Confirmation of Product Type Approval

Company Name: STORED ENERGY SYSTEMS, LLC

Address: 1840 INDUSTRIAL CIRCLE CO 80501 United States

Product: Battery Charger

Model(s): SuperTorque 8Z

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	22-2316015-PDA	09-JAN-2023	08-JAN-2028
Manufacturing Assessment (MA)	23-5820693	15-MAY-2023	30-MAY-2028
Product Quality Assurance (PQA)	NA	NA	NA

Tier
5 - Unit Certification Required

Intended Service
Engine starting and support of DC loads for Marine and Offshore Applications

Description
Genset starting system with integrated batteries and charger.

Ratings
AC Charger Input Voltage: 90-265VAC

AC Charger Input Frequency: 47-63Hz

DC Output Voltage: 12 or 24 VDC

Internal Battery Capacity: 40 Ahr, 80 Ahr, or 160 Ahr

DC Charging Rated Current: 15A

DC Charging Characteristic: Constant voltage, current limited; patented Dynamic Boost control

Communication options: LED for status, SENSbus, USB-C, Modbus RS-485, Ethernet, Keypad

Output Power: 450W max

Operational temperature at full rated output: -10C to +55C

Enclosure: IP 44

Service Restrictions

Unit Certification is not required for this product (ratings less than 25 kW).

If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Not suitable for installation in hazardous areas.

Comments
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

End-user must use output cables that have sufficient current-carrying capacity as per ABS Marine Vessel Rules 4-8-2/7.7.1.

Notes, Drawings and Documentation
Drawing No. 8Z , 8Z Drawing, Revision: A, Pages: 1

Drawing No. 8Z Rain Test Report, Test Report per UL 1012, Revision: -, Pages: 5

Drawing No. Alarms, 8Z Alarms, Revision: A, Pages: 1

Drawing No. Model, 8Z Model Designation, Revision: A, Pages: 1

Drawing No. Tests, Charge Dischage Tests, Revision: A, Pages: 1

Drawing No. UL 9540A Cell Level Test Details Summary - AACD, UL 9540A Cell Level Test Details Summary, Revision: -, Pages: 1

Drawing No. UL Eval, UL Evaluation, Revision: A, Pages: 1

Drawing No. UL Info, UL Signed Letter, Revision: A, Pages: 1

Drawing No. ZincFive-BAZR2-MH62854, UL MH62854 Batteries Standby Component, Revision: -, Pages: 1

Term of Validity
This Product Design Assessment (PDA) Certificate remains valid until 08/Jan/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules
2022 Rules for Conditions of Classification, Part 1: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2022 Marine Vessel Rules: 4-8-3/1.3, 1.7, 1.11.1, 1.17.1 4-8-1/7.3.3, 4-8-3/5.9

2022 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2022 Mobile Offshore Units Rules: 4-3-1/11, 15, 17.1, 6-1-1/3.7, 6-1-7/9.17

International Standards
NA

EU-MED Standards
NA

National Standards
UL 9540A, November 12, 2019

Government Standards
N/A

Other Standards
N/A

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 05-Jun-2023 3:18

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the “Intended Service” details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.