



12V 100Ah

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	100AH	
Dimension	Length	330±3mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±2mm (8.35 inches)
	Total Height (with Terminal)	220±2mm (8.66 inches)
Approx Weight	Approx 28.0 kg (61.66 lbs)	
Terminal	T11/T10	
Container Material	ABS	
Rated Capacity	108.0 AH/5.40A	(20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	93.0 AH/18.6A	(5hr, 1.75V/cell, 25°C/77°F)
	82.2 AH/27.4A	(3hr, 1.75V/cell, 25°C/77°F)
	61.2 AH/61.2A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 3.6 mΩ	
Operating Temp. Range	Discharge : -15~50°C (5~122°F)	
	Charge : 0~40°C (32~104°F)	
	Storage : -15~40°C (5~104°F)	
Nominal Operating Temp. Range	25±3°C (77±5°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	
Standby Use	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
	batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	
Capacity affected by Temperature	40°C (104 °F)	103%
	25°C (77 °F)	100%
	0°C (32 °F)	86%
Self Discharge	batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Applications

- ◆ All purpose
- ◆ 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
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem



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

F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	229.71	172.18	112.97	58.03	26.51	18.23	10.02	5.41
1.75V/cell	238.01	175.66	115.16	60.32	27.42	18.64	10.20	5.48
1.70V/cell	252.46	182.61	116.80	60.56	27.69	18.94	10.41	5.62
1.65V/cell	257.55	187.24	117.90	60.86	28.10	19.29	10.66	5.81
1.60V/cell	267.72	193.03	120.64	61.28	28.79	19.95	11.11	6.03

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

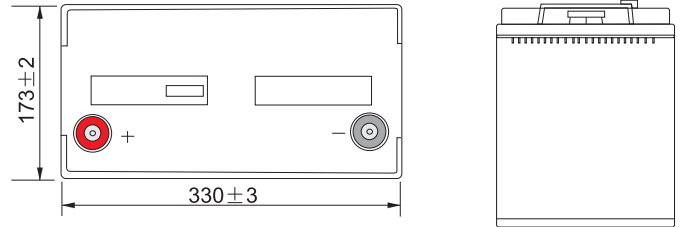
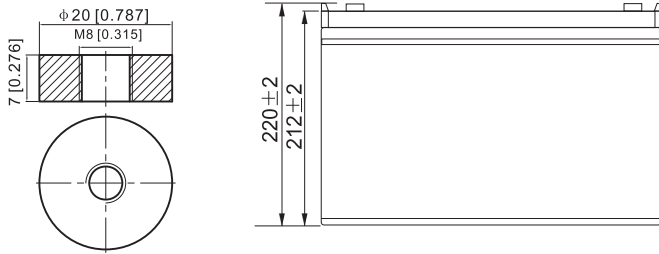
F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	416.00	318.20	209.67	108.11	49.71	34.59	19.69	10.66
1.75V/cell	434.60	327.61	216.39	113.53	51.82	35.68	20.19	10.90
1.70V/cell	466.56	343.49	221.35	115.61	53.09	36.71	20.87	11.27
1.65V/cell	479.31	356.32	225.90	111.20	54.41	37.74	21.64	11.84
1.60V/cell	501.99	369.66	233.09	119.39	56.20	39.30	22.80	12.45

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

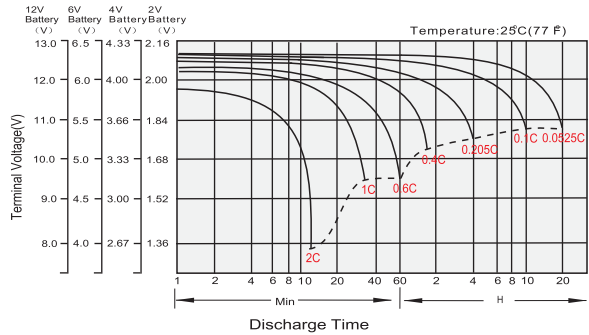
Dimensions

T11 Terminal

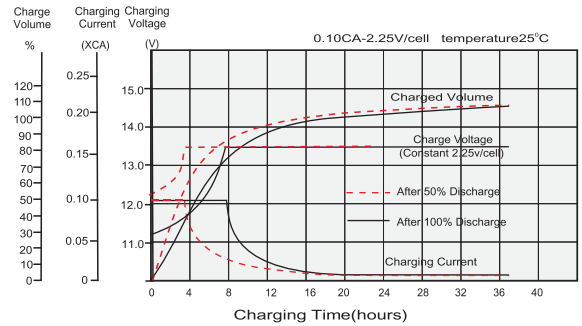
Unit: mm [inches]



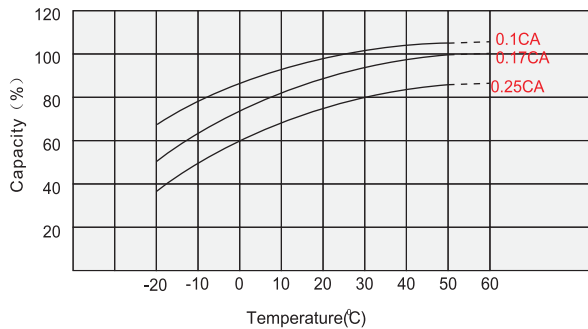
Discharge Characteristics



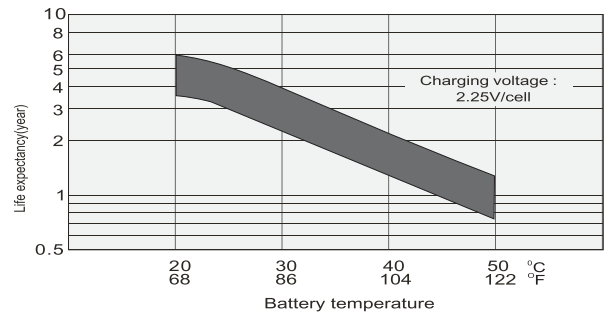
Float Charging Characteristics



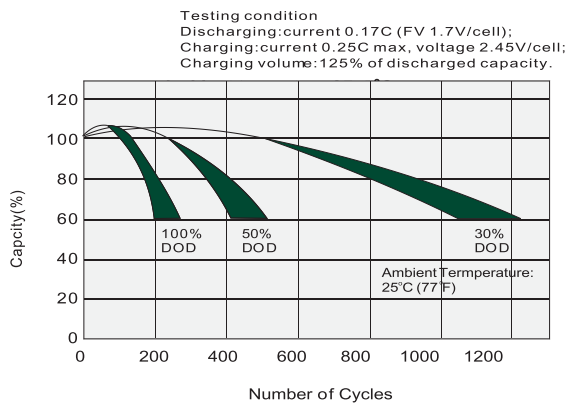
Temperature Effects in Relation to Battery Capacity



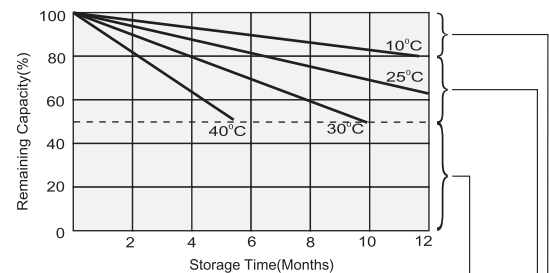
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Supplementary charge required before use. Optimal charging way as below:
 1. Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for a 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.

No supplementary charge required
 (Carry out supplementary charge before use if 100% capacity is required.)