NZM1-4 molded case circuit-breakers

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NZM1-4 molded case circuit-breakers

NZM1-4 molded case circuit-breakers

Contents

NZM1-4 molded case circuit-breakers

NZM1,2,3,4 up to 1600A

Description

Safe and reliable electric energy allocation, continuity and control for industrial, construction and machinery manufacturing. Innovative protection concepts, and communication functions with fault diagnosis

NZM series breakers

- Compact structure, 4 kinds of structures
- 3 pole and 4 pole
- Rated current up to 1600A
- Variety of installation
- Without derating at 50°C
- Comply for IEC, U/CSA, CCC

Page 4

Auxiliary contacts, trip indication auxiliary contacts

- The same type of auxiliary contacts installed in different locations, with different functions
- Reducing the model type, reducing inventory request
- Direct card installed, saving installation costs

Page 46

Rotary handles with door interlock

- Different models have a uniform hole size
- Automatic adjustment, position the center
- Side of the control functions, saving installation space of the main switch

Page 62

Remote operation

- Closing a short delay, 60~100 ms
- Lock, seal, ensuring safe operation

Page 74

Diagnostic Software NZM-XPC-SOFT

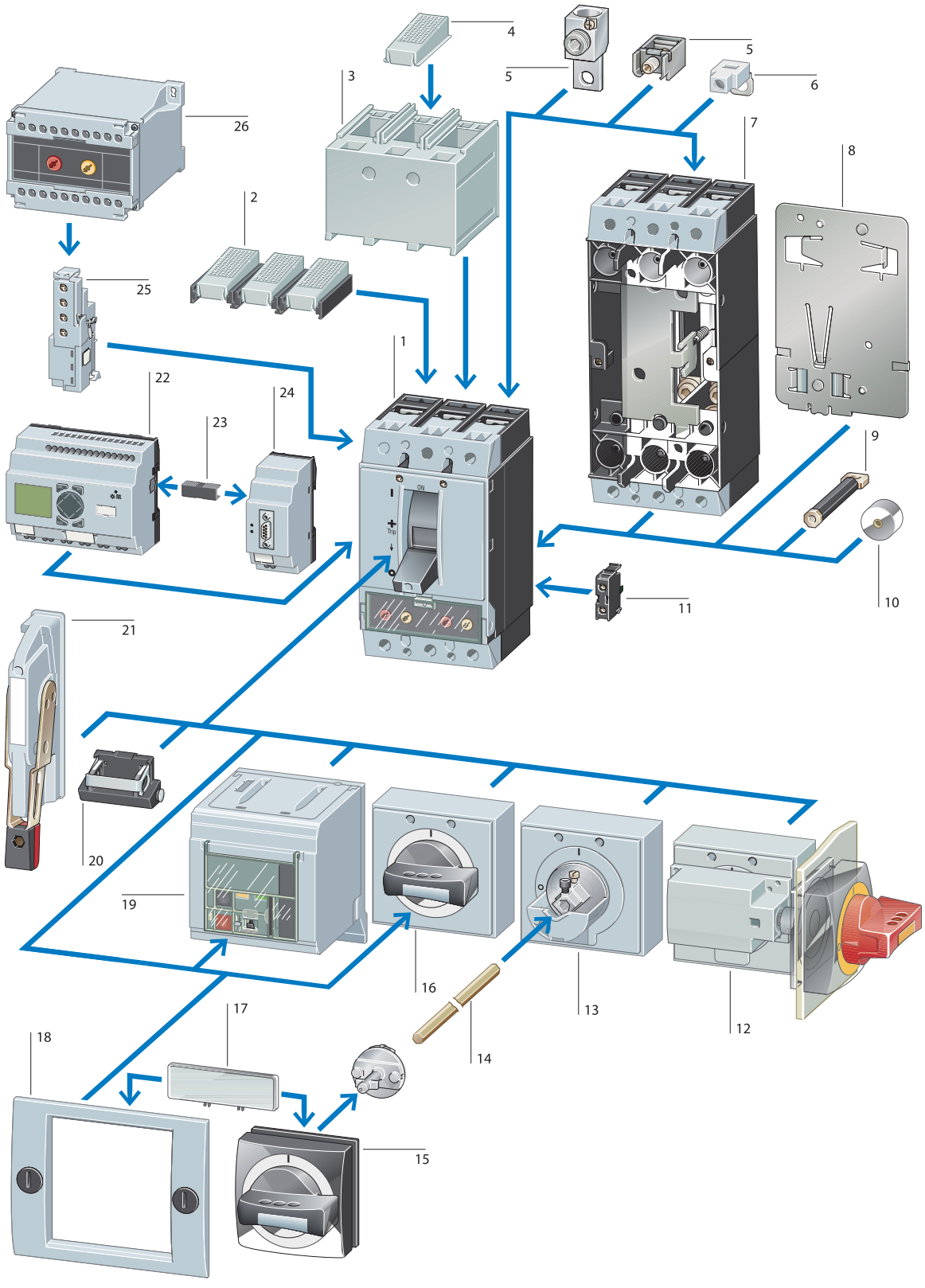
- Troubleshooting
- Data logging and debugging features
- In the operation can be load analysis

Website: http://www.moeller.net/en/support/serviceresult.jsp

1.1 NZM1-4 molded case circuit-breakers

System overview

Circuit-breakers, switch-disconnectors



Circuit-breakers, switch-disconnectors

Add-on functions

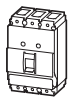
Mounting accessories

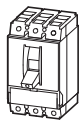
1.2 NZM1-4 molded case circuit-breakers

Product overview

Circuit-breakers

With main switch characteristics to IEC/EN 60204 and
Isolator characteristics to IEC/EN 60947, VDE 0660





Rated uninterrupted current I_u = Rated current I_n
Adjustable overload releases I_r
Adjustable short-circuit releases I_i
Delayed short-circuit releases I_{sd}

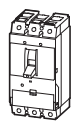
	Thermomagnetic releases System cable protection			**Motor protection**			
	I_u A	I_u A	I_r A	I_i A	I_u A	I_u A	I_r A	I_i A
Ambient temperature at 100% I_u min./max. -25/+50 °C	20	20	0.8 - 1 × I_n	350	20	20	0.8 - 1 × I_n	350
	25	25	0.8 - 1 × I_n	350	25	25	0.8 - 1 × I_n	350
	32	32	0.8 - 1 × I_n	350	32	32	0.8 - 1 × I_n	10 - 14 × I_n
	40	40	0.8 - 1 × I_n	8 - 10 × I_n	40	40	0.8 - 1 × I_n	8 - 14 × I_n
	50	50	0.8 - 1 × I_n	6 - 10 × I_n	50	50	0.8 - 1 × I_n	8 - 14 × I_n
	63	63	0.8 - 1 × I_n	6 - 10 × I_n	63	63	0.8 - 1 × I_n	8 - 14 × I_n
	80	80	0.8 - 1 × I_n	6 - 10 × I_n	80	80	0.8 - 1 × I_n	8 - 14 × I_n
	100	100	0.8 - 1 × I_n	6 - 10 × I_n	100	100	0.8 - 1 × I_n	NZM1: 8-12.5 × I_n NZM2: 8-14 × I_n
	125	125	0.8 - 1 × I_n	6 - 10 × I_n		125	0.8 - 1 × I_n	8 - 14 × I_n
	160	160	0.8 - 1 × I_n	NZM1: 8 × I_n 6 - 10 × I_n		160	0.8 - 1 × I_n	8 - 14 × I_n
		200	0.8 - 1 × I_n			200	0.8 - 1 × I_n	8 - 14 × I_n
		250	0.8 - 1 × I_n			200	0.8 - 1 × I_n	8 - 14 × I_n

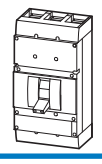
Switching capacity B		**NZMB1-A...**		**NZMB2-A...**		**NZMB1-M...**	**NZMB2-M...**	
400/415V	kA/cosφ	25	0.25	25	0.25	25 0.25	25	0.25
440V	kA/cosφ	25	0.25	25	0.25	25 0.25	25	0.25
525V	kA/cosφ	15	0.30	15	0.30	15 0.30	15	0.30
Switching capacity C		**NZMC1-A...**		**NZMC2-A...**		**NZMC1-M...**	**NZMC2-M...**	
400/415V	kA/cosφ	36	0.25	36	0.25	36 0.25	36	0.25
440V	kA/cosφ	30	0.25	30	0.25	30 0.25	30	0.25
525V	kA/cosφ	12	0.5	12	0.5	12 0.5	12	0.5
690V	kA/cosφ	8	0.5	8	0.5	8 0.5	8	0.5
Switching capacity N		**NZMN1-A...**		**NZMN2-A...**		**NZMN1-M...**	**NZMN2-M...**	
400/415V	kA/cosφ	50	0.25	50	0.25	50 0.25	50	0.25
440V	kA/cosφ	35	0.25	35	0.25	35 0.25	35	0.25
525V	kA/cosφ	20	0.30	25	0.25	20 0.30	25	0.25
690V	kA/cosφ	10	0.50	20	0.30	10 0.50	20	0.30
Switching capacity S		**NZMS1-A...**		**NZMS2-A...**			**NZMS2-M...**	
400/415V	kA/cosφ	70	0.25	70	0.25		70	0.20
440V	kA/cosφ	35	0.25	65	0.25		65	0.20
525V	kA/cosφ	20	0.30	36	0.25		36	0.25
690V	kA/cosφ	10	0.50	20	0.30		20	0.30
Switching capacity H		**NZMH1-A...**		**NZMH2-A...**			**NZMH2-M...**	
400/415V	kA/cosφ	100	0.20	150	0.20		150	0.20
440V	kA/cosφ	35	0.25	130	0.20		130	0.20
525V	kA/cosφ	20	0.30	50	0.25		50	0.25
690V	kA/cosφ	10	0.50	20	0.30		20	0.30

Notes The stated switching capacity values are rated ultimate short-circuit breaking capacities (I_{cu})

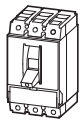
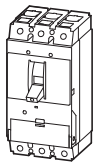
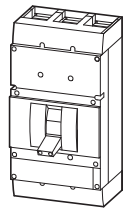
Switch-disconnectors

With main switch characteristics to IEC/EN 60204 and VDE 0113
Isolating characteristics to IEC/EN 60947, VDE 0660
Without overload and short-circuit release





Rated uninterrupted current I_u = Rated current I_n		63-160		160-250		400-630		800-1600
Type N can be triggered with U/A shunt release		**PN1-...**	**N1-...**	**PN2-...**	**N2-...**	**PN3-...**	**N3-...**	**N4-...**
Rated short-circuit making capacity I_{cm}	kA	2,8	2,8	5,5	5,5	25	25	53
Rated short-time withstand current I_{cw} (1s-1s-current$_{rms}$)	kA	2	2	3.5	3.5	12	12	25

Electronic releases
Systems,cable, selectivity and generator protection

Motor protection

I_u A	I_u A	I_u A	I_r A	I_{sd} A	I_i A	I_u A	I_r A	I_i A
100	250	630	0.5 - 1 × I_n	2 - 10 × I_r	2 - 12 × I_n	90	0.5 - 1 × I_n	2 - 14 × I_r
160	400	800	0.5 - 1 × I_n	2 - 10 × I_r	2 - 12 × I_n	140	0.5 - 1 × I_n	2 - 14 × I_r
250	630	1000	0.5 - 1 × I_n	2 - 10 × I_r	2 - 12 × I_n	220	0.5 - 1 × I_n	2 - 14 × I_r
		1250	0.5 - 1 × I_n	2 - 10 × I_r	2 - 12 × I_n	350	0.5 - 1 × I_n	2 - 14 × I_r
		1600	0.5 - 1 × I_n	2 - 10 × I_r	2 - 12 × I_n	450	0.5 - 1 × I_n	2 - 14 × I_r
						550	0.5 - 1 × I_n	2 - 14 × I_r
						875	0.5 - 1 × I_n	2 - 14 × I_r
						1400	0.5 - 1 × I_n	2 - 14 × I_r

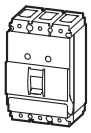
NZMN2-E...		**NZMN3-E...**		**NZMN4-E...**		**NZMN2-ME...**		**NZMN3-ME...**		**NZMN4-ME...**	
50	0.25	50	0.25	50	0.25	50	0.25	50	0.25	50	0.25
35	0.25	35	0.25	35	0.25	35	0.25	35	0.25	35	0.25
25	0.25	25	0.25	25	0.25	25	0.25	25	0.25	25	0.25
20	0.30	20	0.30	20	0.30	20	0.30	20	0.30	20	0.30
NZMS2-E...		**NZMS3-E...**				**NZMS2-ME...**		**NZMS3-ME...**			
70	0.20	70	0.20			70	0.20	70	0.20		
65	0.20	65	0.20			65	0.20	65	0.20		
36	0.25	36	0.25			36	0.25	36	0.25		
20	0.30	20	0.30			20	0.30	20	0.30		
NZMH2-E...		**NZMH3-E...**		**NZMH4-E...**		**NZMH2-ME...**		**NZMH3-ME...**		**NZMH4-ME...**	
150	0.20	150	0.20	150	0.20	150	0.20	150	0.20	85	0.20
130	0.20	130	0.20	130	0.20	130	0.20	130	0.20	85	0.20
50	0.25	50	0.25	50	0.25	50	0.25	65	0.20	65	0.20
20	0.30	25	0.30	35	0.25	20	0.30	25	0.30	50	0.25

A selection of approved circuit-breakers and switch-disconnectors for world-wide use

Thermomagnetic releases, 3 pole

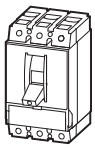
System and cable protection

Box terminals as accessories



Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	Short-circuit releases, Non-delayed I_i A	**Switching capacity B 25 kA** 415 V 50/60 Hz **Part no.** Article no.	**Switching capacity C 36 kA** 415 V 50/60 Hz **Part no.** Article no.
20	15-20	350	**NZMB1-A20** 146548	**NZMC1-A20** 146578
25	20-25	350	**NZMB1-A25** 146549	**NZMC1-A25** 146579
32	25-32	350	**NZMB1-A32** 146560	**NZMC1-A32** 146580
40	32-40	320-400	**NZMB1-A40** 146542	**NZMC1-A40** 146573
50	40-50	300-500	**NZMB1-A50** 146543	**NZMC1-A50** 146574
63	50-63	380-630	**NZMB1-A63** 146544	**NZMC1-A63** 146575
80	63-80	480-800	**NZMB1-A80** 146564	**NZMC1-A80** 146584
100	80-100	600-1000	**NZMB1-A100** 146567	**NZMC1-A100** 146587
125	100-125	750-1250	**NZMB1-A125** 146570	**NZMC1-A125** 146590
160	125-160	1280	**NZMB1-A160** 146571	**NZMC1-A160** 146591

Screw terminals as accessories

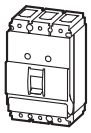
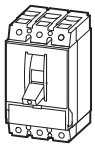


20	15-20	350		
25	20-25	350		
32	25-32	350		
40	32-40	320-400		
50	40-50	300-500		
63	50-63	380-630		
80	63-80	480-800		
100	80-100	600-1000		
125	100-25	750-1250	**NZMB2-A125** 146648	**NZMC2-A125** 146659
160	125-60	960-1600	**NZMB2-A160** 146651	**NZMC2-A160** 146662
200	160-200	1200-2000	**NZMB2-A200** 146653	**NZMC2-A200** 146664
250	200-250	1500-2500	**NZMB2-A250** 146656	**NZMC2-A250** 146667
320	250-300	1920-3200		**NZMC3-A320** 146770
400	320-400	2400-4000		**NZMC3-A400** 146771
500	400-500	3000-5000		**NZMC3-A500** 146775

Switching capacity N **50 kA** 415 V 50/60 Hz	**Switching capacity S** **70 kA** 415 V 50/60 Hz	**Switching capacity H** **100 kA** 415 V 50/60 Hz	**Switching capacity H** **150 kA** 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	**Part no.** Article no.	**Part no.** Article no.	Std. pack	**Note**
NZMN1-A20 146598	**NZMS1-A20** 146615	**NZMH1-A20** 146630		1 off	IEC/EN 60947-2,  Comply with ROHS Adjustable overload releases I_r • 0.8 - 1 × I_n (Factory setting 0.8 × I_n) Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-A40: 8-10 × I_n (Factory setting 8 × I_n) Delayed short-circuit releases I_i • 350 A at I_n = 20-32 A • 1280 A at I_n = 160 A (NZM1) Fitted with following terminals: • Box terminals 3 pole: NZM1-XKC; NZM2-160-XKC; NZM2-250-XKC 4 pole: NZM1-4-XKC; NZM2-4-160-XKC; NZM2-4-250-XKC • Rear terminal bolts 3 pole: NZM1-XKR; NZM2-XKR 4 pole: NZM1-4-XKR; NZM2-4-XKR Please inquire for other available terminals
NZMN1-A25 46599	**NZMS1-A25** 146616	**NZMH1-A25** 146631		1 off	
NZMN1-A32 146600	**NZMS1-A32** 146617	**NZMH1-A32** 146632		1 off	
NZMN1-A40 146592	**NZMS1-A40** 146618	**NZMH1-A40** 146633		1 off	
NZMN1-A50 146593	**NZMS1-A50** 146619	**NZMH1-A50** 146634		1 off	
NZMN1-A63 146594	**NZMS1-A63** 146620	**NZMH1-A63** 146635		1 off	
NZMN1-A80 146604	**NZMS1-A80** 146622	**NZMH1-A80** 146640		1 off	
NZMN1-A100 146607	**NZMS1-A100** 146624	**NZMH1-A100** 146643		1 off	
NZMN1-A125 146610	**NZMS1-A125** 146625	**NZMH1-A125** 146645		1 off	
NZMN1-A160 146611	**NZMS1-A160** 146626	**NZMH1-A160** 146646		1 off	
			NZMH2-A20 146722	1 off	
			NZMH2-A25 146723	1 off	
			NZMH2-A32 146724	1 off	
	NZMS2-A40 146686		**NZMH2-A40** 146719	1 off	
	NZMS2-A50 146687		**NZMH2-A50** 146720	1 off	
	NZMS2-A63 146688		**NZMH2-A63** 146721	1 off	
	NZMS2-A80 146695		**NZMH2-A80** 146732	1 off	
	NZMS2-A100 146697		**NZMH2-A100** 146735	1 off	
NZMN2-A125 146659	**NZMS2-A125** 146700		**NZMH2-A125** 146746	1 off	
NZMN2-A160 146662	**NZMS2-A160** 146705		**NZMH2-A160** 146751	1 off	
NZMN2-A200 146664	**NZMS2-A200** 146708		**NZMH2-A200** 146756	1 off	
NZMN2-A250 146667	**NZMS2-A250** 146712		**NZMH2-A250** 146760	1 off	
NZMN3-A320 146770			**NZMH3-A320** 146822	1 off	
NZMN3-A400 146771			**NZMH3-A400** 146823	1 off	
NZMN3-A500 146775			**NZMH3-A500** 146832	1 off	

Thermomagnetic releases, 3 pole

Motor protection

	Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	Short-circuit releases, Non-delayed I_i A	Maximum motor rating AC-3 400 V 50/60 Hz P kW	Rated operational current AC-3 400 V 50/60 Hz I_e kW	**Switching capacity B 25 kA** 415 V 50/60 Hz **Part no.** Article no.	**Switching capacity C 36 kA** 415 V 50/60 Hz **Part no.** Article no.
Box terminals as accessories 	40	32-40	320-560	18.5	36	**NZMB1-M40** 146561	**NZMC1-M40** 146581
	50	40-50	400-700	22	41	**NZMB1-M50** 146562	**NZMC1-M50** 146582
	63	50-63	504-882	30	55	**NZMB1-M63** 146563	**NZMC1-M63** 146583
	80	63-80	640-1120	37	68	**NZMB1-M80** 146566	**NZMC1-M80** 146586
	100	80-100	800-1250	55	99	**NZMB1-M100** 146569	**NZMC1-M100** 146589
Screw terminals as accessories 	20	16-20	350	7.5	16		
	25	20-25	350	11	21.7		
	32	25-32	320-448	15	29.3		
	40	32-40	320-560	18.5	36		
	50	40-50	400-700	22	41		
	63	50-63	504-882	30	55		
	80	63-80	640-1120	37	68		
	100	80-100	800-1400	55	99		
	125	100-125	1000-1750	55	99	**NZM B2-M125** 146649	**NZMC2-M125** 146660
	160	125-160	1280-2240	75	134	**NZM B2-M160** 146652	**NZMC2-M160** 146663
	200	160-200	1600-2800	110	196	**NZMB2-M200** 146655	**NZMC2-M200** 146666

Notes

Fitted with following terminals:
- Box terminals as accessories
  3 pole: NZM1-XKC;
  NZM2-160-XKC;
  NZM2-250-XKC
  4 pole: NZM1-4-XKC;
  NZM2-4-160-XKC;
  NZM2-4-250-XKC
- Rear terminal bolts
  3 pole: NZM1-XKR; NZM2-XKR
  4 pole: NZM1-4-XKR; NZM2-4-XKR

Please inquire for other available terminals

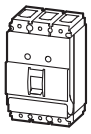
Switching capacity N **50 kA** 415 V 50/60 Hz	**Switching capacity S** **70 kA** 415 V 50/60 Hz	**Switching capacity H** **150 kA** 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	**Part no.** Article no.	Std. pack	**Note**
NZMN1-M40 146601		**NZMH1-M40** 146636	1 off	IEC/EN 60947-4-1 and IEC/EN60947-2,  Comply with ROHS
NZMN1-M50 146602		**NZMH1-M50** 146637	1 off	The circuit-breakers fulfill all requirements for utilization category AC-3.
NZMN1-M63 146603		**NZMH1-M63** 146638	1 off	Adjustable overload releases I_r • 0.8 - 1 × I_n (Setting factory 0.8 × I_n) • NZM...1-M... With phase failure protection • Trip class 10A
NZMN1-M80 146606		**NZMH1-M80** 146641	1 off	
NZMN1-M100 146609		**NZMH1-M100** 146644	1 off	
	NZMS2-M20 146689	**NZMH2-M20** 146726	1 off	Adjustable short-circuit releases I_i • 8-14 × I_n (Setting factory 12 × I_n) • NZM...-M32: 10 - 14 × I_n (Setting factory 12 × I_n) • NZM...1-M100: 8 - 12.5 × I_n (Setting factory 12 × I_n)
	NZMS2-M25 146690	**NZMH2-M25** 146727	1 off	
	NZMS2-M32 146691	**NZMH2-M32** 146728	1 off	Fixed instantaneous value I_i • 350 A, When In = 20-25A
	NZM S2-M40 146692	**NZMH2-M40** 146729	1 off	
	NZMS2-M50 146693	**NZMH2-M50** 146730	1 off	
	NZMS2-M63 146694	**NZMH2-M63** 146731	1 off	
	NZMS2-M80 146696	**NZMH2-M80** 146733	1 off	
	NZMS2-M100 146698	**NZMH2-M100** 146736	1 off	
NZMN2-M125 146670	**NZMS2-M125** 146701	**NZMH2-M125** 146747	1 off	
NZMN2-M160 146676	**NZMS2-M160** 146706	**NZMH2-M160** 146752	1 off	
NZMN2-M200 146680	**NZMS2-M200** 146711	**NZMH2-M200** 146759	1 off	

Tripping class	**Tripping time T_p with load on all poles of 7.2 times set current value.**
10A	2 s < T_p ≤ 10 s
10	4 s < T_p ≤ 10 s
20	6 s < T_p ≤ 10 s
30	9 s < T_p ≤ 10 s

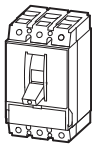
Thermomagnetic releases, 3 pole

Short-circuit protection
Motor protection in conjunction with overload relay
- With short-circuit releases
- Without overload releases I_r

Box terminals as accessories



Screw terminals as accessories



Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Short-circuit releases, Non-delayed I_i  A	Maximum motor rating AC-3 400 V 50/60 Hz P kW	Rated operational current AC-3 400 V 50/60 Hz I_e kW	**Switching capacity B 25 kA** 415 V 50/60 Hz **Part no.** Article no.	**Switching capacity C 36 kA** 415 V 50/60 Hz **Part no.** Article no.	**Switching capacity N 50 kA** 415 V 50/60 Hz **Part no.** Article no.
40	320-560	18.5	36	**NZMB1-S40** 146545	**NZMC1-S40** 146576	**NZMN1-S40** 146595
50	400-700	22	41	**NZMB1-S50** 146546	**NZMC1-S50** 146577	**NZMN1-S50** 146596
63	504-882	30	55	**NZMB1-S63** 146547	**NZMC1-S63** 146572	**NZMN1-S63** 146597
80	640-1120	37	68	**NZMB1-S80** 146565	**NZMC1-S80** 146585	**NZMN1-S80** 146605
100	800-1250	55	99	**NZMB1-S100** 146568	**NZMC1-S100** 146588	**NZMN1-S100** 146608
40	320-560	18.5	36			
50	400-700	22	41			
63	504-882	30	55			
80	640-1120	37	68			
100	800-1400	55	99			
125	1000-1750	55	99	**NZMB2-S125** 146647	**NZMC2-S125** 146658	**NZMN2-S125** 146669
160	1280-2240	75	134	**NZMB2-S160** 146650	**NZMC2-S160** 146661	**NZMN2-S160** 146672
200	1600-2500	110	196	**NZMB2-S200** 146654	**NZMC2-S200** 146665	**NZMN2-S200** 146678
250	2000-3500	132	231		**NZMC3-S250** 146772	**NZMN3-S250** 146779
320	2560-4480	160	279		**NZMC3-S320** 146773	**NZMN3-S320** 146780
400	2800-5000	200	349		**NZMC3-S400** 146774	**NZMN3-S400** 146781
500	3000-5000	250	437		**NZMC3-S500** 146776	**NZMN3-S500** 146789

Notes Please refer to page 8 or page 93 for the terminals

Switching capacity S 70 kA 415 V 50/60 Hz	**Switching capacity H 100 kA** 415 V 50/60 Hz	**Switching capacity H 150 kA** 415 V 50/60 Hz	Std. pack
Part no. Article no.	**Part no.** Article no.	**Part no.** Article no.	
NZMS1-S40 146614	**NZMH1-S40** 146627		1 off
NZMS1-S50 146612	**NZMH1-S50** 146628		1 off
NZMS1-S63 146613	**NZMH1-S63** 146629		1 off
NZMS1-S80 146621	**NZMH1-S80** 146639		1 off
NZMS1-S100 146623	**NZMH1-S100** 146642		1 off
		NZMH2-S40 146716	1 off
		NZMH2-S50 146717	1 off
		NZMH2-S63 146718	1 off
		NZMH2-S80 146725	1 off
		NZMH2-S100 146734	1 off
NZMS2-S125 146699		**NZMH2-S125** 146745	1 off
NZMS2-S160 146702		**NZMH2-S160** 146748	1 off
NZMS2-S200 146707		**NZMH2-S200** 146753	1 off
		NZMH3-S250 146824	1 off
		NZMH3-S320 146825	1 off
		NZMH3-S400 146826	1 off
		NZMH3-S500 146833	1 off

Note

IEC/EN 60947-4-1 and IEC/EN60947-2, 
Comply with ROHS

Adjustable short-circuit releases I_i
- 8-14 × I_n (Setting factory 12 × I_n)
  - NZM...1-S100, NZM...2-S200: 8 - 12.5 × I_n (Setting factory 12 × I_n)

No overload releases I_r

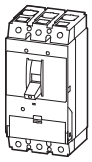
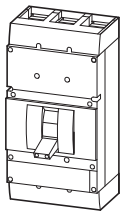
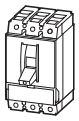
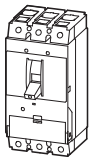
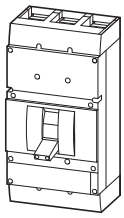
Product selection

Selection of circuit-breakers without overload release when combining for instance with ZEV electronic motor-protective relays:

	I_n (A)	**Maximum permissible tripping class**
NZM...1-S...	40	30
	50	30
	63	30
	80	20
	100	15
NZM...2-S...	40	30
	50	30
	63	30
	80	30
	100	30
	125	30
	160	20
	200	10

Tripping class	**Tripping time T_p with load on all poles of 7.2 times set current value.**
10A	2 s < T_p ≤ 10 s
10	4 s < T_p ≤ 10 s
20	6 s < T_p ≤ 10 s
30	9 s < T_p ≤ 10 s

Electronic releases, 3 pole

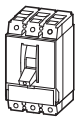
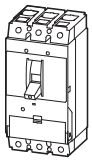
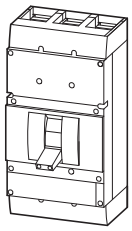
	Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases Non-delayed	Non-delayed	**Switching capacity N 50 kA** 415 V 50/60 Hz
	$I_n = I_u$ A	I_r A	I_i A	I_{sd} A	**Part no.** Article no.
	System and cable protection				
Screw terminals as accessories 	630	315-630	1260-5040	-	**NZMN3-AE630** 146799
Screw terminals as accessories 	630	315-630	1260-7560	-	**NZMN4-AE630** 146852
	800	400-800	1600-9600	-	**NZMN4-AE800** 146855
	1000	500-1000	2000-12000	-	**NZMN4-AE1000** 146857
	1250	630-1250	2500-15000	-	**NZMN4-AE1250** 146860
	1600	800-1600	3200-19200	-	**NZMN4-AE1600** 146862
	System and cable protection, selectivity protection, motor protection				
Screw terminals as accessories 	100	50-100	1200	100-1000	**NZMN2-VE100** 146673
	160	80-160	1920	160-1600	**NZMN2-VE160** 146679
	250	125-250	3000	250-2500	**NZMN2-VE250** 146685
Screw terminals as accessories 	250	125-250	500-2750	250-2500	**NZMN3-VE250** 146786
	400	200-400	800-4400	400-4000	**NZMN3-VE400** 146787
	630	315-630	1260-5040	472-4410	**NZMN3-VE630** 146803
Screw terminals as accessories 	630	315-630	1260-7560	630-6300	**NZMN4-VE630** 146854
	800	400-800	1600-9600	800-8000	**NZMN4-VE800** 146856
	1000	500-1000	2000-12000	1000-10000	**NZMN4-VE1000** 146858
	1250	630-1250	2500-15000	1250-12500	**NZMN4-VE1250** 146861
	1600	800-1600	3200-19200	1600-16000	**NZMN4-VE1600** 146864

Notes Please refer to page101 for terminals.
Please refer to page 119 for ground-fault protection.

