

# TRUE BLUE POWER®

A division of Mid-Continent Instrument Co., Inc.



## Gen5 Advanced Lithium-ion Battery

TB20, TB30, TB40, TB60

Manufactured by Mid-Continent Instrument Co., Inc.



TB20, TB30, TB40, TB60

Gen5 lithium-ion aircraft batteries address the challenges of lead-acid and NiCad battery technology. The TB20, TB30, TB40 and TB60 offer on-condition maintenance, eliminating expensive battery maintenance, frequent capacity checks and low-voltage operational delays. These intelligent battery systems deliver more accurate and more reliable state-of-health and state-of-charge data than any other battery on the market today.

Ultra-lightweight  
up to 60% lighter

### Product features

|                           |  |
|---------------------------|--|
| CAPACITY                  | TB20 20 amp-hour nominal at 23°C/73°F<br>TB30 30 amp-hour nominal at 23°C/73°F<br>TB40 40 amp-hour nominal at 23°C/73°F<br>TB60 60 amp-hour nominal at 23°C/73°F |
| WEIGHT                    | TB20 19.5 lbs. (8.85 kg)<br>TB30 27.7 lbs. (12.56 kg)<br>TB40 36.6 lbs. (16.60 kg)<br>TB60 52.9 lbs. (23.99 kg)  |
| TECHNOLOGY                | Advanced NanoPhosphate® lithium-ion cell chemistry   |
| EFFICIENCY                | Higher voltage during engine start — Less wear, less maintenance and increased useful life   |
| PERFORMANCE               | Superior high-temperature and cold-weather performance from -40°C to +70°C (-40°F to +158°F)   |
| ENERGY DENSITY            | More than 1 amp-hour per pound   |
| INTERNAL HEATER           | Automatic internal heater  |
| PROTECTION                | Overcharge, over-discharge, over-current, short circuit, over-temperature, under-temperature and charge current limiting   |
| COMMUNICATION             | ARINC 429, Analog, Discrete<br><br>Built-in Test (BIT) Indicator communicates real-time state-of-charge and state-of-health                                      |
| MAINTENANCE               | On-condition   |
| DESIGNED AND MANUFACTURED | Wichita, Kansas, USA   |
| WARRANTY                  | Two-year limited   |

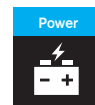
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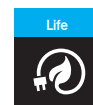
#### The NanoPhosphate® Advantage



Superior power by weight or volume in a cost effective solution



NanoPhosphate® is stable chemically, providing the foundation for safe systems



Excellent calendar and cycle life with consistent performance over extended use



Higher useable energy means greater battery utilization and lower cost

[truebluepowerusa.com](http://truebluepowerusa.com)

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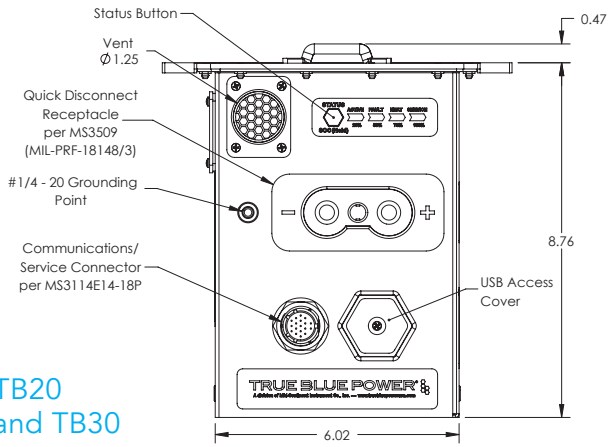
## TB20, TB30, TB40, TB60

