



**BATTERY:** Flooded/wet lead-acid battery  
**DIMENSIONS:** inches (mm)  
**COLOR:** Maroon (case/cover)  
**MATERIAL:** Polypropylene

The Signature Line of deep-cycle flooded batteries is the flagship of Trojan's product portfolio. Engineered to provide rugged durability and outstanding performance, Trojan's Signature Line is perfectly suited for use in renewable energy systems where lowest life-cycle cost is the key consideration. An all-around power house, the Signature Line features Trojan's historically-proven engineering with T2 Technology, an advanced battery technology for maximum sustained performance, longer life and increased total energy. The combination of the Signature Line's unique grid design and technology, advanced Maxguard T2 separator and Trojan's proprietary Alpha Plus Paste increases both the batteries sustained capacity and total overall ampere-hours resulting in more operating power.

### PRODUCT SPECIFICATION

| BCI GROUP SIZE                                | TYPE      | CAPACITY <sup>A</sup> Amp-Hours (AH) |           |            |            |            |            |             |             | ENERGY (kWh) | VOLTAGE | TERMINAL Type** | DIMENSIONS <sup>B</sup> Inches (mm) |               |                     | WEIGHT lbs. (kg) |
|-----------------------------------------------|-----------|--------------------------------------|-----------|------------|------------|------------|------------|-------------|-------------|--------------|---------|-----------------|-------------------------------------|---------------|---------------------|------------------|
|                                               |           | 2-Hr Rate                            | 5-Hr Rate | 10-Hr Rate | 20-Hr Rate | 48-Hr Rate | 72-Hr Rate | 100-Hr Rate | 100-Hr Rate |              |         |                 | Length                              | Width         | Height <sup>C</sup> |                  |
| SIGNATURE LINE - DEEP-CYCLE FLOODED BATTERIES |           |                                      |           |            |            |            |            |             |             |              |         |                 |                                     |               |                     |                  |
| 24                                            | 24TMX     | 55                                   | 70        | 78         | 85         | 91         | 93         | 94          | 1.13        | 12 VOLT      | 5       | 13-15/16 (354)  | 7-1/8 (181)                         | 11-1/8 (283)  | 47 (21)             |                  |
| 27                                            | 27TMX     | 68                                   | 85        | 97         | 105        | 112        | 114        | 117         | 1.40        | 12 VOLT      | 5       | 15 (381)        | 7 (178)                             | 14-5/8 (371)  | 55 (25)             |                  |
| 27                                            | 27TMH     | 75                                   | 95        | 106        | 115        | 122        | 125        | 128         | 1.54        | 12 VOLT      | 5       | 10-1/4 (260)    | 7-1/8 (181)                         | 11-1/16 (281) | 61 (28)             |                  |
| 30H                                           | 30XHS     | 85                                   | 105       | 120        | 130        | 138        | 142        | 144         | 1.73        | 12 VOLT      | 5       | 15 (381)        | 7 (178)                             | 14-5/8 (371)  | 66 (30)             |                  |
| N/A                                           | J150      | 104                                  | 120       | 134        | 150        | 159        | 163        | 166         | 1.99        | 12 VOLT      | 2       | 10-1/4 (260)    | 7-1/8 (181)                         | 11-1/16 (281) | 84 (38)             |                  |
| 921                                           | J185P-AC* | 133                                  | 168       | 189        | 205        | 218        | 223        | 226         | 2.71        | 12 VOLT      | 6       | 10-1/4 (260)    | 7-1/8 (181)                         | 11-1/16 (281) | 114 (52)            |                  |
| GC2                                           | T-605     | 136                                  | 175       | 193        | 210        | 224        | 228        | 232         | 1.39        | 6 VOLT       | 1       | 10-1/4 (260)    | 7-1/8 (181)                         | 11-7/8 (302)  | 58 (26)             |                  |
| 921                                           | J185H-AC* | 146                                  | 185       | 207        | 225        | 240        | 245        | 249         | 2.99        | 12 VOLT      | 6       | 11-5/8 (295)    | 7 (178)                             | 14-3/8 (365)  | 128 (58)            |                  |
| GC2                                           | T-105     | 146                                  | 185       | 207        | 225        | 240        | 245        | 250         | 1.50        | 6 VOLT       | 5       | 11-5/8 (295)    | 7 (178)                             | 14-3/8 (365)  | 62 (28)             |                  |
| GC2                                           | T-125     | 156                                  | 195       | 221        | 240        | 256        | 262        | 266         | 1.60        | 6 VOLT       | 2, 4    | 11-5/8 (295)    | 7 (178)                             | 16-3/4 (425)  | 66 (30)             |                  |
| GC2H                                          | T-145     | 169                                  | 215       | 239        | 260        | 277        | 283        | 287         | 1.72        | 6 VOLT       | 2, 4    | 11-5/8 (295)    | 7 (178)                             | 16-3/4 (425)  | 72 (33)             |                  |
| 902                                           | J305P-AC* | 215                                  | 271       | 304        | 330        | 351        | 360        | 367         | 2.20        | 6 VOLT       | 6       | 12-1/4 (311)    | 7 (178)                             | 16-3/8 (416)  | 96 (44)             |                  |
| 902                                           | J305H-AC* | 234                                  | 295       | 331        | 360        | 383        | 392        | 400         | 2.40        | 6 VOLT       | 6       | 11-5/8 (295)    | 7 (178)                             | 14-3/8 (365)  | 98 (45)             |                  |
| 903                                           | L16P      | 273                                  | 344       | 386        | 420        | 447        | 458        | 467         | 2.80        | 6 VOLT       | 5       | 11-5/8 (295)    | 7 (178)                             | 16-3/4 (424)  | 114 (52)            |                  |
| 903                                           | L16H      | 283                                  | 357       | 400        | 435        | 463        | 474        | 483         | 2.89        | 6 VOLT       | 5       | 11-5/8 (295)    | 7 (178)                             | 16-3/4 (424)  | 125 (57)            |                  |
| 903                                           | L16HG-AC* | 283                                  | 357       | 400        | 435        | 463        | 474        | 483         | 2.89        | 6 VOLT       | 7       | 12-1/4 (311)    | 7 (178)                             | 16-3/8 (417)  | 125 (57)            |                  |

