CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1546299 (LR 98793) **Master Contract:** 183691

Project: 1603633 **Date Issued:** 2004/12/03

Issued to: **ABB STOTZ-KONTAKT GmbH**

Dept STO/LN3
Eppelheimer Str 82
Postfach 10 16 80
Heidelberg, Baden-Wurttemberg 69006
Germany
Attention: Mr. Eric Englert

The products listed below are eligible to bear the CSA Mark shown with adjacent indicator ▲

Issued by: Ramana Tangirala, P.Eng.

Authorized by: Nick Alfano, Operations Manager

PRODUCTS

CLASS 3215 30 - SUPPLEMENTARY PROTECTORS - COMPONENT ACCEPTANCE PROGRAM

· Component Supplementary Protectors, manual reset, thermo-magnetic trip units: Series S200P followed with B, C, D, K or Z followed by a number between 0.2 and 25A may be followed by additional suffixes. 1 to 4 pole.

Tripping Characteristics B begins with 6A, C, D and Z begins with 0.5A, and K begins with 0.2A; 277V ac - 1

CSA INTERNATIONAL

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phase; 277/480V ac – 3 phase, Temperature range –25°C to 55°C; Limited Short Circuit Withstand Ratings: 10kA at 277V ac one pole and 277/480V ac multipole;

. Component Supplementary Protector Accessories for Series S200P: Auxiliary Contact S2C-H6R and Alarm (Signal) contact S2C-S/H6R with ratings - 1A, 480V ac; 2A, 277V ac; 1.5A, 125V dc, 2A, 60V dc and 24V dc;

Note: Open type devices are certified as components for use in assemblies where the suitability of the combination is to be determined by the CSA International.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0 - General Requirements - Canadian Electrical Code, Part II

CAN/CSA-C22.2 No. 235 - Supplementary Protectors

INFORMS – Component

Acceptance Service No. 32 - Component Acceptance Service for Supplementary Protectors for use in Electrical and Electronic Equipment

CSA INTERNATIONAL

Supplement to Certificate of Compliance

Certificate: 1546299 **Master Contract:** 183691

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
1603633	2004/12/03	Addition of Auxiliary Contacts (S2C-H6R)and Alarm (Signal) Contact (S2C-S/H6R)tches (series S2C)

Supplement Notes

1546299: July 6, 2004 - Original Certification of Type S200P(0.2 to 25A)

CSA INTERNATIONAL

Descriptive and Test Report

MASTER CONTRACT: 183691
REPORT: 1546299 (LR 98793)
PROJECT: 1603633

Edition 1: July 6, 2004; Project 1546299 - Toronto
Issued by R. Tangirala, P. Eng.

Edition 2: December 3, 2004; Project 1603633 - Toronto
Issued by R. Tangirala, P. Eng.

Attachments Added: Fig. 6 to 9
Illustrations Added: Ill. 5
Appendix Added: Appendix – B (CSA Engineering File copy)

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Supplement to Certificate of Compliance - Page 1
Description and Tests - Pages 1 to 28
Figures – Fig.1 to 9
Illustrations – Ills 1 to 5
Appendices - Appendix -A (CSA Engineering File copy)
Appendix – B (CSA Engineering file copy)

PRODUCTS

CLASS 3215 30 - SUPPLEMENTARY PROTECTORS - Component Acceptance Program

- Component Supplementary Protectors, manual reset, thermo-magnetic trip units: Series S200P followed with B, C, D, K or Z followed by a number between 0.2 and 25A may be followed by additional suffixes. 1 to 4 pole.

  Tripping Characteristics B begins with 6A, C, D and Z begins with 0.5A, and K begins with 0.2A; 277V ac - 1 phase; 277/480V ac – 3 phase, Temperature range –25°C to 55°C; Limited Short Circuit Withstand Ratings: 10kA at 277V ac one pole and 277/480V ac multipole;

- Component Supplementary Protector Accessories for Series S200P: Auxiliary Contact S2C-H6R and Alarm (Signal) contact S2C-S/H6R with ratings - 1A, 480V ac; 2A, 277V ac; 1.5A, 125V dc, 2A, 60V dc and 24V dc;

Notes:

1. Open type devices are certified as components for use in assemblies where the suitability of the combination is to be determined by the CSA International.
2. These are intended for rail mounting.

The test report shall not be reproduced, except in full, without the approval of CSA International.

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3. The terminals of the device have not been investigated for field wiring.
4. These devices are not suitable for branch circuit protection.
5. Short circuit tests were conducted without series fuse.
6. The spacings from live parts of single devices to adjacent metal surface, and from the outside pole of multipole devices to adjacent metal surface shall be evaluated in the end product application.
7. These protectors are designed for use in ambient of –25°C to 55° C. Calibration tests were conducted in the ambient of 25°C only. Verification of trip times to published trip curve at ambients other than 25°C need to be conducted.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No.	0-M91	-	General Requirements - Canadian Electrical Code, Part II
CAN/CSA-C22.2 No.	235-04	-	Supplementary Protectors
INFORMS – Component Acceptance Service No.	32	-	Component Acceptance Service for Supplementary Protectors for use in Electrical and Electronic Equipment

MARKINGS

The submittor's tradename "ABB", Product Catalogue number, voltage and current ratings and characteristics designation ink printed on the front of the device close to the handle. "ON" and "OFF" moulded on the handle. The submittor's tradename "ABB" moulded on the side with electrical ratings including S.C. rating and the CSA Component Acceptance Mark ink printed on the side (See Ill. 1)

ALTERATIONS

Markings as indicated in "Markings" above.

FACTORY TESTS

The equipment at the conclusion of manufacture, before shipment, shall withstand the application of twice the rated voltage plus l000V ac applied for one min, without breakdown occurring between:

(a) Live parts of opposite polarity, circuit protector on.
(b) "Line" and "Load" terminals, circuit protector off.
(c) Live parts and non-current-carrying metal parts, circuit protector on.

As an alternative, a potential 20 percent higher may be applied for one sec.

Note: The above factory testing is on a "percentage of production" basis. The testing is on the basis of one percent of production (one out of every hundred). In the event of a failure, all protectors manufactured subsequent to the previous acceptable tests will have to be tested and all further production tested until the cause of failure has been determined and rectified.

Warning: The factory test(s) specified may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

DESCRIPTION

Project 1546299:

Corrosion Protection: All parts are constructed of corrosion resistant material or are suitably plated as protection against corrosion.

Spacings: A minimum spacing of 10mm through air and 16 mm over surface is maintained.

Tripping Diagrams: See Ill. 2 to 4 for details.

Nomenclature:

S20xP- y z

x - No of poles (1 to 4, S201P, S202P, S203P and S204P)
y - Tripping Characteristics reference (B, C, D, K and Z)
z - Current rating (0.2 to 25A)

Series S200P

1. Housing and Housing Cover –Wetpolyester FM-BMC RF693-18IMGR35/S, manufactured by Menzolit-Werke, 1.6mm thick (local 0.9mm) Single pole devices overall 88 by 72 by 17.5 mm. Calibration screw holes sealed with Trivoltherm fiber plates, 0.5mm thick.

2. Fastener – Fastener clips, 1.5mm thick POM manufactured by DuPont, snap on rail when breaker is pressed against rail. Held captive by enclosure halves.

3. Pre Chamber Plate – 1.5mm thick (local 0.75mm) PA66 manufactured by BASF, two plates provided.

4. Arc Cooling Chamber - From 0.2A to 8A 11 metal plates and 1 plastic plate, PA66 manufactured by BASF, (21mm x 14mm x 0.90mm thick) from 10A to 63A 14 metal plates (24mm x 14mm x 0.60mm thick) held captive by fiber support.

5. Arc Chamber Support - Fiber, overall 0.76 thick. Held captive by arc chamber plates.

6. Slide – PPA GF40 manufactured by LNP, 17.8mm long, 1 mm thick (local 0.6mm) with metal inlet.

7. Coupling - (Not shown - Multipole units only) 1.2mm (local 0.5mm) thick PA66 GF50 manufactured by BASF. Couples trip mechanisms through slot on housing. Opening in housing when provided on single pole devices sealed with polyester disk when not used.

8. Latching Mechanism with moveable contact supported by 1mm plated steel, lifetime lubricated with high temperature oil "gleitmo 415 plus" (-30°C to 250°C, Fuchs Lubritech GmbH)

9. Moveable Contact 1.5mm copper plate (silvercoated) and Contact Holder 0.8mm plated steel (copper coated) are mounted by solid rivet

11. Pigtail copper, consist of 7 bundles of strands, each bundle contains 1281 strands, each strand is 0.05mm in diameter

12. Handle and Handle Ties - Handle, PA66 GF25 manufactured by BASF. Multiple units are provided with the handle tie, U-shaped aluminium which is held in place by projections engaging recesses in handle.

13. Position Indicator – PA66 manufactured by BASF, 14mm x12mm x 0.6mm moved by pin at the contact holder. Shows red color in "ON" position, green color in "OFF" position.

14. Load Terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 1.2mm brass from 0.2A to 25A and from 30A to 63A of 1.2mm copper, silver coated. The bottom of the clamp is provided with indents for wire securement. The frame 1.5mm steel (zinc coated) the metric thread M9 screw of steel (zinc coated).

