

UP-HR6.0-12



| Specification | | |
|-------------------------------------|--|-------------------------------|
| Nominal Voltage | 12V | |
| Watts(15min Rate) | 22.3 W at 1.67V/cell | |
| Dimension | Length | 151±1mm (5.95 inches) |
| | Width | 65±1mm (2.56 inches) |
| | Container Height | 94.5±1mm (3.72 inches) |
| | Total Height (with Terminal) | 100±1mm (3.94 inches) |
| Approx Weight | Approx 2.18 kg (4.81lbs) | |
| Terminal | T1 / T2 | |
| Container Material | ABS | |
| Rated Capacity | 6.20 AH/0.62A | (10hr, 1.80V/cell, 25°C/77°F) |
| | 6.00 AH/0.75A | (8hr, 1.80V/cell, 25°C/77°F) |
| | 5.40 AH/1.08A | (5hr, 1.75V/cell, 25°C/77°F) |
| | 4.92 AH/1.64A | (3hr, 1.75V/cell, 25°C/77°F) |
| | 4.54 AH/4.54A | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 90A (5s) | |
| Internal Resistance | Approx 20mΩ | |
| 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 1.8A.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 | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|
| 1.85V/cell | 18.3 | 11.6 | 9.20 | 7.92 | 6.27 | 4.72 | 3.72 | 2.06 | 1.46 | 1.16 | 1.00 | 0.854 | 0.706 | 0.585 | 0.326 |
| 1.80V/cell | 20.5 | 12.9 | 10.1 | 8.51 | 6.72 | 5.01 | 3.93 | 2.21 | 1.58 | 1.25 | 1.04 | 0.902 | 0.750 | 0.620 | 0.328 |
| 1.75V/cell | 23.1 | 14.3 | 11.1 | 9.16 | 6.97 | 5.19 | 4.11 | 2.29 | 1.64 | 1.29 | 1.08 | 0.922 | 0.762 | 0.626 | 0.331 |
| 1.70V/cell | 25.4 | 15.5 | 11.8 | 9.62 | 7.27 | 5.40 | 4.25 | 2.38 | 1.69 | 1.32 | 1.11 | 0.941 | 0.773 | 0.632 | 0.338 |
| 1.65V/cell | 28.0 | 16.7 | 12.5 | 10.2 | 7.66 | 5.54 | 4.38 | 2.44 | 1.73 | 1.36 | 1.13 | 0.970 | 0.785 | 0.645 | 0.342 |
| 1.60V/cell | 30.9 | 17.8 | 13.2 | 10.9 | 8.09 | 5.77 | 4.54 | 2.53 | 1.78 | 1.40 | 1.16 | 0.989 | 0.793 | 0.652 | 0.344 |

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

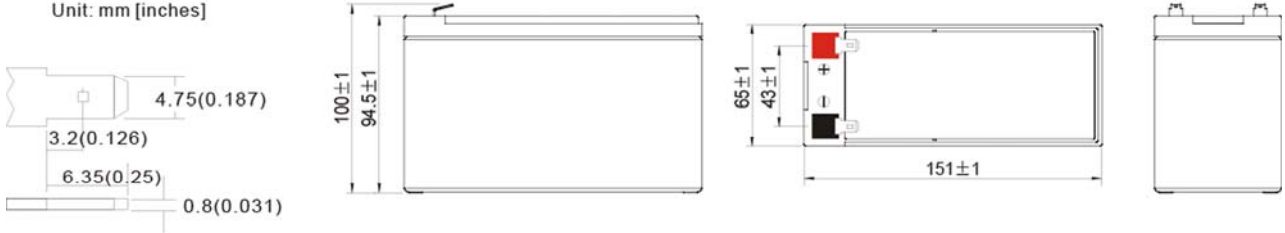
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 33.5 | 21.5 | 17.2 | 14.9 | 11.9 | 9.09 | 7.18 | 4.01 | 2.87 | 2.31 | 2.00 | 1.72 | 1.39 | 1.15 | 0.648 |
| 1.80V/cell | 37.1 | 23.6 | 18.6 | 15.8 | 12.6 | 9.54 | 7.55 | 4.26 | 3.07 | 2.45 | 2.06 | 1.79 | 1.46 | 1.22 | 0.652 |
| 1.75V/cell | 40.9 | 25.5 | 20.1 | 16.9 | 13.0 | 9.80 | 7.86 | 4.40 | 3.18 | 2.52 | 2.13 | 1.84 | 1.48 | 1.23 | 0.658 |
| 1.70V/cell | 43.8 | 27.2 | 21.1 | 17.6 | 13.5 | 10.2 | 8.08 | 4.57 | 3.26 | 2.58 | 2.18 | 1.87 | 1.50 | 1.24 | 0.669 |
| 1.65V/cell | 47.6 | 29.1 | 22.3 | 18.5 | 14.1 | 10.3 | 8.29 | 4.67 | 3.32 | 2.64 | 2.22 | 1.91 | 1.52 | 1.27 | 0.678 |
| 1.60V/cell | 51.3 | 30.3 | 23.0 | 19.5 | 14.7 | 10.7 | 8.55 | 4.80 | 3.40 | 2.71 | 2.27 | 1.95 | 1.53 | 1.28 | 0.680 |



