

AGM Thin Plate Lead Carbon



The NSB BLUE+ Battery® delivers ultra fast recharge and exceptional PSoC cycling performance.

- Exceptional PSoC cyclic performance 2050 cycles @50% DoD
- Design life 12+ years at 20°C
- (68°F) Ultra fast recharge
- Shelf life of up to 24 months
- Lead carbon added to negative electrodes increases power and reduces sulfation
- High potential fuel savings when used with hybrid genset applications
- 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 100FT BLUE+

Nominal Technical Specifications

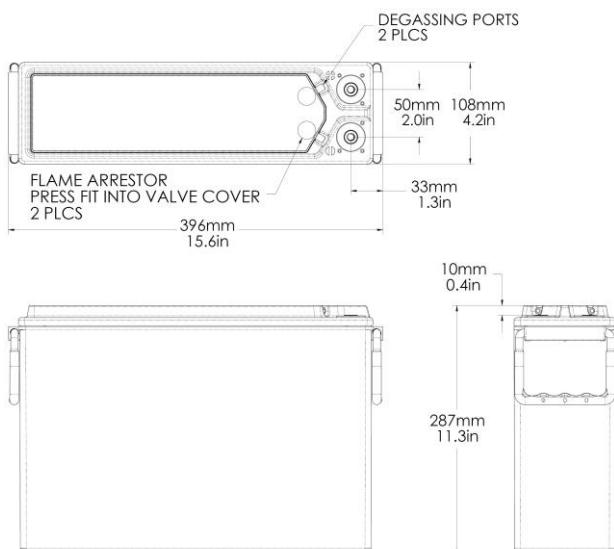
Dimensions

Height	287 mm	Width	108 mm
Length	396 mm	Weight	34 kg

Electrical

Terminal	Female M8 x 1.25
Terminal torque	8.0 Nm (71 in-lbs)
10 hr capacity to 1.80VPC @ 25°C (77°F)	100 Ah
8 hr capacity to 1.75VPC @ 25°C (77°F)	100 Ah
Float voltage @ 20/25°C (68/77°F)	2.28 / 2.27 VPC
Impedance (1Khz)	2.6 mΩ @ 25°C (77°F)
Conductance	1846 S
Short circuit current	3500 A
Maximum charge current (A)	No Limit
Operation temperature range	-40°C to +65°C
Nominal voltage	12 V

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.

NSB 100FT BLUE+ Battery[®]

Discharge tables @ 20°C (68°F)



Current / A

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	323.6	386.4	450.2	511.9	546.5	568.1	615.3	650.3	670.8
5	0.08	261.1	295.9	329.6	361.0	378.2	388.7	411.4	428.1	437.9
10	0.17	199.4	218.3	236.1	252.2	260.8	266.0	277.2	285.2	289.9
15	0.25	163.8	176.2	187.6	197.8	203.2	206.4	213.3	218.1	220.9
20	0.33	140.1	149.0	157.1	164.2	167.9	170.2	174.9	178.2	180.0
30	0.50	110.1	115.3	120.1	124.2	126.3	127.6	130.2	132.0	132.9
45	0.75	84.4	87.3	89.9	92.2	93.3	94.0	95.3	96.2	96.6
60	1	68.9	70.8	72.5	73.8	74.5	74.9	75.7	76.2	76.4
120	2	40.6	41.2	41.6	42.0	42.2	42.3	42.5	42.6	42.6
180	3	29.0	29.3	29.5	29.7	29.8	29.8	29.9	29.9	29.9
240	4	22.6	22.8	23.0	23.1	23.2	23.2	23.2	23.2	23.2
300	5	18.6	18.7	18.8	18.9	19.0	19.0	19.1	19.1	19.1
480	8	12.1	12.2	12.3	12.4	12.4	12.5	12.5	12.5	12.6
600	10	9.8	9.9	10.0	10.1	10.2	10.2	10.2	10.3	10.3
1200	20	5.0	5.1	5.2	5.3	5.4	5.4	5.5	5.6	5.6

