

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Programmable Logic Controller Peripherie SIMATIC PCS7

Issued to

Siemens AG SIMATIC Type Test Karlsruhe
Karlsruhe, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature B

Humidity B

Vibration A

EMC A

Enclosure Required protection according to the Rules shall be provided upon installation on board.

Issued at **Hamburg** on **2019-04-29**

This Certificate is valid until **2024-04-28**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

S7300/ET200M - Peripherie

- 6ES7321-7EH00: SM321 DI 16, DC24V/125V
- 6ES7321-7TH00: SM321DI 16, DC 24V
- 6ES7322-8BH10: SM322 DO 16, DC 24V0.5A
- 6ES7331-7TF01 AI: SM331 8 0/4 - 20 mA HART
- 6ES7332-8TF01 AO: SM332 8 0/4 - 20 mA HART

ET200 SP modules

- 6ES7 134 - 6TD00-0CA1: AI 4xI 2 Wire HART

Coupler

- 6ES7 153 - 2BA70 IM 153-2 Link
- 6ES7 157 - 0AC85 FDC 157-0 PA/FF coupler
- 6ES7 195 - 7HD80 Bus module for extended temperature range IM 157
- 6ES7 195 - 7HF80 Bus module for extended temperature range DP/PA Coupler
- 6ES7 195 - 7HG80 Bus module for 2 IM157 FDC
- 6ES7 197 - 1LB00 Y - Coupler for Y link redundancy
- 6ES7 654-7HY00 Bus module for Y - Coupler

Safe type modules

ATEX: II 3 (2) G EEx nA [ib] IIC T4

- 6ES7321-7RD00-0AB0: SM 321 Ex Digital input module (KEMA01ATEX1057X)
- 6ES7322-5SD00-0AB0: SM 322 Ex Digital output module (KEMA01ATEX1059X)
- 6ES7322-5RD00-0AB0: SM 322 Ex Digital output module (KEMA01ATEX1056X)
- 6ES7331-7SF00-0AB0: SM 331 Ex Analog input module (KEMA01ATEX1061X)
- 6ES7331-7SF00-0AB0-Z A5E00069761: Subset of Version 6ES7-331-7SF00-0AB0 (DEKRA 14ATEX0051X)
- 6ES7331-7RD00-0AB0: SM 331 Ex Analog input module (KEMA01ATEX1060X)
- 6ES7331-7TB00-0AB0: SM 331 Ex Analog input module (KEMA 97ATEX3039X)
- 6ES7331-7TB10-0AB0 : Firmware Version of 6ES7-331-7TB00-0AB0 (DEKRA 14ATEX0052X)
- 6ES7332-5RD00-0AB0: SM 332 Ex Analog output module (KEMA01ATEX1062X)
- 6ES7332-5TB00-0AB0: SM 332 Ex Analog output module (KEMA 98ATEX2359 X)
- 6ES7332-5TB10-0AB0: Version of 6ES7332-5TB00-0AB0 (DEKRA 14ATEX0053X)
- 6ES7321-7EH00-0AB0: 16 DI, DC 24/125V (DEKRA-14ATEX0105X)
- 6ES7321-7TH00-0AB0: 16 DI, DC 24V (DEKRA-14ATEX0105X)
- 6ES7322-8BH10-0AB0: 16 DO, DC24V / 0,5 A (DEKRA-14ATEX0105X)
- 6ES7331-7TF01-0AB0: 8AI, 0/4 - 20MA HART (DEKRA-14ATEX0105X)
- 6ES7332-8TF01-0AB0: 8AO, 0/4 - 20MA HART (DEKRA-14ATEX0105X)

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- 6ES7 157-0AD82-0XA0: Ex Coupler DP/PA (KEMA 03ATEX1416 X)

Application/Limitation

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Product certificate

If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNVGL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Ex-certification

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified / recognized Certification Body.

Type Approval documentation

Test Reports: 19-E008022-BM-F01 List of Test Reports SIMATIC PCS7 Peripherie, dated 2019-05-02

Documents: 19-E008022-BM-E01 List of Technical datasheets equipment manuals SIMATIC PCS7 Peripherie, dated 2019-05-02

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications

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Certificate No: **TAA00001UF**

- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE