

DATA SHEET
LITHIUM ION
RECHARGEABLE BATTERY
BB-2590/U BATTERY
8.7AH/251WH

High Capacity Low Operating Temperature



TYPICAL APPLICATIONS

- Robotics
- UGV's / UAV's / UUV's
- Communication Devices
- SATCOM Devices
- Rugged, Portable Electronics
- Detection Devices
- Autonomous Remote Sensors and Surveillance
- AN/PRC-104,119, AN/PRC-117,138, AN/PSC-5D plus over 50 other applications

STANDARDS COMPLIANCE

- NAVSEA S9310 Safety Assessment Compliant
- SMBus v 1.1 smart battery technology compliant
- SBD v 1.1 smart battery dataset compliant
- MIL-STD-810G compliant
- ➤ MIL-STD-461F (EMI) compliant
- Designed, manufactured, and tested to MIL-PRF-32383 & 32383/3 and MIL-PRF-32052 & 32052/1
- > Tested performance meets or exceeds MIL-PRF-32383 & 32383/3 and MIL-PRF-32052 & 32052/1
- ➤ UL1642, Section 20 compliant
- ➤ UN/DOT Transportation 38.3 T1-T8 compliant
- Manufactured under ISO 9001:2008 certified quality system

KEY FEATURES

- Dual output voltage
- Dual State-of-Charge (SOC) display
- Full capacity at 10A continuous discharge
- Low operating temperature -30°C (-22°F)
- 67% performance available at -30°C (-22°F)

COMPATIBLE CHARGERS

- **PC-6010-01** 1-bay tactical portable smart charger
- PC-6010-03 1-bay tactical portable smart charger
- PC-6020 2-bay tactical portable smart charger
- PC-6040 4-bay tactical portable smart charger
- PC-6060 6-bay tactical portable smart charger
- PC-6080 8-bay tactical portable smart charger
- **PC-6240M/C** 24-station bulk smart charger
- PCR-6080 unmanned vehicle charger
- PCD-6040 docking station for PCR-6080 charger

BATTERY SPECIFICATIONS

Model No: PB-2590-SMB-8.7 **NSN:** 6140-01-642-3087

Voltage Range:

Series Mode: 20.0V min.; 28.8V nom.; 33.6V max. Parallel Mode: 10.0V min.; 14.4V nom.; 16.8V max.

Nominal Capacity:

Series Mode: 8.7Ah @ 500mA @ 23°C (74°F) Parallel Mode: 17.4 Ah @ 1.0A @ 23°C (74°F)

Maximum Continuous Discharge:

Series Mode: 10.0 A continuous @ 23°C (74°F) (per section)

Parallel Mode: 20.0 A continuous @ 23°C (74°F)

Maximum Pulse Discharge:

Series Mode: 22.5A for 10 mSec; 18.0 A for 5 seconds @ 23°C (74°F) Parallel Mode: 45A for 10 mSec; 36.0 A for 5 seconds @ 23°C (74°F)

Nominal Energy: 251 Wh

Nominal Energy Density: 190 Wh/kg, 306 Wh/l

Weight: 1406 grams / 1.4Kg (3.1 lbs.)

Cycle Life: > 300 cycles @ C/5 to 80% of initial capacity @ 100% depth

of discharge

Operating Temp: -30°C to +70°C (-22°F to +158°F)

Storage Temp: -20°C to +50°C (-4°F to +122°F) Self-Discharge: < 3% per month @ 25°C (77°F)

Housing: Hard plastic, tan, lusterless, UL 94 V-0, NORYL

Connector: Floating type per U.S. Army DQWG# SC-C-179495

Flat Contacts: Copper alloy with gold plating over nickel plating

Communication: SMBus v1.1 communication protocol

SBD v1.1 data set support

State of Charge Indicator: 2 Separate, 5 Segment, LCD Displays

Safety: See Safety Data Sheet - SDS056

Transportation: See Safety Data Sheet - SDS056

Export Classification: EAR99

Harmonized Tariff Schedule: 8507.60.0020

Charging: Charge each section at constant voltage of 16.8 Volts in a temperature range of 0°C to +45°C (+32°F to +113°F), limiting current to 3.0 amps until current declines to 200mA. Both sections can be charged in parallel.

Charging Method: This battery should be charged using a constant current/constant voltage (CC/CV) charging method.

COMPATIBLE BATTERY TESTER/ANALYZER

> PE-BT-2590













