

VRLA Rechargeable Battery

BC4.5-12

FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- Absorbent Glass Mat technology for efficient gas recombination
- Its design life is up to 5 years in floating application

APPLICATION

- UPS
- Toy-Cars
- Fans
- Electronic Doorbells

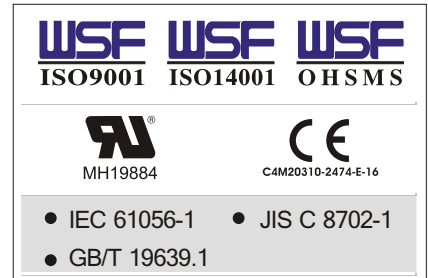


SPECIFICATIONS

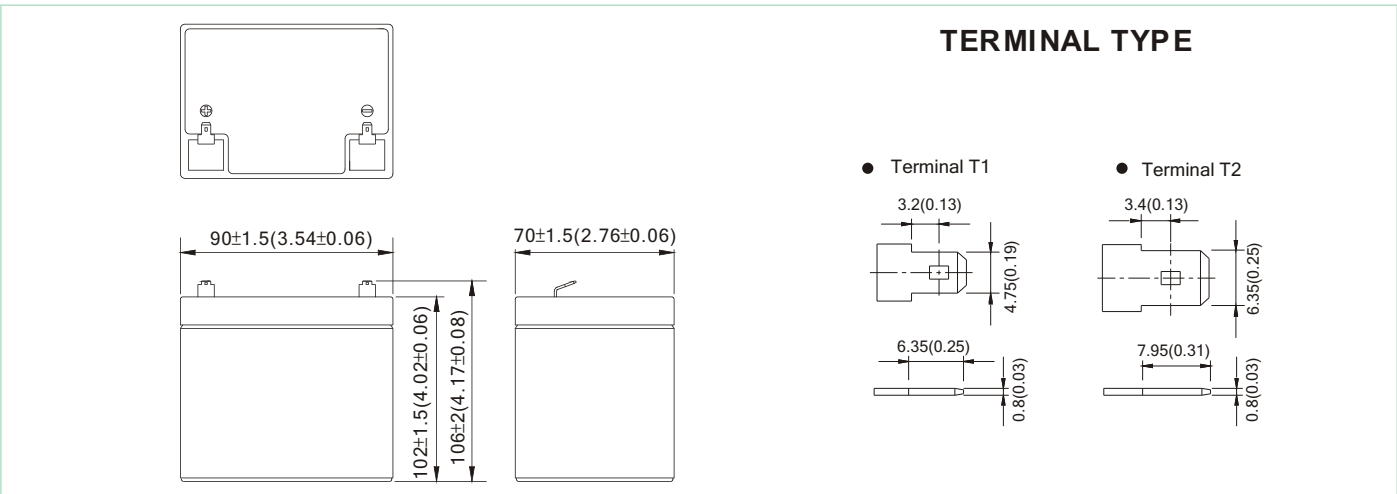
| | | |
|-----------------------------|------------------------------------|------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity | 20 Hour Rate (225mA, 10.5V) | 4.50 Ah |
| | 10 Hour Rate (428mA, 10.5V) | 4.28 Ah |
| | 5 Hour Rate (765mA, 10.5V) | 3.83 Ah |
| | 1 Hour Rate (2700mA, 9.30V) | 2.70 Ah |
| Approx. Weight | 1450g(3.17lbs.) | |
| Terminals | T1 (Faston Tab 187) T2 is optional | |
| Max. Discharge Current | 67.5 A (5 sec.) | |
| Max. Charge Current | 1.35 A | |
| Operating Temperature Range | Charge | 0°C~40°C(32°F~104°F) |
| | Discharge | -20°C~50°C(-4°F~122°F) |
| | Storage | -20°C~40°C(-4°F~104°F) |
| Self Discharge | < 3% per month (25°C) | |
| Internal Resistance | ≤42mΩ (Fully Charged) | |

CONTAINER MATERIAL

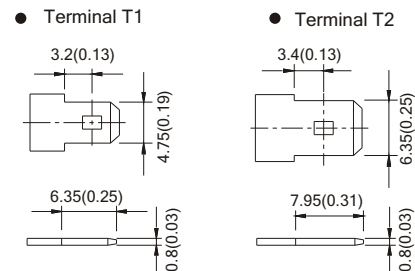
- Standard: ABS(UL 94-HB)
Model Name: BC4.5-12
- Optional: Flame Retardant ABS (UL 94-V0)
Model Name: BC4.5-12FR



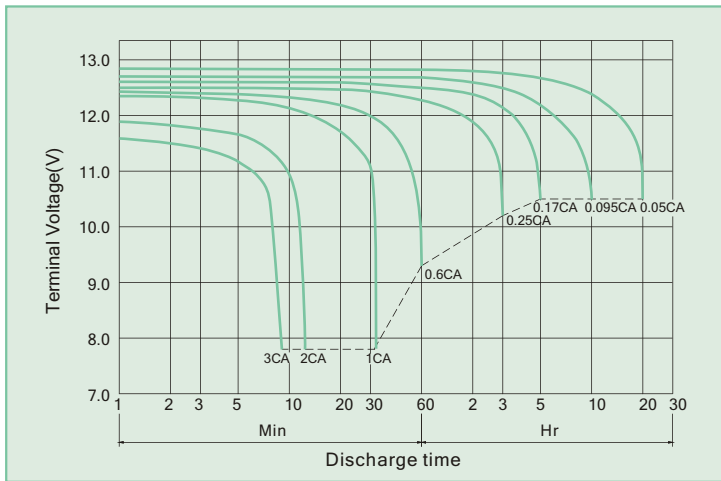
| OUTER DIMENSIONS mm(inch) | Length (L) | Width (W) | Container Height (H) | Total Height (TH) |
|---------------------------|-------------------|-------------------|----------------------|--------------------|
| | 90±1.5(3.54±0.06) | 70±1.5(2.76±0.06) | 102±1.5(4.02±0.06) | 106±2.0(4.17±0.08) |



