



- 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
- Reliable load disconnect switch with positively opening main contacts

### MY R. STAHL 8146M



R. STAHL's 8146/5-V11 series load disconnect switches can be used as mains connection switches for distributor systems and motor circuits. The standard variants are designed for rated operational currents of up to 80 A – currents of 16-630 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

Scope of validity	Canada IECEX USA
Application range (zones)	1 2 21 22
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 explosion protection	⊕ II 2 G Ex db eb IIC T6 Gb
ATEX dust certificate	PTB 01 ATEX 1024
ATEX dust explosion protection	⊕ 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 – 80 A (T6)
Nominal power	60 HP
Auxiliary contact NC	without
Auxiliary contact NO	without
Short-circuit protection, max.	125 A
Short-circuit protection, max. 2	160 A
Tripping characteristic	gG
Frequency range	50 – 60 Hz

# Load Disconnect Switches and Motor Starters

## Load disconnect switch



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

### 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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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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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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Max. solid conn. cr.-sect. AWG	AWG 0
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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 in inches	13.41 in
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Height	340.5 mm
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Height, inches	13.41 in
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Depth	195 mm
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Depth, 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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Cable gland	2x M50 Ø 16 to 35 mm 1x M20 Ø 4 to 13 mm with plug
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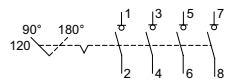
# Load Disconnect Switches and Motor Starters



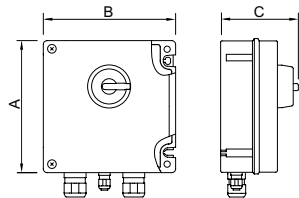
## Load disconnect switch

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

### Technical Drawings – Subject to Alterations



### 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- 302- 00- 1050	170	170	172
		8146/ 5- V11- 102- 00- 0110			
	20 A	8146/ 5- V11- 303- 00- 0010	170	170	132
	25 A	8146/ 5- V11- 104- 00- 0110	227 170	170 170	171 132
8146/ 5- V11- 304- 00- 1010					
40 A	8146/ 5- V11- 305- 00- 0010- K	340.5 340.5	170 170	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	170 170	195 195	
	8146/ 5- V11- 306- 00- 1010- K				

# Load Disconnect Switches and Motor Starters


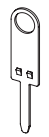
## Load disconnect switch



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

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

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