Switching capacity S **70 kA** 415 V 50/60 Hz	**Switching capacity H** **150 kA** 415 V 50/60 Hz	
Part no. Article no.	**Part no.** Article no.	**Note**
NZMS3-AE630 146818	**NZMH3-AE630** 146840	IEC/EN 60947-2,  Comply with ROHS Adjustable overload releases I_r • I_n settings: 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.925, 0.95, 0.975, 1 (Factory setting 0.8) R.m.s. value measurement and "thermal memory" Adjustable short-circuit releases I_i • NZM...3-AE250/400: I_n settings: 2, 3, 4, 5, 6, 7, 8, 9, 11 (Factory setting 6) • NZM...3-AE630: I_n settings: 2, 3, 4, 5, 6, 7, 8 (Factory setting 6) • NZM...4-AE...: I_n settings: 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 (Factory setting 6)
	NZMH4-AE630 146866	
	NZMH4-AE800 146870	
	NZMH4-AE1000 146876	
	NZMH4-AE1250 146879	
	NZMH4-AE1600 146886	
NZMS2-VE100 146703	**NZMH2-VE100** 146749	IEC/EN 60947-2,  Comply with ROHS Adjustable overload releases I_r • I_n settings: 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.925, 0.95, 0.975, 1 (Factory setting 0.8) R.m.s. value measurement and "thermal memory" Adjustable delay setting t_r, to escape from the in-rush current • 2 – 20 s at 6 × I_r and infinite (without overload release) Delayed short-circuit releases I_{sd} • 2 –10 s at 6 × I_r and infinite (without overload release) • NZM· 3-VE630: 1.5 -7 × I_r (Factory setting 6 × I_r) Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000ms (Factory setting 0 ms) Adjustable short-circuit releases I_i • NZM2: Fixed 12 × I_n • NZM...3-VE250/400: I_n settings: 2, 3, 4, 5, 6, 7, 8, 9, 11 (Factory setting 6) • NZM...3-VE630: I_n settings: 2, 3, 4, 5, 6, 7, 8 (Factory setting 6) • NZM...4-VE...: I_n settings: 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 (Factory setting 12) I²t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
NZMS2-VE160 146709	**NZMH2-VE160** 146758	
NZMS2-VE250 146715	**NZMH2-VE250** 146766	
	NZMH3-VE250 146834	
NZMS3-VE400 146814	**NZMH3-VE400** 146835	
NZMS3-VE630 146819	**NZMH3-VE630** 146846	
	NZMH4-VE630 146868	
	NZMH4-VE800 146871	
	NZMH4-VE1000 146877	
	NZMH4-VE1250 146880	
	NZMH4-VE1600 146888	

Electronic release, 3 pole

Motor protection

	Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	Short-circuit releases I_i A	Rated operational power AC-3 at 400 V 50/60 Hz P kW	Rated operational current AC-3 at 400 V 50/60 Hz I_e kW	**Switching capacity N 50 kA** 415 V 50/60 Hz **Part no.** Article no.
Screw terminals as accessories 	90	45-90	90-1260	45	81	**NZMN2-ME90** 146675
	140	70-140	140-1960	75	134	**NZMN2-ME140** 146681
	220	110-220	220-3080	110	196	**NZMN2-ME220** 146683
Screw terminals as accessories 	220	110-220	220-3080	110	196	**NZMN3-ME220** 146784
	350	175-350	350-4900	200	349	**NZMN3-ME350** 146785
	450	225-450	450-6300	250	437	**NZMN3-ME450** 146796
Screw terminals as accessories 	550	275-550	550-7700	315[1)]	544[1)]	**NZMN4-ME 550** 146853
	875	438-875	875-12250	500[1)]	820[1)]	**NZMN 4-ME 875** 146859
	1400	700-1400	1400-19600	630[1)]	1066[1)]	**NZMN4-ME1400** 146863

Notes

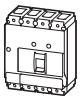
Fitted with following terminals:
- Box terminals
  3 pole: NZM2-160-XKC, NZM2-250-XKC, NZM3-XKC
  4 pole: NZM2-4-160-XKC, NZM2-4-250-XKC, NZM3-4-XKC
- Rear terminal bolts
  3 pole: NZM2-XKR; NZM3-XKR:NZM4-XKR
  4 pole: NZM2-4-XKR; NZM3-4-XKR; NZM4-4-XKR

Please inquire for other available terminals.

[1)] at 690 V AC NZM...4-ME550: P = 560 kW; I_e = 550 A
NZM...4-ME875: P = 600 kW; I_e = 588 A
NZM...4-ME1400: P = 600 kW; I_e = 588 A

Switching capacity S **70 kA** 415 V 50/60 Hz	**Switching capacity H** **100 kA** 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	Std. pack	**Note**
NZMS2-ME90 146704	**NZMH2-ME90** 146750	1 off	Comply with IEC/EN 60947-1 and IEC/EN 60947-2,  Comply with ROHS
NZMS2-ME140 146710	**NZMH2-ME140** 146754	1 off	Adjustable overload releases I_r • I_n setting: 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.925, 0.95, 0.975, 1 (Factory setting 0.8)
NZMS2-ME220 146713	**NZMH2-ME220** 146762	1 off	
NZMS3-ME220 146812	**NZMH3-ME220** 146829	1 off	R.m.s. value measurement and “thermal memory”
NZMS3-ME350 146813	**NZM H3-ME350** 146830	1 off	Adjustable delay setting t_r, to escape from the in-rush current • 2 – 20 s at 6 × I_r and infinite (without overload release) Factory setting 10s at 6 × I_r
NZMS3-ME450 146815	**NZM H3-ME450** 146831	1 off	Phase-fault of protection
	NZM H4-ME550 146867	1 off	Adjustable short-circuit releases I_i • I_r setting: 2, 3, 4, 5, 6, 8. 10, 12, 14 (Factory setting 12)
	NZMH4-ME875 146878	1 off	
	NZM H4-ME1400 146887	1 off	

Box terminals as accessories



Thermomagnetic releases, 4 pole

System and cable protection

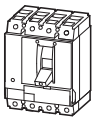
Rated current = Rated uninterrupted current	**Setting range**			**Switching capacity B 25 kA** 415 V 50/60 Hz	**Switching capacity C 36 kA** 415 V 50/60 Hz
	Overload releases		Short-circuit releases		
	Phase conductors	Neutral conductor			
$I_n = I_u$ A	I_r A	I_r A	I_i A	**Part no.** Article no.	**Part no.** Article no.
20	15-20	15-20	350	**NZMB 1-4-A20** 146896	**NZMC1-4-A20** 146906
25	20-25	20-25	350	**NZMB 1-4-A25** 146897	**NZMC1-4-A25** 146907
32	25-32	25-32	350	**NZMB1-4-A32** 146898	**NZMC1-4-A32** 146908
40	32-40	32-40	320-400	**NZMB1-4-A40** 146893	**NZMC1-4-A40** 146903
50	40-50	40-50	300-500	**NZMB1-4-A50** 146894	**NZMC1-4-A50** 146904
63	50-63	50-63	380-630	**NZMB1-4-A63** 146895	**NZMC1-4-A63** 146905
80	63-80	63-80	480-800	**NZMB1-4-A80** 146899	**NZMC1-4-A80** 146909
100	80-100	80-100	600-1000	**NZMB1-4-A100** 146900	**NZMC1-4-A100** 146910
125	100-125	100-125	750-1250	**NZMB1-4-A125** 146901	**NZMC1-4-A125** 146911
160	125-160	125-160	1280	**NZMB1-4-A160** 146902	**NZMC1-4-A160** 146912

Switching capacity N **50 kA** 415 V 50/60 Hz	**Switching capacity S** **70 kA** 415 V 50/60 Hz	**Switching capacity H** **100 kA** 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	**Part no.** Article no.	Std. pack	**Note**

NZMN1-4-A20
146916
	NZMS1-4-A20
	146923
		NZMH1-4-A20
		146933
			1 off	IEC/EN 60947-2, 
				Comply with ROHS
				
				Adjustable overload releases I_r
				• 0.8 - 1 × I_n (Factory setting 0.8 × I_n)
				
				Set value for neutral conductor is same as set value I_r for main pole.
				
				Adjustable short-circuit releases I_i
				• 6 - 10 × I_n (Factory setting 6 × I_n)
				  • NZM...1-4-A40: 8 - 10 × I_n (Factory setting 8 × I_n)
				
				Short-circuit releases I_i:
				• 350 A, when I_n = 20-32A
				• 1280 A, When I_n = 160A (8 × I_n)
				
				NZM...1-4-A...
				• 100% short-circuit and over load protection for 4th pole
				
				Fitted with following terminals:
				• Box terminals as accessories, copper
				  3 Pole: NZM1-XKC; 4 Pole: NZM1-4-XKC
				• Rear terminal bolts
				  3 Pole: NZM1-XKR; 4 Pole: NZM1-4-XKR
				
				Please inquire for other available terminals.

NZMN1-4-A25 146917	**NZMS1-4-A25** 146924	**NZMH1-4-A25** 146934	1 off	
NZMN1-4-A32 146918	**NZMS1-4-A32** 146925	**NZMH1-4-A32** 146935	1 off	
NZMN1-4-A40 146913	**NZMS1-4-A40** 146926	**NZMH1-4-A40** 146936	1 off	
NZMN1-4-A50 146914	**NZMS1-4-A50** 146927	**NZMH1-4-A50** 146937	1 off	
NZMN1-4-A63 146915	**NZMS1-4-A63** 146928	**NZMH1-4-A63** 146938	1 off	
NZMN1-4-A80 146919	**NZMS1-4-A80** 146929	**NZMH1-4-A80** 146939	1 off	
NZMN1-4-A100 146920	**NZMS1-4-A100** 146930	**NZMH1-4-A100** 146940	1 off	
NZMN1-4-A125 146921	**NZMS1-4-A125** 146931	**NZMH1-4-A125** 146941	1 off	
NZMN1-4-A160 146922	**NZMS1-4-A160** 146932	**NZMH1-4-A160** 146942	1 off	

Screw terminals as accessories



Thermomagnetic releases, 4 pole

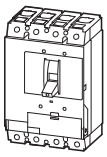
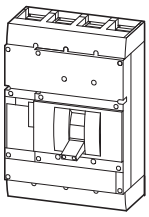
System and cable protection

Rated current = Rated uninterrupted current	**Setting range**			**Switching capacity B 25 kA** at 415 V 50/60 Hz	**Switching capacity C 36 kA** at 415 V 50/60 Hz
	Overload releases		Short-circuit releases		
	Phase conductors	Neutral conductor			
$I_n = I_u$ A	I_r A	I_r A	I_i A	**Part no.** Article no.	**Part no.** Article no.
20	15-20	15-20	350		
25	20-25	20-25	350		
32	25-32	25-32	350		
40	32-40	32-40	320-400		
50	40-50	40-50	300-500		
63	50-63	50-63	380-630		
80	63-80	63-80	480-800		
100	80-100	80-100	600-1000		
125	100-25	100-25	750-1250	**NZMB2-4-A125** 146943	**NZMC2-4-A125** 146952
160	125-160	125-160	960-1600	**NZMB2-4-A160** 146944	**NZMC2-4-A160** 146953
200	160-200	160-200	1200-2000	**NZMB2-4-A200** 146946	**NZMC2-4-A200** 146955
250	200-250	200-250	1500-2500	**NZMB2-4-A250** 146948	**NZMC2-4-A250** 146957
320	250-320	250-320	1920-3200		**NZMC3-4-A320** 147011
400	320-400	320-400	2400-4000		**NZMC3-4-A400** 147013
500	400-500	400-500	3000-5000		**NZMC3-4-A500** 147015

Switching capacity N **50 kA** at 415 V 50/60 Hz	**Switching capacity S** **70 kA** at 415 V 50/60 Hz	**Switching capacity H** **100 kA** at 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	**Part no.** Article no.	Std. pack	**Note**
		NZMH2-4-A20 146992	1 off	IEC/EN 60947-2,  Comply with ROHS Adjustable overload releases I_r • 0.8 - 1 × I_n (Factory setting 0.8 × I_n) Set value for neutral conductor is same as set value I_r for main pole. Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) Short-circuit releases I_i: • 350 A, when I_n = 20-32A NZM...2-4-A..... 100% short-circuit and over load protection for 4th pole Fitted with following terminals: • Box terminals as accessories, copper 3 Pole: NZM2-160-XKC, (≤ 160A) NZM2-250-XKC (160A-250A) 4 Pole: NZM2-4-160-XKC, NZM2-4-250-XKC • Rear terminal bolts 3 Pole: NZM2-XKR; 4 Pole: NZM2-4-XKR
		NZMH2-4-A25 146993	1 off	
		NZMH2-4-A32 146994	1 off	
		NZMH2-4-A40 146989	1 off	
		NZMH2-4-A50 146990	1 off	
		NZMH2-4-A63 146991	1 off	
		NZMH2-4-A80 146995	1 off	
		NZMH2-4-A100 146996	1 off	
NZMN2-4-A125 146961	**NZMS2-4-A125** 146975	**NZMH2-4-A125** 146997	1 off	
NZMN2-4-A160 146963	**NZMS2-4-A160** 146977	**NZMH2-4-A160** 146999	1 off	
NZMN2-4-A200 146965	**NZMS2-4-A200** 146979	**NZMH2-4-A200** 147001	1 off	
NZMN2-4-A250 146969	**NZMS2-4-A250** 146983	**NZMH2-4-A250** 147005	1 off	
NZMN3-4-A320 147017		**NZMH3-4-A320** 147051	1 off	
NZMN3-4-A400 147019		**NZMH3-4-A400** 147053	1 off	
NZMN3-4-A500 147025		**NZMH3-4-A500** 147057	1 off	

Electronic releases, 4 pole

System and cable protection

	Rated current = Rated uninterrupted current	**Setting range** Overload releases		Short-circuit releases	**Switching capacity N 50 kA** at 415 V 50/60 Hz	**Switching capacity S 70 kA** at 415 V 50/60 Hz
		Phase conductors	Neutral conductor			
	$I_n = I_u$ A	I_r A	I_r A	I_i A	**Part no.** Article no.	**Part no.** Article no.
Screw terminals as accessories 	630	315-630	315-630	1260-5040	**NZMN3-4-AE630** 147029	**NZMS3-4-AE630** 147043
Screw terminals as accessories 	800	400-800	400-800	1600-9600	**NZMN4-4-AE800** 147069	
	1000	500-1000	500-1000	2000-12000	**NZMN4-4-AE1000** 147073	
	1250	630-1250	630-1250	2500-15000	**NZMN4-4-AE1250** 147077	
	1600	800-1600	800-1600	3200-19200	**NZMN4-4-AE1600** 147081	

Notes

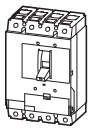
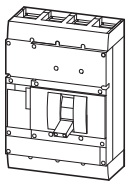
Please refer to page 101 for fitted with following terminals.
[1] NZMH4-4-AE...switching capacity :100KA.
[2] Please refer to page 119 for ground-fault protection.

Switching capacity H
100 kA[1)]
at 415 V 50/60 Hz

Part no. Article no.	**Note**
NZMH3-4-AE630 147063	IEC/EN 60947-2,  Comply with ROHS Adjustable overload releases I_r • I_n setting: 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.925, 0.95, 0.975, 1 (Factory setting 0.8) Set value for neutral conductor is same as set value I_r for main pole.
NZMH4-4-AE800 147085	R.m.s. value measurement and “thermal memory”
NZMH4-4-AE1000 147089	Adjustable short-circuit releases I_i • NZM...3-4-AE400; I_n setting: 2, 3, 4, 5, 6, 7, 8, 9, 11 (Factory setting 6)
NZMH4-4-AE1250 147093	• NZM...3-4-AE630; I_n setting: 2, 3, 4, 5, 6, 7, 8 (Factory setting 6)
NZMH4-4-AE1600 147097	• NZM...4-4-AE...: I_n setting: 2, 3, 4, 5, 6, 7, 8, 9,11,12 (Factory setting 6) NZM...-4-AE... • 100% short-circuit and over load protection for 4th pole

Electronic releases, 4 pole

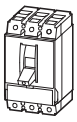
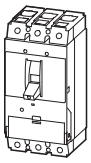
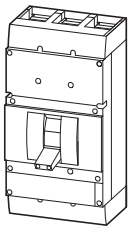
System and cable protection, selectivity protection, motor protector

	Rated current = Rated uninterrupted current	**Setting range**				**Switching capacity B 50 kA** at 415 V 50/60 Hz
		Overload releases		Short-circuit releases		
		Phase conductors	Neutral conductor			
	$I_n = I_u$ A	I_r A	I_r A	I_i A	I_{sd} A	**Part no.** Article no.
Screw terminals as accessories 	100	50-100	50-100	1200	100-1000	**NZMN2-4-VE100** 146962
	160	80-160	80-160	1920	160-1600	**NZMN2-4-VE160** 146967
	250	125-250	125-250	3000	250-2500	**NZMN2-4-VE250** 146971
Screw terminals as accessories 	400	200-400	200-400	800-4400	400-4000	**NZMN3-4-VE400** 147023
	630	315-630	315-630	1260-5040	472-4410	**NZMN3-4-VE630** 147031
Screw terminals as accessories 	800	400-800	400-800	1600-9600	800-8000	**NZMN4-4-VE800** 147071
	1000	500-1000	500-1000	2000-12000	1000-10000	**NZMN4-4-VE1000** 147075
	1250	630-1250	630-1250	2500-15000	1250-12500	**NZMN4-4-VE1250** 147079
	1600	800-1600	800-1600	3200-19200	1600-16000	**NZMN4-4-VE1600** 147083

Switching capacity S **70 kA** at 415 V 50/60 Hz	**Switching capacity H** **150 kA**[1] at 415 V 50/60 Hz		
Part no. Article no.	**Part no.** Article no.	Std. pack	**Note**
NZMS2-4-VE100 146976	**NZMH2-4-VE100** 146998	1 off	IEC/EN 60947-2,  Comply with ROHS
NZMS2-4-VE160 146981	**NZMH2-4-VE160** 147003	1 off	Adjustable overload releases I_r • I_n setting: 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.925, 0.95, 0.975, 1 (Factory setting 0.8)
NZMS2-4-VE250 146987	**NZMH2-4-VE250** 147009	1 off	
NZMS3-4-VE400 147037	**NZMH3-4-VE400** 147059	1 off	Set value for neutral conductor is same as set value I_r for main pole.
NZMS3-4-VE630 147045	**NZMH3-4-VE630** 147065	1 off	R.m.s. value measurement and "thermal memory"
	NZMH4-4-VE800 147087	1 off	Adjustable delay setting t_r, to escape from the in-rush current • 2, 4, 6, 8,10, 14,17, 20 s, OFF (No overload protection) When 6 × I_r (Factory setting 10s) • NZM...3-4-VE630: 2 - 14s, When 6 × I_r, OR OFF (No overload protection)
	NZMH4-4-VE1000 147091	1 off	Delayed short-circuit releases I_{sd} • I_r setting: 2, 3, 4, 5, 6, 7, 8, 9, 10 (Factory setting 6) • NZM...3-4-VE630: 1.5-7 × I_r (Factory setting 6 × I_r)
	NZMH4-4-VE1250 147095	1 off	Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 509, 750 1000ms (Factory setting 0ms)
	NZMH4-4-VE1600 147099	1 off	Adjustable short-circuit releases I_i • NZM2 fixed 12 × I_n • NZM...3-4-VE400: I_n setting: 2, 3, 4, 5, 6, 7, 8, 9, 11 (Factory setting 6) • NZM...3-4-VE630: I_n setting: 2, 3, 4, 5, 6, 7, 8 (Factory setting 6) • NZM...4-4-VE...: I_n setting: 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 (Factory setting 12)
			NZM...-4-VE... • 100% short-circuit and over load protection for 4th pole
			I^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable (Factory setting OFF)

[1] NZMH4-4-VE...switching capacity:100KA
[2] Please refer to page 119 for ground-fault protection
Please refer to page 97 for available terminals

Switch-disconnectors, 3 pole

	Rated current = Rated uninterrupted current	Short-circuit protection, max. fuse gL-characteristic	2 switch positions I , 0; Can not be equipped with trip-indicating auxiliary contact M22-K..	3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, Can be equipped with trip-indicating auxiliary contact M22-K..	
	$I_n = I_u$ A	A gL	**Part no.** Article no.	**Part no.** Article no.	Std. pack
Box terminals as accessories 	63	125	**PN1-63** 147117	**N1-63** 147121	1 off
	100	125	**PN1-100** 147118	**N1-100** 147122	1 off
	125	125	**PN1-125** 147119	**N1-125** 147123	1 off
	160	160	**PN1-160** 147120	**N 1-160** 147124	1 off
Screw terminals as accessories 	160	250	**PN2-160** 147133	**N2-160** 147139	1 off
	200	250	**PN2-200** 147134	**N2-200** 147140	1 off
	250	250	**PN2-250** 147135	**N2-250** 147141	1 off
Screw terminals as accessories 	400	630	**PN3-400** 147147	**N3-400** 147151	1 off
	630	630	**PN3-630** 147148	**N3-630** 147152	1 off
Screw terminals as accessories 	800	1600		**N4-800** 147159	1 off
	1000	1600		**N4-1000** 147160	1 off
	1250	1600		**N4-1250** 147161	1 off
	1600	1600		**N4-1600** 147163	1 off

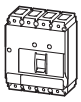
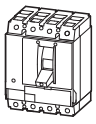
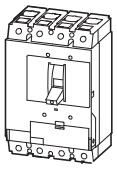
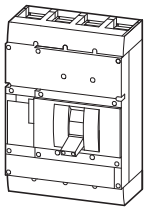
Notes

With main switch characteristics to IEC/EN 60204 and VDE 0113
Isolating characteristics IEC/EN 60947-3 and VDE 0660
N type dis-connectors can fit with NZM...-XU, NZM...-XA and HIA

Can be remotely operated with NZM..-XR

Please refer to page 92 for more terminals information

Switch-disconnectors, 4 pole

	Rated current = Rated uninterrupted current	Short-circuit protection, max. fuse gL-characteristic	2 switch positions I , 0; Can not be equipped with trip-indicating auxiliary contact M22-K..	3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, Can be equipped with trip-indicating auxiliary contact M22-K..	
	$I_n = I_u$ A	A gL	**Part no.** Article no.	**Part no.** Article no.	Std. pack
Box terminals as accessories 	63	125	**PN 1-4-63** 147125	**N1-4-63** 147126	1 off
	100	125	**PN 1-4-100** 147127	**N1-4-100** 147128	1 off
	125	125	**PN 1-4-125** 147129	**N1-4-125** 147131	1 off
	160	160	**PN 1-4-160** 147130	**N1-4-160** 147132	1 off
Screw terminals as accessories 	160	250	**PN2-4-160** 147136	**N2-4-160** 147142	1 off
	200	250	**PN2-4-200** 147137	**N2-4-200** 147143	1 off
	250	250	**PN2-4-250** 147138	**N2-4-250** 147145	1 off
Screw terminals as accessories 	400	630	**PN3-4-400** 147149	**N3-4-400** 147153	1 off
	630	630	**PN3-4-630** 147150	**N3-4-630** 147155	1 off
Screw terminals as accessories 	800	1600		**N4-4-800** 147167	1 off
	1000	1600		**N4-4-1000** 147168	1 off
	1250	1600		**N4-4-1250** 147169	1 off
	1600	1600		**N4-4-1600** 147170	1 off

Notes

With main switch characteristics to IEC/EN 60204 and VDE 0113
Isolating characteristics IEC/EN 60947-3 and VDE 0660
N type dis-connectors can fit with NZM...-XU, NZM...-XA and HIA

Can be remotely operated with NZM..-XR

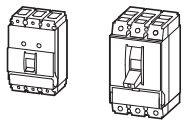
Please refer to page 92 for more terminals information

Circuit breaker, switch-disconnectors for North America 3 pole

Circuit-breakers
UL/CSA approved to UL 489, CSA-C22.2 No. 5-09
as well as IEC/EN 60947

With main switch characteristics to IEC/EN 60204 and
isolating characteristics to IEC/EN 60947, VDE 0660

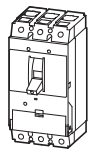
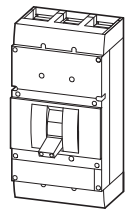
Rated uninterrupted current I_u = Rated current I_n
Adjustable overload releases I_r
Adjustable short-circuit releases I_i
Delayed short-circuit releases I_{sd}



Thermomagnetic releases
Overload release

			Fixed			Adjustable			None	
			I_u A NZM1		NZM2	I_u A NZM1	NZM2	I_r A	I_u A NZM1	NZM2
			15-125		15-250	20-125	20-250	12-1 × I_n	1.2-100	1.6-200
Basic switching capacity[1]			**NZMB1-...-NA**		**NZMB2-...-NA**					
NEMA Test Procedure	240 V 60Hz	sym.rms kA	35		35					
	480 V 60Hz	sym.rms kA	25[2]		25					
	600 V 60Hz	sym.rms kA	...		18					
IEC/EN 60947	400/415V	kA/cosφ	25	0.25	25	0.25				
	440V	kA/cosφ	25	0.25	25	0.25				
	525V	kA/cosφ	15	0.30	15	0.30				
Normal switching capacity[1]			**NZMN1-...-NA**		**NZMN2-...-NA**					
NEMA Test Procedure	240 V 60Hz	sym.rms kA	85		85					
	480 V 60Hz	sym.rms kA	35[2]		35					
	600 V 60Hz	sym.rms kA	...		25					
IEC/EN 60947	400/415 V	kA/cosφ	50	0.25	50	0.25				
	440 V	kA/cosφ	35	0.25	35	0.25				
	525 V	kA/cosφ	20	0.30	25	0.25				
	690 V	kA/cosφ	10	0.50	20	0.30				
High switching capacity[1]					**NZMH2-...-NA**					
NEMA Test Procedure	240 V 60Hz	sym.rms kA			150					
	480 V 60Hz	sym.rms kA			100					
	600 V 60Hz	sym.rms kA			50					
IEC/EN 60947	400/415 V	kA/cosφ			150	0.20				
	440 V	kA/cosφ			130	0.25				
	525 V	kA/cosφ			50	0.25				
	690 V	kA/cosφ			20	0.30				

Notes
[1] Switches correspond with both UL/CSA and IEC regulations
IEC switching performance values shown on type label. → Technical data
[2] For NZM...1-...-NA 480Y/277V

Electronic releases
Overload release

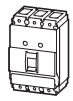
Fixed	Adjustable		None	Fixed	Adjustable		None	Fixed	Adjustable		Short-circuit releases		Motor protection
I_u A	I_u A	I_r A	I_u A	I_u A	I_u A	I_r A	I_u A	I_u A	I_u A	I_r A	I_{sd} A	I_i A	I_i A
150-250	100-250	0.5-1 × I_n	90-220	250-600	250-600	0.5-1 × I_n	220-450	600-1200	800-1200	0.5-1 × I_n	2-10 × I_r	2-12 × I_n	2-14 × I_n

