Confirmation of Product Type Approval

Company Name: LEROY SOMER- MOTEURS LEROY SOMER

Address: BOULEVARD MARCELLIN LEROYCS 10015 16915 France

Product: Generator, AC Synchronous

Model(s): LSAM 40, 42.3, 44.2, 44.3, 46.2, 46.3, 47.2, 47.3, 49.1, 49.3, 50.2, & 52.3

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	22-2317771-PDA	21-DEC-2022	20-DEC-2027
Manufacturing Assessment (MA)	19-MS3686485	17-JUN-2019	16-JUN-2024
Product Quality Assurance (PQA)	19-3686485-PQA	17-JUN-2019	16-JUN-2024

Tier
4 - Enrolled in PQA Program

Intended Service
Marine & Offshore Applications - AC Synchronous Generator, Non-Propulsion Services.

Description
See attached PDF: AC Generators Marine Power Table and List of Drawings for Marine Alternators & Equivalence Table for FGW & Caterpillar.

Ratings
Refer to the attached PDF File for Ratings details (Frame, Hertz/RPM, kW, kva, Volts, ABS Ref.).

Speed: 1500 or 1800 RPM

Enclosure Class: IP23 or IP44 (derating 10%)

Service Restrictions
1. Unit Certification is required for each generator of 100 kW and over, intended for essential services as indicated in 4-8-1/7.3.3 of the Marine Vessel Rules, and is to be certified based on type/routine tests performed in accordance with 4-8-3/Table 3 of the Marine Vessel Rules. Please see 4-8-3/3.17 of the Marine Vessel Rules.

2. For generators of less than 100 kW intended for essential services, please refer to 4-8-3/3.1 of the Marine Vessel Rules.

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

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Comments
Duplicate PDA's reside with the following locations:

1. Moteurs Leroy Somer Holice - CZECH REPUBLIC,

2. Leroy Somer Electro-Technique Co., Ltd. Fuzhou - CHINA,

3. Leroy Somer - North America - LEXINGTON,

4. Emerpowsys, S. De R.L. De C.V. - Reynosa - MEXICO.

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

- Effective means are to be provided to prevent the accumulation of moisture and condensation within the machines when they are idle according to 4-8-3/3.11.5 of the Marine Vessel Rules .

- AC propulsion generators rated above 500 kW are to be provided with a means of obtaining the temperatures at each phase of the stationary windings as per 4-8-3/3.11.6 of the Marine Vessel Rules.

- Also, as per 4-8-3/1.11.2 of the Marine Vessel Rules, generators installed in areas affected by local fixed pressure water spraying or local water-mist fire extinguishing system in machinery spaces are to be suitable for use in the affected area. Where enclosures have a degree of protection lower than IP 44, evidence of suitability for use in these areas is to be submitted taking into account the conditions stated in 4-8-3/1.11.2 of the Marine Vessel Rules .

- Alternator with IP23 protection is acceptable provided the arrangement and installation of the generator is in accordance with conditions stated in the Leroy Somer's Communication Package, "Alternators used in FWBLAFFS, according to SOLAS (Consolidated Edition 2014), as amended, Ch.II-2/10 5.6. This is to be verified by the attending Surveyor at the Shipyard at the time of installation.

Notes, Drawings and Documentation
See drawing list attached

Term of Validity
This Product Design Assessment (PDA) Certificate remains valid until 20/Dec/2027 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 - Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Marine Vessel Rules: 4-8-3/3, 4-8-5/3.7.3

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

Mobile Offshore Units Rules: 6-1-7

International Standards
NA

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EU-MED Standards
NA

National Standards
NA

Government Standards
NA

Other Standards
NA

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 06-Jan-2023 1:20

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.

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