<sup>A</sup> The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 77°F (25°C) and maintain a voltage above 1.75 V/cell.

\* Polyon™ Case



Capacities are based on peak performance.

<sup>B</sup> Dimensions are based on nominal size. Dimensions may vary depending on type of handle or terminal.

<sup>C</sup> Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

\*\* Additional terminals available

Trojan's battery testing procedures adhere to both BCI and IEC test standards.

## CHARGING INSTRUCTIONS

| CHARGER VOLTAGE SETTINGS (AT 77°F/25°C) |                  |
|-----------------------------------------|------------------|
|                                         | Voltage per cell |
| Absorption charge                       | 2.35-2.45        |
| Float charge                            | 2.20             |
| Equalize charge                         | 2.58             |

Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.

## OPERATIONAL DATA

| OPERATING TEMPERATURE                                                                                            | SPECIFIC GRAVITY                                      |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| -4°F to 113°F (-20°C to +45°C).<br>At temperatures below 32°F (0°C) maintain a state of charge greater than 60%. | The specific gravity at 100% state-of-charge is 1.280 |

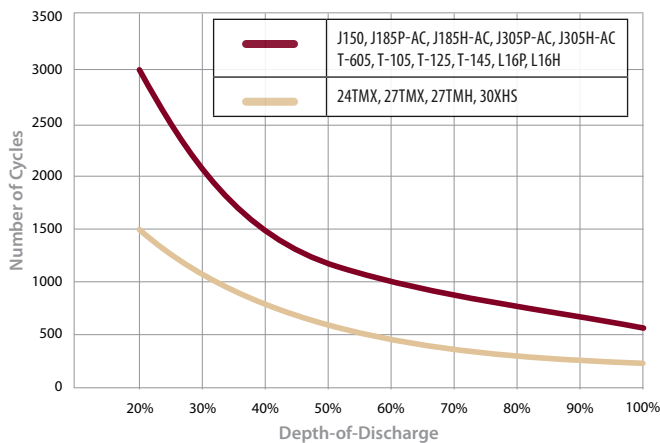
## CHARGING TEMPERATURE COMPENSATION

To the Voltage Reading -- Subtract 0.005 volt per cell (VPC) for every 1°C above 25°C or add 0.005 volt per cell for every 1°C below 25°C.

