

Powered by



# RG1218-70HR

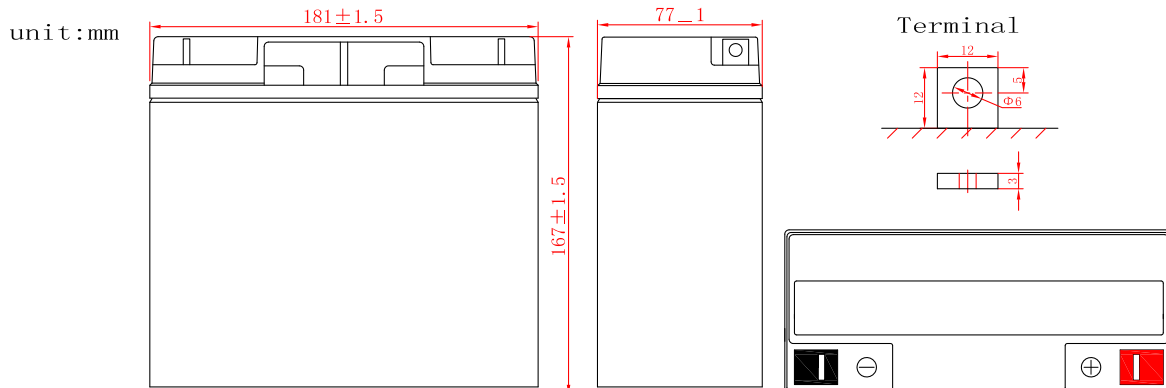
The battery is rechargeable, highly efficient, leak proof and maintenance free.

## ► Specification

|                                                             |                                                                                                                                                                 |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                                              | 6                                                                                                                                                               |
| Voltage Per Unit                                            | 12                                                                                                                                                              |
| Capacity                                                    | 70W @ 15min-rate to 1.67V per cell @ 25°C (77°F)                                                                                                                |
| Weight                                                      | Approx.5.6(±5%)kg                                                                                                                                               |
| Maximum Discharge Current                                   | 270A (5sec)                                                                                                                                                     |
| Internal Resistance                                         | Approx12mΩ                                                                                                                                                      |
| Operating Temperature Range                                 | Discharge: -15°C~50°C( 5°F~122°F)<br>Charge: -15°C~40°C( 5°F~104°F)<br>Storage:-15°C~40°C ( 5°F~104°F)                                                          |
| Nominal Operating Temperature Range                         | 25°C±3°C (77°F±5°F)                                                                                                                                             |
| Float Charging Voltage                                      | 13.5 to 13.8 V DC/unit Average at 25°C (77°F)                                                                                                                   |
| Recommended Maximum Charging Equalization and Cycle Service | 5.4A<br>14.4 to 15.0 VDC/unit Average at 25°C (77°F)                                                                                                            |
| Self Discharge                                              | Batteries can be stored for over 6 months at 25°C(77°F).<br>Please charge batteries before using.<br>For higher temperatures the time interval will be shorter. |
| Terminal                                                    | Recessed type (M6 bolt)                                                                                                                                         |
| Container Material                                          | ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.                                                                            |



| ► Dimensions : | Length (L) | Width (W) | Container Height (H) | Overall Height (H) |
|----------------|------------|-----------|----------------------|--------------------|
| Unit: mm       | 181±1.5    | 77±1.5    | 167±1.5              | 167±1.5            |

