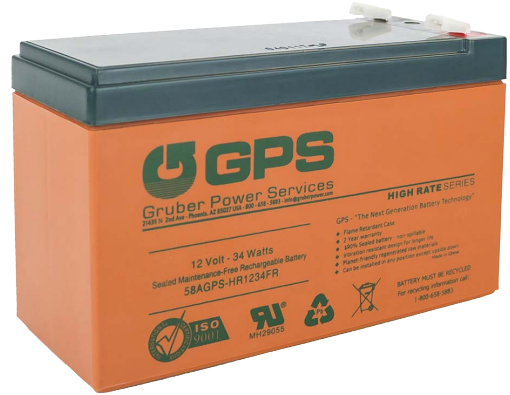


# High-Rate Battery

## 58AGPS-HR1234FR (T2) 12V34WPC



### Specification

|                                  |   |
|----------------------------------|---|
| Nominal Voltage                  | 12V   |
| Nominal Capacity(10 HR)          | 7.5 AH at 1.80V/cell @ 25°C/77°F  |
| Watts (15 min. rate)             | 34 Watts/cell at 1.67V/cell @ 25°C/77°F   |
| Dimensions                       | Length 151±1mm (5.94 inches)  |
|                                  | Width 65.0±1mm (2.56 inches)  |
|                                  | Container Height 93.5±1mm (3.68 inches)   |
|                                  | Total Height (with Terminal) 99.0±1mm (3.90 inches)   |
|                                  | Approx Weight 2.35 kg (5.18 lbs)  |
| Terminal                         | T2  |
| Container Material               | ABS to UL94-HB  |
| Rated Capacity                   | 7.50 AH/0.750A (10hr, 1.80V/cell, 25°C/77°F)  |
|                                  | 7.33 AH/0.916A (8hr, 1.75V/cell, 25°C/77°F)   |
|                                  | 6.80 AH/1.36A (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 6.18 AH/2.06A (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 5.78 AH/5.78A (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 105A (5s)   |
| Internal Resistance              | Approx 19.0mΩ   |
| Operating Temp. Range            | Discharge : -20~60°C (-4~140°F)   |
|                                  | Charge : 0~50°C (32~122°F)  |
|                                  | Storage : -20~60°C (-4~140°F)   |
| Nominal Operating Temp. Range    | 25±3°C (77±5°F)   |
| Standby Use (Float Voltage)      | No limit on Initial Charging Current  |
|                                  | 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C   |
| Capacity affected by Temperature | 40°C (104°F) 103%   |
|                                  | 25°C (77°F) 100%  |
|                                  | 0°C (32°F) 86%  |
| Self Discharge                   | Gruber Power Services' High-Rate 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

- ◆ UPS (High-Rate)
- ◆ Emergency Power Supply
- ◆ Banks & Financial Markets
- ◆ Hospitals & Testing Laboratories
- ◆ Industrial Process Control Facilities
- ◆ Data & Network Operations Centers

### Compliant Standards

- ◆ Eurobat Classification:  
High Performance (10~12 Year Design Life)
- ◆ BS 6290 Part 4

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

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h    | 10h   | 2h    |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 25.9 | 17.6  | 14.4  | 12.1  | 8.68  | 6.07  | 4.71 | 2.59 | 1.89 | 1.51 | 1.27 | 1.10 | 0.859 | 0.707 | 0.383 |
| 1.80V/cell | 28.7 | 19.3  | 15.5  | 13.3  | 9.41  | 6.54  | 5.03 | 2.77 | 2.00 | 1.59 | 1.33 | 1.15 | 0.904 | 0.750 | 0.398 |
| 1.75V/cell | 31.1 | 20.7  | 16.8  | 14.1  | 9.94  | 6.86  | 5.25 | 2.86 | 2.06 | 1.63 | 1.36 | 1.17 | 0.916 | 0.757 | 0.401 |
| 1.70V/cell | 32.9 | 22.0  | 17.6  | 14.9  | 10.4  | 7.15  | 5.46 | 2.94 | 2.10 | 1.66 | 1.38 | 1.19 | 0.929 | 0.765 | 0.404 |
| 1.67V/cell | 34.1 | 22.9  | 18.4  | 15.5  | 10.8  | 7.38  | 5.63 | 3.02 | 2.14 | 1.69 | 1.40 | 1.20 | 0.938 | 0.773 | 0.406 |
| 1.60V/cell | 35.5 | 23.9  | 19.2  | 16.0  | 11.2  | 7.58  | 5.78 | 3.08 | 2.16 | 1.71 | 1.42 | 1.21 | 0.945 | 0.779 | 0.411 |

