

Application

- Solar Energy System
- Golf Cars and Buggies
- Electric Powered Vehicles
- Wheel Chairs
- Power Tools
- Electric Powered Toys
- Control System
- Vacuum Cleaners
- Medical Equipments
- UPS

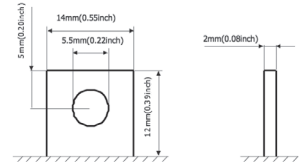
General Features

- Sealed and maintenance free operation.
- Non-Spillable construction design.
- ABS containers and covers(UL94HB, UL94V-0) optional.
- Safety valve installation for explosion proof.
- High quality and high reliability.
- Exceptional deep discharge recovery performance.
- Low self discharge characteristic.
- Flexibility design for multiple install positions.

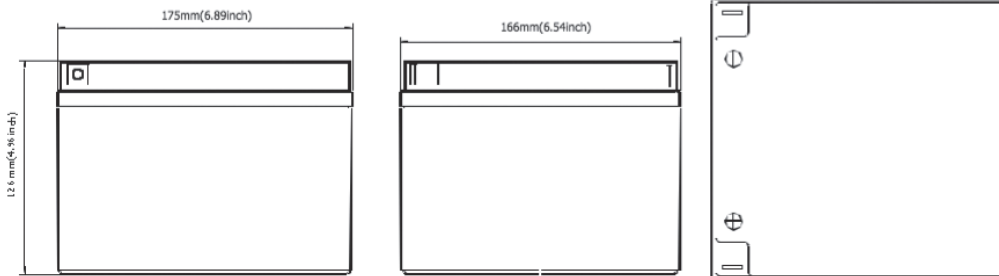
Construction

- Component **Raw material**
- Positive **Lead dioxide**
- Negative **Lead**
- Container **ABS**
- Cover **ABS**

- Sealant **Epoxy Resin**
- Safety valve **EPDR**
- Terminal **Copper**
- Separator **Fibre glass**
- Electrolyte **Sulfuric acid**



Terminal Dimensions

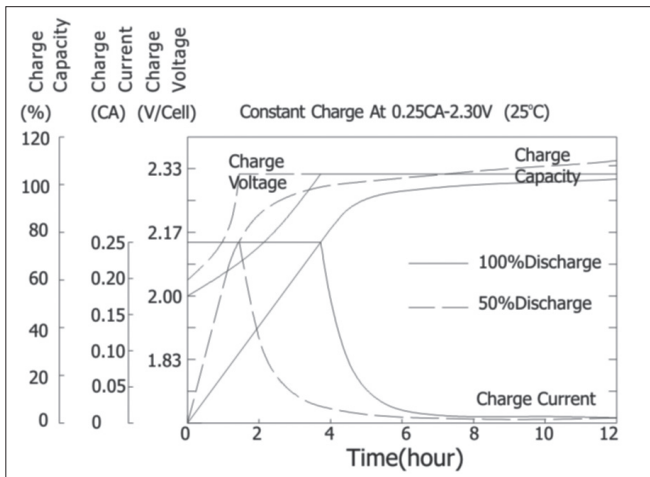


Battery Model

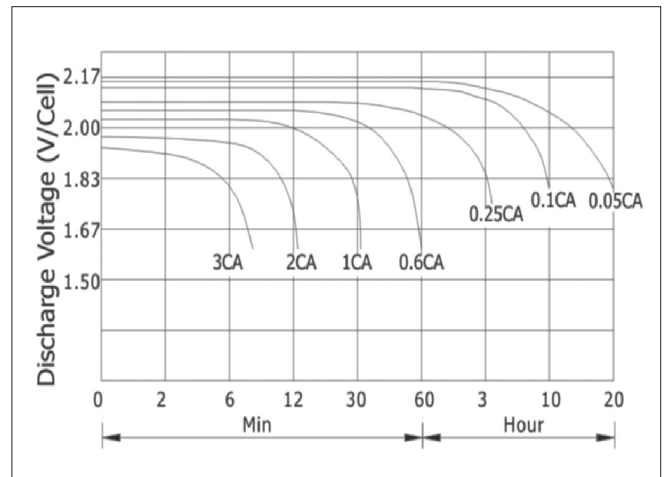
ESC24-12

| | | | | |
|---|--|------------------|-----------------------|------------------|
| Designed Cycle Life | > 350 cycles @ -0.5CA to 9.6V | | | |
| Capacity(25 °C) | 20HR(1.25A,1.75V) | 10HR(2.4A,1.75V) | 5HR(4.08A,1.75V) | 1HR(14.5A,1.75V) |
| | 25AH | 24AH | 20,4AH | 14,5AH |
| Dimensions | Length | Width | Height | Total Height |
| | 175mm(6.89inch) | 166mm(6.54inch) | 126mm(4.96inch) | 126mm(4.96inch) |
| Approx. Weight | 8.6Kg (18.98 lbs) | | | |
| Internal Resistance | Full charged at 25 °C: 0.012 Ohm | | | |
| Self Discharge | 3% of capacity declined per month at (25 °C) | | | |
| Capacity Affected by Temp.(20HR) | 40 °C | 25 °C | 0 °C | -15 °C |
| | 102% | 100% | 85% | 65% |
| Charge Voltage(25 °C) | Cycle use | | Float use | |
| | 14.4-15V(-30mV/ °C), max. Current: 6A | | 13.6-13.8V(-20mV/ °C) | |

