

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	50.0Ah	
Dimensions	Length	196 ± 2mm
	Width	166 ± 2mm
	Container Height	174 ± 2mm
	Total Height (with Terminal)	174 ± 2mm
Approx Weight	Approx 13.5 kg	
Terminal	T12	
Container Material	ABS	
Rated Capacity	50.00 Ah/2.50A	(20hr, 1.75V/cell, 25°C)
	46.00 Ah/4.60A	(10hr, 1.75V/cell, 25°C)
	38.50 Ah/7.70A	(5hr, 1.70V/cell, 25°C)
	35.10 Ah/11.70A	(3hr, 1.70V/cell, 25°C)
	26.60Ah/26.60A	(1hr, 1.65V/cell, 25°C)
Max. Discharge Current	520A (5s)	
Internal Resistance	Approx 9.8mΩ	
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 11.4A. 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	PBC 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 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 control system

Intertek



ISO14001



ISO9001



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	42.8	34.2	26.1	21.2	13.5	10.4	8.6	6.8	5.9	5.0	4.3	2.3
1.80V/cell	50.9	40.1	28.4	23.9	14.4	10.8	9.0	7.0	6.3	5.6	4.5	2.4
1.75V/cell	54.9	41.9	30.2	24.8	14.9	11.3	9.5	7.2	6.5	5.9	4.6	2.5
1.70V/cell	57.6	43.7	32.0	25.7	15.3	11.7	9.8	7.7	6.8	6.5	4.8	2.6
1.65V/cell	60.8	45.0	33.3	26.6	16.2	12.2	10.1	8.1	7.0	6.8	5.0	2.7
1.60V/cell	63.0	47.3	34.7	27.5	17.1	12.6	10.6	8.6	7.4	7.2	5.2	2.8

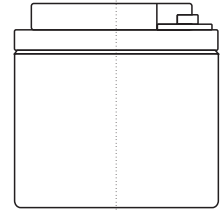
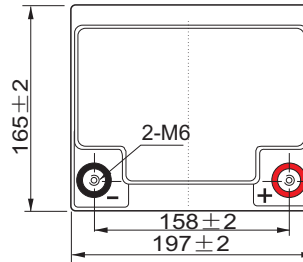
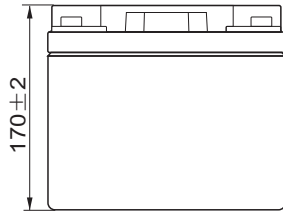
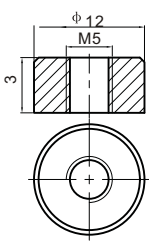
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	79.1	63.3	48.3	39.1	25.0	19.1	15.8	12.5	10.8	9.2	7.9	4.3
1.80V/cell	91.5	72.1	51.0	42.9	25.9	19.4	16.2	12.6	11.3	10.0	8.1	4.3
1.75V/cell	96.1	73.2	52.8	43.3	26.0	19.7	16.5	12.6	11.4	10.2	8.1	4.4
1.70V/cell	97.9	74.2	54.3	43.6	26.0	19.9	16.7	13.0	11.5	11.1	8.2	4.4
1.65V/cell	100.2	74.3	54.9	43.8	26.7	20.0	16.7	13.4	11.5	11.1	8.2	4.4
1.60V/cell	100.8	75.6	55.4	43.9	27.4	20.2	16.9	13.7	11.9	11.5	8.3	4.5

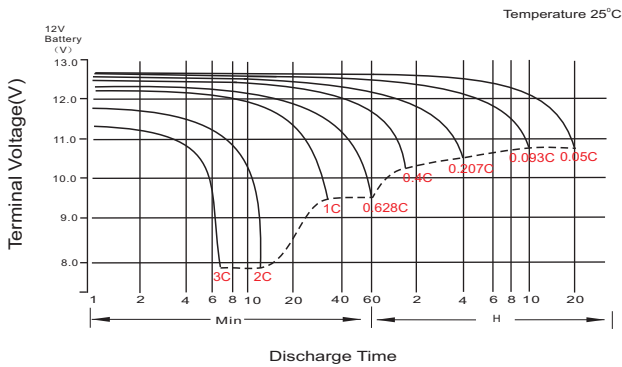
Dimensions

T12 Terminal

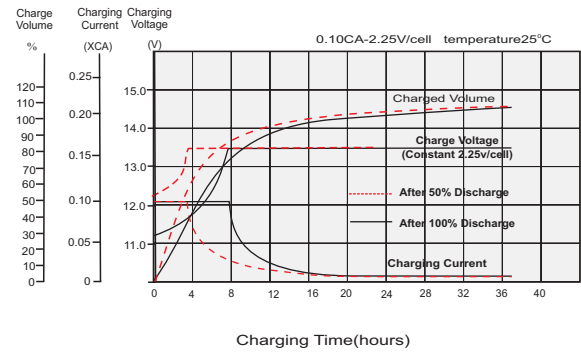
Unit: mm



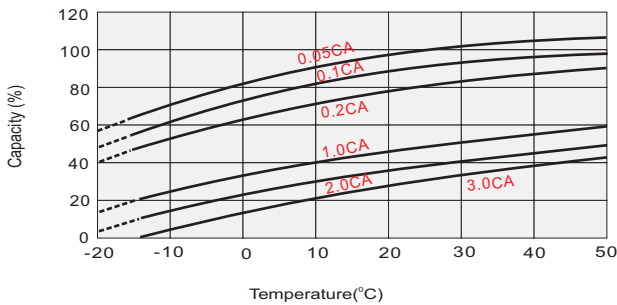
Discharge Characteristics



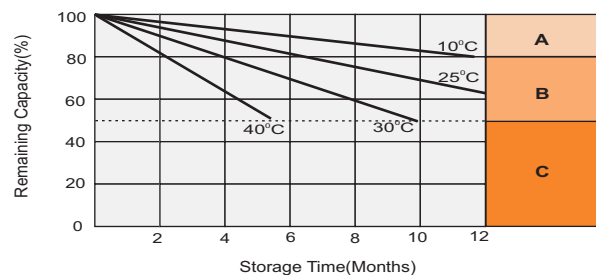
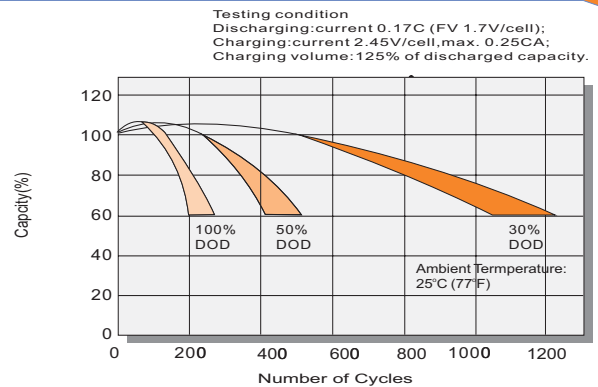
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



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 volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8~10hours 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.