

## DC12-100(12V100Ah)

### Specification

|                                    |                                                                                                                                                                                                                      |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                     | 6                                                                                                                                                                                                                    |
| Voltage Per Unit                   | 12                                                                                                                                                                                                                   |
| Capacity                           | 100Ah@20hr-rate to 1.75V per cell @25°C                                                                                                                                                                              |
| Weight                             | Approx. 29.0 Kg (Tolerance ±3%)                                                                                                                                                                                      |
| Internal Resistance                | Approx. 5.0 mΩ                                                                                                                                                                                                       |
| Terminal                           | F5(M8)/F12(M8)                                                                                                                                                                                                       |
| Max. Discharge Current             | 1000A (5 sec)                                                                                                                                                                                                        |
| Design Life                        | 12 years (floating charge)                                                                                                                                                                                           |
| Maximum Charging Current           | 30.0 A                                                                                                                                                                                                               |
| Reference Capacity                 | C3 74.4AH<br>C5 83.5AH<br>C10 95.0AH<br>C20 100.0AH                                                                                                                                                                  |
| Float Charging Voltage             | 13.6 V~13.8 V @ 25°C<br>Temperature Compensation: -3mV/°C/Cell                                                                                                                                                       |
| Cycle Use Voltage                  | 14.6 V~14.8 V @ 25°C<br>Temperature Compensation: -4mV/°C/Cell                                                                                                                                                       |
| Operating Temperature Range        | Discharge: -20°C~60°C<br>Charge: 0°C~50°C<br>Storage: -20°C~60°C                                                                                                                                                     |
| Normal Operating Temperature Range | 25°C ±5°C                                                                                                                                                                                                            |
| Self Discharge                     | Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using. |
| Container Material                 | A.B.S. UL94-HB, UL94-V0 Optional.                                                                                                                                                                                    |



DC (Deep Cycle Gel) series is a hybrid GEL battery. It is an AGM battery with 12 years floating design life, ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the DC series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 450 cycles at 100% DOD. Suitable for pumps, solar and wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



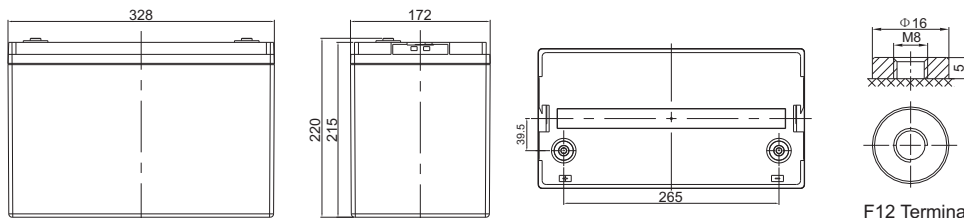
ISO 9001

ISO 14001

OHSAS 18001



### Dimensions



|              |                       |
|--------------|-----------------------|
| Length       | 328±2mm (12.9 inches) |
| Width        | 172±2mm (6.77 inches) |
| Height       | 215±2mm (8.46 inches) |
| Total Height | 220±2mm (8.66 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°C)

| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR  | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 225.4 | 173.7 | 100.7 | 59.3 | 35.5 | 26.5 | 20.9 | 17.6 | 12.0 | 10.2 | 5.20 |
| 1.65V    | 217.9 | 168.5 | 98.6  | 58.2 | 34.9 | 26.1 | 20.6 | 17.4 | 11.9 | 10.1 | 5.15 |
| 1.70V    | 208.1 | 161.7 | 95.8  | 56.7 | 34.1 | 25.5 | 20.3 | 17.1 | 11.7 | 10.0 | 5.09 |
| 1.75V    | 195.0 | 152.5 | 92.0  | 54.6 | 33.0 | 24.8 | 19.7 | 16.7 | 11.5 | 9.77 | 5.00 |
| 1.80V    | 177.4 | 140.2 | 86.8  | 51.9 | 31.5 | 23.8 | 19.0 | 16.2 | 11.1 | 9.50 | 4.88 |
| 1.85V    | 153.5 | 123.1 | 79.4  | 47.9 | 29.3 | 22.3 | 17.9 | 15.4 | 10.6 | 9.12 | 4.70 |

### Constant Power Discharge Characteristics : WPC(25°C)

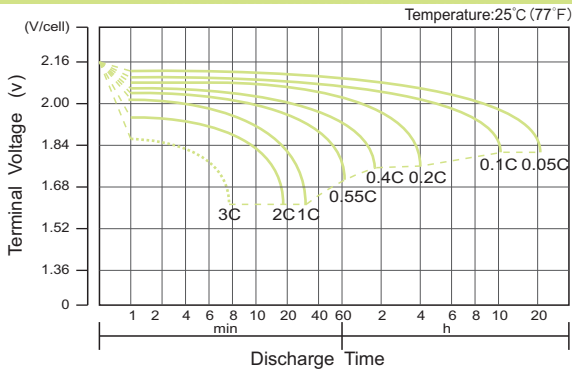
| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR  | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 403   | 320   | 193   | 117  | 70.8 | 53.2 | 42.3 | 35.8 | 24.7 | 21.1 | 10.8 |
| 1.65V    | 400   | 317   | 191   | 116  | 70.1 | 52.7 | 41.9 | 35.5 | 24.5 | 20.9 | 10.7 |
| 1.70V    | 386   | 306   | 187   | 113  | 68.7 | 51.7 | 41.2 | 35.0 | 24.2 | 20.7 | 10.6 |
| 1.75V    | 369   | 293   | 181   | 110  | 66.8 | 50.5 | 40.3 | 34.3 | 23.7 | 20.3 | 10.4 |
| 1.80V    | 341   | 273   | 173   | 105  | 64.1 | 48.6 | 39.0 | 33.3 | 23.1 | 19.8 | 10.2 |
| 1.85V    | 300   | 244   | 160   | 97.2 | 60.0 | 45.8 | 36.9 | 31.7 | 22.1 | 19.0 | 9.80 |

(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<sub>20</sub> should reach 95% after the first cycle and 100% after the third cycle.

