

# Load disconnect switches and motor starters



## Safety switch

180 A

8146/5-V37-310-51-0010-K Art. No. 213476



- Large current range from 10 A to 180 A
- Can be used with conventional drives or with variable-frequency drives
- Intelligent design: A single rotary actuator for actuating the main and auxiliary contacts,  $\geq 20$  ms leading auxiliary contact for safe disconnection
- Designed in accordance with IEC/EN 62626-1, class 1
- The rotary actuator can be locked in the 0-position with three padlocks
- Cover can only be removed in the I-position

MY R. STAHL 8146L



R. STAHL Series 8146/5-V37 safety switches safely disconnect machines and system parts from the energy supply for cleaning and repair as prescribed. All of the installed load disconnect switches have AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

## Technical Data

### Explosion Protection

Area of application	European Union (ATEX) IECEX
Application range (zones)	1, 2, 21, 22
IECEX gas certificate	IECEX PTB 06.0090
IECEX gas explosion protection	Ex db eb IIC T4 Gb
IECEX dust certificate	IECEX PTB 06.0090
IECEX dust explosion protection	Ex tb IIIC T130 °C Db
ATEX gas certificate	PTB 01 ATEX 1024
ATEX gas explosion protection	⊕ II 2 G Ex db eb IIC T4 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T130 °C Db
Certificates	ATEX (PTB), China (NEPSI), IECEX (PTB), India (PESO), Korea (KTL)
Declaration of conformity	ATEX (EUK), China (CCC)
Notes	Product label may vary. Series devices are labelled with ATEX and IECEX.

### Electrical Data

Rated operational voltage AC	400 V
Rated operational current	180 A
Frequency range	50 – 60 Hz
Switching capacity AC-3 230 V	55 kW
Switching capacity AC-3 400 V	90 kW
Auxiliary contact NC	1 NC
Auxiliary contact NO	1 NO/delayed

### Ambient Conditions

Note	You can find information about the ambient temperature online at <a href="http://r-stahl.com">r-stahl.com</a> . MY R. STAHL 8146L
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### Ambient conditions

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Ambient conditions	Number of poles		Max. current (A)	Conductor cross-section <sup>1)</sup> (mm <sup>2</sup> )		Temperature class/ perm. ambient temperature
	Main contacts	Auxiliary contacts		min.	max.	
	3	1	180	95	120	T4: -40 to +40 °C <sup>2)</sup>
			180	120	120	T4: -40 to +50 °C <sup>2)</sup>

<sup>1)</sup> Project engineering note:  
The maximum conductor cross-sections given were determined using the H07V.  
The minimum bending radius was assumed to be 4 x outer diameter in accordance with VDE 0298-3.

<sup>2)</sup> Only with heat-resistant conductor > 70 °C at cable entries and/or > 85 °C at clamping units

**Bold:** Information on the rating plate

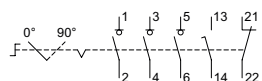
### Mechanical Data

Degree of protection (IP)	IP66
Degree of protection note	according to EN/IEC 60529
Enclosure material	Polyester resin, Glass fibre reinforced
Min. solid conn. cr.-sect. AWG	AWG 3/0
Min. f.stra. con. cr.-sec. AWG	AWG 3/0
F.stranded conn. cr.-sect. AWG	AWG 4/0
Connection terminal auxiliary contact min. AWG	AWG 18
Connection cross section	95 ... 120 mm <sup>2</sup>
Auxiliary connection connection terminals	0.75 ... 2.5 mm <sup>2</sup>
Connection cross-section note	Depending on the application; for more detailed information, see the operating instructions at r-stahl.com
Construction type	Compact design
Dimension A	681.5 mm
Dimension A inch	26.83 in
Dimension B	340.5 mm
Dimension B inch	13.41 in
Dimension C	205 mm
Dimension C inch	8.07 in
Handle colour	Black shroud and handle
Seal	Silicone, foamed
Lockable in	Three times in 0 position
Detailed number of poles	3-pole
Weight	14.4 kg

### Components

Entry type	Standard 8161, moulded material
Cable gland	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm

### Technical Drawings – Subject to Alterations



81../5-V...-3...-51..

3-pole + 1 NO

(1x ON delayed – OFF leading), 1 NC

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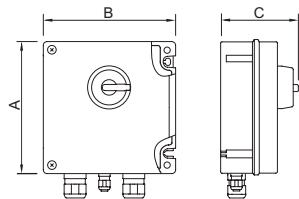


## Safety switch

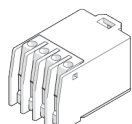
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8146/5-V37-310-51-0010-K Art. No. 213476

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



## Accessories

Auxiliary contact	Art. No.
 <p>2 NC (8080/1-3) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm<sup>2</sup>, solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising</p>	168356
<p>1 NC + 1 NO (8080/1-1) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm<sup>2</sup>, solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left: Delayed (ON), leading (OFF) Right: Synchronising</p>	168351
<p>2 NO (8080/1-4) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm<sup>2</sup>, solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising</p>	168353

Brass plate	Art. No.
 <p>SZ S73/083/093 2 x M63, 1 x M20</p>	227586

## Spare Parts

Auxiliary contact key	Art. No.
 <p>For removing installed auxiliary contacts</p>	201909

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.