

### Specification

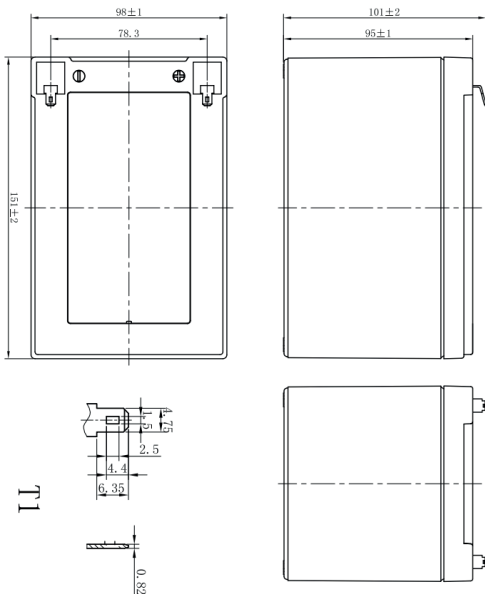
Article number: 460-6085

|                               |                                                                                                                                                                          |                       |                               |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|
| Nominal Voltage               | 12V                                                                                                                                                                      |                       |                               |
| Nominal Capacity(20HR)        | 12Ah                                                                                                                                                                     |                       |                               |
| Dimensions                    | Length                                                                                                                                                                   | 151mm                 | (5.95 inches)                 |
|                               | Width                                                                                                                                                                    | 98mm                  | (3.86 inches)                 |
|                               | Container Height                                                                                                                                                         | 95mm                  | (3.74 inches)                 |
|                               | Total Height (with Terminal)                                                                                                                                             | 101mm                 | (3.98 inches)                 |
| Approx Weight                 | Approx 3.24 kg (7.14 lbs)                                                                                                                                                |                       |                               |
| Terminal                      | T1/T2                                                                                                                                                                    |                       |                               |
| Container Material            | ABS                                                                                                                                                                      |                       |                               |
| Rated Capacity                | 12Ah                                                                                                                                                                     | /                     | 0.600A (20hr,10.5V,25°C/77°F) |
|                               | 11.2Ah                                                                                                                                                                   | /                     | 1.12A (10hr,10.5V,25°C/77°F)  |
|                               | 10.2Ah                                                                                                                                                                   | /                     | 2.04A (5hr,10.5V,25°C/77°F)   |
|                               | 7.20Ah                                                                                                                                                                   | /                     | 7.20A (1hr,9.6V,25°C/77°F)    |
| Max. Discharge Current        | 180A (5s)(25°C/77°F)                                                                                                                                                     |                       |                               |
| Internal Resistance           | Fully charged battery(25°C/77°F)Approx 19mΩ                                                                                                                              |                       |                               |
| Operating Temp.Range          | Discharge                                                                                                                                                                | : -15~50°C (5~122°F)  |                               |
|                               | Charge                                                                                                                                                                   | : -20~40°C (-4~104°F) |                               |
|                               | Storage                                                                                                                                                                  | : -15~40°C (5~104°F)  |                               |
| Nominal Operating Temp. Range | 25±3°C (77±5°F )                                                                                                                                                         |                       |                               |
| Cycle Use                     | Initial Charging Current less than 3.6A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C                                                                      |                       |                               |
|                               | Initial Charging Current less than 3.6A.Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20V/°C                                                                       |                       |                               |
| Standby Use                   |                                                                                                                                                                          |                       |                               |
| Self Discharge                | CT series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time intervall will be shorter. |                       |                               |

### Dimensions

#### T1/T2 Terminal

Unit: mm



### Applications

- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



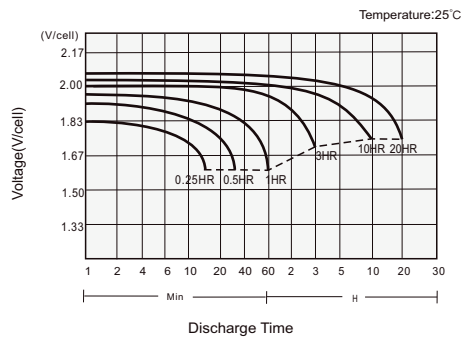
### Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h   |
|------------|------|-------|-------|-------|------|------|------|------|-------|
| 1.60V/cell | 43.7 | 28.6  | 21.6  | 12.3  | 7.20 | 3.13 | 2.12 | 1.16 | 0.618 |
| 1.67V/cell | 40.2 | 26.9  | 20.6  | 12.0  | 7.03 | 3.07 | 2.08 | 1.14 | 0.609 |
| 1.70V/cell | 38.6 | 26.2  | 20.2  | 11.8  | 6.96 | 3.04 | 2.07 | 1.13 | 0.606 |
| 1.75V/cell | 35.9 | 25.1  | 19.5  | 11.5  | 6.84 | 3.00 | 2.04 | 1.12 | 0.600 |
| 1.80V/cell | 33.2 | 23.9  | 18.8  | 11.3  | 6.72 | 2.95 | 2.01 | 1.10 | 0.594 |

