage	51.2V	
Nominal Capacity	100Ah	200Ah
Energy	5.12kWh	10.24kWh
Charge Cut-off Voltage	58.4V	
Standard Charge Current	20A	40A
Max. Charge Current	100A	200A
Discharge Cut-off Voltage	43.2V	
Constant Discharge Current	100A	200A
Peak Discharge Current	200A@5s	300A@5s
Max. Modules in Parallel	15pcs in parallel	
Communication	RS485/CAN	
Dimension (L*W*H) mm/in	600*440*168 (23.6*17.3*6.6")	780*505*168 (30.7*20*6.6")
Weight	51kg/112.4lbs	90kg/198.4lbs
Qty/20GP/40GP	250/420pcs	140/200pcs
Temperature	Charge: 0~45°C; Discharge: -20~55°C; Storage: -10~40°C	

Specifications are subject to change without notice. Please contact us to get the latest information.

WALL Series | Energy Storage Battery

Polinovel WALL Series is a high-performance lithium battery that utilizes the safe lithium iron phosphate (LiFePO4) technology, works together with the inverter, and stores energy from solar production to provide power for the home, which reduces your electricity reliance on the grid, and the independent backup energy can protect your home from the outage. Its compact design and scalable feature allow for simple installation to suit various home energy needs.

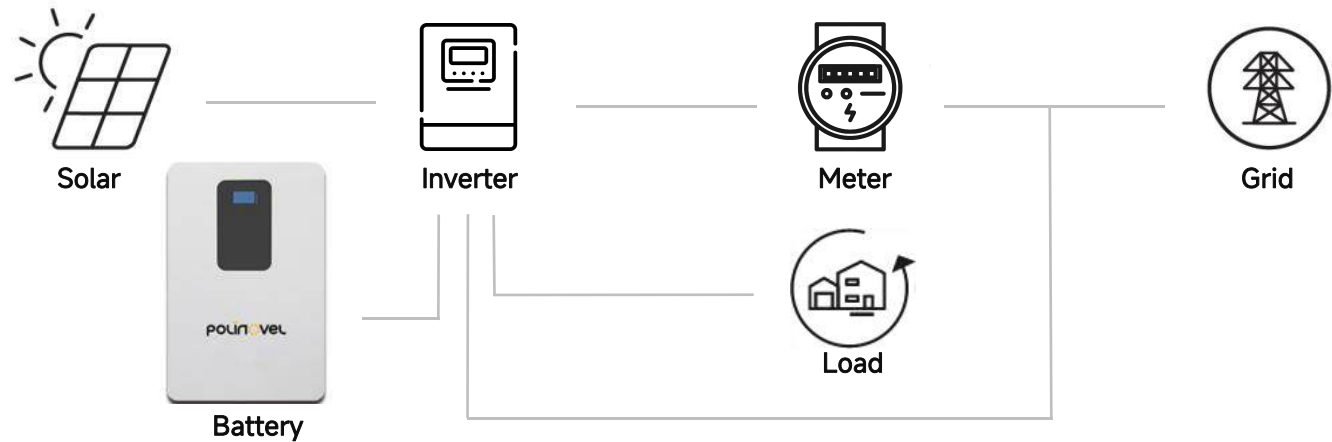
Key Features

Compact design for easy installation on wall or ground.

Scalable battery allows 15 units in parallel connection.

Compatible with 20+ inverter brands for seamless communication.

System Diagram





RACK Series | Energy Storage Battery

Polinovel RACK Series lithium battery inherits the classic modular design for easy rack installation. It utilizes proven lithium iron phosphate cells with built-in smart BMS, ensuring great safety and high efficiency to store solar energy, bringing seamless backup power to keep your household appliances running during a power outage.

Key Features

Compatible with 20+ inverter brands for seamless communication.

