



# RL21200X (2V1200Ah)

RL 21200X 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	1200Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 76 Kg
Max. Discharge Current	4000 A (5 sec)
Internal Resistance	Approx. 0.53 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	240 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



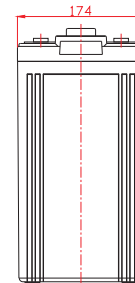
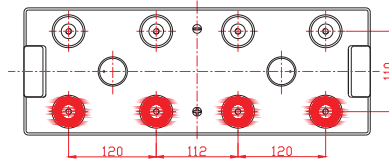
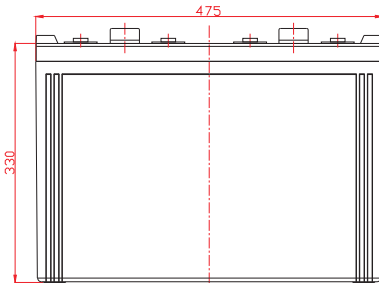
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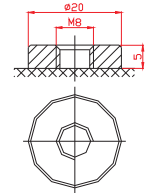
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 475(L)×175(W)×368(H)



Terminal F10



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

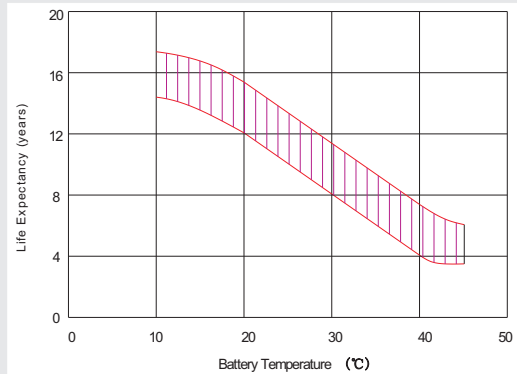
F.V/Time	15 MIN	30 MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	1629	1202	773.3	459.6	342.3	272.9	229.8	193.0	155.8	130.2
1.65V	1549	1154	739.7	442.9	328.0	263.3	220.2	188.4	148.8	128.0
1.70V	1445	1088	725.4	435.7	320.8	260.9	217.9	183.7	146.5	125.7
1.75V	1283	978.7	667.9	411.8	304.0	246.6	208.3	174.4	141.9	123.3
1.80V	1104	891.5	629.6	392.6	292.1	244.2	201.1	172.1	139.5	121.0
1.85V	933.7	802.6	581.7	371.1	277.7	225.0	191.5	162.8	132.6	112.8

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

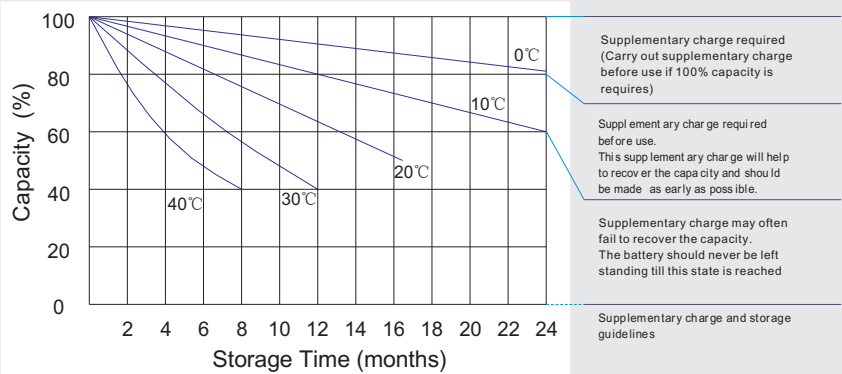
F.V/Time	15 MIN	30 MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	2852	2190	1416	851.5	638.0	512.9	434.3	372.4	296.5	251.4
1.65V	2778	2178	1411	839.2	625.5	505.2	429.4	367.7	294.0	249.1
1.70V	2624	2061	1385	826.9	615.9	503.3	425.6	359.1	289.5	245.2
1.75V	2337	1858	1276	782.8	593.8	478.0	407.8	341.4	280.4	241.3
1.80V	2023	1695	1203	747.6	569.3	475.8	394.5	337.4	275.8	232.7
1.85V	1725	1528	1112	707.7	542.3	440.7	376.5	319.6	262.1	224.0

All mentioned values are average values.

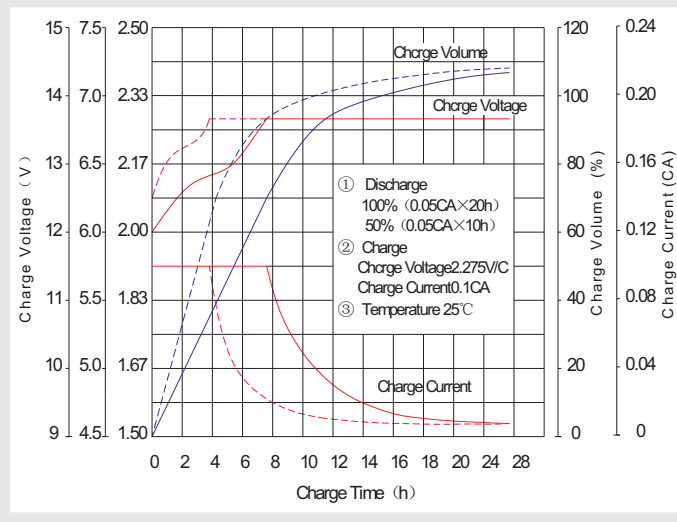
### Effect of temperature on long term float life



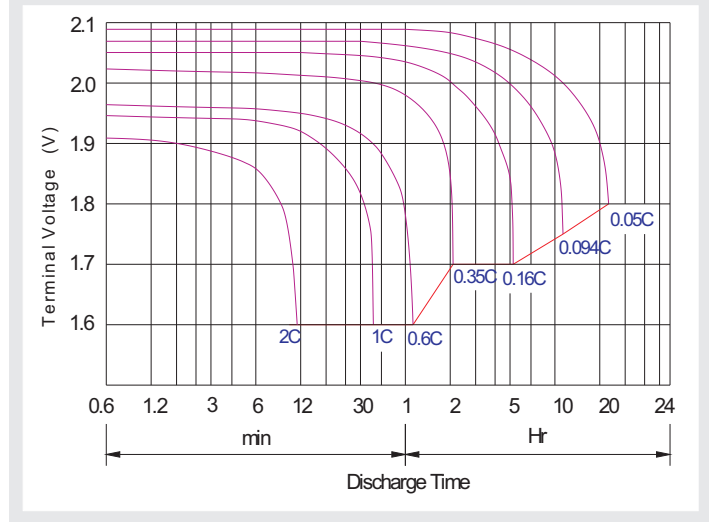
### Storage characteristic



### 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+0.1CA×12h
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.