



RA 12-100H (12V100Ah) (392w/cell)

RA12-100H is high rate series with 10 years floating design life, especially designed for high rate load discharge applications. By using strong grid and specific paste plate to insure high performance during big current discharge requirement when electricity is off., High Rate series offering extra-durable stable performance under high rate discharge.



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	392 W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 32Kg
Max. Discharge Current	1000 A (5 sec)
Internal Resistance	Approx. 4 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	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
Constainer Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V2 can be available upon request.



MH28539



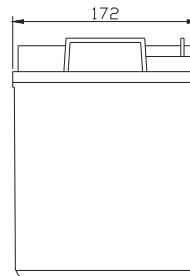
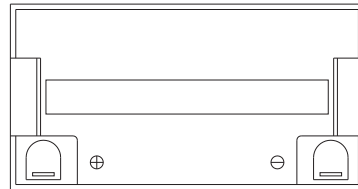
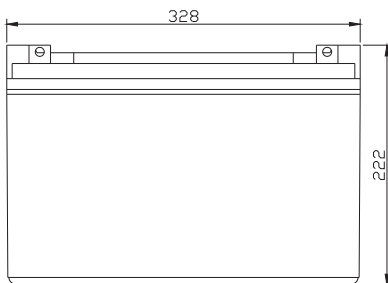
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ISO9001:2000 Certificate

Dimensions

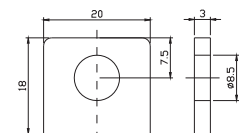
Unit: mm Dimension: 328(L)×172(W)×222(H)



Terminal F12



Terminal F5



Constant Current Discharge Characteristics : A(25 °C)

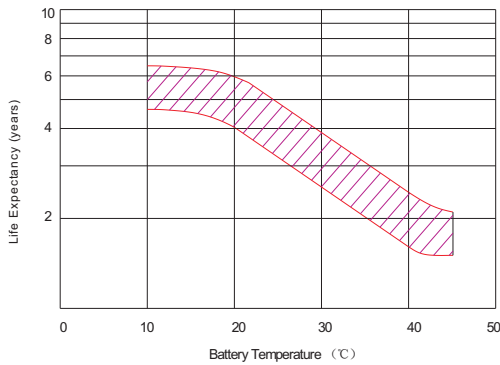
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	698.6	521.5	406.4	347.4	298.9	220.6	177.7	128.3	69.07	55.10
10.0V	651.1	487.6	379.4	329.1	282.7	211.1	167.4	123.5	66.50	53.20
10.2V	630.8	473.1	367.7	321.2	275.8	207.1	162.9	121.4	65.36	52.25
10.5V	598.0	448.6	355.6	309.2	262.3	199.9	160.5	119.5	65.17	51.59
10.8V	565.1	423.8	343.4	297.0	248.7	192.5	157.9	117.5	64.89	51.02
11.1V	532.3	399.2	331.3	284.9	235.3	185.4	155.5	115.6	64.51	50.35

Constant Power Discharge Characteristics : W(25 °C)

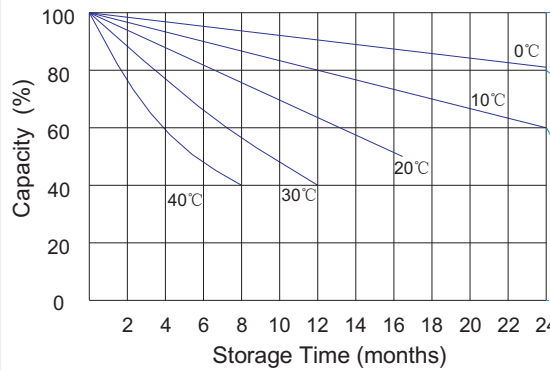
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	7518	5612	4373	3738	3211	2373	1942	1402	755.3	604.2
10.0V	7007	5247	4081	3541	3042	2272	1829	1350	726.8	580.8
10.2V	6789	5091	3957	3457	2967	2228	1780	1327	714.2	570.0
10.5V	6434	4826	3827	3326	2821	2150	1753	1306	711.4	564.3
10.8V	6081	4560	3696	3196	2675	2072	1726	1284	707.4	558.6
11.1V	5726	4295	3566	3067	2530	1994	1700	1262	704.5	552.9

All mentioned values are average values.

Effect of temperature on long term float life



Storage characteristic



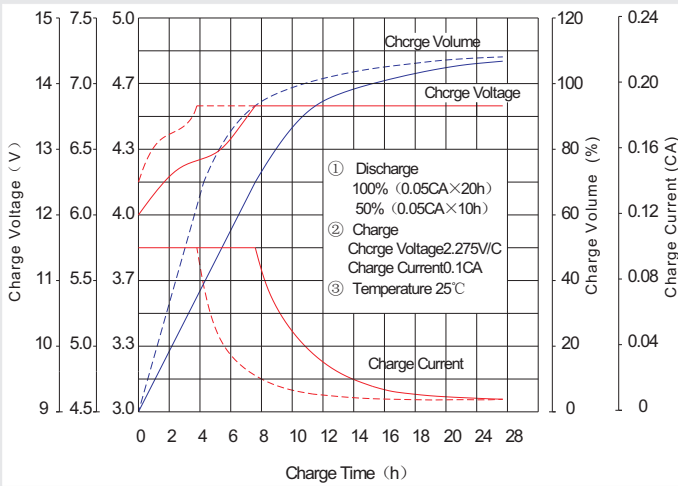
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

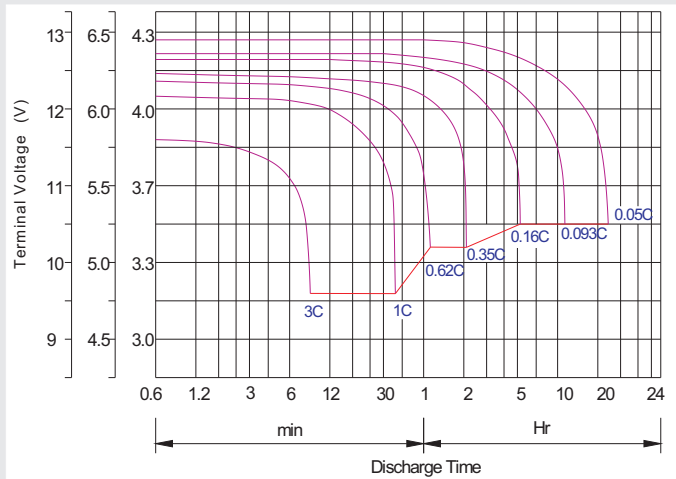
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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

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.

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h + 2.4~2.5V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h + 0.1CAx12h
Fast	-0.2Cx2h + 0.3CAx4.0h