ElectricFish

Emergency Response Guide

Industrial Battery Emergency Response Guide

For ElectricFish Industrial Energy Products

Revision 1.07

PRODUCT SPECIFICATIONS

All specifications and descriptions contained in this document are verified to be accurate at the time of printing. We reserve the right to make product or documentation modifications at any time, with or without notice. The images provided in this document are for demonstration purposes only. Depending on product version and market region, details may appear slightly different. This document does not create contractual obligations for ElectricFish or its affiliates and is provided without warranty of any kind, except to the extent expressly agreed in a contract.

1.0. Introduction and Scope

This emergency response guide (ERG) serves as a resource for emergency responders and Authorities Having Jurisdiction (AHJs) with regard to safety surrounding ElectricFish products. This guide should also be reviewed by customers, site managers, and operators to ensure a clear understanding of potential hazards and the procedures to follow in case of emergencies. Many of the ElectricFish products contain rechargeable lithium battery energy storage. The information and recommendations set forth in this ERG are made in good faith and believed to be accurate as of the date of preparation. NOTE: The guidance in this publication applies to ElectricFish products only and may not extend to the entire site's structures or equipment. As each site differs, accordingly each site's requirements for first responders differ, and this guide does not replace a site-wide plan.

2.0. Company, Contact, & Product Info

2.1. Identification of Company and Contact Information.

Headquarters (USA)

955 xxx....Xxxx,

Campbell CA

xxxx.xxx..xxx

2.2. SDS Information

Safety Data Sheets (SDS) are available for materials in ElectricFish products. Contact ElectricFish for a copy of these documents.

Thermal Contents

Materials with SDS	Approximate Quantity
Ethylene glycol 50/50 with water	Item 1 xxl of 50/50 mixture
x	

2.3. Lithium Cells.

The products contain sealed lithium battery cells (cells). Cells each contain lithium electrodes, which can be composed of:

- Lithium Nickel Cobalt Aluminum Oxide (NCA material), LiNixCoyAlzO2
- Lithium Nickel, Manganese, Cobalt Oxide (NMC material) LiNixMnyCozO2
- Lithium Iron Phosphate (LFP material) LiFePO4
- Lithium Nickel, Manganese Oxide (NMO material), LiNixMnyO2
- Lithium Cobalt Oxide, LiCoO2 COMPANY, CONTACT, & PRODUCT INFO

• or a mixture of these compounds The cells and batteries do not contain metallic lithium. Individual cells have nominal voltages of up to approximately 3.6 V.

2.4. Product Descriptions

Individual lithium-ion cells are connected to form modules. Modules are battery sub-assemblies. These modules are installed into the products. Approximate product specifications are listed below.

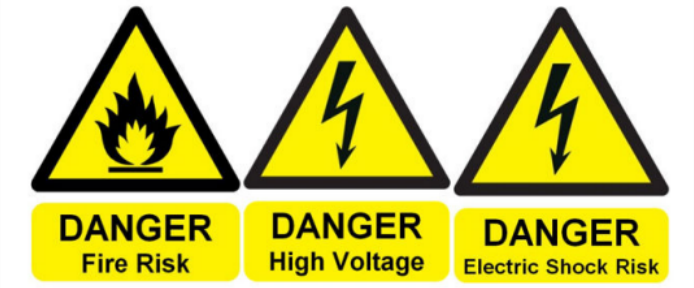
List of products.

NOTE: Images below are indicative representations designed to assist with product identification. Existing product models may vary.

List of batteries or other items with pictures.

Table 3. Approximate Powerpack Specifications

Part Number (Reman Number if available)	Description	Module Voltage – as shipped (V)	Max System DC Voltage	Max System AC Voltage	Weight	Height	Width	Depth
Powerpack 1 Versions								
1047404-x*y*-z*	POWERPACK (2hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	1680 kg (3700 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
1060119-x*y*-z*	POWERPACK (4hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	1665 kg (3670 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
1121229-x*y*-z*	POWERPACK (4hr continuous net discharge)	<30 (DC)	450 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	97 cm (38 in)	132 cm (52 in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Powerpack 1.5 Version								
1089288-x*y*-z*	POWERPACK 1.5 C/2 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	1622 kg (3575 lb)	219 cm (86 in)	131 cm (51 ½ in)	82 cm (32 ½ in)
** The 8th or 9th digit could be any number or letter and the 10th digit could be any letter.*								
Powerpack 2 / 2.5 Versions								
1083931-x*y*-z* (1130518-x*y*-z*)	POWERPACK 2,C/4 SYSTEM	<30 (DC)	960 (DC)	480 (AC)	2160 kg (4765 lb)	219 cm (86 in)	131 cm (51 ½ in)	82 cm (32 ½ in)



