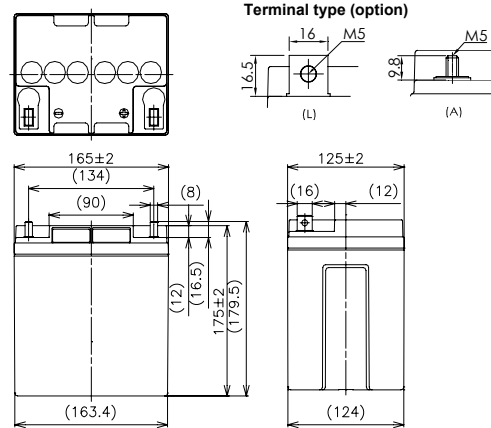


For standby power supplies
 Expected trickle life: 6 years at 25°C
 12 years at 20°C



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

■ Dimensions(mm)



Battery case resin: Flame-retardant (UL94V-0)

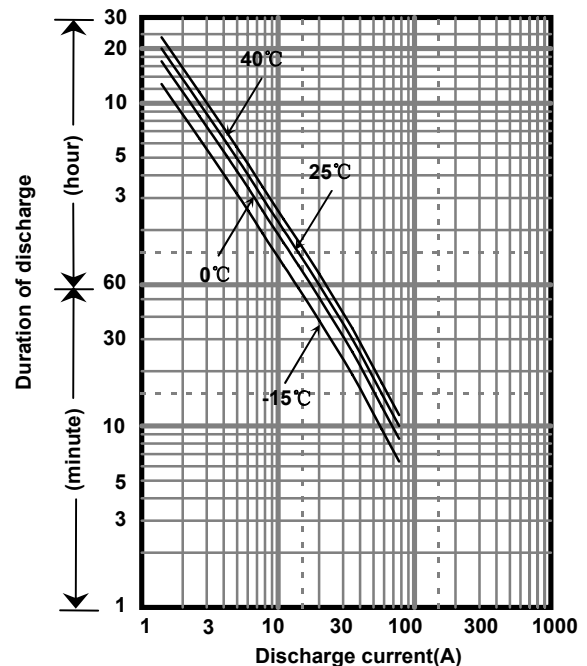
■ Specifications

| | | |
|-----------------|--------------|------------------|
| Nominal Voltage | | 12V |
| Rated Capacity | | 105W/cell@15MR |
| Dimensions | Length | 165 mm |
| | Width | 125 mm |
| | Height | 175 mm |
| | Total height | 175 mm/179.5mm |
| Approx. Mass | | 9.40 kg |
| Terminal | | M5 threaded post |

■ Characteristics

| | | |
|---|-----------------------|-------|
| Capacity (25 °C) | 20 hour rate | 28Ah |
| | 10 hour rate | 26Ah |
| | 3 hour rate | 22Ah |
| | 1 hour rate | 21Ah |
| Internal Resistance (25 °C) | Fully charged battery | 11 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 | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h |
|-----------|------|-------|-------|-------|-------|-------|-----|------|-----|------|------|------|------|------|------|
| 9.6V | 1160 | 865 | 630 | 585 | 410 | 304 | 260 | 159 | 129 | 91.6 | 74.1 | 61.1 | 50.8 | 31.8 | 16.8 |
| 9.9V | 1093 | 849 | 625 | 579 | 404 | 294 | 254 | 156 | 128 | 90.4 | 72.9 | 60.8 | 50.4 | 31.8 | 16.8 |
| 10.2V | 1026 | 818 | 618 | 567 | 397 | 288 | 251 | 155 | 127 | 89.3 | 71.7 | 60.5 | 49.9 | 31.8 | 16.8 |
| 10.5V | 976 | 784 | 609 | 545 | 386 | 282 | 247 | 154 | 126 | 88.1 | 71.1 | 60.2 | 49.5 | 31.8 | 16.8 |
| 10.8V | 903 | 773 | 604 | 539 | 374 | 255 | 218 | 149 | 118 | 84.5 | 70.5 | 59.9 | 49.0 | 31.8 | 16.8 |

■ 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 | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h |
|-----------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 9.6V | 104 | 77.2 | 57.7 | 50.4 | 35.0 | 25.9 | 22.1 | 13.5 | 10.9 | 7.70 | 6.20 | 5.10 | 4.30 | 2.60 | 1.40 |
| 9.9V | 98.0 | 75.8 | 56.9 | 49.9 | 34.5 | 25.0 | 21.6 | 13.2 | 10.8 | 7.60 | 6.10 | 5.06 | 4.28 | 2.60 | 1.40 |
| 10.2V | 92.0 | 73.0 | 55.9 | 48.9 | 33.9 | 24.5 | 21.3 | 13.1 | 10.7 | 7.50 | 6.00 | 5.03 | 4.25 | 2.60 | 1.40 |
| 10.5V | 87.5 | 70.0 | 54.0 | 47.0 | 33.0 | 24.0 | 21.0 | 13.0 | 10.6 | 7.40 | 5.95 | 4.99 | 4.23 | 2.60 | 1.40 |
| 10.8V | 81.0 | 69.0 | 53.0 | 46.5 | 32.0 | 21.7 | 18.5 | 12.6 | 10.0 | 7.10 | 5.90 | 4.95 | 4.20 | 2.60 | 1.40 |

