

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Automatic Fuse

with type designation(s)
2210-S, 2210-T

Issued to

E-T-A Elektrotechnische Apparate GmbH
Altdorf, 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 **2022-01-04**.

Issued at **Hamburg** on **2017-01-05**

DNV GL local station: **Augsburg**

Approval Engineer: **Harald Amberger**

for **DNV GL**

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Duy Nam Le
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

Type	2210-S	2210-T
Rated current I_n	0,1 ... 25A	0,1 ... 32A
Current rating range	0,1 ... 25A curves M1, T1 0,1 ... 16A curves F1, F2, M3	0,1 ... 32A curves M1, T1 0,1 ... 16A curves F1, F2
Rated operational voltage U_n	1-pole: AC250V, DC65V 2-pole: AC433V, DC65V 3-, 4-pole: 3AC433V, DC65V	
Rated making and breaking capacity	AC 6 x I_n ; DC 4 x I_n	
Rated insulation voltage U_i	AC440V	
Rated impulse withstand voltage U_{imp}	2,5kV	
Pollution degree	2	
Rated frequency	50/60Hz; DC	
Number of poles	1; 2; 3; 4	
Further ratings acc. manufacturer documentation		

Application/Limitation

Location Classes:

Temperature: D, Humidity: B, Vibration: B (Type 2210-T), Vibration: A (Type 2210-S)

Degree of protection IP30 (terminals IP00)

Derating factors according manufacturer documentation are to be observed.

Type Approval documentation

Tests carried out

IEC 60934:2000+A1:2007+A2:2013, Dry heat test, Damp heat test, Cold test, Vibration test

Marking of product

Manufacturers label containing data and manufacturers type number.



Job Id:
Certificate No: **TAE00001M5**

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 Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Assessment to be performed at least every 2 year.

END OF CERTIFICATE