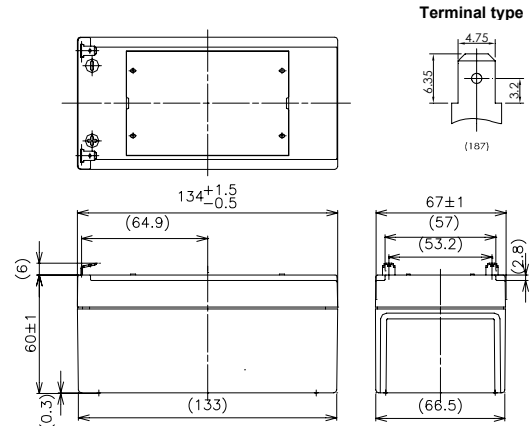




※Contents indicated (including the recycle marking, etc) are subject to change without notice.

### ■Dimensions(mm)



Battery case resin: standard (UL94HB)

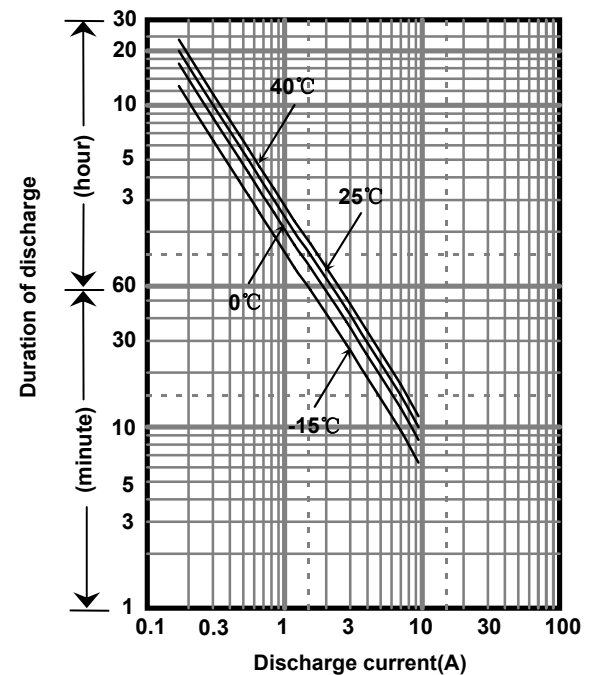
### ■Specification

|                      |              |            |
|----------------------|--------------|------------|
| Nominal Voltage      |              | 12V        |
| Rated Capacity(20HR) |              | 3.4Ah      |
| Dimensions           | Length       | 134 mm     |
|                      | Width        | 67 mm      |
|                      | Height       | 60 mm      |
|                      | Total height | 66 mm      |
| Approx. Mass         |              | 1.15 kg    |
| Terminal             |              | Faston 187 |

### ■Characteristics

|                                                            |                       |       |
|------------------------------------------------------------|-----------------------|-------|
| Capacity<br>(25 °C)                                        | 20 hour rate          | 3.4Ah |
|                                                            | 10 hour rate          | 3.0Ah |
|                                                            | 3 hour rate           | 2.7Ah |
|                                                            | 1 hour rate           | 2.3Ah |
| Internal Resistance<br>(25 °C)                             | Fully charged battery | 50 mΩ |
| Temperature<br>Dependency of<br>Capacity<br>(20 hour rate) | 40 °C                 | 102%  |
|                                                            | 25 °C                 | 100%  |
|                                                            | 0 °C                  | 85%   |
|                                                            | -15 °C                | 65%   |
| Self Discharge<br>(25 °C)                                  | After 3 months        | 91%   |
|                                                            | After 6 months        | 82%   |
|                                                            | After 12 months       | 64%   |

