

# 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
	TB30	30 amp-hour nominal at 23°C/73°F
	TB40	40 amp-hour nominal at 23°C/73°F
	TB60	60 amp-hour nominal at 23°C/73°F

VEIGHT	TB20	19.5 lbs. (8.85 kg)
	TB30	27.7 lbs. (12.56 kg)
	TB40	36.6 lbs. (16.60 kg)
	TRA0	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

> Built-in Test (BIT) Indicator communicates real-time state-of-charge and state-of-health

**MAINTENANCE** On-condition

Wichita, Kansas, USA **DESIGNED AND MANUFACTURED** 

WARRANTY Two-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







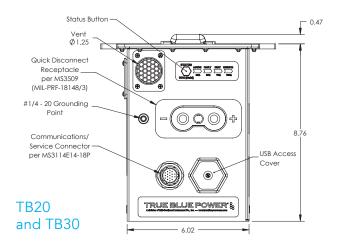




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## Technical specifications

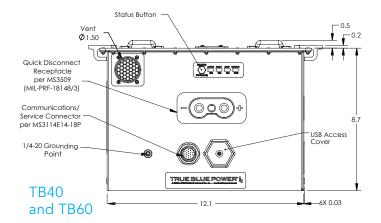
CHARGE VOLIAGE	28 VDC nominal	
OUTPUT VOLTAGE	26.4 VDC nominal	
OUTPUT CURRENT	TB20 525A continuous, 960A max TB30 575A continuous, 1440A max TB40 525A continuous, 1500A max TB60 425A continuous, 1500A max	
TECHNOLOGY	Advanced NanoPhosphate® lithium-ion cell chemistry	
ENERGY DENSITY	TB20 59.7 Wh/Kg TB30 63.1 Wh/Kg TB40 63.6 Wh/Kg TB60 66.0 Wh/Kg	

TB20

TB30

TB40

TB60



CHARGE CURRENT LIMITING

OPERATING TEMPERATURE

WEIGHT

**DIMENSIONS** 

CONFIGURATION

LIFE EXPECTANCY

CASE

CERTIFICATION

**MAINTENANCE** 

Programmable up to 8C or unlimited

-40°C to +70°C (-40°F to +158°F)

19.5 lbs. (8.85 kg)

27.7 lbs. (12.56 kg)

36.6 lbs. (16.60 kg)

TB60 52.9 lbs. (23.99 kg)

TB20 9.1" L x 8.6" W x 8.8" H

TB30 12.5" L x 8.6" W x 8.8" H

TB40 9.1" L x 14.7" W x 8.8" H

TB20 8P8S; 4 parallel x 8 in series x 2
TB30 12P8S; 4 parallel x 8 in series x 3
TB40 16P8S; 4 parallel x 8 in series x 4
TB60 24P8S; 4 parallel x 8 in series x 6

12.5" L x 14.7" W x 8.8" H

8 years (average)

On-condition

Anodized aluminum, blue

FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A

UNDOT/IATA

