

Load Disconnect Switches and Motor Starters



Safety switch

180 A

8146/5-V37-610-51-0010 Art. No. 213490



- 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, ≥ 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

WebCode 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 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	Ex II 2 G Ex db eb IIC T4 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	Ex II 2 D Ex tb IIIC T130 °C Db
Certificates	ATEX (PTB), China (NEPSI), IECEX (PTB), India (PESO)
Notes	Product label may vary. Series devices have certification according to ATEX and IECEX.

Electrical Data

Rated operational voltage AC	400 V
Rated operational current	180 A
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
Frequency range	50 – 60 Hz

Ambient conditions

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Ambient conditions	Number of poles		max. current (A)	Conductor cross-section ¹⁾ (mm ²)		Temperature class / perm. ambient temperature
	Main contacts	Auxiliary contact		min.	max.	
	6	2	180	120	150	T4: -40 ... +50 °C ²⁾

¹⁾ 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.
²⁾ only with heat-resistant conductor > 70 °C at cable entries and/or > 85 °C at clamping units
Bold: Observe information on the type plate

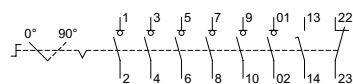
Mechanical Data

Degree of protection (IP)	IP66
Degree of protection note	acc. to EN/IEC 60529
Enclosure material	Polyester resin, Glass fibre reinforced
Connection cross section	120 ... 150 mm ²
Auxiliary connection connection terminals	0.75 ... 2.5 mm ²
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 B	681.5 mm
Dimension C	243 mm
Handle colour	Black shroud and handle
Seal	Silicone, foamed
Lockable in	3x in 0
Detailed number of poles	6-pole
Weight	37.36 kg
Weight	82.36 lb

Components

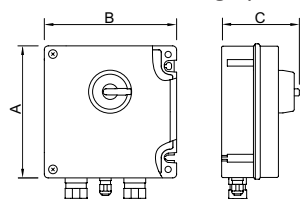
Entry type	Standard 8161, moulded material
Cable gland	4 x M63 Ø 28 to 48 mm 1 x M20 Ø 4 to 13 mm

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



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Safety switch

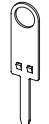
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Accessories

Auxiliary contact	Art. No.
 <p>2 NC contacts (8080/1-3) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm² 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 contact + 1 NO contact (8080/1-1) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm² 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 contacts (8080/1-4) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm² solid / finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: synchronising</p>	168353

Spare Parts

Auxiliary contact key	Art. No.
 <p>for removing the mounted auxiliary contact</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.