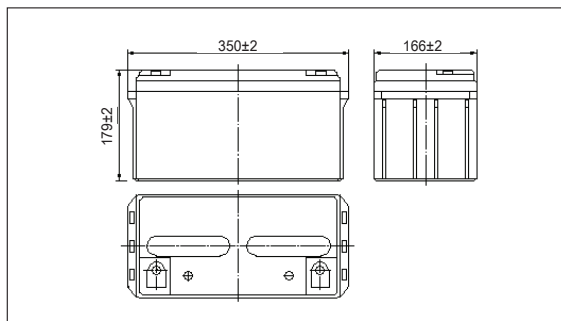


## 12V - 65AH

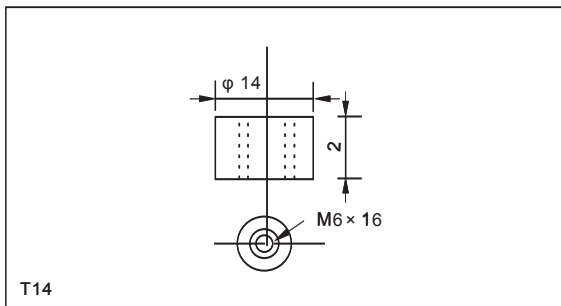
## ► Specifications

|                               |              |                     |
|-------------------------------|--------------|---------------------|
| Nominal Voltage               |              | 12V                 |
| Rated capacity (10 hour rate) |              | 65Ah                |
| Dimensions                    | Length       | 350± 2mm(13.78inch) |
|                               | Width        | 166± 2mm(5.54inch)  |
|                               | Height       | 179± 2mm(7.05inch)  |
|                               | Total Height | 179± 2mm(7.05inch)  |
| Approx. Weight                |              | 20.4kg(45.0lbs)± 3% |

## ► Outer Dimensions (mm)



## ► Terminal Type (mm)



## ► Characteristics

|                                           |             |                                                       |
|-------------------------------------------|-------------|-------------------------------------------------------|
| Capacity (25°C)                           | 10HR(10.8V) | 65Ah                                                  |
|                                           | 3HR(10.8V)  | 48Ah                                                  |
|                                           | 1HR(10.5V)  | 36Ah                                                  |
| Terminal type                             |             | T14                                                   |
| Internal resistance (Fully charged, 25°C) |             | Approx. 6.5m Ω                                        |
| Capacity affected by temperature (10HR)   | 40°C        | 102%                                                  |
|                                           | 25°C        | 100%                                                  |
|                                           | 0°C         | 85%                                                   |
|                                           | -15°C       | 65%                                                   |
| Self-discharge (25°C)                     | 3 months    | Remaining Capacity: 91%                               |
|                                           | 6 months    | Remaining Capacity: 82%                               |
|                                           | 12 months   | Remaining Capacity: 65%                               |
| Nominal operating temperature             |             | 25°C ± 3°C (77°F ± 5°F)                               |
| Operating temperature range               | Discharge   | -15°C ~ 50°C (5°F ~ 122°F)                            |
|                                           | Charge      | -10°C ~ 50°C (14°F ~ 122°F)                           |
|                                           | Storage     | -20°C ~ 50°C (-4°F ~ 122°F)                           |
| Float charging voltage (25°C)             |             | 13.50 to 13.80V<br>Temperature compensation: -18mV/°C |
| Cyclic charging voltage (25°C)            |             | 14.50 to 15.00V<br>Temperature compensation: -30mV/°C |
| Maximum charging current                  |             | 19.5A                                                 |
| Maximum discharge current                 |             | 650A (5 sec.)                                         |
| Designed floating life (20°C)             |             | 10 years                                              |

## ► Construction

| Component    | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte   | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Lead dioxide   | Lead           | ABS       | ABS   | AGM       | Sulfuric acid | Rubber       | Copper   |

## ► Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

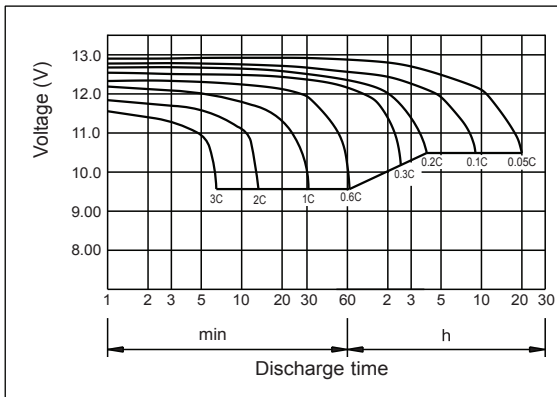
| F.V/Time | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V    | 142   | 109   | 65.3  | 40.2  | 23.8 | 17.1 | 13.7 | 11.7 | 8.02 | 6.62 | 3.51 |
| 9.90V    | 137   | 107   | 64.0  | 39.6  | 23.6 | 17.0 | 13.6 | 11.6 | 7.98 | 6.60 | 3.50 |
| 10.2V    | 132   | 103   | 62.1  | 38.6  | 23.4 | 16.9 | 13.5 | 11.5 | 7.92 | 6.58 | 3.49 |
| 10.5V    | 126   | 99.2  | 60.6  | 37.4  | 23.0 | 16.8 | 13.4 | 11.4 | 7.87 | 6.55 | 3.47 |
| 10.8V    | 119   | 93.9  | 58.3  | 36.2  | 22.5 | 16.3 | 13.0 | 11.1 | 7.63 | 6.50 | 3.45 |

