

Specifications

| | | |
|----------------------------------|---|-------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity (20HR) | 22AH | |
| Dimension | Length | 181mm (7.13 inches) |
| | Width | 76mm (3.00 inches) |
| | Height | 167mm (6.59 inches) |
| | Total Height (with Terminal) | 169mm (6.63 inches) |
| | Approximate Weight | 6.10 kg (13.44 lbs) |
| Battery Type | Valve Regulated Lead-Acid Battery, AGM Design | |
| Terminal Type | NB | |
| Rated Capacity | 22.0AH | (20hr, 1.75V/cell, 25°C/77°F) |
| | 20.8AH | (10hr, 1.75V/cell, 25°C/77°F) |
| | 17.0AH | (5hr, 1.75V/cell, 25°C/77°F) |
| | 15.4AH | (3hr, 1.60V/cell, 25°C/77°F) |
| | 13.9AH | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 300A | |
| Internal Resistance | 9mΩ | |
| 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 | 79.0 | 52.5 | 40.6 | 23.5 | 13.9 | 7.23 | 5.12 | 3.48 | 2.309 | 2.146 | 1.210 |
| 1.65V | 76.1 | 47.8 | 39.3 | 23.1 | 13.7 | 7.18 | 5.10 | 3.46 | 2.300 | 2.125 | 1.165 |
| 1.70V | 72.0 | 46.0 | 38.4 | 22.9 | 13.6 | 7.16 | 5.08 | 3.44 | 2.290 | 2.103 | 1.143 |
| 1.75V | 65.1 | 43.0 | 36.4 | 22.4 | 13.5 | 7.07 | 5.06 | 3.41 | 2.280 | 2.081 | 1.100 |
| 1.80V | 58.1 | 40.3 | 34.4 | 21.9 | 13.3 | 6.95 | 5.02 | 3.39 | 2.270 | 2.038 | 1.046 |
| 1.85V | 50.0 | 37.4 | 32.0 | 21.2 | 13.1 | 6.70 | 4.86 | 3.30 | 2.240 | 1.941 | 1.025 |

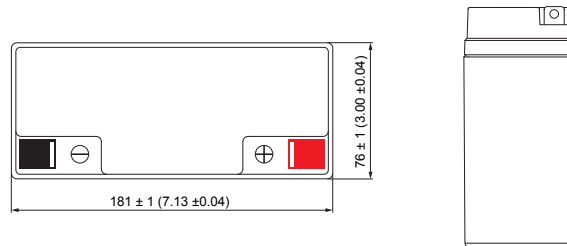
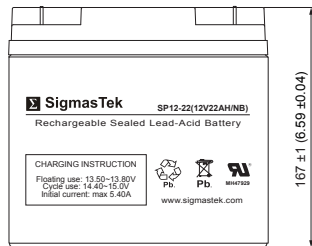
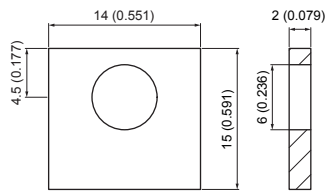
Constant Power Discharge (Watts Per Cell) at 25°C (77°F)

| F.V. (V/cell) \ Discharge Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|--------------------------------|-------|-------|-------|-------|------|-------|-------|------|------|------|------|
| 1.60V | 144.0 | 97.5 | 76.1 | 47.1 | 27.7 | 14.45 | 10.22 | 8.18 | 4.63 | 3.94 | 2.20 |
| 1.65V | 140.3 | 91.3 | 75.0 | 46.2 | 27.7 | 14.37 | 10.20 | 8.12 | 4.59 | 3.90 | 2.12 |
| 1.70V | 137.5 | 89.5 | 82.3 | 45.9 | 27.6 | 14.33 | 10.18 | 8.10 | 4.58 | 3.86 | 2.08 |
| 1.75V | 124.2 | 83.4 | 69.4 | 44.8 | 27.1 | 14.10 | 10.12 | 8.08 | 4.57 | 3.82 | 2.00 |
| 1.80V | 112.6 | 78.7 | 65.6 | 43.7 | 26.7 | 13.91 | 10.04 | 8.05 | 4.55 | 3.76 | 1.95 |
| 1.85V | 97.00 | 74.3 | 62.2 | 42.8 | 26.5 | 13.38 | 9.70 | 7.17 | 4.50 | 3.63 | 1.92 |

