

# Front Terminal VRLA Battery

# FT12-175

CSPower Front Terminal lead acid battery is mainly used in the area of communication, which is novel in design, reasonable in structure and occupying the leading position in the same industry of the world. This AGM battery for telecom industry comes with slim shape design and front terminal connection. Thus, easy installation and maintenance can be ensured and space can be saved. Radial grid design plus tight assembly technology assures this rechargeable battery prominent high rate discharge performance.

Our front access battery features unique design which makes it sure that the electrolyte volume can be hardly reduced during use and addition of water is not necessary in its service life. Due to unique corrosion resistant grid alloy, the power storage cell can serve for more than 8-10years in standby current at a temperature of 25 degree.

## GENERAL FEATURES

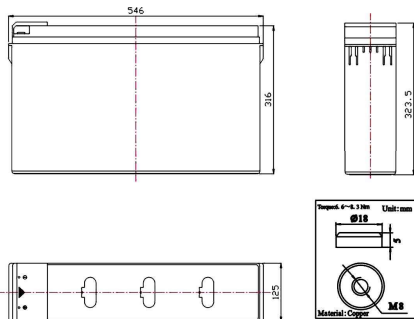
- Advanced AGM technology, and Maintenance-free operation;
- Front access terminal with standard width for 19" and 23" ETSI racks;
- Fire resistance ABS container;
- Long float service life 10years;
- Low self discharge <3%.

## APPLICATIONS

- Telecom system
- UPS systems
- Communication Equipment
- Solar & Wind
- Emergency Power Systems

## DIMENSIONS & WEIGHT

|                  |         |
|------------------|---------|
| Length(mm)       | 546±1   |
| Width(mm)        | 125±1   |
| Height(mm)       | 316±1   |
| Total Height(mm) | 323.5±1 |
| Weight(kg)       | 53.5±3% |



## TECHNICAL SPECIFICATIONS

|  |                           |  |
|--|---------------------------|--|
| Nominal Voltage                                  |                           | 12V(6 cells per unit)  |
| Design Floating Life @25°C                       |                           | 10 Years   |
| Nominal Capacity @25°C(10 hour rate@17.5A,10.8V) |                           | 175Ah  |
| Capacity @25°C                                   | 20hour rate (9.28A,10.8V) | 185.6Ah  |
|  | 5 hour rate (30.8A,10.5V) | 154.0Ah  |
|  | 1 hour rate (111.7A,9.6V) | 111.7Ah  |
| Internal Resistance                              | Full Charged Battery@25°C | ≤3.0mΩ   |
| Ambient Temperature                              | Discharge                 | -15°C~45°C   |
|  | Charge                    | -15°C~45°C   |
|  | Storage                   | -15°C~45°C   |
| Max.Discharge Current@25°C                       |                           | 1050A(5s)  |
| Capacity affected by Temperature (10 hour )      | 40°C                      | 105%   |
|  | 25°C                      | 100%   |
|  | 0°C                       | 85%  |
|  | -15°C                     | 65%  |
| Self-Discharge@25°C per Month                    |                           | 3%   |
| Charge (Constant Voltage) @25°C                  | Standby Use               | Initial Charging Current Less than 43A<br>Voltage 13.6-13.8V |
|  | Cycle Use                 | Initial Charging Current Less than 43A<br>Voltage 14.4-14.9V |

12V  
Voltage

175Ah  
Capacity

AGM  
Technology

Front  
Terminal



**COMPLIED STANDARDS**

|                 |              |
|-----------------|--------------|
| IEC 60896-21/22 | JIS C8704    |
| YD/T799         | BS6290 part4 |
| GB/T 19638      | CE           |

## BATTERY DISCHARGE TABLE

**Discharge Constant Current per Cell (Amperes at 25°C)**

| F.V/Time | 10min | 15min | 30min | 45min | 1h    | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.60V    | 406.9 | 315.9 | 189.5 | 140.9 | 111.7 | 65.6 | 48.3 | 32.6 | 22.2 | 18.4 | 9.71 |
| 1.65V    | 376.4 | 298.4 | 183.2 | 135.5 | 108.3 | 63.5 | 46.7 | 32.0 | 22.1 | 18.0 | 9.63 |
| 1.70V    | 349.1 | 280.2 | 178.2 | 130.6 | 104.1 | 61.8 | 45.5 | 31.3 | 21.7 | 17.9 | 9.52 |
| 1.75V    | 326.0 | 262.5 | 168.9 | 124.8 | 99.9  | 60.2 | 44.5 | 30.8 | 21.4 | 17.7 | 9.43 |
| 1.80V    | 293.3 | 246.2 | 162.9 | 120.2 | 96.4  | 57.9 | 43.1 | 30.1 | 21.0 | 17.5 | 9.28 |

