

Lithium Battery

Product Brochure





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COMPANY PROFILE

Sunpal was founded in 2008 as a dedicated battery energy storage system (BESS) provider by consolidating their expertise in electrochemistry, power electronics and system integration to deliver reliable energy storage solutions globally.

We are humbled to contribute our know-how to our technologies and create a sustainable future for all. Sunpal always is here to take responsibility and always take the mission to liberate human energy sustainably.

We have always adhered to the development concept of "Smart energy powers your life", constantly pursued excellence through technological innovation, and is committed to becoming a global new energy industry leader.



COPRORATE CULTURE

Our Mission

We are committed to responsible solar system solutions for a better future and adhere to the highest ethical standards in our operations and supply chain. We value responsible sourcing, efficient manufacturing and end-of-life recycling to minimize our environmental footprint.



Our Vision

We support our global customers with highly efficient solar products, individual advice on system design and financing options. By investing in the continuous improvement of our employees, we foster a culture of innovation and excellence to create a sustainable future for all.

Our Core Values

Respond to our customers beyond expectations and promote customer satisfaction; provide customers with exceptional, efficient and reliable services.

Cultivate a vibrant and collaborative work environment; empower our employees to take ownership; foster a culture of innovation that fuels our collective growth and shared success with our customers.



■ ADVANTAGES & SERVICES

MORE EFFICIENT

- Compact size with high energy density.
- Low energy consumption with high conversion ratio.

MORE RELIABLE

- New Grade A cell with cycle life up to 10,000 times.
- Smart BMS with full function protection.

SMARTER

- Optional LOT function with Bluetooth/4G/WLAN module.
- Realtime remote monitoring with friendly HMI.

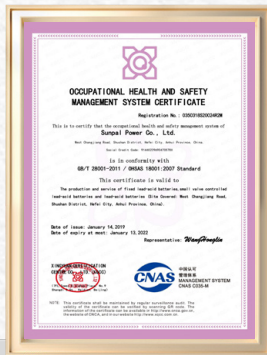
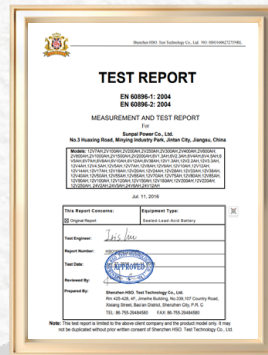
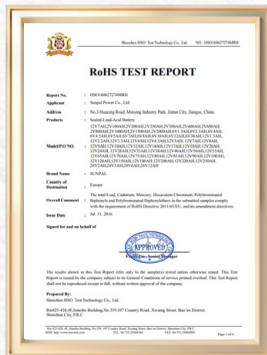
EASIER OPERATION

- Most of the models Plug and Play design, fast commissioning.
- Engineer friendly maintenance design.

■ TECHNICAL CERTIFICATE



UN38.3



■ GLOBAL MARKETS & PARTNERS















16+
Years Delivery Experience.

120+
Contries Global Deliveries.

120+
Partners In ESS Field

15+
Subsidiaries Worldwide.

500,000+
Global Residential ESS.

13.5GWH+
Production Capacity.

12~1500V
Flexible Battery Solution.

80,000m²
Factory Area.

■ LITHIUM BATTERY SERIES OVERVIEW


- PowerPal E
- PowerPal Y
- All In One ESS
- HiPal X
- LiFePO4 12V
- Container Lithium Battery




PowerPal E

Rack Mount Lithium Battery Series


E | E1 | E4

- 


Certificates

MSDS, UN38.3, CAN, IEC.
- 


Safe and Reliable

Lithium iron phosphate (LFP) cell.
- 


LED Display

SOC, battery status.
- 

Flexible Capacity

Max.15pcs in Parallel to extend capacity.
- 

Design

Applicable for cabinet telecom and solar energy storage system.
- 

Easy Installation

Quick plug in +/- and RS485 parallel connection.





PowerPal E 25.6V

Nominal Voltage: 25.6V
Rated Capacity: 100/200Ah
Usable Capacity: 2304/4608Wh
Discharge Voltage: 23V
Charge Voltage: 28V
Weight: 28.2/479kg



PowerPal E1 48V

Nominal Voltage: 48V
Rated Capacity: 100/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 41V
Charging Voltage: 53.5~54.5V
Weight: 46/85kg



PowerPal E 48V

Nominal Voltage: 48V
Rated Capacity: 50/100/150/200Ah
Usable Capacity: 2160/4320/6480/8640Wh
Discharge Voltage: 45.5V/43.5V
Charge Voltage: 51.5V/52.5V
Weight: 27/46/68/90kg



PowerPal E1 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 43.2V
Charging Voltage: 57.6V
Weight: 50/89kg



PowerPal E 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100/200Ah
Usable Capacity: 4608/9216Wh
Discharge Voltage: 44.8V
Charge Voltage: 57.6V
Weight: 48.2/95kg



PowerPal E4 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100Ah
Rated Energy: 5120Wh
Discharge Voltage: 45.6V
Charge Voltage: 56.16V
Weight: 47.2kg

■ PowerPal Y

Wall Mount Lithium Battery Series

Y | Y1 | Y4



Certificates

MSDS, UN38.3, CAN, IEC, UL.



