



## 3FM5/U (6V5Ah)

**LONGWAY®** Standard battery is design for a general purpose by KaiYing Power. 3FM5 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



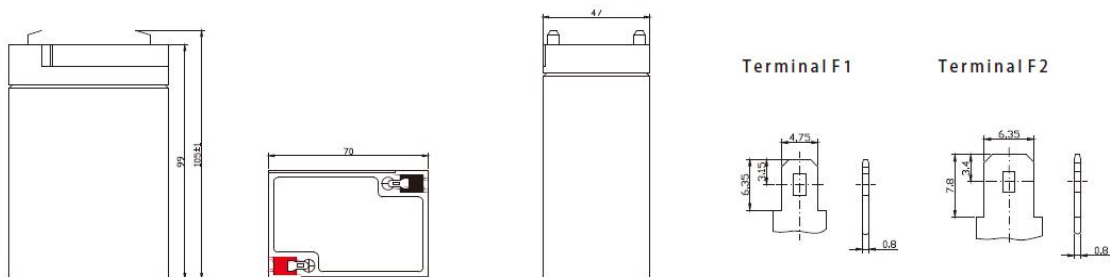
ISO 14001:2004 Standard



### Specifications:

|                                     |   |
|-------------------------------------|---|
| Cells per Unit                      | 3   |
| Normal Voltage                      | 6V  |
| Capacity                            | 5Ah@20Hr-rate to 1.75V per cell@25°C  |
| Weight                              | Approx.(0.68±3%)kg(1.5lbs)  |
| Maximum Discharge Current           | 50A(5sec)   |
| Internal Resistance                 | Approx. 35mΩ 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            | 1.5A  |
| 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(0.187)/F2(0.250)   |
| Container Material                  | ABS(UL94-HB)<br>*Flammability resistance of (UL94-V0) can be available upon request   |

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



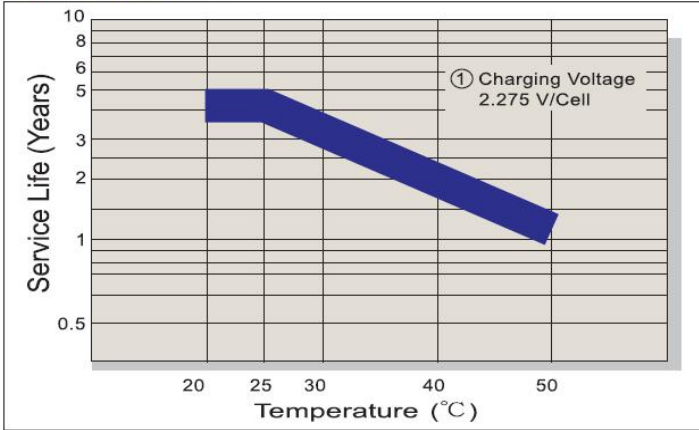
### Constant Current Discharge Characteristics (A, 25 °C)

| F.V/TIME | 5min | 10min | 20min | 40min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80     | 17.5 | 12.00 | 6.00  | 4.15  | 3.25  | 1.83 | 1.27 | 0.86 | 0.56 | 0.47 | 0.26 |
| 4.95     | 17.0 | 11.64 | 5.82  | 4.03  | 3.15  | 1.81 | 1.26 | 0.85 | 0.56 | 0.47 | 0.26 |
| 5.10     | 16.6 | 11.40 | 5.76  | 3.98  | 3.12  | 1.80 | 1.25 | 0.85 | 0.55 | 0.47 | 0.26 |
| 5.25     | 16.1 | 11.04 | 5.52  | 3.82  | 2.99  | 1.78 | 1.24 | 0.84 | 0.55 | 0.47 | 0.26 |
| 5.40     | 15.6 | 10.72 | 5.47  | 3.78  | 2.96  | 1.76 | 1.23 | 0.83 | 0.55 | 0.47 | 0.26 |

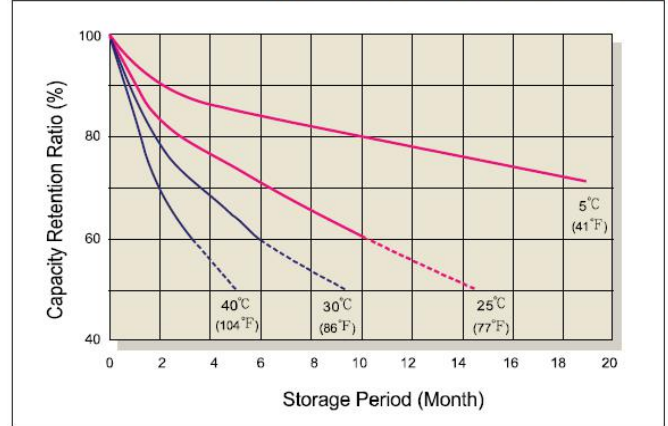
### Constant Power Discharge Characteristics (Watt, 25 °C)

