

DC12-33(12V33Ah)



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.



ISO 9001



ISO 14001



ISO 45001



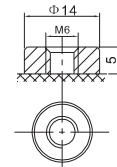
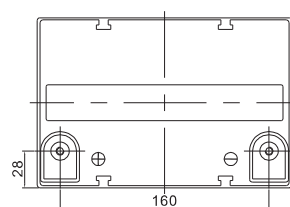
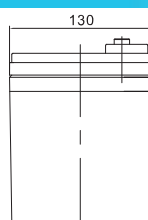
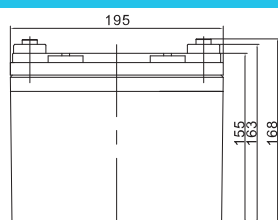
MH 28539



BSTXD210316008501EC

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	33Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 9.6 Kg (Tolerance ± 5%)
Internal Resistance	≤12.0mΩ (Full Charge Condition @25°C)
Terminal	Default F11(M6), F7(M8) Optional
Max. Discharge Current	330A (5 sec)
Design Life	12 years
Max. Charging Current	9.9 A
Reference Capacity	C ₃ 24.8Ah C ₅ 28.1Ah C ₁₀ 31.4Ah C ₂₀ 33.0Ah
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



F11 TERMINAL

Length	195±2mm (7.68 inches)
Width	130±2mm (5.12 inches)
Height	155±2mm (6.10 inches)
Total Height	168±2mm (6.61 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	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	111.0	83.8	63.0	36.9	20.2	12.0	9.31	7.31	6.22	4.09	3.31	1.72
1.65V	107.0	79.2	60.2	35.4	19.5	11.6	9.02	7.12	6.06	4.05	3.27	1.69
1.70V	101.8	72.9	56.4	33.8	18.8	11.2	8.77	6.92	5.91	3.98	3.22	1.67
1.75V	95.1	66.7	52.5	32.3	18.1	10.8	8.51	6.75	5.76	3.93	3.18	1.65
1.80V	86.6	60.4	48.5	30.9	17.5	10.4	8.25	6.55	5.61	3.86	3.14	1.63
1.85V	76.2	49.3	40.2	26.6	15.7	9.54	7.63	6.09	5.23	3.62	2.95	1.55

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

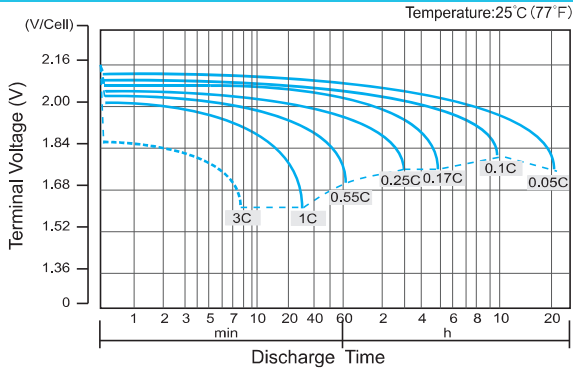
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	191.1	142.4	110.2	67.0	37.9	22.7	17.8	14.0	12.0	7.99	6.50	3.38
1.65V	189.0	137.1	106.9	64.9	36.8	22.0	17.3	13.7	11.7	7.92	6.43	3.33
1.70V	181.8	128.6	101.6	62.7	35.8	21.4	16.9	13.4	11.5	7.81	6.34	3.30
1.75V	172.9	119.8	95.9	60.5	34.7	20.8	16.5	13.1	11.2	7.72	6.27	3.26
1.80V	160.3	110.3	89.8	58.5	33.6	20.1	16.0	12.8	11.0	7.61	6.19	3.23
1.85V	143.6	91.8	75.6	50.8	30.3	18.6	14.9	11.9	10.3	7.16	5.84	3.07

(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.

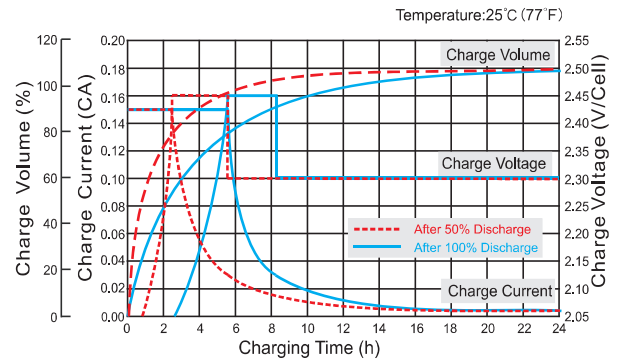
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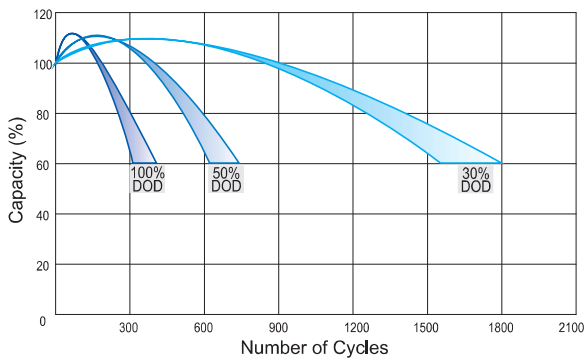
Discharge Characteristics Curve



