# PBX SERIES-High Rate / UPS

## PBX12-6.5 (12V6.5Ah) 18.7W

## Specification

| | | |
|---|---|---|
| Nominal Voltage | 12V | |
| Watts(15min Rate) | 18.7 Watts | |
| Dimension | Length | 151 ± 2mm |
| | Width | 53 ± 1mm |
| | Container Height | 93 ± 1mm |
| | Total Height (with Terminal) | 99 ± 1mm |
| Approx Weight | Approx 1.9 kg | |
| Terminal | T1 | |
| Container Material | ABS | |
| Rated Capacity | 6.50 Ah/0.325A | (20hr,1.80V/cell,25ºC) |
| | 6.00 Ah/0.600A | (10hr,1.80V/cell,25ºC) |
| | 5.20 Ah/1.040A | (5hr,1.75V/cell,25ºC) |
| | 4.89 Ah/1.630A | (3hr,1.75V/cell,25ºC) |
| | 3.97 Ah/3.97A | (1hr,1.60V/cell,25ºC) |
| Max. Discharge Current | 78A (5s) | |
| Internal Resistance | Approx 42mΩ | |
| Operating Temp.Range | Discharge :-15 ~ 50ºC<br>Charge : 0 ~ 40ºC<br>Storage :-15 ~ 40ºC | |
| Nominal Operating Temp. Range | 25 ± 3ºC | |
| Cycle Use | Initial Charging Current less than 1.5A.Voltage<br>14.4V~15.0V at 25ºC Temp. Coefficient -30mV/ºC | |
| Standby Use | No limit on Initial Charging Current Voltage<br>13.5V~13.8V at 25ºC Temp. Coefficient -20mV/ºC | |
| Capacity affected by Temperature | 40ºC | 103% |
| | 25ºC | 100% |
| | 0ºC | 86% |
| Self Discharge | PBX series batteries may be stored for up to 6 months at 25ºC 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*

ISO14001 ISO9001 CE

## Constant Current Discharge (Amperes) at 25ºC

| F.V/Time | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 7.15 | 6.18 | 4.94 | 3.77 | 3.06 | 1.95 | 1.50 | 1.24 | 0.98 | 0.85 | 0.72 | 0.57 | 0.31 |
| 1.80V/cell | 9.10 | 7.35 | 5.79 | 4.10 | 3.45 | 2.08 | 1.56 | 1.30 | 1.01 | 0.91 | 0.81 | 0.60 | 0.33 |
| 1.75V/cell | 9.75 | 7.93 | 6.05 | 4.36 | 3.58 | 2.15 | 1.63 | 1.37 | 1.04 | 0.94 | 0.85 | 0.62 | 0.34 |
| 1.70V/cell | 10.40 | 8.32 | 6.31 | 4.62 | 3.71 | 2.21 | 1.69 | 1.42 | 1.11 | 0.98 | 0.94 | 0.65 | 0.35 |
| 1.67V/cell | 11.05 | 8.78 | 6.50 | 4.81 | 3.84 | 2.34 | 1.76 | 1.46 | 1.17 | 1.01 | 0.98 | 0.67 | 0.36 |
| 1.60V/cell | 11.70 | 9.10 | 6.83 | 5.01 | 3.97 | 2.47 | 1.82 | 1.53 | 1.24 | 1.07 | 1.04 | 0.70 | 0.38 |

## Constant Power Discharge (Watts/cell) at 25ºC

| F.V/Time | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 11.23 | 11.42 | 9.14 | 6.97 | 5.65 | 3.61 | 2.77 | 2.28 | 1.80 | 1.56 | 1.32 | 1.06 | 0.58 |
| 1.80V/cell | 16.38 | 13.22 | 10.41 | 7.37 | 6.20 | 3.74 | 2.81 | 2.34 | 1.81 | 1.64 | 1.45 | 1.09 | 0.59 |
| 1.75V/cell | 17.06 | 13.88 | 10.58 | 7.62 | 6.26 | 3.75 | 2.84 | 2.39 | 1.82 | 1.65 | 1.48 | 1.09 | 0.59 |
| 1.70V/cell | 17.68 | 14.14 | 10.72 | 7.85 | 6.30 | 3.76 | 2.87 | 2.41 | 1.88 | 1.66 | 1.60 | 1.10 | 0.60 |
| 1.67V/cell | 18.23 | 14.48 | 10.73 | 7.94 | 6.33 | 3.86 | 2.90 | 2.41 | 1.93 | 1.66 | 1.61 | 1.11 | 0.60 |
| 1.60V/cell | 18.72 | 14.56 | 10.92 | 8.01 | 6.34 | 3.95 | 2.91 | 2.44 | 1.98 | 1.72 | 1.66 | 1.11 | 0.60 |