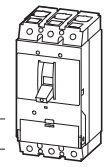
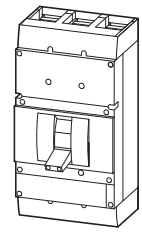
NZMN2-...E...-NA		**NZMN3-...E...-NA**		**NZMN4-...E...-NA**	
85		85		85	
35		42		42	
25		35		35	
50	0.25	50	0.25	50	0.25
35	0.25	35	0.25	35	0.25
25	0.25	25	0.25	25	0.25
20	0.30	20	0.30	20	0.30
NZMH2-...E...-NA		**NZMH3-...E...-NA**		**NZMH4-...E...-NA**	
150		150		125	
100		100		85	
50		50		50	
150	0.20	150	0.20	100	0.20
130	0.20	130	0.20	85	0.20
50	0.25	65	0.25	65	0.25
20	0.30	35	0.30	50	0.30

Circuit breaker, switch-disconnectors for North America 3 pole

Molded case switch
UL/CSA approved to UL 489, CSA 22.2 No. 5-09
as well as IEC/EN 60947-2 Annex L

With main switch characteristics to IEC/EN 60204, VDE 0113
Isolating characteristics to IEC/EN 60947
Without overcurrent protection
With short-circuit release
Rated uninterrupted current $I_n = I_u$



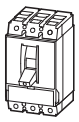



63		160		400		800	
100		200		600		1000	
125		250				1200	

Switching capacity		**NS1-...-NA**	**NS2-...-NA**
According to UL 489, CSA 22.2 SCCR	240 V	85	150
	480 V	35	100
	600 V	-	50
IEC/EN 60947	400/415 V	50	150
	440 V	35	130
	525 V	20	50
	690 V	10	20

Thermomagnetic releases, 3 pole

System and cable protection

	Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases	**Switching capacity B** **35 kA 240 V 60 Hz** [1] **25 kA 480 V 60 Hz** [2] **18 kA 600 V 60Hz** [2]	**Switching capacity N** **85 kA 240 V 60 Hz** [1] **35 kA 480 V 60 Hz** [2] **25 kA 600 V 60 Hz** [2]
	$I_n = I_u$ A	I_r A	I_i A	**Part no.** Article no.	**Part no.** Article no.
	Fixed overload releases				
Box terminals as accessories 	15	15	350	**NZMB1-AF15-NA** 281553	**NZMN1-AF15-NA** 281564
	20	20	350	**NZMB1-AF20-NA** 281554	**NZMN1-AF20-NA** 281565
	25	25	350	**NZMB1-AF25-NA** 281555	**NZMN1-AF25-NA** 281566
	30	30	350	**NZMB1-AF30-NA** 281556	**NZMN1-AF30-NA** 281567
	35	35	320-400	**NZMB1-AF35-NA** 272204	**NZMN1-AF35-NA** 274220
	40	40	320-400	**NZMB1-AF40-NA** 272205	**NZMN1-AF40-NA** 274223
	45	45	300-500	**NZMB1-AF45-NA** 272206	**NZM N1-AF45-NA** 274230
	50	50	300-500	**NZMB1-AF50-NA** 272207	**NZMN1-AF50-NA** 274231
	60	60	380-630	**NZMB1-AF60-NA** 272208	**NZMN1-AF60-NA** 274232
	70	70	480-800	**NZMB1-AF70-NA** 272209	**NZMN1-AF70-NA** 274233
	80	80	480-800	**NZMB1-AF80-NA** 272250	**NZMN1-AF80-NA** 274234
	90	90	600-1000	**NZMB1-AF90-NA** 272251	**NZMN1-AF90-NA** 274235
	100	100	600-1000	**NZMB1-AF100-NA** 272252	**NZMN1-AF100-NA** 274236
	110	110	750-1250	**NZMB1-AF110-NA** 281557	**NZMN1-AF110-NA** 281568
	125	125	750-1250	**NZMB1-AF125-NA** 281558	**NZMN1-AF125-NA** 281569
Screw terminals as accessories 	15	15	350	**NZMB2-AF15-NA** 269142	**NZMN2-AF15-NA** 269170
	20	20	350	**NZMB2-AF20-NA** 269143	**NZMN2-AF20-NA** 269171
	25	25	350	**NZMB2-AF25-NA** 269144	**NZMN2-AF25-NA** 269172
	30	30	350	**NZMB2-AF30-NA** 269145	**NZMN2-AF30-NA** 269173
	35	35	320-400	**NZMB2-AF35-NA** 269146	**NZMN2-AF35-NA** 269174
	40	40	320-400	**NZMB2-AF40-NA** 269147	**NZMN2-AF40-NA** 269175
	45	45	300-500	**NZMB2-AF45-NA** 269148	**NZMN2-AF45-NA** 269176
	50	50	300-500	**NZMB2-AF50-NA** 269149	**NZMN2-AF50-NA** 269177
	60	60	380-630	**NZMB2-AF60-NA** 269160	**NZMN2-AF60-NA** 269178
	70	70	480-800	**NZMB2-AF70-NA** 269161	**NZMN2-AF70-NA** 269179
	80	80	480-800	**NZMB2-AF80-NA** 269162	**NZMN2-AF80-NA** 269180
	90	90	600-1000	**NZMB2-AF90-NA** 269163	**NZMN2-AF90-NA** 269181
	100	100	600-1000	**NZMB2-AF100-NA** 269164	**NZMN2-AF100-NA** 269182
	110	110	750-1250	**NZMB2-AF110-NA** 269165	**NZMN2-AF110-NA** 269183

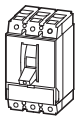
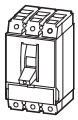
Notes Please refer to page 93 for terminals information

Switching capacity H
150 kA 240 V 60 Hz
100 kA 480 V 60 Hz
50 kA 600 V 60 Hz

Part no. Article no.	Std. pack	**Note**
	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-AF35/40-NA: 8-10 × I_n Fixed short-circuit releases I_i • 350 A, when I_n = 15-30A
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
NZMH2-AF15-NA 269188	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-AF35/40-NA: 8-10 × I_n Fixed short-circuit releases I_i • 350 A, when I_n = 15-30A
NZMH2-AF20-NA 269189	1 off	
NZMH2-AF25-NA 269190	1 off	
NZMH2-AF30-NA 269191	1 off	
NZMH2-AF35-NA 269192	1 off	
NZMH2-AF40-NA 269193	1 off	
NZMH2-AF45-NA 269194	1 off	
NZMH2-AF50-NA 269195	1 off	
NZMH2-AF60-NA 269196	1 off	
NZMH2-AF70-NA 269197	1 off	
NZMH2-AF80-NA 269198	1 off	
NZMH2-AF90-NA 269199	1 off	
NZMH2-AF100-NA 269200	1 off	
NZMH2-AF110-NA 269201	1 off	

Thermomagnetic releases, 3 pole

System and cable protection

Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases	**Switching capacity B** **35 kA 240 V 60 Hz** **25 kA 480 V 60 Hz** [1] **18 kA 600 V 60Hz** [2]	**Switching capacity N** **85 kA 240 V 60 Hz** **35 kA 480 V 60 Hz** [1] **25 kA 600 V 60 Hz** [2]
$I_n = I_u$ A	I_r A	I_i A	**Part no.** Article no.	**Part no.** Article no.
Screw terminals as accessories	**Fixed overload releases**			
				
125	125	750-1250	**NZMB2-AF125-NA** 269166	**NZMN2-AF125-NA** 269184
150	150	960-1600	**NZMB2-AF150-NA** 269167	**NZMN2-AF150-NA** 269185
175	175	1200-2000	**NZMB2-AF175-NA** 269168	**NZMN2-AF175-NA** 269186
200	200	1200-2000	**NZMB2-AF200-NA** 269169	**NZMN2-AF200-NA** 269187
225	225	1500-2500	**NZMB2-AF225-NA** 271089	**NZMN2-AF225-NA** 271101
250	250	1500-2500	**NZMB2-AF250-NA** 271100	**NZMN2-AF250-NA** 271102
Box terminals as accessories	**Adjustable overload releases**			
				
20	15-20	350	**NZMB1-A20-NA** 281559	**NZMN1-A20-NA** 281570
25	20-25	350	**NZMB1-A25-NA** 281560	**NZMN1-A25-NA** 281571
32	25-32	350	**NZMB1-A32-NA** 281561	**NZMN1-A32-NA** 281572
40	32-40	320-400	**NZMB1-A40-NA** 272253	**NZMN1-A40-NA** 274237
50	40-50	300-500	**NZMB1-A50-NA** 272254	**NZMN1-A50-NA** 274239
63	50-63	380-630	**NZMB1-A63-NA** 272255	**NZMN1-A63-NA** 274240
80	63-80	480-800	**NZMB1-A80-NA** 272256	**NZMN1-A80-NA** 274241
100	80-100	600-1000	**NZMB1-A100-NA** 272258	**NZMN1-A100-NA** 274242
125	100-125	750-1250	**NZMB1-A125-NA** 281562	**NZMN1-A125-NA** 281573
Screw terminals as accessories	**Adjustable overload releases**			
				
20	15-20	350	**NZMB2-A20-NA** 269206	**NZMN2-A20-NA** 269217
25	20-25	350	**NZMB2-A25-NA** 269207	**NZMN2-A25-NA** 269218
32	25-32	350	**NZMB2-A32-NA** 269208	**NZMN2-A32-NA** 269219
40	32-40	320-400	**NZMB2-A40-NA** 269209	**NZMN2-A40-NA** 269220
50	40-50	300-500	**NZMB2-A50-NA** 269210	**NZMN2-A50-NA** 269221
63	50-63	380-630	**NZMB2-A63-NA** 269211	**NZMN2-A63-NA** 269222
80	63-80	480-800	**NZMB2-A80-NA** 269212	**NZMN2-A80-NA** 269223
100	80-100	600-1000	**NZMB2-A100-NA** 269213	**NZMN2-A100-NA** 269224
125	100-125	750-1250	**NZMB2-A125-NA** 269214	**NZMN2-A125-NA** 269225
160	125-160	960-1600	**NZMB2-A160-NA** 269215	**NZMN2-A160-NA** 269226
200	160-200	1200-2000	**NZMB2-A200-NA** 269216	**NZMN2-A200-NA** 269227
250	200-250	1500-2500	**NZMB2-A250-NA** 271105	**NZMN2-A250-NA** 271106

Notes Please refer to page 97 for terminals information

Switching capacity H
150 kA 240 V 60 Hz
100 kA 480 V 60 Hz
50 kA 600 V 60 Hz

Part no. Article no.	Std. pack	**Note**
NZMH2-AF125-NA 269202	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-AF35/40-NA: 8 - 10 × I_n Fixed short-circuit releases I_i • 350 A, when I_n = 15-30A
NZMH2-AF150-NA 269203	1 off	
NZMH2-AF175-NA 269204	1 off	
NZMH2-AF200-NA 269205	1 off	
NZMH2-AF225-NA 271103	1 off	
NZMH2-AF250-NA 271104	1 off	
	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Only used in motor control circuits when installed with suitable contactor. Adjustable overload releases I_r • 0.8 - 1 × I_n (Factory setting 0.8 × I_n) Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-A40-NA: 8 - 10 × I_n Fixed short-circuit releases I_i • 350 A, when I_n = 20-32A
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	
NZMH2-A20-NA 269228	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Only used in motor control circuits when installed with suitable contactor. Adjustable overload releases I_r • 0.8 - 1 × I_n (Factory setting 0.8 × I_n) Adjustable short-circuit releases I_i • 6 - 10 × I_n (Factory setting 6 × I_n) • NZM...-A40-NA: 8 - 10 × I_n Fixed short-circuit releases I_i • 350 A, when I_n = 20-32A
NZMH2-A25-NA 269229	1 off	
NZMH2-A32-NA 269230	1 off	
NZMH2-A40-NA 269231	1 off	
NZMH2-A50-NA 269232	1 off	
NZMH2-A63-NA 269233	1 off	
NZMH2-A80-NA 269234	1 off	
NZMH2-A100-NA 269235	1 off	
NZMH2-A125-NA 269236	1 off	
NZMH2-A160-NA 269237	1 off	
NZMH2-A200-NA 269238	1 off	
NZMH2-A250-NA 271107	1 off	

Thermomagnetic releases, 3 pole

Short-circuit protection
Motor protection in conjunction with contactor and overload relay
- With short-circuit releases
- Without overload releases I_r

Rated current = Rated uninterrupted current	**Setting range** Overload releases	**Switching capacity B 240 V 60 Hz 480 V 60 Hz** [1]	**Switching capacity N 240 V 60 Hz 480 V 60 Hz** [1]	
$I_n = I_u$ A	I_r A	**Part no.** Article no.	**Part no.** Article no.	Std. pack
1.2	8-14	**NZMB1-S1,2-CNA** 102906	**NZMN1-S1,2-CNA** 103025	1 off
2	12.8-22.4	**NZMB1-S2-CNA** 102907	**NZMN1-S2-CNA** 103026	1 off
3	19.2-33.6	**NZMB1-S3-CNA** 102908	**NZMN1-S3-CNA** 103027	1 off
5	32-56	**NZMB1-S5-CNA** 102909	**NZMN1-S5-CNA** 103028	1 off
8	48-84	**NZMB1-S8-CNA** 103020	**NZMN1-S8-CNA** 103029	1 off
12	80-140	**NZMB1-S12-CNA** 103021	**NZMN1-S12-CNA** 103030	1 off
18	128-224	**NZMB1-S18-CNA** 103022	**NZMN1-S18-CNA** 103031	1 off
26	200-350	**NZMB1-S26-CNA** 103023	**NZMN1-S26-CNA** 103032	1 off
33	256-448	**NZMB1-S33-CNA** 103024	**NZMN1-S33-CNA** 103033	1 off
40	320-560	**NZMB1-S40-CNA** 281263	**NZMN1-S40-CNA** 281276	1 off
50	400-700	**NZMB1-S50-CNA** 281264	**NZMN1-S50-CNA** 281277	1 off
63	504-882	**NZMB1-S63-CNA** 281265	**NZMN1-S63-CNA** 281278	1 off
80	640-1120	**NZMB1-S80-CNA** 281266	**NZMN1-S80-CNA** 281279	1 off
100	800-1250	**NZMB1-S100-CNA** 281267	**NZMN1-S100-CNA** 281280	1 off

Box terminals as accessories

Notes

Switches correspond with both UL/CSA and IEC regulations.
IEC switching performance values shown on type label.
Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2

Adjustable short-circuit releases I_i
- 8 - 14 × I_n (Factory setting 12 × I_n)
  - NZM...1-S 1,2-33-CAN: 8 - 14 × I_n
  - NZM...1-S100-CAN: 8-12.5 × I_n (Factory setting 12 × I_n)

No overload protection I_r

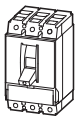
Please refer to page 93 for terminals information

CNA: UL Recognized, CSA certified Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker contactor and overload

Thermomagnetic releases, 3 pole

Short-circuit protection
Motor protection in conjunction with contactor and overload relay
- With short-circuit releases
- Without overload releases I_r

Screw terminals as accessories



Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	**Switching capacity B** **240 V 60 Hz** **480 V 60 Hz** **600 V 60 Hz** **Part no.** Article no.	**Switching capacity N** **240 V 60 Hz** **480 V 60 Hz** **600 V 60 Hz** **Part no.** Article no.	Std. pack
1.6	12.8- 22.4	**NZMB2-S1,6-CNA** 269472	**NZMN2-S1,6-CNA** 269478	1 off
2.4	19.2- 33.6	**NZMB2-S2,4-CNA** 269473	**NZMN2-S2,4-CNA** 269479	1 off
5	32-56	**NZMB2-S5-CNA** 103034	**NZMN2-S5-CNA** 103040	1 off
8	48-84	**NZMB2-S8-CNA** 103035	**NZMN2-S8-CNA** 103041	1 off
12	80-140	**NZMB2-S12-CNA** 103036	**NZMN2-S12-CNA** 103042	1 off
18	128-224	**NZMB2-S18-CNA** 103037	**NZMN2-S18-CNA** 103043	1 off
26	200-350	**NZMB2-S26-CNA** 103038	**NZMN2-S26-CNA** 103044	1 off
33	256-448	**NZMB2-S33-CNA** 103039	**NZMN2-S33-CNA** 103045	1 off
40	320-560	**NZMB2-S40-CNA** 269243	**NZMN2-S40-CNA** 269255	1 off
50	400-700	**NZMB2-S50-CNA** 269244	**NZMN2-S50-CNA** 269256	1 off
63	504-882	**NZMB2-S63-CNA** 269245	**NZMN2-S63-CNA** 269257	1 off
80	640-1120	**NZMB2-S80-CNA** 269246	**NZMN2-S80-CNA** 269258	1 off
100	800-1400	**NZMB2-S100-CNA** 269247	**NZMN2-S100-CNA** 269259	1 off
125	1000-1750	**NZMB2-S125-CNA** 269248	**NZMN2-S125-CNA** 269260	1 off
160	1280-2240	**NZMB2-S160-CNA** 269249	**NZMN2-S160-CNA** 269261	1 off
200	1600-2500	**NZMB2-S200-CNA** 269250	**NZMN2-S200-CNA** 269262	1 off
250	2000-2500	**NZMB2-S250-CNA** 102478	**NZMN2-S250-CNA** 102479	1 off

Notes

Switches correspond with both UL/CSA and IEC regulations.
IEC switching performance values shown on type label.
Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2
- NZM...2-S250-CNA: IEC/EN 60947-2

Adjustable short-circuit releases I_i
- 8 - 14 × I_n (Factory setting 12 × I_n)
  - NZM...2-S5-33-CNA: 6 - 10 × I_n (Factory setting 10 × I_n)
  - NZM...2-S250-CNA; 8 - 10 × I_n (Factory setting 10 × I_n)

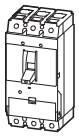
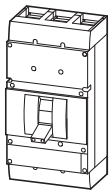
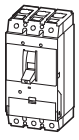
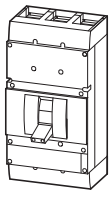
No overload protection I_r

Please refer to page 97 for terminals information

CNA: UL Recognized, CSA certified Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker contactor and overload

Electronic releases, 3 pole

System and cable protection

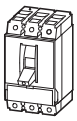
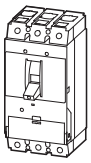
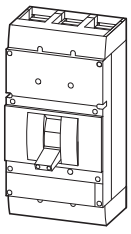
	Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	Short-circuit releases, Non-delayed I_i A	**Switching capacity N 85 kA 240 V 60 Hz 42 kA 480 V 60 Hz 35 kA 600 V 60 Hz Part no.** Article no.	**Switching capacity H 125 kA 240 V 60 Hz 100 kA 480 V 60 Hz 50 kA 600 V 60 Hz Part no.** Article no.
	Fixed overload releases				
Screw terminals as accessories 	250	250	500-2750	**NZMN3-AEF250-NA** 269275	**NZMH3-AEF250-NA** 269283
	300	300	600-3300	**NZMN3-AEF300-NA** 269276	**NZMH3-AEF300-NA** 269284
	350	350	700-3850	**NZMN3-AEF350-NA** 269277	**NZMH3-AEF350-NA** 269285
	400	400	800-4400	**NZMN3-AEF400-NA** 269278	**NZMH3-AEF400-NA** 269286
	450	450	900-3600	**NZMN3-AEF450-NA** 269279	**NZMH3-AEF450-NA** 269287
	500	500	1000-4000	**NZMN3-AEF500-NA** 269280	**NZMH3-AEF500-NA** 269288
	550	550	1100-4400	**NZMN3-AEF550-NA** 269281	**NZMH3-AEF550-NA** 269289
	600	600	1200-4800	**NZMN3-AEF600-NA** 269282	**NZMH3-AEF600-NA** 269290
Screw terminals as accessories 	600	600	1200-7200	**NZMN4-AEF600-NA** 271108	**NZMH4-AEF600-NA** 271114
	700	700	1400-8400	**NZMN4-AEF700-NA** 271109	**NZMH4-AEF700-NA** 271115
	800	800	1600-9600	**NZMN4-AEF800-NA** 271110	**NZMH4-AEF800-NA** 271116
	900	900	1800-10800	**NZMN4-AEF900-NA** 271111	**NZMH4-AEF900-NA** 271117
	1000	1000	2000-12000	**NZMN4-AEF100-NA** 271112	**NZMH4-AEF1000-NA** 271118
	1200	1200	2400-14400	**NZMN4-AEF120-NA** 271113	**NZMH4-AEF1200-NA** 271119
	Adjustable overload releases				
Screw terminals as accessories 	250	125-250	500-2750	**NZMN3-AE250-NA** 269299	**NZMH3-AE250-NA** 269302
	400	200-400	800-4400	**NZMN3-AE400-NA** 269300	**NZMH3-AE400-NA** 269303
	600	300-600	1200-4800	**NZMN3-AE600-NA** 269301	**NZMH3-AE600-NA** 269304
Screw terminals as accessories 	800	400-800	1600-9600	**NZMN4-AE800-NA** 271120	**NZMH4-AE800-NA** 271123
	1000	500-1000	2000-12000	**NZMN4-AE1000-NA** 271121	**NZMH4-AE1000-NA** 271124
	1200	600-1200	2400-14400	**NZMN4-AE1200-N** 271122	**NZMH4-AE1200-N** 271125

Notes Please refer to page 104 for terminals information

Std. pack	Note
1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r R.m.s. value measurement and "thermal memory" Short-circuit releases I_i • NZM...3-AEF250...400-NA: 2 - 11 × I_n (Factory setting 6 × I_n) • NZM...3-AEF450...600-NA: 2 - 8 × I_n (Factory setting 6 × I_n) • NZM...4-AEF...-NA: 2 - 12 × I_n (Factory setting 6 × I_n)
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Only used in motor control circuits when installed with suitable contactor. Adjustable overload releases I_r • 0.5 - 1 × I_n (Factory setting 0.8 × I_n) R.m.s. value measurement and "thermal memory" Adjustable short-circuit releases I_i • NZM...3-AEF250/400-NA: 2 - 11 × I_n (Factory setting 6 × I_n) • NZM...3-AEF600-NA: 2 - 8 × I_n (Factory setting 6 × I_n) • NZM...4-AEF...-NA: 2 - 12 × I_n (Factory setting 6 × I_n)
1 off	
1 off	
1 off	
1 off	
1 off	
1 off	

Electronic releases, 3 pole

Systems protection, cable protection, transformer , generator protection

	Rated current = Rated uninterrupted current $I_n = I_u$ A	**Setting range** Overload releases I_r A	Short-circuit releases Non-delayed I_i A	Delayed I_{sd} A	**Switching capacity N 85 kA 240 V 60 Hz 42 kA 480 V 60 Hz 35 kA 600 V 60 Hz Part no.** Article no.
	Fixed overload releases				
Screw terminals as accessories 	150	150	1800	300-1500	**NZMN2-VEF150-NA** 271126
	175	175	2100	350-1750	**NZMN2-VEF175-NA** 271127
	200	200	2400	400-2000	**ZMN2-VEF200-NA** 271128
	225	225	2700	450-2250	**NZMN2-VEF225-NA** 271129
	250	250	3000	500-2500	**NZMN2-VEF250-NA** 271130
Screw terminals as accessories 	250	250	500-2750	500-2500	**NZMN3-VEF250-NA** 269308
	300	300	600-3300	600-3000	**NZMN3-VEF300-NA** 269309
	350	350	700-3850	700-3500	**NZMN3-VEF350-NA** 269310
	400	400	800-4400	800-4000	**NZMN3-VEF400-NA** 269311
	450	450	900-3600	675-3150	**NZMN3-VEF450-NA** 269312
	500	500	1000-4000	750-3500	**NZMN3-VEF500-NA** 269313
	550	550	1100-4400	825-3850	**NZMN3-VEF550-NA** 269314
	600	600	1200-4800	900-4200	**NZMN3-VEF600-NA** 269315
Screw terminals as accessories 	600	600	1200-7200	1200-6000	**NZMN4-VEF600-NA** 271136
	700	700	1400-8400	1400-7000	**NZMN4-VEF700-NA** 271137
	800	800	1600-9600	1600-8000	**NZMN4-VEF800-NA** 271138
	900	900	1800-10800	1800-9000	**NZMN4-VEF900-NA** 271139
	1000	1000	2000-12000	2000-10000	**NZMN4-VEF1000-NA** 271140
	1200	1200	2400-14400	2400-12000	**NZMN4-VEF1200-NA** 271141

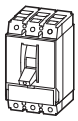
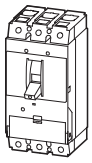
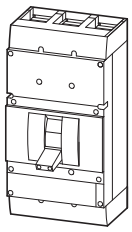
Notes Please refer to page 97 for terminals information

Switching capacity H
150 kA 240 V 60 Hz
100 kA 480 V 60 Hz
50 kA 600 V 60 Hz

Part no. Article no.	Std. pack	**Note**
NZMH2-VEF150-NA 271131	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Adjustable overload releases I_r R.m.s. value measurement and "thermal memory" Adjustable delay setting t_r, to escape from the in-rush current • 2 – 20 s at 6 × I_r (Factory setting 10 s) Delayed short-circuit releases I_{sd} • 2 – 10 × I_r (Factory setting 6 × I_r) • NZM...3-VEF450...600-NA: 1.5 - 7 × I_r (Factory setting 6 × I_r) Adjustable delay t_{sd} • 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (Factory setting 0 ms) Adjustable short-circuit releases I_i • NZM2: Fixed 12 × I_n • NZM...3-AEF250...400-NA: 2 - 11 × I_n (Factory setting 11 × I_n) • NZM...3-AEF450...600-NA: 2 - 8 × I_n (Factory setting 8 × I_n) • NZM...4-AEF...-NA: 2 - 12 × I_n (Factory setting 12 × I_n) I^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
NZMH2-VEF175-NA 271132	1 off	
NZMH2-VEF200-NA 271133	1 off	
NZMH2-VEF225-NA 271134	1 off	
NZMH2-VEF250-NA 271135	1 off	
NZMH3-VEF250-NA 269316	1 off	
NZMH3-VEF300-NA 269317	1 off	
NZMH3-VEF350-NA 269318	1 off	
NZMH3-VEF400-NA 269319	1 off	
NZMH3-VEF450-NA 269320	1 off	
NZMH3-VEF500-NA 269321	1 off	
NZMH3-VEF550-NA 269322	1 off	
NZMH3-VEF600-NA 269323	1 off	
NZMH4-VEF600-NA 271142	1 off	
NZMH4-VEF700-NA 271143	1 off	
NZMH4-VEF800-NA 271144	1 off	
NZMH4-VEF900-NA 271145	1 off	
NZMH4-VEF1000-NA 271146	1 off	
NZMH4-VEF1200-NA 271147	1 off	

Electronic releases, 3 pole

Systems protection, cable protection, transformer , generator protection

	Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases Non-delayed	Short-circuit releases Delayed	**Switching capacity N 85 kA 240 V 60 Hz 42 kA 480 V 60 Hz 35 kA 600 V 60 Hz**
	$I_n = I_u$ A	I_r A	I_i A	I_{sd} A	**Part no.** Article no.
	Fixed overload releases				
Screw terminals as accessories 	100	50-100	1200	100-1000	**NZMN2-VE100-NA** 271148
	160	80-160	1920	160-1600	**NZMN2-VE160-NA** 271149
	250	125-250	3000	250-2500	**NZM N2-V E250-NA** 271150
Screw terminals as accessories 	250	125-250	500-2750	250-2500	**NZM N3-V E250-NA** 269332
	400	200-400	800-4400	400-4000	**NZM N3-V E400-NA** 269333
	600	300-600	1200-4800	450-4200	**NZM N3-V E600-NA** 269334
Screw terminals as accessories 	800	400-800	1600-9600	800-8000	**NZM N4-V E800-N A** 271154
	1000	500-1000	2000-12000	1000-10000	**NZMN4-VE1000-NA** 271155
	1200	630-1200	2400-14400	1260-12000	**NZMN4-VE1200-NA** 271156

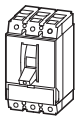
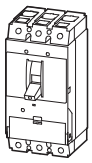
Notes Please refer to page 97 for terminals information

Electronic releases, 3 pole

Short-circuit protection

Motor protection in conjunction with contactor and overload relay

- With short-circuit releases
- Without overload releases I_r

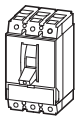
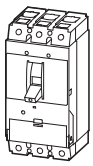
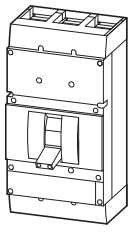
	Rated current = Rated uninterrupted current	**Setting range** Short-circuit releases	**Switching capacity N** 480V 60Hz 600V 60Hz
	$I_n = I_u$ A	I_i A	**Part no.** Article no.
Screw terminals as accessories 	90	180-1260	**NZMN2-SE90-CNA** 271160
	140	280-1960	**NZMN2-SE140-CNA** 271161
	220	440-3080	**NZMN2-SE220-CNA** 271162
Screw terminals as accessories 	220	440-3080	**NZMN3-SE220-CNA** 269341
	350	700-4900	**NZMN3-SE350-CNA** 269342
	450	900-6300	**NZMN3-SE450-CNA** 284465

