ENERPOWER
BATTERIE

# DCC SERIES
LEAD CARBON BATTERIES

DATASHEET

# DCC 105-12

## 12V 105AH



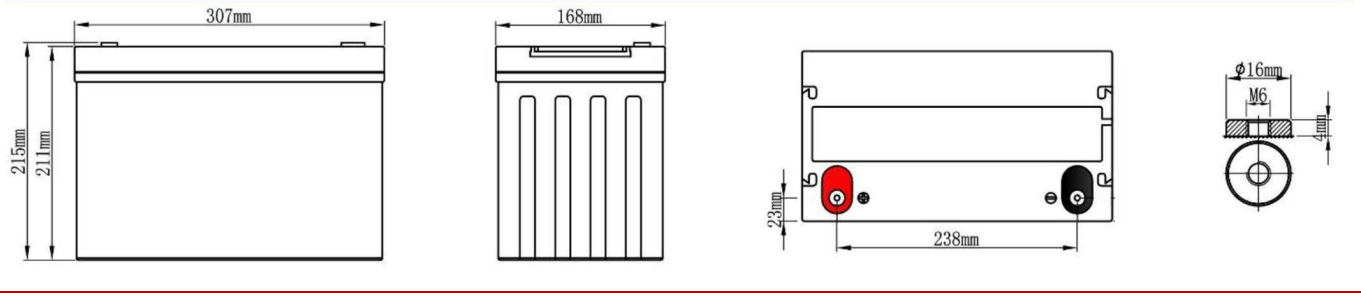

**LEAD CARBON BATTERY**

**EUROBAT 2022 CLASSIFICATION: 15 Years – Very Long Life**

**Designed in accordance with IEC 60896-21/22**

## SPECIFICATIONS

| Nominal Voltage | Nominal Capacity | Dimension ±3mm | | | | Weight | Short-Circuit Current | Internal Resistance | Standard Terminal | Container Material |
|---|---|---|---|---|---|---|---|---|---|---|
| | | L | W | H | TH | | | | | |
| 12V | 105AH | 307mm | 168mm | 211mm | 213mm | 29,2kg | - | ≈4.3 mΩ | M6 | ABS UL94-V0 |




## CONSTANT-VOLTAGE CHARGE

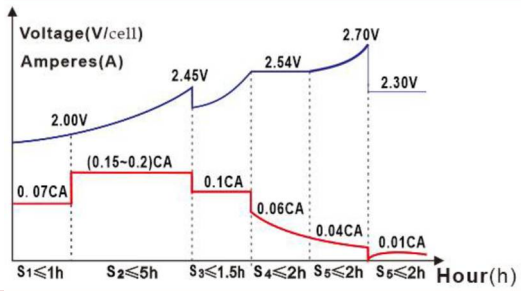
| Rated Capacity | |
|---|---|
| 20 hour rate (5.0A) | 105.0AH |
| 10 hour rate (10.0A) | 100.0AH |
| 5 hour rate (17.0A) | 85.5AH |
| 3 hour rate (25.0A) | 75.3AH |
| 1 hour rate (55.0A) | 55.0AH |
| **Capacity affected by temperature** | |
| 40°C (104°F) | 103% |
| 25°C (77°C) | 100% |
| 0°C (32°F) | 86% |

| Cycle Application |
|---|
| 1. Limit initial current less than 20A. |
| 2. Charge until battery voltage (under charge) reaches 14.6V to 14.8V at 25ºC(77ºF). |
| 3. Hold at 14.6V to 14.8V until current drop to under 0.6A for at least 3 hours. |
| 4. Temperature compensation coefficient of charging voltage is -30mV/ºC. |
| |
| **Standby Service** |
| 1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 20A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status. |
| 2. Temperature compensation coefficient of charging voltage is -18mV/ºC. |

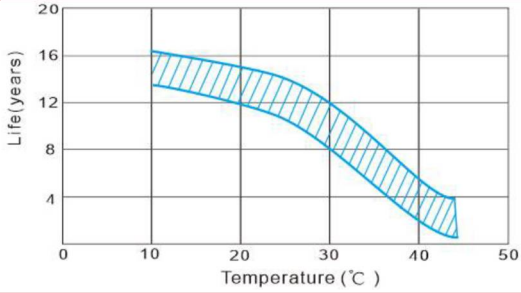
| Wide Operating Temp. Range |
|---|
| -20°C ~ 50°C |

NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation.

