

FT12-90D(12V90Ah)



Specification

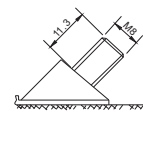
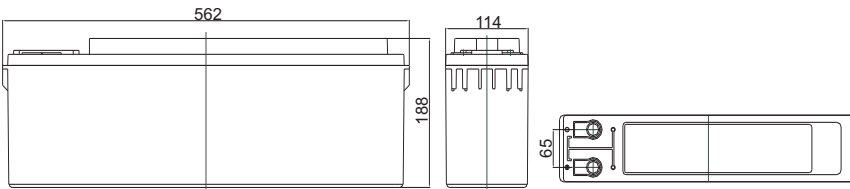
| | |
|------------------------------------|--|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 90Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 26.5 Kg (Tolerance ±3.0%) |
| Internal Resistance | Approx. 5.8 mΩ |
| Terminal | F6(M8) |
| Max. Discharge Current | 900A (5 sec) |
| Design Life | 15 years (floating charge) |
| Max. Charging Current | 27.0 A |
| Reference Capacity | C3 68.7AH C5 77.5AH C10 85.7AH 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 |

F6 Terminal

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 | 212.0 | 162.8 | 97.0 | 54.7 | 32.6 | 25.4 | 19.9 | 16.9 | 10.9 | 9.00 | 4.66 |
| 1.65V | 195.3 | 152.2 | 91.9 | 52.8 | 31.5 | 24.6 | 19.3 | 16.4 | 10.8 | 8.91 | 4.64 |
| 1.70V | 181.0 | 143.2 | 87.2 | 51.1 | 30.6 | 23.5 | 18.7 | 15.9 | 10.6 | 8.74 | 4.58 |
| 1.75V | 166.0 | 134.1 | 83.7 | 49.5 | 29.4 | 22.9 | 18.2 | 15.5 | 10.4 | 8.66 | 4.50 |
| 1.80V | 151.1 | 122.8 | 80.6 | 47.3 | 28.4 | 22.5 | 17.8 | 15.3 | 10.3 | 8.57 | 4.46 |
| 1.85V | 118.2 | 101.6 | 68.4 | 42.2 | 26.0 | 20.9 | 16.7 | 14.1 | 9.66 | 8.06 | 4.41 |

Constant Power Discharge Characteristics : WPC(25°C)

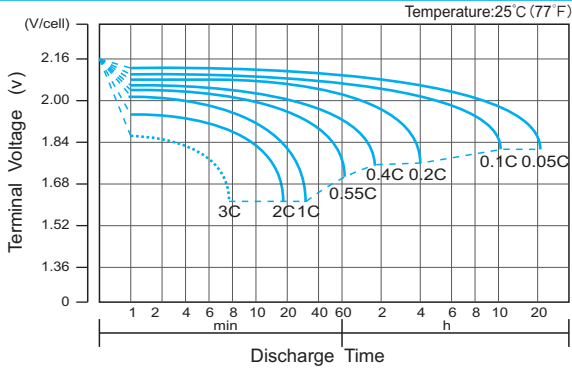
| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 361.0 | 284.0 | 176.3 | 102.6 | 61.5 | 48.1 | 38.3 | 32.0 | 21.1 | 17.7 | 9.31 |
| 1.65V | 347.6 | 276.1 | 172.2 | 100.9 | 59.9 | 46.9 | 37.4 | 31.2 | 21.0 | 17.5 | 9.23 |
| 1.70V | 324.4 | 261.3 | 163.9 | 97.9 | 58.4 | 45.1 | 36.2 | 30.4 | 20.7 | 17.1 | 9.15 |
| 1.75V | 301.9 | 246.7 | 158.2 | 95.2 | 56.3 | 44.0 | 35.4 | 29.7 | 20.4 | 17.0 | 8.98 |
| 1.80V | 278.1 | 228.0 | 153.0 | 91.3 | 55.0 | 43.8 | 34.7 | 29.3 | 20.0 | 16.8 | 8.90 |
| 1.85V | 220.6 | 191.6 | 131.3 | 82.0 | 50.7 | 40.8 | 32.6 | 27.1 | 18.9 | 15.9 | 8.81 |

(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 C₂₀ 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)



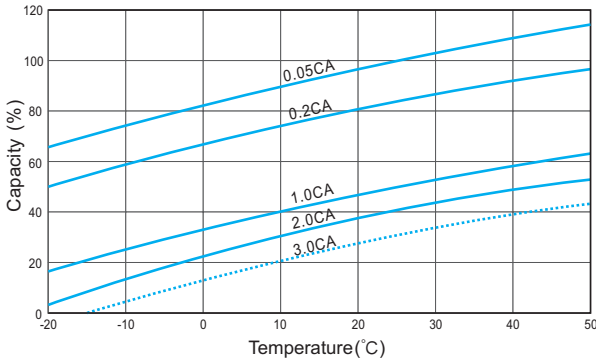
Cycle Life in Relation to Depth of Discharge



Relationship Between Charging Voltage and Temperature



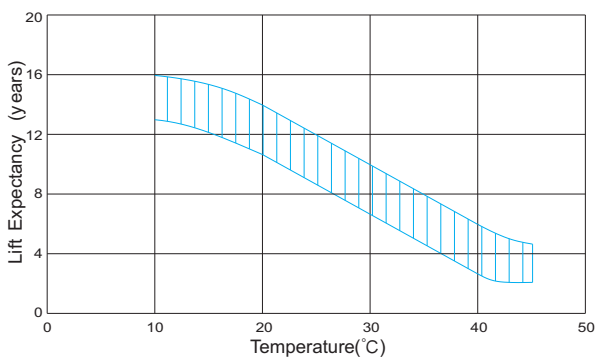
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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



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