

LITHIUM IRON PHOSPHATE BATTERY B48LPI5 V2

ELECTRICAL PERFORMANCE

Nominal Voltage	51.2 V
Mean Operation Voltage	49.5-50.5V
Nominal Capacity	100 Ah
Energy	5120 Wh
Communication	CAN 2.0 / RS232/ RS485
Resistance	≤40 mΩ @ 50% SOC

CHARGE PERFORMANCE

Recommended Charge Current	20A (Charge time: ≈6hrs)
Maximum Charge Current	100A (Charge time: ≈2hrs)
Charge Over Current Protection (BMS)	110±5A
Recommended Charge Voltage	53.2-54V
Charge Cut-Off Voltage (BMS)	3.70±0.025 V/Cell (1sec)
Reconnect Voltage (BMS)	3.45±0.02 V/Cell
Balancing Voltage Threshold (BMS)	3.45V/Cell

DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	100 A
Standard Discharge Current	20 A
Discharge Cut-off Voltage	40.5-42.5V
Discharge Cut-Off Voltage (BMS)	2.75±0.02 V/Cell
Reconnect Voltage (BMS)	3.05±0.02 V/Cell
Short Circuit Protection	≤800 μs

COMPLIANCE

Certifications	ROHS compliant UN38.3 (battery) UL1973 & IEC62619 (cells)
Shipping Classification	UN 3480, CLASS 9

FEATURES & BENEFITS



High cycle life

2000-7000 cycles for effectively lower total of ownership.



Better storage

up to 6 months, thanks to its extremely low self-discharge (LSD) rate and no risk of sulphation.



Longer service life

Low maintenance batteries with stable chemistry.



Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent.



Built in circuit protection

Battery Management System (BMS) is incorporated against abuse.



Quick recharge

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency



MECHANICAL SPECIFICATIONS

Dimension (L x W x H)	442mm X 430mm X 177 mm 17.4" x 16.9" x 7"
Approx. Weight	47 kg (103.6 lbs.)
Terminal Type	M8 SCREW POST (FEMALE)

TEMPERATURE PERFORMANCE

Discharge Temperature	-20 to 55°C (-4 to 131°F)
Charge Temperature	0 to 45°C (32 to 113°F)
Storage Temperature	-10 to 35°C (14 to 131°F)
BMS High Temperature Cut-Off	60±3°C (140±5.4°F)
Reconnect Temperature	55±3°C (131±5.4°F)
BMS High Temperature Cut-Off	-5±2°C (23±3.6°F)
Reconnect Temperature	0±2°C (32±3.6°F)

CAUTIONS

- Do NOT short circuit, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool, dry and ventilated.

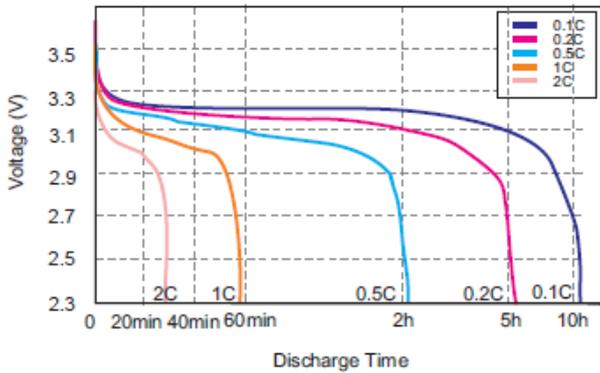
Performance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact the supplier.

WARRANTY: POWERUPESS offers a 5-year limited (please contact supplier for details) prorated warranty from the date of purchase. This warranty applies to products registered within the first year of purchase. If you choose not to register your product, your warranty may be invalidated. This limited warranty applies to the original purchaser of the product and is non-transferable to any other person or entity. For registration please visit: <https://powerupess.com/warranty>