Safe and Reliable

Lithium iron phosphate (LFP) cell.



LED Display

SOC, battery status.



Flexible Capacity

Max.15pcs in Parallel to extend capacity.



Unique Design

New wall mount design.



Easy Installation

Quick plug in +/- and parallel connection.





PowerPal Y 48V

Nominal Voltage: 48V
Rated Capacity: 100/200Ah
Usable Capacity: 4320/8640Wh
Discharge Voltage: 43.5V
Charge Voltage: 52.5V
Weight: 49.5/99kg



PowerPal Y 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100/200/280Ah
Usable Capacity: 4608/9216/12902.4Wh
Discharge Voltage: 46V
Charge Voltage: 56V
Weight: 52/104/115kg



PowerPal Y4 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100/200/300Ah
Max. Charge Current: 50/100/100A
Discharge Voltage: 45.6V
Charge Voltage: 56.16V
Weight: 48.2/95kg



PowerPal Y1 48V

Nominal Voltage: 48V
Rated Capacity: 100Ah/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 41~54.5V
Charging Voltage: 53.5~54.5V
Weight: 68/98kg



PowerPal Y1 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100Ah/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 43.2V
Charging Voltage: 58.4V
Weight: 72/106kg

■ All In One ESS

Lithium inverter in one machine

S2 | S4 | T2



Integrated CE

Certificated LFP battery and Hybrid PV inverter in one system.



Cobalt Free Lithium Iron

Phosphate (LFP) battery maximum safety, life cycle and power.



Self-consumption

Optimization for residential and commercial applications.



Applicable

On grid or hybrid and off grid solar energy storage system



Modular Design

Simplifies transportation and installation.



Certificates

MSDS, UN38.3, IEC, UL.





PowerPal S4 51.2V

Rated Capacity: 200Ah
Number of Layers: 1 Layer
Rated Energy: 10240Wh
Max. PV Power: 9000W
Max. PV Voltage: 550V
Weight: 200kg



PowerPal S2 48V

Nominal Voltage: 48V
Rated Capacity: 100Ah/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 41V
Charging Voltage: 53.5~54.5V
Weight: 46kg/85kg



PowerPal S4 51.2V

Rated Capacity: 300/400Ah
Number of Layers: 2 Layer
Rated Energy: 15360/20480Wh
Max. PV Power: 9000W
Max. PV Voltage: 550V
Weight: 260/320kg



PowerPal T2 51.2V

Nominal Voltage: 51.2V
Rated Capacity: 100Ah/200Ah
Max. Dis/Charging Current: 100A
Discharge Cut-off Voltage: 43.2V
Charging Voltage: 57.6V
Weight: 50kg/89kg

HiPal X

High Voltage Lithium Battery Series

X1 | X2 | X3

Easy Installation

Easy installation flexible expansion.

Safe and Reliable

Safety first smart BMS system.

Customized service

Quick customization of electricity.

Long Lifespan

Long cycle life 6000 cycles.

Design

Patented modular plug design.

Flexible Capacity

Emergency-backup and off-grid functionality.



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HiPal X1 51.2V

Energy Capacity: 20.48~40.96kWh
Battery Module: 51.2V100Ah
Max.Output Power: 10.24~20.48kW
Max.Discharge Current: 50A/0.5C
Communication: RS232, RS485, CAN
Number of Module: 4~8



HiPal X1 51.2V

Energy Capacity: 46.08~66.56kWh
Battery Module: 51.2V100Ah
Max.Output Power: 23.04~33.28kW
Max.Discharge Current: 50A/0.5C
Communication: RS232, RS485, CAN
Number of Module: 9~13



HiPal X2 51.2V

Energy Capacity: 100.352~215.01kWh
Battery Module: 51.2V280Ah
Rated Energy: 14.336kWh
Rated Voltage: 358.4~768V
Rated Discharge/Charge: 0.5C
Number of Module: 7~15



HiPal X3 51.2V

Energy Capacity: 112.537~241.152kWh
Battery Module: 51.2V314Ah
Rated Energy: 16.0768kWh
Rated Voltage: 358.4~768V
Rated Discharge/Charge: 0.5C
Number of Module: 7~15