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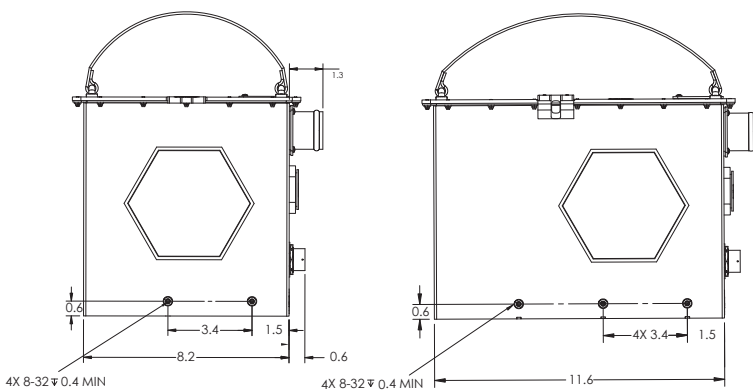
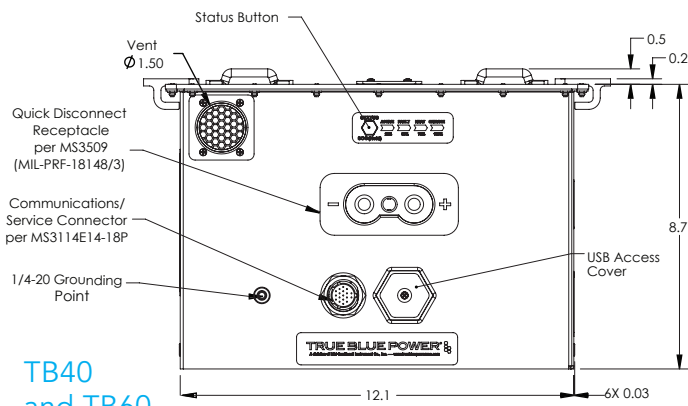
### Technical specifications

|                         |   |
|-------------------------|---|
| CHARGE VOLTAGE          | 28 VDC nominal  |
| OUTPUT VOLTAGE          | 26.4 VDC nominal  |
| OUTPUT CURRENT          | TB20 525A continuous, 960A max<br>TB30 575A continuous, 1440A max<br>TB40 525A continuous, 1500A max<br>TB60 425A continuous, 1500A max                                     |
| TECHNOLOGY              | Advanced NanoPhosphate®<br>lithium-ion cell chemistry   |
| ENERGY DENSITY          | TB20 59.7 Wh/Kg<br>TB30 63.1 Wh/Kg<br>TB40 63.6 Wh/Kg<br>TB60 66.0 Wh/Kg  |
| CHARGE CURRENT LIMITING | Programmable up to 4C or 10C unlimited  |
| OPERATING TEMPERATURE   | -40°C to +70°C (-40°F to +158°F)  |
| WEIGHT                  | TB20 19.5 lbs. (8.85 kg)<br>TB30 27.7 lbs. (12.56 kg)<br>TB40 36.6 lbs. (16.60 kg)<br>TB60 52.9 lbs. (23.99 kg)   |
| DIMENSIONS              | TB20 9.1" L x 8.6" W x 8.8" H<br>TB30 12.5" L x 8.6" W x 8.8" H<br>TB40 9.1" L x 14.7" W x 8.8" H<br>TB60 12.5" L x 14.7" W x 8.8" H  |
| CONFIGURATION           | TB20 8P8S; 4 parallel x 8 in series x 2<br>TB30 12P8S; 4 parallel x 8 in series x 3<br>TB40 16P8S; 4 parallel x 8 in series x 4<br>TB60 24P8S; 4 parallel x 8 in series x 6 |
| LIFE EXPECTANCY         | 8 years (average)   |
| MAINTENANCE             | On-condition  |
| CASE                    | Anodized aluminum, blue   |
| CERTIFICATION           | FAA TSO-C179b (Class A-4B)<br>RTCA DO-311A<br>RTCA DO-160G<br>RTCA DO-178C DAL A<br>UNDOT/IATA  |

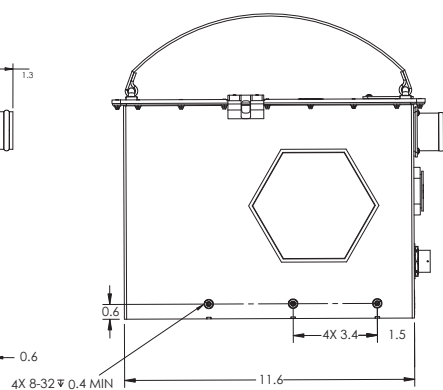
TB20 and TB30



TB40 and TB60



TB20 and TB40



TB30 and TB60