

# Load Disconnect Switches and Motor Starters

## Moulded case circuit breaker for The motor protection



8146/5-V27-110-145-10-51-1 Art. No. 249191



- Electric line and system protection for Ex e and Ex d motors
- Robust enclosure made from glass fibre-reinforced polyester resin
- Optional: Undervoltage release, shunt trip, ammeter, auxiliary contact

MY R. STAHL 8146N



R. STAHL's 8146/5-V27 series moulded case circuit breakers for motor protection protect Ex e and Ex d motors and their associated electric lines and systems. The standard variants feature an adjustable, phase-sensitive thermal overcurrent release or electromagnetic tripping mechanism, which has to be specified during the ordering process. They cannot be retrofitted.

### 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 T4 Gb  |
| IECEX dust certificate          | IECEX PTB 06.0090   |
| IECEX dust explosion protection | Ex tb IIIC T130 °C Db   |
| ATEX gas certificate            | PTB 01 ATEX 1024  |
| ATEX gas explosion protection   | ⊕ II 2 G Ex db eb IIC T4 Gb                                       |
| ATEX dust certificate           | PTB 01 ATEX 1024  |
| ATEX dust explosion protection  | ⊕ II 2 D Ex tb IIIC T130 °C Db                                    |
| Certificates                    | ATEX (PTB), Canada (FM), China (NEPSI), IECEX (PTB), India (PESO) |
| Declaration of Conformity       | ATEX (EUK), China (CCC)   |

#### Electrical Data

|                       |                      |
|-----------------------|----------------------|
| Switching capacity    | 16 kW                |
| AC release voltage    | 500 V                |
| Current-setting range | 20 – 22.5 A          |
| Ammeter present       | No                   |
| Auxiliary contacts    | without              |
| Release               | Undervoltage release |
| No. of poles          | 3                    |
| Frequency range       | 50 – 60 Hz           |

#### Ambient Conditions

|                     |                 |
|---------------------|-----------------|
| Ambient temperature | -20°C ... +40°C |
|---------------------|-----------------|

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### Ambient Conditions

|                     |                   |
|---------------------|-------------------|
| Ambient temperature | -4 °F ... +104 °F |
|---------------------|-------------------|

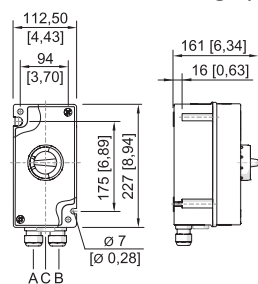
### Mechanical Data

|                                |   |
|--------------------------------|---|
| 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 16                                  |
| Max. solid conn. cr.-sect. AWG | AWG 8                                   |
| Type of screw connection       | 8161                                    |
| Width                          | 112.5 mm                                |
| Width in inches                | 4.43 in                                 |
| Height                         | 227 mm                                  |
| Height, inches                 | 8.94 in                                 |
| Depth                          | 131 mm                                  |
| Depth, inches                  | 5.16 in                                 |
| Handle colour                  | Black                                   |
| Protective collar colour       | Black                                   |
| Rotary actuator labelling      | 0 - I                                   |
| Seal                           | Silicone, foamed                        |
| Lockable in                    | Three times in 0 position               |
| Weight                         | 4.4 kg                                  |
| Weight                         | 9.7 lb                                  |

### Components

|                          |  |
|--------------------------|--|
| Cable glands and entries | 1 x M20 Ø 4 ... 13 mm<br>2 x M25 Ø 7 – 17 mm |
|--------------------------|--|

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



Current adjustment range up to 16 A; without auxiliary contact

### Cable entries

| Version   | Auxiliary contacts | Cable glands Series 8161 |              | Stopping plugs Series 8290 |
|---|--------------------|--------------------------|--------------|----------------------------|
|   |                    | M25 x 1.5                | M32 x 1.5    |                            |
| Current adjustment range up to 16 A               | without<br>with    | A, B<br>A, B, C          | --<br>--     | C<br>--                    |
| Current adjustment range 16 to 20 A, 20 to 22.5 A | without<br>with    | --<br>C                  | A, B<br>A, B | C<br>--                    |

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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.