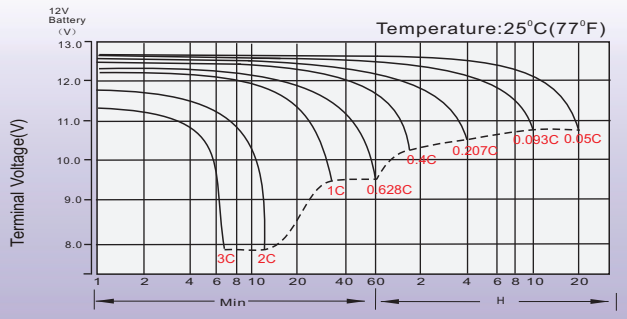
Specifications subject to change without notice.

## Dimensions

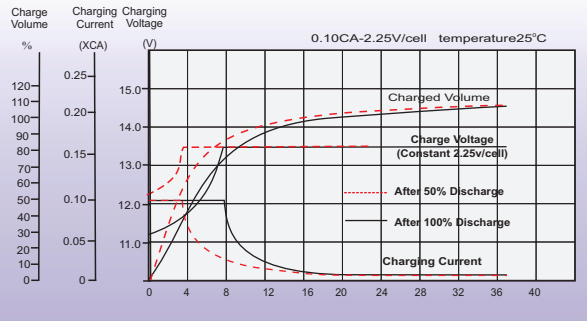
### T1 Terminal

Unit: mm

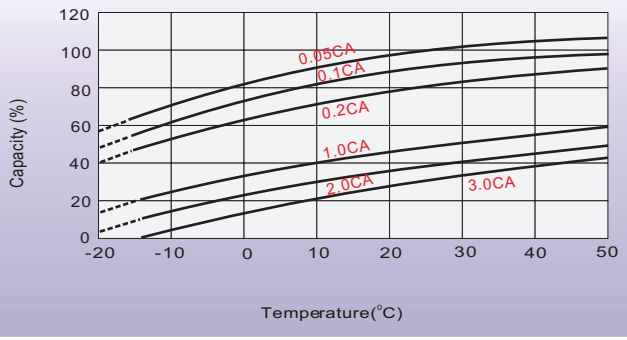

## Discharge Characteristics



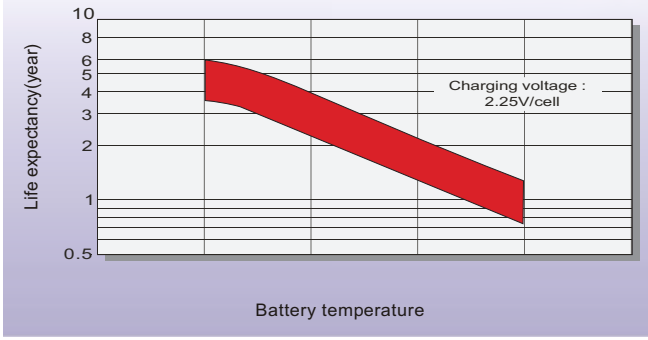

## Float Charging Characteristics

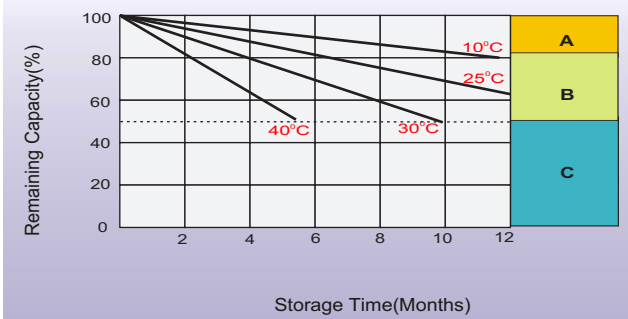



## Temperature Effects in Relation to Battery Capacity




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

www.premiumbattery.net