



2FM4 (4V4Ah)

LONGWAY® Standard battery is design for a general purpose by KaiYing Power. 2FM4 is a general purpose battery up to 5 years in float service or more than 260 cycles at 100% discharge in cycle service. As with all **LONGWAY®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.



ISO 9001:2008 Standard



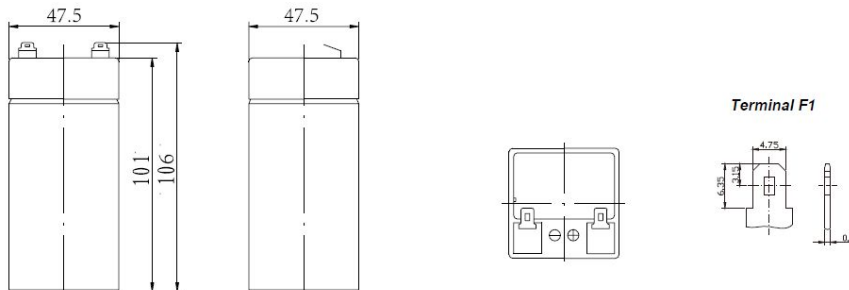
ISO 14001:2004 Standard



Specifications:

| | |
|-------------------------------------|---|
| Cells per Unit | 2 |
| Normal Voltage | 4V |
| Capacity | 4Ah@20Hr-rate to 1.75V per cell@25°C |
| Weight | Approx. (0.45±3%)kg(0.992lbs) |
| Maximum Discharge Current | 40A(5sec) |
| Internal Resistance | Approx. 22mΩ full charged @25°C |
| Operating Temperature Range | Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C |
| Nominal Operating Temperature Range | 25°C±3°C |
| Float Charging Voltage | 4.5~4.6VDC/unit Average @25°C |
| Maximum Charging Current | 1.2A |
| Equalization and Cycle Service | 4.8V~5.0VDC/unit Average @ 25°C |
| Self Discharge | LONGWAY Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |
| Terminal | F1(0.187)/F2(0.250) |
| Container Material | ABS(UL94-HB) *Flammability resistance of (UL94-V0) can be available upon request |

Dimensions: L47.5*W47.5*H101(TH106)mm



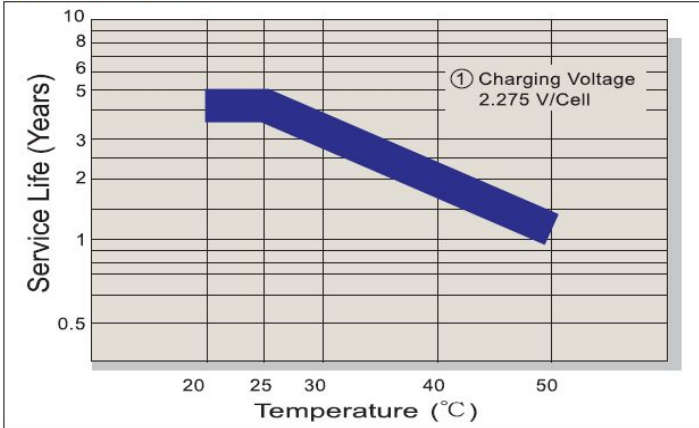
Constant Current Discharge Characteristics (A, 25 °C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 3.20 | 16.2 | 11.5 | 8.9 | 4.40 | 2.60 | 1.46 | 1.06 | 0.69 | 0.45 | 0.38 | 0.20 |
| 3.30 | 15.7 | 11.2 | 8.65 | 4.27 | 2.52 | 1.45 | 1.05 | 0.68 | 0.44 | 0.38 | 0.20 |
| 3.40 | 15.4 | 10.9 | 8.56 | 4.22 | 2.50 | 1.44 | 1.04 | 0.68 | 0.44 | 0.38 | 0.20 |
| 3.50 | 14.9 | 10.6 | 8.21 | 4.05 | 2.39 | 1.43 | 1.03 | 0.67 | 0.44 | 0.38 | 0.20 |
| 3.60 | 14.5 | 10.3 | 8.14 | 4.01 | 2.37 | 1.41 | 1.02 | 0.67 | 0.44 | 0.38 | 0.20 |

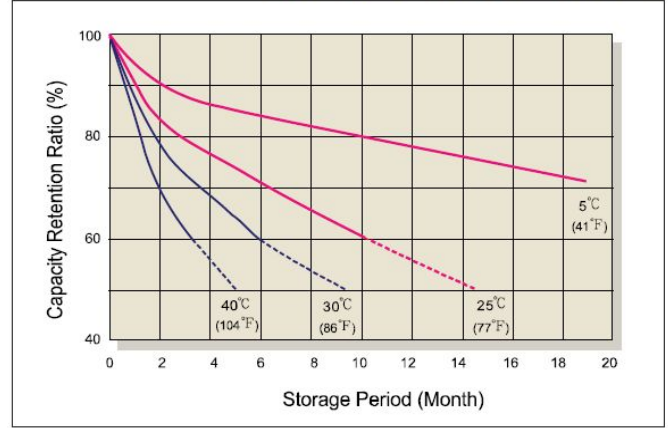
Constant Power Discharge Characteristics (Watt, 25 °C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 3.20 | 60.3 | 43.3 | 33.9 | 16.8 | 10.0 | 5.70 | 4.18 | 2.75 | 1.79 | 1.53 | 0.81 |
| 3.30 | 58.5 | 42.0 | 32.9 | 16.3 | 9.7 | 5.64 | 4.14 | 2.72 | 1.78 | 1.52 | 0.81 |
| 3.40 | 57.3 | 41.1 | 32.5 | 16.1 | 9.6 | 5.62 | 4.12 | 2.71 | 1.77 | 1.51 | 0.80 |
| 3.50 | 55.4 | 39.8 | 31.2 | 15.5 | 9.2 | 5.56 | 4.08 | 2.68 | 1.76 | 1.51 | 0.80 |
| 3.60 | 53.8 | 38.7 | 30.9 | 15.3 | 9.2 | 5.50 | 4.04 | 2.65 | 1.76 | 1.50 | 0.80 |