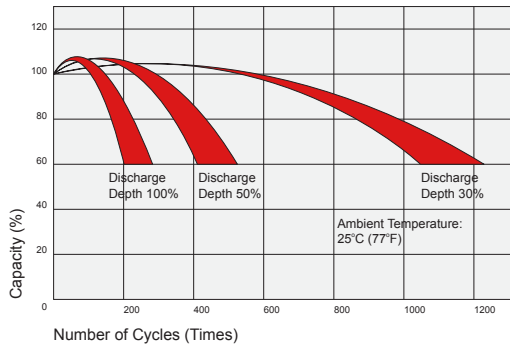
Dimensions

NB Terminal

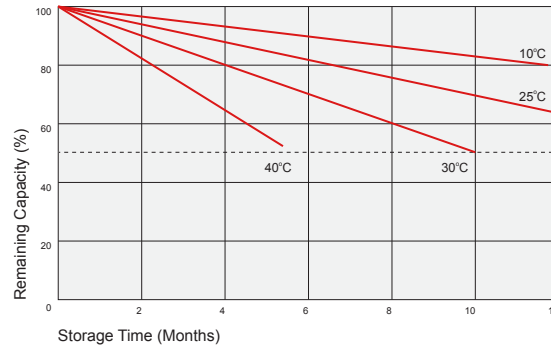
Unit: mm (inches)



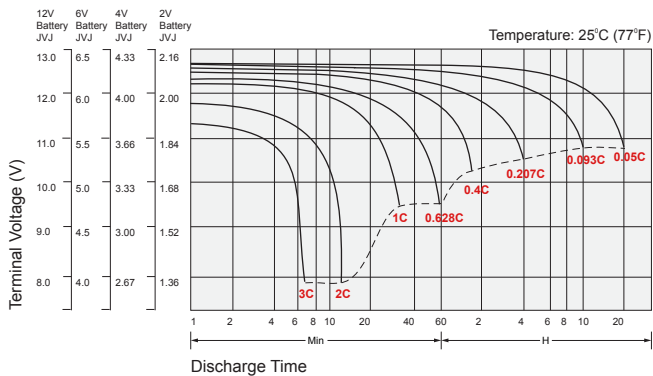
Cycle Service Life



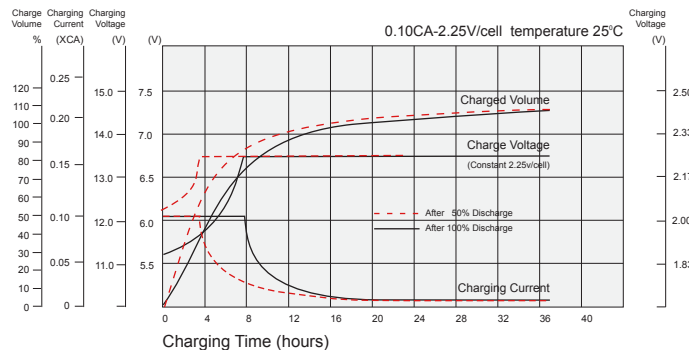
Self Discharge Characteristics



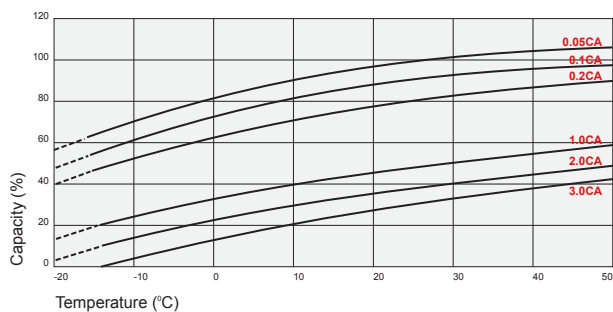
Discharge Characteristics



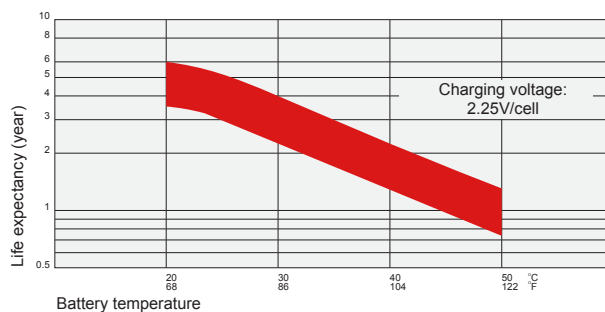
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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