

Powered by



# RG-4D-NB ▶ 12V 200Ah

RG-4D-NB is a general purpose battery up to 5 years in standby service or more than 260 cycles at 100% discharge in cycle service . This battery is rechargeable , highly efficient , leak proof and maintenance free.

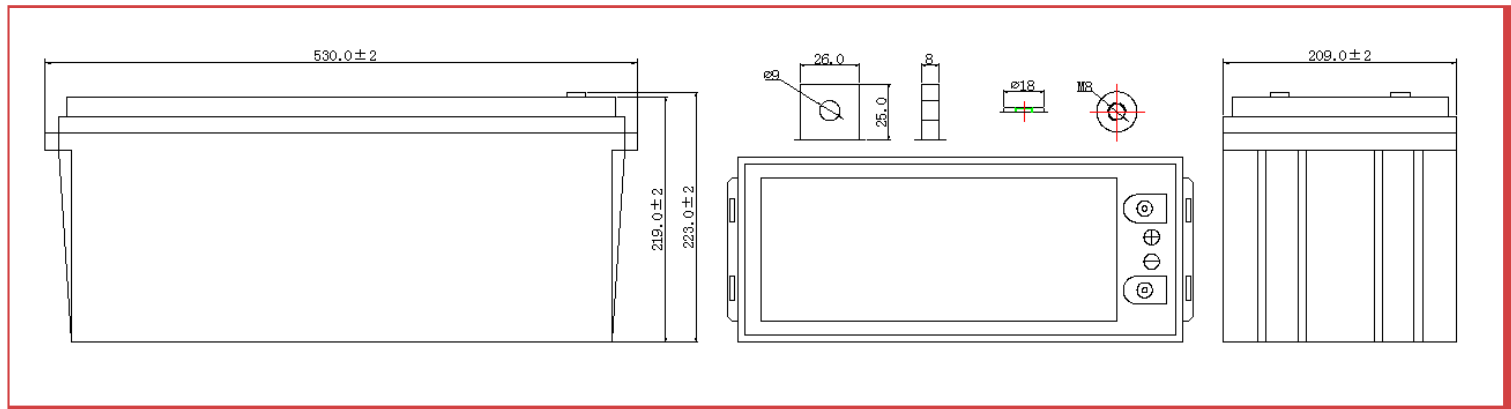


## ► Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	200Ah @ 20hr-rate to 1.75V per cell @25°C (77°F)
<b>Weight</b>	Approx. 51.5 kg(113.3 lbs)
<b>Maximum Discharge Current</b>	1100A(5sec)
<b>Internal Resistance</b>	Approx. 2.9 mΩ
<b>Operating Temperature Range</b>	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)
<b>Nominal Operating Temperature Range</b>	25°C±3°C (77°F±5°F)
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
<b>Recommended Maximum Charging Current Limit</b>	48 A
<b>Equalization and Cycle Service</b>	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
<b>Self Discharge</b>	Raion Power 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.
<b>Terminal</b>	NB terminal (M8 bolt)
<b>Container Material</b>	Polypropylene(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.

## ► Dimensions :

Unit: mm (inch)	Overall Height (H)	Container height (h)	Length (L)	Width (W)
	223±2.5 (8.78±0.1)	219±2.5 (8.62±0.1)	530±2.5 (20.87±0.1)	209±2 (8.23±0.08)



