

CHR13-12

12V 13AH

High Rate Battery



CHR13-12



Physical Specification

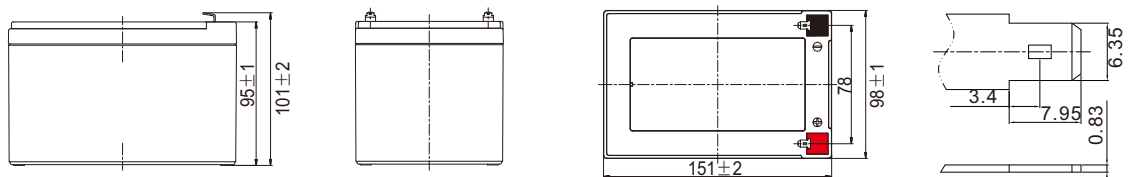
| | |
|-------------------------------|--------------------------------|
| Part Number: | CHR13-12 |
| Length: | 151.5±1mm (5.94 inches) |
| Width: | 98±1mm (3.86 inches) |
| Container Height: | 95±1mm (3.74 inches) |
| Total Height (with terminal): | 101±1mm (3.98 inches) |
| Approx Weight: | 4.00 Kg (8.82 lbs) |

Specifications

| | | | |
|-------------------------------------|---|------------------------------------|---------------|
| | Nominal Voltage | 12V | |
| | Nominal Rate (W ,1.67V/cell) | 55W | |
| | Nominal Capacity (C10,1.80V/cell) | 13Ah | |
| | Technology | High Rate Discharge | |
| | Terminal Type | T2 | |
| Container Material | Flame Retardant (FR) | ABS (UL94:VO) | |
| Rated Capacity (25°C) | (10hr, 1.30A,1.80V/cell) | 13.0 Ah | |
| | (8hr, 1.60 A,1.80V/cell) | 12.8 Ah | |
| | (5hr, 2.39A,1.75V/cell) | 12.0 Ah | |
| | (3hr, 3.57A,1.75V/cell) | 10.7 Ah | |
| | (1hr, 8.99A,1.67V/cell) | 8.99 Ah | |
| Max Currents (5s) | 210A | | |
| Internal Resistance | Approx. 16.0mΩ | | |
| Discharge Characteristics | Operating Temp. Range | Discharge: -20°C~55°C (-4°F~131°F) | |
| | | Charge: 0°C~40°C (32°F~104°F) | |
| | | Storage: -15°C~50°C (5°F~122°F) | |
| | Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) | |
| | Max.Charging Current(25°C) | 4.2A | |
| | Charge voltage(25°C) | Float | 13.5V |
| | | Temp. Coefficient | -3m V/cell/ C |
| | | Equalization | 14 .1~14.4V |
| | Effect of temperature on Capacity | 40°C (104°F) | 106% |
| | | 25°C (77°F) | 100% |
| 0°C (32°F) | | 86% | |
| Design Floating Life at 20°C | 20+ Years | | |
| Self Discharge | Canbat High Rate 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. Self-discharge is less than 2% | | |

Dimensions

T2 Terminal



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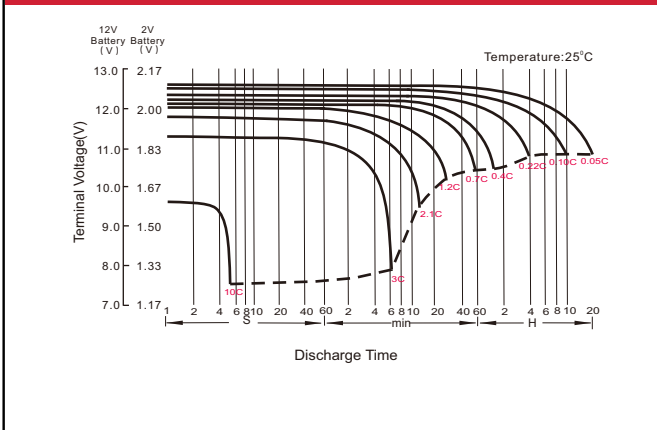
Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 38.9 | 26.0 | 21.0 | 16.5 | 12.2 | 9.18 | 7.40 | 5.53 | 4.43 | 3.22 | 2.60 | 2.17 | 1.49 | 1.22 |
| 1.80V/cell | 45.3 | 30.6 | 24.4 | 19.0 | 13.8 | 10.3 | 8.19 | 6.05 | 4.82 | 3.48 | 2.81 | 2.34 | 1.60 | 1.30 |
| 1.75V/cell | 49.4 | 32.9 | 25.8 | 19.9 | 14.4 | 10.7 | 8.49 | 6.26 | 4.97 | 3.57 | 2.88 | 2.39 | 1.62 | 1.32 |
| 1.70V/cell | 53.5 | 35.1 | 27.3 | 20.9 | 15.1 | 11.1 | 8.80 | 6.47 | 5.12 | 3.68 | 2.95 | 2.45 | 1.65 | 1.34 |
| 1.67V/cell | 56.0 | 36.4 | 28.1 | 21.5 | 15.5 | 11.3 | 8.99 | 6.58 | 5.21 | 3.73 | 2.99 | 2.48 | 1.67 | 1.35 |
| 1.60V/cell | 61.7 | 39.5 | 30.1 | 22.9 | 16.3 | 11.9 | 9.41 | 6.88 | 5.43 | 3.87 | 3.09 | 2.55 | 1.71 | 1.38 |

