

## LITHIUM IRON PHOSPHATE BATTERY DATA SHEET EX-EX1-12450-B (12.8 Vdc / 450 Ah)



**PERFORMANCE:** Long Cycle Life  
High Energy Density  
High Discharge Current  
Fast Charging  
Maintenance Free  
Low Weight

**FEATURES:** Grade A UL 1642 Recognized cells  
Integrated Battery Management System (BMS) for safety and reliability  
Bluetooth™  
Oversized terminal connection pads  
Premium ABS plastic case  
Tie-down system accessories (Sold separately)

Electrical Parameters	
Nominal Voltage	12.8 Vdc
Rated Capacity	450 Ah
Energy	5760 Wh
Resistance	≤3 mΩ
Efficiency	>99 %
Cycle Life	>4000 cycles at .5C, 100 % DoD
Cell Self-Discharge	<2 % per month
Cells in Series/Parallel	4S/100P
Communication	Bluetooth™

Discharge Parameters	
Recommended Discharge Current	180 A
Max. Discharge Current	250 A
Pulse Discharge Current	375 A (1 s)
Recommended Volt. Disconnect	12 Vdc
BMS Discharge Cut-off Voltage	10 Vdc
Short Circuit Protection	200 μs to 600 μs

Compliance	
Certifications	UL 1642 For Cells, File no. MH64383
	UN3480, Class 9, UN38.3
	UL 1973 Pending

Mechanical Parameters	
Dimensions	14.8 in x 13.0 in x 10.4 in (375 mm x 330 mm x 265 mm)
Weight	107 lb (48.53 kg)
Terminal Thread	M8 x 1.25
Battery Housing	ABS Plastic Case
Housing Protection	IP55
Housing Flammability Rating	UL-94 V-0
Cell Type (Chemistry)	Cylindrical (LiFePO <sub>4</sub> )

Charge Parameters	
Charge Method	CC-CV
Recommended Charge Voltage	14.6 Vdc
Recommended Float Voltage	13.6 Vdc
Recommended Charge Current	72 A
Maximum Charge Current	180 A
BMS Charge Cut-off Voltage	14.6 Vdc

Temperature Parameters	
Discharge Temperature	-4 °F to 150 °F (-20 °C to 65 °C)
Charge Temperature	32 °F to 140 °F (0 °C to 60 °C)
Storage Temperature	32 °F to 95 °F (0 °C to 35 °C)

**NOTE:** Do not mix with lead-acid batteries when recycling. See Expion360, Inc. user's manual for proper operation.

**DISCLAIMER:** While every precaution has been taken to ensure the accuracy of the contents within this document, Expion360, Inc. assumes no responsibility for errors or omissions. Specifications and product functionality may change without notice.

**STORAGE:** One discharge-recharge cycle every 6 months.



**UN  
38.3**