



Marine & Offshore

Certificate number: 38633/B3 BV

File number: AP 4508

Product code: 4501H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

SIEMENS AG - DI FA SIMATIC Type Test
Amberg - GERMANY

for the type of product

PROGRAMMABLE LOGIC CONTROL UNITS
ET200SP

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
EC Code: 31 or 31B (see item 4.x)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 18 Sep 2024

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 06 Jun 2023,

Dirk Hoepfner

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 5 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The ET200SP series is a distributed I/O system for mounting on a DIN rail.

1.1 - Components:

Type	Order code	Designation	Firmware
Interface modules			
	6ES7 155-6AR00-0AN0	IM155-6PN Basic	V3.x
	6ES7 155-6AU00-0DN0	IM155-6PN HS	V4.x
	6ES7 155-6AU00-0HM0	IM155-6PN R1	V6.x
	6ES7 155-6AU01-0BN0	M155-6PN ST	V4.x
	6ES7 155-6AU01-0CN0	IM155-6PN/2 HF	V4.x
	6ES7 155-6AU30-0CN0	IM155-6PN/3 HF	V4.x
	6ES7 155-6BU00-0CN0	IM155-6DP HF	V3.x
	6ES7 155-6BA01-0CN0	IM155-6DP HF	V4.x
	6ES7 155-6MU00-0CN0	IM155-6MF HF	V5.x
CPU Modules			
	6ES7 510-1DJ01-0AB0	CPU 1510SP-1 PN	V2.x
	6ES7 510-1DK03-0AB0	CPU 1510SP-1 PN	V3.x
	6ES7 512-1DK01-0AB0	CPU 1512SP-1 PN	V2.x
	6ES7 512-1DM03-0AB0	CPU 1512SP-1 PN	V3.x
	6ES7 514-2DN03-0AB0	CPU 1514SP-2 PN	V3.x
	6ES7 677-2DB40-0AA0	CPU 1515SP PC2	V2.x
Digital Inputs			
	6ES7 131-6BF00-0CA0	DI 8x24V DC HF, PU 1	V2.x
	6ES7 131-6BF00-0DA0	DI 8x24V DC High Speed	V1.x
	6ES7 131-6BF01-0AA0	DI 8x24V DC Basic	V0.x
	6ES7 131-6BF01-0BA0	DI 8x24V DC ST	V0.x
	6ES7 131-6BF61-0AA0	DI 8x24V DC SCR BA	V0.x
	6ES7 131-6BH01-0BA0	DI 16x24V DC ST	V0.x
	6ES7 131-6CF00-0AU0	DI 8x24V AC...48VUC BA	V0.x
	6ES7 131-6FD01-0BB1	DI 4x120...230V AC ST	V0.x
	6ES7 131-6TF00-0CA0	DI 8xNAMUR HF	V1.x
Digital Outputs			
	6ES7 132-6BD20-0BA0	DQ 4x24V DC/2A ST	V1.x
	6ES7 132-6BD20-0CA0	DQ 4x24V DC/2A HF	V2.x
	6ES7 132-6BD20-0DA0	DQ 4x24V DC/2A High Speed	V2.x
	6ES7 132-6BF00-0CA0	DQ 8x24V DC/0,5A HF	V2.x
	6ES7 132-6BF01-0AA0	DQ 8x24V DC/0,5A Basic	V0.x
	6ES7 132-6BF01-0BA0	DQ 8x24V DC/0,5A ST	V0.x
	6ES7 132-6BF61-0AA0	DQ 8x24VDC/0,5A SINK BA	V0.x
	6ES7 132-6BH00-0AA0	DQ 16x24V DC/0,5A BA	V0.x
	6ES7 132-6BH01-0BA0	DQ 16x24V DC/0,5A ST	V0.x
	6ES7 132-6FD00-0BB1	DQ 4x24...230V AC/2A ST	V1.x
	6ES7 132-6FD00-0CU0	DQ 4x24...230V AC/2A HF	V1.x
Relay Outputs			
	6ES7 132-6HC50-0BU0	RQ CO 3x120VDC...230VAC/5A ST	V0.x
	6ES7 132-6HC70-0BU0	RQ Coni 3x120VDC...230VAC/5A ST	V0.x
	6ES7 132-6GD51-0BA0	RQ CO 4x24VDC/2A ST	V0.x
	6ES7 132-6HD01-0BB1	RQ NO 4x120VDC...230VAC/5A	V0.x
	6ES7 132-6MD00-0BB1	RQ Coni 3x120VDC...230VAC/5A ST	V1.x
Analogue Inputs			
	6ES7 134-6FB00-0BA1	AI 2xU ST	V1.x
	6ES7 134-6FF00-0AA1	AI 8xU Basic	V1.x
	6ES7 134-6GB00-0BA1	AI 2xI 2-/4-Wire ST	V1.x
	6ES7 134-6GD01-0BA1	AI 4xI 2-/4-Wire ST	V2.x
	6ES7 134-6GF00-0AA1	AI 8xI 2-/4-Wire Basic	V1.x
	6ES7 134-6HB00-0CA1	AI 2xU/I 2-/4-Wire HF	V2.x
	6ES7 134-6HB00-0DA1	AI 2xU/I 2-/4-Wire HS	V2.x

