



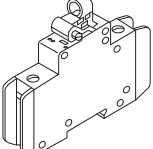
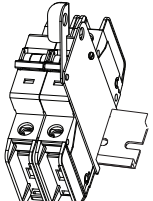


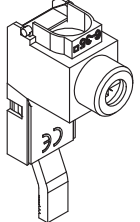



Accessories

FAZ-NA UL 489 Breakers

| | Description | Catalog Number |
|---|---|---|
| Contact  | Two-pole contact or auxiliary contact/trip indicating contact | Z-NHK ^① |
| Auxiliary Contact  | Auxiliary contact | Z-IHK-NA |
| Shunt Trip   | Shunt trip 110–415 Vac Shunt trip 12–110 Vac | FAZ-XAA-NA110-415VAC FAZ-XAA-NA12-110VAC |
| Padlock Hasp  | Padlock hasp | Z-IS/SPE-1TE |
| Lockoff Device  | UL lockoff device | FAZPLOFF |

FAZ-NA UL 489 Breakers, continued

| | Description | Catalog Number |
|---|--|-----------------------------|
| Busbar  | Busbar—single-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/6 |
| | Busbar—single-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/12 |
| | Busbar—single-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/18 |
| | Busbar—two-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/6 |
| | Busbar—two-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/12 |
| | Busbar—two-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/18 |
| | Busbar—three-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/6 |
| | Busbar—three-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/12 |
| | Busbar—three-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/18 |
| Busbar Shroud  | Three-pole busbar shroud | ZV-BS-UL |
| Extension Terminal  | Extension terminal—35 mm ² (10–1/0 AWG) | Z-EK/35/UL |
| Bus Connector  | Bus connector—conductors up to 50 mm ² (–1/0 AWG) | Z-EB/50/UL |

Notes

- ① Voltage of FAZ-NA circuit breaker is limited to 300V with this auxiliary contact installed.
- ② Do not cut commoning link.
- ③ A maximum of three commoning links may be used in conjunction. Each breaker connected to the commoning link must have the same number of poles for proper use.
- ④ Not for use with ring-tongue circuit breakers.
- ⑤ Bus may be center fed for high current capacity.

1.2

Miniature Circuit Breakers and Supplementary Protectors

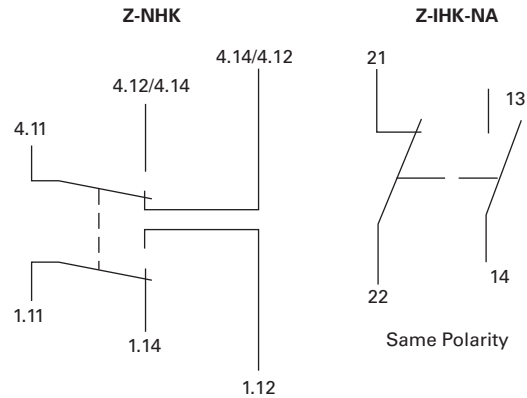
UL 489 DIN Rail Miniature Circuit Breakers

1

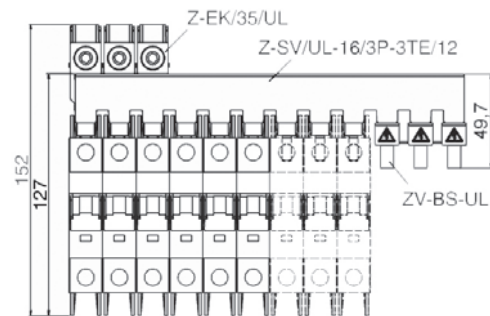
Tripping Signal Switch Z-NHK, Z-IHK-NA

- Design according to IEC/EN 60947-5-1, IEC/EN 62019
- Field installable
- The specified minimum voltages are per contact—take into account particularly in case of series connection
- Self-cleaning contacts
- Contact material and design particularly suitable for extra low voltage
- Z-NHK: the function of one of the two change-over contacts can be switched from “auxiliary switch” to “tripping signal switch”
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off
- Test key for contact function “electrical tripping”
- Z-IHK-NA: will allow for > 480Y/277 Vac rating

