



# 3FM5.5 (6V5.5Ah)

LONGWAY® Standard battery is design for a general purpose by KaiYing Power. 3FM5.5 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.



# Specifications:

| Cells per Unit                      | 3   |  |  |  |  |  |
|-------------------------------------|---|--|--|--|--|--|
| Normal Voltage                      | 6V  |  |  |  |  |  |
| Capacity                            | 5Ah@20Hr-rate to 1.75V per cell@25°C                                |  |  |  |  |  |
| Weight                              | Approx.(0.83±3%)kg(1.83lbs)   |  |  |  |  |  |
| Maximum Discharge Current           | 55A(5sec)   |  |  |  |  |  |
| Internal Resistance                 | Approx. 23mΩ 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℃±3℃  |  |  |  |  |  |
| Float Charging Voltage              | 6.75~6.90VDC/unit Average @25°C                                     |  |  |  |  |  |
| Maximum Charging Current            | 1.65A   |  |  |  |  |  |
| 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℃. 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 |  |  |  |  |  |







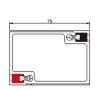


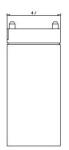


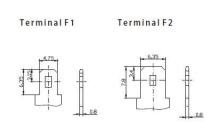


#### Dimensions: L70\*W47\*H99(TH105)mm









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

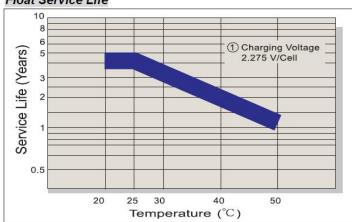
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80     | 23.4 | 15.84 | 12.27 | 6.05  | 3.58  | 2.01 | 1.51 | 0.95 | 0.61 | 0.52 | 0.28 |
| 4.95     | 22.7 | 15.36 | 11.90 | 5.87  | 3.47  | 1.99 | 1.49 | 0.94 | 0.61 | 0.52 | 0.28 |
| 5.10     | 22.2 | 15.05 | 11.77 | 5.81  | 3.43  | 1.98 | 1.49 | 0.94 | 0.61 | 0.51 | 0.28 |
| 5.25     | 21.5 | 14.57 | 11.28 | 5.57  | 3.29  | 1.96 | 1.47 | 0.93 | 0.61 | 0.51 | 0.28 |
| 5.40     | 20.9 | 14.15 | 11.19 | 5.52  | 3.26  | 1.94 | 1.46 | 0.92 | 0.61 | 0.51 | 0.28 |

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

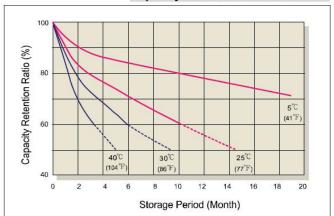
| F.V/TIME | 5min  | 10min | 15min | 30min | 60min | 2h    | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 4.80     | 130.4 | 89.3  | 69.9  | 34.7  | 20.7  | 11.76 | 8.95 | 5.67 | 3.68 | 3.12 | 1.67 |
| 4.95     | 126.5 | 86.7  | 67.8  | 33.6  | 20.1  | 11.64 | 8.87 | 5.61 | 3.67 | 3.10 | 1.67 |
| 5.10     | 123.9 | 84.9  | 67.1  | 33.3  | 19.9  | 11.58 | 8.82 | 5.58 | 3.65 | 3.09 | 1.66 |
| 5.25     | 120.0 | 82.2  | 64.3  | 31.9  | 19.0  | 11.47 | 8.73 | 5.53 | 3.64 | 3.08 | 1.65 |
| 5.40     | 116.5 | 79.8  | 63.8  | 31.6  | 18.9  | 11.35 | 8.64 | 5.47 | 3.63 | 3.07 | 1.65 |



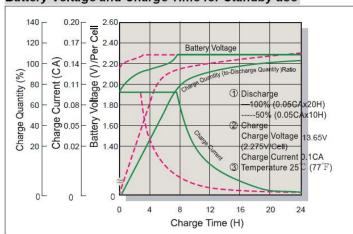
### Float Service Life



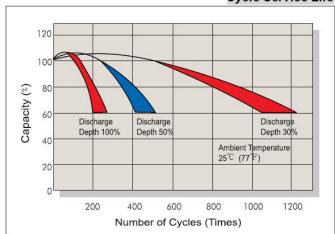
#### Capacity Retention Characteristic



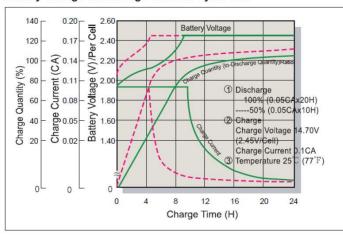
# Battery Voltage and Charge Time for Standby use



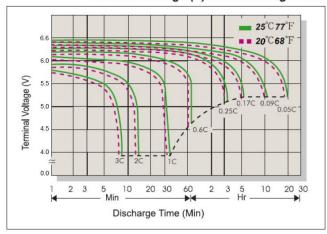
# Cycle Service Life



#### Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



#### Charging Procedures

| Application | CI          | Max. Charge |                 |         |
|-------------|-------------|-------------|-----------------|---------|
|             | Temperature | Set Point   | Allowable Range | Current |
| Cycle Use   | 25℃(77°F)   | 2.45        | 2.40~2.50       | 0.00    |
| Standby     | 25°C(77°F)  | 2.275       | 2.25~2.30       | - 0.3C  |

Discharge Current VS. Discharge Voltage

| Final Discharge<br>Voltage V/cell | 1.75     | 1.70     | 1.65     | 1.60     |
|-----------------------------------|----------|----------|----------|----------|
| Discharge                         | 0.20>(A) | 0.2C<(A) | 0.5C<(A) | (4)>4.00 |
| Current (A)                       | 0.2C>(A) | <0.5C    | <1.0C    | (A)>1.0C |

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