RT 12120 (12V12Ah)

RT 12120 is a general purpose battery with 5 years floating design life , meet with IEC, JIS standard .With heavy duty grid, thickness plates, special additives, RT series battery have long and reliable standby service life.

RITAR®

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	12Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 3.60 Kg
Max. Discharge Current	120 A (5 sec)
Internal Resistance	Approx. 16 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	13.7 to 13.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	3.6 A
Equalization and Cycle Service	14.6 to 14.8 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	Faston Tab 187(F1)/Faston tab 250(F2)
Constainer Material	A.B.S. (UL94-HB) , Flammability resistance of UL94-V2 can be available upon request.

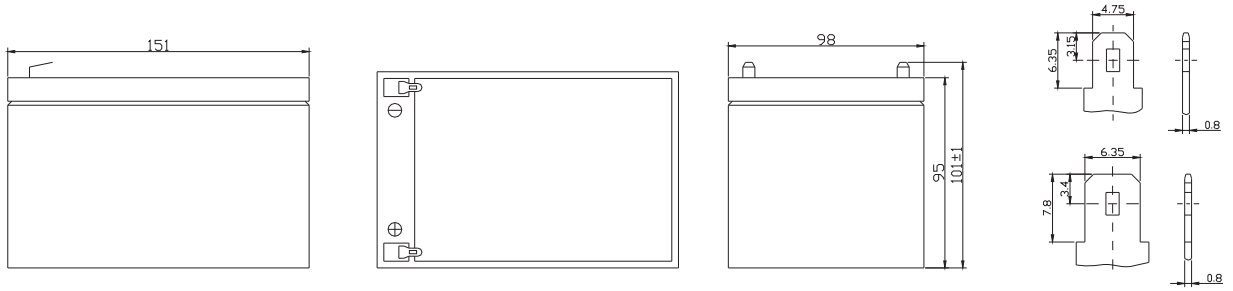
MH28539

G4M20206-0910-E-16

ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 151(L)×98(W)×95(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	47.400	31.680	24.360	14.076	8.3280	4.3409	3.0720	2.5200	2.0888	1.3855	1.1995	0.6732
10.0V	45.688	30.447	23.579	13.860	8.2800	4.3096	3.0600	2.5080	2.0765	1.3800	1.1873	0.6487
10.2V	43.218	29.506	23.038	13.752	8.2200	4.2991	3.0480	2.4960	2.0641	1.3745	1.1750	0.6365
10.5V	39.043	27.612	21.838	13.440	8.1000	4.2470	3.0360	2.4840	2.0518	1.3690	1.1628	0.6120
10.8V	34.868	25.731	20.627	13.116	7.9800	4.1739	3.0120	2.4720	2.0394	1.3634	1.1383	0.5875
11.1V	30.729	23.838	19.428	12.792	7.8720	4.1113	2.9880	2.4600	2.0270	1.3579	1.1261	0.5753

Constant Power Discharge Characteristics : W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	518.40	336.96	273.82	168.91	99.864	52.028	36.792	30.096	29.442	16.659	14.180	7.9265
10.0V	504.90	336.60	269.89	166.18	99.576	51.715	36.720	30.024	29.219	16.525	14.035	7.6356
10.2V	494.80	326.50	263.69	165.10	99.360	51.590	36.648	30.024	29.145	16.503	13.890	7.4902
10.5V	447.14	313.04	249.96	161.14	97.704	50.776	36.432	29.808	29.071	16.458	13.744	7.1993
10.8V	399.41	292.84	236.16	157.32	96.048	50.087	36.144	29.592	28.997	16.391	13.526	6.9811
11.1V	351.75	272.65	222.43	153.50	94.392	49.336	35.856	29.376	28.922	16.391	13.308	6.7630

