



CERTIFICATE NUMBER	25-0319111-PDA
EFFECTIVE DATE	11-Jul-2025
EXPIRY DATE	10-Jul-2030
ABS TECHNICAL OFFICE	Houston ESD - Electrical

CERTIFICATE OF

Product Design Assessment

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

SCHNEIDER ELECTRIC AUTOMATION GMBH

located at

SCHNEIDERPLATZ 1, MARKTHEIDENFELD, Germany, 97828

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: Computers and Programmable Logic Controllers (PLCS)

Model: TM3BCEIP, TM3BCCO, TM3BCSL

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 10/Jul/2030 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

Soheni Haque, Sr. Managing 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 (2010)

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Product: Computers and Programmable Logic Controllers (PLCS)

Model: TM3BCEIP, TM3BCCO, TM3BCSL

Endorsements:

Intended Service:

Monitoring and control systems on Classed Vessels with AMS, ACC, ACCU, ABCU Notations.

Description:

Modicon TM3 I/O expansion modules for Modicon controllers, Bus coupler module.

- TM3BCEIP: Ethernet IP Communication, TM3 Bus Coupler Power Supply Design, Isolated RJ45 Connector;
- TM3BCCO: CANOpen Communication, TM3 Bus Coupler Power Supply Design with extra TVS for improved surge protection, Un-isolated RJ45 Connector;
- TM3BCSL: Serial Line Communication, TM3 Bus Coupler Power Supply Design with extra TVS for improved surge protection, Un-isolated RJ45 Connector;

Rating:

1. Power Supply: 24V DC;
2. Ambient operating temperature: Horizontal installation –10...60°C, Vertical installation –10...50 °C;
3. Degree of protection: IP20

Service Restriction:

1. Unit certification is not required for the original equipment manufacturer. However, Unit certification is required for the user to customize this equipment where used for Category II or III services in 4-9-3/Table 1 in accordance with 4-9-3/8.3.4 (b) of Marine Vessels Rules.
2. The equipment is approved for installation in the general power distribution zone (not to be installed in the bridge and deck zone).
3. 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.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Each particular application is to be specifically approved.
3. Tests and approvals are for hardware only.
4. The product is to be installed horizontally.

Notes/Drawing/Documentation:

Supporting Documents from Previous Task WO00T1956420;

Drawing No. 3, Product Description Modicon TM3; DIA3ED2140109EN.pdf, Revision: 0, Pages: 1

Drawing No. 4, Manual Modicon TM3; EIO0000003635.00.pdf, Revision: 0, Pages: 1

Drawing No. 5, Installation Instruction TM3BCEIP; PHA71490_05.pdf, Revision: 0, Pages: 1

Drawing No. 6, Assembly and Dimension Drawing; QGH7564502_05.pdf, Revision: 0, Pages: 1

Drawing No. 7, Assembly and Dimension Drawing; QGH7564602_05.pdf, Revision: 0, Pages: 1

Drawing No. 8, Assembly and Dimension Drawing; QGH7854202_04.pdf, Revision: 0, Pages: 1

Drawing No. 9, BoM; MLR_QGH95275-01_201907240853.xls, Revision: 0, Pages: 1

Drawing No. 10, Layout; PHA1315802_A70_07.pdf, Revision: 0, Pages: 1

Drawing No. 11, Layout; PHA1315803_A71_08.pdf, Revision: 0, Pages: 1

Drawing No. 12, Schematic; PHA1315804_A72_07.pdf, Revision: 0, Pages: 1

Drawing No. 13, Software Quality Plan TM3CEIP; TM3 BC - Qua00 Project Quality Plan SW.doc, Revision: 0, Pages: 1

Drawing No. 14, Declaration of Variants; Decl-of-variants_SE_2019-12-16.pdf, Revision: 0, Pages: 1

Drawing No. 15, Test- and Monitoringdescription; Test-und Monitoringplan_TM3BCEIP_Rev-00_2019-08-08.docx, Revision: 0, Pages: 1

Drawing No. 16, Test Report EMC; E191241E1.pdf, Phoenix Testlab, 29-01-2020, Revision: 0, Pages: 1

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Drawing No. 17, Test Report Environmental; U191241E1 2nd Version.pdf, Phoenix Testlab, 05-12-2019, Revision: 0, Pages: 1

Drawing No. 18, Plastic Material Enclosure; HUA31546_LEXAN™ FR Resins_925.pdf, Revision: 0, Pages: 1

Drawing No. 19, Plastic Material Enclosure, UL Yellow Card; E121562_LEXAN-925.pdf, Revision: 0, Pages: 1

Terms of Validity:

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STANDARDS**ABS Rules:**

2025 Rules for Conditions of Classification, Part 1A-1-4/7.7, 1A-1-A3, and 1A-1-A4, which covers the following: Marine Vessels Rules: 4-9-9/7, 4-9-9/13, 4-9-9/15.7 (Table 1 & Table 2).

National:

N/A

International:

N/A

Government:

N/A

EUMED:

N/A

OTHERS:

EU Mutual Recognition Technical Requirements for Computers and Programmable logic Controllers (PLCS) Version 0.9, 01 January 2025