



CERTIFICATE NUMBER	19-LD1908494-PDA
EFFECTIVE DATE	28-Nov-2019
EXPIRY DATE	27-Nov-2024
ABS TECHNICAL OFFICE	Singapore Engineering Services

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

ABB AB

located at

ANGSGARDSGATAN 6, VASTERAS, Sweden, SE 721 30

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Motor Controller

Model PSTX series and PSE series

This Product Design Assessment (PDA) Certificate remains valid until 27/Nov/2024 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.

American Bureau Of Shipping

Steve A.A.P Brincat, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

ABB AB

ANGSGARDSGATAN 6

VASTERAS

Sweden SE 721 30

Telephone:

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Email: jonas.estelli@se.abb.com

Web: www.abb.com

Tier: 5 - Unit Certification Required

Product: Motor Controller

Model: PSTX series and PSE series

Intended Service:

Soft starter for electric motors in Marine and Offshore applications.

Description:

Refer to the attachment.

Rating:

Refer to technical data in attachment.

Service Restriction:

1) Unit certification is required for soft starters of 100kW (135HP) and over for essential services and for soft starters of 100kW (135HP) and over for cargo and vapor handling services on LNG carriers as per 4-8-3/1.5 and 5C-8-10/2.12 of ABS Marine Vessels Rules 2019.

2) Unit certification is required for soft starters of 100kW (135HP) and over for essential services as per 6-1-7/19.7 of the ABS Marine Offshore Unit Rules 2019.

3) Equipment shall be located inside suitable enclosures to meet the requirements of 4-8-3/Table 2 of ABS Marine Vessels Rules 2019.

4) A circuit disconnecting device as per 4-8-3/5.7.2 of ABS Marine Vessels Rules 2019 shall be provided for each soft starter.

Comments:

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

Notes/Drawing/Documentation:

Drawing No. MOTOR CONTROLLERS, MECHANICALLY OPERATED AND SOLID-STATE _ UL Product iQ, E161428, Revision: -, Pages: 1

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification (2019) – 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Rules for Building and Classing Marine Vessels: 4-8-2/9.17.1, 4-8-2/9.17.2, 4-8-2/9.17.3

Rules for Building and Classing Steel Vessels: 4-8-3/9.17.1, 4-8-3/9.17.2, 4-8-3/9.17.3

Rules for Building and Classing Offshore Support Vessels (OSV Rules): 4-8-2/9.17.1, 4-8-2/9.17.2, 4-8-2/9.17.3

Rules for Building and Classing Steel Vessels Under 90m in Length: 4-6-2/9.13.3, 4-6-2/9.13.4, 4-6-2/9.13.5

ABS Rules for Conditions of Classification (2019) – High Speed Craft 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the

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following:

Rules for Building and Classing High Speed Craft: 4-6-2/9.13.3, 4-6-2/9.13.4, 4-6-2/9.13.5

Rules for Conditions of Classification (2019) – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

Rules for Building and Classing Mobile Offshore Drilling Units: 4-3-2/9.13.3, 4-3-2/9.13.4, 4-3-2/9.13.5

Rules for Building and Classing Mobile Offshore Units: 4-3-2/9.13.3, 4-3-2/9.13.4, 4-3-2/9.13.5

Rules for Building and Classing Facilities on Offshore Installation: 3-6/11.7.1

National:

UL 508, Standard for Industrial Control Equipment, Eighteenth Edition

International:

IEC 60947-4-2:2012

IEC 60947-1:2007

Government:

NA

EUMED:

NA

OTHERS:

NA