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

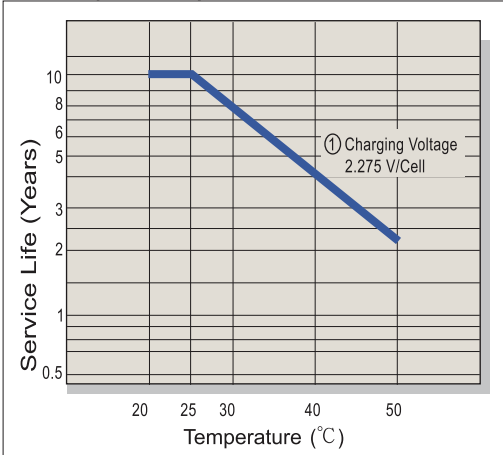
F.V/Time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	278	177	104	76.4	60.2	44.3	35.7	29.6	25.3	22.0	19.5	17.9	9.42
1.70V	263	170	100	74.3	59.5	43.9	35.3	29.3	24.9	21.8	19.1	17.8	9.32
1.75V	238	158	95.5	72.1	57.9	42.7	34.2	28.1	24.0	21.0	18.8	17.4	9.11
1.80V	211	146	90.2	68.1	55.6	41.3	32.6	27.2	23.4	20.3	18.1	17.0	8.90
1.83V	195	138	85.0	65.2	53.3	39.8	31.7	26.4	22.8	19.8	17.5	16.3	8.69
1.85V	184	133	82.9	63.7	52.1	38.9	31.0	25.8	22.2	19.4	17.3	16.2	8.48
1.90V	158	118	77.2	62.6	48.1	35.4	28.1	23.4	20.0	17.6	15.8	14.7	7.84

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

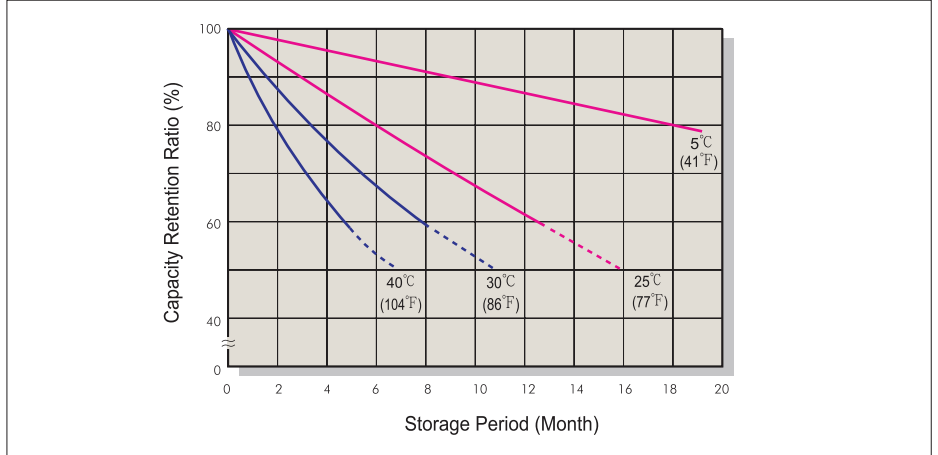
F.V/Time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR
1.67V	2,954	1,909	1,135	843	669	497	402	334	286	249	221	180	94.7
1.70V	2,821	1,855	1,122	833	667	496	400	333	284	248	218	179	94.4
1.75V	2,575	1,747	1,084	824	666	489	394	324	277	243	217	178	93.4
1.80V	2,322	1,627	1,033	785	646	480	380	318	274	238	212	175	92.5
1.83V	2,164	1,545	1,002	768	628	467	372	311	268	233	207	170	90.9
1.85V	2,057	1,495	977	753	618	459	367	305	263	230	204	169	89.2
1.90V	1,812	1,370	909	693	572	423	337	281	240	212	189	157	83.5

Ratings presented herein are subject to revision without notice.

