



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAE000014S**  
Revision No:  
**2**

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## This is to certify:

**That the Overcurrent- and Short-Circuit Relay**

with type designation(s)  
**3RU21**

Issued to

**Siemens AG GWA**  
**Amberg, Bayern, Germany**

is found to comply with  
**DNV GL rules for classification – Ships and offshore units**

## Application :

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

Issued at **Hamburg** on **2021-08-04**

for **DNV**

This Certificate is valid until **2026-08-03**.

DNV local station: **Augsburg**

Approval Engineer: **Harald Amberger**

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**Arne Schaarmann**  
**Head of Section**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Product description

Thermal overload relay 3RU21... Ratings	
Operational voltage Ue	690V
Insulation voltage Ui	690V / 1000V for 3RU2146
Impulse withstands voltage Uimp	6kV / 8kV for 3RU2146
Type / Size	3RU2116. / S00 3RU2126. / S0 3RU2136. / S2 3RU2146. / S3
Operational current Ie (40°C)	3RU2116 : max. 16A 3RU2126 : max. 40A 3RU2136 : max. 80A 3RU2146 : max. 100A
Trip class	class 10 : for types 3RU2116 and 3RU2126 class 10 : for types 3RU2136 rated 5,5–65A class 10A : for types 3RU2136 rated 62-80A class 10/10A : for types 3RU2146
Range of settings	3RU2116 : 0,11-0,16A up to 11-16A 3RU2126 : 1,8-2,5A up to 34-40A 3RU2136 : 5,5-8A up to 70-80A 3RU2146 : 18-25A up to 80-100A
Method of control	Manual / Automatic

Further ratings according manufacturer documentation

Accessories; Basic types	
3RU2916-	Terminal support for stand-alone installation, Size S00
3RU2926-	Terminal support for stand-alone installation, Size S0
3RU2936-	Terminal support for stand-alone installation, Size S2
3RU2946-	Terminal support for stand-alone installation, Size S3
3RU2900-1A	Mechanical RESET (for all sizes)
3RU2900-1B/1C	Cable releases with holder for RESET
3RU1900-2A...	Modules for remote RESET, electrical
3RU29.../3RT29...	Terminal covers

Ratings and mounting locations according manufacturer documentation.

## Application/Limitation

Location Classes:

Temperature: D, Humidity: B, Vibration: A, Enclosure: Required protection according DNV-GL rules shall be provided upon installation on ships.

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

With Uimp=6kV; Overvoltage category II applies for applications in IT systems > 600 V.

## Type Approval documentation

As per tech docs in NPS Id: 262.1-020882-1/2

## Tests carried out

IEC 60947-4-1, IEC 60947-5-1, cold, dry heat, damp heat, vibration, flame retardancy

## Marking of product

Manufacturers label containing data and manufacturers type number.

## Name and place of manufacturer

Siemens AG, GWA  
Werner-von-Siemens-Str. 29  
93413 Cham  
Germany

Siemens Electrical Apparatus Ltd., Suzhou  
455, Zhujiang Road, Suzhou New District  
215129 Suzhou  
China

## 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 Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- 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.

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