

TYPE APPROVAL CERTIFICATE

This is to certify:**That the RCD - Residual Current Device**

with type designation(s)

DS201, DS201 M, DS201 M 110V, DS202C M, DS202C M 110V

Issued to

ABB S.p.A.
Vittuone MI, Italy

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 **2019-07-16**for **DNV GL**This Certificate is valid until **2024-07-15**.DNV GL local station: **Milan**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.



Job Id: 262.1-023356-2
 Certificate No: TAE00001EW
 Revision No: 1

Product description

This type approval certificate covers both variants of the Residual Current Circuit Breakers with Overcurrent Protection (RCBO) of the DS20x family.

The two variants differ regarding electrical performance (See below table), location of the TEST-Button and switch position indicator.

Variant 1 : TEST-Button low right corner above the operator and switch position indicator top centre below the operator

Variant 2 : TEST-Button upper left corner above the operator and switch position indicator below the operator.

The two variants are distinguished in the ABB Product ID in 9th digit by the following nomenclature:

For DS201 and DS201 M:	For DS201 M 110V:
4 - Variant 1	9 - Variant 1
8 - Variant 2	8 - Variant 2

ABB Product ID 9th digit marked with a capital "Y"

2	C	S	R	x	x	x	x	Y	x	x	x	x	x	x
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1P+N -- Residual Current Circuit-Breaker with overcurrent protection.

Ratings		DS201	DS201 M	DS201 M 110V
Operating characteristics		AC, A, APR	AC, A, APR	A
Rated current I_n	A	$1 \leq I_n \leq 40$	$4 \leq I_n \leq 40$	$6 \leq I_n \leq 40$
Rated sensitivity $I_{\Delta n}$	mA	10/30/100/300	10/30/100/300	30
Variant 1:				
Rated residual breaking capacity $I_{\Delta m}$ for $1 \leq I_n \leq 40$	kA	6	6	6
Rated service breaking capacity I_{cs} @ 230VAC	kA	6	7,5	7,5
Rated short circuit capacity I_{cn} @ 230VAC acc.to IEC/EN 61009	kA	6	10	10
Rated ultimate breaking capacity I_{cu} @ 230VAC	kA	10	10	10
Thermo-magnetic release characteristic		B, C, K	B, C	B, C
Variant 2:				
Rated residual breaking capacity $I_{\Delta m}$ for $1 \leq I_n \leq 25$	kA	6	6	6
Rated residual breaking capacity $I_{\Delta m}$ for $35 \leq I_n \leq 40$	kA	4,5	4,5	4,5
Rated service breaking capacity I_{cs} @ 230VAC	kA	7,5	11,2	11,2
Rated short circuit capacity I_{cn} @ 230VAC acc.to IEC/EN 61009	kA	6	10	10
Rated ultimate breaking capacity I_{cu} @ 230VAC	kA	10	15	15
Thermo-magnetic release characteristic		B, C, K	B, C, K	B, C

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-Rated voltage U _e	V	230-240	230-240	230-240
-Rated frequency	Hz	50...60	50...60	50...60
-Rated insulation voltage U _i	V	500	500	500
-Rated impulse withstand voltage U _{imp}	kV	4	4	4
Dielectric test voltage at ind. frequency for 1 min.	kV	2,5	2,5	2,5
Degree of protection housing/ terminals		IP 4X/ IP2X	IP 4X/ IP2X	IP 4X/ IP2X

2P -- Residual Current Circuit-Breaker with overcurrent protection.

Ratings		DS202C M	DS202C M 110V
Operating characteristics		A, APR	A
Rated current I _n	A	6 ≤ I _n ≤ 32	6 ≤ I _n ≤ 32
Rated sensitivity I _{Δn}	mA	10/30/300	30
Rated residual breaking capacity I _{Δm}	kA	6	6
Rated service breaking capacity I _{CS} @ 230VAC	kA	7,5	7,5
Rated ultimate breaking capacity I _{CU} @ 230VAC	kA	10	10
Thermo-magnetic release characteristic		B, C	C
-Rated voltage U _e	V	230-240	230-240
-Rated frequency	Hz	50...60	50...60
-Rated insulation voltage U _i	V	500	500
-Rated impulse withstand voltage U _{imp}	kV	4	4
Dielectric test voltage at ind. frequency for 1 min.	kV	2,5	2,5
Degree of protection housing/ terminals		IP 4X/ IP2X	IP 4X/ IP2X

Application/Limitation

For installation inside switchboards, distribution boards and control gear enclosure.