15. Arc Runner – Copper plated steel, 0.8 thick, shaped as shown.

16. Line Terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 1.2mm brass from 0.2A to 25A and from 30A to 63A of 1.2mm copper, silver coated. The bottom of the clamp is provided with indents for wire securement. The frame 1.5mm steel (zinc coated) the metric thread M9 screw of steel (zinc coated).

17. Bimetal - Measures 5 and 6mm wide x 1mm thick. May be provided with additional heater.

18. Coil – high temperature isolation enamel copper wire, diameter 0.4mm up to 3mm thick, single or multilayer, different numbers of windings.

19. Coil support – Copper plated steel or brass, 1.2mm thick.

20. Coil Assembly – Spring holder is cylindrical plated steel, approx 6.3mm in dia, riveted to the coil support. Hole provided to captivate spring. Spring – approx 14mm free length, 20 turns, 0.26mm in dia, spring steel. Moving plunger is 6mm in dia at widest part. Hole provided to captivate spring. Outer end shaped as shown to operate rocking trip lever.

21. Impact Pin - PA66 GF35 manufactured by BASF. Nail shaped 17.2mm long x 1.9mm in dia.

22. Stationary Contact – Measures 4mm x 3.2mm x 0.5mm thick. Welded to the Stationary Contact Support Material is AgC3.

22. Stationary Contact Support – Up to 8A one part copper plated steel 1mm thick. From 10A to 63A divided in contact support plated copper, silver coated, 1mm thick and upper guide rail, copper plated steel 1mm thick.

23. Fixed Contact Insulation - PA66 manufactured by BASF. 27mm x 14mm x 1mm. Covered Stationary Contact Support.

24. Snap In Fastener – (Multipole units only) POM manufactured by Du Pont, 17mm long x 5.5mm dia with 2 hooks on both sides.

25. Details on Plastic Materials:

Designation	Material	Material Code	Manufacturer	Rel Temp Index Elec. 1.5mm	Flame Rating
Housing (Gehäuse)	FM-BMC RF693-18IMGR35/S	GMN598420 P0307	Menzolit	105°C	V-0
toggle (Schaltgriff)	PA 66 GF 25	GMN598420 P0463	BASF	130°C	HB
slide (Schieber)	PPA GF40 with metal inlet	GMN598420 P0476	LNP	130°C	HB
impact pin (Schlagstift)	PA66 - GF35	GMN598420 P0652	BASF	125°C	HB
position indicator (Schaltstellungsanzeige)	PA66	GMN598420 P0437	BASF	125°C	V-2
Coupling (Kupplung - multipole)	PA66 GF50	GMN598420 P0441	BASF	125°C	HB
toggle coupling (Griffverbinder)	POM	GMN598420 P0366	Du Pont	100°C	HB
arc chamber plate ≤ 8A (Kammerplatte)	PA66	2CDN440200P0002	BASF	125°C	V-2
pre chamber plate (Vorkammerplatte)	PA66	GMN598420 P0260	BASF	125°C	V-2
fixed contact insulation (FK-Isolierteil)	PA66	GMN598420 P0260	BASF	125°C	V-2
barrier (Aufsteckteil)	ABS+PC	GMN598420 P0496	General Electr.	85°C	V-0
snap in fastener (Verbindungsglied)	POM	GMN598420 P0366	Du Pont	100°C	HB
Fastener (Schnellbefestigung)	POM	GMN598420 P0530	Du Pont	100°C	HB
Coupling sealing (Abdeckscheibe)	PE	GHS2606306P0001	Schreiner	80°C	HB

AUXILIARY-SWITCH, Cat No. S2C-H6RU (Fig. 6 to 7 and Ill. 5):

1. Housing and Housing cover –PC/ABS Cycoloy C2950, manufactured by General Electric Plastics, 1.1mm thick, device overall 85 by 75 by 8.8 mm.

2. Left terminal with moveable contact - consist of stationary sheet metal clamp, frame and screw. The clamp consists of 0.8mm brass. The bottom of the clamp is provided with indents for wire fixing. The frame is made of 6x5.6x11mm brass and the metric thread M4 screw of steel (zinc coated). The moveable contact 0.4mm Cu/Be sheet metal is riveted at the clamp. At the end of the moveable contact is a 2.6mm dia contact rivet made of FK-silver.

3. Upper and lower right terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 0.8mm brass. The bottom of the clamp is provided with indents for wire fixing. The frame is made of 6x5.6x11mm brass and the metric thread M4 screw of steel (zinc coated). At the end of the brass clamp is a 3.2mm dia contact rivet made of AgNi10.

4. Toggle and switchgear – The toggle (0.6 to 3.4mm thick) of the auxiliary switch is connected with the MCB-toggle by an 1.2mm steel needle. The toggle push with a bail (1.2mm dia) against the driver (1.4mm thick) made of black Ultem, manufactured by General Electric Plastics and the steering part (1.2mm thick) with the embedded moveable contact change its position. The contact moves from upper to lower contact. The friction between bail and release lever (1.5mm thick) prevent normally the slip-off of the bail. In the case of MCB-tripping the position of the release lever let slip-off of the bail, the driver turn in the off-position and the contact open up. If the MCB will be open by manual operation the contact open up too. So the auxiliary switch indicates the on/off position of the MCB directly. All the plastic parts of the switchgear (except driver) consist of PBT GF20 Arnite, by DSM Polymers.

5. Snap In Fastener – Half module snap in fasteners allow to mount the signal contact on the right side of a MCB. The fastener is made of POM manufactured by Du Pont, 17mm long x 5.5mm dia with 2 hooks on one side.

SIGNAL-CONTACT , Cat No. S2C-S6RU (Fig. 8 to 9 and Ill. 5):

1. Housing and Housing cover –PC/ABS Cycoloy C2950, manufactured by General Electric Plastics, 1.1mm thick, device overall 85 by 75 by 8.8 mm.

2. Left terminal with moveable contact - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 0.8mm brass. The bottom of the clamp is provided with indents for wire fixing. The frame is made of 6x5.6x11mm brass and the metric thread M4 screw of steel (zinc coated). The moveable contact 0.4mm Cu/Be sheet metal is riveted at the clamp. At the end of the moveable contact is a 2.6mm dia contact rivet made of FK-silver.

3. Upper and lower right terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 0.8mm brass. The bottom of the clamp is provided with indents for wire fixing. The frame is made of 6x5.6x11mm brass and the metric thread M4 screw of steel (zinc coated). At the end of the brass clamp is a 3.2mm dia contact rivet made of AgNi10.

4. Toggle and switchgear – The toggle (0.6 to 3.4mm thick) of the signal contact is connected with the MCB-toggle by an 1.2mm steel needle. The toggle push with a bail (1.2mm dia) against the driver (1.4mm thick) made of black Ultem, manufactured by General Electric Plastics and the steering part (1.2mm thick) with the embedded moveable contact change its position. The contact moves from upper to lower contact. The friction between bail and release lever (1.5mm thick) prevent normally the slip-off of the bail. In the case of MCB-tripping the position of the release element allows to slip-off of the bail. The driver turn in the off-position and the contact open up. But if the MCB will be open by hand the hook of the 2.2mm thick latch hold the driver (and the contact) in on-position.
All the plastic parts of the switchgear (except driver) consist of PBT GF20 Arnite, by DSM Polymers.

5. Test functions – The closed contact (on position) can be opened by pressing the grew test button "off" without changing the toggle position of the signal contact and the MCB. The grew test button (1mm thick) is made of PC GF10 Xantar G2F23, by DSM Polymers. After checking the signal circuit the contact can be closed again by pressing the orange test button. The orange test button (1mm thick) is made of PBT GF20 Arnite, by DSM Polymers.
6. Snap In Fastener – Half module snap in fasteners allow to mount the signal contact on the right side of a MCB. The fastener is made of POM manufactured by Du Pont, 8.8mm long x 5.5mm dia with 2 hooks on one side.

Details of Plastic materials used in Aux and Signal Switches:

No.	Designation	Material	Material Code	Manufacturer	RTI Elec. 1.5mm	Flame Rating
1	housing (Gehäuse)	PC/ABS Cycoloy C2950	GMN598420 P0496	General Electr.	85°C	V-0
2	steering part (Steuerteil)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
3	toggle (Schaltgriff)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
4	latch (SK-Klinke)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
5	test release lever (Pruefauslöseelement)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
6	release lever (Ausloesehebel HS)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
7	release element (LS Ausloeseelement)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
8	test button on (Prueftaste ein)	PBT GF20 AmiteTV4 240	GMN598420 P0513	DSM Polymers	140°C	HB
9	test button off (Prueftaste aus)	PC GF10 Xantar G2F23	GMN598420 P0512	DSM Polymers	130°C	V-0
10	driver (Mitnehmer)	PEI GF30 Ultem4000	GMN598420 P0516	General Electr.	105°C	V-0
11	snap in fastener (Verbindungsglied)	POM Delrin 100	GMN598420 P0366	Du Pont	100°C	HB

No additional description is considered necessary.

TEST REPORT

Project 1546299: The following tests were satisfactorily conducted per CSA Std. C22.2 No. 235-04 (Supplementary Protectors) at submittors test lab (ABB Stotz-Kontakt GmbH, Heidelberg) and the tests were witnessed by a CSA representative.

