

GROUP 27 LiFePO₄ BATTERY DATA SHEET EX-G27-12100-BCH (12.8 Vdc/102 Ah)



PERFORMANCE: Long Cycle Life
High Energy Density
High Power Density
Fast Charging
Maintenance Free
Lightweight

FEATURES: SmartTalk™ Battery Management System (BMS) with Bluetooth™
CAN Bus Communication
VHC™ (Vertical Heat Conduction) technology for rapid heating
360-degree mounting with tie-down system accessories
Oversized terminal connection pads
Premium fiberglass reinforced ABS plastic case

Electrical Parameters	
Nominal Voltage	12.8 Vdc
Rated Capacity	102 Ah
Energy	1306 Wh
Resistance	<5 mΩ
Efficiency	>99 %
Cycle Life	>4000 cycles at 1C, 100 % DoD
Cell Self-Discharge	<5 % per month

Discharge Parameters	
Continuous Discharge Current	50 A
Max. Discharge Current	100 A
Pulse Discharge Current	150 A (3 s), 200 A (1 s)
Recommended Volt. Disconnect	12 Vdc
BMS Discharge Cut-off Voltage	10 Vdc

Compliance	
Certifications	UL1642 Recognized Cells, File no. MH64383
	UN3480, UN38.3, UL1973 Pending

Mechanical Parameters	
Dimensions	12.6 in x 6.8 in x 8.7 in
	(320 mm x 173 mm x 220 mm)
Weight	34 lb (15 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 ₄

Charge Parameters	
Charge Method	CC-CV
Recommended Charge Voltage	14.6 Vdc
Recommended Float Voltage	13.6 Vdc
Recommended Charge Current	20 A
Maximum Charge Current	50 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 77 °F (0 °C to 25 °C)

NOTE: Do not mix with lead-acid batteries when recycling. See Expion360, Inc. user's manual for proper operation. The Expion360 SmartTalk™ G27 Battery are splash, water, and dust resistant and were tested under controlled laboratory conditions. Splash, water, and dust resistance are not permanent conditions and resistance might decrease as a result of normal wear. Liquid and dust damage is not covered under warranty.

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.



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