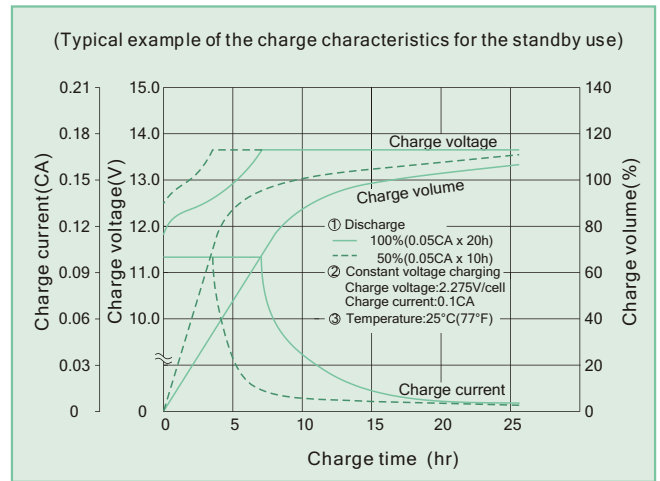
TERMINAL TYPE



BC4.5-12 (BC4.5-12FR) discharge characteristics (25°C/77°F)



Battery Charging Characteristics

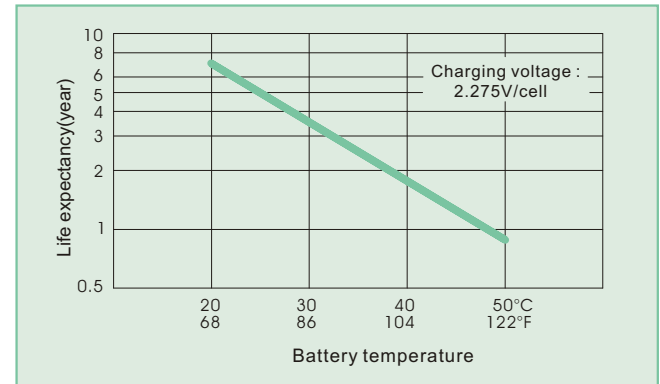


Charging Procedure

| Application | Charging method | Charging Voltage at 25°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Max. charging current (CA) | Charging time 0.1CA, 25°C (h) | | Temp (°C) |
|--------------------------|---|-----------------------------------|---|----------------------------|-------------------------------|---------------|-----------------|
| | | | | | 100% discharge | 50% discharge | |
| For standby power Source | Constant voltage & Constant current charging (with current restriction) | 2.25~2.30 | -3 | 0.3 | 24 | 20 | 0~40 (32~104°F) |
| For cycle service | | 2.40~2.50 | -4 | 0.3 | 16 | 10 | |

● For operation, please refer to the instruction from technical manual.

Effect Of Temperature On Long Term Float Life



Constant power discharge characteristics at 25 °C/77 °F Unit: W

| F.V. (V/cell) \ Discharge Time | 5 Min | 10 Min | 15 Min | 30 Min | 1 Hr | 3 Hr | 5 Hr | 10 Hr | 20 Hr |
|--------------------------------|-------|--------|--------|--------|-------|-------|------|-------|-------|
| 1.80V | 154.6 | 113.8 | 91.2 | 57.1 | 32.75 | 13.12 | 9.04 | 5.054 | 2.660 |
| 1.75V | 178.9 | 123.3 | 95.4 | 59.3 | 33.73 | 13.38 | 9.18 | 5.130 | 2.700 |
| 1.70V | 190.1 | 127.7 | 98.3 | 60.6 | 34.34 | 13.50 | 9.23 | 5.156 | 2.712 |
| 1.65V | 198.6 | 130.8 | 100.6 | 61.5 | 34.75 | 13.59 | 9.26 | 5.171 | 2.724 |
| 1.60V | 205.2 | 133.4 | 102.6 | 62.1 | 35.10 | 13.68 | 9.29 | 5.171 | 2.724 |

Constant current discharge characteristics at 25 °C/77 °F Unit: A

| F.V. (V/cell) \ Discharge Time | 5 Min | 10 Min | 15 Min | 30 Min | 1 Hr | 3 Hr | 5 Hr | 10 Hr | 20 Hr |
|--------------------------------|-------|--------|--------|--------|------|------|-------|-------|-------|
| 1.80V | 13.92 | 10.02 | 7.93 | 4.84 | 2.75 | 1.09 | 0.754 | 0.421 | 0.222 |
| 1.75V | 16.41 | 10.85 | 8.29 | 5.02 | 2.83 | 1.11 | 0.765 | 0.427 | 0.225 |
| 1.70V | 17.44 | 11.24 | 8.55 | 5.14 | 2.89 | 1.12 | 0.769 | 0.430 | 0.226 |
| 1.65V | 18.22 | 11.51 | 8.75 | 5.21 | 2.92 | 1.13 | 0.772 | 0.431 | 0.227 |
| 1.60V | 18.83 | 11.74 | 8.92 | 5.26 | 2.95 | 1.14 | 0.774 | 0.431 | 0.227 |

All data and artworks shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.

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