	6ES7 134-6HD01-0BA1	AI 4xU/I 2-Wire ST	V2.x
	6ES7 134-6JD00-0CA1	AI 4xRTD/TC 2-/3-/4-Wire HF	V2.x
	6ES7 134-6JD00-0DA1	AI 4xTC HS	V1.x
	6ES7 134-6JF00-0CA1	AI 8xRTD/TC 2-Wire HF	V2.x
Analogue Outputs			
	6ES7 135-6FB00-0BA1	AQ 2xU ST	V1.x
	6ES7 135-6GB00-0BA1	AQ 2xI ST	V1.x
	6ES7 135-6HB00-0CA1	AQ 2xU/I HF	V1.x
	6ES7 135-6HB00-0DA1	AQ 2xU/I HS	V2.x
	6ES7 135-6HD00-0BA1	AQ 4xU/I ST	V1.x
	6ES7 135-6TD00-0CA1	AQ 4xI HART HF	V1.x
Communication modules			
	6ES7 137-6BD00-0BA0	CM 4xIO-Link ST	V2.x
	6ES7 137-6AA01-0BA0	CM PTP	V2.x
	6ES7 137-6CA00-0BU0	CM 1x Dali	V1.x
	6ES7 545-5DA00-0AB0	CM DP	-
Technology modules			
	6ES7 138-6AA01-0BA0	TM Count 1x24V	V2.x
	6ES7 138-6BA01-0BA0	TM Posinput	V2.x
	6ES7 138-6CG00-0BA0	TM Timer DI/DQ 10x24V	V1.x
	6ES7 138-6DB00-0BB1	TM Pulse 2x24V	V1.x
Energy Meter			
	6ES7 134-6PA00-0CU0	AI Energy Meter 480V AC/CT HF	V6.x
	6ES7 134-6PA01-0BD0	AI Energy Meter 400V AC ST	V3.x
	6ES7 134-6PA01-0BU0	AI Energy Meter CT ST	V8.x
	6ES7 134-6PA01-0CU0	AI Energy Meter CT HF	V8.x
	6ES7 134-6PA20-0BD0	AI Energy Meter 480V AC ST	V4.x
	6ES7 134-6PA20-0CU0	AI Energy Meter 480V AC/RC HF	V6.x
	6ES7 134-6PA21-0BU0	AI Energy Meter RC ST	V8.x
	6ES7 134-6PA21-0CU0	AI Energy Meter RC HF	V8.x
Bus Adapter			
	6ES7 193-6AF00-0AA0	BA 2xFC	-
	6ES7 193-6AG00-0AA0	BA 2XLC	-
	6ES7 193-6AG20-0AA0	BA LC/RJ45	-
	6ES7 193-6AG40-0AA0	BA LC/FC	-
	6ES7 193-6AG50-0AA0	BA 2xLC-LD	-
	6ES7 193-6AG60-0AA0	BA LC-LD/RJ45	-
	6ES7 193-6AG70-0AA0	BA LC-LD/M12	-
	6ES7 193-6AM00-0AA0	BA 2xM12	-
	6ES7 193-6AP00-0AA0	BA 2xSCRJ	-
	6ES7 193-6AP20-0AA0	BA SCRJ/RJ45	-
	6ES7 193-6AP40-0AA0	BA SCRJ/FC	-
	6ES7 193-6AR00-0AA0	BA 2xRJ45	-
	6ES7 193-6AS00-0AA0	BA-Send BA1XFC	-
Base Unit			
	6ES7 193-6BP00-0BA0	Typ A0, BU15-P16+A0+2B	-
	6ES7 193-6BP00-0BA1	Typ A1, BU15-P16+A0+2B/T	-
	6ES7 193-6BP00-0BD0	Typ D0, BU20-P12+A0+0B	-
	6ES7 193-6BP00-0BU0	Typ U0, BU20-P16+A0+2B	-
	6ES7 193-6BP00-0DA0	Typ A0, BU15-P16+A0+2D	-
	6ES7 193-6BP00-0DA1	Typ A1, BU15-P16+A0+2D/T	-
	6ES7 193-6BP00-0DU0	Typ U0, BU20-P16+A0+2D	-
	6ES7 193-6BP20-0BA0	Typ A0, BU15-P16+A10+2B	-
	6ES7 193-6BP20-0BB0	Typ B0, BU20-P12+A4+0B	-
	6ES7 193-6BP20-0BB1	Typ B1, BU20-P12+A0+4B	-
	6ES7 193-6BP20-0BC1	Typ C1, BU20-P6+A2+4B	-
	6ES7 193-6BP20-0BF0	Typ F0, BU20-P8+A4+0B	-
	6ES7 193-6BP20-0DA0	Typ A0, BU15-P16+A10+2D	-
	6ES7 193-6BP20-0DC0	Typ C0, BU20-P6+A2+4D	-
	6ES7 193-6BP40-0BA1	Typ A1, BU15-P16+A0+12B/T	-

