



# Certificate of Compliance

**Certificate:** 80116191

**Master Contract:** 603919

**Project:** 80116191

**Date Issued:** 2022-03-16

**Issued To:** Solarever Tecnologia de America S.A.de C.V.  
Km. 38.3 de la Carretera Colima-Manzanillo, La Estación  
Tecoman, Colima,  
Mexico, CP.28934

**Attention:** ZONGTAO QU

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicator 'US' for US only*



**Issued by:** *Scola Chen*  
Scola Chen

## **PRODUCTS**

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

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

Electrical Ratings:



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Battery System Model	Battery System Consist Elements	Battery System Ratings			
		Normal Voltage, Vdc	Normal Capacity, Ah/Wh	Battery Pack System Configuration	Enclosure IP Rating
SE-BAT H 5.8	SE-BAT-MA H 5.8	115.2	50Ah/5760Wh	1P36S	IP55
SE-BAT H 11.5	SE-BAT-MA H 5.8 + SE-BAT-SL H 5.8	230.4	50Ah/11520Wh	1P72S	IP55
SE-BAT H 17.3	SE-BAT-MA H 5.8 + 2* SE-BAT-SL H 5.8	345.6	50Ah/17280Wh	1P108S	IP55
SE-BAT H 23.0	SE-BAT-MA H 5.8 + 3* SE-BAT-SL H 5.8	460.8	50Ah/23040Wh	1P144S	IP55

**Manufacturer's Specified Charging Parameters for Battery Pack**

Battery System Model	Temperature Range, °C	Normal Charging Voltage, Vdc	Normal Charging Current, A	Maximum Charging Voltage, Vdc	Maximum Charging Current, A
SE-BAT H 5.8	0~45	131	15	131	15
SE-BAT H 11.5	0~45	262	15	262	15
SE-BAT H 17.3	0~45	393	15	393	15
SE-BAT H 23.0	0~45	524	15	524	15

**Manufacturer's Specified Discharging Parameters for Battery Pack:**

Battery System Model	Temperature Range, °C	Normal Discharging Current, A	Maximum Discharging Current, A	Discharging Endpoint voltage, Vdc
SE-BAT H 5.8	0~45	15	15	90
SE-BAT H 11.5	0~45	15	15	180
SE-BAT H 17.3	0~45	15	15	270
SE-BAT H 23.0	0~45	15	15	360

**Notes:**

1. The battery system including its battery management system has been tested according to the functional-safety requirements of ANSI/UL 1973. Any change to the software and electronic controls of the BMS may require additional testing.
2. Solid state circuits relied upon as the primary safety protection, have been evaluated to the Standard for Safety: Automatic Electrical Controls – Part 1, UL 60730-1.
3. 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.
4. Equipment Application Location: Stationary



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5. Access Location: Operator Accessible.
6. The installation was not evaluated. The battery system shall be installed in accordance with NFPA 70 or other applicable installation code.
7. Dielectric Voltage Withstand Test was performed with the test potential of 2500 Vdc, a higher test potential shall be considered in the end product if higher overvoltage category specified.
8. Product is evaluated for use in indoor and outdoor application.
9. Overvoltage Category (OVC): 2
10. Pollution Degree (PD): 2
11. Altitude for Operation: Up to 2000 m.

### **APPLICABLE REQUIREMENTS**

ANSI/CAN/UL-1973:2018, Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications – 2<sup>nd</sup> Edition, Dated February 7, 2018.

### **MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.

Additional markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent 'US' indicator for US only (indicating that products have been manufactured to the requirements of U.S. Standards).

The markings shall be legibly and permanently marked with:

- a) Batteries are to be marked with the manufacturer's name, trade name, trademark, CSA master contract number "603919" or other descriptive marking which may identify the organization responsible for the product.
- b) Part number or Model number; as specified in product section above.
- c) Electrical ratings in volts dc and capacity in Ampere-hours or Watt-hours and chemistry; as specified in product section above.
- d) The electric energy storage system terminals shall be marked to indicate whether they are positive (+) or negative (-).
- e) Maximum short circuit current and duration (at maximum short circuit current) at the system output terminals. (Max 1440 Amp, 1.77 ms)
- f) Electric energy storage systems shall also be marked with the date of manufacture, which may be in the form of a code that does not repeat within 20 years.
- g) IP Code rating; as specified in product section above.



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- h) Cautionary marking indicating to read all instructions before installation, operation and maintenance of the system.  
Note: This marking may be in the form of the symbol(s) for example: the Standard for Graphical Symbols for Use on Equipment – Index and Synopsis, ISO 7000, “caution” Symbol No. 434 (exclamation point inside triangle) followed by the “read instruction manual” Symbol No. 790 (open book). If using symbols, their meaning shall be explained in the instruction manual.
- i) Warning marking indicating risk of electrocution near hazardous voltage battery terminals.
- j) The main ground terminal of the protective grounding system shall be identified by one of the following:
- a) A green-colored, not readily removable terminal screw with a hexagonal head;
  - b) A green-colored, hexagonal, not readily removable terminal nut;
  - c) A green colored pressure wire connector; or
  - d) The word " Ground " or the letters " G " or " GR " or the grounding symbol (IEC 60417, No. 5019) or otherwise identified by a distinctive green color.



## 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

Project	Date	Description
80116191	2022-03-16	Multiple Listing

See below table for the model name of the Submitter and Listee:

Submitter's Certificate	Product Name	Submitter's Model	Listee's Model
80016043	Battery Module	T-BAT H 5.8	SE-BAT-MA H 5.8
	Battery Pack	HV11550	SE-BAT-SL H 5.8
	Battery System	T-BAT H 5.8	SE-BAT H 5.8
	Battery System	T-BAT H 11.5	SE-BAT H 11.5
	Battery System	T-BAT H 17.3	SE-BAT H 17.3
	Battery System	T-BAT H 23.0.	SE-BAT H 23.0