Switching capacity H
150 kA 240 V 60 Hz
100 kA 480 V 60 Hz
50 kA 600 V 60 Hz

Part no. Article no.	Std. pack	**Note**
NZMH2-VE100-NA 271151	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Only used in motor control circuits when installed with suitable contactor. Adjustable overload releases I_r • 0.5 - 1 × I_n R.m.s. value measurement and "thermal memory" Adjustable delay setting t_r, to escape from the in-rush current • 2 – 20 s at 6 × I_r (Factory setting 10 s) Delayed short-circuit releases I_{sd} • 2 – 10 × I_r (Factory setting 6 × I_r) • NZM...3-VE600-NA: 1.5 - 7 × I_r (Factory setting 6 × I_r) Adjustable delay t_{sd} • 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (Factory setting 0 ms) Adjustable short-circuit releases I_i • NZM2: Fixed 12 × I_n • NZM...3-VE250/400-NA: 2 - 11 × I_n (Factory setting 11 × I_n) • NZM...3-VE600-NA: 2 - 8 × I_n (Factory setting 8 × I_n) • NZM...4-VE...-NA: 2 - 12 × I_n (Factory setting 12 × I_n) I^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
NZMH2-VE160-NA 271152	1 off	
NZMH2-VE250-NA 271153	1 off	
NZMH3-VE250-NA 269335	1 off	
NZMH3-VE400-NA 269336	1 off	
NZMH3-VE600-NA 269337	1 off	
NZMH4-VE800-NA 271157	1 off	
NZMH4-VE1000-NA 271158	1 off	
NZMH4-VE1200-NA 271159	1 off	

	Std. pack	**Note**
	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Comply with UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 and IEC/EN 60947-4 Adjustable short-circuit releases I_i • 2 - 14 × I_n (Factory setting 12 × I_n) No overload protection I_r CNA: UL Recognized, CSA certified Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker contactor and overload
	1 off	
	1 off	
	1 off	
	1 off	
	1 off	

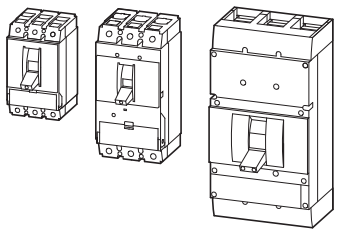
Molded case switches, 3 pole

	Rated current = Rated uninterrupted current $I_n = I_u$ A	Switching capacity at 480 V A	Switching capacity at 600 V kA	Response value of short-circuit releases I_i A	3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, **Part no.** Article no.	Std. pack	**Note**
Box terminals as accessories 	63	35	-	1250	**NS1-63-NA** 102681	1 off	With Permanently set short-circuit release (self-protection) comply with UL489/CSA 22.2 No 5.1, However,IEC/EN 60947-2: circuit-breaker without overcurrent protection (CBI-X) with main switch characteristics and isolating characteristics to IEC/EN 60204
	100	35	-	1250	**NS1-100-NA** 102682	1 off	
	125	35	-	1250	**NS1-125-NA** 102683	1 off	
Screw terminals as accessories 	160	100	50	2500	**NS2-160-NA** 102684	1 off	
	200	100	50	2500	**NS2-200-NA** 102685	1 off	
	250	100	50	2500	**NS2-250-NA** 102686	1 off	
Screw terminals as accessories 	400	100	50	4800	**NS3-400-NA** 102687	1 off	
	600	100	50	4800	**NS3-600-NA** 102688	1 off	
Screw terminals as accessories 	800	100	50	14400	**NS4-800-NA** 102689	1 off	
	1000	100	50	14400	**NS4-1000-NA** 102690	1 off	
	1200	100	50	14400	**NS4-1200-NA** 102691	1 off	

Notes
Please refer to page 93 for terminals information
NS2,NS3 NS4 be combined with NZM.-XR
NS1,NS2,NS3 and NS4 be combined with shunt releases NZM...-XU, NZM...-XA and auxiliary contacts

Circuit-breakers, switch-disconnectors for 1000 V AC, 3 pole

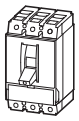
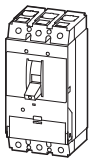
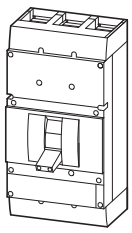
Switching capacity
With main switch characteristics to IEC/EN 60204 and isolating characteristics to IEC/EN 60947, VDE 660

			Circuit-breakers 3 Pole								
			System and cable protection			Selectivity protection		Motor protection			
1000V	kA/cosφ	I_{cu}	3/0.5	10/0.5	20/0.3	10[1]/0.5	20/0.3	10/0.5	20/0.3		
		I_{cs}	3/0.5	10/0.5	15/0.3	3/0.5	15/0.3	10/0.5	15/0.3		
Rated uninterrupted current I_u = Rated current I_n			I_u	I_u	I_u	I_u	I_u	I_u	I_u	I_u	I_u
Ambient air temperature at 100% I_u min./max. –25/+50 °C			A	A	A	A	A	A	A	A	A
			NZMH2-A...-S1	NZMH3-AE...-S1	NZMH4-AE...-S1	NZMH2-VE...-S1	NZMH4-VE...-S1	NZMH3-ME...-S1	NZMH4-ME...-S1	N2-...-S1	N4-...-S1
			20	250	63	100	630	220	55	16	800
			25	400	80	160	800	350	87	20	1000
			32	630	1000	250	1000	450	1400	250	1250
			40		125		1250				1600
			50		1600		1600				
			63								
			80								
			100								
			125								
			160								
			200								
			250								
Rated short-time withstand current I_{cm}		kA								5.5	53
Rated short-time withstand current I_{cw} (0.1s currentrms)		kA								3.5	25

Notes [1] Please inquire.

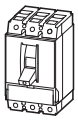
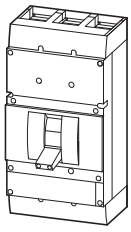
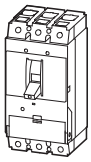
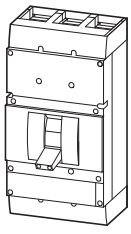
For 1000V, 3 pole

System and cable protection

	Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases			
	$I_n = I_u$ A	I_r A	I_i A	**Part no.** Article no.	Std. pack	**Note**
Screw terminals as accessories 	20	15-20	350	**NZM H2-A20-S1** 290355	1 off	Comply with IEC/EN 60947-2 Adjustable overload releases I_r • NZMH2 -A...-S1: 0.8-1 × I_n (Factory setting 0.8 × I_n) • NZMN3-AE...-S1: 0.5-1 × I_n (Factory setting 0.8 × I_n) • NZMH4-AE...-S1: 0.5-1 × I_n (Factory setting 0.5 × I_n) Adjustable short-circuit releases I_i • NZM H2-A40-S1: 8-10 × I_n (Factory setting 8 × I_n) • NZM H2-A50...250-S1: 6-10 × I_n (Factory setting 6 × I_n) • NEMN3-AE250/400-S1: 2-11 × I_n (Factory setting 6 × I_n) • NEMN3-AE630-S1: 2-8 × I_n (Factory setting 6 × I_n) • NZMH4-AE...-S1:2-12 × I_n (Factory setting 6 × I_n) Fixed short-circuit releases I_i • 350 A, when I_n = 20-32A Terminal protection: • NZM2: Should be used with NZM2-XKSA • NZM3: Should be used with NZM2-XKSA • NZM4: Isolating busbar connection (Screw terminals NZM4-XKS)
	25	20-25	350	**NZM H2-A25-S1** 290356	1 off	
	32	25-32	350	**NZM H2-A32-S1** 290357	1 off	
	40	32-40	320-400	**NZM H2-A40-S1** 290358	1 off	
	50	40-50	300-500	**NZM H2-A50-S1** 290359	1 off	
	63	50-63	380-630	**NZM H2-A63-S1** 290360	1 off	
	80	63-80	480-800	**NZM H2-A80-S1** 290361	1 off	
	100	80-100	600-1000	**NZMH2-A100-S1** 290362	1 off	
	125	100-125	750-1250	**NZMH2-A125-S1** 290363	1 off	
	160	125-160	960-1600	**NZMH2-A160-S1** 290364	1 off	
	200	160-200	1200-2000	**NZMH2-A200-S1** 290365	1 off	
	250	200-250	1500-2500	**NZMH2-A250-S1** 290366	1 off	
Screw terminals as accessories 	630	315-630	1260-5040	**NZMH3-AE250-S1** 119361	1 off	
	400	200-400	800-4400	**NZMH3-AE400-S1** 119362	1 off	
	630	315-630	1260-5040	**NZMH3-AE630-S1** 119363	1 off	
Screw terminals as accessories 	630	315-630	1260-7560	**NZMH4-AE630-S1** 290370	1 off	
	800	400-800	1600-9600	**NZMH4-AE800-S1** 290371	1 off	
	1000	500-1000	2000-12000	**NZMH4-AE1000-S1** 290372	1 off	
	1250	630-1250	2500-15000	**NZMH4-AE1250-S1** 290373	1 off	
	1600	800-1600	3200-19200	**NZMH4-AE1600-S1** 290374	1 off	

For 1000V, 3 pole

Systems protection, cable protection, transformer , generator protection

	Rated current = Rated uninterrupted current	Setting range				
		Overload releases	short-circuit releases delayed	short-circuit releases non-delayed		
	$I_n = I_u$ A	I_r A	I_i A	I_{sd} A	**Part no.** Article no.	Std. pack
	Systems protection, cable protection, selectivity, generator protection[1]					
Screw terminals as accessories 	100	50-100	1200	100-1000	**NZMH2-VE100-S1** 100777	1 off
	160	80-160	1920	160-1600	**NZMH2-VE160-S1** 100778	1 off
	250	125-250	3000	250-2500	**NZM H 2-VE250-S1** 100779	1 off
Screw terminals as accessories 	630	315-630	1260-7560	630-6300	**NZMH4-VE630-S1** 290375	1 off
	800	400-800	1600-9600	800-8000	**NZMH4-VE800-S1** 290376	1 off
	1000	500-1000	2000-12000	1000-10000	**NZMH4-VE1000-S1** 290377	1 off
	1250	630-1250	2500-15000	1250-12500	**NZMH4-VE1250-S1** 290378	1 off
	1600	800-1600	3200-19200	1600-16000	**NZMH4-VE1600-S1** 290379	1 off
	Motor protection[2]					
Screw terminals as accessories 	220	110-220	220-3080		**NZMH3-ME220-S1** 119364	1 off
	350	175-350	350-4900		**NZMH3-ME350-S1** 119365	1 off
	450	225-450	450-6300		**NZMH3-ME450-S1** 119366	1 off
Screw terminals as accessories 	550	275-550	550-7700		**NZMH4-ME550-S1** 290383	1 off
	875	438-875	875-12250		**NZMH4-ME875-S1** 290384	1 off
	1400	700-1400	1400-19600		**NZMH4-ME1400-S1** 290385	1 off

Notes

[1] Comply with IEC/EN 60947-2
Adjustable overload releases I_r
- 0.5-1 × I_n (Factory setting 0.8 × I_n)

R.m.s. value measurement and "thermal memory"
Adjustable delay setting t_r, to escape from the in-rush current
- 2 - 20s, Factory setting 10s at 6 × I_r

Delayed short-circuit releases I_{sd}
- 2-10 × I_r (Factory setting 6 × I_r)

Adjustable delay t_{sd}
- Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (Factory setting 0 ms)

Adjustable short-circuit releases I_i
- NZM2 fixed 12 × I_n
- NZM4: 2-12 × I_n (Factory setting 12 × I_n)
  2-8 × I_n (Factory setting 6 × I_n)

I^2t constant function
- NZM2 fixed OFF
- NZM4 switchable (Factory setting OFF)

Terminal protection:
- NZM2: Box terminals as accessories (+)NZM2-...-XKC...,
- NZM4: Isolating busbar connection (Screw terminals NZM4-XKS)

[2] Comply with IEC/EN 60947-2
Adjustable overload releases I_r
- 0.5-1 × I_n (Factory setting 0.8 × I_n)

R.m.s. value measurement and "thermal memory"
Adjustable delay setting t_r, to escape from the in-rush current
- 2 - 20s, Factory setting 10s at 6 × I_r

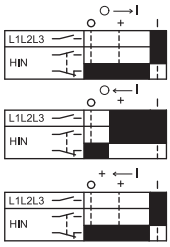
Phase-fault of protection
Adjustable short-circuit releases I_i
- 2-14 × I_r (Factory setting 12 × I_r)

Terminal protection:
- NZM3: Insulated cable lugs (Screw terminals NZM3-XKS), Should be used with NZM3-XKSA
- NZM4: Isolating busbar connection (Screw terminals NZM4-XKS)

Auxiliary contacts and trip indication contacts

Terminal numbers

standard auxiliary (HIN)



0 → I Closed

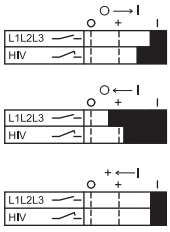
0 ← I Open

+ ← I Trip

■ Contacts closed
□ Contacts open

Early-make auxiliary (HIV)

NZM 1. 2. 3



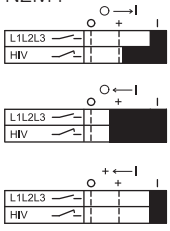
0 → I Closed

0 ← I Open

+ ← I Trip

■ Contacts closed
□ Contacts open

NZM4



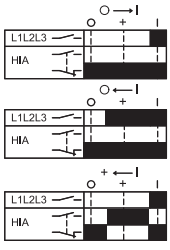
0 → I Closed

0 ← I Open

+ ← I Trip

■ Contacts closed
□ Contacts open

Trip indication auxiliary (HIA)



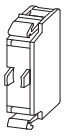
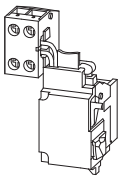
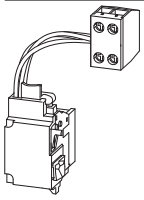
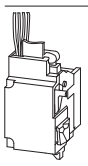
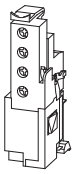
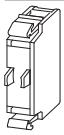
0 → I Closed

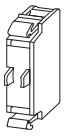
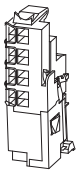
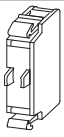
0 ← I Open

+ ← I Trip

■ Contacts closed
□ Contacts open

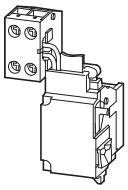
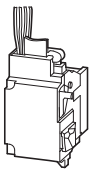
Auxiliary contacts with screw terminals

		For use with	Contact configuration: ⊖ = safety function by positive opening according to IEC/EN 60947-5-1 N/O = normally open contact N/C = normally closed contact		Contact sequences	Part no. Article no. when ordered separately
Standard auxiliary contacts						
Switches with the main contacts. Used for indicating and interlocking tasks.						
		NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) N1(-4), 2(-4), 3(-4), 4(-4)	1 N/O	-		**M22-K10** 216376
			-	1 N/C ⊖		**M22-K01** 216378
			1 N/O	1 N/C ⊖		-
			2 N/O	-		-
			-	1 N/C ⊖		-
Early-make auxiliary contact For interlocking and load shedding circuits, as well as for early make of the under-voltage release in main switch/emergency switching off applications						
	With clamp terminal on left switch side.	NZM1(-4) PN1(-4) N1(-4)	2 N/O	-		**NZM1-XHIV** 259426
	With clamp terminal on right switch side.	NZM1(-4) PN1(-4) N1(-4)	2 N/O	-		**NZM1-XHIVR** 292195
	With 3m connection cable instead of screw connection.	NZM1(-4) PN1(-4) N1(-4)	2 N/O	-		**NZM1-XHIVL** 259432
		NZM2(-4), 3(-4) PN2(-4), 3(-4) N2(-4), 3(-4)	2 N/O	-		**NZM2/3-XHIV** 259430
		NZM4(-4) N4(-4)	2 N/O	-		**NZM4-XHIV** 266172
Trip indicating auxiliary contact (HIA), General trip indication "+", when tripped by shunt release, overload release, short-circuit release or earth-fault release due to fault current.						
		NZM1(-4), 2(-4), 3(-4), 4(-4) N1(-4), 2(-4), 3(-4), 4(-4)	1 N/O	-		**M22-K10** 216376
			-	1 N/C ⊖		**M22-K01** 216378
			1 N/O	1 N/C ⊖		-
			2 N/O	-		-
			-	2 N/C ⊖		-

	Part no. Article no. when ordered separately	Std. pack		**Note**
	**M22-CK10** 216384	20 off	The following applies for the std. pack: M22-(C)K… : Std. pack = 20 off	• The following can be clipped into the switch: • NZM1: one standard auxiliary contact • NZM2: up to two standard auxiliary contacts M22-(C)K... • NZM3/4: up to three standard auxiliary contacts M22-(C)K... • Any combinations of the auxiliary contact types are possible. • Marking on switch: HIN
	M22-CK01 216385	20 off		
	M22-CK11 107940	20 off		
	M22-CK20 107898	20 off		
	M22-CK02 107899	20 off		
	-	1 off		• Not in conjunction with undervoltage release NZM…-XU… or shunt release NZM…-XA… • Early make with switch on and switch off (manual actuation): approx. 20 ms
	-	1 off		
	-	1 off		
	**NZM2/3-XHIVC** 266178	1 off		• Not in conjunction with undervoltage release NZM…-XU…, shunt release NZM…-XA… or remote operator NZM…-XR… • Early make (manual operation): approx. 20...90 ms
	NZM4-XHIVC 266180	1 off		
	**M22-CK10** 216384	20 off	The following applies for the std. pack: M22-(C)K…: Std. pack = 20 off	• The following can be clipped into the switch: • NZM1: one standard auxiliary contact • NZM2: up to two standard auxiliary contacts M22-(C)K... • NZM3/4: up to three standard auxiliary contacts M22-(C)K... • Any combinations of the auxiliary contact types are possible. • Marking on switch: HIN
	M22-CK01 216385	20 off		
	M22-CK11 107940	20 off		
	M22-CK20 107898	20 off		
	M22-CK02 107899	20 off		

Undervoltage releases with Screw terminals

Undervoltage releases
Without auxiliary contacts
Non-delayed disconnection of circuit-breaker NZM or switch-disconnector N when control voltage drops below 35 – 70% U_s.

		For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
	D1 U< D2 With clamp terminal on left switch side.	NZM1(-4), N1(-4)	24 V 50/60 Hz	**NZM1-XU24AC** 259434	1 off
			110V...130 V 50/60 Hz	**NZM1-XU110-130AC** 259440	1 off
			208 V 240 V 50/60 Hz	**NZM1-XU208-240AC** 259442	1 off
			380V...440 V 50/60 Hz	**NZM1-XU380-440AC** 259444	1 off
			480V...525 V 50/60 Hz	**NZM1-XU480-525AC** 259446	1 off
			600 V 50/60 Hz	**NZM1-XU600AC** 259448	1 off
			12 V DC	**NZM1-XU12DC** 259450	1 off
			24 V DC	**NZM1-XU24DC** 259452	1 off
			110V...130 V DC	**NZM1-XU110-130DC** 259458	1 off
			220V...250 V DC	**NZM1-XU220-250DC** 259460	1 off
	D1 U< D2 With 3 m connection cable instead of screw terminal.	NZM1(-4), N1(-4)	24 V 50/60 Hz	**NZM1-XUL24AC** 259462	1 off
			110V-130 V50/60 Hz	**NZM1-XUL110-130AC** 259468	1 off
			208 V 240 V 50/60 Hz	**NZM1-XUL208-240AC** 259471	1 off
			380V- 440 V 50/60 Hz	**NZM1-XUL380-440AC** 259473	1 off
			480V- 525 V 50/60 Hz	**NZM1-XUL480-525AC** 259475	1 off
			600 V 50/60 Hz	**NZM1-XUL600AC** 259477	1 off
			12VDC	**NZM1-XUL12DC** 259479	1 off
			24 V DC	**NZM1-XUL24DC** 259481	1 off
			110V 130VDC	**NZM1-XUL110-130DC** 259487	1 off
			220V-250 V DC	**NZM1-XUL220-250DC** 259489	1 off

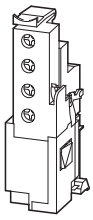
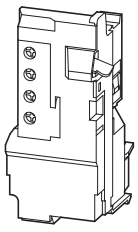
Notes

When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is reliably prevented.

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XA...

Undervoltage releases with Screw terminals

Undervoltage releases
Without auxiliary contacts
Non-delayed disconnection of circuit-breaker NZM or switch-disconnector N when control voltage drops below 35 – 70% U_s.

			For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
	D1 U< D2	-	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz	**NZM2/3-XU24AC** 259491	1 off
				110V-130 V50/60 Hz	**NZM2/3-XU110-130AC** 259497	1 off
				208 V 240 V 50/60 Hz	**NZM2/3-XU208-240AC** 259499	1 off
				380V-440 V 50/60 Hz	**NZM2/3-XU380-440AC** 259501	1 off
				480V-525 V 50/60 Hz	**NZM2/3-XU480-525AC** 259503	1 off
				600 V 50/60 Hz	**NZM2/3-XU600AC** 259505	1 off
				12VDC	**NZM2/3-XU12DC** 259507	1 off
				24 V DC	**NZM2/3-XU24DC** 259509	1 off
				110V 130VDC	**NZM2/3-XU110-130 DC** 259515	1 off
				220V-250 V DC	**NZM2/3-XU220-250 DC** 259517	1 off
	D1 U< D2	-	NZM4(-4), N4(-4)	24 V 50/60 Hz	**NZM4-XU24AC** 266189	1 off
				110V-130 V50/60 Hz	**NZM4-XU110-130AC** 266192	1 off
				208 V-240 V 50/60 Hz	**NZM4-XU208-240AC** 266193	1 off
				380V-440 V 50/60 Hz	**NZM4-XU380-440AC** 266194	1 off
				480V-525 V 50/60 Hz	**NZM4-XU480-525AC** 266195	1 off
				600 V 50/60 Hz	**NZM4-XU600AC** 266196	1 off
				12VDC	**NZM4-XU12DC** 266203	1 off
				24 V DC	**NZM4-XU24DC** 266204	1 off
				110V-130VDC	**NZM4-XU110-130DC** 266207	1 off
				220V-250 V DC	**NZM4-XU220-250DC** 266208	1 off

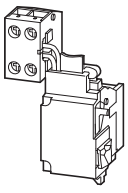
Notes

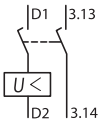
When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is reliably prevented.

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XA...

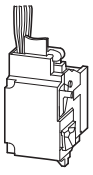
Undervoltage releases with Screw terminals

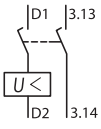
Undervoltage releases
With two early-make auxiliary contacts
For interlocking and load-shedding circuits, as well as for early-make of the undervoltage release in main-switch applications.
For use with emergency switching off devices in conjunction with emergency switching off button.





For use with	Rated control voltage U_s V	Part no. Article no. when ordered separately	Std. pack
With clamp terminal on left switch side.			
NZM1(-4), N1(-4)	24 V 50/60 Hz	**NZM1-XUHIV24AC** 259531	1 off
	110V-130 V 50/60 Hz	**NZM1-XUHIV110-130AC** 259537	1 off
	208V-240 V 50/60 Hz	**NZM1-XUHIV208-240AC** 259539	1 off
	380V-440 V 50/60 Hz	**NZM1-XUHIV380-440AC** 259541	1 off
	480V-525 V 50/60 Hz	**NZM 1-XUHIV480-525AC** 259543	1 off
	12 V DC	**NZM1-XUHIV12DC** 259545	1 off
	24 V DC	**NZM1-XUHIV24DC** 259547	1 off
	110 V 130VDC	**NZM1-XUHIV110-130DC** 259553	1 off
	220V-250 V DC	**NZM1-XUHIV220-250DC** 259555	1 off





For use with	Rated control voltage U_s V	Part no. Article no. when ordered separately	Std. pack
With 3 m connection cable instead of screw connection.			
NZM1(-4), N1(-4)	24 V 50/60 Hz	**NZM1-XUHIVL24AC** 259557	1 off
	110V-130 V 50/60 Hz	**NZM1-XUHIVL110-130AC** 259563	1 off
	208V-240 V 50/60 Hz	**NZM 1-XUHIVL208-240AC** 259565	1 off
	380V-440 V 50/60 Hz	**NZM 1-XUHIVL380-440AC** 259567	1 off
	480V-525 V 50/60 Hz	**NZM 1-XUHIVL480-525AC** 259569	1 off
	12 V DC	**NZM1-XUHIVL12DC** 259571	1 off
	24 V DC	**NZM1-XUHIVL24DC** 259573	1 off
	110 V 130VDC	**NZM1-XUHIVL110-130DC** 259579	1 off
	220V-250 V DC	**NZM1-XUHIVL220-250DC** 259581	1 off

Notes

When the undervoltage release is de-energized,accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented.

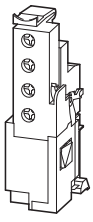
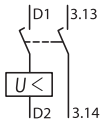
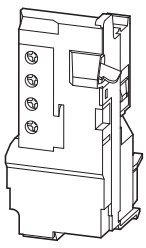
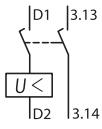
Early make of auxiliary contacts on switching on and off (manual operation): approx.20 ms

Cannot be used in conjunction with remote operator NZM...-XR....

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...- XHIV... or shunt release NZM...-XA...

Undervoltage releases with Screw terminals

Undervoltage releases
With two early-make auxiliary contacts
For interlocking and load-shedding circuits, as well as for early-make of the undervoltage release in main-switch applications.
For use with emergency switching off devices in conjunction with emergency switching off button.

		For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
		NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz	**NZM2/3-XUHIV24AC** 259583	1 off
			110V-130 V 50/60 Hz	**NZM2/3-XUHIV110-130AC** 259589	1 off
			208V-240 V 50/60 Hz	**NZM2/3-XUHIV208-240AC** 259591	1 off
			380V-440 V 50/60 Hz	**NZM2/3-XUHIV380-440AC** 259594	1 off
			480V-525 V 50/60 Hz	**NZM2/3-XUHIV480-525AC** 259598	1 off
			12 V DC	**NZM2/3-XUHIV12DC** 259600	1 off
			24 V DC	**NZM2/3-XUHIV24DC** 259602	1 off
			110 V 130VDC	**NZM2/3-XUHIV110-130DC** 259608	1 off
			220V-250 V DC	**NZM2/3-XUHIV220-250DC** 259610	1 off
		NZM4(-4), N4(-4)	24 V 50/60 Hz	**NZM4-XUHIV24AC** 266217	1 off
			110V-130 V 50/60 Hz	**NZM4-XUHIV110-130AC** 266220	1 off
			208V-240 V 50/60 Hz	**NZM4-XUHIV208-240AC** 266221	1 off
			380V-440 V 50/60 Hz	**NZM4-XUHIV380-440AC** 266222	1 off
			480V-525 V 50/60 Hz	**NZM4-XUHIV480-525AC** 266223	1 off
			12 V DC	**NZM4-XUHIV12DC** 266231	1 off
			24 V DC	**NZM4-XUHIV24DC** 266232	1 off
			110 V 130VDC	**NZM4-XUHIV110-130 DC** 266235	1 off
			220V-250 V DC	**NZM4-XUHIV220-250 DC** 266236	1 off

Notes

When the undervoltage release is de-energized,accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented.

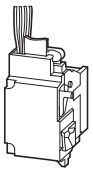
Early make of auxiliary contacts on switching on and off (manual operation): approx.20 ms

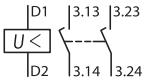
Cannot be used in conjunction with remote operator NZM...-XR....

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...- XHIV... or shunt release NZM...-XA...

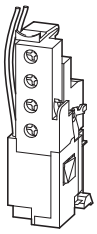
Undervoltage releases with Screw terminals

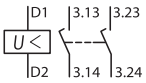
Undervoltage releases
With two early-make auxiliary contacts





For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
With 3m connection cable instead of screw connection.			
NZM1(-4), N1(-4)	24 V 50/60Hz	**NZM1-XUHIV20L24AC** 259612	1 off
	110V-130V50/60Hz	**NZM1-XUHIV20L110-130AC** 259620	1 off
	208V-240 V 50/60Hz	**NZM1-XUHIV20L208-240AC** 259622	1 off
	380V-440 V 50/60Hz	**NZM1-XUHIV20L380-440AC** 259624	1 off
	24 V DC	**NZM1-XUHIV20L24DC** 259630	1 off





For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
Contacts 3.23 and 3.24 with separate 3m connection cables.			
NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60Hz	**NZM2/3-XUHIV2024AC** 259640	1 off
	110V-130V50/60Hz	**NZM2/3-XUHIV20110-130AC** 259648	1 off
	208V-240 V 50/60Hz	**NZM2/3-XUHIV20208-240AC** 259651	1 off
	380V-440 V 50/60Hz	**NZM2/3-XUHIV20380-440AC** 259653	1 off
	24 V DC	**NZM2/3-XUHIV2024DC** 259659	1 off

Notes

When the undervoltage release is de-energized,accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented.

