

NSB 100FT Blue+Battery®

Designed for demanding solar applications



The proven performance of Blue Star Technology® now enhanced to deliver more power, high cycling and fast recharge

- + 2 year shelf life
- + Ideal for demanding environments with unstable AC power
- + High cycling and fast recharge performance
- + High potential fuel savings when used with hybrid genset applications
- + Modified electrochemistry delivers high capacity and high power density
- + 10 year float life at 25°C (77°F)
- + Operating temperature range -40°C to +65°C
- + High modulus Polyphenylene Oxide (PPO) plastic materials designed to withstand extended elevated operating temperatures
 - Non-halogenated, thermally sealed plastic casing
 - Flame retardant (UL 94 VO) and LOI of at least 28%
- + Partial State of Charge (PSOC) cycling technology

HELIOS
POWER SOLUTIONS

NorthStar®

NSB 100FT Blue+Battery®

Technical Specifications



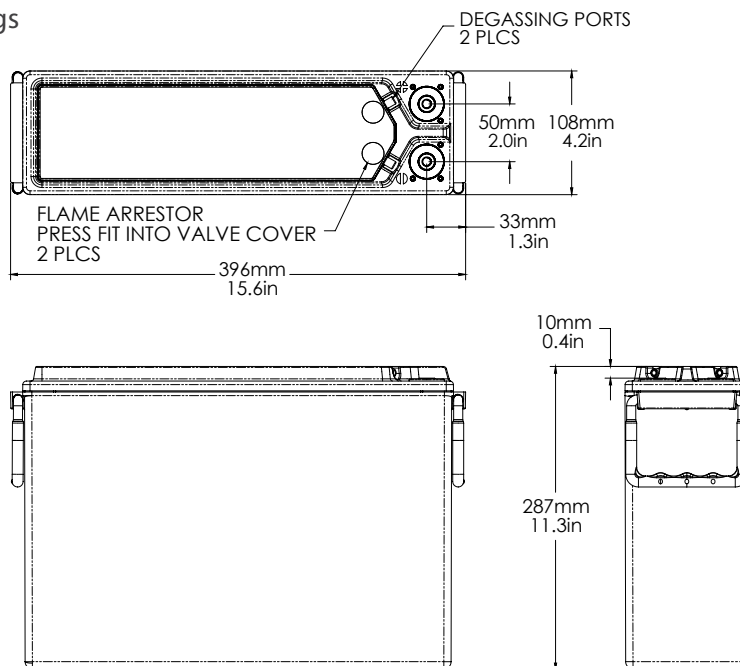
Electrical

10 hour capacity to 1.80 VPC @ 25°C (77°F)	100 Ah
8 hour capacity to 1.75 VPC @ 25°C (77°F)	100 Ah
10 hour capacity to 1.80 VPC @ 20°C (68°F)	99 Ah
Float Voltage	2.27 +/- 0.02 VPC @ 25°C (77°F)
Nominal Voltage	12 V
Impedance (1kHz)	2.6 mΩ @ 25°C (77°F)
Conductance	1,846 S
Short Circuit Current	3,500 A
Maximum Charge Current	no limit

Dimensions

Height	287 mm (11.3 in)	Weight	34 kg (74 lbs)
Width	108 mm (4.2 in)	Terminal	Female M8 x 1.25
Depth	396 mm (15.6 in)	Terminal Torque	8.0 Nm (71 in-lbs)

Drawings



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

Northstar 100FT Blue+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	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								
Mins	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 / 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	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