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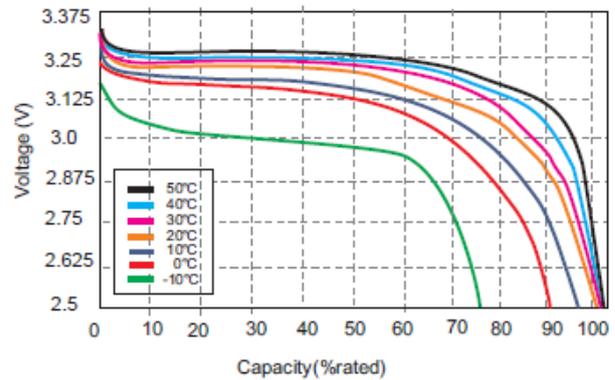
Discharge curves at variable rates

Different Rate Discharge Curve @25°C



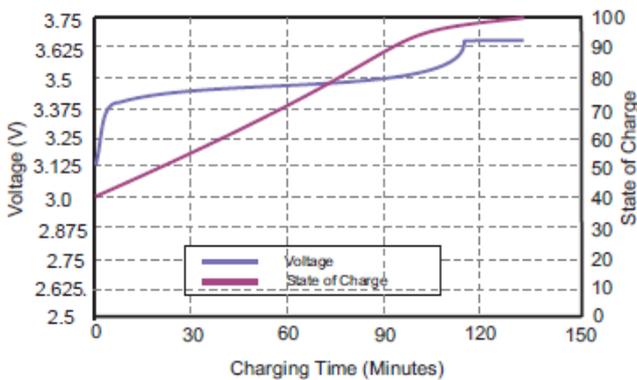
Discharge curves at variable temperatures

Different Temperature Discharge Curve @0.5C



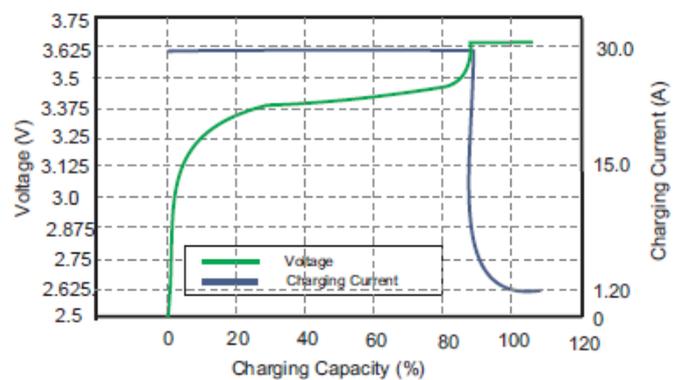
State of Charge Curve

State of Charge Curve @0.5C 25°C



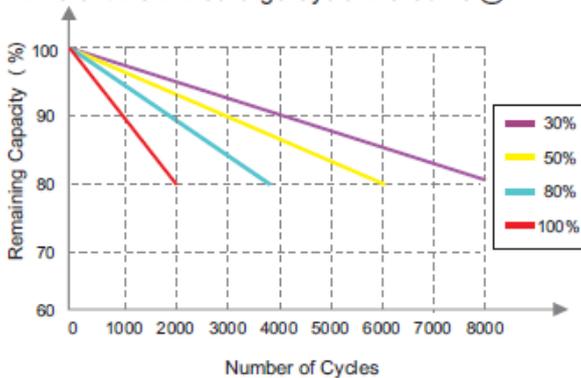
Charging Characteristics

Charging Characteristics @0.5C 25°C



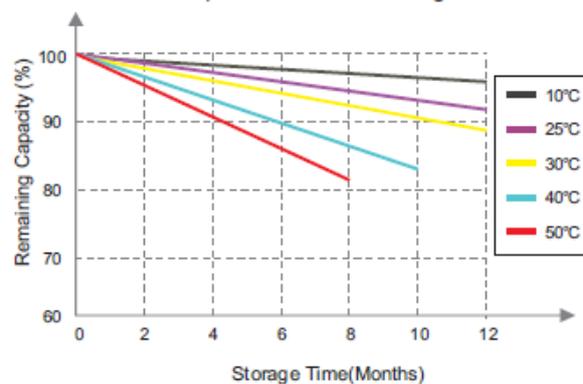
Life cycle at various Depth of Discharge

Different DOD Discharge Cycle Life Curve @10



Self discharge at variable temperature

Different Temperature Self Discharge Curve



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