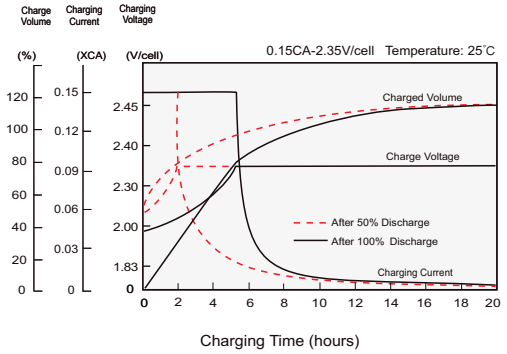
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V/cell | 80.4 | 53.1  | 40.4  | 23.3  | 16.9  | 13.8 | 7.97 | 6.08 | 4.15 |
| 1.67V/cell | 74.6 | 50.5  | 38.9  | 22.8  | 16.6  | 13.5 | 7.84 | 5.98 | 4.09 |
| 1.70V/cell | 71.8 | 49.3  | 38.2  | 22.5  | 16.4  | 13.4 | 7.78 | 5.94 | 4.06 |
| 1.75V/cell | 67.3 | 47.4  | 37.1  | 22.2  | 16.2  | 13.2 | 7.68 | 5.87 | 4.02 |
| 1.80V/cell | 62.7 | 45.4  | 36.0  | 21.7  | 15.9  | 13.0 | 7.58 | 5.79 | 3.97 |

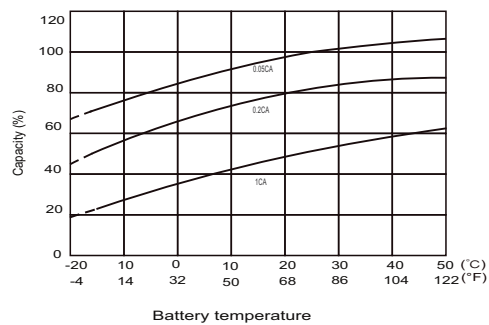
## Discharge Characteristics



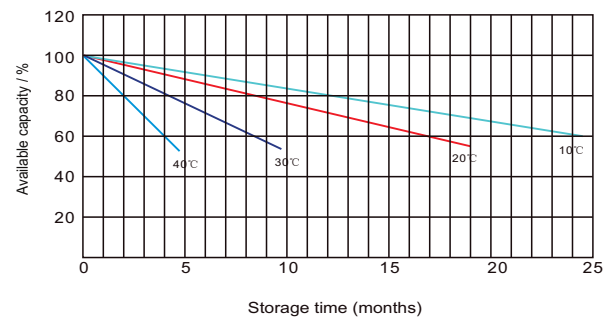
## Charging Characteristics



## Effects of Temperature on Capacity

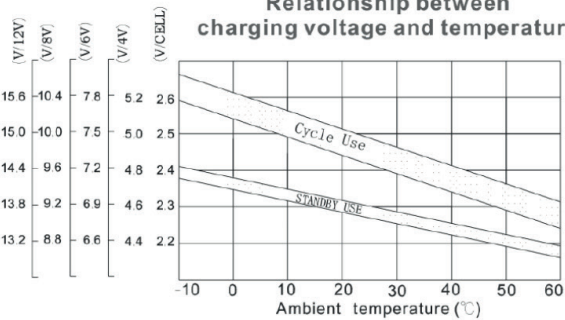


## Self Discharge Characteristics

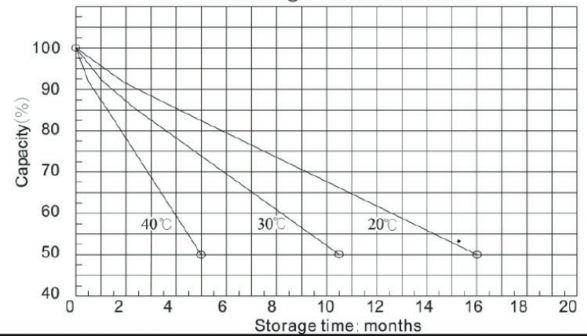


## General diagrams

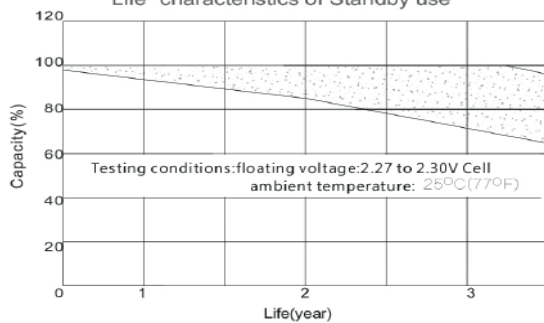
Relationship between charging voltage and temperature



Self-discharge characteristic



Life characteristics of Standby use



Cycle service life in relation to depth of discharge

