

DC12-120S(12V110Ah)



Specification

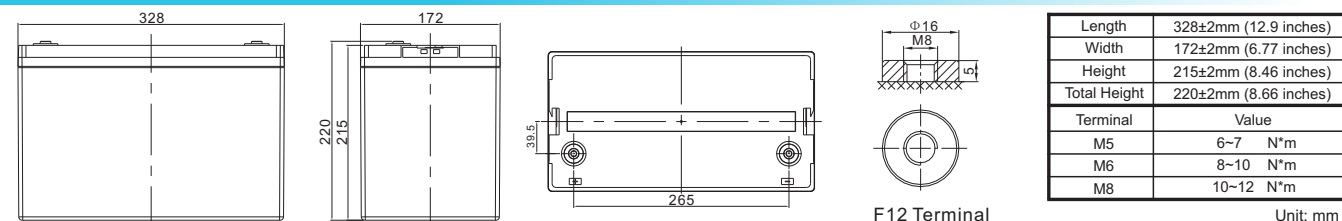


DC (Deep Cycle) series AGM batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharging. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series AGM batteries offer 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment and cable TV etc.



Cells Per Unit	6
Voltage Per Unit	12V
Capacity	110Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 30.0 Kg (Tolerance ±5%)
Internal Resistance	≤5.0 mΩ (Full Charge Condition @25°C)
Terminal	Default F12(M8), F5(M8) & L7 Optional)
Max. Discharge Current	1100A (5 sec)
Design Life	12 years
Max. Charging Current	33.0 A
Reference Capacity	C ₃ 82.5Ah C ₅ 93.5Ah C ₁₀ 104.8Ah C ₂₀ 110.0Ah
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 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 charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



Constant Current Discharge Characteristics : A(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	246.1	195.6	118.6	66.81	39.79	30.99	24.31	20.68	13.26	11.00	5.701
1.65V	226.7	182.9	112.3	64.53	38.45	30.04	23.58	20.03	13.16	10.90	5.670
1.70V	210.1	172.0	106.5	62.46	37.43	28.77	22.86	19.49	12.95	10.69	5.599
1.75V	192.8	161.1	102.3	60.50	35.99	28.03	22.23	18.95	12.74	10.58	5.500
1.80V	175.4	147.5	98.54	57.81	34.76	27.50	21.71	18.70	12.53	10.48	5.447
1.85V	137.3	122.1	83.55	51.61	31.79	25.60	20.36	17.21	11.80	9.848	5.396

Constant Power Discharge Characteristics : W/Cell (25°C)

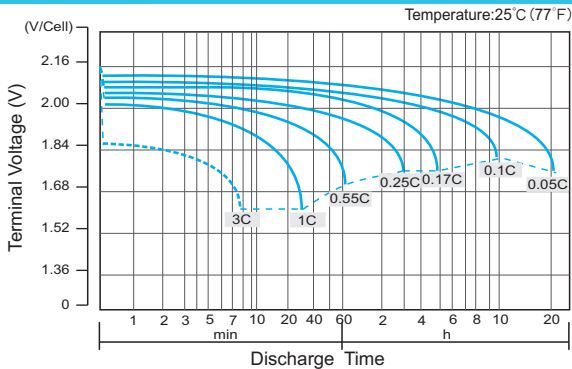
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	419.1	341.2	215.5	125.4	75.22	58.85	46.85	39.14	25.85	21.57	11.38
1.65V	403.6	331.7	210.4	123.3	73.19	57.38	45.71	38.08	25.64	21.37	11.28
1.70V	376.6	314.0	200.3	119.7	71.37	55.18	44.26	37.13	25.33	20.95	11.18
1.75V	350.5	296.3	193.3	116.3	68.83	53.82	43.22	36.29	24.92	20.74	10.97
1.80V	322.9	274.0	187.1	111.6	67.27	53.52	42.39	35.80	24.50	20.54	10.87
1.85V	256.2	230.2	160.4	100.2	61.94	49.92	39.89	33.11	23.16	19.39	10.77

(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 C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

