



# Certificate of Compliance

**Certificate:** 80119076

**Master Contract:** 302690

**Project:** 80119076

**Date Issued:** 2023-05-26

**Issued To:** Energie Volthium inc.  
2600 Boulevard Ford #100  
Chateauguay, Quebec J6J 4Z2  
Canada

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*

**Issued by:** Elly Ai  
Elly Ai



## **PRODUCTS**

CLASS - C370112 - BATTERY SYSTEM for use in Stationary Applications

CLASS - C370182 - BATTERY SYSTEM FOR USE IN STATIONARY APPLICATIONS Certified to US Standards

Battery module for Use in Stationary Electrical Energy Storage Application, Lithium-ion, the Model name and Electrical Ratings are noted as below:



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Table 1: Manufacturer Specified Battery Module Electrical Ratings:

Battery Module Model	Battery Module Rating				Battery Cell Model	BMS Model
	Nominal Voltage, Vdc	Rated Capacity, kWhr	Battery Pack configuration	Enclosure IP/Type Rating		
51.2-100-R-H-C	51.2	5.12	16S-1P	IP 20	IFP27175200A-100Ah	16S150A-EES-BMS
51.2-200-R-H-C	51.2	10.24	16S-2P	IP 20	IFP27175200A-100Ah	16S150A-EES-BMS

Table 2: Manufacturer's Specified Charging Parameters for Battery Module:

Battery System Model	Operating Temperature Range, °C(#)	Normal Charging Voltage, Vdc	Normal Charging Current, A	Maximum Charging Voltage, Vdc	Maximum Charging Current, A
51.2-100-R-H-C	-5 to 45	56	50	57	100
51.2-200-R-H-C	-5 to 45	56	75	57	125

Table 3: Manufacturer Specified Discharging Parameters for Battery Module:

Battery Module Model	Operating Temperature Range, °C	Normal Discharging Current, A	Discharging Cut-off Voltage, Vdc	Maximum Discharging Current, A
51.2-100-R-H-C	-20 to 50	100	44.8	125
51.2-200-R-H-C	-20 to 50	100	44.8	125

**Model Difference:**

- Model 51.2-100-R-H-C and 51.2-200-R-H-C employed the same BMS and other components except the configuration, enclosure dimensions and connector (P+, P-).
- Model 51.2-100-R-C is identical to 51.2-100-R-H-C except 51.2-100-R-C has no heating function. Model 51.2-200-R-C is identical to 51.2-200-R-H-C except 51.2-200-R-C has no heating function.

**Conditions of Acceptability:**

- The battery module with its intended BMS model 16S150A-EES-BMS has been tested according to the functional-safety requirements of ANSI/CAN/UL-1973:2022, Third Edition. Solid state circuits and software controls relied upon as the primary safety protection, have been evaluated to by CSA Group to meet requirement of this standard. Any change to the BMS including to its software and electronic controls required additional evaluation by CSA Group.
- The enclosure was evaluated only to establish an IP rating of IP20 with the Standard for Degrees of Protection Provided by Enclosure (IP Code) IEC 60529.
- Product was evaluated for indoor use and shall avoid being used in moisture environment, and not being used near marine environments.



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4. Further evaluation for Resistance of Moisture and/or Salt Fog shall be required for the battery module intended to be used in the end product where moisture and/or salt fog condition were applied.
5. Further evaluation for Static Force, Impact test shall be required for battery system enclosure where the module will be installed.
6. Corrosion due to electrochemical action is to be determined for conductive parts in contact with terminals when subjecting to the installation of the end products.
7. Equipment Application Location: Stationary
8. Access Location: Operator Accessible.
9. The installation was not evaluated. The battery system shall be installed in accordance with NFPA 70 or CSA C22.1 (Canadian Electric Code) or other applicable installation code.
10. Overvoltage Category(OVC): 2
11. Pollution Degree(PD): 2
12. Altitude for Operation: Up to 2000 m.



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**APPLICABLE REQUIREMENTS**

ANSI/CAN/UL 1973:2022, Third Edition - Batteries for Use in Stationary and Motive Auxiliary Power Applications

**MARKINGS**

See CSA Report

Notes:

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Products certified under Class C370112, C370182 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80119076	2023-05-26	Original Certification for Battery module for used in Energy Storage System, Model 51.2-100-R-H-C, 51.2-100-R-C, 51.2-200-R-H-C, 51.2-200-R-C to ANSI/CAN/UL-1973:2022 under CSA APT program. (c CSA us mark)