

# NSB UPS Battery®

## Pure Lead - High Rate



The NSB UPS Battery® delivers superior performance at high discharge rates down to <15 mins.

99.9%  
PURE LEAD

15+ YRS  
DESIGN LIFE

PROUDLY  
MADE IN THE  
USA



# The NSB UPS Battery<sup>®</sup> is ideal for use in a range of applications, including datacenters, industrial, energy storage, and UPS applications.

- Performance excels at high rates of discharge and recharge
- Pure lead electrochemistry greatly increases temp and corrosion resistance, while reducing component aging
- Thin plates deliver large surface area, high power density and low resistance
- Design life 15+ years at 20°C (68°F)
- EUROBAT design life definition: Long Life (12+ years)
- High energy density
- Operating temperature range -40°C to +65°C (-40°F to 149°F)
- State-of-the-art automated manufacturing ensures consistency and reliability
- Unmatched quality control and construction techniques ensures long life and optimal performance
- Shelf life of up to 24 months
- 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
  - Flame retardant (UL 94 VO) and LOI of at least 28%
- Front access terminals ensure ease of installation and maintenance
- Approved as non-hazardous cargo for ground, sea, and air transport - DOT 49CFR173.159(d), (i) and (ii)

Our solutions multiply battery lifetime and reduces energy consumption, delivering significant savings in operator OPEX and CAPEX due to fewer battery replacements and maintenance visits. Other benefits include:

- Reduced environmental impact
- High safety standards
- Low maintenance design
- Premium construction materials
- Integrated BMS platform standard
- Integrated breakers and fuses
- Integrated data com available
- Wide range of cabinet colors

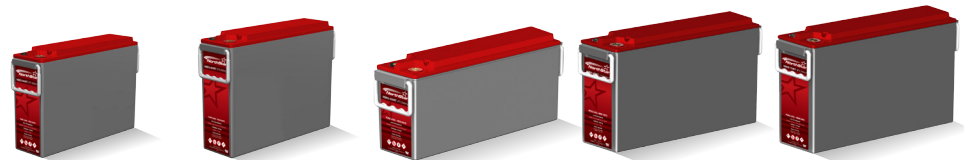
Below is a front terminal sizing example, compared to a monoblock system.

Number of strings	Number of cabinets	UPS kVA			Overall dimensions of string			Weight (lbs/kg)
		250	500	750	Width (in/cm)	Depth (in/cm)	Height (in/cm)	
		UPS kW						
		240	480	720				
1	1	6.9			48/122	35/89	82/208	6240/2824
2	2	25.7	6.9		96/244	35/89	82/208	12480/5647
3	3	44	16	6.9	144/366	35/89	82/208	18720/8471
4	4	65.5	23.3	13	192/488	35/89	82/208	24960/11294
5	5	87.5	33.5	19.2	240/610	35/89	82/208	31200/14118



NSB12-310      NSB12-425      NSB12-540      NSB12-170RT      NSB12-245RT

Height	200 mm (7.9 in)	213 mm (8.4 in)	275 mm (10.8 in)	208 mm (8.2 in)	263 mm (10.4 in)
Width	173 mm (6.8 in)	173 mm (6.8 in)	173 mm (6.8 in)	97 mm (3.8 in)	108 mm (4.2 in)
Length	261 mm (10.3 in)	341 mm (13.4 in)	345 mm (13.6 in)	250 mm (9.8 in)	287 mm (11.3 in)
Weight	26 kg (57 lbs)	34 kg (75 lbs)	45 kg (99 lbs)	15 kg (33 lbs)	22 kg (49 lbs)
Terminal Torque	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)
4C (15 min) power to 1.67 VPC*	291 / 310 Watts	397 / 423 Watts	506 / 540 Watts	154 / 164 Watts	233 / 248 Watts
Float Voltage*	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC
Conductance	1760 S	1875 S	1,952 S	1005 S	1588 S
Impedance (1kHz)	2.61 mΩ	2.40 mΩ	2.37 mΩ	4.1 mΩ	2.82 mΩ
Short Circuit Current	3,000 A	3,900	3,600 A	1,500 A	2,100 A
Operating Temp Range	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C
Nominal Voltage	12 V	12 V	12 V	12 V	12 V
Silver Equivalent	12-300	NSB 12-400	NSB 12-540	NSB 12-150FT	NSB 12-225FT



NSB12-365RT      NSB12-425RT      NSB12-450RT      NSB12-650RT      NSB12-730RT

Height	264 mm (10.4 in)	287 mm (11.3 in)	227 mm (8.9 in)	280 mm (11.0 in)	320 mm (12.6 in)
Width	108 mm (4.2 in)	108 mm (4.2 in)	125 mm (4.9 in)	125 mm (4.9 in)	125 mm (4.9 in)
Length	396 mm (15.6 in)	396 mm (15.6 in)	560 mm (22.0 in)	560 mm (22.0 in)	560 mm (22.0 in)
Weight	33 kg (73 lbs)	35 kg (77 lbs)	40 kg (88 lbs)	54 kg (119 lbs)	62 kg (137 lbs)
Terminal Torque	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)	8.0 Nm (71 in-lbs)
4C (15 min) power to 1.67 VPC*	342 / 365 Watts	385 / 410 Watts	454 / 484 Watts	608 / 649 Watts	682/728 Watts
Float Voltage*	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC	2.28 / 2.27 VPC
Conductance	1808 S	1921 S	2091 S	2300 S	2386 S
Impedance (1kHz)	2.63 mΩ	2.60 mΩ	2.40 mΩ	2.3 mΩ	2.25 mΩ
Short Circuit Current	3,200 A	3,500 A	3,800 A	5,000 A	6,000 A
Operating Temp Range	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C
Nominal Voltage	12 V	12 V	12 V	12 V	12 V
Silver Equivalent	N/A	NSB 12-420FT	NSB 12-450FT	NSB 12-590FT	N/A

\* Capacities and float voltages given at 20°C (68°F) and 25°C (77°F)

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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.