



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA000000K
Revision No:
2

This is to certify:

That the Programmable Electronic System

with type designation(s)
SIMATIC S7-1200

Issued to

Siemens Industry, Inc.
Johnson City, TN, USA

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	D
Humidity	B
Vibration	A
EMC	A/B*
Enclosure	Required protection according to DNV Rules shall be provided upon installation on board

* see Application/Limitation

Issued at **Hamburg** on **2021-06-15**

for **DNV**

This Certificate is valid until **2023-12-03**.

DNV local station: **Houston, Approval CMC**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description
Programmable Logic Controller SIMATIC S7-1200

CPU (Central Processing Units)	
Type of equipment	Product No
CPU 1211C	6ES7211-1AE40-0XB0 6ES7211-1BE40-0XB0 6ES7211-1HE40-0XB0
CPU 1212C	6ES7212-1AE40-0XB0 6ES7212-1BE40-0XB0 6ES7212-1HE40-0XB0
CPU 1214C	6ES7214-1AG40-0XB0 6ES7214-1BG40-0XB0 6ES7214-1HG40-0XB0
CPU 1215C	6ES7 215-1AG31-0XB0 6ES7 215-1BG31-0XB0 6ES7 215-1HG31-0XB0 6ES7 215-1AL40-0XB0 6ES7 215-1AM40-0XB0 6ES7 215-1AG40-0XB0 6ES7 215-1BG40-0XB0 6ES7 215-1HG40-0XB0
CPU 1217C	6ES7 217-1AG40-0XB0

SB - Signal Modules	
Type of equipment	Product No
SM 1221	6ES7221-1BF32-0XB0 6ES7 221-1BH32-0XB0
SM 1222	6ES7 222-1XF30-0XB0 6ES7 222-1XF32-0XB0 6ES7 222-1BH32-0XB0 6ES7222-1BH32-1XB0 6ES7222-1BF32-0XB0 6ES7 222-1 HH32-0XB0 6ES7222-1HF32-0XB0
SM 1223	6ES7 223-1QH30-0XB0 6ES7 223-1QH32-0XB0 6ES7 223-1 BL32-0XB0 6ES7223-1BL32-1XB0 6ES7223-1BH32-0XB0 6ES7 223-1 PL32-0XB0 6ES7223-1PH32-0XB0
SM 1231	6ES7 231-5ND30-0XB0 6ES7 231-5PD30-0XB0 6ES7 231-5PF30-0XB0 6ES7 231-5QD30-0XB0 6ES7 231-5QF30-0XB0 6ES7 231-4HD30-0XB0 6ES7 231-4HF30-0XB0 6ES7 231-4HD32-0XB0 6ES7 231-4HF32-0XB0 6ES7 231-5ND32-0XB0 6ES7 231-5PD32-0XB0 6ES7 231-5PF32-0XB0 6ES7 231-5QD32-0XB0 6ES7 231-5QF32-0XB0

	6AG1231-4HD32-4XB0 6AG1231-4HF32-4XB0 6AG1231-5PD32-2XB0 6AG1231-5PD32-4XB0 6AG1231-5ND32-4XB0 6AG1231-5QD32-4XB0
SM 1232	6AG1232-4HB32-4XB0 6AG1232-4HD32-2XB0 6AG1232-4HD32-4XB0 6AG2232-4HD32-1XB0 6ES7232-4HB32-0XB0 6ES7232-4HD32-0XB0
SM 1234	6ES7 234-4HE30-0XB0 6ES7234-4HE32-0XB0 6AG1234-4HE32-2XB0 6AG1234-4HE32-4XB0 6AG2234-4HE32-1XB1

CM - Communication Modules	
Type of equipment	Product No
CB/CM 1241	6ES7 241-1CH30-1XB0 6ES7 241-1CH31-0XB0 6ES7 241-1CH32-0XB0
Signal boards	
SB 1221	6AG1221-3AD30-5XB0 6AG1221-3BD30-5XB0 6ES7221-3AD30-0XB0 6ES7221-3BD30-0XB0
SB 1222	6AG1222-1AD30-5XB0 6AG1222-1BD30-5XB0 6ES7222-1AD30-0XB0 6ES7222-1BD30-0XB0
SB 1223	6AG1223-0BD30-4XB0 6AG1223-0BD30-5XB0 6AG1223-3AD30-5XB0 6AG1223-3BD30-5XB0 6AG2223-0BD30-1XB0 6ES7223-3AD30-0XB0 6ES7223-3BD30-0XB0 6ES7223-0BD30-0XB0
SB 1231	6AG1231-5PA30-5XB0 6ES7231-4HA30-0XB0 6ES7231-5PA30-0XB0 6ES7231-5QA30-0XB0
SB 1232	6AG1232-4HA30-4XB0 6AG1232-4HA30-5XB0 6ES7232-4HA30-0XB0

Power supply module	
Type of equipment	Product No
PM 1207	6AG1332-1SH71-4AA0 6AG1332-1SH71-7AA0 6EP1332-1SH71

Accessories	
Type of equipment	Product No
Memory Cards	6ES7 954-8LB01-0AA0 6ES7 954-8LC02-0AA0 6ES7 954-8LE01-0AA0 6ES7 954-8LE02-0AA0 6ES7 954-8LF01-0AA0 6ES7 954-8LF02-0AA0 6ES7 954-8LP01-0AA0
BB1297 Battery Board	6ES7 297-0AX30-0XA0

Application/Limitation

“EMC in the range 2 GHz to 6 GHz according to DNVGL-CG-0339, December 2019 has not been documented. EMC up to 6 GHz must additionally be documented for installation on ships contracted for construction on or after 2022-01-01.”

Location class EMC B: Only with filter type Epcos B84113C.

24V power supply lines are to be protected by Dehn Blitzductor order No. 918 402.

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 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 classification of 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 DNV GL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Test Reports: TAA000000K list of test reports Rev. 01
Documents: Operating Instructions (PS); C98130-A7569-A1-04-6419 dated June 2009;
 System Manual no.: No. A5E02486680 dated 08/2018;
 Siemens SIMATIC S7-1200 Product Information No. A5E02808525-01 dated 01/2010;
 Internal Drawing A5E46276822A Rev. 01

Tests carried out

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

Place of manufacture

Siemens Industrial Automation Products Ltd., Chengdu

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