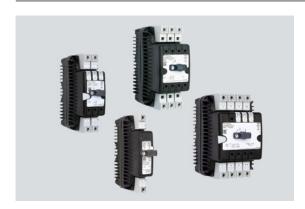
#### MCB Miniature circuit breaker



### 8530/1-MCB-STA103N-B32-100-4 Art. No. 293869



- · Isolation function in accordance with EN60947-2
- Energy limitation class 3
- 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
- · Non-adjustable thermal and magnetic releases
- Ergonomically shaped operating lever guarantees that the system can be switched on and off safely
- Padlocks (Accessories) provide protection against being switched on again during maintenance work

#### MY R. STAHL 8530A



R. STAHL 8530 series miniature circuit breakers are overcurrent devices that also provide good current limiting for short circuits and a high switching capacity of 10, 15 or 25 kA. This results in a low load on cables and a high selectivity for upstream fuses. The components have a modular design and are therefore available in 1- to 4-pole versions and for rated currents of 0.5-63 A. The maximum installation capacity is 4.5 subunits.

#### **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	
Certificates	ATEX (FM), Brazil (ULB), China (CQST), IECEx (FM)
Declaration of Conformity	Certificate of conformity (ATEX)
Electrical Data	
Rated operational voltage AC	230/400 V
Rated operational current	32 A
Frequency	50/60 Hz
Rated switching capacity	10 kA
Electrical service life	10⁴
Mechanical service life	2 x 10 <sup>4</sup>
1st auxiliary function	Auxiliary 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
Tripping characteristic	В
No. of poles	3-pole + N
Ambient Conditions	
Ambient temperature	-25 °C 55 °C
Ambient temperature	-13°F +131°F

