FT12-90G(12V90Ah)

RITAR®

Specification

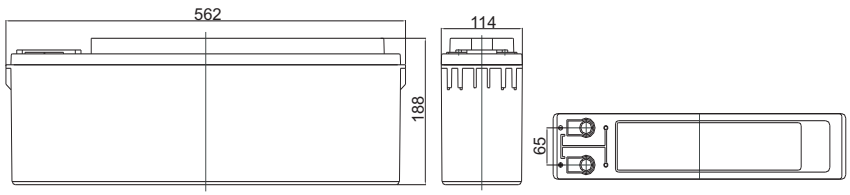
Cells Per Unit	6
Voltage Per Unit	12
Capacity	90Ah@20hr-rate to 1.75V per cell @25℃
Weight	Approx. 26.5 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 8.7 mΩ
Terminal	F6(M8)
Max. Discharge Current	900A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	18.0 A
Reference Capacity	C3 61.5AH C5 69.5AH C10 79.2AH C20 90.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -40℃~60℃ Charge: -20℃~50℃ Storage: -40℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 2% at 20℃.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

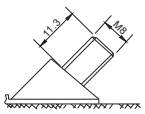
FTG (Deep Cycle GEL) series is pure GEL battery with 15 years floating design life , it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the FTG series offers excellent recovery capability 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.

ISO 9001 ISO 14001 OHSAS 18001

MH 28539

Dimensions





F6 Terminal

Length	562±2mm (22.1 inches)
Width	114±2mm (4.49 inches)
Height	188±2mm (7.40 inches)
Total Height	188±2mm (7.40 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℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	142.8	114.7	74.5	48.9	29.9	22.4	17.9	15.0	10.1	8.36	4.68
1.65V	134.9	109.6	71.5	47.2	28.9	21.7	17.4	14.6	10.0	8.25	4.61
1.70V	124.2	102.7	68.4	45.7	28.0	21.1	16.9	14.2	9.86	8.13	4.55
1.75V	113.7	95.6	65.4	44.0	27.0	20.5	16.5	13.9	9.73	8.02	4.50
1.80V	102.9	88.2	62.5	42.3	26.0	19.8	16.0	13.5	9.56	7.92	4.45
1.85V	84.1	73.2	53.8	37.9	23.8	18.3	14.9	12.6	8.97	7.46	4.23

Constant Power Discharge Characteristics : WPC(25℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	275.8	227.8	153.8	104.4	64.3	48.6	39.0	32.8	22.5	18.7	10.5
1.65V	262.5	219.0	148.9	101.5	62.6	47.4	38.1	32.1	22.2	18.4	10.3
1.70V	249.1	210.1	144.0	98.7	60.8	46.2	37.2	31.4	22.0	18.2	10.2
1.75V	232.1	198.4	139.1	95.7	59.0	45.0	36.3	30.7	21.7	18.0	10.1
1.80V	213.8	185.8	134.3	92.5	57.2	43.8	35.4	30.0	21.4	17.8	10.0
1.85V	177.8	156.3	116.8	83.5	52.7	40.7	33.1	28.1	20.1	16.8	9.52

(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_{20} should reach 95% after the first cycle and 100% after the third cycle.

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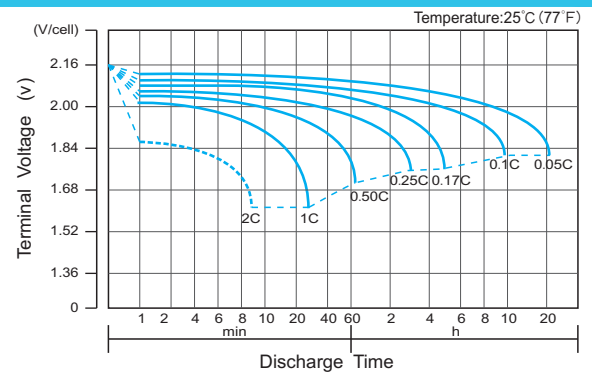
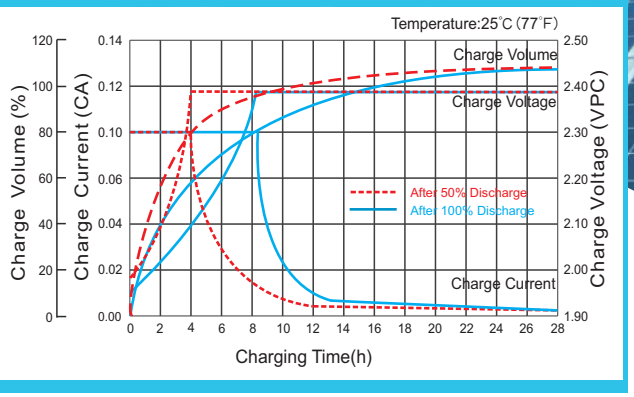
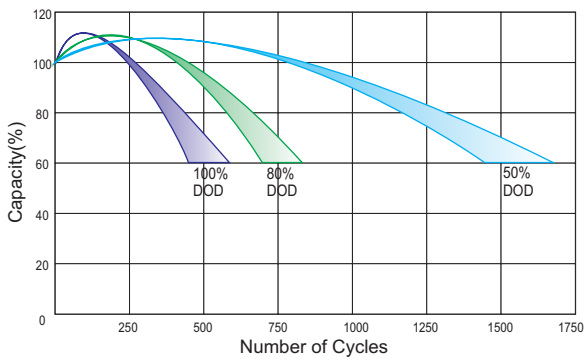
Discharge Characteristics Curve



