



# DC2-3000 (2V3000Ah)

DC (Deep Cycle) series is specially designed for frequent cyclic discharge. By using strong grids and specially designed active material, the DC series battery offers 30% more cyclic life than the standby series. It is suitable for solar energy systems, marine and RV etc.

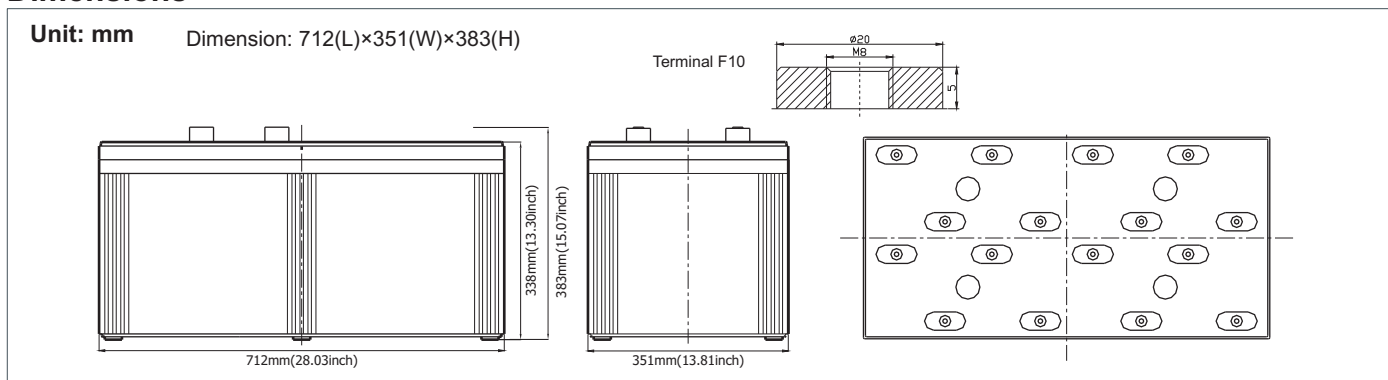


## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	3000Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 193.0 Kg(Tolerance $\pm 1\%$ )
Max. Discharge Current	9000 A (5 sec)
Internal Resistance	Approx. 0.3 m $\Omega$
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C $\pm$ 5°C
Float charging Voltage	2.27 to 2.3 VDC/unit Average at 25°C
Recommended Maximum Charging Current	600 A
Equalization and Cycle Service	2.43 to 2.47 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Thread insert & Bolt (F10)
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



## Dimensions



## Constant Current Discharge Characteristics : A(25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	4073	3004	1873	1149	855.9	614.1	537.5	482.6	389.5	312.5
1.65V	3873	2884	1849	1107	819.9	592.5	532.1	470.9	372.1	309.5
1.70V	3612	2719	1813	1089	802.0	587.1	524.4	459.3	366.3	306.5
1.75V	3206	2447	1670	1029	760.1	554.8	517.7	436.1	354.7	303.2
1.80V	2760	2229	1574	981.5	730.2	549.4	508.7	430.2	348.8	300.4
1.85V	2334	2006	1454	927.7	694.3	506.3	478.8	407.0	331.4	282.1

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	7131	5474	3486	2150	1595	1154	1069	931.1	741.3	622.6
1.65V	6944	5445	3467	2119	1564	1137	1059	919.2	735.0	616.7
1.70V	6560	5153	3433	2088	1540	1132	1046	897.8	723.7	613.0
1.75V	5843	4644	3220	1977	1485	1076	1031	853.6	700.9	606.8
1.80V	5057	4237	3062	1888	1423	1071	1013	843.5	689.6	601.8
1.85V	4313	3820	2841	1787	1356	991.7	956.2	799.1	655.3	567.0

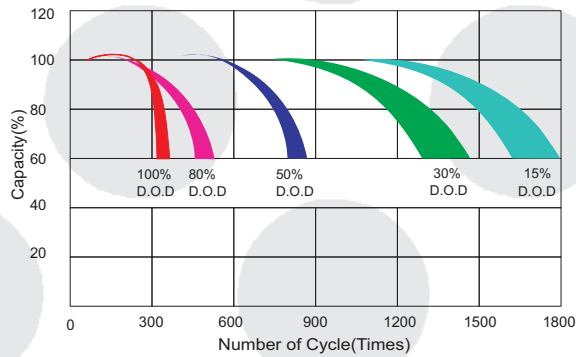
All mentioned values are average values (Tolerance  $\pm 2\%$ ).

