



# RT628 (6V2.8Ah)

RT series is a general purpose battery with 5 years design life in float service . It meets with IEC and JIS standards .With up-dated AGM valve regulated technology and high purity raw materials, the RT series battery has reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security systems applications.

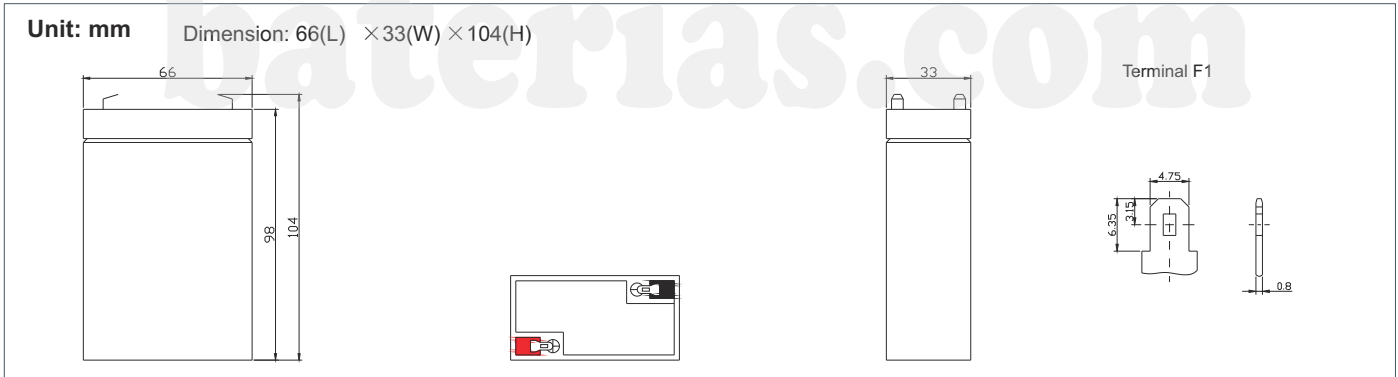


## Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	2.8Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 0.54 Kg(Tolerance ±5%)
Max. Discharge Current	28 A (5 sec)
Internal Resistance	Approx. 25 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	6.85 to 6.95 VDC/unit Average at 25°C
Recommended Maximum Charging Current	0.84 A
Equalization and Cycle Service	7.3 to 7.4 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)
Constainer Material	A.B.S. UL94-HB, UL94-V0 Optional.



## Dimensions



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

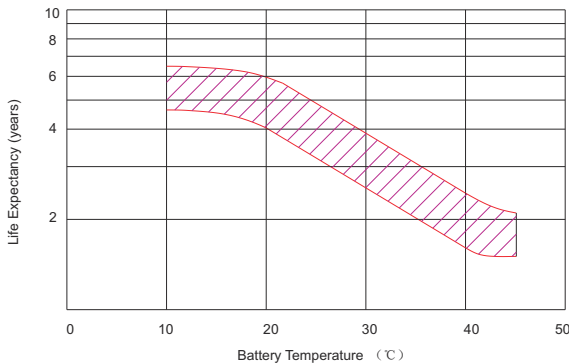
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
4.80V	11.04	7.241	5.393	2.871	1.820	1.046	0.733	0.597	0.491	0.323	0.280	0.150
5.00V	10.64	7.060	5.220	2.834	1.796	1.025	0.720	0.589	0.486	0.322	0.277	0.149
5.10V	10.02	6.710	5.075	2.791	1.778	1.014	0.713	0.583	0.483	0.319	0.273	0.144
5.25V	9.006	6.275	4.787	2.714	1.757	1.001	0.707	0.574	0.479	0.316	0.271	0.141
5.40V	8.070	5.851	4.516	2.624	1.732	0.993	0.699	0.555	0.477	0.315	0.267	0.136
5.55V	7.060	5.365	4.166	2.524	1.691	0.973	0.685	0.547	0.475	0.312	0.263	0.133

