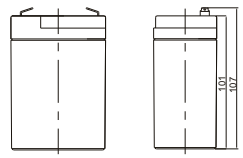
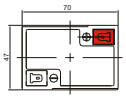
# BALA40006V

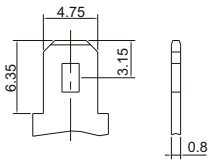
BALA40006V is a general purpose battery with 6~8 years design life in float service.It meets with IEC and JIS standards.With up-dated AGM valve regulated technology and high purity raw materials,the battery has reliable standby service life.It is suitable for UPS/EPS,medical equipment,emergency light and security systems applications.


## Outer dimensions (mm)




## Terminal Type (mm)




F1

## Specifications

| | | |
|---|---|---|
| Nominal Voltage | | 6V |
| Rated capacity (20 hr to1.75V per cell @ 25°C) | | 4Ah |
| Dimensions | Length | 70±1.5mm(2.76 inch) |
| | Width | 47±1.5mm(1.85 inch) |
| | Height | 101±1.5mm(3.98 inch) |
| | Total Height | 107±1.5mm(4.21 inch) |
| Weight Approx. | | 0.58 kg(1.28 lbs)±3% |

## Characteristics

| | | |
|---|---|---|
| capacity(25°C) | 20HR(5.25V) | 4.00AH |
| | 10HR(5.25V) | 3.74AH |
| | 5HR(4.8V) | 3.49AH |
| Terminal type | | F1 |
| Inner resistance (fully charged,25°C) | | Approx.35mΩ |
| Capacity affected by temperature | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | 15°C | 65% |
| Self-discharge (25°C) | 3 months | Remaining Capacity:91% |
| | 6 months | Remaining Capacity:82% |
| | 12 months | Remaining Capacity:65% |
| Nominal operating temperature | | 25°C±3°C(77°F±5°F) |
| Operating temperature range | Discharge | -15°C~50°C(5°F~122°F) |
| | Charge | -10°C~50°C(14°F~122°F) |
| | Storage | -20°C~50°C(-4°F~122°F) |
| Maximum charge current | | 1.2A |
| Maximum discharge current | | 40A(5 sec.) |
| Designed life | | 6~8 years |

## Construction

| Component | Positive plate | Negative plate | Container&Cover | Separator | Electrolyte | Safety value | Terminal |
|---|---|---|---|---|---|---|---|
| Raw materail | Lead dioxide | Lead | ABS UL94-HB,UL94-V0 Optional. | AGM | Sulfuric acid | Rubber | Copper |

**Constant Current Discharge (Amperes/cell) at 25°C(77 °F)**

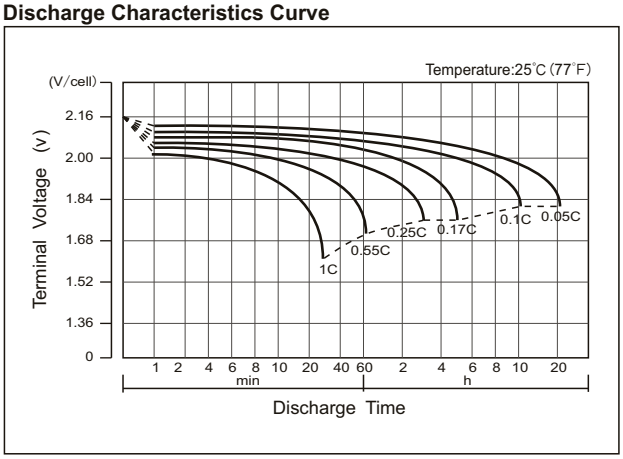
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 15.180 | 10.730 | 7.753 | 4.453 | 2.444 | 1.501 | 1.128 | 0.911 | 0.755 | 0.486 | 0.394 | 0.208 |
| 1.65V | 14.110 | 10.140 | 7.413 | 4.275 | 2.360 | 1.453 | 1.093 | 0.886 | 0.735 | 0.480 | 0.390 | 0.205 |
| 1.70V | 12.730 | 9.331 | 6.943 | 4.086 | 2.283 | 1.405 | 1.063 | 0.862 | 0.716 | 0.473 | 0.384 | 0.202 |
| 1.75V | 11.410 | 8.541 | 6.461 | 3.906 | 2.200 | 1.356 | 1.032 | 0.840 | 0.698 | 0.466 | 0.379 | 0.200 |
| 1.80V | 10.020 | 7.731 | 5.966 | 3.733 | 2.116 | 1.307 | 1.000 | 0.816 | 0.680 | 0.458 | 0.374 | 0.198 |
| 1.85V | 7.951 | 6.319 | 4.950 | 3.215 | 1.898 | 1.198 | 0.924 | 0.758 | 0.634 | 0.430 | 0.352 | 0.188 |