### MCB Miniature circuit breaker



### 8530/1-MCB-STA103N-B32-100-4 Art. No. 293869

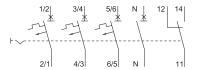
Degree of protection (IP) (IEC 60529)  Degree of protection (IP) (IEC 60529)  IP2X  Enclosure material  Connection cross section min.  1.5 mm²  Connection cross-section max.  25 mm²  Connection cross-section min. AWG  Connection cross-section Nax.  25 mm²  Connection cross-section Nax.  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 min.  10 mm²  Connection cross-section 2 min. AWG  Connection cross-section 6 auxiliary  contact min.  Connection cross-section of auxiliary  contact AWG min.  Connection cross-section of auxiliary  contact AWG min.  Connection cross-section of auxiliary  contact AWG max.  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time):  - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  1.8 kg  Weight  1.7. To 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Ambient Conditions	
Degree of protection (IP) (IEC 60529) Enclosure material Connection cross section min. Connection cross-section max. Connection cross-section max. Connection cross-section max. Connection cross-section max. Connection cross-section AWG max. 4 MWG Connection cross-section 2 min. 1.5 mm² Connection cross-section 2 min. Connection cross-section 6 auxiliary Connection cross-section of auxiliary  12  Nm Max. tightening torque  2 Nm  Max. tightening torque  2 - Nm  Max. tightening torque  3 Nm  Connection cross-section of auxiliary  a Nm  Conne	Ambient temperature note	Deviating ambient temperatures based on current certificates available on request
Enclosure material Thermoplast  Connection cross-section min.  Connection cross-section max.  Connection cross-section ax.  Connection cross-section ax.  Connection cross-section ax.  4 AWG  Connection cross-section ax.  15 mm²  Connection cross-section 2 min.  15 mm²  Connection cross-section 2 mix.  Connection cross-section of auxiliary contact mix.  Connection cross-section of auxiliary contact mix.  Connection cross-section of auxiliary contact MVG mix.  Connection cross-section of auxiliary contact MVG mix.  Connection cross-section of auxiliary contact AWG mix.  20  21  22  23 Nm  Max. tightening torque  Connection cross-section note  Width mix besselved a mix be conducted a connection cross-section note may be clamped between the upper and lower chamber at the same time):  - upper and lower chamber max. 16 / 10 mm² (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 110 mm  Width, inches 4.33 in  Length inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth, inches 5.44 in  Weight 3.969 ib  Mounting / Installation  Tightening torque   2 – 3 Nm  Tightening torque   2 – 3 Nm  Tightening torque auxiliary contact   0.4 – 0.6 Nm	Mechanical Data	
Connection cross-section min.  Connection cross-section max.  Connection cross-section 2 min.  Connection cross-section of auxiliary  contact min.  Connection cross-section of auxiliary  contact min.  Connection cross-section of auxiliary  contact AWG min.  Connection cross-section of auxiliary  contact AWG min.  Connection cross-section of auxiliary  contact AWG max.  Min. tightening torque  Ax. tightening torque  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time):  - upper and lower chamber max. 16 / 10 mm² (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, inches  4.33 in  Length, inches  6.5 in  Depth of cut-out  136.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  3.969 lb  Mounting / Installation  Tightening torque  17,7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Degree of protection (IP) (IEC 60529)	IP2X
Connection cross-section max.  Connection cross-section AWG max.  Connection cross-section AWG max.  Connection cross-section 2 min.  Connection cross-section of auxiliary contact min.  Connection cross-section of auxiliary contact min.  Connection cross-section of auxiliary contact Max.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section note  2 Nm  Max. tightening torque  2 Nm  As tightening torque  2 - Conductor connection (upper and lower chamber at the same time):  - upper and lower chamber max. 16 / 10 mm² (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  Midth  110 mm  Width, inches  4.33 in  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  1.8 kg  Weight  1.7 To 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Enclosure material	Thermoplast
Connection cross-section min. AWG Connection cross-section 2 min. AWG Connection cross-section 2 min. AWG Connection cross-section 2 min. AWG Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary a Nm Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary a Nm Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary a Nm Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary a Nm Connection cross-section of auxilia	Connection cross section min.	1.5 mm²
Connection cross-section AWG max.    Connection cross-section 2 min.    Connection cross-section 2 max.    Connection cross-section 2 max.    Connection cross-section 2 max. AWG    Connection cross-section 2 max. AWG    Connection cross-section 6 maxiliary    Connection cross-section of auxiliary    The permitted connection (upper and lower chamber at the same time):    - upper and lower chamber max. 16 / 10 mm² (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	Connection cross-section max.	25 mm²
Connection cross-section 2 min.  Connection cross-section 2 min. AWG Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact max. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG min.  2 Nm Max. tightening torque 3 Nm Connection cross-section note  2 conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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 110 mm Width, inches 4.33 in Length Length 165 mm Length Length 165 mm Mounting depth, inches 5.44 in Weight 1.8 kg Weight 3.969 lb Mounting / Installation Tightening torque 17.7 to 26.6 lbf-lin Tightening torque auxiliary contact 0.4 – 0.6 Nm	Connection cross-section min. AWG	16 AWG
Connection cross-section 2 max. 10 mm² Connection cross-section 2 min. AWG 8 AWG Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact max. Connection cross-section of auxiliary contact max. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary contact AWG max. Min. tightening torque 2 Nm Max. tightening torque 3 Nm Connection cross-section note	Connection cross-section AWG max.	4 AWG
Connection cross-section 2 min. AWG Connection cross-section 2 max. AWG Connection cross-section of auxiliary contact min.  Connection cross-section of auxiliary contact max.  Connection cross-section of auxiliary contact max.  Connection cross-section of auxiliary contact max.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG max.  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  Width, inches  Length, inches  Length, inches  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  1.9 kg  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque  17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  17.7 to 26.6 lbf-in  Tightening torque auxiliary contact	Connection cross-section 2 min.	1.5 mm <sup>2</sup>
Connection cross-section 2 max. AWG Connection cross-section of auxiliary contact min. Connection cross-section of auxiliary contact max. Connection cross-section of auxiliary contact max. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary contact AWG min. Connection cross-section of auxiliary contact AWG max.  Min. tightening torque 2 Nm Max. tightening torque 3 Nm Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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 110 mm Width, inches 4.33 in Length, inches 0.5 in Depth of cut-out 138.3 mm Mounting depth, inches 5.44 in Weight 1.8 kg 3.999 lb Mounting / Installation Tightening torque 17.7 to 26.6 lbf-in Tightening torque auxiliary contact 0.4 – 0.6 Nm	Connection cross-section 2 max.	10 mm²
Connection cross-section of auxiliary contact min.  Connection cross-section of auxiliary contact min.  Connection cross-section of auxiliary contact max.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG max.  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  1.8 kg  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque bif in  17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Connection cross-section 2 min. AWG	16 AWG
Connection cross-section of auxiliary contact max.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG max.  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4,33 in  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5,44 in  Weight  1,8 kg  Weight  1,8 kg  Weight  1,8 kg  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque auxiliary contact  0,4 – 0.6 Nm	Connection cross-section 2 max. AWG	8 AWG
Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG max.  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  3.969 lb  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Connection cross-section of auxiliary contact min.	0.5 mm <sup>2</sup>
Connection cross-section of auxiliary contact AWG min.  Connection cross-section of auxiliary contact AWG max.  Min. tightening torque  2 Nm  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length Length Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg Weight  3.969 lb  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Connection cross-section of auxiliary contact max.	4 mm <sup>2</sup>
contact AWG max.  Min. tightening torque  2 Nm  3 Nm  Connection cross-section note  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length 165 mm  Length, inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth, inches 5.44 in  Weight 1.8 kg  Weight 3.969 lb  Mounting / Installation  Tightening torque 2 – 3 Nm  Tightening torque auxiliary contact 0.4 – 0.6 Nm	Connection cross-section of auxiliary contact AWG min.	26
Max. tightening torque  Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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  110 mm  Width, inches  4.33 in  Length  165 mm  Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  3.969 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	Connection cross-section of auxiliary contact AWG max.	12
Connection cross-section note  2-conductor connection (upper and lower chamber at the same time): - upper and lower chamber max. 16 / 10 mm² (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 110 mm  Width, inches 4.33 in  Length 165 mm  Length, inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth, inches 5.44 in  Weight 1.8 kg  Weight 3.969 lb  Mounting / Installation  Tightening torque 12 – 3 Nm  Tightening torque lbf in 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact 0.4 – 0.6 Nm	Min. tightening torque	2 Nm
- upper and lower chamber max. 16 / 10 mm² (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 110 mm  Width, inches 4.33 in  Length 165 mm  Length, inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth, inches 5.44 in  Weight 1.8 kg  Weight 3.969 lb  Mounting / Installation  Tightening torque 2 - 3 Nm  Tightening torque auxiliary contact 0.4 - 0.6 Nm	Max. tightening torque	3 Nm
Width, inches       4.33 in         Length       165 mm         Length, inches       6.5 in         Depth of cut-out       138.3 mm         Mounting depth, inches       5.44 in         Weight       1.8 kg         Weight       3.969 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	Connection cross-section note	<ul> <li>upper and lower chamber max. 16 / 10 mm² (A maximum difference of one cross section may be clamped between the upper and lower chamber.)</li> <li>The permitted combinations of connection cross-sections can be found in the operating</li> </ul>
Length       165 mm         Length, inches       6.5 in         Depth of cut-out       138.3 mm         Mounting depth, inches       5.44 in         Weight       1.8 kg         Weight       3.969 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	Width	110 mm
Length       165 mm         Length, inches       6.5 in         Depth of cut-out       138.3 mm         Mounting depth, inches       5.44 in         Weight       1.8 kg         Weight       3.969 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	Width, inches	4.33 in
Length, inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth, inches  5.44 in  Weight  1.8 kg  Weight  3.969 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	Length	165 mm
Depth of cut-out 138.3 mm  Mounting depth, inches 5.44 in  Weight 1.8 kg  Weight 3.969 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	Length, inches	
Mounting depth, inches  5.44 in  1.8 kg  Weight  3.969 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	Depth of cut-out	
Weight 3.969 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	Mounting depth, inches	5.44 in
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	Weight	1.8 kg
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	Weight	3.969 lb
Tightening torque lbf in 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact 0.4 – 0.6 Nm	Mounting / Installation	•
Tightening torque auxiliary contact 0.4 – 0.6 Nm	Tightening torque	2 – 3 Nm
	Tightening torque lbf in	17.7 to 26.6 lbf-in
Tightening torque auxiliary contact lbf in 3.5 to 5.3 lbf in	Tightening torque auxiliary contact	0.4 – 0.6 Nm
	Tightening torque auxiliary contact lbf in	3.5 to 5.3 lbf in

