

# Cylindrical Fuse Switch Disconnectors Ex9FS

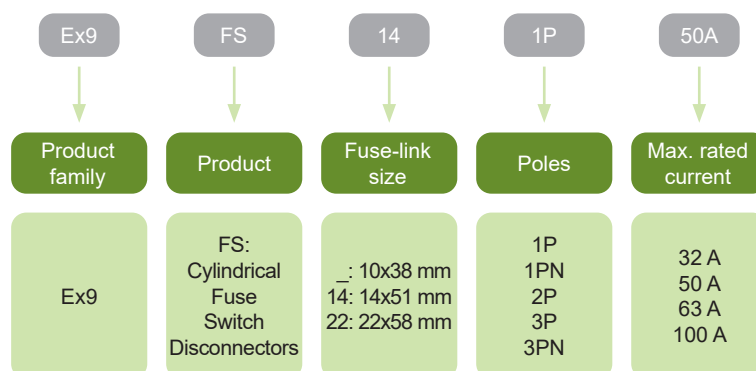


- Meet requirements of EN 60947-3
- Rated operating voltage 400/500 V AC
- Versions with rated current
  - 32 A (10 x 38 mm)
  - 50/63 A (14 x 51 mm)
  - 100 A (22 x 58 mm)
- Utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC
- Sealing possibility

Cylindrical fuse switch disconnectors for rated currents up to 100 A. Thanks to utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC they can be used for switching under load. Very compact design with DIN rail mounting allows its usage in various applications. Fuse links of types gG and aM can be used with respect to maximum allowed power loss.

To be operated by qualified persons.

## Type Key



## Certification marks



# Cylindrical Fuse Switch Disconnectors Ex9FS

## Cylindrical Fuse Switch Disconnectors up to 32 A

- For cylindrical fuse-links of size 10 x 38 mm
- Rated operating voltage 400/500 V AC
- Utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC
- Meets requirements of EN 60947-3, to be operated by qualified persons only
- Versions with or without signalization status



| Poles | Rated current | Signalization | Article No. | Type             | Packing  |
|-------|---------------|---------------|-------------|------------------|----------|
| 1P    | 32 A          | yes           | 109840      | Ex9FS 1P 32A     | 1/12/144 |
| 1P    | 32 A          | no            | 113293      | Ex9FS 1P 32A WI  | 1/12/144 |
| 1P+N  | 32 A          | yes           | 109841      | Ex9FS 1PN 32A    | 1/6/72   |
| 1P+N  | 32 A          | no            | 113294      | Ex9FS 1PN 32A WI | 1/6/72   |
| 2P    | 32 A          | yes           | 109842      | Ex9FS 2P 32A     | 1/6/72   |
| 2P    | 32 A          | no            | 113295      | Ex9FS 2P 32A WI  | 1/6/72   |
| 3P    | 32 A          | yes           | 109843      | Ex9FS 3P 32A     | 1/4/48   |
| 3P    | 32 A          | no            | 113296      | Ex9FS 3P 32A WI  | 1/4/48   |
| 3P+N  | 32 A          | yes           | 109844      | Ex9FS 3PN 32A    | 1/3/36   |
| 3P+N  | 32 A          | no            | 113297      | Ex9FS 3PN 32A WI | 1/3/36   |

## Cylindrical Fuse Switch Disconnectors up to 50/63 A

- For cylindrical fuse-links of size 14 x 51 mm
- Rated operating voltage 400/500 V AC
- Utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC
- Meets requirements of EN 60947-3, to be operated by qualified persons only



| Poles | Rated current | Signalization | Article No. | Type               | Packing  |
|-------|---------------|---------------|-------------|--------------------|----------|
| 1P    | 50 A          | no            | 109845      | Ex9FS-14 1P 50A    | 1/12/144 |
| 1P+N  | 50 A          | no            | 109846      | Ex9FS-14 1PN 50A   | 1/6/72   |
| 2P    | 50 A          | no            | 109847      | Ex9FS-14 2P 50A    | 1/6/72   |
| 3P    | 50 A          | no            | 109848      | Ex9FS-14 3P 50A    | 1/4/48   |
| 3P+N  | 50 A          | no            | 109849      | Ex9FS-14 3PN 50A   | 1/3/36   |
| 1P    | 63 A          | no            | 115549      | Ex9FS-14 1P 63 EU  | 1/12/144 |
| 1P+N  | 63 A          | no            | 115550      | Ex9FS-14 1PN 63 EU | 1/6/72   |
| 2P    | 63 A          | no            | 115551      | Ex9FS-14 2P 63 EU  | 1/6/72   |
| 3P    | 63 A          | no            | 115552      | Ex9FS-14 3P 63 EU  | 1/4/48   |
| 3P+N  | 63 A          | no            | 115553      | Ex9FS-14 3PN 63 EU | 1/3/36   |