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

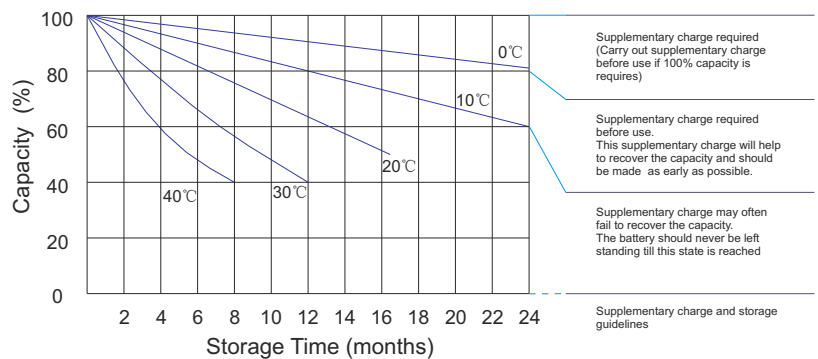
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
4.80V	59.89	39.70	29.75	16.43	10.88	6.163	4.384	3.574	2.940	1.936	1.677	0.899
5.00V	58.33	38.87	29.33	16.26	10.72	6.082	4.312	3.524	2.914	1.928	1.661	0.892
5.10V	55.48	37.33	28.94	16.12	10.64	6.029	4.275	3.491	2.896	1.914	1.639	0.869
5.25V	50.64	35.79	27.43	15.79	10.50	5.964	4.244	3.444	2.873	1.898	1.628	0.854
5.40V	45.68	33.49	25.92	15.42	10.36	5.921	4.194	3.328	2.860	1.889	1.603	0.820
5.55V	40.29	31.18	24.41	14.99	10.13	5.836	4.112	3.280	2.849	1.876	1.579	0.807

All mentioned values are average values (Tolerance ±2%).

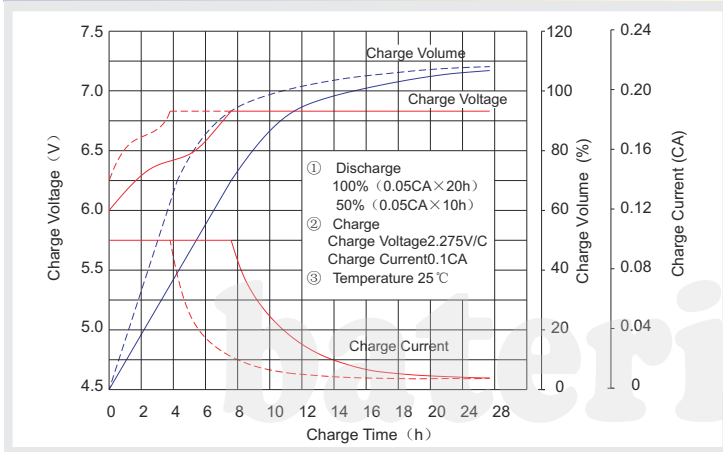
### Effect of temperature on long term float life



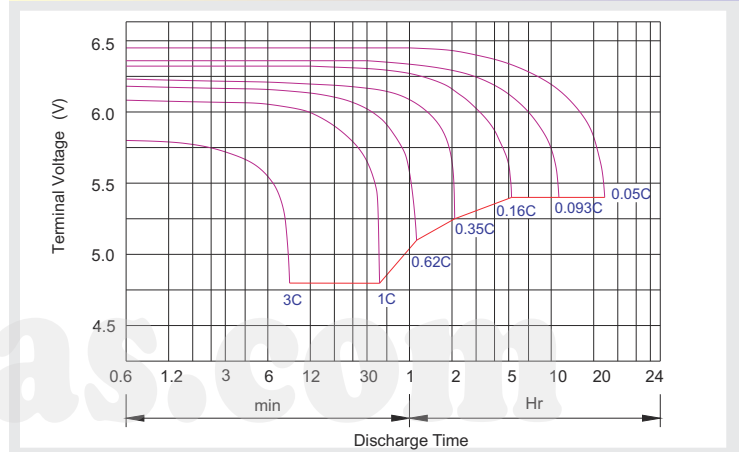
### Storage characteristic



### 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+7.2-7.35Vx24h, Max. Current 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4h

<b>Bolt</b>	M5	M6	M8
<b>Terminal</b>	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
<b>Torque</b>	6-7N-m	8-10N-m	10-12N-m

### Maintenance & Cautions

<b>Float Service:</b>
※ 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 7.2-7.35V 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.