



RA12-240 (12V240Ah)



RA12-240 is a general purpose battery with 10 years floating design life, meet with IEC, JIS .BS and Eurobat standard. With heavy duty grid, thickness plates, special additives, RA series battery have long and reliable standby service life. Our RA Series batteries keep high consistent for better performance in series usage.

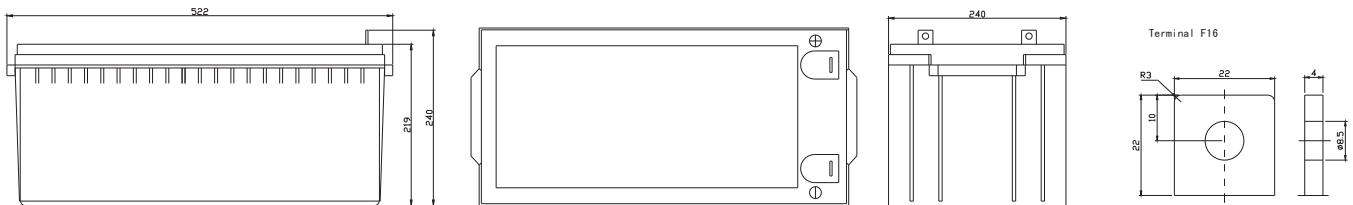
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	240Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx.69.0 Kg
Max. Discharge Current	2400A (5 sec)
Internal Resistance	Approx. 3.8mΩ
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	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) 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	Terminal F16
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



Dimensions

Unit: mm Dimension: 522(L)×240(W)×219(H)



Constant Current Discharge Characteristics: A (25°C)

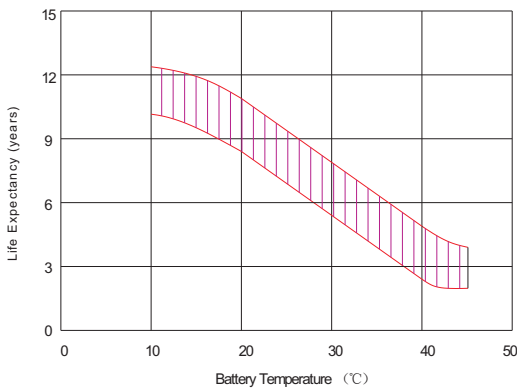
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	654.1	490.0	413.6	262.3	156.0	93.35	64.52	52.88	43.28	29.81	25.21	13.86
10.0V	635.2	466.2	405.1	258.0	155.3	92.64	64.27	52.63	43.03	29.57	24.96	13.61
10.2V	616.4	449.8	398.8	255.7	153.8	91.94	63.78	52.39	42.77	29.33	24.72	13.36
10.5V	553.5	415.0	379.7	249.3	152.4	91.24	63.53	51.90	42.26	29.09	24.48	13.11
10.8V	499.6	378.5	350.0	238.3	148.8	89.60	61.80	50.67	41.50	28.60	24.24	12.86
11.1V	426.6	338.2	313.9	223.3	141.4	85.63	59.08	48.23	39.72	27.39	23.51	12.10

Constant Power Discharge Characteristics: W(25°C)

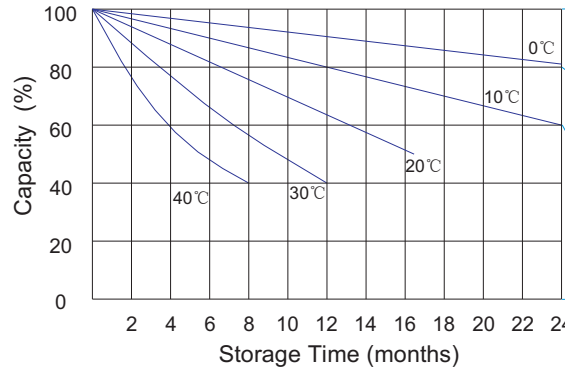
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	6766	5218	4550	2990	1803	1100	768	630	516	356	301	166
10.0V	6633	5059	4477	2954	1798	1094	768	629	515	354	299	163
10.2V	6557	4925	4426	2933	1784	1088	765	628	513	352	297	160
10.5V	5969	4586	4222	2864	1768	1080	762	622	507	349	294	157
10.8V	5437	4228	3902	2746	1736	1066	741	608	498	343	291	154
11.1V	4775	3822	3513	2579	1661	1027	709	579	477	329	282	145

All mentioned values are average values.

Effect of temperature on long term float life



Storage characteristic



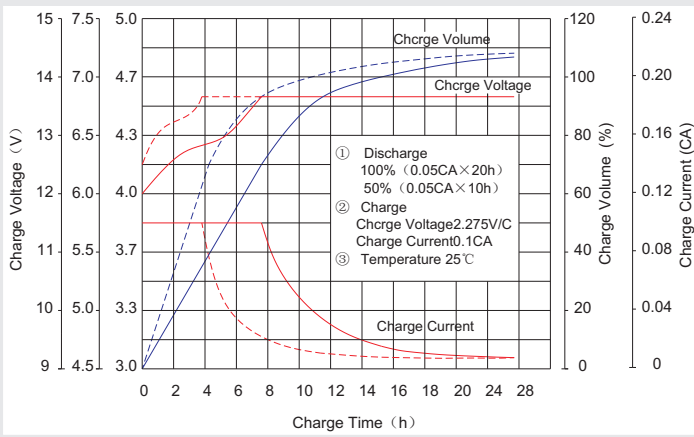
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

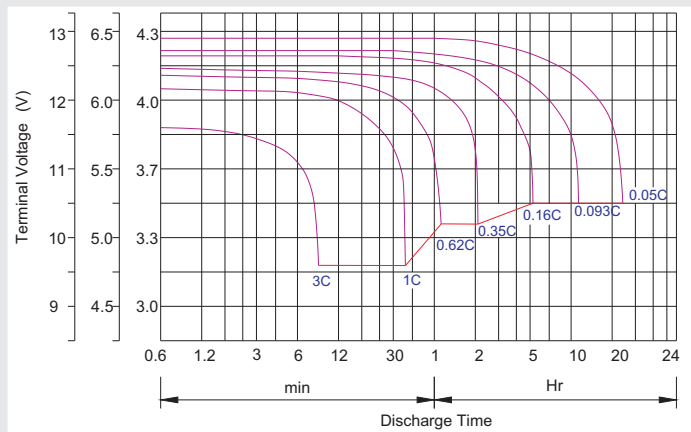
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

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+2.4-2.45V/cellx24h, Max. Current 0.3CA
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/°C/Cell.
※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.