RA12-33G(12V33Ah)

## Specification

Weight	Approx. 9.6 Kg (Tolerance±3.0%)

RA-G series is hybrid GEL battery with 12 years floating design life ,it is ideal for standby discharge application. By using strong grids, high purity lead and patented Gel electrolyte, the series maintains high consistency for better performance and reliable standby service life. Suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.
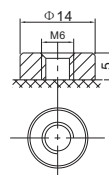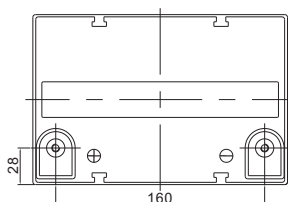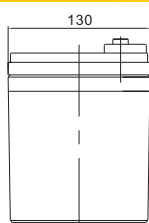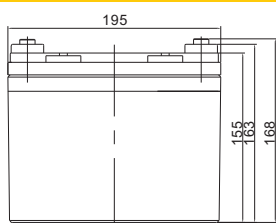
Length	195±2mm (7.68 inches)
Width	130±2mm (5.12 inches)
Height	155±2mm (6.10 inches)
Total Height	168±2mm (6.61 inches)

Terminal	Value	
M5	6~7	N*m
M6	8~10	N*m
M8	10~12	N*m

Unit: mm

F11 TERMINAL

Constant Current Discharge Characteristics : A (25℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	79.8	60.7	35.8	20	11.9	9.3	7.28	6.17	3.84	3.18	1.63
1.65V	72.3	55.9	33.7	19.3	11.4	9	7.01	5.97	3.81	3.16	1.63
1.70V	67.3	52.7	31.7	18.6	11.2	8.6	6.85	5.81	3.75	3.08	1.77
1.75V	61.1	49.6	30.6	18.1	10.8	8.3	6.67	5.63	3.70	3.06	1.75
1.80V	56.5	45.2	29.6	17.3	10.5	8.2	6.51	5.61	3.63	3.03	1.73
1.85V	42.8	37.4	24.8	15.4	9.5	7.5	6.07	5.12	3.43	2.85	1.64

Constant Power Discharge Characteristics : WPC (25℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	136.1	105.8	65	37.5	22.5	17.6	13.9	11.6	7.49	6.23	3.30
1.65V	131.1	103	63.5	36.5	21.8	17.1	13.6	11.2	7.42	6.15	3.28
1.70V	122	97.2	60.2	35.7	21.3	16.3	13.2	10.9	7.36	6.06	3.26
1.75V	113.4	91.7	58.13	34.4	20.5	15.9	12.9	10.7	7.15	5.97	3.19
1.80V	104.5	84	56.27	33.4	20.1	15.9	12.7	10.6	7.03	5.89	3.16
1.85V	80.2	70.6	47.72	29.9	18.5	14.7	11.8	9.8	6.7	5.65	3.21

RA12-33(12V33Ah)

RITAR ®

Discharge Characteristics Curve

Temperature:25°C (77°F)

(V/cell)

Terminal Voltage (v): 2.16, 2.00, 1.84, 1.68, 1.52, 1.36, 0

3C 2C 1C 0.55C 0.25C 0.17C 0.1C 0.05C

min: 1 2 4 6 8 10 20 40 60
h: 2 4 6 8 10 20
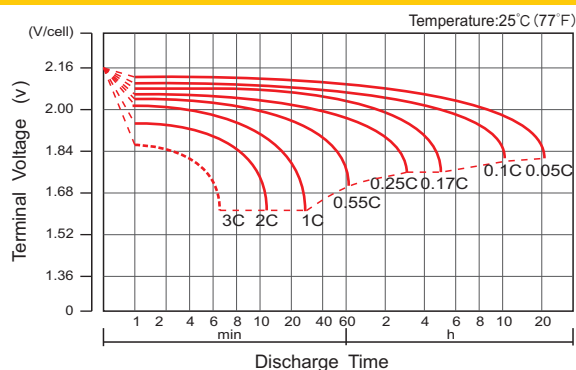
Discharge Time

Charge Characteristic Curve For Standby Use

Temperature:25°C (77°F)

Charge Volume
Charge Voltage
Charge Current

Charge Volume (%): 0, 20, 40, 60, 80, 100, 120
Charge Current (CA): 0.00, 0.02, 0.04, 0.06, 0.08, 0.10, 0.12, 0.14
Charge Voltage (VPC): 1.80, 1.90, 2.00, 2.10, 2.20, 2.30, 2.40

