



# RT650(6V5Ah)

## Specification

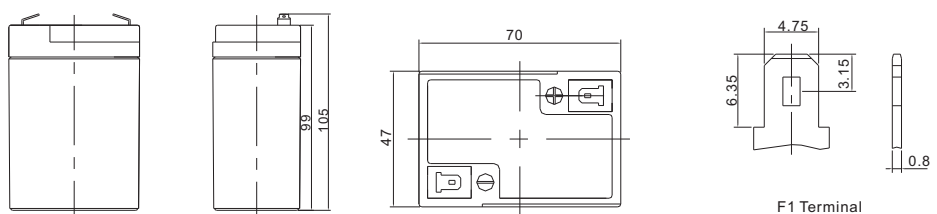


RT series is a general purpose battery with 6~8 years design life in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the RT series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.

Cells Per Unit	3
Voltage Per Unit	6
Nominal Capacity	5Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 0.75 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 20 mΩ
Terminal	F1/F2
Max. Discharge Current	50A (5 sec)
Short Circuit Current	250A
Design Life	6~8 years (Float charging)
Recommended Maximum Charging Current	1.5A
Reference Capacity	C3 3.88AH C5 4.38AH C10 4.70AH C20 5.04AH
Standby Use Voltage	6.85 V~6.95 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	7.30 V~7.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



## Dimensions



Length	70±1.5mm (2.76 inches)
Width	47±1.5mm (1.85 inches)
Height	99±1.5mm (3.90 inches)
Total Height	105±1.5mm (4.13 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

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

F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	19.82	12.93	9.538	5.520	3.189	1.882	1.368	1.089	0.920	0.614	0.500	0.260
1.65V	19.11	12.54	9.288	5.398	3.130	1.854	1.350	1.076	0.909	0.608	0.496	0.258
1.70V	18.18	12.04	8.959	5.238	3.052	1.818	1.326	1.058	0.895	0.600	0.489	0.255
1.75V	16.98	11.38	8.531	5.028	2.949	1.769	1.293	1.034	0.876	0.589	0.481	0.252
1.80V	15.47	10.55	7.981	4.757	2.815	1.705	1.251	1.002	0.851	0.574	0.470	0.247
1.85V	13.61	9.504	7.287	4.409	2.642	1.623	1.196	0.961	0.819	0.555	0.455	0.240

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

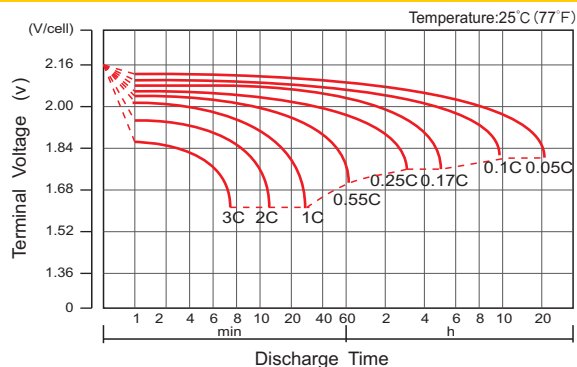
F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	34.12	22.31	16.92	10.18	6.05	3.62	2.65	2.12	1.80	1.22	1.00	0.52
1.65V	33.76	22.21	16.83	10.10	6.00	3.59	2.63	2.11	1.79	1.21	0.99	0.52
1.70V	32.47	21.56	16.37	9.86	5.87	3.53	2.59	2.08	1.76	1.19	0.98	0.51
1.75V	30.88	20.75	15.82	9.56	5.70	3.45	2.54	2.04	1.73	1.17	0.96	0.51
1.80V	28.63	19.57	15.01	9.13	5.47	3.35	2.47	1.98	1.69	1.15	0.94	0.50
1.85V	25.64	17.94	13.90	8.55	5.17	3.20	2.37	1.91	1.63	1.11	0.91	0.48

