



NIPPON KAIJI KYOKAI

**TYPE APPROVAL CERTIFICATE
FOR AUTOMATIC DEVICES AND EQUIPMENT**

Certificate No. TA14072M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	Siemens AG I IA AS RD ST Type Test
Place of Manufacturing:	Werner-von-Siemens-Str. 50, 92224 Amberg, Germany
Product description:	Programmable Electronic System
Model:	SIMATIC S7-300 / M7-300

Approval No.:	01A028
Valid until:	5 November 2018

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 6 November 2013.


Y. Shibata
General Manager
Machinery Department



Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

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Attached sheet -1/2 to the Certificate No. TA14072M

Specification & documents:

1. Particulars: Power supply: DC 24V, AC 120 V or 230V

2. Components and reference drawings:

Components		Documents
S7-300	S7PS307, IM178, IM360, IM361, IM365, IM174 CPU312, CPU313, CPU314, CPU315, CPU316, CPU317, CPU318*, CPU319, CPU614, S7-mEC DM370 SM321**, SM322**, SM323, SM326, SM327, SM331, SM332, SM334, SM335, SM336, SM338, SM374 FM350, FM351, FM352, FM353, FM354, FM355, FM357 CP340, CP341, CP342, CP343 y-coupler MC951, MC952	Catalog ST 70•1999, Catalog ST 70•News 2000, Catalog ST 80•1999, Siemens Katalog CA 01 4/00SED,
M7-300	CPU388 FM356 EXM378 MSM378 IF961, IF962, IF964 MC951, MC952	

* : Tested for under voltage 20% (other 25%)

** : Shielded enclosure needed. Refer to next page Approval condition.

3. Documentation and Test Reports:

AUT 7-B 8.4P-9603,

A&D AS E423-0102,

A&D AS A6D ATS 6/04-M0601254,

A&D AS RD ST Type Test-0606,

I IA AS R&D ST Type Test – 04/09

Information for flame retardant according UL746C chapter 17

- To be continued -

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Attached sheet -2/2 to the Certificate No. TA14072M

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration $\pm 0.7g \times 1.5$ hours)		X
Inclination test		--
Cold test (Temperature -25°C × 16 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval condition:

- (1) The equipment is not allowed to be installed in the bridge and exposed weather deck area.
- (2) S7-300 Modules SM 321 (64 DI) and SM 322 (64 DO) are to be installed in an RF shielded enclosure with minimum 30dB shielding in the range 156 – 165 MHz to satisfy the EMC requirements for radiated emissions.

- The End -