



RA12-100 (12V100Ah)

RA12-100 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	100Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx.30.0 Kg
Max. Discharge Current	1000A (5 sec)
Internal Resistance	Approx. 5mΩ
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	30 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 F5/F12
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



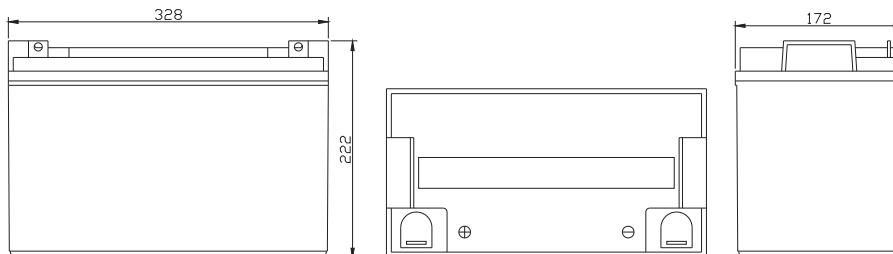
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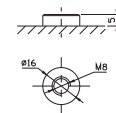
ISO9001:2000 Certificate

Dimensions

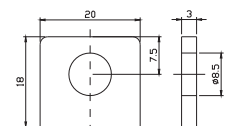
Unit: mm Dimension: 328(L)×172(W)×222(H)



Terminal F12



Terminal F5



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	349.44	257.28	187.20	115.00	65.000	36.309	26.100	21.600	17.680	12.422	10.503	5.5545
10.0V	339.34	244.80	183.36	113.10	64.700	36.036	26.000	21.500	17.576	12.321	10.402	5.4535
10.2V	329.28	236.16	180.48	112.10	64.100	35.763	25.800	21.400	17.472	12.220	10.301	5.3525
10.5V	295.68	217.92	171.84	109.30	63.500	35.490	25.700	21.200	17.264	12.119	10.200	5.2515
10.8V	266.88	198.72	158.40	104.50	62.000	34.853	25.000	20.700	16.952	11.917	10.099	5.1505
11.1V	232.32	177.60	142.08	97.900	58.900	33.306	23.900	19.700	16.224	11.412	9.7960	4.8475

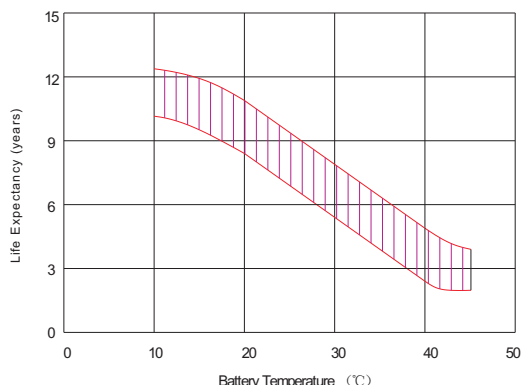
Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	3664.9	2735.9	2014.4	1232.9	743.40	417.69	301.20	249.60	204.67	144.14	118.10	62.381
10.0V	3566.9	2613.1	1972.5	1217.5	739.80	416.05	300.60	249.00	203.42	143.54	116.89	61.775
10.2V	3459.6	2526.1	1945.7	1203.3	734.40	412.23	298.80	247.80	202.80	142.33	116.28	61.170
10.5V	3115.3	2334.1	1855.4	1175.9	727.20	408.41	297.00	246.00	200.93	141.11	115.07	60.564
10.8V	2802.3	2119.3	1704.7	1122.3	709.20	402.40	289.80	239.40	197.81	138.09	113.86	59.958
11.1V	2418.9	1882.1	1522.2	1051.7	672.00	383.84	275.40	228.00	187.82	133.24	110.23	57.536

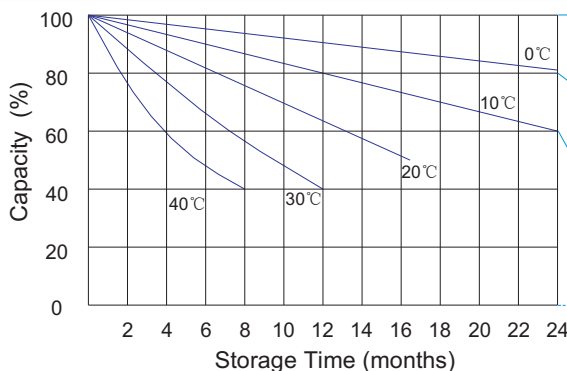
All mentioned values are average values.



Effect of temperature on long term float life



Storage characteristic



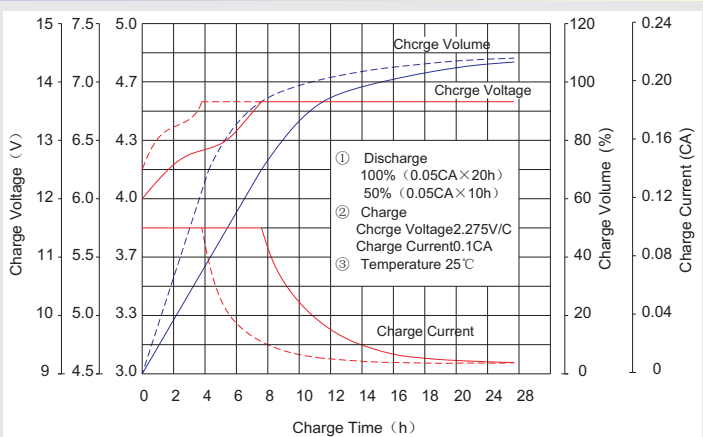
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

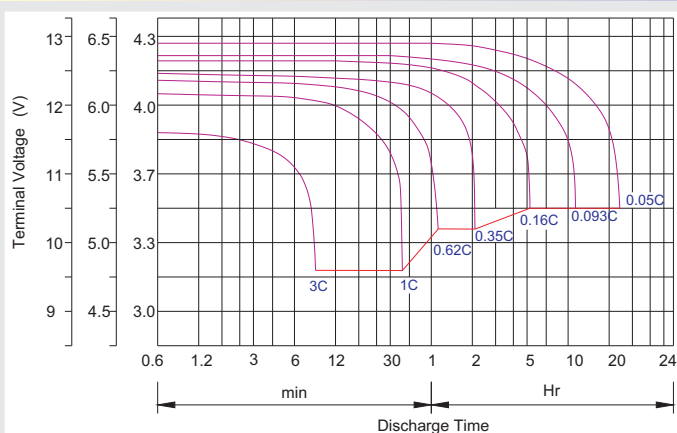
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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.