**Data Sheet**

**Lithium Ion Rechargeable Battery**

**BB-2590/U Battery**

**8.7Ah/251Wh**

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**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-6240/M/C 24-station bulk smart charger
- PCR-6080 unmanned vehicle charger
- PCD-6040 docking station for PCR-6080 charger

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**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)
  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
  - 179495

- **Flat Contacts:** Copper alloy with gold plating over nickel plating

- **Communication:** SMBus v1.1 communication protocol

- **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.

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**Compatible Battery Tester/Analyzer**

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

PATCO Electronics | division of Creating Technology Solutions, LLC
5250 140th Avenue North | Clearwater | Florida | 33760 | USA
Tel 727-914-3001 | Fax 727-914-3342 | www.patcoelectronics.com | PATCO CAGE Code: 03UN7
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ISO 9001:2008