1. Calibration test (Clause 6.2)
2. Temperature rise test (Clause 6.3)
3. Overload test (Clause 6.6)
4. Endurance test (Clause 6.7)
5. Recalibration test (Clause 6.2)
6. Short circuit withstand test (Clause 6.8)
7. Dielectric voltage withstand test (Clause 6.9)
8. Moisture Absorption Test (Clause 6.11)

The test program is as follows and the test results are attached to the report as Appendix-A (CSA Engineering File Copy).

Model	No of Poles	Chracteristics	Rating(A)	Test Sequence
S200P	1	D	0.5	Complete Test Program
S200P	1	D	8	Complete Test Program
S200P	1	D	25	Complete Test Program
S200P	3	D	0.5	Complete Test Program
S200P	3	D	8	Complete Test Program
S200P	3	D	25	Complete Test Program
S200P	4	D	0.5	Calibration, Mech Endurance, Re-cal and Dielectric
S200P	4	D	8	Calibration
S200P	4	D	25	Calibration
S200P	1	B	6	Calibration & Temp rise
S200P	1	B	25	Calibration & Temp rise
S200P	1	K	0.2	Complete Test Program
S200P	1	K	8	Complete Test Program
S200P	1	K	25	Complete Test Program
S200P	3	K	0.2	Complete Test Program
S200P	3	K	8	Complete Test Program
S200P	3	K	25	Complete Test Program
S200P	4	K	0.2	Calibration
S200P	4	K	8	Calibration
S200P	4	K	25	Calibration
S200P	1	Z	0.5	Calibration
S200P	1	Z	8	Calibration
S200P	1	Z	25	Calibration
S200P	4	Z	0.5	Calibration
S200P	4	Z	8	Calibration
S200P	4	Z	25	Calibration

No additional tests were considered necessary.

Project 1603633:

This project covers Auxiliary Contact S2C-H6R an Alarm (Signal)/ Auxiliary Contact S2C-S/H6R. Complete test program was conducted at ABB, Heidelberg. Test results were submitted in the form of Submittor's test data and UL Inc. test data. The results are attached to the back of the report as Appendix – B (CSA Engineering File Copy).

The following audit tests were satisfactorily conducted at CSA international, Toronto. Tests were conducted in conjunction with a Supplementary protector

(a) Auxiliary Switch, S2C-H6R, 1A, 480V ac:
- Temperature rise
- Dielectric Strength
- Overload and Endurance test

(b) Signal Switch: S2C-S/H6R, 1A, 480V ac:
- Mechanical Endurance
- Dielectric Strength

Test results are as follows:

CSA INTERNATIONAL TEST REPORT			
CSA STD. C22.2 No. 235			
Device:	Auxiliary Switch	Cat. No.	S2C-H6R
Rating	1 A, 480 Vac; (1 N.O., 1 N.C.)	Pole(s):	1

OVERLOAD TEST:

Sample No.	No. of Opera-tions	Cycle Per Minute	Open Circuit Voltage	Close Circuit Voltage	Test Current	Freq.	Phase	Power Factor	Results
1	50	6**	480 V	480 V	1.5 A	60 Hz	1	72.3%	"A"

ENDURANCE TEST:

Sample No.	No. of Opera-tions	Cycle Per Minute	Open Circuit Voltage	Close Circuit Voltage	Test Current	Freq.	Phase	Power Factor	Results
1	6000	6**	480 V	480 V	1 A	60 Hz	1	72.2%	"A"

Remarks: ** - cycle rate was 1 sec ON and 9 sec OFF.

DIELECTRIC STRENGTH TEST:

Sample No.	Test Voltage	Between live parts and non-current-carrying metal parts with the contacts closed	Between terminals of opposite polarity with the contacts closed	Between live parts of different circuits
1	1980 Vac	"A"	"NA"	"A"

Denotations: "A" – Acceptable "NC" – Non-Conformance "NA" – Not Applicable

CSA INTERNATIONAL TEST REPORT			
CSA STD. C22.2 No. 235			
Device:	Auxiliary Switch	Cat. No.	S2C-S/H6R
Rating	1 A, 480 Vac; (1 N.O., 1 N.C.)	Pole(s):	1

ENDURANCE TEST:

Sample No.	No. of Operations	Cycle Per Minute	Open Circuit Voltage	Close Circuit Voltage	Test Current	Freq.	Phase	Power Factor	Results
1	6000	6**	No Load (Mechanical Test Only)						"A"

Remarks: ** - cycle rate was 1 sec ON and 9 sec OFF.

DIELECTRIC STRENGTH TEST:

Sample No.	Test Voltage	Between live parts and non-current-carrying metal parts with the contacts closed	Between terminals of opposite polarity with the contacts closed	Between live parts of different circuits
1	1980 Vac	"A"	"NA"	"A"

Denotations: "A" – Acceptable "NC" – Non-Conformance "NA" – Not Applicable

TEMPERATURE TEST:

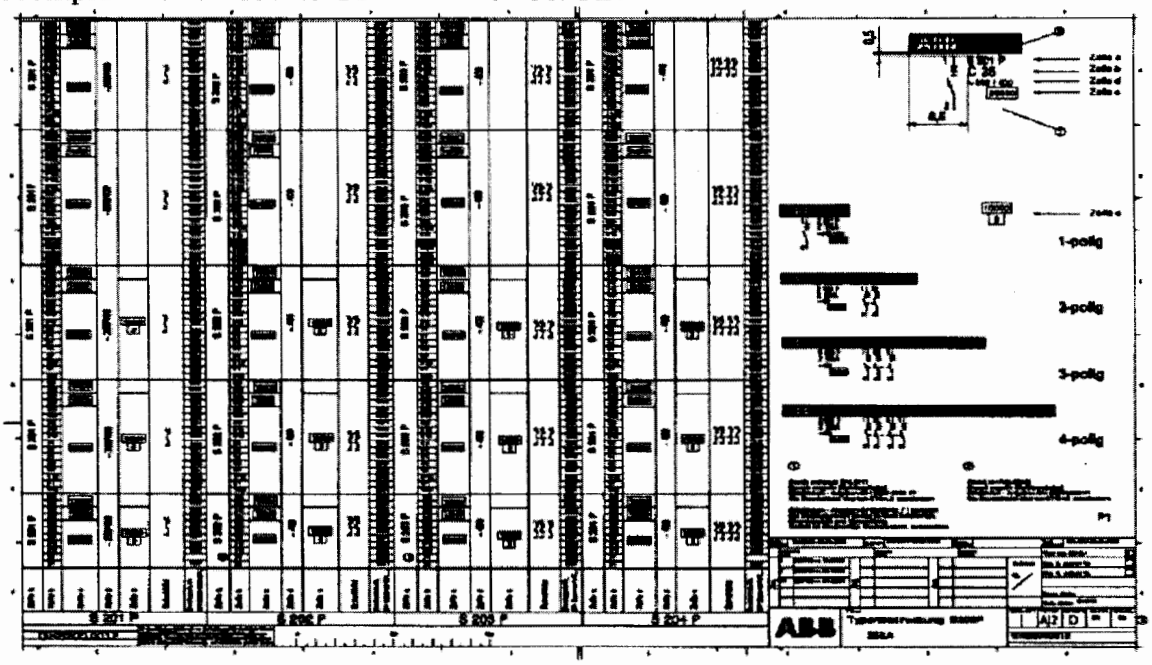
Test Current: 25 A (Main); 1 A (Auxiliary)
Wire Used: #10 AWG "Cu" (Main); #18 AWG "Cu" (Auxiliary)
Enclosure Dimension: 230 mm x 85 mm x 75 mm

Thermocouple Locations (Sample No. 3)	Temp. Rdg. (°C)	Temp. Rise (K)
Aux. Switch Terminal (labeled "C")	48.1	24.7
Aux. Switch Terminal (labeled "NO")	58	34.6
Case	50	26.6
Ambient	23.4	---

Remarks: Above temperature test consisted of three pole supplementary protector rated 25 A, mated with the auxiliary switch rated 1 A.

No additional tests were considered necessary

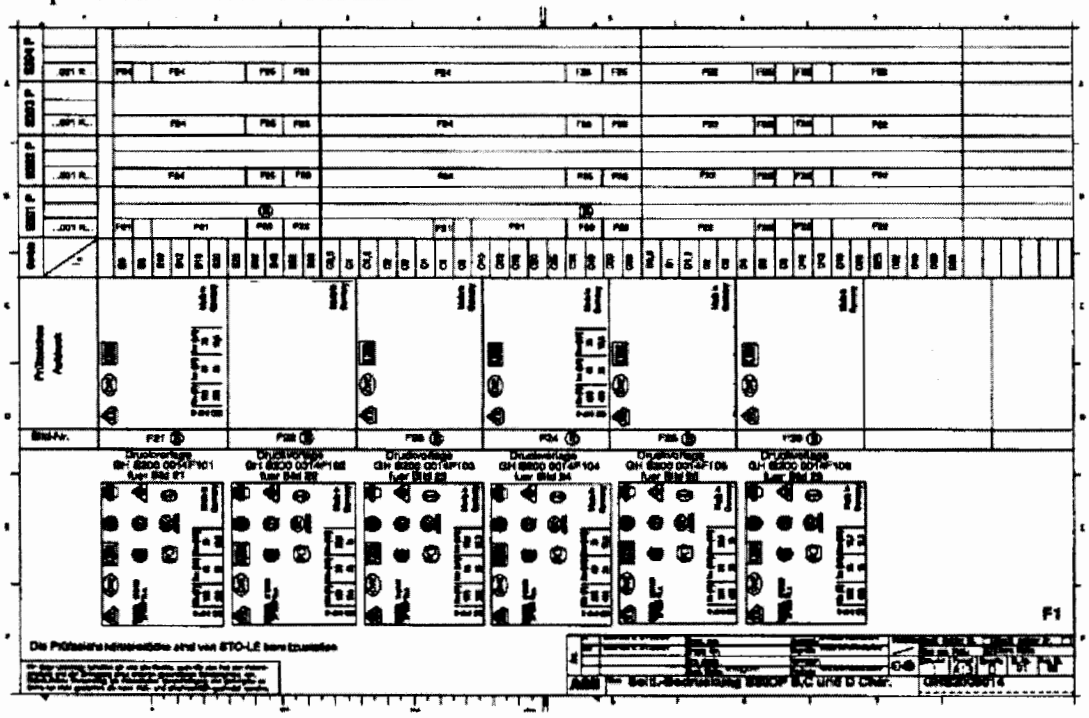
Frontprint S200P acc. to CSA22.2 No:235/UL1077



