

Load disconnect switches and motor starters

STAHL

Safety switch

125 A / 160 A

8146/5-V37-308-51-1010-K Art. No. 201398



- 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, ≥ 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 T6 / T5 Gb
IECEx dust certificate	IECEx PTB 06.0090
IECEx dust explosion protection	Ex tb IIIC T80 °C / T95 °C Db
ATEX gas certificate	PTB 01 ATEX 1024
ATEX gas explosion protection	II 2 G Ex db eb IIC T6 / T5 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	II 2 D Ex tb IIIC T80 °C / T95 °C Db
Certificates	ATEX (PTB), IECEx (PTB), India (PESO), Korea (KGS), 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	690 V / 400 V
Rated operational current	125 A / 160 A
Frequency range	50 – 60 Hz
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 / 90 kW (150 A)
Switching capacity AC-3 690 V	110 kW / -- 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 r-stahl.com . MY R. STAHL 8146L
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Ambient conditions

Ambient conditions	Number of poles		Max. current (A)	Conductor cross-section ¹⁾ (mm ²)		Temperature class/ perm. ambient temperature
	Main contacts	Auxiliary contacts		min.	max.	
	3	1	125	95	120	T6: -40 to +46 °C T5: -40 to +62 °C ²⁾ T4: -40 to +72 °C ²⁾
			125	120	120	T6: -40 to +50 °C T5: -40 to +65 °C ²⁾ T4: -40 to +72 °C ²⁾
			160	95	120	T5: -40 to +40 °C T5: -40 to +50 °C ²⁾ T4: -40 to +55 °C ²⁾
			160	120	120	T5: -40 to +45 °C T5: -40 to +49 °C T4: -40 to +60 °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: 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
Solid con. cross-section min.2	95 mm ²
Min. fin.str. conn. cr.-sec. 2	95 mm ²
Min. solid conn. cr.-sect. AWG	AWG 3/0
Min. solid con. cr.-sect. AWG2	AWG 3/0
Min. f.stra. con. cr.-sec. AWG	AWG 3/0
F.stranded conn. cr.-sect. AWG	AWG 4/0
Min. f.str. con. cr.-sec. AWG2	AWG 3/0
Connection terminal auxiliary contact min. AWG	AWG 18
Seal	Silicone, foamed
Detailed number of poles	3-pole
Connection cross section	95 ... 120 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 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

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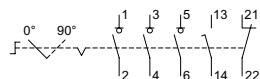
Mechanical Data

Dimension C inch	8.07 in
Handle colour	Yellow shroud, red handle
Lockable in	Three times in 0 position
Weight	14.4 kg
Weight	31.64 lb

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

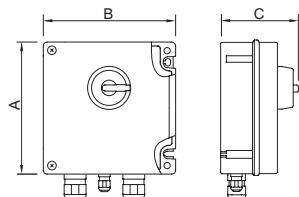


81.../5-V...-3...-51-..

3-pole + 1 NO

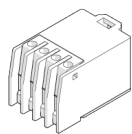
(1x ON delayed – OFF leading), 1 NC

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



Accessories

Auxiliary contact



2 NC (8080/1-3)
250 V AC/DC
Max. 6 A
1.5 to 2.5 mm², solid/finely stranded
The switching function of the auxiliary contact depends on the installation slot used.
Left and right: Synchronising

Art. No.

168356

1 NC + 1 NO (8080/1-1)
250 V AC/DC
Max. 6 A
1.5 to 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

168351

2 NO (8080/1-4)
250 V AC/DC
Max. 6 A
1.5 to 2.5 mm², solid/finely stranded
The switching function of the auxiliary contact depends on the installation slot used.
Left and right: Synchronising

168353

Load disconnect switches and motor starters

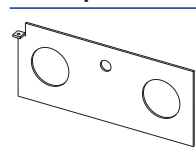


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Brass plate

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

Spare Parts

Auxiliary contact key

Auxiliary contact key	Art. No.
 For removing installed auxiliary contacts	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.