Capacity / Ah

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	10.8	12.9	15.0	17.1	18.2	18.9	20.5	21.7	22.4
5	0.08	21.8	24.7	27.5	30.1	31.5	32.4	34.3	35.7	36.5
10	0.17	33.2	36.4	39.4	42.0	43.5	44.3	46.2	47.5	48.3
15	0.25	40.9	44.0	46.9	49.4	50.8	51.6	53.3	54.5	55.2
20	0.33	46.7	49.7	52.4	54.7	56.0	56.7	58.3	59.4	60.0
30	0.50	55.0	57.7	60.0	62.1	63.1	63.8	65.1	66.0	66.4
45	0.75	63.3	65.5	67.5	69.1	70.0	70.5	71.5	72.1	72.4
60	1	68.9	70.8	72.5	73.8	74.5	74.9	75.7	76.2	76.4
120	2	81.2	82.3	83.3	84.0	84.4	84.6	85.0	85.1	85.1
180	3	87.1	87.9	88.6	89.1	89.4	89.5	89.7	89.8	89.8
240	4	90.5	91.3	91.9	92.4	92.6	92.7	92.9	92.9	92.9
300	5	92.8	93.6	94.2	94.7	94.9	95.1	95.3	95.3	95.3
480	8	96.5	97.5	98.4	99.2	99.5	99.7	100.2	100.4	100.5
600	10	97.7	99.0	100.1	101.1	101.6	101.9	102.5	102.9	103.1
1200	20	99.2	102.0	104.6	106.8	108.0	108.7	110.3	111.5	112.4

Power / WPC

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	667.5	742.4	814.8	882.5	920.0	943.3	995.0	1035.7	1063.8
5	0.08	515.5	561.9	605.9	646.2	668.2	681.7	711.4	734.3	749.6
10	0.17	385.3	412.7	438.2	461.1	473.3	480.8	496.9	509.0	516.7
15	0.25	313.7	332.6	349.8	365.1	373.2	378.1	388.5	396.1	400.7
20	0.33	267.1	281.1	293.8	304.9	310.7	314.2	321.5	326.8	329.8
30	0.50	208.8	217.5	225.3	232.1	235.5	237.6	241.8	244.7	246.1
45	0.75	159.6	164.7	169.3	173.1	175.0	176.2	178.4	179.8	180.3
60	1	130.2	133.6	136.6	139.0	140.2	140.9	142.3	143.1	143.2
120	2	76.6	77.7	78.6	79.3	79.7	79.9	80.2	80.2	80.2
180	3	54.8	55.3	55.8	56.1	56.3	56.3	56.4	56.4	56.4
240	4	42.7	43.1	43.4	43.6	43.7	43.7	43.8	43.8	43.8
300	5	35.1	35.3	35.6	35.7	35.8	35.8	35.9	35.9	35.9
480	8	22.8	23.0	23.2	23.3	23.4	23.4	23.5	23.5	23.5
600	10	18.4	18.6	18.8	19.0	19.0	19.1	19.2	19.2	19.3
1200	20	9.3	9.6	9.8	9.9	10.0	10.1	10.2	10.4	10.5

NSB 100FT BLUE+ Battery[®]

Discharge tables @ 25°C (77°F)



Current / A

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	359.1	428.8	499.6	568.1	606.5	630.4	682.8	721.7	744.4
5	0.08	284.3	322.1	358.9	393.1	411.7	423.2	447.9	466.1	476.8
10	0.17	214.2	234.6	253.7	271.0	280.2	285.8	297.8	306.5	311.5
15	0.25	174.7	187.9	200.1	210.9	216.7	220.2	227.5	232.7	235.6
20	0.33	148.7	158.2	166.7	174.3	178.2	180.6	185.6	189.1	191.0
30	0.50	116.0	121.6	126.6	130.9	133.1	134.5	137.2	139.1	140.1
45	0.75	88.4	91.5	94.2	96.5	97.7	98.4	99.8	100.8	101.2
60	1	71.9	73.9	75.6	77.0	77.7	78.2	79.0	79.5	79.7
120	2	41.9	42.5	43.0	43.4	43.6	43.7	43.9	44.0	44.0
180	3	29.8	30.1	30.3	30.5	30.6	30.7	30.7	30.8	30.7
240	4	23.2	23.4	23.5	23.7	23.7	23.7	23.8	23.8	23.8
300	5	19.0	19.1	19.3	19.4	19.4	19.4	19.5	19.5	19.5
480	8	12.3	12.4	12.5	12.6	12.6	12.7	12.7	12.8	12.8
600	10	9.9	10.0	10.2	10.3	10.3	10.3	10.4	10.4	10.4
1200	20	5.0	5.1	5.3	5.4	5.4	5.5	5.6	5.6	5.7

