



# RA12-65G (12V65Ah)

RA12-65 G is GEL Standby battery with 12 years+ design life time in float charging use. Ritar Gel battery are featured with low self-discharge, good consistence on deep discharge, long cyclic life, low floating charging voltage and current, free from erosion, pollution, gas escape, and leakage, as well as beneficial to environmental protection.



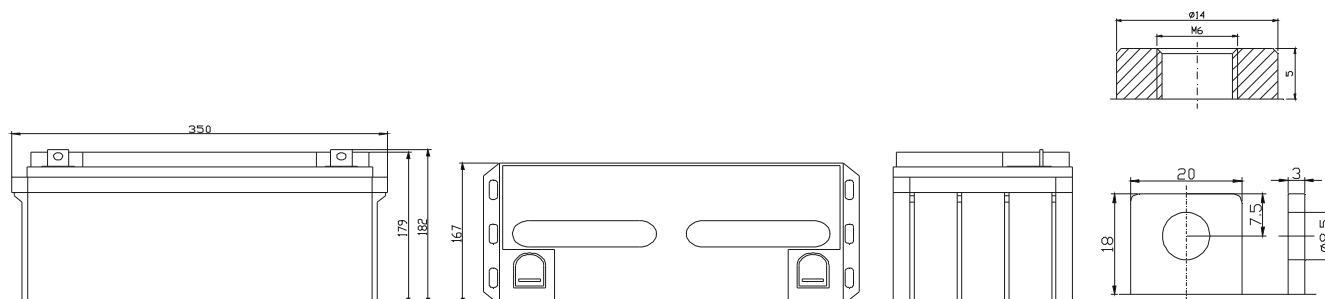
## Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	65Ah@10hr-rate to 1.75V per cell @25°C
<b>Weight</b>	Approx. 21.4 Kg
<b>Max. Discharge Current</b>	325 A (5 sec)
<b>Internal Resistance</b>	Approx. 12 mΩ
<b>Operating Temperature Range</b>	Discharge: -30°C~60°C Charge: -20°C~50°C Storage: -30°C~60°C
<b>Normal Operating Temperature Range</b>	25°C±5°C
<b>Float charging Voltage</b>	13.6 to 13.8 VDC/unit Average at 25°C
<b>Recommended Maximum Charging Current Limit</b>	19.5 A
<b>Equalization and Cycle Service</b>	14.1 to 14.3 VDC/unit Average at 25°C
<b>Self Discharge</b>	RITAR batteries can be stored for more than 12 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
<b>Terminal</b>	Faston F5/F11
<b>Container Material</b>	A.B.S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.



## Dimensions

Unit: mm



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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	222	159	116	68	39.5	24.2	15.9	13.1	10.3	7.8	6.6	3.5
1.67V	216	152	114	67	39.3	24.1	15.8	13.1	10.3	7.7	6.5	3.4
1.70V	204	146	112	67	39.0	23.9	15.7	13.0	10.2	7.6	6.4	3.3
1.75V	183	135	106	65	38.6	23.7	15.6	12.9	10.1	7.6	6.4	3.3
1.80V	165	123	98	62	37.7	23.3	15.2	12.6	9.9	7.4	6.3	3.2
1.85V	144	110	88	58	35.8	22.2	14.5	12.0	9.5	7.1	6.1	3.0

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	399	292	215	129	75.3	46.5	30.5	25.3	19.9	15.0	12.3	6.5
1.67V	391	279	210	127	74.9	46.3	30.4	25.2	19.8	14.9	12.2	6.4
1.70V	369	269	207	126	74.4	45.9	30.3	25.1	19.8	14.8	12.1	6.4
1.75V	332	249	198	123	73.7	45.5	30.1	24.9	19.6	14.7	12.0	6.3
1.80V	299	226	182	117	71.8	44.8	29.4	24.2	19.3	14.4	11.9	6.2
1.85V	258	201	162	110	68.1	42.7	27.9	23.1	18.3	13.9	11.5	6.0

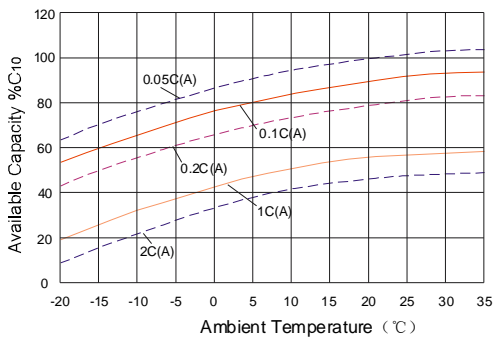
All mentioned values are average values.