Temperature class: B
 Humidity class: B
 Vibration class: A

Type Approval documentation

Test report IMP 03AJ00011-00; 03AJ00012-00; 03AJ00013-00
 ABB Summary test scheme DS201/201M/ DS202C 2CE01200
 ABB SACE Test Report N°: 2CE00978; 2CE01200, CSI Test Report N°: 0029\ME\CMP
 CB TEST CERTIFICATE N°: IT-14405; IT-14647; IT-14889; IT-16160; IT-16161
 IMQ Test Report N°: PB14A0227442-02-00; PB14A0227442-02_rev.01; PB14A0227442-03-00;
 PB14A0227442-01-00; PB15S0511786-02-00; PB15S0511786-01-00; PB14A0227452-01
 PB14S0227491-01; 80AJ00001; 80AJ00001/1; 80AJ00002; 80SJ00317
 IMQ Test Report N°:
 PB18-0031588-02 Test report summary; PB18-0031588-02-00; PB18-0031588-02-01;
 PB18-0031588-02-02; PB18-0031588-02-03; PB18-0031588-02-04; PB18-0031588-02-05;
 PB18-0031588-02-06; PB18-0031588-02-07; PB18-0031588-02-08; PB18-0031588-02-09;
 PB18-0031588-02-10; PB18-0031588-02-11; PB18-0031588-02-12; PB18-0031588-02-13;

Job Id: 262.1-023356-2
Certificate No: TAE00001EW
Revision No: 1

PB18-0031588-02-14; PB18-0031588-02-15; PB18-0031588-02-16; PB18-0031588-02-17;
PB18-0031588-02-18; PB18-0031588-02-19; PB18-0031588-02-20; PB18-0031588-02-21;
PB18-0031588-02-22; PB18-0031588-02-23; PB18-0031588-02-24; PB18-0031588-02-25;
PB18-0031588-02-26; PB18-0031588-02-27; PB18-0031588-02-28; PB18-0031588-02-29;
PB18-0031588-02-30; PB18-0031588-02-31; PB18-0031588-02-32; PB18-0031588-02-33;
PB18-0030927-01 (EMC); CBTC_IT-19730_2019-01-29
PB18-0031588-03-00; PB18-0031588-03-01; PB18-0031588-03-02; PB18-0031588-03-03
PB18-0031588-03-04; PB18-0031588-03-05; PB18-0031588-03-06; PB18-0031588-03-07
PB18-0031588-03-08; PB18-0031588-03-09; PB18-0031588-03-10; PB18-0031588-03-11
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PB18-0031588-03-16; PB18-0031588-03-17; PB18-0031588-03-18; PB18-0031588-03-19
PB18-0031588-03-20; PB18-0031588-03-21; PB18-0031588-03-22; PB18-0031588-03-23
PB18-0031588-03-24; PB18-0031588-03-25; PB18-0031588-03-26; PB18-0031588-03-27
PB18-0031588-03-28; PB18-0031588-03-29; PB18-0031588-03-30; PB18-0031588-03-31
PB18-0031588-03-32; PB18-0030927-01
PB18-0031588-05-00; PB18-0031588-05-01; PB18-0031588-05-02; PB18-0031588-05-03
PB18-0031588-05-04; PB18-0031588-05-05; PB18-0031588-05-06; PB18-0031588-05-07
PB18-0031588-05-08; PB18-0031588-05-09; PB18-0031588-05-10; PB18-0031588-05-11
PB18-0031588-05-12; PB18-0031588-05-13; PB18-0031588-05-14; PB18-0031588-05-15
PB18-0031588-05-16; PB18-0030927-01

Tests carried out

IEC 61009-1(2010) +A1(2012)+A2(2013); IEC 61009-2-1 (1991); IEC 61009-2-2 (1991)
DNVGL-CG-0339

Marking of product

ABB – type designation - voltage – frequency – current – tripping current – operating characteristic

Place of Manufacture:

ABB S.p.A.
SANTA PALOMBA- 00134 (Roma), Italy
Via Ardeatina 2491

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.

Assessment to be performed at least every second year.

END OF CERTIFICATE