RA12-160 (12V160Ah)

RITAR®

RA12-160 is a general purpose battery with 10 years floating design life, meet with IEC, JIS .BS and Eurobat standard. With heavy duty grid, thickness plates, special additives, RA series battery have long and reliable standby service life. Our RA Series batteries keep high consistent for better performance in series usage.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	160Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 53.0 Kg
Max. Discharge Current	1600A (5 sec)
Internal Resistance	Approx. 4.5 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	48A
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 F16/F12
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.

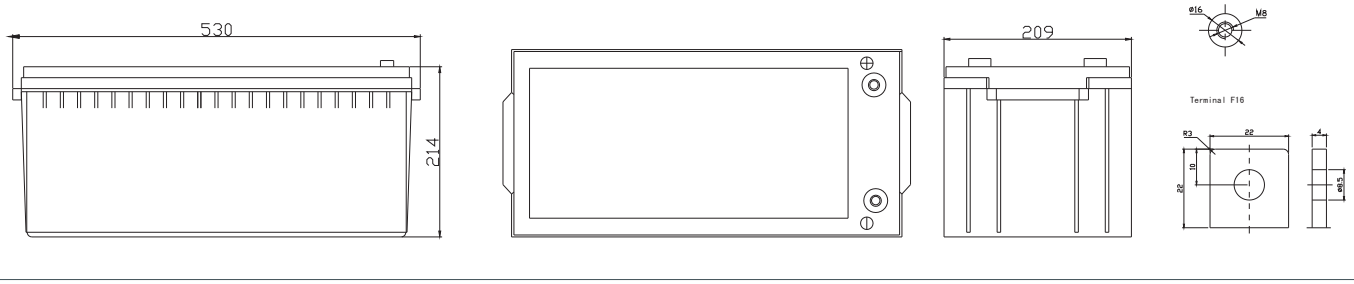
MH28539

G4M20206-0910-E-16

ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 530(L)×209(W)×214(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	461.7	344.8	290.3	180.3	104.0	62.23	43.01	35.25	28.85	19.87	16.80	9.243
10.0V	448.4	328.1	284.3	177.3	103.5	61.76	42.85	35.09	28.68	19.71	16.64	9.075
10.2V	435.1	316.5	279.8	175.7	102.6	61.29	42.52	34.92	28.51	19.55	16.48	8.907
10.5V	390.7	292.1	266.4	171.3	101.6	60.83	42.35	34.60	28.17	19.39	16.32	8.738
10.8V	352.7	266.3	245.6	163.8	99.20	59.74	41.20	33.78	27.67	19.07	16.16	8.570
11.1V	301.1	238.0	220.3	153.5	94.24	57.08	39.39	32.15	26.48	18.26	15.67	8.066

Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	4776	3672	3193	2055	1202	733.5	511.9	420.2	344.2	237.3	200.8	110.8
10.0V	4682	3560	3142	2030	1199	729.6	512.0	419.7	343.3	236.2	199.6	108.9
10.2V	4628	3466	3106	2015	1190	725.2	509.8	418.7	342.2	234.6	197.8	106.9
10.5V	4214	3227	2963	1969	1179	719.9	507.8	414.8	338.1	232.7	195.8	104.9
10.8V	3838	2975	2739	1887	1157	710.8	494.0	405.4	332.0	228.8	193.9	102.8
11.1V	3371	2690	2465	1772	1108	684.4	472.6	385.8	317.7	219.1	188.1	96.8

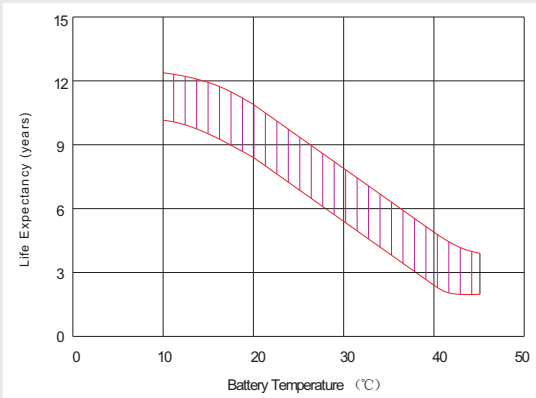
All mentioned values are average values.

RA12-160

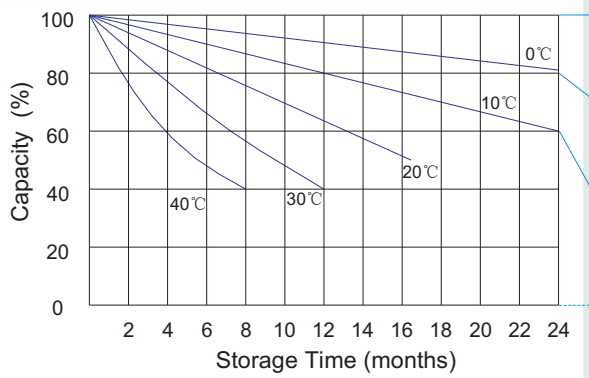
12V160Ah

RITAR®

Effect of temperature on long term float life



Storage characteristic



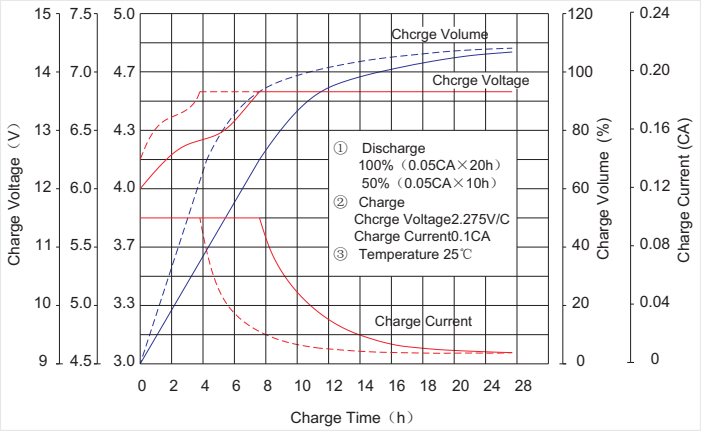
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

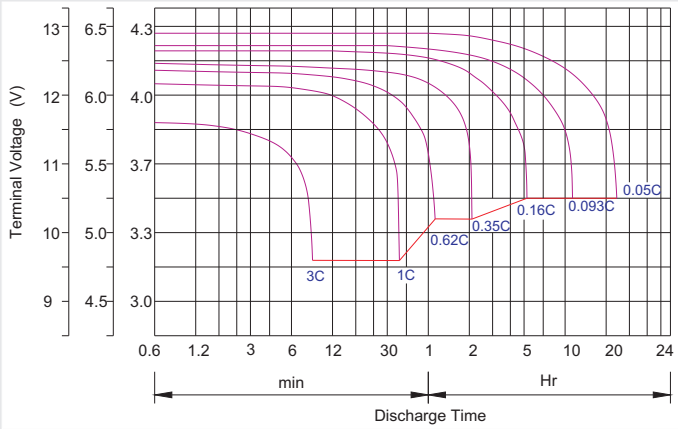
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
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

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

Maintenance & Cautions

Float Service:

※ Every month, recommend inspection every battery voltage.

※ Every three months, recommend equalization charge for one time.

Equalization charge method:

Discharge: 100% rate capacity discharge.

Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.

※ Effect of temperature on float charge voltage: -3mV/℃/Cell.

※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

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