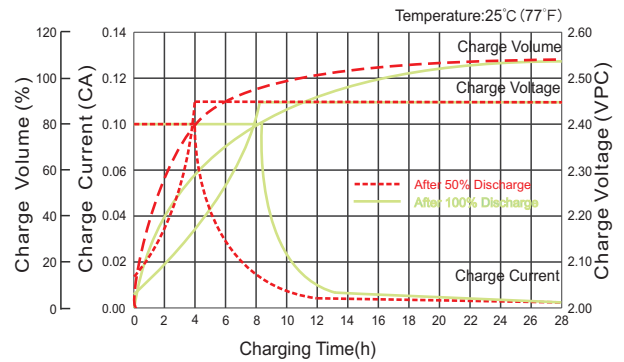
# DC12-100(12V100Ah)

# AUS<sub>CELL</sub> No. 1

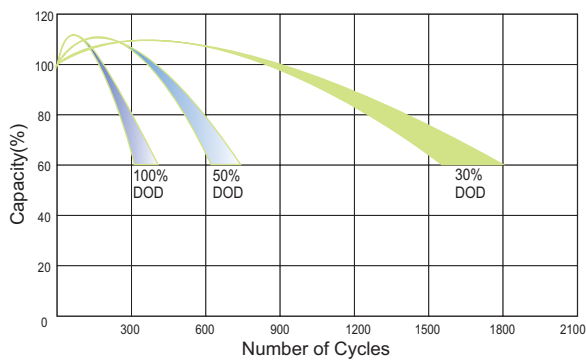
### Discharge Characteristics Curve



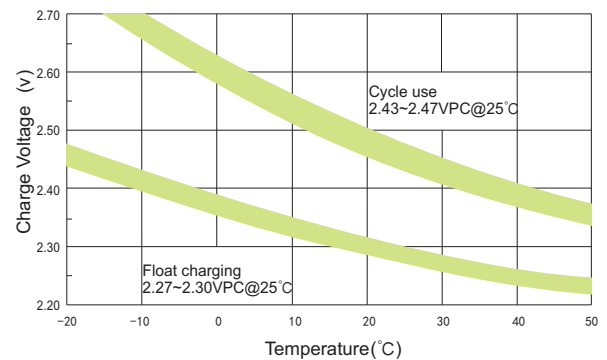
### Charge Characteristic Curve for Cycle Use(IU)



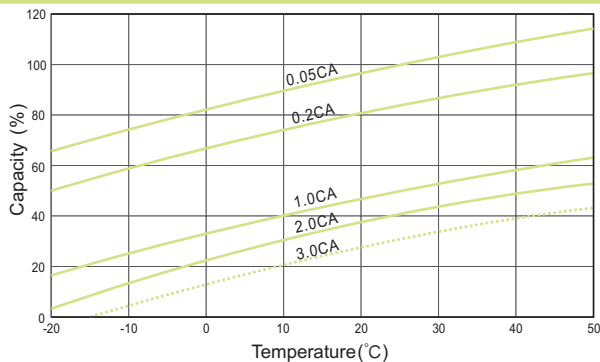
### Cycle Life in Relation to Depth of Discharge



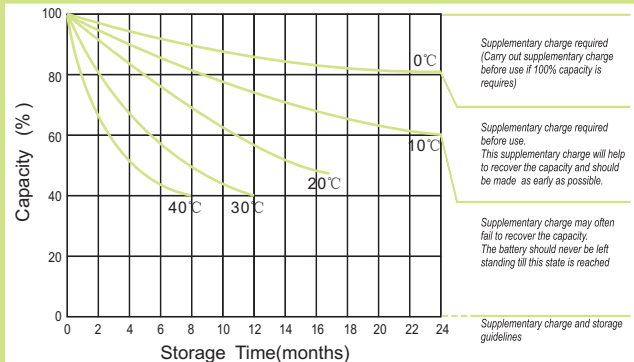
### Relationship Between Charging Voltage and Temperature



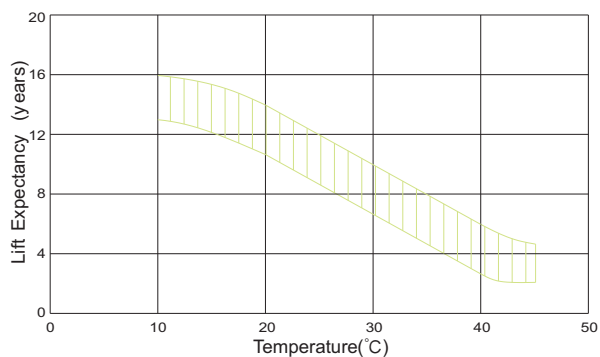
### Temperature Effects on Capacity



### Storage Characteristics



### Effect of Temperature on Long Term Life



### Relationship of OCV And State of Charge(20°C)