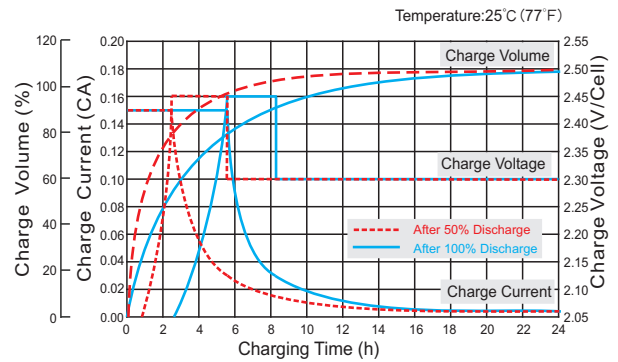
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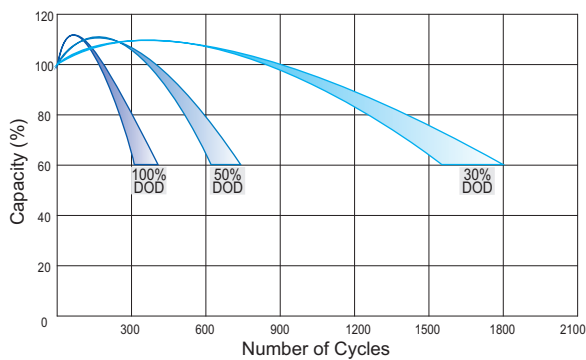
Discharge Characteristics Curve



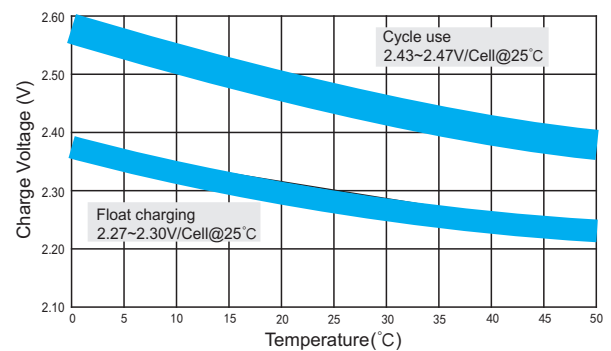
Charge Characteristic Curve for Cycle Use(IUU)



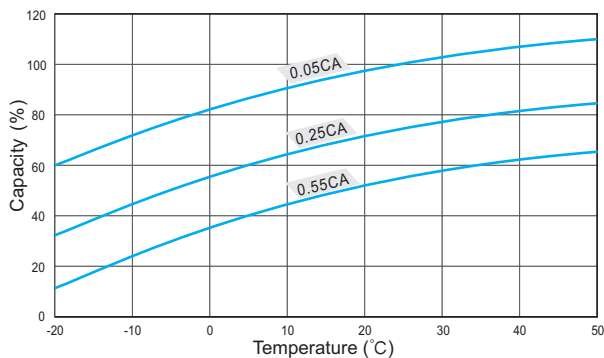
Cycle Life in Relation to Depth of Discharge



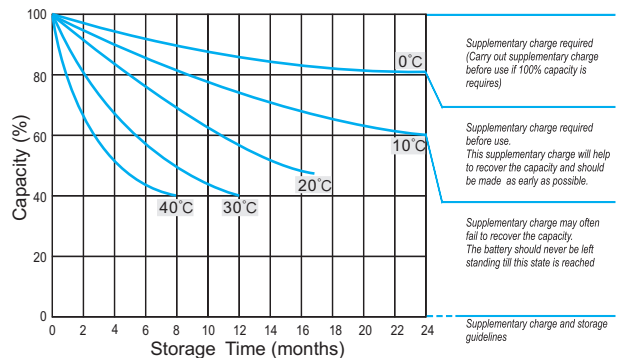
Relationship Between Charging Voltage and Temperature



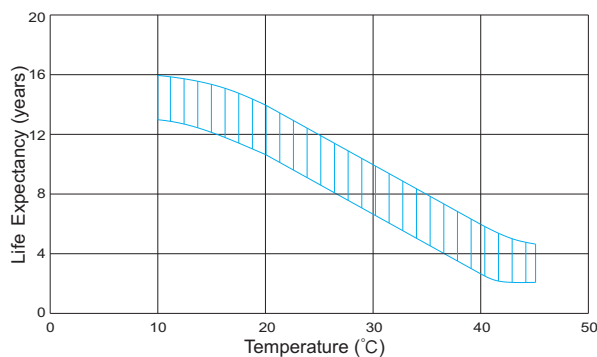
Temperature Effects on Capacity



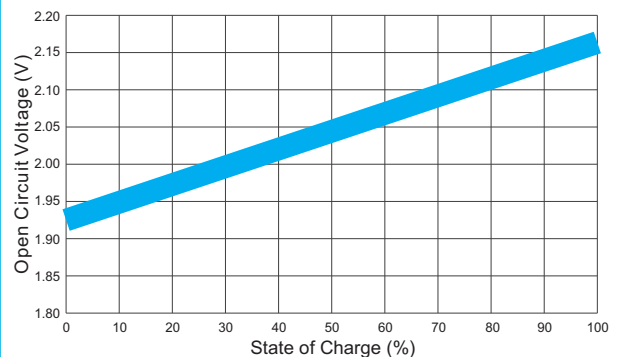
Storage Characteristics



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.