



Marine & Offshore

Certificate number: 27659/B0 BV

File number: ACE2/17/16

Product code: 2644H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to
ABB STOTZ-KONTAKT GmbH
Heidelberg - GERMANY

for the type of product
MINI-BREAKERS
Miniature Circuit Breakers
S200, S200M and S200MUC series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60947-2:2013

EC Code:31

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 07 Nov 2022**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 07 Nov 2017,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **S200**, **S200M** and **S200MUC** series are miniature circuit breakers.

Rated frequency: $f = 50/60\text{Hz}$

Utilization category: **A**

Degree of protection: **IP20**

1.1 Variants: Type: **S200**

Ultimate breaking capacity: $I_{cu} = 10\text{kA}$

Service breaking capacity: $I_{cs} = 7.5\text{kA}$

Characteristic: B	S201-B_	S202-B_	S203-B_	S204-B_	S201-B_NA	S203-B_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	1...63	1...63	1...63	1...63	1...63	1...63

Characteristic: C	S201-C_	S202-C_	S203-C_	S204-C_	S201-C_NA	S203-C_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: D	S201-D_	S202-D_	S203-D_	S204-D_	S201-D_NA	S203-D_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: K	S201-K_	S202-K_	S203-K_	S204-K_	S201-K_NA	S203-K_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: Z	S201-Z_	S202-Z_	S203-Z_	S204-Z_	S201-Z_NA	S203-Z_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

1.2 Variants: Type: **S200M**

Ultimate breaking capacity: $I_{cu} = 15\text{kA}$

Service breaking capacity: $I_{cs} = 11.2\text{kA} (< 40\text{A})$

$I_{cs} = 7.5\text{kA} (50, 63\text{A})$

Characteristic: B	S201M-B_	S202M-B_	S203M-B_	S204M-B_	S201M-B_NA	S203M-B_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	1...63	1...63	1...63	1...63	1...63	1...63

Characteristic: C	S201M-C_	S202M-C_	S203M-C_	S204M-C_	S201M-C_NA	S203M-C_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: D	S201M-D_	S202M-D_	S203M-D_	S204M-D_	S201M-D_NA	S203M-D_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: K	S201M-K_	S202M-K_	S203M-K_	S204M-K_	S201M-K_NA	S203M-K_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: U_e (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: I_e (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: Z	S201M-Z_	S202M-Z_	S203M-Z_	S204M-Z_	S201M-Z_NA	S203M-Z_NA
Poles	1	2	3	4	1+N	3+N
Rated voltage: Ue (V AC)	230	400, 440	400, 440	400, 440	230	400, 440
Rated current: Ie (A)	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63	0.5...63

1.3 Variants: Type: **S200MUC** for AC and DC applications

Ultimate breaking capacity: AC: Icu = 10kA (<40A); Icu = 6kA (50, 63A)

DC: Icu = 10kA

Service breaking capacity: AC: Ics = 7.5kA (<40A); Ics = 6kA (50, 63A)

DC: Ics = 10kA

Characteristic: B	S201M-B_UC	S202M-B_UC	S203M-B_UC	S204M-B_UC
Poles	1	2	3	4
Rated voltage: Ue (V)	230	400, 440	400, 440	400, 440
Rated current: Ie (A)	6...63	6...63	6...63	6...63

Characteristic: C	S201M-C_UC	S202M-C_UC	S203M-C_UC	S204M-C_UC
Poles	1	2	3	4
Rated voltage: Ue (V)	230	400, 440	400, 440	400, 440
Rated current: Ie (A)	0.5...63	0.5...63	0.5...63	0.5...63

Characteristic: K	S201M-K_UC	S202M-K_UC	S203M-K_UC	S204M-K_UC
Poles	1	2	3	4
Rated voltage: Ue (V)	230	400, 440	400, 440	400, 440
Rated current: Ie (A)	0.2...63	0.2...63	0.2...63	0.2...63

Characteristic: Z	S201M-Z_UC	S202M-Z_UC	S203M-Z_UC	S204M-Z_UC
Poles	1	2	3	4
Rated voltage: Ue (V)	230	400, 440	400, 440	400, 440
Rated current: Ie (A)	0.5...63	0.5...63	0.5...63	0.5...63

2. DOCUMENTS AND DRAWINGS:

- 2CDS151001 Rev.A; 2CDS151103 Rev.C1; 2CDS152001 Rev.D1; 2CDS153001 Rev.D1; 2CDS153103 Rev.D1;
- 2CDS154001 Rev.D1; 2CDS171001 Rev.A; 2CDS171103 Rev.B1; 2CDS172001 Rev.B1; 2CDS174001 Rev.B1;
- 2CDS173001 Rev.B1; 2CDS173103 Rev.B1; 2CDS201124 Rev.P1; 2CSC400002D0209 - January 2011 - 14.000;
- 2CDS271061 Rev.B1; 2CDS272061 Rev.D1; 2CDS273061 Rev.C1; 2CDS274061 Rev.C1;
- Technical Datasheet dated 2011-10-12; 2CDC002142D0204 dated 03/13

3. TEST REPORTS:

VDE Prüf- und Zertifizierungsinstitut GmbH:

- DE1-47902 dated 2011-04-27; 70000-4402-0008/118341; 70000-4402-0008/125495;
- DE1-48070 dated 2011-04-27; 70000-4402-0008/124234;
- DE1-48071 dated 2011-04-28; 70000-4402-0008/130180;
- DE1-48076 dated 2011-04-28; 70000-4402-0008/147554;
- DE1-49139 dated 2011-10-25; 70000-4402-0712/153697;
- DE1-49183 dated 2011-10-25; 70000-4402-0712/158645;
- DE1-49284 dated 2011-11-30; 70000-4402-0008/153700;
- DE1-52085 dated 2013-05-16; 70000-4402-0714/153692-1 dated 2013-05-13
- DE1-53720 dated 2014-04-22; 70000-4402-0714/188166 dated 2014-04-15

B0 version:

- DE1-57801 dated 2016-11-23; 199510-CC2-1 dated 2016-11-18
- DE1-57388 dated 2016-07-26; 220588-CC2-1 dated 2016-07-26
- DE1-54733 dated 2015-03-24; 198883-CC2-1 dated 2015-03-18
- DE1-58099 dated 2016-12-13; 222633-CC2-1 dated 2016-11-29
- DE1-57176 dated 2016-06-29; 220568-CC2-1 dated 2016-06-15
- DE1-54738/A1 dated 2015-12-16; 198314-CC2-1 dated 2014-12-12
- DE1-55554 dated 2015-04-28; 189512-CC2-1 dated 2015-04-28

4. APPLICATION / LIMITATION:

- 4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.
4.2 - These miniature circuit breakers are only for the protection of final sub-circuits.
4.3 - Bureau Veritas Environmental Category, **EC Code: 31**

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **ABB Stotz-Kontakt GmbH** in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.
5.3 - **ABB Stotz-Kontakt GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

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P.R.CHINA**

**ABB Automation EOOD
Rakovski Industrial Zone, Plot 28
4150 Rakovski
Plovdiv District
BULGARIA**

6. MARKING OF PRODUCT:

- According to IEC 60947 specification

7. OTHERS:

- 7.1 - It is the responsibility of **ABB Stotz-Kontakt GmbH - GERMANY** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate N° 27659/A2 BV issued on 11 Dec 2014 by the Society.

***** END OF CERTIFICATE *****