



# FT12-90(12V90Ah)

## Specification

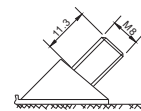
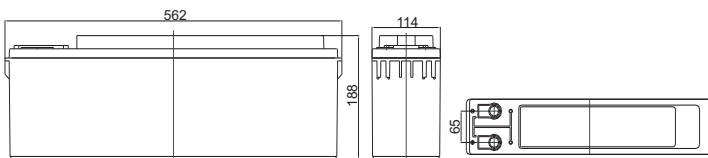
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	90Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 26.5 Kg (Tolerance ±3%)
Internal Resistance	Approx. 5.8 mΩ
Terminal	F6(M8)
Max. Discharge Current	900A (5 sec)
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	27.0 A
Reference Capacity	C3 69.6AH C5 78.5AH C10 90.0AH C20 95.4AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°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 3% at 25°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



FT (Front Terminal) Series is specially designed for telecom use with 12 years design life in float service. By adopting a new AGM separator and centralized venting system, the battery can be installed in any position while maintaining high reliability. The dimensions of the FT series are designed for 19" and 23" cabinet installation. It is suitable for telecom EPS/UPS applications.



## 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°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	215.2	163.5	97.6	55.0	32.8	25.4	20.0	17.0	11.4	9.49	4.97
1.65V	203.3	156.3	93.7	53.1	31.7	24.6	19.4	16.5	11.3	9.38	4.89
1.70V	187.2	146.4	89.5	51.4	30.7	23.9	18.9	16.1	11.1	9.24	4.83
1.75V	171.3	136.2	85.6	49.5	29.6	23.2	18.4	15.7	11.0	9.12	4.77
1.80V	155.1	125.8	81.8	47.6	28.5	22.5	17.9	15.3	10.8	9.00	4.72
1.85V	126.8	104.4	70.4	42.7	26.2	20.8	16.6	14.3	10.1	8.47	4.48

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

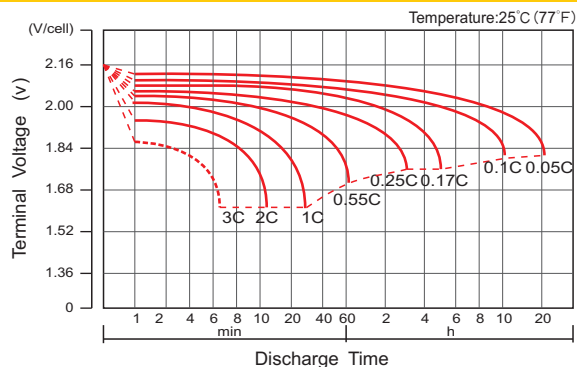
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	365.8	285.8	177.2	103.3	62.1	48.5	38.3	32.7	22.3	18.7	9.78
1.65V	352.3	277.3	171.9	100.4	60.4	47.2	37.4	32.0	22.1	18.5	9.64
1.70V	330.3	263.6	166.0	97.7	58.7	46.1	36.5	31.3	21.8	18.2	9.53
1.75V	307.8	248.8	160.3	94.7	56.9	44.9	35.7	30.6	21.5	18.0	9.43
1.80V	283.5	233.0	154.7	91.6	55.2	43.7	34.8	29.9	21.2	17.8	9.35
1.85V	235.8	196.1	134.6	82.7	50.8	40.6	32.5	28.0	20.0	16.8	8.89

(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>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

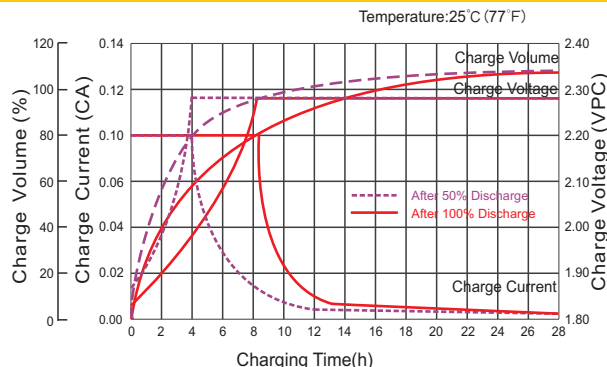
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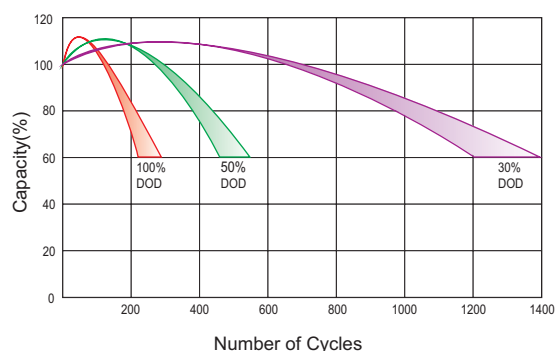
## Discharge Characteristics Curve



