

Specifications

| | | |
|----------------------------------|---|-------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity (20HR) | 2.8AH | |
| Dimension | Length | 132mm (5.19 inches) |
| | Width | 33mm (1.30 inches) |
| | Height | 98mm (3.86 inches) |
| | Total Height (with Terminal) | 104mm (4.09 inches) |
| | Approximate Weight | 1.18 kg (2.60 lbs) |
| Battery Type | Valve Regulated Lead-Acid Battery, AGM Design | |
| Terminal Type | T1 | |
| Rated Capacity | 2.82AH | (20hr, 1.75V/cell, 25°C/77°F) |
| | 2.65AH | (10hr, 1.75V/cell, 25°C/77°F) |
| | 2.35AH | (5hr, 1.75V/cell, 25°C/77°F) |
| | 2.23AH | (3hr, 1.60V/cell, 25°C/77°F) |
| | 1.70AH | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 42.0A | |
| Internal Resistance | 55mΩ | |
| Operating Temp. Range | Discharge: | -20°C (-4°F)~50°C (122°F) |
| | Charge: | -20°C (-4°F)~50°C (122°F) |
| | Storage: | -20°C (-4°F)~40°C (104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Container Material | ABS (Option: 94-HB & 94-V0 flame retardant case) | |
| Capacity affected by Temperature | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | SigmasTek SP series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is recommended. For higher temperatures the time interval will be shorter. | |



Applications

- Uninterruptible Power Supply (UPS)
- Electric wheelchairs, scooters, bikes
- Electronic apparatus and equipment
- Alarm and security systems
- Emergency first responder equipment
- Emergency lighting
- Medical devices
- Electric carts
- Telecom equipment
- Switchgear
- Solar power systems



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

| F.V. (V/cell) \ Discharge Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|--------------------------------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1.60V | 10.3 | 6.25 | 4.72 | 2.86 | 1.70 | 1.010 | 0.743 | 0.503 | 0.339 | 0.278 | 0.147 |
| 1.65V | 9.80 | 6.00 | 4.52 | 2.78 | 1.66 | 0.981 | 0.725 | 0.493 | 0.332 | 0.274 | 0.146 |
| 1.70V | 8.89 | 5.58 | 4.28 | 2.67 | 1.60 | 0.953 | 0.707 | 0.482 | 0.327 | 0.270 | 0.144 |
| 1.75V | 7.83 | 5.06 | 3.95 | 2.54 | 1.53 | 0.916 | 0.685 | 0.470 | 0.322 | 0.265 | 0.141 |
| 1.80V | 6.61 | 4.47 | 3.58 | 2.38 | 1.46 | 0.878 | 0.662 | 0.458 | 0.314 | 0.260 | 0.140 |
| 1.85V | 5.38 | 3.75 | 3.09 | 2.15 | 1.35 | 0.826 | 0.629 | 0.439 | 0.302 | 0.251 | 0.139 |

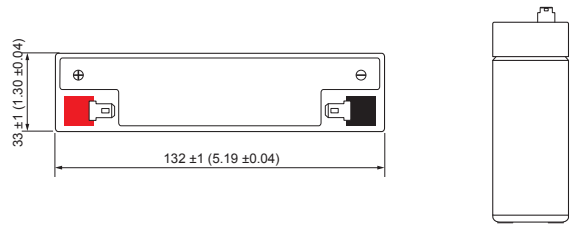
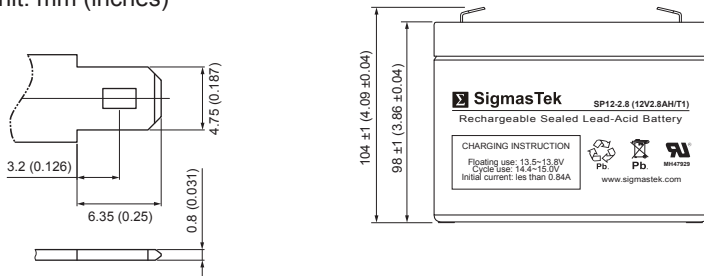
Constant Power Discharge (Watts Per Cell) at 25°C (77°F)

| F.V. (V/cell) \ Discharge Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|--------------------------------|------|-------|-------|-------|------|------|------|-------|-------|-------|-------|
| 1.60V | 18.2 | 11.3 | 8.62 | 5.37 | 3.25 | 1.94 | 1.43 | 0.978 | 0.663 | 0.545 | 0.289 |
| 1.65V | 17.6 | 10.9 | 8.37 | 5.27 | 3.20 | 1.90 | 1.41 | 0.964 | 0.653 | 0.539 | 0.288 |
| 1.70V | 16.2 | 10.3 | 8.01 | 5.10 | 3.09 | 1.86 | 1.38 | 0.947 | 0.646 | 0.534 | 0.286 |
| 1.75V | 14.4 | 9.44 | 7.47 | 4.89 | 2.99 | 1.79 | 1.35 | 0.930 | 0.640 | 0.528 | 0.282 |
| 1.80V | 12.3 | 8.43 | 6.83 | 4.61 | 2.85 | 1.73 | 1.31 | 0.911 | 0.627 | 0.522 | 0.281 |
| 1.85V | 10.1 | 7.14 | 5.94 | 4.20 | 2.66 | 1.64 | 1.25 | 0.879 | 0.608 | 0.507 | 0.280 |