	6ES7 193-6BP40-0DA1	Typ A1, BU15-P16+A0+12D/T	-
	6ES7 193-6BP60-0BA0	Typ A0, 2BU15-P16+A0+2B	-
	6ES7 193-6BP60-0DA0	Typ A0, 2BU15-P16+A0+2DB	-
	6ES7 193-6BR00-0HM0	Typ M0	-
	6ES7 193-6UP00-0BP1	PotDis-BU Typ P1, dark-colored	-
	6ES7 193-6UP00-0BP2	PotDis-BU Typ P2, dark-colored	-
	6ES7 193-6UP00-0DP1	PotDis-BU Typ P1, light-colored	-
	6ES7 193-6UP00-0DP2	PotDis-BU Typ P2, light-colored	-
	6ES7 193-6TP00-0TN0	PotDis-TB-n-c-G, PU 1	-
	6ES7 193-6TP00-0TP0	PotDis-TB-BR-W, PU 1	-
	6ES7 193-6TP00-0TP1	PotDis-TB-P1-R, PU 1	-
	6ES7 193-6TP00-0TP2	PotDis-TB-P2-B, PU 1	-
Server module			
	6ES7 193-6PA00-0AA0	Servermodul	V1.x
Coupler			
	6ES7158-0AD01-0XA0	DP/DP Coupler	V3.x
	6ES7158-3AD10-0XA0	PN/PN Coupler	V4.x
	6ES7158-3MU10-0XA0	PN/MF Coupler	V5.x

1.2 - Main characteristics:

Power supply: 24V DC or 120/230V AC
Degree of protection: IP20

2. DOCUMENTS AND DRAWINGS:

- A5E03576849-AE dated 03/2015; A5E03461486-AB dated 06/2014

For B0 version:

- A5E03576849-AH dated 02/2018

For B1 version:

- A5E03576849-AK dated 05/2021

For B2 version:

- A5E03576849-AM dated 11/2022; A5E51160307-AA dated 11/2022; A5E33589074-AE dated 11/2022;
A5E33591411-AE dated 11/2022; A5E51513670-AA dated 11/2022; A5E41449003-AC dated 10/2022;
A5E03727049-AL dated 11/2022

3. TEST REPORTS:

- SIEMENS AG: SIMATIC Type Test - 2015-01 dated 10.08.2015

- Specification for Type Tests and Test Report I IA AS RD ST Type Test - 2013-02 dated 24.09.2013

For B0 version:

- SIEMENS AG: SIMATIC Type Test - 2018-03 dated 2019-02-25

For B1 version:

- SIEMENS AG: SIMATIC Type Test - 2021-10_BV dated 2022-01-19; SIMATIC Type Test – 2021-09 dated 2021-12-10

For B2 version:

- SIEMENS AG: SIMATIC Type Test - 2023-003 dated 2023-04-26

4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules for the Classification of Steel Ships

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - Bureau Veritas Environmental Category, **EC Code: 31 or 31B** (see item 4.4, 4.5 and 4.6)

4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone if filter of type: B84113-C or equivalent with ratings $C=2x 0.47\mu F + 2x 4700pF$, $L=4x 4.7mH$ is used.

4.5 - The modules 6ES7 134-6PA...-.... AI Energy Meters and 6ES7 132-6BD20-.... Digital Outputs fulfils the EMC requirements for installation in General Power Distribution Zones only.

4.6 - The Manufacturer's installation recommendation described in A5E03461486-AB dated 06/2014 regarding surge protection is to be considered.

4.7 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev8.

4.8 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:

- Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.

- Inspection and testing before installation onboard is to be performed under the surveillance of the Society.

4.9 - Only Hardware and Firmware successfully tested together in compliance with the Rules as referred to in page one,

according to the declaration of the manufacturer is covered by this certificate.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **SIEMENS AG - DI FA SIMATIC Type Test** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **SIEMENS AG - DI FA SIMATIC Type Test** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**SIEMENS AG - EWA
Werner-von-Siemens-Str. 50
92224 Amberg
GERMANY**

**SIEMENS AG
Breslauer Str. 5
90766 Fürth
GERMANY**

**Siemens Industrial Automation Products Ltd.
Chengdu , No. 99, Tian Yuan Road
Sichuan Province
611731 Chengdu City
CHINA**

6. MARKING OF PRODUCT:

- Maker's name or trademark
- Equipment type or model identification
- Date of manufacture and/or serial number

7. OTHERS:

7.1 - It is the responsibility of **SIEMENS AG - DI FA SIMATIC Type Test** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 38633/B2 BV issued on 12 May 2023 by the Society.

***** END OF CERTIFICATE *****