



RL22000X (2V2000Ah)

RL 22000X 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	2000Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 126.5 Kg
Max. Discharge Current	7000 A (5 sec)
Internal Resistance	Approx. 0.4 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	400 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



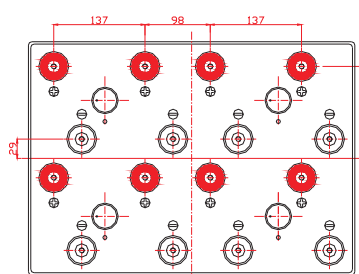
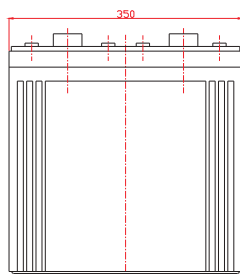
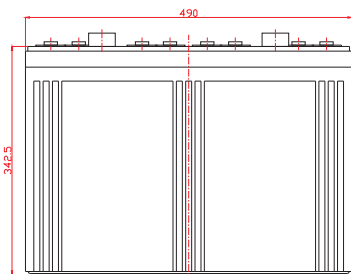
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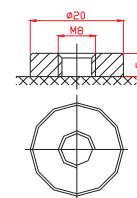
ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 490(L)×350(W)×383(H)



Terminal F10



Constant Current Discharge Characteristics : A(25°C)

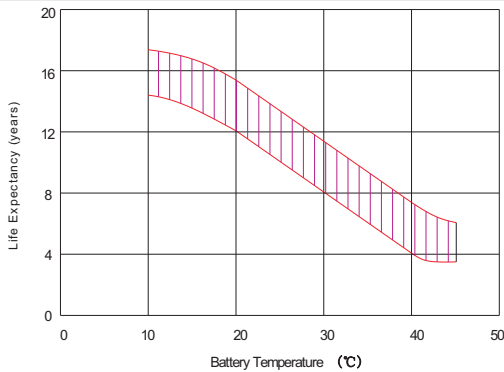
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	2715	2003	1289	766.1	570.6	454.9	383.0	321.7	259.7	217.1
1.65V	2582	1923	1233	738.2	546.6	438.9	367.1	314.0	248.1	213.3
1.70V	2408	1813	1209	726.2	534.7	434.9	363.1	306.2	244.2	209.4
1.75V	2138	1631	1113	686.3	506.7	411.0	347.1	290.7	236.4	205.6
1.80V	1840	1486	1049	654.4	486.8	407.0	335.2	286.8	232.6	201.7
1.85V	1556	1338	969.6	618.5	462.8	375.1	319.2	271.3	220.9	188.0

Constant Power Discharge Characteristics : W(25°C)

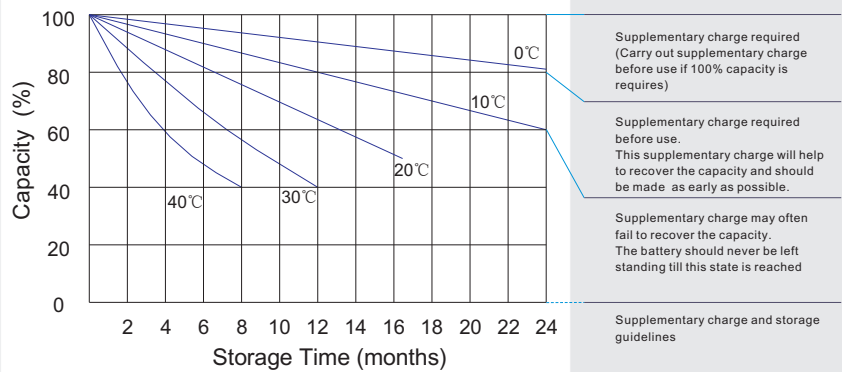
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	4754	3650	2360	1419	1063	854.8	723.9	620.7	494.2	419.1
1.65V	4629	3630	2352	1399	1042	842.1	715.7	612.8	490.0	415.1
1.70V	4373	3436	2309	1378	1027	838.8	709.4	598.5	482.5	408.6
1.75V	3895	3096	2127	1305	989.7	796.7	679.6	569.1	467.3	402.1
1.80V	3372	2825	2005	1246	948.8	793.0	657.5	562.3	459.7	387.8
1.85V	2875	2547	1854	1179	903.8	734.6	627.5	532.7	436.8	373.4

All mentioned values are average values.

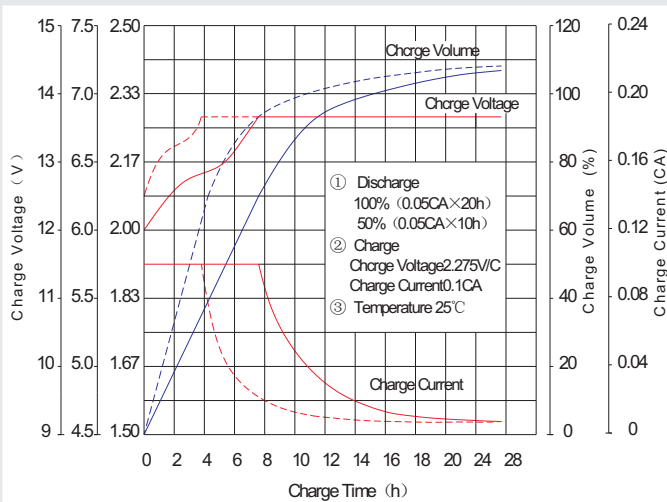
Effect of temperature on long term float life



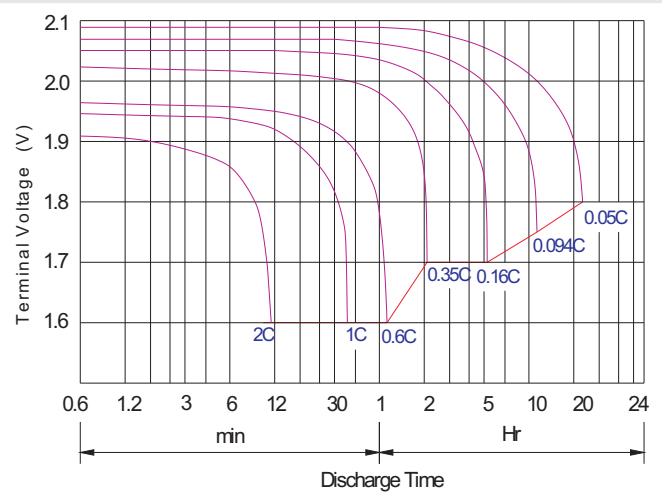
Storage characteristic



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

Float Service:
※ Every month, recommend inspection every battery voltage.
※ Every three months, recommend equalization charge for one time.
Equalization charge method:
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.