- - - After 50% Discharge
——— After 100% Discharge

Charging Time(h): 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
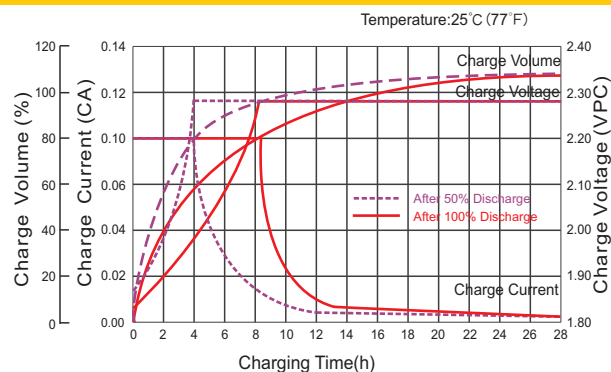
Cycle Life In Relation To Depth Of Discharge

Capacity(%): 0, 20, 40, 60, 80, 100, 120

100% DOD   50% DOD   30% DOD

Number of Cycles: 200 400 600 800 1000 1200 1400
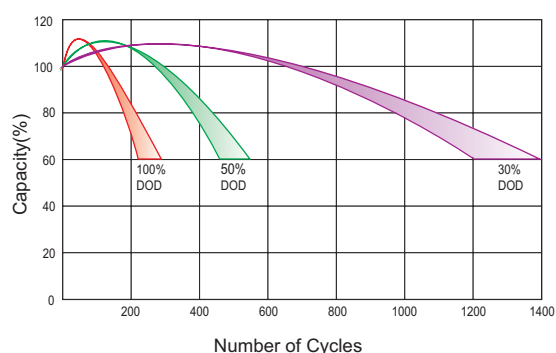
Relationship Between Charging Voltage And Temperature

Charge Voltage (v): 2.20, 2.30, 2.40, 2.50, 2.60, 2.70

Cycle use
2.43~2.47VPC@25°C

Float charging
2.27~2.30VPC@25°C

Temperature(°C): −20 −10 0 10 20 30 40 50
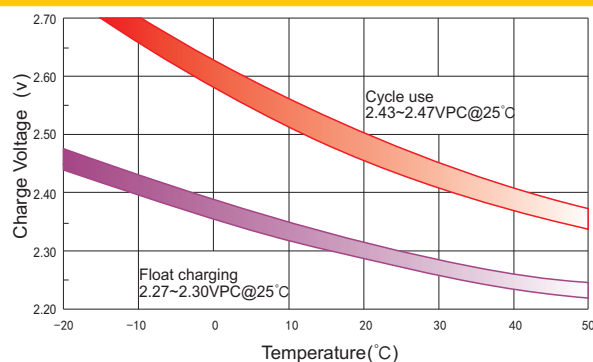
Temperature Effects On Capacity

Capacity (%): 0, 20, 40, 60, 80, 100, 120

0.1CA
0.2CA
1.0CA
2.0CA
3.0CA

Temperature(°C): -20 -10 0 10 20 30 40 50

Storage Characteristics

Capacity (%): 0, 20, 40, 60, 80, 100

0°C
10°C
20°C
30°C
40°C

Storage Time(months): 0 2 4 6 8 10 12 14 16 18 20 22 24

Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

Effect Of Temperature On Long Term Life

Lift Expectancy (years): 0, 4, 8, 12, 16, 20

Temperature(°C): 0 10 20 30 40 50
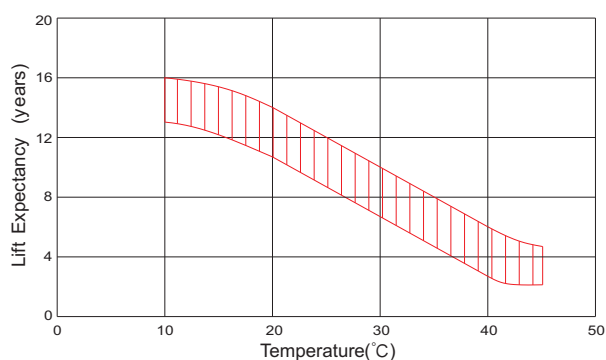
Life Characteristics Of Standby Use

Testing conditions: float charging

Temperature: 25°C(77°F)

Capacity(%): 0, 20, 40, 60, 80, 100, 120

Life expectancy (years): 0 2 4 6 8 10 12
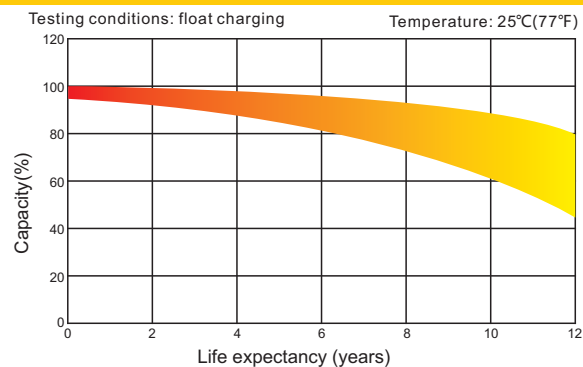
(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.