



## 3FM4/E (6V4Ah)

**LONGWAY®** Standard battery is design for a general purpose by KaiYing Power. 3FM4 is a general purpose battery up to 5 years in star 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



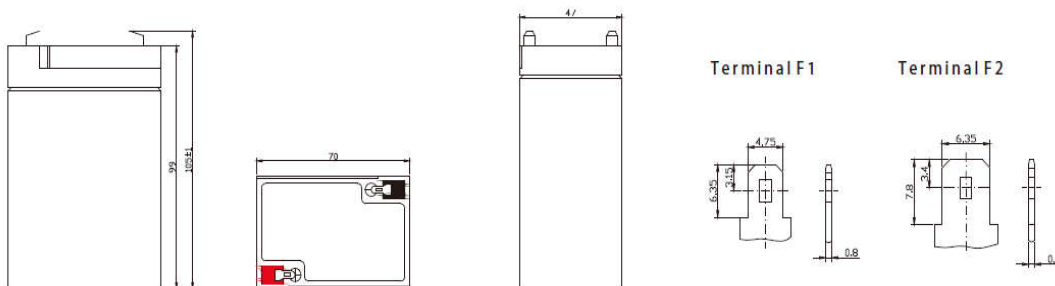
ISO 14001:2004 Standard



### Specifications:

|                                     |   |
|-------------------------------------|---|
| Cells per Unit                      | 3   |
| Normal Voltage                      | 6V  |
| Capacity                            | 4.0Ah@20Hr-rate to 1.75V per cell@25°C  |
| Weight                              | Approx. (0.62 ± 3%) kg(1.36lbs)   |
| Maximum Discharge Current           | 35A(5sec)   |
| Internal Resistance                 | Approx. 29mΩ full charged @25°C   |
| Operating Temperature Range         | Discharge: -20°C~60°C<br>Charge: 0°C~50°C<br>Storage: -20°C~60°C  |
| Nominal Operating Temperature Range | 25°C±3°C  |
| Float Charging Voltage              | 6.75~6.90VDC/unit Average @25°C   |
| Maximum Charging Current            | 1.20A   |
| Equalization and Cycle Service      | 7.20V~7.50VDC/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/F2   |
| Container Material                  | ABS(UL94-HB)<br>*Flammability resistance of (UL94-V0) can be available upon request   |

### Dimensions: L70\*W47\*H99(TH105)mm



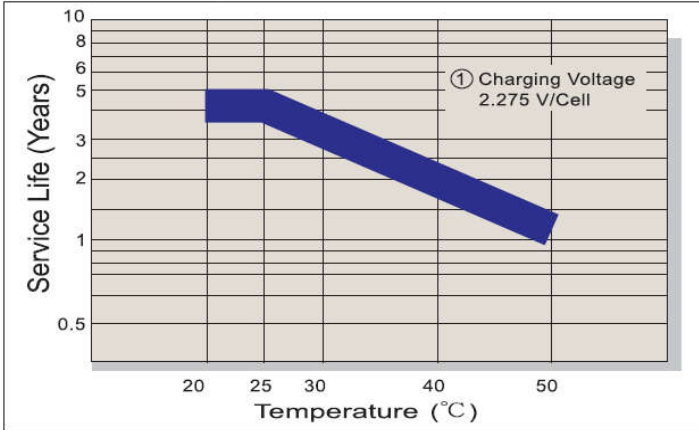
### Constant Current Discharge Characteristics (A, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80     | 16.2 | 10.94 | 8.47  | 4.18  | 2.47  | 1.39 | 1.04 | 0.66 | 0.42 | 0.36 | 0.19 |
| 4.95     | 15.7 | 10.62 | 8.22  | 4.05  | 2.40  | 1.37 | 1.03 | 0.65 | 0.42 | 0.36 | 0.19 |
| 5.10     | 15.3 | 10.40 | 8.14  | 4.01  | 2.37  | 1.37 | 1.03 | 0.65 | 0.42 | 0.36 | 0.19 |
| 5.25     | 14.9 | 10.07 | 7.80  | 3.85  | 2.27  | 1.35 | 1.02 | 0.64 | 0.42 | 0.35 | 0.19 |
| 5.40     | 14.4 | 9.77  | 7.73  | 3.81  | 2.25  | 1.34 | 1.01 | 0.63 | 0.42 | 0.35 | 0.19 |

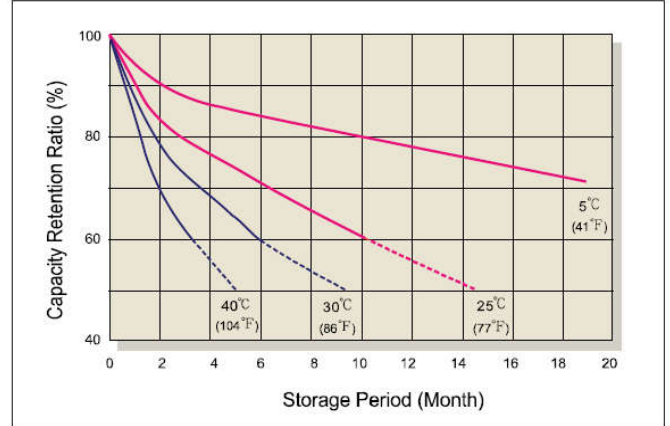
### Constant Power Discharge Characteristics (Watt, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80     | 90.1 | 61.7  | 48.3  | 24.0  | 14.3  | 8.12 | 6.19 | 3.91 | 2.55 | 2.15 | 1.16 |
| 4.95     | 87.4 | 59.9  | 46.9  | 23.2  | 13.9  | 8.04 | 6.12 | 3.88 | 2.53 | 2.14 | 1.15 |
| 5.10     | 85.6 | 58.6  | 46.4  | 23.0  | 13.7  | 8.00 | 6.09 | 3.86 | 2.52 | 2.13 | 1.15 |
| 5.25     | 82.9 | 56.8  | 44.4  | 22.0  | 13.2  | 7.92 | 6.03 | 3.82 | 2.51 | 2.12 | 1.14 |
| 5.40     | 80.5 | 55.1  | 44.1  | 21.8  | 13.0  | 7.84 | 5.97 | 3.78 | 2.51 | 2.12 | 1.14 |

