



RA6-180 (6V180Ah)

RA6-180 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	3
Voltage Per Unit	6
Capacity	180Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 26.5 Kg
Max. Discharge Current	1800A (5 sec)
Internal Resistance	Approx. 3 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	6.8 to 6.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	54 A
Equalization and Cycle Service	7.3 to 7.4 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



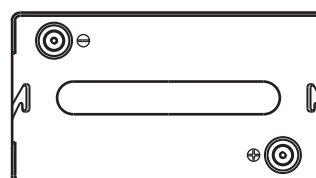
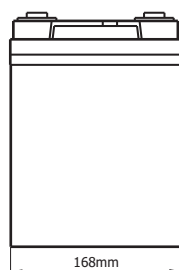
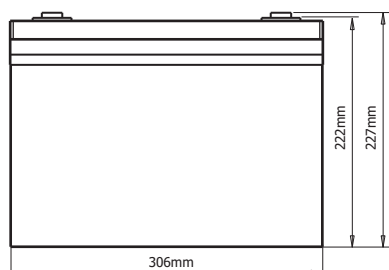
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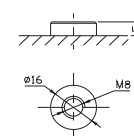
ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 306 (L) × 168 (W) × 222 (H)



Terminal F12



Constant Current Discharge Characteristics: A (25°C)

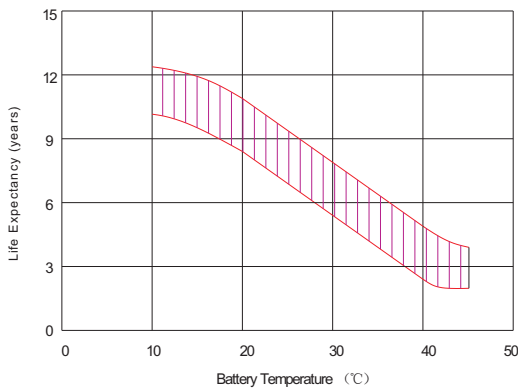
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
4.80V	519.5	387.9	320.0	202.8	117.0	70.01	48.39	39.66	32.46	22.36	18.91	10.40
5.00V	504.5	369.1	313.5	199.4	116.5	69.48	48.20	39.47	32.27	22.18	18.72	10.21
5.10V	489.5	356.1	308.5	197.7	115.4	68.96	47.83	39.29	32.08	22.00	18.54	10.02
5.25V	439.5	328.6	293.8	192.7	114.3	68.43	47.65	38.92	31.70	21.81	18.36	9.83
5.40V	396.7	299.6	270.8	184.3	111.6	67.20	46.35	38.01	31.12	21.45	18.18	9.64
5.55V	338.8	267.8	242.9	172.6	106.0	64.22	44.31	36.17	29.79	20.54	17.63	9.07

Constant Power Discharge Characteristics: W(25°C)

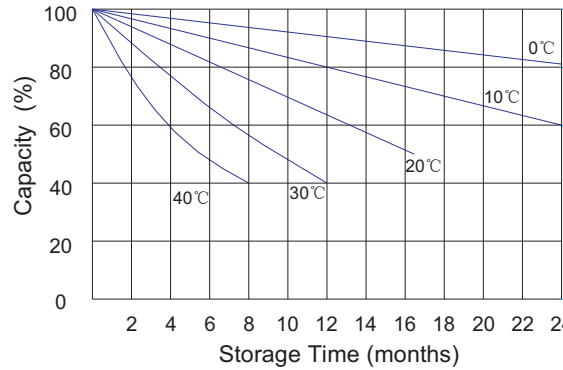
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
4.80V	2686	2066	1760	1156	676.0	412.6	287.9	236.4	193.6	133.5	113.0	62.34
5.00V	2634	2002	1732	1142	674.4	410.4	288.0	236.1	193.1	132.8	112.2	61.25
5.10V	2603	1949	1712	1134	669.2	407.9	286.8	235.5	192.5	132.0	111.3	60.12
5.25V	2370	1815	1633	1107	663.2	405.0	285.6	233.3	190.2	130.9	110.2	58.98
5.40V	2159	1673	1510	1061	650.9	399.8	277.9	228.0	186.7	128.7	109.1	57.85
5.55V	1896	1513	1359	997.0	623.1	385.0	265.9	217.0	178.7	123.2	105.8	54.45

All mentioned values are average values.

Effect of temperature on long term float life



Storage characteristic



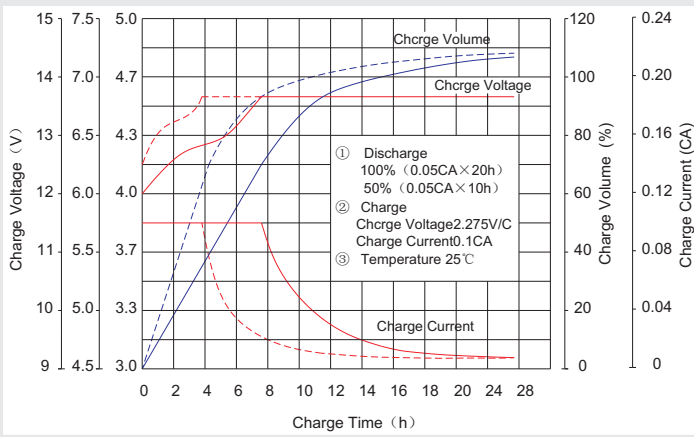
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

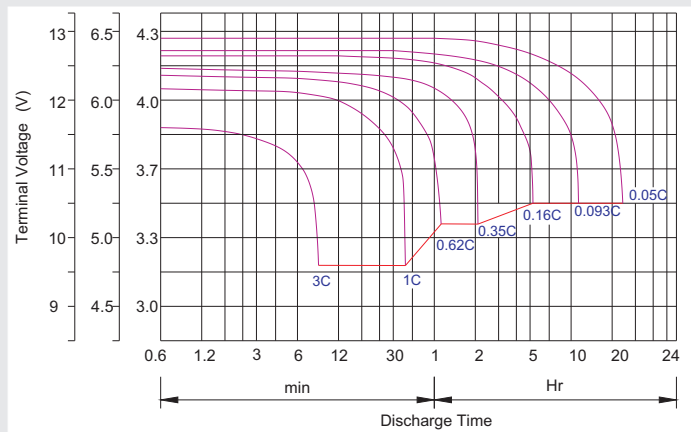
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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.