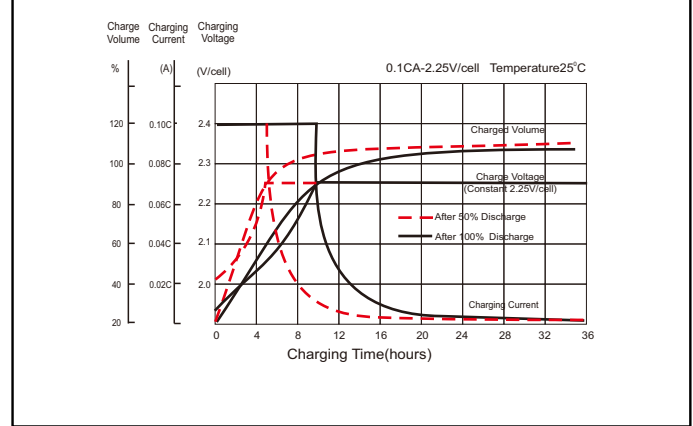
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 74.1 | 49.8 | 41.4 | 31.7 | 23.6 | 17.8 | 14.4 | 10.8 | 8.65 | 6.30 | 5.12 | 4.27 | 2.95 | 2.41 |
| 1.80V/cell | 85.3 | 58.0 | 47.5 | 36.2 | 26.5 | 19.8 | 15.8 | 11.7 | 9.37 | 6.79 | 5.50 | 4.59 | 3.15 | 2.57 |
| 1.75V/cell | 91.9 | 61.5 | 50.6 | 37.6 | 27.4 | 20.4 | 16.3 | 12.1 | 9.60 | 6.94 | 5.61 | 4.68 | 3.20 | 2.61 |
| 1.70V/cell | 98.2 | 64.9 | 52.9 | 39.2 | 28.4 | 21.0 | 16.8 | 12.4 | 9.86 | 7.11 | 5.73 | 4.77 | 3.25 | 2.64 |
| 1.67V/cell | 101.6 | 66.8 | 55.0 | 40.1 | 28.9 | 21.4 | 17.0 | 12.6 | 10.0 | 7.20 | 5.80 | 4.82 | 3.28 | 2.67 |
| 1.60V/cell | 110.7 | 71.4 | 57.3 | 42.1 | 30.2 | 22.2 | 17.7 | 13.0 | 10.3 | 7.42 | 5.96 | 4.95 | 3.34 | 2.71 |

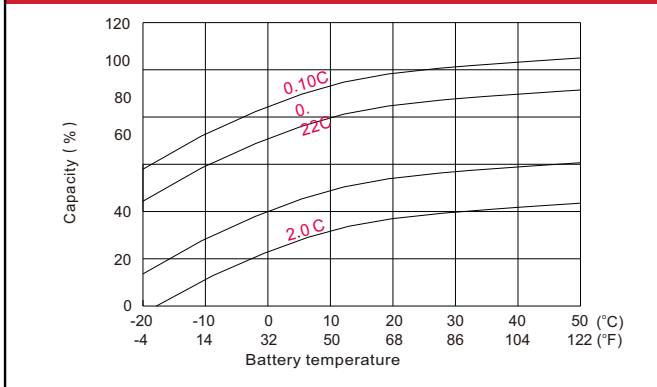
Discharge Characteristics



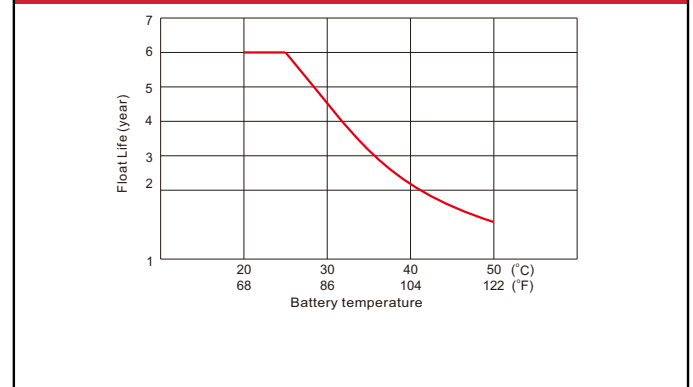
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



High Rate Batteries

The most important asset for many businesses is data. Whether it's customer data, employee data or financial data, no business can afford to lose it. Unfortunately, unexpected power interruptions may lead to a loss of data, which could potentially cost thousands of dollars. To solve this issue, Canbat has developed the highest performing high rate batteries, which are specially designed for back-up power systems. Our batteries have a proven track record to be the most reliable in the industry, backed up with the best warranty in Canada. In the event of a power outage, UPS systems provide back-up power to your equipment. The most important component in any UPS is the battery. Whether the UPS is hooked up to your personal computer at home, or to your equipment at work, Canbat offers top-performing batteries you can count on. If you don't have high performing batteries in your UPS during a power outage, you are putting yourself at risk of losing data. A power surge or blackout could erase hours of hard work and damage your equipment.

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