**Constant Power Discharge (watts/cell) at 25 °C(77 °F)**

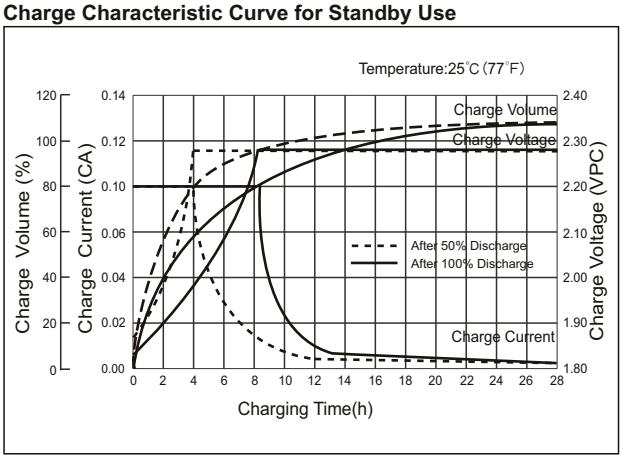
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 25.160 | 18.230 | 13.550 | 8.089 | 4.592 | 2.844 | 2.154 | 1.748 | 1.454 | 0.948 | 0.775 | 0.410 |
| 1.65V | 23.670 | 17.560 | 13.150 | 7.847 | 4.461 | 2.767 | 2.097 | 1.707 | 1.422 | 0.940 | 0.767 | 0.404 |
| 1.70V | 21.840 | 16.460 | 12.500 | 7.576 | 4.342 | 2.690 | 2.049 | 1.667 | 1.390 | 0.927 | 0.756 | 0.400 |
| 1.75V | 20.000 | 15.340 | 11.800 | 7.315 | 4.209 | 2.608 | 1.996 | 1.631 | 1.360 | 0.916 | 0.747 | 0.395 |
| 1.80V | 17.940 | 14.130 | 11.050 | 7.062 | 4.072 | 2.528 | 1.942 | 1.590 | 1.329 | 0.903 | 0.739 | 0.392 |
| 1.85V | 14.540 | 11.750 | 9.301 | 6.143 | 3.674 | 2.328 | 1.803 | 1.483 | 1.244 | 0.849 | 0.696 | 0.373 |

The above characteristics represent average values and can be obtained within three charge and discharge cycles. The batteries must be fully charged before testing.
The data in this document is subject to change without notice. Please contact Nedis for the latest available version.

