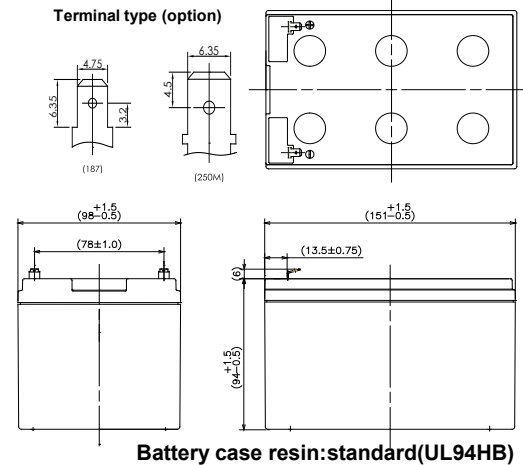




※Contents indicated (including the recycle marking, etc) are subject to change without notice.

■Dimensions(mm)



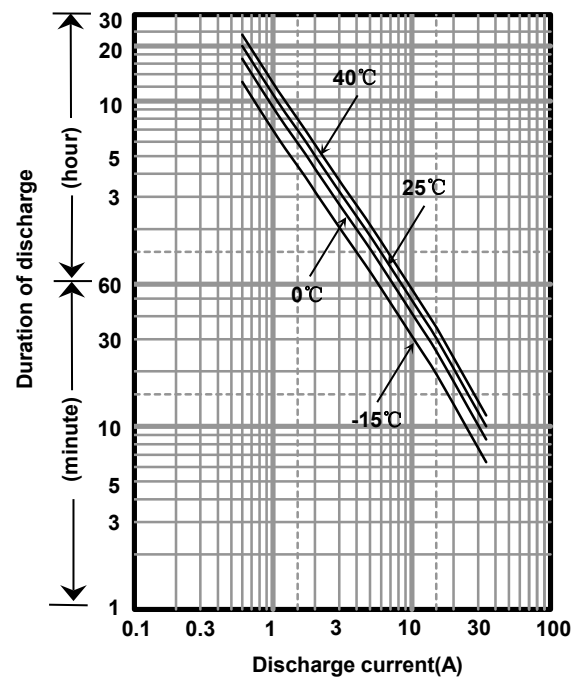
■Specifications

| | | |
|----------------------|--------------|-------------------|
| Nominal Voltage | | 12V |
| Rated Capacity(20HR) | | 12Ah |
| Dimensions | Length | 151 mm |
| | Width | 98 mm |
| | Height | 94 mm |
| | Total height | 100 mm |
| Approx. Mass | | 3.85 kg |
| Terminal | | Faston 187 & 250M |

■Characteristics

| | | |
|--|-----------------------|-------|
| Capacity (25 °C) | 20 hour rate | 12Ah |
| | 10 hour rate | 10Ah |
| | 3 hour rate | 9.3Ah |
| | 1 hour rate | 8.5Ah |
| Internal Resistance (25 °C) | Fully charged battery | 16 mΩ |
| Temperature Dependency of Capacity (20 hour rate) | 40 °C | 102% |
| | 25 °C | 100% |
| | 0 °C | 85% |
| | -15 °C | 65% |
| Self Discharge (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 values in the table are average instead of guaranteed value,
please consider appropriate redundancy by application.

(Wattage/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 9.6V | 679 | 559 | 384 | 298 | 247 | 183 | 137 | 105 | 70.3 | 54.5 | 38.1 | 28.8 | 24.1 | 21.7 | 13.3 | 7.22 |
| 9.9V | 649 | 537 | 373 | 288 | 241 | 177 | 135 | 104 | 69.9 | 54.2 | 37.8 | 28.7 | 24.0 | 21.7 | 13.3 | 7.22 |
| 10.2V | 607 | 506 | 363 | 282 | 235 | 175 | 134 | 102 | 69.1 | 53.9 | 37.5 | 28.6 | 23.9 | 21.6 | 13.2 | 7.21 |
| 10.5V | 556 | 475 | 343 | 271 | 231 | 172 | 133 | 100 | 68.5 | 53.3 | 36.9 | 28.5 | 23.8 | 21.6 | 13.2 | 7.20 |
| 10.8V | 495 | 434 | 321 | 261 | 225 | 166 | 123 | 97.8 | 66.1 | 52.1 | 36.3 | 28.4 | 23.7 | 21.5 | 13.1 | 7.18 |

■Ampere Table(25°C)

Ampere values in the table are average instead of guaranteed value,
please consider appropriate redundancy by application.

