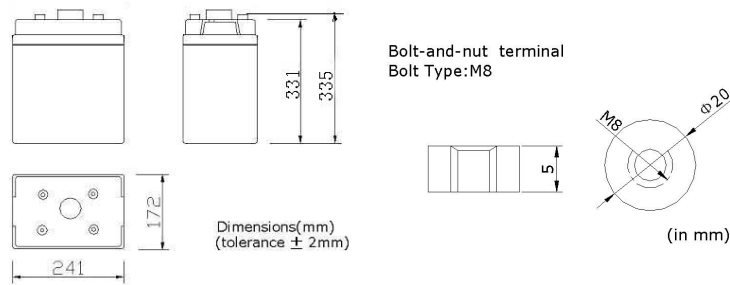


PHYSICAL SPECIFICATION

| | | |
|-------------------------|---|------------------------|
| Nominal Voltage | 2V | |
| Nominal Capacity (10HR) | 500Ah | |
| Dimension | Length | 241±2mm (9.49 inches) |
| | Width | 172±2mm (6.77 inches) |
| | Container Height | 331±2mm (13.03 inches) |
| | Total Height | 364±2mm (14.33inches) |
| Weight | Approx. 32.8 Kg (72.29lbs) | |
| Standard Terminal | Bolt-and-nuts terminal Bolt Type: M8 | |



Shimastu Gel series Gel Batteries are manufactured with special separators and silica gel immobilizing the electrolyte inside the battery, it is perfect for frequent cyclic deep discharge or standby applications under harsh environments, and has a long service life.

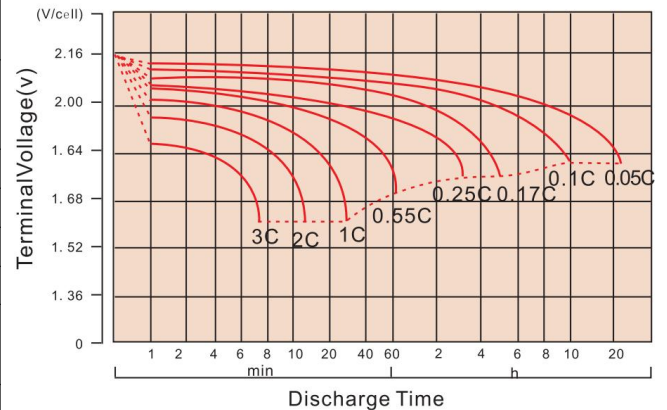
Features:

- 1.Special polar plate design, which ensures a designed floating charge life of 20 years at 25°C(77 °F)
- 2.Equalized current distribution, the active material is not easy to fall off
- 3.High gas recombination efficiency
- 4.Good deep discharge resilience performance
- 5.No delamination phenomena in the electrolyte
- 6.Manufactured with high-porosity

ELECTRICAL SPECIFICATION

| Characteristics | | |
|----------------------------------|---|---|
| Capacity | 20 hour rate (25A) | 525Ah |
| | 10 hour rate (50A) | 500Ah |
| | 5 hour rate (85A) | 425Ah |
| | 3 hour rate (125A) | 375Ah |
| | 1hour rate (300A) | 320Ah |
| Capacity affected by temperature | 40°C (104 °F) | 102% |
| | 25°C (77 °F) | 100% |
| | 0°C (32 °F) | 85% |
| Max. Discharge Current | 2100A (5 sec) | |
| Short Circuit Current | 4100A | |
| Designed floating life | 20 years (at 25°C) | |
| Internal Resistance | Full charged battery (25°C, 77 °F) 0.44mΩ | |
| Constant Voltage Charge | Cycle | Initial Charging Current less than 125A Voltage 2.35~2.40V at 25°C (77 °F) Temperature Coefficient -5mV/°C |
| | Standby | No limit on Initial Charging Current Voltage 2.25~2.30V at 25°C (77 °F) Temperature Coefficient -3.3mV/°C |

Discharge curves @ 25°C (77 °F)



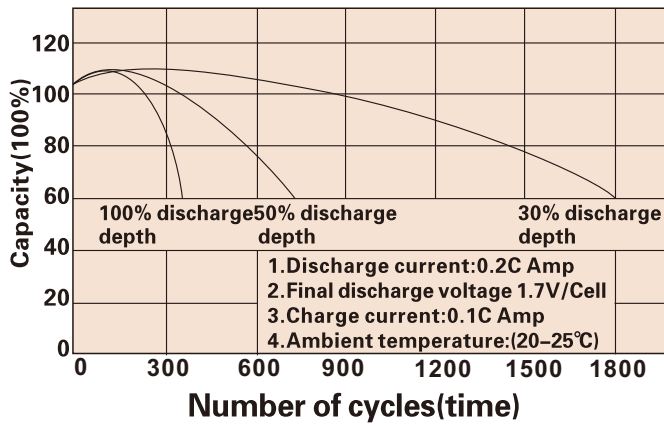
CONSTANT CURRENT DISCHARGE RATING A@25°C