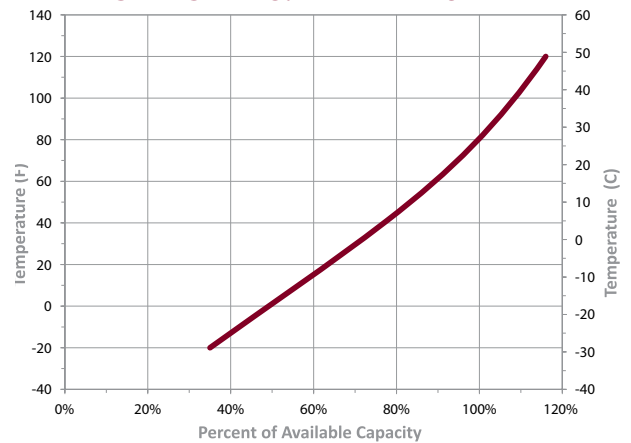
## EXPECTED LIFE VS. TEMPERATURE

Chemical reactions internal to the battery are driven by voltage and temperature. The higher the battery temperature, the faster chemical reactions will occur. While higher temperatures can provide improved discharge performance the increased rate of chemical reactions will result in a corresponding loss of battery life. As a rule of thumb, for every 10°C increase in temperature the reaction rate doubles. Thus, a month of operation at 35°C is equivalent in battery life to two months at 25°C. Heat is an enemy of all lead acid batteries, FLA, AGM and gel alike and even small increases in temperature will have a major influence on battery life.

## TYPICAL CYCLE LIFE IN A STATIONARY APPLICATION



## CAPACITY VS. TEMPERATURE



## TERMINAL CONFIGURATIONS

|                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 ELPT</b> Embedded Low Profile Terminal<br><br><b>Terminal Height Inches (mm)</b><br>1-7/32 (31)<br><b>Torque Values in-lb (Nm)</b><br>95 – 105 (11 – 12)<br><b>Bolt Size</b><br>5/16 – 18 | <b>2 EHPT</b> Embedded High Profile Terminal<br><br><b>Terminal Height Inches (mm)</b><br>1-1/2 (38)<br><b>Torque Values in-lb (Nm)</b><br>95 – 105 (11 – 12)<br><b>Bolt Size</b><br>5/16 – 18                            | <b>4 EUT</b> Embedded Universal Terminal<br><br><b>Terminal Height Inches (mm)</b><br>1-1/8 (28)<br><b>Torque Values in-lb (Nm)</b><br>95 – 105 (11 – 12)<br><b>Through-hole Diameter (mm)</b><br>5/8 (9.5) |
| <b>5 LT</b> L-Terminal<br><br><b>Terminal Height Inches (mm)</b><br>1-3/4 (43)<br><b>Torque Values in-lb (Nm)</b><br>100 – 120 (11 – 14)<br><b>Through-hole Diameter (mm)</b><br>3/8 (10)      | <b>6 DT</b> Automotive Post & Stud Terminal<br><br><b>Terminal Height Inches (mm)</b><br>29/32 (20)<br><b>Torque Values in-lb (Nm)</b><br>AP: 50 – 70 (6 – 8)<br>ST: 120 – 180 (14 – 20)<br><b>Bolt Size</b><br>5/16 – 18 | <b>7 UT</b> Universal Terminal<br><br><b>Terminal Height Inches (mm)</b><br>1-1/8 (28)<br><b>Torque Values in-lb (Nm)</b><br>95 – 105 (11 – 12)<br><b>Through-hole Diameter (mm)</b><br>5/16 – 18 (8)       |

## VENT CAP



Trojan batteries are available worldwide.

We offer outstanding technical support, provided by full-time application engineers.

**call 800.423.6569 or + 1.562.236.3000 or visit [www.trojanbatteryRE.com](http://www.trojanbatteryRE.com)**

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