

# FT1450-8D



## CYCLING CAPACITY

20 Hour Rate **225 Amp Hours**

## RESERVE CAPACITY

Reserve @25 AMPS **450 Minutes** Reserve @75 AMPS **115 Minutes**

## ELECTRICAL SPECIFICATIONS

|                       |                  |
|-----------------------|------------------|
| Nominal Voltage       | <b>12 Volt</b>   |
| C100                  | <b>238 AH</b>    |
| C20                   | <b>225 AH</b>    |
| C5                    | <b>192 AH</b>    |
| Short Circuit Current | <b>5000 Amps</b> |
| CCA                   | <b>1450 Amps</b> |
| CA or MCA             | <b>1950 Amps</b> |
| PHCA                  | <b>2400 Amps</b> |
| Internal Resistance   | <b>3.3 mΩ</b>    |

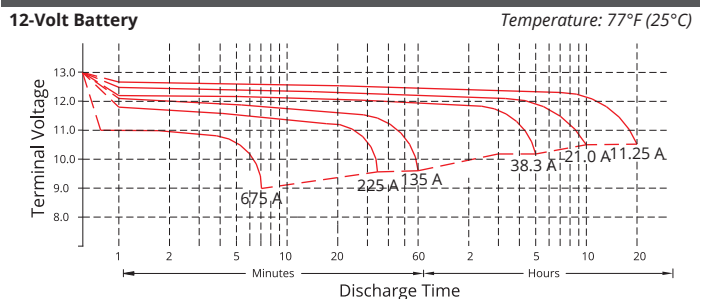
## MECHANICAL SPECIFICATIONS

|                      |  |                |
|----------------------|--|----------------|
| Group Size           | <b>8D</b>                                      |                |
| Terminal Type        | <b>M8 + TP28 (SAE)</b>                         |                |
| Terminal Torque      | <b>See reverse side</b>                        |                |
| Height (w/ terminal) | <b>9.57"</b>                                   | <b>243 mm</b>  |
| Height (case only)   | <b>8.58"</b>                                   | <b>218 mm</b>  |
| Width                | <b>10.79"</b>                                  | <b>274 mm</b>  |
| Length               | <b>20.35"</b>                                  | <b>517 mm</b>  |
| Weight               | <b>161.2 lbs</b>                               | <b>73.1 kg</b> |
| Case Type            | <b>ABS Plastic - Flame Res. Rating UL94-HB</b> |                |

## DISCHARGE TABLE (Constant Current)

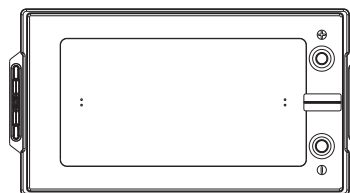
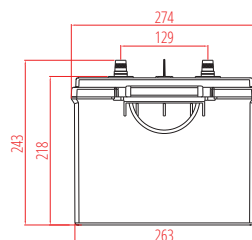
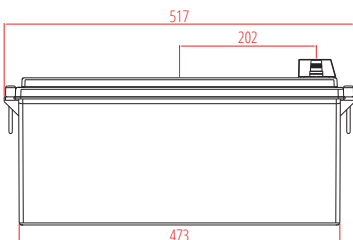
| Time | Amps  | Rate     |
|------|-------|----------|
| 20hr | 11.3  | 0.05 CA  |
| 10hr | 21.0  | 0.093 CA |
| 8hr  | 25.6  | 0.114 CA |
| 5hr  | 38.3  | 0.20 CA  |
| 3hr  | 56.3  | 0.25 CA  |
| 2hr  | 76.5  | 0.34 CA  |
| 1hr  | 135.3 | 0.60 CA  |

## DISCHARGE PROFILE (Constant Current)

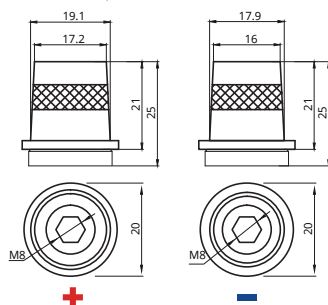


- All listed ratings are @ 100% SoC, T=77°F (25°C), 1.75VPC unless otherwise specified.  
 - Specifications listed are for estimation purposes only. Battery performance can vary depending on application. Battery design subject to change.

