C&D TECHNOLOGIES
Power Solutions

12-1065

# BROAD-BAND SERIES

## BBA-160RT

### VALVE REGULATED LEAD ACID BATTERY FOR BROADBAND STANDBY POWER APPLICATIONS

## APPLICATIONS

- Cycling Applications
- Mobility Markets
- Medical
- Elevator
- Electric Wheelchair
- Electric Bikes

## FEATURES & BENEFITS

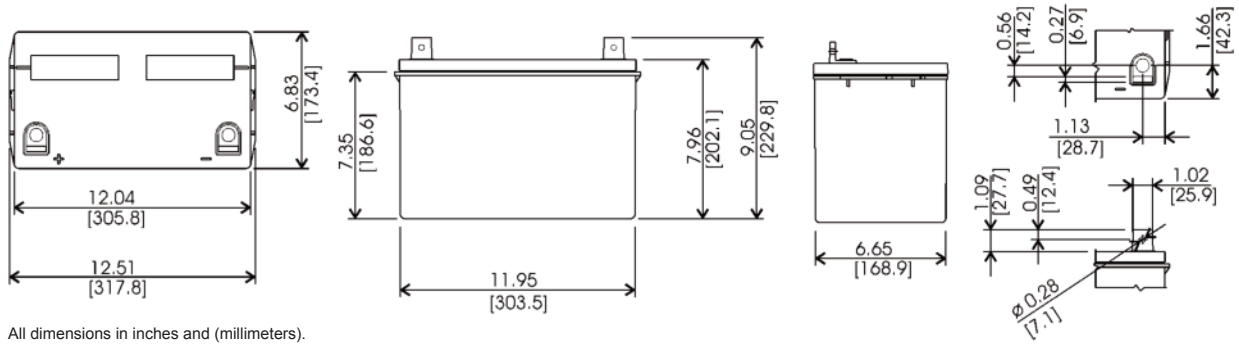
- Flame-arresting one-way pressure-relief vent for safety and long life.
- Thermally welded case-to-cover bond to ensure a leak-proof seal.
- Thick positive plate design for maximum service float life.
- Case and cover of high-impact polypropylene.
- Removable carrying handles.
- Gas recombination efficiency of up to 99% for freedom from electrolyte maintenance.
- Designed to meet full published ratings at initial start-up installation
- Multicell design for ease of installation and maintenance.
- Complies with UN 2794.
- UL-recognized component.
- Not restricted for surface transport-classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.
- Can be used in any orientation. Upright, side or end mounting recommended.

## 12 Volts - 88 Ampere Hour Capacity @ 20 Hour Rate

| Discharge in Hours | .25 | .50 | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 10.00 | 12.00 | 20.00 | 24.00 | 48.00 | 72.00 | 100.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amp-Hr Capacity | 35.9 | 45.2 | 54.3 | 62.0 | 67.6 | 71.0 | 74.0 | 76.0 | 77.5 | 79.0 | 81.4 | 83.6 | 88.0 | 88.4 | 89.8 | 90.9 | 92.0 |

## BBA-160RT - Specifications

| Cells Per Unit | Voltage Per Unit | Max. Weight | Electrolyte | Maximum Discharge Current | Short Circuit Current | 10 Sec. Volts @100 Amps | Ohms Imped. 60 Hz (Ω) |
|---|---|---|---|---|---|---|---|
| 6 | 12.84 | 62 lbs. (28 kg) | Absorbed H2S04 | 800 Amps | 3300 Amps @ 0.1 sec | 11.6 | 0.0040 Ohms |




All dimensions in inches and (millimeters).
All dimensions are for reference only. Contact a C&D Representative for complete dimensional information.

| | |
|---|---|
| **Capacity** | 88 Ah @ 20 hour rate to 1.75 volts per cell @ 77°F (25°C) |
| **Operating Temperature Range** | **Discharge;** -40°F (-40°C) to + 160°F (71°C),<br>**Charge;** -10°F (-23°C) to+ 140°F (60°C) with temperature compensation |
| **Nominal Operating Temperature Range** | + 74°F (23°C) to +80°F (27°C) |
| **Float Charging Voltage** | 13.5 to 13.8 VDC/unit Average at 77°F (25°C) |
| **Recommended Maximum Charging Current Limit** | $C_{20}$/5 amperes 17.6 amperes |
| **Maximum AC Ripple (Charger)** | 0.5 % RMS or 1.5% P-P of float charge voltage recommended for best results.<br>Maximum AC ripple voltage allowed = 1.4% RMS (4% P-P)<br>Maximum AC ripple current allowed = 4.4 amperes RMS ($C_{20}$/20) |
| **Self Discharge** | Broadband batteries may be stored for up to 6 months at 77°F (25°C) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |
| **Accessories** | Inter unit connectors, and racks are available. |
| **Terminal** | "L" terminal with 0.28" clearance hole to accept 0.25" (6mm) bolt. |
| **Terminal Hardware Initial Torque** | 65 in.-lbs. (7.4 n-m). |
| **Terminal Hardware Annual Retorque** | 52 in.-lbs. (5.8 n-m). |

## Constant Current Discharge Ratings - Amperes @ 77°F (25°C) to 1.75 Volts per cell

| Amperes | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|
| Run Time (Minutes) | 1042 | 475 | 295 | 208 | 160 | 125 | 103 | 87 | 75 | 66 |

## Constant Current Discharge Ratings - Amperes @ 77°F (25°C)

Operating Time to End Point Voltage (in hours)

| End Point Volts/Cell | .25 | .50 | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 10.00 | 12.00 | 20.00 | 24.00 | 48.00 | 72.00 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.75 | 144 | 90.0 | 54.3 | 31.0 | 22.5 | 17.8 | 14.8 | 12.7 | 11.1 | 9.90 | 8.14 | 6.97 | 4.40 | 3.68 | 1.87 | 1.26 | 0.92 |
| 1.80 | 132 | 85.0 | 51.0 | 30.3 | 22.0 | 17.3 | 14.4 | 12.3 | 10.8 | 9.60 | 7.98 | 6.75 | 4.30 | 3.61 | 1.85 | 1.25 | 0.90 |
| 1.85 | 120 | 77.0 | 47.7 | 28.2 | 20.5 | 16.2 | 13.5 | 11.6 | 10.2 | 9.10 | 7.60 | 6.50 | 4.11 | 3.45 | 1.78 | 1.20 | 0.87 |
| 1.90 | 101 | 68.0 | 41.4 | 25.4 | 18.5 | 14.7 | 12.3 | 10.6 | 9.30 | 8.40 | 6.95 | 5.93 | 3.83 | 3.24 | 1.63 | 1.11 | 0.81 |

**Note:** Batteries to be mounted with 0.5 in. (12.5 mm) spacing minimum and free air ventilation. Specifications subject to change without notification.

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