| F.V/TIME | 15MIN | 30MIN | 1HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.60V | 730.7 | 483.6 | 306.3 | 141.5 | 113.7 | 94.7 | 63.6 | 52.9 | 27.6 |
| 1.65V | 684.6 | 464.3 | 295.7 | 137.1 | 110.7 | 92.1 | 62.7 | 52.2 | 27.2 |
| 1.70V | 641.1 | 443.8 | 286.2 | 133.3 | 107.7 | 89.7 | 61.8 | 51.5 | 26.8 |
| 1.75V | 596.7 | 424.2 | 275.0 | 129.2 | 104.9 | 87.4 | 60.9 | 50.6 | 26.5 |
| 1.80V | 551.1 | 405.4 | 265.2 | 125.0 | 101.9 | 85.0 | 59.9 | 50.0 | 26.3 |

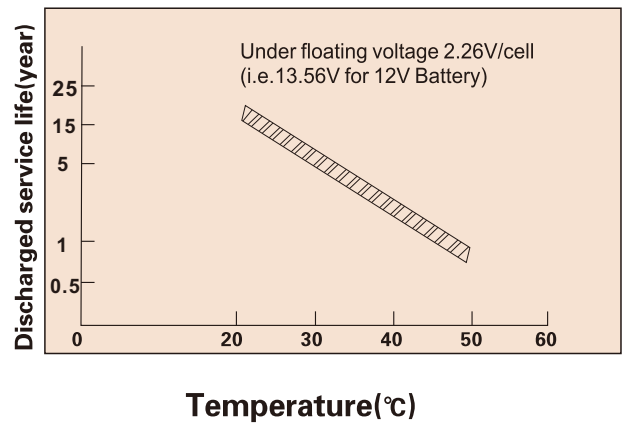
CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

| F.V/TIME | 15MIN | 30MIN | 1HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|--------|-------|-------|-------|-------|-------|-------|-------|------|
| 1.60V | 1277.5 | 878.4 | 575.4 | 269.9 | 218.3 | 182.5 | 125.0 | 104.4 | 54.2 |
| 1.65V | 1214.6 | 852.2 | 558.9 | 263.0 | 213.1 | 178.1 | 122.9 | 102.9 | 53.5 |
| 1.70V | 1154.6 | 822.7 | 544.1 | 256.6 | 208.1 | 174.0 | 121.1 | 101.4 | 53.0 |
| 1.75V | 1090.1 | 794.5 | 526.3 | 250.4 | 203.6 | 170.2 | 119.7 | 100.0 | 52.5 |
| 1.80V | 1020.6 | 767.0 | 510.3 | 242.7 | 198.5 | 166.2 | 118.3 | 98.4 | 52.0 |

Cycle service life



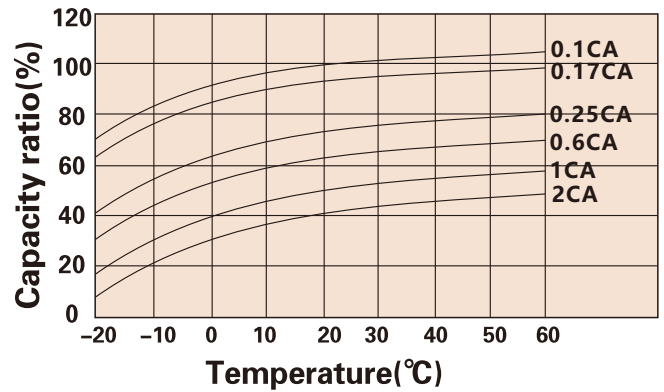
Trickle(or float) service life



Storage time(months)



Temperature and discharge capacity



Charging characteristic



| Storage Temperature | Supplementary Charge Interval | Charge Method |
|---------------------|-------------------------------|---|
| ≤20°C | Every 12 months | Less or 24 hours with a constant voltage of 2.3V/cell |
| 20-30°C | Every 8 months | 12-18 hours with a constant voltage of 2.45V/cell |
| ≥30°C | Storage to be avoided | 8-12 hours with a constant current of 0.05CA |

APPLICATIONS

Standby Usage:

- UPS
- Emergency Lights
- Alarm Systems
- Telecommunication Systems

Cyclic Usage:

- Medical Equipments
- Electric Instruments
- Toys
- Camcorder and Solar Systems

Motive Usage:

- Golf Cars
- Wheelchairs
- Lawnmowers
- Motorcycle

(Note) All above information shall be changed without prior notice, Shimastu reserves the right to explain and update the latest information.