

ElectricFuel®

BATTERIES AND CHARGERS FOR MEDICAL DEVICES

POWER TO HEALWWW.ELECTRIC-FUEL.COM

INNOVATIVE SOLUTIONS TO POWER YOUR MEDICAL DEVICE

Mobile medical devices require smart batteries that combine the highest possible energy and power density with the utmost reliability and safety. Led by a team of engineers and PhD-level scientists with vast experience in the design, development, manufacture and qualification of battery packs and chargers that match or exceed international regulatory standards, Electric Fuel delivers the power to heal.

CORE COMPETENCIES

- Electro-chemical, electronic, software and mechanical engineering
- Advanced rechargeable battery electrochemistry: Lithium-Ion, Lithium-Polymer and Lithium-Iron-Phosphate
- Design, manufacture and system integration of batteries, chargers and power electronics
- Manufacturing from limited batches to mass production
- Advanced testing facilities with certification capabilities
- Compliance with regulatory and medical standards (FDA, TUV, ISO-13485)
- Cost-effective, flexible supply chain and solid customer support



FEATURED APPLICATIONS

Our products can be found in hospital, ambulatory and home-based products in the fields of oncology, respiratory therapy, orthopedics, nephrology, mobility aids and emergency medicine. Examples include:

- Life-saving mobile devices requiring high reliability
- A wearable therapeutic device that uses electro-magnetic screening to inhibit cell division in brain cancer
- Hand-held devices for metered medicine delivery
- Portable, long-endurance ventilators for respiratory medicine
- Lightweight, high-power systems for the mobility-impaired
- Power storage and distribution system for medical carts



OFF-THE-SHELF STANDARD MEDICAL BATTERIES AND CHARGERS

With their slim and compact design, Electric Fuel off-the-shelf batteries meet the exacting safety and quality standards of the medical device industry. Batteries are offered in multiple sizes and configurations, and in a full range of voltage, capacity and power specifications. Combined with our standard approved chargers Electric Fuel batteries make product development and qualification less costly and more efficient resulting in shorter time to market.

Quality	ISO-9001:2008; FDA & TUV inspections; ISO-13485 certified						
Standards	UN-38.3; IEC-62133; FCC; UL-1642						
Temperature	Operating/Storage: -20°C - 50°C; Charging: 0°C - 40°C						
Life Cycle	Over 500 cycles						
Shelf Life	Up to three years						
Communication	SMBus						
Charge Indicator	LED fuel gauge						
Safety System	Under/over voltage; over-current/short circuit; cell-balancing; temperature						



_m (Name	Dimensions	Energy	Nominal Voltage	Capacity	Continuous Max. Current
3	EMB-0404			3.6V	10.4Ah	10A
5	EMB-0407		37Wh	7.2V	5.2Ah	10A
	EMB-0414			14.4V	2.6Ah	7A
4	EMB-0404HC	94mm x 74mm		3.6V	12.0Ah	20A
S	EMB-0407HC	x 21mm	43.2Wh	7.2V	6.0Ah	20A
墨(EMB-0414HC			14.4V	3.0Ah	15A
2	EMB-0404HH			3.6V	13.6Ah	10A
ES	EMB-0407HH		48Wh	7.2V	6.8Ah	10A
	EMB-0414HH			14.4V	3.4Ah	7A

	Name	Dimensions	Energy	Nominal Voltage	Capacity	Continuous Max. Current
	EMB-0804			3.6V	20.8Ah	10A
B	EMB-0807		74Wh	7.2V	10.4Ah	10A
	EMB-0814			14.4V	5.2Ah	7A
$\overline{\circ}$	EMB-0804HC	173mm x 74mm		3.6V	24.0Ah	20A
S	EMB-0807HC	x 21mm	86.4Wh	7.2V	12.0Ah	20A
- 4	EMB-0814HC			14.4V	6.0Ah	20A
R	EMB-0804HH			3.6V	27.2Ah	10A
S	EMB-0807HH		97Wh	7.2V	13.6Ah	10A
	EMB-0814HH			14.4V	6.8Ah	7A



CUSTOM MEDICAL BATTERIES AND CHARGERS

Today's medical technologies have exacting requirements for battery size, shape, power, longevity, or stability under extreme conditions. Electric Fuel's customized batteries, chargers and power management systems meet this challenge with:

- Cell selection that meets specific energetic and format requirements
- Custom electronic circuits for special performance and formats
- Design for special environmental requirements: sealed batteries (IP67), compliance to special electromagnetic requirements, high temperature resistance (+130°C) and more
- High energy density up to 250Wh/kg
- High current up to 5C
- "Hot swap" and back-up power management with exceptional reliability for life support systems and other applications



Electric Fuel is the industrial and medical brand of Epsilor-Electric Fuel Ltd., a world leader in the development and production of mobile power products. Experts in a wide range of electrochemistries, including Lithium Ion, Lithium Polymer, and Zinc Air, and working with clients from the medical, automotive and aerospace sectors, Epsilor-Electric Fuel has the broad-based experience needed to create the optimal portable power solution for the most challenging applications.

Epsilor–Electric Fuel is part of the power systems division of Arotech Corporation (Nasdaq: ARTX). The division operates from R&D and manufacturing facilities in the United States and in Israel.

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