



RA12-180 (12V180Ah)

RA12-180 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	180Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx.54.0 Kg
Max. Discharge Current	1800A (5 sec)
Internal Resistance	Approx. 4mΩ
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	54 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR 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 F12
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



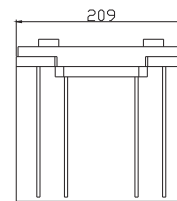
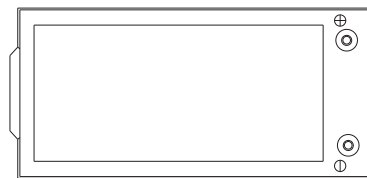
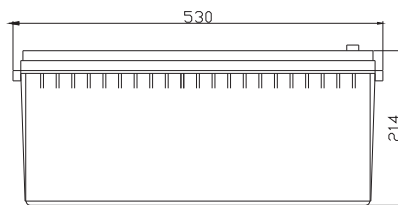
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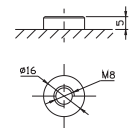
ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 530(L)×209(W)×214(H)



Terminal F12



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	626.88	463.10	336.96	207.00	117.00	65.356	46.980	38.880	31.824	22.359	18.905	9.9980
10.0V	610.12	440.64	330.05	203.58	116.46	64.865	46.800	38.700	31.637	22.177	18.724	9.8162
10.2V	574.92	425.09	324.86	201.78	115.38	64.373	46.440	38.520	31.450	21.996	18.542	9.6345
10.5V	516.26	392.26	309.31	196.74	114.30	63.882	46.260	38.160	31.075	21.814	18.360	9.4527
10.8V	480.38	357.70	285.12	188.10	111.60	62.735	45.000	37.260	30.514	21.450	18.178	9.2709
11.1V	418.18	319.68	255.74	176.22	106.02	59.951	43.020	35.460	29.203	20.541	17.633	8.7255

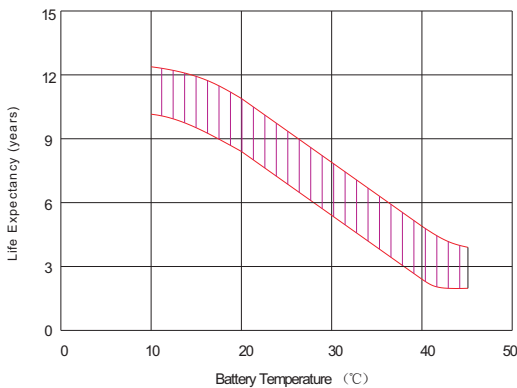
Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	5970.5	4501.0	3314.0	2336.0	1338.1	751.84	542.16	449.28	368.41	259.46	212.58	112.29
10.0V	5848.5	4299.0	3245.1	2306.9	1331.6	748.89	541.08	448.20	366.16	258.37	210.40	111.20
10.2V	5520.9	4155.8	3201.1	2279.9	1321.9	742.01	537.84	446.04	365.04	256.19	209.31	110.11
10.5V	4971.4	3840.0	3052.4	2228.0	1309.0	735.13	534.60	442.80	361.67	254.01	207.13	109.02
10.8V	4610.2	3486.6	2804.5	2126.5	1276.6	724.32	521.64	430.92	356.05	248.55	204.95	107.93
11.1V	3979.5	3096.4	2504.3	1992.6	1209.6	690.91	495.72	410.40	338.08	239.83	198.41	103.56

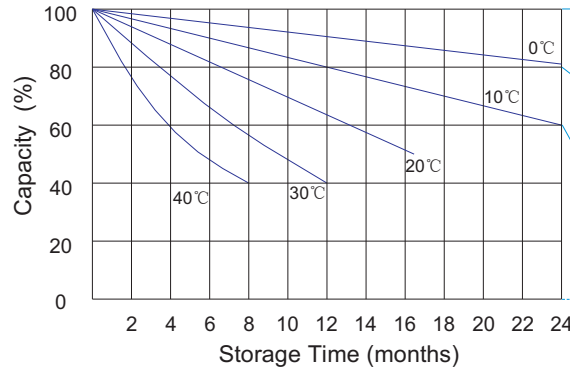
All mentioned values are average values.



Effect of temperature on long term float life



Storage characteristic



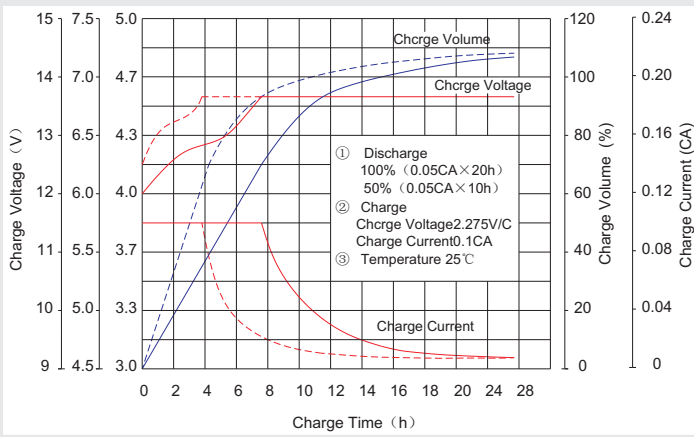
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

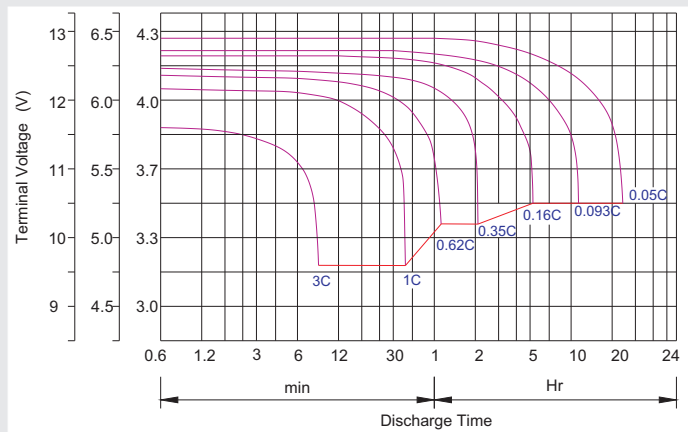
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20°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

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