# RA12-65G

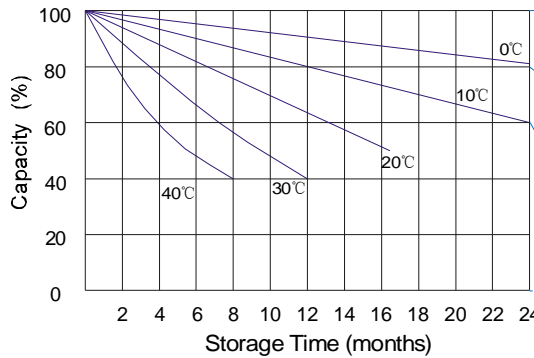
12V65Ah



## Temperature effects curve



## Storage characteristic



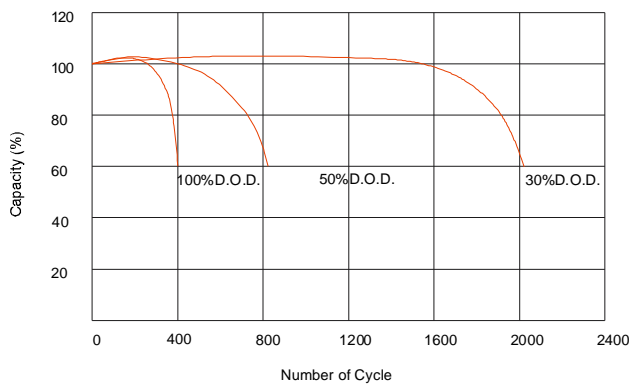
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

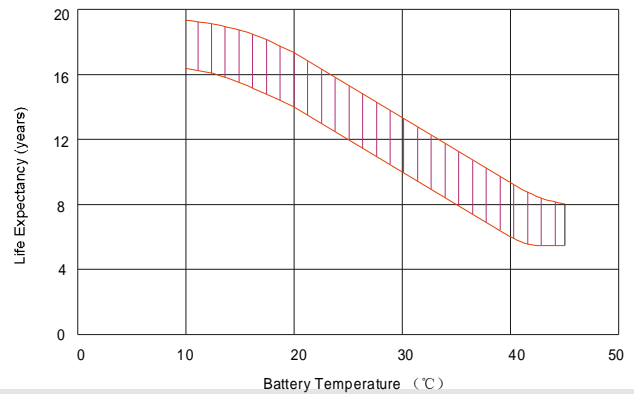
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

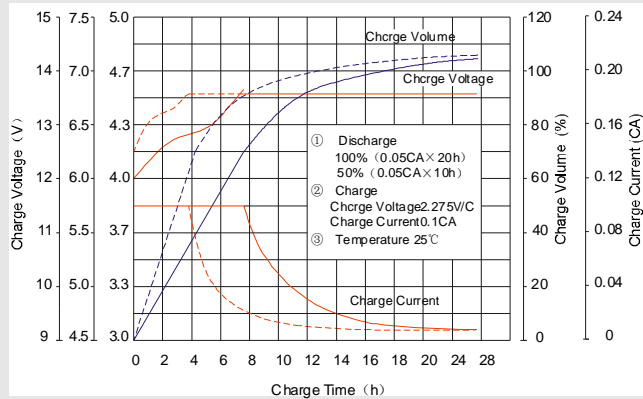
## Life characteristics of cyclic use



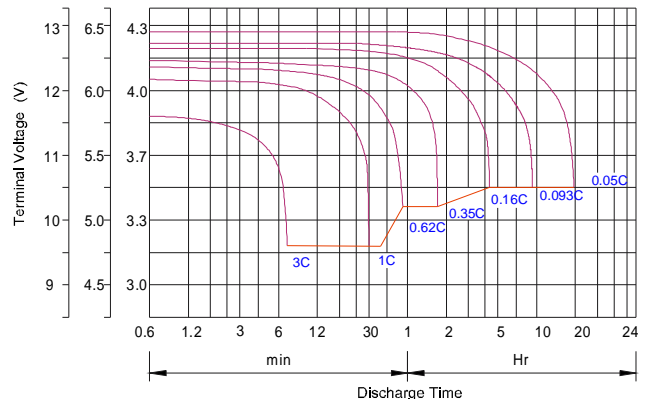
## Effect of temperature on long term float life



## Charge characteristic Curve for standby use



## Discharge characteristic Curve



## Charging Procedures(12V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.2	14.1~14.3	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

## Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

## Charging Method:

Constant Voltage	-0.2C x2h +14.1~14.3V,24h,Max. Current 0.2CA
Constant Current	-0.2C x2h +0.1CAx12h

## Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.10	7.05~7.15	0.3C
Standby	25°C	6.85	6.8~6.9	0.3C

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