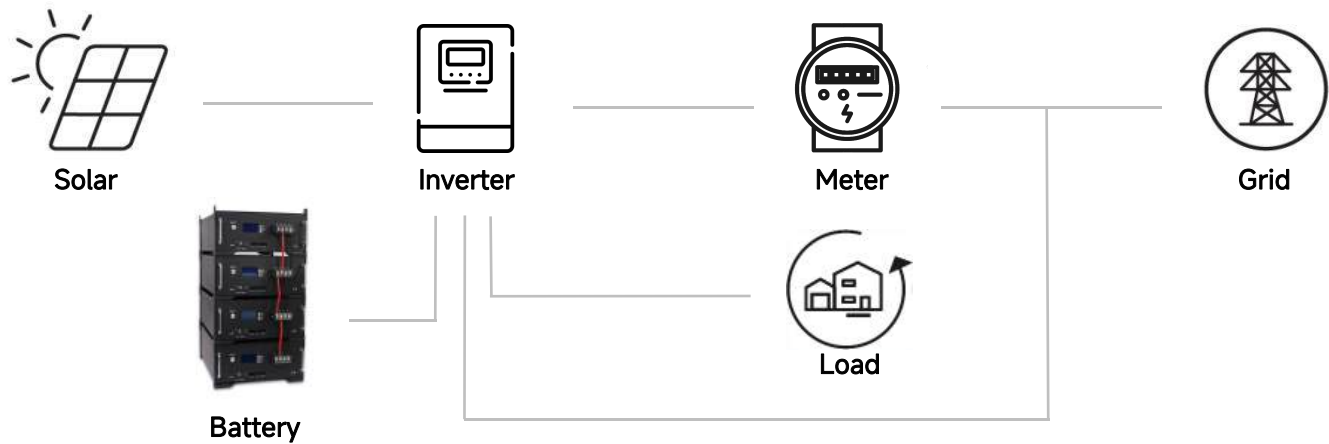
Support 15pcs in parallel connection for flexible energy expansion.

3U, 4U, 5U sizes available with max 200A high current.

Model	RACK48100	RACK48200	RACK48280	RACK51100	RACK51200	RACK51280
Nominal Voltage	48V			51.2V		
Nominal Capacity	100Ah	200Ah	280Ah	100Ah	200Ah	280Ah
Energy	4.8kWh	9.6kWh	13.44kWh	5.12kWh	10.24kWh	14.336kWh
Charge Cut-off Voltage	54.75V			58.4V		
Standard Charge Current	20A	40A	40A	20A	40A	40A
Max. Charge Current	100A	200A	200A	100A	200A	200A
Discharge Cut-off Voltage	40.5V			43.2V		
Constant Discharge Current	100A	200A	200A	100A	200A	200A
Peak Discharge Current	200A@5s	300A@5s	300A@5s	200A@5s	300A@5s	300A@5s
Max. Modules in Parallel	15pcs in parallel					
Communication	RS485/CAN					
Dimension (mm)	550*482*133	812*513*205	772*460*237	550*482*133	812*513*205	772*460*237
Dimension (inch)	21.7*19.0*5.2"	32*20.2*8.1"	30.4*18.1*9.3"	21.7*19.0*5.2"	32*20.2*8.1"	30.4*18.1*9.3"
Weight (kg)	45kg/99.2lbs	84kg/185.2lbs	108kg/238.1lbs	47kg/103.6lbs	88kg/194lbs	114kg/251.3lbs
Qty/20GP/40GP	250/420pcs	130/190pcs	100/140pcs	250/420pcs	130/190pcs	100/140pcs
Temperature	Charge: 0~45°C; Discharge: -20~55°C; Storage: -10~40°C					

Specifications are subject to change without notice. Please contact us to get the latest information.

System Diagram





HM Series | Energy Storage Battery

Polinovel HM Series high-performance LiFePO4 battery revolutionizes home energy management by providing outstanding safety, longevity, and efficiency. It is designed with an advanced battery management system (BMS) technology, allowing seamless communication with most available inverters. This battery supports solar energy integration and offers backup power during outages. Its compact design allows for scalable configurations, making residential energy independence both accessible and sustainable.

Key Features

Utilizes premium LiFePO4 cells, providing excellent safety performance and extended cycle life.