## CHARGE CHARACTERISTIC CURVE FOR CYCLE USE(IIUU)



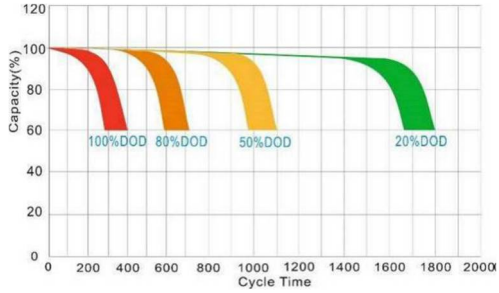

## EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



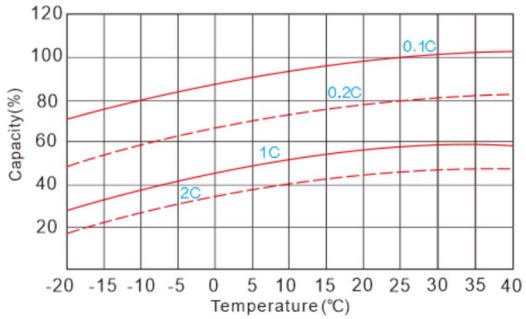

## DISCHARGE CHARACTERISTIC (25ºC/77ºF)



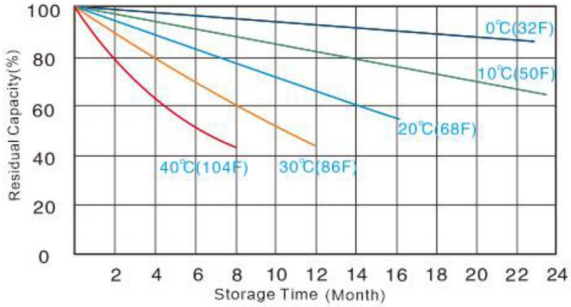

## CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE




## CAPACITY CURVE AT DIFFERENT TEMPERATURE




## SELF DISCHARGE CHARACTERISTICS




| End Voltage (V) | Minute (M) | | | | Hour (H) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10 | 15 | 30 | 45 | 1 | 1.5 | 2 | 3 | 5 | 8 | 10 | 20 |
| **Constant Current Discharge Data Sheet (@25ºC) Unit: A** | | | | | | | | | | | | |
| **9.6V** | 214 | 174 | 98 | 85 | 55.0 | 43.6 | 36.2 | 25.7 | 18.1 | 12.3 | 10.4 | 5.36 |
| **9.9V** | 211 | 171 | 96 | 84 | 54.6 | 43.3 | 35.9 | 25.3 | 17.7 | 12.1 | 10.3 | 5.31 |
| **10.2V** | 207 | 168 | 94 | 83 | 54.2 | 42.9 | 35.7 | 25.1 | 17.3 | 11.9 | 10.2 | 5.26 |
| **10.5V** | 201 | 163 | 91 | 82 | 53.3 | 42.3 | 35.3 | 24.5 | 17.1 | 11.6 | 10.1 | 5.20 |
| **10.8V** | 195 | 158 | 89 | 80 | 52.4 | 41.6 | 34.8 | 23.9 | 16.5 | 11.4 | 10.0 | 5.15 |
| **Constant Power Discharge Data Sheet (@25ºC) Unit: W** | | | | | | | | | | | | |
| **9.6V** | 2317 | 1921 | 1091 | 941 | 697 | 551 | 414 | 311 | 201 | 138 | 118 | 61 |
| **9.9V** | 2283 | 1892 | 1079 | 929 | 688 | 545 | 408 | 307 | 199 | 135 | 117 | 59 |
| **10.2V** | 2248 | 1863 | 1067 | 917 | 680 | 539 | 404 | 303 | 196 | 131 | 115 | 58 |
| **10.5V** | 2193 | 1818 | 1041 | 894 | 663 | 525 | 393 | 296 | 191 | 129 | 112 | 57 |
| **10.8V** | 2138 | 1772 | 1016 | 871 | 645 | 511 | 383 | 286 | 186 | 126 | 110 | 56 |

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