



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 1.80V per cell @25°C
Weight	Approx.53.0 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 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 F12/F16
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



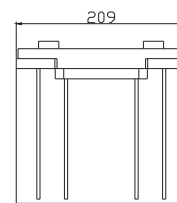
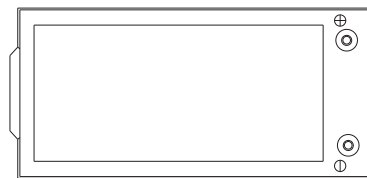
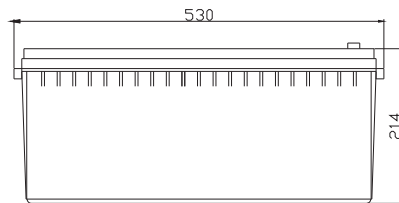
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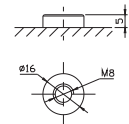
ISO9001:2000 Certificate

Dimensions

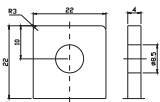
Unit: mm Dimension: 530(L)×209(W)×214(H)



Terminal F12



Terminal F16



Constant Current Discharge Characteristics: A (25°C)

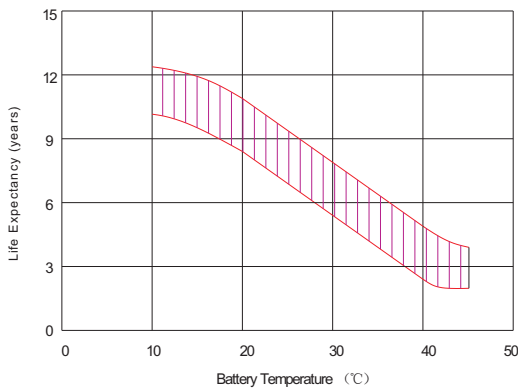
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	519.5	387.9	320.0	202.8	117.0	70.01	48.39	39.66	32.46	22.36	18.91	10.40
10.0V	504.5	369.1	313.5	199.4	116.5	69.48	48.20	39.47	32.27	22.18	18.72	10.21
10.2V	494.9	356.1	308.5	197.7	115.4	68.96	47.83	39.29	32.08	22.00	18.54	10.02
10.5V	454.2	328.6	293.8	192.7	114.3	68.43	47.65	38.92	31.70	21.81	18.36	9.83
10.8V	418.8	299.6	276.3	184.3	111.6	67.20	46.35	38.01	31.12	21.45	18.18	9.64
11.1V	376.4	267.8	247.8	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)

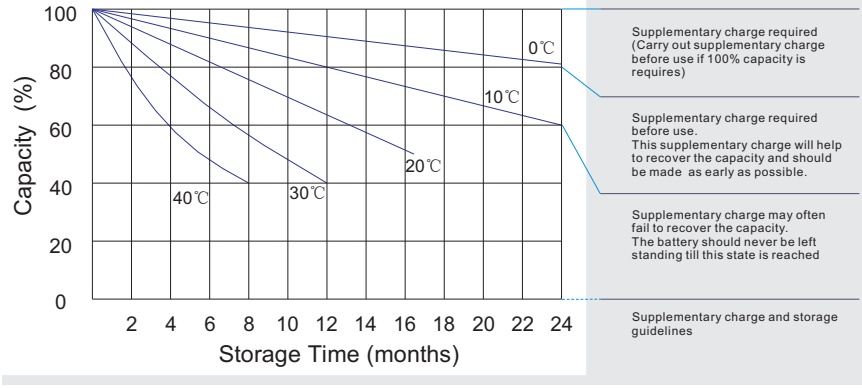
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	5373	4131	3520	2312	1352	825.2	575.8	472.7	387.3	267.0	225.9	124.7
10.0V	5267	4005	3464	2284	1349	820.8	576.0	472.1	386.3	265.7	224.5	122.5
10.2V	5265	3899	3425	2267	1338	815.9	573.5	471.1	384.9	263.9	222.5	120.2
10.5V	4898	3631	3267	2215	1326	809.9	571.3	466.7	380.4	261.8	220.3	118.0
10.8V	4557	3347	3081	2123	1302	799.6	555.7	456.1	373.5	257.4	218.1	115.7
11.1V	4214	3026	2773	1994	1246	769.9	531.7	434.0	357.4	246.5	211.6	108.9

All mentioned values are average values.

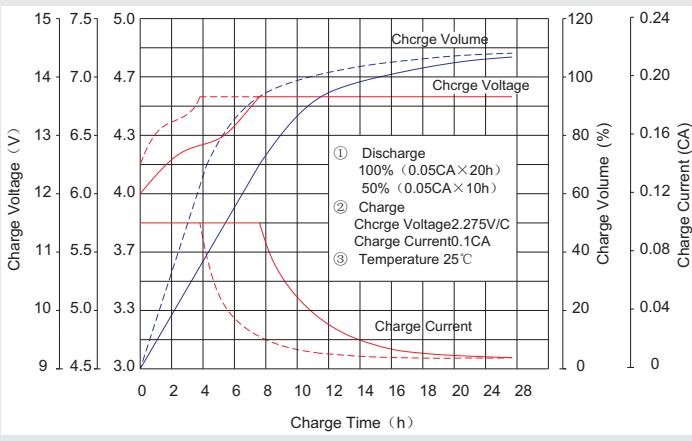
Effect of temperature on long term float life



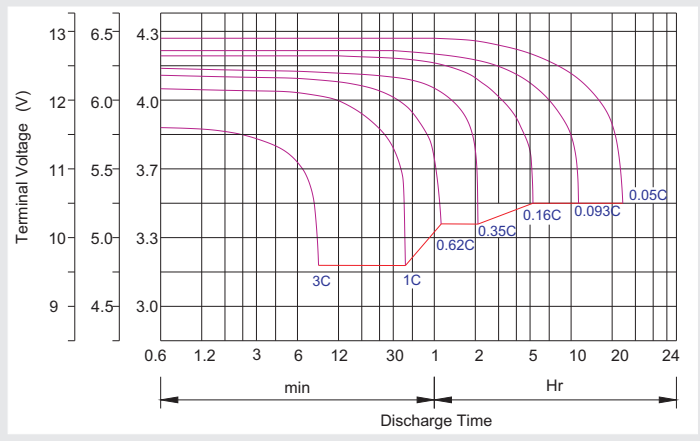
Storage characteristic



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.