



# RL21500D (2V1500Ah)

RL21500D is AGM Deep cycle battery with 18 years floating design life, specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, it makes battery have 30% more cyclic life time than standby series. It is applicable for solar energy system, golf cart, electric wheelchair, etc..



## Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	1500Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 96.0 Kg
Max. Discharge Current	6000 A (5 sec)
Internal Resistance	Approx.0.5 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	2.25 to 2.30 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	300 A
Equalization and Cycle Service	2.40 to 2.45 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



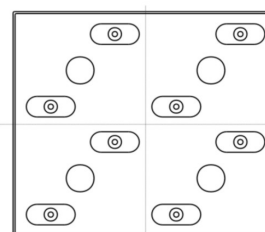
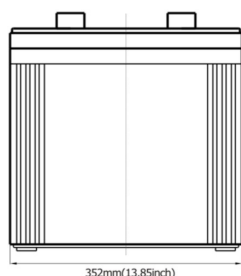
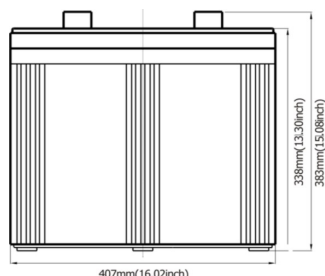
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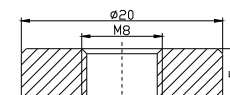
ISO9001:2000 Certificate

## Dimensions

Unit: mm Dimension: 401(L)×352(W)×338(H)



Terminal F10



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

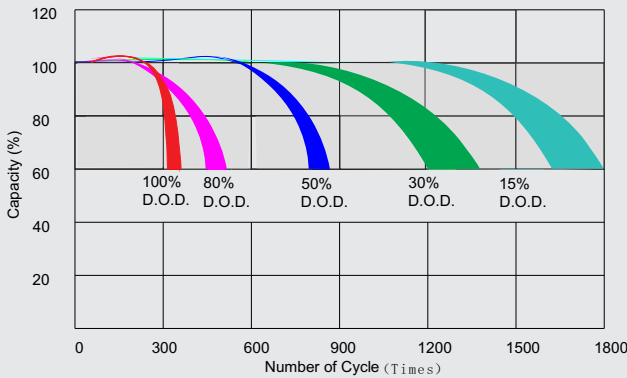
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	2287	1518	976.8	580.6	432.4	344.7	290.3	243.8	196.8	164.5
1.65V	2174	1457	934.4	559.4	414.3	332.6	278.2	237.9	188.0	158.6
1.70V	2028	1374	916.3	550.4	405.2	329.6	275.2	232.1	185.1	155.7
1.75V	1800	1221	843.7	520.1	384.0	311.5	263.1	220.3	179.2	152.8
1.80V	1549	1126	795.3	495.9	368.9	308.4	254.0	217.4	176.3	146.9
1.85V	1310	1014	734.8	468.7	350.8	284.3	241.9	205.6	167.4	141.0

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

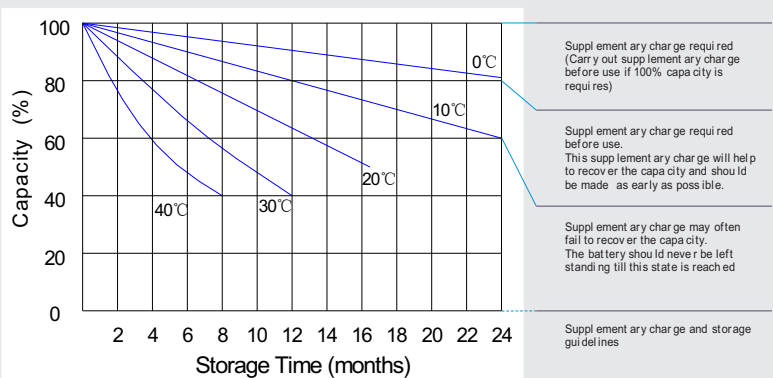
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	4003	2699	1745	1049	786.2	632.0	535.2	461.2	367.2	311.4
1.65V	3966	2684	1739	1034	783.2	626.0	529.2	455.3	364.3	308.4
1.70V	3649	2497	1684	1019	759.0	616.9	523.2	446.5	358.4	305.5
1.75V	3280	2249	1572	973.7	731.8	595.7	502.0	426.0	349.6	296.7
1.80V	2822	2074	1482	931.4	701.6	577.6	486.9	417.1	337.8	287.9
1.85V	2388	1869	1367	877.0	668.3	532.2	465.7	393.6	323.1	279.1

All mentioned values are average values.

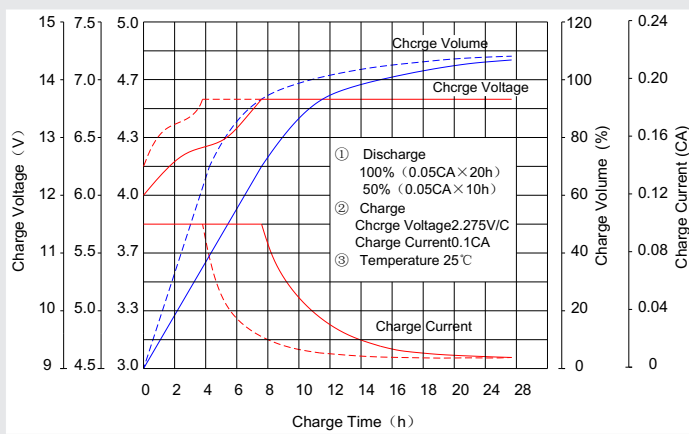
### Life characteristics of cyclic use



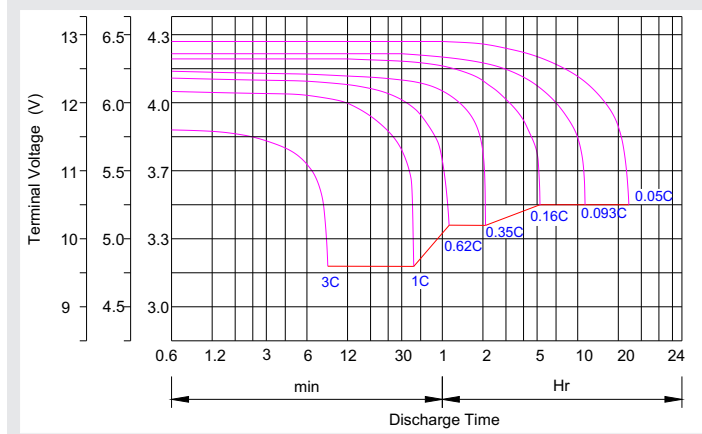
### Storage characteristic



### 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	2V	50%	70%	74%	80%	88%	98%	100%	102%	104%	105%
	6V&12V	60%	75%	80%	85%	90%	98%	100%	103%	105%	106%
AGM Battery	2V	46%	66%	70%	80%	90%	99%	100%	103%	107%	109%
	6V&12V	55%	70%	76%	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+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

<b>Cycle service:</b>
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.1-1.15 times discharge capacity.
※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
Generally speaking, the most important factors is depth of discharge .