



# Holy Enterprise Limited

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## Specification

6-FM-40 12V40AH/20HR

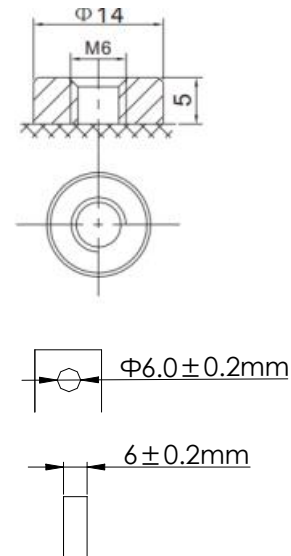
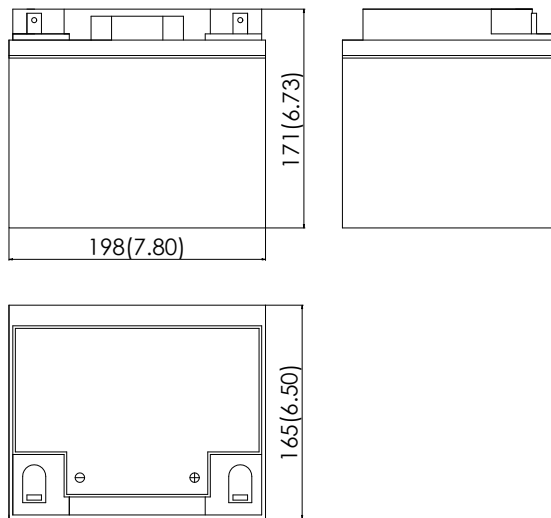
|                                |  |
|--------------------------------|--|
| Cells Per Unit                 | 6  |
| Voltage Per Unit               | 12   |
| Capacity                       | 40AH@20hr-rate to 1.8V per cell @ 25°C                           |
| Weight                         | Approx.12.9kg (Tolerance±3%)                                     |
| Max. Discharge Current         | 400 A(5sec)  |
| Internal Resistance            | Approx 10 mΩ   |
| Operating Temperature Range    | Discharge: -20°C~50°C<br>Charge: 0°C~40°C<br>Storage: -20°C~50°C |
| Normal Operating Temperature   | 25±3°C   |
| Float Charging Voltage         | 2.25 to 2.27 VDC/unit Average at 25°C                            |
| Maximum Charging Current       | 12.0A  |
| Equalization and Cycle service | 2.35 to 2.40 VDC /unit Average at 25°C                           |
| Terminal                       | Terminal: NB/B   |



## Application

- Alarm Systems
- Electronic Toys
- Medical Equipment
- Cable Television
- Communications Equipment
- Electronic Cash Registers
- Electric Test Equipment
- Emergency lighting Systems
- UPS

Dimension: 198(L) ×165 (W) ×171 (H) (Total 171 mm)



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

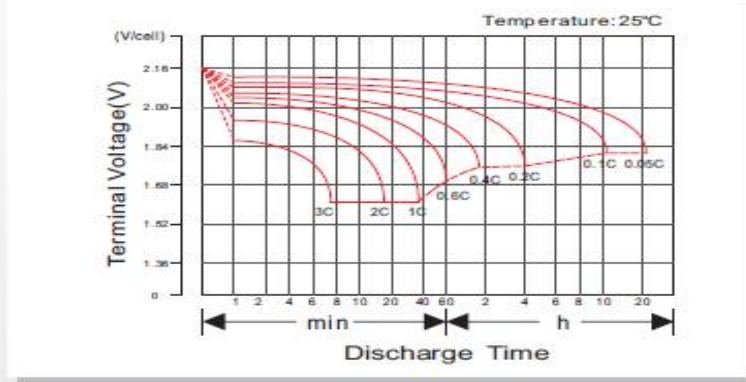
| F.V/Time   | 5MIN  | 10MIN | 15MIN | 30MIN | 60MIN | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.80V/cell | 97.0  | 69.0  | 56.5  | 36.4  | 21.2  | 12.7 | 10.0 | 7.94 | 6.80 | 4.79 | 4.00 | 2.10 |
| 1.75V/cell | 106.5 | 76.2  | 61.2  | 38.0  | 22.0  | 13.2 | 10.3 | 8.18 | 6.98 | 4.87 | 4.05 | 2.12 |
| 1.70V/cell | 114.0 | 83.2  | 65.7  | 39.8  | 22.8  | 13.6 | 10.6 | 8.39 | 7.16 | 4.94 | 4.11 | 2.15 |
| 1.65V/cell | 119.8 | 90.4  | 70.2  | 41.6  | 23.6  | 14.1 | 10.9 | 8.63 | 7.35 | 5.01 | 4.17 | 2.17 |
| 1.60V/cell | 124.3 | 95.7  | 73.4  | 43.4  | 24.4  | 14.6 | 11.3 | 8.87 | 7.55 | 5.07 | 4.22 | 2.21 |