(Ampere/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 9.6V | 61.1 | 50.1 | 34.3 | 25.9 | 21.3 | 15.6 | 11.7 | 8.90 | 5.95 | 4.60 | 3.20 | 2.41 | 2.01 | 1.81 | 1.11 | 0.602 |
| 9.9V | 58.4 | 48.2 | 33.3 | 25.0 | 20.8 | 15.1 | 11.5 | 8.80 | 5.92 | 4.58 | 3.18 | 2.40 | 2.01 | 1.81 | 1.11 | 0.602 |
| 10.2V | 54.6 | 45.4 | 32.4 | 24.5 | 20.3 | 14.9 | 11.4 | 8.70 | 5.85 | 4.55 | 3.15 | 2.39 | 2.00 | 1.80 | 1.10 | 0.601 |
| 10.5V | 50.0 | 42.6 | 30.6 | 23.6 | 19.9 | 14.7 | 11.3 | 8.50 | 5.80 | 4.50 | 3.10 | 2.38 | 2.00 | 1.80 | 1.10 | 0.600 |
| 10.8V | 44.5 | 38.9 | 28.7 | 22.7 | 19.4 | 14.2 | 10.5 | 8.30 | 5.60 | 4.40 | 3.05 | 2.37 | 1.99 | 1.79 | 1.09 | 0.598 |

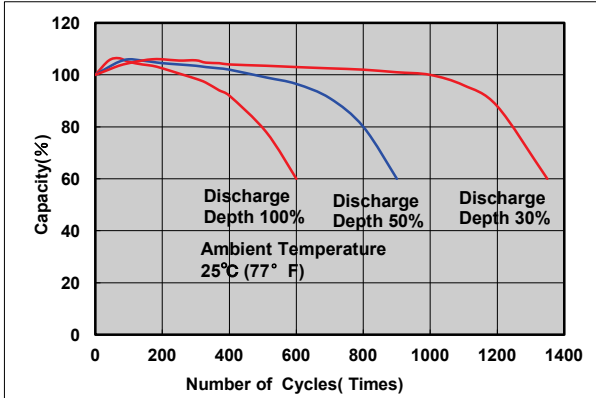
Charging Method (25°C)

| | |
|-----------|--|
| Cycle use | Control voltage: 14.5-14.9V Initial current: 4.80A or smaller |
|-----------|--|

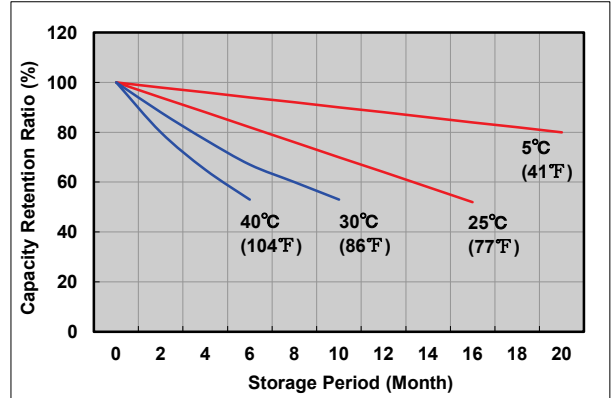
Cut off voltage

| | | | | | |
|--------------------|--------------|-------------|-------------|-------------|-------------|
| Discharge current | 0.600A-2.40A | 2.40A-6.00A | 6.00A-12.0A | 12.0A-24.0A | 24.0A-36.0A |
| Cut off voltage(V) | 10.5 | 10.2 | 9.9 | 9.3 | 8.7 |