### MCB Miniature circuit breaker

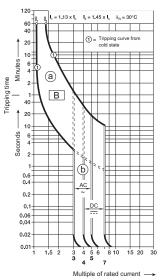


#### 8530/1-MCB-STA103N-B32-100-4 Art. No. 293869

#### **Technical Drawings – Subject to Alterations**

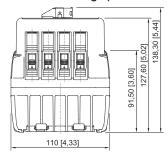


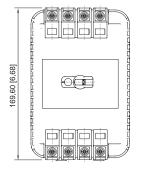
3-pole+N, auxiliary contact 1 change-over contact

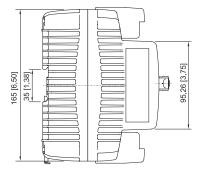


Tripping characteristic B

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







8530/1; 4 partition units

#### **Accessories**

Cylinder lock		Art. No.
	for closing (bracket Ø 3)	107115

### MCB Miniature circuit breaker



### 8530/1-MCB-STA103N-B32-100-4 Art. No. 293869

Fastening set		Art. No.
	A fastening set for attaching the component to the mounting plate without a DIN rail.	276618
ocking device qua	druple	Art. No.
Res Control of the Co	A lock-out / tag-out scissor for individual locking of the component using up to 4 cylinder locks.	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.