



# RT 650H (6V5.0Ah) (21.3w/cell)

RT650H is high rate series with 5 years floating design life, especially designed for high rate load discharge applications. By using strong grid and specific paste plate to insure high performance during big current discharge requirement when electricity is off., High Rate series offering extra-durable stable performance under high rate discharge.



## Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	21.3W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 0.8 Kg
Max. Discharge Current	50 A (5 sec)
Internal Resistance	Approx. 18 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 Limit	1.5 A
Equalization and Cycle Service	7.3 to 7.4 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 F1/F2
Constainer Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V2 can be available upon request.



MH28539

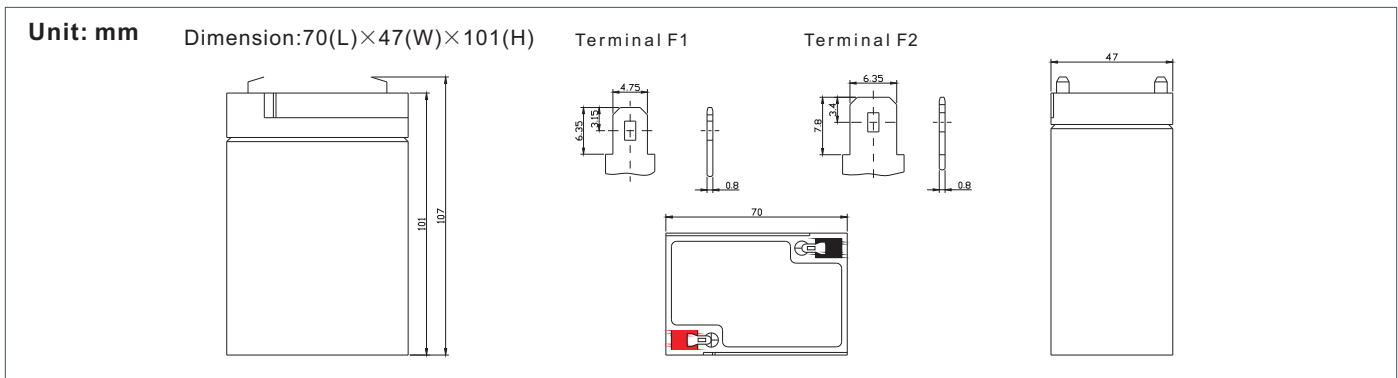


G4M20206-0910-E-16



ISO9001:2000 Certificate

## Dimensions



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

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
4.80V	24.56	17.89	15.25	12.02	9.168	6.615	3.740	2.956
5.00V	22.93	16.95	14.48	11.55	8.619	6.350	3.577	2.824
5.10V	22.22	16.54	14.07	11.28	8.354	6.212	3.540	2.791
5.25V	21.49	15.50	13.23	10.84	8.176	6.064	3.429	2.717
5.40V	20.76	14.34	12.09	10.29	7.839	5.861	3.304	2.687
5.55V	19.16	13.31	10.82	9.826	7.621	5.113	3.178	2.601

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

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
4.80V	131.6	96.84	82.94	65.47	50.06	36.16	20.45	16.21
5.00V	124.0	92.64	79.60	63.77	47.64	35.16	19.90	15.74
5.10V	121.4	90.64	77.45	62.65	46.58	34.61	19.73	15.57
5.25V	118.6	86.35	73.93	60.81	46.07	34.34	19.52	15.52
5.40V	115.7	80.98	68.78	58.91	44.94	33.69	19.17	15.46
5.55V	109.0	75.96	67.45	56.44	43.60	32.05	18.73	15.32

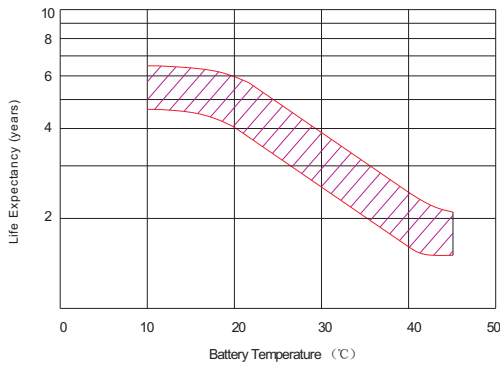
All mentioned values are average values.

