

# Product Data Sheet

## NSB 12-540



**Specifically designed  
and engineered for  
mission critical  
applications**



- Performance excels at high rates of discharge and recharge
- Advanced automation in manufacturing processes ensure consistency and reliability
- Advanced AGM materials significantly enhance performance and reliability
- Exceptional performance under deep or shallow cyclic discharge applications
- Operational within an extreme temperature range
- Advanced 3 stage terminal design to ensure leak free operation
  - Female M6 brass terminals provide maximum performance
- Thermally sealed PPO plastic casing and cover
  - Flame retardant (UL 94 VO) and LOI of at least 28%
  - Designed to withstand extreme degrees of temperature and pressure
- Approved as non-hazardous cargo for ground, sea and air transport
  - DOT 49CFR173.159(d), (i) and (ii)



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### Technical Specifications

|                                | International Standards 20°C (68°F) | NA Standards 77°F (25°C) |
|--------------------------------|-------------------------------------|--------------------------|
| 4C (15 min.) Power to 1.67 VPC | 506 Watts/cell                      | 540 Watts/cell           |
| Float Voltage                  | 2.29 +/- 0.02 Volts/Cell            | 2.27 +/- 0.02 Volts/Cell |
| Impedance (1kHz)               | 3.0 mΩ @ 25 °C (77 °F)              |                          |
| Conductance                    | 1848 S                              |                          |
| Nominal Voltage                | 12 V                                |                          |
| Short Circuit Current          | 5,300 A                             |                          |
| Shelf Life                     | 2 years                             |                          |

### Measurements

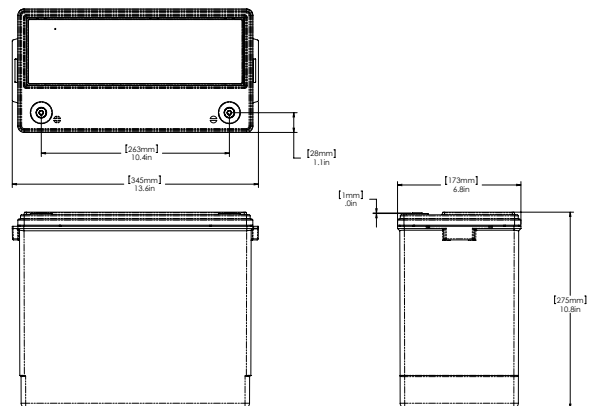
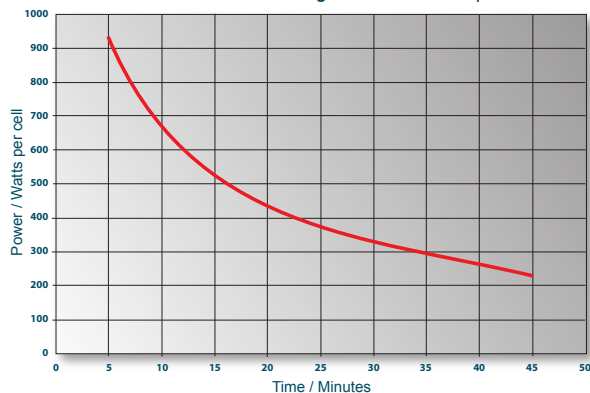
|                 |                      |
|-----------------|----------------------|
| Height          | 275 mm (10.8 in)     |
| Width           | 173 mm (6.8 in)      |
| Depth           | 345 mm (13.6 in)     |
| Weight          | 44 kg (98 lbs)       |
| Terminal Torque | 8.0 Nm (71 in-lbs)   |
| Terminal        | Female M6 Leak Proof |

\*For more information please contact NorthStar Battery Customer Service

### Constant Power Discharge Ratings Duration (minutes) (Watts/cell at 25°C/77°F)

| End of discharge (Volts) | 2    | 5   | 10  | 15  | 20  | 30  | 45  | 60  | 120 |
|--------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.75                     | 1105 | 836 | 612 | 492 | 415 | 320 | 241 | 195 | 112 |
| 1.70                     | 1190 | 901 | 655 | 523 | 439 | 336 | 252 | 202 | 115 |
| 1.67                     | 1233 | 934 | 678 | 540 | 452 | 345 | 257 | 206 | 116 |
| 1.65                     | 1258 | 954 | 691 | 549 | 460 | 350 | 260 | 208 | 117 |
| 1.60                     | 1304 | 993 | 718 | 569 | 475 | 360 | 266 | 213 | 119 |

NSB12-540 Discharge Curve to 1.67 vpc



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#### All NorthStar products are compliant with:

- Telcordia SR4228, Bellcore GR-63-Core, Issue 1
- British, German, and Russian telecom standards
- UL Approved

NorthStar is Registered to ISO 9001 & ISO 14001