

MARINE DIVISION

Certificate number: 09049/D0 BV

File number: AP 3040

Product code: 4501H

*This certificate is not valid when presented without the
full attached schedule composed of 7 sections*

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

SIEMENS AG - I IA AS

Amberg - GERMANY

for the type of product

PROGRAMMABLE LOGIC CONTROL UNITS

SIMATIC ET 200 (B, C, L, L-SC, M, S, X, SC, eco, eco PN, pro)

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

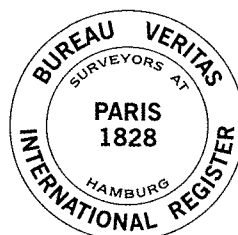
This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 09049/C3 BV, which expires on 18/03/2014

This certificate will expire on: 16 Apr 2019**For BUREAU VERITAS,**

At BV HAMBURG, on 16 Apr 2014,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Distributed Input / Output units - **SIMATIC ET 200 (B, C, L, L-SC, M, S, SC, eco, eco PN, pro, X) series.**

ET 200 B

Type	Designation
6ES7 131	Digital Input module
6ES7 132	Digital Output module
6ES7 133	Digital Input / Output module
6ES7 134	Analogue Input module
6ES7 135	Analogue Output module
6ES7 193	Terminal Block

ET 200 L and L-SC

Type	Designation
6ES7 127	Counter module
6ES7 131	Digital Input module
6ES7 132	Digital Output module
6ES7 133	Digital Input / Output module
6ES7 138	Interface Module (IM)
6ES7 193	Terminal Block

ET 200 S

Type	Designation
6ES7 131	Digital Input module
6ES7 132	Digital Output module
6ES7 134	Analogue Input module
6ES7 135	Analogue Output module
6ES7 138	Extension Module
6ES7 151	Interface Module (IM)
6ES7 151-1	Interface Module (IM) Compact
6ES7 193	Terminal Block

ET 200 eco

Type	Designation
6ES7 141	Digital Input module
6ES7 142	Digital Output module
6ES7 143	Digital Input / Output module
6ES7 148	Digital Input module
6ES7 194	Terminal Block

ET 200 pro

Type	Designation
6ES7 141	Digital Input module
6ES7 142	Digital Output module
6ES7 143	Digital Input / Output module
6ES7 144	Analogue Input module
6ES7 145	Analogue Output module
6ES7 148	Power module
6ES7 148	Digital Input module
6ES7 148	Digital Input / Output module
6ES7 154	Interface Module (IM)
6ES7 194	Connecting / Mounting module

ET 200 C

Type	Designation
6ES7 141	Digital Input module
6ES7 142	Digital Output module
6ES7 143	Digital Input / Output module
6ES7 144	Analogue Input module
6ES7 145	Analogue Output module

ET 200 M

Type	Designation
6ES7 153	Interface Module (IM)
6ES7 157	Interface Link, DP/PA Coupler
6ES7 158	DP/DP coupler
6ES7 195	Active bus module
6ES7 654	Y-IM, Y-Coupler, BM Y-Coupler

ET 200 SC

Type	Designation
6ES7 120	Terminal Block
6ES7 121	Digital Input module
6ES7 122	Digital Output module
6ES7 123	Analogue Input module
6ES7 124	Analogue Output module

ET 200 eco PN

Type	Designation
6ES7 141	Digital Input module
6ES7 142	Digital Output module
6ES7 144	Analogue Input module
6ES7 145	Analogue Output module
6ES7 147	Digital Input / Output module
6ES7 148	IO-Link Master
6ES7 194	Terminal Block / Mounting rail

ET 200 X

Type	Designation
6ES7 141	Digital Input, Basic and Expansion modules
6ES7 142	Digital Output, Basic and Expansion modules
6ES7 143	Digital Input / Output, DESINA Basic & Expansion module
6ES7 144	Analogue Input, Expansion module
6ES7 145	Analogue Output, Expansion module
6ES7 147	Basic module/CPU
6ES7 148	Frequency, Expansion and Power modules
6GK7 142	Communication Processor

Accessories: ET 200: (All Systems):

6ES7 972- RS 485 bus connector, repeater for profibus, terminating element.

2. DOCUMENTS AND DRAWINGS:

- Catalogue: CA 01 04 / 00 SED; A5E00158716-02; A5E00335543-01 dated 28.01.05-M6; A5E00335544-02 dated 07/2005;
- 6ES7 158 (DP/DP Coupler) - Technical sheet.

Note: Documents filed in AP 3040.

- A5E01250250-03 dated 03/2009; A5E01648493-02 dated 02/2009; A5E00335544-07 dated 01/2012;
- A5E01250250-07 dated 08/2012

3. TEST REPORTS:**SIEMENS AG:**

- Specification for type test and test report: A&D AS E423-0104, 105, 106, 107, dated 28.05.2001;
- A&D AS RD 423-0301 dated 19.05.2003; A&D AS RD ST Type Test - 0401 dated 26.03.2004;
- A&D AS RD ST Type Test - 01/05 dated 18.01.2005; A&D AS RD ST Type Test - 0606 dated 23.06.2006;

Note: Documents filed in AP 3040.

- Specification for type test and test report I IA AS R&D ST Type Test - 04/09 dated 28. Mai 2009;
- Specification for type test and test report I IA AS RD ST Type Test - 2012-02 dated 18. Dec 2012;

4. APPLICATION / LIMITATION:

- 4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - Documents relating to each application are to be submitted to the Society's examination prior fitting on board.
- 4.4 - The equipment fulfils the EMC requirements for installation in General power Distribution Zones only. Surge protections and / or filters (Dehn, Type No. 918402 or equivalent) are to be the same as the ones used during EMC tests.
- 4.5 - Bureau Veritas Environmental Category, **EC Code:**
 - 31** for ET 200 B, C, L & L-SC, M, S, SC, 6ES7 972 module and 6ES7 148 modules of ET 200X
 - 33** for ET 200 X (6ES7 141-, 142-, 143-, 144-, 145-, 147-modules, PM 148 only), ET 200 eco, eco PN & pro.
- 4.6 - Only Hardware and Firmware / Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.
- 4.7 - Depending on the Application, Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II or III Equipment.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **SIEMENS AG - I IA AS** in compliance with the type described in this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.
- 5.3 - **SIEMENS AG - I IA AS** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

SIEMENS AG - I IA AS
Werner-von-Siemens-Strasse 50
92224 Amberg
GERMANY

- 5.4 - Equipment is to be supplied with manual (s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Equipment type or model identification.
- Date of manufacture and/or serial number.

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **SIEMENS AG - I IA AS RD - GERMANY**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 09049/C3 BV issued on 21 Mar 2013 by the Society.

*** END OF CERTIFICATE ***