



Marine & Offshore

Certificate number: 09048/E0 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 - DI FA AS
 Amberg - GERMANY

for the type of product
PROGRAMMABLE LOGIC CONTROL UNITS
 SIMATIC S7-300

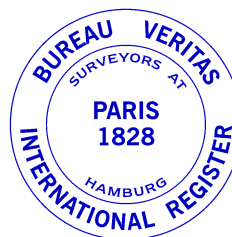
Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
 EC Code: 31

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 04 Jun 2024

For Bureau Veritas Marine & Offshore,
 At BV HAMBURG, on 04 Jun 2019,
 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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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:

SIMATIC S7-300 series are Programmable Logic Controller modules.

1.1 - Modules of series: S7-300 - Programmable Logic Controller:

Type	Designation
Power Supply	PS 307
Interface Modules	IM 178, IM 360, IM 361, IM 365, IM 174
Controllers	CPU 312, CPU 313, CPU 314, CPU 315, CPU 316, CPU 317, CPU 318, CPU 614, CPU 319, EC31 with EM-PCI-104 Box and/or EM-PC
Simulator Module	SM 374
Dummy Module	DM 370
Signal Modules	SM 321, SM 322, SM 323, SM 326, SM 327, SM 331, SM 332, SM 334, SM 335, SM 336, SM 338
Function Modules	FM 350, FM 351, FM 352, FM 353, FM 354, FM 355, FM 357
Communication Processors	CP 340, CP 341, CP 342, CP 343.
Y-Coupler	6ES7197-...
Modules with Ex marking:	SM 326: 6ES7 326-1RF00-0AB0 and 6ES7 326-1RF01-0AB0

2. DOCUMENTS AND DRAWINGS:

- Catalogue CA 01 04 / 00 SED; Specification data sheets Siemens ST 70.2003; Catalogues ST 70-1999 and CA 01 - 10/2003;
- Data Sheets: CPU 317-2DP and SM 327, DI 8/DX 8x24V/0.5A; Extract from manual, 01/2006 edition: CPU-319

Note: Documents filed in AP 3040.

- Operating Instructions 07/2008, A5E01716600-01; Operating Instructions 10/2006, A5E00193841-16;
- Product Information 06/2007, A5E01062667-02, A5E01183584-02; Manual 06/2006, A5E00859729-01

For E0 version:

- Data Sheet: 326 -1RF01
- KEMA 99ATEX 2671 X Issue 5 dated 12 March 2015

3. TEST REPORTS:

Siemens AG:

- Specification for type tests and test report: A&D AS E423-0102 dated 28.05.2001; A&D AS RD423-0201 dated 08.11.02;
- A&D AS RD ST Type Test-0401 dated 26.03.2004; A&D AS RD ST Type Test-0606 dated 23.06.2006

Note: Documents filed in AP 3040

- Specification for type tests and test report: I IA AS RD ST Type Test-04/09 dated 28.05.2009
- Specification for type tests and test report: SIMATIC Type Test - 2019-01

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 other equipment fulfils the EMC requirements for installation in General Power Distribution zone only. Surge protections and / or filters are to be the same as the ones used during EMC tests.
- 4.5 - S7-300 control system DC power supply lines are to be equipped by lightning protection element (Dehn, Type No. 918402 or equivalent).
- 4.6 - S7-300 modules SM 321 (64DI) and SM 322 (64DO) are to be built in a RF shielded cabinet to fulfil the EMC requirements for radiated emissions.
- 4.7 - This equipment has been tested in accordance with IACS UR E10 Rev.7
- 4.8 - Bureau Veritas Environmental Category, **EC Code: 31**.
- 4.9 - The characteristics of the cables laid in the hazardous area must comply with the limitations imposed by the associated Zener barriers.
- 4.10 - 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.
- 4.11 - 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 - DI FA 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 and as such does not require a BV product certificate.

5.3 - **SIEMENS AG - DI FA 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 - DI FA 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
- Ex marking, as relevant

7. OTHERS:

7.1 - It is the responsibility of **SIEMENS AG - DI FA AS - GERMANY** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 09048/D0 BV issued on 25 Apr 2014 by the Society.

*** END OF CERTIFICATE ***