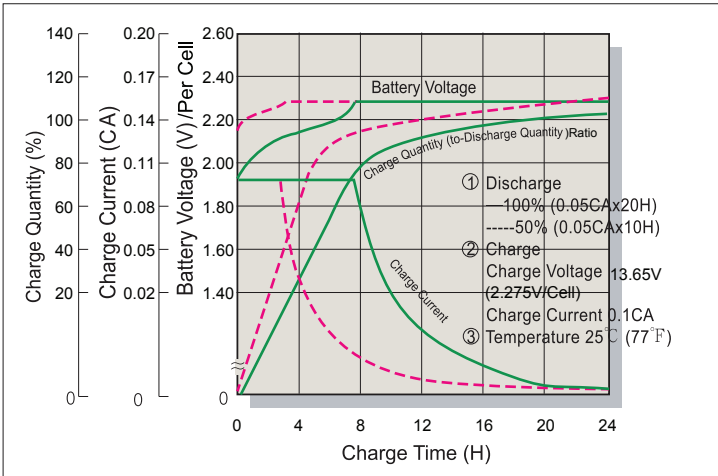
### Trickle (or Float) Service Life



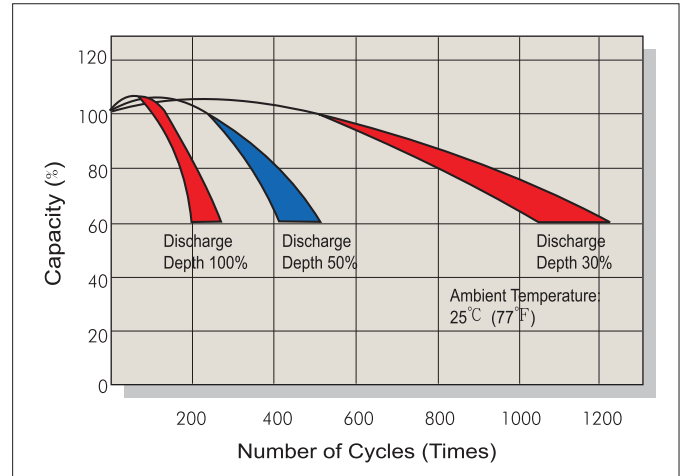
### Capacity Retention Characteristic



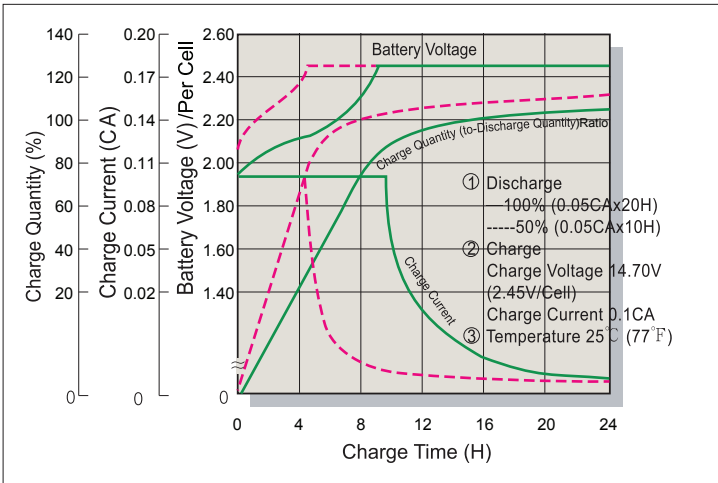
### Battery Voltage and Charge Time for Standby Use



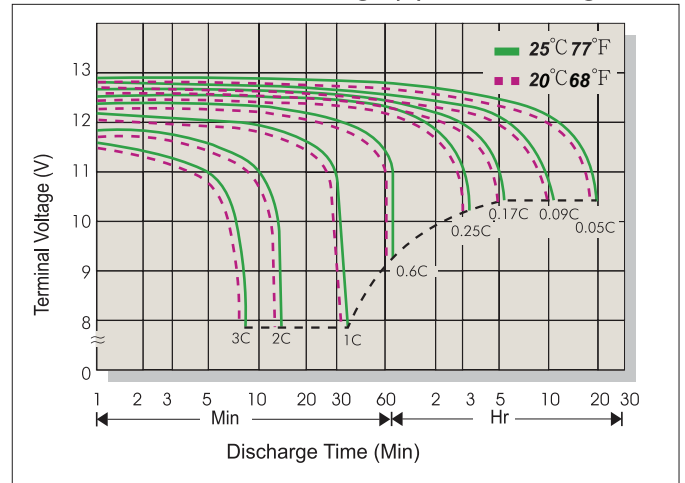
### Cycle Service Life



### 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	1.60	1.30
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

Charge Voltage(V/Cell)	Charge Voltage(V/Cell)
3 Months	91%
6 Months	82%
12 Months	64%