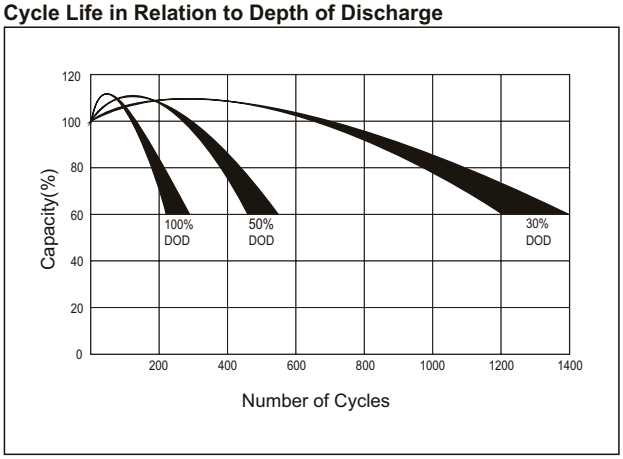
## Discharge Characteristics Curve



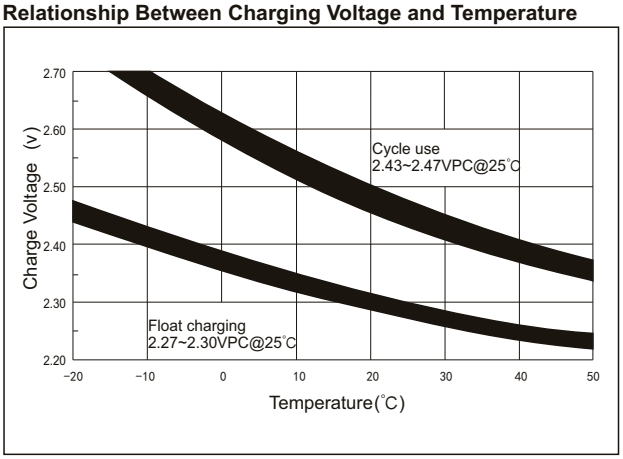

## Charge Characteristic Curve for Standby Use



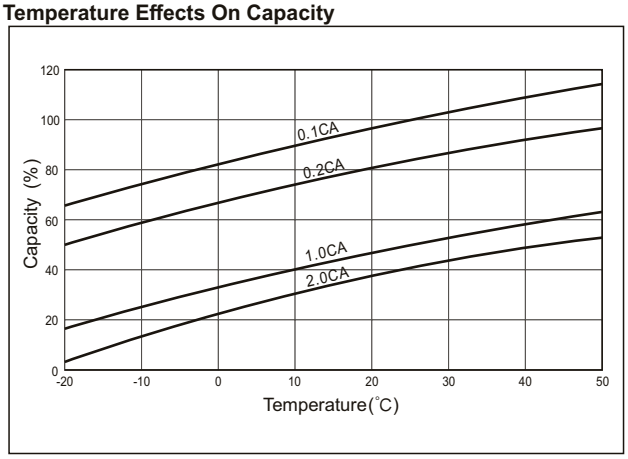

## Cycle Life in Relation to Depth of Discharge



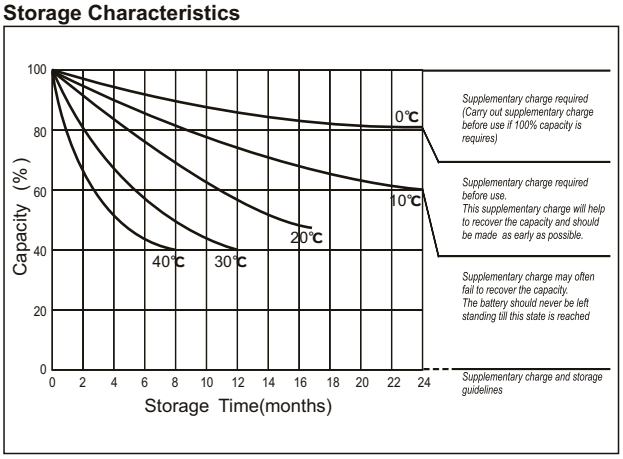

## Relationship Between Charging Voltage and Temperature



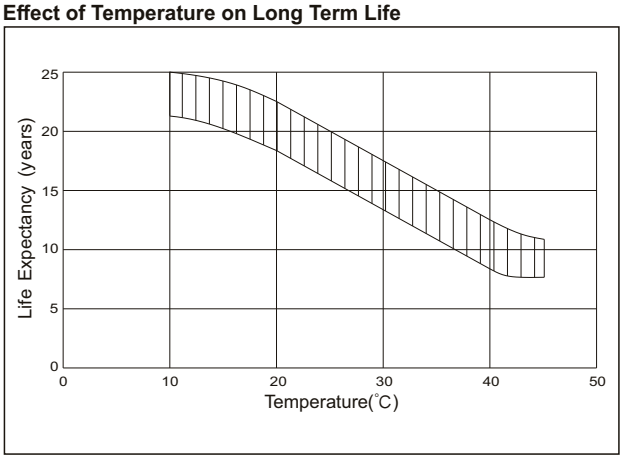

## Temperature Effects On Capacity



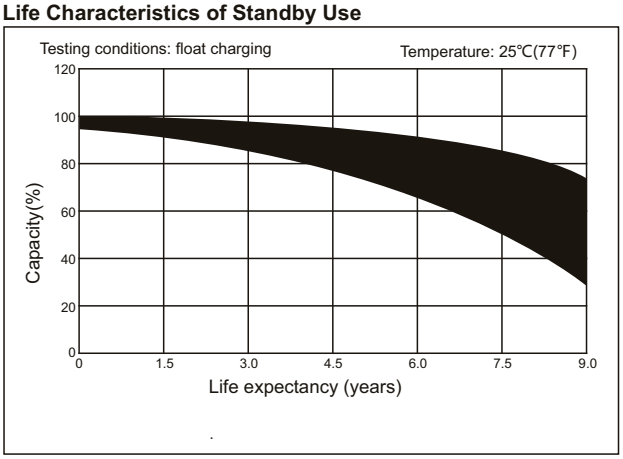

## Storage Characteristics




## Effect of Temperature on Long Term Life




## Life Characteristics of Standby Use




Please note that all information above is subject to change without prior notice. Nedis reserve the right to explain and update latest information.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