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# RG12400RT

12V 40Ah

RG12400RT is a general purpose battery up to 5 years in standby service or more than 260 cycles at 100% discharge in cycle service.

## ► Specification

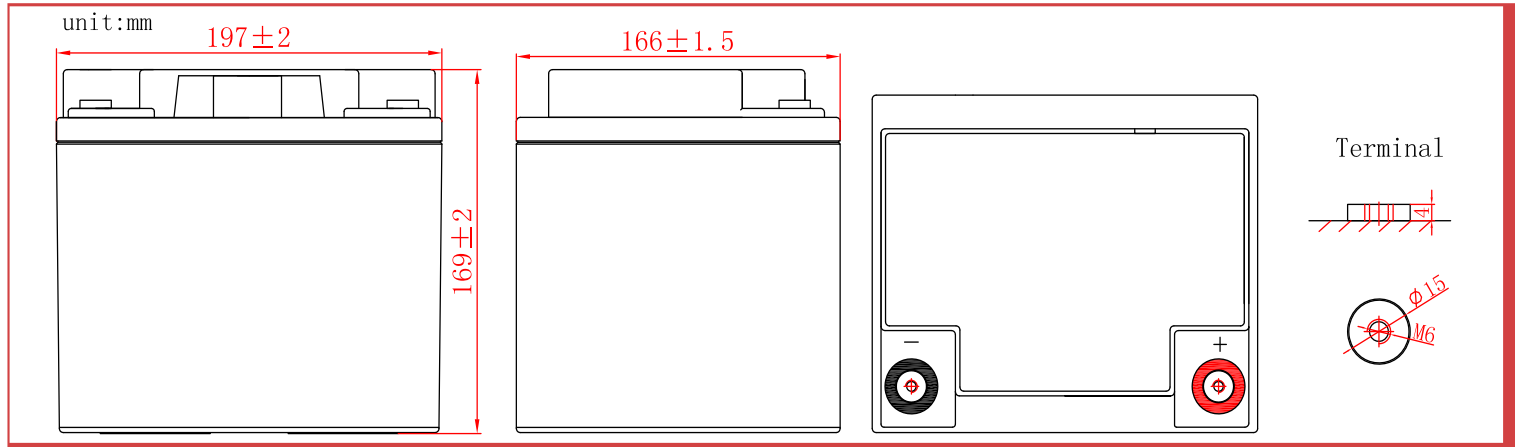
Cells Per Unit	6
Voltage Per Unit	12
Capacity	40Ah @ 10hr-rate to 1.8V per cell @ 25°C (77°F)
Weight	Approx. 12.5 kg (27.5 lbs)
Maximum Discharge Current	400A (5sec)
Internal Resistance	Approx. 9 mΩ
Operating Temperature Range	Discharge: -15°C~50°C ( 5°F~122°F) Charge: -15°C~40°C ( 5°F~104°F) Storage: -15°C~40°C ( 5°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging Current Limit	12A
Equalization and Cycle Service	14.4 to 14.8 VDC/unit Average at 25°C (77°F)
Self Discharge	Raion batteries can be stored for more than 6 months at 25°C(77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	Thread lead alloy recessed terminal to accept M6 bolt
Container Material	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.



## ► Dimensions :

Unit: mm

Overall Height (H)	Container height (h)	Length (L)	Width (W)
169±2	169±2	197±2	166±1.5



## Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

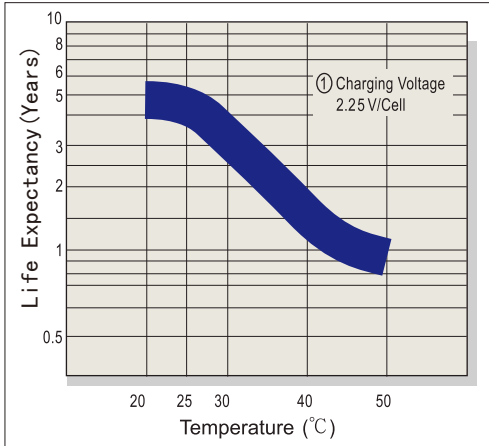
F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	92.5	69.7	42.8	25.6	10.6	7.2	4.10	2.18
1.67V	89.9	67.9	42.0	25.2	10.5	7.1	4.09	2.18
1.7V	88.3	66.6	41.5	24.9	10.4	7.1	4.08	2.17
1.75V	83.2	63.0	40.0	24.1	10.2	7.0	4.06	2.15
1.8V	76.1	58.7	38.2	23.1	9.8	6.8	4.00	2.12
1.85V	66.0	51.7	35.8	21.4	9.0	6.3	3.84	2.05

## Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

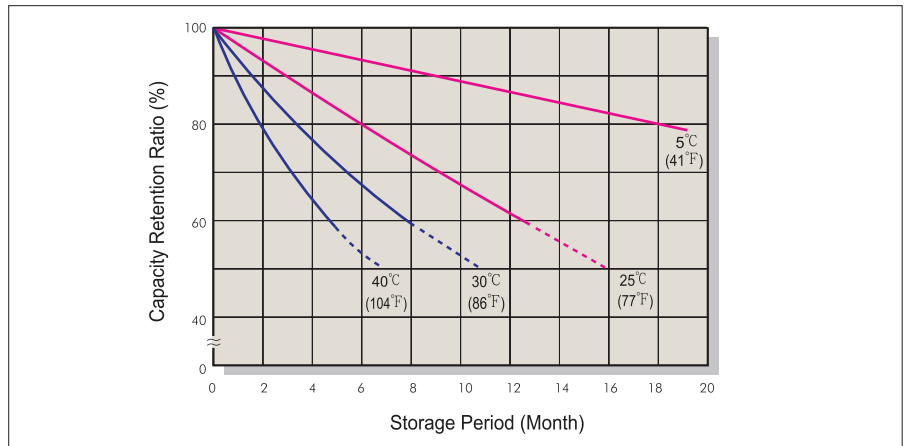
F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	148.8	119.9	81.1	48.6	20.8	14.0	8.06	4.33
1.67V	141.1	113.7	79.7	48.1	20.6	13.9	8.03	4.32
1.7V	135.2	109.0	78.9	47.7	20.4	13.9	8.01	4.31
1.75V	122.4	99.0	76.3	46.7	20.1	13.7	7.97	4.28
1.8V	107.2	87.3	72.9	45.1	19.4	13.3	7.86	4.22
1.85V	87.8	72.3	68.2	42.6	18.0	12.5	7.59	4.07

Ratings presented herein are subject to revision without notice.

