

# Load Disconnect Switches and Motor Starters



Safety switch

125 A / 160 A

8146/5-V37-608-51-1110 Art. No. 212766



- Can be used with conventional drives and drives controlled by frequency converters
- Intelligent design: A single rotary actuator for actuating both main and auxiliary contacts,  $\geq 20$  ms leading auxiliary contact for safely disconnecting the frequency converter
- Version complies with IEC/EN 62626-1, Class 1
- The rotary actuator can be locked with 3 padlocks in the 0-position

MY R. STAHL 8146L



R. STAHL's 8146/5-V37 series safety switches safely disconnect the power supply to machinery and system components for cleaning and repair as prescribed. All of the installed load disconnect switches have an AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

## Technical Data

### Explosion Protection

Scope of validity	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 T6 / T4 Gb
IECEX dust certificate	IECEX PTB 06.0090
IECEX dust explosion protection	Ex tb IIIC T80 °C / T130 °C Db
ATEX gas certificate	PTB 01 ATEX 1024
ATEX gas explosion protection	Ex II 2 G Ex db eb IIC T6 / T4 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	Ex II 2 D Ex tb IIIC T80 °C / T130 °C Db
Certificates	ATEX (PTB), China (NEPSI), IECEX (PTB), India (PESO)
Declaration of Conformity	ATEX (EUK), China (CCC)
Notes	Product label may vary. Series devices have certification according to ATEX and IECEX.

### Electrical Data

Rated operational voltage AC	690 V / 400 V
Rated operational current	125 A / 160 A
Switching capacity AC-3 230 V	37 kW / 45 kW
Switching capacity AC-3 400 V	55 kW / 90 kW
Switching capacity AC-3 440 V	75 kW / 90 kW
Switching capacity AC-3 500 V	75 kW / -- kW
Switching capacity AC-3 690 V	110 kW / -- kW
Auxiliary contact NC	1 NC
Auxiliary contact NO	1 NO/delayed

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## Electrical Data

Frequency range	50 – 60 Hz
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## Ambient Conditions

Note	Information regarding ambient conditions can be found on the Internet at r-stahl.com. MY R. STAHL 8146L
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## Ambient conditions

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 contact		min.	max.	
	6	2	125	95	150	<b>T6: -40 ... +40 °C</b> T5: -40 ... +55 °C <sup>2)</sup> T4: -40 ... +72 °C <sup>2)</sup>
			160	95	150	<b>T4: -40 ... +40 °C</b> T4: -40 ... +55 °C <sup>2)</sup>
			160	120	150	T4: -40 ... +45 °C T4: -40 ... +55 °C <sup>2)</sup>

When using a conductor cross section of min. 1,5 mm<sup>2</sup>, the temperature class and ambient temperature are reduced to T4: -40 °C ... + 40 °C

<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:** Observe information on the type plate

## Mechanical Data

Degree of protection (IP)	IP66
Degree of protection note	acc. to EN/IEC 60529
Enclosure material	Polyester resin, Glass fibre reinforced
Additional terminal	N-terminal
Min. solid conn. cr.-sect. AWG	AWG 3/0
Connection terminal auxiliary contact min. AWG	AWG 18
Connection cross section	95 ... 150 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 operating instructions at r-stahl.com
Construction type	Standard
Dimension A	1023 mm
Dimension A inch	40.28 in
Dimension B	681.5 mm
Dimension B inch	26.83 in
Dimension C	243 mm
Dimension C inch	9.57 in
Handle colour	Yellow shroud, red handle
Seal	Silicone, foamed
Lockable in	Three times in 0 position

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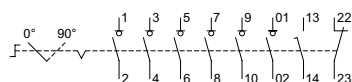
## Mechanical Data

Detailed number of poles	6-pole
Weight	22.8 kg
Weight	50.18 lb

## Components

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

## Technical Drawings – Subject to Alterations

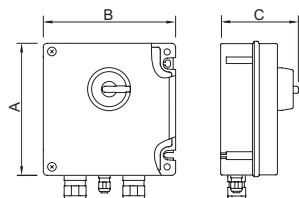


8146/5-V..-6..-51-..

6-pole + 1 NO

(ON delayed – OFF leading), 1 NC

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



## Accessories

### Auxiliary contact



	Art. No.
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	168356
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	168351
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	168353

## Spare Parts

### Auxiliary contact key

Art. No.


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	For removing installed auxiliary contacts	201909
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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.