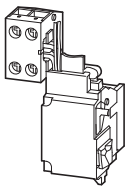
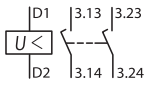
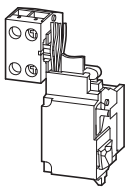
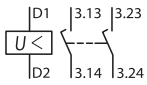
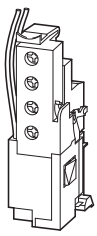
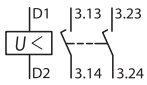
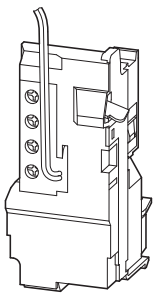
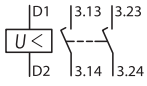
Early make of auxiliary contacts on switching on and off (manual operation): approx.20 ms

Cannot be used in conjunction with remote operator NZM...-XR....

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...- XHIV... or shunt release NZM...-XA...

Undervoltage releases with Screw terminals

Undervoltage releases
With two early-make auxiliary contacts

	For use with	Rated control voltage U_s V	Part no. Article no. when ordered separately	Std. pack
	Coil connections wired to clamp terminals, auxiliary contact connections with 3 m loose connection cables			
	NZM1(-4), N1(-4)	24 V 50/60Hz	**NZM1-XUHIV20KL24AC** 284388	1 off
		110V-130V50/60Hz	**NZM1-XUHIV20KL110-130AC** 284389	1 off
		208V-240 V 50/60Hz	**NZM1-XUHIV20KL208-240AC** 284400	1 off
		24 V DC	**NZM1-XUHIV20KL24DC** 284387	1 off
	Coil connections with 3 m loose connection cables, auxiliary contact connections wired to clamp terminals			
	NZM1(-4), N1(-4)	24 V 50/60Hz	**NZM1-XUHIV20LK24AC** 284402	1 off
		110V-130V50/60Hz	**NZM1-XUHIV20LK110-130AC** 284403	1 off
		208V-240 V 50/60Hz	**NZM1-XUHIV20LK208-240AC** 284404	1 off
		24 V DC	**NZM1-XUHIV20LK24DC** 284401	1 off
	Coil connections with 3 m loose connection cables, auxiliary contact connections wired to clamp terminals			
	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60Hz	**NZM2/3-XUHIV20LK24AC** 285291	1 off
		110V-130V50/60Hz	**NZM2/3-XUHIV20LK110-130AC** 284407	1 off
		208V-240 V 50/60Hz	**NZM2/3-XUHIV20LK208-240AC** 284408	1 off
		24 V DC	**NZM2/3-XUHIV20LK24DC** 284405	1 off
	Contacts 3.23 and 3.24 with separate 3 m connection cables.			
	NZM4(-4), N4(-4)	24 V 50/60Hz	**NZM4-XUHIV2024AC** 266244	1 off
		110V-130V50/60Hz	**NZM4-XUHIV20110-130AC** 266247	1 off
		208V-240 V 50/60Hz	**NZM4-XUHIV20208-240AC** 266248	1 off
		380V-440 V 50/60Hz	**NZM4-XUHIV20380-440AC** 266249	1 off
		24 V DC	**NZM4-XUHIV2024DC** 266258	1 off

Notes

When the undervoltage release is de-energized,accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented.

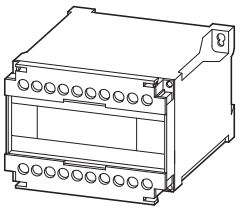
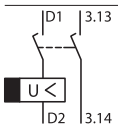
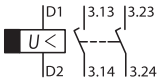
Early make of auxiliary contacts on switching on and off (manual operation): approx.20 ms

Cannot be used in conjunction with remote operator NZM...-XR....

Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...- XHIV... or shunt release NZM...-XA...

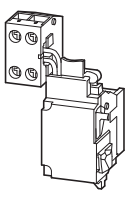
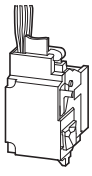
Undervoltage releases with Screw terminals

Undervoltage releases, off-delayed
Combination of separate delay unit and special releases

	For use with	Part no. Article no. when ordered separately	Std. pack	Note
Delay unit				
Voltage dips of less than 0.06 -16s do not cause disconnection of the NZM circuit-breakeror N switch-disconnector				
	NZM1(-4), 2(-4), 3(-4), 4(-4) N1(-4), 2(-4), 3(-4), 4(-4) Input / Output 50/60 Hz / 18 VDC 220 V-240V 380 V-440V 480 V-550V 24 V DC/AC	**UVU-NZM** 260154	1 off	• Delay time can be set from 70 ms -4 s. • With additional external capacitor: ◦ 30,000 µF ≧ 35 V up to 8 s ◦ 90,000 µF ≧ 35 V up to 16 s • A special release is required. • Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA... • Delay unit for separate installation (mounting: top-hat rail or screws). • For other operating voltages use a control transformer.
Without auxiliary contacts				
NZM1 with 3 m loose connection cables instead of screw terminal, NZM2, 3, and 4 with screw terminals				
	NZM1(-4) N1(-4)	**NZM 1-XUVL** 271607	1 off	• Delay unit UVU-NZM is additionally required. • Cannot be installed simultaneously with separate early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA.... • NZM1, 2, 3: Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms
	NZM2(-4), N2(-4) NZM 3(-4), N3(-4)	**NZM 2/3-UV** 259527	1 off	
	NZM4(-4) N4(-4)	**NZM 4-XUV** 266588	1 off	
With two early-make auxiliary contacts				
NZM1 with 3 m loose connection cables instead of screw terminal, NZM2, 3, and 4 with screw terminals				
	NZM1(-4) N1(-4)	**NZM1-XUVHIVL** 271608	1 off	• Cannot be used in conjunction with remote operator NZM... -XR.... • Delay unit UVU-NZM is additionally required. • Cannot be installed simultaneously with separate early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA.... • NZM1, 2, 3: Early make of auxiliary contacts on switching on and off (manual operation): appro.20 ms. • NZM4: Early make of auxiliary contacts on switching on (manual operation): approx. 90 ms.
	NZM2(-4), N2(-4) NZM 3(-4), N3(-4)	**NZM2/3-XUVHIV** 259684	1 off	
	NZM4(-4) N4(-4)	**NZM4-XUVHIV** 266596	1 off	
With two independently operating early-make auxiliary contacts				
NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal, contact 3.23 and 3.24 with 3 m separate connection cables.				
	NZM1(-4) N1(-4)	**NZM1-XUVHIV20L** 271609	1 off	• Cannot be used in conjunction with remote operator NZM... -XR.... • Delay unit UVU-NZM is additionally required. • Cannot be installed simultaneously with separate early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA.... • NZM1, 2, 3: Early make of auxiliary contacts on switching on and off (manual operation): appro.20 ms. • NZM4: Early make of auxiliary contacts on switching on (manual operation): approx. 90 ms.
	NZM2(-4), N2(-4) NZM 3(-4), N3(-4)	**NZM2/3-UVHIV20** 259688	1 off	
	NZM4(-4) N4(-4)	**NZM4-XUVH IV20** 266604	1 off	

Shunt releases with Screw terminals

Shunt releases
Without auxiliary contacts
Switches are tripped by a voltage pulse or by the application of uninterrupted

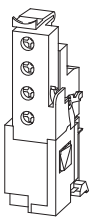
			For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
		With clamp terminal on left switch side.	NZM1(-4), N1(-4)	12 VAC/DC	**NZM1-XA12AC/DC** 259706	1 off
				24 V AC/DC	**NZM1-XA24AC/DC** 259708	1 off
				110 V-130VAC/DC	**NZM1-XA110-130AC/DC** 259724	1 off
				208 V-250 V AC/DC	**NZM1-XA208-250AC/DC** 259726	1 off
				380 V-440 V AC/DC	**NZM1-XA380-440AC/DC** 259728	1 off
		With 3 m connection cable instead of screw connection.	NZM1(-4), N1(-4)	12 VAC/DC	**NZM 1-XAL12AC/DC** 259734	1 off
				24 V AC/DC	**NZM 1-XAL24AC/DC** 259736	1 off
				110 V-130VAC/DC	**NZM1-XAL110-130AC/DC** 259742	1 off
				208 V-250 V AC/DC	**NZM1-XAL208-250AC/DC** 259744	1 off
				380 V-440 V AC/DC	**NZM1-XAL380-440AC/DC** 259746	1 off

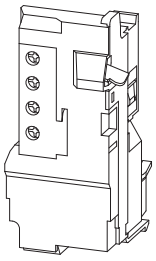
Notes

- Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...
- When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented. Early make of auxiliary.

Shunt releases with Screw terminals

Shunt releases
Without auxiliary contacts
Switches are tripped by a voltage pulse or by the application of uninterrupted





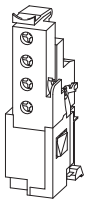
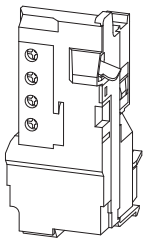
		For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
C1 C2	-	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	12 VAC/DC	**NZM2/3-XA12AC/DC** 259752	1 off
			24 V AC/DC	**NZM2/3-XA24AC/DC** 259754	1 off
			110 V-130VAC/DC	**NZM2/3-XA110-130AC/DC** 259760	1 off
			208 V-250 V AC/DC	**NZM2/3-XA208-250AC/DC** 259763	1 off
			380 V-440 V AC/DC	**NZM2/3-XA380-440AC/DC** 259766	1 off
C1 C2	-	NZM4(-4), N4(-4)	12 VAC/DC	**NZM4-XA12AC/DC** 266446	1 off
			24 V AC/DC	**NZM4-XA24AC/DC** 266447	1 off
			110 V-130VAC/DC	**NZM4-XA110-130AC/DC** 266450	1 off
			208 V-250 V AC/DC	**NZM4-XAZ08-250AC/DC** 266451	1 off
			380 V-440 V AC/DC	**NZM4-XA380-440AC/DC** 266452	1 off

Notes

- Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...
- When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented. Early make of auxiliary.

Shunt releases with Screw terminals

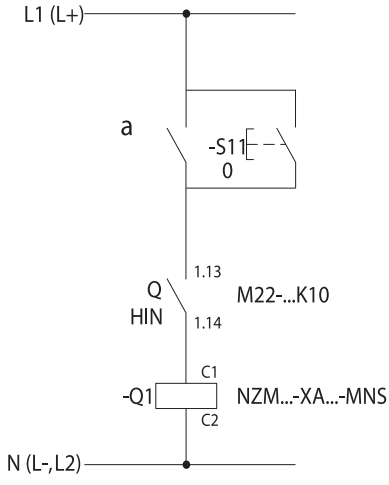
Shunt releases
Without auxiliary contacts
For mesh network circuit-breakers
For intermittent operation
Maximum On-time = 1 s
Operating range 10-110 % Us
Not UL/CSA approved

	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
 	NZM3(-4), N3(-4)	230V AC	**NZM3-XA-230AC-MNS** 274097	1 off
 	NZM4(-4), N4(-4)	230V AC	**NZM4-XA-230AC-MNS** 274138	1 off

Notes

Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...

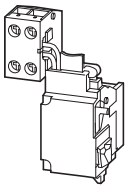
Intermittent operation guaranteed by series connection of a make contact M22-(C)K10. The maximum duty factor of the shunt releases for mesh network circuit-breakers is 1 s.

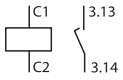


① Reverse power relay contact from mesh network relay
-S11 Remote off
Q Standard auxiliary contacts
-Q1 Shunt releases

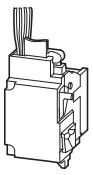
Shunt releases with Screw terminals

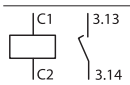
Shunt releases
With early-make auxiliary contact





	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
With clamp terminal on left switch side.	NZM1(-4), N1(-4)	12 V AC/DC	**NZM1-XAHIV12AC/DC** 259772	1 off
		24 V AC/DC	**NZM1-XAHIV24AC/DC** 259774	1 off
		110 V-130 V AC/DC	**NZM1-XAHIV110-130AC/DC** 259780	1 off
		208 V-250 V AC/DC	**NZM1-XAHIV208-250AC/DC** 259782	1 off
		380 V-440 V AC/DC	**NZM 1-XAHIV380-440AC/DC** 259784	1 off





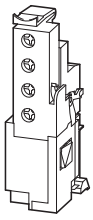
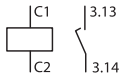
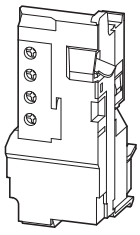
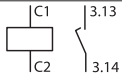
	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
With 3 m connection cable instead of screw connection.	NZM1(-4), N1(-4)	12 V AC/DC	**NZM1-XAHIVL12AC/DC** 259790	1 off
		24 V AC/DC	**NZM1-XAHIVL24AC/DC** 259792	1 off
		110 V-130 V AC/DC	**NZM1-XAHIVL110-130AC/DC** 259798	1 off
		208 V-250 V AC/DC	**NZM1-XAHIVL208-250AC/DC** 259800	1 off
		380 V-440 V AC/DC	**NZM1-XAHIVL380-440AC/DC** 259802	1 off

Notes

- When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented.
- Early make of auxiliary contact on switching on and off (manual operation): approx. 20 ms.
- Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...

Shunt releases with Screw terminals

Shunt releases
With early-make auxiliary contact

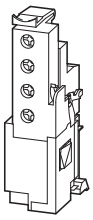
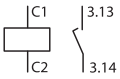
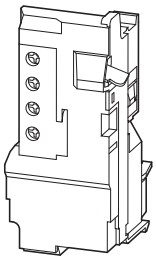
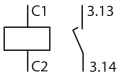
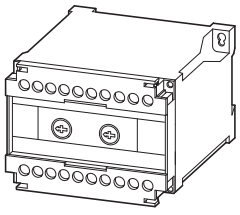
			For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
		-	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	12 V AC/DC	**NZM2/3-XAHIV12AC/DC** 259808	1 off
				24 V AC/DC	**NZM2/3-XAHIV24AC/DC** 259810	1 off
				110 V-130 V AC/DC	**NZM213-XAHIV110-130AC/DC** 259816	1 off
				208 V-250 V AC/DC	**NZM213-XAHIV208-250AC/DC** 259818	1 off
				380 V-440 V AC/DC	**NZM2/3-AHIV380-440AC/DC** 259820	1 off
		-	NZM4(-4), N4(-4)	12 V AC/DC	**NZM4-XAHIV12AC/DC** 266470	1 off
				24 V AC/DC	**NZM4-XAHIV24AC/DC** 266471	1 off
				110 V-130 V AC/DC	**NZM4-XAHIV110-130AC/DC** 266474	1 off
				208 V-250 V AC/DC	**NZM4-XAHIV208-250AC/DC** 266475	1 off
				380 V-440 V AC/DC	**NZM4-XAHIV380-440AC/DC** 266476	1 off

Notes

- When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented.
- Early make of auxiliary contact on switching on and off (manual operation): approx. 20 ms.
- Cannot be used in conjunction with remote operator NZM...-XR....
- Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...

Shunt releases with Screw terminals

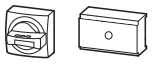
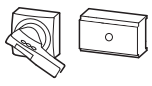
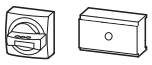
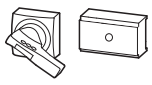
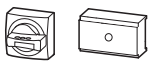
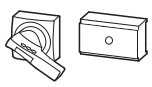
Shunt releases
With early-make auxiliary contact
For mesh network circuit-breakers
For intermittent operation
Maximum On-time = 1 s
Operating range 10-110 % Us
Not UL/CSA approved

	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately
 	NZM3(-4), N3(-4)	230V AC	**NZM3-XAHIV-230AC-MNS** 274141
 	NZM4(-4), N4(-4)	230V AC	**NZM4-XAHIV-230AC-MNS** 274143
	Capacitor unit 230 V 50/60 Hz 700in conjunction with shunt release NZM...-XA208-250 AC/DC Enclosure: degree of protection IP20 Not UL/CSA approved		
	NZM1(-4), N4(-4) NZM2(-4), N4(-4) NZM3(-4), N4(-4) NZM4(-4), N4(-4)	-	**NZM-XCM** 229413

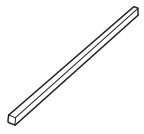
Std. pack	Note
1 off	• Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV..or undervoltage release NZM...-XU.. • Intermittent operation guaranteed by series connection of a make contact M22-(C)K10.. • The maximum duty factor of the shunt releases for mesh network circuit-breakers is 1 s. • NZM3: Early make of auxiliary contact on switching on and off (manual operation):approx. 20 ms. • NZM4: Early make of auxiliary contact on switching on (manual operation): approx. 90 ms.
1 off	
1 off	• Enables the reliable use of circuit-breakers as mesh network circuit-breakers in the range from 0-110% Un with constant switch-off time of 40ms • If the mains voltage is absent, the installed capacitor supplies power for actuating the shunt release for at least 12 hours. • Connect NZM-XCM to the power feed side Note on engineering: Connect a standard auxiliary contact (HIN) as N/O in series with the coil of the shunt release! Standard auxiliary contact not included as standard.

Door coupling rotary handles

Complete including rotary drive and coupling parts
An additional extension shaft is necessary with the NZM...-XT(V)D(V)(R)(-60) part numbers
Degree of protection IP66/UL/CSA type 4X

	For use with	Part no. Article no. when ordered separately	Std. pack	Note
Standard, black/grey				
 Lockable in 0 position on handle with up to 3 padlocks. With door interlock.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XTVD** 260166	1 off	**Door interlock** • Not defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)** • External warning plate/ designation label can be clipped on
	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XTVD** 260168	1 off	
	NZM3(-4), PN3(-4), N3(-4)	**NZM3-XTVD** 260170	1 off	
	NZM4(-4), N4(-4)	**NZM4-XTVD** 266614	1 off	
 Lockable on handle and switch with up to 3 padlocks. Can be locked in 0 position, with adequate modification also in I position. With door interlock. Lockable on switch in 0 position.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XTVDV** 260172	1 off	
	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XTVDV** 260174	1 off	
	NZM3(-4), PN3(-4), N3(-4)	**NZM3-XTVDV** 260176	1 off	
	NZM4(-4), N4(-4)	**NZM4-XTVDV** 266616	1 off	
Red-yellow for emergency witching off				
 Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XTVDVR** 260178	1 off	**Door interlock** • Not defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)** • External warning plate/ designation label can be clipped on
	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XTVDVR** 260180	1 off	
	NZM3(-4), PN3(-4), N3(-4)	**NZM3-XTVDVR** 260182	1 off	
	NZM4(-4), N4(-4)	**NZM4-XTVDVR** 266618	1 off	

Extension shaft



	For use with	Part no. Article no. when ordered separately	Std. pack	Note
400 mm max. mounting depth	NZM1(-4), PN 1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	**NZM 1/2-X V4** 261232	1 off	can be cut to required length.
	NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**NZM 3/4-X V4** 261234	1 off	
600 mm max. mounting depth	NZM1(-4), PN 1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	**NZM1/2-XV6** 260191	1 off	
	NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**NZM3/4-XV6** 260193	1 off	

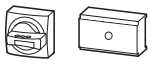
For maximum shaft length 60 mm **Part no.** Article no. when ordered separately	Std. pack	**Note**	Extremely narrow fittings **Part no.** Article no. when ordered separately	Std. pack	**Note**
NZM1-XTVD-60 271504	1 off	**Door interlock** • Can not be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)-60** • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/ designation label can be clipped on.	**NZM1 -XTVD-0** 279392	1 off	**Door interlock** • Can not be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)-0** • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/ designation label can be clipped on.
NZM2-XTVD-60 271505	1 off		**NZM2 -XTVD-0** 279393	1 off	
NZM3-XTVD-60 271506	1 off		**NZM3 -XTVD-0** 279394	1 off	
NZM4-XTVD-60 271507	1 off		**NZM4 -XTVD-0** 279395	1 off	
NZM1-XTVDV-60 271508	1 off		**NZM1-XTVDV-0** 279396	1 off	
NZM2-XTVDV-60 271509	1 off		**NZM2-XTVDV-0** 279397	1 off	
NZM3-XTVDV-60 271510	1 off		**NZM3-XTVDV-0** 279398	1 off	
NZM4-XTVDV-60 271511	1 off		**NZM4-XTVDV-0** 279399	1 off	
NZM1-XTVDVR-60 271512	1 off	**Door interlock** • Can not be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)-60** • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/ designation label can be clipped on.	**NZM1-XTVDVR-0** 279400	1 off	**Door interlock** • Can not be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF **NZM…-XTVD(V)-0** • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/ designation label can be clipped on.
NZM2-XTVDVR-60 271513	1 off		**NZM2-XTVDVR-0** 279401	1 off	
NZM3-XTVDVR-60 271514	1 off		**NZM3-XTVDVR-0** 279402	1 off	
NZM4-XTVDVR-60 271515	1 off		**NZM4-XTVDVR-0** 279403	1 off	

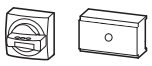
Door coupling rotary handles for North America

Difference to normal IEC handles:
Door opening only possible with active rotation beyond the 0 position.

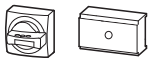
Door coupling rotary handles

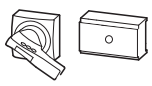
Complete including rotary drive and coupling parts
Extension shaft additionally required.
Degree of protection IP66/UL/CSA type 4X,



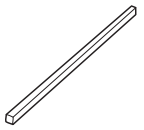


	For use with	Part no. Article no. when ordered separately	Std. pack	Note
Standard, black/grey				
Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1, N(S)1	**NZM1-XTVDV-NA** 100683	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/ designation label can be clipped on.
	NZM2, N(S)2	**NZM2-XTVDV-NA** 100684	1 off	
	NZM3, N(S)3	**NZM3-XTVDV-NA** 100685	1 off	
	NZM4, N(S)4	**NZM4-XTVDV-NA** 100686	1 off	





Red-yellow for emergency witching off				
Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1, N(S)1	**NZM1-XTVDVR-NA** 271449	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/ designation label can be clipped on.
	NZM2, N(S)2	**NZM2-XTVDVR-NA** 271450	1 off	
	NZM3, N(S)3	**NZM3-XTVDVR-NA** 271451	1 off	
	NZM4, N(S)4	**NZM4-XTVDVR-NA** 271452	1 off	



Extension shaft

	For use with	Part no. Article no. when ordered separately	Std. pack	Note
400 mm max. mounting depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV4** 261232	1 off	can be cut to required length.
	NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV4** 261234	1 off	
600 mm max. mounting depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV6** 260191	1 off	
	NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV6** 260193	1 off	

For maximum shaft length 60 mm **Part no.** Article no. when ordered separately	Std. pack	**Note**	Extremely narrow fittings **Part no.** Article no. when ordered separately	Std. pack	**Note**
NZM1-XTVDV-60-NA 100667	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. **NZM...-XTVDV-60-NA** • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVDV-0-NA** 100675	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on.
NZM2-XTVDV-60-NA 100668	1 off		**NZM2-XTVDV-0-NA** 100676	1 off	
NZM3-XTVDV-60-NA 100669	1 off		**NZM3-XTVDV-0-NA** 100677	1 off	
NZM4-XTVDV-60-NA 100670	1 off		**NZM4-XTVDV-0-NA** 100678	1 off	
NZM1-XTVDVR-60-NA 100671	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. **NZM...-XTVDV-60-NA** • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVDVR-0-NA** 100679	1 off	**Door interlock** • Can not be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. **NZM...-XTVDVR-0-NA** • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.
NZM2-XTVDVR-60-NA 100672	1 off		**NZM2-XTVDVR-0-NA** 100680	1 off	
NZM3-XTVDVR-60-NA 100673	1 off		**NZM3-XTVDVR-0-NA** 100681	1 off	
NZM4-XTVDVR-60-NA 100674	1 off		**NZM4-XTVDVR-0-NA** 100682	1 off	

Rotary handle on circuit-breaker

Complete with rotary drive

		For use with	**Part no.** Article no. when ordered separately	Std. pack	**Note**
	Standard, black/grey				
	Lockable in 0 position on switch with upto 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	**NZM1 -XDV** 260125	1 off	NZM1,2,3: Can also be combined with insulating surround
		NZM2(-4), PN2(-4), N2(-4)	**NZM2 -XDV** 260127	1 off	
		NZM3(-4), PN3(-4), N3(-4)	**NZM3-XDV** 260129	1 off	
		NZM4(-4), N4(-4)	**NZM4-XDV** 266608	1 off	
	Lockable in 0 position on switch with upto 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XDVG** 285247	1 off	NZM1,2,3: Can also be combined with insulating surround
		NZM2(-4), PN2(-4), N2(-4)	**NZM2-XDVG** 285248	1 off	
	Red-yellow for emergency witching off				
	Lockable in 0 position on switch with upto 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XDVR** 260135	1 off	NZM1,2,3: Can also be combined with insulating surround
		NZM2(-4), PN2(-4), N2(-4)	**NZM2-XDVR** 260137	1 off	
		NZM3(-4), PN3(-4), N3(-4)	**NZM3-XDVR** 260140	1 off	
		NZM4(-4), N4(-4)	**NZM4-XDVR** 266610	1 off	
	Lockable in 0 position on switch with upto 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XDVGR** 285249	1 off	NZM1,2,3: Can also be combined with insulating surround
		NZM2(-4), PN2(-4), N2(-4)	**NZM2-XDVGR** 285280	1 off	

Notes Circuit-breaker can also be installed in a lying position 90° left/right, with the handle still in the same position.

Rotary handles on switch with door interlock

Complete with rotary drive and insulating surround

	For use with	Part no. Article no. when ordered separately	Std. pack	Note
Standard, black/grey				
 Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. Also available with door interlock e.g. for MCC service distribution	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XDTV** 260131	1 off	**Door interlock** • In the ON position, can be defeatedfrom the outside using a 1 mm pin • Can not be defeated inthe locked OFF and ON positions • Door can be opened in OFF • Can onlybe switched ON when the door is closed
	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XDTV** 260133	1 off	
Red-yellow for emergency witching off				
 Lockable in 0 position on handle with up to 3 padlocks. Also availablewith door interlock e.g. for MCC service distribution	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XDTVR** 260142	1 off	
	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XDTVR** 260144	1 off	

Notes Circuit-breaker can also be installed in a lying position 90° left/right, with the handle still in the same position.

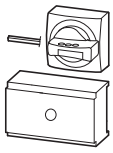
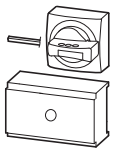
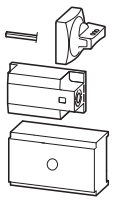
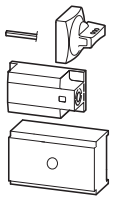
Rotary handles on switch with door interlock for UL/CSA approved NA switches

Differenceto normal IEC handles: Door opening only possible with active rotation beyond the 0 position.
Complete with rotary drive and insulating surround

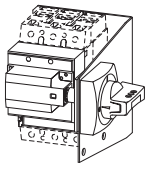
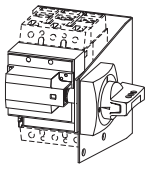
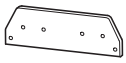
	For use with	Part no. Article no. when ordered separately	Std. pack	Note
Standard, black/grey				
 Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. Also available with door interlock e.g. for MCC service distribution	NZM 1 .N1	**NZM1-X DTV-NA** 271453	1 off	**Door interlock** • In the ON position, can be defeatedfrom the outside using a 1 mm pin • Can not be defeated inthe locked OFF and ON positions • Door opening only possible with active rotation beyond the 0 position. • Can onlybe switched ON when the door is closed • Cannot be combined with
	NZM 2. N2	**NZM2-X DTV-NA** 271454	1 off	
Red-yellow for emergency witching off				
 Lockable in 0 position on handle with up to 3 padlocks. Also availablewith door interlock e.g. for MCC service distribution	NZM 1 .N1	**NZM1-XDTVR-NA** 271455	1 off	
	NZM 2. N2	**NZM2-XDTVR-NA** 271456	1 off	

Notes Circuit-breaker can also be installed in a lying position 90° left/right, with the handle still in the same position.

