

### northstarbattery.com

# NSB RED Battery® Pure Lead - Long Life

The NSB RED Battery<sup>®</sup> delivers long life for reliable and unreliable grid conditions.



Form: SES-541-01885

SB100ET DO

Issued: 02-15-17



## The NSB RED Battery® is ideal for use in a range of applications, including telecom backup, cable TV, emergency lighting, railway, oil and gas and more.

- Pure lead electrochemistry greatly increases temp and corrosion resistance, while reducing component aging
- Thin plates deliver large surface area, high power density and low resistance
- Design life 15+ years at 20°C (68°F)
- EUROBAT design life definition: Long Life (12+ years)
- Fast recharging
- Operating temperature range -40°C to +65°C (-40°F to 149°F)
- State-of-the-art automated manufacturing ensures consistency and reliability

- Shelf life of up to 24 months
- Advanced 3 stage terminal design to ensure leak-free operation - brass terminals provide maximum performance
- High modulus Polyphenylene Oxide (PPO) plastic materials designed to withstand extended elevated operating temperatures and maintain high battery compression essential for reliable operation
  - Non-halogenated, thermally sealed plastic casing - Flame retardant (UL 94 VO) and LOI of at least 28%
- Approved as non-hazardous cargo for ground, sea, and air transport - DOT 49CFR173.159(d), (i) and (ii)

### NorthStar advanced manufacturing

NorthStar products are designed to be ultra-high performance and premium quality, with a much longer lifetime than standard products. But to build batteries to such a high standard requires the latest robotic processing and manufacturing technology. That's why we built the industry's most technologically advanced battery manufacturing facilities in Missouri, USA.

All NorthStar RED Batteries are proudly made in the USA. Our facilities are also built and run to meet the toughest possible environmental requirements, to prevent lead poisoning of the surrounding air, ground and water.



				The second second
	- Hung			
	NSB 100FT RED	NSB 155FT RED	NSB 170FT RED	NSB 190FT RED
Height	287 mm (11.3 in)	280 mm (11.0 in)	320 mm (12.6 in)	320 mm (12.6 in)
Width	108 mm (4.2 in)	125 mm (4.9 in)	125 mm (4.9 in)	125 mm (4.9 in)
Length	396 mm (15.6 in)	560 mm (22.0 in)	560 mm (22.0 in)	560 mm (22.0 in)
Weight	30 kg (67 lbs)	46 kg (101 lbs)	52.5 kg (116 lbs)	56 kg (123 lbs)
Terminal Torque	8.0 Nm (71 in-lbs)			
1 hr capacity to 1.70 VPC*	68 / 71 Ah	113 / 117 Ah	124 / 128 Ah	129 / 132 Ah
3 hr capacity to 1.75 VPC*	85 / 87 Ah	130 / 134 Ah	143 / 147 Ah	160 / 164 Ah
8 hr capacity to 1.75 VPC*	97 / 99 Ah	149 / 153 Ah	164 / 168 Ah	183 / 186 Ah
10 hr capacity to 1.80 VPC*	99 / 100 Ah	151 / 155 Ah	166 / 170 Ah	187 / 190 Ah
Float voltage*	2.28 / 2.27 VPC			
Impedance (1KHz)	4.5 mΩ	3.5 mΩ	3.3 mΩ	3.0 mΩ
Conductance	1,150 S	1,550 S	1,600 S	1,750 S
Short circuit current	2,900 A	3,900 A	4,100 A	4,600 A
Nominal voltage	12 V	12 V	12 V	12 V

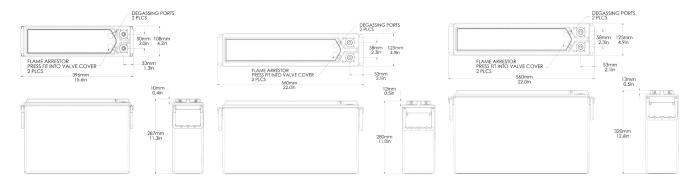
\* Capacities and float voltages given at 20°C (68°F) and 25°C (77°F)

### Technical drawings

#### NSB 100FT RED



#### NSB 170FT and 190FT RED





#### NorthStar Americas

NorthStar Battery Company LLC 4000 Continental Way Springfield, MO, 65803, United States of America info@northstarbattery.com Tel: +1 417 575 8200 Fax: +1 417 575 8250

#### NorthStar Europe

SiteTel Sweden AB Haukadalsgatan 8A 164 40 Kista Stockholm, Sweden europe@northstarsitetel.com Tel: +46 8 410 102 00 Fax: +46 8 638 06 00

#### NorthStar Middle East, Africa

NorthStar Battery DMCC Office 702, Saba 1 Tower Jumeirah Lake Towers, Dubai United Arab Emirates mea@northstarsitetel.com Tel: +971 4 423 8060 Fax: +971 4 423 8061

#### NorthStar Asia-Pacific

NS Asia Pacific Sdn. Bhd. B2-3A-13A, Solaris Dutamas No. 1, Jalan Dutamas 1, 50480 Kuala Lumpur, Malaysia asia@northstarbattery.com Tel: +60 3 6419 0711

#### NorthStar China

Sitetel Sweden AB Shenzhen International Chamber of Commerce Tower Fuhua 3rd Road, Futian District Shenzhen, 518017, China china@northstarsitetel.com Tel: +86 755 23832313

All NorthStar batteries are compliant with: Telcordia SR4228, IEC 60896; Bellcore GR-63-Core, Issue 1; British, German, and Russian telecom standards; UL approved and UN2800 certified. NorthStar is registered to ISO 9001 and ISO 14001.