

RB80-D



LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	80 Ah
Capacity @ 25A	192 min
Energy	1024 Wh
Resistance	≤30 mΩ @ 50% S0C
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	4

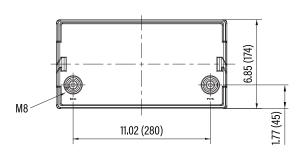
DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	80 A
Peak Discharge Current	160 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	280 A ±50 A (9 ±4 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (140 ±60 ms)
Reconnect Voltage	9.2 V (2.3 ±0.1 vpc)
Short Circuit Protection	200-600 µs

TEMPERATURE SPECIFICATIONS

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Discharge Temperature	-4 to 140 °F (-20 to 60 °C)
Charge Temperature	-4 to 113 °F (-20 to 45 °C)
Storage Temperature	23 to 95 °F (-5 to 35 °C)
BMS High Temperature Cut-Off	176 °F (80 °C)
Reconnect Temperature	122 °F (50 °C)

DIMENSIONAL SPECIFICATIONS



MECHANICAL SPECIFICATIONSDimensions (L x W x H)13.2 x 6.9 x 7.5"
335 x 174 x 191 mmWeight25 lbs (11.3 kg)Terminal TypeM8Terminal Torque80 - 100 in-lbs (9 - 11 N-m)Case MaterialABSEnclosure ProtectionIP56

CHARGE SPECIFICATIONS

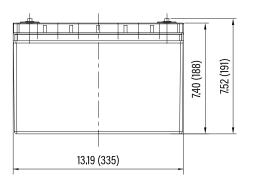
Cell Type - Chemistry

Recommended Charge Current	4 A - 40 A
Maximum Charge Current	80 A
Charge Current (0 to -10 °C)	≤0.1 C
Charge Current (-20 to -10 °C)	≤0.05 C
Recommended Charge Voltage	14.2 V - 14.6 V
BMS Charge Voltage Cut-Off	15.6 V (3.9 ±0.025 vpc) (1.1 ±0.4 s)
Reconnect Voltage	15.2 V (3.8 ±0.05 vpc)
Balancing Voltage	14.4 V (3.6 ±0.025 vpc)

Cylindrical - LiFePO₄

COMPLIANCE SPECIFICATIONS

Certifications	CE (battery) UN38.3 (battery) UL1642 & IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9



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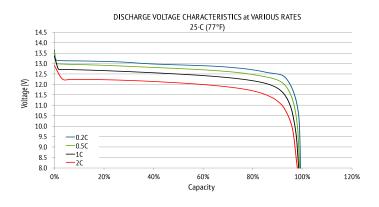
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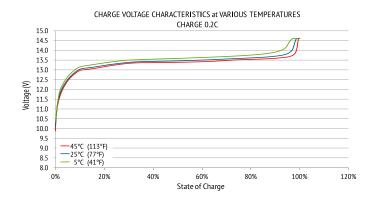


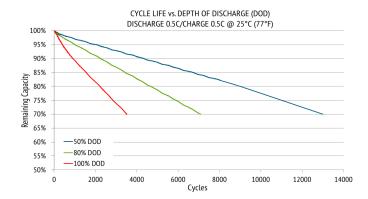


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PERFORMANCE CHARACTERISTICS

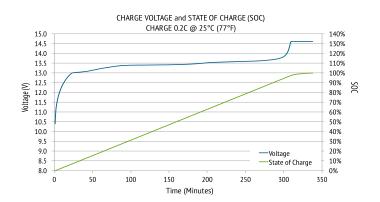


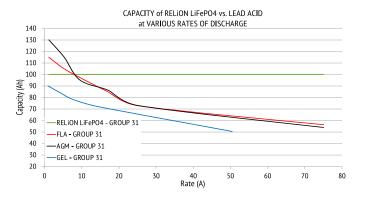




14.5 14.0 13.5 13.0 12.5 Voltage (V) 12.0 11.5 11.0 10.5 10.0 60°C (140°F) 45°C (113°F) 9.5 - 25°C (77°F) - 0°C (32°F) - 10°C (50°F) 9.0 _ -10°C (14°F) 8.5 -20°C (-4°F) 8.0 20% 0% 40% 60% 80% 100% 120%

Capacity





DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES DISCHARGE 1C

12.8V 80Ah

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UN38.3

RB80-D

RELION

RB80DDS06.05.2019

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