



# RL 2450G (2V450Ah)

RL2450G 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	450Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 29 Kg
Max. Discharge Current	2250 A (5 sec)
Internal Resistance	Approx. 1.05 mΩ
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	90 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	F10
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



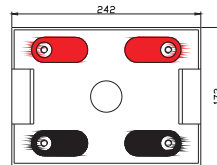
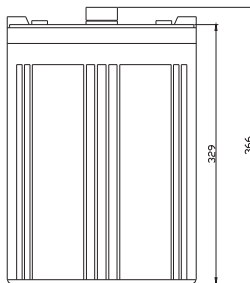
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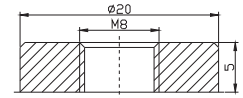
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 242(L)×172(W)×329(H)



Terminal F10



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

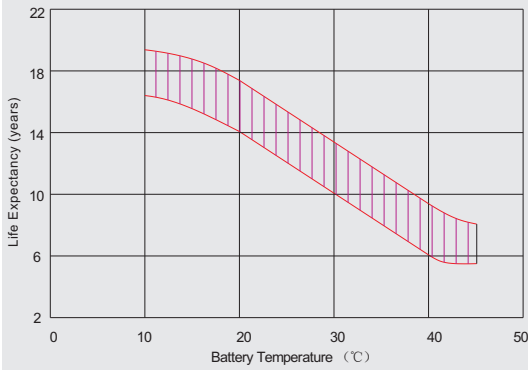
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.60V	549.9	425.8	274.0	162.9	121.32	96.71	81.44	68.40	55.22	46.15	23.77
1.65V	522.9	408.8	262.1	156.9	116.23	93.32	78.05	66.75	52.74	44.50	22.92
1.70V	487.6	385.4	257.1	154.4	113.68	92.47	77.20	65.11	51.92	43.68	22.49
1.75V	432.8	342.6	236.7	145.9	107.74	87.38	73.81	61.81	50.27	42.85	22.07
1.80V	372.6	315.9	223.1	139.1	103.50	86.53	71.26	60.99	49.45	41.21	21.22
1.85V	315.1	284.4	206.2	131.5	98.41	79.75	67.87	57.69	46.98	39.56	20.37

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

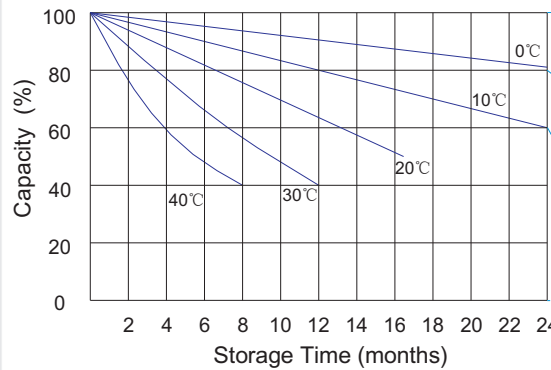
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
1.60V	962.6	757.1	489.5	294.4	220.6	177.3	150.2	129.4	103.0	87.36	44.99
1.65V	937.4	753.0	487.8	290.1	219.7	175.6	148.5	127.7	102.2	86.53	44.57
1.70V	885.6	700.5	472.5	285.9	212.9	173.1	146.8	125.3	100.5	85.71	44.14
1.75V	788.8	631.0	441.2	273.2	205.3	167.1	140.8	119.5	98.07	83.24	42.87
1.80V	682.7	581.7	415.7	261.3	196.8	162.0	136.6	117.0	94.78	80.77	41.59
1.85V	582.2	524.4	383.5	246.0	187.5	149.3	130.6	110.4	90.65	78.29	40.32

All mentioned values are average values.

### Effect of temperature on long term float life



### Storage characteristic



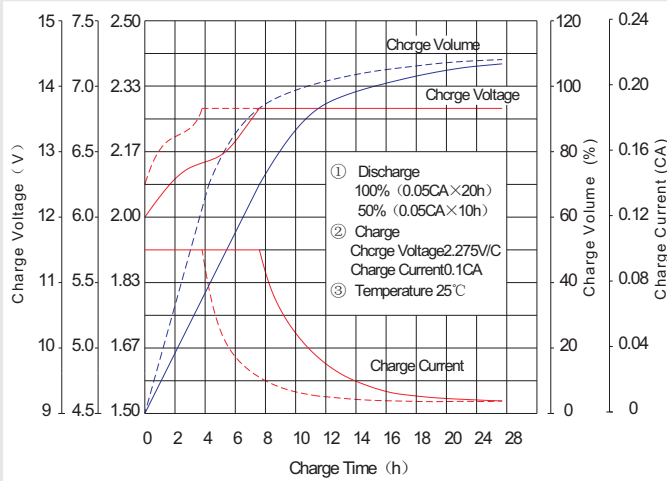
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

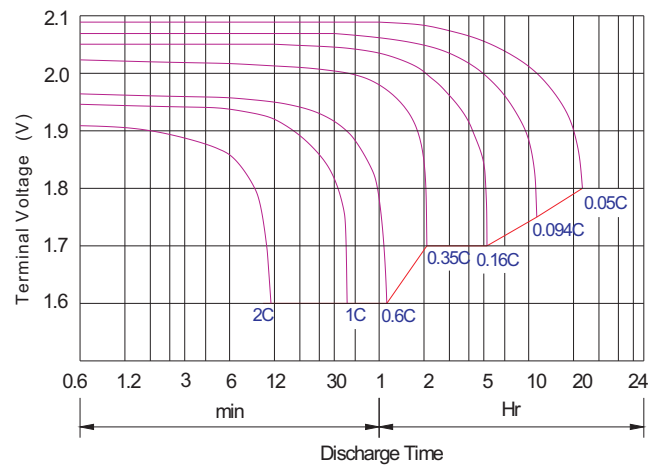
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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+2.40~2.45V,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.