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

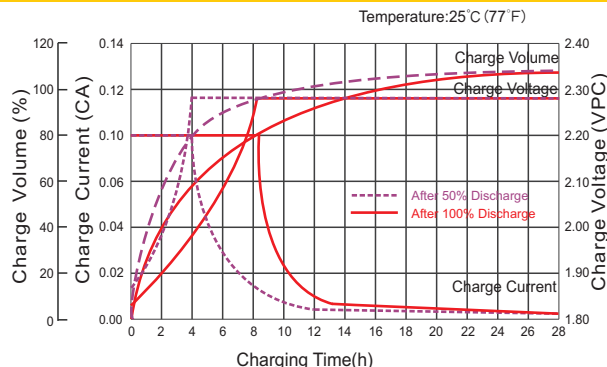
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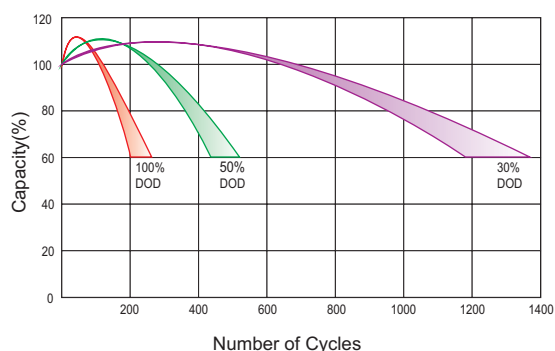
## Discharge Characteristics Curve



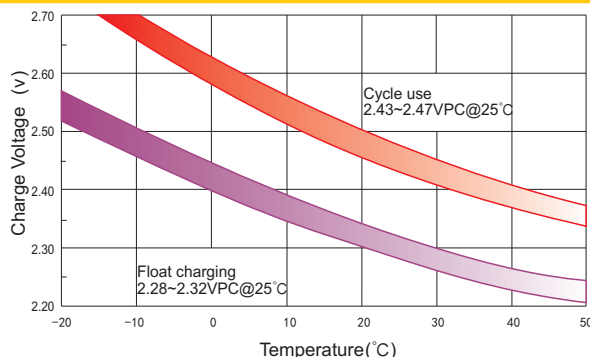
## Charge Characteristic Curve For Standby Use



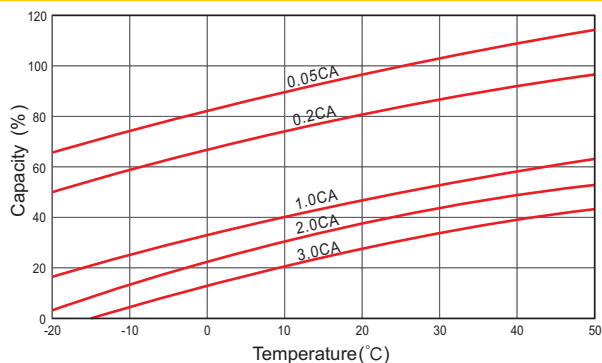
## Cycle Life In Relation To Depth Of Discharge



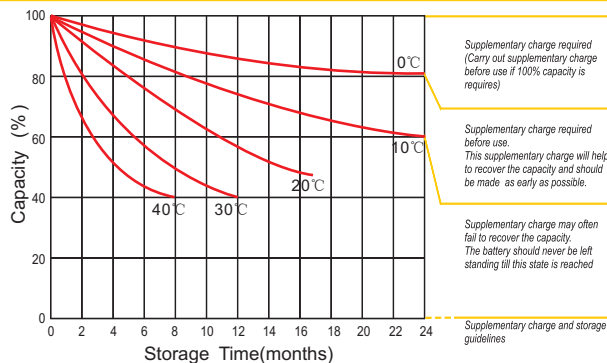
## Relationship Between Charging Voltage And Temperature



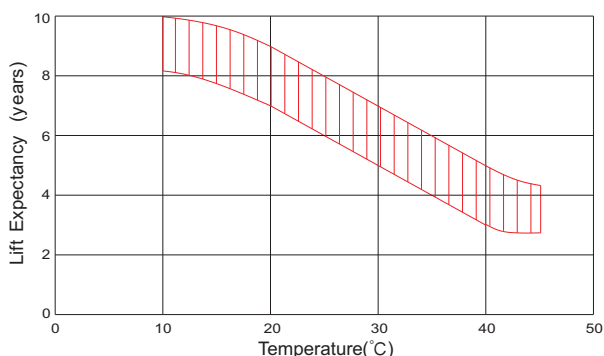
## Temperature Effects On Capacity



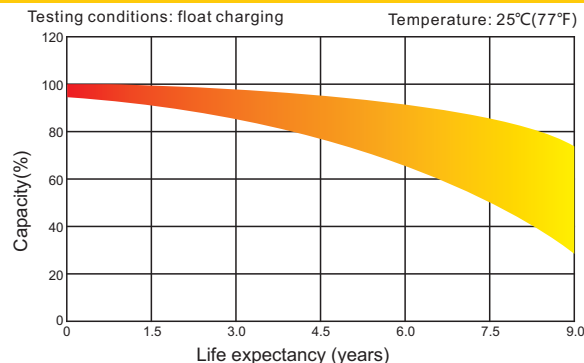
## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.