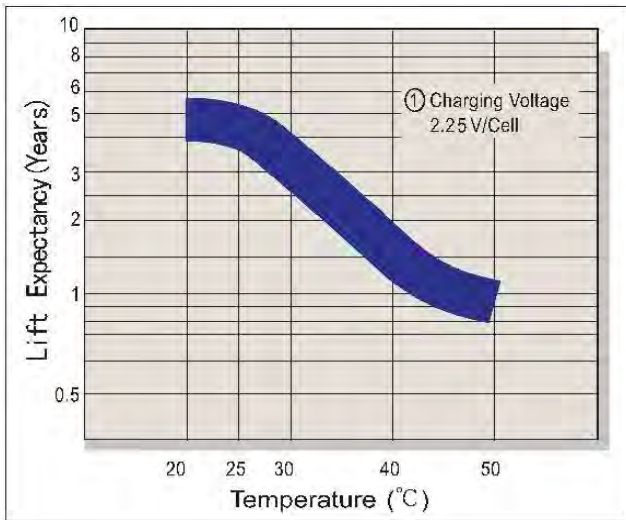


| Constant Current Discharge Characteristics |        |        |       |       |       |       |       | Unit: A(25°C,77°F) |
|--------------------------------------------|--------|--------|-------|-------|-------|-------|-------|--------------------|
| F.V/Time                                   | 5MIN   | 8MIN   | 10MIN | 15MIN | 20MIN | 30MIN | 60MIN | 90MIN              |
| 1.60V                                      | 74.99  | 61.20  | 54.13 | 40.74 | 32.03 | 22.81 | 12.79 | 9.07               |
| 1.67V                                      | 68.05  | 55.97  | 49.89 | 38.11 | 30.23 | 21.62 | 12.20 | 8.68               |
| 1.70V                                      | 65.11  | 53.75  | 48.08 | 36.93 | 29.42 | 21.08 | 11.93 | 8.52               |
| 1.75V                                      | 60.31  | 50.07  | 45.05 | 34.88 | 27.96 | 20.20 | 11.53 | 8.26               |
| 1.80V                                      | 55.24  | 46.28  | 42.03 | 33.12 | 26.63 | 19.33 | 11.10 | 7.97               |
| 1.85V                                      | 47.24  | 39.44  | 35.68 | 28.40 | 23.14 | 17.09 | 10.03 | 7.29               |
| Constant Power Discharge Characteristics   |        |        |       |       |       |       |       | Unit: W(25°C,77°F) |
| F.V/Time                                   | 5MIN   | 8MIN   | 10MIN | 15MIN | 20MIN | 30MIN | 60MIN | 90MIN              |
| 1.60V                                      | 134.77 | 110.35 | 97.97 | 74.45 | 58.96 | 42.17 | 23.99 | 17.18              |
| 1.67V                                      | 123.82 | 102.31 | 91.63 | 70.35 | 56.27 | 40.60 | 23.09 | 16.59              |
| 1.70V                                      | 119.60 | 89.98  | 88.90 | 68.88 | 55.07 | 39.66 | 22.72 | 16.33              |
| 1.75V                                      | 111.86 | 93.28  | 84.36 | 65.66 | 52.97 | 38.40 | 22.09 | 15.91              |
| 1.80V                                      | 103.82 | 87.27  | 79.53 | 62.73 | 50.88 | 37.13 | 21.46 | 15.49              |
| 1.85V                                      | 90.20  | 75.41  | 68.34 | 54.52 | 44.59 | 33.04 | 19.53 | 14.22              |

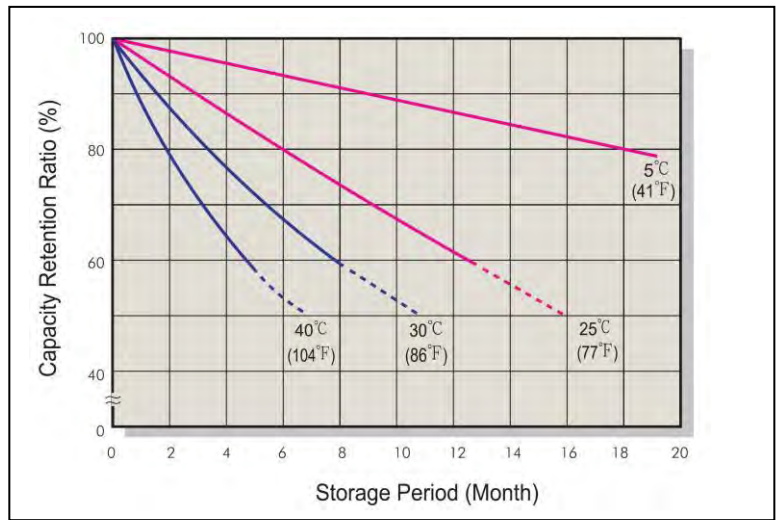
Ratings presented herein are subject to revision without notice.

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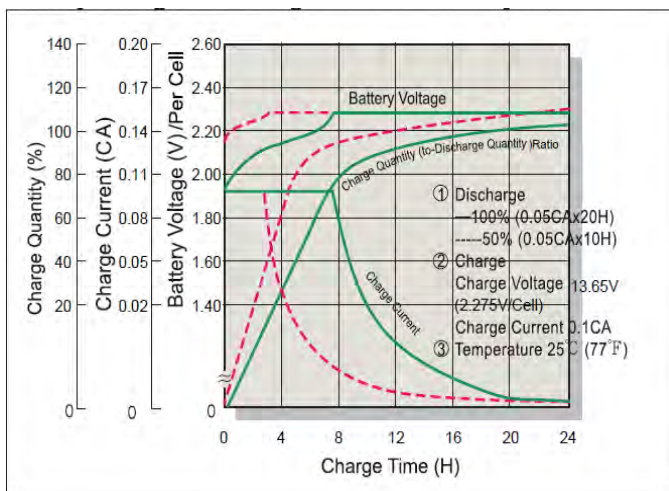
## Trickle (or Float) Service Life



