

# FT610-47



## CYCLING CAPACITY

20 Hour Rate **50 Amp Hours**

## RESERVE CAPACITY

Reserve @25 AMPS **105 Minutes** Reserve @75 AMPS **21 Minutes**

## ELECTRICAL SPECIFICATIONS

|                       |                  |
|-----------------------|------------------|
| Nominal Voltage       | <b>12 Volt</b>   |
| C100                  | <b>55 AH</b>     |
| C20                   | <b>50 AH</b>     |
| C5                    | <b>43 AH</b>     |
| Short Circuit Current | <b>1660 Amps</b> |
| CCA                   | <b>610 Amps</b>  |
| CA or MCA             | <b>745 Amps</b>  |
| PHCA                  | <b>1280 Amps</b> |
| Internal Resistance   | <b>7.5 mΩ</b>    |

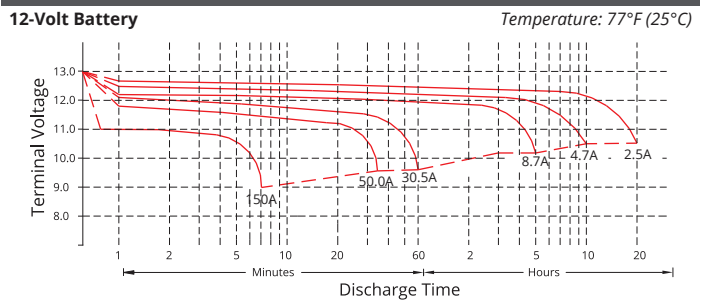
## MECHANICAL SPECIFICATIONS

|                      |  |                |
|----------------------|--|----------------|
| Group Size           | <b>47 / L2 / H6</b>                            |                |
| Terminal Type        | <b>AP</b>                                      |                |
| Terminal Torque      | <b>See reverse side</b>                        |                |
| Height (w/ terminal) | <b>7.48"</b>                                   | <b>190 mm</b>  |
| Height (case only)   | <b>7.48"</b>                                   | <b>190 mm</b>  |
| Width                | <b>6.89"</b>                                   | <b>175 mm</b>  |
| Length               | <b>9.49"</b>                                   | <b>241 mm</b>  |
| Weight               | <b>42.1 lbs</b>                                | <b>19.1 kg</b> |
| Case Type            | <b>ABS Plastic - Flame Res. Rating UL94-HB</b> |                |

## DISCHARGE TABLE (Constant Current)

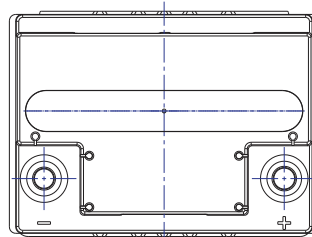
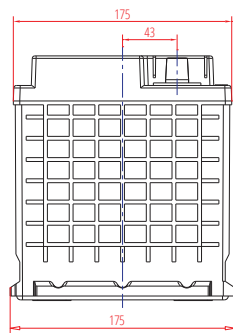
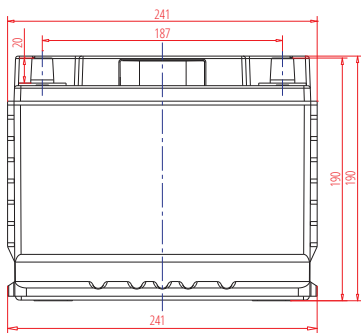
| Time | Amps | Rate    |
|------|------|---------|
| 20hr | 2.5  | 0.05 CA |
| 10hr | 4.7  | 0.10 CA |
| 8hr  | 5.6  | 0.13 CA |
| 5hr  | 8.7  | 0.20 CA |
| 3hr  | 12.6 | 0.33 CA |
| 2hr  | 17.2 | 0.50 CA |
| 1hr  | 30.5 | 1.00 CA |

## DISCHARGE PROFILE (Constant Current)

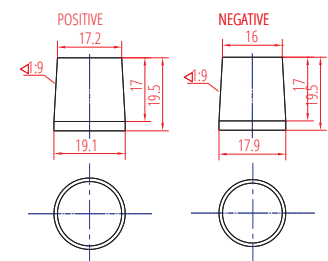


- All listed ratings are @ 100% SoC, T=77°F (25°C), 1.75VPC unless otherwise specified.
- Specifications listed are for estimation purposes only. Battery performance can vary depending on application. Battery design subject to change.

