Stromcore Energy – Safety Data Sheet

Date Issued: 2026-04-06

Section 1 – Identification / Recommended Use

1.1 – Product Name & Description

Product Name: Stromcore Battery Series

Serial #: SYSxxxxx

Description: Lithium-Ion, Rechargeable Modular Battery System

1.2 – Supplier & Contact

Stromcore Energy Inc.

3705B Laird Rd. Unit 1,

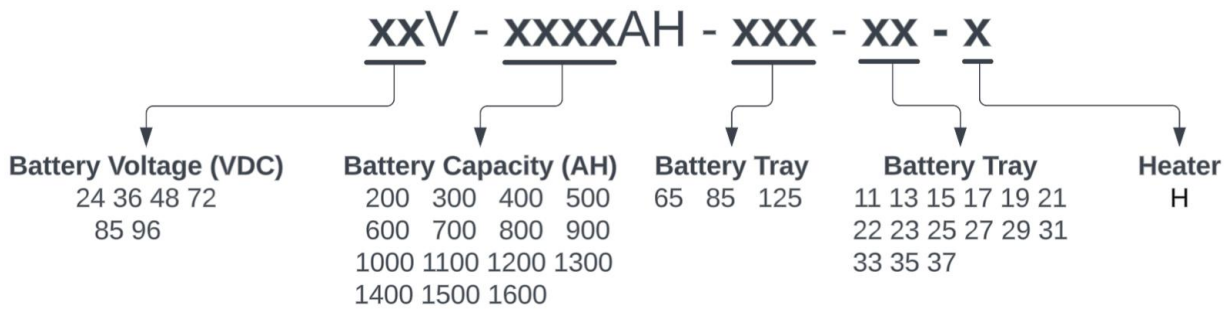
Mississauga, ON, L5L 0A6, Canada

Tel: +1 (289) 269-0882

24H Emergency Contact: 1-888-CANUTEC (226-8832)

1.3 – Model Summary

Convention 1

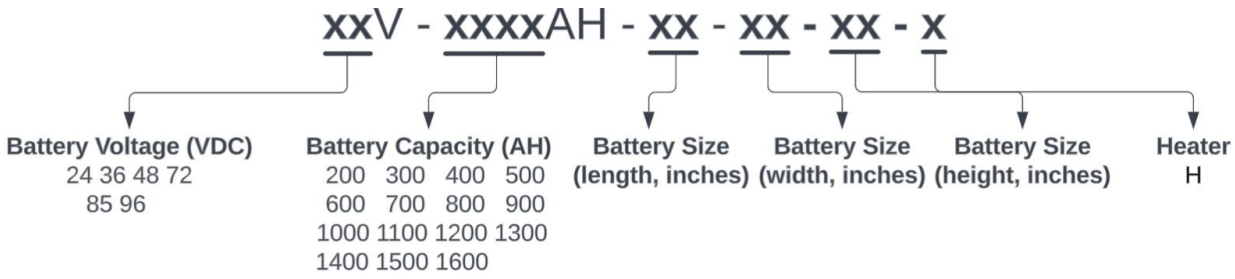


Convention 2 (UL)

$$xxV^{1} - xxxxAH^{2} - xx^{3} - xxxxxx^{4} - xxx^{5} - xx^{6} - x^{7} - x^{8}$$

Sub Section#	Description	Range
1	Battery Voltage (VDC)	36, 48 / 72, 85
2	Battery Capacity (AH)	300 – 1600 / 200 – 600
3	Battery Enclosure Type	2C, 2CS, 2CN, 2CNS, 3C, 3CS, 3CT, 4C, 4CS, 4CT
4	Battery Enclosure Ballast System Type	000000 – FF99FF X – # of Add on Plates (0-F, F=15) X – # of Platelets (0-F, F=15) XX – # of Internal ballasts (00 - 99) X – # of Internal Module ballasts (0-F, F=15) X – Ballast System (0-F, F=15)
5	DCH/ CH Port Configurations	SDE – SB350 / Dual Euro A320 SSE – SB350 / Single Euro A320 SDS – SB350 / Dual Schaltbau SSS – SB350 / Single Schaltbau
6	Lug Mount Options	M5 – MFT500 Option LL – Lug Mount on the Discharge and Charge Port LN – Lug Mount on Discharge Port Only NL – Lug Mount on Charge Port only NN – No Lug Mount
7	Heater System Selection	H – Heater System N – No Heater System
8	Region	U – USA C – Canada

Convention 3



1.4 – Recommended Use / Restrictions on Use

Exposure to hazardous ingredients found in the individual cells is not expected with normal use of the battery units. The cells are packaged into Aluminum & steel framed modules which are placed together to form the overall Battery Core contained in a steel enclosure.

This Data Sheet outlines information critical to the safe handling and proper use of the product.

Do not use the battery with any forklift or charger system prior to consulting with an engineer.

Charging – Use pre-approved chargers with Stromcore Battery Systems. Contact Stromcore Energy for a list of compatible chargers. Charging rate dictated by battery via CANbus. **DO NOT CHARGE THROUGH THE DISCHARGE PORT.**

Discharge – Use pre-approved forklift systems with Stromcore Battery Systems or discharge bank suitably rated for the discharge port. **DO NOT CHARGE THROUGH THE DISCHARGE PORT.**

Battery is not intended to be removed from the vehicle for charging.

WARNING: DO NOT DISASSEMBLE, HEAT, OR EXPOSE TO FIRE.

WARNING: DO NOT DISCONNECT UNDER LOAD.

1.4.1 – Port Overview

Note some batteries feature only the ON/OFF Status LED indicator on M5 selected options

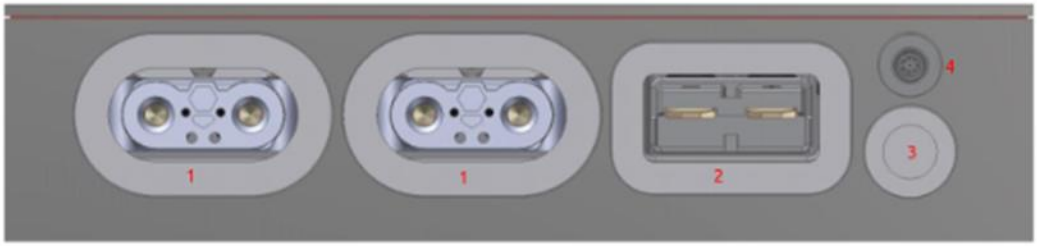


Figure 1: Front Panel.

1. Charge Ports, the surrounding caps are fitted with LEDs to indicate when active.
2. Discharge Port, the surrounding cap is fitted with LEDs to indicate when active.
3. ON/OFF status, the cap is fitted with LEDs to indicate unit status.
4. 12 Pin COMM port, a harness is attached to external devices such as the telemetry device and HMI screen.

1.4.2 – Boot Up / Lockout State

The battery can be booted on with a magnet over the circular status LED that is fitted with a sensor. The LED will turn on. It should be noted that the battery will look like this in a lockout state where none of the charge / discharge ports are active.

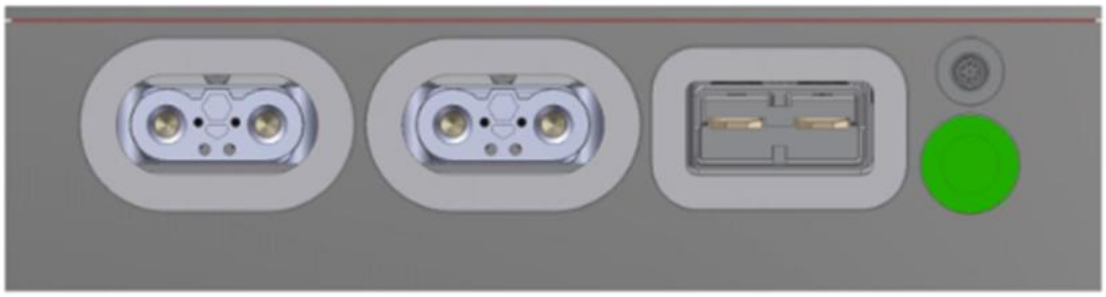


Figure 2: Bootup/Lockout state.

1.4.3 – Discharge Mode

The battery will boot into Discharge mode as a default unless its plugged into an integrated Charger. **DO NOT ATTEMPT TO CHARGE THROUGH THE DISCHARGE PORT.**

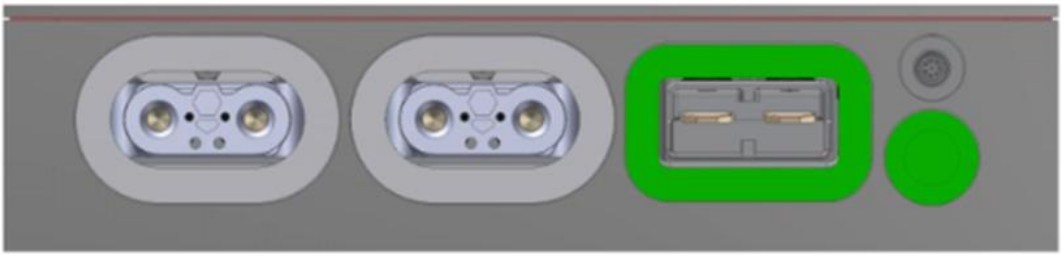


Figure 3: Discharge Mode.

