

Sealed Lead Acid Rechargeable Battery

SN200-12 12Volt 200Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

| | | |
|--------------|-----------------|-------|
| 10 hour rate | (20A to 10.80V) | 200Ah |
| 5 hour rate | (34A to 10.20V) | 170Ah |
| 1 hour rate | (120A to 9.60V) | 120Ah |

Weight Approx. 66.5Kg(146Lbs.)

Internal Resistance (at 1KHz) Approx. 3mΩ

Maximum Discharge Current for

5 seconds: 1600A

Charging Methods at 25 °C (77 °F)

Cycle use:

| | |
|---------------------------|----------------|
| Charging Voltage | 14.4 to 15V |
| Coefficient | -5.0mV/°C/cell |
| Maximum Charging Current: | 60A |

Standby use:

| | |
|------------------------|----------------|
| Float Charging Voltage | 13.5 to 13.8V |
| Coefficient | -3.0mV/°C/cell |

Design Life 12 years

Operating Temperature Range

| | |
|-----------|---------------------------------|
| Charge | -15 °C (5 °F) to 40 °C (104 °F) |
| Discharge | -15 °C (5 °F) to 50 °C (122 °F) |
| Storage | -15 °C (5 °F) to 40 °C (104 °F) |

Charge Retention (shelf life) at 20 °C(68 °F)

| | |
|---------|-----|
| 1 month | 98% |
| 3 month | 94% |
| 6 month | 85% |

Case Material ABS UL94 HB

Option: Flammability resistance of (UL94 V-0)

Terminal F18

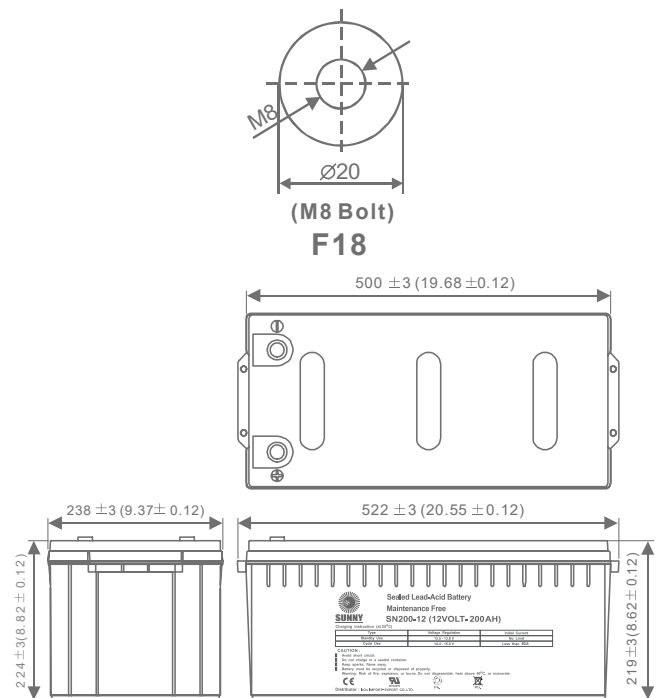
Description of torque value of hard ware for the terminals:

| | |
|--------------------------------|----------------------|
| Recommended torque value | M6: 7 N-m (71kgf-cm) |
| Maximum allowable torque value | M6: 9 N-m (92kgf-cm) |

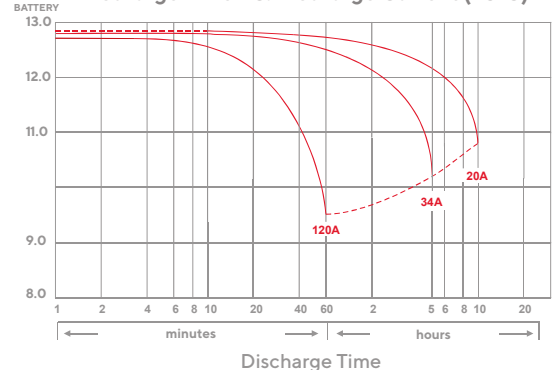


Dimensions

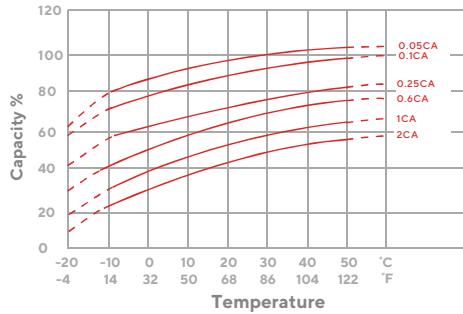
mm(inch)



