SUPER B
lithium batteries



DATASHEET
EPSILON 12V90AH

The Epsilon is a lead-acid replacement, with all the benefits of Lithium Iron Phosphate. It offers a significant weight reduction compared to lead-acid, large energy reserves and stable voltage, even at high loads. This lithium battery is suitable for 12V installations. Eliminating the need for an external safety relay means the lithium battery is very easy to install.

BATTERY MONITORING

The Super B Epsilon has integrated battery monitoring which provides details about its status such as voltage, current, temperature, state of charge and time remaining. Hands-on monitoring is also possible via Bluetooth and LED indicators to inform you about the actual status of your battery. The Be In Charge app provides 24/7 information about the state of charge, time to go and status of the battery.

FEATURES

- Traction battery
- Lithium Iron Phosphate (LiFePO4): safe lithium technology
- Integrated short circuit protection
- Integrated BMS (Battery-Management system)
- Charge current regulator, for safe low temperature charging
- CAN / LIN / Bluetooth interface for battery monitoring
- Battery monitoring / History Storage
- Adaptive cell balancing
- Monitoring via Be In Charge Bluetooth app for iOS and Android

SAFETY

Super B batteries are based on Lithium Iron Phosphate technology (LiFePO4). This technology offers high thermal stability. On top of that our bespoke casing and electronics further increase safety and durability.

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ELECTRICAL SPECIFICATIONS

Nominal capacity	90Ah
Energy	1152Wh
Nominal Voltage	12.8V
Open Circuit Voltage	13.2V
Self Discharge	<3% per Month
Cycle life	>5000 cycles (at 100% DoD)

MECHANICAL SPECIFICATIONS

Dimensions (LxWxH)	353 x 175 x 190 mm 13.9" x 6.9" x 7.5" (=DIN H8 / LN5)
Weight	12.5 kg / 27.6 lbs
Case Material	GFRP
Ingress Protection	IP51
Cell Type / Chemistry	Cylindrical - LiFePO4

CHARGE & DISCHARGE SPECIFICATIONS

Charge Method	CCCV
Charge Voltage	14.3V - 14.6V
Max Charge Current	90A
End of Discharge Voltage	8V
Discharge Current Continuous	200A
Discharge Pulse Current (10 sec)	350A

TEMPERATURE SPECIFICATIONS

Charge Temperature	-10°C to 45°C[1] 14°F to 113°F[1]
Discharge Temperature	-20°C to 60°C -4°F to 140°F
Storage Temperature	-10°C to 35°C 14°F to 95°F

COMPLIANCE SPECIFICATIONS

Certifications	CE, FCC, UN 38.3, UN ECE R10.05, UL 1642 (Cells)
Shipping Classification	UN3480

GENERAL PRODUCT SPECIFICATIONS

EAN-13	8718531361317
Battery Designation	IFpR19/67[60p4s]M/ -20+60/90

[1]When temperature is < 0°C / 32°F or > 45°C / 113°F performance will be degraded.

PERFORMANCE


Maintenance free


Fast Charging



High thermal stability


High discharge rates


High capacity


Low weight


High cycle count


Low self-discharge