Main switch assembly kit

		For use with	Part no. Article no. when ordered separately	Std. pack
Main switch assembly kit Equipment supplied: • Door coupling rotary handle • Extension shaft NZM...-XV4 • External warning plate/designation label in German/English • Black and yellowflash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered, see Page 95. Other external warning plates/designation labels can be clipped on.				
With black door coupling rotary handle				
 Lockable in 0 position on handle With door interlock.	-	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XHB** 266626	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XHB** 266627	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XHB** 266628	1 off
		NZM4(-4) N4(-4)	**NZM4-XHB** 271779	1 off
With red door coupling rotary handle for use of switch as emergency switching off device to IEC/EN 60204-1				
 Lockable in 0 position on handle With door interlock.	-	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XHBR** 266632	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XHBR** 266633	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XHBR** 266634	1 off
		NZM4(-4) N4(-4)	**NZM4-XHBR** 271842	1 off
Main switch assembly kit for side wall installation with mounting bracket. **For direct mounting of circuit-breaker and handle in the side wall of the control cabinet** Equipment supplied: • Door coupling rotary handle • Extension shaft NZM...-XV4 • External warning plate/designation label in German/English • Black and yellowflash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered, see Page 95. Other external warning plates/designation labels can be clipped on.				
Standard, black/grey				
 Lockable in 0 position with adequate modification also in I position.	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XS-L** 266641	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XS-L** 266642	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XS-L** 266643	1 off
		NZM4(-4) N4(-4)	**NZM4-XS-L** 289806	1 off
	For operation on the right	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XS-R** 266644	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XS-R** 266645	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XS-R** 266646	1 off
		NZM4(-4) N4(-4)	**NZM4-XS-R** 289807	1 off
Red-yellow for emergency switching off				
	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XSR-L** 266653	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSR-L** 266654	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XSR-L** 266655	1 off
		NZM4(-4) N4(-4)	**NZM4-XSR-L** 289808	1 off
	For operation on the right	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XSR-R** 266656	1 off
		NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSR-R** 266657	1 off
		NZM3(-4) PN3(-4), N3(-4)	**NZM3-XSR-R** 266658	1 off
		NZM4(-4) N4(-4)	**NZM4-XSR-R** 289809	1 off

Main switch assembly kit

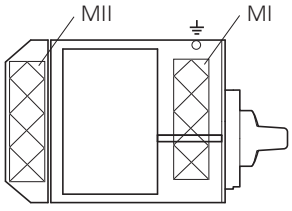
		For use with	Part no. Article no. when ordered separately	Std. pack
	Main switch assembly kit for side wall installation with mounting bracket. For direct mounting of circuit-breaker and handle in the side wall of the control cabinet Equipment supplied: • Door coupling rotary handle • Mounting bracket • Special short extension shaft • External warning plate/designation label in German/English • Black and yellowflash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered, see Page 95 Other external warning plates/designation labels can be clipped on.			
	Standard, black/grey			
	Lockable in 0 position with adequate modification also in I position. Minimum clearance between control panel side walls and circuit-breaker is defined by mounting bracket. Extension cannot be used	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XSM-L** 266663	1 off
		For operation on the left	NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSM-L** 266664	1 off
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XSM-R** 266665	1 off
		For operation on the right	NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSM-R** 266666	1 off
	Red-yellow for emergency switching off			
	Lockable in 0 position on handle. Minimum clearance between control panel side walls and circuit-breaker is defined by mounting bracket Extension cannot be used	For operation on the left	NZM 1(-4) PN1(-4), N1(-4)	**NZM1-XSRM-L** 266671	1 off
		For operation on the left	NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSRM-L** 266672	1 off
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XSRM-R** 266673	1 off
		For operation on the right	NZM2(-4) PN2(-4), N2(-4)	**NZM2-XSRM-R** 266674	1 off
	Additional plate For fitting to the mounting bracket when using neutral conductor or PE conductor terminals K25 K50 k95 or K150.			
	-	-	NZM 1(-4) PN1(-4), N1(-4) NZM2(-4) PN2(-4), N2(-4)	**NZM1 /2-XZB** 266676	1 off

Additional terminal arrangement for side wall operator with mounting bracket
NZM1-XS(R)M-..., NZM2-XS(R)M-...
Additional terminals K25, K50, K95, K150

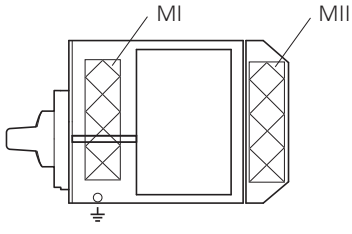
Actuation:

3 pole

For operation on the right

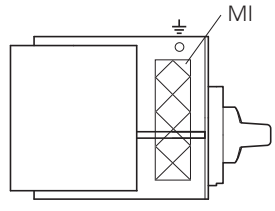


For operation on the left

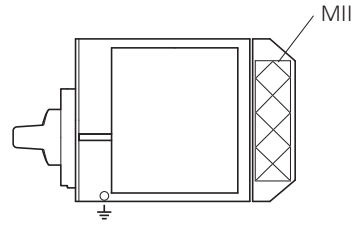


4 pole

For operation on the right



For operation on the left



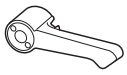
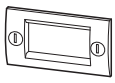
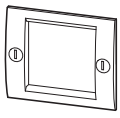
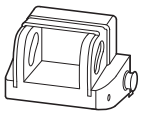
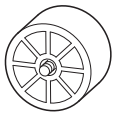
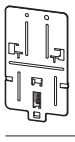
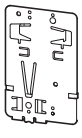
Mounting areas		MI				MII	
Variation options		V1	V2	V3	V4	V1	V2
Maximum number of additional terminal	K25	2 ×	–	–	–	–	–
	K50	–	2 ×	–	–	–	–
	K95	–	–	1 ×	–	1 ×	–
	K150	–	–	–	1 ×	–	1 ×

Example: In mounting area MI, variation option 1 allows the K25 additional terminal to be mounted twice

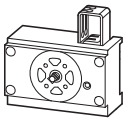
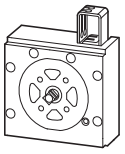
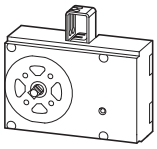
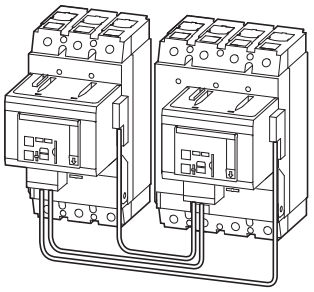
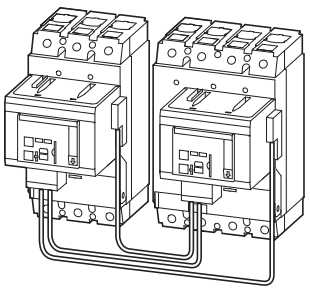
Accessories

	For use with	Part no. Article no. when ordered separately	Std. pack	Note
External warning plate/designation label Main switch-open in 0 position				
German/English	NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4) NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**ZFS61/62-NZM7** 272525	10 off	A bilingual external warning plate/designation label in German/English is already included in the main switch assembly kit
German		**ZFS61-NZM7** 051089	10 off	
English		**ZFS62-NZM7** 065957	10 off	
French		**ZFS63-NZM7** 065958	10 off	
Blank (for engraving or printing)		**ZFS60-NZM7** 065896	10 off	External warning plates are available in the following languages: 64 Bulgarian, 65 Danish, 66 Finnish, 67 Dutch, 68 Italian, 69 Greek, 70 Norwegian, 71 Polish, 72 Portuguese, 73 Romanian, 74 Russian, 75 Swedish, 76 Serbo-Croatian, 77 Spanish, 78 Czech, 79 Turkish, 80 Hungarian, 81 Afrikaans, 82 Chinese/English, 83 Chinese. To obtain the order number, insert the language code number into the part number required. **Ordering example** External warning plate in Finnish: ZFS66-NZM7
Further languages		**ZFS*-NZM7** 999978	10 off	
Lightning symbol Including terminal marking for main switch				
small  	NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	**BPF-NZM7** 217294	10 off	Included as standard in main switch assembly kit
large  	NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**BPF-NZM10** 231363	10 off	Included as standard in main switch assembly kit

Accessories

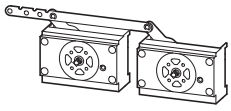
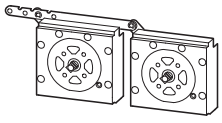
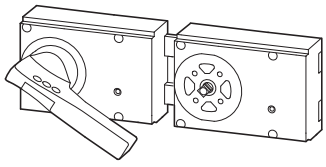
For use with	Part no. Article no. when ordered separately	Std. pack	Note
Additional handle Enables switching when control panel door is open			
 NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	**NZM1/2-XDZ** 266621	1 off	• Push-fits on to the extension shaft. • 100 mm free extension shaft required
 NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**NZM3/4-XDZ** 266622	1 off	
Insulating surround For toggle levers, rotary handles with rotary drive and remote operators			
 NZM1(-4) PN12(-4), N1(-4)	**NZM1 -XBR** 260195	1 off	• For rectangular cut-out on doors and enclosures with material thicknesses of 1.5-5mm • External warning plate/designation label can be clipped on. • NZM4-XBR can not be combined with rotary handle with rotary mechanism.
 NZM2(-4) PN2(-4), N2(-4)	**NZM2-XBR** 260197	1 off	
NZM3(- 4) PN3(-4), N3(-4)	**NZM3-XBR** 284645	1 off	
NZM4(-4) N4(-4)	**NZM4-XBR** 284646	1 off	
 **Toggle lever locking device** Lockable in Off position with up to three padlocks (haspthickness 4 – 8 mm)			
NZM1(-4) PN12(-4), N1(-4)	**NZM1-XKAV** 260199	1 off	Cannot be combined with insulating surround
NZM2(-4), PN2(-4), N2(-4) NZM3(-4), PN3(-4), N3(-4)	**NZM2/3-XKAV** 260201	1 off	
Spacers Enables fast and attractively priced offsetting of varying construction sizeswith/without rotary handle or remote operatortothe samefrontdepth			
 NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	**NZM1/2-XAB** 260203	1 set	• Grid depth 17.5 mm, M4 thread • One set contains 4 spacers • Maximum componentfitting: NZM1: 4 off perfixing screw, NZM2: 2 off perfixing screw, 2(NZM1) or 4(NZM2) fixing screws contained per switch
 NZM3(-4) PN3(-4), N3(-4) NZM4(-4) N4(-4)	**NZM3-XAB** 260211	1 set	• Grid depth 17.5 mm, M5 thread • One set contains 4 spacers NZM1: 1 off perfixing screw 4 fixing screws per switch included
Clips Allows switches to be clipped orrto DIN rails			
 NZM1(-4) PN1(-4) N1(-4)	**NZM1-XC35** 260213	1 off	For 35 mm top-hat rails
 NZM2 PN2 N2	**NZM2 -XC75** 260215	1 off	• For 75 mm top-hat rails • Not in combination with remote operator

Mechanical interlock

For use with	Part no. Article no. when ordered separately	Std. pack	Note
Mechanical interlock for (door coupling) rotary handles			
 NZM1(-4) PN1(-4), N1(-4)	**NZM1-XMV** 281581	1 off	• Rotary handles on switches or door coupling rotary handles are additionally required. • Cannot be combined with paralleling mechanisms, side wall operators and remote operator as well as NZM4-XBR insulating surrounds. • In order to establish a mechanical interlock at least 2 interlock modules are required. • Possible combinations and interlock variants, see "Installation design". • Order Bowden cable separately
 NZM2(-4) PN2(-4), N2(-4)	**NZM2-XMV** 281582	1 off	
 NZM3(-4) PN3(-4), N3(-4)	**NZM3-XMV** 281583	1 off	
NZM4(-4) PN4(-4), N4(-4)	**NZM4-XMV** 281584	1 off	
Bowden cables For mechanical interlock for (door coupling) rotary handles			
 NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4) NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	**NZM-XBZ225** 281585	1 off	-
	NZM-XBZ600 281586	1 off	-
	NZM-XBZ1000 281587	1 off	-
Mechanical interlock for remote operator			
For 2 switches of the same or different construction size with opposed operation. Adjacent mounting			
 NZM2(-4), N2(-4) +NZM2(-4), N2(-4)	**NZM2-XMVR** 104543	1 off	• Type contains parts for both switches. • Remote operator also required. • Maximum switching distance, see "Installation design". • Cannot be combined with rotary handles, door coupling rotary handles and early-make auxiliary contacts.
NZM2(-4), N2(-4) +NZM3(-4), N3(-4)	**NZM2/3-XMVR** 104544	1 off	
NZM3(-4), N3(-4) +NZM3(-4), N3(-4)	**NZM3-XMVR** 104545	1 off	
NZM3(-4), N3(-4) +NZM4(-4), N4(-4)	**NZM3 /4-XMVR** 104546	1 off	
NZM4(-4), N4(-4) +NZM4(-4), N4(-4)	**NZM4-XMVR** 104547	1 off	
For 2 switches of the same or different construction size with opposed operation. Extra long Bowden cable for mounting one above the other or in adjacent enclosures.			
 NZM2(-4), N2(-4) +NZM2(-4), N2(-4)	**NZM2-XMVRL** 104548	1 off	• Type contains parts for both switches. • Remote operator also required. • Maximum switching distance, see "Installation design". • Cannot be combined with rotary handles, door coupling rotary handles and early-make auxiliary contacts.
NZM2(-4), N2(-4) +NZM3(-4), N3(-4)	**NZM2/3-XMVRL** 104549	1 off	
NZM3(-4), N3(-4) +NZM3(-4), N3(-4)	**NZM3-XMVRL** 104550	1 off	
NZM3(-4), N3(-4) +NZM4(-4), N4(-4)	**NZM3/4-XMVRL** 104551	1 off	
NZM4(-4), N4(-4) +NZM4(-4), N4(-4)	**NZM4-XMVRL** 104552	1 off	

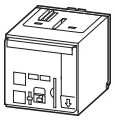
Paralleling mechanism

Simultaneous actuation of 2 PN switch-disconnectors of the same type mounted side-by-side.

	For use with	**Part no.** Article no. when ordered separately	Std. pack	**Note**
	PN1(-4)+PN1(-4)	**PN1-XPA** 283471	1 off	**PN1, PN2** • 1 × rotary handle on switch (-XD) supplied. • 1 × door coupling rotary handle (-XTVD) supplied.
	PN2(-4)+PN2(-4)	**PN2-XPA** 283472	1 off	
	PN3(-4)+PN3(-4)	**PN3-XPA** 283473	1 off	**PN3** • 1 × rotary handle on switch (not lockable) supplied. • 1 × door coupling rotary handle (not lockable) supplied. • Not suitable for use as a main switch

Remote operators

For remote switching of circuit-breakers and switch-disconnect
ON and OFF switching and resetting by means of two-wire or three-wire control
Local switching by hand possible.
Lockable in the 0 position of the remote operator with up to 3 padlocks (hasp thickness: 4-8 mm)



For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	Std. pack
NZM2(-4) N2(-4)	110-130 V 50/60 Hz	**NZM2-XRD110-130AC** 115390	1 off
	208-240 V 50/60 Hz	**NZM2-XRD208-240AC** 115391	1 off
	380-440 V 50/60 Hz	**NZM2-XRD380-440AC** 115392	1 off
	24-30 V DC	**NZM2-XRD24-30DC** 115393	1 off
	110-130VDC	**NZM2-XRD110-130DC** 115394	1 off
	220-250 V DC	**NZM2-XRD220-250DC** 115395	1 off
NZM3(-4) N3(-4)	110-130 V 50/60 Hz	**NZM3-XR110-130AC** 259848	1 off
	208-240 V 50/60 Hz	**NZM3 -XR208-240AC** 259850	1 off
	380-440 V 50/60 Hz	**NZM3 -XR380-440AC** 259852	1 off
	24-30 V DC	**NZM3-XR24-30DC** 259854	1 off
	110-130VDC	**NZM3-XR110-130 DC** 259858	1 off
	220-250 V DC	**NZM3-XR220-250 DC** 259860	1 off
NZM4(-4) N4(-4)	110-130 V 50/60 Hz	**NZM4-XR110-130AC** 266684	1 off
	208-240 V 50/60 Hz	**NZM4-XR208-240AC** 266685	1 off
	380-440 V 50/60 Hz	**NZM4 -XR380-440AC**[1)] 266686	1 off
	24-30 V DC	**NZM4-XR24-30DC** 266691	1 off
	110-130VDC	**NZM4-XR110-130 DC** 266693	1 off
	220-250 V DC	**NZM4-XR220-250 DC** 266694	1 off

–

Cover for 4th pole
Additional shroud for mounting the NZM2-XR... and NZM3-XR... on a 4 pole switch

NZM3-4 N3-4	**NZM2-XAVPR** 266677	1 off
NZM3-4 N3-4	**NZM3-XAVPR** 266678	1 off

Notes 1) NOT UL/CSA approved

Note

Sliding switch for "Auto" or "Manual"

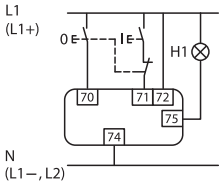
Max. number auxiliary contacts:

- Standard auxiliary contacts: 2
- Trip-indicating auxiliary contact: 1

Cannot be combined with switch-disconnector PN...

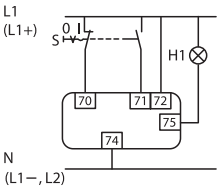
Cannot be combined with mechanical interlock

Three-wire control



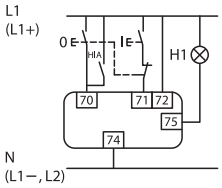
Terminal 70/71:
NZM-XR:Contact loading according to technical data
NZM-XRD:Full current flows though the contact during make and break! RMQ series contact elements can be used for the remote operators .NZM2(3.4)-XR(D)...

Three-wire control



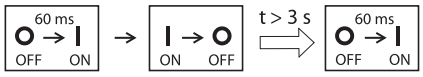
Terminal 75:
NZM-XR:Operational readiness signal when over closed and not locked
NZM2-XRD: Operational readiness signal when sliding switch set to Auto.
Sliding switch with three positions:Manual/Auto/Locked for reliable differentiation of operating positions.
AC-15: 400 V; 2 A
DC-13: 220V; 0.2 A

Three-wire control with automatic reset to the 0 position after the switch has tripped

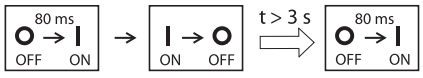


Switching cycle:

NZM2-XR



NZM3-XR



NZM4-XR

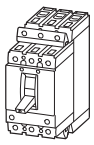
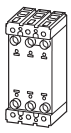
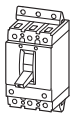
NZM2-XRD

NZM2-XRD

The time interval between OFF and ON is 3 seconds.
ON commands received during the time interval are ignored within the first 3 seconds after switch off.

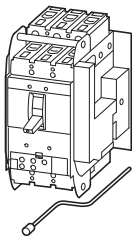
Plug-in units

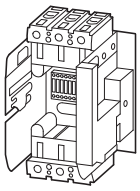
For circuit-breakers NZM and switch-disconnectors N

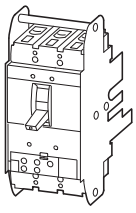
For use with 3P, 4P	Number of poles	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	**Note**
 **Complete plug-in set** Only order with breaker				
NZM1	3 pole	**+NZM1-XSV**		NZM1: I_{nmax}:125A Mounting position: Mounting position: vertical, 90° right, 90° left Only apply for-A,-S trip unit NZM2: I_{nmax} at: • 20°C: 250 A • 40°C: 230 A (NZM…2-…) 250 A (NZM…2-E…)
NZM2 N2	3 pole	**+NZM2-XSV**		
NZM2-4 N2-4	4 pole	**+NZM2-4-XSV**		
		+NZM3-XSV		
		+NZM3-4-XSV		
 **Plug-in socket**				
NZM1	3 pole		**NZM1-XSVS** 109777	Mounting position: Vertical, 90° right, 90° left Order control circuit plug unit separately!
NZM2 N2	3 pole		**NZM2-XSVS** 266699	
NZM2-4 N2-4	4 pole		**NZM2-4-XSVS** 266700	
			NZM3-XSVS 168472	
			NZM3-4-XSVS 168473	
 **Plug-in accessory** Only order with breaker				
NZM1	3 pole	**+NZM1-XSVE**		
NZM2 N2	3 pole	**+NZM 2-XSVE**		
NZM2-4 N2-4	4 pole	**+NZM2-4-XSVE**		
		+NZM3-XSVE		
		+NZM3-4-XSVE		
 **Control circuit plug unit**				
NZM2-4 N2-4	For auxiliary contact, shunt/overvoltage release		**NZM2-XSVHI** 266705	-
NZM2-4 N2-4	For remote operator		**NZM2-X SVR** 266706	-

withdrawable unit with control circuit plug unit

For circuit-breakers NZM and switch-disconnectors N
Not UL/CSA approved







For use with 3P, 4P	Number of poles	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
Complete withdrawable set Only order with breaker					
NZM3 N3	3 pole	**+NZM3-XAV**		1 off	I_{nmax} at: 20 °C: 605 A (NZM3), 1600 A (NZM4) 40 °C: 550 A (NZM3), 1500 A (NZM4)
NZM3-4 N3-4	4 pole	**+NZM3-4-XAV**		1 off	
NZM4 N4	3 pole	**+NZM4-XAV**		1 off	Mounting position: NZM3: vertical, 90° left NZM4: vertica
NZM4-4 N4-4	4 pole	**+NZM4-4-XAV**		1 off	3 positions: Connected, test, disconnected Position indication is mechanical with pointers.
Socket base					
NZM3 N3	3 pole		**NZM3-XAVS** 266711	1 off	Additional electrical indication with auxiliary contacts possible. One N/O or NC contact M22-(C)K01 or M22-(C)K10 each per position. Alternatively also double contacts M22-CK Please refer to RMQ-Titan
NZM3-4 N3-4	4 pole		**NZM3-4-XAVS** 266712	1 off	
NZM4 N4	3 pole		**NZM4-XAVS** 266713	1 off	
NZM4-4 N4-4	4 pole		**NZM4-4-XAVS** 266714	1 off	All auxiliary contact (HIA, HIN, HIV) and shunt release connections to the control circuit plug unit are already present.
Withdrawable carrier					
NZM3 N3	3 pole	**+NZM3-XAVE**		1 off	Cannot be combined with adapter set NZM4/NZM14 (NZM4-XSAS14-...) or N(ZM)4/N(ZM)12.
NZM3-4 N3-4	4 pole	**+NZM3-4-XAVE**		1 off	
NZM4 N4	3 pole	**+NZM4-XAVE**		1 off	
NZM4-4 N4-4	4 pole	**+NZM4-4-XAVE**		1 off	

