

# FT12-180G(12V180Ah)

**RITAR®**

## Specification

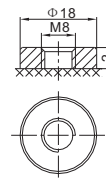
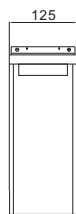
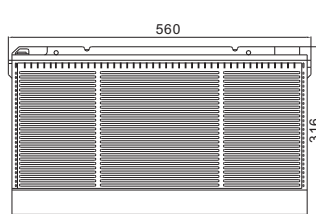
Cells Per Unit	6
Voltage Per Unit	12
Capacity	180Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 52.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.0 mΩ
Terminal	F14(M8)
Max. Discharge Current	1800A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	36.0 A
Reference Capacity	C3 123.0AH C5 136.5AH C10 156.0AH C20 180.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°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 2% at 20°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



FTG (Deep Cycle GEL) series is pure GEL battery with 15 years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the FTG series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 450 cycles at 100% DOD. Suitable for solar & wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



## Dimensions



F14 Terminal

Length	560±2mm (22.1 inches)
Width	125±2mm (4.92 inches)
Height	316±2mm (12.4 inches)
Total Height	316±2mm (12.4 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	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	224.8	147.5	97.7	59.7	44.8	35.7	30.0	20.3	16.7	9.37
1.65V	214.9	141.6	94.4	57.8	43.4	34.8	29.2	20.0	16.5	9.22
1.70V	201.3	135.4	91.3	55.9	42.2	33.8	28.4	19.7	16.3	9.11
1.75V	187.3	129.4	88.0	54.0	41.0	32.9	27.7	19.5	16.0	9.00
1.80V	173.0	123.7	84.6	52.0	39.7	32.0	27.0	19.1	15.8	8.91
1.85V	143.5	106.5	75.9	47.7	36.7	29.7	25.2	17.9	14.9	8.46

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

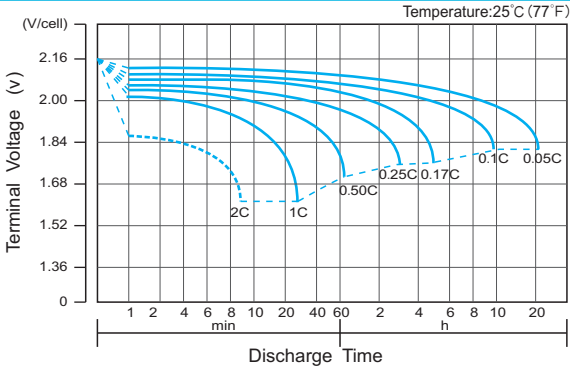
F.V./Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	446.5	304.5	208.7	128.6	97.2	77.9	65.7	45.0	37.3	21.0
1.65V	429.2	294.8	203.1	125.2	94.8	76.1	64.2	44.5	36.9	20.7
1.70V	411.8	285.2	197.4	121.7	92.4	74.3	62.7	44.0	36.4	20.4
1.75V	388.8	275.4	191.3	118.0	90.0	72.7	61.4	43.4	36.0	20.2
1.80V	364.1	265.9	185.1	114.3	87.6	70.9	60.0	42.8	35.6	20.0
1.85V	306.4	231.3	167.0	105.3	81.3	66.1	56.1	40.3	33.5	19.0

(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.

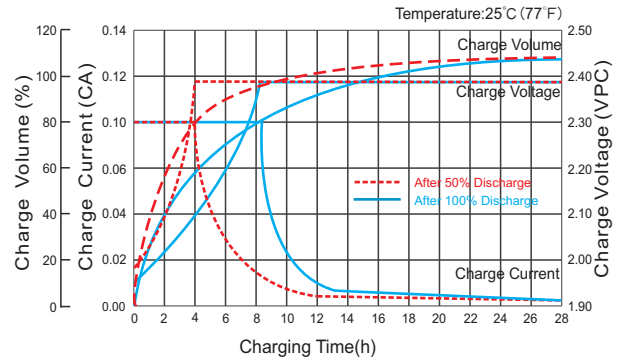
# FT12-180G(12V180Ah)



