

# Components for System Solutions

## RCD/MCB Residual current circuit breaker

With integrated overcurrent protection

8530/1-RCBO-STAA101N-300-B16-300-3 Art. No. 299430



- Fault current monitoring and tripping in the event of overcurrent and short circuit
- Combination of residual current circuit breaker and miniature circuit breaker: Saves space, reduces installation effort
- Safe functional test using the integrated test button
- Can be used globally thanks to international approvals
- Simple replacement or expansion of your system thanks to a modular circuit breaker design
- Simple installation – it snaps onto the mounting rail in Ex e enclosures
- Padlocks provide protection against being switched on again during maintenance work
- Ergonomically shaped operating lever guarantees that the system can be switched on and off safely

MY R. STAHL 8530C



The RCD/MCB 8530 series from R. STAHL is a residual current circuit breaker and a miniature circuit breaker in one:

It monitors residual currents and triggers in the event of large residual currents. In addition, it protects against overvoltage, switches off short circuits up to 10 kA and therefore protects the cables in their systems in the event of an earth fault, overload or short circuit. The excellent current limiting feature reduces the cable load in the event of a short circuit. The residual current tripping variants A, AS, AP-R, B, BS, B+ and F, as well as an A110V version, are available.

## Technical Data

### Explosion Protection

Application range (zones)	1 2
Application range (Zone) note	For use in Zone 21/22 when protected by Ex tb/tc enclosure
IECEX gas certificate	IECEX FMG 19.0029U
IECEX gas explosion protection	Ex db eb IIC Gb
ATEX gas certificate	FM19ATEX0191U
ATEX gas explosion protection	Ex II 2 G Ex db eb IIC Gb
Certificates	ATEX (FM), Brazil (ULB), China (CQST), IECEX (FM)
Declaration of Conformity	Certificate of conformity (ATEX), China (CCC)

### Electrical Data

Rated operational voltage AC	230 V
Rated operational current	16 A
Frequency	50/60 Hz
Rated switching capacity	10 kA
Electrical service life	2 x 10 <sup>4</sup>
Mechanical service life	2 x 10 <sup>4</sup>
Rated residual current	0.3 A
1st auxiliary function	Fault signal contact 1 change-over contact
1st auxiliary function for AC rated voltage	230 V
1st auxiliary function for rated current max.	2 A
2nd auxiliary function	without
Release type	Sensitive to alternating/pulse current

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STAHL

## Electrical Data

Tripping characteristic	B
No. of poles	1-pole + N

## Ambient Conditions

Ambient temperature	-25 °C ... 55 °C
Ambient temperature	-13°F ... +131°F
Ambient temperature note	Deviating ambient temperatures based on current certificates available on request

## Mechanical Data

Degree of protection (IP) (IEC 60529)	IP2X
Enclosure material	Thermoplast
Connection cross section min.	1.5 mm <sup>2</sup>
Connection cross-section max.	25 mm <sup>2</sup>
Connection cross-section min. AWG	16 AWG
Connection cross-section AWG max.	4 AWG
Connection cross-section 2 min.	1.5 mm <sup>2</sup>
Connection cross-section 2 max.	10 mm <sup>2</sup>
Connection cross-section 2 min. AWG	16 AWG
Connection cross-section 2 max. AWG	8 AWG
Connection cross-section of auxiliary contact min.	0.5 mm <sup>2</sup>
Connection cross-section of auxiliary contact max.	4 mm <sup>2</sup>
Connection cross-section of auxiliary contact AWG min.	26
Connection cross-section of auxiliary contact AWG max.	12
Min. tightening torque	2 Nm
Max. tightening torque	3 Nm
Connection cross-section note	<b>2-conductor connection (upper and lower chamber at the same time):</b> - upper and lower chamber max. 16 / 10 mm <sup>2</sup> (A maximum difference of one cross section may be clamped between the upper and lower chamber.)  The permitted combinations of connection cross-sections can be found in the operating instructions.
Width	83 mm
Width, inches	3.27 in
Length	165 mm
Length, inches	6.5 in
Depth of cut-out	138.3 mm
Mounting depth, inches	5.44 in
Weight	1.3 kg
Weight	2.867 lb

## Mounting / Installation

Tightening torque	2 – 3 Nm
Tightening torque lbf in	17.7 to 26.6 lbf-in
Tightening torque auxiliary contact	0.4 – 0.6 Nm
Tightening torque auxiliary contact lbf in	3.5 to 5.3 lbf in

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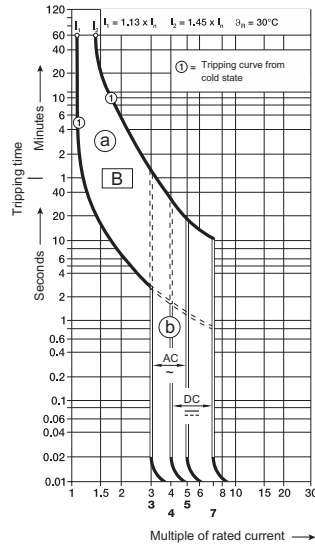
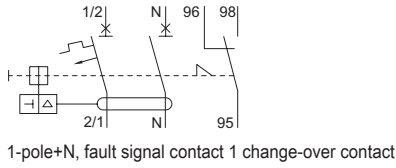
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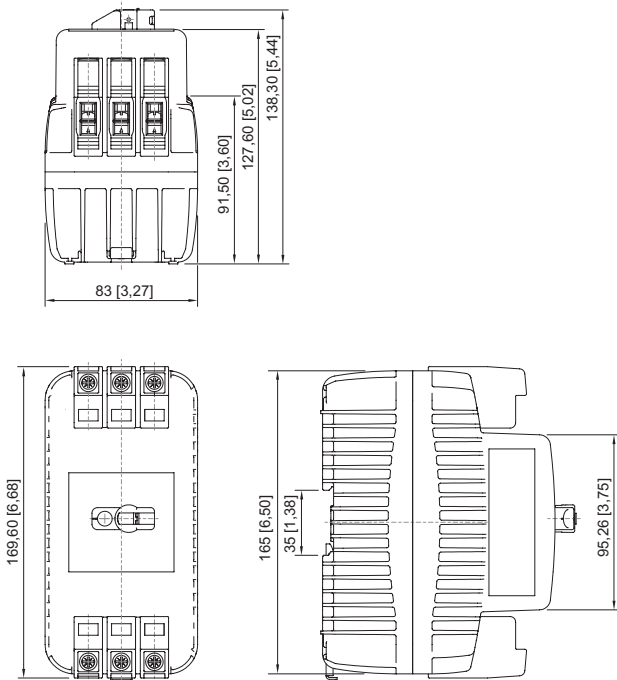
8530/1-RCBO-STAA101N-300-B16-300-3 Art. No. 299430



## Technical Drawings – Subject to Alterations



## Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



8530/1; 3 partition units

## Accessories

### Cylinder lock



for closing (bracket Ø 3)

Art. No.

107115

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### Fastening set



A fastening set for attaching the component to the mounting plate without a DIN rail.

Art. No.

276618

### Locking device quadruple



A lock-out / tag-out scissor for individual locking of the component using up to 4 cylinder locks.

Art. No.

227232

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.