

# Load & Motor Disconnect Switches



Load disconnect switch

63 A, non-fused

8146/5-V11-D06-00-0000-0 Art. No. 286761



- 3-pole horsepower (hp) rated switch
- Non-fused
- Suitable for voltages up to 600 V AC / 240 V DC - restrictions may apply
- Pad lockable robust rotary handle
- Lightweight construction
- Fiberglass reinforced polyester (FRP)
- Suitable for low ambient temperatures
- Enclosure type 3, 4, 4X, IP66
- No conduit seals required
- Quad certified

MY R. STAHL 8146V



Our switches are specifically engineered for hazardous locations and harsh environments with a corrosion resistant enclosure and wide temperature range. Ideal for close proximity installation of field equipment such as control panels, motors, skids or machinery. Whether the requirement is for disconnect switches to completely de-energize for service or maintenance tasks, or transfer switches to ensure continuous power supply to essential equipment, our solutions offer unmatched reliability. With our standard solutions, entries are not pre-installed, providing users with the flexibility to customized their own entries based on size, location and type. Built to withstand demanding conditions while ensuring safety and ease of use in various applications.

## Technical Data

### Explosion Protection

|                                 |   |
|---------------------------------|---|
| Area of application             | European Union (ATEX)<br>Canada<br>IECEX<br>USA   |
| Application range (zones)       | 1, 2  |
| IECEX gas certificate           | IECEX PTB 06.0090   |
| IECEX gas certificate           | IECEX PTB 06.0090   |
| IECEX gas explosion protection  | Ex db eb IIC T5 Gb  |
| IECEX dust certificate          | IECEX PTB 06.0090   |
| IECEX dust explosion protection | Ex tb IIIC T95 °C Db  |
| ATEX gas certificate            | PTB 01 ATEX 1024  |
| ATEX gas certificate            | PTB 01 ATEX 1024  |
| ATEX gas explosion protection   | ⊕ II 2 G Ex db eb IIC T5 Gb   |
| ATEX dust certificate           | PTB 01 ATEX 1024  |
| ATEX dust explosion protection  | ⊕ II 2 D Ex tb IIIC T95 °C Db   |
| FMus certificate                | FM18US0275X   |
| cFM certificate                 | FM18CA0132X   |
| Marking FMus                    | Class I, Div. 2, Groups A,B,C,D;<br>Class II, III, Div. 1, Groups E,F,G, T5;<br>Zone 1, AEx db eb IIC T5 Gb;<br>Enclosure Type 3, 4, 4X |
| Marking cFM                     | Ex db eb IIC Gb;<br>Class I, Div. 2, Groups A,B,C,D;<br>Class II, III, Div. 1, Groups E,F,G, T5;<br>Enclosure Type 3, 4, 4X             |

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## Explosion Protection

|                  |  |
|------------------|--|
| Marking cFM note | Zone 2 IIC per Canadian Electrical Code Table 18 |
| Certificates     | ATEX (PTB), Canada (FM), IECEx (PTB), USA (FM)   |

## Electrical Data

|                                     |  |
|-------------------------------------|--|
| Rated operational voltage AC        | 600 V  |
| Rated operational voltage DC 1-pole | 60 V   |
| Rated operational voltage DC 2-pole | 125 V  |
| Rated operational voltage DC 3-pole | 240 V  |
| Rated operational current           | 63 A   |
| Horsepower rating                   | 40 hp  |
| Horsepower rating note              | Horsepower rating (hp) in relation to rated operating voltage 480 V AC |
| Auxiliary contact NC                | without  |
| Auxiliary contact NO                | without  |
| Short circuit protection (sym RMS)  | 20 kA  |
| Additional short-circuit protection | Additional fuse necessary  |
| Short-circuit protection note       | Required back-up fuse in the electrical circuit                        |
| Frequency range                     | 50 – 60 Hz   |

## Auxiliary Power

|                           |          |
|---------------------------|----------|
| Nominal voltage $V_{nom}$ | 480 V AC |
|---------------------------|----------|

## Ambient Conditions

|                        |                  |
|------------------------|------------------|
| Ambient temperature °C | -50°C ... +55°C  |
| Ambient temperature °F | -58°F ... +131°F |

## Mechanical Data

|   |  |
|---|--|
| Degree of protection (IP)               | IP66   |
| Enclosure type (UL50 & UL50E)           | 3, 4, 4X   |
| Enclosure material                      | Polyester, Fiberglass Reinforced Polyester (FRP) |
| Additional terminal                     | without  |
| Connection cross section, stranded min. | 10 AWG   |
| Connection cross section, stranded max. | 1/0 AWG  |
| Construction type                       | Standard   |
| Width                                   | 340.5 mm   |
| Width, inches                           | 13.41 in   |
| Height                                  | 340.5 mm   |
| Height in inches                        | 13.41 in   |
| Depth                                   | 195 mm   |
| Depth in inches                         | 7.68 in  |
| Service life, min.                      | 10 <sup>5</sup> operating cycles                 |
| Handle color                            | Black  |
| Protective collar color                 | Black  |
| Seal                                    | Silicone, foamed                                 |
| Lockable in                             | OFF – 3 positions                                |
| Detailed number of poles                | 3-pole   |
| Weight                                  | 7.71 kg  |
| Weight                                  | 17 lb  |

## Components

|         |         |
|---------|---------|
| Entries | without |
|---------|---------|