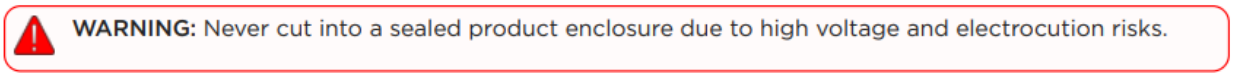
3.0. Handling, Use, & Hazard Precautions

3.1. General Precautions

The products described by this document are dangerous if mishandled. Injury to property or person, including loss of life is possible if mishandled. The products contain lithium batteries. A battery is a source of energy. Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the operating temperature range of the product as discussed in Hazards Associated with Elevated Temperature Exposure on page 13. An internal or external short circuit can cause significant overheating and provide an ignition source resulting in fire, including surrounding materials or materials within the cell or battery. Under normal conditions of use, the electrode materials and electrolyte they contain are not exposed, provided the battery integrity is maintained and seals remain intact. The risk of exposure may occur only in cases of abuse (mechanical, thermal, electrical).

3.2. High-Voltage Hazards

Under normal conditions of use, provided that the product enclosure remains closed, handling the product does not pose an electrical hazard. Numerous safeguards have been designed into the product to help ensure that the high voltage battery is kept safe and secure under a number of expected abuse conditions. All of the component battery cells are sealed within the product as sub-groups within enclosures (Pods or battery modules), cannot be accessed from the exterior, and are not accessible to non-ElectricFish personnel. A high voltage and electrocution risk may present if the product's outer enclosure and/or safety circuits have been compromised or have been significantly damaged. A battery pack, even in a normally discharged condition, is likely to contain substantial electrical charge and can cause injury or death if mishandled. If the product has been significantly visibly damaged or its enclosure compromised, practice appropriate high voltage preventative measures until the danger has been assessed (and dissipated if necessary).



3.3. Hazards Associated with Elevated Temperature Exposure

This product is designed to withstand operating ambient temperatures up to 50°C (122°F), or as indicated in the product specification, with up to 100% operating humidity (condensing). This product is designed to withstand storage temperatures up to 60°C (140°F), or as indicated in the product specification, and <95% relative humidity (non-condensing) for up to 24 hours without affecting the health of the unit.

Prolonged exposure of the product to conditions beyond these limits may increase the potential of thermal runaway and result in a fire. Exposure of battery packs to localized heat sources such as flames may result in cell thermal runaway reactions and should be avoided.

3.4. Hazards Associated with Mechanical Damage

Mechanical damage to the product can result in a number of hazardous conditions (discussed below) including:

- Leaked battery pack coolant (see Hazards Associated with Leaked Coolant on page 13)
- Leaked refrigerant (see Hazards Associated with Leaked Refrigerant on page 13)

- Leaked cell electrolyte (see Hazards Associated with Leaked Electrolyte on page 13)
- Rapid heating of individual cells due to exothermic reaction of materials (cell thermal runaway), venting of cells, and propagation of self-heating and thermal runaway reactions to neighboring cells.
- Fire To prevent mechanical damage to the product, these items should be properly stored when not in use or prior to being installed (see Storage Precautions on page 20).

3.5. Hazards Associated with Leaked Coolant

Thermal management of the product is achieved via liquid cooling using coolant in quantities as indicated in Thermal Contents on page 5. Mechanical damage to a product that has been installed could result in leakage of the coolant. The fluid may be blue, green, or orange in color and does not emit a strong odor. For information regarding the toxicological hazards associated with ethylene glycol, as well as ecological effects and disposal considerations, refer to the specific Safety Data Sheet (SDS) for battery coolant (see SDS Information on page 5). Extended exposure of the product to leaked coolant could cause additional damage to the product such as corrosion and compromise of protection electronics.