### Constant Power Discharge Characteristics: W/Unit(25°C)

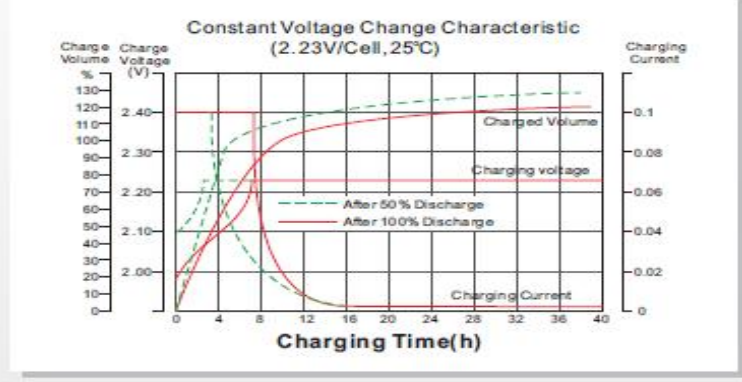
| F.V/Time   | 5MIN   | 10MIN | 15MIN | 30MIN | 60MIN  | 2HR    | 3HR    | 4HR    | 5HR   | 8HR   | 10HR  | 20HR  |
|------------|--------|-------|-------|-------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1.80V/cell | 1077.0 | 756.0 | 628.2 | 412.8 | 244.20 | 147.00 | 116.40 | 93.00  | 79.80 | 56.58 | 47.40 | 24.90 |
| 1.75V/cell | 1161.6 | 820.8 | 670.8 | 427.2 | 252.60 | 151.80 | 120.00 | 95.40  | 81.60 | 57.42 | 48.00 | 25.14 |
| 1.70V/cell | 1221.6 | 881.4 | 710.4 | 442.8 | 260.40 | 156.60 | 123.00 | 97.20  | 83.40 | 58.08 | 48.54 | 25.44 |
| 1.65V/cell | 1270.2 | 939.6 | 747.0 | 458.4 | 267.60 | 160.80 | 126.00 | 99.60  | 85.20 | 58.86 | 49.26 | 25.68 |
| 1.60V/cell | 1283.4 | 975.6 | 770.4 | 472.8 | 275.40 | 165.60 | 129.00 | 102.00 | 87.00 | 59.40 | 49.80 | 26.10 |

All mentioned values are average values.