## Cylindrical Fuse Switch Disconnectors up to 100 A

- For cylindrical fuse-links of size 22 x 58 mm
- Rated operating voltage 400/500 V AC
- Utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC
- Meets requirements of EN 60947-3, to be operated by qualified persons only



| Poles | Rated current | Signalization | Article No. | Type              | Packing |
|-------|---------------|---------------|-------------|-------------------|---------|
| 1P    | 100 A         | no            | 109850      | Ex9FS-22 1P 100A  | 1/9/108 |
| 1P+N  | 100 A         | no            | 109851      | Ex9FS-22 1PN 100A | 1/4/48  |
| 2P    | 100 A         | no            | 109852      | Ex9FS-22 2P 100A  | 1/4/48  |
| 3P    | 100 A         | no            | 109853      | Ex9FS-22 3P 100A  | 1/3/36  |
| 3P+N  | 100 A         | no            | 109854      | Ex9FS-22 3PN 100A | 1/2/24  |

# Technical Data Ex9FS

## Cylindrical Fuse Switch Disconnectors

### General parameters

|                                                                                               |
|-----------------------------------------------------------------------------------------------|
| Versions for fuse-link size 10x38, 14x51 and 22x58 mm, suitable for gG and aM type fuse-links |
| Utilization categories AC-21B at 500 V AC and AC-22B at 400 V AC                              |
| Status signalization on Ex9FS only                                                            |
| To be operated by qualified persons only                                                      |

### Electrical parameters

|                                                                                 | Ex9FS                      | Ex9FS-14                   |              | Ex9FS-22                      |
|---------------------------------------------------------------------------------|----------------------------|----------------------------|--------------|-------------------------------|
| Tested according to                                                             | EN 60947-3                 |                            |              |                               |
| Rated operating voltage U <sub>e</sub>                                          | 400/500 V AC               |                            |              |                               |
| Rated frequency f                                                               | 50/60 Hz                   |                            |              |                               |
| Rated conventional thermal current I <sub>th</sub>                              | 32 A                       | 50 A                       | 63 A         | 100 A                         |
| Rated operating current I <sub>e</sub>                                          | 32 A                       | 50 A                       | 63 A         | 100 A                         |
| Number of poles                                                                 | 1P, 1P+N, 2P, 3P, 3P+N     |                            |              |                               |
| Suitable fuse-link size                                                         | 10 x 38 mm                 | 14 x 51 mm                 |              | 22 x 58 mm                    |
| Fuse-link rated current<br>at 400 V AC<br>at 500 V AC                           | 32 A<br>32 A               | 50 A<br>50 A               | 63 A<br>63 A | 100 A<br>100 A                |
| Rated cond. short-circuit strength I <sub>q</sub><br>at 400 V AC<br>at 500 V AC | 120 kA<br>100 kA           | 120 kA<br>100 kA           |              | 120 kA<br>100 kA              |
| Rated insulation voltage U <sub>i</sub>                                         | 1000 V                     |                            |              |                               |
| Rated impulse withstand voltage U <sub>imp</sub>                                | 6 KV                       | 8 kV                       |              | 8 kV                          |
| Utilization categories<br>at 400 V AC<br>at 500 V AC                            | AC-22B<br>AC-21B           |                            |              |                               |
| Electrical service life                                                         | 300 operational cycles     |                            |              |                               |
| Power loss without fuse-link                                                    | 1.6 W                      |                            |              |                               |
| Max. power loss of installed fuse-link<br>gG<br>aM                              | 3 W at 32 A<br>3 W at 25 A | 5 W at 50 A<br>3 W at 40 A |              | 9.5 W at 100 A<br>7 W at 80 A |

