



# FT12-100L (12V100Ah)

## Specification

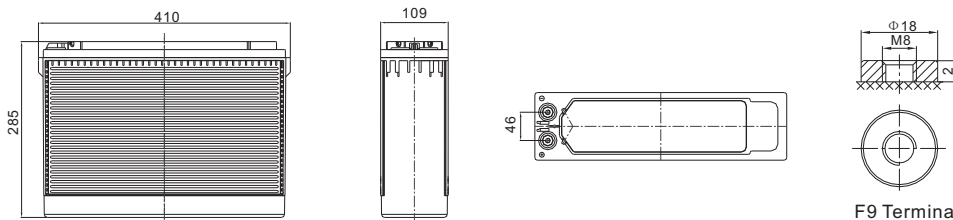
|                                      |   |
|--------------------------------------|---|
| Cells Per Unit                       | 6   |
| Voltage Per Unit                     | 12  |
| Nominal Capacity                     | 100Ah@10hr-rate to 1.80V per cell @25°C   |
| Weight                               | Approx. 33.0 Kg (Tolerance ±3%)   |
| Internal Resistance                  | Approx. 5.5 mΩ  |
| Terminal                             | F9(M8)  |
| Max. Discharge Current               | 1000A (5 sec)   |
| Design Life                          | 12 years (Float charging)   |
| Recommended Maximum Charging Current | 30.0 A  |
| Reference Capacity                   | C3 77.4AH<br>C5 87.0AH<br>C10 100.0AH<br>C20 106.0AH  |
| Standby Use Voltage                  | 13.6 V~13.8 V @ 25°C<br>Temperature Compensation: -3mV/°C/Cell  |
| Cycle Use Voltage                    | 14.6 V~14.8 V @ 25°C<br>Temperature Compensation: -4mV/°C/Cell  |
| Operating Temperature Range          | Discharge: -20°C~60°C<br>Charge: 0°C~50°C<br>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 charge 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



|              |                       |
|--------------|-----------------------|
| Length       | 410±2mm (16.1 inches) |
| Width        | 109±2mm (4.29 inches) |
| Height       | 285±2mm (11.2 inches) |
| Total Height | 293±2mm (11.5 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    | 248.7 | 187.1 | 110.6 | 61.7 | 36.4 | 28.2 | 22.2 | 18.9 | 12.7 | 10.5 | 5.52 |
| 1.65V    | 235.0 | 178.9 | 106.2 | 59.6 | 35.2 | 27.3 | 21.6 | 18.4 | 12.5 | 10.4 | 5.43 |
| 1.70V    | 216.3 | 167.5 | 101.5 | 57.7 | 34.1 | 26.6 | 21.0 | 17.9 | 12.3 | 10.3 | 5.36 |
| 1.75V    | 198.0 | 155.9 | 97.0  | 55.5 | 32.9 | 25.8 | 20.4 | 17.4 | 12.2 | 10.1 | 5.30 |
| 1.80V    | 179.2 | 143.9 | 92.7  | 53.4 | 31.7 | 25.0 | 19.9 | 17.0 | 12.0 | 10.0 | 5.25 |
| 1.85V    | 146.5 | 119.4 | 79.8  | 47.9 | 29.1 | 23.1 | 18.5 | 15.9 | 11.2 | 9.41 | 4.98 |

