

# FT12-100SD (12V100Ah)



## Specification

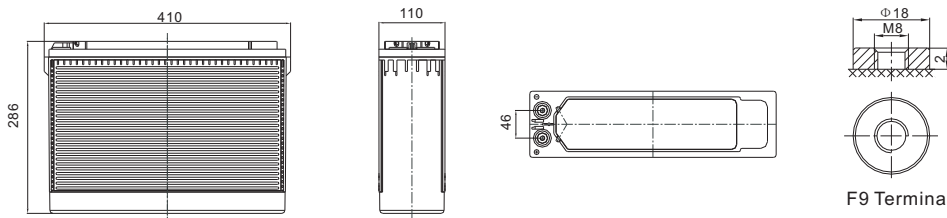
Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 31.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.5 mΩ
Terminal	F9(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	15 years (floating charge)
Max. Charging Current	30.0 A
Reference Capacity	C3 76.5AH C5 86.0AH C10 95.2AH C20 100.0AH
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	410±2mm (16.1 inches)
Width	110±2mm (4.33 inches)
Height	286±2mm (11.3 inches)
Total Height	286±2mm (11.3 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	242.6	184.5	108.9	60.7	36.2	28.2	22.1	18.8	12.1	10.0	5.18
1.65V	223.5	172.5	103.1	58.7	35.0	27.3	21.4	18.2	12.0	9.90	5.15
1.70V	207.1	162.3	97.8	56.8	34.0	26.2	20.8	17.7	11.8	9.71	5.09
1.75V	190.0	152.0	93.9	55.0	32.7	25.5	20.2	17.2	11.6	9.62	5.00
1.80V	172.9	139.2	90.5	52.6	31.6	25.0	19.7	17.0	11.4	9.52	4.95
1.85V	135.3	115.1	76.7	46.9	28.9	23.3	18.5	15.6	10.7	8.95	4.91

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

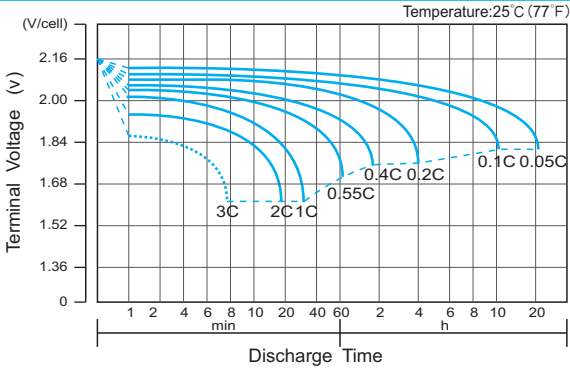
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	413.1	321.8	197.9	114.0	68.4	53.5	42.6	35.6	23.5	19.6	10.3
1.65V	397.8	312.9	193.2	112.1	66.5	52.2	41.6	34.6	23.3	19.4	10.3
1.70V	371.2	296.2	183.9	108.8	64.9	50.2	40.2	33.8	23.0	19.0	10.2
1.75V	345.5	279.5	177.5	105.8	62.6	48.9	39.3	33.0	22.7	18.9	10.0
1.80V	318.3	258.4	171.7	101.4	61.2	48.7	38.5	32.5	22.3	18.7	9.88
1.85V	252.5	217.1	147.3	91.1	56.3	45.4	36.3	30.1	21.1	17.6	9.79

(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.

# FT12-100SD(12V100Ah)



## Discharge Characteristics Curve



## Charge Characteristic Curve for Cycle Use(IU)



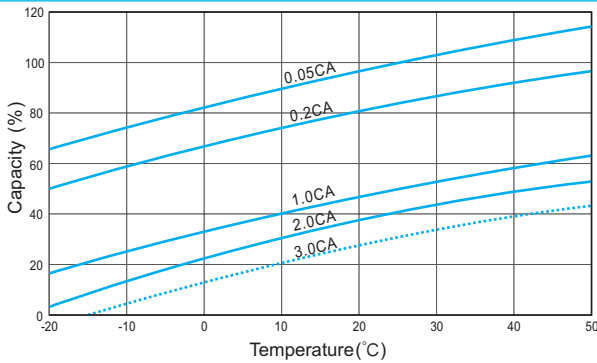
## Cycle Life in Relation to Depth of Discharge



## 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.