### Mechanical parameters

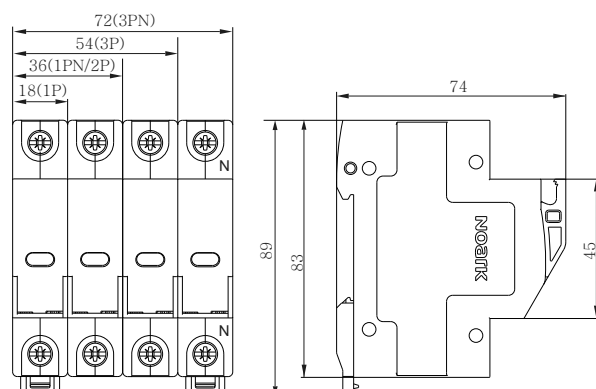
|                                     | Ex9FS                   | Ex9FS-14               | Ex9FS-22               |
|-------------------------------------|-------------------------|------------------------|------------------------|
| Device width per pole               | 18 mm                   | 27 mm                  | 36 mm                  |
| Device height                       | 83 mm                   | 93 mm                  | 107 mm                 |
| Frame size                          | 45 mm                   |                        |                        |
| Mounting                            | onto DIN rail 35 mm     |                        |                        |
| Degree of protection                | IP20                    |                        |                        |
| Terminal capacity                   | 1 – 16 mm <sup>2</sup>  | 1 – 25 mm <sup>2</sup> | 1 – 35 mm <sup>2</sup> |
| Fastening torque of terminals       | 2.5 Nm                  | 3.5 Nm                 | 3.5 Nm                 |
| Ambient temperature                 | -30 – +70°C             |                        |                        |
| Altitude                            | ≤ 2000 m                |                        |                        |
| Relative humidity                   | +20°C ≤ 35 %            | +40°C ≤ 50 %           | +40°C ≤ 50 %           |
| Resistance to humidity and heat     | 50 %                    |                        |                        |
| Pollution degree                    | 3                       |                        |                        |
| Installation class                  | III                     |                        |                        |
| Overvoltage category                | I / 500 V AC            | II / 500 V AC          | III / 400 V AC         |
| Mechanical service life             | 2000 operational cycles |                        |                        |
| Weight (per pole without fuse-link) | 0.07 kg                 | 0.10 kg                | 0.17 kg                |

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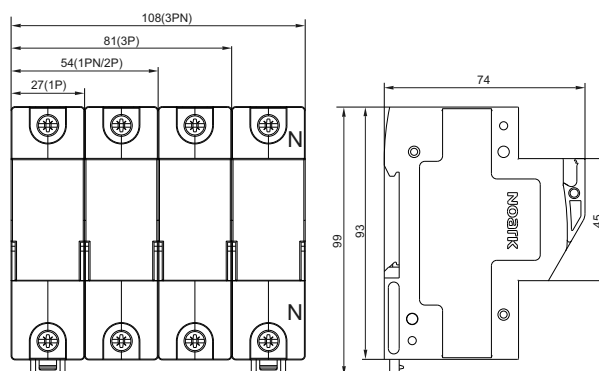
## Cylindrical Fuse Switch Disconnectors

### Dimensions

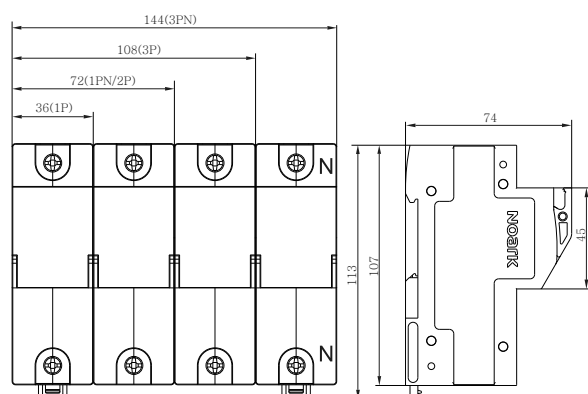
Ex9FS



Ex9FS-14



Ex9FS-22



### Wiring diagrams

