Certificate of Compliance

Certificate: 80112275 **Master Contract:** 302680

Project: 80112275 **Date Issued:** 2022-10-28

Issued To: **FOXESS CO., LTD.**
No.939, Jinhai Third Road,
New Airport Industry Area,
Longwan District
Wenzhou, Zhejiang, 325025
China

Attention: Hardy Yang

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: Joseph Zhou

C US

PRODUCTS

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

Certificate: 80112275
Project: 80112275

Master Contract: 302680
Date Issued: 2022-10-28

Secondary lithium-ion battery system for use in stationary application, Models ECS4000 series, see following table for the detailed model and its ratings.

Electrical Ratings:

Battery System Model	Battery System Rating				Battery Module Model	BMS Model
	Nominal Voltage, Vdc	Rated Capacity, Whr	Battery Pack configuration	Enclosure IP/Type Rating		
ECS4000-H2	115.2	7.95	2S1P	IP65	CS4000	CM4000
ECS4000-H3	172.8	11.92	3S1P	IP65	CS4000	CM4000
ECS4000-H4	230.4	15.90	4S1P	IP65	CS4000	CM4000
ECS4000-H5	288	19.87	5S1P	IP65	CS4000	CM4000
ECS4000-H6	345.6	23.85	6S1P	IP65	CS4000	CM4000
ECS4000-H7	403.2	27.82	7S1P	IP65	CS4000	CM4000

Manufacturer's Specified Charging Parameters for Battery System

Battery System Model	Temperature Range, °C	Normal Charging Voltage, Vdc	Normal Charging Current, A	Maximum Charging Voltage, Vdc	Maximum Charging Current, A
ECS4000-H2	0~55	131.4	35	131.4	50
ECS4000-H3	0~55	197.1	35	197.1	50
ECS4000-H4	0~55	262.8	35	262.8	50
ECS4000-H5	0~55	328.5	35	328.5	50
ECS4000-H6	0~55	394.2	35	394.2	50
ECS4000-H7	0~55	459.9	35	459.9	50

Manufacturer's Specified Discharging Parameters for Battery System

Battery System Model	Temperature Range, °C	Normal Discharging Voltage, Vdc	Normal Discharging Current, A	Maximum Discharging Voltage, Vdc	Maximum Discharging Current, A
ECS4000-H2	-10~55	97.2	35	97.2	50
ECS4000-H3	-10~55	145.8	35	145.8	50
ECS4000-H4	-10~55	194.4	35	194.4	50
ECS4000-H5	-10~55	243	35	243	50
ECS4000-H6	-10~55	291.6	35	291.6	50
ECS4000-H7	-10~55	340.2	35	340.2	50

Model Differences: Battery system model ECS4000-H2, ECS4000-H3, ECS4000-H4, ECS4000-H5, ECS4000-H6 and ECS4000-H7 are identical to each other in system construction except for the system voltage rating and module quantities.

Other Rating:

Battery System Model	Maximum short circuit current and duration rating
ECS4000-H2	2.3kA at 0.2ms
ECS4000-H3	2.3kA at 0.2ms
ECS4000-H4	2.3kA at 0.2ms
ECS4000-H5	2.3kA at 0.2ms
ECS4000-H6	2.3kA at 0.2ms
ECS4000-H7	2.3kA at 0.2ms

Certificate: 80112275
Project: 80112275

Master Contract: 302680
Date Issued: 2022-10-28

Conditions of Acceptability:

1. The battery system including its battery management system 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 UL 60730-1 by CSA Group to meet requirement of this standard. Any change to the software and electronic controls of the BMS required additional evaluation by CSA Group.
2. The enclosure was evaluated only to establish an IP rating of IP65 with the Standard for Degrees of Protection Provided by Enclosure (IP Code) IEC 60529.
3. Product was evaluated for indoor and outdoor use, further evaluation for Salt Fog shall be required for the battery system intended to be used in the end product where salt fog condition applied.
4. 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.
5. Equipment Application Location: Stationary
6. Access Location: Operator Accessible.
7. 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.
8. Overvoltage Category(OVC): 2
9. Pollution Degree(PD): 2
10. Altitude for Operation: Up to 2000 m.

APPLICABLE REQUIREMENTS

ANSI/CAN/UL 1973:2022, Third Edition (Dated February 25, 2022) - Batteries for Use in Stationary and Motive Auxiliary Power Applications

MARKINGS

See CSA Report

Notes:

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

Supplement to Certificate of Compliance

Certificate: 80112275 **Master Contract:** 302680

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
80112275	2022-10-28	Original Certification for battery system, model ECS4000 series under CSA WMTC program (c CSA us mark)