



# RT12280L (12V28Ah)

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	28Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 8.60 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 9 mΩ
Terminal	F3(M5)/F13-BP(M5)
Max. Discharge Current	280A (5 sec)
Short Circuit Current	960A
Design Life	6~8 years (Float charging)
Max. Charging Current	8.4 A
Reference Capacity	C3 21.7AH C5 24.4AH C10 26.2AH C20 28.0AH
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.



ISO 9001



ISO 14001



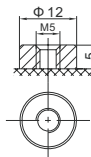
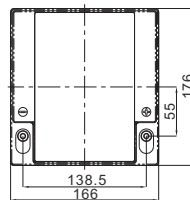
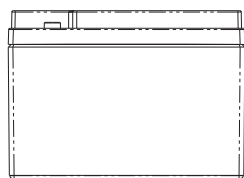
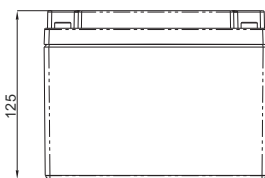
OHSAS 18001



MH 28539



## Dimensions



F13-BP TERMINAL

Length	166±1.5mm (6.54 inches)
Width	176±1.5mm (6.93 inches)
Height	125±1.5mm (4.92 inches)
Total Height	125±1.5mm (4.92 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	106.0	74.18	53.11	30.21	16.41	10.50	7.896	6.375	5.282	3.399	2.761	1.458
1.65V	98.54	70.10	50.77	29.00	15.85	10.17	7.652	6.202	5.145	3.361	2.727	1.435
1.70V	88.91	64.53	47.55	27.72	15.34	9.833	7.444	6.034	5.011	3.309	2.686	1.417
1.75V	79.66	59.07	44.25	26.49	14.78	9.490	7.222	5.879	4.885	3.264	2.651	1.400
1.80V	69.94	53.47	40.86	25.32	14.21	9.150	6.999	5.710	4.759	3.208	2.617	1.386
1.85V	55.52	43.70	33.91	21.81	12.75	8.384	6.470	5.308	4.438	3.012	2.463	1.316

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

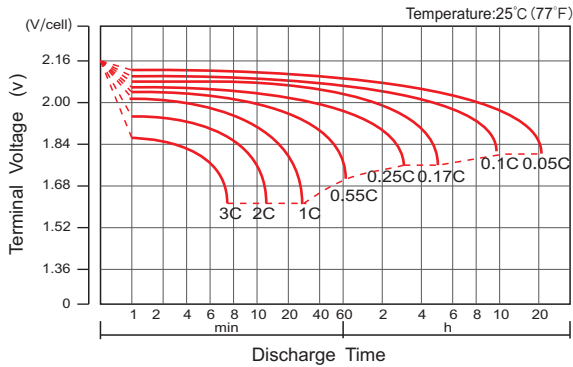
F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	175.7	126.1	92.84	54.86	30.85	19.91	15.08	12.24	10.18	6.639	5.427	2.870
1.65V	165.2	121.4	90.08	53.23	29.96	19.37	14.68	11.95	9.954	6.578	5.368	2.829
1.70V	152.5	113.9	85.63	51.38	29.17	18.83	14.34	11.67	9.729	6.492	5.295	2.798
1.75V	139.7	106.1	80.84	49.62	28.27	18.26	13.97	11.42	9.517	6.414	5.231	2.767
1.80V	125.2	97.72	75.70	47.90	27.35	17.69	13.59	11.13	9.304	6.319	5.171	2.743
1.85V	101.5	81.28	63.71	41.67	24.68	16.30	12.62	10.38	8.705	5.946	4.875	2.609

(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.

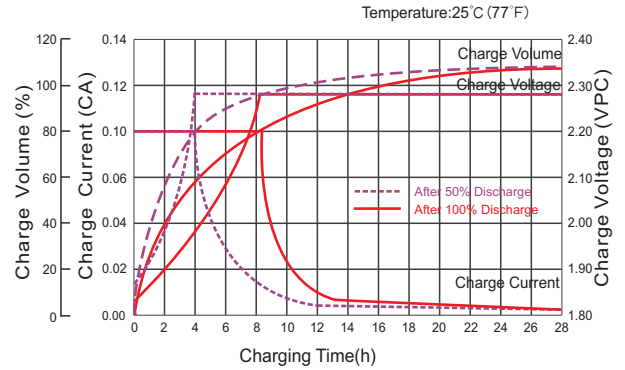
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## Discharge Characteristics Curve



## Charge Characteristic Curve For Standby Use



## Cycle Life In Relation To Depth Of Discharge



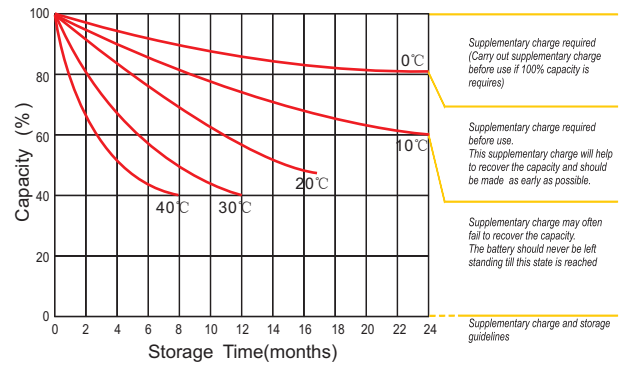
## Relationship Between Charging Voltage And Temperature



## 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.