

BRS100-12 [12V100AH]

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)
Standard	IEC Standard	
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 : -15~50C (5 ~122F)	
	Charge : 0~40C (32 ~104F)	
	Storage : -15~40C (5 ~104F)	
Operating Temp. Range	25±3C (77 ±5F) but can work in -15~50C (5 ~122F)	
Cycle Use	Initial Charging Current less than 30.0A.Voltage	
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	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

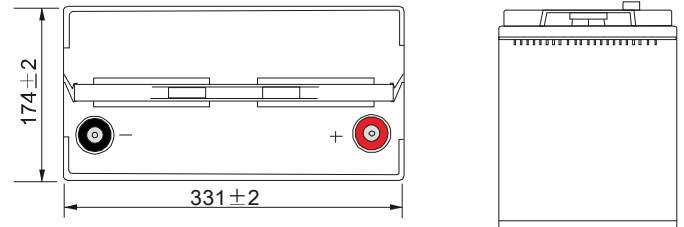
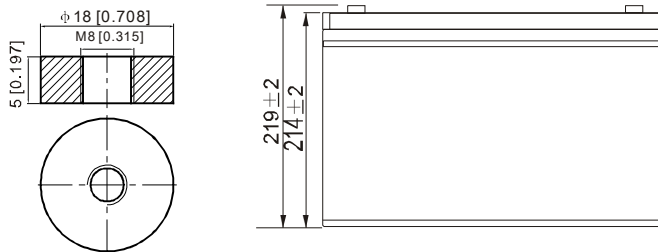
Constant Power Discharge (Watts/cell) at 25°C (77°F)

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

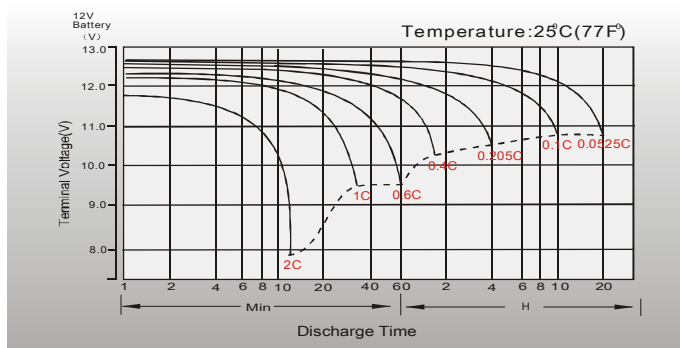
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Dimensions

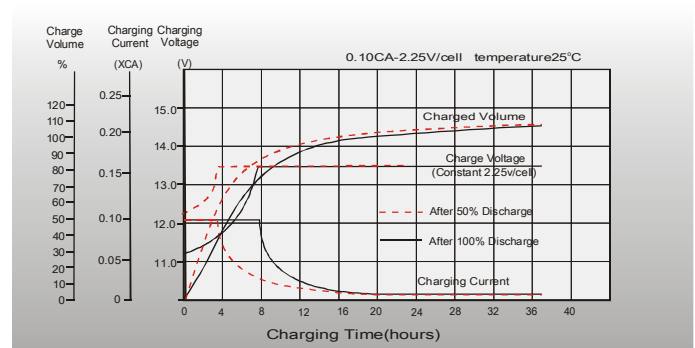
T4 Terminal Unit: mm [inches]



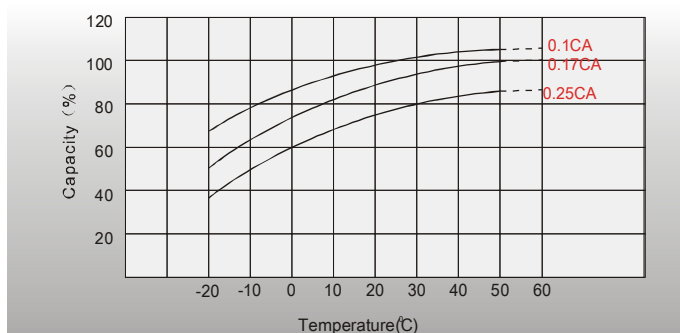
Discharge Characteristics



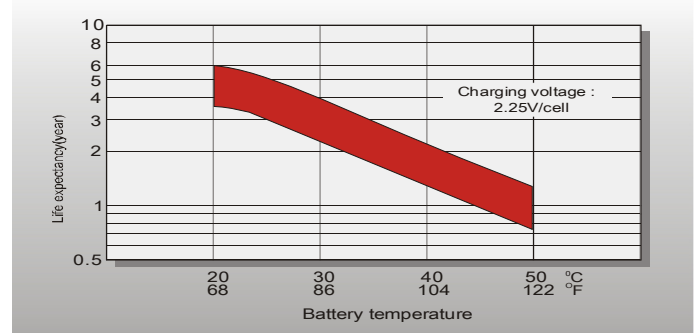
Float Charging Characteristics



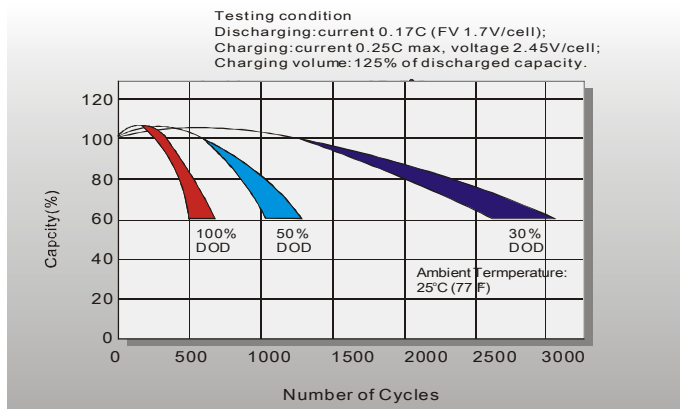
Temperature Effects in Relation to Battery Capacity



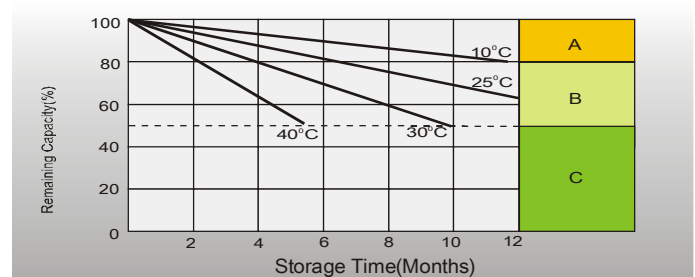
Effect of Temperature on Long Term Float Life



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.