detail frontprint S200P acc. to CSA22.2 No:235/UL1077

Illustration – 1 (Sheet 1 of 3)
Project # 183691-1546299

Sideprint S200P acc. to CSA22.2 No:235/UL1077



detail Sideprint S200P acc. to CSA22.2 No:235/UL1077 (template)

277/480 Va.c.

A001546

Made in Germany

Illustration – 1 (Sheet 2 of 3)
Project # 183691-1546199

Additional print on packaging box S200P (CSA22.2 No:235/UL1077):

UL1077 AC	$I_n \leq 25A$	S.C.: I_p = 10kA	U_p = 277/480V
	$32 \leq I_n \leq 63A$	S.C.: I_p = 6kA	U_p = 277/480V
AC			
CSA22.2 No. 235	$I_n \leq 25A$	S.C.: I_p = 10kA	U_p = 277/480V AC

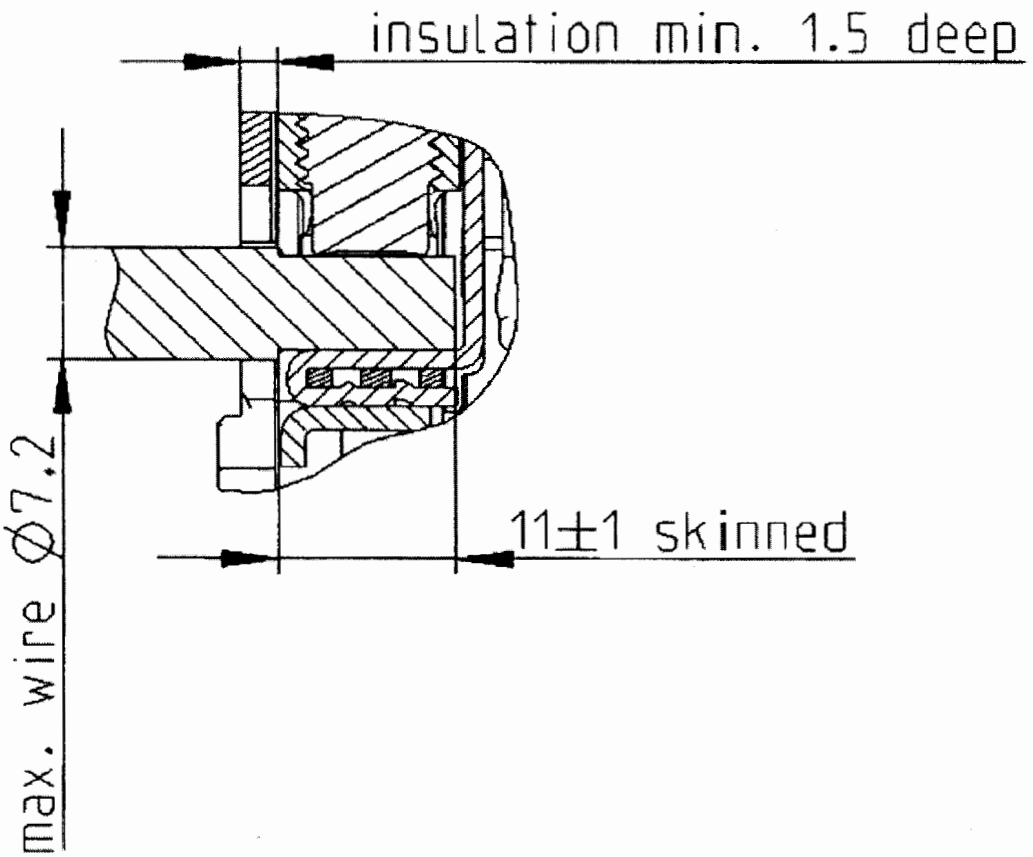


Illustration – 1 (Sheet 3 of 3)
Project # 183691-1546299

ABB MCB Type S200P - K

Tripping Characteristic

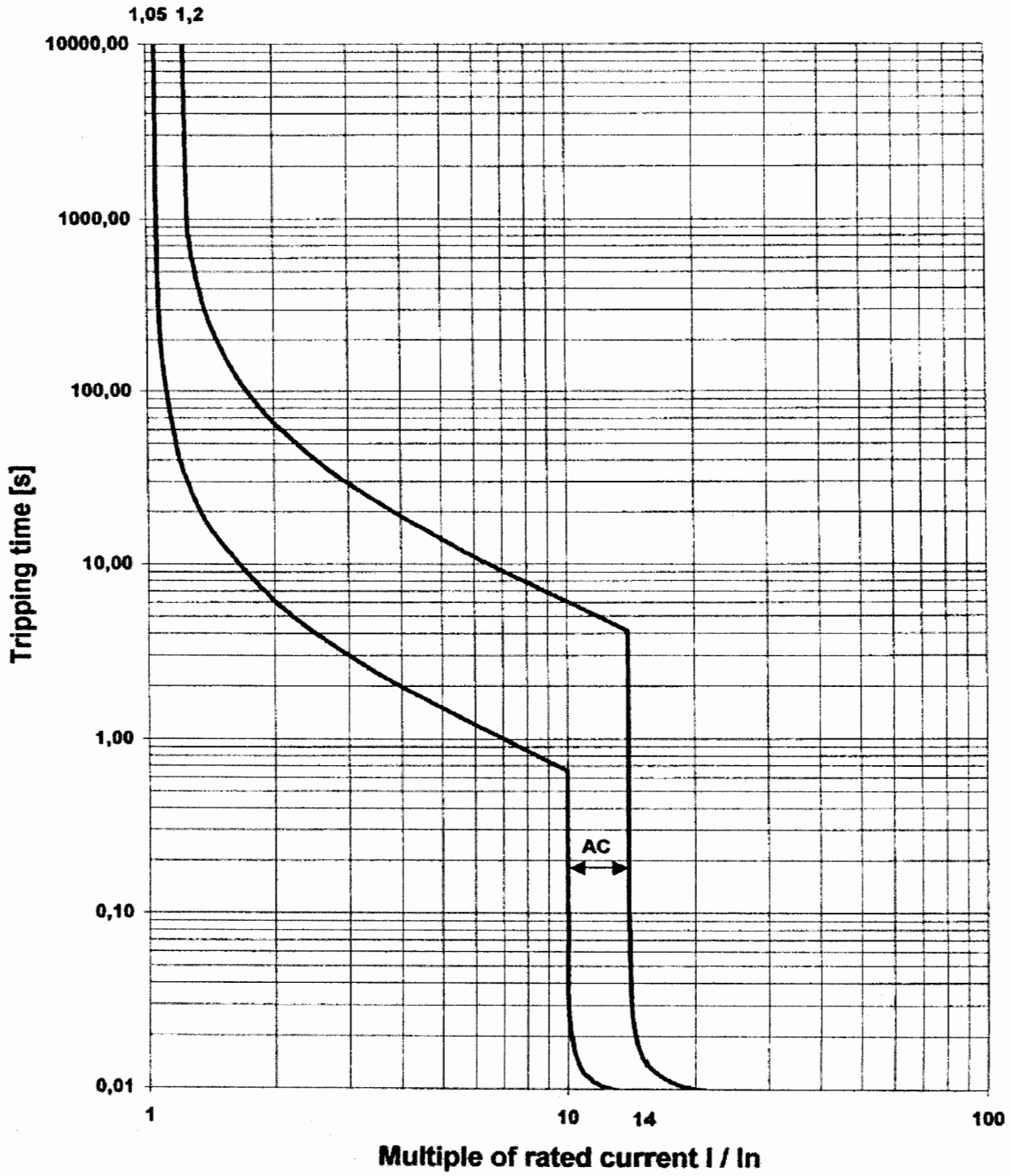


Illustration – 2
Project # 183691-1546299

ABB MCB Type S200P - D

Tripping Characteristic

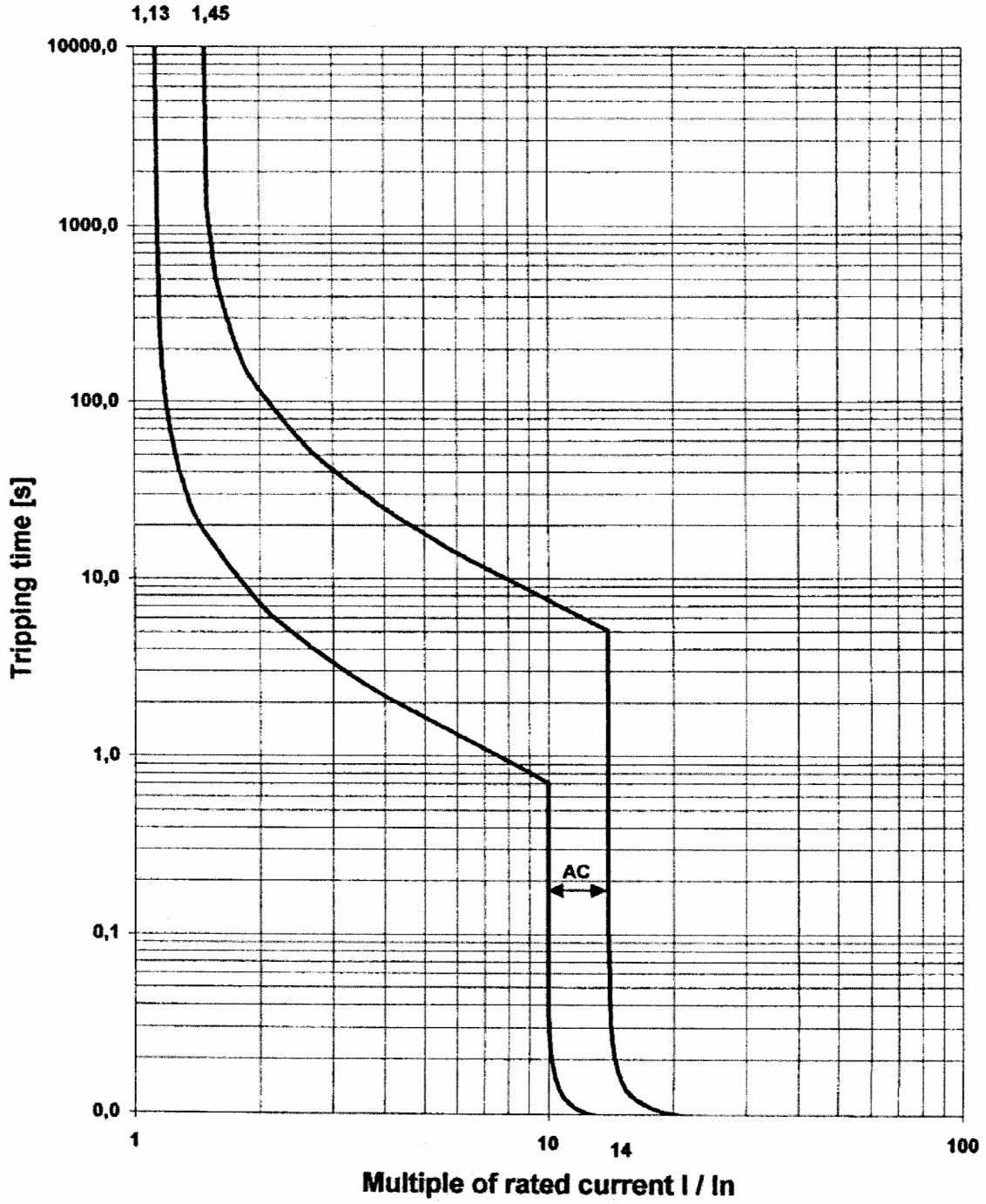


Illustration – 3
Project # 183691-1546299

ABB MCB Type S200P - Z

Tripping Characteristic

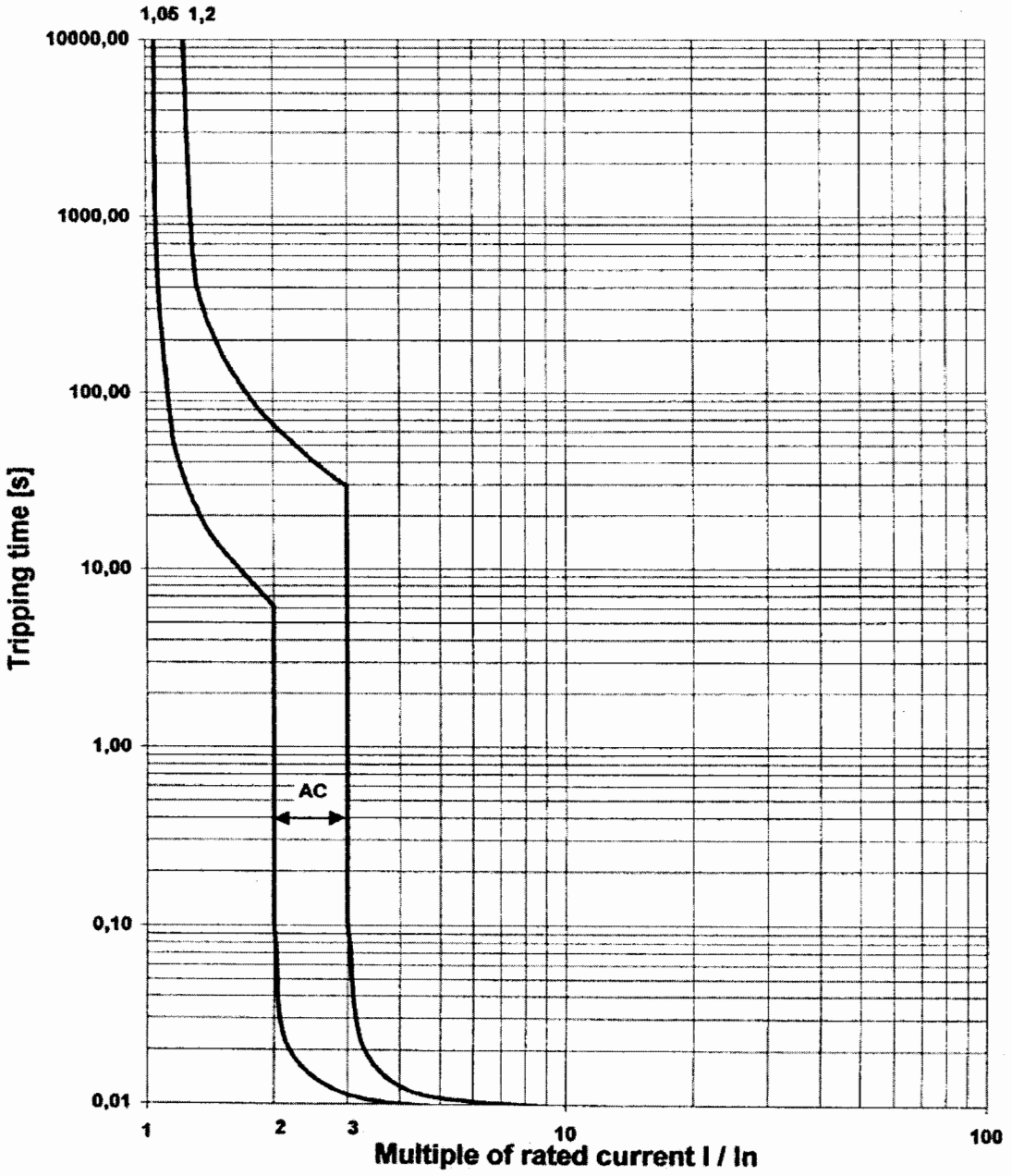


Illustration – 4
Project # 183691-1546299

1. Signal contact and auxiliary switches

Retrofittable to the right side of circuit-breakers or shunt releases without extra installation devices

1.1 Universal signal contact/ auxiliary switch type S2C-S/H6R

Description
S2 = serial code

S 2 C - S / H 6 R

R = right side-mounted
6 = change-over
H = auxiliary switch
S = signal contact
C = compatible to pro M compact

