



# RA 2-100 (2V100Ah)

RA2-100 is a general purpose VRLA 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	1
Voltage Per Unit	2
Capacity	100Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 6.5 Kg
Max. Discharge Current	500 A (5 sec)
Internal Resistance	Approx. 1 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	2.27 to 2.3 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	20 A
Equalization and Cycle Service	2.43 to 2.47 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	Thread insert & Bolt (F10)
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



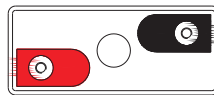
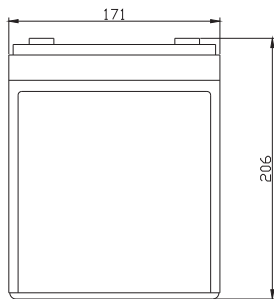
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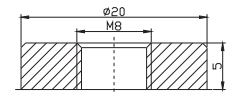
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 171 (L) × 72 (W) × 206 (H)



Terminal F10



## Constant Current Discharge Characteristics : A(25°C)

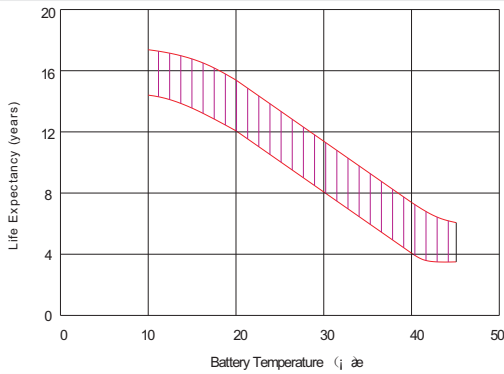
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	135.8	100.1	64.44	38.30	28.53	22.74	19.15	16.09	12.98	10.85
1.65V	129.1	96.14	61.65	36.91	27.33	21.95	18.35	15.70	12.40	10.67
1.70V	120.4	90.63	60.45	36.31	26.73	21.75	18.15	15.31	12.21	10.47
1.75V	106.9	81.56	55.66	34.31	25.34	20.55	17.36	14.54	11.82	10.28
1.80V	92.0	74.29	52.47	32.72	24.34	20.35	16.76	14.34	11.63	10.08
1.85V	77.8	66.88	48.48	30.92	23.14	18.75	15.96	13.57	11.05	9.40

## Constant Power Discharge Characteristics : W(25°C)

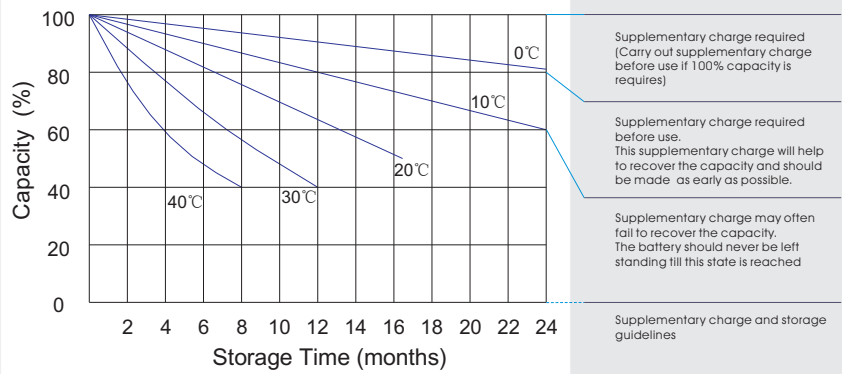
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	237.7	182.5	118.0	70.96	53.17	42.74	36.19	31.04	24.71	20.95
1.65V	231.5	181.5	117.6	69.93	52.12	42.10	35.79	30.64	24.50	20.76
1.70V	218.7	171.8	115.4	68.91	51.33	41.94	35.47	29.93	24.12	20.43
1.75V	194.8	154.8	106.3	65.23	49.49	39.83	33.98	28.45	23.36	20.11
1.80V	168.6	141.2	100.27	62.30	47.44	39.65	32.88	28.12	22.99	19.39
1.85V	143.8	127.3	92.68	58.97	45.19	36.73	31.37	26.64	21.84	18.67

All mentioned values are average values.

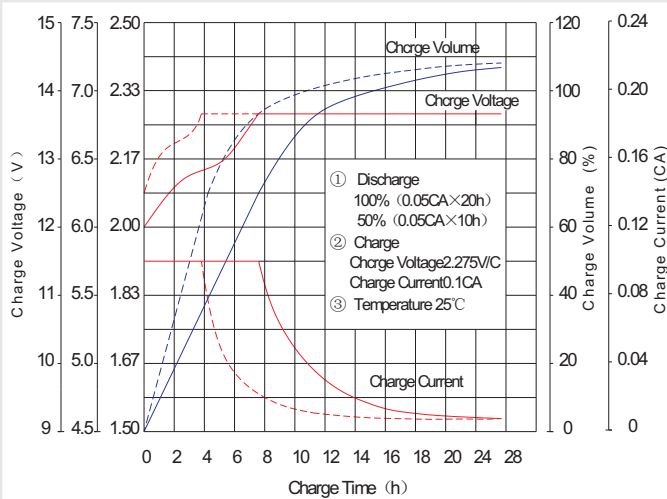
### Effect of temperature on long term float life



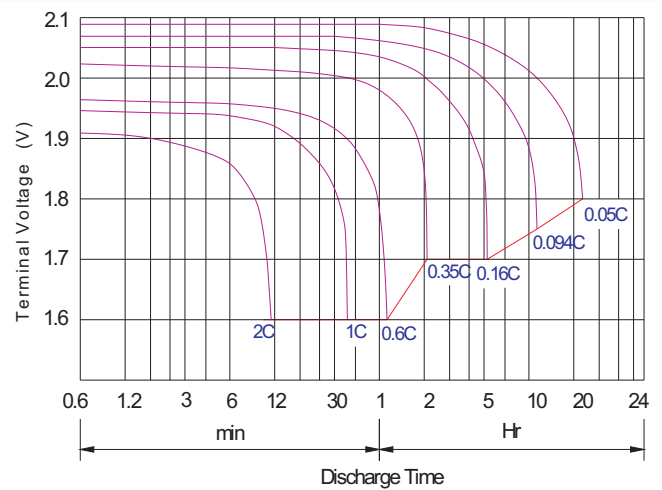
### Storage characteristic



### 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

### Maintenance & Cautions

<b>Float Service:</b>
※ Every month, recommend inspection every battery voltage.
※ Every three months, recommend equalization charge for one time.
<b>Equalization charge method:</b>
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+2.40~2.45V,24h,Max. Current 0.2CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h