3.6. Hazards Associated with Leaked Refrigerant

The product's thermal management systems include refrigerant in a sealed system in quantities as indicated in Thermal Contents on page 5. Mechanical damage to the product could result in a release of the refrigerant. Such a release would appear similar to the emission of smoke. For information regarding the toxicological hazards associated with refrigerant, as well as ecological effects and disposal considerations, refer to the appropriate Safety Data Sheet (SDS) for refrigerant (see SDS Information on page 5)

3.7 Hazards Associated with Leaked Electrolyte

The possibility of an electrolyte spill from the product’s cells is very remote for the following reasons:

- Liquid electrolyte is largely absorbed within the cell materials during the manufacturing process. The electrolyte also gets consumed during the normal operation of the batteries.
- The cells are hermetically sealed. Even if a single cell were damaged in a manner that could cause a leak, the volume would be of negligible concern.

As such, the absence of free liquid electrolyte makes it impractical to report the volume of electrolyte within the product, and the cell and product design prevent the possibility for spills at the project site.

3.8. Hazards Associated with Vented Electrolyte

Lithium cells are sealed units, and thus under normal usage conditions, venting of electrolyte should not occur. If subjected to abnormal heating or other abuse conditions, electrolyte and electrolyte decomposition products can vaporize and be vented from cells. Vented gases are a common early indicator of a thermal runaway reaction – an abnormal and hazardous condition.

Regulatory testing has shown that the products of combustion of lithium batteries can include flammable and nonflammable gases. Based on this testing, the flammable gases are found to be below their lower flammable limit (LFL) and do not pose a deflagration or explosion risk to first responders or the general public. The nonflammable gases were found to be comparable to smoke encountered in a Class A structure fire and do not produce any unique, or atypical, gases beyond what you would find in the combustion of modern combustible materials.

In close proximity, vented gases may irritate the eyes, skin, and throat. Cell vent gases are typically hot; upon exit from a cell, vent gas temperatures can exceed 600°C (1,110°F). Vented electrolyte is flammable and may ignite on contact with a competent ignition source such as an open flame, spark, or a sufficiently heated surface. Vented electrolyte may also ignite on contact with cells undergoing a thermal runaway reaction.

4.0. In Case of Emergency

WARNING: In case of emergency, severe physical impact, or transportation accident, do not approach the product or open any of its doors.

WARNING: In case of severe physical impact or transportation accident, it may take time before any visible indication of an abnormal and hazardous condition (e.g., smoke or fire) can be observed. Contact Tesla for guidance (*Identification of Company and Contact Information on page 4*).

CAUTION: Response should only be performed by trained professionals.

4.1. During Storage or Operation

During storage or operation, emergencies include but are not limited to:

- Suspicious odor observed near the product
- Smoke or fire emanating from the product
- Severe physical impact on the product

In case of emergency, isolate, deny entry, and perform the following:

1. If possible, and if trained and properly equipped, shut off the unit/system (see Shutting Down in an Emergency on page 18).
2. Evacuate the area.
3. If not already present, notify appropriately trained first responders, the local fire department, and any appointed subject matter expert (SME) if available.
4. Contact ElectricFish for guidance (Identification of Company and Contact Information on page 4).

4.2. During Transportation

During transportation, emergencies include but are not limited to:

- Suspicious odor observed near the product
- Smoke or fire emanating from the product

- Transportation accident causing a severe physical impact on the product
- Transportation accident leading to tipping over of the product

In case of emergency, perform the following:

1. If possible, move the unit/system to an open area and away from exposures (such as buildings, flammable material, or people).

2. Evacuate the area.

3. Notify appropriately trained first responders, the local fire department, and any appointed subject matter expert (SME) if available.

4. Contact ElectricFish for guidance (Identification of Company and Contact Information on page 4).

5.0. Firefighting Measures

5.1. Firefighter PPE

Firefighters should wear self-contained breathing apparatuses (SCBAs) and structural firefighting gear. Industry testing has shown that standard structural firefighting gear provides adequate protection.

5.2. Responding to a Venting Product

WARNING: Do not approach the unit and attempt to open any doors.