S2C-S/H6R is a universal device complementing the range of pro M compact, which is supplied to offer signal contact functionality or the auxiliary switch can be activated, all you need is a screwdriver. The universal switch can be with MCBs and RCCBs. Up to three S2C-H6R can be mounted (one signal contact max. fitted to MCB or RCCB). Both the switchgear and the S2C-S/H6R must be in the ON-end position to ensure that the coupling is correct.

Function of the signal contact S
Signal is transmitted only if caused by fault-tripping of the circuit-breaker, but not if the switch has been switched on or off manually. Press the orange reset button to acknowledge the has-tripped signal

Function of the auxiliary switch H
The switch always indicates the switching position of the MCB, irrespective of whether the switching position is attributable to manual operation or fault tripping.

Functionality selection
To select either the signal contact function S or the auxiliary switch H, use a screwdriver and adjust to position S, or as the case may be, H at the side of the device

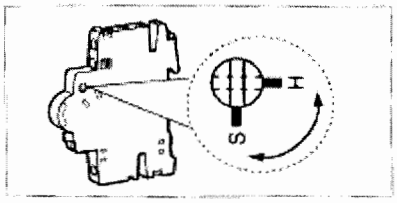


Illustration – 5 (Sh 1 of 2)
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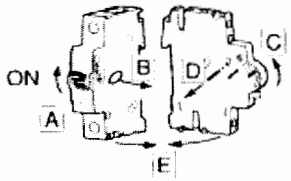
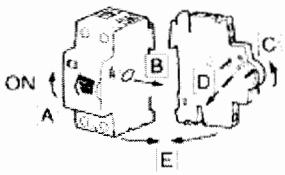
Installation:

1. Mounting one S2C-S/H6R

• RCCB or MCB must be in the ON position → remove coupling cover on the right side of the MCB/RCCB → signal contact / auxiliary switch in ON position → if fitted to MCB, remove bottom (RCD), if fitted to RCCB middle (MCB) coupling pin → plug devices together.



