

# **Certificate of Compliance**

Certificate:	80089793	Master Contract:	272687
Project:	80165856	Date Issued:	2023-04-12
Issued To:	SolaX Power Network Technology (Zhe jiar No. 288 Shizhu Road, Tonglu Economic Development Zone Tonglu City, Zhejiang, 310000 China Attention: Jason Shen	ng) Co., Ltd.	

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:

Iris Gao



#### **PRODUCTS**

CLASS - C370182 - BATTERY SYSTEM FOR USE IN STATIONARY APPLICATIONS Certified to US Standards CLASS - C370112 - BATTERIES - Battery System for use in Stationary Applications

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



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**Electrical Ratings:** 

Battery System Model	Battery System Consist Elements	Battery System Ratings				
		Normal Voltage, Vdc	Normal Capacity, Ah/kWh	Battery Pack System Configuration	Enclosure IP Rating	
T-BAT H 10.0	TBMS- MCS60060 + 2* TP-HS50	102.4	100Ah/10.0 kWh	1P32S	IP65	
T-BAT H 15.0	TBMS- MCS60060 + 3* TP-HS50	153.6	100Ah/15.0 kWh	1P48S	IP65	
T-BAT H 20.0	TBMS- MCS60060 + 4* TP-HS50	204.8	100Ah/20.0 kWh	1P64S	IP65	

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
T-BAT H 10.0	0~53	116	50	116.8	54
T-BAT H 15.0	0~53	174	50	175.2	54
T-BAT H 20.0	0~53	232	50	233.6	54

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
T-BAT H 10.0	-10~53	50	54	90
T-BAT H 15.0	-10~53	50	54	135
T-BAT H 20.0	-10~53	50	54	180

Notes:

- 1. The battery pack including its battery management system has been tested according to the functionalsafety requirements of ANSI/CAN/UL-1973:2018, Second Edition. Solid state circuits and software controls relied upon as the primary safety protection, have been evaluated to the Standard for Safety: Automatic Electrical Controls – Part 1, CSA/UL 60730-1. Any change to the software and electronic controls of the BMS may require additional testing
- 2. The heating plate in battery module is a reserved for back up use, it's not used in real application, the safety for the heater and its heating mechanism was not evaluated.
- 3. The enclosure was evaluated to establish an IP rating of IP65 with the Standard for Degrees of Protection Provided by Enclosure (IP Code) IEC 60529.
- 4. Product shall avoid being used near marine environments.



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- 5. 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.
- 6. Equipment Application Location: Stationary
- 7. Access Location: Operator Accessible.
- 8. Manual disconnect device shall be required during the installation of the end products.
- 9. The installation was not evaluated. The battery system shall be installed in accordance with NFPA 70 or other applicable installation code.
- 10. Dielectric Voltage Withstand Test was performed with the test potential of 3300 Vdc, a higher test potential shall be considered in the end product if higher overvoltage category specified.
- 11. Overvoltage Category (OVC): 2
- 12. Pollution Degree (PD): 2
- 13. Altitude for Operation: Up to 3000 m.



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#### **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

See CSA report

Notes:

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





## Supplement to Certificate of Compliance

#### **Certificate:** 80089793

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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
80089793	2022-04-13	Original certification of battery system, models T-BAT H10.0, T-BAT H 15.0 and T-BAT H 20.0 to ANSI/CAN/UL-1973:2018, 2nd Edition.
80165856	2023-04-12	Update the 80089793 report to add CUL mark under ANSI/CAN/UL-1973:2018, 2nd Edition.