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM1					
3 pole	20	25	NZMB1-A20+NZM1-XSVE	**NZMB1-A20-E** 148154	1 off
	25	25	NZMB1-A25+NZM1-XSVE	**NZMB1-A25-E** 148155	1 off
	32	25	NZMB1-A32+NZM1-XSVE	**NZMB1-A32-E** 148156	1 off
	40	25	NZMB1-A40+NZM1-XSVE	**NZMB1-A40-E** 148157	1 off
	50	25	NZMB1-A50+NZM1-XSVE	**NZMB1-A50-E** 148158	1 off
	63	25	NZMB1-A63+NZM1-XSVE	**NZMB1-A63-E** 148159	1 off
	80	25	NZMB1-A80+NZM1-XSVE	**NZMB1-A80-E** 148160	1 off
	100	25	NZMB1-A100+NZM1-XSVE	**NZMB1-A100-E** 148161	1 off
	125	25	NZMB1-A125+NZM1-XSVE	**NZMB1-A125-E** 148162	1 off
	20	36	NZMC1-A20+NZM1-XSVE	**NZMC1-A20-E** 148173	1 off
	25	36	NZMC1-A25+NZM1-XSVE	**NZMC1-A25-E** 148174	1 off
	32	36	NZMC1-A32+NZM1-XSVE	**NZMC1-A32-E** 148175	1 off
	40	36	NZMC1-A40+NZM1-XSVE	**NZMC1-A40-E** 148176	1 off
	50	36	NZMC1-A50+NZM1-XSVE	**NZMC1-A50-E** 148177	1 off
	63	36	NZMC1-A63+NZM1-XSVE	**NZMC1-A63-E** 148178	1 off
	80	36	NZMC1-A80+NZM1-XSVE	**NZMC1-A80-E** 148179	1 off
	100	36	NZMC1-A100+NZM1-XSVE	**NZMC1-A100-E** 148180	1 off
	125	36	NZMC1-A125+NZM1-XSVE	**NZMC1-A125-E** 148181	1 off
	20	50	NZMN1-A20+NZM1-XSVE	**NZMN1-A20-E** 148192	1 off
	25	50	NZMN1-A25+NZM1-XSVE	**NZMN1-A25-E** 148193	1 off
	32	50	NZMN1-A32+NZM1-XSVE	**NZMN1-A32-E** 148194	1 off
	40	50	NZMN1-A40+NZM1-XSVE	**NZMN1-A40-E** 148195	1 off
	50	50	NZMN1-A50+NZM1-XSVE	**NZMN1-A50-E** 148196	1 off
	63	50	NZMN1-A63+NZM1-XSVE	**NZMN1-A63-E** 148197	1 off
	80	50	NZMN1-A80+NZM1-XSVE	**NZMN1-A80-E** 148198	1 off
	100	50	NZMN1-A100+NZM1-XSVE	**NZMN1-A100-E** 148199	1 off
	125	50	NZMN1-A125+NZM1-XSVE	**NZMN1-A125-E** 148200	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM1					
3 pole	20	70	NZMS1-A20+NZM1-XSVE	**NZMS1-A20-E** 148211	1 off
	25	70	NZMS1-A25+NZM1-XSVE	**NZMS1-A25-E** 148212	1 off
	32	70	NZMS1-A32+NZM1-XSVE	**NZMS1-A32-E** 148213	1 off
	40	70	NZMS1-A40+NZM1-XSVE	**NZMS1-A40-E** 148214	1 off
	50	70	NZMS1-A50+NZM1-XSVE	**NZMS1-A50-E** 148215	1 off
	63	70	NZMS1-A63+NZM1-XSVE	**NZMS1-A63-E** 148216	1 off
	80	70	NZMS1-A80+NZM1-XSVE	**NZMS1-A80-E** 148217	1 off
	100	70	NZMS1-A100+NZM1-XSVE	**NZMS1-A100-E** 148218	1 off
	125	70	NZMS1-A125+NZM1-XSVE	**NZMS1-A125-E** 148219	1 off
	20	100	NZMH1-A20+NZM1-XSVE	**NZMH1-A20-E** 148225	1 off
	25	100	NZMH1-A25+NZM1-XSVE	**NZMH1-A25-E** 148226	1 off
	32	100	NZMH1-A32+NZM1-XSVE	**NZMH1-A32-E** 148227	1 off
	40	100	NZMH1-A40+NZM1-XSVE	**NZMH1-A40-E** 148228	1 off
	50	100	NZMH1-A50+NZM1-XSVE	**NZMH1-A50-E** 148229	1 off
	63	100	NZMH1-A63+NZM1-XSVE	**NZMH1-A63-E** 148230	1 off
	80	100	NZMH1-A80+NZM1-XSVE	**NZMH1-A80-E** 148231	1 off
	100	100	NZMH1-A100+NZM1-XSVE	**NZMH1-A100-E** 148232	1 off
	125	100	NZMH1-A125+NZM1-XSVE	**NZMH1-A125-E** 148233	1 off
NZM2					
3 pole	125	25	NZMB2-A125+NZM2-XSVE	**NZMB2-A125-E** 148247	1 off
	160	25	NZMB2-A160+NZM2-XSVE	**NZMB2-A160-E** 148248	1 off
	200	25	NZMB2-A200+NZM2-XSVE	**NZMB2-A200-E** 148249	1 off
	250	25	NZMB2-A250+NZM2-XSVE	**NZMB2-A250-E** 148250	1 off
	125	36	NZMC2-A125+NZM2-XSVE	**NZMC2-A125-E** 148264	1 off
	160	36	NZMC2-A160+NZM2-XSVE	**NZMC2-A160-E** 148265	1 off
	200	36	NZMC2-A200+NZM2-XSVE	**NZMC2-A200-E** 148266	1 off
	250	36	NZMC2-A250+NZM2-XSVE	**NZMC2-A250-E** 148267	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
3 pole	125	50	NZMN2-A125+NZM2-XSVE	**NZMN2-A125-E** 148281	1 off
	160	50	NZMN2-A160+NZM2-XSVE	**NZMN2-A160-E** 148282	1 off
	200	50	NZMN2-A200+NZM2-XSVE	**NZMN2-A200-E** 148283	1 off
	250	50	NZMN2-A250+NZM2-XSVE	**NZMN2-A250-E** 148284	1 off
	40	70	NZMS2-A40+NZM2-XSVE	**NZMS2-A40-E** 148309	1 off
	50	70	NZMS2-A50+NZM2-XSVE	**NZMS2-A50-E** 148310	1 off
	63	70	NZMS2-A63+NZM2-XSVE	**NZMS2-A63-E** 148311	1 off
	80	70	NZMS2-A80+NZM2-XSVE	**NZMS2-A80-E** 148312	1 off
	100	70	NZMS2-A100+NZM2-XSVE	**NZMS2-A100-E** 148313	1 off
	125	70	NZMS2-A125+NZM2-XSVE	**NZMS2-A125-E** 148314	1 off
	160	70	NZMS2-A160+NZM2-XSVE	**NZMS2-A160-E** 148315	1 off
	200	70	NZMS2-A200+NZM2-XSVE	**NZMS2-A200-E** 148316	1 off
	250	70	NZMS2-A250+NZM2-XSVE	**NZMS2-A250-E** 148317	1 off
	20	150	NZMH2-A20+NZM2-XSVE	**NZMH2-A20-E** 148350	1 off
	25	150	NZMH2-A25+NZM2-XSVE	**NZMH2-A25-E** 148351	1 off
	32	150	NZMH2-A32+NZM2-XSVE	**NZMH2-A32-E** 148352	1 off
	40	150	NZMH2-A40+NZM2-XSVE	**NZMH2-A40-E** 148353	1 off
	50	150	NZMH2-A50+NZM2-XSVE	**NZMH2-A50-E** 148354	1 off
	63	150	NZMH2-A63+NZM2-XSVE	**NZMH2-A63-E** 148355	1 off
	80	150	NZMH2-A80+NZM2-XSVE	**NZMH2-A80-E** 148356	1 off
	100	150	NZMH2-A100+NZM2-XSVE	**NZMH2-100-E** 148357	1 off
	125	150	NZMH2-A125+NZM2-XSVE	**NZMH2-A125-E** 148358	1 off
	160	150	NZMH2-A160+NZM2-XSVE	**NZMH2-A160-E** 148359	1 off
	200	150	NZMH2-A200+NZM2-XSVE	**NZMH2-A200-E** 148360	1 off
	250	150	NZMH2-A250+NZM2-XSVE	**NZMH2-A250-E** 148361	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
4 pole	125	25	NZMB2-4-A125+NZM2-4-XSVE	**NZMB2-4-A125-E** 148257	1 off
	160	25	NZMB2-4-A160+NZM2-4-XSVE	**NZMB2-4-A160-E** 148258	1 off
	200	25	NZMB2-4-A200+NZM2-4-XSVE	**NZMB2-4-A200-E** 148260	1 off
	250	25	NZMB2-4-A250+NZM2-4-XSVE	**NZMB2-4-A250-E** 148262	1 off
	125	36	NZMC2-4-A125+NZM2-4-XSVE	**NZMC2-4-A125-E** 148274	1 off
	160	36	NZMC2-4-A160+NZM2-4-XSVE	**NZMC2-4-A160-E** 148275	1 off
	200	36	NZMC2-4-A200+NZM2-4-XSVE	**NZMC2-4-A200-E** 148277	1 off
	250	36	NZMC2-4-A250+NZM2-4-XSVE	**NZMC2-4-A250-E** 148279	1 off
	125	50	NZMN2-4-A125+NZM2-4-XSVE	**NZMN2-4-A125-E** 148297	1 off
	160	50	NZMN2-4-A160+NZM2-4-XSVE	**NZMN2-4-A160-E** 148298	1 off
	200	50	NZMN2-4-A200+NZM2-4-XSVE	**NZMN2-4-A200-E** 148300	1 off
	250	50	NZMN2-4-A250+NZM2-4-XSVE	**NZMN2-4-A250-E** 148302	1 off
	125	50	NZMS2-4-A125+NZM2-4-XSVE	**NZMS2-4-A125-E** 148338	1 off
	160	50	NZMS2-4-A160+NZM2-4-XSVE	**NZMS2-4-A160-E** 148339	1 off
	200	50	NZMS2-4-A200+NZM2-4-XSVE	**NZMS2-4-A200-E** 148341	1 off
	250	50	NZMS2-4-A250+NZM2-4-XSVE	**NZMS2-4-A250-E** 148343	1 off
	20	150	NZMH2-4-A20+NZM2-4-XSVE	**NZMH2-4-A20-E** 148387	1 off
	25	150	NZMH2-4-A25+NZM2-4-XSVE	**NZMH2-4-A25-E** 148388	1 off
	32	150	NZMH2-4-A32+NZM2-4-XSVE	**NZMH2-4-A32-E** 148389	1 off
	40	150	NZMH2-4-A40+NZM2-4-XSVE	**NZMH2-4-A40-E** 148390	1 off
	50	150	NZMH2-4-A50+NZM2-4-XSVE	**NZMH2-4-A50-E** 148391	1 off
	63	150	NZMH2-4-A63+NZM2-4-XSVE	**NZMH2-4-A63-E** 148392	1 off
	80	150	NZMH2-4-A80+NZM2-4-XSVE	**NZMH2-4-A80-E** 148393	1 off
	100	150	NZMH2-4-A100+NZM2-4-XSVE	**NZMH2-4-A100-E** 148394	1 off
	125	150	NZMH2-4-A125+NZM2-4-XSVE	**NZMH2-4-A125-E** 148395	1 off
	160	150	NZMH2-4-A160+NZM2-4-XSVE	**NZMH2-4-A160-E** 148396	1 off
	200	150	NZMH2-4-A200+NZM2-4-XSVE	**NZMH2-4-A200-E** 148398	1 off
	250	150	NZMH2-4-A250+NZM2-4-XSVE	**NZMH2-4-A250-E** 148400	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	320	36	NZMC3-A320+NZM3-XAVE	**NZMC3-A320-E** 148413	1 off
	400	36	NZMC3-A400+NZM3-XAVE	**NZMC3-A400-E** 148414	1 off
	500	36	NZMC3-A500+NZM3-XAVE	**NZMC3-A500-E** 148415	1 off
	320	50	NZMN3-A320+NZM3-XAVE	**NZMN3-A320-E** 148427	1 off
	400	50	NZMN3-A400+NZM3-XAVE	**NZMN3-A400-E** 148428	1 off
	500	50	NZMN3-A500+NZM3-XAVE	**NZMN3-A500-E** 148429	1 off
	320	85	NZMH3-A320+NZM3-XAVE	**NZMH3-A320-E** 148464	1 off
	400	85	NZMH3-A400+NZM3-XAVE	**NZMH3-A400-E** 148465	1 off
	500	85	NZMH3-A500+NZM3-XAVE	**NZMH3-A500-E** 148466	1 off
4 pole	320	36	NZMC3-4-A320+NZM3-XAVE	**NZMC3-4-A320-E** 148420	1 off
	400	36	NZMC3-4-A400+NZM3-XAVE	**NZMC3-4-A400-E** 148422	1 off
	500	36	NZMC3-4-A500+NZM3-XAVE	**NZMC3-4-A500-E** 148424	1 off
	320	50	NZMN3-4-A320+NZM3-XAVE	**NZMN3-4-A320-E** 148440	1 off
	400	50	NZMN3-4-A400+NZM3-XAVE	**NZMN3-4-A400-E** 148442	1 off
	500	50	NZMN3-4-A500+NZM3-XAVE	**NZMN3-4-A500-E** 148444	1 off
	320	85	NZMH3-4-A320+NZM3-XAVE	**NZMH3-4-A320-E** 148478	1 off
	400	85	NZMH3-4-A400+NZM3-XAVE	**NZMH3-4-A400-E** 148480	1 off
	500	85	NZMH3-4-A500+NZM3-XAVE	**NZMH3-4-A500-E** 148482	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	320	36	NZMC3-A320+NZM3-XSVE	**NZMC3-A320-S** 168457	1 off
	400	36	NZMC3-A400+NZM3-XSVE	**NZMC3-A400-S** 168458	1 off
	500	36	NZMC3-A500+NZM3-XSVE	**NZMC3-A500-S** 168459	1 off
	320	50	NZMN3-A320+NZM3-XSVE	**NZMN3-A320-S** 168493	1 off
	400	50	NZMN3-A400+NZM3-XSVE	**NZMN3-A400-S** 168494	1 off
	500	50	NZMN3-A500+NZM3-XSVE	**NZMN3-A500-S** 168495	1 off
4 pole	320	36	NZMC3-4-A320+NZM3-XSVE	**NZMC3-4-A320-S** 168474	1 off
	400	36	NZMC3-4-A400+NZM3-XSVE	**NZMC3-4-A400-S** 168476	1 off
	500	36	NZMC3-4-A500+NZM3-XSVE	**NZMC3-4-A500-S** 168478	1 off
	320	50	NZMN3-4-A320+NZM3-XSVE	**NZMN3-4-A320-S** 168516	1 off
	400	50	NZMN3-4-A400+NZM3-XSVE	**NZMN3-4-A400-S** 168518	1 off
	500	50	NZMN3-4-A500+NZM3-XSVE	**NZMN3-4-A500-S** 168520	1 off
	500	50	NZMN3-4-A500R+NZM3-XSVE	**NZMN3-4-A500R-S** 168521	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM1					
3 pole	40	25	NZMB1-S40+NZM1-XSVE	**NZMB1-S40-E** 148163	1 off
	50	25	NZMB1-S50+NZM1-XSVE	**NZMB1-S50-E** 148164	1 off
	63	25	NZMB1-S63+NZM1-XSVE	**NZMB1-S63-E** 148165	1 off
	80	25	NZMB1-S80+NZM1-XSVE	**NZMB1-S80-E** 148166	1 off
	100	25	NZMB1-S100+NZM1-XSVE	**NZMB1-S100-E** 148167	1 off
	40	36	NZMC1-S40+NZM1-XSVE	**NZMC1-S40-E** 148182	1 off
	50	36	NZMC1-S50+NZM1-XSVE	**NZMC1-S50-E** 148183	1 off
	63	36	NZMC1-S63+NZM1-XSVE	**NZMC1-S63-E** 148184	1 off
	80	36	NZMC1-S80+NZM1-XSVE	**NZMC1-S80-E** 148185	1 off
	100	36	NZMC1-S100+NZM1-XSVE	**NZMC1-S100-E** 148186	1 off
	40	50	NZMN1-S40+NZM1-XSVE	**NZMN1-S40-E** 148201	1 off
	50	50	NZMN1-S50+NZM1-XSVE	**NZMN1-S50-E** 148202	1 off
	63	50	NZMN1-S63+NZM1-XSVE	**NZMN1-S63-E** 148203	1 off
	80	50	NZMN1-S80+NZM1-XSVE	**NZMN1-S80-E** 148204	1 off
	100	50	NZMN1-S100+NZM1-XSVE	**NZMN1-S100-E** 148205	1 off
	40	70	NZMS1-S40+NZM1-XSVE	**NZMS1-S40-E** 148220	1 off
	50	70	NZMS1-S50+NZM1-XSVE	**NZMS1-S50-E** 148221	1 off
	63	70	NZMS1-S63+NZM1-XSVE	**NZMS1-S63-E** 148222	1 off
	80	70	NZMS1-S80+NZM1-XSVE	**NZMS1-S80-E** 148223	1 off
	100	70	NZMS1-S100+NZM1-XSVE	**NZMS1-S100-E** 148224	1 off
	40	100	NZMH1-S40+NZM1-XSVE	**NZMH1-S40-E** 148234	1 off
	50	100	NZMH1-S50+NZM1-XSVE	**NZMH1-S50-E** 148235	1 off
	63	100	NZMH1-S63+NZM1-XSVE	**NZMH1-S63-E** 148236	1 off
	80	100	NZMH1-S80+NZM1-XSVE	**NZMH1-S80-E** 148237	1 off
	100	100	NZMH1-S100+NZM1-XSVE	**NZMH1-S100-E** 148238	1 off
NZM2					
3 pole	125	25	NZMB2-S125+NZM2-XSVE	**NZMB2-S125-E** 148251	1 off
	160	25	NZMB2-S160+NZM2-XSVE	**NZMB2-S160-E** 148252	1 off
	200	25	NZMB2-S200+NZM2-XSVE	**NZMB2-S200-E** 148253	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
3 pole	125	36	NZMC2-S125+NZM2-XSVE	**NZMC2-S125-E** 148268	1 off
	160	36	NZMC2-S160+NZM2-XSVE	**NZMC2-S160-E** 148269	1 off
	200	36	NZMC2-S200+NZM2-XSVE	**NZMC2-S200-E** 148270	1 off
	125	50	NZMN2-S125+NZM2-XSVE	**NZMN2-S125-E** 148285	1 off
	160	50	NZMN2-S160+NZM2-XSVE	**NZMN2-S160-E** 148286	1 off
	200	50	NZMN2-S200+NZM2-XSVE	**NZMN2-S200-E** 148287	1 off
	125	70	NZMS2-S125+NZM2-XSVE	**NZMS2-S125-E** 148318	1 off
	160	70	NZMS2-S160+NZM2-XSVE	**NZMS2-5160-E** 148319	1 off
	200	70	NZMS2-S200+NZM2-XSVE	**NZMS2-S200-E** 148320	1 off
	40	150	NZMH2-S40+NZM2-XSVE	**NZMH2-S40-E** 148362	1 off
	50	150	NZMH2-S50+NZM2-XSVE	**NZMH2-S50-E** 148363	1 off
	63	150	NZMH2-S63+NZM2-XSVE	**NZMH2-S63-E** 148364	1 off
	80	150	NZMH2-S80+NZM2-XSVE	**NZMH2-S80-E** 148365	1 off
	100	150	NZMH2-S100+NZM2-XSVE	**NZMH2-S100-E** 148366	1 off
	125	150	NZMH2-S125+NZM2-XSVE	**NZMH2-S125-E** 148367	1 off
	160	150	NZMH2-S160+NZM2-XSVE	**NZMH2-S160-E** 148368	1 off
	200	150	NZMH2-S200+NZM2-XSVE	**NZMH2-S200-E** 148369	1 off
NZM3					
3 pole	250	36	NZMC3-S250+NZM3-XAVE	**NZMC3-S250-E** 148416	1 off
	320	36	NZMC3-S320+NZM3-XAVE	**NZMC3-S320-E** 148417	1 off
	400	36	NZMC3-S400+NZM3-XAVE	**NZMC3-S400-E** 148418	1 off
	500	36	NZMC3-S500+NZM3-XAVE	**NZMC3-S500-E** 148419	1 off
	250	50	NZMN3-S250+NZM3-XAVE	**NZMN3-S250-E** 148430	1 off
	320	50	NZMN3-S320+NZM3-XAVE	**NZMN3-S320-E** 148431	1 off
	400	50	NZMN3-S400+NZM3-XAVE	**NZMN3-S400-E** 148432	1 off
	500	50	NZMN3-S500+NZM3-XAVE	**NZMN3-S500-E** 148433	1 off
	250	150	NZMH3-S250+NZM3-XAVE	**NZMH3-S250-E** 148468	1 off
	320	150	NZMH3-S320+NZM3-XAVE	**NZMH3-S320-E** 148469	1 off
	400	150	NZMH3-S400+NZM3-XAVE	**NZMH3-S400-E** 148470	1 off
	500	150	NZMH3-S500+NZM3-XAVE	**NZMH3-S500-E** 148471	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	250	36	NZMC3-S250+NZM3-XSVE	**NZMC3-S250-S** 168460	1 off
	320	36	NZMC3-S320+NZM3-XSVE	**NZMC3-S320-S** 168461	1 off
	400	36	NZMC3-S400+NZM3-XSVE	**NZMC3-S400-S** 168462	1 off
	500	36	NZMC3-S500+NZM3-XSVE	**NZMC3-S500-S** 168463	1 off
	250	50	NZMN3-S250+NZM3-XSVE	**NZMN3-S250-S** 168496	1 off
	320	50	NZMN3-S320+NZM3-XSVE	**NZMN3-S320-S** 168497	1 off
	400	50	NZMN3-S400+NZM3-XSVE	**NZMN3-S400-S** 168498	1 off
	500	50	NZMN3-S500+NZM3-XSVE	**NZMN3-S500-S** 168499	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM1					
3 pole	40	25	NZMB1-M40+NZM1-XSVE	**NZMB1-M40-E** 148168	1 off
	50	25	NZMB1-M50+NZM1-XSVE	**NZMB1-M50-E** 148169	1 off
	63	25	NZMB1-M63+NZM1-XSVE	**NZMB1-M63-E** 148170	1 off
	80	25	NZMB1-M80+NZM1-XSVE	**NZMB1-M80-E** 148171	1 off
	100	25	NZMB1-M100+NZM1-XSVE	**NZMB1-M100-E** 148172	1 off
	40	36	NZMC1-M40+NZM1-XSVE	**NZMC1-M40-E** 148187	1 off
	50	36	NZMC1-M50+NZM1-XSVE	**NZMC1-M50-E** 148188	1 off
	63	36	NZMC1-M63+NZM1-XSVE	**NZMC1-M63-E** 148189	1 off
	80	36	NZMC1-M80+NZM1-XSVE	**NZMC1-M80-E** 148190	1 off
	100	36	NZMC1-M100+NZM1-XSVE	**NZMC1-M100-E** 148191	1 off
	40	50	NZMN1-M40+NZM1-XSVE	**NZMN1-M40-E** 148206	1 off
	50	50	NZMN1-M50+NZM1-XSVE	**NZMN1-M50-E** 148207	1 off
	63	50	NZMN1-M63+NZM1-XSVE	**NZMN1-M63-E** 148208	1 off
	80	50	NZMN1-M80+NZM1-XSVE	**NZMN1-M80-E** 148209	1 off
	100	50	NZMN1-M100+NZM1-XSVE	**NZMN1-M100-E** 148210	1 off
	40	100	NZMH1-M40+NZM1-XSVE	**NZMH1-M40-E** 148239	1 off
	50	100	NZMH1-M50+NZM1-XSVE	**NZMH1-M50-E** 148240	1 off
	63	100	NZMH1-M63+NZM1-XSVE	**NZMH1-M63-E** 148241	1 off
	80	100	NZMH1-M80+NZM1-XSVE	**NZMH1-M80-E** 148242	1 off
	100	100	NZMH1-M100+NZM1-XSVE	**NZMH1-M100-E** 148243	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
3 pole	125	25	NZMB2-M125+NZM2-XSVE	**NZMB2-M125-E** 148254	1 off
	160	25	NZMB2-M160+NZM2-XSVE	**NZMB2-M160-E** 148255	1 off
	200	25	NZMB2-M200+NZM2-XSVE	**NZMB2-M200-E** 148256	1 off
	125	36	NZMC2-M125+NZM2-XSVE	**NZMC2-M125-E** 148271	1 off
	160	36	NZMC2-M160+NZM2-XSVE	**NZMC2-M160-E** 148272	1 off
	200	36	NZMC2-M200+NZM2-XSVE	**NZMC2-M200-E** 148273	1 off
	125	50	NZMN2-M125+NZM2-XSVE	**NZMN2-M125-E** 148288	1 off
	160	50	NZMN2-M160+NZM2-XSVE	**NZMN2-M160-E** 148289	1 off
	200	50	NZMN2-M200+NZM2-XSVE	**NZMN2-M200-E** 148290	1 off
	20	70	NZMS2-M20+NZM2-XSVE	**NZMS2-M20-E** 148321	1 off
	25	70	NZMS2-M25+NZM2-XSVE	**NZMS2-M25-E** 148322	1 off
	32	70	NZMS2-M32+NZM2-XSVE	**NZMS2-M32-E** 148323	1 off
	40	70	NZMS2-M40+NZM2-XSVE	**NZMS2-M40-E** 148324	1 off
	50	70	NZMS2-M50+NZM2-XSVE	**NZMS2-M50-E** 148325	1 off
	63	70	NZMS2-M63+NZM2-XSVE	**NZMS2-M63-E** 148326	1 off
	80	70	NZMS2-M80+NZM2-XSVE	**NZMS2-M80-E** 148327	1 off
	100	70	NZMS2-M100+NZM2-XSVE	**NZMS2-M100-E** 148328	1 off
	125	70	NZMS2-M 125+NZM2-XSVE	**NZMS2-M125-E** 148329	1 off
	160	70	NZMS2-M 160+NZM2-XSVE	**NZMS2-M160-E** 148330	1 off
	200	70	NZMS2-M200+NZM2-XSVE	**NZMS2-M200-E** 148331	1 off
	20	150	NZMH2-M20+NZM2-XSVE	**NZMH2-M20-E** 148370	1 off
	25	150	NZMH2-M25+NZM2-XSVE	**NZMH2-M25-E** 148371	1 off
	32	150	NZMH2-M32+NZM2-XSVE	**NZMH2-M32-E** 148372	1 off
	40	150	NZMH2-M40+NZM2-XSVE	**NZMH2-M40-E** 148373	1 off
	50	150	NZMH2-M50+NZM2-XSVE	**NZMH2-M50-E** 148374	1 off
	63	150	NZMH2-M63+NZM2-XSVE	**NZMH2-M63-E** 148375	1 off
	80	150	NZMH2-M80+NZM2-XSVE	**NZMH2-M80-E** 148376	1 off
	100	150	NZMH2-M100+NZM2-XSVE	**NZMH2-M100-E** 148377	1 off
	125	150	NZMH2-M125+NZM2-XSVE	**NZMH2-M125-E** 148378	1 off
	160	150	NZMH2-M160+NZM2-XSVE	**NZMH2-M160-E** 148379	1 off
	200	150	NZMH2-M200+NZM2-XSVE	**NZMH2-M200-E** 148380	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	630	50	NZMN3-AE630+NZM3-XAVE	**NZMN3-AE630-E** 148426	1 off
	630	70	NZMS3-AE630+NZM3-XAVE	**NZMS3-AE630-E** 148452	1 off
	630	100	NZMH3-AE630+NZM3-XAVE	**NZMH3-AE630-E** 148467	1 off
4 pole	630	50	NZMN3-4-AE630+NZM3-4-XAVE	**NZMN3-4-AE630-E** 148446	1 off
	630	70	NZMS3-4-AE630+NZM3-4-XAVE	**NZMS3-4-AE630-E** 148458	1 off
	630	150	NZMH3-4-AE630+NZM3-4-XAVE	**NZMH3-4-AE630-E** 148484	1 off
NZM4					
3 pole	630	50	NZMN4-AE630+NZM4-XAVE	**NZMN4-AE630-E** 148494	1 off
	800	50	NZMN4-AE800+NZM4-XAVE	**NZMN4-AE800-E** 148495	1 off
	1000	50	NZM N4-AE1000+NZM4-XAVE	**NZMN4-AE1000-E** 148496	1 off
	1250	50	NZMN4-AE1250+NZM4-XAVE	**NZMN4-AE1250-E** 148497	1 off
	1600	50	NZM N4-AE1600+NZM4-XAVE	**NZMN4-AE1600-E** 148498	1 off
	630	85	NZMH4-AE630+NZM4-XAVE	**NZMH4-AE630-E** 148523	1 off
	800	85	NZMH4-AE800+NZM4-XAVE	**NZMH4-AE800-E** 148524	1 off
	1000	85	NZM H4-AE1000+NZM4-XAVE	**NZMH4-AE1000-E** 148525	1 off
	1250	85	NZM H4-AE1250+NZM4-XAVE	**NZMH4-AE1250-E** 148526	1 off
	1600	85	NZM H4-AE1600+NZM4-XAVE	**NZMH4-AE1600-E** 148527	1 off
4 pole	800	50	NZM N4-4-AE800+NZM4-4-XAVE	**NZMN4-4-AE800-E** 148507	1 off
	1000	50	NZM N4-4-AE1000+NZM4-4-XAVE	**NZMN4-4-AE1000-E** 148509	1 off
	1250	50	NZM N4-4-AE1250+NZM4-4-XAVE	**NZMN4-4-AE1250-E** 148511	1 off
	1600	50	NZM N4-4-AE1600+NZM4-4-XAVE	**NZMN4-4-AE1600-E** 148513	1 off
	800	85	NZM H4-4-AE800+NZM4-4-XAVE	**NZMH4-4-AE800-E** 148536	1 off
	1000	85	NZM H4-4-AE1000+NZM4-4-XAVE	**NZMH4-4-AE1000-E** 148538	1 off
	1250	85	NZM H4-4-AE1250+NZM4-4-XAVE	**NZMH4-4-AE1250-E** 148540	1 off
	1600	85	NZM H4-4-AE1600+NZM4-4-XAVE	**NZMH4-4-AE1600-E** 148542	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
3 pole	90	50	NZMN2-ME90+NZM2-XSVE	**NZMN2-ME90-E** 148291	1 off
	140	50	NZMN2-ME140+NZM2-XSVE	**NZMN2-ME140-E** 148292	1 off
	220	50	NZMN2-ME220+NZM2-XSVE	**NZMN2-ME220-E** 148293	1 off
	90	70	NZMS2-ME90+NZM2-XSVE	**NZMS2-ME90-E** 148332	1 off
	140	70	NZMS2-ME140+NZM2-XSVE	**NZMS2-ME140-E** 148333	1 off
	220	70	NZMS2-ME220+NZM2-XSVE	**NZMS2-ME220-E** 148334	1 off
	90	150	NZMH2-ME90+NZM2-XSVE	**NZMH2-ME90-E** 148381	1 off
	140	150	NZMH2-ME140+NZM2-XSVE	**NZMH2-ME140-E** 148382	1 off
	220	150	NZMH2-ME220+NZM2-XSVE	**NZMH2-ME220-E** 148383	1 off
NZM3					
3 pole	220	70	NZMS3-ME220+NZM3-XAVE	**NZMS3-ME220-E** 148453	1 off
	350	70	NZMS3-ME350+NZM3-XAVE	**NZMS3-ME350-E** 148454	1 off
	450	70	NZMS3-ME450+NZM3-XAVE	**NZMS3-ME450-E** 148455	1 off
	220	150	NZMH3-ME220+NZM3-XAVE	**NZMH3-ME220-E** 148472	1 off
	350	150	NZMH3-ME350+NZM3-XAVE	**NZMH3-ME350-E** 148473	1 off
	450	150	NZMH3-ME450+NZM3-XAVE	**NZMH3-ME450-E** 148474	1 off
NZM4					
3 pole	550	50	NZMN4-ME550+NZM4-XAVE	**NZMN4-ME550-E** 148499	1 off
	875	50	NZMN4-ME875+NZM4-XAVE	**NZMN4-ME875-E** 148500	1 off
	1400	50	NZM N4-M E 1400+NZM4-XAVE	**NZMN4-ME1400-E** 148501	1 off
	550	85	NZMH4-ME550+NZM4-XAVE	**NZMH4-ME550-E** 148528	1 off
	875	85	NZMH4-ME875+NZM4-XAVE	**NZMH4-ME875-E** 148529	1 off
	1400	85	NZM H4-M E 1400+NZM4-XAVE	**NZMH4-ME1400-E** 148530	1 off
NZM2					
3 pole	100	50	NZMN2-VE100+NZM2-XSVE	**NZMN2-VE100-E** 148294	1 off
	160	50	NZMN2-VE160+NZM2-XSVE	**NZMN2-VE160-E** 148295	1 off
	250	50	NZMN2-VE250+NZM2-XSVE	**NZMN2-VE250-E** 148296	1 off
	100	70	NZMS2-VE100+NZM2-XSVE	**NZMS2-VE100-E** 148335	1 off
	160	70	NZMS2-VE160+NZM2-XSVE	**NZMS2-VE160-E** 148336	1 off
	250	70	NZMS2-VE250+NZM2-XSVE	**NZMS2-VE250-E** 148337	1 off
	100	150	NZMH2-VE100+NZM2-XSVE	**NZMH2-VE100-E** 148384	1 off
	160	150	NZMH2-VE160+NZM2-XSVE	**NZMH2-VE160-E** 148385	1 off
	250	150	NZMH2-VE250+NZM2-XSVE	**NZMH2-VE250-E** 148386	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM2					
4 pole	100	50	NZM N2-4-VE 100+NZM2-4-XSVE	**NZMN2-4-VE100-E** 148304	1 off
	160	50	NZM N2-4-VE 160+NZM2-4-XSVE	**NZMN2-4-VE160-E** 148305	1 off
	250	50	NZM N2-4-VE250+NZM2-4-XSVE	**NZMN2-4-VE250-E** 148307	1 off
	100	70	NZMS2-4-VE100+NZM2-4-XSVE	**NZMS2-4-VE100-E** 148345	1 off
	160	70	NZMS2-4-VE160+NZM2-4-XSVE	**NZMS2-4-VE160-E** 148346	1 off
	250	70	NZMS2-4-VE250+NZM2-4-XSVE	**NZMS2-4-VE250-E** 148348	1 off
	100	150	NZM H2-4-VE 100+NZM2-4-XSVE	**NZMH2-4-VE100-E** 148402	1 off
	160	150	NZM H2-4-VE 160+NZM2-4-XSVE	**NZMH2-4-VE160-E** 148403	1 off
	250	150	NZM H2-4-VE250+NZM2-4-XSVE	**NZMH2-4-VE250-E** 148405	1 off
NZM3					
3 pole	250	50	NZMN3-VE250+NZM3-XAVE	**NZMN3-VE250-E** 148437	1 off
	400	50	NZMN3-VE400+NZM3-XAVE	**NZMN3-VE400-E** 148438	1 off
	630	50	NZMN3-VE630+NZM3-XAVE	**NZMN3-VE630-E** 148439	1 off
	400	70	NZMS3-VE400+NZM3-XAVE	**NZMS3-VE400-E** 148456	1 off
NZM3					
3 pole	630	70	NZMS3-VE630+NZM3-XAVE	**NZMS3-VE630-E** 148457	1 off
	250	70	NZMH3-VE250+NZM3-XAVE	**NZMH3-VE250-E** 148475	1 off
	400	150	NZMH3-VE400+NZM3-XAVE	**NZMH3-VE400-E** 148476	1 off
	630	150	NZMH3-VE630+NZM3-XAVE	**NZMH3-VE630-E** 148477	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	220	50	NZMN3-ME220+NZM3-XSVE	**NZMN3-ME220-S** 168500	1 off
	350	50	NZMN3-ME350+NZM3-XSVE	**NZMN3-ME350-S** 168501	1 off
	450	50	NZMN3-ME450+NZM3-XSVE	**NZMN3-ME450-S** 168502	1 off
	220	70	NZMS3-ME220+NZM3-XSVE	**NZMS3-ME220-S** 168531	1 off
	350	70	NZMS3-ME350+NZM3-XSVE	**NZMS3-ME350-S** 168532	1 off
	450	70	NZMS3-ME450+NZM3-XSVE	**NZMS3-ME450-S** 168533	1 off
	220	50	NZMN3-ME220+NZM3-XAVE	**NZMN3-ME220-E** 148434	1 off
	350	50	NZMN3-ME350+NZM3-XAVE	**NZMN3-ME350-E** 148435	1 off
	450	50	NZMN3-ME450+NZM3-XAVE	**NZMN3-ME450-E** 148436	1 off

