



CERTIFICATE NUMBER 20-HG1956420-EUMR-DE
EFFECTIVE DATE 23-MAR-2020
EXPIRATION DATE 22-MAR-2025
ABS TECHNICAL OFFICE Hamburg Engineering Department

CERTIFICATE OF

European Union Recognized Organization (EU RO) Mutual Recognition Design Evaluation (in accordance with Article 10.1 of EU Regulation 391/2009)

This is to certify to the Manufacturer named below, that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognized Organization Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

SCHNEIDER ELECTRIC AUTOMATION GMBH

who maintains a plant at

SCHNEIDERPLATZ 1, MARKTHEIDENFELD, 97828, Germany

Product Computers and Programmable Logic Controllers (PLCS)

Model TM3BCEIP, TM3BCCO, TM3BCSL

This certificate, by itself does not reflect that the product is Type Approved. The scope and limitations of this evaluation are detailed on the pages attached to this certificate.

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV GL;

NOTE: This certificate evidences compliance with one or more of the ABS Rules and the EU Regulations 391/2009. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product or manufacturing process without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules and Conditions of the request for EU Product Type Approval and Agreement.

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- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);
- Russian Maritime Register of Shipping (RS).

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).

This EU RO Mutual Recognition Design Evaluation Certificate remains valid until 22-MAR-2025 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).

American Bureau of Shipping

Efstratios Maliatsos, Engineer/Consultant

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SCHNEIDER ELECTRIC AUTOMATION GMBH

SCHNEIDERPLATZ 1

MARKTHEIDENFELD

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Web: www.schneider-electric.com

Tier: 2 - PDA Issued

Product: Computers and Programmable Logic Controllers (PLCS)

Model: TM3BCEIP, TM3BCCO, TM3BCSL

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:

Power Supply: 24V DC;

Ambient operating temperature: Horizontal installation -10...60 °C, Vertical installation -10...50 °C;

Degree of protection: IP20;

Service Restriction:

1. Unit Certification is not required for the original equipment manufacturer. However, unit certification in accordance with 4-9-3/Table 2 and 4-9-9/Table 2 is required by the user to customize this equipment where this equipment is used for Category II or III services in 4-9-3/Table 1.

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 request 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:

Drawing No. 1, Power of Attorney; Power_of_attorney_signed.pdf, Revision: 0, Pages: 1

Drawing No. 2, PDA Application Form; PDA-Application-Form_SE_TM3BCEIP_2020-02-10.pdf, Revision: 0, Pages: 1

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

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Tier: 2 - PDA Issued

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

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:

This Product Design Assessment (PDA) Certificate remains valid until 22/Mar/2025 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.

STANDARDS

ABS Rules:

2020 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-9-9/7, 4-9-9/13, 4-9-9/15.7 (Table 1 & Table 2).

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

EU Mutual Recognition Technical Requirements for Computers and Programmable logic Controllers (PLCS) Version 0.4, 01 January 2020