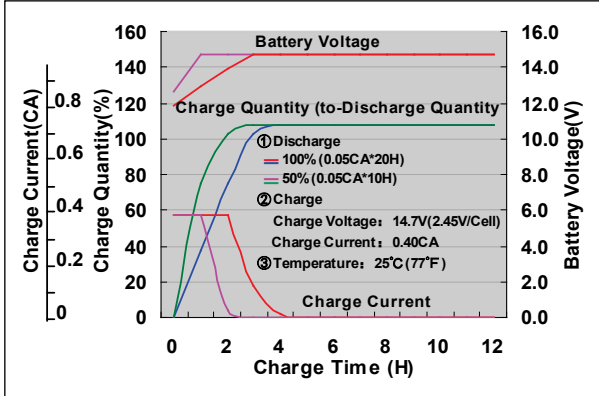
Cycle life vs. Depth of discharge



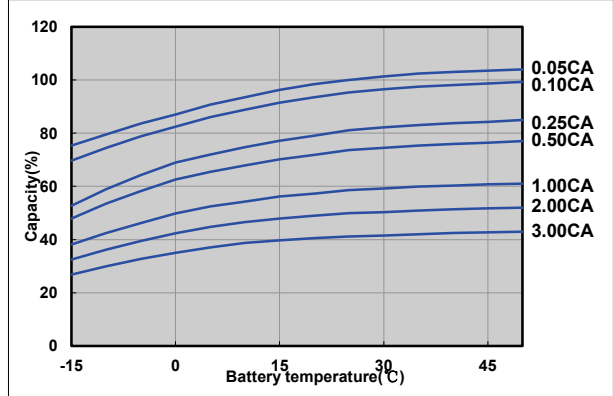
Residual capacity test result



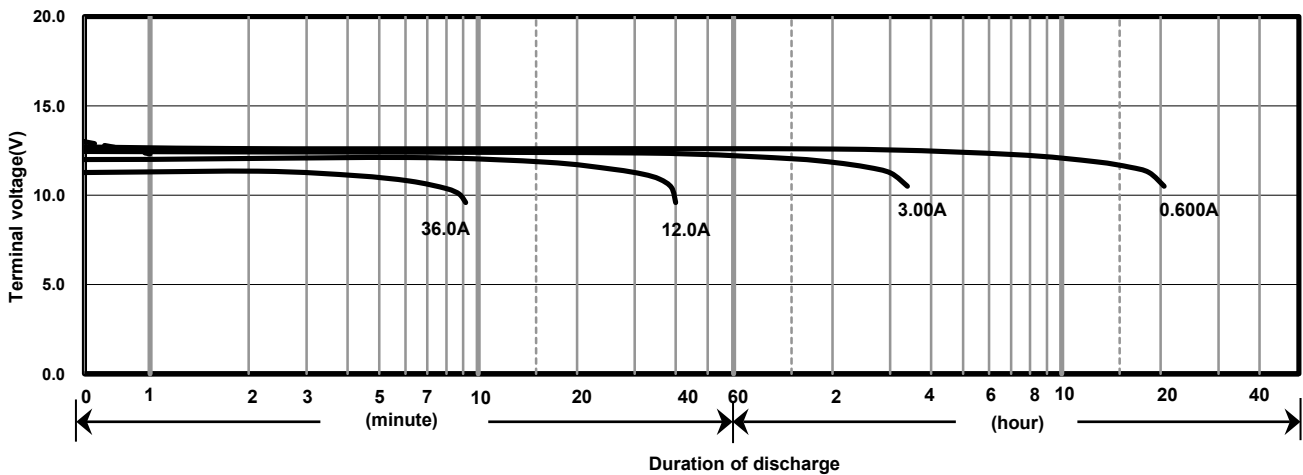
Constant-voltage constant-current charge characteristics for Cycle use



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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