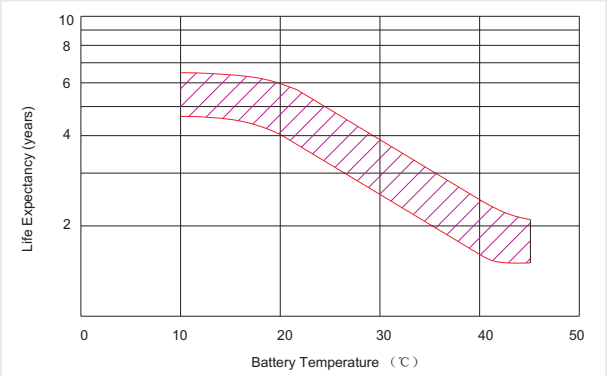
All mentioned values are average values.

RT 12120

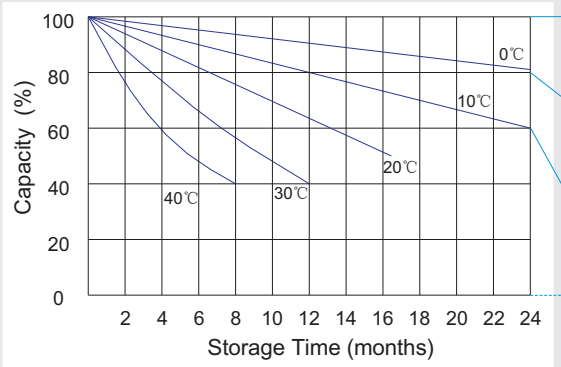
12V12Ah

RITAR®

Effect of temperature on long term float life



Storage characteristic



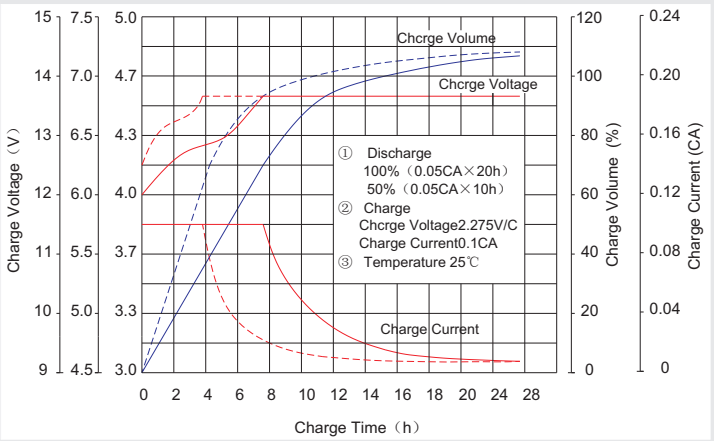
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

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

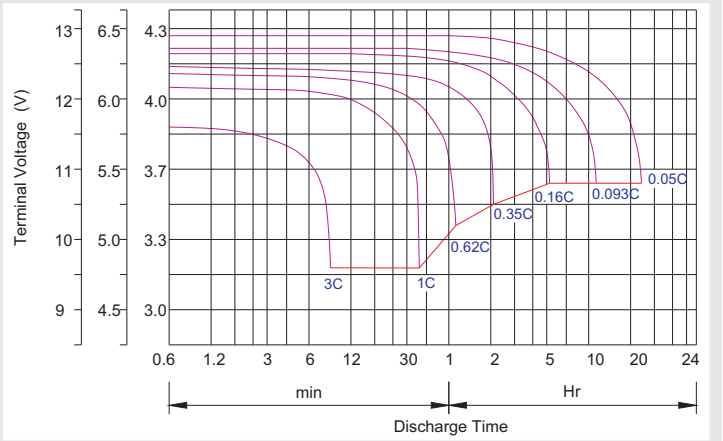
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

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+2.4~2.45V/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/℃/Cell.

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

SHENZHEN RITAR POWER CO.,LTD.

URL:www.ritarpower.com

Address: Rm405,Tower C, Huahan Building,Langshan Rd16, Nanshan District, ShenZhen, 518057, China

Tel:+86-755-33981668 Fax:86-755-8347-5180

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