## ► Constant Power Discharge Characteristics Unit: W (25°C, 77°F)

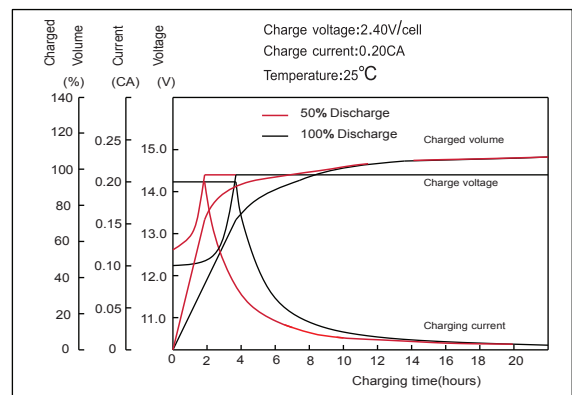
| F.V/Time | 10min | 15min | 30min | 60min | 2h  | 3h  | 4h  | 5h  | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|------|------|------|
| 9.60V    | 1530  | 1199  | 733   | 458   | 275 | 201 | 161 | 138 | 95.3 | 79.0 | 42.1 |
| 9.90V    | 1484  | 1170  | 718   | 451   | 273 | 200 | 160 | 137 | 94.7 | 78.9 | 42.0 |
| 10.2V    | 1423  | 1127  | 696   | 440   | 271 | 199 | 159 | 136 | 94.1 | 78.6 | 41.9 |
| 10.5V    | 1362  | 1089  | 679   | 426   | 267 | 197 | 157 | 135 | 93.4 | 78.2 | 41.6 |
| 10.8V    | 1286  | 1031  | 655   | 412   | 260 | 191 | 153 | 131 | 90.6 | 77.6 | 41.3 |

Note: The above characteristics data can be obtained within three charge or discharge cycles.

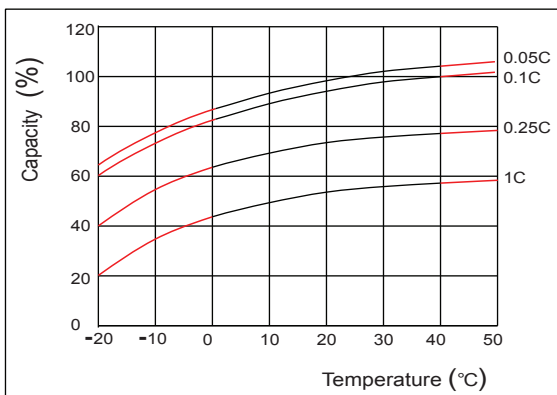
## ► Discharge Characteristics (25°C)



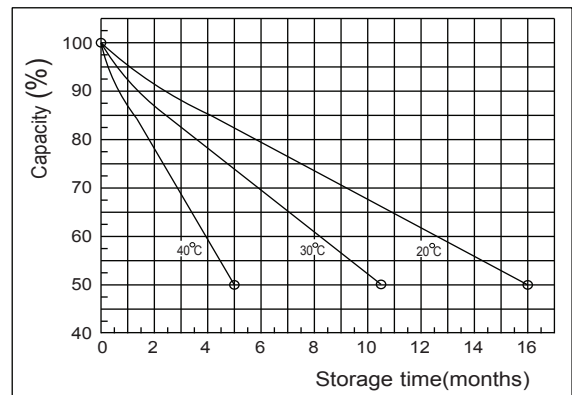
## ► Charging Characteristics (25°C)



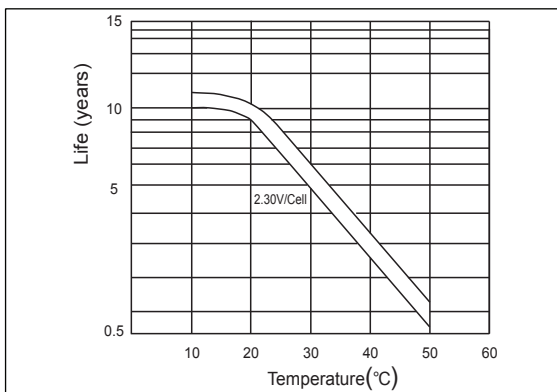
## ► Temperature effects on Capacity



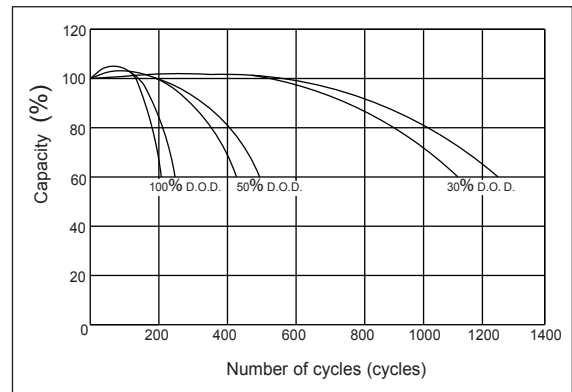
## ► Self-Discharge Characteristics



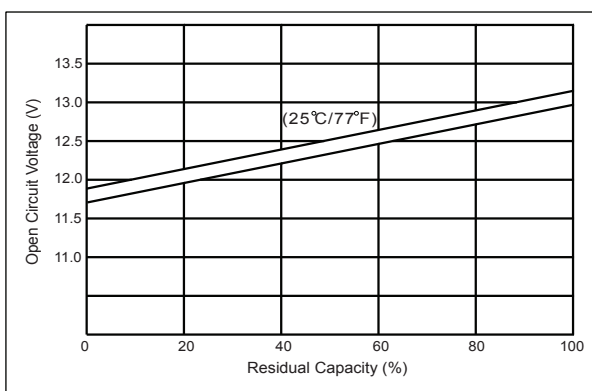
## ► Floating Life on Temperature



## ► Cycle Life on D.O.D (25°C)



## ► The Relationship for OCV and Capacity (25°C)



## ► The Relationship for Charging Voltage and Temperature

