

# BC105-12 | 12V 105Ah

## Valve Regulated Lead Acid Battery

# BLACK BATT.

### Specification

|                                    |                                                                                                                                                                                                    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage                      | 12V                                                                                                                                                                                                |
| Nominal Capacity (10 hour rate)    | 105Ah                                                                                                                                                                                              |
| Dimensions                         | Length 330 ± 3 mm (13.0 inches)                                                                                                                                                                    |
|                                    | Width 173 ± 3 mm (6.81 inches)                                                                                                                                                                     |
|                                    | Container Height 213 ± 3 mm (8.39 inches)                                                                                                                                                          |
|                                    | Total Height 220 ± 3 mm (8.66 inches)                                                                                                                                                              |
| Approximate Weight                 | 30.5kg ± 3% (67.2 lbs)                                                                                                                                                                             |
| Short-circuit current              | 2000A                                                                                                                                                                                              |
| Internal Resistance (25°C)         | Approx. 5mΩ                                                                                                                                                                                        |
| Container Material                 | ABS                                                                                                                                                                                                |
| Operating Temp. Range              | Discharge -15~50°C (5~122°F)                                                                                                                                                                       |
|                                    | Charge -20~40°C (-4~104°F)                                                                                                                                                                         |
|                                    | Storage -15~40°C (5~104°F)                                                                                                                                                                         |
| Nominal Operating Temp. Range      | 25±3°C (77±5°F)                                                                                                                                                                                    |
| Cyclic charging voltage(25°C)      | 14.50 to 14.90V                                                                                                                                                                                    |
|                                    | Temperature compensation: -30mV/°C                                                                                                                                                                 |
| Standby usage(25°C)                | 13.60 to 13.80V                                                                                                                                                                                    |
|                                    | Temperature compensation: -18mV/°C                                                                                                                                                                 |
| Temperature Affect on the Capacity | 40°C (104°F) 103%                                                                                                                                                                                  |
|                                    | 25°C (77°F) 100%                                                                                                                                                                                   |
|                                    | 0°C (32°F) 86%                                                                                                                                                                                     |
| Self Discharge                     | ≤3% per month at 25°C (77°F). Blackbatt batteries may be stored up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |
| Designed floating life (20°C)      | 10 years                                                                                                                                                                                           |



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

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 140.5 | 121.9 | 100.4 | 78.8  | 58.9  | 50.9 | 31.7 | 23.2 | 18.2 | 15.8 | 13.9 | 10.7 | 9.55 | 5.07 |
| 1.80V/cell | 159.5 | 138.1 | 112.0 | 85.8  | 62.4  | 52.7 | 32.7 | 25.2 | 19.4 | 16.6 | 15.0 | 11.3 | 10.0 | 5.25 |
| 1.75V/cell | 173.0 | 149.5 | 118.6 | 87.6  | 64.6  | 55.3 | 34.4 | 25.7 | 19.8 | 16.9 | 15.1 | 11.3 | 10.1 | 5.30 |
| 1.70V/cell | 184.5 | 158.8 | 124.1 | 89.3  | 65.9  | 56.4 | 35.1 | 26.2 | 20.2 | 17.2 | 15.2 | 11.5 | 10.2 | 5.36 |
| 1.67V/cell | 190.3 | 163.4 | 127.1 | 90.7  | 66.9  | 57.3 | 35.6 | 26.4 | 20.5 | 17.6 | 15.2 | 11.7 | 10.3 | 5.42 |
| 1.60V/cell | 196.8 | 168.5 | 130.3 | 92.0  | 67.9  | 58.1 | 36.1 | 26.7 | 20.7 | 17.8 | 15.3 | 11.8 | 10.5 | 5.49 |

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

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 264.4 | 230.7 | 190.7 | 150.7 | 113.2 | 98.5  | 61.6 | 45.4 | 35.7 | 31.1 | 27.5 | 21.3 | 19.0 | 10.1 |
| 1.80V/cell | 295.8 | 258.1 | 210.4 | 162.7 | 119.2 | 101.4 | 63.3 | 49.0 | 38.0 | 32.6 | 29.5 | 22.3 | 19.9 | 10.4 |
| 1.75V/cell | 315.7 | 275.4 | 220.1 | 164.8 | 122.7 | 106.0 | 66.3 | 49.9 | 38.6 | 33.1 | 29.6 | 22.4 | 20.0 | 10.5 |
| 1.70V/cell | 331.9 | 289.6 | 228.2 | 166.7 | 124.3 | 107.5 | 67.4 | 50.6 | 39.1 | 33.5 | 29.7 | 22.7 | 20.2 | 10.6 |
| 1.67V/cell | 337.2 | 294.3 | 231.1 | 167.9 | 125.4 | 108.5 | 68.1 | 50.9 | 39.6 | 34.1 | 29.8 | 23.0 | 20.4 | 10.7 |
| 1.60V/cell | 342.0 | 298.4 | 233.5 | 168.6 | 126.1 | 109.3 | 68.6 | 51.1 | 39.9 | 34.4 | 29.9 | 23.2 | 20.6 | 10.9 |