1.4.4 – Charge Mode

The battery will deactivate the Discharge port and activate the Charge ports when an integrated charger is plugged into the battery. This will prevent any the vehicle from operating when charging.

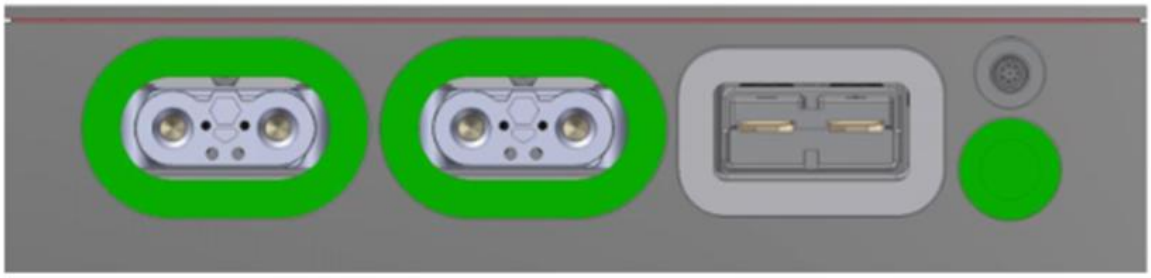
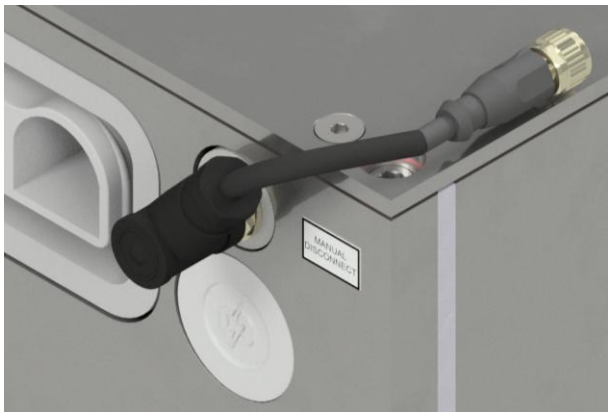


Figure 4: Charge Mode.

1.4.5 – Manual Disconnect

In the case of any unit with a nominal voltage greater than 60 VDC (Ex. 72VDC or 85VDC Series), a Manual Disconnect COM Port Adapter will be included.



The standard procedure to shutdown the battery via the ring led sensor and magnet is still recommended.

The Manual Disconnect can be twisted counter clock-wise and removed. This further isolates the battery core and disabling all ports. This is recommended in the event of a collision or advanced servicing. Contact Stromcore in any event when the Manual Disconnect is removed.

Section 2 – Hazard Identification

2.1 - Emergency Overview

Not considered dangerous as manufactured. The overall battery system & module feature multiple safety protections to prevent the cells from being damaged physically / electrically. Under recommended usage conditions and during system operation, the electrode material and liquid electrolyte are non-reactive as long as the structural integrity and seals remain intact.

If the battery is mechanically damaged, exposed to high temperatures, or electrically abused/damaged the cells can vent their contents to reduce pressure and heat. In this event, exposure to product components may cause eye, skin and respiratory tract irritation. Combustion products from a fire involving batteries may be harmful.

2.2 – Hazard Classification

Substance: Rechargeable Lithium Ion Battery

Hazard Class: Class 9 (Miscellaneous dangerous goods)

UN Class: UN3480 (Lithium Ion Batteries)

IATA DGR: PI965 Section IA

Marine pollutant: N/A

2.3 – Example of Packaging Labels

2.4 – Effect(s) of Hazard Exposure:

Skin Contact: The Steam or liquid of the cell electrolyte can have adverse reactions to the skin. If Cell electrolyte contact skin it can cause severe irritation or chemical burns

Eye Contact: The Steam or liquid of the cell electrolyte can have adverse reactions to the eyes. If Cell electrolyte contact eyes it can cause severe irritation or chemical burns

Inhalation: The Steam or liquid of the cell electrolyte can have adverse reactions if inhaled. If Cell electrolyte is inhaled it may cause respiratory irritation

Ingestion: Swallowing or ingesting the contents of an open cell can cause chemical burns to the mouth, esophagus and gastrointestinal tract

Section 3 – Composition/Information on Ingredients

This battery system is fully self-contained and exposure to hazardous ingredients is not anticipated under normal usage. The lithium-ion battery cells compose 25% of the full system by weight. The remaining 75% consists mainly of steel, aluminum and plastic.

