

# Load disconnect switches and motor starters

STAHL

## Load disconnect switch

25 A

8146/5-V11-404-00-0010 Art. No. 205684



- 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<br>IECEX<br>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      |
| Rated operational current     | 25 A       |
| Nominal power                 | 15 hp      |
| Auxiliary contact NC          | without    |
| Auxiliary contact NO          | without    |
| Max. short-circuit protection | 35 A       |
| Tripping characteristic       | gG         |
| Frequency range               | 50 – 60 Hz |

### Auxiliary Power

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

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### Ambient Conditions

|                     |                  |
|---------------------|------------------|
| Ambient temperature | -40°C ... +44°C  |
| Ambient temperature | -40°F ... +111°F |

### Mechanical Data

|                                                            |                                   |
|------------------------------------------------------------|-----------------------------------|
| Degree of protection (IP)                                  | IP66                              |
| Enclosure material                                         | Polyester, Glass fibre reinforced |
| Additional terminal                                        | without                           |
| Min. connection cross section, solid                       | 4 mm <sup>2</sup>                 |
| Max. connection cross section, solid                       | 0 mm <sup>2</sup>                 |
| Min. connection cross-section, finely stranded             | 4 mm <sup>2</sup>                 |
| Max. connection cross-section, finely stranded             | 6 mm <sup>2</sup>                 |
| Min. solid conn. cr.-sect. AWG                             | AWG 12                            |
| Min. solid con. cr.-sect. AWG2                             | AWG 0                             |
| Max. solid conn. cr.-sect. AWG                             | AWG 0                             |
| Min. f.stra. con. cr.-sec. AWG                             | AWG 12                            |
| Min. f.str. con. cr.-sec. AWG2                             | 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                                          | Standard                          |
| Width                                                      | 170 mm                            |
| Width, inches                                              | 6.69 in                           |
| Height                                                     | 170 mm                            |
| Height in inches                                           | 6.69 in                           |
| Depth                                                      | 132 mm                            |
| Depth in inches                                            | 5.2 in                            |
| Service life, min.                                         | 10 <sup>5</sup> operating cycles  |
| Handle colour                                              | Black                             |
| Protective collar colour                                   | Black                             |
| Seal                                                       | Silicone, foamed                  |
| Lockable in                                                | Three times in 0 position         |
| Detailed number of poles                                   | 3-pole + N                        |
| Weight                                                     | 2.11 kg                           |
| Weight                                                     | 4.65 lb                           |

### Components

|             |                                                        |
|-------------|--------------------------------------------------------|
| Entry type  | Standard 8161, moulded material                        |
| Cable gland | 2x M32 Ø 9 ... 21 mm<br>1x M20 Ø 4 ... 13 mm with plug |

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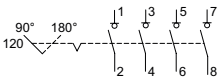


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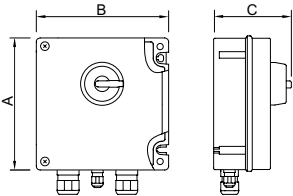
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### Technical Drawings – Subject to Alterations



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<br>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              |

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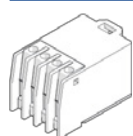
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|               |         |                                                                  |                |                |                |
|---------------|---------|------------------------------------------------------------------|----------------|----------------|----------------|
| 3-pole<br>+ N | 10 A    | 8146/ 5- V11- 400- 00- 0050                                      | 112.5          | 112.5          | 131            |
|               | 16 A    | 8146/ 5- V11- 402- 00- 0050<br>8146/ 5- V11- 402- 00- 1050       | 170<br>170     | 112.5<br>112.5 | 132.0<br>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<br>8146/ 5- V11- 406- 00- 1010- K | 340.5<br>340.5 | 340.5<br>340.5 | 195<br>195     |
| 6-pole        | 25 A    | 8146/ 5- V11- 604- 60- 0010                                      | 227            | 170            | 172            |

## Accessories

| 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. |          |

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.