

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	90.0Ah	
Dimensions	Length	260 ± 3mm
	Width	169 ± 2mm
	Container Height	211 ± 3mm
	Total Height (with Terminal)	215 ± 3mm
Approx Weight	Approx 23.8 kg	
Terminal	T11	
Container Material	ABS	
Rated Capacity	90.0 Ah/4.5A	(20hr,1.80V/cell,25°C)
	85.0 Ah/8.5A	(10hr,1.80V/cell,25°C)
	68.0 Ah/13.6A	(5hr,1.75V/cell,25°C)
	63.9 Ah/21.3A	(3hr,1.75V/cell,25°C)
	51.9 Ah/51.9A	(1hr,1.60V/cell,25°C)
Max. Discharge Current	960A (5s)	
Internal Resistance	Approx 6mΩ	
Operating Temp.Range	Discharge : -15~50°C	
	Charge : 0~40°C	
	Storage : -15~40°C	
Nominal Operating Temp. Range	25±3°C	
Cycle Use	Initial Charging Current less than 24.0A.Voltage 14.4V~15.0V at 25°C Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C	103%
	25°C	100%
	0°C	86%
Self Discharge	PB series batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time will be shorter	



Applications

- ◆ All purpose
- ◆ 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 control system



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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	80.8	64.6	49.3	40.0	25.5	19.6	16.2	12.8	11.1	9.4	8.1	4.4
1.80V/cell	96.1	75.7	53.6	45.1	27.2	20.4	17.0	13.2	11.9	10.5	8.5	4.5
1.75V/cell	103.7	79.1	57.0	46.8	28.1	21.3	17.9	13.6	12.3	11.1	8.8	4.7
1.70V/cell	108.8	82.5	60.4	48.5	28.9	22.1	18.5	14.5	12.8	12.3	9.1	4.9
1.65V/cell	114.8	85.0	62.9	50.2	30.6	23.0	19.1	15.3	13.2	12.8	9.4	5.1
1.60V/cell	119.0	89.3	65.5	51.9	32.3	23.8	20.0	16.2	14.0	13.6	9.8	5.3

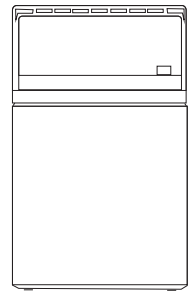
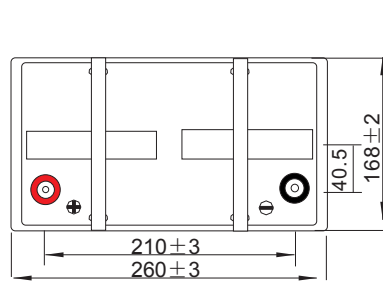
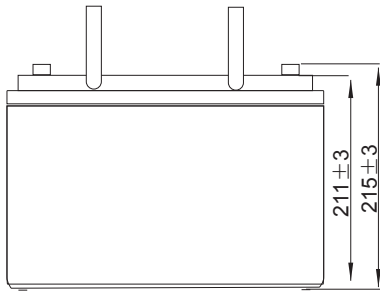
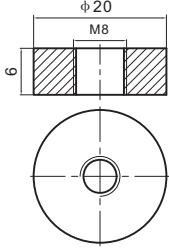
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	149.4	119.5	91.2	73.9	47.2	36.2	29.9	23.6	20.4	17.3	14.9	8.1
1.80V/cell	172.9	136.2	96.4	81.1	49.0	36.7	30.6	23.7	21.4	19.0	15.3	8.2
1.75V/cell	181.5	138.3	99.7	81.8	49.1	37.2	31.2	23.8	21.6	19.3	15.3	8.3
1.70V/cell	185.0	140.2	102.6	82.4	49.1	37.6	31.5	24.6	21.7	21.0	15.5	8.3
1.65V/cell	189.3	140.3	103.8	82.7	50.5	37.9	31.6	25.2	21.7	21.0	15.6	8.4
1.60V/cell	190.4	142.8	104.7	83.0	51.7	38.1	32.0	25.8	22.4	21.8	15.6	8.4

