

# Load disconnect switches and motor starters



## Load disconnect switch

63 A / 80 A

8146/5-V11-406-00-1010-K Art. No. 221681



- 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 safely disconnecting the frequency converter
- Reliable load disconnect switch with positive opening operation of the main contacts

MY R. STAHL 8146M



R. STAHL Series 8146/5-V11 load disconnect switches can be used as mains connection switches for distributor systems and motor circuits. The standard versions are designed for rated operational currents of up to 80 A – currents of 16 to 630 A are possible. They have AC-3, AC-23 and DC-23 motor switching capacity. They have a large, padlockable rotary actuator in black or red/yellow.

## Technical Data

### Explosion Protection

Area of application	Canada IECEX USA
Application range (zones)	1, 2, 21, 22
IECEX gas certificate	IECEX PTB 06.0090
IECEX gas certificate	IECEX PTB 06.0090
IECEX gas explosion protection	Ex db eb IIC T6 Gb
IECEX dust certificate	IECEX PTB 06.0090
IECEX dust explosion protection	Ex tb IIIC T80 °C Db
ATEX gas certificate	PTB 01 ATEX 1024
ATEX gas certificate	PTB 01 ATEX 1024
ATEX gas explosion protection	Ex II 2 G Ex db eb IIC T6 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	Ex II 2 D Ex tb IIIC T80 °C Db
Certificates	ATEX (PTB), China (NEPSI), IECEX (PTB), India (PESO)
Declaration of conformity	ATEX (EUK), China (CCC)

### Electrical Data

Rated operational voltage AC	690 V / 500 V
Rated operational current	63 A / 80 A
Nominal power	60 hp
Auxiliary contact NC	without
Auxiliary contact NO	without
Max. short-circuit protection	125 A
Short-circuit protection, max. 2	160 A
Tripping characteristic	gG
Frequency range	50 – 60 Hz

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### Auxiliary Power

Nominal voltage	480 V AC
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### Ambient Conditions

Ambient temperature	-40°C ... +55°C -40°C ... +45°C
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Ambient temperature	-40°F ... +131°F -40°F ... +113°F
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### Mechanical Data

Degree of protection (IP)	IP66
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Enclosure material	Polyester, Glass fibre reinforced
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Additional terminal	without
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Min. connection cross section, solid	35 mm <sup>2</sup>
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Solid con. cross-section min.2	35 mm <sup>2</sup>
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Max. connection cross section, solid	0 mm <sup>2</sup>
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Min. connection cross-section, finely stranded	35 mm <sup>2</sup>
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Min. fin.str. conn. cr.-sec. 2	35 mm <sup>2</sup>
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Max. connection cross-section, finely stranded	50 mm <sup>2</sup>
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Min. solid conn. cr.-sect. AWG	AWG 2
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Min. solid con. cr.-sect. AWG2	AWG 2
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Max. solid conn. cr.-sect. AWG	AWG 0
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Min. f.stra. con. cr.-sec. AWG	AWG 2
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Min. f.str. con. cr.-sec. AWG2	AWG 2
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Connection terminal auxiliary contact min. AWG	AWG 0
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Connection terminal auxiliary contact solid max.	AWG 0
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Connection terminal auxiliary contact finely stranded max.	AWG 0
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Construction type	Compact design
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Width	340.5 mm
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Width, inches	13.41 in
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Height	340.5 mm
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Height in inches	13.41 in
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Depth	195 mm
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Depth in inches	7.68 in
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Service life, min.	10 <sup>5</sup> operating cycles
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Handle colour	Red
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Protective collar colour	Yellow
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Seal	Silicone, foamed
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Lockable in	Three times in 0 position
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Detailed number of poles	3-pole + N
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Weight	7.86 kg
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Weight	17.33 lb
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### Components

Entry type	Standard 8161, moulded material
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## Load disconnect switch

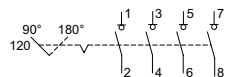
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### Components

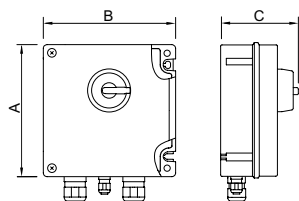
Cable gland	2x M50 Ø 16 to 35 mm 1x M20 Ø 4 ... 13 mm with plug
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### Technical Drawings – Subject to Alterations



8146/5-V11-40.-00-.0.0  
3-pole + N

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



Version	Rated operational current	Product Type	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]
3-pole	10 A	8146/ 5- V11- 300- 00- 1050 8146/ 5- V11- 300- 00- 0050	112.5	112.5	131
	16 A	8146/ 5- V11- 302- 00- 0050	170	112.5	132
		8146/ 5- V11- 302- 00- 1050	170	112.5	132
		8146/ 5- V11- 102- 00- 0110	170	170	172
	20 A	8146/ 5- V11- 303- 00- 0010	170	170	132
	25 A	8146/ 5- V11- 104- 00- 0110	227 170	170	171 132
8146/ 5- V11- 304- 00- 1010					
40 A	8146/ 5- V11- 305- 00- 0010- K	340.5 340.5	170	176.5 176.5	
	8146/ 5- V11- 305- 00- 1010- K				
63–80 A	8146/ 5- V11- 306- 00- 0010- K	340.5 340.5	170	195 195	
	8146/ 5- V11- 306- 00- 1010- K				

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3-pole + N	10 A	8146/ 5- V11- 400- 00- 0050	112.5	112.5	131
	16 A	8146/ 5- V11- 402- 00- 0050	170	112.5	132.0
		8146/ 5- V11- 402- 00- 1050	170	112.5	132.0
	20 A	8146/ 5- V11- 403- 00- 0010K	170	170	132
	25 A	8146/ 5- V11- 404- 00- 0010	170	170	132
	40 A	8146/ 5- V11- 405- 00- 0010- K	340.5	340.5	195
63–80 A		8146/ 5- V11- 406- 00- 0010- K	340.5	340.5	195
		8146/ 5- V11- 406- 00- 1010- K	340.5	340.5	195
6-pole	25 A	8146/ 5- V11- 604- 60- 0010	227	170	172

## Accessories

Auxiliary contact	Art. No.	
 <p>Note: The auxiliary contacts can only be retrofitted for 40 A, 63 A and 80 A versions. For all other versions, the auxiliary contact must be ordered separately when placing the order. Retrofitting is not possible for this.</p>		
	<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

## Spare Parts

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