Smoke or suspicious odor emanating from a ElectricFish Energy product can be an indication of an abnormal and hazardous condition. Battery thermal runaway fires (also known as thermal events) are preceded by a period of smoke. If fire, smoke, or suspicious odor is observed emanating from the product at any time, assume a thermal event is occurring and perform the following:

1. If possible, shut down the system (see Shutting Down in an Emergency on page 18).

2. Evacuate the area of all non-emergency personnel.

WARNING: When responding to a fire event, do not approach the unit and attempt to open any doors. The doors are designed to remain shut.

3. If not already done, contact ElectricFish Energy Technical Support for assistance (Identification of Company and Contact Information on page 4).

4. While maintaining a safe distance from the unit:
    - Complete area size-up and identify water supply.
    - If needed, pre-position hose lines to protect adjacent exposures.
    - Monitor for evidence of continued smoke venting or fire.

5. If a fire develops:

◦ Allow the affected unit to consume itself as it is designed to do. Applying water to the burning unit will have minimal effect and will only slow its eventual combustion.

◦ At the discretion of first responders, apply water to the exposures. ElectricFish recommends using a fog pattern, if possible, to maximize cooling of the exposure.

NOTE: Water has been deemed appropriate for use on ElectricFish products, thus will not create a hazard while protecting exposures.

6. Allow the unit to cool down while maintaining contact with ElectricFish for guidance (this process may take 12-48 hours or longer) and continue to maintain a safe distance.

7. Contact ElectricFish Technical Support for next steps (Identification of Company and Contact Information on page 4).

6.0. Shutting Down in an Emergency

WARNING: Shutting off power to the product does not de-energize the battery, and a shock hazard may still be present.

WARNING: If smoke or fire is visible, do not approach the product or open any of its doors.

WARNING: In case of flooding, stay out of the water if any part of the product or its wiring is submerged.

To shut the product down in an emergency, perform the appropriate steps below and then contact ElectricFish (Identification of Company and Contact Information on page 4):

6.1 Powerpack System 1. If an external emergency stop (E-Stop) button or remote shutdown contact to the Powerpack is present, engage it. 2. If the Powerpack is serviced upstream by an external AC breaker or disconnect, open the breaker or disconnect.

6.2 Megapack System 1. If an external emergency stop (E-Stop) button or remote shutdown contact to the Megapack is present, engage it. 2. If the Megapack is serviced upstream by an external AC breaker or disconnect, open the breaker or disconnect.

7.0. First Aid Measures

7.1. Electric Shock / Electrocution

Seek immediate medical assistance if an electrical shock or electrocution has occurred (or is suspected).

7.2. Contact with Leaked Electrolyte

Battery cells are sealed. Contents of an open (broken) battery cell can cause skin irritation and/or chemical burns. If materials from a ruptured or otherwise damaged cell or battery contact skin, flush immediately with water, remove all clothing around affected area, and wash affected area with soap and water. If a chemical burn occurs or if irritation persists, seek medical assistance. For eye contact, flush with significant amounts of water for 15 minutes without rubbing and see a physician at once.

7.3. Inhalation of Electrolyte Vapors

If inhalation of electrolyte vapors occurs, move person into fresh air. If throat irritation is present, seek immediate medical assistance.

7.4. Vent Gas Inhalation

Battery cells are sealed and venting of cells should not occur during normal use. If inhalation of vent gases occurs, move person into fresh air. If signs of respiratory distress are present, seek immediate medical assistance.

8.0. Storage Precautions

Systems and sub-assemblies should be stored in approved packaging prior to installation.

Elevated temperatures can result in reduced battery service life. The product can withstand ambient temperatures of -40°C to 60°C (-40ºF to 140ºF) for up to 24 hours. Do not store the product near heating equipment.

Ideally, the product should be stored at 50% state of charge (SOC) or less. The product should not be stored for extended periods either at a full SOC or completely discharged since both conditions adversely impact battery life.

The storage area should be protected from flooding.

Long-term storage areas should be compliant with the appropriate local fire code requirements.

