Certificate No: LR2478038TA-03
Issue Date: 10/06/2025
Expiry Date: 13/06/2029

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Siemens AG.**
Address	DF FA TI COS TT, Werner-von-Siemens-str.50, Amberg, 92224, Germany
Place of Production	Siemens Industrial Automation Products Ltd., Chengdu No 99 Tianyuan Road Hi-tech West, District, Chengdu, 611731, China
Place of Production	Siemens AG Breslauer Strasse 5, Fürth, 90766, Germany
Place of Production	Siemens AG Elektronikwerk Amberg, Werner-von-Siemens-Strasse 50, Amberg, 92224, Germany
Type	Control Units
Description	Programmable Logic Controller Refer to the Appendix for further details.
Trade Name	SIMATIC S7-1500 / ET200MP
Application	Marine applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register Type Approval System, Test Specification Number 1 – 2021.

Thorsten Wolff

Electrical & Control - Senior Specialist to
Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Specified Standard	Manufacturer's specification IACS unified requirements E10 (Rev.9 Aug 2023)	
Ratings	Power supply:	24/48/60V DC 120 / 230V AC
Additional Tests	Low temperature (-25°C/16 h)	
Other Conditions	Supply voltage for 6ES7 547-1JF00-0AB0 (CM 8xIO-Link) Ue min 20V DC (not allowed for Battery power voltage). Surge Immunity: External Protective circuits required for DC systems. See the current System Manual (A5E03461486) for recommendations. For use on bridge and deck zones a filter type B84113-C-B30 (manufactured by Epcos or equivalent: I=3A, C=2x0.47µF+2x4700pF, L=4x4.7mH) is to be installed into the system's power supply lines. TM Count (6ES7 550) and TM PosInput (6ES7 551) are suitable for installation in general power distribution zones only (without filter). Installation of the units, as per manufacturer's instructions.	

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: This certificate supersedes certificate number LR2478038TA issued on 19 September 2024 which is hereby cancelled.

The Design Appraisal Document TSO-25-029640/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

TYPE SIMATIC S7-1500 / ET200MP
Comprising following modules:

Power supplies:

6ES7 505-0KA00-0AB0	PS 25W 24V DC
6ES7 505-0RA00-0AB0	PS 60W 24/48/60V DC
6ES7 505-0RB00-0AB0	PS 60W 24/48/60V DC HF
6ES7 507-0RA00-0AB0	PS 60W 120/230V AC/DC

Central Processing Units:

6ES7 511-1AK02-0AB0	CPU 1511-1 PN
6ES7 511-1AL03-0AB0	CPU 1511-1 PN
6ES7 511-1CK01-0AB0	CPU 1511C-1 PN
6ES7 511-1CL03-0AB0	CPU 1511C-1 PN
6ES7 512-1CK01-0AB0	CPU 1512C-1 PN
6ES7 512-1CM03-0AB0	CPU 1512C-1 PN
6ES7 513-1AL02-0AB0	CPU 1513-1 PN
6ES7 513-1AM03-0AB0	CPU 1513-1 PN
6ES7 513-1RL00-0AB0	CPU 1513R-1 PN
6ES7 513-1RM03-0AB0	CPU 1513R-1 PN
6ES7 515-2AM02-0AB0	CPU 1515-2 PN
6ES7 515-2AN03-0AB0	CPU 1515-2 PN
6ES7 515-2RM00-0AB0	CPU 1515R-2 PN
6ES7 515-2RN03-0AB0	CPU 1515R-2 PN
6ES7 516-3AN02-0AB0	CPU 1516-3 PN/DP
6ES7 516-3AP03-0AB0	CPU 1516-3 PN/DP
6ES7 517-3AP00-0AB0	CPU 1517-3 PN/DP
6ES7 517-3HP00-0AB0	CPU 1517H-3 PN
6ES7 517-3AQ10-0AB0	CPU 1517-3 PN
6ES7 518-3AT10-0AB0	CPU 1518-3 PN
6ES7 518-4AP00-0AB0	CPU 1518-4 PN/DP
6ES7 518-4AP00-3AB0	CPU 1518-4 PN/DP ODK
6ES7 518-4AX00-1AB0	CPU 1518-4 PN/DP MFP

Interface Modules:

6ES7 155-5AA00-0AA0	IM 155-5 PN BA
6ES7 155-5AA00-0AC0	IM 155-5 PN HF
6ES7 155-5AA01-0AB0	IM 155-5 PN ST

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6ES7 155-5BA00-0AB0	IM 155-5 DP ST
6ES7 155-5MU00-0CN0	IM 155-5 MF HF

Digital Input Modules

6ES7 521-1BH00-0AB0	DI 16x24VDC HF
6ES7 521-1BH10-0AA0	DI 16x24VDC BA
6ES7 521-1BH50-0AA0	DI 16x24VDC SRC BA
6ES7 521-1BL00-0AB0	DI 32x24VDC HF
6ES7 521-1BL10-0AA0	DI 32x24VDC BA
6ES7 521-1BP00-0AA0	DI 64x24VDC SNK/SRC BA
6ES7 521-1FH00-0AA0	DI 16x230VAC BA
6ES7 521-7EH00-0AB0	DI 16x24…125V UC HF
6ES7 521-7TH00-0AB0	DI 16xNamur HF
6ES7 521-7BH00-0AB0	DI 16x24VDC HS

