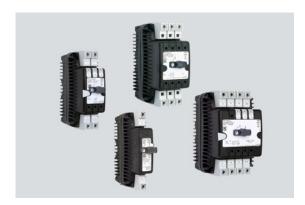
#### MCB Miniature circuit breaker



#### 8530/1-MCB-STA103N-C32-000-4 Art. No. 293859



- · 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 certificate	IECEx FMG 19.0029U
IECEx gas explosion protection	Ex db eb IIC Gb
ATEX gas certificate	FM19ATEX0191U
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 10⁴
1st auxiliary function	without
1st auxiliary function for AC rated voltage	-
1st auxiliary function for rated current	-
max.	
2nd auxiliary function	without
2nd auxiliary function voltage max. DC	-
Tripping characteristic	С
No. of poles	3-pole + N

## MCB Miniature circuit breaker



## 8530/1-MCB-STA103N-C32-000-4 Art. No. 293859

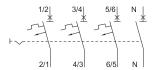
Ambient temperature -13°F +131°F Ambient temperature note Deviating ambient temperatures based on current certificates available on request Mechanical Data Degree of protection (IP) (IEC 60529) IP2X Enclosure material Thermoplast Connection cross section min. 1.5 mm² Connection cross-section max. 25 mm² Connection cross-section AWG min. 16 AWG ACROSS 4 AWG Connection cross-section 2 min. 1.5 mm² Connection cross-section 2 AWG min. 16 AWG Connection cross-section 2 AWG min. 17 mm² Connection cross-section 2 AWG min. 16 AWG Connection cross-section 2 AWG min. 17 mm² Connection cross-section and in the operation (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 150 mm Length 165 mm Length 165 mm Length 165 mm Mounting depth in inches 5.44 in  Weight 1.8 kg Weight 1.9 kg 1.7 to 26.6 lbf-in	Ambient Conditions	
Ambient temperature note  Mechanical Data  Degree of protection (IP) (IEC 60529)  IP2X  Enclosure material  Connection cross section min.  Connection cross-section AWG min.  ACROSS  4 AWG  Connection cross-section 2 min.  Connection cross-section 3 min.  Connection cross-section 2 min.  In min.  Englishering torque  2 Nm  Asx. 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  110 mm  Width, inches  4.33 in  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque 15 in  Tightening torque 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Ambient temperature	-25 °C 55 °C
Degree of protection (IP) (IEC 60529) IP2X Enclosure material Connection cross-section min. 1.5 mm² Connection cross-section AWG min. ACROSS 4 AWG Connection cross-section 2 min. 1.5 mm² Connection cross-section 2 MWG min. 1.6 AWG Connection cross-section 2 AWG min. 1.8 AWG 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 in inches 5.44 in Weight 1.8 kg Weight 1.8 kg Weight 1.8 kg Weight 1.8 kg Weight 1.9 Am Mounting / Installation Tightening / Installation Tightening torque 1 - 2 - 3 Nm Tightening torque bl in 17.7 to 26.6 lbf-in Tightening torque auxiliary contact 0.4 - 0.6 Nm	Ambient temperature	-13°F +131°F
Degree of protection (IP) (IEC 60529) Enclosure material Thermoplast Connection cross section min. 1.5 mm² Connection cross-section AWG min. 16 AWG ACROSS 4 AWG Connection cross-section 2 min. 1.5 mm² Connection cross-section 2 min. 1.6 AWG Connection cross-section 2 min. 1.6 AWG Connection cross-section 2 min. 1.7 mm² Connection cross-section 2 min. 1.8 AWG 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 mix. 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 165 mm Length 165 mm Length 165 mm Mounting depth in inches 5.44 in Weight 3.969 lb  Mounting orque 1.8 kg Weight 3.969 lb  Mounting / Installation Tightening torque 1.7.7 to 26.6 lbf-in Tightening torque 1.7.7 to 26.6 lbf-in Tightening torque 1.7.7 to 26.6 lbf-in Tightening torque auxiliary contact 0.4 – 0.6 Nm	Ambient temperature note	Deviating ambient temperatures based on current certificates available on request
Enclosure material Thermoplast  Connection cross section min.  1.5 mm²  Connection cross-section max.  25 mm²  Connection cross-section AWG min.  16 AWG  ACROSS  4 AWG  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 min.  10 mm²  Connection cross-section 2 max.  10 mm²  Connection cross-section 2 AWG min.  16 AWG  Connection cross-section 2 AWG min.  16 AWG  Connection cross-section 2 AWG min.  16 AWG  Connection cross-section 2 AWG min.  17 AWG  Connection cross-section 2 AWG min.  18 AWG  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  Width, inches  Length  110 mm  Width, inches  Length  185 mm  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  Nounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque   2 – 3 Nm  Tightening torque   17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Mechanical Data	
Connection cross section min.  Connection cross-section max.  25 mm²  Connection cross-section AWG min.  16 AWG  ACROSS  4 AWG  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 max.  10 mm²  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG max.  8 AWG  Min. tightening torque  2 Nm  Max. 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  110 mm  Width, inches  4.33 in  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  Weight  1.8 kg  Weight  1.9 kg  Wounting / Installation  Tightening torque  2 – 3 Nm  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. 25 mm²  Connection cross-section AWG min. 16 AWG  ACROSS 4 AWG  Connection cross-section 2 min. 1.5 mm²  Connection cross-section 2 max. 10 mm²  Connection cross-section 2 AWG min. 16 AWG  Connection cross-section 2 AWG min. 16 AWG  Connection cross-section 2 AWG max. 18 AWG  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 165 mm  Length in inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth in inches 5.44 in  Weight 1.8 kg  Weight 3.969 lb  Mounting / Installation  Tightening torque 2 - 3 Nm  Tightening torque 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact 0.4 - 0.6 Nm	Enclosure material	Thermoplast
