



RL2-100 (2V100Ah)

RL2-100 is a general purpose 2V battery with 12-15 years design life time in float charging use. As with all Ritar batteries, all RL models are rechargeable, highly efficient, leak proof and maintenance free.

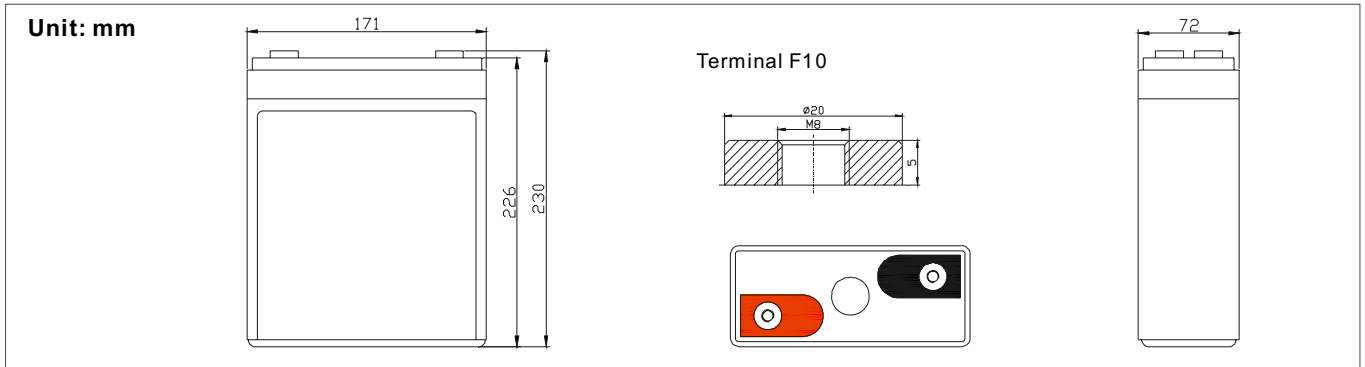


Specification

Cells Per Unit	1
Voltage Per Unit	2
Capacity	100Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 6.5 Kg
Max. Discharge Current	500 A (5 sec)
Internal Resistance	Approx. 1.0 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	20 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. 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.



Dimensions



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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	159	105	64.6	38.4	28.6	22.8	19.2	16.6	13.4	11.2
1.65V	151	101	61.8	37.0	27.4	22.0	18.4	16.2	12.8	10.8
1.70V	141	95.4	60.6	36.4	26.8	21.8	18.2	15.8	12.6	10.6
1.75V	125	84.8	55.8	34.4	25.4	20.6	17.4	15.0	12.2	10.4
1.80V	108	78.2	52.6	32.8	24.4	20.4	16.8	14.8	12.0	10.0
1.85V	91.0	70.4	48.6	31.0	23.2	18.8	16.0	14.0	11.4	9.6

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR
1.60V	278	187	115	69.4	52.0	41.8	35.4	31.4	25.0	21.2
1.65V	275	186	115	68.4	51.8	41.4	35.0	31.0	24.8	21.0
1.70V	253	173	111	67.4	50.2	40.8	34.6	30.4	24.4	20.8
1.75V	228	156	104	64.4	48.4	39.4	33.2	29.0	23.8	20.2
1.80V	196	144	98.0	61.6	46.4	38.2	32.2	28.4	23.0	19.6
1.85V	166	130	90.4	58.0	44.2	35.2	30.8	26.8	22.0	19.0

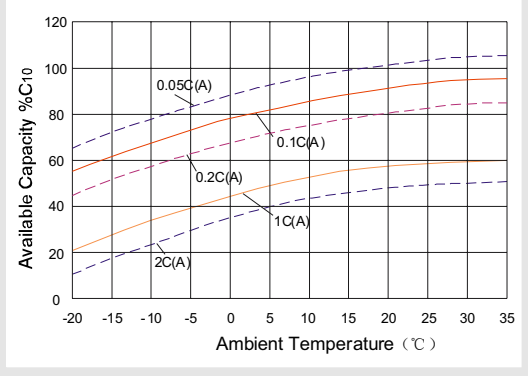
All mentioned values are average values.