Digital Output Modules

6ES7 522-1BF00-0AB0	DQ 8x24VDC/2A HF
6ES7 522-1BH01-0AB0	DQ 16x24VDC/0.5A HF
6ES7 522-1BH10-0AA0	DQ 16x24VDC/0.5A BA
6ES7 522-1BL01-0AB0	DQ 32x24VDC/0.5A HF
6ES7 522-1BL10-0AA0	DQ 32x24VDC/0.5A BA
6ES7 522-1BP00-0AA0	DQ 64x24VDC/0.3A BA
6ES7 522-1BP50-0AA0	DQ 64x24VDC/0.3A SNK BA
6ES7 522-5EH00-0AB0	DQ 16x24…48VUC/125VDC/0.5A ST
6ES7 522-5FF00-0AB0	DQ 8x230VAC/2A ST (Triac)
6ES7 522-5FH00-0AB0	DQ 16x230VAC/1A ST (Triac)
6ES7 522-5HF00-0AB0	DQ 8x230VAC/5A ST (Relay)
6ES7 522-5HH00-0AB0	DQ 16x230VAC/2A ST (Relay)

Digital Input/Output Modules

6ES7 523-1BL00-0AA0	DI 16x24VDC, DQ 16x24VDC/0.5A BA
6ES7 523-1BP50-0AA0	DI 32x24VDC, DQ 32x24VDC/0.3A BA

Analog Input Modules

6ES7 531-7QD00-0AB0	AI 4xU/I/RTD/TC ST
6ES7 531-7KF00-0AB0	AI 8xU/I/RTD/TC ST
6ES7 531-7NF00-0AB0	AI 8xU/I HF
6ES7 531-7NF10-0AB0	AI 8xU/I HS
6ES7 531-7PF00-0AB0	AI 8xU/R/RTD/TC HF
6ES7 531-7QF00-0AB0	AI 8xU/I/R/RTD BA
6ES7 531-7TF00-0AB0	AI 8xHART HF
6ES7 531-7LH00-0AB0	AI 16xU BA

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6ES7 531-7MH00-0AB0	AI 16xI BA
6ES7 531-7LK00-0AB0	AI 24xCVM HF

Analog Output Modules

6ES7 532-5HD00-0AB0	AQ 4xU/I ST
6ES7 532-5HF00-0AB0	AQ 8xU/I HS
6ES7 532-5NB00-0AB0	AQ 2xU/I ST
6ES7 532-5ND00-0AB0	AQ 4xU/I HF
6ES7 532-8TF00-0AB0	AQ 8xHart HF

Analog Input/Output Modules

6ES7 534-7QE00-0AB0	AI 4xU/I/RTD/TC, AQ 2xU/I ST

Communication Modules

6ES7 540-1AB00-0AA0	CM PTP RS422/485 BA
6ES7 540-1AD00-0AA0	CM PTP RS232 BA
6ES7 540-1AB01-0AA0	CM PTP RS422/485 BA
6ES7 540-1AD01-0AA0	CM PTP RS232 BA
6ES7 541-1AB00-0AB0	CM PTP RS422/485 HF
6ES7 541-1AD00-0AB0	CM PTP RS232 HF
6ES7 541-1AB01-0AB0	CM PTP RS422/485 HF
6ES7 541-1AD01-0AB0	CM PTP RS232 HF
6ES7 547-1JF00-0AB0	CM 8xIO-Link

Technology Modules

6ES7 550-1AA00-0AB0	TM Count 2x24V
6ES7 550-1AA01-0AB0	TM Count 2x24V
6ES7 551-1AB00-0AB0	TM Posinput 2
6ES7 551-1AB01-0AB0	TM Posinput 2
6ES7 552-1AA00-0AB0	TM Timer DIDQ 16x24V
6ES7 558-1AA00-0AB0	TM MFP
6ES7 552-1AA01-0AB0	TM TIMER 24x24V DIDQ
6ES7 553-1AA01-0AB0	TM PTO 4

Active Backplane

6ES7 590-0BD00-0AA0	4 slot
6ES7 590-0BH00-0AA0	8 slot
6ES7 590-0BL00-0AA0	12 slot

Memory Cards

6ES7 954-8LC03-0AA0	4 MB
6ES7 954-8LE03-0AA0	12 MB

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6ES7 954-8LF03-0AA0	24 MB
6ES7 954-8LL03-0AA0	256 MB
6ES7 954-8LP02-0AA0	2 GB
6ES7 954-8LP03-0AA0	2 GB
6ES7 954-8LT03-0AA0	32 GB
6ES7 954-8LP80-0AA0	SD-Card 2 GB
6ES7 954-8LT80-0AA0	SD-Card 32 GB
6ES7 954-8LC04-0AA0	SD-Card 4 MB
6ES7 954-8LE04-0AA0	SD-Card 12 MB
6ES7 954-8LF04-0AA0	SD-Card 24 MB
6ES7 954-8LL04-0AA0	SD-Card 256 MB
6ES7 954-8LP04-0AA0	SD-Card 2 GB
6ES7 954-8LT04-0AA0	SD-Card 32 GB

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