

DC2-450(2V450Ah)



Specification

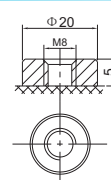
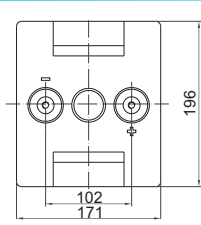
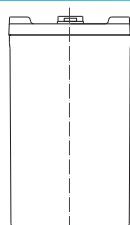
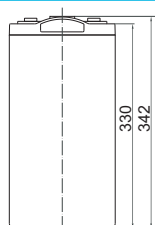


DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer 30% 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	450Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 27.0 Kg (Tolerance ±3%)
Internal Resistance	Approx. 0.67 mΩ
Terminal	F10(M8)
Max. Discharge Current	2250A (5 sec)
Design Life	20 years (floating charge)
Max. Charging Current	90.0 A
Reference Capacity	C1 274.9Ah C3 348.3Ah C5 392.6Ah C10 450.0Ah
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



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	692.2	439.7	274.9	169.3	126.9	102.2	84.90	57.05	47.47
1.65V	648.5	422.1	265.5	163.9	123.0	99.40	82.69	56.42	46.89
1.70V	607.4	403.4	256.9	158.5	119.7	96.70	80.54	55.54	46.19
1.75V	565.3	385.6	247.5	153.0	116.1	94.22	78.52	54.78	45.58
1.80V	521.9	368.6	238.0	147.5	112.5	91.52	76.49	53.84	45.00
1.85V	433.1	317.4	213.5	135.1	104.0	85.06	71.33	50.55	42.36

Constant Power Discharge Characteristics : WPC(25°C)

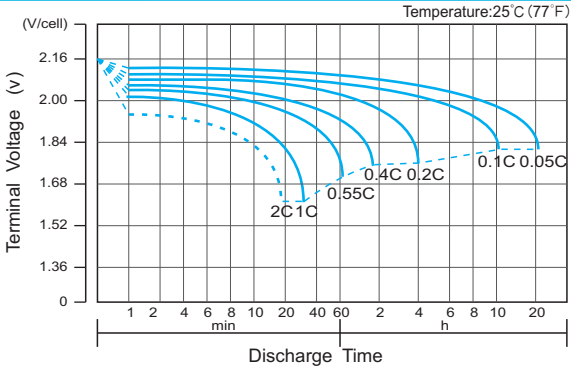
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	1210	798.6	516.7	320.9	242.4	196.1	163.6	111.4	93.32
1.65V	1151	774.7	501.8	312.2	235.9	191.6	160.0	110.4	92.31
1.70V	1094	747.9	488.5	303.6	230.5	187.0	156.4	109.0	91.04
1.75V	1033	722.2	473.5	294.3	224.6	183.0	153.0	107.7	89.95
1.80V	967.0	697.2	458.1	285.2	218.5	178.3	149.6	106.1	88.92
1.85V	813.8	606.5	413.4	262.7	202.9	166.4	139.9	99.80	83.83

(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 C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

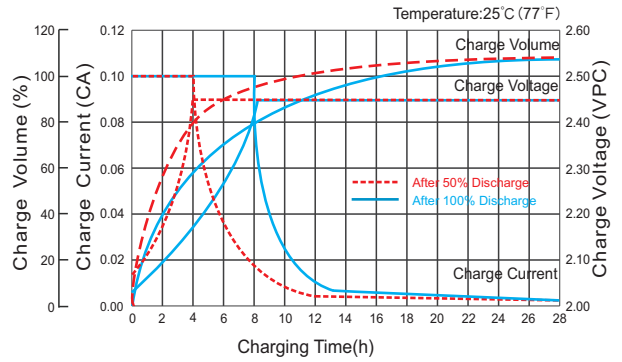
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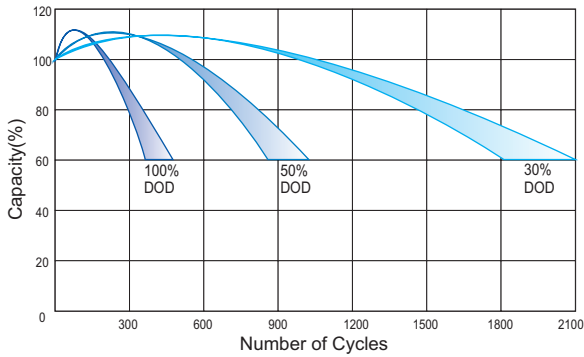
Discharge Characteristics Curve



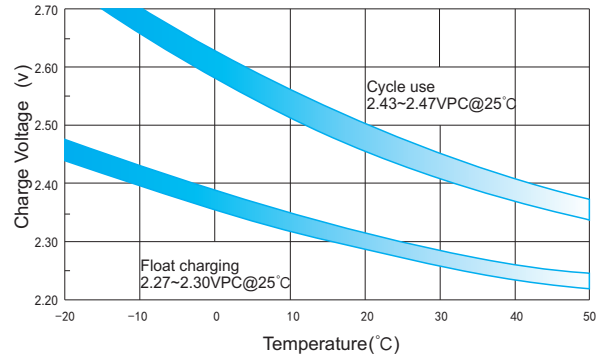
Charge Characteristic Curve for Cycle Use(IU)



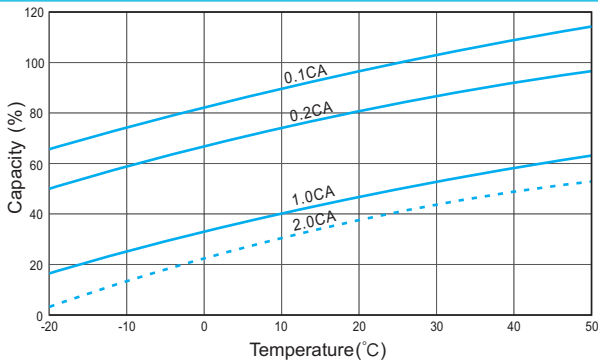
Cycle Life in Relation to Depth of Discharge



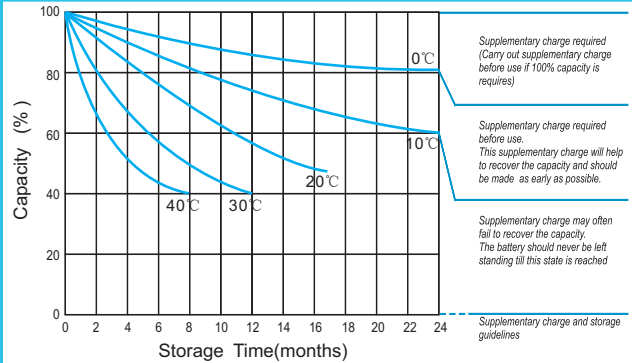
Relationship Between Charging Voltage and Temperature



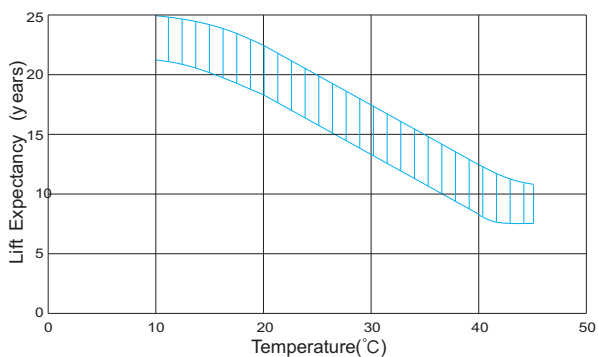
Temperature Effects on Capacity



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.