| F.V/TIME | 5min | 10min | 20min | 40min | 60min | 2h    | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 4.80     | 97.7 | 67.7  | 34.2  | 23.8  | 18.8  | 10.69 | 7.54 | 5.15 | 3.35 | 2.83 | 1.55 |
| 4.95     | 94.7 | 65.6  | 33.2  | 23.1  | 18.3  | 10.58 | 7.46 | 5.10 | 3.33 | 2.82 | 1.55 |
| 5.10     | 92.8 | 64.3  | 32.8  | 22.8  | 18.1  | 10.53 | 7.43 | 5.07 | 3.32 | 2.81 | 1.54 |
| 5.25     | 89.8 | 62.3  | 31.5  | 21.9  | 17.3  | 10.42 | 7.35 | 5.02 | 3.31 | 2.80 | 1.53 |
| 5.40     | 87.2 | 60.4  | 31.2  | 21.7  | 17.2  | 10.32 | 7.28 | 4.97 | 3.30 | 2.79 | 1.53 |

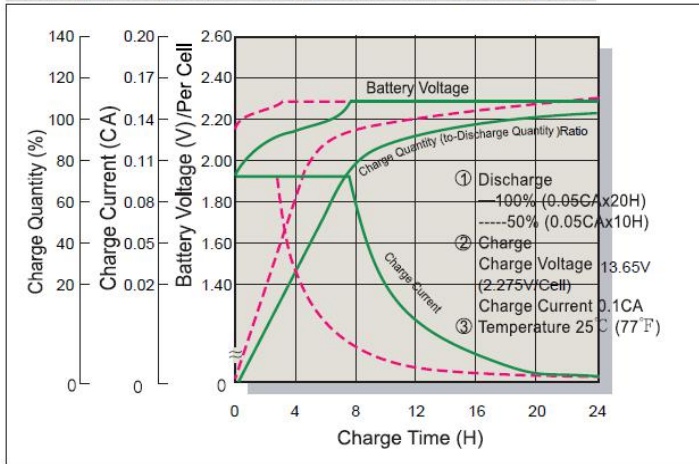
### Float Service Life



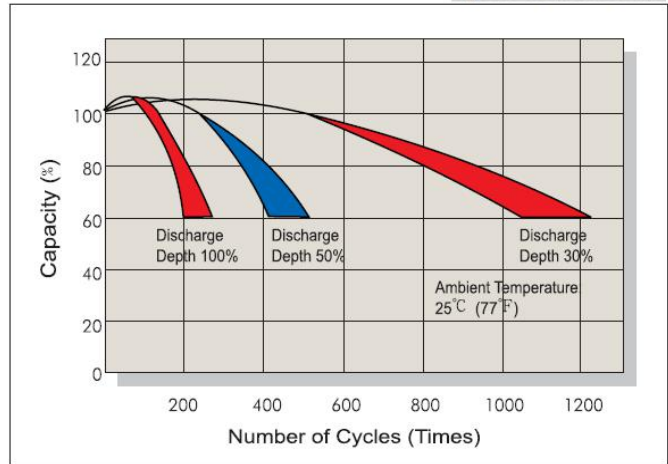
### Capacity Retention Characteristic



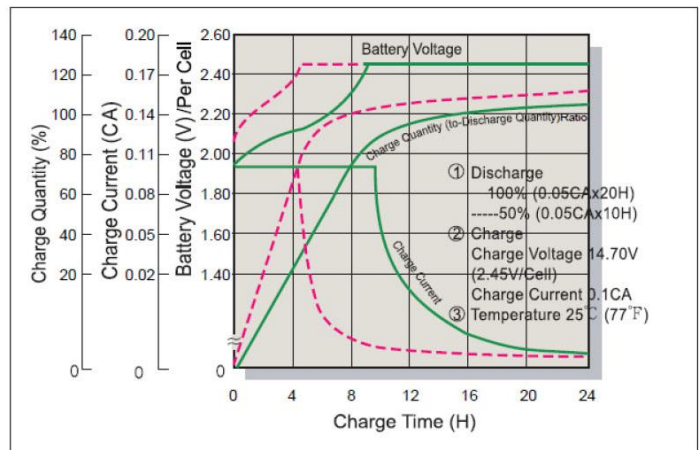
### Battery Voltage and Charge Time for Standby use



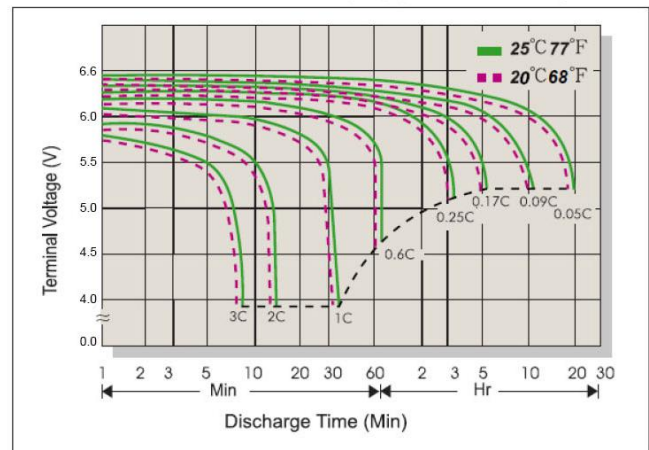
### Cycle Service Life



### 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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