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

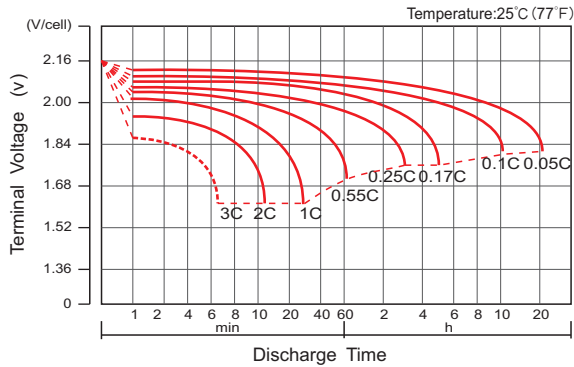
| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR   | 2HR  | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60V    | 422.7 | 327.0 | 200.8 | 116.0 | 69.0 | 53.9 | 42.6 | 36.4 | 24.8 | 20.7 | 10.9 |
| 1.65V    | 407.1 | 317.3 | 194.8 | 112.6 | 67.1 | 52.4 | 41.6 | 35.6 | 24.5 | 20.5 | 10.7 |
| 1.70V    | 381.7 | 301.6 | 188.1 | 109.6 | 65.3 | 51.2 | 40.6 | 34.8 | 24.2 | 20.2 | 10.6 |
| 1.75V    | 355.7 | 284.8 | 181.6 | 106.3 | 63.3 | 49.9 | 39.7 | 34.0 | 23.9 | 20.0 | 10.5 |
| 1.80V    | 327.6 | 266.7 | 175.4 | 102.8 | 61.3 | 48.6 | 38.7 | 33.2 | 23.6 | 19.8 | 10.4 |
| 1.85V    | 272.5 | 224.4 | 152.5 | 92.8  | 56.5 | 45.1 | 36.1 | 31.1 | 22.2 | 18.6 | 9.87 |

(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.

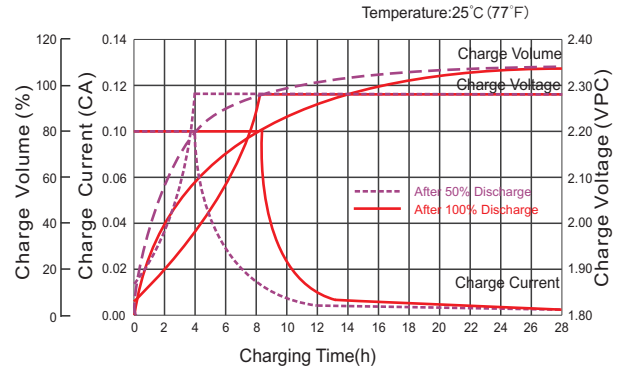
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## Discharge Characteristics Curve



## Charge Characteristic Curve For Standby Use



## Cycle Life In Relation To Depth Of Discharge



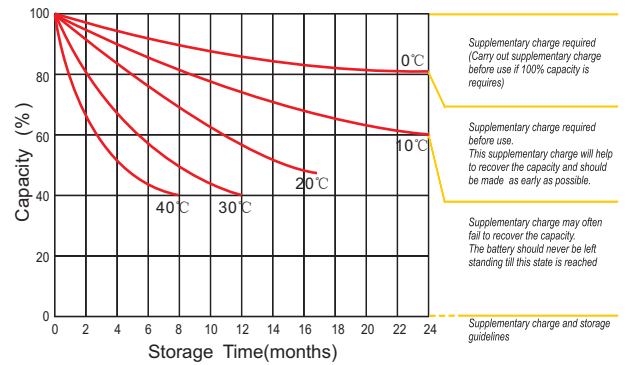
## Relationship Between Charging Voltage And Temperature



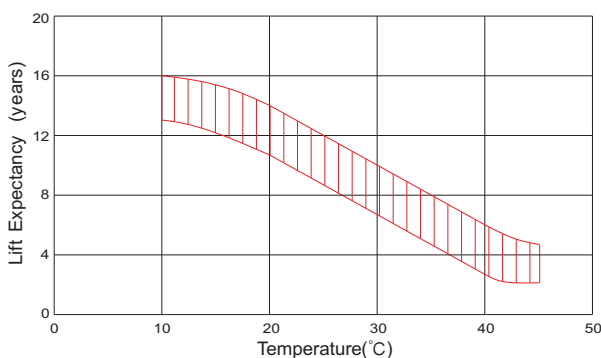
## Temperature Effects On Capacity



## 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.