Connection cross-section AWG min.  ACROSS  4 AWG  Connection cross-section 2 min.  1.5 mm²  Connection cross-section 2 max.  10 mm²  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG max.  8 AWG  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  - 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 165 mm  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in 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 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Connection cross section min.	1.5 mm <sup>2</sup>
ACROSS 4 AWG Connection cross-section 2 min. 1.5 mm² Connection cross-section 2 max. 10 mm² Connection cross-section 2 AWG min. 16 AWG Connection cross-section 2 AWG max. 8 AWG 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 165 mm Length 165 mm Length in inches 6.5 in Depth of cut-out 138.3 mm Mounting depth in inches 5.44 in Weight 3.969 lb  Mounting / Installation  Tightening torque 2 - 3 Nm Tightening torque 17.7 to 26.6 lbf-in Tightening torque auxiliary contact 0.4 - 0.6 Nm	Connection cross-section max.	25 mm²
Connection cross-section 2 min.  Connection cross-section 2 max.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG max.  8 AWG  Min. tightening torque  2 Nm  Max. tightening torque  3 Nm  Connection cross-section note  - 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 in 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	Connection cross-section AWG min.	16 AWG
Connection cross-section 2 max.  Connection cross-section 2 AWG min.  Connection cross-section 2 AWG min.  Example 16 AWG  Connection cross-section 2 AWG max.  8 AWG  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  Width, inches  4.33 in  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  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	ACROSS	4 AWG
Connection cross-section 2 AWG min.  Connection cross-section 2 AWG max.  8 AWG  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  165 mm  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  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 2 min.	1.5 mm²
Connection cross-section 2 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  165 mm  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  Weight  1.8 kg  3.969 lb  Mounting / Installation  Tightening torque  2 – 3 Nm  Tightening torque   Dif in  17.7 to 26.6 lbf-in  Tightening torque auxiliary contact  0.4 – 0.6 Nm	Connection cross-section 2 max.	10 mm²
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  165 mm  Length in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in 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 2 AWG min.	16 AWG
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 in inches  6.5 in  Depth of cut-out  138.3 mm  Mounting depth in inches  5.44 in  Weight  1.8 kg  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	Connection cross-section 2 AWG max.	8 AWG
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 165 mm  Depth of cut-out 138.3 mm  Mounting depth in 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	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 165 mm  Length in inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth in 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 in inches       6.5 in         Depth of cut-out       138.3 mm         Mounting depth in 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 in inches       6.5 in         Depth of cut-out       138.3 mm         Mounting depth in 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 in inches 6.5 in  Depth of cut-out 138.3 mm  Mounting depth in 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
Depth of cut-out  138.3 mm  Mounting depth in 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
Mounting depth in 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	Langth in inches	
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 in inches	6.5 in
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	7.7
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		138.3 mm
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	138.3 mm 5.44 in
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  Mounting depth in inches	138.3 mm 5.44 in 1.8 kg
Tightening torque lbf in 17.7 to 26.6 lbf-in  Tightening torque auxiliary contact 0.4 – 0.6 Nm	Depth of cut-out  Mounting depth in inches  Weight	138.3 mm 5.44 in 1.8 kg
Tightening torque auxiliary contact 0.4 – 0.6 Nm	Depth of cut-out  Mounting depth in inches  Weight  Weight	138.3 mm 5.44 in 1.8 kg 3.969 lb
	Depth of cut-out  Mounting depth in inches  Weight  Weight  Mounting / Installation	138.3 mm 5.44 in 1.8 kg 3.969 lb 2 – 3 Nm
	Depth of cut-out  Mounting depth in inches  Weight  Weight  Mounting / Installation  Tightening torque	138.3 mm  5.44 in  1.8 kg  3.969 lb  2 – 3 Nm  17.7 to 26.6 lbf-in

#### MCB Miniature circuit breaker

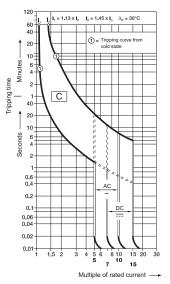


## 8530/1-MCB-STA103N-C32-000-4 Art. No. 293859

#### **Technical Drawings - Subject to Alterations**

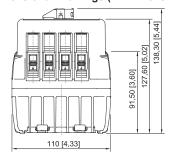


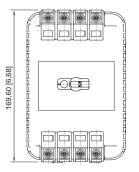
3-pole + N, without auxiliary contact



Tripping characteristic C

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





165 [6.50]
35 [1.38]

8530/1; 4 horizontal pitches

#### **Accessories**

4-way locking devic	e	Art. No.
So.	A lock-out/tag-out hasp for individually locking the component using up to four cylinder locks.	227232

## MCB Miniature circuit breaker



## 8530/1-MCB-STA103N-C32-000-4 Art. No. 293859

Cylinder lock		Art. No.
	for closing (bracket Ø 3)	107115
Fastening set		Art. No.
	A fastening set for fastening the component on the mounting plate without a DIN rail	276618

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.