

UPS



ALL NORTHSTAR PRODUCTS ARE COMPLIANT WITH:

- ✦ DOT 49CFR173.159(d)
 - (i) and (ii)
- ✦ UL Approval
- ✦ ISO 9000/14000

NSB-12-180

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
15 minute power to 1.67 VPC □	208 watts per cell □	180 watts per cell
20 hour capacity to 1.75 VPC □	42 amp-hours □	43 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) □	4.5 m-ohms □	
Short Circuit Current □	2,000 Amps □	
Voltage □	12 Volts □	

MECHANICAL CHARACTERISTICS

	SI Units □	English Units
Height □	176 mm □	6.93 inches □
Width □	165 mm □	6.50 inches
Length □	197 mm □	7.75 inches
Weight □	16.0 kilograms □	35.3 pounds
Terminal Torque □	6.0 Newton-meters □	53 inch-pounds



NOTHING IS MORE RELIABLE

NSB12+180

PERFORMANCE TABLES @ 25°C (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			292.4	324.2	341.6	352.3	375.3	392.0	401.3
5	0.08		170.3	185.1	198.1	204.7	208.6	216.2	220.5	221.4
10	0.17	104.4	112.3	119.4	125.3	128.2	129.8	132.9	134.3	134.3
15	0.25	80.1	85.2	89.6	93.2	94.9	95.9	97.7	98.5	98.5
20	0.33	65.5	69.1	72.2	74.7	76.0	76.7	77.9	78.4	78.4
30	0.50	48.5	50.7	52.6	54.1	54.9	55.3	56.0	56.4	56.4
45	0.75	35.3	36.6	37.8	38.7	39.2	39.4	39.9	40.2	40.2
60	1	28.0	28.9	29.7	30.4	30.7	30.9	31.3	31.5	31.5
120	2	15.6	16.0	16.4	16.7	16.9	17.0	17.2	17.3	17.4
180	3	11.0	11.3	11.5	11.7	11.8	11.9	12.0	12.1	12.2
240	4	8.5	8.8	9.0	9.1	9.2	9.3	9.4	9.4	9.5
300	5	7.0	7.2	7.4	7.5	7.6	7.6	7.7	7.8	7.8
480	8	4.7	4.8	4.9	5.0	5.1	5.1	5.2	5.2	5.2
600	10	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.3	
1200	20	2.2	2.3	2.3	2.4	2.4	2.4	2.4		

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			9.7	10.8	11.4	11.7	12.5	13.1	13.4
5	0.08		14.2	15.4	16.5	17.1	17.4	18.0	18.4	18.5
10	0.17	17.4	18.7	19.9	20.9	21.4	21.6	22.1	22.4	22.4
15	0.25	20.0	21.3	22.4	23.3	23.7	24.0	24.4	24.6	24.6
20	0.33	21.8	23.0	24.1	24.9	25.3	25.6	26.0	26.1	26.1
30	0.50	24.3	25.3	26.3	27.1	27.4	27.6	28.0	28.2	28.2
45	0.75	26.5	27.5	28.3	29.0	29.4	29.6	30.0	30.1	30.1
60	1	28.0	28.9	29.7	30.4	30.7	30.9	31.3	31.5	31.5
120	2	31.2	32.0	32.7	33.4	33.7	33.9	34.3	34.6	34.7
180	3	32.9	33.8	34.5	35.2	35.5	35.7	36.1	36.4	36.6
240	4	34.1	35.0	35.8	36.5	36.9	37.1	37.5	37.8	37.9
300	5	35.1	36.1	36.9	37.6	38.0	38.2	38.6	38.9	39.0
480	8	37.4	38.5	39.5	40.3	40.7	40.9	41.2	41.4	41.4
600	10	38.6	39.8	40.9	41.8	42.1	42.3	42.7	42.8	
1200	20	43.2	45.1	46.6	47.7	48.1	48.2	48.3		

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			520.5	570.6	597.4	613.6	647.4	670.1	680.5
5	0.08		318.1	341.8	362.2	372.5	378.4	389.7	395.7	396.1
10	0.17	201.4	214.4	225.7	235.0	239.5	242.1	246.7	248.6	248.6
15	0.25	156.1	164.3	171.4	177.2	180.0	181.5	184.2	185.3	185.3
20	0.33	128.3	134.2	139.3	143.4	145.4	146.5	148.4	149.1	149.1
30	0.50	95.6	99.3	102.5	105.0	106.2	106.9	108.1	108.6	108.6
45	0.75	69.9	72.2	74.2	75.8	76.6	77.1	77.9	78.2	78.2
60	1	55.5	57.2	58.6	59.8	60.4	60.7	61.3	61.7	61.7
120	2	31.1	31.9	32.6	33.2	33.5	33.7	34.0	34.2	34.3
180	3	21.9	22.5	23.0	23.4	23.6	23.7	23.9	24.1	24.2
240	4	17.1	17.5	17.9	18.2	18.4	18.5	18.6	18.8	18.8
300	5	14.0	14.4	14.7	15.0	15.1	15.2	15.3	15.4	15.5
480	8	9.3	9.6	9.8	10.0	10.1	10.1	10.2	10.2	10.2
600	10	7.7	7.9	8.1	8.3	8.3	8.4	8.4	8.4	
1200	20	4.3	4.5	4.6	4.6	4.7	4.7	4.7		