

POWERPOD 5kWh

Stackable 5kWh 51.2V LiFePO₄ Battery with Smart BMS

Premium Lithium's Powerpod is a uniquely modular and easily expandable wall-mounted battery system for residential or commercial use.

Its rechargeable lithium-ion battery packs come in increments of 5kWh and can be stacked without additional installation required, up to a maximum capacity of 25kWh, providing energy storage for solar self-consumption and time-based control that allows owners to benefit from cheaper overnight tariffs.



ELECTRICAL SPECIFICATION

Nominal Voltage	48V (51.2V)
Nominal Capacity	100Ah
Capacity @ 20A	5HR
Energy	5.12kWh
Resistance	≤ 20mΩ
Efficiency	99%
Self-Discharge	< 3% per month
Max Modules in Series	-

DISCHARGE SPECIFICATION

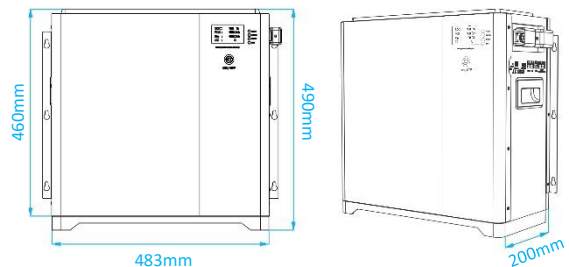
Recommended Cont. Discharge	20 – 50 A
Max. Cont. Discharge Current	100A
Peak Discharge Current	200A (3s)
BMS Discharge Current	300 ± 100 A (10ms)
Recommended Cut-off Voltage	38.4V
BMS Discharge Cut-off	36.8V
Short Circuit Protection	200 – 600 μs

CHARGE SPECIFICATION

Recommended Charge Current	20 – 50 A
Max. Charge Current	50A
Peak Charge Current	100A (30s)
BMS Charge Voltage Cut-off	58.4V (1 ± 0.2s)
Reconnect Voltage	56.8 – 58.4 V
Balancing Current	-
Balancing Voltage	-
Charge Current (-20°C to -10°C)	≤ 0.05C

MECHANICAL SPECIFICATION

Dimensions (L x W x H)	483 x 220 x 490 mm
Weight	45 ± 0.5 kg
Terminal Type	Screw Stud
Case Material	Metal Case
Enclosure Protection	IP55
Cell Type: Prismatic/Pouch	16S2P
Total Cells	32 Pieces



TEMPERATURE SPECIFICATION

Discharge Temperature	-20°C to 60°C
Charge Temperature	0°C to 45°C
Storage Temperature	-20°C to 40°C
Peak High Temperature	80°C
Reconnect Temperature	50°C

OTHER CUSTOMISED SERVICES

Smart Function: RS485/RS232/CAN/Bluetooth,
Charge/Discharge Current, Battery Size, OEM

FEATURES & BENEFITS

- HIGH CYCLE LIFE: > 6000 times @ 80% DOD for effectively lower cost of ownership
- BATTERY PACK BUILT-IN BMS Protection: Battery Management System is incorporated to protect battery from OVER CHARGING, OVER DISCHARGING, SHORT CIRCUIT
- LIGHTWEIGHT: Dry power lithium batteries have higher energy density (Wh/kg), also being up to 1/3 of SLA batteries
- WIDE OPERATING TEMPERATURE RANGE: Suitable for users in a wider range of applications where ambient temperature is unusually high: up to +60°C
- STEADY OUTPUT VOLTAGE, VIBRATION & SHOCK RESISTANT, NO MEMORY EFFECT, PRESSURE RESISTANT CELLS

SUITABLE APPLICATIONS

- This Lithium Iron Phosphate (LiFePO₄) Battery Pack uses grade-A LiFePO₄ Battery cells with a lifespan of up to 20 years
- Suitable for most solar inverters and MPPT solar controllers
- Suitable applications for home/commercial solar energy storage system, easy to install and operate

CAUTIONS

- Do NOT expose the battery to water
- Do NOT expose the battery to fire & high temperature
- Do NOT short circuit, crush, or disassemble
- Only use LiFePO₄ charger
- Store at 50% capacity, recharge every 3 months: the storage area should be clean, cool, dry, and ventilated