

AV3500 Lithium-Ion Traction Battery for Aviation

Features

- DO311A, DO160G Compliant
- MIL-STD-704F, MIL-STD-1275D Compliant
- Integrated Battery Management System
- CANbus
- Series and Parallel Operation Support

Specifications

Electrical

Voltage @ Charge:	67V
Nominal Discharge Voltage:	58V
Voltage @ Discharge Termination:	48V
Nominal Capacity (C/2):	60Ah
Standard Discharge:	60Ah
Max Cont. Discharge:	120A
Peak Discharge:	150A (30s)

Mechanical

Dimensions:	10.63"L x 8.56"W x 15.63"H
Mass:	23.2kg

Temperature

Discharge:	-10°C to +60°C
Charge:	0°C to +35°C
Storage:	-20°C to +45°C

EMI/EMC and Environmental

MIL-STD-461E:	EMI/EMC, RE, RS, CE, CS
MIL-STD-810F:	Shock, Vibration, Altitude, Thermal
DO160G:	Shock, Vibration, Altitude, Thermal, Crash
DO311A:	Short Circuit, Thermal Runaway

Life Data

Cycle Life:	300 cycles > 80% of Initial, 100% DOD
Shelf-Life	12 months



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The EPS AV3500 advanced aviation lithium-ion battery offers high power and energy in a compact lightweight package. Based on automotive grade lithium cells, the battery offers high quality and reliability for aviation traction power applications.

Multiple AV3500's can be put in series to boost the standard 57V up to 800V for powering advanced propulsion motor systems efficiently. They can also be put in parallel to increase overall energy to achieve higher power and longer flight times.

The design has been tested beyond the stringent DO311A safety test specifications, including thermally induced runaway of multiple cells while mitigating propagation to other cells and containing the events, as well as application of an external short circuit.

The AV3500 works with EPS's flight tested Battery Management Unit (BMU) to complete a drop in flight ready energy storage system solution. The AV3500's integrated battery management support balances the lithium cells, controls charge and discharge operations, measures current, and provided state-of-charge information over the integrated CANbus interface. The AV3500 includes an aviation rated contactor to protect against over-charge, over-discharge, fusing for sustained short circuit events, and power distribution.

Contact EPS to discuss incorporation of this advanced technology into your application.