Built-in smart BMS that supports RS485 and CAN communication, compatible with 20+ inverter brands available.

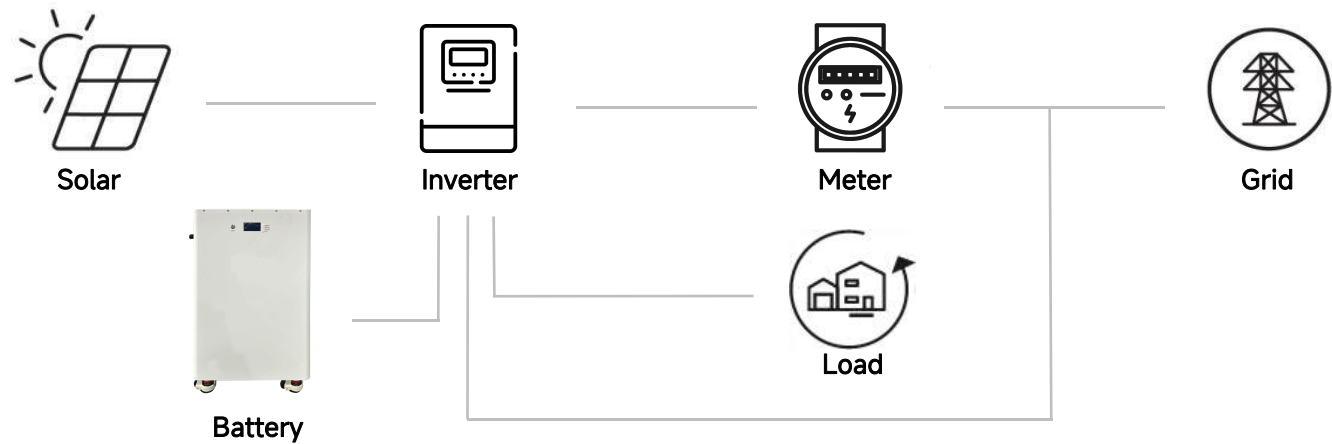
Compact design features caster wheels and plug-and-play terminals, allowing for easy movement and quick installation.

Battery Specification

Model	HM10	HM15
Nominal Voltage	51.2V	
Nominal Capacity	200Ah	304Ah
Energy	10.24kWh	15.56kWh
Charge Cut-off Voltage	58.4V	
Standard Charge Current	100A	
Max. Charge Current	150A	
Discharge Cut-off Voltage	40V	
Constant Discharge Current	150A	
Communication	RS485/CAN	
Dimension (L*W*H) mm	500*300*854	500*300*854
Dimension (L*W*H) in	19.7*11.8*33.6	19.7*11.8*33.6
Weight	90kg/198.4lbs	118kg/260.2lbs
Qty/20GP/40GP	84/168pcs	84/168pcs
Temperature	Charge: 0~50°C;Discharge:-20~60°C	

Specifications are subject to change without notice. Please contact us to get the latest information.

System Diagram





ONE Series | Energy Storage Battery

Polinovel ONE series is a solar lithium battery system that stores energy generated from a photovoltaic (PV) array for household use. The ONE system includes multiple LiFePO4 battery modules and a solar inverter, which are optimized to work together seamlessly. This setup helps households reduce their dependence on the electrical grid and ensures that essential loads remain operational during a power outage.

Key Features

Integrated top-grade LiFePO4 battery and inverter all-in-one for easy installation.

Modular and stackable design allows for flexible power expansion to accommodate increasing energy requirements.

Automatic module identification design requires no wiring in parallel connections, saving installation time.

