

# EXPION360®



## LITHIUM IRON PHOSPHATE BATTERY DATA SHEET EX-G27-100C (12.8 Vdc/100 Ah)

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

**FEATURES:** Certified compliant to UL 1973 with grade A UL Recognized cells  
360-degree mounting with tie-down system accessories  
Integrated Battery Management System (BMS) for safety and reliability  
Oversized terminal connection pads  
Premium fiberglass reinforced ABS plastic case

Electrical Parameters	
Nominal Voltage	12.8 Vdc
Rated Capacity	100 Ah
Energy	1280 Wh
Resistance	<5 mΩ
Efficiency	>99 %
Cycle Life	>4000 cycles at 1C, 100 % DoD
Cell Self-Discharge	<2 % per month
Cells in Series/Parallel	4S/30P

Discharge Parameters	
Continuous Discharge Current	80 A
Max. Discharge Current	100 A
Pulse Discharge Current	120 A (1 s)
Recommended Volt. Disconnect	10.5 Vdc
BMS Discharge Cut-off Voltage	9.2 Vdc
Short Circuit Protection	200 μs to 600 μs

Compliance	
Certifications	UL 1642 For Cells, File no. MH64383
	UN3480, Class 9, UN38.3
	Certified compliant to UL 1973 by TEI Listing Services, File no. 22D01

Mechanical Parameters	
Dimensions	11.9 in x 6.8 in x 8.6 in (303 mm x 173 mm x 218 mm)
Weight	29 lb (13.3 kg)
Terminal Thread	M 8 x 1.25
Battery Housing	ABS Plastic Case
Housing Protection	IP66
Housing Flammability Rating	UL-94 V-0
Cell Type (Chemistry)	Cylindrical (LiFePO <sub>4</sub> )

Charge Parameters	
Charge Method	CC-CV
Recommended Charge Voltage	14.2 Vdc to 14.4 Vdc
Recommended Float Voltage	13.6 Vdc
Recommended Charge Current	25 A
Maximum Charge Current	50 A
BMS Charge Cut-off Voltage	14.6 Vdc

Temperature Parameters	
Discharge Temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Charge Temperature	32 °F to 140 °F (0 °C to 60 °C)
Storage Temperature	-4 °F to 113 °F (-20 °C to 45 °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.

