

# RT12120H (12V12.0Ah)

RT12120H is specially designed for electric Vehicles, such as electric Moto cycle, electric wheelchair, electric golf car etc. It is rechargeable, highly efficient, leak proof and high cycling life.



## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	12.0Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 4.4Kg
Max. Discharge Current	120(5sec)
Internal Resistance	Approx. 12mΩ
Operating Temperature Range	Discharge: -20°C~50°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	3.6A
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 F3/Thread insert & Bolt
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



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

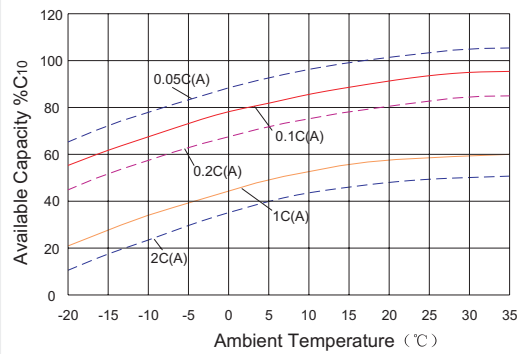
F.V/Time	1MIN	5MIN	10MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	5HR	8HR	10HR	12HR	24HR
1.60V	46.80	42.48	29.16	21.2	12.7	9.31	7.61	4.30	3.13	2.00	1.38	1.13	1.00	0.53
1.65V	44.64	40.75	26.42	20.6	12.5	9.20	7.51	4.30	3.13	2.00	1.38	1.13	1.00	0.53
1.70V	42.48	37.01	25.49	20.3	12.4	9.09	7.47	4.30	3.13	2.00	1.38	1.13	1.00	0.53
1.75V	37.44	33.41	23.47	19.7	12.3	8.80	7.40	4.29	3.02	1.98	1.36	1.11	0.98	0.52
1.80V	33.12	30.38	21.82	18.3	11.6	8.72	7.33	4.12	2.94	1.96	1.31	1.08	0.95	0.51
1.85V	24.48	22.18	16.78	14.7	10.7	7.86	6.86	3.97	2.84	1.86	1.24	0.99	0.93	0.49

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

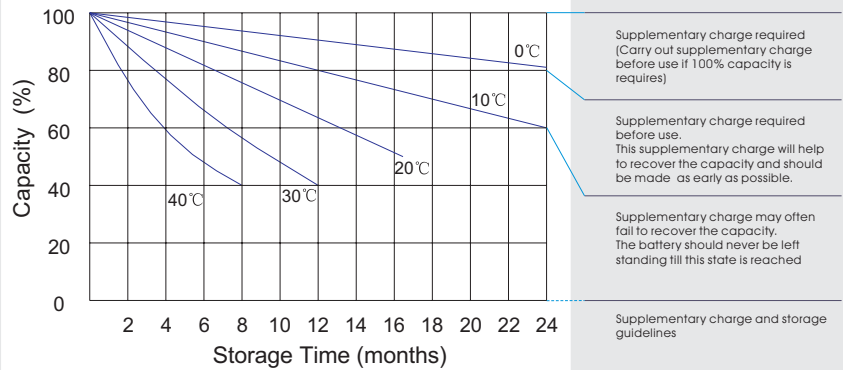
F.V/Time	1MIN	5MIN	10MIN	15MIN	30MIN	45MIN	1HR	2HR	3HR	5HR	8HR	10HR	12HR	24HR
1.60V	79.20	69.12	47.52	37.44	23.76	17.92	14.76	8.58	5.99	3.94	2.66	2.21	1.91	0.98
1.65V	77.76	66.24	47.23	37.20	23.04	17.76	14.70	8.52	5.99	3.94	2.66	2.21	1.91	0.98
1.70V	75.60	61.92	46.08	36.48	22.56	17.28	14.40	8.40	5.96	3.91	2.66	2.21	1.91	0.98
1.75V	64.80	57.60	43.20	34.08	21.36	17.12	14.28	8.22	5.88	3.86	2.63	2.17	1.91	0.97
1.80V	57.60	51.84	40.32	32.16	21.12	16.64	13.92	8.10	5.76	3.82	2.60	2.15	1.86	0.96
1.85V	50.40	41.76	33.12	27.84	19.68	15.36	12.96	7.80	5.60	3.58	2.43	2.04	1.76	0.93

All mentioned values are average values.