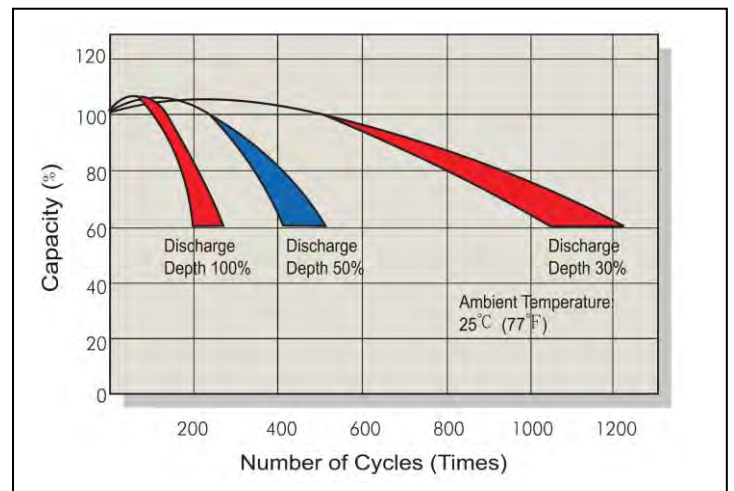
## Capacity Retention Characteristic



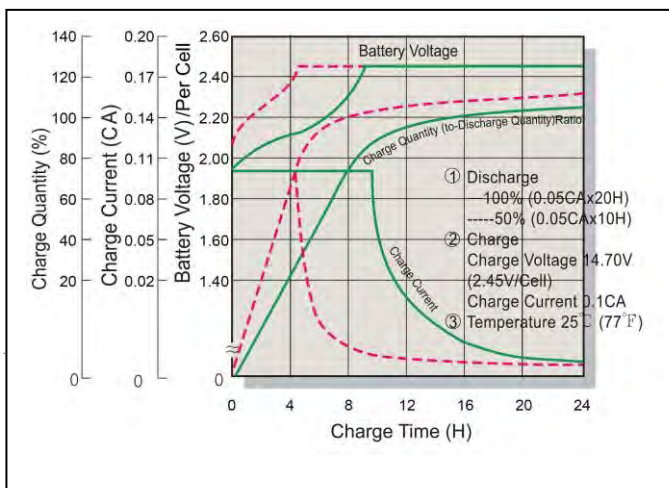
## Battery Voltage and Charge Time for Standby Use



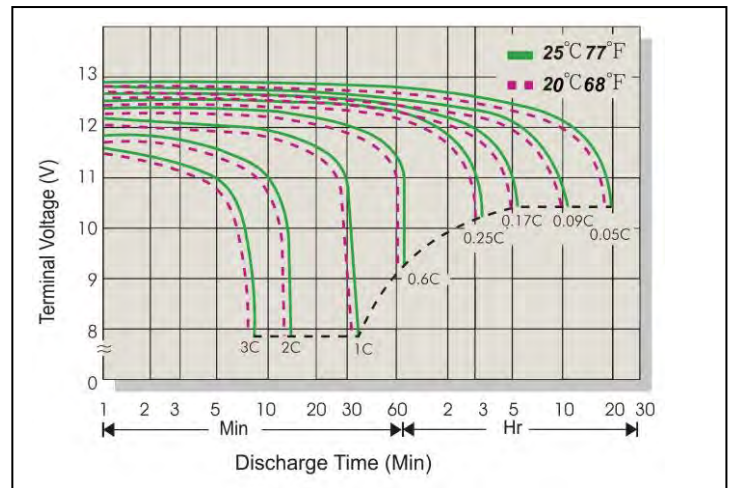
## Cycle Service Life



## Battery Voltage and Charge Time for Cycle Use



## Terminal Voltage and Discharge Time



## Charging Procedures

| Application | Charge Voltage(V/Cell) |           |                 | Max.Charge Current |
|-------------|------------------------|-----------|-----------------|--------------------|
|             | Temperature            | Set Point | Allowable Range |                    |
| Cycle Use   | 25°C                   | 2.450     | 2.40~2.50       | 0.3C               |
| Standby     | 25°C                   | 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 | 0.2C~0.5C | 0.5C~1.0C | >1.0C |

## Effect of temperature on capacity

| Temperature | Dependency of capacity(20HR) |
|-------------|------------------------------|
| 40°C        | 102%                         |
| 25°C        | 100%                         |
| 0°C         | 85%                          |
| -15°C       | 65%                          |

## Self-discharge Characteristics

| Storage time | Preservation rate |
|--------------|-------------------|
| 3 Months     | 91%               |
| 6 Months     | 82%               |
| 12 Months    | 64%               |