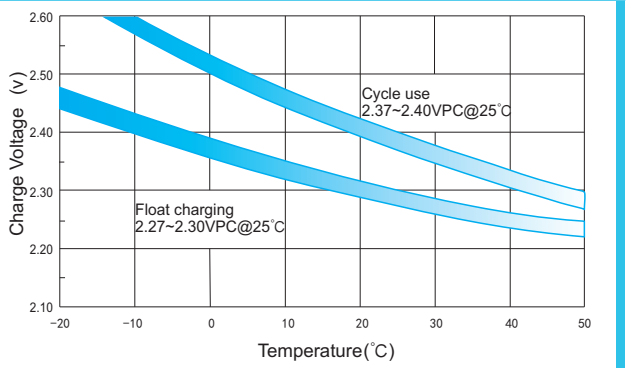
Charge Characteristic Curve for Cycle Use(IU)



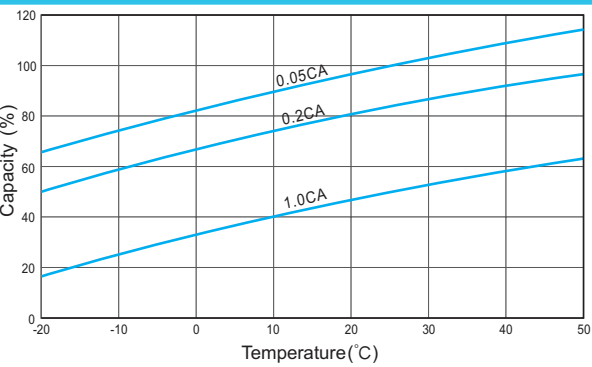
Cycle Life in Relation to Depth of Discharge



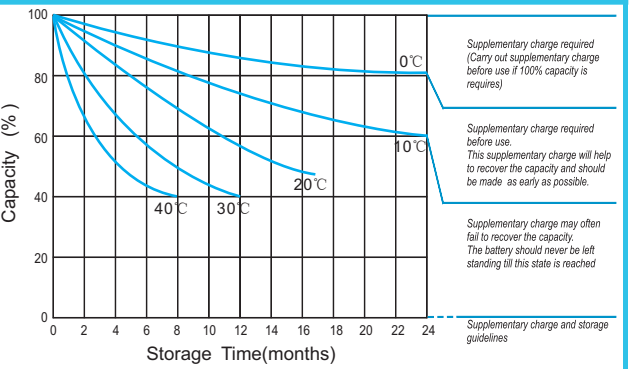
Relationship Between Charging Voltage and Temperature



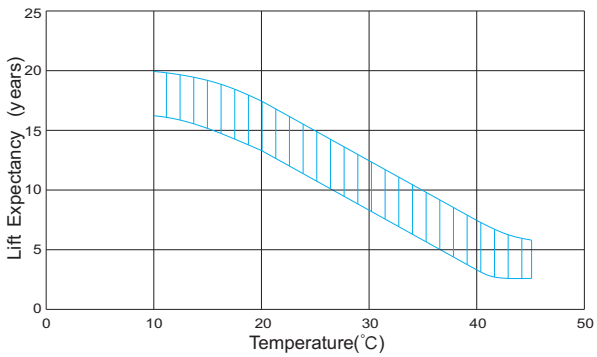
Temperature Effects on Capacity



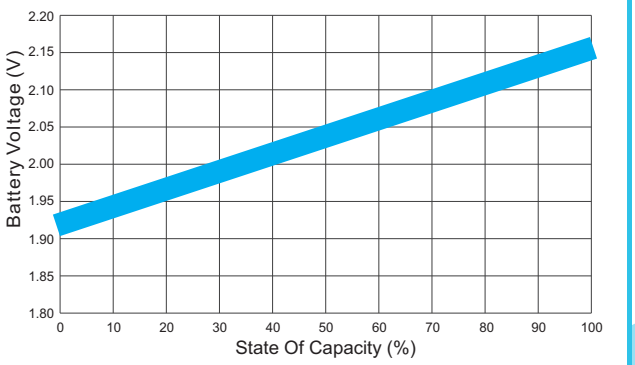
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)



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

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