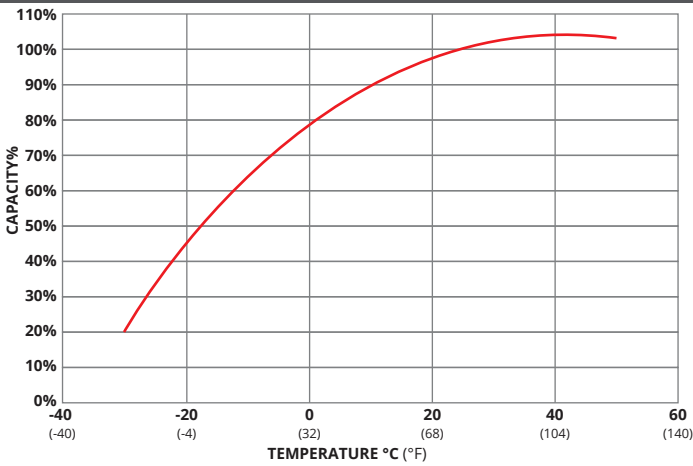
## BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



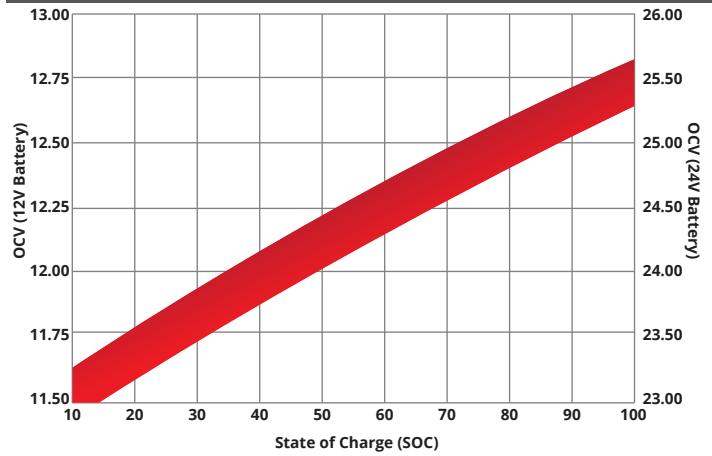
### Terminal: AP



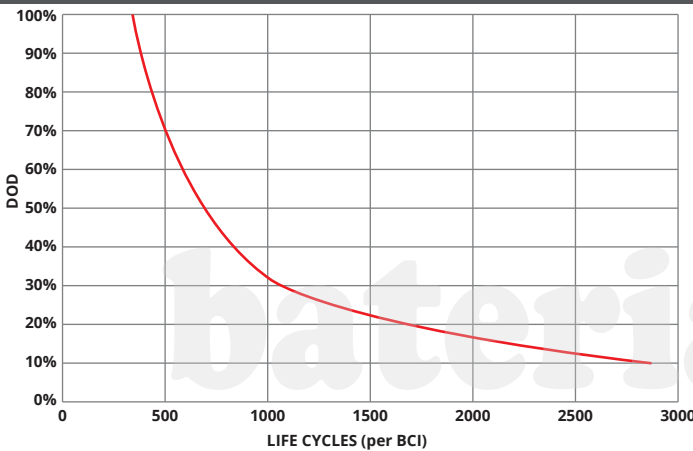
### TEMPERATURE vs CAPACITY



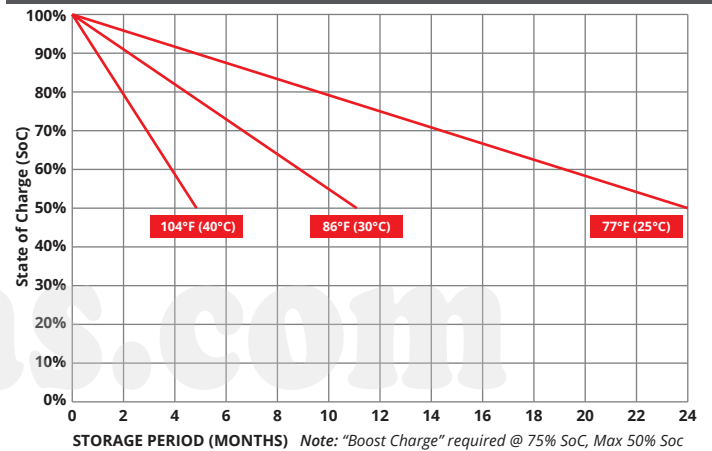
### STATE of CHARGE (SOC) vs OPEN CIRCUIT VOLTAGE (OCV)



### 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



DELIVERY APPROVED!  
**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)