How lithium-ion batteries measure up

| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
|---------------------------------------|--------------------|-------------------------------|----------------|-------------------|-----------------|
| TB14 Lithium-ion Aircraft Battery | 13 amp-hour | 10 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 13.6 amp-hour | 13.6 amp-hour 29.5 lbs. 24 VE | | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 15 amp-hour | 36.8 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| | | | | | |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB17 Lithium-ion Aircraft Battery | 17 amp-hour | 16 lbs. | 26.4 VDC | 8 years (average) | 2 years |
| Lead-acid Battery | 17 amp-hour | 43 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 17 amp-hour | 38.5 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| | r | | | | |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB20 Lithium-ion Aircraft Battery | 20 amp-hour | 19.5 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 17 amp-hour | 43 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 17 amp-hour | 38.5 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB28-12V Lithium-ion Aircraft Battery | 26 amp-hour | 10 lbs. | 13.2 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 24 amp-hour | 23.5 lbs. | 12 VDC | 2 – 4 years | Annual |
| | | 23.5 153. | 12 400 | | Annuar |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB30 Lithium-ion Aircraft Battery | 30 amp-hour | 27.7 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 28 amp-hour | 62 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 27 amp-hour | 54.3 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| | [| | | | |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB40 Lithium-ion Aircraft Battery | 40 amp-hour | 36.6 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 42 amp-hour | 86 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 44 amp-hour | 80 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB44 Lithium-ion Aircraft Battery | 46 amp-hour | 51.7 lbs. | 26.4 VDC | 8 years (average) | 2 years |
| Lead-acid Battery | 42 amp-hour | 86 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 44 amp-hour | 80 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| | | | | , | |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB50 Lithium-ion Aircraft Battery | 50 amp-hour | 43.9 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 42 amp-hour | 86 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 44 amp-hour | 80 lbs. | 24 VDC | 5 – 10 years | 200 – 400 hours |
| | | | | | |
| Battery Technology | Capacity (1C rate) | Weight | Voltage Output | Useful Life | Maintenance |
| TB60 Lithium-ion Aircraft Battery | 60 amp-hour | 52.9 lbs. | 26.4 VDC | 8 years (average) | On-condition |
| Lead-acid Battery | 53 amp-hour | 98 lbs. | 24 VDC | 2 – 4 years | Annual |
| Nickel-cadmium Battery | 53 amp-hour | 105 lbs. | 25.2 VDC | 5 – 10 years | 200 – 400 hour |

TRUE BLUE POWER 🔓

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Certified Lithium-ion Aircraft Batteries PRODUCT COMPARISON CHART

