

# DC2-250(2V250Ah)



## Specification

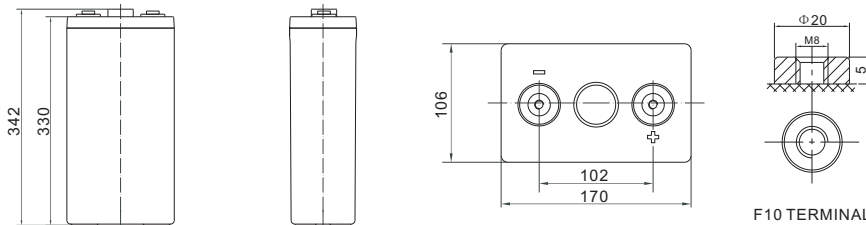


DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer 30% 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.



Cells Per Unit	1
Voltage Per Unit	2
Capacity	250Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 15.1 Kg (Tolerance ±3%)
Internal Resistance	Approx. 0.76 mΩ
Terminal	F10(M8)
Max. Discharge Current	1250A (5 sec)
Design Life	20 years (floating charge)
Max. Charging Current	50.0 A
Reference Capacity	C1 152.7Ah C3 193.5Ah C5 218.1Ah C10 250.0Ah
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.

## Dimensions



Length	170±2mm (6.69 inches)
Width	106±2mm (4.17 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

F10 TERMINAL

Unit: mm

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	384.6	244.3	152.7	94.07	70.51	56.76	47.17	31.70	26.37
1.65V	360.3	234.5	147.5	91.06	68.34	55.22	45.94	31.34	26.05
1.70V	337.5	224.1	142.7	88.06	66.48	53.72	44.75	30.86	25.66
1.75V	314.0	214.2	137.5	84.99	64.50	52.35	43.62	30.43	25.32
1.80V	290.0	204.8	132.2	81.94	62.50	50.84	42.50	29.91	25.00
1.85V	240.6	176.4	118.6	75.08	57.78	47.26	39.63	28.08	23.53

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

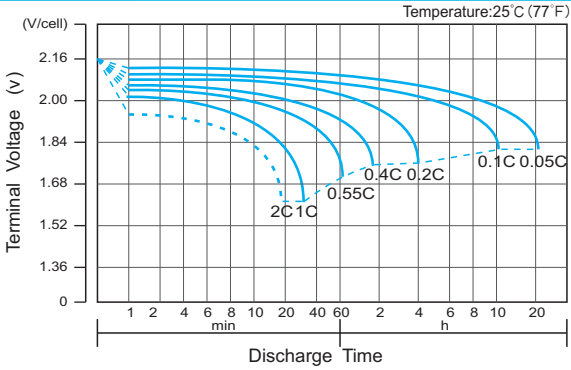
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	672.3	443.6	287.0	178.3	134.7	109.0	90.92	61.90	51.84
1.65V	639.2	430.4	278.8	173.4	131.1	106.4	88.89	61.34	51.28
1.70V	607.6	415.5	271.4	168.6	128.1	103.9	86.88	60.53	50.58
1.75V	573.7	401.2	263.1	163.5	124.8	101.6	84.98	59.81	49.97
1.80V	537.2	387.4	254.5	158.4	121.4	99.07	83.09	58.92	49.40
1.85V	452.1	336.9	229.6	146.0	112.7	92.44	77.74	55.45	46.57

(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.

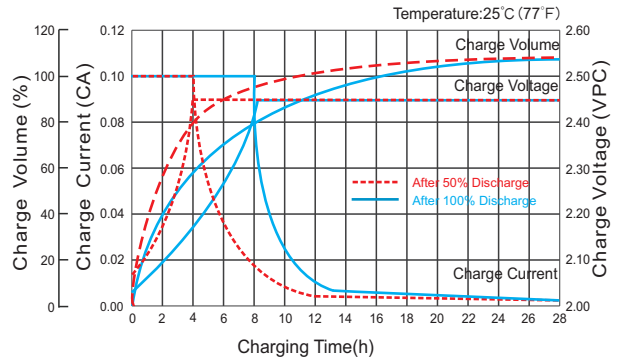
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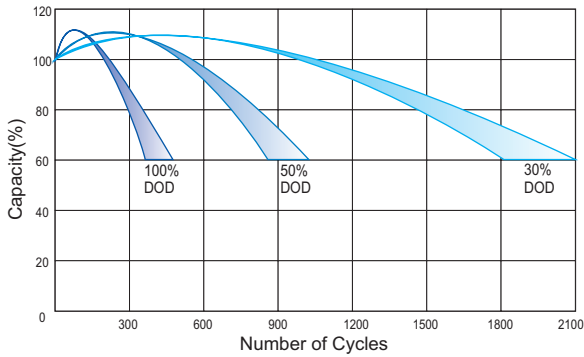
## Discharge Characteristics Curve