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

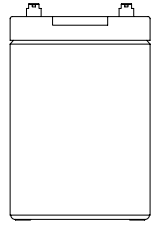
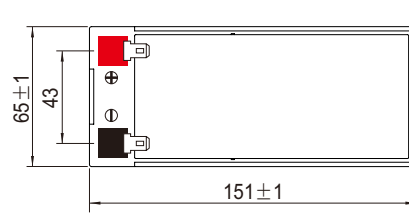
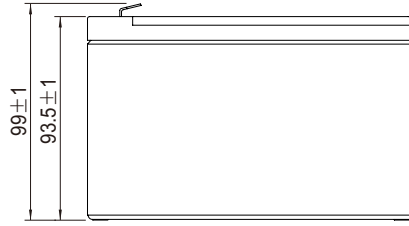
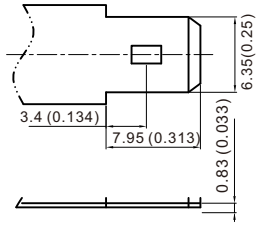
| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 48.9 | 33.6  | 27.8  | 23.6  | 17.1  | 12.1  | 9.43 | 5.21 | 3.82 | 3.06 | 2.57 | 2.23 | 1.76 | 1.45 | 0.787 |
| 1.80V/cell | 53.5 | 36.5  | 29.7  | 25.6  | 18.4  | 12.9  | 10.0 | 5.55 | 4.03 | 3.20 | 2.69 | 2.33 | 1.84 | 1.53 | 0.816 |
| 1.75V/cell | 57.2 | 38.7  | 31.8  | 27.0  | 19.3  | 13.5  | 10.4 | 5.71 | 4.13 | 3.28 | 2.74 | 2.36 | 1.86 | 1.55 | 0.823 |
| 1.70V/cell | 59.4 | 40.6  | 33.1  | 28.3  | 20.1  | 14.0  | 10.8 | 5.84 | 4.20 | 3.34 | 2.79 | 2.40 | 1.88 | 1.56 | 0.829 |
| 1.67V/cell | 60.6 | 41.6  | 34.0  | 29.2  | 20.7  | 14.3  | 11.0 | 5.97 | 4.26 | 3.37 | 2.82 | 2.42 | 1.90 | 1.57 | 0.830 |
| 1.60V/cell | 61.9 | 42.5  | 34.8  | 29.6  | 21.1  | 14.6  | 11.2 | 6.06 | 4.28 | 3.40 | 2.84 | 2.43 | 1.91 | 1.58 | 0.841 |



