

# CHR5.4-12

12V 5.4AH

High Rated



## CHR5.4-12

Awaiting Image

## Physical Specification

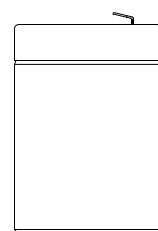
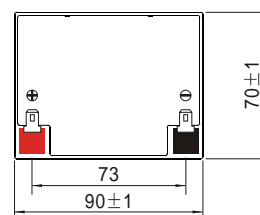
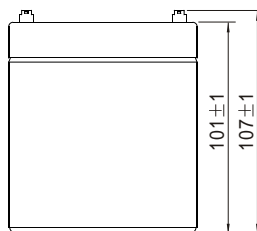
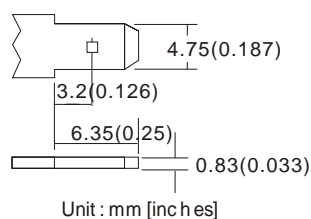
|                              |            |
|------------------------------|------------|
| Part Number                  | CHR5.4-12  |
| Length                       | 90 ± 2 mm  |
| Width                        | 70 ± 2 mm  |
| Container Height             | 101 ± 2 mm |
| Total Height (with terminal) | 107 ± 2 mm |
| Approx Weight                | 1.77 kg    |

## Specifications

|                              |   |  |
|------------------------------|---|--|
|                              | Nominal Voltage   | 12V  |
|                              | Nominal Capacity  | 5.4AH  |
| Terminal Type                | Standard Terminal   | T1   |
| Container Material           | Standard Option   | ABS  |
|                              | Flame Retardant Option (FR)   | ABS (UL94:VO)  |
| Rated Capacity               | 20hr, 1.80V/cell, 25°C  | 5.4Ah/0.27A  |
|                              | 10hr, 1.80V/cell, 25°C  | 5.0Ah/0.50A  |
|                              | 5hr, 1.75V/cell, 25°C   | 4.47Ah/0.894A  |
|                              | 3hr, 1.75V/cell, 25°C   | 4.05Ah/1.35A   |
|                              | 1hr, 1.60V/cell, 25°C   | 3.74Ah/3.74A   |
| Max Discharge Current        | 81A (5s)  |  |
| Internal Resistance          | Approx 25mΩ   |  |
| Discharge Characteristics    | Operating Temp. Range   | Discharge: -15 ~ 50°C  |
|                              |   | Charge: 0 ~ 40°C   |
|                              |   | Storage: -15 ~ 40°C  |
|                              | Nominal Operating Temp. Range   | 25 ± 3°C   |
|                              | Cycle Use   | Initial Charging Current less than 1.62A. Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C |
|                              | Standby Use   | No limit on Initial Charging Current Voltage 13.5V ~ 13.8V Temp. Coefficient -20mV/°C      |
|                              | Capacity affect by Temperature  | 40°C 103%  |
|                              |   | 25°C 100%  |
|                              |   | 0°C 86%  |
| Design Floating Life at 20°C | 6~10 Years  |  |
| Self Discharge               | Canbat batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter. |  |

## Dimensions

### T1 Terminal



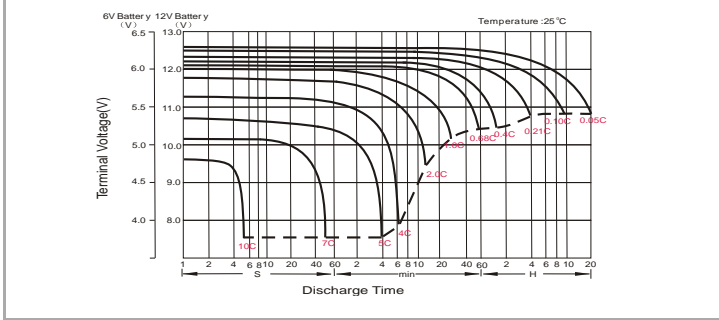
## Constant Current Discharge (Amperes) at 25°C

| F.V/ Tim e | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h    | 6h    | 8h    | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|
| 1.85V/cell | 17.9 | 12.0  | 9.35  | 7.78  | 5.80  | 4.21  | 3.29 | 1.78 | 1.27 | 1.01 | 0.839 | 0.728 | 0.582 | 0.487 | 0.265 |
| 1.80V/cell | 20.2 | 13.1  | 10.1  | 8.27  | 6.08  | 4.36  | 3.41 | 1.84 | 1.31 | 1.03 | 0.866 | 0.752 | 0.606 | 0.501 | 0.270 |
| 1.75V/cell | 22.1 | 13.9  | 10.7  | 8.69  | 6.32  | 4.52  | 3.52 | 1.90 | 1.35 | 1.07 | 0.894 | 0.775 | 0.621 | 0.514 | 0.275 |
| 1.70V/cell | 23.6 | 14.6  | 11.2  | 9.02  | 6.57  | 4.66  | 3.61 | 1.95 | 1.39 | 1.10 | 0.918 | 0.794 | 0.632 | 0.524 | 0.279 |
| 1.67V/cell | 24.7 | 15.1  | 11.5  | 9.30  | 6.73  | 4.77  | 3.68 | 1.99 | 1.42 | 1.12 | 0.934 | 0.807 | 0.640 | 0.529 | 0.281 |
| 1.60V/cell | 25.5 | 15.5  | 11.8  | 9.49  | 6.83  | 4.85  | 3.74 | 2.02 | 1.43 | 1.14 | 0.946 | 0.818 | 0.646 | 0.534 | 0.282 |

