

# Cylindrical Fuse Holders Ex9F

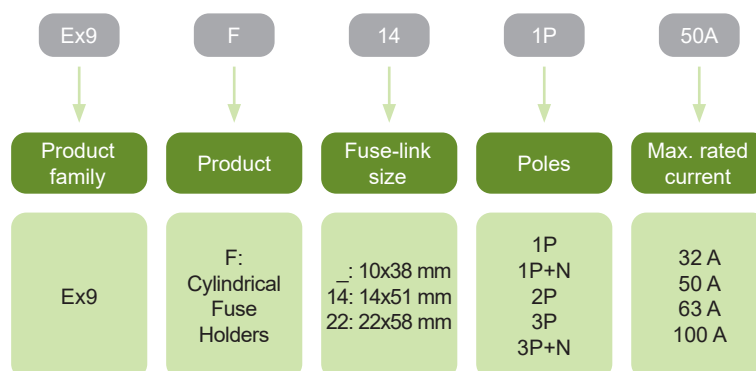


- Meet requirements of EN 60947-3
- Rated operating voltage 400/690 V AC
- Versions with rated current
  - 32 A (10 x 38 mm)
  - 50/63 A (14 x 51 mm)
  - 100 A (22 x 58 mm)
- Utilization category AC-20B at 400/690 V AC
- Sealing possibility

Cylindrical fuse holders for rated currents up to 100 A. Thanks to utilization category AC-20B at 400/690 V AC they cannot 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 Holders Ex9F

## Cylindrical Fuse Holders up to 32 A

- For cylindrical fuse-links of size 10 x 38 mm
- Rated operating voltage 400/690 V AC
- Utilization category AC-20B at 400/690 V AC
- Meets requirements of EN 60947-3, to be operated by qualified persons only
- With or without signalization status



| Poles | Rated current | Signalization | Article No. | Type            | Packing  |
|-------|---------------|---------------|-------------|-----------------|----------|
| 1P    | 32 A          | yes           | 104474      | Ex9F 1P 32A     | 1/12/144 |
| 1P+N  | 32 A          | yes           | 104475      | Ex9F 1PN 32A    | 1/6/72   |
| 2P    | 32 A          | yes           | 104476      | Ex9F 2P 32A     | 1/6/72   |
| 3P    | 32 A          | yes           | 104477      | Ex9F 3P 32A     | 1/4/48   |
| 3P+N  | 32 A          | yes           | 104478      | Ex9F 3PN 32A    | 1/3/36   |
| 1P    | 32 A          | no            | 109054      | Ex9F 1P 32A WI  | 1/12/144 |
| 1P+N  | 32 A          | no            | 109055      | Ex9F 1PN 32A WI | 1/6/72   |
| 2P    | 32 A          | no            | 109056      | Ex9F 2P 32A WI  | 1/6/72   |
| 3P    | 32 A          | no            | 109057      | Ex9F 3P 32A WI  | 1/4/48   |
| 3P+N  | 32 A          | no            | 109058      | Ex9F 3PN 32A WI | 1/3/36   |

## Cylindrical Fuse Holders up to 50/63 A

- For cylindrical fuse-links of size 14 x 51 mm
- Rated operating voltage 400/690 V AC
- Utilization category AC-20B at 400/690 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            | 104479      | Ex9F-14 1P 50A   | 1/12/144 |
| 1P+N  | 50 A          | no            | 104480      | Ex9F-14 1P+N 50A | 1/6/72   |
| 2P    | 50 A          | no            | 104481      | Ex9F-14 2P 50A   | 1/6/72   |
| 3P    | 50 A          | no            | 104482      | Ex9F-14 3P 50A   | 1/4/48   |
| 3P+N  | 50 A          | no            | 104483      | Ex9F-14 3P+N 50A | 1/3/36   |
| 1P    | 63 A          | no            | 115544      | Ex9F-14 1P 63A   | 1/12/144 |
| 1P+N  | 63 A          | no            | 115545      | Ex9F-14 1P+N 63A | 1/6/72   |
| 2P    | 63 A          | no            | 115546      | Ex9F-14 2P 63A   | 1/6/72   |
| 3P    | 63 A          | no            | 115547      | Ex9F-14 3P 63A   | 1/4/48   |
| 3P+N  | 63 A          | no            | 115548      | Ex9F-14 3P+N 63A | 1/3/36   |

## Cylindrical Fuse Holders up to 100 A

- For cylindrical fuse-links of size 22 x 58 mm
- Rated operating voltage 400/690 V AC
- Utilization category AC-20B at 400/690 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            | 104484      | Ex9F-22 1P 100A  | 1/9/108 |
| 1P+N  | 100 A         | no            | 104485      | Ex9F-22 1PN 100A | 1/4/48  |
| 2P    | 100 A         | no            | 104486      | Ex9F-22 2P 100A  | 1/4/48  |
| 3P    | 100 A         | no            | 104487      | Ex9F-22 3P 100A  | 1/3/36  |
| 3P+N  | 100 A         | no            | 104488      | Ex9F-22 3PN 100A | 1/2/24  |