# RT650H

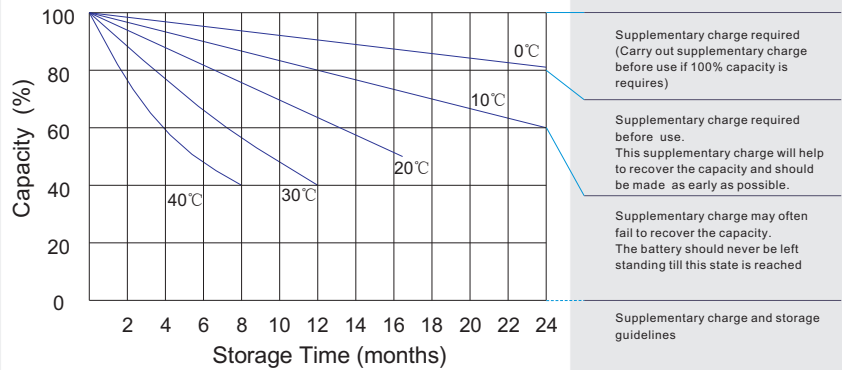
6V5.0Ah



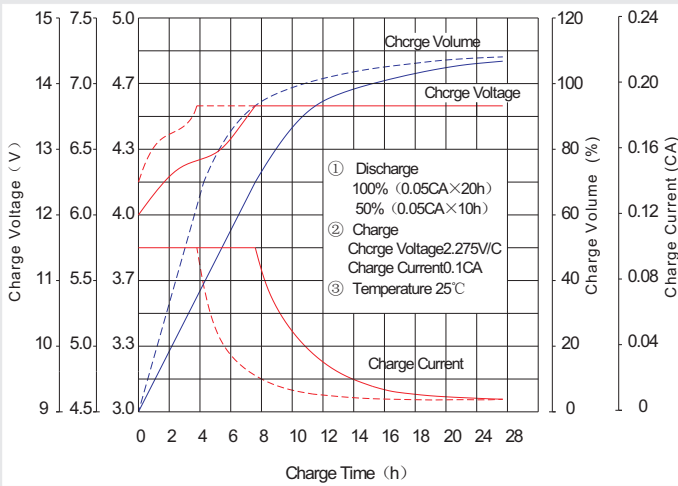
## Effect of temperature on long term float life



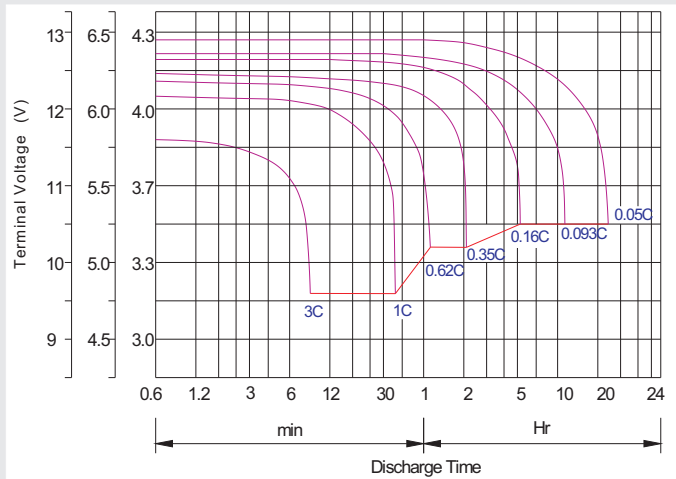
## Storage characteristic



## 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

## 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 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.

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

Charging Method:

Constant Voltage	-0.2Cx2h + 2.4~2.5V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h + 0.1CAx12h
Fast	-0.2Cx2h + 0.3CAx4.0h