Connection Diagram



Busbar Connection Example



Z-NHK

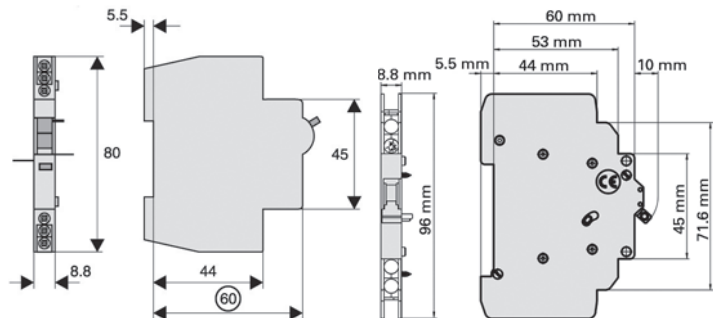


Z-IHK-NA







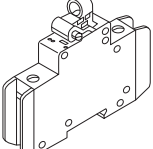
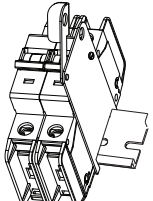
Contact and Auxiliary Contact

| Description | Z-NHK | Z-IHK-NA |
|--|---|---|
| Electrical | | |
| Contact function | 2CO | 1NO + 1NC |
| Rated voltage | 230V | 250V |
| Frequency | 50/60 Hz | 50/60 Hz |
| Rated current | 2A | 6A |
| Rated thermal current I_{th} | 2A | 6A |
| Utilization category AC13 Rated operational current I_e | 3A/250 Vac | 3A/250 Vac |
| Utilization category AC15 Rated operational current I_e | 2A/250 Vac | 2A/250 Vac |
| Utilization category DC12 Rated operational current I_e | 0.5A/110 Vdc | 0.5A/110 Vdc 0.25A/220 Vdc |
| Rated insulation voltage U_i | 250 Vac | 250 Vac |
| Minimum operational voltage per contact U_{min} | 5 Vdc | 5 Vdc |
| Minimum operational current I_{min} | 10 mA DC | 10 mA AC/DC |
| Rated peak withstand voltage U_{imp} (1.2/50 μ) | 2.5 kV | 4 kV |
| Conditional short-circuit current I_k with backup fuse 6A | 1 kA | 1 kA |
| Max. backup fuse, overload and short circuit | 6A gL | — |
| Mechanical | | |
| Tripping indicator "electrical tripping" | Blue/white | — |
| Frame size | 45 mm | 45 mm |
| Device height | 80 mm | 80 mm |
| Device width | 8.8 mm (0.5MU) | 8.8 mm (0.5MU) |
| Mounting | Onto switching device | — |
| Degree of protection, built-in | IP40 | IP40 |
| Terminal protection | Finger and hand touch safe According to BGV A3, ÖVE-EN 6 | Finger and hand touch safe According to BGV A3, ÖVE-EN 6 |
| Terminals | Lift terminals | Lift terminals |
| Terminal capacity | 20–14 AWG | 0.5–2.5 mm ² |
| Terminal screws | M3 (Posidrive Z0) | M3 (Posidrive Z0) |
| Fastening torque of terminal screws | 7 lb-in | Max. 1.2 Nm |



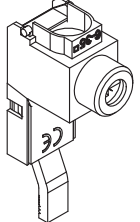



Accessories

FAZ-NA UL 489 Breakers

| | Description | Catalog Number |
|---|---|---|
| Contact  | Two-pole contact or auxiliary contact/trip indicating contact | Z-NHK ^① |
| Auxiliary Contact  | Auxiliary contact | Z-IHK-NA |
| Shunt Trip   | Shunt trip 110–415 Vac Shunt trip 12–110 Vac | FAZ-XAA-NA110-415VAC FAZ-XAA-NA12-110VAC |
| Padlock Hasp  | Padlock hasp | Z-IS/SPE-1TE |
| Lockoff Device  | UL lockoff device | FAZPLOFF |

FAZ-NA UL 489 Breakers, continued

| | Description | Catalog Number |
|---|--|-----------------------------|
| Busbar  | Busbar—single-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/6 |
| | Busbar—single-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/12 |
| | Busbar—single-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/1P-1TE/18 |
| | Busbar—two-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/6 |
| | Busbar—two-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/12 |
| | Busbar—two-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/2P-2TE/18 |
| | Busbar—three-pole, 6 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/6 |
| | Busbar—three-pole, 12 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/12 |
| | Busbar—three-pole, 18 terminals ^{②③④⑤} | Z-SV/UL-16/3P-3TE/18 |
| Busbar Shroud  | Three-pole busbar shroud | ZV-BS-UL |
| Extension Terminal  | Extension terminal—35 mm ² (10–1/0 AWG) | Z-EK/35/UL |
| Bus Connector  | Bus connector—conductors up to 50 mm ² (–1/0 AWG) | Z-EB/50/UL |

Notes

- ① Voltage of FAZ-NA circuit breaker is limited to 300V with this auxiliary contact installed.
- ② Do not cut commoning link.
- ③ A maximum of three commoning links may be used in conjunction. Each breaker connected to the commoning link must have the same number of poles for proper use.
- ④ Not for use with ring-tongue circuit breakers.
- ⑤ Bus may be center fed for high current capacity.