RL2-100

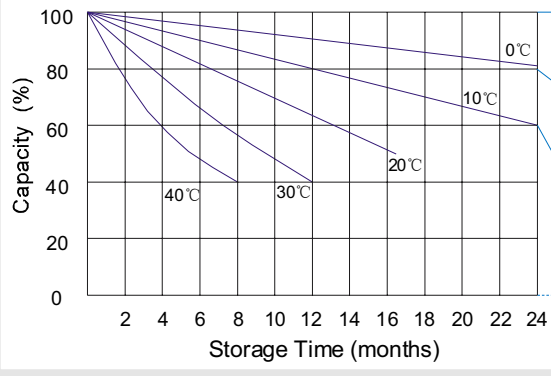
2V100Ah



Temperature effects curve



Storage characteristic



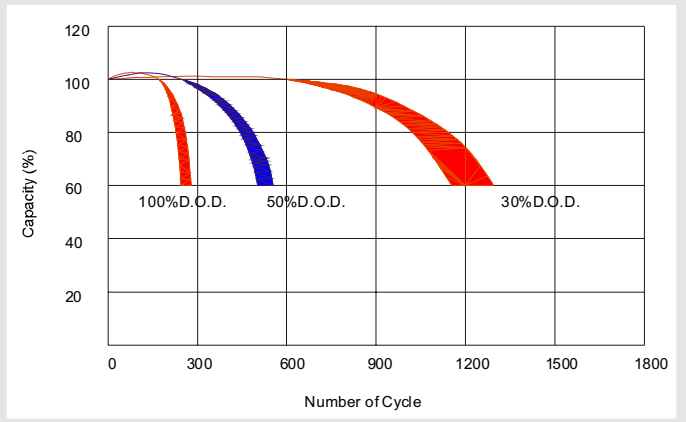
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

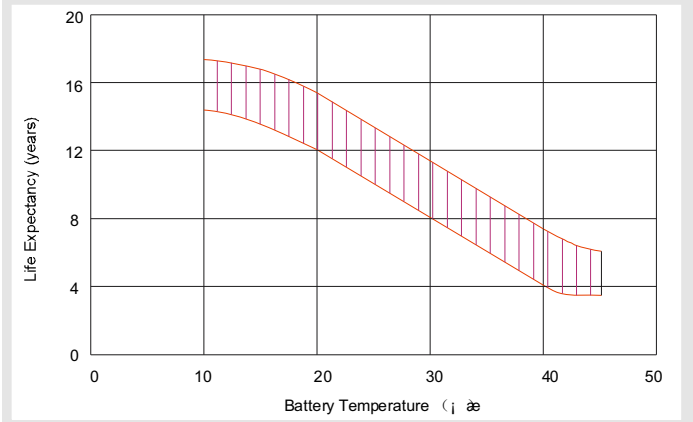
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

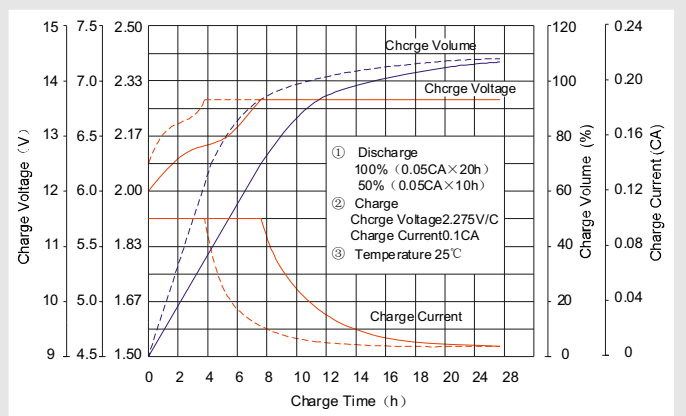
Life characteristics of cyclic use



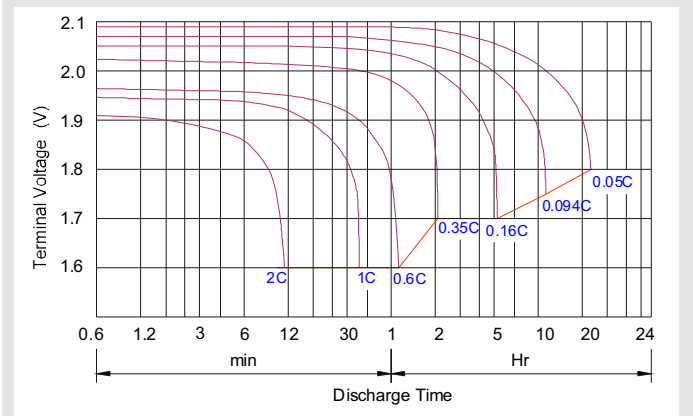
Effect of temperature on long term float life



Charge characteristic Curve for standby use



Discharge characteristic Curve



Charging Procedures(12V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4~15.0	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

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

Charging Procedures(2V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	2.275	2.25~2.30	0.3C
Standby	25°C	2.425	2.4~2.45	0.3C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h +2.25~2.50V,24h,Max. Current 0.2CA
Constant Current	-0.2Cx2h +0.1CAx12h
Fast	-0.2Cx2h +0.3CAx4h

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