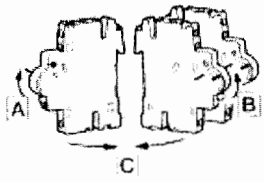
SK 0287 Z 02



SK 0288 Z 02

2. Mounting more than one S2C-S/H6R

Up to three S2C-H6R can be mounted.
Note: one signal contact max. fitted at first to MCB or RCCB
If fitted to an MCB, remove the bottom coupling pin (RCD), if fitted to an RCCB, remove the middle coupling pin (MCB), switch all signal contact/ auxiliary switches to the end position ON, plug them together and carry through a function control test.



SK 0285 Z 02

Function control test:

After all signal contacts / auxiliary switches or auxiliary switches have been mounted, use the upper coupling pin to switch on the devices (ON position). If the lower (for RCD) or, as the case may be, the middle (for MCB) coupling pin is operated, all devices must trip.

Now combination with MCB / RCCB:

RCCB or MCB must be in the ON position → remove coupling cover on the right side of the MCB/RCCB → signal contact / auxiliary switch in ON position → if fitted to MCB, remove bottom (RCD), if fitted to RCCB middle (MCB) coupling pin → plug devices together.

Test functions of the signal contact

in ON and OFF position after hand operation

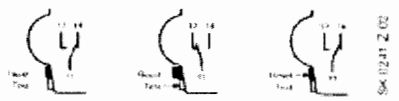
SK 11249 Z 02

in ON position after tripping

SK 3242 Z 02

Test functions of the auxiliary switch

in ON position



SK 11241 Z 02

in OFF position

SK 0313 Z 02

Illustration – 5 (Sh 2 of 2)
Project # 183691-1546299

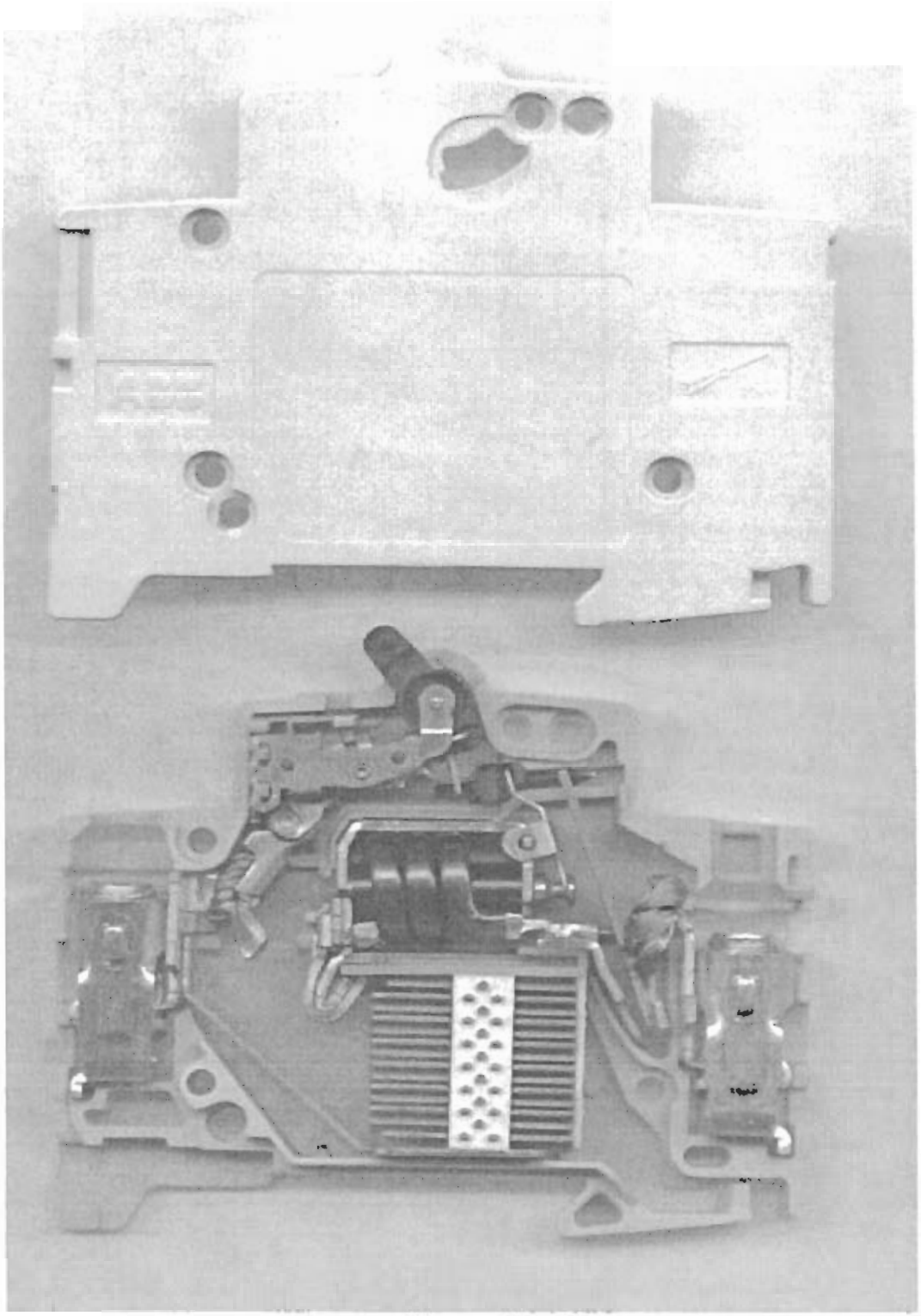


Figure – 1
S200P – 10A and Higher (Assembly)
Project # 183691-1546299