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| | TB14 | TB17 | TB20 | TB28-12V | TB30 | TB40 | TE |
|-----------------------|--|--|--|--|--|--|---|
| CAPACITY | 13 amp-hour nominal at 23°C/73°F | 17 amp-hour nominal at 23°C/73°F | 20 amp-hour nominal at 23°C/73°F | 26 amp-hour nominal at 23°C/73°F | 30 amp-hour nominal at 23°C/73°F | 40 amp-hour nominal at 23°C/73°F | 46 amp-h at 23° |
| WEIGHT | 10 lbs. (4.54 kg) | 16 lbs. (7.26 kg) | 19.5 lbs. (8.85 kg) | 10 lbs. (4.54 kg) | 27.7 lbs. (12.56 kg) | 36.6 lbs. (16.60 kg) | 51.7 lbs. |
| CHARGE VOLTAGE | 28.8 VDC nominal | 28 VDC nominal | 28 VDC nominal | 14.4 VDC nominal | 28 VDC nominal | 28 VDC nominal | 28 VDC |
| OUTPUT VOLTAGE | 26.4 VDC nominal | 26.4 VDC nominal | 26.4 VDC nominal | 13.2 VDC nominal | 26.4 VDC nominal | 26.4 VDC nominal | 26.4 VD |
| OUTPUT CURRENT | 100A continuous, 850A max | 500A continuous, 840A max | 525A continuous, 1000A max | 200A continuous, 850A max | 575A continuous, 1500A max | 525A continuous, 1500A max | 750A co 1500 |
| RECHARGE TIME | 35 minutes to fully recharge when battery is fully discharged | 30 minutes to fully recharge when battery is fully discharged | Configurable Charge Current Limiting: 15 minutes to fully recharge when configured for max charge current | 50 minutes to fully recharge when battery is fully discharged | Configurable Charge Current Limiting: 15 minutes to fully recharge when configured for max charge current | Configurable Charge Current Limiting: 15 minutes to fully recharge when configured for max charge current | 15 m to fully rec battery is fu |
| DIMENSIONS | 6.3" L x 5.6" W x 5.0" H | 7.2" L x 7.4" W x 6.1" H | 9.1" L x 8.6" W x 8.8" H | 6.3" L x 5.6" W x 5.0" H | 12.5" L x 8.6" W x 8.8" H | 9.1" L x 14.4" W x 8.9" H | 10.9″ L x 11.7 |
| PROTECTION | Overcharge, over-discharge, over-current, short circuit, over-temperature, under-temperature and charge current limiting | Overcharge, o over-current over-temp under-ter |
| LITHIUM-ION CHEMISTRY | Iron Phosphate | NanoPhosphate® | NanoPhosphate® | Iron Phosphate | NanoPhosphate® | NanoPhosphate® | NanoPh |
| USEFUL LIFE | 8 years (average) | 8 years |
| COMMUNICATION | RS-232, Analog, Discrete | Discrete, RTD (Battery status to the cockpit) | Built-in Test (BIT) Indicator ARINC 429, Analog, Discrete, RTD | RS-232, Analog, Discrete | Built-in Test (BIT) Indicator ARINC 429, Analog, Discrete, RTD | Built-in Test (BIT) Indicator ARINC 429, Analog, Discrete, RTD | Serial, Dis (ARINC to the |
| MAINTENANCE | On-Condition: Service indicated via Discrete output and RS-232 | Two-year intervals | On-Condition: Service indicated via Discrete output, LED indication and ARINC 429 | On-Condition: Service indicated via Discrete output and RS-232 | On-Condition: Service indicated via Discrete output, LED indication and ARINC 429 | On-Condition: Service indicated via Discrete output, LED indication and ARINC 429 | Two-yea |
| OPERATING TEMPERATURE | -20°C to 70°C (-4°F to 158°F) | -40°C to 70°C (-40°F to 158°F) | -40°C to 70°C (-40°F to 158°F) | -20°C to 70°C (-4°F to 158°F) | -40°C to 70°C (-40°F to 158°F) | -40°C to 70°C (-40°F to 158°F) | -40°C (-40°F t |
| CONFIGURATION | 2P8S 2 parallel x 8 in series | 7P8S 7 parallel x 8 in series | 8P8S 4 parallel x 8 in series x 2 | 4P4S 4 parallel x 4 in series | 12P8S 4 parallel x 8 in series x 3 | 16P8S 4 parallel x 8 in series x 4 | 19 1 parallel x 8 |
| CASE | Anodized aluminum, blue | Powder-coat |
| CONNECTION | Terminals, D-sub for communications | Terminals (6430017-1, -2), MS3509 Quick Disconnect (6430017-3, -4) Mil Circular for communications | MS3509 Quick Disconnect, Mil Circular for communications | Terminals, D-sub for communications | MS3509 Quick Disconnect, Mil Circular for communications | MS3509 Quick Disconnect, Mil Circular for communications | MS3509 Qui Mil Cir commu |
| VENT KIT | Available | Available | Available | Available | Available | Available | Ava |
| CERTIFICATION | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A UNDOT/IATA | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G UNDOT/IATA | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A UNDOT/IATA | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A UNDOT/IATA | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A UNDOT/IATA | FAA TSO-C179b (Class A-4B) RTCA DO-311A RTCA DO-160G RTCA DO-178C DAL A UNDOT/IATA | FAA TS ETSO RTCA RTCA I UNDC |
| WARRANTY | Two-year (limited) | Two-yea |

FB44

b-hour nominal 23°C/73°F

bs. (23.45 kg)

DC nominal

VDC nominal

continuous, 500A max

5 minutes recharge when fully discharged

11.7" W x 10.1" H

e, over-discharge, ent, short circuit, mperature and -temperature

oPhosphate®

ars (average)

Discrete, RTD NC 429 data he cockpit)

year intervals

°C to 70°C °F to 158°F)

19P8S x 8 in series x 19

oated steel, blue

Quick Disconnect, Circular for munications

Available

TSO-C179a SO-C179a CA DO-311 A DO-160G IDOT/IATA

year (limited)

TB50

50 amp-hour nominal at 23°C/73°F

43.9 lbs. (19.91 kg)

28 VDC nominal

26.4 VDC nominal

460A continuous, 1500A max

Configurable Charge Current Limiting: 15 minutes to fully recharge when configured for max charge current

10.9" L x 11.8" W x 10.3" H

Overcharge, over-discharge, over-current, short circuit, over-temperature, under-temperature and charge current limiting

NanoPhosphate[®]

8 years (average)

Built-in Test (BIT) Indicator ARINC 429, Analog, Discrete, RTD

On-Condition: Service indicated via Discrete output, LED indication and ARINC 429

> -40°C to 70°C (-40°F to 158°F)

21P8S 7 parallel x 8 in series x 3

Anodized aluminum, blue

MS3509 Quick Disconnect, Mil Circular for communications

Available

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

Two-year (limited)

TB60

60 amp-hour nominal at 23°C/73°F

52.9 lbs. (23.99 kg)

28 VDC nominal

26.4 VDC nominal

425A continuous, 1500A max

Configurable Charge Current Limiting: 15 minutes to fully recharge when configured for max charge current

12.5" L x 14.4" W x 8.9" H

Overcharge, over-discharge, over-current, short circuit, over-temperature, under-temperature and charge current limiting

NanoPhosphate[®]

8 years (average)

Built-in Test (BIT) Indicator ARINC 429, Analog, Discrete, RTD

On-Condition: Service indicated via Discrete output, LED indication and ARINC 429

> -40°C to 70°C (-40°F to 158°F)

24P8S 4 parallel x 8 in series x 6

Anodized aluminum, blue

MS3509 Quick Disconnect, Mil Circular for communications

Available

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

Two-year (limited)