



# RT12240S (12V24Ah)

## Specification

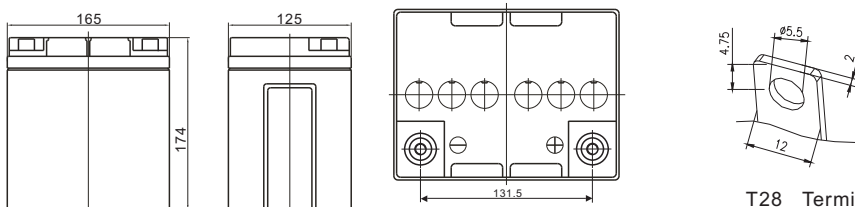
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	24Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 7.40 Kg (Tolerance ± 5.0%)
Internal Resistance	Approx. 16 mΩ
Terminal	T28(M5)
Max. Discharge Current	240A (5 sec)
Short Circuit Current	820A
Design Life	6~8 years (Float charging)
Max. Charging Current	7.2 A
Reference Capacity	C3 18.6AH C5 20.9AH C10 22.4AH C20 24.0AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 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.



RT series is a general purpose battery with 6~8 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T 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, medical equipment, emergency light and security system applications.



## Dimensions



Length	165±1.5mm (6.50 inches)
Width	125±1.5mm (4.92 inches)
Height	174±1.5mm (6.85 inches)
Total Height	174±1.5mm (6.85 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	82.18	59.30	43.31	25.13	13.93	9.003	6.768	5.464	4.527	2.914	2.367	1.250
1.65V	76.42	56.04	41.41	24.13	13.45	8.716	6.559	5.316	4.410	2.881	2.338	1.230
1.70V	68.95	51.59	38.78	23.06	13.01	8.429	6.381	5.172	4.295	2.837	2.302	1.215
1.75V	61.78	47.22	36.09	22.04	12.54	8.134	6.190	5.039	4.187	2.797	2.272	1.200
1.80V	54.24	42.75	33.32	21.07	12.06	7.843	5.999	4.895	4.079	2.750	2.243	1.188
1.85V	43.05	34.94	27.65	18.14	10.82	7.186	5.546	4.549	3.804	2.581	2.112	1.128

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

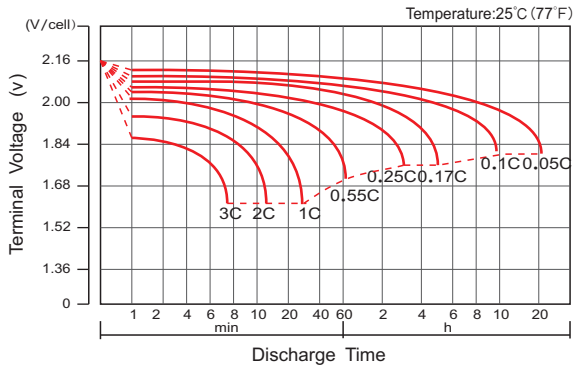
F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	136.2	100.8	75.72	45.64	26.18	17.06	12.93	10.49	8.73	5.69	4.65	2.46
1.65V	128.2	97.09	73.46	44.28	25.42	16.60	12.58	10.24	8.53	5.64	4.60	2.43
1.70V	118.3	91.02	69.83	42.75	24.75	16.14	12.29	10.00	8.34	5.56	4.54	2.40
1.75V	108.3	84.82	65.93	41.28	23.99	15.65	11.98	9.78	8.16	5.50	4.48	2.37
1.80V	97.12	78.12	61.74	39.85	23.21	15.17	11.65	9.54	7.98	5.42	4.43	2.35
1.85V	78.71	64.98	51.96	34.67	20.94	13.97	10.82	8.90	7.46	5.10	4.18	2.24

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C<sub>20</sub> should reach 95% after the first cycle and 100% after the third cycle.

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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.