Cell composition breakdown:

Compound		Chemical name	CAS #	Wt%
Positive electrode		Lithium various metal oxides	346417-97-8	20~30
Negative electrode		Carbon	7782-42-5	10~20
Electrolyte		Organic electrolyte mainly composed of ethylene: carbonate	-	15~20
	LiPF6	Lithium hexafluorophosphate	21324-40-3	10~15 In electrolyte
	EC	Ethylene carbonate	96-49-1	30~40 In electrolyte
	DMC	Dimethyl carbonate	616-38-6	25~35 In electrolyte
	EMC	Ethyl methyl carbonate	623-53-0	25~35 In electrolyte

Section 4 – First Aid Measures

The hazardous elements within the battery system are contained in the sealed individual cells. The following measures are applicable in the event the cells leak, exposed to high temperature or if the cell is damaged in any other way mechanically/electrically.

Quarantine the contaminated area. Provide good ventilation to clear out fumes from battery. Treat exposed victims away from contaminated area.

4.1 – Eye Contact

- Flush the eyes with plenty of clean water for at least 15 minutes immediately.
- Seek immediate medical care.

4.2 – Skin Contact

- Remove contaminated clothing.
- Wash contact areas off immediately with plenty of clean water and soap.
- If measures are not taken immediately skin sores can develop.
- Seek immediate medical care.

4.3 – Inhalation

- Immediately remove victim away from contaminated area to an area with fresh air.
- Seek immediate medical care.

4.4 – Ingestion

- Rinse mouth with plenty of water immediately.
- Seek immediate medical care.

Section 5 – Fire Fighting Measures

Battery has been designed to withstand a thermal runaway and tested to UL2580 Internal Fire Test successfully. The enclosure itself contains the fire and only releases smoke through the battery ports that act as vents. This process can last from 45 minutes to 2 hours at which point the runaway will have self-extinguished.

WARNING: DO NOT ATTEMPT TO DISASSEMBLE THE BATTERY OR REMOVE THE LID IN THE EVENT WHERE SMOKE BEGINS TO EMANATE FROM THE BATTERY PORTS OR SEALS

WARNING: DO NOT REMOVE THE LID OF THE BATTERY AND SPRAY FIRE EXTINGUISHER DIRECTLY INSIDE THE BATTERY ENCLOSURE

WARNING: DO NOT USE A FIRE EXTINGUISHER UNLESS THERE IS A VISIBLE FIRE

5.1 – Battery Design Fire-Retardant Protection

- **Steel Enclosure** - Capable of withstanding temperatures reached during thermal runaway insulating the outside environment from the internal reaction.
- **Battery Modules** - Isolate cells into batches further encased by metal enclosure to help prevent propagation.
- **Cell Exhaust Vents** - Designed to release pressure due to major heat build preventing ignition into full thermal runaway

5.2 – Fire Fighting Procedure / Process

1. **Identify** - Employee identifies white smoke coming from battery
2. **Notify** - Employee notifies management of the event and evacuate the local area
3. **Isolate & Ventilate** - Isolate the area from the rest of the facility. Increase air flow to the area of incident as much as reasonably possible
4. **Wait / Notify -** Management / Team monitor from a distance until smoke no longer emits from the ports of the battery. Notify Stromcore to schedule an on-site visit for a battery assessment

5.3 – Response Protective Gear

Respiratory protection – Should wear self-contained breathing apparatuses.

Skin protection – Wear full protective clothing and gloves to prevent body contact with electrolyte solution

Eye protection – Safety glasses should be worn

5.4 – Extinguishing Agents

Only in the event there is a visible fire use a Fire Extinguisher.

Dry chemical, alcohol-resistant foam, carbon dioxide and large amounts of water.

F-500 EA Fire Extinguisher is the most recommended.

Section 6 – Accidental Release Measures

Isolate the area while the spill/leak is being addressed.

