

# Load Disconnect Switches and Motor Starters



Safety switch

12 A / 16 A

8146/5-V37-301-50-0050 Art. No. 147855



- 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
- Version complies with IEC/EN 62626-1, Class 1
- The rotary actuator can be locked with 3 padlocks in the 0-position

MY R. STAHL 8146L



R. STAHL's 8146/5-V37 series safety switches safely disconnect the power supply to machinery and system components for cleaning and repair as prescribed. All of the installed load disconnect switches have an AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

## Technical Data

| Explosion Protection            |  |
|---------------------------------|--|
| Scope of validity               | European Union (ATEX)<br>IECEX   |
| Application range (zones)       | 1<br>2<br>21<br>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), Korea (KTL)                      |
| Declaration of Conformity       | ATEX (EUK), China (CCC)  |
| Notes                           | Product label may vary. Series devices have certification according to ATEX and IECEX. |

## Electrical Data

|                               |                 |
|-------------------------------|-----------------|
| Rated operational voltage AC  | 690 V / 690 V   |
| Rated operational current     | 12 A / 16 A     |
| Switching capacity AC-3 230 V | 3 kW / 4 kW     |
| Switching capacity AC-3 400 V | 5.5 kW / 7.5 kW |
| Switching capacity AC-3 440 V | 5.5 kW / 7.5 kW |
| Switching capacity AC-3 500 V | 7.5 kW / 7.5 kW |
| Switching capacity AC-3 690 V | 7.5 kW / 11 kW  |
| Auxiliary contact NC          | without         |
| Auxiliary contact NO          | 1 NO/delayed    |

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## Electrical Data

|                 |            |
|-----------------|------------|
| Frequency range | 50 – 60 Hz |
|-----------------|------------|

## Ambient Conditions

|      |   |
|------|---|
| Note | Information regarding ambient conditions can be found on the Internet at <a href="http://r-stahl.com">r-stahl.com</a> . MY R. STAHL 8146L |
|------|---|

## Ambient conditions

| Ambient conditions | Number of poles |                   | max. current (A) | Conductor cross-section <sup>1)</sup> (mm <sup>2</sup> ) |      | Temperature class / perm. ambient temperature   |
|--------------------|-----------------|-------------------|------------------|--|------|---|
|                    | Main contacts   | Auxiliary contact |                  | min.   | max. |   |
|                    | 3               | 1                 | 12 / 16          | 2,5  | 4    | <b>T6: -40 ... +51 °C</b><br>T6: -40 ... +54 °C <sup>2)</sup><br>T5: -40 ... +69 °C <sup>2)</sup> |

When using a conductor cross section of min. 1,5 mm<sup>2</sup>, the temperature class and ambient temperature are reduced to T4: -40 °C ... + 40 °C

<sup>1)</sup> 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.

<sup>2)</sup> only with heat-resistant conductor > 70 °C at cable entries and/or > 85 °C at clamping units

**Bold:** Observe information on the type plate

## Mechanical Data

|  |  |
|--|--|
| Degree of protection (IP)                      | IP66   |
| Degree of protection note                      | acc. to EN/IEC 60529   |
| Enclosure material                             | Polyester resin, Glass fibre reinforced  |
| Min. solid conn. cr.-sect. AWG                 | AWG 14   |
| Connection terminal auxiliary contact min. AWG | AWG 16   |
| Connection cross section                       | 2.5 ... 10 mm <sup>2</sup>   |
| Auxiliary connection connection terminals      | 1.5 ... 4 mm <sup>2</sup>  |
| Connection cross-section note                  | Depending on the application, for more detailed information see operating instructions at <a href="http://r-stahl.com">r-stahl.com</a> |
| Construction type                              | Standard   |
| Dimension A                                    | 112.5 mm   |
| Dimension A inch                               | 4.43 in  |
| Dimension B                                    | 112.5 mm   |
| Dimension B inch                               | 4.43 in  |
| Dimension C                                    | 131 mm   |
| Dimension C inch                               | 5.16 in  |
| Handle colour                                  | Black shroud and handle  |
| Seal   | Silicone, foamed   |
| Lockable in                                    | Three times in 0 position  |
| Detailed number of poles                       | 3-pole   |
| Weight   | 962 g  |
| Weight   | 2.12 lb  |

## Components

|                   |                     |
|-------------------|---------------------|
| Additional device | Brass plate drilled |
|-------------------|---------------------|

# Load Disconnect Switches and Motor Starters



Safety switch

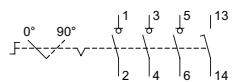
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## Components

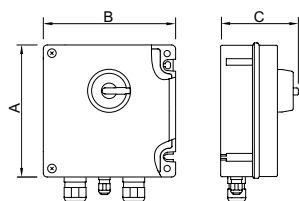
|             |  |
|-------------|--|
| Entry type  | Standard 8161, moulded material              |
| Cable gland | 2 x M25 Ø 7 to 17 mm<br>1 x M20 Ø 4 to 13 mm |

## Technical Drawings – Subject to Alterations



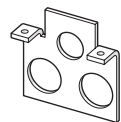
81../5-V..-3..-50-..  
3-pole + 1 NO  
(ON delayed – OFF leading)

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



## Accessories

### Brass plate



size 031  
2 x M25, 1 x M20

### Art. No.

148207

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.