

TYPE APPROVAL CERTIFICATE

Certificate No: TAE00001Z3 Revision No:

| This is to certify: | | |
|---|--|--|
| That the Miniature Circuit Breaker | | |
| with type designation(s) S200 and S200 M | | |
| Issued to ABB Stotz-Kontakt GmbH Heidelberg, Baden-Württemberg, Germany | | |
| is found to comply with DNV rules for classification – Ships, offshore units, and h | igh speed and light craft | |
| Application : | | |
| Product(s) approved by this certificate is/are accepted for i | nstallation on all vessels classed by DNV. | |
| Issued at Hamburg on 2022-07-25 | G., DNV | |
| This Certificate is valid until 2027-07-24 . DNV local station: Augsburg | for DNV | |
| Approval Engineer: Thomas Hartmann | Arne Schaarmann Head of Section | |

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.

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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.



Job Id: **262.1-013841-5** Certificate No: **TAE00001Z3**

Revision No: 1

Product description

Miniature Circuit Breakers with the following type designations:

Type S 201: Single pole
Type S 202: Double pole
Type S 203: Three pole
Type S 204: Four pole
Type S 201-NA Single pole+N
Type S 203-NA Three pole+N

| Tripping characteristics: | B/C/D/K/Z |
|-----------------------------------|---|
| Rated operation voltage (V AC) | 133/230, 230/400, 440* |
| Frequency | 50 - 60 Hz |
| Rated current | B: 6 -63A, C, D, K, Z: 0.5 – 63A |
| Breaking capacity I _{cs} | 15 kA (133/230V), 7.5 kA (230/400V, 440V) |
| Breaking capacity Icu | 20 kA (133/230V), 10 kA (230/400V, 440V) |

^{*} See Application/Limitation

Type S 201M: Single pole
Type S 202M: Double pole
Type S 203M: Three pole
Type S 204M: Four pole
Type S 201M-NA Single pole+N
Type S 203M-NA Three pole+N

| Tripping characteristics: | B/C/D/K/Z | |
|------------------------------|-------------------------------------|--|
| Rated operation voltage (AC) | 133/230, 230/400, 440* | |
| Frequency | 50 - 60 Hz | |
| Rated current | B: 6 -63A, C, D, K, Z: 0.5 - 63A | |
| Breaking capacity Ics | 18.75 kA (133/230V, 0.5-40A); | |
| | 15 kA (133/230V, 50-63A) | |
| | 11.25 kA (230/400V, 440V, 0.5-40A); | |
| | 7.5 kA (230/400V, 440V, 50-63A) | |
| Breaking capacity Icu | 25 kA (133/230V); | |
| | 15 kA (230/400V, 440V) | |

^{*} See Application/Limitation

Application/Limitation

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

With U_{imp} =4kV the max. rated voltage is 277 V when used in IT (ship) grids. It can be used in applications with directly earthed systems with rated voltage of 277/480 V.

Type Approval documentation

Technical data:

Datasheet "System pro M compact® Miniature Circuit Breakers S 200 / S 200 M Test certificates / reports:

VDE Test Certificates nos. .DE1-48070 dated 2011-04-27, DE1-48071 dated 2011-04-28, DE1-48076 dated 2011-04-28, DE1-49139 dated 2011-10-25, DE-49183 dated 2011-10-25, DE1-49284 dated 2011-11-30, DE1-49284 dated 2011-11-30 & DE1-49284 dated 2011-11-30 ABB environmental test records dated 2011-12-01 and 2012-04-19, DE1-53534 dated 2014-02-25, DE1-51718 dated 2013-02-27, DE1-54733 dated 2015-03-24, DE1-57388 dated 2016-07-26, DE1-53535 dated 2014-02-25, DE1-51716 dated 2013-02-27, DE1-54738/A1 dated 2015-12-16, DE1-57176 dated 2016-06-29

Tests carried out

Type testing according to IEC / EN 60947-2. Vibration test, Dry heat test, Damp heat test and Cold test according to DNV GL CG-0339.

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Revision No: 1

Marking of product

Product marking: ABB Stotz-Kontakt GmbH - Type designation - Manufacturing code

Name and place of manufacturer

| ABB Stotz-Kontakt GmbH | ABB LV Installation Materials Co. Ltd | ABB BULGARIA EOOD-RAKOVSKI |
|------------------------|---------------------------------------|----------------------------|
| Heidelberg | Beijing | BRANCH |
| Germany | China | Industrial Zone Rakovski |
| | | Bulgaria |

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

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