

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Circuit Breaker**

with type designation(s)

CB TM1, CB TM2, CB 1/6-2/4 PT-BE, CB 1/10-1/10 UT-BE

Issued to

**Phoenix Contact GmbH & Co. KG
Blomberg, Nordrhein-Westfalen, 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.**

Type	Rated voltage (V)	Rated current (A)
CB TM1	AC 240V	0.1...16A
CB TM2	AC 240V	0.1...16A

Issued at **Hamburg** on **2019-01-28**This Certificate is valid until **2024-01-27**.for **DNV GL**DNV GL local station: **Magdeburg**Approval Engineer: **Thomas Hartmann**

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

Thermal-Magnetic Circuit Breaker for equipment protection CB TM1 and CB TM2:

Rated current I_N :	0.1 to 16A
Rated operational voltage U_N :	240V AC; 80V DC ; 50V AC
Rated insulation voltage U_i :	240V AC
Rated frequency f_N :	50/ 60 Hz
Rated making and breaking capacity:	6 x I_N (AC); 4 x I_N (DC)
Short circuit current I_{CN} :	300A @ 240V AC, single-pole 400A @ 240V AC, double-pole 600A @ 80V DC, double-pole 600A @ 50V DC, double-pole
Tripping characteristic:	According to data-sheet
IP Rating:	IP30
Pollution degree:	2
Number of poles:	1,2
Accessories:	CB 1/6-2/4 PT-BE CB 1/10-1/10 UT-BE

Application/Limitation

Location Classes:

Temperature:	B
Humidity:	B
Vibration:	A

For the installation in control cabinets, switchgear and controlgear assemblies. Pollution degree 2, anti-condensation measures required.

Type Approval documentation

Tests carried out

Relevant tests according to CG-0339, Cold, Dry-heat, Damp-heat, Vibration and Flammability

Marking of product

Phoenix Contact - Type designation - Main data

Name and place of manufacturer

DNVGL Customer ID: 106223

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



Job Id: **262.1-030389-1**
Certificate No: **TAE00003C7**

- 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