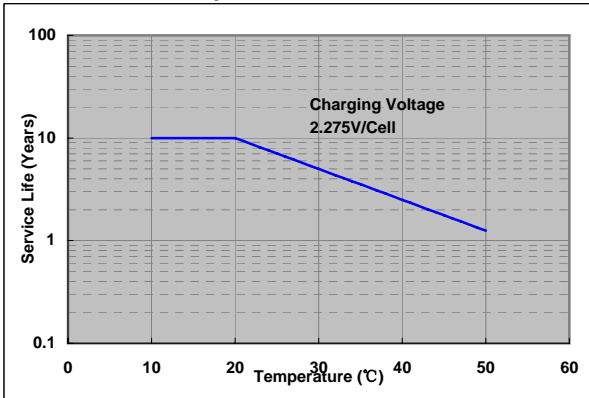
Charging Method (25°C)

| | |
|-------------|--|
| Trickle use | Control voltage:13.6-13.8V Initial current:4.20A or smaller |
|-------------|--|

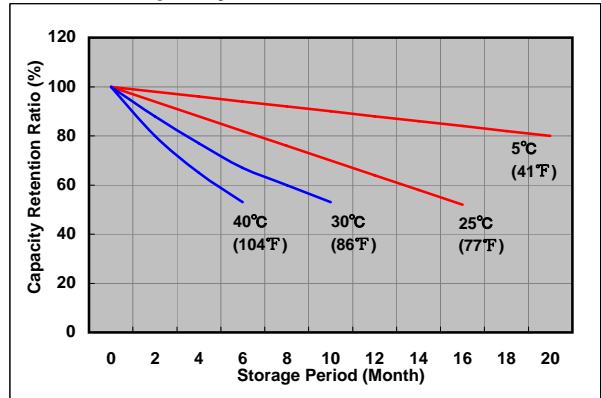
Cut off voltage

| | | | | | |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Discharge current | 1.40A-5.60A | 5.60A-14.0A | 14.0A-28.0A | 28.0A-56.0A | 56.0A-84.0A |
| Cut off voltage(V) | 10.5 | 10.2 | 9.9 | 9.3 | 8.7 |

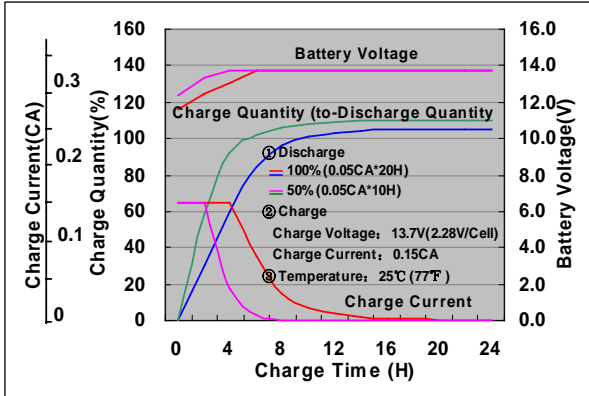
Influence of Temperature on Trickle life



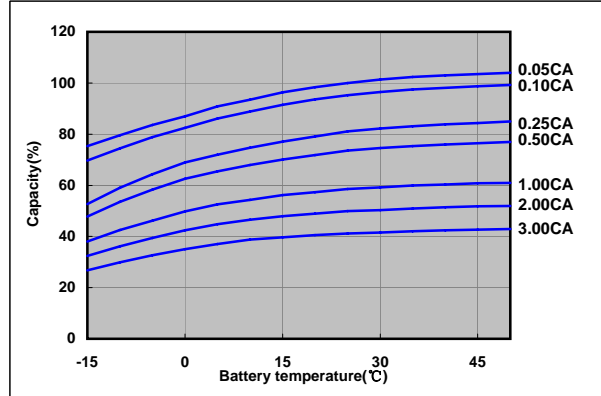
Residual capacity test result



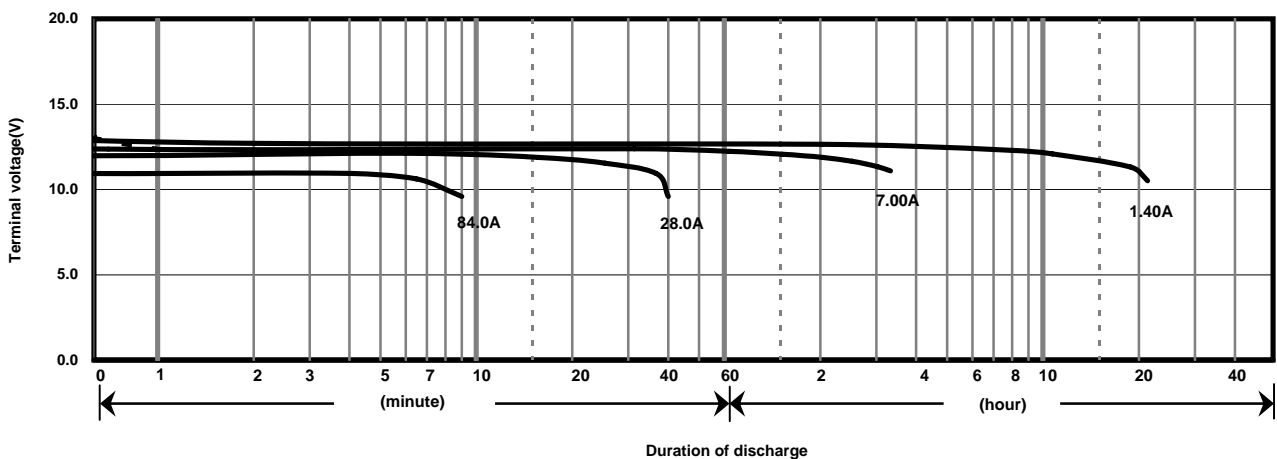
Constant-voltage constant-current charge characteristics for Trickle use



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.

Panasonic Storage Battery (Shenyang) Co., Ltd

NO. 17 Hunhe 20Th Street, Shenyang Economic & Technical Development Zone,110142 China

Tel: 86 24 25818921

Fax: 86 24 62786318

Website: <http://www.panasonicbattery.cn>

2016.01