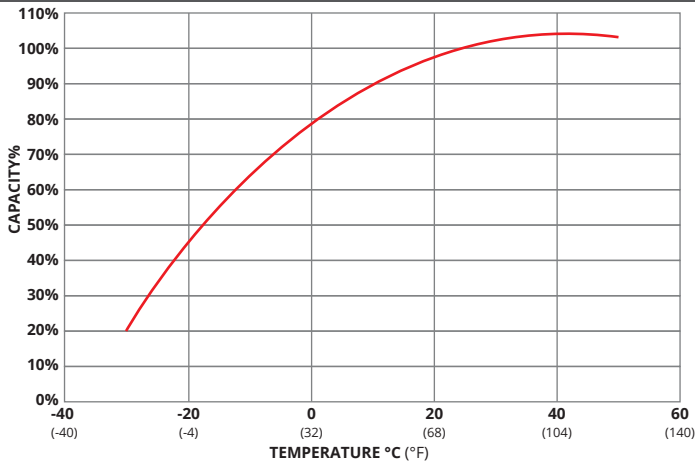
## BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



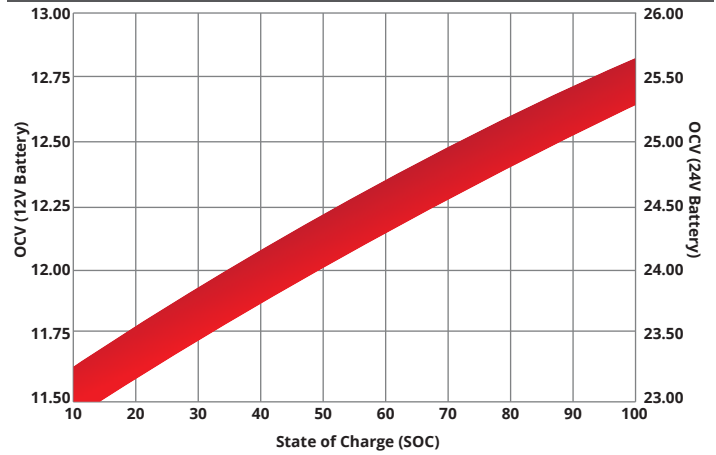
### Terminal: M8 + TP28



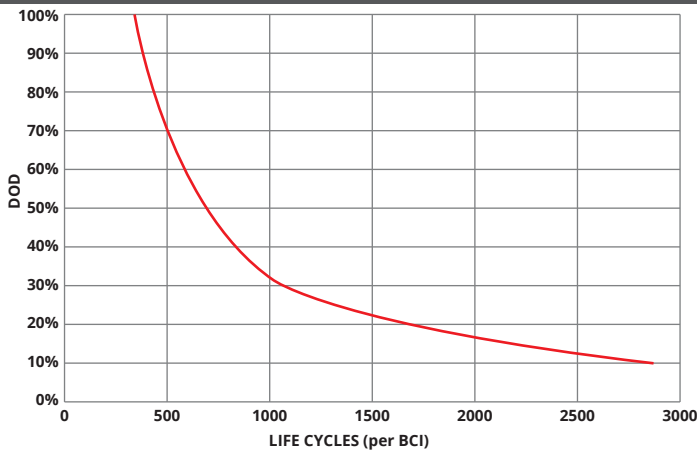
## TEMPERATURE vs CAPACITY



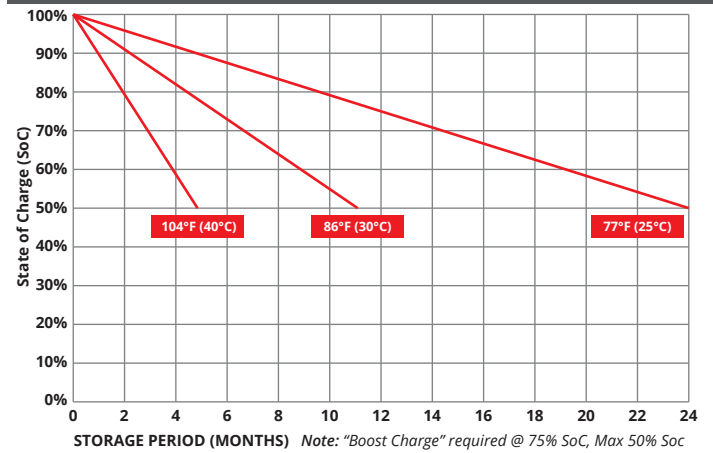
## STATE of CHARGE (SOC) vs OPEN CIRCUIT VOLTAGE (OCV)