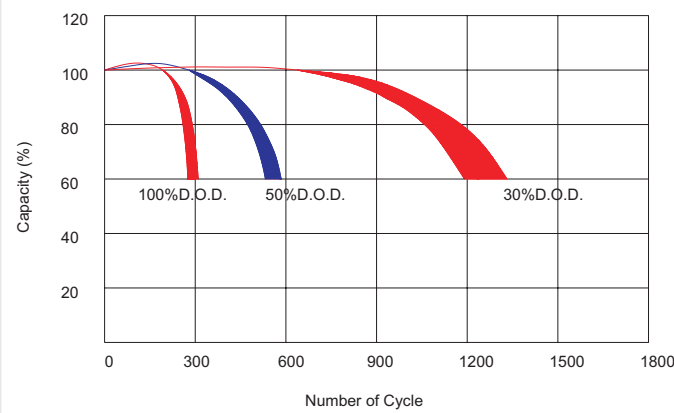
### Temperature effects curve



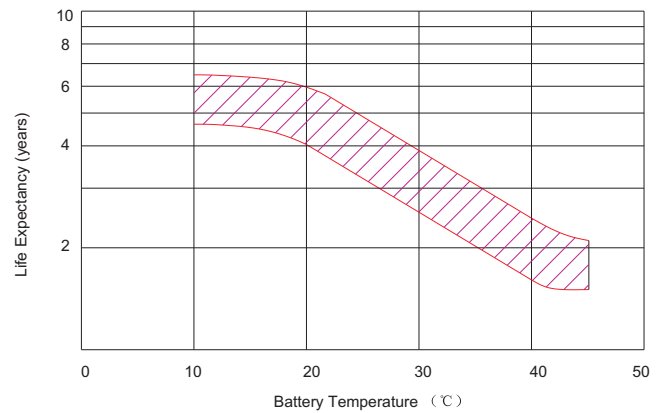
### Storage characteristic



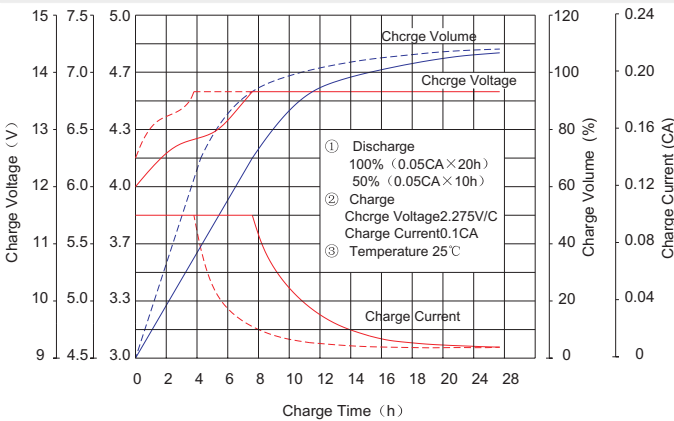
### Life characteristics of cyclic use



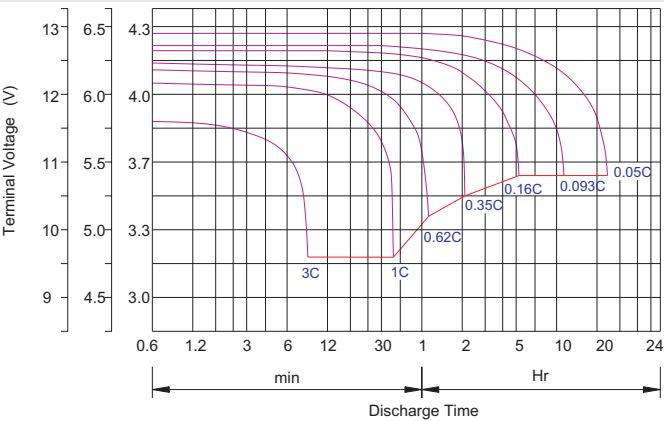
### Effect of temperature on long term float life



### Charge characteristic Curve for standby use



### Discharge characteristic Curve



### Charging Procedures

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	14.4~15.0V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA × 5h
Fast	0.3CA × 1.7h

### 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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