Acceptable storage density of battery packs and storage height of battery packs will be defined by the local authority having jurisdiction (AHJ). Requirements and limits will be based upon a number of factors including the structural and fire protection characteristics of the storage area and recommendations for fire protection promulgated by the National Fire Protection Association (NFPA) and similar organizations. At the time of this writing, no standard Commodity Classification has been defined for lithium cells or battery packs (see 2016 NFPA 13: Standard for the Installation of Sprinkler Systems). The product only has a 30-40% state of charge (SOC) while in storage which reduces the energy impact on fire occurrences. As an example of the reduced energy, the 30% level has been determined to be acceptable for air flight shipping based upon extensive testing and analysis in conjunction with the FAA. ElectricFish recommends treating lithium cells and batteries in packaging as equivalent to a typical Group A plastic commodity.

9.0. Damaged Product Handling

This section describes the handling, storage, and transportation of damaged products. If the event of damage to a product, contact ElectricFish immediately (Identification of Company and Contact Information on page 4).

If a product has been damaged (for example, its battery enclosure has been dented or compromised), it is possible that heating is occurring that may eventually lead to a fire. Damaged or opened cells/batteries can result in rapid heating (due to exothermic reaction of constituent materials), the release of flammable vapors, and propagation of self-heating and thermal runaway reactions to neighboring cells. Before handling or transporting a damaged product, wait at least 24 hours. Smoke may be an indication that a thermal reaction is in progress. If no smoke, flame, sign

of coolant leakage, or signs of heat has been observed for 24 hours, the product may be disconnected and moved to a safe location. Contact ElectricFish (Identification of Company and Contact Information on page 4) to obtain specific instructions for evaluating, disconnecting, and preparing a damaged product for transport.

A damaged product should be monitored during storage for evidence of smoke, flame, sign of coolant leakage, or signs of heat. If full-time monitoring of the product is not possible (for example during extended storage), the product should be moved to a safe storage location.

A safe storage location for a damaged battery will be free of flammable materials, accessible only by trained professionals, and 50 feet (15 m) downwind of occupied structures. For example, a fenced, open yard may be an appropriate safe location. Do not store damaged products adjacent to undamaged products. It is possible that a damaged product may sustain further damage during transportation and may lead to a fire. To further reduce this risk, handle the damaged product with extreme caution.

10.0. Disposal Procedures

For disposal after a fire or thermal event, contact ElectricFish for guidance (Identification of Company and Contact Information on page 4).

In most cases, the product can be recycled. Contact ElectricFish to return the product to a ElectricFish facility for disassembly and further processing. If disposing of the product without returning it to ElectricFish, consult with local, state and/or federal authorities on the appropriate methods for disposal and recycling of lithium batteries. Note that the products do not contain heavy metals such as lead, cadmium, or mercury.

11.0. Maintenance or Repair

ElectricFish requests all maintenance, service, and repairs of the product be performed by ElectricFish-approved service personnel or ElectricFish -authorized repair facilities. This includes all proactive and corrective maintenance over the lifetime of the product. Improper service or repair by personnel not approved nor authorized by ElectricFish could void the product's Limited Warranty, lead to failure of the product, and potentially result in development of an unsafe condition and unexpected electrical events.

12.0. Transportation

Lithium batteries are regulated as Class 9 Miscellaneous dangerous goods (also known as "hazardous materials") pursuant to the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, International Air Transport Association (IATA) Dangerous Goods Regulations, the International Maritime Dangerous Goods (IMDG) Code, European Agreements concerning the International Carriage of Dangerous Goods by Rail (RID) and Road (ADR), and applicable national regulations such as the USA's hazardous materials regulations (see 49 CFR 173.185). These regulations contain very specific packaging, labeling, marking, and documentation requirements. The regulations also require that individuals involved in the preparation of dangerous goods for transport be trained in how to properly package, label, mark and prepare shipping documents.

NOTE: Transportation regulations vary by region. To ensure compliant transportation, always refer to local regulations as applicable.

UN Number, Proper Shipping Name	Powerpack 1 or 2: 3480, Lithium-Ion Batteries Powerpack 3: 3536, Lithium batteries installed in cargo transport unit Megapack: 3480, Lithium-Ion Batteries OR 3536, Lithium batteries installed in cargo transport unit
Hazard Classification	Class 9 Miscellaneous
Packing Group	N/A

Revision History

Revision	Date	Description
1.	Aug 26 2025	Initial Release