

## UP-ST300-2



| Specification                       |  |                               |
|-------------------------------------|--|-------------------------------|
| Nominal Voltage                     | 2V   |                               |
| Nominal Capacity (10HR)             | 300.0AH  |                               |
| Dimension                           | Length   | 170±2mm (6.69 inches)         |
|                                     | Width  | 150±2mm (5.91 inches)         |
|                                     | Container Height   | 328±3mm (12.91 inches)        |
|                                     | Total Height (with Terminal)   | 350±3mm (13.78 inches)        |
|                                     | Approx Weight  | Approx 17.9kg (39.5lbs)       |
| Terminal                            | T11  |                               |
| Container Material                  | ABS  |                               |
| Rated Capacity                      | 316.0AH/15.8A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                     | 300.0AH/30.0A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                     | 261.0AH/52.2A  | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                     | 226.8AH/75.6A  | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                     | 182.1AH/182.1A   | (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current              | 2400A (5s)   |                               |
| Internal Resistance                 | Approx 0.9mΩ   |                               |
| Operating Temperature Range         | Discharge: -15~50°C (5~122°F)  |                               |
|                                     | Charge : 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 90.0A.Voltage. 2.4V~2.5.0V at 25°C (77°F) Temp. Coefficient -5mV/°C |                               |
| Standby Use                         | No limit on Initial Charging Current Voltage. 2.25V~2.3V at 25°C (77°F) Temp. Coefficient -3mV/°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   | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 309.0 | 278.1 | 230.0 | 182.4 | 149.7 | 89.9  | 69.5 | 57.1 | 48.6 | 42.5 | 34.2 | 28.7 | 15.2 |
| 1.80V/cell | 351.0 | 309.6 | 246.8 | 191.9 | 159.0 | 94.9  | 72.9 | 59.6 | 50.6 | 44.4 | 35.5 | 30.0 | 15.8 |
| 1.75V/cell | 385.6 | 333.7 | 261.4 | 201.8 | 165.9 | 98.8  | 75.6 | 61.7 | 52.2 | 45.4 | 36.2 | 30.3 | 15.9 |
| 1.70V/cell | 411.6 | 356.9 | 274.3 | 209.4 | 171.7 | 101.7 | 77.6 | 63.0 | 53.1 | 46.2 | 36.8 | 30.6 | 16.1 |
| 1.65V/cell | 433.8 | 374.5 | 287.7 | 218.5 | 177.9 | 104.8 | 79.3 | 64.4 | 54.2 | 47.0 | 37.3 | 31.0 | 16.3 |
| 1.60V/cell | 454.8 | 388.4 | 297.6 | 224.4 | 182.1 | 107.3 | 81.0 | 65.3 | 55.0 | 47.7 | 37.8 | 31.4 | 16.5 |

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

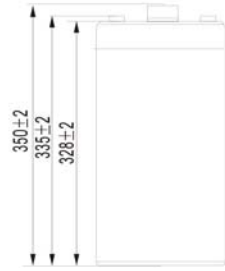
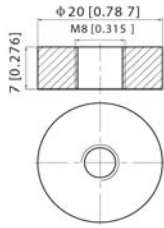
| F.V/Time   | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h    | 5h    | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.85V/cell | 585.1 | 528.9 | 439.6 | 350.7 | 289.6 | 174.9 | 135.8 | 111.9 | 95.7  | 83.9 | 67.9 | 57.0 | 30.3 |
| 1.80V/cell | 656.1 | 582.7 | 467.9 | 366.5 | 305.8 | 183.6 | 141.8 | 116.5 | 99.3  | 87.3 | 70.3 | 59.6 | 31.3 |
| 1.75V/cell | 710.6 | 620.9 | 491.7 | 383.1 | 317.7 | 190.5 | 146.7 | 120.1 | 102.0 | 89.1 | 71.4 | 60.1 | 31.6 |
| 1.70V/cell | 750.7 | 658.3 | 511.6 | 394.8 | 327.1 | 195.3 | 150.0 | 122.2 | 103.5 | 90.5 | 72.5 | 60.7 | 31.9 |
| 1.65V/cell | 781.3 | 683.4 | 532.7 | 409.7 | 337.0 | 200.3 | 152.6 | 124.4 | 105.3 | 91.8 | 73.3 | 61.3 | 32.2 |
| 1.60V/cell | 805.6 | 700.7 | 545.5 | 416.8 | 342.5 | 203.8 | 155.1 | 125.6 | 106.4 | 92.8 | 74.1 | 61.9 | 32.6 |



