

TELECOM



ALL NORTHSTAR PRODUCTS ARE COMPLIANT WITH:

- ✦ Telcordia SR4228
- ✦ Bellcore GR-63-Core, Issue 1
- ✦ DOT 49CFR173.159(d) (i) and (ii)
- ✦ UL Approval
- ✦ British and German telecom standards

Northstar Battery Company is proud to be registered to ISO-9001:2000 and ISO-14001 standards.

NSB 60 FT

KEY FEATURES

- Specifically designed for mission-critical applications. Excels at high-rate discharge and recharge, extreme temperature range, deep or shallow cyclic applications.
- High cyclic life capability +500 C/3 @ 80% DOD.
- 10 year float life at 25°C (77°F) — 15 year float life at 20°C (68°F).
- Flame retardant (UL 94 VO) PC-ABS plastic case and cover.
- 3 step terminal seal design to ensure leak-free operation. Female M8 brass terminals provide maximum high rate performance and no annual retightening.
- Integral handles ensure ease of handling.
- Approved as non-hazardous cargo for ground, sea and air transportation.

ELECTRICAL CHARACTERISTICS

Refer to the NSB detailed performance tables for additional current, capacity and power information.

	Int'l Standards @ 20°C □	NA Standards @ 77°F
8 hour capacity to 1.75 VPC □	57.0 amp-hours □	57.9 amp-hours □
10 hour capacity to 1.80 VPC □	56.9 amp-hours □	57.7 amp-hours
Float voltage □	2.29 +/- .02 volts per cell □	2.27 +/- .02 volts per cell
Cyclic Recharge □	2.45 VPC — no current limit	
Shelf life □	2 years	
Impedance (1KHz) □	4.1 m□ □	
Short Circuit Current □	2,000 Amps □	
Voltage □	12 Volts □	

MECHANICAL CHARACTERISTICS

	SI Units □	English Units
Height □	263.0 mm □	10.35 inches □
Width □	107.6 mm □	4.24 inches
Length □	287.0 mm □	11.30 inches
Weight □	22.2 kilograms □	46.2 pounds
Terminal Torque □	8.0 Newton-meters □	71 inch-pounds



NOTHING IS MORE RELIABLE

NSB+60+FT

PERFORMANCE TABLES @ 77°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	283.8	314.3	342.6	367.4	380.2	387.7	402.6	411.3	413.5
5	0.08	192.7	206.3	218.3	228.2	233.1	235.8	240.7	242.8	242.8
10	0.17	133.3	140.2	146.1	150.8	152.9	154.1	156.0	156.5	156.5
15	0.25	104.6	109.1	112.9	115.9	117.3	118.0	119.1	119.2	119.2
20	0.33	87.0	90.4	93.2	95.4	96.3	96.8	97.6	97.6	97.6
30	0.50	66.1	68.4	70.2	71.6	72.2	72.5	73.0	72.9	72.9
45	0.75	49.4	50.9	52.1	53.1	53.5	53.7	54.0	53.9	53.9
60	1	39.8	41.0	41.9	42.6	42.9	43.0	43.3	43.2	43.2
120	2	23.0	23.6	24.1	24.5	24.6	24.7	24.9	24.9	24.9
180	3	16.4	16.8	17.2	17.4	17.6	17.6	17.8	17.8	17.8
240	4	12.8	13.1	13.4	13.6	13.7	13.8	13.9	13.9	13.9
300	5	10.5	10.8	11.0	11.2	11.3	11.4	11.4	11.5	11.5
480	8	6.9	7.1	7.2	7.4	7.4	7.5	7.6	7.6	7.6
600	10	5.6	5.8	5.9	6.0	6.1	6.1	6.2	6.2	6.2
1200	20	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3	3.3

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	9.5	10.5	11.4	12.2	12.7	12.9	13.4	13.7	13.8
5	0.08	16.1	17.2	18.2	19.0	19.4	19.6	20.1	20.2	20.2
10	0.17	22.2	23.4	24.3	25.1	25.5	25.7	26.0	26.1	26.1
15	0.25	26.1	27.3	28.2	29.0	29.3	29.5	29.8	29.8	29.8
20	0.33	29.0	30.1	31.1	31.8	32.1	32.3	32.5	32.5	32.5
30	0.50	33.1	34.2	35.1	35.8	36.1	36.3	36.5	36.4	36.4
45	0.75	37.1	38.2	39.1	39.8	40.1	40.3	40.5	40.4	40.4
60	1	39.8	41.0	41.9	42.6	42.9	43.0	43.3	43.2	43.2
120	2	45.9	47.2	48.2	48.9	49.3	49.5	49.7	49.8	49.8
180	3	49.1	50.4	51.5	52.3	52.7	52.9	53.3	53.3	53.3
240	4	51.1	52.4	53.6	54.5	54.9	55.2	55.6	55.7	55.7
300	5	52.5	53.9	55.1	56.1	56.5	56.8	57.2	57.4	57.4
480	8	55.0	56.6	57.9	59.0	59.6	59.9	60.4	60.7	60.7
600	10	56.0	57.7	59.1	60.3	60.8	61.1	61.7	62.0	62.0
1200	20	58.4	60.3	61.9	63.2	63.9	64.3	65.0	65.3	65.4

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	527.0	571.9	612.2	646.6	663.8	673.7	692.5	702.2	702.5
5	0.08	367.6	389.0	407.4	422.4	429.5	433.4	440.2	442.6	442.6
10	0.17	258.4	269.8	279.3	286.8	290.2	292.0	294.9	295.3	295.3
15	0.25	204.3	212.0	218.3	223.2	225.4	226.6	228.3	228.3	228.3
20	0.33	170.8	176.6	181.4	185.0	186.6	187.5	188.7	188.6	188.6
30	0.50	130.6	134.5	137.7	140.1	141.1	141.7	142.4	142.3	142.3
45	0.75	98.1	100.7	102.9	104.5	105.2	105.5	106.0	105.9	105.9
60	1	79.3	81.3	82.9	84.1	84.7	84.9	85.3	85.3	85.3
120	2	46.0	47.0	47.9	48.6	48.9	49.1	49.3	49.3	49.3
180	3	32.8	33.6	34.2	34.7	34.9	35.0	35.2	35.2	35.2
240	4	25.6	26.2	26.7	27.1	27.3	27.4	27.6	27.6	27.6
300	5	21.1	21.6	22.0	22.3	22.5	22.6	22.7	22.7	22.7
480	8	13.8	14.2	14.4	14.7	14.8	14.8	15.0	15.0	15.0
600	10	11.3	11.5	11.8	12.0	12.1	12.1	12.2	12.3	12.3
1200	20	5.9	6.0	6.2	6.3	6.3	6.4	6.4	6.4	6.4