Battery Specification

Model	ONE10	ONE15	ONE20	ONE30
Battery				
Nominal Voltage	51.2V			
Nominal Capacity	200Ah	300Ah	400Ah	600Ah
Energy	10.24kWh	15.36kWh	20.48kWh	30.72kWh
Charge Voltage	58V			
Discharge Cut-off Voltage	42V			
Charge Current	50A			
Max. Charge Current	100A			
Max. Discharge Current	150A			
Peak Discharge Current	300A			
Communication	RS485/CAN			
Inverter				
Power	5KW			
Output Voltage	230Vac			
Frequency	50Hz			
Input Power (PV)	5KW			
Input Voltage Range (PV)	120~430Vdc			
Communication	RS485/CAN/WiFi			
General Parameter				
Case Material	Metal			
Dimension (L*W*H) mm	585*360*610	585*360*760	585*360*915	585*360*1225
Dimension (L*W*H) in	23*14.2*24	23*14.2*30	23*14.2*36	23*14.2*48.2
Weight	105kg/231.5lbs	148kg/326.3lbs	191kg/421.1lbs	234kg/516lbs
Qty/20GP/40GP	107/240pcs	80/180pcs	64/144pcs	46/102pcs
Temperature	Charge: 0~50°C; Discharge: -15~60°C			

Specifications are subject to change without notice. Please contact us to get the latest information.



CABINET Series | Energy Storage Battery

Polinovel Cabinet Series lithium battery is available in capacities of 30kWh, 50kWh, and 70kWh, allowing you to store sufficient solar energy to power your home, significantly reduce dependence on the grid during peak demand time, and keep your home appliance normal operation when the grid goes down.

Key Features

Compatible with 20+ inverter brands for seamless communication.

Scalable battery allows 15 units in parallel connection for energy expansion.

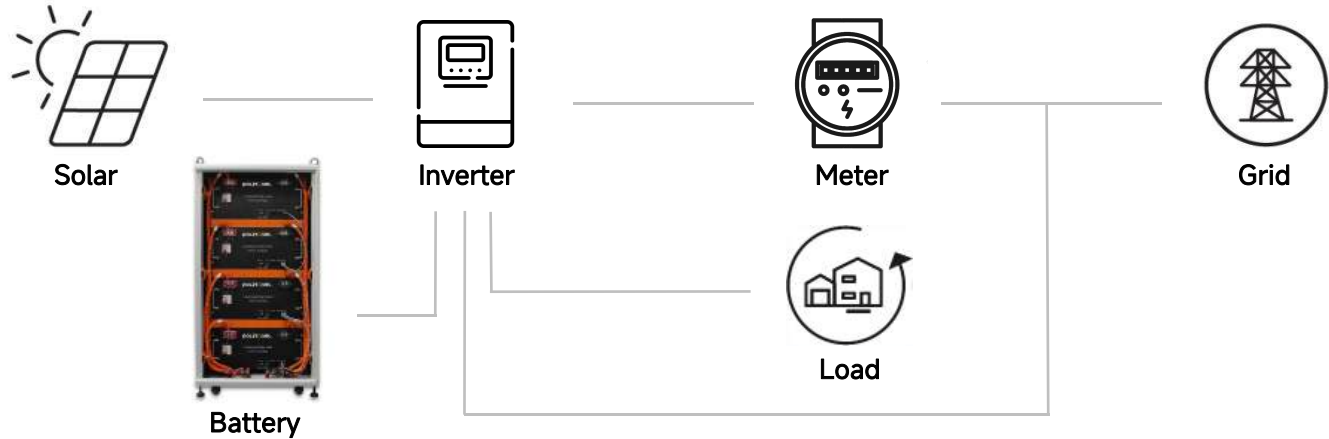
The integrated custom design of battery module and cabinet makes installation easier.

Battery Specification

Model	Cabinet30	Cabinet50	Cabinet70
Nominal Voltage	51.2V		
Nominal Capacity	600Ah	1000Ah	1400Ah
Energy	30.72kWh	51.20kWh	71.68kWh
Charge Cut-off Voltage	58.4V		
Standard Charge Current	40A		
Max. Charge Current	200A		
Discharge Cut-off Voltage	43.2V		
Constant Discharge Current	200A		
Peak Discharge Current	300A@5s		
Communication	RS485/CAN		
Battery Modules	3pcs*51.2V 200Ah	5pcs*51.2V 200Ah	5pcs*51.2V 280Ah
Dimension (L*W*H) mm/in	630*1100*1080 (24.8*43.3*42.5")	630*1100*1500 (24.8*43.3*59.1")	630*1100*1710 (24.8*43.3*67.3")
Weight	420kg/926lbs	610kg/1345lbs	720kg/1587lbs
Qty/20GP/40GP	12p/24pcs	12/24pcs	12/24pcs
Temperature	Charge: 0~45°C; Discharge: -20~55°C; Storage: -10~40°C		

Specifications are subject to change without notice. Please contact us to get the latest information.

