

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Overcurrent- and Short-Circuit Relay

with type designation(s)
3RU11

Issued to

Siemens AG GWA
Amberg, Germany

is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2015-09-21**

DNV GL local station: **Essen**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

Marit Laumann
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

Overload Relays type Sirius 3RU 1116/ 1126/ 1136/ 1146 according to size and power range as listed below. Max operating voltage = 690 V. Insulation voltage = 600 (IT-net) or 1000 V. Frequency = 50/60 Hz.

The Overload Relays are part of the Siemens Sirius 3R system comprising Circuit Breakers, Contactors, Contactor relays, Time relays, Overload relays, Load Feeders and other accessories. All are type approved and listed in various DNV type approval certificates.

3RU1116-....(size S00)	3-phase motor P_N : 0,06 kW up to 5,5 kW Current setting range: 0,11 A up to 12 A Rated insulated voltage: 600 V (IT-net) .
3RU1126-....(size S0)	3-phase motor P_N : 0,75 kW up to 11 kW Current setting range: 1,8 A up to 25 A Rated insulated voltage: 600 V (IT-net).
3RU1136-....(size S2)	3-phase motor P_N : 3 kW up to 22 kW Current setting range: 5,5 A up to 50 A Rated insulated voltage: 1000 V (IT-net).
3RU1146-....(size S3)	3-phase motor P_N : 11 kW up to 45 kW Current setting range: 18 A up to 100 A Rated insulated voltage: 1000 V (IT-net).

Accessories include adapter to installing as a single unit (3RU19-), remote reset (3RU19-).

Application/Limitation

For installation inside switchboards/ enclosures onboard ships and offshore units.

With $U_{imp} = 6$ kV the max. rated voltage is 600 V when used in a IT (ship) net. It can be used in applications with directly earthed systems with rated voltage of 400/690 V.

Type Approval documentation Tests carried out

Type testing in accordance with IEC/ EN60947, dry heat, damp heat, salt mist, vibration, high voltage, EMC, inclination, flame retardancy tests.

Marking of product

Manufacturer's label containing data and manufacturer's type number.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)



Job Id: **262.1-011117-2**
Certificate No: **TAE000005Z**

- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE