



# RL 2200 (2V200Ah)

RL 2200 is a general purpose battery with 18 years floating design life. With heavy duty grid, thick plates, special additives, RL series battery maintain very long life time and stable performanc.



## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	200Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 14.0 Kg
Max. Discharge Current	1000 A (5 sec)
Internal Resistance	Approx. 0.8 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	40 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

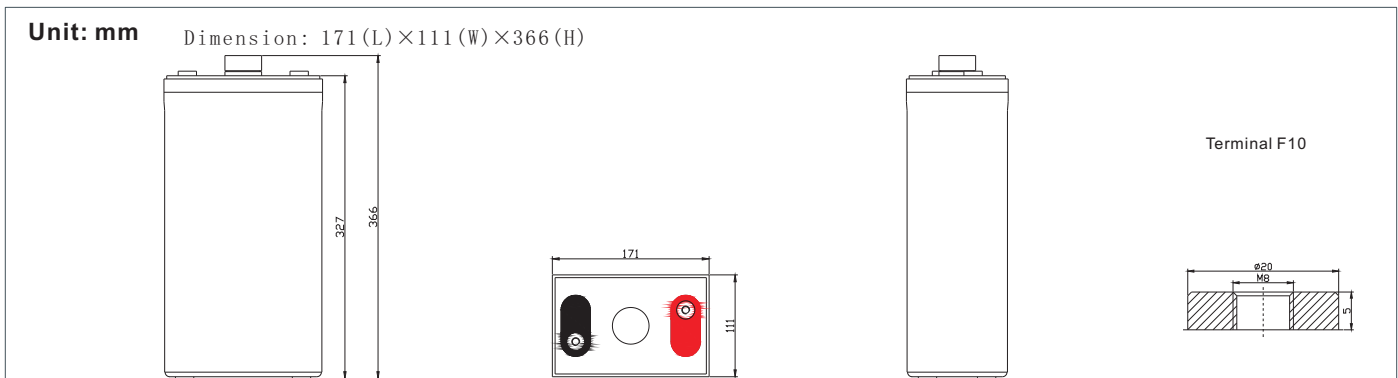


G4M20206-0910-E-16



ISO9001:2000 Certificate

## Dimensions



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

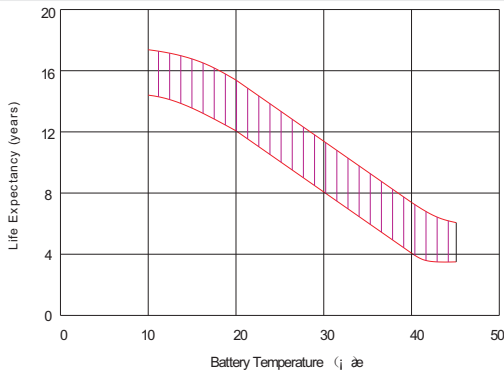
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	271.5	200.3	128.9	76.61	57.06	45.49	38.30	32.17	25.97	21.71
1.65V	258.2	192.3	123.3	73.82	54.66	43.89	36.71	31.40	24.81	21.33
1.70V	240.8	181.3	120.9	72.62	53.47	43.49	36.31	30.62	24.42	20.94
1.75V	213.8	163.1	111.3	68.63	50.67	41.10	34.71	29.07	23.64	20.56
1.80V	184.0	148.6	104.9	65.44	48.68	40.70	33.52	28.68	23.26	20.17
1.85V	155.6	133.8	96.96	61.85	46.28	37.51	31.92	27.13	22.09	18.80

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

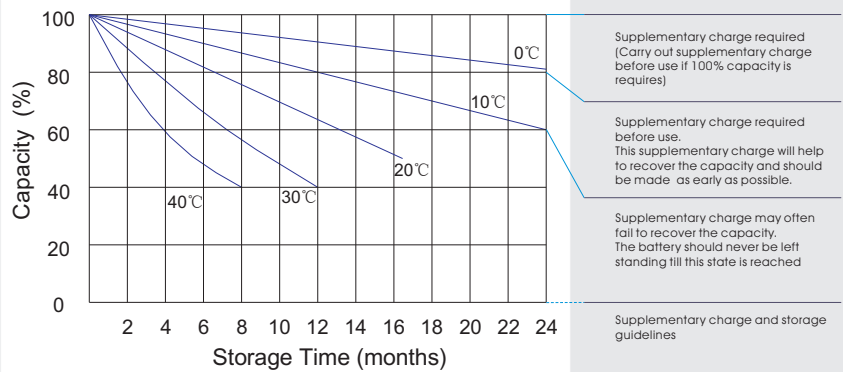
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	475.4	365.0	236.0	141.9	106.3	85.48	72.39	62.07	49.42	41.91
1.65V	462.9	363.0	235.2	139.9	104.2	84.21	71.57	61.28	49.00	41.51
1.70V	437.3	343.6	230.9	137.8	102.7	83.88	70.94	59.85	48.25	40.86
1.75V	389.5	309.6	212.7	130.5	98.97	79.67	67.96	56.91	46.73	40.21
1.80V	337.2	282.5	200.5	124.6	94.88	79.30	65.75	56.23	45.97	38.78
1.85V	287.5	254.7	185.4	117.9	90.38	73.46	62.75	53.27	43.68	37.34

All mentioned values are average values.

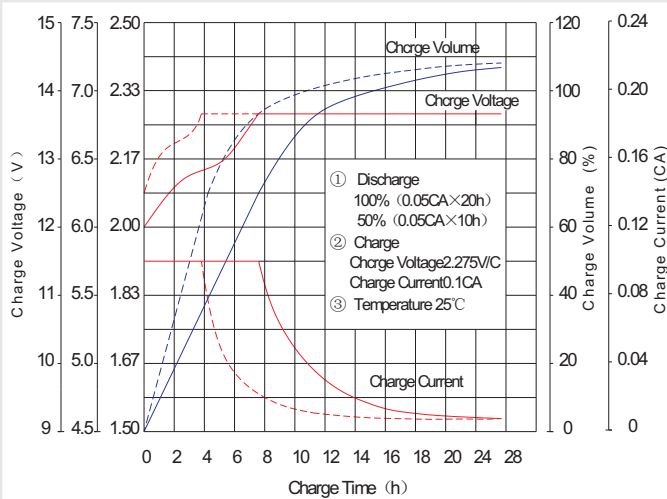
### Effect of temperature on long term float life



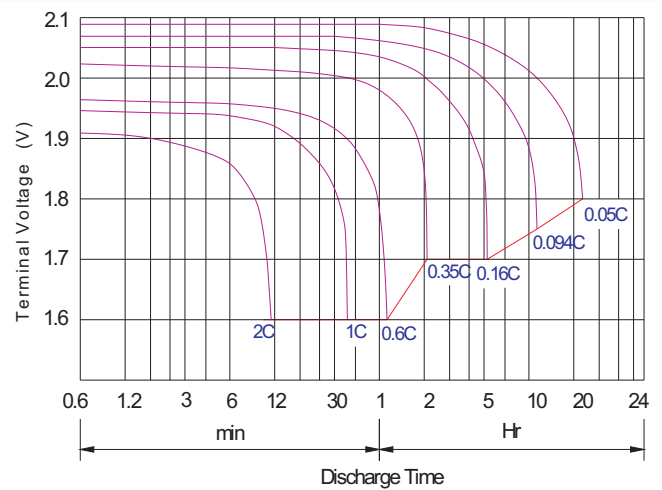
### Storage characteristic



### 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+2.40~2.45V,24h,Max. Current 0.2CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

### 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.