System Diagram





HV Series | Energy Storage Battery

Polinovel HV Series is a safe energy storage lithium battery system, suited for residential or commercial buildings that are powered by high voltage. The battery system is created at an automotive-grade craft, bringing a highly reliable power source to ensure the normal operation of the appliances.

Key Features

High safety and reliability for energy storage.

Automotive-grade quality standard provides far superior performance.

Support series connection for flexible energy expansion.

Model	HV204100	HV307100	HV409100	HV512100
Nominal Voltage	204.8V	307.2V	409.6V	512V
Nominal Capacity	100Ah	100Ah	100Ah	100Ah
Energy	20.48kWh	30.72kWh	40.96kWh	51.2kWh
Charge Cut-off Voltage	233.6V	350.4V	467.2V	584V
Discharge Cut-off Voltage	160V	240V	320V	400V
Standard Charge Current	50A	50A	50A	50A
Max. Charge Current	100A	100A	100A	100A
Constant Discharge Current	100A	100A	100A	100A
Peak Discharge Current	200A	200A	200A	200A
Dimension (L*W*H) mm/in	600*500*1040 (23.6*19.7*40.9")	600*500*1360 (23.6*19.7*53.5")	600*500*1680 (23.6*19.7*66.1")	600*500*2000 (23.6*19.7*78.7")
Weight	200kg/441lbs	300kg/661lbs	400kg/882lbs	500kg/1102lbs
Qty/20GP/40GP	24/48pcs	24/48pcs	24/48pcs	24/48pcs
Communication	RS485/CAN			
Temperature	Charge: 0~50°C; Discharge: -15~60°C			

Specifications are subject to change without notice. Please contact us to get the latest information.



CBS Series | Commercial Energy Storage System

Polinovel CBS Series energy storage system is a high-performance solution specifically designed for outdoor environments. Its modular design integrates all essential components, ensuring full compatibility with solar panels and wind energy systems. This advanced configuration provides a stable and reliable power supply for commercial and industrial facilities, guaranteeing continuous, uninterrupted operation.

Key Features

Pre-installed system comes with all necessary components integrated for quick and efficient deployment.

Modular design simplifies maintenance procedures and helps reduce long-term operational costs.

The robust structure is equipped with multiple safety protections, ensuring safe and stable operation in outdoor environments.

Battery Specification

Model	CBS107	CBS180	CBS197	CBS215
Energy	107.52KWH	179.20KWH	197.12KWH	215.04KWH
Rated Voltage	384V	640V	704V	768V
Rated Capacity	280Ah	280Ah	280Ah	280Ah
Combination Mode	120S1P	200S1P	220S1P	240S1P
Voltage Range	350~425V	580~710V	640~770V	695~840V
Max. Charge Current	0.5C	0.5C	0.5C	0.5C
Max. Continuous Discharge Current	1C	1C	1C	1C
Dimension (L*W*H) mm/in	1200*1355*2150mm (47.2*53.4*84.7")		1850*1355*2150mm (72.8*53.4*84.7")	
Weight	820kg/1807.8lbs	1350kg/2976.2lbs	1500kg/3306.9lbs	1650kg/3637.6lbs
Cycle Life	≥6000 cycles @ 25°C 80% DOD			
Communication	RS485/CAN			
Rated AC Output Power	50KW	100KW	100KW	100KW
Max. AC Current	72A	140A	140A	140A
Rated AC Voltage	400V (3W+N+PE/3W+PE)			
AC Voltage Range	154V~276V			
Rated Grid Frequency	50Hz/60Hz			
Grid Type	Three Phase			
IP Rating	IP54			
Display	Touch Screen LCD			
Cooling Mode	Forced-air			
Noise Emission	≤70dB			
Ambient Temperature	-20°C~55°C (derating above 45°C)			
Relative Humidity	0~95% (non-condensing)			
Altitude	3000m (derating above 2000m)			

Specifications are subject to change without notice. Please contact us to get the latest information.



