TECHNOPOWER

TECHNOPOWER SYSTEMS LIMITED

Deep Cycle

# GLORY ASDC2-500 (2V500Ah)

## Specification

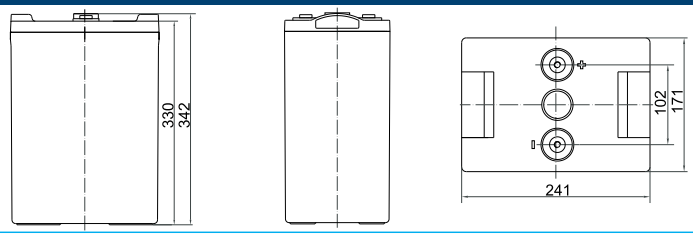
| | |
|---|---|
| **Cells Per Unit** | 1 |
| **Voltage Per Unit** | 2 |
| **Capacity** | 500Ah@10hr-rate to 1.80V per cell @25℃ |
| **Weight** | Approx. 29.5 Kg (Tolerance±3%) |
| **Internal Resistance** | Approx. 0.62 mΩ |
| **Terminal** | F10(M8) |
| **Max. Discharge Current** | 2500A (5 sec) |
| **Design Life** | 20 years (floating charge) |
| **Max. Charging Current** | 100.0 A |
| **Reference Capacity** | C1 305.5Ah<br>C3 387.0Ah<br>C5 436.2Ah<br>C10 500.0Ah |
| **Float Charging Voltage** | 2.27 V~2.30 V @ 25℃<br>Temperature Compensation: -3mV/℃/Cell |
| **Cycle Use Voltage** | 2.43 V~2.47 V @ 25℃<br>Temperature Compensation: -4mV/℃/Cell |
| **Operating Temperature Range** | Discharge: -20℃~60℃<br>Charge: 0℃~50℃<br>Storage: -20℃~60℃ |
| **Normal Operating Temperature Range** | 25℃±5℃ |
| **Self Discharge** | **TECHNOPOWER** Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25℃.Please charged batteries before using. |
| **Container Material** | A.B.S. UL94-HB, UL94-V0 Optional. |

DC (Deep Cycle) series batteries provide superior high integrity and reliability.It is specially designed for frequent cyclic charge and discharge.By using strong grids,thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer 30% more cyclic life than the standby series.It is suitable for solar and wind renewable nergy storage,mobility and medical equipment,V,telecom,broadband and cable TV,UPS systems etc.

ISO 9001 ISO 14001 OHSAS 18001

MH 28539

## Dimensions




F10 TERMINAL

| | |
|---|---|
| Length | 241±2mm (9.49 inches) |
| Width | 171±2mm (6.73 inches) |
| Height | 330±2mm (13.0 inches) |
| Total Height | 342±2mm (13.5 inches) |
| Terminal | Value |
| M5 | 6~7 N*m |
| M6 | 8~10 N*m |
| M8 | 10~12 N*m |

Unit: mm

### Constant Current Discharge Characteristics :A(25℃)

| F.V/Time | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR |
|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 730.6 | 478.7 | 305.5 | 188.1 | 141.0 | 113.5 | 94.33 | 63.39 | 52.75 |
| 1.65V | 684.6 | 459.6 | 295.0 | 182.1 | 136.7 | 110.4 | 91.88 | 62.69 | 52.11 |
| 1.70V | 641.2 | 439.3 | 285.4 | 176.1 | 133.0 | 107.4 | 89.49 | 61.71 | 51.32 |
| 1.75V | 596.7 | 419.9 | 275.0 | 170.0 | 129.0 | 104.7 | 87.24 | 60.86 | 50.64 |
| 1.80V | 550.9 | 401.3 | 264.5 | 163.9 | 125.0 | 101.7 | 84.99 | 59.82 | 50.00 |
| 1.85V | 457.2 | 345.6 | 237.2 | 150.2 | 115.6 | 94.52 | 79.26 | 56.16 | 47.07 |

### Constant Power Discharge Characteristics : WPC(25℃)

| F.V/Time | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR |
|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 1277 | 869.5 | 574.1 | 356.6 | 269.4 | 217.9 | 181.8 | 123.8 | 103.7 |
| 1.65V | 1214 | 843.6 | 557.6 | 346.9 | 262.1 | 212.8 | 177.8 | 122.7 | 102.6 |
| 1.70V | 1155 | 814.4 | 542.8 | 337.3 | 256.1 | 207.8 | 173.8 | 121.1 | 101.2 |
| 1.75V | 1090 | 786.4 | 526.1 | 327.0 | 249.6 | 203.3 | 170.0 | 119.6 | 99.95 |
| 1.80V | 1021 | 759.2 | 509.0 | 316.9 | 242.8 | 198.1 | 166.2 | 117.8 | 98.80 |
| 1.85V | 859.0 | 660.4 | 459.3 | 291.9 | 225.5 | 184.9 | 155.5 | 110.9 | 93.14 |

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.
The battery must be fully charged before the capacity test. The $C_{10}$ should reach 95% after the first cycle and 100% after the third cycle.

