

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Peripheral Equipment**

with type designation(s)  
**TCSESM**

Issued to

**Schneider Automation, Inc.**  
**North Andover MA, United States**

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.**

**Location class:**

**Temperature B**

**Humidity B**

**Vibration A**

**EMC A / B**

**Enclosure Required protection according DNVGL Rules**

Issued at **Hamburg** on **2017-05-02**

This Certificate is valid until **2021-05-05**.

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Klaus-Peter Schröder**

.....  
**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

The switch modules are plugged onto the standard DIN rail.

The modules TCSESM support ETHERNET with 10 MBit/s, 100 MBit/s and 1000 MBit/s.

|                |                    |
|----------------|--------------------|
| Module type *) | TCSESM043F23F0     |
|                | TCSESM043F1CU0     |
|                | TCSESM043F2CU0     |
|                | TCSESM043F1CS0     |
|                | TCSESM043F2CS0     |
|                | TCSESM083F23F0     |
|                | TCSESM083F1CU0     |
|                | TCSESM083F2CU0     |
|                | TCSESM083F1CS0     |
|                | TCSESM083F2CS0     |
|                | TCSESM083F2CX0     |
|                | TCSESM103F23G0 **) |
|                | TCSESM103F2LG0 **) |
|                | TCSESM163F23F0     |
|                | TCSESM163F2CU0     |
|                | TCSESM163F2CS0     |
|                | TCSESM243F2CU0     |

\*) Reference is made to the Declaration of Consent, dated 2006-03-27 and 2010-11-03.

\*\*) Only these modules support ETHERNET with 1000 MBit/s.

Software release 07.x

Software release 08.x

Software release 09.x

## Application/Limitation

The Type Approval covers hardware listed under Product description.

When the hardware is used in applications to be classed by DNV GL, 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 DNV GL RU SHIP Pt.4 Ch.9 Sec. 1.

Location class EMC:   A (Power supply 48V DC)  
                              B (Power supply 24V DC)

## Type Approval documentation

### Tests carried out

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

### Marking of product

The products to be marked with:

- device name
- manufacturer 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:

Job Id: **262.1-025217-1**  
Certificate No: **TAA000016U**

- 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