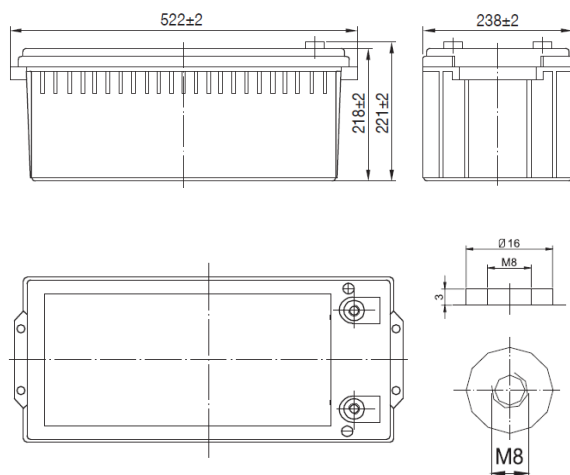


**APPLICATIONS**

- Uninterruptible Power Supplies (UPS)
- Electric Power Systems (EPS)
- Emergency backup power supplies
- Electronic apparatus and equipment
- Communication power supplies
- DC power supplies
- Auto control system


**SPECIFICATIONS**

|                                           |                              |               |
|-------------------------------------------|------------------------------|---------------|
| Nominal Voltage                           | 12 V                         |               |
| Number of cells                           | 6                            |               |
| Design Floating Life (20°C)               | 12 years                     |               |
| Dimensions                                | Length                       | 522 mm        |
|                                           | Width                        | 238 mm        |
|                                           | Height                       | 218 mm        |
|                                           | Total Height                 | 221 mm        |
| Weight                                    | 64.0 kg                      |               |
| Nominal Capacity (25°C)                   | 20 hours rate (1.80)         | 210 Ah        |
|                                           | 10 hours rate (1.80)         | 200 Ah        |
|                                           | 5 hours rate (1.75)          | 175 Ah        |
|                                           | 1 hour rate (1.70)           | 119 Ah        |
| Internal Resistance (fully charged, 25°C) | 3.0 mOhm                     |               |
| Self Discharge                            | approx. 3% per month at 25°C |               |
| Nominal Operating Temperature             | 25°C                         |               |
| Operating Temperature range               | Discharge                    | -15°C to 50°C |
|                                           | Charge                       | -10°C to 50°C |
|                                           | Storage                      | -20°C to 50°C |
| Float Charging Voltage                    | 2.25 to 2.30 V/cell at 25°C  |               |
| Temperature compensation                  | -18mV/°C                     |               |
| Boost Charging Voltage                    | 2.40 to 2.45 V/cell at 25°C  |               |
| Temperature compensation                  | -30mV/°C                     |               |
| Maximum charging current                  | 60.0 A                       |               |
| Maximum discharge current (25°C)          | 1600 A (5 sec.)              |               |
| Short Circuit Current (25°C)              | 4030 A                       |               |

**Battery Construction**

| Component    | Positive Plate | Negative Plate | Container & Cover | Safety Valve | Terminal | Separator  | Electrolyte   |
|--------------|----------------|----------------|-------------------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide   | Lead           | ABS               | Rubber       | Copper   | Fiberglass | Sulfuric acid |

**PERFORMANCE DATA**
**Discharge Constant Current at 25°C (Amperes)**

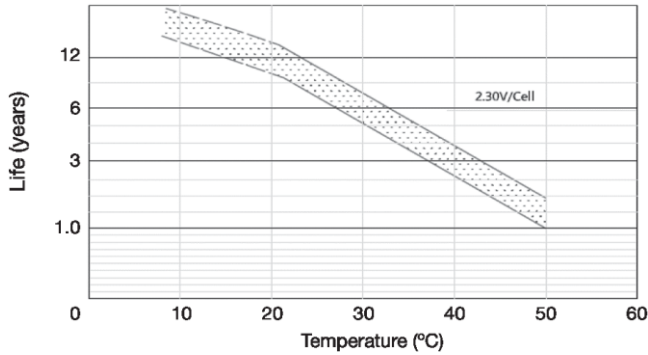
| End Voltage (V/cell) | 15min | 30min | 1h  | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------------------|-------|-------|-----|------|------|------|------|------|------|------|------|
| 1.60V                | 323   | 196   | 124 | 73.1 | 51.0 | 41.8 | 35.7 | 31.2 | 24.5 | 20.4 | 10.7 |
| 1.65V                | 316   | 192   | 122 | 72.6 | 50.7 | 41.6 | 35.5 | 31.0 | 24.3 | 20.3 | 10.7 |
| 1.70V                | 304   | 186   | 119 | 72.0 | 50.4 | 41.3 | 35.2 | 30.8 | 24.2 | 20.3 | 10.6 |
| 1.75V                | 294   | 182   | 117 | 70.9 | 50.0 | 41.0 | 35.0 | 30.6 | 24.0 | 20.1 | 10.6 |
| 1.80V                | 278   | 175   | 113 | 69.1 | 48.5 | 39.8 | 34.0 | 29.7 | 23.3 | 20.0 | 10.5 |