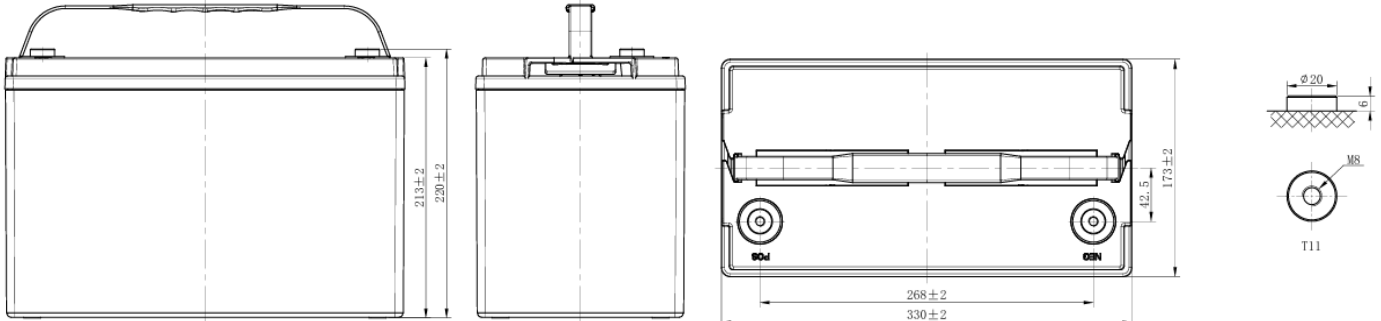
Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

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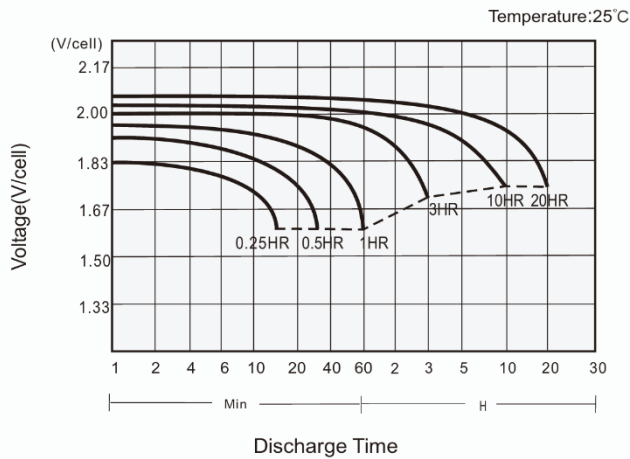
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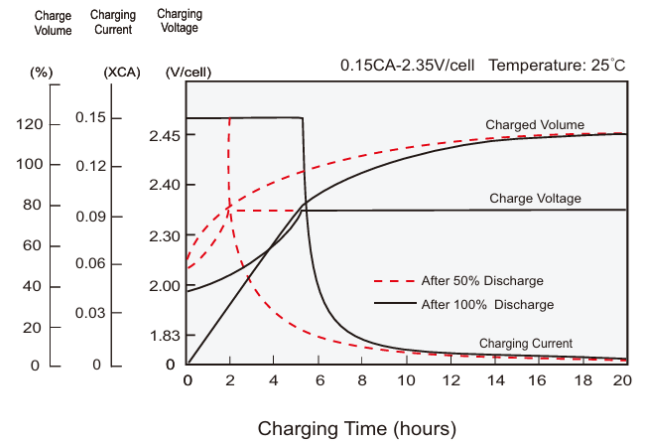
## Dimensions | Terminal Type (unit:mm)



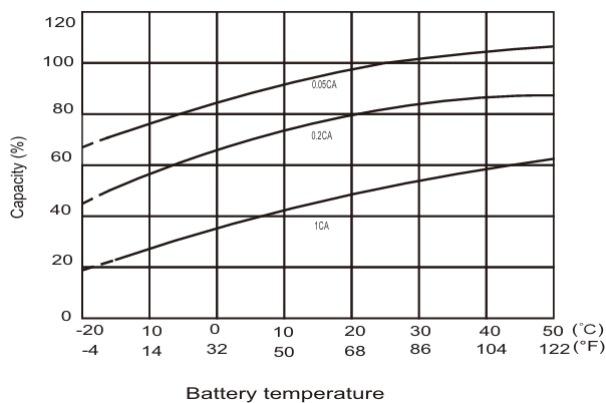
## Discharge Characteristics



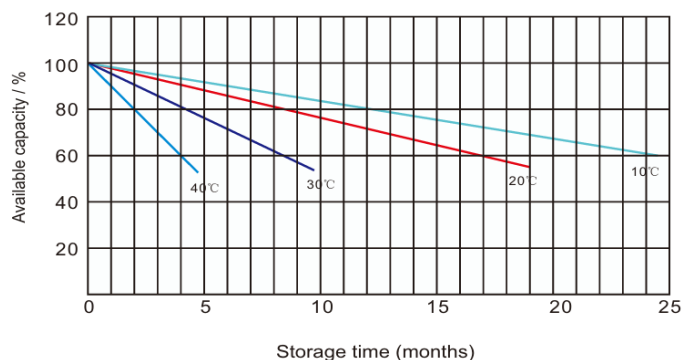
## Charging Characteristics



## Effects of Temperature on Capacity



## Self Discharge Characteristics



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