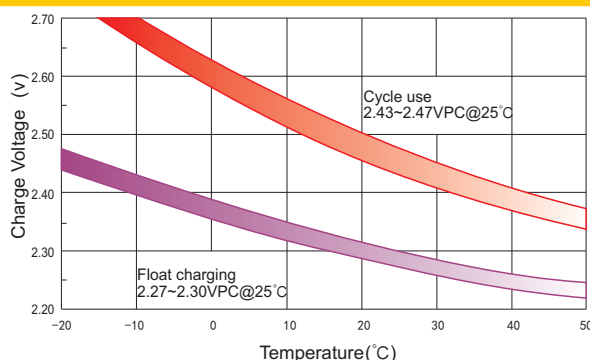
## Charge Characteristic Curve For Standby Use



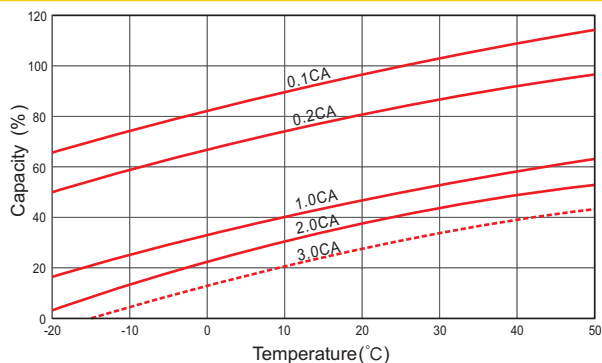
## Cycle Life In Relation To Depth Of Discharge



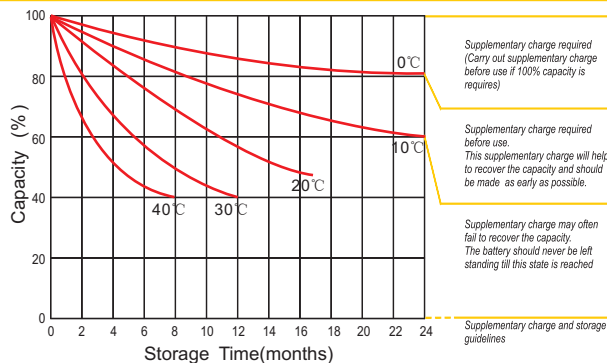
## Relationship Between Charging Voltage And Temperature



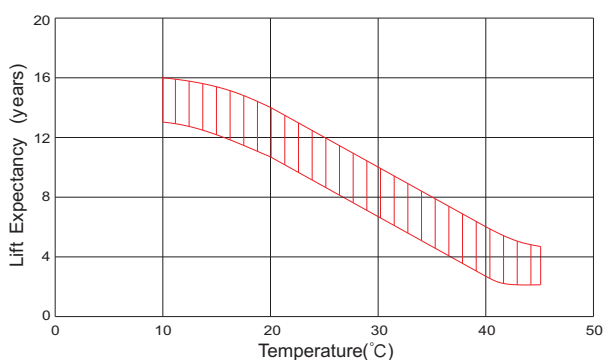
## Temperature Effects On Capacity



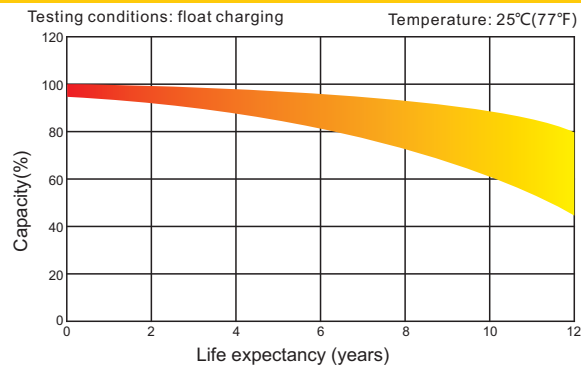
## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



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