DNV·GL

Certificate No:
TAA00002FM

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Module CM AS-i Master und F-CM AS-i; CM 1243-2; DCM 1271; BU20-P6+A2+4B

Issued to
Siemens AG GWA
Amberg, Bayern, 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	**B**
Enclosure	**Required protection according to the Rules shall be provided upon installation on board.**

Issued at **Hamburg** on **2019-08-27**
This Certificate is valid until **2024-08-26**.
DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

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.

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Job Id: **262.1-031761-1**
Certificate No: **TAA00002FM**

Product description

ET200SP-System

- CM AS-i Master MLFB 3RK7 137-6SA00-0BC1
- CM1243-2 AS-Interface AS-i Master MFLB 3RK7243-2AA30-0XB0
- F-CM AS-i Communication Module MLFB 3RK7 136-6SC00-0BC1
- BaseUnit BU20-P8+A4+0B MLFB 6ES7193-6BP20-0DC0

S7-1200 System

- DCM1271 AS-i Data Decoupling Unit MFLB 3RK7271-1AA30-0AA0
- CM 1243-2 AS-i Master MFLB 3RK7243-2AA30-0XB0
    - In: DC 24 V / 30 V
    - Out: 1 x AS-I, 4 A

Ex II 3 G Ex nA IIC T4 Gc see Certificate Issue No. 2 DEKRA 11ATEX0225 X for Modules Type: 3RK7 ... for PLC S7-1200

Software: CM1243-2: FW-Version V1.0.10, TIA-Portal V11-SP2
Master according AS-i Specification 3.0

Application/Limitation

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.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNVGL, 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 DNVGL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.
If the control system is intended for remote software maintenance the functionality shall be part of the system documentation as required in 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.

Type Approval documentation

Test report: No. 19201-08781-3 Edition 2 dated 14-02-2013; 19201-713008781-02 Edition 4 dated 21-02-2013; 19201-04260 Edition 2 dated 16-05-2012; 19201-03788-2 Edition 3 dated 23-11-2011; No. 214771700 dated 04-11-2011; ASIMASTERS71200 Report V1.00 dated 25-06-2012; 19201- 03788-3 Edition 1 dated 29-11-2011; 19201-713008781-02 Edition 3 dated 07-02-2013
Documents: Manual AS-i Master CM 1243-2 and AS-i DCM 1271 for SIMATIC S7-1200 dated 01/2012; Manual A5E02655230010A/RS-AA/003 dated 04/2013; A5E03481998, A5E03484456, A5E03481996 and A5E03482000 dated 08-01-2013; A5E02655221001 dated 23-09-2011; A5E02655218002 and A5E02655208001dated 15-05-2012; A5E02655205001and A5E02655202001 dated 22-09-2011

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
- 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