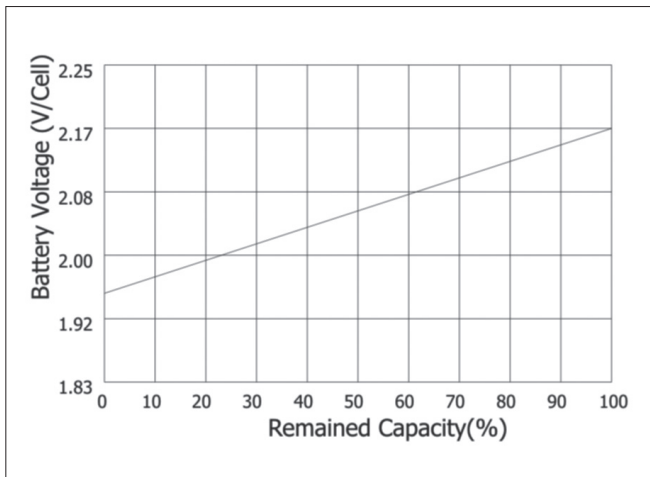
Charge Characteristic



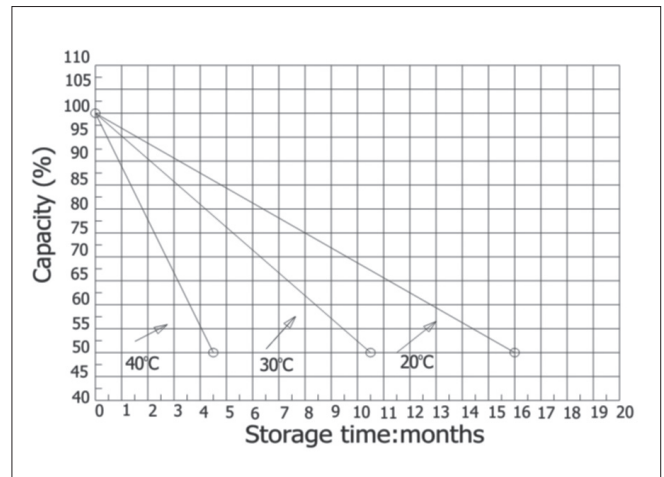
Discharge Characteristic (25 °C)



Relationship of OCV and state of charge



Cycle service life in relation to depth of discharge



Constant current discharge ratings-amperes at 25 °C

| F. V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 3HR | 5HR | 10HR | 20HR |
|-----------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V | 109 | 67,9 | 51,2 | 31,2 | 17,5 | 7,68 | 4,69 | 2,56 | 1,38 |
| 1.67V | 102 | 64,4 | 49,3 | 29,9 | 17,3 | 7,38 | 4,59 | 2,53 | 1,33 |
| 1.70V | 93,8 | 62,1 | 48,1 | 27,1 | 16,7 | 6,89 | 4,50 | 2,52 | 1,31 |
| 1.75V | 92,0 | 60,1 | 46,5 | 25,8 | 15,9 | 6,66 | 4,40 | 2,51 | 1,28 |
| 1.80V | 82,3 | 57,4 | 42,3 | 23,9 | 14,9 | 6,40 | 4,14 | 2,46 | 1,24 |
| 1.85V | 72,6 | 54,7 | 38,0 | 22,0 | 13,9 | 6,17 | 3,87 | 2,43 | 1,21 |

Constant power discharge ratings-watts at 25 °C

| F. V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 3HR | 5HR | 10HR | 20HR |
|-----------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V | 193 | 123 | 94,2 | 56,7 | 31,8 | 13,7 | 7,99 | 5,29 | 2,78 |
| 1.67V | 186 | 120 | 93,0 | 55,5 | 31,6 | 13,3 | 7,96 | 5,26 | 2,68 |
| 1.70V | 175 | 119 | 92,2 | 52,0 | 31,0 | 12,7 | 7,85 | 5,22 | 2,65 |
| 1.75V | 176 | 119 | 91,4 | 50,4 | 30,5 | 12,4 | 7,78 | 5,16 | 2,58 |
| 1.80V | 161 | 117 | 84,8 | 48,1 | 28,7 | 12,0 | 7,54 | 5,09 | 2,51 |
| 1.85V | 146 | 111 | 76,9 | 45,0 | 27,0 | 11,7 | 7,30 | 5,03 | 2,41 |