# Technical Data Ex9F

## Cylindrical Fuse Holders

### General parameters

|                                                                                               |
|-----------------------------------------------------------------------------------------------|
| Versions for fuse-link size 10x38, 14x51 and 22x58 mm, suitable for gG and aM type fuse-links |
| Utilization category AC-20B at 400/690 V AC                                                   |
| Status signalization on Ex9F only                                                             |
| To be operated by qualified persons only                                                      |

### Electrical parameters

|                                                                        | Ex9F                   | Ex9F-14         |              | Ex9F-22         |
|------------------------------------------------------------------------|------------------------|-----------------|--------------|-----------------|
| Tested according to                                                    | EN 60947-3             |                 |              |                 |
| Rated operating voltage $U_e$                                          | 400/690 V AC           |                 |              |                 |
| Rated frequency f                                                      | 50 Hz                  |                 |              |                 |
| Rated conventional thermal current $I_{th}$                            | 32 A                   | 50 A            | 63 A         | 100 A           |
| Rated operating current $I_e$                                          | 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 400/690 V AC gG/aM<br>at 690 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 $I_q$<br>at 400 V AC<br>at 690 V AC | 120 kA<br>80 kA        | 120 kA<br>80 kA |              | 120 kA<br>80 kA |
| Rated insulation voltage $U_i$                                         | 1000 V                 |                 |              |                 |
| Rated impulse withstand voltage $U_{imp}$                              | 6 kV                   | 8 kV            |              | 8 kV            |
| Utilization category at 400/690 V AC                                   | AC-20B                 |                 |              |                 |
| 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<br>3 W             | 5 W<br>3 W      |              | 9.5 W<br>7 W    |

### Mechanical parameters

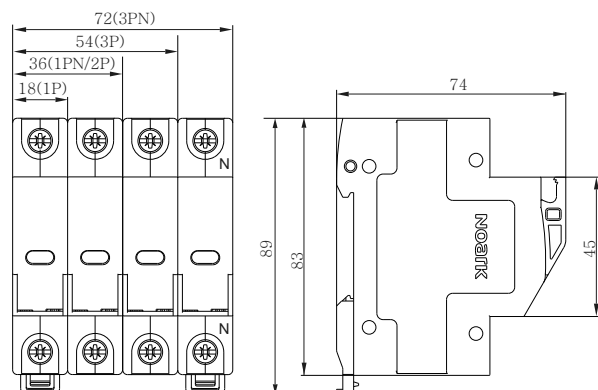
|                                     |                         |                        |                        |
|-------------------------------------|-------------------------|------------------------|------------------------|
| Device width per pole               | 18 mm                   | 27 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 – 25 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 / 690 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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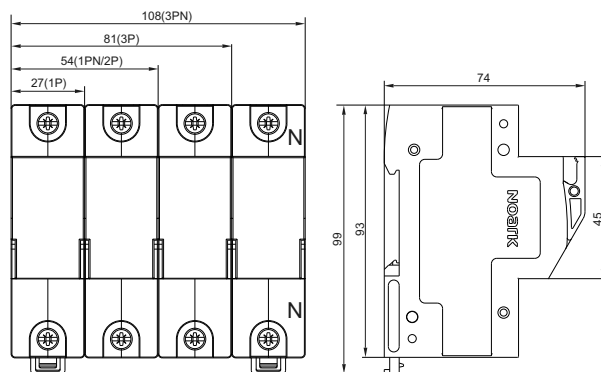
## Cylindrical Fuse Holders

### Dimensions

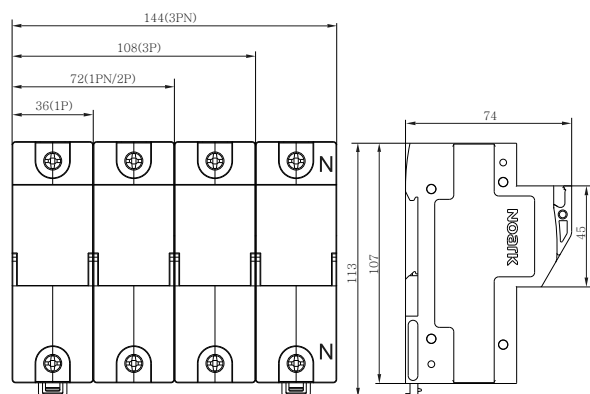
Ex9F



Ex9F-14



Ex9F-22



### Wiring diagrams

