

# **BATTERIES AND CHARGERS**for UNMANNED AERIAL SYSTEMS

As military, law enforcement and commercial users become increasingly dependent on Unmanned Aerial Systems (UAS), operational aspects such as mission endurance, payload carrying capability, and operability in harsh environmental conditions, logistical footprint and safety, become critical differentiators for evaluation of system performance. Selecting the right battery and charging system for your UAS is a critical step towards optimizing its performance.

Selected by numerous military, HLS and commercial entities, Epsilor's customized UAS energy systems provide best-in-class performance, excellent reliability and extended life cycles to both airborne and ground elements of UAS.

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# LI-ION BASED ENERGY SOURCES FOR UNMANNED AERIAL SYSTEMS

#### EPSILOR'S UAS BATTERY CONFIGURATIONS

Battery Type	UAS Application
High density batteries for electric UAV	Man portable, mini UAS and multi rotor miniature platforms
High energy	Small tactical UAS, Hybrid propulsion UAS
Self-heated high power	Back-up and midair starter batteries for tactical and HALE UAS that perform in high altitude at -60°C

#### BATTERIES FOR FIXED WING AND MULTI-ROTOR MINI UAS

Based on high enrgy - high power density rechargeable Lithium technology together with proprietary Battery Management System (BMS), Epsilor's batteries enable UAS to operate in harsh weather and strong winds and thus enable operators to harvest every available Wh of energy on a given mission while ensuring the vehicle's safe return to home position.



### CHARGERS FOR MINI UAS

Epsilor's smart, proprietary BMS chargers optimize overall system performance. Multi-channel chargers for use in dismounted, stationary, vehicular and outdoor, offer quick turnaround of batteries in hot and cold weather conditions, thus minimizing battery logistics.







### STARTER AND BACK-UP BATTERIES FOR TACTICAL AND MALE UAS

Epsilor's starter and back-up batteries offer excellent reliability and where required have integral smart heater systems that guarantee battery performance in high altitudes and in extremely cold temperatures. Meeting demanding military and aviation standards, such as MIL-STD-461, 810 and 704, this family of custom airborne batteries is tailored to system weight and volume requirements thus enabling

BATTERIES FOR PORTABLE, VEHICLE MOUNTED AND GROUND CONTROL STATIONS (GCS)

Epsilor provides Lithium advanced rechargeable batteries for man-portable GCS and large energy banks for shelter based GCS. In a variety of form factors these high energy density batteries enable long silent operation and the charging of multiple air vehicle batteries without activating a diesel generator. Large format and renewable energy storage systems are also provided,





**UAS CHARGERS** 

- Modular chargers for field, vehicular and stationary charging
- Heater supported charger for unassisted operation in cold environments
- Lightweight & multichannel chargers that support different methods of deployment and long term continuous operation
- Large format energy storage systems for shelter based GCS that support silent operation and UAV battery field charging

#### **ABOUT EPSILOR**

Epsilor provides standard and customized energy source solutions based on rechargeable batteries, designed for military, aerospace and marine applications. Implementing stringent in-house testing and quality assurance, the company's development and production processes employ extensive thermal, and dynamic simulation for MTBF analysis. AS 9100-C qualified, the company's products conform to the most stringent mechanical and environmental aerospace and defense standards, including EMC (MIL-STD-810, -461, 704).

HOW CAN WE HELP YOU? CONTACT EPSILOR AT:

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