



# RL2350X (2V350Ah)

RL 2350X 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 performance.



## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	350Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 21.5 Kg
Max. Discharge Current	1750 A (5 sec)
Internal Resistance	Approx. 0.7 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	70 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. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Thread insert & Bolt (F10)
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



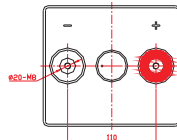
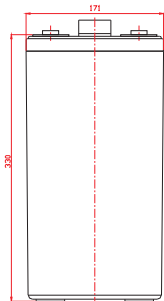
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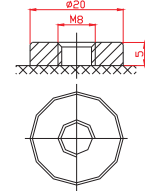
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: mm 171(L)×150(W)×366(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	475.2	350.5	225.5	134.1	99.85	79.60	67.03	56.30	45.45	37.98
1.65V	451.9	336.5	215.8	129.2	95.66	76.81	64.24	54.94	43.41	37.33
1.70V	421.3	317.2	211.6	127.1	93.57	76.11	63.54	53.59	42.73	36.65
1.75V	374.1	285.5	194.8	120.1	88.68	71.92	60.75	50.87	41.38	35.97
1.80V	322.0	260.0	183.6	114.5	85.19	71.22	58.65	50.19	40.70	35.29
1.85V	272.3	234.1	169.7	108.2	81.00	65.64	55.86	47.48	38.66	32.91

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	831.9	638.7	413.0	248.4	186.1	149.6	126.7	108.6	86.48	73.34
1.65V	810.1	635.3	411.5	244.8	182.4	147.4	125.2	107.2	85.75	72.65
1.70V	765.3	601.2	404.0	241.2	179.6	146.8	124.1	104.7	84.43	71.51
1.75V	681.7	541.8	372.2	228.3	173.2	139.4	118.9	99.59	81.77	70.37
1.80V	590.0	494.3	351.0	218.0	166.0	138.8	115.1	98.41	80.45	67.86
1.85V	503.2	445.7	324.4	206.4	158.2	128.6	109.8	93.22	76.45	65.34

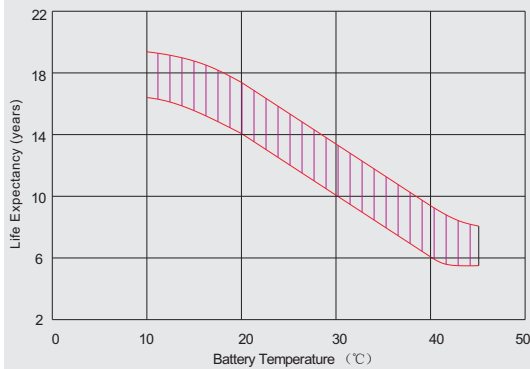
All mentioned values are average values.

# RL2350X

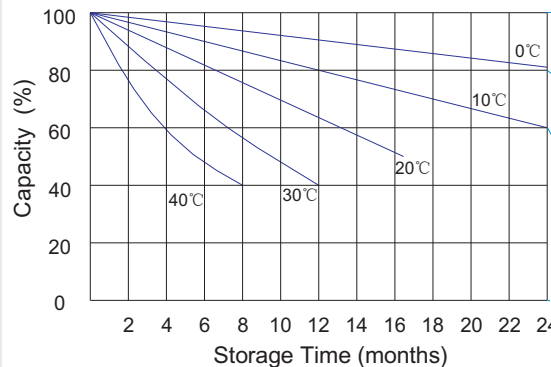
2V350Ah



## Effect of temperature on long term float life



## Storage characteristic



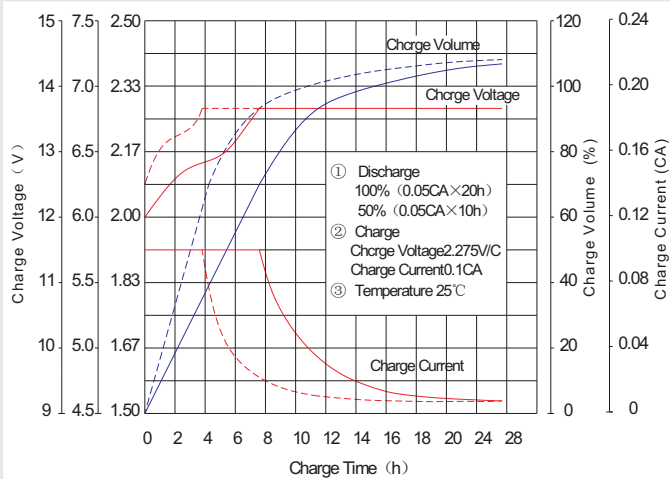
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

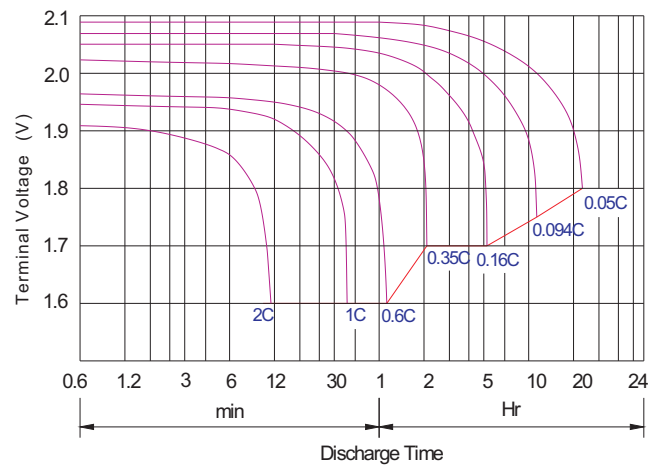
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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

<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