

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Monitoring Relay

with type designation(s)
3UG4

Issued to

Siemens AG GWA
Amberg, 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.

This Certificate is valid until **2023-01-22**.

Issued at **Hamburg** on **2018-01-23**

DNV GL local station: **Augsburg**

Approval Engineer: **Harald Amberger**

for **DNV GL**

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Arne Schaarmann
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.

Job Id: 262.1-011117-3
Certificate No: TAE0000065
Revision No: 1

Product description

Monitoring Relays type 3UG4 with the following applications: Phase sequence, phase failure, phase dissymmetry, undervoltage, overvoltage, current, power factor, conductive liquids, fault current and speed monitoring.

Ratings are as listed below.

Impulse withstand voltage:	Uimp = 6 kV Uimp = 4 kV (3UG4501, 3UG4625, 3UG4651)
Rated insulation voltage:	Ui = 600 V for devices rated up to 690 V Ui = 300 V for devices rated up to 250 V
Rated line voltage:	Ue = 0.1 - 690 V AC/DC, single phase Ue = 90 - 690 V AC, single phase Ue = 160 - 690 V AC, three phase
Rated supply voltage:	Ue = 24 - 240 V AC/DC or supplied by the measuring voltage
Rated Output:	Ith = 5 A, Ie (AC-15) = 3 A at 400 V AC Ie (DC-13) = 1 A at 24 V DC Ie (DC-13) = 0,22 A at 125V DC Ie (DC-13) = 0,1 A at 250V DC
Rated Output 3UG4501 3UG4625 and 3UG4651 only:	Ith = 5 A, Ie (AC-15) = 3 A at 250 V AC Ie (DC-13) = 1 A at 24 V DC Ie (DC-13) = 0,22 A at 125V DC Ie (DC-13) = 0,1 A at 250V DC

Further ratings according manufacturer documentation

Accessories include Push-In lugs for screw mounting (3RP19...)

Application/Limitation

Location Classes:

Temperature: D, Humidity: B, Vibration: A, Enclosure: IP20, EMC: A

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 262.1-011117-3

Tests carried out

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

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Marking of product

Manufacturers label containing data and manufacturers type number.

Name and place of manufacturer

Siemens AG, GWA
Werner-von-Siemens-Str. 48
92220 Amberg
Germany

Siemens s.r.o., odštěpný závod
Nízkonapěťová spínací technika
Volanovská 516
541 01 Trutnov
Czech Republic

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