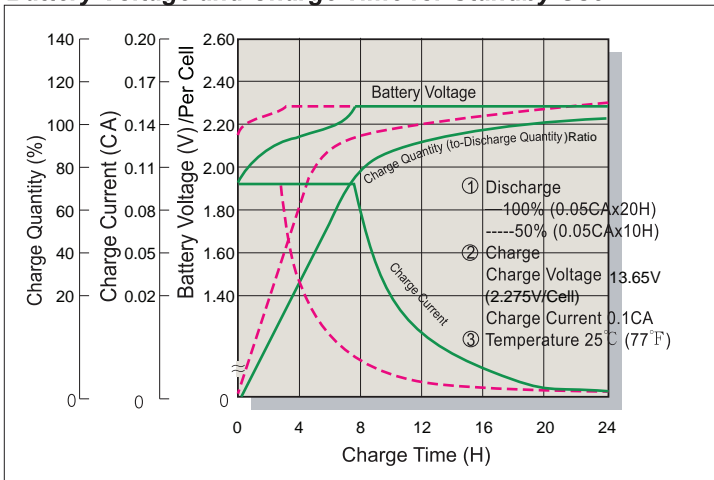
### Trickle(or Float)Design Life



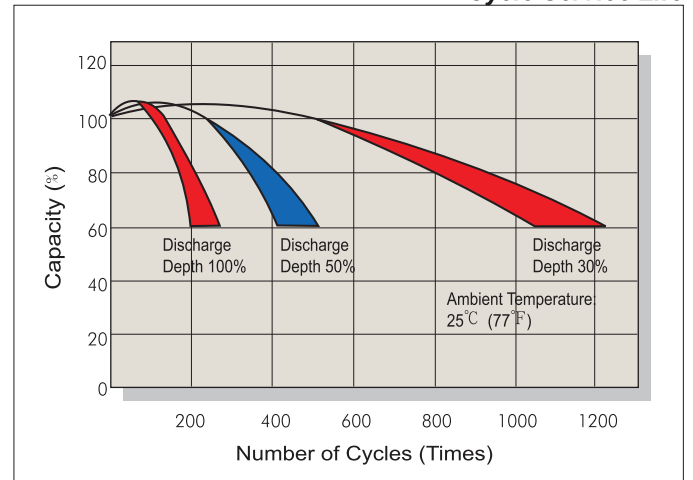
### Capacity Retention Characteristic



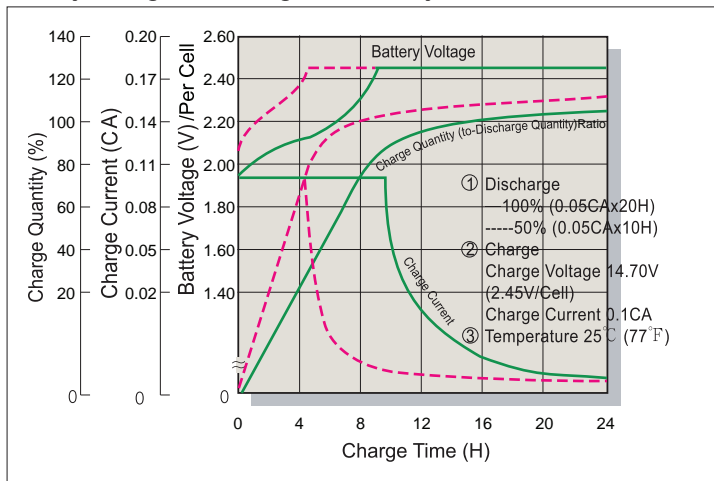
### Battery Voltage and Charge Time for Standby Use



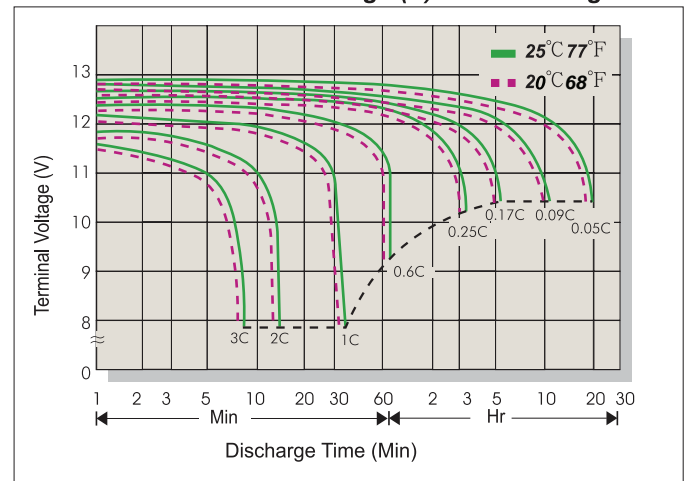
### Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time



### Charging Procedures

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C (77°F)	2.45	2.40~2.50	0.3C
Standby	25°C (77°F)	2.275	2.25~2.30	

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.65	1.60
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

### Effect of temperature on capacity (20HR)

Temperature	Dependency of Capacity (20HR)
40 °C	102%
25 °C	100%
0 °C	85%
-15 °C	65%

### Self-discharge Characteristics

Storage time	Preservation rate
3 Months	91%
6 Months	82%
12 Months	64%