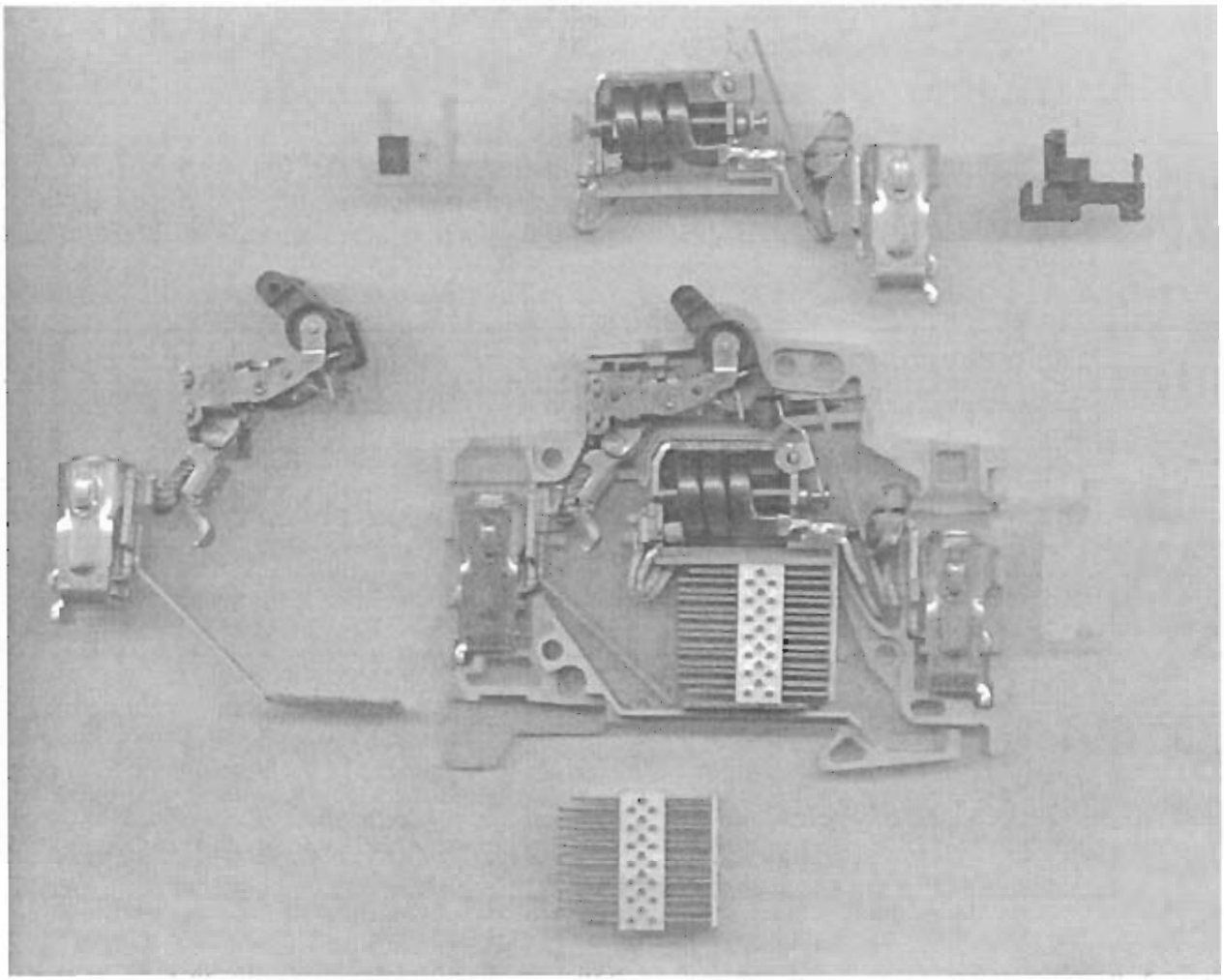


Figure – 2
S200P – 10A and Higher (Parts)
Project # 183691-1546299

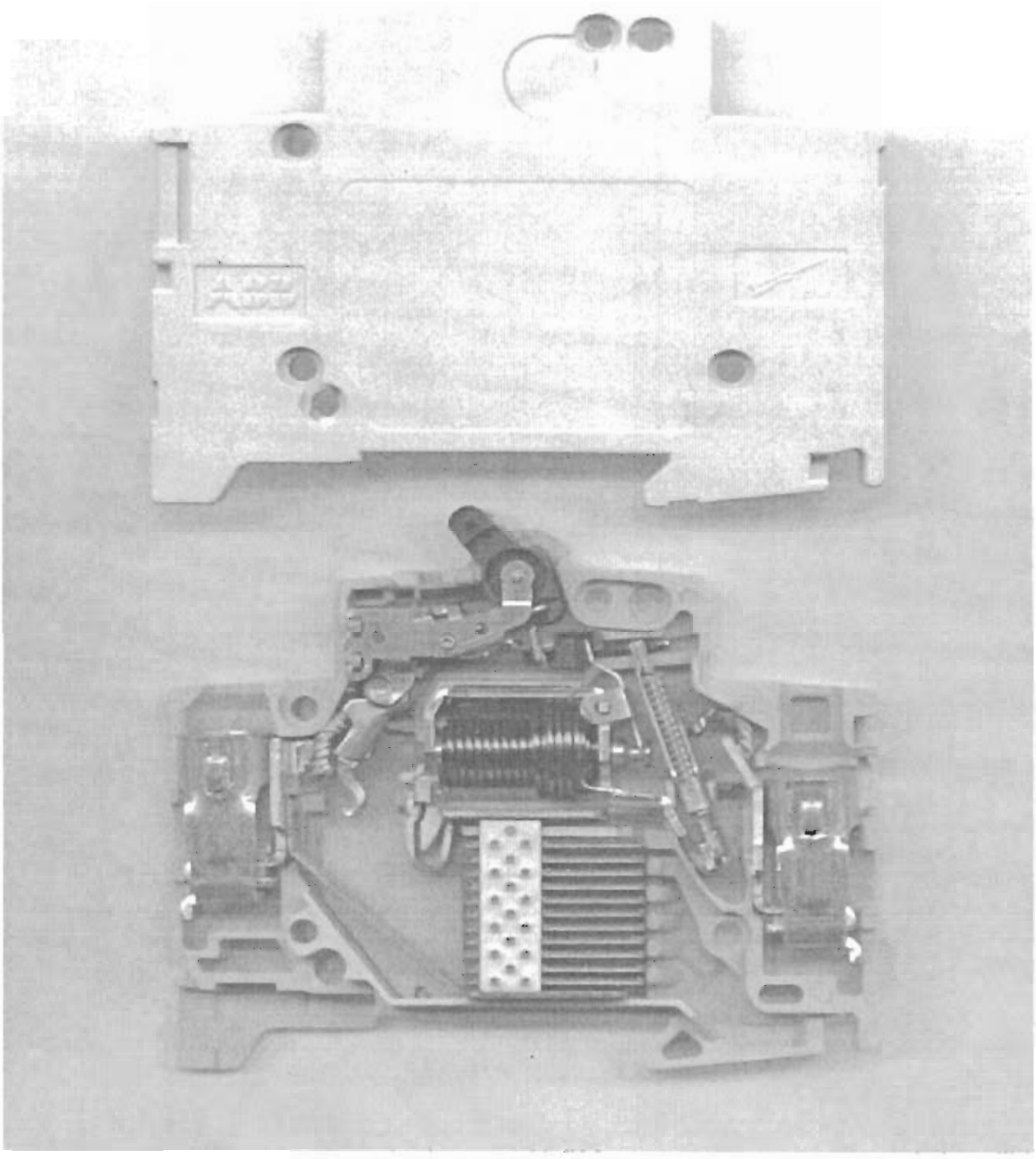


Figure – 3
S200P – Up to 8A (Assembly)
Project # 183691-1546299

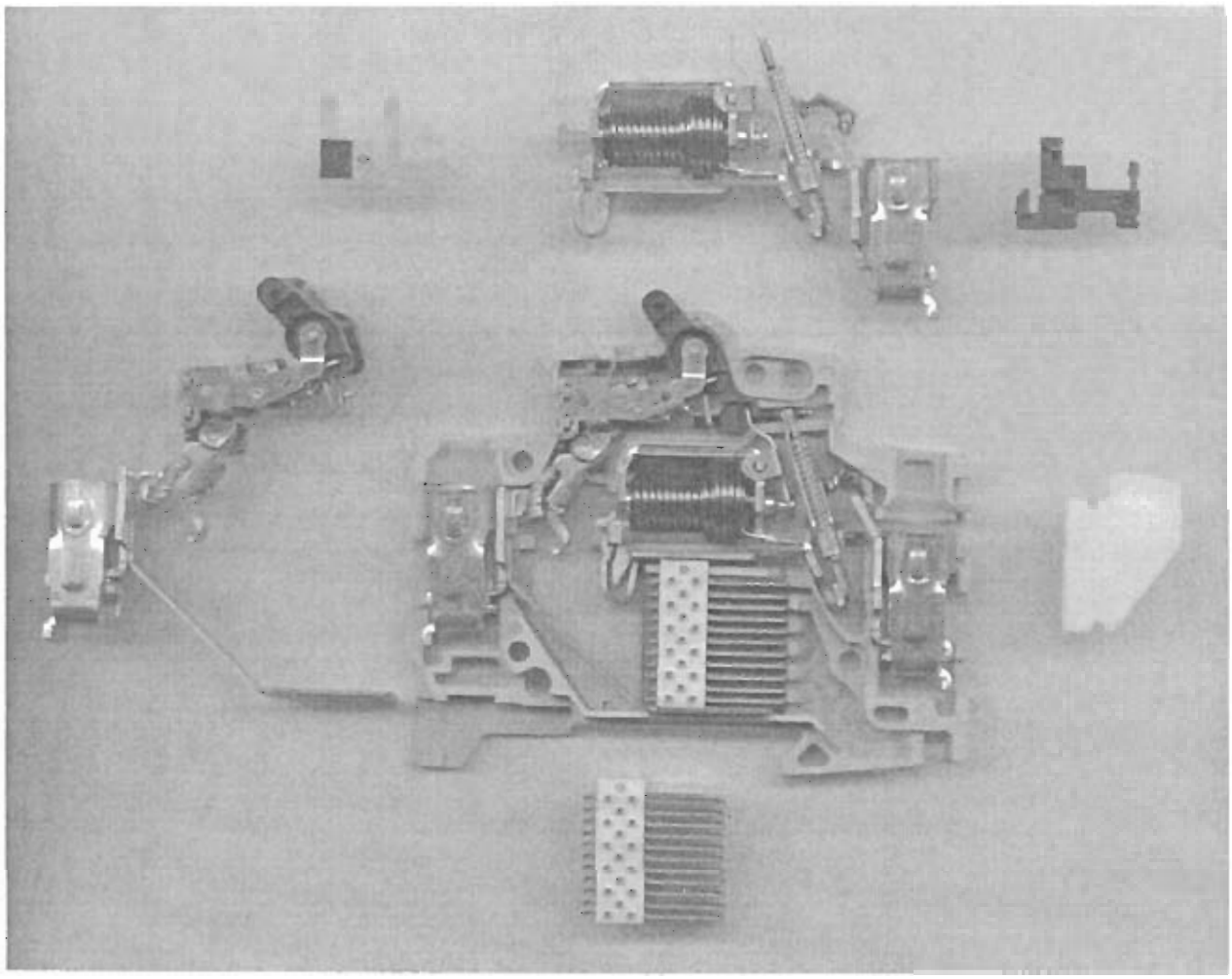


Figure – 4
S200P – Up to 8A (Parts)
Project # 183691-1546299

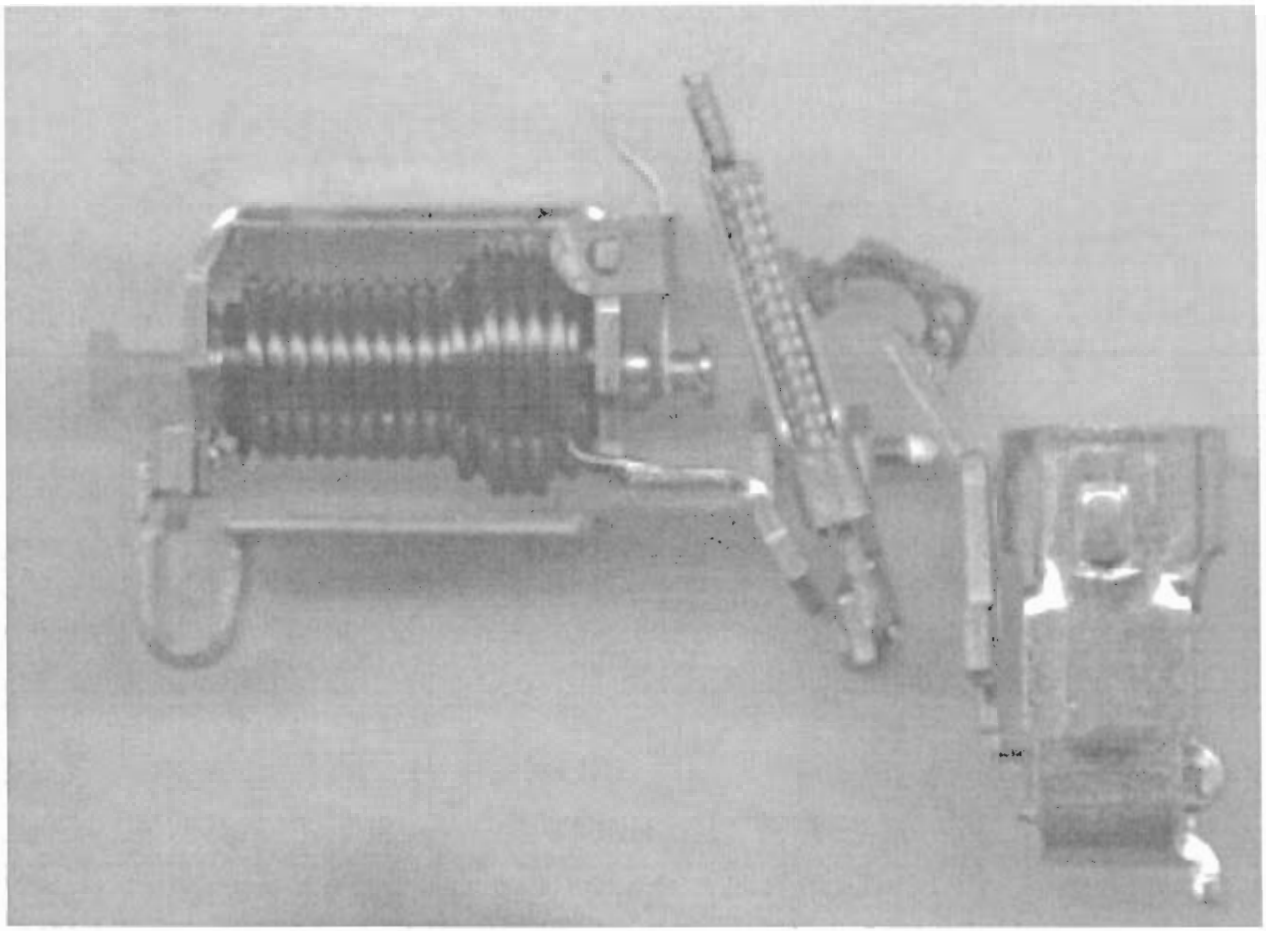


Figure – 5
S200P – Up to 8A (Details of Coil)
Project # 183691-1546299

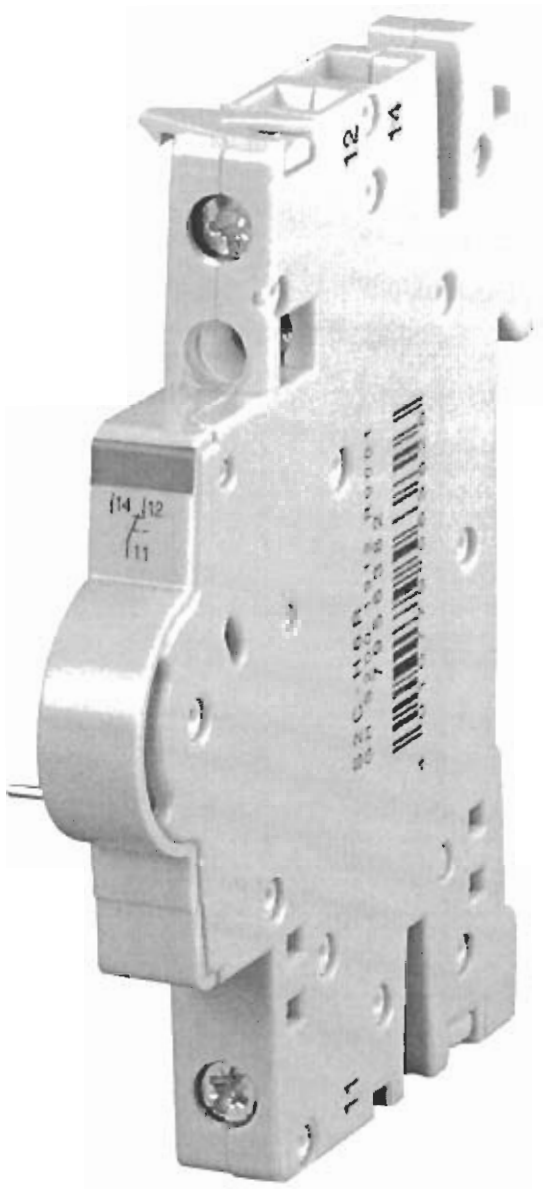


Figure – 6
Project # 183691-1546299

Auxiliary Switch

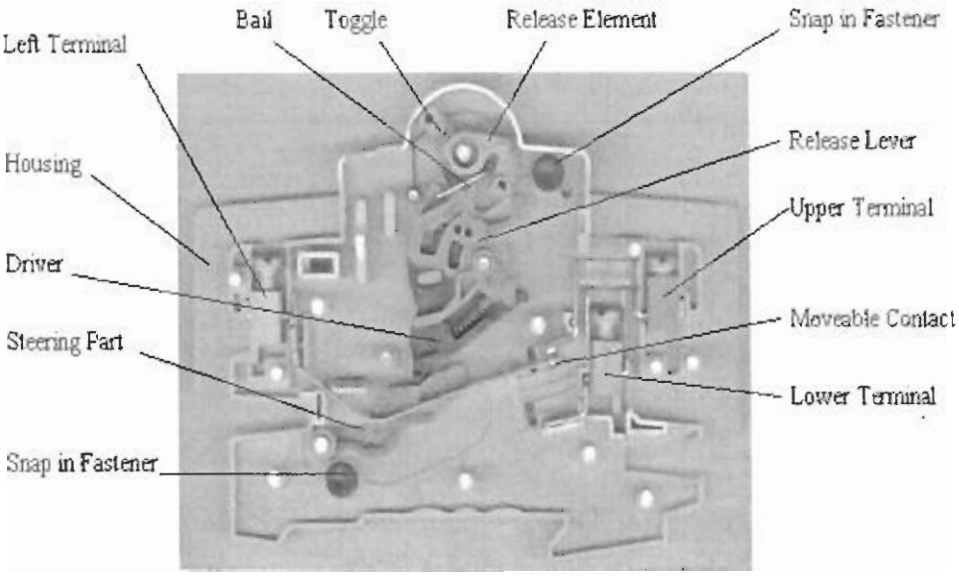


Figure – 7
Project # 183691-1546299

Figure – 8
Project # 183691-1546299

Signal Contact

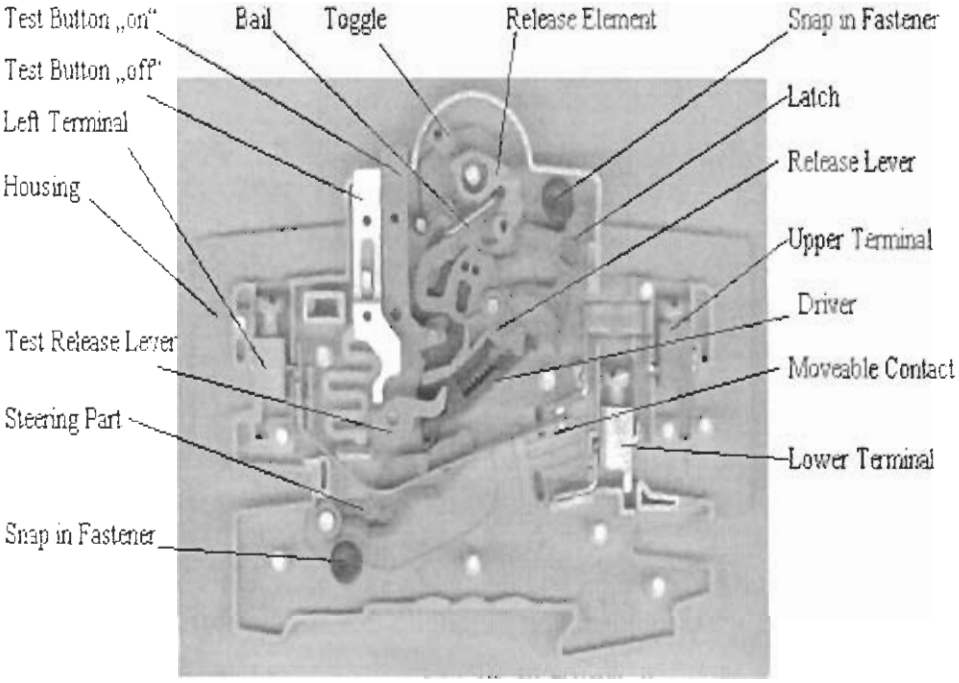


Figure – 9
Project # 183691-1546299