



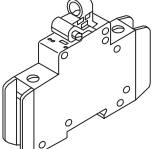
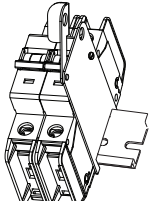


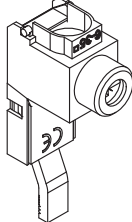
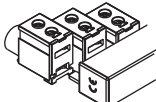


Accessories

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

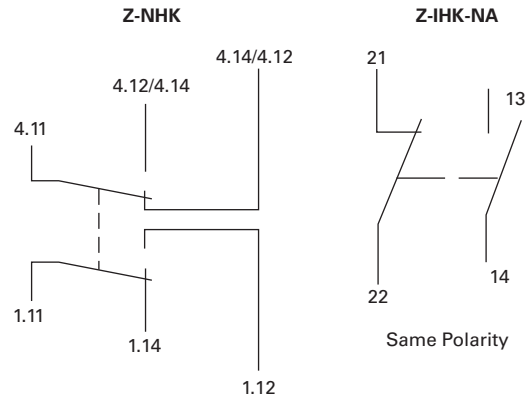
UL 489 DIN Rail Miniature Circuit Breakers

1

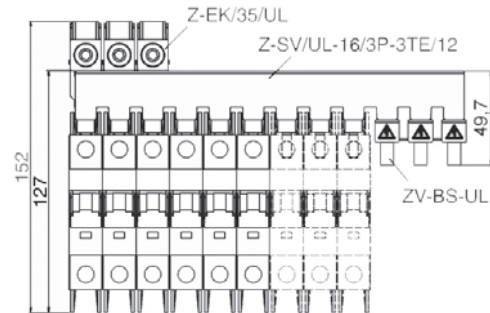
Tripping Signal Switch Z-NHK, Z-IHK-NA

- 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

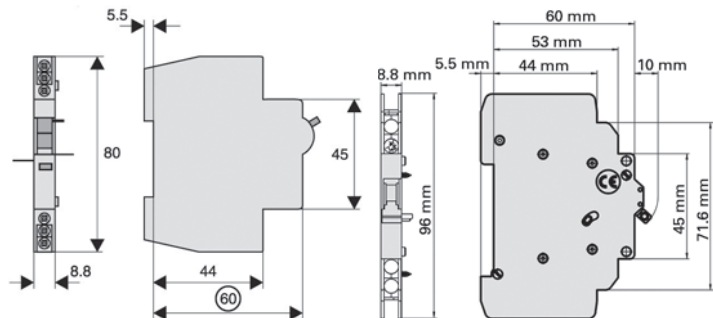


Z-IHK-NA







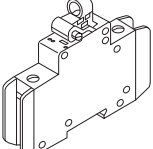
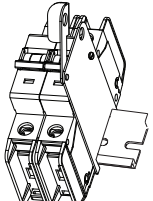
Contact and Auxiliary Contact

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_b	3A/250 Vac	3A/250 Vac
Utilization category AC15 Rated operational current I_b	2A/250 Vac	2A/250 Vac
Utilization category DC12 Rated operational current I_b	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



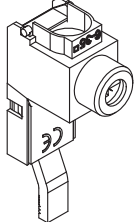



Accessories

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

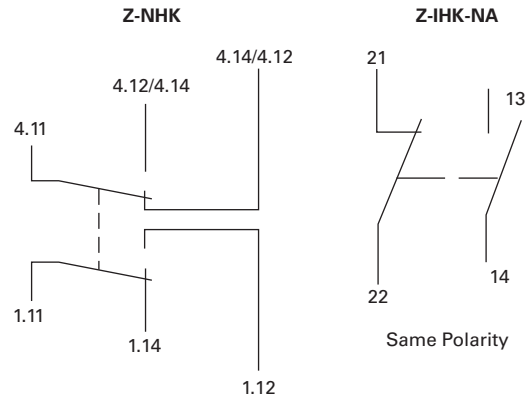
UL 489 DIN Rail Miniature Circuit Breakers

1

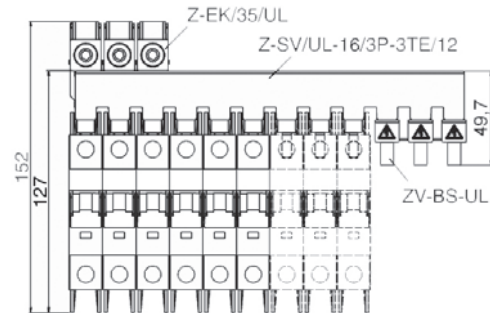
Tripping Signal Switch Z-NHK, Z-IHK-NA

- 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