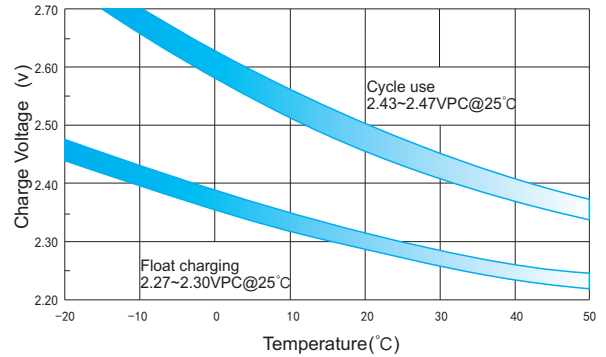
## Charge Characteristic Curve for Cycle Use(IU)



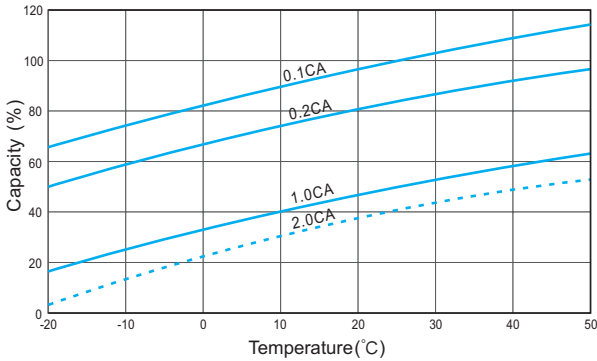
## Cycle Life in Relation to Depth of Discharge



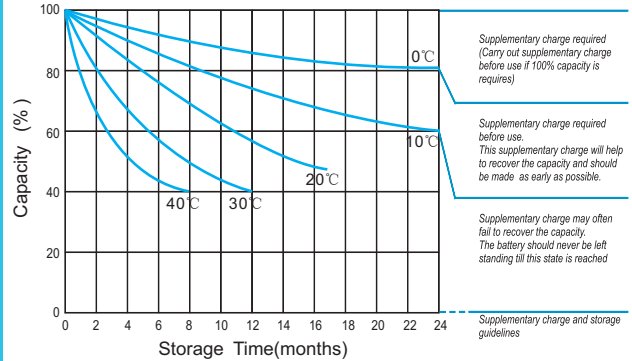
## Relationship Between Charging Voltage and Temperature



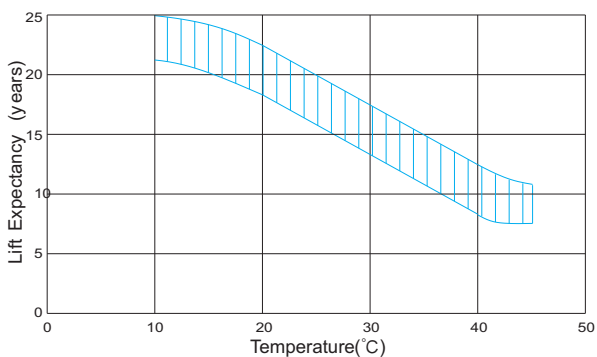
## Temperature Effects on Capacity



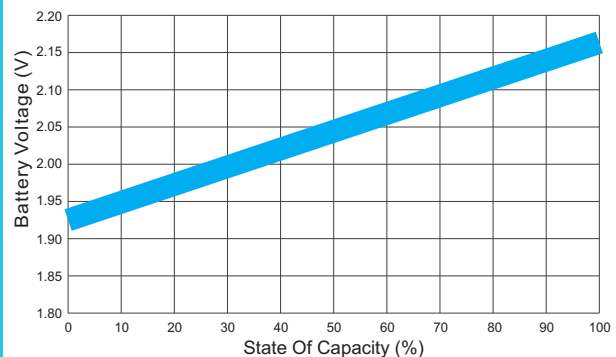
## Storage Characteristics



## Effect of Temperature on Long Term Life



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



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