RL 2500 (2V500Ah)

RL 2500 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.

RITAR®

Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	500Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 30.5Kg
Max. Discharge Current	2500 A (5 sec)
Internal Resistance	Approx. 0.67 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	100 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

G4M20206-0910-E-16

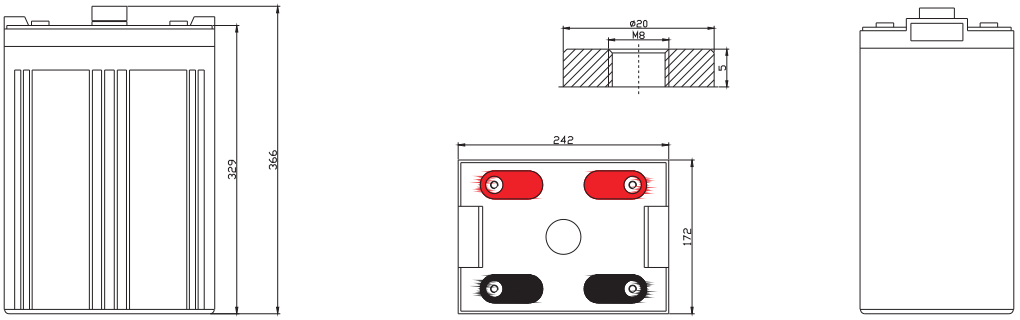
ISO9001:2000 Certificate

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
1.60V	678.9	500.7	322.2	191.5	142.6	113.7	95.76	80.43	64.92	54.26
1.65V	645.5	480.7	308.2	184.5	136.7	109.7	91.77	78.49	62.02	53.33
1.70V	601.9	453.2	302.2	181.5	133.7	108.7	90.77	76.55	61.05	52.36
1.75V	534.4	407.8	278.3	171.6	126.7	102.7	86.78	72.68	59.11	51.39
1.80V	460.0	371.5	262.3	163.6	121.7	101.7	83.79	71.71	58.14	50.42
1.85V	389.0	334.4	242.4	154.6	115.7	93.77	79.80	67.83	55.23	47.01

Constant Power Discharge Characteristics : W(25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	1188	912.4	589.9	354.8	265.8	213.7	181.0	155.2	123.5	104.8
1.65V	1157	907.5	587.9	349.7	260.6	210.5	178.9	153.2	122.5	103.8
1.70V	1093	858.9	577.2	344.6	256.6	209.7	177.3	149.6	120.6	102.2
1.75V	974	774.0	531.7	326.2	247.4	199.2	169.9	142.3	116.8	100.53
1.80V	842.9	706.2	501.4	311.5	237.2	198.3	164.4	140.6	114.9	96.95
1.85V	718.8	636.7	463.4	294.9	226.0	183.6	156.9	133.2	109.2	93.35

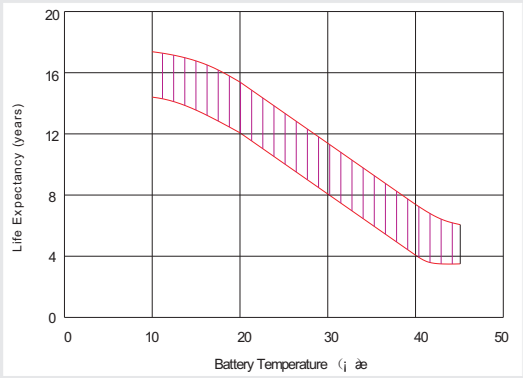
All mentioned values are average values.

RL 2500

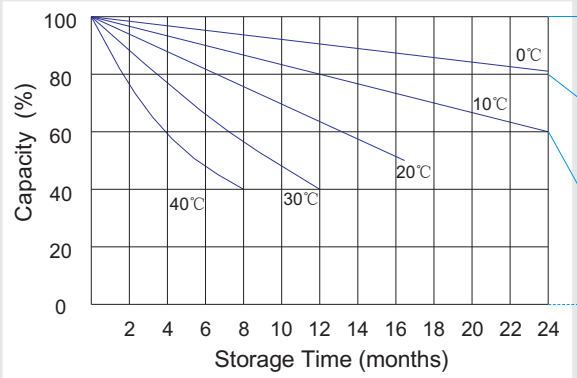
2V500Ah

RITAR®

Effect of temperature on long term float life



Storage characteristic



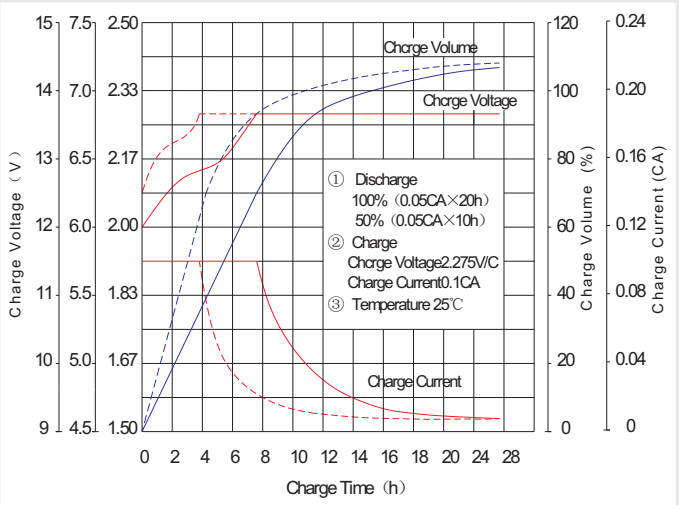
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

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

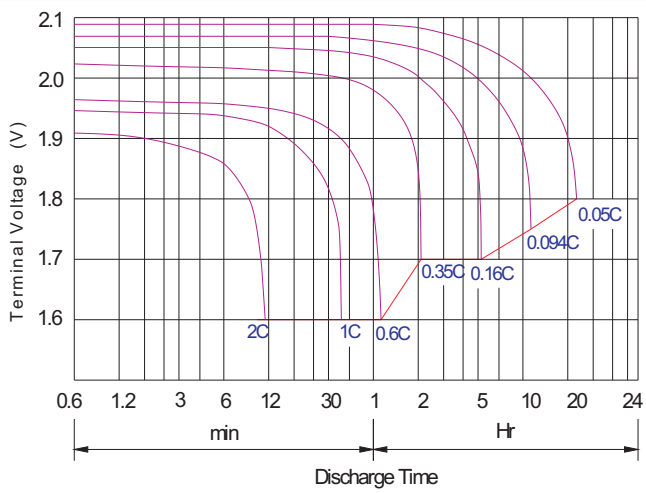
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supp leme ntar y char ge and stor age guid elin es

Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
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

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/℃/Cell.

※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

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