





# **RB20**

Voltage: 12.8V | Capacity: 20 Ah | Energy: 256 Wh

## LITHIUM IRON PHOSPHATE BATTERY LIFePO4

ELECTRICAL SPECIFICATIONS		
Nominal Voltage	12.8 V	
Nominal Capacity	20 Ah	
Resistance	≤60 mΩ @ 50% SOC	
Efficiency	99%	
Self Discharge	<3% per Month	
Maximum Modules in Series	3	

DISCHARGE SPECIFICATIONS	
Maximum Continous Discharge Current	20 A
Peak Discharge Current	40 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	70 A ±10 A (20 ±5 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (140 ±60 ms)
Reconnect Voltage	10 V (2.5 ±0.10 vpc)
Short Circuit Protection	200-500 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	23 to 95 °F (-5 to 35 °C)	
BMS High Temperature Cut-Off	158 °F (70 °C)	
Reconnect Temperature	122 °F (50 °C)	

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

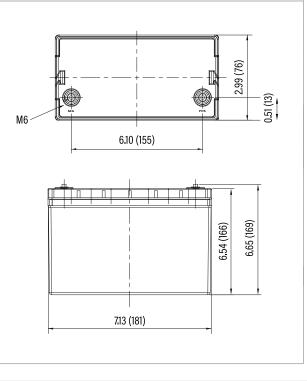
MECHANICAL SPECIFICATIONS		
Dimensions (L x W x H)	7.1 x 3.0 x 6.7" 181 x 76 x 169 mm	
Weight	5.6 lbs (2.55 kg)	
Terminal Type	M6 x 1 x 12mm	
Terminal Torque	35 - 44 in-lbs (4 - 5 N-m)	
Case Material	ABS	
Enclosure Protection	IP66	
Cell Type - Chemistry	Cylindrical - LiFePO <sub>4</sub>	

#### **CHARGE SPECIFICATIONS**

Recommended Charge Current	1 A - 10 A
Maximum Charge Current	20 A
Charge Current 14 to 32 °F (-10 to 0 °C)	≤0.1 C
Charge Current -4 to 14 °F (-20 to -10 °C)	≤0.05 C
Recommended Charge Voltage	14.2 V - 14.6 V
BMS Charge Voltage Cut-Off	15.2 V (3.8 ±0.025 vpc) (1.1 ±0.4 s)
Reconnect Voltage	14.4 V (3.6 ±0.050 vpc)
Balancing Voltage	14.4 V (3.6 ±0.025 vpc)

COMPLIANCE SPECIFICATIONS	
Certifications	UN38.3 & CE (battery) UL1642 (cells) (File# MH64523) IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

#### DIMENSIONAL SPECIFICATIONS



relionbattery.com





Voltage: 12.8V | Capacity: 20 Ah | Energy: 256 Wh

### LITHIUM IRON PHOSPHATE BATTERY LIFePO4

RELI<sup>3</sup>ON<sup>\*</sup> DATA SHEET