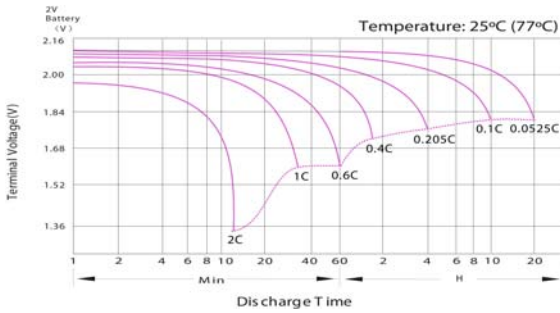
**UP-ST300-2**

**Dimensions**

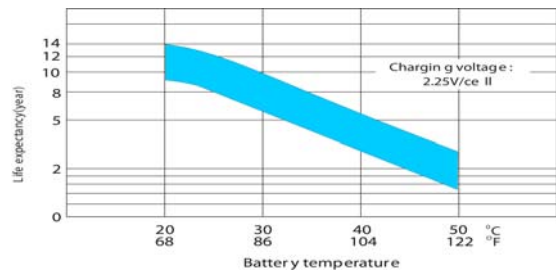
**T11 Terminal**  
Unit: mm [inches]



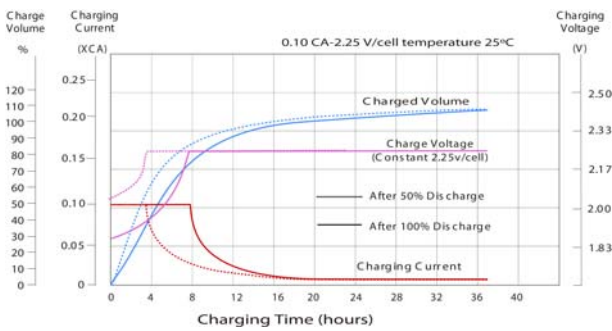
**Discharge Characteristics**



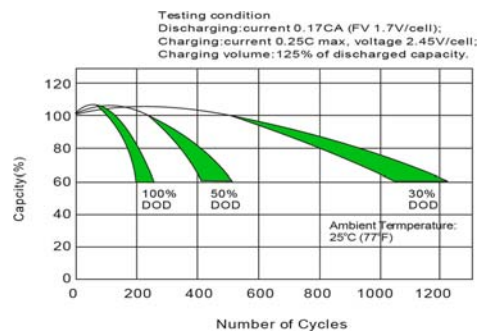
**Effect of Temperature on Long Term Float Life**



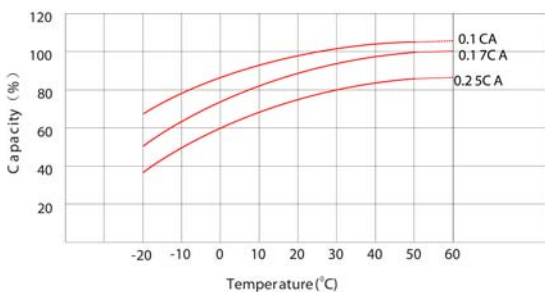
**Float Charging Characteristics**



**Cycle Life in Relation to Depth of Discharge**



**Temperature Effects in Relation to Battery Capacity**



**Self Discharge Characteristics**