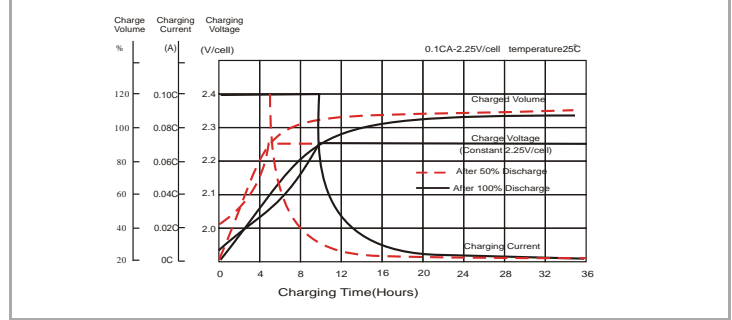
## Constant Power Discharge (Watts) at 25°C

| F.V/ Tim e | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|-------|-------|
| 1.85V/cell | 33.5 | 22.4  | 17.6  | 14.7  | 11.0  | 8.08  | 6.35 | 3.47 | 2.48 | 1.97 | 1.64 | 1.43 | 1.15 | 0.964 | 0.524 |
| 1.80V/cell | 36.5 | 24.1  | 18.6  | 15.5  | 11.5  | 8.30  | 6.54 | 3.55 | 2.54 | 2.01 | 1.69 | 1.47 | 1.19 | 0.989 | 0.534 |
| 1.75V/cell | 39.6 | 25.2  | 19.6  | 16.1  | 11.8  | 8.56  | 6.73 | 3.65 | 2.61 | 2.07 | 1.74 | 1.51 | 1.22 | 1.015 | 0.544 |
| 1.70V/cell | 41.7 | 26.2  | 20.3  | 16.6  | 12.2  | 8.77  | 6.88 | 3.75 | 2.68 | 2.13 | 1.78 | 1.55 | 1.24 | 1.034 | 0.551 |
| 1.67V/cell | 43.0 | 26.7  | 20.7  | 16.9  | 12.4  | 8.92  | 6.97 | 3.81 | 2.72 | 2.16 | 1.81 | 1.57 | 1.25 | 1.043 | 0.554 |
| 1.60V/cell | 435  | 270   | 20.8  | 17.0  | 12.4  | 8.99  | 7.04 | 3.85 | 2.74 | 2.18 | 1.82 | 1.58 | 1.26 | 1.049 | 0.556 |

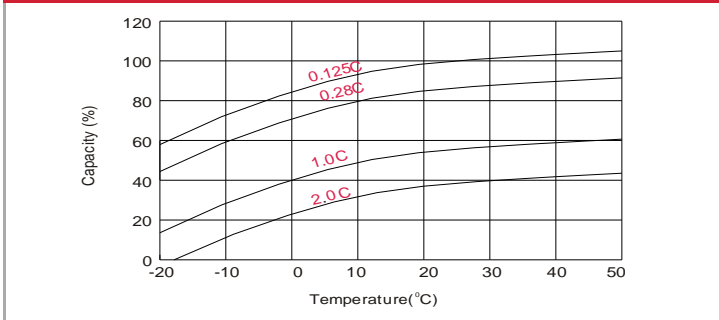
### Discharge Characteristics



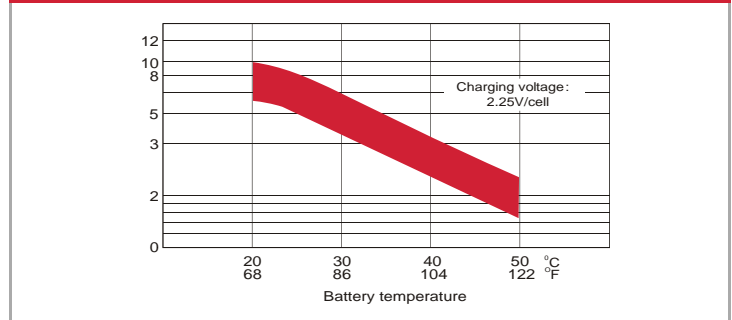
### Float Charging Characteristics



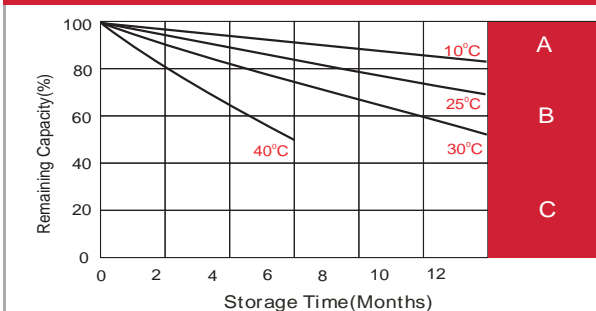
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Self Discharge Characteristics



**A**

No supplementary required  
(Carryout supplementary charge before use if 100% capacity is required.)

**B**

Supplementary charge required before use. Optional charging way as below:  
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
 3. Charged for 8 ~ 10 hours at limited current 0.05 CA.

**C**

Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.