

# 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 40 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 M6 brass terminals provide maximum high rate performance and no annual retightening.
- 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
<b>8 hour capacity</b> to 1.75 VPC	37.5 amp-hours	38.1 amp-hours
<b>10 hour capacity</b> to 1.80 VPC	37.6 amp-hours	38.1 amp-hours
<b>Float voltage</b>	2.29 +/- .03 volts per cell	2.27 +/- .03 volts per cell
<b>Cyclic Recharge</b>	2.45 VPC — no current limit	
<b>Shelf life</b>	2 years	
<b>Impedance (1KHz)</b>	6.5 m	
<b>Short Circuit Current</b>	1,400 Amps	
<b>Voltage</b>	12 Volts	

## MECHANICAL CHARACTERISTICS

	SI Units	English Units
<b>Height</b>	208.5 mm	8.21 inches
<b>Width</b>	96.7 mm	3.81 inches
<b>Length</b>	250.0 mm	9.84 inches
<b>Weight</b>	15.3 kilograms	27.9 pounds
<b>Terminal Torque</b>	8.0 Newton-meters	71 inch-pounds



NOTHING IS MORE RELIABLE

# NSB+40+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	208.1	237.3	265.8	292.5	307.1	316.0	335.4	349.7	358.0
5	0.08	139.5	152.7	164.8	175.2	180.6	183.8	190.0	193.6	194.4
10	0.17	94.7	101.4	107.2	112.1	114.5	115.8	118.3	119.4	119.1
15	0.25	73.3	77.7	81.4	84.5	86.0	86.8	88.2	88.8	88.5
20	0.33	60.4	63.6	66.4	68.6	69.6	70.2	71.2	71.6	71.3
30	0.50	45.3	47.4	49.1	50.5	51.2	51.5	52.2	52.4	52.2
45	0.75	33.4	34.7	35.9	36.8	37.2	37.4	37.8	38.0	37.9
60	1	26.7	27.7	28.5	29.2	29.5	29.7	30.0	30.1	30.0
120	2	15.2	15.6	16.0	16.4	16.5	16.6	16.8	16.9	16.9
180	3	10.7	11.1	11.3	11.5	11.7	11.7	11.8	11.9	11.9
240	4	8.4	8.6	8.8	9.0	9.1	9.1	9.2	9.3	9.3
300	5	6.9	7.1	7.2	7.4	7.4	7.5	7.6	7.6	7.6
480	8	4.5	4.7	4.8	4.8	4.9	4.9	5.0	5.0	5.0
600	10	3.7	3.8	3.9	4.0	4.0	4.0	4.0	4.1	4.0
1200	20	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1

## 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	6.9	7.9	8.9	9.7	10.2	10.5	11.2	11.7	11.9
5	0.08	11.6	12.7	13.7	14.6	15.1	15.3	15.8	16.1	16.2
10	0.17	15.8	16.9	17.9	18.7	19.1	19.3	19.7	19.9	19.9
15	0.25	18.3	19.4	20.4	21.1	21.5	21.7	22.1	22.2	22.2
20	0.33	20.1	21.2	22.1	22.9	23.2	23.4	23.7	23.9	23.9
30	0.50	22.7	23.7	24.6	25.3	25.6	25.8	26.1	26.2	26.2
45	0.75	25.1	26.1	26.9	27.6	27.9	28.1	28.4	28.5	28.5
60	1	26.7	27.7	28.5	29.2	29.5	29.7	30.0	30.1	30.1
120	2	30.3	31.3	32.1	32.7	33.1	33.2	33.6	33.8	33.8
180	3	32.2	33.2	34.0	34.6	35.0	35.2	35.5	35.7	35.8
240	4	33.5	34.4	35.2	35.9	36.3	36.4	36.8	37.0	37.1
300	5	34.4	35.4	36.2	36.9	37.2	37.4	37.8	38.0	38.0
480	8	36.3	37.3	38.1	38.8	39.1	39.3	39.6	39.8	39.8
600	10	37.1	38.1	39.0	39.7	40.0	40.1	40.4	40.5	40.5
1200	20	39.8	40.9	41.7	42.3	42.5	42.6	42.7	42.4	42.4

## 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	392.1	439.8	485.3	526.7	548.9	562.4	590.7	610.2	620.1
5	0.08	267.4	289.2	308.8	325.6	334.1	339.0	348.5	353.8	354.6
10	0.17	183.8	194.9	204.5	212.5	216.3	218.5	222.4	224.2	224.2
15	0.25	143.2	150.5	156.8	161.9	164.3	165.6	168.0	168.9	168.9
20	0.33	118.5	123.9	128.5	132.2	134.0	134.9	136.6	137.1	137.1
30	0.50	89.4	92.9	95.9	98.2	99.4	100.0	101.0	101.3	101.3
45	0.75	66.3	68.6	70.5	72.1	72.8	73.2	73.9	74.1	74.1
60	1	53.1	54.8	56.3	57.4	58.0	58.3	58.8	59.0	59.0
120	2	30.4	31.2	31.9	32.5	32.8	32.9	33.2	33.4	33.4
180	3	21.6	22.1	22.6	23.0	23.2	23.3	23.5	23.6	23.6
240	4	16.8	17.3	17.6	17.9	18.1	18.2	18.3	18.4	18.4
300	5	13.9	14.2	14.5	14.8	14.9	14.9	15.1	15.1	15.1
480	8	9.1	9.4	9.6	9.7	9.8	9.8	9.9	9.9	9.9
600	10	7.5	7.7	7.8	7.9	8.0	8.0	8.1	8.1	8.1
1200	20	4.0	4.1	4.2	4.2	4.2	4.3	4.3	4.3	4.3