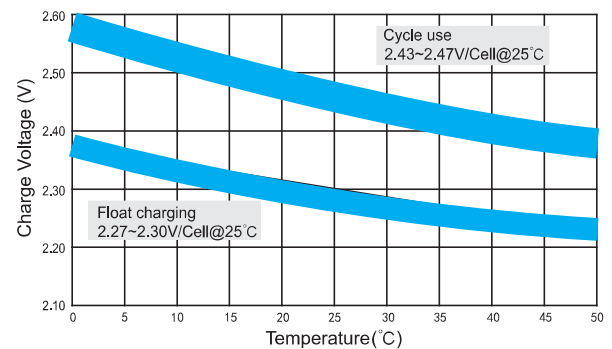
Charge Characteristic Curve for Cycle Use(IUU)



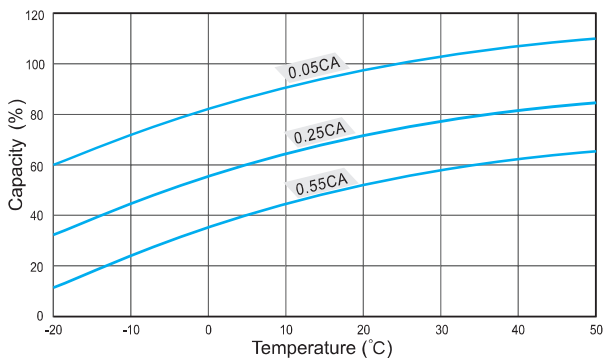
Cycle Life in Relation to Depth of Discharge



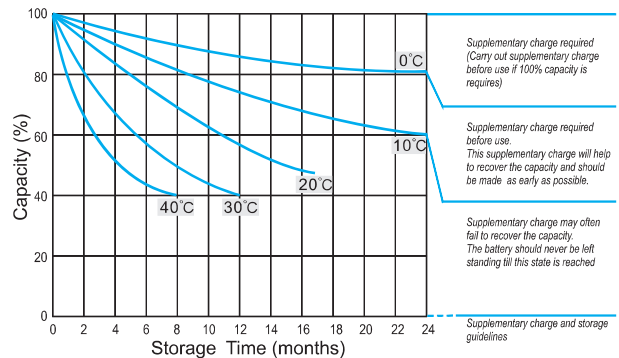
Relationship Between Charging Voltage and Temperature



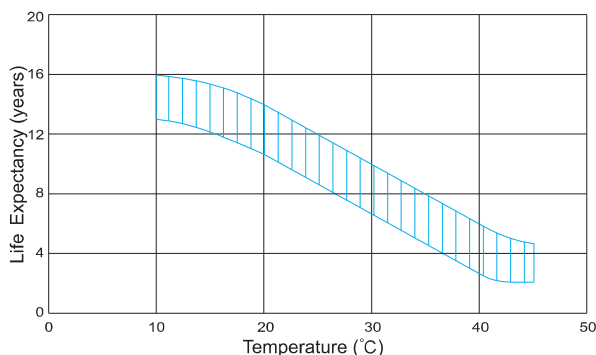
Temperature Effects on Capacity



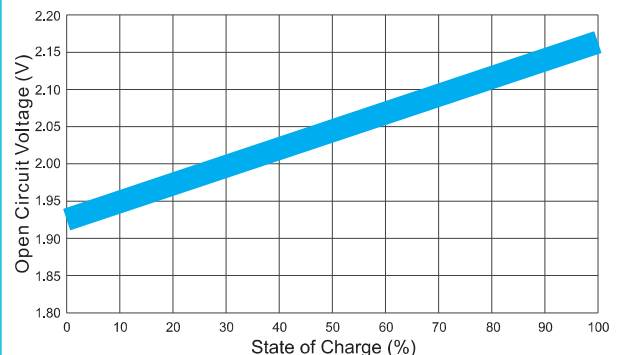
Storage Characteristics



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.