

TRUE BLUE POWER

First to
receive FAA
TSO
on Lithium-ion
batteries!

Advanced Lithium-ion Battery

TB44

Manufactured by Mid-Continent Instrument Co., Inc.



TB44

The TB44 Advanced Lithium-ion Battery uses the most sophisticated lithium-ion chemistry available, providing aviators with an unmatched advantage of power, safety, life and energy.

Ideal for the turbine market, including fixed-wing and rotorcraft applications, the TB44 starts the aircraft's engine quickly and features superior energy density — NanoPhosphate[®] lithium-ion cells offer 3x the energy per kilogram, resulting in a battery that is 40% lighter than lead-acid or nickel-cadmium alternatives.

The advanced battery system is engineered to deliver an overall lower cost of ownership with a 2-year maintenance schedule, efficient engine starts, extended useful life and intelligent ARINC 429 communication to the cockpit.

Product features

| | |
|---------------------------|--|
| CAPACITY | 46 amp-hour battery nominal at 23°C/73.4°F |
| WEIGHT | 51.7 lbs. (23.4 kg) |
| TECHNOLOGY | Advanced NanoPhosphate [®] lithium-ion cell chemistry |
| EFFICIENCY | Higher voltage during engine start — Less wear, less maintenance and increased useful life |
| PERFORMANCE | 7 engine starts in 7 minutes 15 minutes for complete recharge when the battery is fully discharged on a typical aircraft Superior performance in extreme temperatures (-40°C to +70°C) |
| ENERGY DENSITY | Battery cells deliver 3x the energy per kilogram when compared to lead-acid and nickel-cadmium cells |
| INTERNAL HEATER | Automatic internal heater |
| PROTECTION | Overcharge, over-discharge, over-current, short circuit, over-temperature and under-temperature |
| COMMUNICATION | ARINC 429 data to the cockpit |
| MAINTENANCE | 2-year maintenance interval; offers 50 – 90% savings on maintenance costs |
| DESIGNED AND MANUFACTURED | Wichita, Kansas, USA |
| WARRANTY | 2-year limited |

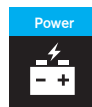
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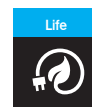
The NanoPhosphate[®] Advantage



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



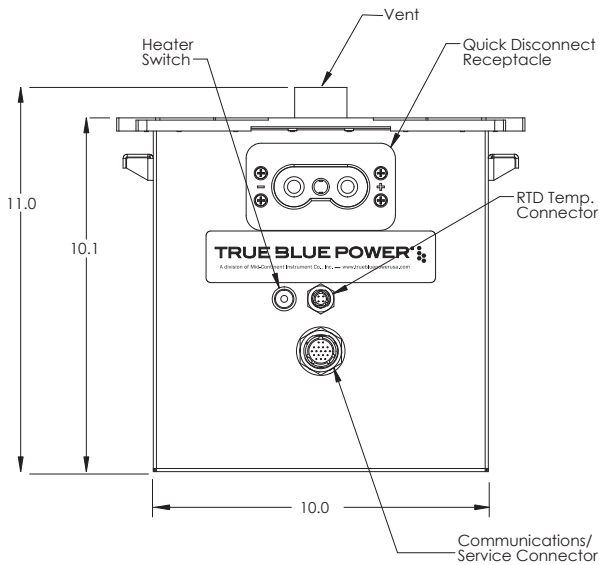
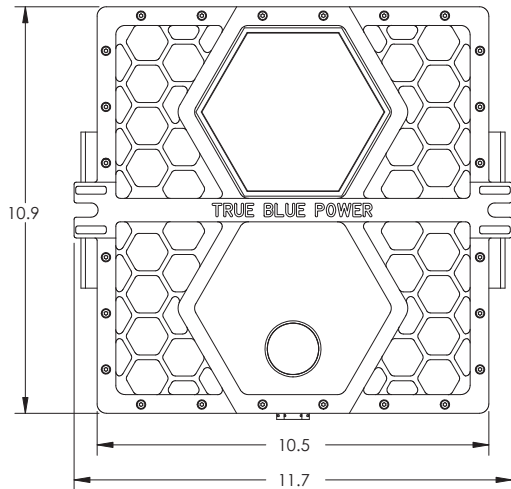
Higher useable energy means greater battery utilization and lower cost

truebluepowerusa.com

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Technical specifications

| | |
|-----------------------|--|
| CAPACITY | 46 amp-hour battery nominal at 23°C/73.4°F |
| CHARGE VOLTAGE | 28 VDC nominal |
| OUTPUT VOLTAGE | 26.4 VDC nominal |
| OUTPUT CURRENT | 750A continuous, 1500A max |
| TECHNOLOGY | Advanced NanoPhosphate® lithium-ion cell chemistry |
| PROTECTION | Overcharge, over-discharge, over-current, short circuit, over-temperature and under-temperature |
| ENERGY DENSITY | 52.0 Wh/kg 64.6 Wh/liter |
| OPERATING TEMPERATURE | -40°C to +70°C (-40°F to +158°F) |
| WEIGHT | 51.7 lbs. (23.4 kg) |
| DIMENSIONS | 10.9" L x 11.7" W x 10.1" H |
| CONFIGURATION | 8S19P; 8 series cells x 19 parallel modules |
| MAINTENANCE | 2-year maintenance interval; offers 50 – 90% savings on maintenance costs |
| CASE | Powder-coated steel, blue |
| CERTIFICATION | FAA TSO certified to C179a ETSO certified to C179a RTCA DO-311 qualified RTCA DO-160G qualified UNDOT/IATA qualified |

Product comparison

| | Battery Technology | Voltage Output | Capacity (1C rate) | Weight | Maintenance | Useful Life |
|-------------|--------------------|----------------|--------------------|-----------|-----------------|-------------------|
| TB44 | Lithium-ion | 26.4 VDC | 46 amp-hour | 51.7 lbs. | 2 years | 8 years (average) |
| | Lead-acid | 24 VDC | 42 amp-hour | 92 lbs. | Annual | 2 – 4 years |
| | Nickel-cadmium | 24 VDC | 44 amp-hour | 80 lbs. | 200 – 400 hours | 5 – 10 years |