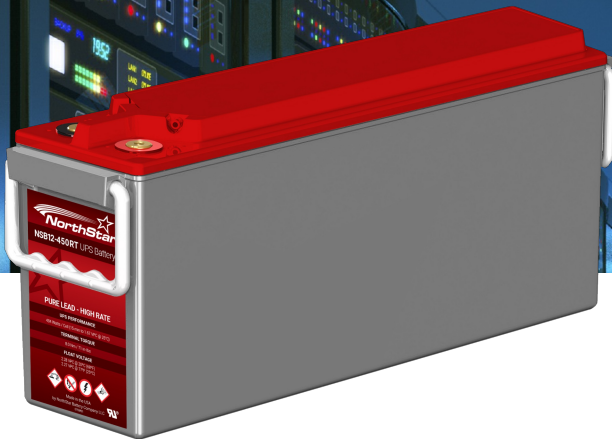


Pure Lead - High Rate



The NSB UPS Battery® delivers superior performance at high discharge rates down to <15 mins.

- Performance excels at high rates of discharge and recharge
- 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: Very Long Life (12+ years)
- High energy density
- Operating temperature range -40°C to +65°C (-40°F to 149°F)
- State-of-the-art automated manufacturing ensures consistency and reliability
- 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
- Approved as non-hazardous cargo for ground sea and air transport DOT 49CFR173.159(d), (i) and (ii)

NSB 12-450RT

Nominal Technical Specifications

Electrical

Terminal	Female M8 x 1.25	Terminal torque	8.0 Nm (71 in-lbs)
4C (15min) power to 1.67 VPC	484 Watts/Cell	Float voltage	2.28 VPC
Shelf life	up to 24 months	Conductance	2091 S
Impedance (1Khz)	2.4 mΩ @ 25°C (77°F)	Short circuit current	3800 A
Operation temperature range	-40°C to +65°C	Nominal voltage	12 V
Silver equivalent	NSB 12-450FT	Capacity	W/cell (15 min)

Dimensions

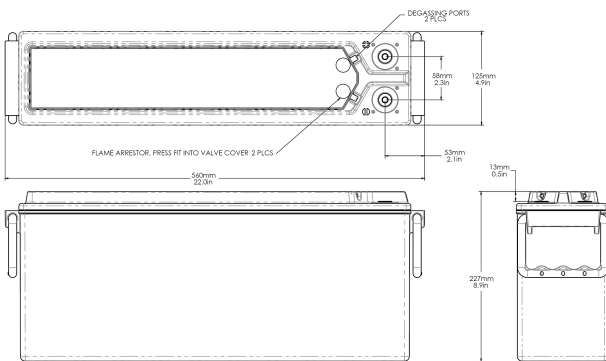
Height	227 mm	Width	125 mm
Length	560 mm	Weight	40 kg

Constant Power Discharge Ratings (WPC @ 25°C/77°F)

Duration (minutes) (watts/cell @ 25°C/77°F)

End of discharge (Volts)	2 min	5 min	10 min	15 min	20 min	30 min	45 min	60 min	120 min
1.75	1097	818	582	458	380	287	212	189	95
1.70	1210	873	610	475	393	294	216	171	96
1.67	1274	903	624	484	399	298	218	173	96
1.65	1315	921	632	489	402	300	219	173	96
1.60	1409	960	650	500	409	303	221	175	97

Technical Drawing



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.

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