



# RL 2400G (2V400Ah)

RL2400G is GEL standby battery with 18~20 years floating design life time .The solid Gel protects no way to suffer electrolyte stratification and ensure mild corrosion, its special separator eradicates infection between plates to prevent short circuit. it offers extra-durable performance under extreme temperature.



## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	400Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 26 Kg
Max. Discharge Current	2000 A (5 sec)
Internal Resistance	Approx. 1.05mΩ
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°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	80 A
Equalization and Cycle Service	2.37 to 2.4 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	Thread insert & Bolt (F10)
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



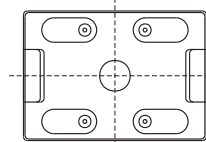
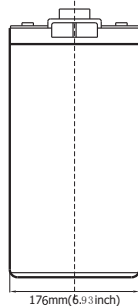
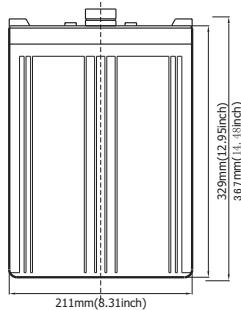
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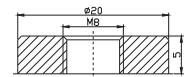
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 211(L)×176(W)×329(H)



Terminal F10



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

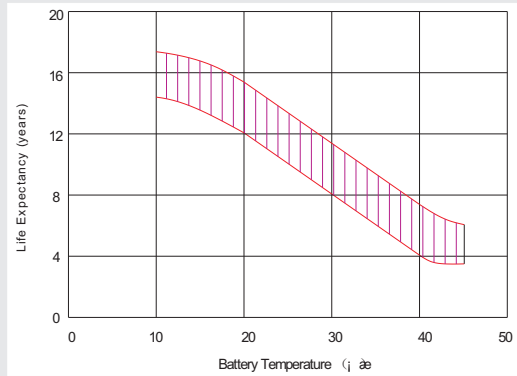
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.60V	488.8	378.5	243.6	144.8	107.8	85.97	72.39	60.80	49.08	41.02	21.13
1.65V	464.8	363.4	233.0	139.5	103.3	82.95	69.38	59.34	46.88	39.56	20.37
1.70V	433.4	342.6	228.5	137.2	101.1	82.20	68.62	57.87	46.15	38.83	20.00
1.75V	384.8	304.5	210.4	129.7	95.77	77.67	65.61	54.94	44.69	38.09	19.62
1.80V	331.2	280.8	198.3	123.7	92.00	76.92	63.35	54.21	43.95	36.63	18.86
1.85V	280.1	252.8	183.2	116.9	87.48	70.89	60.33	51.28	41.76	35.16	18.11

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

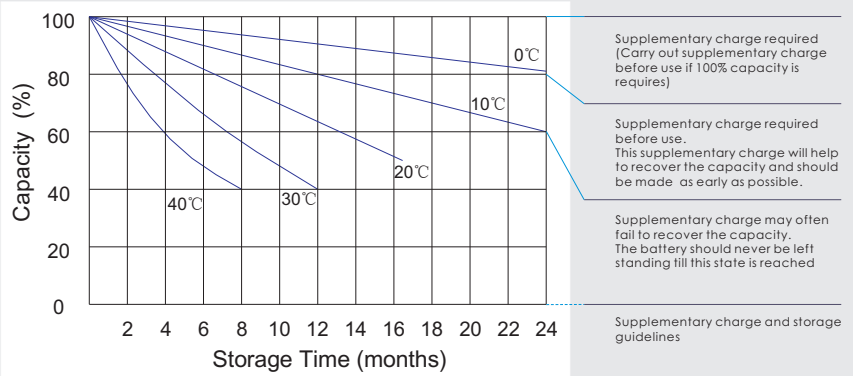
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.60V	855.7	673.0	435.1	261.7	196.1	157.6	133.5	115.0	91.57	77.65	39.99
1.65V	833.3	669.4	433.6	257.9	195.3	156.1	132.0	113.5	90.84	76.92	39.61
1.70V	787.2	622.7	420.0	254.1	189.3	153.8	130.5	111.3	89.37	76.19	39.24
1.75V	701.2	560.9	392.1	242.8	182.5	148.6	125.2	106.2	87.18	73.99	38.10
1.80V	606.9	517.1	369.5	232.3	175.0	144.0	121.4	104.0	84.24	71.79	36.97
1.85V	517.5	466.1	340.9	218.7	166.7	132.7	116.1	98.16	80.58	69.59	35.84

All mentioned values are average values.

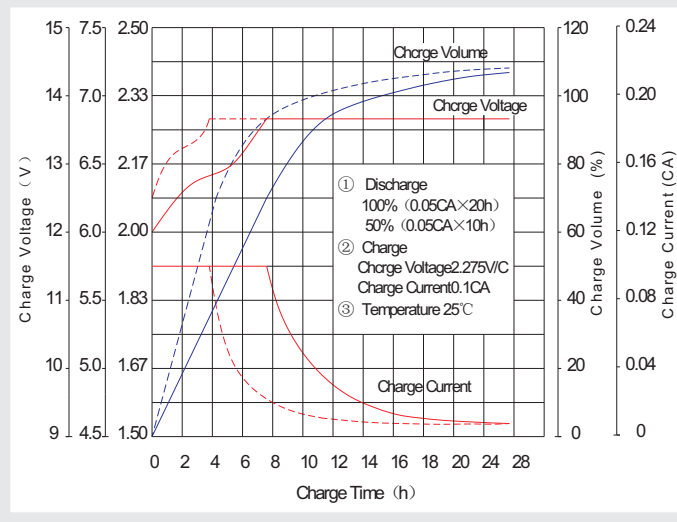
### Effect of temperature on long term float life



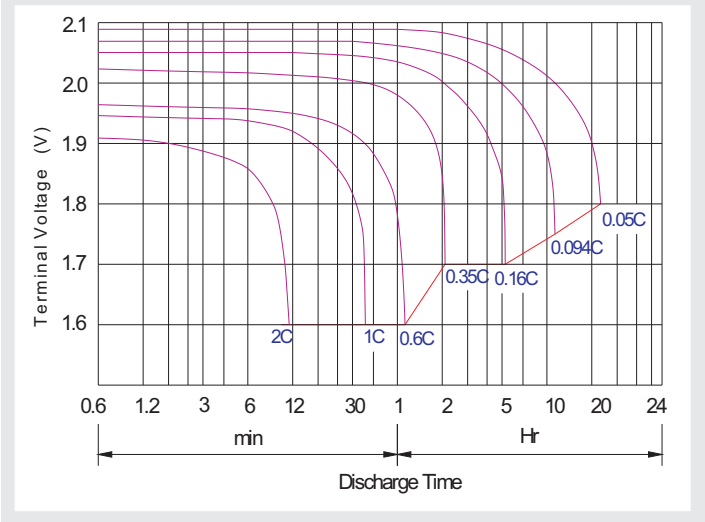
### Storage characteristic



### 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