

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
SIMATIC Flat Panel 6AV7 861-... and 863-...

Issued to

Siemens AG
Amberg Bayern, Germany

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.

Temperature A

Humidity B

Vibration A

EMC B

Enclosure Required protection according to DNVGL Rules shall be provided upon installation on board.

Issued at **Hamburg** on **2017-02-20**

This Certificate is valid until **2022-02-19**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Andrea Grün**

.....
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.



Product description

SIMATIC Flat Panel 6AV7 861-... and 863-...

Power Supply : 24 V DC or 230 V AC

Touch

6AV7 861-1T... SIMATIC Flat Panel 12"
6AV7 861-2T.... SIMATIC Flat Panel 15"
6AV7 861-4T.... SIMATIC Flat Panel 17"
6AV7 861-3T.... SIMATIC Flat Panel 19"

Monitor

6AV7 861-1A.... SIMATIC Flat Panel 12"
6AV7 861-2A.... SIMATIC Flat Panel 15"
6AV7 861-4A... SIMATIC Flat Panel 17"
6AV7 861-3A.... SIMATIC Flat Panel 19"

Key

6AV7 861-1K... SIMATIC Flat Panel 12"
6AV7 861-2K... SIMATIC Flat Panel 15"

Multitouch

6AV7 863-4M...-.S.. SIMATIC Flat Panel 22" Standard/Extended
6AV7 863-3M...-.S.. SIMATIC Flat Panel 19" Standard/Extended
6AV7 863-2M...-.S.. SIMATIC Flat Panel 15" Standard/Extended

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNVGL, 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 DNVGL Rules for 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 DNVGL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Flat Panel Multitouch only use with DisplayPort interface.

For use on bridge and deck zone, the power supply lines are to be protected by filter type B84113C (manufactured by Epcos or equivalent).
(Tested with: $I=3A$, $C=2\sim 0,47pF+2\sim 4700pLF=$, $4x4,7mH$)
Except: Multitouch with filter Corcom xFC10 only for 230V AC

Surge Immunity: External Protective circuits required for DC systems.
See the current System Manual (A5E00203919) for recommendations.

Installation of the units described in manufacturer's instructions.

Job Id: **262.1-025208-1**
Certificate No: **TAA0000133**

Type Approval documentation

Test reports:

- | | |
|-----------------------------------|------------------|
| • A&D AS RD ST Type Test-10/2006 | dated 24-01-2007 |
| • I IA AS RD ST Type Test-2010-06 | dated 17-08-2015 |
| • SIMATIC Type Test-2015-04 | dated 17-08-2015 |
| • SIMATIC Type Test-2015-08 | dated 25-11-2015 |

SIMATIC Flat Panel	A5E00470812B-02	dated 08/2005
Operation Manual:	A5E01047433-01	dated 04/2007
Operating Instruction:	A5E31298376-AC	dated 11/2014

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

- Manufacturer name
- Model 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