

TRUE BLUE POWER®

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



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.
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 at extremely high temperatures (up to 70°C/158°F)
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

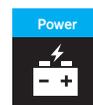
Kansas

9400 East 34th Street North
Wichita, Kansas 67226 USA
Tel 316.630.0101 800.821.1212
Fax 316.630.0723
tbp@mcico.com

California

16320 Stagg Street
Van Nuys, California 91406 USA
Tel 818.786.0300 800.345.7599
Fax 818.786.2734
tbp@mcico.com

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



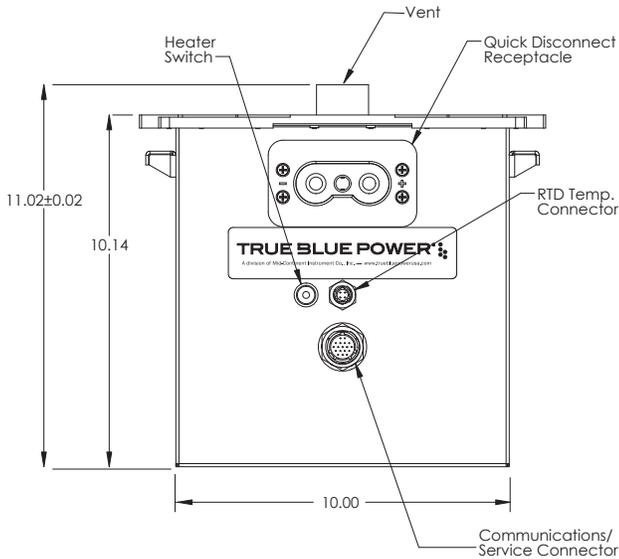
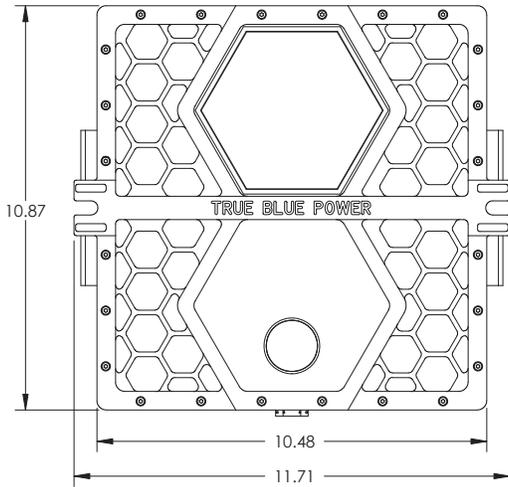
Higher useable energy means greater battery utilization and lower cost

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. (23.45 kg)
DIMENSIONS	10.87" L x 10.48" W x 10.14" H
CONFIGURATION	8S19P; 1 parallel x 8 in series x 19
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	86 lbs.	Annual	2 – 4 years
	Nickel-cadmium	24 VDC	44 amp-hour	80 lbs.	200 – 400 hours	5 – 10 years