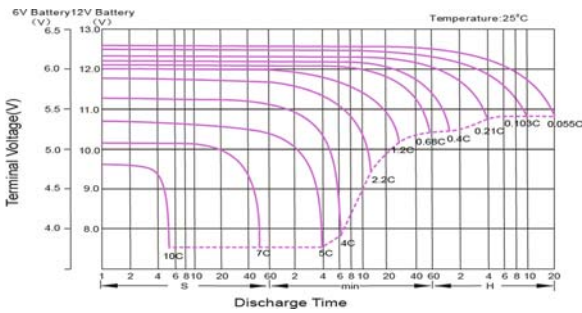
UP-HR6.0-12

Dimensions

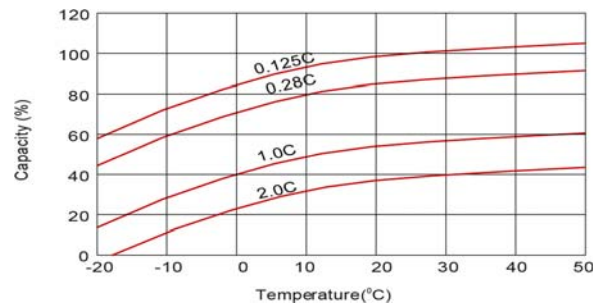
T1 Terminal
Unit: mm [inches]



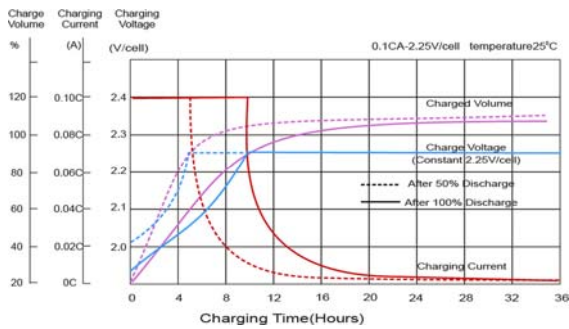
Discharge Characteristics



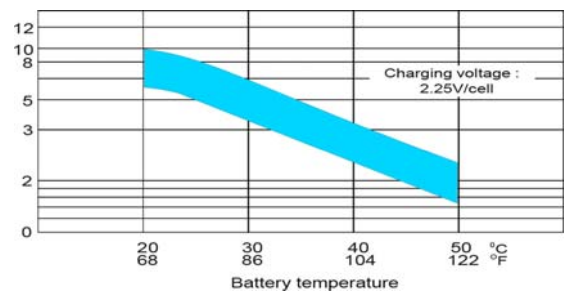
Temperature Effects in Relation to Battery Capacity



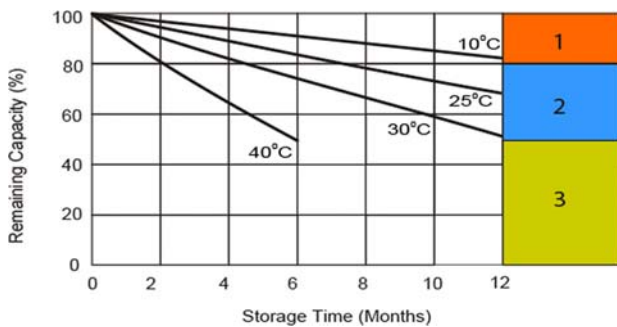
Float Charging Characteristics



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.