Capacity / Ah

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	12.0	14.3	16.7	18.9	20.2	21.0	22.8	24.1	24.8
5	0.08	23.7	26.8	29.9	32.8	34.3	35.3	37.3	38.8	39.7
10	0.17	35.7	39.1	42.3	45.2	46.7	47.6	49.6	51.1	51.9
15	0.25	43.7	47.0	50.0	52.7	54.2	55.0	56.9	58.2	58.9
20	0.33	49.6	52.7	55.6	58.1	59.4	60.2	61.9	63.0	63.7
30	0.50	58.0	60.8	63.3	65.5	66.6	67.2	68.6	69.6	70.0
45	0.75	66.3	68.6	70.7	72.4	73.3	73.8	74.9	75.6	75.9
60	1	71.9	73.9	75.6	77.0	77.7	78.2	79.0	79.5	79.7
120	2	83.8	85.0	86.0	86.8	87.2	87.4	87.8	87.9	87.9
180	3	89.5	90.3	91.0	91.6	91.8	92.0	92.2	92.3	92.3
240	4	92.7	93.5	94.1	94.6	94.8	94.9	95.1	95.2	95.2
300	5	94.8	95.6	96.3	96.8	97.0	97.1	97.3	97.4	97.4
480	8	98.1	99.1	100.0	100.8	101.2	101.4	101.8	102.0	102.1
600	10	99.0	100.4	101.5	102.5	103.0	103.3	103.9	104.3	104.5
1200	20	99.9	102.8	105.3	107.6	108.8	109.5	111.1	112.3	113.2

Power / WPC

Duration		End of Discharge Voltage								
Minutes	Hours	1.85	1.80	1.75	1.70	1.67	1.65	1.60	1.55	1.50
2	0.03	740.7	823.8	904.2	979.4	1020.9	1046.8	1104.1	1149.3	1180.6
5	0.08	561.2	611.8	659.7	703.6	727.5	742.2	774.5	799.4	816.2
10	0.17	414.0	443.5	470.8	495.4	508.5	516.6	533.9	546.8	555.1
15	0.25	334.6	354.7	373.1	389.4	398.0	403.3	414.4	422.5	427.4
20	0.33	283.5	298.4	311.8	323.6	329.8	333.5	341.3	346.8	350.0
30	0.50	220.1	229.3	237.6	244.7	248.3	250.5	254.9	258.0	259.5
45	0.75	167.1	172.6	177.3	181.3	183.3	184.5	186.9	188.4	188.9
60	1	135.8	139.4	142.5	145.0	146.3	147.0	148.4	149.2	149.4
120	2	79.1	80.2	81.2	82.0	82.3	82.5	82.8	82.9	82.9
180	3	56.3	56.8	57.3	57.7	57.8	57.9	58.0	58.0	58.0
240	4	43.8	44.1	44.4	44.6	44.7	44.8	44.8	44.8	44.8
300	5	35.8	36.1	36.3	36.5	36.6	36.6	36.6	36.6	36.6
480	8	23.2	23.4	23.5	23.7	23.8	23.8	23.9	23.9	23.9
600	10	18.7	18.9	19.1	19.2	19.3	19.4	19.4	19.5	19.5
1200	20	9.4	9.6	9.8	10.0	10.1	10.2	10.3	10.4	10.5