



RA12-240 (12V240Ah)

RA12-240 is a general purpose battery with 10 years design life time in float charging use. As with all Ritar batteries, all RA models are rechargeable, highly efficient, leak proof and maintenance free.



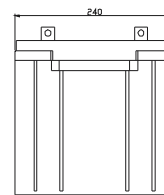
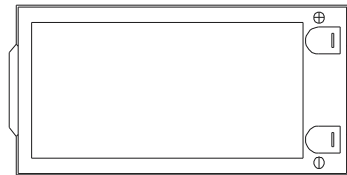
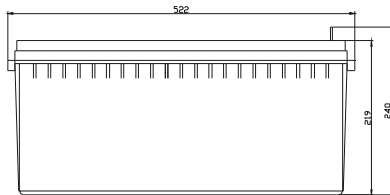
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	240Ah @ 10hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 66.5 Kg
Max. Discharge Current	1200 A (5 sec)
Internal Resistance	Approx. 3.8 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	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	72 A
Equalization and Cycle Service	14.4 to 15.0 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	Faston F5/F12
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.

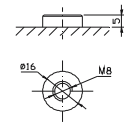


Dimensions

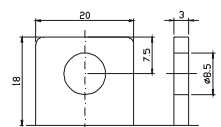
Unit: mm



Terminal F12



Terminal F5



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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	898	643	468	276	156.0	95.8	62.6	51.8	40.8	29.5	25.0	13.2
1.67V	874	612	458	271	155.3	95.0	62.4	51.6	40.6	29.3	24.7	13.0
1.70V	823	590	451	269	153.8	94.3	61.9	51.4	40.3	29.0	24.5	12.7
1.75V	739	545	430	262	152.4	93.6	61.7	50.9	39.8	28.8	24.2	12.5
1.80V	667	497	396	251	148.8	91.9	60.0	49.7	39.1	28.3	24.0	12.2
1.85V	581	444	355	235	141.4	87.8	57.4	47.3	37.4	27.1	23.3	11.5

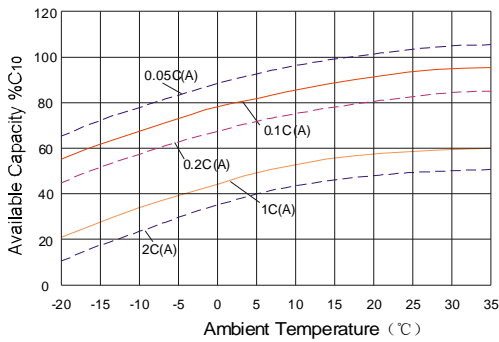
Constant Power Discharge Characteristics Unit: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1609	1177	866	519	297.4	183.6	120.5	99.8	78.7	57.1	46.8	24.7
1.67V	1576	1124	848	513	295.9	182.9	120.2	99.6	78.2	56.9	46.3	24.5
1.70V	1488	1086	837	507	293.8	181.2	119.5	99.1	78.0	56.4	46.1	24.2
1.75V	1340	1004	798	495	290.9	179.5	118.8	98.4	77.3	55.9	45.6	24.0
1.80V	1205	912	733	473	283.7	176.9	115.9	95.8	76.1	54.7	45.1	23.8
1.85V	1040	810	655	443	268.8	168.7	110.2	91.2	72.2	52.8	43.7	22.8

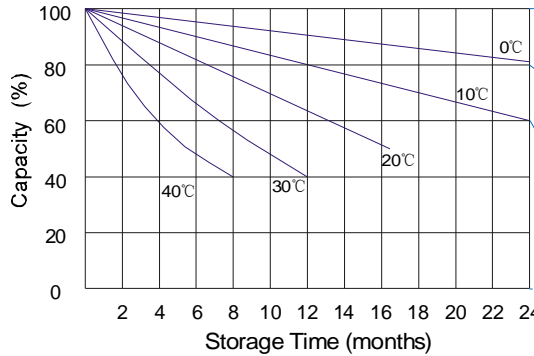
All mentioned values are average values.