## CYCLE LIFE vs DEPTH of DISCHARGE (DOD) \*(Based on BCI Testing @ 2-hr Rate)



## SELF DISCHARGE vs TIME/TEMPERATURE



## TEMPERATURE RANGE SPECIFICATIONS

| Condition      | Recommended   | Maximum        | Recommended   | Maximum       |
|----------------|---------------|----------------|---------------|---------------|
| Storage        | 5°F to 122°F  | -40°F to 160°F | -15°C to 50°C | -40°C to 71°C |
| Operation      | 5°F to 104°F  | -40°F to 160°F | -15°C to 40°C | -40°C to 71°C |
| Charge with TC | 5°F to 122°F  | -40°F to 160°F | -15°C to 50°C | -40°C to 71°C |
| Charge w/o TC  | 32°F to 104°F | 5°F to 122°F   | 0°C to 40°C   | -15°C to 50°C |

\*TC= Temperature Compensation

## CHARGE VOLTAGES

| Charge Stage | Battery Voltages |              |              |              |
|--------------|------------------|--------------|--------------|--------------|
|              | 12V              | 24V          | 36V          | 48V          |
| Bulk         | 14.4 - 14.7V     | 28.8 - 29.4V | 43.2 - 44.1V | 57.6 - 58.8V |
| Absorption   | 14.4 - 14.7V     | 28.8 - 29.4V | 43.2 - 44.1V | 57.6 - 58.8V |
| Float        | 13.6V            | 27.2V        | 40.8V        | 54.6V        |

TC Factor: (-2mV°F/cell) or (-4mV°C/cell)

## TERMINAL TORQUE SPECS (applicable values are highlighted)

| M6            | M8            | M10            | M6M (Stud)    | M8M (Stud)    | M10M (Stud) & 3/8" Stud | FR45          | TP06 (AP)     | TP08/TP68 (AP) | AP            |
|---------------|---------------|----------------|---------------|---------------|-------------------------|---------------|---------------|----------------|---------------|
| 3.3-4.8ft-lbs | 5.2-6.7ft-lbs | 8.1-10.3ft-lbs | 2.6-3.7ft-lbs | 4.4-5.9ft-lbs | 7.4-8.8ft-lbs           | 4.8-6.3ft-lbs | 2.6-3.3ft-lbs | 4.6-6.3ft-lbs  | 4.2-5.8ft-lbs |
| 40-57.5lbs-in | 62-80lbs-in   | 97-124lbs-in   | 31-44lbs-in   | 53-71lbs-in   | 88.5-106lbs-in          | 57-75lbs-in   | 31-40lbs-in   | 55-75lbs-in    | 50-70lbs-in   |
| 4.5-6.5Nm     | 7-9Nm         | 11-14Nm        | 3.5-5Nm       | 6-8Nm         | 10-12Nm                 | 6.5-8.5Nm     | 3.5-4.5Nm     | 6.2-8.5Nm      | 5.6-7.9Nm     |



9001:2008 Quality Management System  
 14001:2004 Environmental Management System  
 18001:2007 Occupational Health & Safety Management System



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**LAND, SEA  
 & AIR**

Fullriver batteries are sealed lead acid batteries made with Absorbed Glass Mat (AGM) technology. The electrolyte is absorbed into the fiberglass separator material rather than in a free-flowing liquid form. Fullriver batteries are non-spillable electric storage batteries. They are exempted from the requirements of DOT's hazardous materials regulations, since they adhere to the requirements of code 49 CFR Section 173.159(D) - (CLASSIFIED APPROVED: DOT, CFR, HMR49, IATA, ICAO67, IMDG27)