# DC2-3000

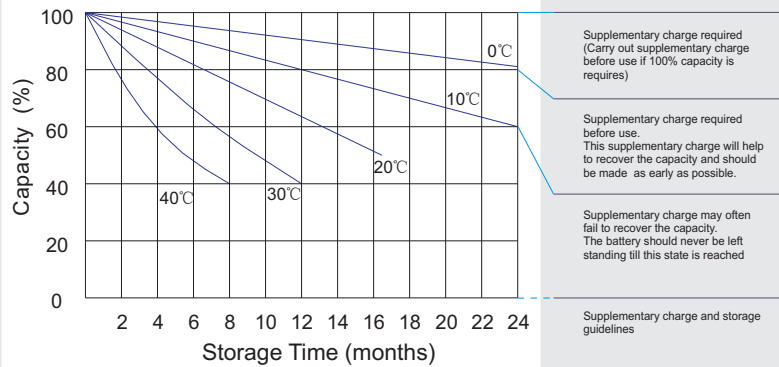
2V3000Ah



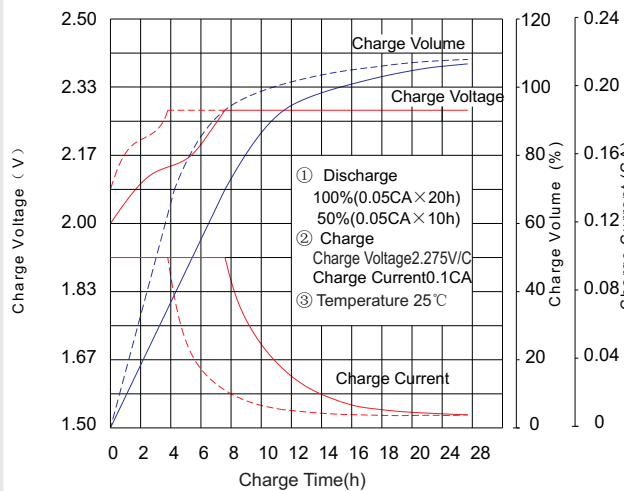
## Life characteristics of cyclic use



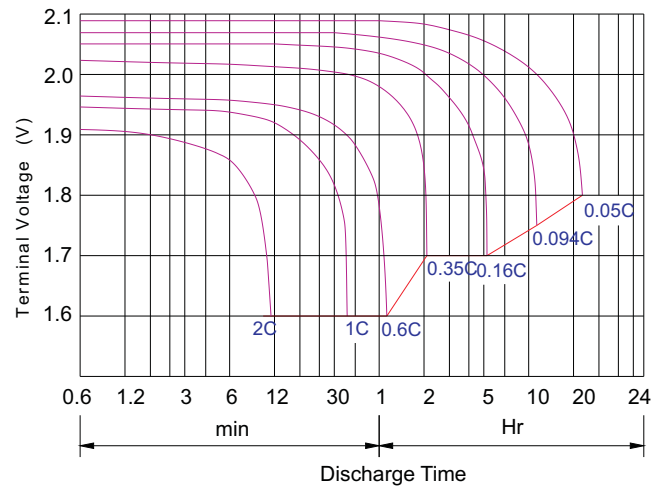
## Storage characteristic



## Charge characteristic Curve for standby use



## Discharge characteristic Curve



## Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

## Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

**Charge the batteries at least once every six months, if they are stored at 25°C.**

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45Vx24h, Max. Current 0.2C
Constant Current	-0.2Cx2h+0.1Cx7h+0.05Cx4h
Fast	-0.2Cx2h+0.3Cx3h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6~7N·m	8~10N·m	10~12N·m

## Maintenance & Cautions

### Cycle service

※ Avoid battery over discharge, especially battery series connection use.

※ Charged with recommend voltage, ensure battery can be full recharged.

In general, recharge capacity should be 1.1-1.15 times discharge capacity.

※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.

※ There are a number of factors that will affect the length of cyclic service.

The most significant are depth of discharge, ambient temperature,

discharge rate, and the manner in which the battery is recharged.

Generally speaking, the most important factors is depth of discharge.