Battery Specification

CBESS Series | Containerized Battery Energy Storage System

Polinovel CBESS Series all-in-one containerized battery energy storage systems offer flexibility by utilizing stored energy during peak demand periods. These plug-and-play solutions are fully manufactured, pre-configured, commissioned, and tested at our facilities, enabling quick deployment with minimal on-site impact. The system is equipped with LiFePO4 batteries, a power conversion system, an intelligent controller, and all associated safety equipment, including fire suppression and battery management systems.

Key Features

All-in-one containerized design for quick and easy installation and maintenance.

Maximum safety utilizing the safest LiFePO4 battery combined with intelligent BMS and other associated safety equipment.

Outstanding performance and long lifespan, optimized for both on-grid and off-grid applications.

Battery Parameter		
Model	CBESS2150	
Energy	2150.4KWH	
Configuration	10 Clusters*768V 280Ah	
Rated Voltage	768V	
Operating Voltage Range	648~876Vdc (2.7~3.65V)	
PCS Parameter		
DC Side	Voltage Range	600~900Vdc
	DC Channel	5
	Single Channel Rated Current	85A
AC On Grid Side	Output Line System	3W+N+PE / 3W+PE
	Rated Power	250KW
	Rated Voltage	380Vac/400Vac
	Rated Frequency	50Hz/60Hz
	Voltage Range	-15%~+10%
	Rated Current	100~200A
	Power Factor	1
	Output Hamonic	3%
AC Off Grid Side	Output Line System	3W+N+PE / 3W+PE
	Rated Power	250KW
	Rated Voltage	380Vac/400Vac
	Rated Frequency	50Hz/60Hz
	Rated Current	379A
	Voltage Accuracy	1%
	Output Voltage Hamonics	3% (Linear full load)
General Parameter		
Environment	Working Temperature	-20℃~55℃ (Derating above 45℃)
	Storage Temperature	-20℃~60℃
	Relative Humidity	0~95% (Non-condensing)
	Working Altitude	2000m@45℃ (Derating 2000~4000m)
	Noise	≤70dB
Others	Communication Method	RS485/CAN
	Isolation Method	Isolation transformer
	IP Rating	IP54
	Cooling Method	Air cooling
	Max. Efficiency	98.5% (Excluding the isolation transformer)
	Fire Protection	HFC-ea
	Dimension (W*D*H)	12196*2438*2591mm / 480.2*96*102"

Specifications are subject to change without notice. Please contact us to get the latest information.

Our Projects



Marine Application

Project Name: 24V/36V Lithium Battery For Trolling Motor

Project Description: 2 x 12V 60Ah lithium batteries are connected in series to power 24V Minn Kota trolling motor; A single 40Ah battery powers 36V motor.

Location/Time: Japan, 2021



Marine Application

Project Name: 48V 200Ah Lithium Battery For Catamaran

Project Description: Tailored 48V 200Ah lithium battery works with 1200W solar panel array and 2 x 300W wind turbines power generating systems to provide enough power for two 14HP motors and onboard appliances.

Location/Time: U.S, 2020



Marine Application

Project Name: 48V 300Ah Lithium Battery For Boat

Project Description: 4 x 12V 300Ah lithium batteries are connected in series to get a 48V system and supply reliable power for the rental boat.

