



## 6FM2.3 (12V2.3Ah)

**KAIYING®** Standard battery is design for a general purpose by KaiYing Powe. 6FM2.3 is a general purpose battery up to 5 years in star service. As with all **KAIYING®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.



**KAIYING**

### Specifications:

|                                     |                                                                                                                                                                                             |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells per Unit                      | 6                                                                                                                                                                                           |
| Normal Voltage                      | 12V                                                                                                                                                                                         |
| Capacity                            | 2.3Ah@20hr-rate to 1.75V per cell@25°C                                                                                                                                                      |
| Weight                              | Approx. (0.97±3%)kg (2.14lbs)                                                                                                                                                               |
| Maximum Discharge Current           | 23A(5sec)                                                                                                                                                                                   |
| Internal Resistance                 | Approx. 47mΩ full charged @25°C                                                                                                                                                             |
| Operating Temperature Range         | Discharge: -15°C~50°C<br>Charge: -15°C~40°C<br>Storage: -15°C~40°C                                                                                                                          |
| Nominal Operating Temperature Range | 25°C±3°C(77°F±5°F)                                                                                                                                                                          |
| Float Charging Voltage              | 13.6~13.8VDC/unit Average @25°C                                                                                                                                                             |
| Maximum Charging Current            | 0.69A                                                                                                                                                                                       |
| Equalization and Cycle Service      | 14.4V~15.0VDC/unit Average @ 25°C                                                                                                                                                           |
| Self Discharge                      | KAIYING 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)                                                                                                                                                                                   |
| Container Material                  | ABS(UL94-HB)<br>*Flammability resistance of (UL94-V0) can be available upon request                                                                                                         |



ISO 9001:2008 Standard



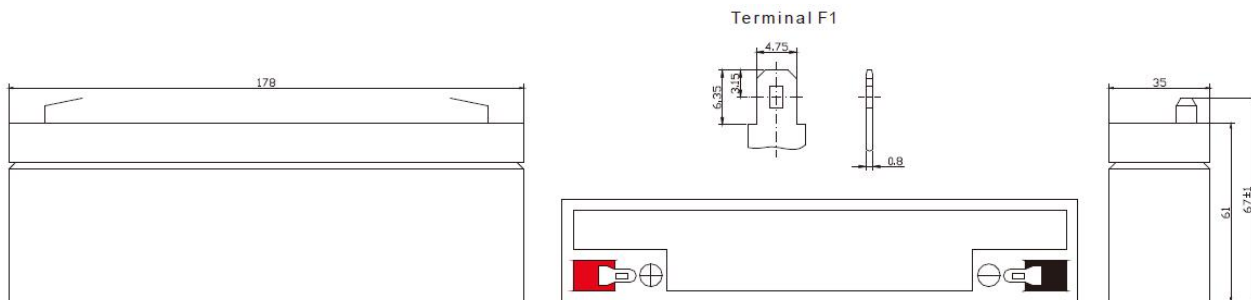
ISO 14001:2004 Standard



MH46789



### Dimensions: L178\*W35\*H61(TH67)mm



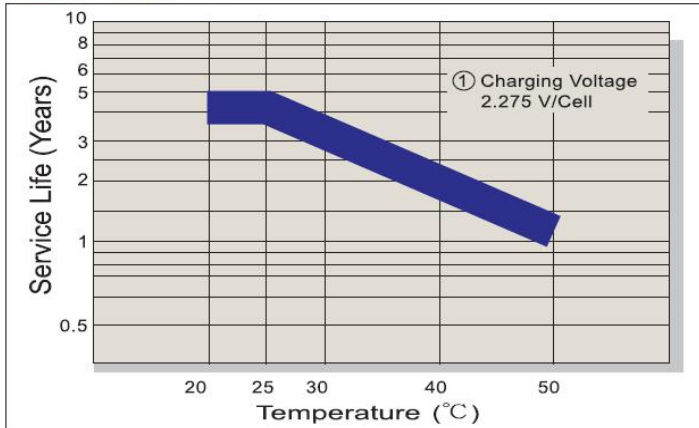
### Constant Current Discharge Characteristics (A, 25 °C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h   |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|-------|
| 9.60     | 9.12 | 5.76  | 4.56  | 2.64  | 1.56  | 0.85 | 0.61 | 0.41 | 0.27 | 0.22 | 0.12  |
| 9.90     | 8.85 | 5.59  | 4.45  | 2.57  | 1.52  | 0.85 | 0.61 | 0.41 | 0.27 | 0.22 | 0.12  |
| 10.2     | 8.66 | 5.47  | 4.38  | 2.53  | 1.50  | 0.84 | 0.60 | 0.41 | 0.26 | 0.22 | 0.12  |
| 10.5     | 8.39 | 5.30  | 4.24  | 2.46  | 1.45  | 0.83 | 0.59 | 0.40 | 0.26 | 0.22 | 0.115 |
| 10.8     | 8.14 | 5.14  | 4.16  | 2.41  | 1.42  | 0.82 | 0.59 | 0.40 | 0.26 | 0.22 | 0.115 |

