

VMAX LFP3650MBH Battery Datasheet

General

Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage	38.4V (3.2V/cell)
Rated Capacity	50Ah
Rated Energy	1920Wh
Output Voltage Range	24.0V – 43.8V
Charging Voltage	43.8V (CC-CV)
Cut-Off Voltage	24.0V
Cycle Life (@ 100% DOD)	~3,000 cycles @ 50A, 25°C (77°F)
Design Life	~5 years
Efficiency	>98%
Built-in BMS	Yes
Bluetooth	Yes
IP Rating	IP67 waterproof and dustproof

Electrical Performance

Max Constant Charging Current	100A
Recommended Charging Current	5A–50A (Best at 10A)
Max Constant Discharge Current	100A
Max 3-Second Discharge Current	150A
Short-Circuit Protection	>800A
Over-Charge Voltage Protection	Module >45V, Cell >3.75V
Over-Discharge Voltage Protection	Module <24V, Cell <2.0V
Over-Charge Current Protection	>110A (10s delay), >200A (1s delay)
Over-Discharge Current Protection	>110A (10s delay), >200A (1s delay)
Cell Balance	Passive, 600mA

Temperature Ranges

Charging	<0°C – 45°C (32°F – 113°F) *Heater turns ON below 0°C
Discharging	-20°C – 65°C (-4°F – 150°F)
Storage	-20°C – 45°C (-4°F – 113°F)
Heater ON	Cells <0°C, heater warms to ~40°C
Heater OFF	Cells >10°C, heater warms to ~70°C

Physical

Case Material	ABS
Dimensions (L x W x H)	332 x 175 x 222 mm
BCI Group	31
Terminals	M8 screw-in
Polarity	+ Left / - Right
Weight	17 kg (37.5 lbs)

Expansion Capabilities

Parallel Wiring	Up to 4 batteries
Series Wiring	Not Supported

Certifications & Safety

IP67 Waterproof	Yes
Built-In Heater for Cold-Weather Charging	Yes
Bluetooth Monitoring Capability	Yes
Maintenance-Free & Non-Toxic	Yes

Warranty

Warranty	7-Year Pro-Rated
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Information sourced from vmaxtanks.com August 2025 and is subject to change.

