

NSB 155FT Red Battery®

Long float life at elevated temperatures



Red Star Technology® uses pure lead plates to deliver **exceptionally long float life even at elevated temperatures.**

- Pure lead AGM technology delivers long float life for telecom applications even at elevated temperatures
- 15 year float life at 20°C (68°F)
- EUROBAT design life definition: 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 - female M8 brass terminals provide maximum performance
- 2 year shelf life at 25°C (77°F)
- 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%
- Integral handles and front access terminals ensure ease of installation and maintenance
- Approved as non-hazardous cargo for ground, sea, and air transport - DOT 49CFR173.159(d), (i) and (ii)



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Nominal Technical Specifications



Electrical

	International Standard 20°C (68°F)	North American Standard 25°C (77°F)
8 hour capacity to 1.75 VPC	148 Ah	150 Ah
10 hour capacity to 1.80 VPC	151 Ah	154 Ah
Float Voltage	2.29 +/- 0.02 VPC	2.27 +/- 0.02 VPC
Nominal Voltage	12 V	
Impedance (1kHz)	2.3 mΩ @ 25°C (77°F)	
Conductance	2,240 S	
Short Circuit Current	5,000 A	

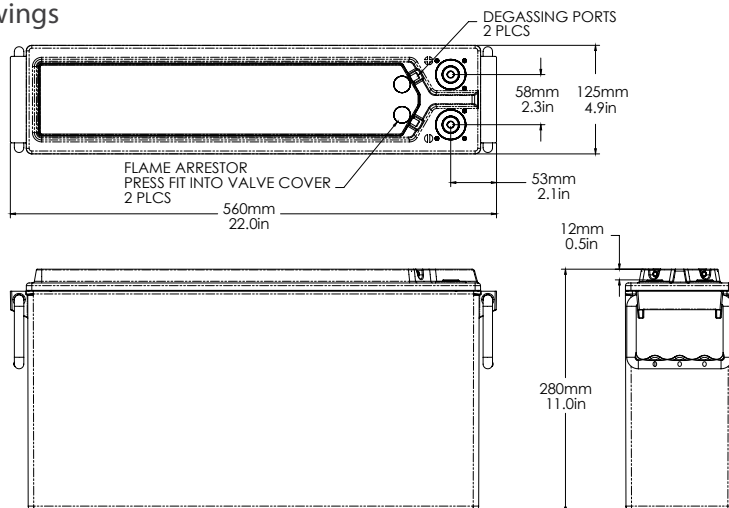
Dimensions

Height	280 mm (11.0 in)	Weight	53 kg (117 lbs)
Width	125 mm (4.9 in)	Terminal	Female M8 x 1.25
Depth	560 mm (22.0 in)	Terminal Torque	8.0 Nm (71 in-lbs)

Ah Capacity Ratings @ 25°C (77°F)

Capacity Discharge / hours	1	2	4	8	10
Capacity @ 25°C /Ah	119	129	139	150	154
End of Discharge / VPC	1.70	1.75	1.75	1.75	1.80

Drawings



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



Northstar 155FT Red Battery™



Discharge Tables - 20°C (68°F)

Current / A

Duration		End of Discharge Voltage								
Mins	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	461.6	547.7	636.7	725.2	776.6	809.5	885.3	948.6	996.1
5	0.08	410.4	466.0	520.5	571.8	600.1	617.6	656.2	685.5	704.4
10	0.17	320.4	352.7	383.0	410.5	425.2	434.2	453.2	466.7	474.3
15	0.25	262.8	284.3	304.2	321.8	331.1	336.7	348.3	356.3	360.5
20	0.33	223.5	239.0	253.2	265.6	272.1	276.0	283.9	289.3	291.9
30	0.50	173.2	182.5	190.9	198.1	201.8	204.0	208.4	211.3	212.7
45	0.75	130.7	135.9	140.5	144.4	146.4	147.5	149.9	151.4	152.1
60	1	105.5	108.8	111.6	114.1	115.3	116.0	117.5	118.4	118.8
120	2	60.6	61.5	62.3	62.9	63.3	63.5	63.9	64.2	64.3
180	3	43.0	43.4	43.7	44.0	44.1	44.2	44.4	44.6	44.7
240	4	33.6	33.7	33.9	34.1	34.1	34.2	34.3	34.4	34.5
300	5	27.6	27.7	27.8	28.0	28.0	28.0	28.1	28.2	28.3
480	8	18.3	18.4	18.5	18.5	18.6	18.6	18.6	18.7	18.7
600	10	15.0	15.1	15.2	15.3	15.3	15.4	15.4	15.5	15.5
1200	20	8.3	8.4	8.6	8.7	8.7	8.8	8.8	8.9	8.9