In the event of electrolyte leakage, soak up the spilled material with absorbent cloth. Ensure proper equipment is worn to avoid direct contact or inhalation. Clean up solids and place them into a waste container safe of disposing of contaminated trash. Ensure spill area is cleaned with water and soap. Collect wash water and dispose of it appropriately.

In the event where the battery emits smoke, **DO NOT** open the battery. If safe to do so, transfer the battery outside or to an area that is well ventilated. Otherwise, leave the battery in its place and increase airflow to the area as much as reasonably possible.

Section 7 – Handling and Storage

7.1 – Precaution for Handling

The battery units are extremely heavy and should be handled with appropriate protective equipment.

- Safety Shoes
- Safety Glasses
- Proper shackling & swivel hoists are used when lifting the battery
- Handling equipment rated to support the weight of battery

The systems should not be exposed to open flames or hot surfaces when being handled.

7.2 – Storage Conditions

The battery should be stored away from any major heat sources or open flames in a temperature-controlled location. Avoid continuous water exposure. Avoid storing outdoors. When stored the unit should be fully turned off signified by all the LEDs being off.

- Recommended Temperature: 0 – 45 C
- Low Humidity
- Charged to 30-50% of capacity
- Storage Time: 6 months @ 45 C / 2 years @ 25 C
- Sheltered

Section 8 – Exposure Controls / Personal Protection

There is no need for personal protective equipment on regular handling and storage. However, if a large amount of electrolyte should be released by mechanical or electrical abuse, use the protections as shown below.

- Engineering Controls – Special Ventilation is only required if smoke or fire occurs
- Facilities - Provide appropriate ventilation system
- Personal Protective Equipment
    - Respiratory Protection: Wear suitable protective masks in order to reduce the risk of exposure. In case of electrolyte leakage, wear respirator mask. In case of smoke or fire, wear self-contained breathing apparatus
    - Hand Protection: Wear chemical resistant gloves
    - Eyes Protection: Wear Safety goggles or eye protection combined with respiratory protection
    - Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and content of certain hazardous substances in the work place

Section 9 – Physical and Chemical Properties

Appearance: Large self-contained battery system with multiple charge ports and a discharge port to the forklift.

Nominal voltage: 24 VDC / 37 VDC / 48 VDC / 72VDC / 85 VDC / 96VDC (Dependent on Model)

Capacity: 300Ah – 1600Ah (Dependent on Model)

Section 10 – Stability and Reactivity

Stability:

- Stable with regular handling

Conditions to avoid:

- Dropping the battery from any height (drops equal or above 1 m should be reported)
- Extended exposure to large amounts of water or waterjets
- External shorting the battery
- Deformation by crushing or punctured
- Extended exposure to heat Source

Section 11 – Toxicological Information

Since chemicals are contained in the individual cells which are sealed, there are no immediate hazards. In case of an electrolyte leakage from the battery:

Acute Toxicity: Oral (rat) LD50 > 2g/kg (estimated)

Irritation: Irritating to eyes and skin

Mutagenicity: Not specified.

Chronic Toxicity: Not specified.

Section 12 – Ecological Information

No ecotoxicity data is available. This product is not expected to present an environmental hazard since it is self-contained with no emitted bi-products.

Section 13 – Disposal Considerations

Once the battery unit is depleted the units are repurposed, or taken apart and sorted out based on material. The modules are repurposed for less intense applications or taken apart. The cells are recycled through a recycling program by Li-Cycle Corp. locally or by another comparable Li-ion recycling company.

Cells subject to disposal should be fully discharged for safety precautions and insulated when packaged prior to being transported to the recycling facility.

Any disposal of the battery should be done in accordance with local Recycling Regulation.

Section 14 – Transport Information

Batteries should be shipped in the OFF state which isolates all live power within the batteries to increase safety during transport. This is signified by all LED indicators being off on the units.

During the transportation of multiple units by trailer, ensure the units are not exposed to the elements and are contained. There should be no exposure to high temperatures from other sources or extensive condensation and humidity.

During transport, the batteries should be properly strapped and secured on approved wooden pallets. Do not allow the batteries to fall down or collide with other objects.

Section 15 – Safety Confirmation Examination

The Stromcore Battery Series have been tested and comply with:

- UL2580 Listed (MH64787)
  - Fire Test
  - Crush Test
  - Drop Test
  - Rotation Test
  - Short Circuit Test

- Cells are UL2580 and UN38.3 Certified

Section 16 – Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.