**Discharge Constant Power per Cell (Watts at 25°C)**

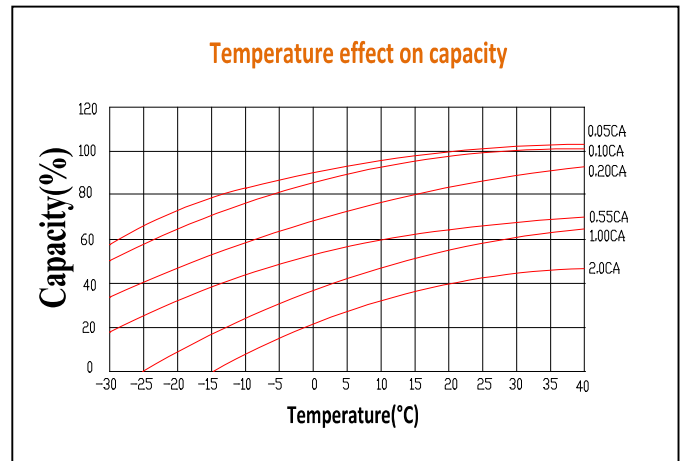
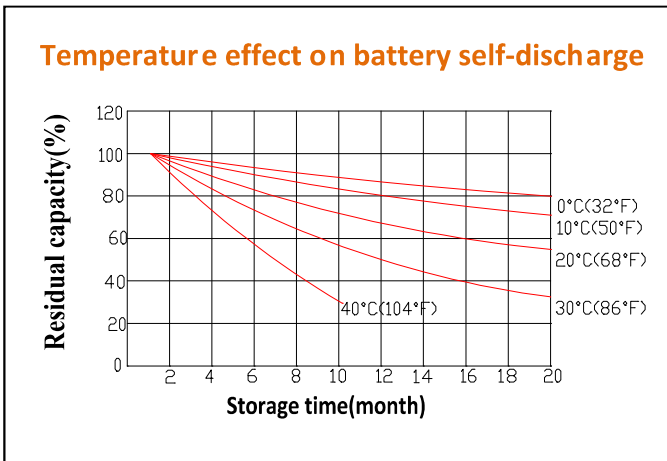
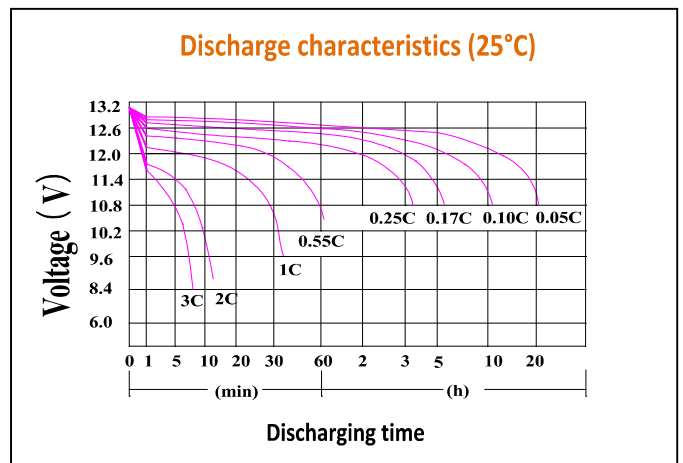
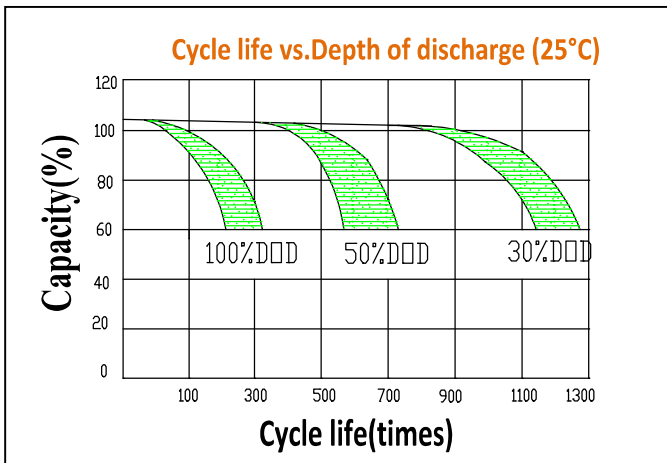
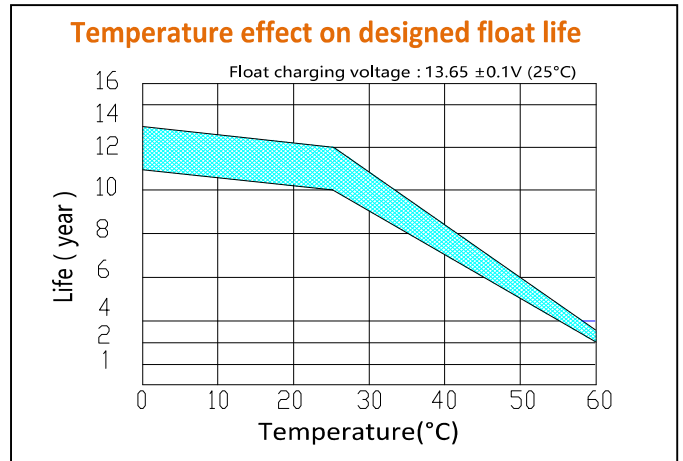
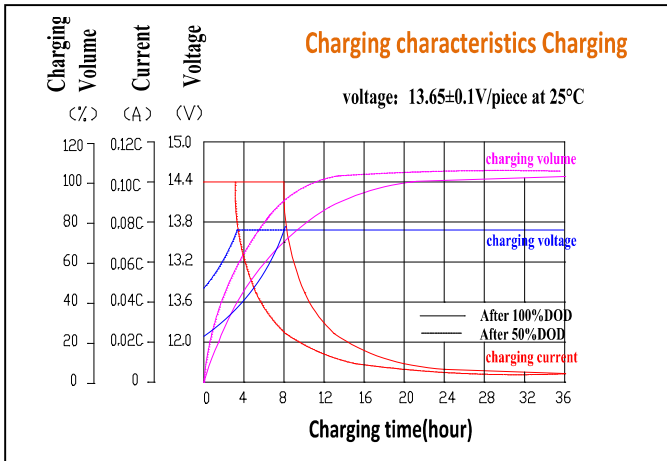
| F.V/Time | 10min | 15min | 30min | 45min | 1h    | 2h    | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.60V    | 731.9 | 603.9 | 369.4 | 267.6 | 214.2 | 124.4 | 92.2 | 62.8 | 43.4 | 35.9 | 18.7 |
| 1.65V    | 685.0 | 577.9 | 353.3 | 258.5 | 208.4 | 121.1 | 89.8 | 61.8 | 43.1 | 35.5 | 18.6 |
| 1.70V    | 641.4 | 538.5 | 338.8 | 250.3 | 201.3 | 118.3 | 87.7 | 60.9 | 42.5 | 35.2 | 18.4 |
| 1.75V    | 603.6 | 505.2 | 322.5 | 240.3 | 193.9 | 115.5 | 85.9 | 60.0 | 42.0 | 34.8 | 18.2 |
| 1.80V    | 546.4 | 474.3 | 309.4 | 232.2 | 187.6 | 111.7 | 83.5 | 58.8 | 41.5 | 34.7 | 18.0 |

**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSPower** for the latest information.

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PERFORMANCE CHARACTERISTICS



BATTERY CONSTRUCTION

| Component | Positive plate                               | Negative plate  | Container & Cover                      | Safety valve                         | Terminal                                | Separator  | Electrolyte                      | Pillar seal                 |
|-----------|--|---|--|--------------------------------------|---|--|----------------------------------|-----------------------------|
| Features  | Thick high Sn low Ca grid with special paste | Balanced Pb-Ca grid for improved recombination efficiency | Fire resistance ABS (UL94-V0 optional) | Flame Si-Rubber and aging resistance | Female Copper Insert M6(torque :3~4N.m) | Advanced AGM separator for high pressure cell design | Dilute high purity sulfuric acid | Two layers epoxy resin seal |

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