

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Programmable Electronic System**

with type designation(s)

**LOGO!**

Issued to

**Siemens AG DF FA AS SIMATIC Type Test  
Amberg, Bayern, Germany**

is found to comply with

**Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards****Application :****Location classes:**

<b>Temperature</b>	<b>D</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>A (B for TD)</b>
<b>Enclosure</b>	<b>Required protection according to DNV Rules shall be provided upon installation on board</b>

This Certificate is valid until **2016-12-31**.Issued at **Høvik** on **2015-07-01**for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Andrzej Gdaniec**

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**Odd Magne Nesvåg**  
**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.

Certificate No: **A-14299**  
File No: **862.50**  
Job Id: **262.1-004235-6**

## Product description

Programmable Logic Controller LOGO! Including:

LOGO! With suffixes: 12RCL, 12/24RC, 12/24RCo, 12/24RCE, 24, 24C, 24o, 24Co, 24L, 24RC, 24RCo, 24RCL, 24RCLB11, 230RC, 230RCo, 230RCL, 230RCLB11, 230RCE, 24CE, 24CEo, 24RCE, 24RCEo, 12/24RCE, 12/24RCEo, 230RCE, 230RCEo

Extension modules: DM8 24, DM8 24R, DM8 12/24R, DM8 230R, AM2, AM2 PT100, AM2 RTD, DM16 230R, DM16 24R, DM16 24, AM2 AQ, TD (Text Display)

## Place of manufacture

Siemens Elektronikwerk Amberg, Germany  
Siemens Elektronikwerk Chengdu, China

## Application/Limitation

24V power supply lines are to be protected by DEHN Blitzductor order no. 918 402 / 918 422 (tested) or equivalent. All 12/24xxx modules only to be used with 24V DC power supply.

LOGO! Fulfil the EMC requirements for General Power Distribution Zone

Exception: LOGO! -0BA8 series + expansion modules -0BA2 series may be used in bridge and deck Zones with filter B84113-C-B30 (or equivalent)

## Type Approval documentation

TA documentation ring binder containing:

Specifications for Type Tests and Test Report of Marine Electrical Equipment	AUT7-B8.4P-9606	Issued: 11.12.1996 Acceptance: March 1997
EG-Conformity Declaration	LOGO!/ V4/ 01.2012	17.01.2012
Siemens Test Report	04/96 AUT E147	04.02.97
Drawings	LOGO! 24/ LOGO! 230RC AUT 7 WKF B8.4	19.02.97

Documentation at renewal 2001:

Internet: [http://www.ad.siemens.de/simatic/index\\_76.htm](http://www.ad.siemens.de/simatic/index_76.htm)

Test report (w.enclosures) A&D AS E423-0108 dated 01-05-28

Documentation at renewal 2003:

Specification and Test report A&D AS RD 423-301 Issued: 19.05.2003

Technical data/ Guest catalogue Issued 17.02.2003

Documentation at renewal 2005:

Specification and Test report: A&D AS RD ST Type Test-01/05, Issued: 18.01.2005

Documentation at renewal 2009 and extension in 2010:

Specification and Test report: I IA AS RD ST Type Test 03/09, 2009-03-13

Specification and Test report: I IA AS RD ST Type Test 04/2010, 2010-05-03

Documentation at renewal/extension in 2012:

Siemens LOGO! Manual No. A5E03556174-01, dated 04/2011

Specification for Type Tests and Test Report of Marine Electrical Equipment

No. I IA AS RD ST Type Test- 2012-01.

Documentation at renewal in 2015:

Siemens LOGO! Manual No. A5E33039675, dated 06/2014

Specification for Type Tests and Test Report of Marine Electrical Equipment

No. SIMATIC Type Test-2014-01

DNV GL Essen periodical assessment report for A-12381, dated 2012-09-28.

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## Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

## 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE