

Version 1.1

# **DATASHEET EPSILON 12V90Ah**

The Epsilon is a lead-acid replacement, with all the benefits of Lithium Iron Phosphate. It has superior weight reduction, enormous energy reserves and stable voltage even at extreme 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 free Be-InCharge 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 BeInCharge Bluetooth app for iOS and Android



#### **SAFETY**

Super B batteries are based on Lithium Iron Phosphate technology (LiFePO4). This is the safest Lithium technology available today. On top of that our bespoke casing and electronics further increase safety and durability.

## **PERFORMANCE**



**Fast** 



Safest lithium Charging



rates

High



Low weight



High cycle count



Low selfdischarge

technology

LiFeP04

#### **3-YEAR WARRANTY**

Super B's 3-year warranty offers the best peace of mind. It is the benefit of years of continuous engineering improvement and proven experience with all of our batteries in the harshest environments.



#### **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"
Weight	12.5 kg / 27.6 lbs
Case Material	GFRP
Ingress Protection	IP51
Cell Type / Chemistry	Cylindrical - LiFePO4

#### CHARGE & DISCHARGE SPECIFICATIONS TEMPERATURE 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

Charge Temperature	-10°C to 45°C <sup>2</sup> 14°F to 113°F <sup>2</sup>
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	UN 3480

# **GENERAL PRODUCT SPECIFICATIONS**

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

 $<sup>^1</sup>$ When temperature is <  $0^{\circ}$ C /  $32^{\circ}$ F and >  $45^{\circ}$ C /  $113^{\circ}$ F performance will be degraded.