

# DC2-500 (2V500Ah)



## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	500Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 25.5 Kg (Tolerance ±3%)
Internal Resistance	Approx. 0.60 mΩ
Terminal	F10(M8)
Max. Discharge Current	2000A (5 sec)
Design Life	20 years (floating charge)
Max. Charging Current	100.0 A
Reference Capacity	C1 305.5Ah C3 387.0Ah C5 436.2Ah C10 500.0Ah
Float Charging Voltage	2.27 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.43 V~2.47 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	RITAR 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 charge 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 energy storage, mobility and medical equipment, V, telecom, broadband and cable TV, UPS systems etc.



ISO 9001



ISO 14001



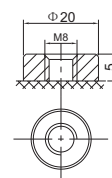
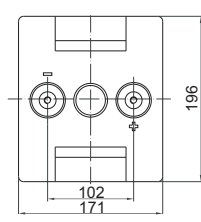
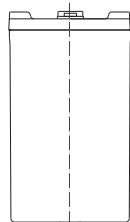
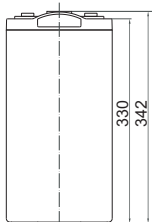
OHSAS 18001



MH 28539



## Dimensions



F10 TERMINAL

Length	196±2mm (7.72 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°C)

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°C)

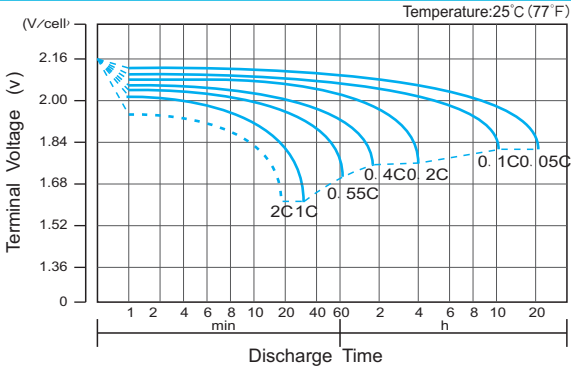
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	1277	869.5	574.1	356.6	269.4	217.9	181.8	123.8	103.7
1.65V	1214	843.6	557.6	346.9	262.1	212.8	177.8	122.7	102.6
1.70V	1155	814.4	542.8	337.3	256.1	207.8	173.8	121.1	101.2
1.75V	1090	786.4	526.1	327.0	249.6	203.3	170.0	119.6	99.95
1.80V	1021	759.2	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<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

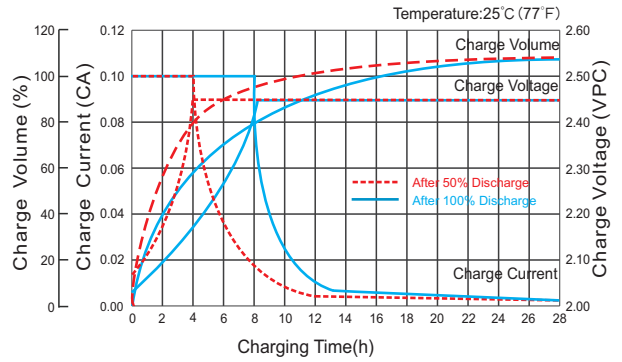
# DC2-500(2V500Ah)



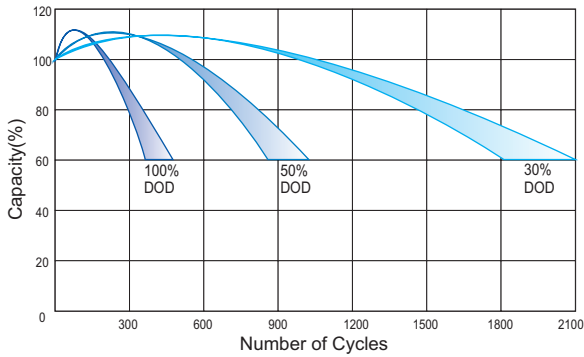
## Discharge Characteristics Curve



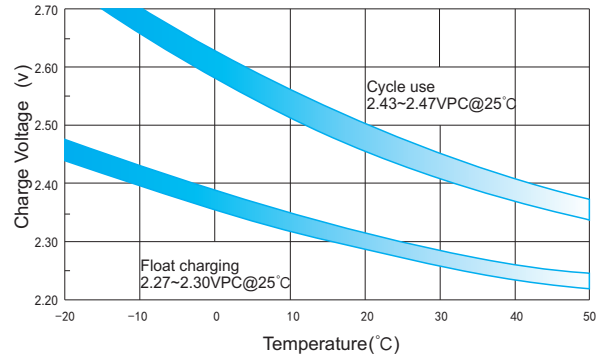
## Charge Characteristic Curve for Cycle Use(IU)



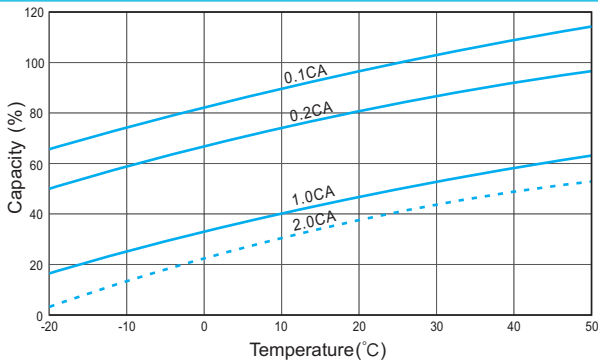
## Cycle Life in Relation to Depth of Discharge



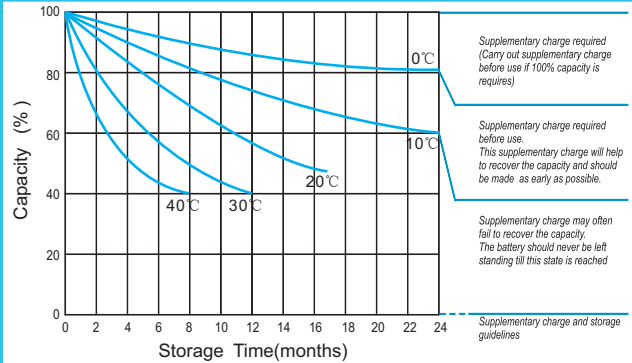
## Relationship Between Charging Voltage and Temperature



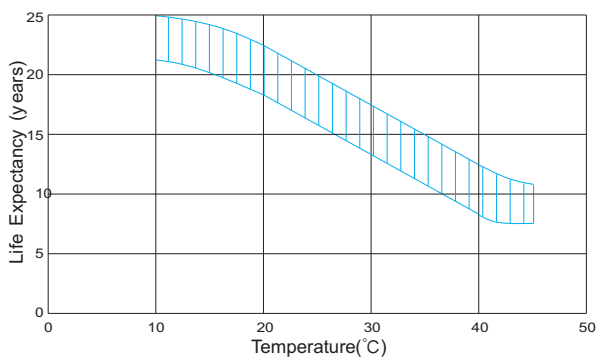
## Temperature Effects on Capacity



## Storage Characteristics



## Effect of Temperature on Long Term Life



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



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