

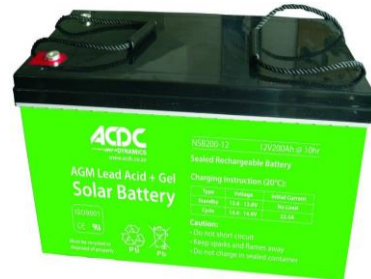
Product SPECIFICATION SHEET



NSB100-12

Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	100AH
Dimensions	Length 331 ±2mm (13.0 inches)
	Width 174 ±2mm (6.81 inches)
	Container Height 214 ±2mm (8.35 inches)
	Total Height (with Terminal) 219 ±2mm (8.66 inches)
Approx Weight	Approx 30.0kg (67.02lbs)
Terminal	T4 (M8X16) / Torque: 6.6 ~ 8.3Nm
Container Material	ABS
Rated Capacity	104.0 AH/5.20A (20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A (10hr, 1.80V/cell, 25°C/77°F)
	88.0 AH/17.6A (5hr, 1.75V/cell, 25°C/77°F)
	76.2 AH/25.4A (3hr, 1.75V/cell, 25°C/77°F)
	63.8 AH/63.8A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)
Internal Resistance	Approx 4.0mΩ
Operating Temp. Range	Discharge : -15~50°C (5 ~122°F)
	Charge : 0~40°C (32 ~104°F)
	Storage : -15~40°C (5 ~104°F)
Operating Temp. Range	25 ±3°C (77 ±5°F) but can work in -15~50°C (5 ~122°F)
Cycle Use	Initial Charging Current less than 30.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	The self-discharge rate is about 2% at 25°C (77°F) per month. Refreshing charge is required after stored for 8 months. For higher temperature, shorter interval.



Applications

- ♦ Solar or Wind Power System
- ♦ Stored energy (Photovoltaic)
- ♦ Uninterruptable Power Supply (UPS)
- ♦ Electric Power System (EPS)
- ♦ Emergency backup power supply
- ♦ Emergency light
- ♦ Railway signal
- ♦ Aircraft signal
- ♦ Alarm and security system
- ♦ Electronic apparatus and equipment
- ♦ Telecommunications
- ♦ DC power supply



ISO9001 ISO14001

Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	173.6	146.4	130.2	115.3	87.5	65.2	52.4	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	210.0	167.6	143.7	123.5	92.1	68.7	55.1	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	237.0	186.3	154.0	130.8	96.5	71.3	57.1	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	261.6	199.5	165.1	138.9	101.8	74.6	59.5	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	291.7	215.1	178.5	146.6	106.7	77.4	61.9	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	330.8	232.5	188.5	154.3	112.3	80.5	63.8	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	322.5	274.9	247.1	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.2
1.80V/cell	386.4	312.2	271.0	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.3
1.75V/cell	431.3	344.9	288.7	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.4
1.70V/cell	470.9	366.5	307.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.5
1.65V/cell	519.3	391.4	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.6
1.60V/cell	578.9	418.2	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.7

BRANCH CONTACT DETAILS

Johannesburg	010 202 3300
Germiston	011 418 9600
Cape Town	021 510 0710
Pinetown	031 700 4215
Riverhorse	031 492 4800

NATIONAL CALL CENTRE

Sales 010 202 3400
 Technical 010 202 3500

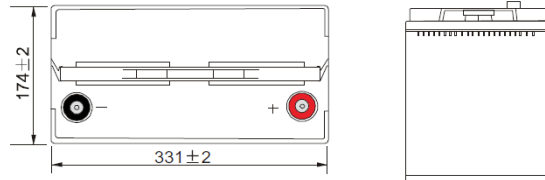
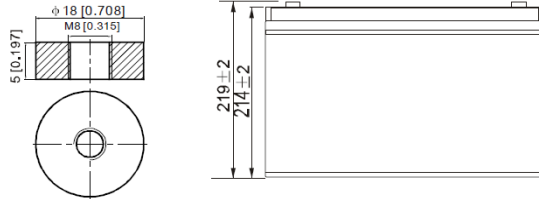
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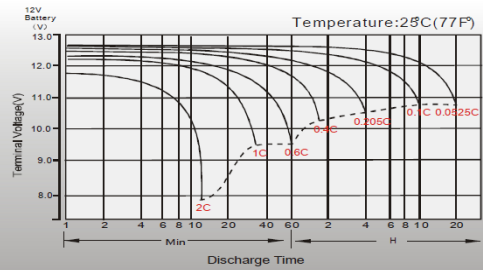
NSB100-12

Dimensions

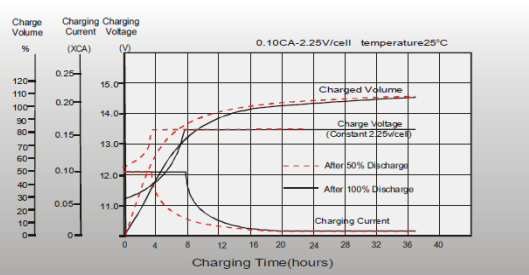
T4 Terminal Unit: mm [inches]



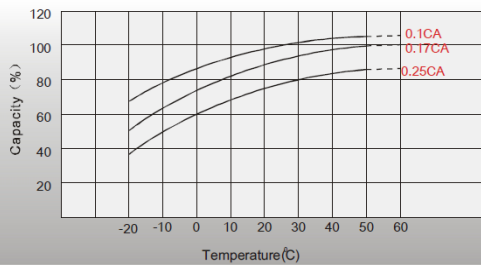
Discharge Characteristics



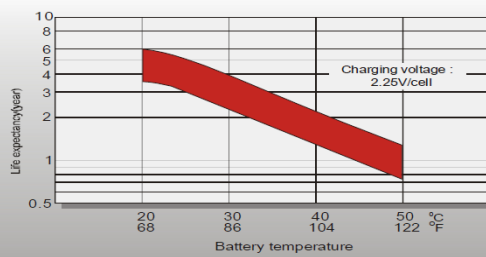
Float Charging Characteristics



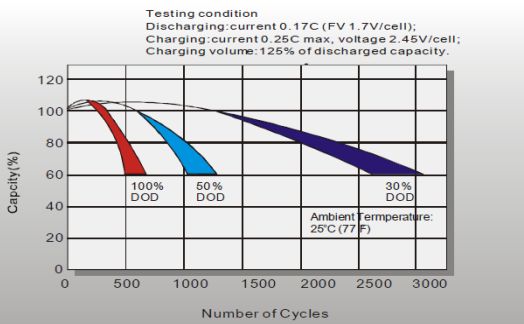
Temperature Effects in Relation to Battery Capacity



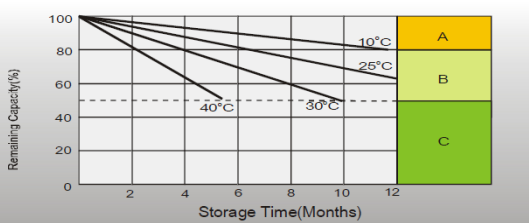
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self-discharge Characteristics



- A** No supplementary charge required. (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Specifications subject to change without prior notice.

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