Capacity / Ah

Duration		End of Discharge Voltage								
Mins	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	15.4	18.3	21.2	24.2	25.9	27.0	29.5	31.6	33.2
5	0.08	34.2	38.8	43.4	47.6	50.0	51.5	54.7	57.1	58.7
10	0.17	53.4	58.8	63.8	68.4	70.9	72.4	75.5	77.8	79.1
15	0.25	65.7	71.1	76.0	80.4	82.8	84.2	87.1	89.1	90.1
20	0.33	74.5	79.7	84.4	88.5	90.7	92.0	94.6	96.4	97.3
30	0.50	86.6	91.3	95.4	99.0	100.9	102.0	104.2	105.7	106.3
45	0.75	98.0	101.9	105.3	108.3	109.8	110.6	112.4	113.6	114.1
60	1	105.5	108.8	111.6	114.1	115.3	116.0	117.5	118.4	118.8
120	2	121.2	123.0	124.5	125.9	126.5	126.9	127.8	128.3	128.7
180	3	129.1	130.2	131.1	132.0	132.4	132.7	133.2	133.7	134.0
240	4	134.2	135.0	135.6	136.3	136.6	136.8	137.3	137.7	138.0
300	5	138.1	138.7	139.2	139.8	140.0	140.2	140.7	141.0	141.4
480	8	146.3	147.0	147.6	148.2	148.5	148.7	149.2	149.6	150.0
600	10	150.4	151.4	152.2	153.0	153.4	153.7	154.2	154.7	155.0
1200	20	165.8	168.9	171.5	173.6	174.7	175.3	176.5	177.2	177.5

Power / W per cell

Duration		End of Discharge Voltage								
Mins	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	850.5	984.5	1120.0	1252.2	1327.9	1376.0	1486.0	1577.2	1645.1
5	0.08	766.2	854.9	939.9	1018.3	1060.9	1087.1	1143.6	1185.4	1210.8
10	0.17	606.8	659.0	707.2	750.0	772.5	786.0	814.1	833.2	842.7
15	0.25	502.0	537.1	568.9	596.6	610.9	619.4	636.6	647.9	652.7
20	0.33	429.6	455.0	477.8	497.3	507.4	513.2	525.1	532.6	535.5
30	0.50	335.7	350.9	364.3	375.7	381.4	384.8	391.4	395.5	396.9
45	0.75	255.1	263.5	270.8	276.9	280.0	281.8	285.4	287.5	288.2
60	1	206.7	212.0	216.5	220.3	222.2	223.3	225.5	226.8	227.3
120	2	119.5	120.8	121.9	122.9	123.4	123.7	124.3	124.8	125.0
180	3	84.8	85.3	85.7	86.1	86.3	86.4	86.7	87.0	87.2
240	4	66.0	66.2	66.4	66.6	66.7	66.8	67.0	67.2	67.4
300	5	54.2	54.3	54.4	54.5	54.6	54.7	54.8	55.0	55.1
480	8	35.5	35.6	35.7	35.8	35.9	35.9	36.0	36.1	36.3
600	10	29.0	29.2	29.3	29.4	29.5	29.5	29.6	29.7	29.8
1200	20	15.5	15.8	16.0	16.2	16.3	16.3	16.4	16.5	16.5