**Discharge Constant Power at 25°C (Watts)**

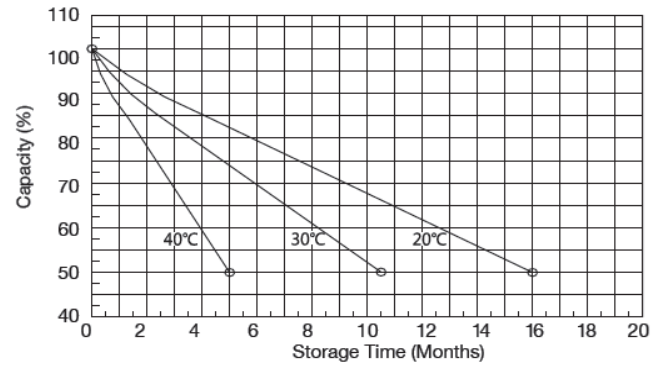
| End Voltage (V/cell) | 15min | 30min | 1h   | 2h  | 3h  | 4h  | 5h  | 6h  | 8h  | 10h | 20h |
|----------------------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1.60V                | 3551  | 2199  | 1414 | 846 | 600 | 492 | 422 | 369 | 291 | 243 | 128 |
| 1.65V                | 3466  | 2155  | 1392 | 841 | 596 | 489 | 419 | 367 | 289 | 243 | 128 |
| 1.70V                | 3338  | 2089  | 1357 | 834 | 592 | 486 | 417 | 364 | 287 | 242 | 128 |
| 1.75V                | 3224  | 2039  | 1330 | 821 | 588 | 482 | 414 | 362 | 285 | 240 | 127 |
| 1.80V                | 3054  | 1964  | 1289 | 800 | 570 | 468 | 401 | 351 | 277 | 239 | 126 |

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

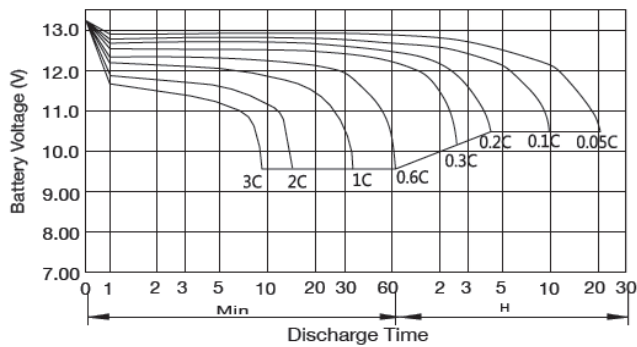
### Temperature Effects on Float Life



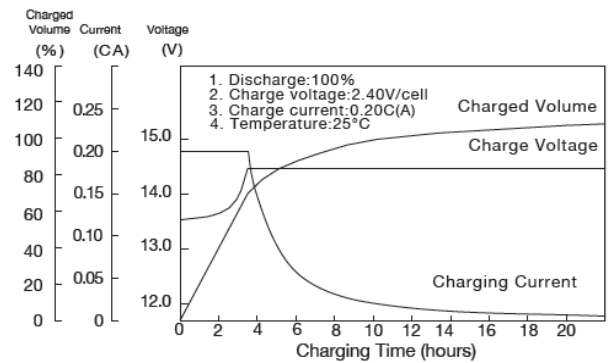
### Self Discharge Characteristics



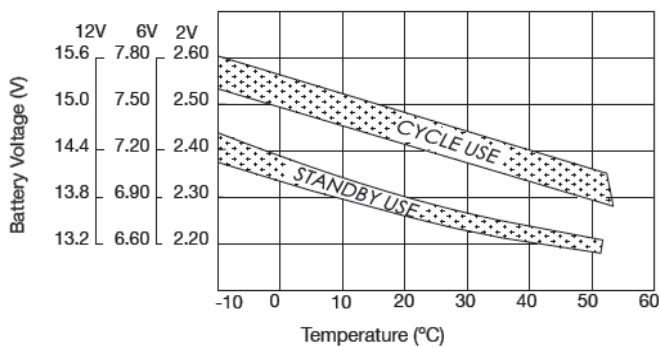
### Discharge Characteristics (25°C)



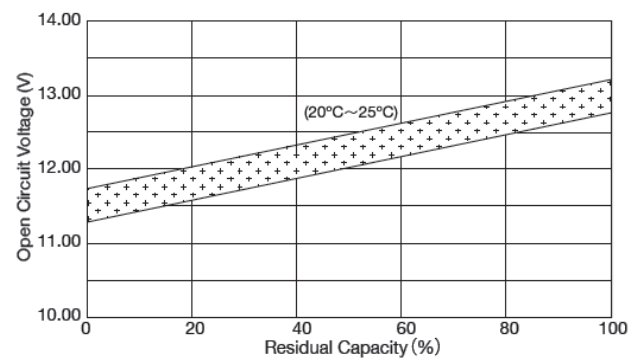
### Charging Characteristics (25°C)



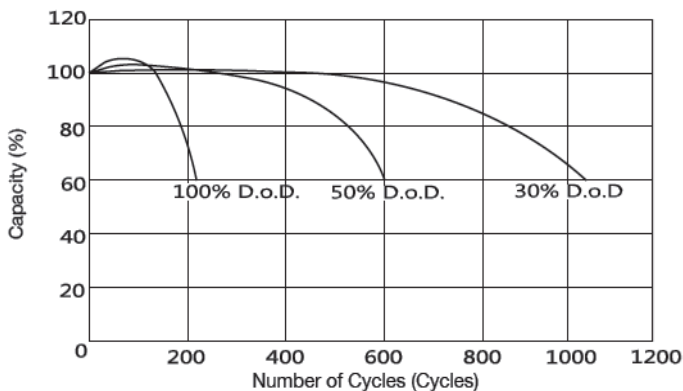
### Relationship Between Charging Voltage and Temperature



### Relationship Between OCV and Residual Capacity (25°C)



### Cycle Service Life in Relation to Depth of Discharge



### Temperature Effects on Capacity

