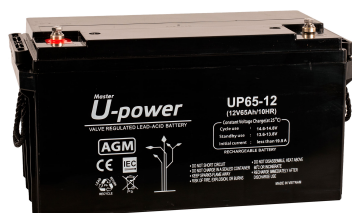


## UP65-12



| Specification                       |                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|
| Nominal Voltage                     | 12V                                                                                                   |
| Nominal Capacity (10HR)             | 65.0AH                                                                                                |
| Dimension                           | Length 348±3mm (13.70 inches)                                                                         |
|                                     | Width 167±2mm (6.57 inches)                                                                           |
|                                     | Container Height 178±2mm (7.01 inches)                                                                |
|                                     | Total Height (with Terminal) 178±2mm (7.01 inches)                                                    |
| Approx Weight                       | Approx 21.0 Kg (46.3 lbs)                                                                             |
| Terminal                            | T6 / T11                                                                                              |
| Container Material                  | ABS                                                                                                   |
| Rated Capacity                      | 69.5 AH/3.48A (20hr, 1.80V/cell, 25°C/77°F)                                                           |
|                                     | 65.0 AH/6.50A (10hr, 1.80V/cell, 25°C/77°F)                                                           |
|                                     | 56.5 AH/11.3A (5hr, 1.75V/cell, 25°C/77°F)                                                            |
|                                     | 50.7 AH/16.9A (3hr, 1.75V/cell, 25°C/77°F)                                                            |
|                                     | 40.3 AH/40.3A (1hr, 1.60V/cell, 25°C/77°F)                                                            |
| Max. Discharge Current              | 780A (5s)                                                                                             |
| Internal Resistance                 | Approx 7.3mΩ                                                                                          |
| Operating Temperature Range         | Discharge: -15~50°C (5~122°F)                                                                         |
|                                     | Change : 0~40°C (32~104°F)                                                                            |
|                                     | Storage : -15~40°C (5~104°F)                                                                          |
| Nominal Operating Temperature Range | 25±3°C (77±5°F)                                                                                       |
| Cycle Use                           | Initial Charging Current less than 19.5A.Voltage. 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C |
| Standby Use                         | No limit on Initial Charging Current Voltage. 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                      | Batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required.   |

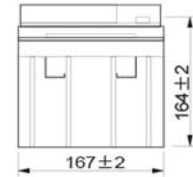
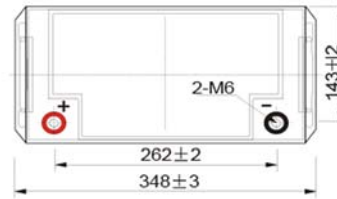
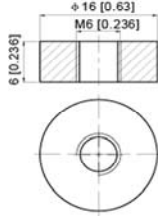
| Constant Current Discharge (Amperes) at 25°C (77°F) |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|-----------------------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| F.V/Time                                            | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
| 1.85V/cell                                          | 76.1  | 64.0  | 56.7  | 47.1  | 36.3  | 31.1 | 20.1 | 15.1 | 12.4 | 10.4 | 9.13 | 7.33 | 6.30 | 3.36 |
| 1.80V/cell                                          | 87.0  | 71.8  | 62.7  | 51.1  | 39.2  | 32.8 | 21.6 | 16.3 | 13.2 | 11.1 | 9.68 | 7.71 | 6.50 | 3.48 |
| 1.75V/cell                                          | 98.8  | 80.9  | 69.3  | 55.5  | 42.7  | 35.8 | 22.5 | 16.9 | 13.6 | 11.3 | 10.0 | 7.97 | 6.67 | 3.57 |
| 1.70V/cell                                          | 111.6 | 89.8  | 76.5  | 60.6  | 46.0  | 37.8 | 23.7 | 17.8 | 14.2 | 12.0 | 10.5 | 8.30 | 6.93 | 3.66 |
| 1.65V/cell                                          | 119.9 | 96.2  | 81.4  | 64.0  | 48.7  | 39.1 | 24.6 | 18.5 | 14.8 | 12.3 | 10.8 | 8.59 | 7.13 | 3.77 |
| 1.60V/cell                                          | 131.9 | 105.3 | 88.4  | 68.3  | 50.6  | 40.3 | 25.2 | 19.0 | 15.1 | 12.6 | 11.1 | 8.73 | 7.27 | 3.83 |