■ LiFePO4 12V


Lead-acid replacement lithium battery

Plus | Ultra

 **Maintenance Free**
No any extra cost.

 **Safe and Reliable**
The safest LFP battery cell.

 **More Hours of Power**
Quick charge, always stand by.

 **Long Lifespan**
3000 cycles @25°C, 80%DOD.

 **High Energy Density**
More energy but more portable.

 **Low Internal Resistance**
Excellent discharge performance.

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LP1208 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 8Ah
Rated Energy: 102.4Wh
Maximum Discharge Current: 20A/10S
Dimensions(L*W*H): 151*65*94mm
Weight: 0.95kg



LP1250 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 50Ah
Rated Energy: 640Wh
Maximum Discharge Current: 50A/10S
Dimensions(L*W*H): 233*150*178mm
Weight: 5.6kg



LP1212 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 12Ah
Rated Energy: 153.6Wh
Maximum Discharge Current: 20A/10S
Dimensions(L*W*H): 151*65*94mm
Weight: 1.4kg



LP12100 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 100Ah
Rated Energy: 1280Wh
Maximum Discharge Current: 100A/10S
Dimensions(L*W*H): 307*169*213mm
Weight: 11.5kg



LP1220 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 20Ah
Rated Energy: 256Wh
Maximum Discharge Current: 50A/10S
Dimensions(L*W*H): 181*77*170mm
Weight: 2.3kg



LP12100 Plus LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 100Ah
Rated Energy: 1280Wh
Maximum Discharge Current: 200A/10S
Dimensions(L*W*H): 307*169*213mm
Weight: 11.5kg



LP12150 LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 150Ah
Rated Energy: 1920Wh
Maximum Discharge Current: 100A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg



LP12200 Plus LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 200Ah
Rated Energy: 2560Wh
Maximum Discharge Current: 200A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg



LP12180 Plus LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 180Ah
Rated Energy: 2304Wh
Maximum Discharge Current: 200A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg



LP12240 Ultra LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 240Ah
Rated Energy: 3072Wh
Maximum Discharge Current: 300A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg



LP12200 Ultra LiFePO4

Nominal Voltage: 12.8V
Nominal Capacity: 200Ah
Rated Energy: 2560Wh
Maximum Discharge Current: 300A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg



LP12240 Plus LiFePO4


Nominal Voltage: 12.8V
Nominal Capacity: 240Ah
Rated Energy: 3072Wh
Maximum Discharge Current: 200A/10S
Dimensions(L*W*H): 520*270*220mm
Weight: 31.5kg

■ Container lithium battery

High Voltage Energy Storage System Commercial

High Voltage

 **Easy Installation**
Highly integrated Ess for easy transportation.

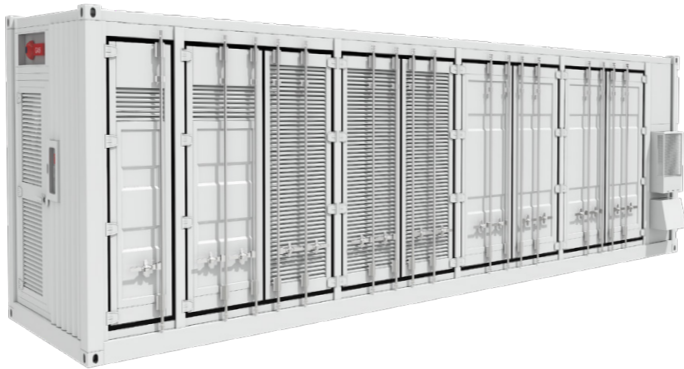
 **High Efficiency**
With cooling system ensures higher efficiency and longer cycle life.

 **Various Application Solutions**
Variety of applications are supported such as peak-shift, peak-cut, frequency regulation, etc.

 **Safe and Reliable**
Multi level battery protection layers formed by discreet standalone systems offer impeccable safety



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ECO 1MW

Energy Capacity: 2~3MWH
Rated Voltage: 716.8V
Voltage Range: 627.2~795.2V
Cell Spec: 3.2V/280Ah
Number of Strings: 10~15
Dimension: 12116*3438*2896mm



ECO 250KW

Energy Capacity: 500kWh
Rated Voltage: 614.4V
Voltage Range: 538~690V
Cell Spec: 3.2V/280Ah
Number of Strings: 3
Dimension: 6058*2438*2591mm



ECO 100KW

Energy Capacity: 200~215kWh
Battery Module: 51.2V100Ah
Max.Output Power: 23.04~33.28kW
Max.Discharge Current: 50A/0.5C
Communication: RS232, RS485, CAN
Dimension: 1650*2350*1600mm



ECO 500KW

Energy Capacity: 1075kWh
Rated Voltage: 768V
Voltage Range: 672~852V
Cell Spec: 3.2V/280Ah
Number of Strings: 5
Dimension: 6058*2438*2591mm

■ RESIDENTIAL PROJECTS



■ COMMERCIAL PROJECTS

