



- 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
- 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 | 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 |
| Rated operational current | 40 A (T6) |
| Nominal power | 30 HP |
| Auxiliary contact NC | without |
| Auxiliary contact NO | without |
| Short-circuit protection, max. | 80 A |
| Tripping characteristic | gG |
| Frequency range | 50 – 60 Hz |

Auxiliary Power

| | |
|-----------------|----------|
| Nominal voltage | 480 V AC |
|-----------------|----------|

Load Disconnect Switches and Motor Starters

Load disconnect switch



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Ambient Conditions

| | |
|---------------------|------------------|
| Ambient temperature | -40°C ... +48°C |
| Ambient temperature | -40°F ... +118°F |

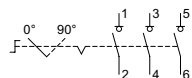
Mechanical Data

| | |
|--|-----------------------------------|
| Degree of protection (IP) | IP66 |
| Enclosure material | Polyester, Glass fibre reinforced |
| Additional terminal | without |
| Min. connection cross section, solid | 10 mm ² |
| Max. connection cross section, solid | 0 mm ² |
| Min. connection cross-section, finely stranded | 10 mm ² |
| Max. connection cross-section, finely stranded | 25 mm ² |
| Min. solid conn. cr.-sect. AWG | AWG 8 |
| Max. solid conn. cr.-sect. AWG | AWG 0 |
| Connection terminal auxiliary contact min. AWG | AWG 0 |
| Connection terminal auxiliary contact solid max. | AWG 0 |
| Connection terminal auxiliary contact finely stranded max. | AWG 0 |
| Construction type | Compact design |
| Width | 170 mm |
| Width in inches | 6.69 in |
| Height | 340.5 mm |
| Height, inches | 13.41 in |
| Depth | 176.5 mm |
| Depth, inches | 6.95 in |
| Service life, min. | 10 ⁵ operating cycles |
| Handle colour | Red |
| Protective collar colour | Yellow |
| Seal | Silicone, foamed |
| Lockable in | Three times in 0 position |
| Detailed number of poles | 3-pole |
| Weight | 5.21 kg |
| Weight | 11.49 lb |

Components

| | |
|-------------|---|
| Entry type | Standard 8161, moulded material |
| Cable gland | 2x M40 Ø 12 to 28 mm 1x M20 Ø 4 to 13 mm with plug |

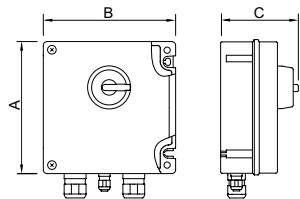
Technical Drawings – Subject to Alterations



81..V..-3..-00..
3-pole

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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 | 171 |
| | | 8146/ 5- V11- 304- 00- 1010 | 170 | 170 | 132 |
| 40 A | 8146/ 5- V11- 305- 00- 0010- K | 340.5 | 170 | 176.5 | |
| | 8146/ 5- V11- 305- 00- 1010- K | 340.5 | 170 | 176.5 | |
| 63 - 80 A | 8146/ 5- V11- 306- 00- 0010- K | 340.5 | 170 | 195 | |
| | 8146/ 5- V11- 306- 00- 1010- K | 340.5 | 170 | 195 | |
| 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 |

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Accessories

| Auxiliary contact | | Art. No. |
|--|--|----------|
|  | 2 NC (8080/1-3) 250 V AC/DC Max. 6 A 1.5 to 2.5 mm ² , 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 ² , 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 ² , solid/finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: Synchronising | 168353 |
| 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.