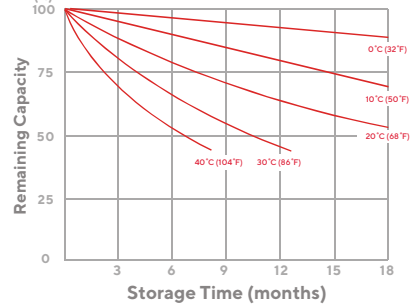
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25 °C)



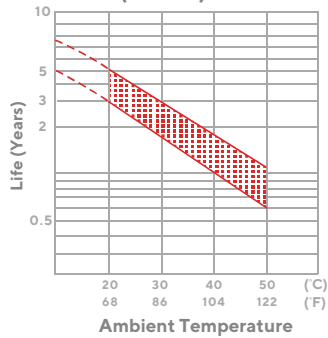
Effect of Temperature on Capacity 25°C(77°F)



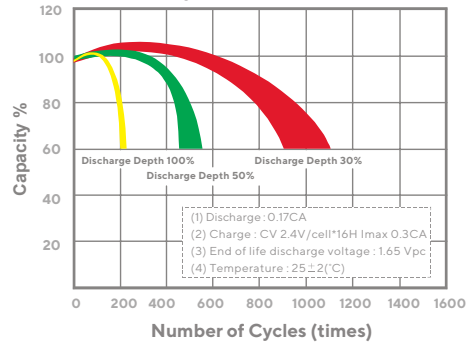
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



PERFORMANCE DATA

- Discharge Rates in Watts to Various End Voltages at 25°C(77°F)

| Time | End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|------|-------------|-------|-------|-------|-------|-------|-------|-------|
| 10 | min | 630 | 700 | 740 | 780 | 790 | 810 | 835 |
| 15 | min | 585 | 622 | 660 | 685 | 700 | 715 | 720 |
| 30 | min | 366 | 389 | 410 | 429 | 437 | 448 | 464 |
| 60 | min | 220 | 232 | 242 | 251 | 254 | 258 | 264 |
| 90 | min | 153 | 164 | 172 | 179 | 182 | 185 | 189 |
| 120 | min | 115 | 125 | 132 | 138 | 140 | 143 | 147 |
| 180 | min | 92.0 | 98.5 | 104 | 108 | 109 | 111 | 112 |
| 240 | min | 80.5 | 85.2 | 88.7 | 91.0 | 91.8 | 92.8 | 94.2 |
| 300 | min | 70.5 | 74.3 | 76.3 | 77.5 | 78.0 | 78.7 | 79.5 |
| 600 | min | 37.7 | 39.5 | 40.7 | 41.3 | 41.7 | 42.0 | 42.5 |
| 1200 | min | 20.3 | 21.3 | 21.8 | 22.2 | 22.3 | 22.5 | 22.7 |

- Discharge Rates in Amperes to Various End Voltages at 25°C(77°F)

| Time | End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|------|-------------|-------|-------|-------|-------|-------|-------|-------|
| 10 | min | 339 | 387 | 422 | 445 | 450 | 462 | 476 |
| 15 | min | 292 | 334 | 361 | 374 | 382 | 391 | 393 |
| 30 | min | 210 | 225 | 238 | 249 | 254 | 260 | 269 |
| 60 | min | 128 | 134 | 143 | 150 | 153 | 157 | 162 |
| 90 | min | 85.5 | 92.0 | 97.2 | 102 | 103 | 105 | 108 |
| 120 | min | 66.7 | 72.0 | 75.9 | 79.1 | 80.2 | 81.6 | 83.5 |
| 180 | min | 48.7 | 52.3 | 54.7 | 57.0 | 57.8 | 58.7 | 60.4 |
| 240 | min | 37.9 | 41.1 | 43.2 | 44.9 | 45.5 | 46.2 | 47.6 |
| 300 | min | 31.7 | 34.1 | 35.9 | 37.1 | 37.6 | 38.2 | 39.2 |
| 600 | min | 19.8 | 20.2 | 20.4 | 20.6 | 20.7 | 20.8 | 20.9 |
| 1200 | min | 10.2 | 10.5 | 10.7 | 10.8 | 10.9 | 11.0 | 11.1 |

All data on the spec. sheet is an average value:

The tolerance range : $X < 6\text{min}$ (+15%~-15%), $6\text{min} \leq X < 10\text{min}$ (+12%~-12%), $10\text{min} \leq X < 60\text{min}$ (+8%~-8%), $\geq X > 60\text{min}$ (+5%~-5%)