

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Disconnection Switch

with type designation(s)
3KC0...

Issued to

**Siemens AG Low Voltage
REGENSBURG, 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.

Issued at **Hamburg** on **2018-03-27**

This Certificate is valid until **2023-03-26**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Harald Amberger**

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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.



Product description

3KC0... Manually operated transfer switching equipment (MTSE)						
Ratings Type/Size		...-M/1	...-N/2	...-P/3	...-Q/4	...-R/5
Rated uninterrupted current I_u	A	up to 63	up to 160	up to 400	up to 800	up to 1600
Operating sequence		ON (I) – OFF – ON (II)				
Number of poles		3, 4				
Rated operational voltage U_e						
AC [50/60 Hz]	V	415				
Rated insulation voltage U_i	V	1000				
Rated impulse withstand voltage U_{imp}	kV	8		12		
Rated operational current I_e [40°C] acc. IEC 60947-6-1						
AC-31B 415 V	A	up to 63	up to 160	up to 400	up to 800	up to 1600
AC-32B 415 V	A	up to 63	up to 160	up to 350	up to 800	up to 1250
AC-33B 415 V	A	up to 63	up to 160	up to 250	up to 500	up to 800
AC-35B 415 V	A	up to 63	up to 160	up to 350	up to 800	up to 1250
Short-circuit characteristics acc. IEC 60947-6-1						
Rated short-time withstand current I_{cw} 100ms, 415 V AC	kA	5	10	18	30	50
Rated short-circuit making capacity I_{cm} 415 V AC	kA	7,7	17	36	63	105
Rated conditional short circuit current with fuse I_q^1 415 V AC	kA	100		100 65 ^(315A) 65 ^(400A)	100 65 ^(800A)	100 80 ^(1250A) 80 ^(1600A)
Accessory: Auxiliary contacts						
¹ Back-up NH Fuse required acc. manufacturer documentation						

Application/Limitation

Location Classes:

Temperature: D, Humidity: B, Vibration: A, Enclosure: IP00 on the front, IP20 with closed switch, with cover or cable lug cover

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

IEC 60947-1: 2007; A1: 2010; A2: 2014, IEC 60947-6-1:2005; A1:2013, cold, dry heat, damp heat, vibration, flame retardancy

Job Id: **262.1-026801-1**
Certificate No: **TAE00002HE**

Marking of product

Acc. IEC 60947-6-1 subclause 6.2

Name and place of manufacturer

Siemens Electrical Apparatus Ltd.,
Suzhou, NO.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