



CERTIFICATE NUMBER

03-HG392148-9-PDA

DATE

12 March 2013

ABS TECHNICAL OFFICE

Hamburg Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
SIEMENS AG, INDUSTRY SECTOR - D-92224 AMBERG

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: **Programmable Control/Monitoring Unit**

MODEL: **SIMATIC ET200 B/C/L/L-SC/M/S/X/eco/eco PN/pro and SIMATIC SC (Smart Connect)**

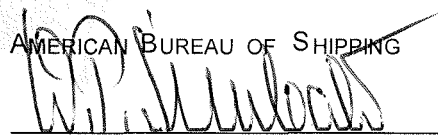
This Product Design Assessment (PDA) Certificate 03-HG392148-9-PDA, dated 12/Mar/2013 remains valid until 11/Mar/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING


Wulf-Peter Senebald
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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

SIEMENS AG, INDUSTRY SECTOR

I IA AS TYPE TEST

D-92224 AMBERG

Germany

Telephone: 49 9621 80 4316

Fax: 49 9621 80 3146

Email: karlheinz.pflug@siemens.com

Web: www.siemens.de

MA Certificate No.: 11-HG2041761-X

PRODUCT:

Programmable Control/Monitoring Unit

MODEL:

SIMATIC ET200 B/C/L/L-SC/M/S/X/eco/eco PN/pro and SIMATIC SC (Smart Connect)

Intended Service:

Automation Systems (Monitoring and Control Functions) on AMS, ACC, ACCU, ABCU classed vessels.

Description:

Components of ET200 B: 6ES7 131-, 6ES7 132-, 6ES7 133-, 6ES7 134-, 6ES7 135-, 6ES7 193-; Components of ET200 C: 6ES7 141-, 6ES7 142-, 6ES7 143-, 6ES7 144-, 6ES7 145-; Components of ET200 L and L-SC: 6ES7 131-, 6ES7 132-, 6ES7 133-, 6ES7 193-, 6ES7 138-, 6ES7 127-; Components of ET200 M: 6ES7 153-, 6ES7 195-, 6ES7 157-, 6ES7 158-, 6ES7 654-; Components of ET200 S: 6ES7 131-, 6ES7 132-, 6ES7 134-, 6ES7 135-, 6ES7 138-, 6ES7 151-, 6ES7 151-(compact), 6ES7 193-; Components of ET200 X: 6ES7 141-, 6ES7 142-, 6ES7 143-, 6ES7 144-, 6ES7 145-, 6ES7 147-, 6ES7 148-, 6GK7 142-; Components of SC: 6ES7 120-, 6ES7 121-, 6ES7 122-, 6ES7 123-, 6ES7 124-; Components of ET200eco: 6ES7 141-, 6ES7 142-, 6ES7 143-, 6ES7 148-, 6ES7 194-; Components of ET200eco PN: 6ES7 141-, 6ES7 142-, 6ES7 144-, 6ES7 145-, 6ES7 147-, 6ES7 148- (only IO-Link Master), 6ES7 194; All Components of 6ES7 972-; Components of ET200pro: 6ES7 141-, 6ES7 142-, 6ES7 143, 6ES7 144-, 6ES7 145-, 6ES7 148-, 6ES7 154-, 6ES7 194-.

Ratings:

Power Supply: 24V DC, 120/230V AC, 24..150V DC; Degree of Protection: IP 20, IP 66/IP 67 (EN 60529); for ET200X: Enclosure Type 4X (UL 508, CSA 142.2) indoor use only; for ET200C: Enclosure Type 4 (UL 508, CSA 142.2) indoor use only; for ET200eco, ET200eco PN and for ET200pro: IP 65, Enclosure Type 4X (UL 508, CSA 142.2), 4 g vibration, for indoor use only. ET200X: 6ES7 141, 142, 143, 144, 145, 147, 148 (only power module), 4 g vibration.

Following components are of a certified safe type: Ex II3 G (1) GD EEx nA [ia] IIC T4: 6ES7 157-0AD82-0XA0; Ex II3 (1) G EEx nA [ia] IIC T4: 6ES7 157-0AD81-0XA0.

Service Restriction:

Unit Certification is required for this product in accordance with 4-1-1/Table 3 of the Steel Vessel Rules.

- 1.) Components with 24 V DC supply only to be used in conjunction with lightning protection units.
- 2.) Installation of the units, as per manufacturer's instructions.

Comments:

Each particular application/ installation and the user operating software is to be specifically approved in conjunction with the relevant system in which the units are being used.

System Category III. Manufacturer is to keep evidence of quality plan for software, inspection of hardware components from sub-suppliers and quality control in production. Performance integration, fault simulation, final system factory acceptance tests, on-board system and integration tests to be witnessed by the Surveyor.

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

SIEMENS AG, INDUSTRY SECTOR

Term of Validity:

This Product Design Assessment (PDA) Certificate 03-HG392148-9-PDA, dated 12/Mar/2013 remains valid until 11/Mar/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2013 Steel Vessel Rules 1-1-4/7.7, 4-8-3/13.1, 4-9-6/3.1/3.3/3.5/3.7/3.9/3.17/7.1/7.71/9.1, 4-9-6/Table 2, as applicable for inherent basic operating software, 4-9-7/7/13

National:

NA

International:

NA

Government Authority:

NA

EUMED:

NA

Others:

NA