



# DC2-1800 (2V1800Ah)

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.



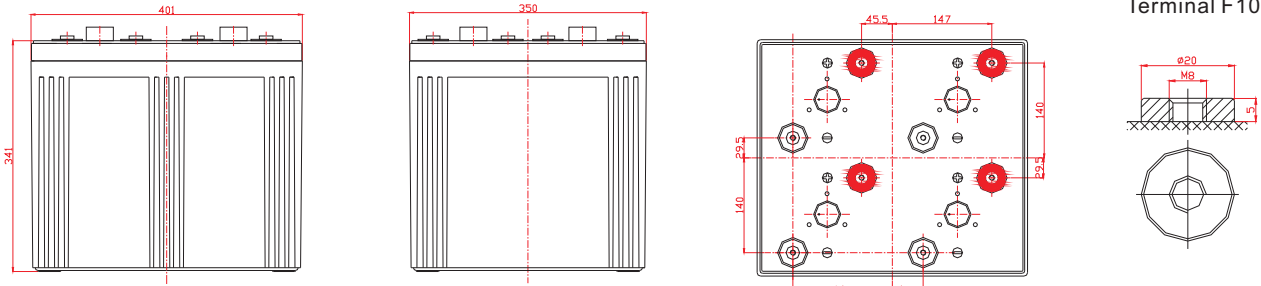
## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	1800Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 105 Kg (Tolerance±1%)
Max. Discharge Current	7000 A (5 sec)
Internal Resistance	Approx. 0.5 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float Charging Voltage	2.27 to 2.3 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	360 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

Unit: mm Dimension: 401(L)×350(W)×383(H)



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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	2444	1802	1124	689.5	513.5	368.4	322.5	289.5	233.7	187.5
1.65V	2324	1731	1110	664.3	492.0	355.5	319.2	282.6	223.3	185.7
1.70V	2167	1631	1088	653.6	481.2	352.3	314.7	275.6	219.8	183.9
1.75V	1924	1468	1002	617.7	456.1	332.9	310.6	261.6	212.8	181.9
1.80V	1656	1337	944.4	588.9	438.1	329.7	305.2	258.1	209.3	180.2
1.85V	1400	1204	872.6	556.6	416.6	303.8	287.3	244.2	198.8	169.2

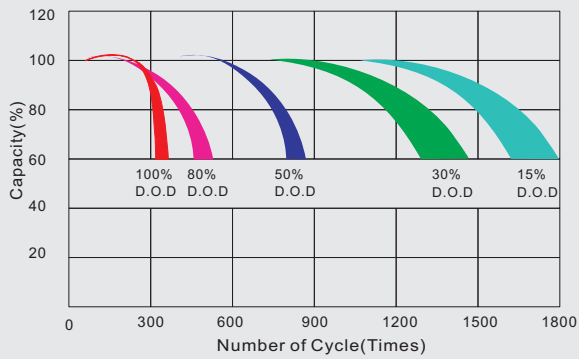
## Constant Power Discharge Characteristics : W(25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	4278	3285	2091	1290	957.0	692.4	641.1	558.6	444.8	373.6
1.65V	4166	3267	2080	1271	938.2	682.1	635.1	551.5	441.0	370.0
1.70V	3936	3092	2060	1253	923.9	679.4	627.6	538.7	434.2	367.8
1.75V	3506	2786	1932	1186	890.7	645.3	618.8	512.2	420.5	364.1
1.80V	3034	2542	1837	1133	853.9	642.4	608.0	506.1	413.7	361.1
1.85V	2588	2292	1704	1072	813.5	595.0	573.7	479.4	393.2	340.2

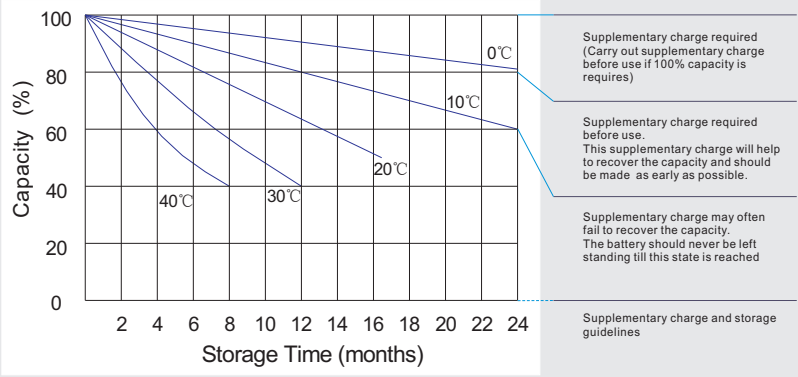
All mentioned values are average values(Tolerance±2%).



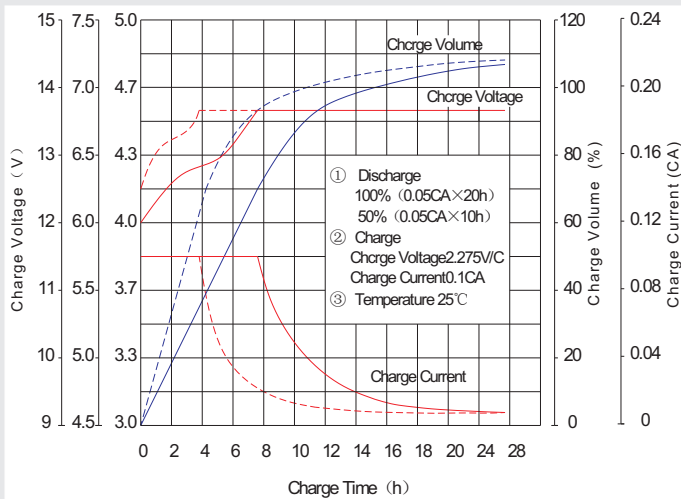
### Life characteristics of cyclic use



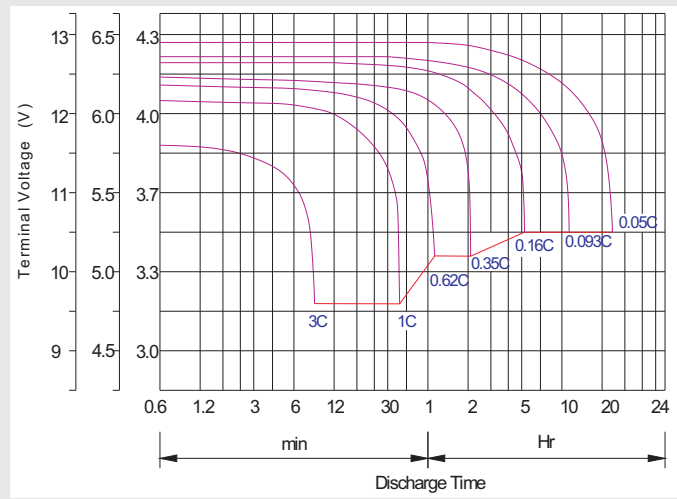
### Storage characteristic



### Charge characteristic curve for cyclic 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+2.4-2.45V/cellx24h, Max. Current 0.2C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.2Cx6h

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

<b>Cycle service</b>
※ 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 specking, the most important factors is depth of discharge.