Temperature effects curve



Storage characteristic



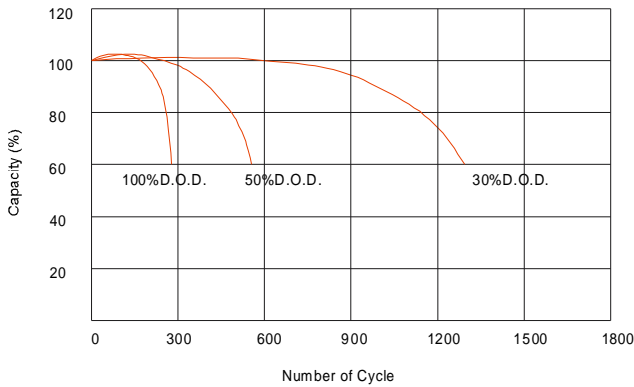
Supplementary charge required before use if 100% capacity is required

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

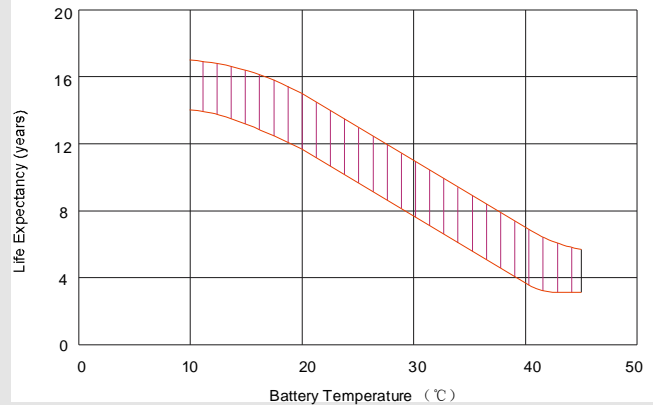
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

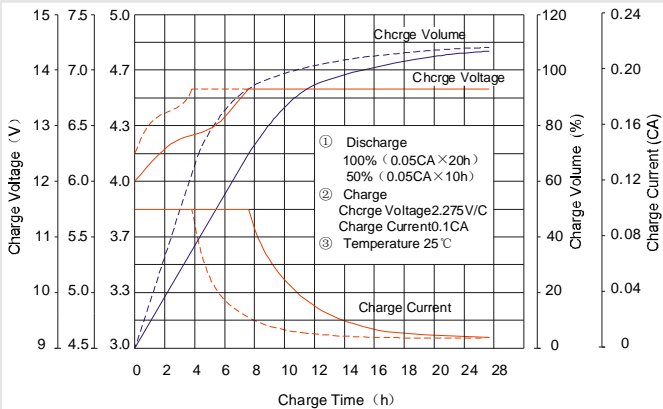
Life characteristics of cyclic use



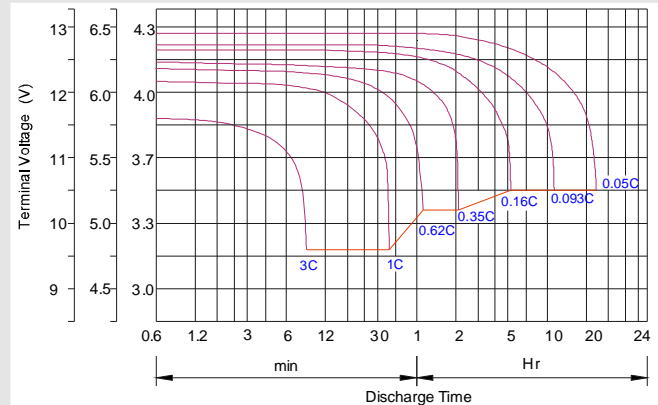
Effect of temperature on long term float life



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

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

Charging Method:

Constant Voltage	-0.2Cx2h +14.4~15.0V,24h,Max. Current 0.3CA
Constant Current	-0.2Cx2h +0.1CAx12h
Fast	-0.2Cx2h +0.3CAx4h

Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.35	7.25~7.45	0.3C
Standby	25°C	6.85	6.8~6.9	0.3C

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