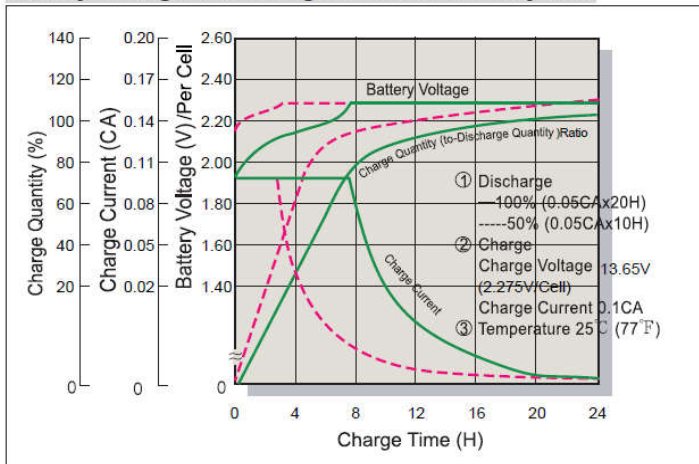
### Float Service Life



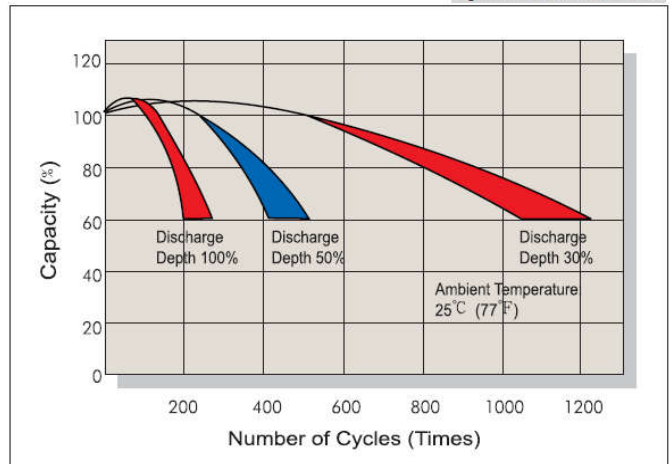
### Capacity Retention Characteristic



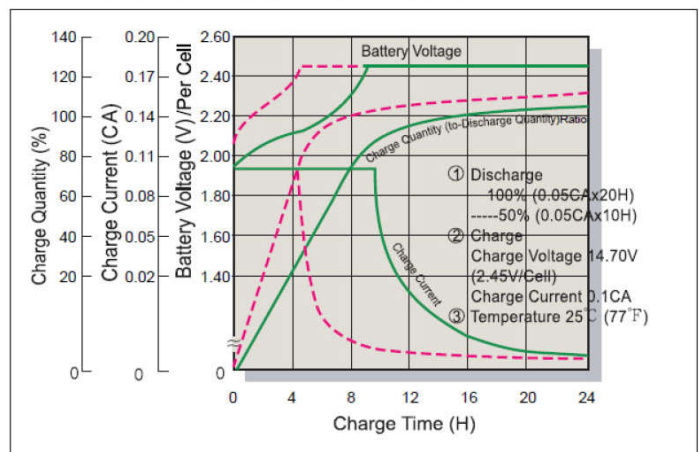
### Battery Voltage and Charge Time for Standby use



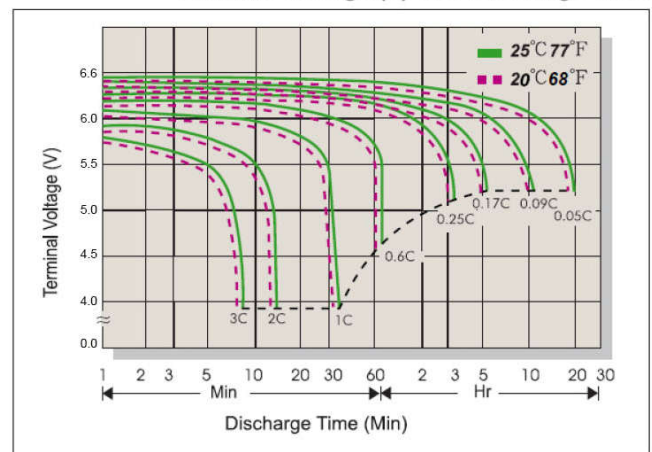
### Cycle Service Life



### 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 |

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