# Load & Motor Disconnect Switches

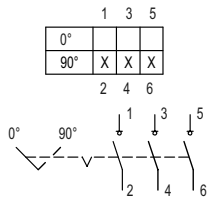


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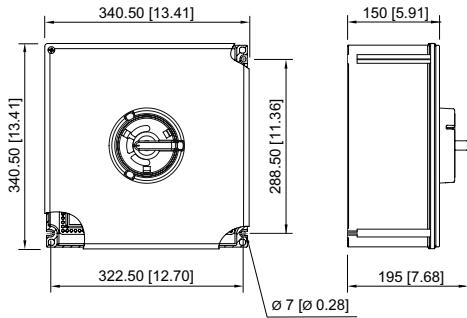
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## Technical Drawings – Subject to Alterations



Switching arrangement 8544/1-3 and 8549/1-3

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



- 7146/5-V11-D06-00-0000-0
- 7146/5-V11-D07-00-0000-0
- 8146/5-V11-D06-00-0000-0
- 8146/5-V11-D07-00-0000-0

## Accessories

Ex e cable glands for MC, MC-HL, combined and "TECK" armouring Series TMC

Art. No.

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|  |   |        |
|--|---|--------|
|  | Thread size: NPT1/2<br>Clamping range: 8.7 ... 12.7 mm<br>Clamping range inch: 0.34 ... 0.5 in<br>Nickel-plated brass     | 254316 |
|  | Thread size: NPT1/2<br>Clamping range: 13 ... 17 mm<br>Clamping range inch: 0.51 ... 0.67 in<br>Nickel-plated brass       | 254317 |
|  | Thread size: NPT3/4<br>Clamping range: 15 ... 23.3 mm<br>Clamping range inch: 0.59 ... 0.92 in<br>Nickel-plated brass     | 106090 |
|  | Thread size: NPT1<br>Clamping range: 19.8 ... 29.2 mm<br>Clamping range inch: 0.78 ... 1.15 in<br>Nickel-plated brass     | 106091 |
|  | Thread size: NPT1-1/4<br>Clamping range: 27.5 ... 35.2 mm<br>Clamping range inch: 1.08 ... 1.39 in<br>Nickel-plated brass | 254320 |
|  | Thread size: NPT1-1/2<br>Clamping range: 33.5 ... 41.1 mm<br>Clamping range inch: 1.32 ... 1.62 in<br>Nickel-plated brass | 254321 |
|  | Thread size: NPT2<br>Clamping range: 38.3 ... 47.1 mm<br>Clamping range inch: 1.51 ... 1.85 in<br>Nickel-plated brass     | 254322 |
|  | Thread size: NPT2<br>Clamping range: 45 ... 53 mm<br>Clamping range inch: 1.77 ... 2.09 in<br>Nickel-plated brass         | 254323 |
|  | Thread size: NPT2-1/2<br>Clamping range: 52.1 ... 58.9 mm<br>Clamping range inch: 2.05 ... 2.32 in<br>Nickel-plated brass | 254324 |
|  | Thread size: NPT2-1/2<br>Clamping range: 57.1 ... 64.6 mm<br>Clamping range inch: 2.25 ... 2.54 in<br>Nickel-plated brass | 254325 |
|  | Thread size: NPT3<br>Clamping range: 64.6 ... 75.3 mm<br>Clamping range inch: 2.54 ... 2.96 in<br>Nickel-plated brass     | 254326 |
|  | Thread size: NPT3-1/2<br>Clamping range: 74 ... 88.5 mm<br>Clamping range inch: 2.91 ... 3.48 in<br>Nickel-plated brass   | 254327 |

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## Metal Ex e conduit hubs Series 8166

Art. No.

|  |   |        |
|--|---|--------|
|  | Thread size: NPT1/2<br>Typ: 8166/11-01-NE   | 139082 |
|  | Thread size: NPT3/4<br>Typ: 8166/11-02-NE   | 139083 |
|  | Thread size: NPT1<br>Typ: 8166/11-03-NE     | 139084 |
|  | Thread size: NPT1-1/4<br>Typ: 8166/11-04-NE | 139085 |
|  | Thread size: NPT1-1/2<br>Typ: 8166/11-05-NE | 139086 |
|  | Thread size: NPT2<br>Typ: 8166/11-06-NE     | 139087 |
|  | Thread size: NPT2-1/2<br>Typ: 8166/11-07-NE | 139088 |

## Auxiliary contact


Art. No.

|   |  |        |
|---|--|--------|
|  | 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.                                 |        |
|   | 2 NC (8080/1-3)<br>250 V AC/DC<br>Max. 6 A<br>1.5 to 2.5 mm <sup>2</sup> , solid/finely stranded<br>The switching function of the auxiliary contact depends on the installation slot used.<br>Left and right: Synchronising                                    | 168356 |
|   | 1 NC + 1 NO (8080/1-1)<br>250 V AC/DC<br>Max. 6 A<br>1.5 to 2.5 mm <sup>2</sup> , solid/finely stranded<br>The switching function of the auxiliary contact depends on the installation slot used.<br>Left: Delayed (ON), leading (OFF)<br>Right: Synchronising | 168351 |
|   | 2 NO (8080/1-4)<br>250 V AC/DC<br>Max. 6 A<br>1.5 to 2.5 mm <sup>2</sup> , solid/finely stranded<br>The switching function of the auxiliary contact depends on the installation slot used.<br>Left and right: Synchronising                                    | 168353 |

## Spare Parts

### Load/motor switch / Load disconnect switch

Art. No.

|  |   |        |
|--|---|--------|
|  | 60 A, 63 A and 80 A<br>No. of poles: 3 P<br>Type: 8544/1-32<br>Load/motor switch / Load disconnect switch | 171154 |
|--|---|--------|

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## 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.