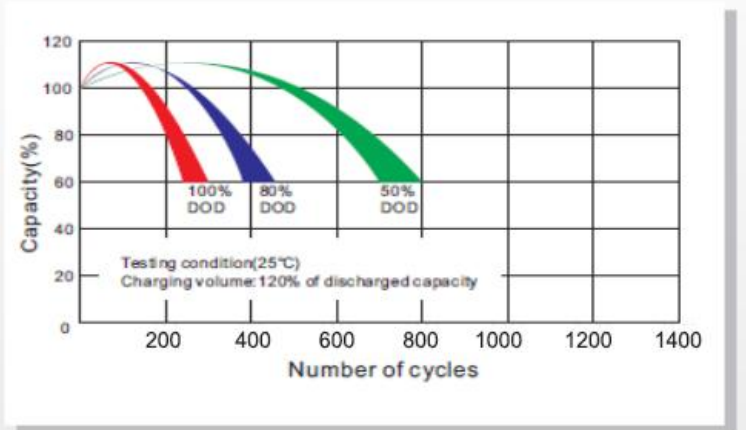
### Discharge Characteristics Curve



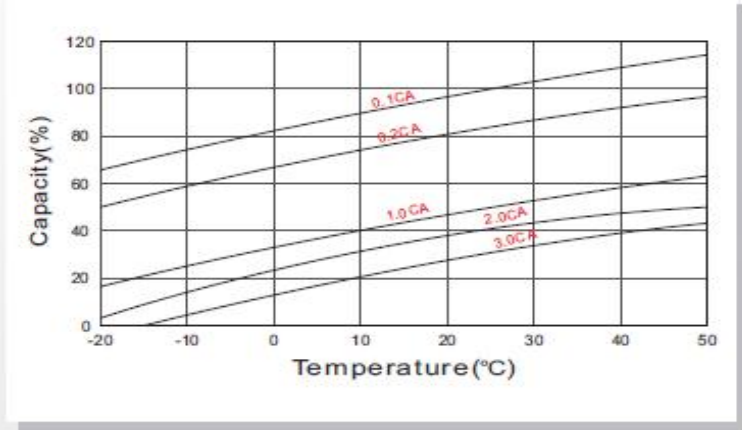
### Charging Characteristics Curve



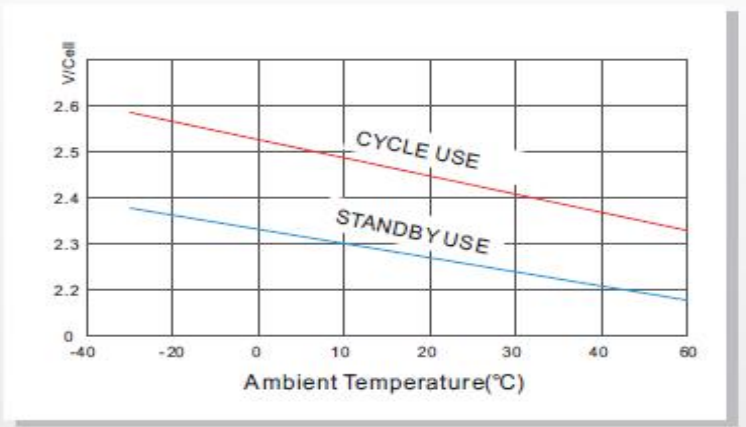
### Cycle life in relation to depth of Discharge



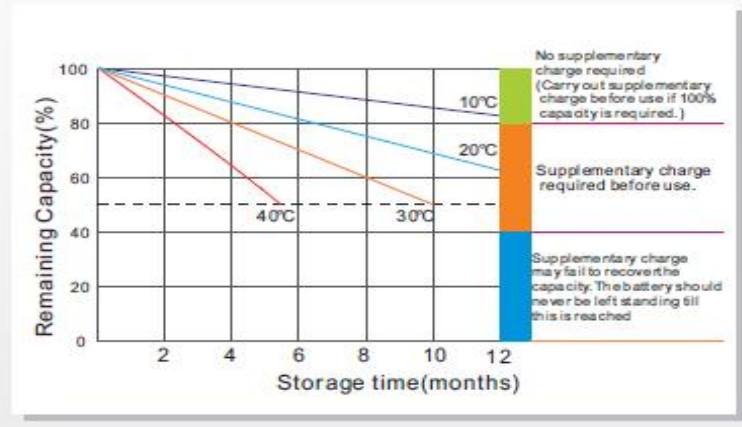
### Temperature effects on Capacity



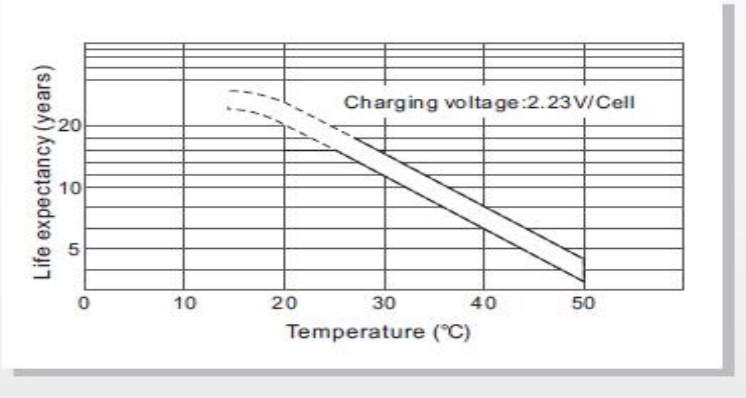
### Relationship between charging voltage and temperature



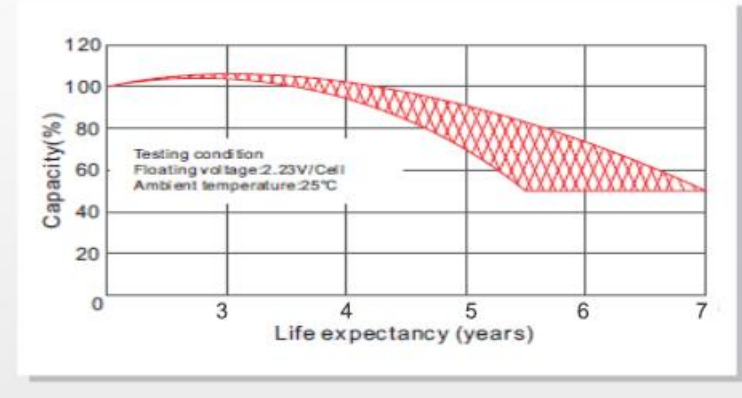
### Self-discharge Characteristics



### Temperature effects on Float life



### Life Characteristics of Standby use



### Maintenance & Cautions

- ※ Every month, recommend inspection every battery voltage;
- ※ Every three months, recommend equalization charge once;  
Equalization charge method:  
Discharge: 100% rate capacity discharge;  
Charge: Max. Current 0.3CA, constant voltage 2.35-2.4V/Cell;
- ※ Effect of temperature on float charge voltage: -3mV/Cell;

### Contact Us

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