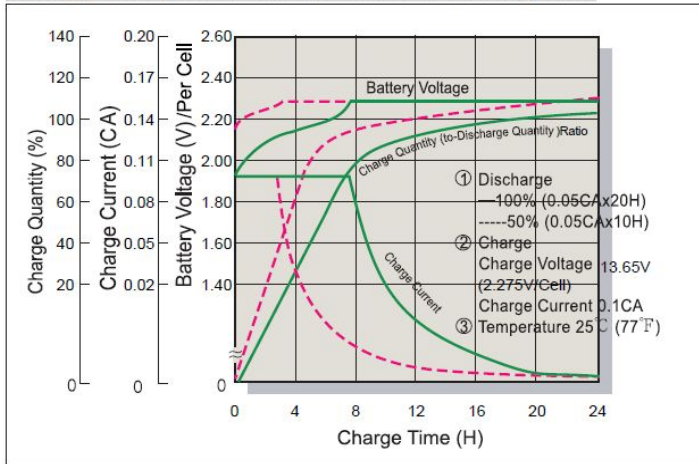
Float Service Life



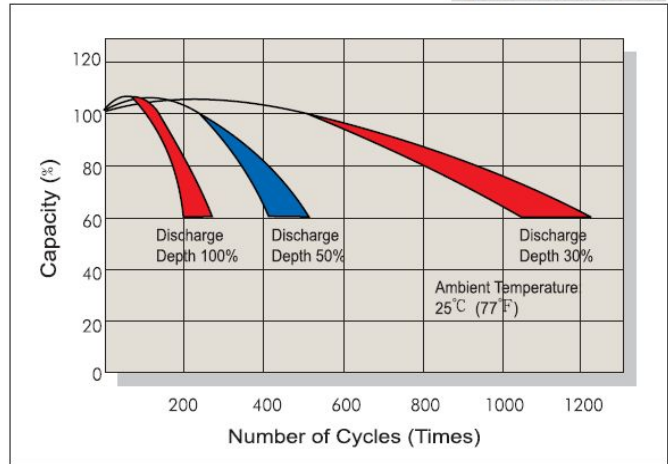
Capacity Retention Characteristic



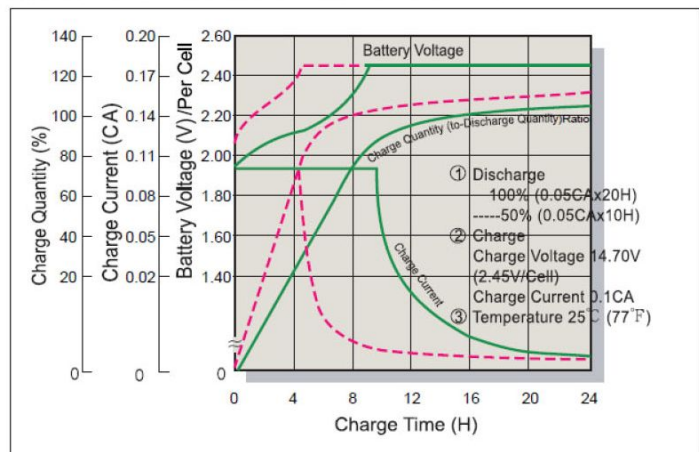
Battery Voltage and Charge Time for Standby use



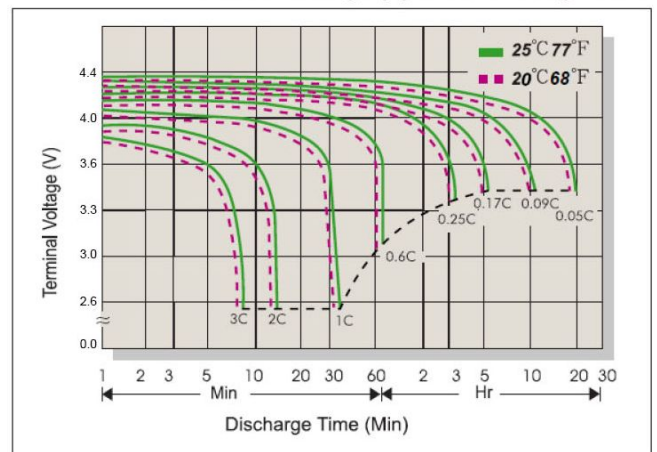
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charging Procedures

| Application | Charge Voltage(V/cell) | | | Max. Charge Current |
|-------------|------------------------|-----------|-----------------|---------------------|
| | Temperature | Set Point | Allowable Range | |
| Cycle Use | 25°C(77°F) | 2.45 | 2.40~2.50 | 0.3C |
| Standby | 25°C(77°F) | 2.275 | 2.25~2.30 | |

Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/cell | 1.75 | 1.70 | 1.65 | 1.60 |
|--------------------------------|----------|----------|----------|----------|
| Discharge Current (A) | 0.2C>(A) | 0.2C<(A) | 0.5C<(A) | (A)>1.0C |
| | <0.5C | <1.0C | | |

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