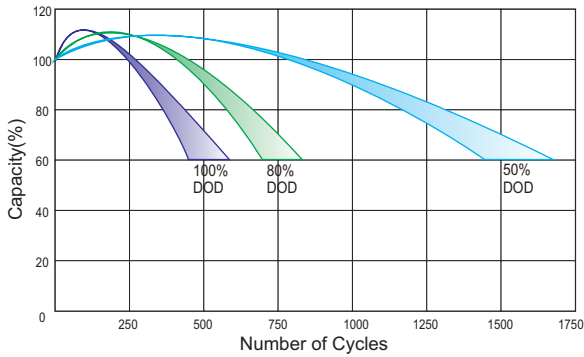
## Discharge Characteristics Curve



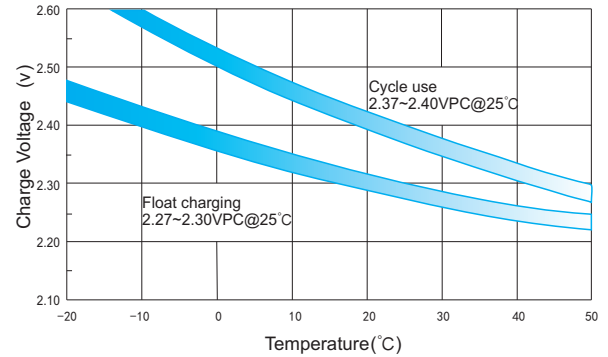
## Charge Characteristic Curve for Cycle Use(IU)



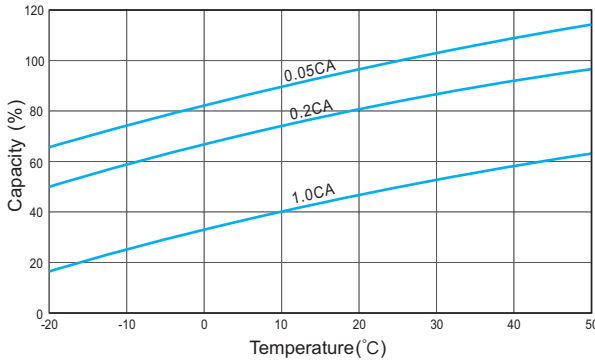
## Cycle Life in Relation to Depth of Discharge



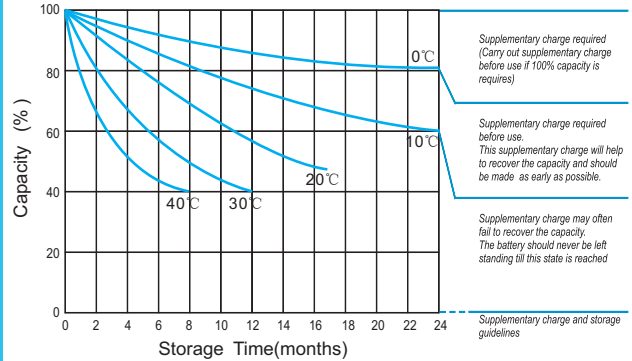
## Relationship Between Charging Voltage and Temperature



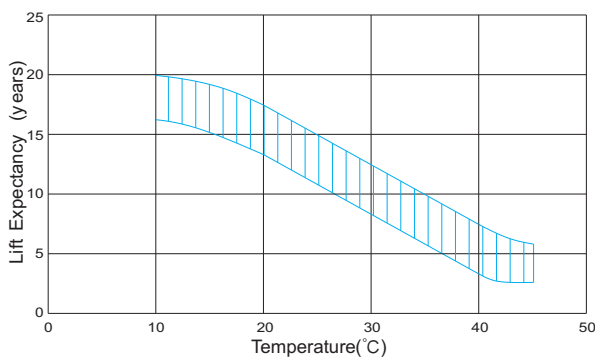
## Temperature Effects on Capacity



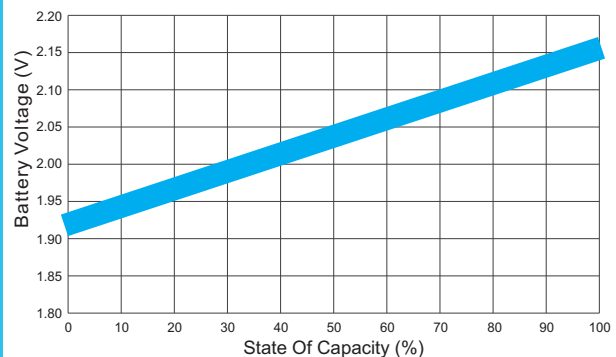
## Storage Characteristics



## Effect of Temperature on Long Term Life



## Relationship of OCV And State of Charge(20°C)



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.