Location/Time: Canada, 2021



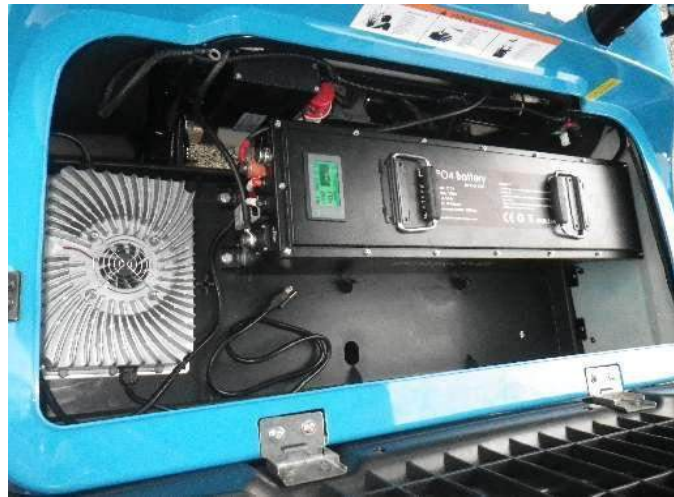
RV Application

Project Name: 12V 600Ah Lithium Battery For Trailer

Project Description: The 12V 600Ah lithium battery with customized size replaces 4x120Ah lead-acid in the trailer vehicle to take over rough terrain. Drop-in upgrading with no modification on the battery tray.

Location/Time: Australia, 2021

Our Projects



Golf Cart Application

Project Name: 48V 100Ah Lithium Battery For ICON Golf Cart
Project Description: Tailor-designed 48V 100Ah lithium battery powers 4KW motor of ICON i60L 6 seats golf cart.
Location/Time: U.S, 2020



Golf Cart Application

Project Name: 48V 100Ah Lithium Battery For Club Car Golf Cart
Project Description: Tailor-made 48 volt 100Ah lithium battery replaces six 8 volt Trojan lead-acid batteries, providing power for Club Car Precedent Stretch 48V motor with 2.7KW rated and 14.9KW peak power.
Location/Time: Thailand, 2018



Golf Cart Application

Project Name: 48V 100Ah Lithium Battery For Yamaha Golf Buggy
Project Description: Custom size 100Ah lithium battery drives 48V Yamaha golf buggy motor with 2.6KW output and rating of 30min.
Location/Time: U.K, 2021



Energy Storage Application

Project Name: 48V 7kWh Lithium Backup Power For Home
Project Description: The V7000 48V 7.6kWh power wall lithium battery stores energy for home backup and keeps household appliances running during grid outages.
Location/Time: Puerto Rico, 2020

Our Projects



Energy Storage Application

Project Name: 48V 30kWh Lithium Residential Energy Storage System
Project Description: 4 x 7.6kWh 48V (V7000) power wall lithium batteries are connected in parallel and configured with 3 x 5KW solar inverters to create a 48V 30kWh solar energy storage system.
Location/Time: U.K, 2021



Industrial Vehicle Application

Project Name: 48V 300Ah Lithium Battery For Airport Belt Loader
Project Description: The 48V 300Ah lithium iron phosphate battery is mounted on the conveyor belt loader for loading and unloading baggage and cargo at the airport.
Location/Time: Malaysia, 2020



Industrial Equipment Application

Project Name: 24V 48Ah Lithium Battery For AGV
Project Description: The customized 24V 48Ah lithium battery provides twice the energy and running time of conventional lead-acid, and the faster charging dramatically improves the work efficiency of Automatic Guided Vehicle.
Location/Time: France, 2020



