

# RB48V150



## LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS	
Nominal Voltage	51.2 V
Nominal Capacity	150 Ah
Capacity @ 25A	360 min
Energy	7680 Wh
Resistance	≤50 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	1 (Single Use)

DISCHARGE	SPECIFICATIONS
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Maximum Continuous Discharge Current	100 A
Peak Discharge Current	350 A (30 s)
BMS Discharge Current Cut-Off	500 A ±50 A (1000 ±500 ms)
Recommended Low Voltage Disconnect	44 V
BMS Discharge Voltage Cut-Off	36.8 V (2.3 ±0.05 vpc)
Reconnect Voltage	40 V (2.5 ±0.05 vpc)
Short Circuit Protection	200-600 µs

TEMPERATURE SPECIFICATIONS	
Discharge Temperature	-4 to 140 °F (-20 to 60 °C)
Charge Temperature	-4 to 113 °F (-20 to 45 °C)
Storage Temperature	14 to 95 °F (-10 to 35 °C)
BMS High Temperature Cut-Off	167 °F ±41 °F (75 °C ±5 °C)
Reconnect Temperature	122 °F (50 °C)

\*Refer to charge currents below 32°F (0°C)

**DIMENSIONAL SPECIFICATIONS** 

Dimensions (L x W x H)	23.6 x 12.1 x 12.6" 600 x 308 x 320 mm
Weight	178.6 lbs (81 kg)
Terminal Type	M10

Terminal Torque	110 - 125 in-lbs (12.2 - 14 N-m)
Case Material	Steel Case
Enclosure Protection	IP56
Cell Type - Chemistry	Cylindrical - LiFePO4

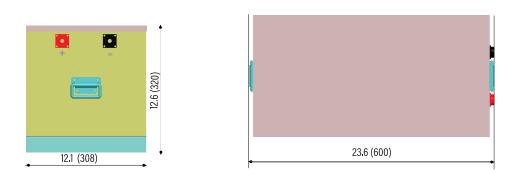
#### **CHARGE** SPECIFICATIONS

**MECHANICAL SPECIFICATIONS** 

Recommended Charge Current	7.5 A - 50 A
Maximum Charge Current	100 A
Charge Current 14 to 32 $^{\rm o}F~$ (-10 to 0 $^{\rm o}C)$	≤0.1 C
Charge Current -4 to 14 $^{\rm o}F$ (-20 to -10 $^{\rm o}C)$	≤0.05 C
Recommended Charge Voltage	56 V - 58.4 V
BMS Charge Voltage Cut-Off	61.6 V (3.85 ±0.05 vpc)
Reconnect Voltage	58.4 V (3.65 ±0.05 vpc)
Balancing Voltage	57.6 V (3.6 vpc)

### **COMPLIANCE** SPECIFICATIONS

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



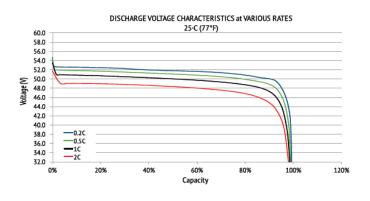
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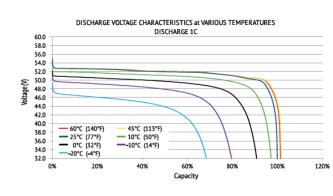




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### **PERFORMANCE** CHARACTERISTICS





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CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES CHARGE VOLTAGE and STATE OF CHARGE (SOC) CHARGE 0.2C CHARGE 0.2C @ 25°C (77°F) 60.0 60.0 140% 58.0 130% 58.0 56.0 120% 56.0 54.0 54.0 52.0 50.0 48.0 46.0 110% 52.0 100% 50.0 90% Voltage (V) Voltage (V) Š 48.0 46.0 44.0 80% 70% 44.0 60% 42.0 42.0 40.0 50% 40% 40.0 38.0 38.0 30% -45°C (113°F) -25°C (77°F) - 5°C (41°F) 36.0 36.0 34.0 20% Voltage 34.0 10% State of Charge 32.0 32.0 0% 0% 20% 40% 60% 80% 100% 120% 50 200 0 100 150 250 300 350 State of Charge Time (Minutes) CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD) CAPACITY of RELION LIFePO4 vs. LEAD ACID DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F) at VARIOUS RATES OF DISCHARGE 100% 140 95% 130 120 90% 110 85% Remaining Capacity 100 80% Capacity (Ah) 0. 08 06 0. 06 75% 70% 65% 60 -RELION LIFePO4 - GROUP 31 50 60% FLA - GROUP 31 40 55% AGM - GROUP 31 -100% DOD 30 -GEL - GROUP 31 50% 20 2000 4000 10000 12000 14000 0 6000 8000 Cycles 0 10 20 30 50 60 70 80 40 Rate (A) Panama: +507-292-4776 Canada: 1-888-271-8888 United States: 1-844-370-0258 sales@magnacharge.com CE



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