

PBX SERIES-High Rate / UPS

PBX12-20 (12V20Ah) 85W

Specification

Nominal Voltage	12V	
Watts(15min Rate)	85.0 Watts	
Dimension	Length	181±2mm
	Width	77±1mm
	Container Height	164±2mm
	Total Height (with Terminal)	167±2mm
Approx Weight	Approx 5.7 kg	
Terminal	T12	
Container Material	ABS	
Rated Capacity	20 Ah/2.0A	(10hr ,1.80V/cell,25°C)
	20.0 Ah/2.50A	(8hr,1.80V/cell,25°C)
	18.3 Ah/3.66A	(5hr,1.75V/cell,25°C)
	16.4 Ah/5.7A	(3hr,1.75V/cell,25°C)
	13.5 Ah/13.5A	(1hr,1.60V/cell,25°C)
Max. Discharge Current	300A (5s)	
Internal Resistance	Approx 18mΩ	
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 6.0A.Voltage	
	14.4V~14.9V at 25°C Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.6V~13.8V at 25°C Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C	102%
	25°C	100%
	0°C	85%
Self Discharge	PBX 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

- ◆ UPS (High rate)
- ◆ High power backup supply
- ◆ Emergency power supply
- ◆ Starting system
- ◆ Power tools
- ◆ Emergency lighting
- ◆ Electric starting

Intertek



Constant Current Discharge (Amperes) at 25°C

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.80V	119.4	89.5	79.4	45.1	32.8	22.8	14.4	10.4	6.5	4.2	3.7	2.0
1.75V	124.1	93.1	82.6	47.0	34.1	23.7	15.0	10.9	6.8	4.3	3.9	2.1
1.70V	126.5	94.9	84.2	47.8	34.8	24.1	15.2	11.1	6.9	4.4	4.0	2.1
1.67V	128.9	96.7	85.8	48.7	35.4	24.6	15.6	11.3	7.0	4.5	4.0	2.1
1.60V	131.3	98.5	87.4	49.7	36.1	25.0	15.9	11.5	7.2	4.6	4.1	2.2

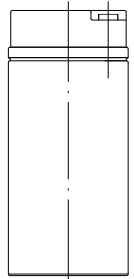
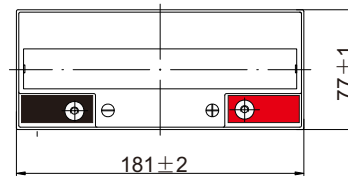
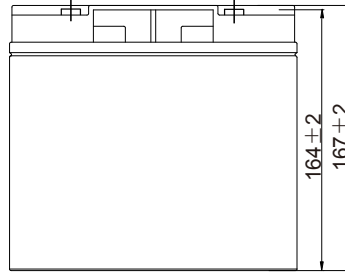
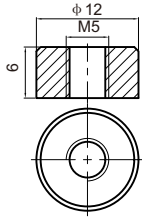
Constant Power Discharge (Watts/cell) at 25°C

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.80V	64.0	48.0	42.6	24.2	17.6	12.2	7.7	5.6	3.5	2.3	2.00	1.06
1.75V	66.5	49.9	44.3	25.2	18.3	12.7	8.0	5.8	3.7	2.3	2.08	1.10
1.70V	67.8	50.9	45.2	25.7	18.7	12.9	8.2	5.9	3.7	2.4	2.13	1.12
1.67V	69.1	51.8	46.0	26.1	19.0	13.2	8.4	6.1	3.8	2.4	2.15	1.15
1.60V	70.4	52.8	46.9	26.6	19.4	13.4	8.5	6.2	3.9	2.5	2.20	1.17

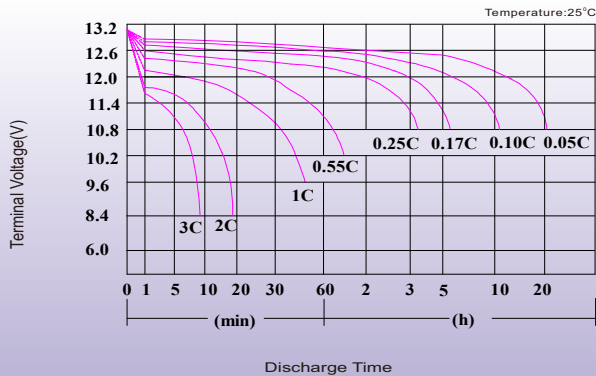
Dimensions

T12Terminal

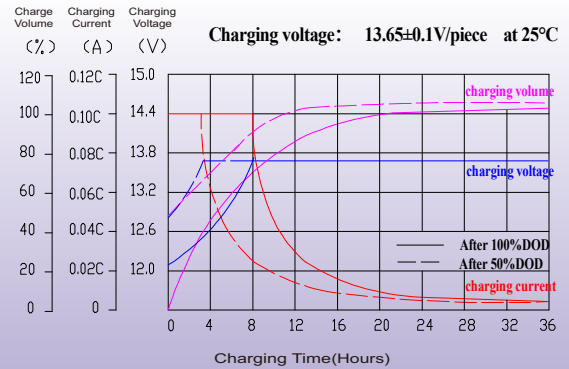
Unit: mm



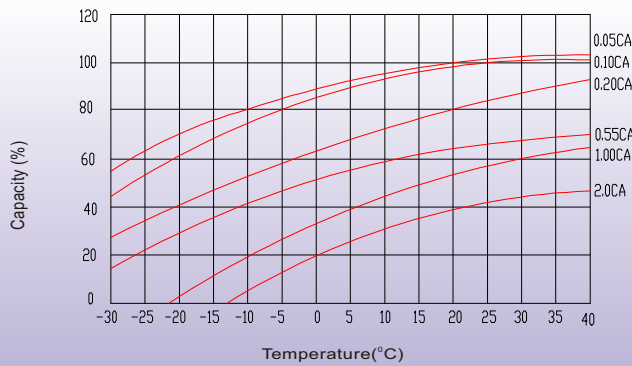
Discharge Characteristics



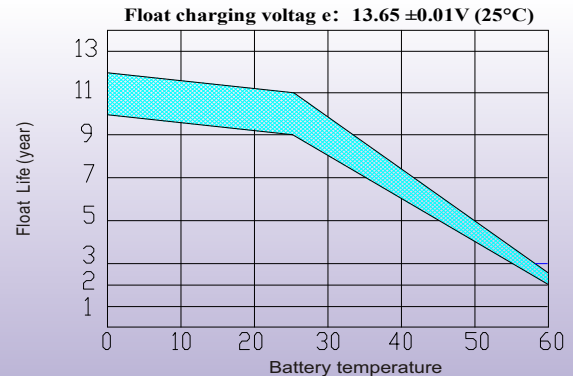
Float Charging Characteristics



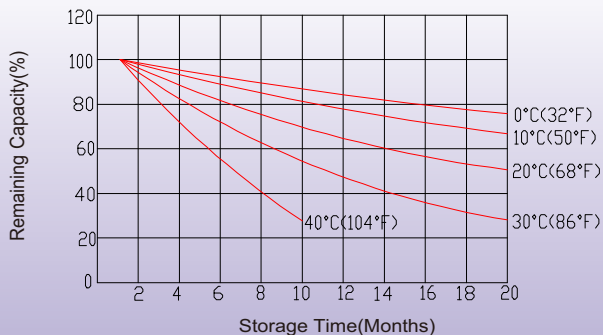
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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