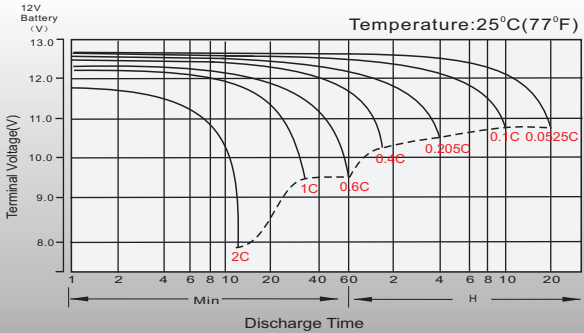
Dimensions

T11 Terminal

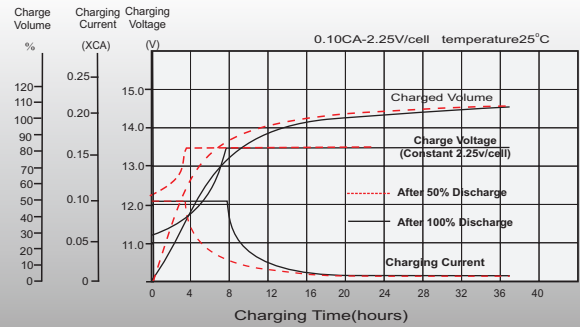
Unit: mm



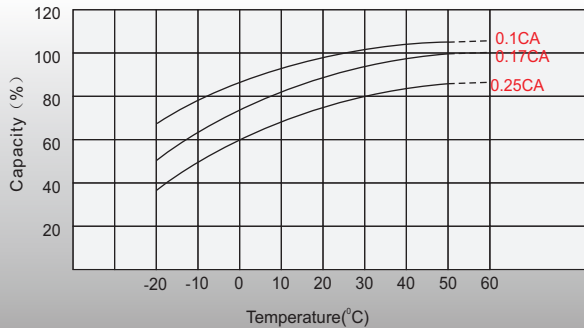
Discharge Characteristics



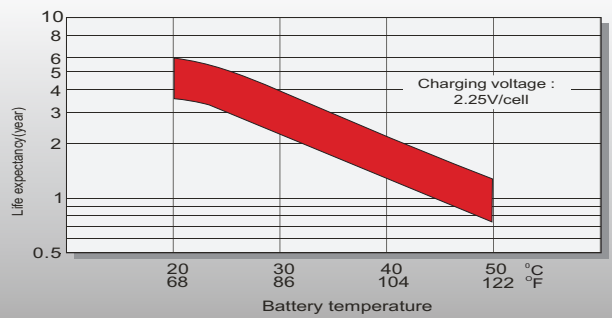
Float Charging Characteristics



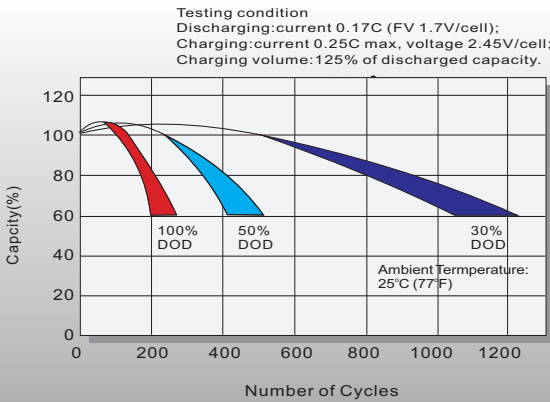
Temperature Effects in Relation to Battery Capacity



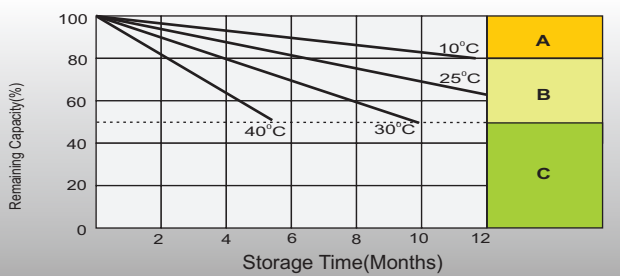
Effect of Temperature on Long Term Float Life



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.

Contact