| Constant Power Discharge (Watts) at 25°C (77°F) |       |       |       |       |       |      |      |      |      |      |      |      |      |      |
|-------------------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| F.V/Time                                        | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
| 1.85V/cell                                      | 142.0 | 120.6 | 108.1 | 90.6  | 70.5  | 60.6 | 39.5 | 29.8 | 24.5 | 20.6 | 18.1 | 14.6 | 12.6 | 6.72 |
| 1.80V/cell                                      | 160.6 | 133.7 | 117.8 | 97.0  | 75.5  | 63.6 | 42.1 | 31.8 | 25.9 | 21.8 | 19.1 | 15.3 | 13.0 | 6.95 |
| 1.75V/cell                                      | 179.5 | 148.8 | 128.9 | 104.5 | 81.6  | 69.0 | 43.7 | 33.0 | 26.7 | 22.2 | 19.7 | 15.8 | 13.3 | 7.12 |
| 1.70V/cell                                      | 198.2 | 162.8 | 141.3 | 113.5 | 87.5  | 72.8 | 45.9 | 34.6 | 27.8 | 23.5 | 20.6 | 16.5 | 13.8 | 7.29 |
| 1.65V/cell                                      | 210.9 | 173.0 | 149.2 | 118.8 | 91.8  | 74.7 | 47.3 | 35.9 | 28.8 | 24.1 | 21.2 | 17.0 | 14.2 | 7.51 |
| 1.60V/cell                                      | 226.8 | 186.4 | 160.3 | 125.8 | 94.9  | 76.6 | 48.3 | 36.6 | 29.4 | 24.6 | 21.6 | 17.2 | 14.4 | 7.62 |

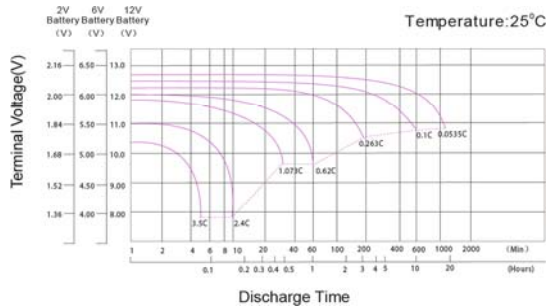
## UP65-12

### Dimensions

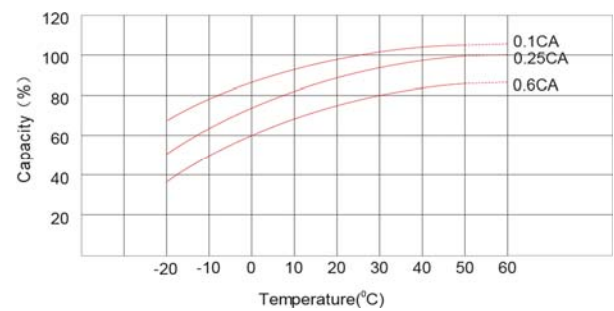
**T6 Terminal**  
Unit: mm [inches]



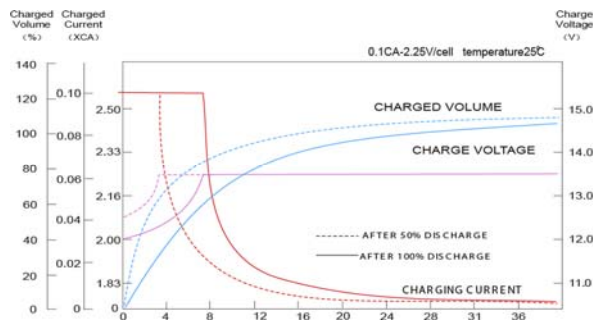
### Discharge Characteristics



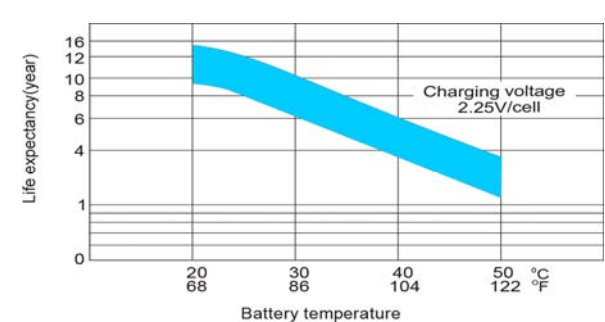
### Temperature Effects in Relation to Battery Capacity



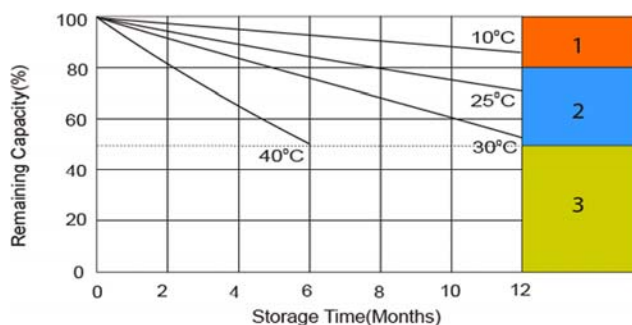
### Float Charging Characteristics



### Effect of Temperature on Long Term Float Life



### Self Discharge Characteristics



- 1** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- 2** 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.
- 3** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