### ■Duration of discharge vs. discharge current



### ■Watt Table(25°C)

(Wattage/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h  | 20h  |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 9.6V      | 204  | 161  | 105   | 80.4  | 67.4  | 50.3  | 35.5  | 28.4 | 19.6 | 15.0 | 11.3 | 8.63 | 7.13 | 5.80 | 3.81 | 2.06 |
| 9.9V      | 190  | 151  | 103   | 79.8  | 66.3  | 49.7  | 35.3  | 28.1 | 19.2 | 14.9 | 11.2 | 8.58 | 7.07 | 5.78 | 3.80 | 2.05 |
| 10.2V     | 175  | 142  | 100   | 78.2  | 65.2  | 49.2  | 34.9  | 27.8 | 18.8 | 14.5 | 11.1 | 8.52 | 7.01 | 5.73 | 3.76 | 2.05 |
| 10.5V     | 155  | 127  | 93.1  | 72.8  | 61.9  | 48.1  | 34.4  | 27.3 | 18.4 | 14.0 | 11.0 | 8.49 | 6.96 | 5.66 | 3.74 | 2.04 |
| 10.8V     | 131  | 112  | 83.0  | 67.9  | 60.3  | 46.4  | 33.8  | 26.7 | 17.8 | 13.4 | 10.7 | 8.46 | 6.79 | 5.66 | 3.68 | 1.98 |

### ■Ampere Table(25°C)

(Ampere/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h    | 4h    | 5h    | 6h    | 10h   | 20h   |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
| 9.6V      | 18.4 | 14.4 | 9.40  | 6.99  | 5.81  | 4.30  | 3.02  | 2.41 | 1.66 | 1.26 | 0.949 | 0.722 | 0.595 | 0.484 | 0.318 | 0.171 |
| 9.9V      | 17.0 | 13.6 | 9.21  | 6.94  | 5.71  | 4.25  | 3.00  | 2.39 | 1.62 | 1.24 | 0.945 | 0.718 | 0.590 | 0.482 | 0.316 | 0.171 |
| 10.2V     | 15.7 | 12.7 | 8.97  | 6.80  | 5.62  | 4.20  | 2.97  | 2.36 | 1.59 | 1.22 | 0.935 | 0.713 | 0.586 | 0.478 | 0.313 | 0.170 |
| 10.5V     | 14.0 | 11.4 | 8.31  | 6.33  | 5.34  | 4.11  | 2.93  | 2.31 | 1.56 | 1.18 | 0.921 | 0.710 | 0.581 | 0.475 | 0.312 | 0.170 |
| 10.8V     | 11.8 | 10.1 | 7.41  | 5.90  | 5.19  | 3.97  | 2.88  | 2.27 | 1.51 | 1.13 | 0.897 | 0.708 | 0.567 | 0.472 | 0.307 | 0.165 |

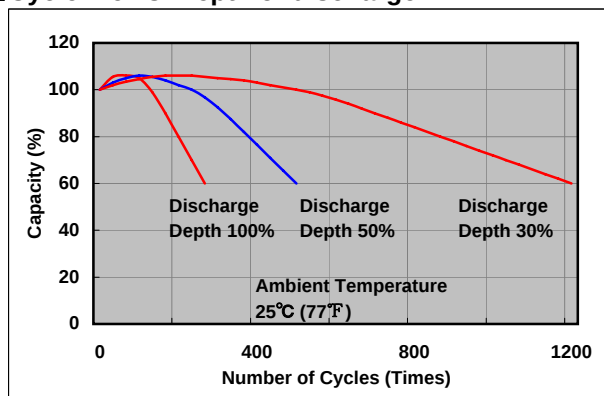
## ■ Charging Method (25°C)

|           |                                                                  |
|-----------|------------------------------------------------------------------|
| Cycle use | Control voltage: 14.5-14.9V<br>Initial current: 1.36A or smaller |
|-----------|------------------------------------------------------------------|

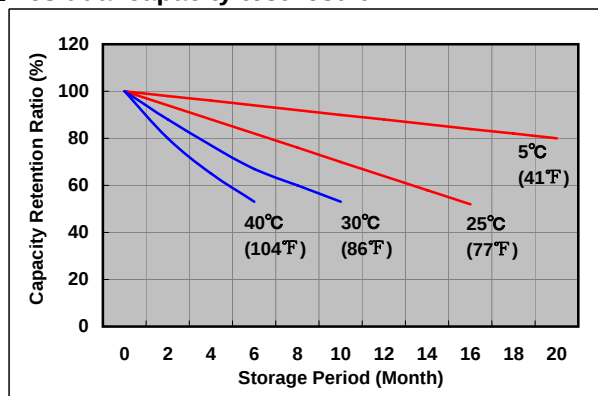
## ■ Cut off voltage

| Discharge current  | 0.170A-0.680A | 0.680A-1.70A | 1.70A-3.40A | 3.40A-6.80A | 6.80A-10.2A |
|--------------------|---------------|--------------|-------------|-------------|-------------|
| Cut off voltage(V) | 10.5          | 10.2         | 9.9         | 9.3         | 8.7         |

