

FT12-90D (12V90Ah)



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	90Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 26.5 Kg (Tolerance ±2%)
Internal Resistance	Approx. 5.8 mΩ
Terminal	F11(M6)/F6(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	27 A
Reference Capacity	C3 62.7AH C5 72.5AH C10 85.1AH C20 90.0AH
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: -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.



FTD (Front Terminal Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and special active material are designed for repeated deep-discharge applications. The FTD series battery offers 30% more cyclic life than the standby series. And the dimensions are designed for 19" and 23" cabinet installation. It is suitable for telecom, solar and wind renewable energy storage, mobility and medical equipment, RV, telecom, broadband and cable TV, UPS systems etc.



Dimensions

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	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	149.7	87.5	51.4	30.8	22.1	18.0	15.2	10.4	9.06	4.65
1.65V	145.8	85.6	50.4	30.3	21.8	17.8	15.0	10.2	8.98	4.62
1.70V	140.6	83.1	49.2	29.7	21.5	17.5	14.8	10.1	8.86	4.57
1.75V	133.9	79.7	47.5	28.9	20.9	17.1	14.5	9.9	8.71	4.50
1.80V	125.3	75.4	45.3	27.9	20.2	16.5	14.0	9.7	8.51	4.41
1.85V	114.4	69.9	42.5	26.5	19.4	15.9	13.5	9.35	8.24	4.30

Constant Power Discharge Characteristics : WPC(25°C)

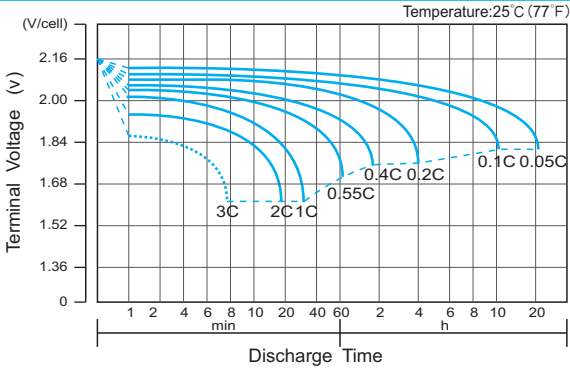
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	265.6	161.4	97.5	59.2	42.9	35.0	29.7	20.5	18.1	9.30
1.65V	264.1	160.2	96.7	58.8	42.6	34.8	29.5	20.4	17.9	9.24
1.70V	257.0	156.3	94.6	57.8	41.9	34.3	29.1	20.1	17.7	9.15
1.75V	248.3	151.6	91.9	56.5	41.1	33.6	28.6	19.8	17.4	9.03
1.80V	235.6	144.8	88.1	54.7	39.9	32.7	27.9	19.3	17.1	8.86
1.85V	218.1	135.6	83.3	52.4	38.3	31.5	26.9	18.7	16.6	8.64

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

FT12-90D(12V90Ah)



Discharge Characteristics Curve



Charge Characteristic Curve for Cycle Use(IU)



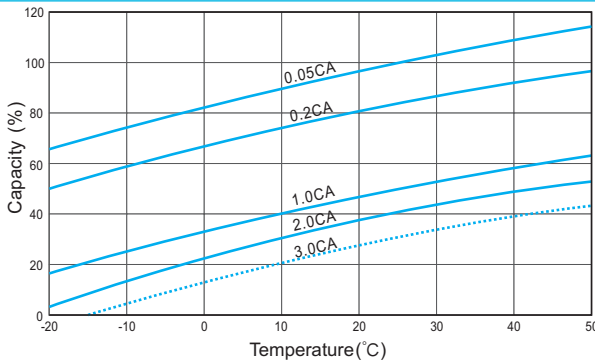
Cycle Life in Relation to Depth of Discharge



Relationship Between Charging Voltage and Temperature



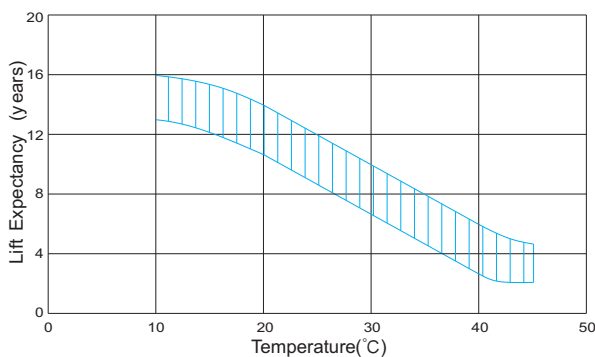
Temperature Effects on Capacity



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.