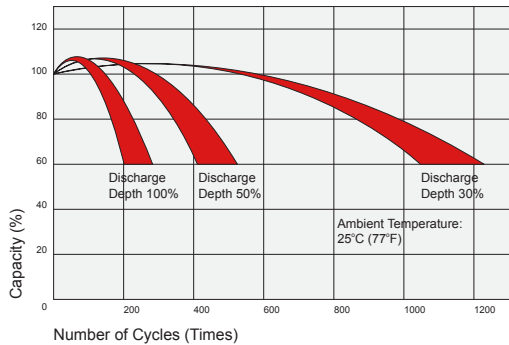
Dimensions

T1 Terminal

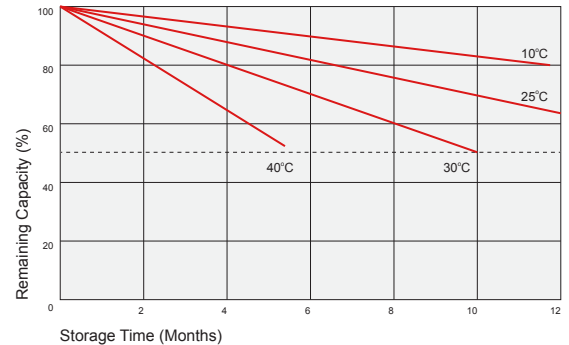
Unit: mm (inches)



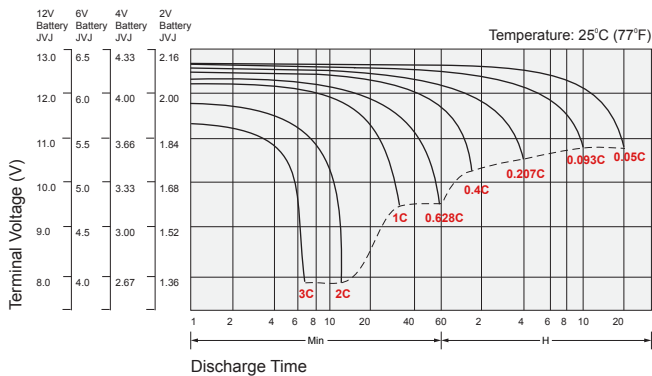
Cycle Service Life



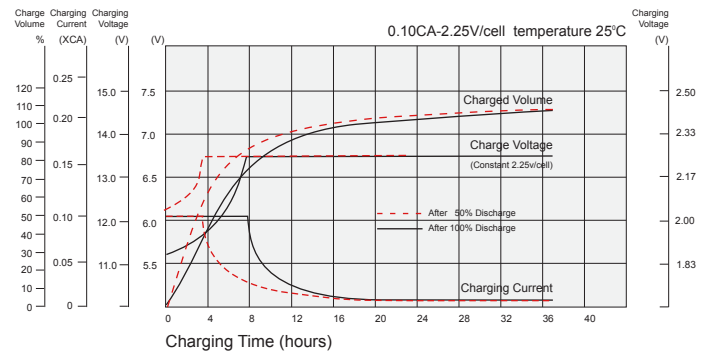
Self Discharge Characteristics



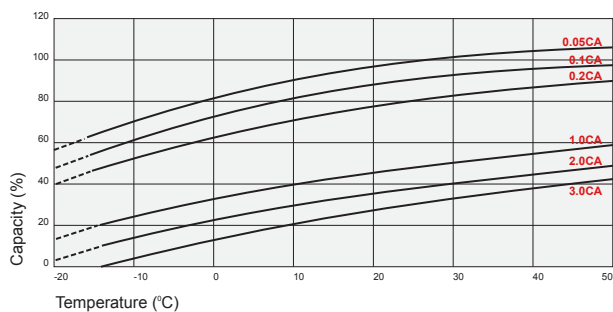
Discharge Characteristics



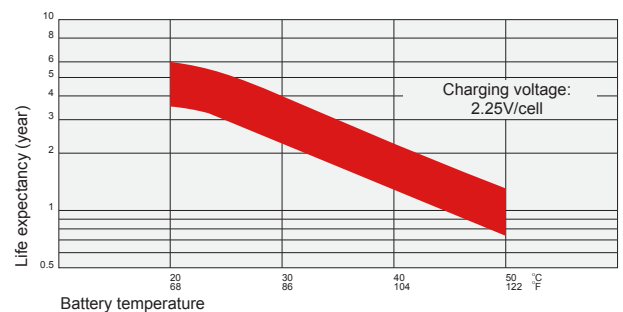
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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