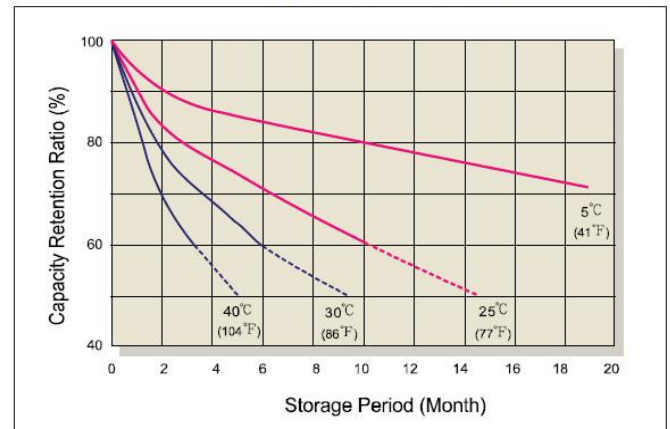
### Constant Power Discharge Characteristics (Watt, 25 °C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60     | 99.0 | 65.0  | 52.0  | 30.3  | 18.1  | 9.98 | 7.23 | 4.94 | 3.18 | 2.69 | 1.46 |
| 9.90     | 98.7 | 63.0  | 50.7  | 29.5  | 17.6  | 9.93 | 7.20 | 4.92 | 3.19 | 2.69 | 1.46 |
| 10.2     | 96.7 | 61.7  | 49.9  | 29.0  | 17.3  | 9.83 | 7.13 | 4.87 | 3.16 | 2.67 | 1.45 |
| 10.5     | 93.6 | 59.8  | 48.3  | 28.1  | 16.8  | 9.73 | 7.06 | 4.82 | 3.17 | 2.66 | 1.44 |
| 10.8     | 90.9 | 58.0  | 47.4  | 27.6  | 16.5  | 9.63 | 6.99 | 4.77 | 3.14 | 2.65 | 1.44 |

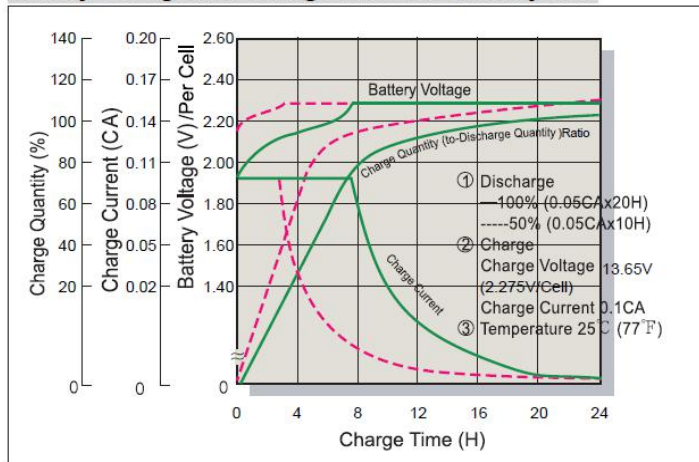
### Float Service Life



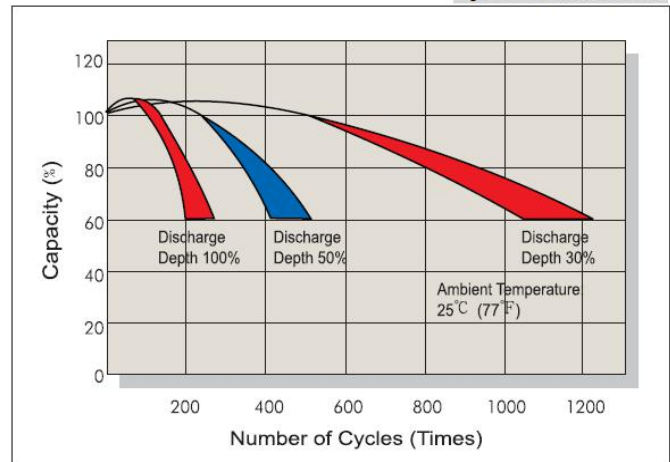
### Capacity Retention Characteristic



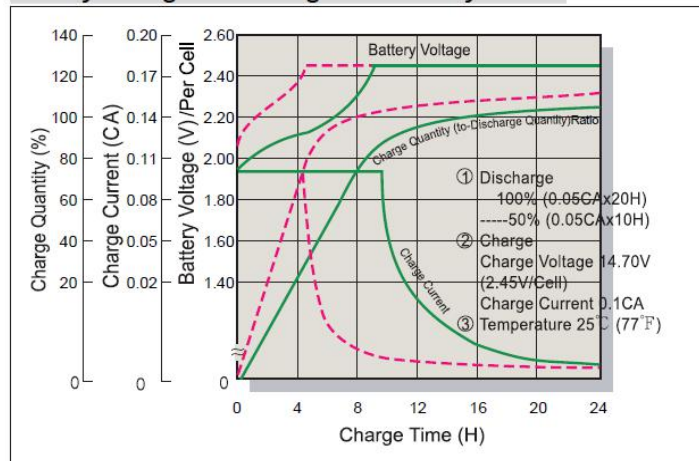
### Battery Voltage and Charge Time for Standby use



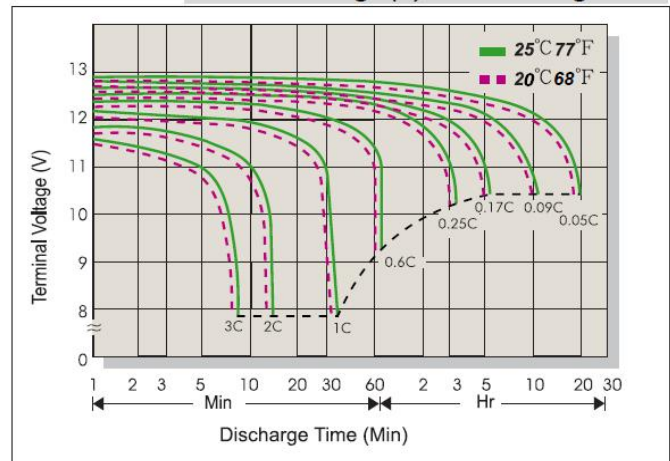
### Cycle Service Life



### 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)<br><0.5C | 0.5C<(A)<br><1.0C | (A)>1.0C |

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