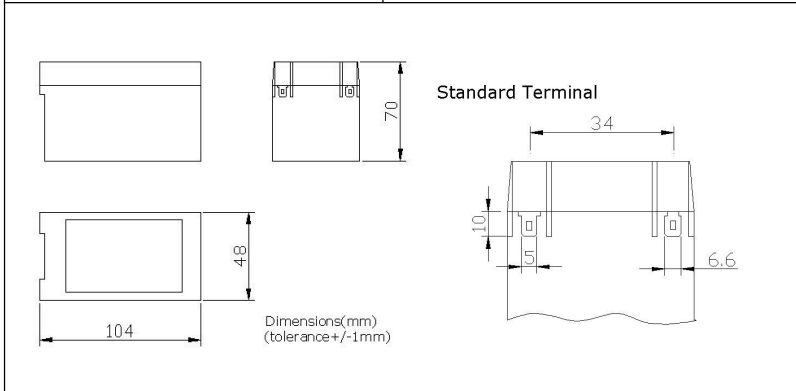


PHYSICAL SPECIFICATION

| | | |
|-------------------------|------------------|-------------------------------|
| Nominal Voltage | | 12V |
| Nominal Capacity (20HR) | | 3Ah |
| Dimension | Length | 104±1mm (4.09 inches) |
| | Width | 48±1mm (1.89 inches) |
| | Container Height | 70±1mm (2.76 inches) |
| | Total Height | 70±1mm (2.76 inches) |
| Weight | | Approx. 0.99Kg ±3% (2.18lbs) |
| Standard Terminal | | Copper |



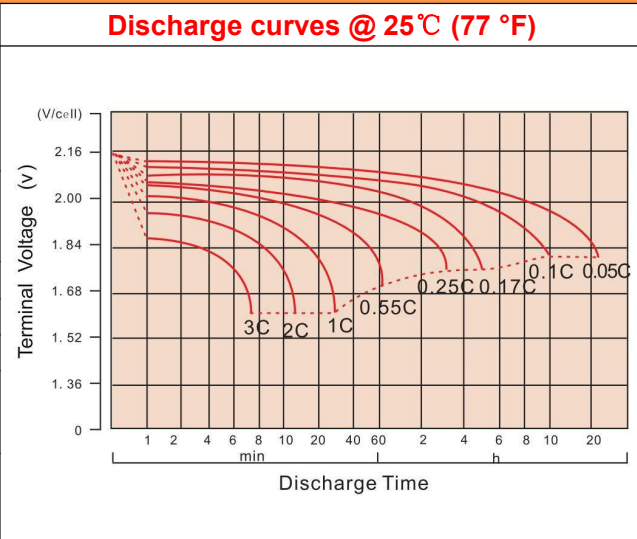
Shimastu NP series AGM VRLA Batteries have been developed as general purpose batteries, they're valve-regulated lead acid batteries with high quality Absorbed Glass Mat(AGM) separators & high purity raw materials, featured by perfectly good performance and reliable standby service life.

Features:

- 1.Non-spillable
- 2.Sealed and Maintenance-free Operation
- 3.High Quality and High Reliability
- 4.Less gassing,low Self-discharge
- 5.Low internal resistance
- 6.Long design life up to 6years in float service at 25°C (77 °F)

ELECTRICAL SPECIFICATION

| Characteristics | | |
|----------------------------------|--|--|
| Capacity | 20 hour rate (0.15A) | 3.0Ah |
| | 10 hour rate (0.282A) | 2.8Ah |
| | 5 hour rate (0.51A) | 2.6Ah |
| | 3 hour rate (0.75A) | 2.3Ah |
| | 1 hour rate (1.65A) | 1.7Ah |
| Capacity affected by temperature | 40°C (104 °F) | 102% |
| | 25°C (77 °F) | 100% |
| | 0°C (32 °F) | 85% |
| Max Discharge Current | 30A(5 Sec) | |
| Short Circuit Current | 155A | |
| Internal Resistance | Full charged battery (25°C,77 °F) 35mΩ | |
| Constant Voltage Charge | Cycle | Initial Charging Current less than 0.9A Voltage 14.4~15.0V at 25°C (77 °F) Temperature Coefficient -15mV/°C |
| | Standby | No limit on Initial Charging Current Voltage 13.5~13.8V at 25°C (77 °F) Temperature Coefficient -10mV/°C |