Industrial Equipment Application

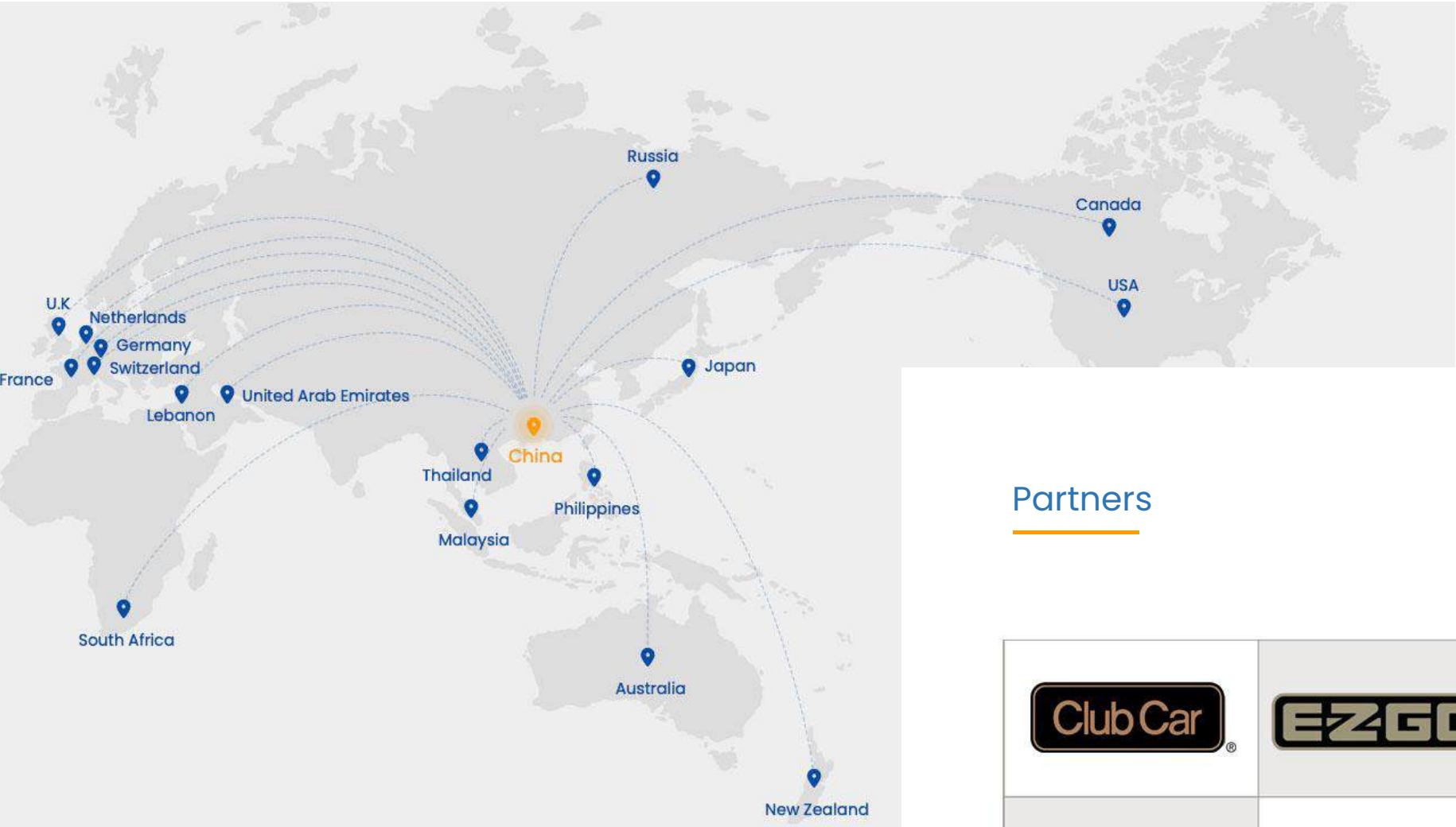
Project Name: 80V 500Ah Lithium Battery For Ice Resurfacer
Project Description: The 80V 500Ah high energy density lithium battery pack drastically reduces the total weight of the machine. The battery is maintenance-free and does not release hazardous gases, upgrading operators' safety and comfort to a higher level.
Location/Time: U.K, 2020



Market Performance

Main Markets

Since establishment, Polinovel has helped 100+ customers build their lithium battery brands, with main market spanning 50+ countries across Europe, North America, South America, Oceania, Asia, and Africa.



World

Partners

Cooperation

Disclaimer:

Polinovel has made this brochure as comprehensive and accurate as possible based on the current information. However, we reserve the right to modify data, parameters, and other information without further notice. Polinovel retains the right to the final interpretation of this brochure.



Pursue A Green Life

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