



RA12-80D (12V80Ah)

RA12-80D is AGM Deep cycle battery with 10 years floating design life, specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, it makes battery have 30% more cyclic life time than standby series. It is applicable for solar energy system, golf cart, electric wheelchair, etc..



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	80Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 24.0 Kg
Max. Discharge Current	800 A (5 sec)
Internal Resistance	Approx. 5.5 mΩ
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
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	24A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F5/F11
Container Material	A.B.S. (UL94-HB) , Flammability resistance of UL94-V1 can be available upon request.



MH28539



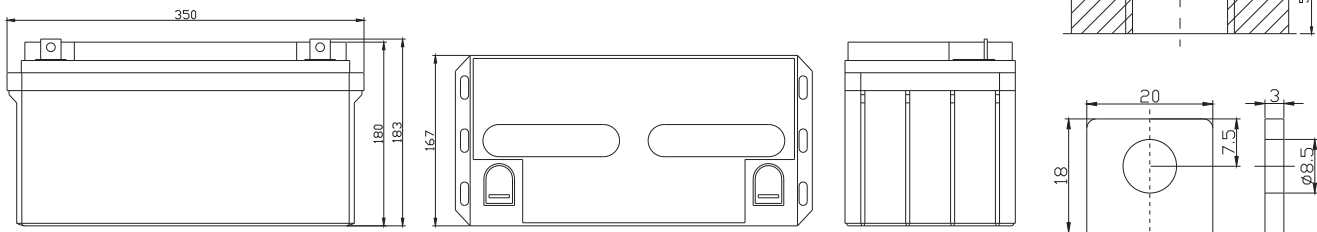
G4M20206-0910-E-16



ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 350(L)×167(W)×180(H)



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	268.0	197.4	153.8	93.8	52.0	31.1	21.5	17.8	15.0	10.2	8.48	4.53
10.0V	260.3	187.8	150.7	92.1	51.8	30.9	21.4	17.7	14.9	10.1	8.40	4.44
10.2V	252.6	181.2	148.3	90.4	51.3	30.6	21.2	17.6	14.8	10.1	8.32	4.36
10.5V	226.8	167.2	141.2	89.7	50.8	30.4	21.1	17.5	14.6	10.0	8.24	4.28
10.8V	204.7	152.4	130.2	88.2	49.6	29.9	20.6	17.0	14.4	9.8	8.16	4.20
11.1V	174.8	136.2	116.8	82.6	47.1	28.5	19.7	16.2	13.7	9.4	7.91	3.95

Constant Power Discharge Characteristics: W (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	2828	2102	1677	1052	601	367	256	212	179	122	101	54.3
10.0V	2772	2037	1650	1039	599	365	256	212	178	122	101	53.3
10.2V	2741	1984	1632	1032	595	362	255	211	178	121	100	52.4
10.5V	2495	1847	1556	1025	589	360	254	209	175	120	99	51.4
10.8V	2272	1703	1439	1008	579	355	247	205	172	118	98	50.4
11.1V	1996	1539	1295	950	554	342	236	195	165	113	95	47.4

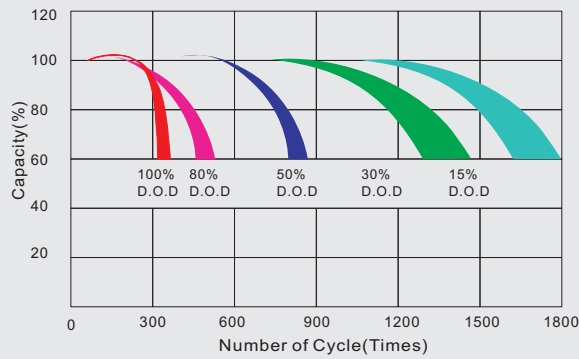
All mentioned values are average values.

RA12-80D

12V80Ah



Life characteristics of cyclic use



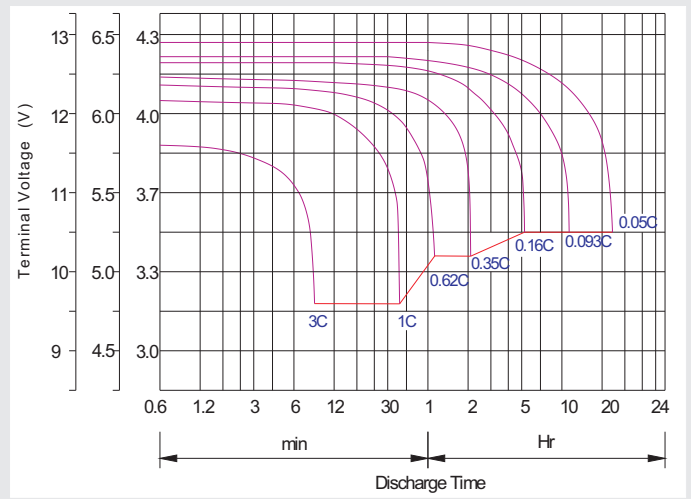
Storage characteristic



Charge characteristic curve for cyclic use



Discharge characteristic curve



Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Maintenance & Cautions

Cycle service
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.1-1.15 times discharge capacity.
※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
Generally speaking, the most important factors is depth of discharge.

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h