1.2

Miniature Circuit Breakers and Supplementary Protectors

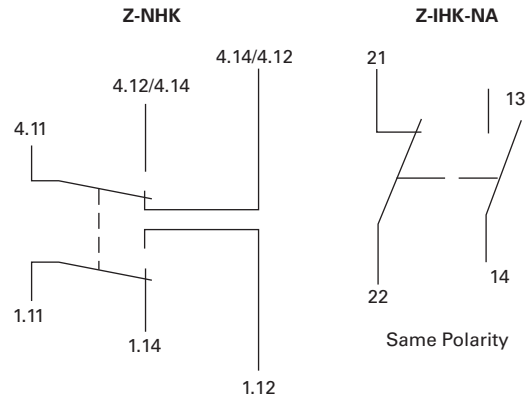
UL 489 DIN Rail Miniature Circuit Breakers

1

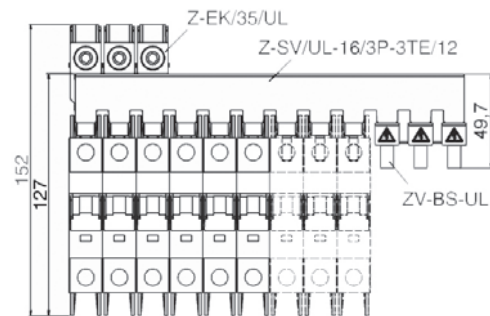
Tripping Signal Switch Z-NHK, Z-IHK-NA

- Design according to IEC/EN 60947-5-1, IEC/EN 62019
- Field installable
- The specified minimum voltages are per contact—take into account particularly in case of series connection
- Self-cleaning contacts
- Contact material and design particularly suitable for extra low voltage
- Z-NHK: the function of one of the two change-over contacts can be switched from “auxiliary switch” to “tripping signal switch”
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off
- Test key for contact function “electrical tripping”
- Z-IHK-NA: will allow for > 480Y/277 Vac rating

Connection Diagram



Busbar Connection Example



Z-NHK



Z-IHK-NA



Contact and Auxiliary Contact

| Description | Z-NHK | Z-IHK-NA |
|--|---|---|
| Electrical | | |
| Contact function | 2CO | 1NO + 1NC |
| Rated voltage | 230V | 250V |
| Frequency | 50/60 Hz | 50/60 Hz |
| Rated current | 2A | 6A |
| Rated thermal current I_{th} | 2A | 6A |
| Utilization category AC13 Rated operational current I_e | 3A/250 Vac | 3A/250 Vac |
| Utilization category AC15 Rated operational current I_e | 2A/250 Vac | 2A/250 Vac |
| Utilization category DC12 Rated operational current I_e | 0.5A/110 Vdc | 0.5A/110 Vdc 0.25A/220 Vdc |
| Rated insulation voltage U_i | 250 Vac | 250 Vac |
| Minimum operational voltage per contact U_{min} | 5 Vdc | 5 Vdc |
| Minimum operational current I_{min} | 10 mA DC | 10 mA AC/DC |
| Rated peak withstand voltage U_{imp} (1.2/50 μ) | 2.5 kV | 4 kV |
| Conditional short-circuit current I_k with backup fuse 6A | 1 kA | 1 kA |
| Max. backup fuse, overload and short circuit | 6A gL | — |
| Mechanical | | |
| Tripping indicator "electrical tripping" | Blue/white | — |
| Frame size | 45 mm | 45 mm |
| Device height | 80 mm | 80 mm |
| Device width | 8.8 mm (0.5MU) | 8.8 mm (0.5MU) |
| Mounting | Onto switching device | — |
| Degree of protection, built-in | IP40 | IP40 |
| Terminal protection | Finger and hand touch safe According to BGV A3, ÖVE-EN 6 | Finger and hand touch safe According to BGV A3, ÖVE-EN 6 |
| Terminals | Lift terminals | Lift terminals |
| Terminal capacity | 20–14 AWG | 0.5–2.5 mm ² |
| Terminal screws | M3 (Posidrive Z0) | M3 (Posidrive Z0) |
| Fastening torque of terminal screws | 7 lb-in | Max. 1.2 Nm |