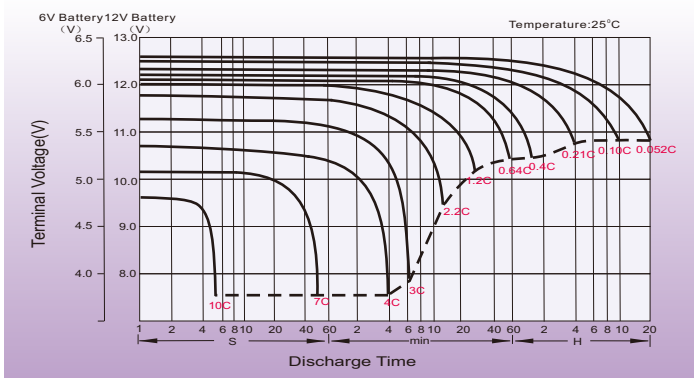
# Dimensions

## T2 Terminal

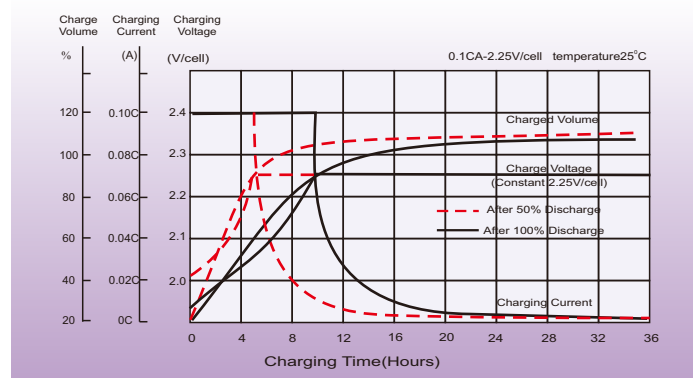
Unit: mm [inches]



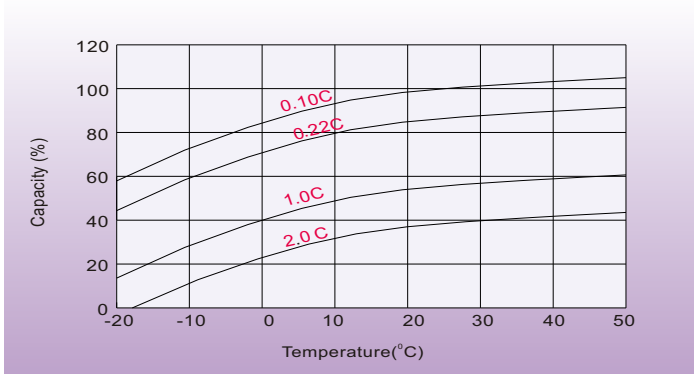
## Discharge Characteristics



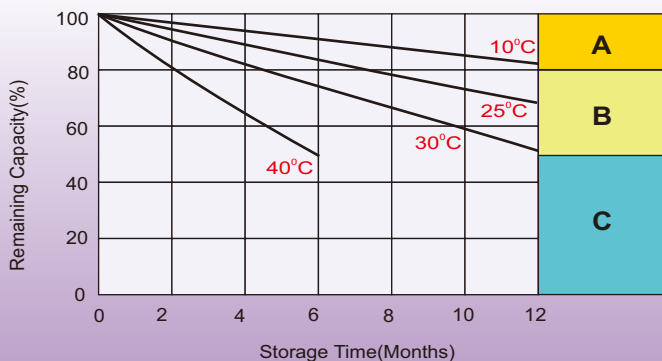
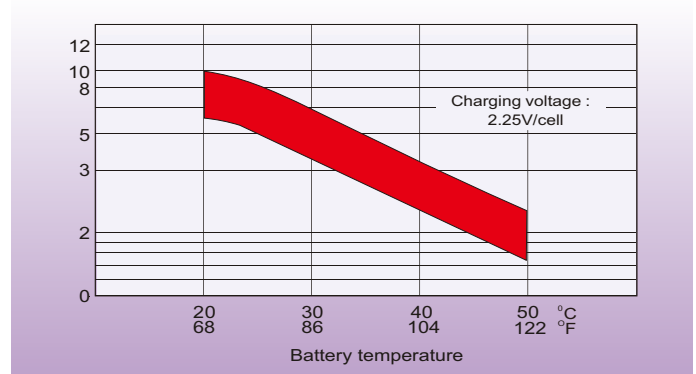
## Float Charging Characteristics



## 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 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.