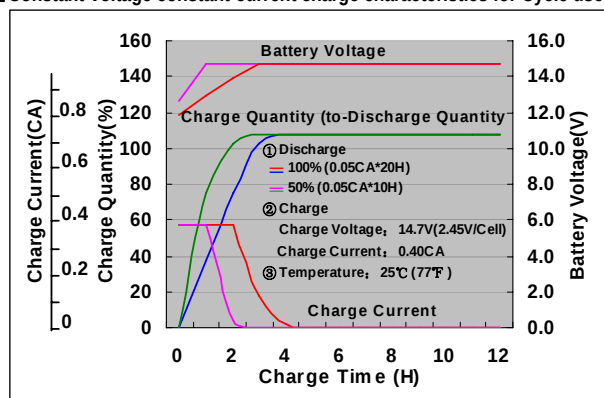
## ■ Cycle life vs. Depth of discharge



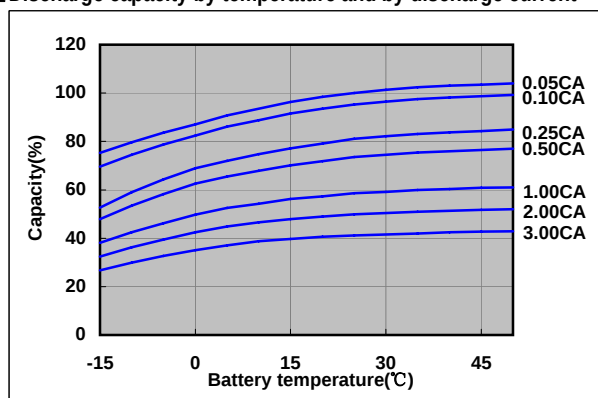
## ■ Residual capacity test result



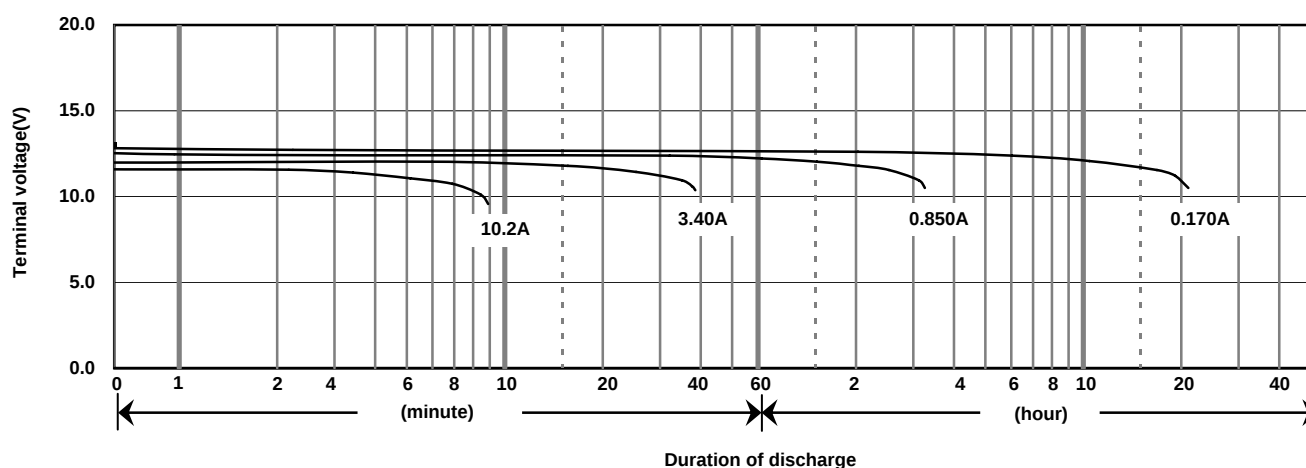
## ■ Constant-voltage constant-current charge characteristics for Cycle use



## ■ Discharge capacity by temperature and by discharge current



## ■ Discharge characteristics(25°C)



## ⚠ Caution

Due to the potential energy stored in the batteries, Please read 《Precautions for handling the Rechargeable Valve Regulated Lead Acid Batteries》 before using batteries. If improper handling or use of the batteries without understanding 《Precautions for handling the Rechargeable Valve Regulated Lead Acid Batteries》 may result in bodily injury caused by electrolyte leakage, heat generation, or explosion.

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