CONSTANT CURRENT DISCHARGE RATING A@25°C

| F.V/TIME | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 3HR | 5HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 11.37 | 8.045 | 5.815 | 3.339 | 1.832 | 0.847 | 0.565 | 0.295 | 0.157 |
| 1.65V | 10.57 | 7.602 | 5.559 | 3.205 | 1.770 | 0.819 | 0.552 | 0.293 | 0.155 |
| 1.70V | 9.535 | 6.997 | 5.206 | 3.065 | 1.712 | 0.798 | 0.538 | 0.288 | 0.152 |
| 1.75V | 8.544 | 6.406 | 4.846 | 2.928 | 1.650 | 0.773 | 0.524 | 0.284 | 0.150 |
| 1.80V | 7.503 | 5.799 | 4.475 | 2.799 | 1.588 | 0.750 | 0.510 | 0.282 | 0.148 |

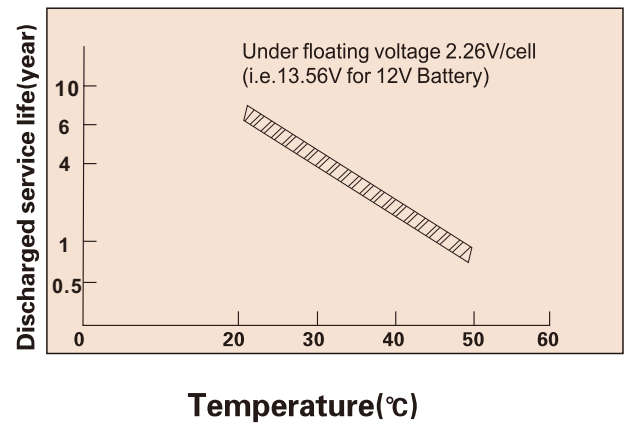
CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

| F.V/TIME | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 3HR | 5HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 18.84 | 13.67 | 10.16 | 6.066 | 3.445 | 1.615 | 1.091 | 0.581 | 0.306 |
| 1.65V | 17.72 | 13.17 | 9.863 | 5.884 | 3.346 | 1.571 | 1.066 | 0.574 | 0.302 |
| 1.70V | 16.35 | 12.34 | 9.376 | 5.681 | 3.256 | 1.536 | 1.043 | 0.567 | 0.300 |
| 1.75V | 14.97 | 11.50 | 8.852 | 5.485 | 3.156 | 1.497 | 1.020 | 0.560 | 0.295 |
| 1.80V | 13.43 | 10.59 | 8.289 | 5.296 | 3.053 | 1.456 | 0.996 | 0.553 | 0.293 |

Cycle service life



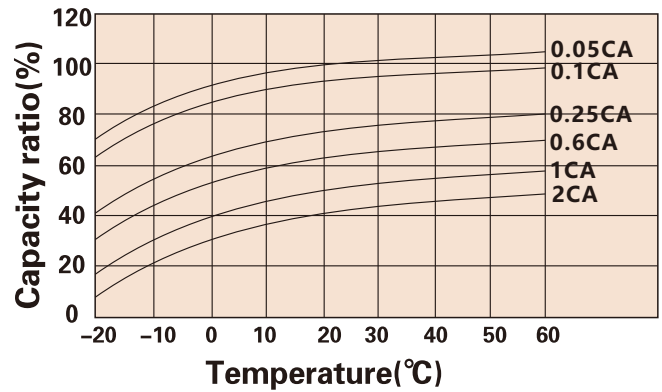
Trickle(or float) service life



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.