CERTIFICATE NUMBER 22-2225910-PDA
EFFECTIVE DATE 15-March-2022
EXPIRATION DATE 14-March-2027
ABS TECHNICAL OFFICE Genoa Engineering Department

CERTIFICATE OF

Product Design Assessment

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

ABB S.P.A. – ABB SACE DIVISION

located at

VIA L. LAMA 33, MILANO, Italy, 20099

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 **Circuit Breaker**

Model **Tmax T5, T6 and T7 (UL 489)**

This Product Design Assessment (PDA) Certificate remains valid until 14/Mar/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.

American Bureau of Shipping

G. Barbini

Giorgio Barbini, Principal Engineer

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

ABB S.P.A. - ABB SACE DIVISION
ACCOUNTING SERVICES
VIA L. LAMA, 33
SESTO S. GIOVANNI (MI)
Italy 20099
Telephone: +39-035-395111
Fax: +39-035-395306
Email: antonio.pizzoti@it.abb.com
Web: www.bol.it.abb.com

Tier: 2 - PDA Issued

Product: **Circuit Breaker**
Model: **Tmax T5, T6 and T7 (UL 489)**
Endorsements:

Intended Service:
Electrical Installation Protection for Marine and Offshore Equipment

Description:
Low voltage circuit breakers of moulded case construction, with microprocessor-based over-current release and thermal magnetic release.

Rating:
Rated Voltage: 600 VAC / VDC
Rated Frequency: 50-60 Hz
Rated Current: 400-600-800-1200A
See attachment for details.

Service Restriction:
- Unit Certification is not required for this product.
- If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- Suitable for installation in dry accommodation spaces or in dry control rooms.
- May be installed in other spaces provided it is fitted with an enclosure having IP degree suitable for the intended location, as per Table 2 of Section 4-8-3 of the Marine Vessel Rules.
- Fixed (non plug-in or draw-out) versions can be used provided that an isolation switch is fitted on the supply side of the breaker.
- The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.

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

Notes/Drawing/Documentation:
Drawing No.1SDC210023D0201 Edition 09/2008 Technical Catalog
UL-Certificate of Compliance No.20120717-E93565A-20031117 dated 2022-March-02 for Tmax T5
UL-Test Record No. E93565-20031117 dated 2003-11-17 for Tmax T5
UL-Certificate of Compliance No.20170530-E93565-20061018 dated 2022-March-02 for Tmax T6
UL-Test Record No. E93565-20061018 dated 2006-08-18 for Tmax T6
UL-Certificate of Compliance No.20120927-E93565-20080425 dated 2022-March-02 for Tmax T7
UL-Test Record No. E93565-20080425 dated 2008-04-25 for Tmax T7
ISO 9001 Certificate No.8337/00/S dated 17.06.2021

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 14/Mar/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.

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Tier: 2 - PDA Issued

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.

STANDARDS

ABS Rules:
2022 Rules for Marine Vessel R: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/5.3.3
2022 Rules for Mobile Offshore Units and Structures: 1-1-4/9.7, 1-1-A2, 1-1-A3, 6-1-7/13.1.1
2022 Facilities on Offshore Installations: 3-6/11.3.3

National:
UL 489 Ed.13 (2016-10-24)

International:
NA

Government:
NA

EUMED:
NA

OTHERS:
NA