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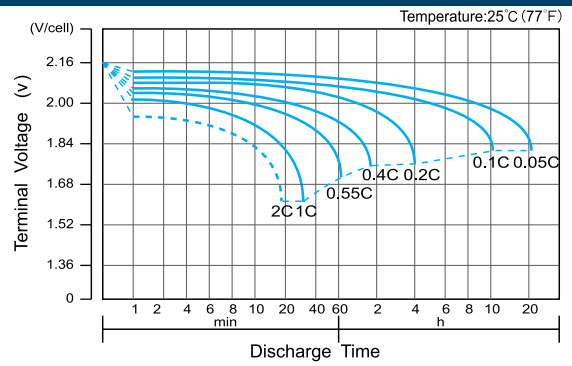
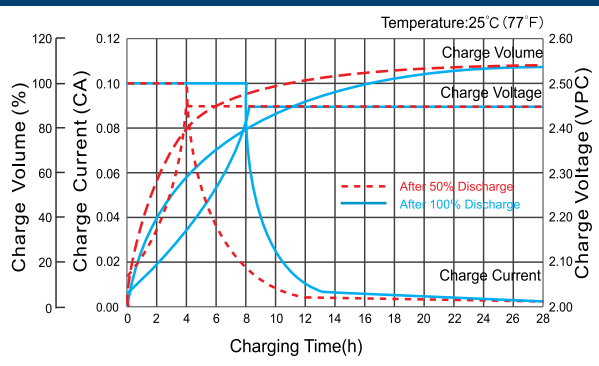
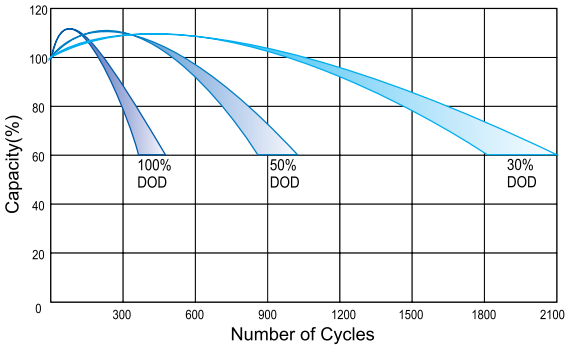
## Discharge Characteristics Curve



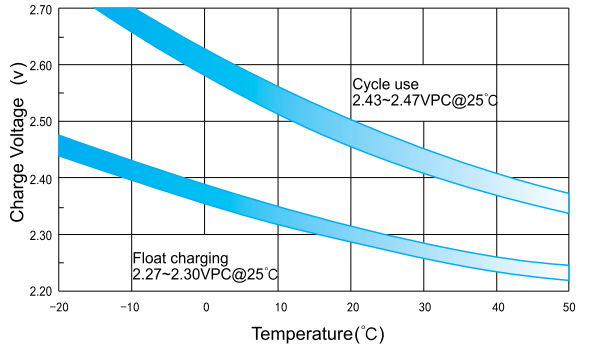

## Charge Characteristic Curve for Cycle Use(IU)



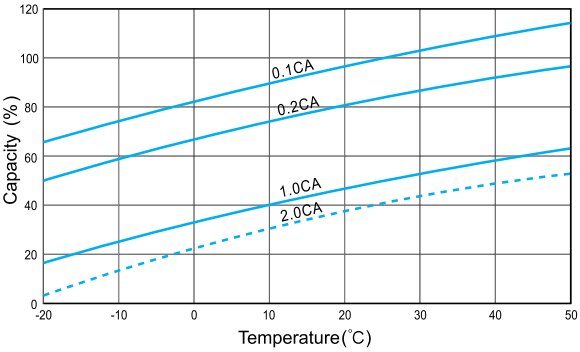

## Cycle Life in Relation to Depth of Discharge



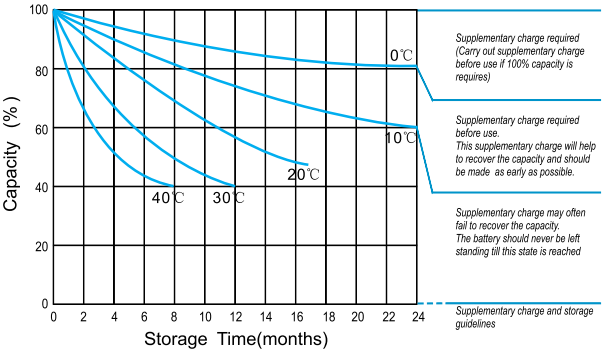

## Relationship Between Charging Voltage and Temperature



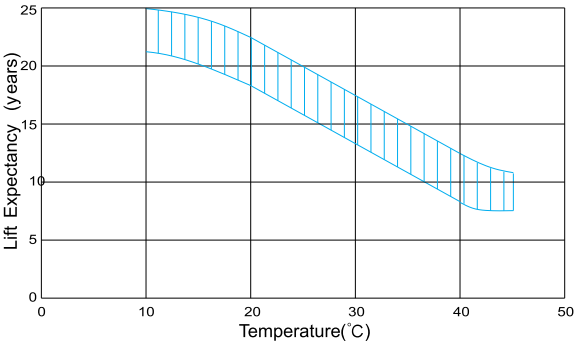

## Temperature Effects on Capacity



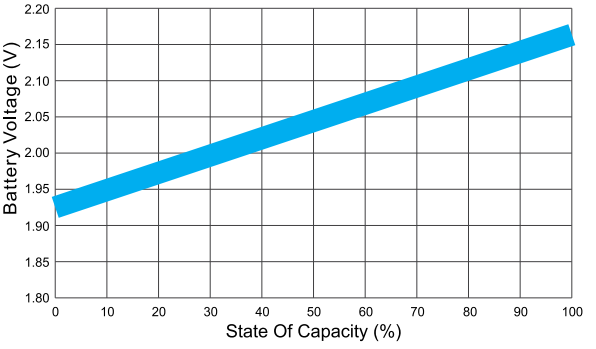

## Storage Characteristics




## Effect of Temperature on Long Term Life




## Relationship of OCV And State of Charge(20℃)




(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.