Plug-in units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
3 pole	250	50	NZMN3-VE250+NZM3-XSVE	**NZMN3-VE250-S** 168503	1 off
	400	50	NZMN3-VE400+NZM3-XSVE	**NZMN3-VE400-S** 168504	1 off
	630	50	NZMN3-VE630+NZM3-XSVE	**NZMN3-VE630-S** 168505	1 off
	400	70	NZMS3-VE400+NZM3-XSVE	**NZMS3-VE400-S** 168534	1 off
	630	70	NZMS3-VE630+NZM3-XSVE	**NZMS3-VE630-S** 168535	1 off
	400	50	NZMN3-4-VE400+NZM3-XSVE	**NZMN3-4-VE400-S** 168522	1 off
	630	50	NZMN3-4-VE630+NZM3-XSVE	**NZMN3-4-VE630-S** 168524	1 off
	400	70	NZMS3-4-VE400+NZM3-XSVE	**NZMS3-4-VE400-S** 168540	1 off
	630	70	NZMS3-4-VE630+NZM3-XSVE	**NZMS3-4-VE630-S** 168542	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM3					
4 pole	400	50	NZM N3-4-VE400+NZM3-4-XAVE	**NZMN3-4-VE400-E** 148448	1 off
	630	50	NZM N3-4-VE630+NZM3-4-XAV E	**NZMN3-4-VE630-E** 148450	1 off
	400	70	NZMS3-4-VE400+NZM3-4-XAVE	**NZMS3-4-VE400-E** 148460	1 off
	630	70	NZMS3-4-VE630+NZM3-4-XAVE	**NZMS3-4-VE630-E** 148462	1 off
	400	150	NZM H 3-4-VE400+NZM 3-4-XAVE	**NZMH3-4-VE400-E** 148486	1 off
	630	150	NZM H3-4-VE630+NZM3-4-XAVE	**NZMH3-4-VE630-E** 148488	1 off
NZM4					
3 pole	630	50	NZMN4-VE630+NZM4-XAVE	**NZMN4-VE630-E** 148502	1 off
	800	50	NZMN4-VE800+NZM4-XAVE	**NZMN4-VE800-E** 148503	1 off
	1000	50	NZM N4-VE1000+NZM4-XAVE	**NZMN4-VE1000-E** 148504	1 off
	1250	50	NZM N4-VE1250+NZM4-XAVE	**NZMN4-VE1250-E** 148505	1 off
	1600	50	NZM N4-VE1600+NZM4-XAVE	**NZMN4-VE1600-E** 148506	1 off
	630	85	NZMH4-VE630+NZM4-XAVE	**NZMH4-VE630-E** 148531	1 off
	800	85	NZMH4-VE800+NZM4-XAVE	**NZMH4-VE800-E** 148532	1 off
	1000	85	NZM H4-VE1000+NZM4-XAVE	**NZMH4-VE1000-E** 148533	1 off
	1250	85	NZM H4-VE1250+NZM4-XAVE	**NZMH4-VE1250-E** 148534	1 off
	1600	85	NZM H4-VE1600+NZM4-XAVE	**NZMH4-VE1600-E** 148535	1 off
4 pole	800	50	NZM N4-4-VE800+NZM4-4-XAVE	**NZMN4-4-VE800-E** 148515	1 off
	1000	50	NZM N4-4-VE1000+NZM4-4-XAVE	**NZMN4-4-VE1000-E** 148517	1 off
	1250	50	NZM N4-4-VE1250+NZM4-4-XAVE	**NZMN4-4-VE1250-E** 148519	1 off

Withdrawable units

	Rated current I_n (A)	Switching capacity I_{cu} (kA)	Description	**Part no.** Article no.	Std. pack
NZM4					
4 pole	1600	50	NZM N4-4-VE1600+NZM4-4-XAVE	**NZMN4-4-VE1600-E** 148521	1 off
	800	85	NZM H4-4-VE800+NZM4-4-XAVE	**NZMH4-4-VE800-E** 148544	1 off
	1000	85	NZM H4-4-VE1000+NZM4-4-XAVE	**NZMH4-4-VE1000-E** 148546	1 off
	1250	85	NZM H4-4-VE1250+NZM4-4-XAVE	**NZMH4-4-VE1250-E** 148548	1 off
	1600	85	NZM H4-4-VE1600+NZM4-4-XAVE	**NZM H4-4-VE1600-E** 148550	1 off

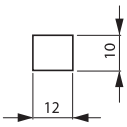
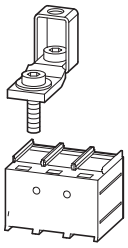
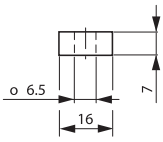
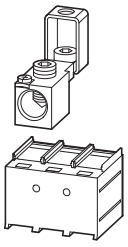
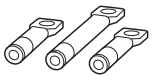
Plug-in units

	Rated current I_n (A)	Description	**Part no.** Article no.	Std. pack
N1				
3 pole	63	N1-63+NZM1-XSVE	**N1-63-E** 148244	1 off
	100	N1-100+NZM1-XSVE	**N1-100-E** 148245	1 off
	125	N1-125+NZM1-XSVE	**N1-125-E** 148246	1 off
N2				
3 pole	160	N2-160+NZM2-XSVE	**N2-160-E** 148407	1 off
	200	N2-200+NZM2-XSVE	**N2-200-E** 148408	1 off
	250	N2-250+NZM2-XSVE	**N2-250-E** 148409	1 off
4 pole	160	N2-4-160+NZM2-4-XSVE	**N2-4-160-E** 148410	1 off
	200	N2-4-200+NZM2-4-XSVE	**N2-4-200-E** 148411	1 off
	250	N2-4-250+NZM2-4-XSVE	**N2-4-250-E** 148412	1 off

Withdrawable units

	Rated current I_n (A)	Description	**Part no.** Article no.	Std. pack
N3				
3 pole	400	N3-400+NZM3-XAVE	**N3-400-E** 148490	1 off
	630	N3-630+NZM3-XAVE	**N3-630-E** 148491	1 off
4 pole	400	N3-4-400+NZM3-4-XAVE	**N3-4-400-E** 148492	1 off
	630	N3-4-630+NZM3-4-XAVE	**N3-4-630-E** 148493	1 off
N4				
3 pole	800	N4-800+NZM4-XAVE	**N4-800-E** 148552	1 off
	1000	N4-1000+NZM4-XAVE	**N4-1000-E** 148553	1 off
	1250	N4-1250+NZM4-XAVE	**N4-1250-E** 148554	1 off
	1600	N4-1600+NZM4-XAVE	**N4-1600-E** 148555	1 off
4 pole	800	N4-4-800+NZM4-4-XAVE	**N4-4-800-E** 148556	1 off
	1000	N4-4-1000+NZM4-4-XAVE	**N4-4-1000-E** 148557	1 off
	1250	N4-4-1250+NZM4-4-XAVE	**N4-4-1250-E** 148558	1 off
	1600	N4-4-1600+NZM4-4-XAVE	**N4-4-1600-E** 148559	1 off

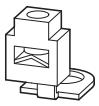
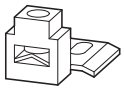
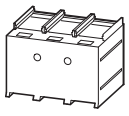
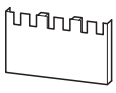
NZM1 Terminals

	Max. cable connection area	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	**Box terminal** Standard equipment					
		NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Cooper cable	1 × 10-70[1)] 2 × 6-25	1 × 8-2/0
	**Screw terminals**					
		NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Cooper cable Aluminium cable	1 × 10-70[1)] 2 × 6-25 1 × 10-35 2 × 10-35	1 × 8-2/0
	**Tunnel terminal**					
	-	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Cooper cable ⊙ ▽ Aluminium cable ⊙ ▽	1 × 16-95	1 × 6-3/0
	-					
	**Rear terminal bolts** Not UL/CSA approved					
	-	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Cooper cable	1 × 2.5-25 2 × 2.5-25 1 × 10-35 2 × 10-35	
	-					

Notes [1)] Up to 240mm² can be connected depending on make of cable

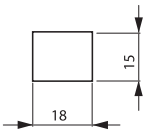
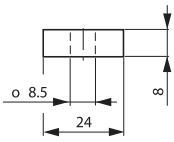
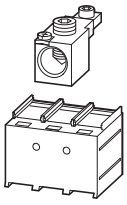
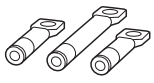
Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered separately	Std. pack	**Note**
2 × 9 × 0.8		**NZM1-XKC** 260015	1 set	• Standard connection with all NZM1 PN1 AND N(S)1 Switches • Conversion kit for circuit-breaker with screw terminal • Fitted within the switch housing
		NZM1-4-XKC 267075	1 set	
	min. 12 × 5	**NZM1-XKS** 260019	1 set	• Contains parts for a terminal located at top or bottom • Flush mounting outside the switch housing • Cover NZM1(-4)-XKSA must be fitted (included as standard)
		NZM1-4-XKS 266725	1 set	
		NZM1-XKA 266730	1 set	• Contains parts for a terminal located at top or bottom • With control circuit terminal for 1 × 0.75-2.5mm² (18-14AWG) or 2 × 0.75-2.5mm² (18-14AWG) copper conductor • Flush mounting outside the switch housing • Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules • Cover NZM1(-4)-XKSA must be fitted (included as standard)
		NZM1-4-XKA 266731	1 set	
	min. 12 × 5 max.16 × 5	**NZM1-XKA** 266734	1 set	• Contains parts for a terminal located at top or bottom
		NZM1-4-XKA 266737	1 set	

NZM1 Terminals

	Max. cable connection area	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	Control cable terminals					
	-	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Screw terminals	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	-	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole and 4 pole	Box terminals	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	Cover					
	-	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole			
	-	NZM1(-4), PN1(-4), N(S)1(-4)	4 pole			
	Terminal covers knockout For box terminal					
	-	NZM1, PN1, N1	3 pole			
	-	NZM1 PN1(-4), N1(-4)	4 pole			
	IP2X protection against contact with finger					
	For box terminal					
	-	NZM1 PN1(-4), N1(-4)	3 pole			
	-	NZM1 PN1(-4), N1(-4)	4 pole			
	For covers NZM1(-4)-XKSA or NZM1…(C)NA, N(S)1…NA					
	-	NZM1, PN1, NS1	3 pole			
	-	NZM1 PN1(-4), N1(-4)	4 pole			

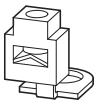
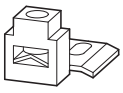
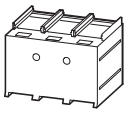
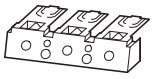
Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	Part no. Article no. when ordered separately	Std. pack	Note
		NZM1-XSTS 260150	1 set	• Contains parts for a terminal located at top or bottom • Included as standard with tunnel terminal • Degree of protection IP1X • Cannot be combined with NZM1(-4)-XIPK • Height or thickness of connections:2mm
		NZM-XSTK 266739	1 set	
		NZM1-XKSA 260021	1 set	• Contains parts for a terminal located at top or bottom • Contact protection against direct contact where cable lugs, bars or tunnel terminals are used • Contained in the set with tunnel terminals and screw terminals • When using insulated conductor material to degree of protection IP1X
		NZM1-4-XKSA 266741	1 set	
		NZM1-XKSFA 100780	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection (simplified finger protection • Cannot be combined with NZM-XSTK control circuit terminal
		NZM1-4-XKSFA 100781	1 set	
		NZM1-XIPK 266744	1 set	
		NZM1-4-XIPK 266745	1 set	
		NZM1-XIPA 266748	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection to IP2X
		NZM1-4-XIPA 266749	1 set	

NZM2 Terminals

	Max. cable connection area	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	**Box terminal**					
		NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 4-185 2 × 4-70	1 × 11-350
	**Screw terminals (Standard equipment)**					
		NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Copper cable lugs Aluminum cable lugs	1 × 4-185 2 × 4-70 1 × 10-50 2 × 10-50	1 × 11-3/0
	**Tunnel terminal**					
	-	NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 16-185[1)] 1 × 16-185[1)]	1 × 6-350
	-					
	**Rear terminal bolts** Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.					
	-	NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Copper cable lugs Aluminum cable lugs	1 × 4-185 2 × 4-70 1 × 10-50 2 × 10-50	
	-					
	-					
	-					

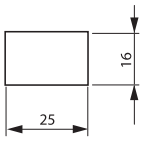
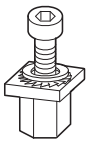
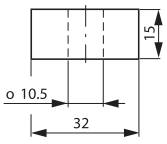
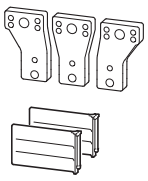
Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
≥2 × 9 × 0.8			**NZM2-160-XKC** 262240	1 set	• Contains parts for a terminal located at top or bottom • Conversion kit for circuit-breaker with screw terminal • Fitted within the switch housing • O = for fitting at the top • U = for fitting at the bottom • U_e ≥ 525 V AC: Use NZM2(-4)-XKSA cover
			NZM2-250-XKC 262244	1 set	
			NZM2-4-160-XKC 266755	1 set	
			NZM2-4-250-XKC 266756	1 set	
≥2 × 16 × 0.8	≥16 × 5		**NZM2-XKS** 260030	1 set	• Contains parts for a terminal located at top or bottom • Standard connection with all NZM2, PN2 and N2 circuit-breakers. • Conversion kit for circuit-breaker with box terminal • Use special cable lugs narrow version, see Page 99 • Fitted within the switch housing If a bar is used, insulation (400 mm) heat-shrink tubing and a cover NZM2(-4)-XKSA are required. • U_e ≥ 525 V AC: For all other connection types use cover NZM3(-4)-XKSA.
			NZM2-4-XKS 266750	1 set	
≥2 × 16 × 0.8	≥16 × 5		**NZM2-XKA** 271457	1 set	• Contains parts for a terminal located at top or bottom • With control circuit terminal for 1 × 0.75-2.5mm² (18-14AWG) or 2 × 0.75-1.5mm² (18-16AWG) copper conductor • Flush mounting outside the switch housing • Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules • Cover NZM2(-4)-XKSA must be fitted (included as standard)
			NZM2-4-XKA 271458	1 set	
min.2 × 16 × 0.8 max.6 × 24 × 0.5	min.16 × 5 max.20 × 5	**NZM2-160-XKC** 266763	**NZM2-XKR** 266765	1 set	• Contains parts for a terminal located at top or bottom • O = for fitting at the top • U = for fitting at the bottom
		+NZM2-XKRU 266764		1 set	
		+NZM2-4-XKRO 266766	**NZM2-4-XKR** 266768	1 set	
		+NZM2-4-XKRU 266767		1 set	

NZM2 Terminals

	Max. cable connection area	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	Control cable terminals					
	-	NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Screw terminals	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	-	NZM2(-4), PN2(-4), N(S)2(-4)	3 pole and 4 pole	Box terminals	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	Cover					
	-	NZM2, PN2, N(S)2	3 pole			
	-	NZM2(-4), PN2(-4), N(S)2(-4)	4 pole			
	Terminal covers, knockout					
	-	NZM2, PN2, N(S)2	3 pole			
	-	NZM2(-4), PN2(-4), N(S)2(-4)	4 pole			
	IP2X protection against contact with finger					
	For box terminal					
	-	NZM2, PN2, N(S)2	3 pole			
	-	NZM2(-4), PN2(-4), N(S)2(-4)	4 pole			
	For covers NZM2(-4)-XKSA or NZM2(-4) or NZM2…(C)NA and N(S)2…NA					
	-	NZM2, PN2, N(S)2	3 pole			
	-	NZM2(-4), PN2(-4), N(S)2(-4)	4 pole			
	**Copper cable lug** Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.					
	- 95 mm²	NZM2(-4), PN2(-4), N2(-4)	3 pole and 4 pole			
	- 120 mm²					
	- 150 mm²					
	- 185 mm²					

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
			NZM2-XSTS 260156	1 set	• Contains parts for a terminal located at top or bottom • Included as standard with tunnel terminal • Degree of protection IP1X • NZM-XSTK cannot be combined with NZM1(-4)-XIPK IP2X protection against contact with a finger • Height or thickness of connection: 2mm
			NZM-XSTK 266739	1 set	
			NZM2-XKSA 260038	1 set	• Contains parts for a terminal located at top or bottom • Contact protection against direct contact where cable lugs, bars or tunnel terminals are used • Contained in the set with tunnel terminals and screw terminals • When using insulated conductor material to degree of protection IP1X
			NZM2-4-XKSA 266770	1 set	
			NZM2-XKSFA 104640	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection (simplified finger protection)
			NZM2-4-XKSFA 104641	1 set	
			NZM2-XIPK 266773	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection to IP2X • Protection on grasping terminal chamber when connecting cables in box terminals. With two conductors maximum cross-section 25 mm² or AWG4 • Can not be combined with control cable terminal NZM-XSTK.
			NZM2-4-XIPK 266774	1 set	
			NZM2-XIPA 266777	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection to IP2X • When fitting to NZM2-..-(C)NA or NZM...-NA: with two conductors maximum cross-section 25mm² or AWG4
			NZM2-4-XIPA 266778	1 set	
			KS95-NZM 7 059775	3 set	• Special cable lug, narrow style
			KS120-NZM7 059776	3 set	
			KS150-NZM7 059777	3 set	
			NZM2-XKS185 260032	3 set	

NZM3 Terminals

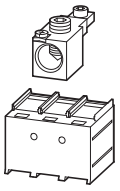
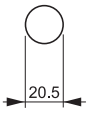
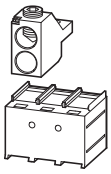
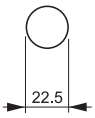
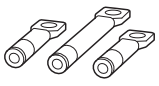
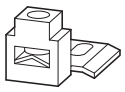
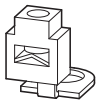
Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
Box terminal						
 	Max. 500 400 UL/CSA	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 35-240 2 × 16-120	1 × 2-500
	630	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 35-240 2 × 16-120	1 × 2-500
Screw terminals (Standard equipment)						
 	Max. 500 400 UL/CSA	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable lugs	1 × 16-240 2 × 16-240	1 × 4-350 2 × 50
	630	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Aluminum cable lugs	1 × 10-120 2 × 10-120	1 × 4-350 2 × 50
Connection width extension						
 - -	630	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable lugs Aluminum cable lugs	2 × 300	2 × 500

Notes

[1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide.
The engineering standards which apply in each case must be observed.

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
min. 6 × 16 × 0.8 max. 20 × 24 × 0.5 or max.11 × 21 × 1		**+NZM3-XKCO** 262246	**NZM3-XKC** 260042	1 set	• Contains parts for a terminal located at top or bottom • Conversion kit for circuit-breaker with screw terminal • Fitted within the switch housing • O = for fitting at the top • U = for fitting at the bottom • U_e ≥ 525 V AC: Use NZM3(-4)-XKSA cover. Use ferrules with flexible and highly flexible conductors. Observe limited cable cross-section through sleeve.
		+NZM3-XKCU 262245		1 set	
min. 6 × 16 × 0.8 max. 20 × 24 × 0.5 or max.11 × 21 × 1		**+NZM3-4-XKCO** 266781	**NZM3-4-XKC** 266783	1 set	
		+NZM3-4-XKCU 266782		1 set	
10 × 32 × 1.0 +5 × 32 × 1.0	30 × 10 +30 × 5		**NZM3-XKS** 260039	1 set	• Contains parts for a terminal located at top or bottom • Standard connection with all NZM3, PN3 and N3 circuit-breakers. • Conversion kit for circuit-breaker with box terminal • Use special cable lugs narrow version, see Page 99 • Fitted within the switch housing If a bar is used, insulation (400 mm) heat-shrink tubing and a cover NZM3(-4)-XKSA are required. • U_e ≥ 525 V AC: For all other connection types use cover NZM3(-4)-XKSA.
			NZM3-4-XKS 266780	1 set	
(2 ×) 10 × 50 × 1.0	(2 ×) 10 × 50		**NZM3-XKV70** 100514	1 set	• Contains parts for a terminal located at top or bottom • Central drilling for e.g. up to 2 cable lugs per phase • For fitting to switches with screw terminal • Phase isolator and insulation plate are included as standard. • Distance between pole centres with NZM3(-4)-XKV70: 70 mm • Hole for control wire exists. • Connection terminals NZM3(-4)-XK300 and NZM3(-4)-XK22X21 can be installed.
			NZM3-4-XKV70 100515	1 set	

NZM3 Terminals

	Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	Terminals for connection width extension Not UL/CSA approved						
		Max. 500	NZM3. PN3. N3	3 pole	Copper cable	1 × 120-300	
		Max. 500	NZM3(-4), PN3(-4), N3(-4)	4 pole	Copper cable	1 × 120-300	
		630	NZM3. PN3. N3	3 pole			
		630	NZM3(-4), PN3(-4), N3(-4)	4 pole			
	Tunnel terminal						
	-	Max. 350	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 16-185[2]	1 × 6-350
		Max. 350	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Aluminium cable Aluminium cable	1 × 16-185[2]	1 × 6-350
	-	Max. 630	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 50-240 2 × 50-240	1 × 0-500 2 × 0-500
		Max. 630	NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Aluminium cable Aluminium cable	1 × 50-240 2 × 50-240	1 × 0-500 2 × 0-500
	**Rear terminal bolts** Not UL/CSA approved						
	-	Max. 630	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 16-240 2 × 16-240	
	-	Max. 630	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 16-240 2 × 16-240	
	-	Max. 630	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Copper cable Copper cable	1 × 16-240 2 × 16-240	
	-	Max. 500	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Aluminium cable Aluminium cable	1 × 10-120 2 × 10-120	
	-	Max. 500	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Aluminium cable Aluminium cable	1 × 10-120 2 × 10-120	
	-	Max. 500	NZM3(-4), PN3(-4), N3(-4)	3 pole and 4 pole	Aluminium cable Aluminium cable	1 × 10-120 2 × 10-120	
	Control cable terminals						
	-		NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Box terminal	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	-		NZM3(-4), PN3(-4), N(S)3(-4)	3 pole and 4 pole	Screw terminal	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16

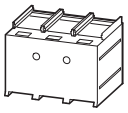
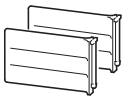
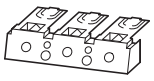
Notes

[1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide.
The engineering standards which apply in each case must be observed.

[2] Up to 240 mm² can be connected depending on the cable manufacturer.

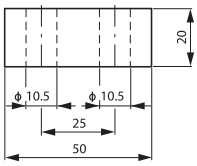
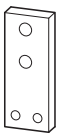
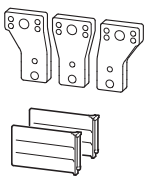
Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
			NZM3-XK300 100782	1 set	• Contains parts for a terminal located at top or bottom • Only in combination with connection width extension NZM3(-4)-XKV70. • Use ferrules with flexible and highly flexible conductors. • With control cable terminal for 1 × 0.75 – 2.5 mm² or 2 × 0.75 – 1.5 mm² copper conductor as standard.
			NZM3-4-XK300 100783	1 set	
22 × 21 × 1.0			**NZM3-XK22X21** 100784	1 set	
22 × 21 × 1.0			**NZM3-4-XK22X21** 100785	1 set	
			NZM3-XKA1 271459	1 set	• Contains parts for a terminal located at top or bottom • With control cable terminal for 1 × 0.75 – 2.5 mm² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm² (18 – 16 AWG) copper cable as standard. • Fitting outside switch housing. • Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules. • Cover NZM3(-4)-XKSA must be fitted (included as standard).
			NZM3-4-XKA1 271460	1 set	
			NZM3-XKA2 271461	1 set	
			NZM3-4-XKA2 271462	1 set	
		+NZM3-XKRO 266790		1 set	• Contains parts for a terminal located at top or bottom • O = for fitting at the top • U = for fitting at the bottom
			NZM3-4-XKR 266792	1 set	
		+NZM3-XKRU 266791		1 set	
min. 6 × 16 × 0.8 max.10 × 32 × 1.0	Min. 20 × 5 Max. 30-10	**+NZM3-4-XKRO** 266793		1 set	
min. 6 × 16 × 0.8 max.10 × 32 × 1.0	Min. 20 × 5 Max. 30-10		**NZM3-4-XKR** 266795	1 set	
min. 6 × 16 × 0.8 max.10 × 32 × 1.0	Min. 20 × 5 Max. 30-10	**+NZM3-4-XKRU** 266794		1 set	
			+NZM-XSTK 266739	1 set	• Contains parts for a terminal located at top or bottom • Included as standard with tunnel terminal. • Degree of protection IP1X • NZM-XSTK cannot be combined with NZM1(-4)-XIPK IP2X protection against contact with a finger. • Height or thickness of connections: 2 mm
			+NZM3-XSTS 266797	1 set	

NZM3 Terminals

	Max. cable connection area	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	**Cover**					
	-	NZM3(-4), PN3(-4),N(S)3(-4)	3 pole			
	-	NZM3(-4), PN3(-4),N(S)3(-4)	4 pole			
	**Phase isolators**					
	-	NZM3(-4), PN3(-4),N(S)3(-4)	3 pole			
	-	NZM3(-4), PN3(-4),N(S)3(-4)	4 pole			
	**Terminal covers, knockout**					
	-	NZM3(-4), PN3(-4),N(S)3(-4)	3 pole			
	-	NZM3(-4), PN3(-4),N(S)3(-4)	4 pole			
	**IP2X protection against contact with finger**					
	For box terminal					
	-	NZM3(-4), PN3(-4),N3(-4)	3 pole			
	-	NZM3(-4), PN3(-4),N3(-4)	4 pole			
	For covers NZM1(-4)-XKSA or NZM1…(C)NA, N(S)1…NA					
	-	NZM3(-4), PN3(-4),N(S)3(-4)	3 pole			
	-	NZM3(-4), PN3(-4),N(S)3(-4)	4 pole			
	**Copper cable lug** Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.					
	240mm²	NZM3(-4), PN3,N3(-4)	3 pole and 4 pole			
	185mm²	NZM4(-4), N4(-4)	3 pole and 4 pole			

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered with basic unit	**Part no.** Article no. when ordered separately	Std. pack	**Note**
			NZM3-XKSA 260045	1 set	• Contains parts for a terminal located at top or bottom • Insulation/protection against direct contact where cable lugs, bars or tunnel terminals are used. • Included in set with tunnel terminals. • When using insulated conductor material to degree of protection IP1X.
			NZM3-4-XKSA 266801	1 set	
			NZM3-XKP 100512	1 set	• Contains parts for a terminal located at top or bottom • Included with the connection width extension. • Cannot be combined with the NZM3(-4)-XKA tunnel terminal, NZM3(-4)-XKR connection on rear. • Insulation protection where cable lugs, bars, or flat conductor are used
			NZM3-4-XKP 100513	1 set	
			NZM3-XKSFA 104642	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection (simplified finger protection).
			NZM3-4-XKSFA 104643	1 set	
			NZM3-XIPK 266804	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection to IP2X • Protection on grasping terminal chamber when connecting cables in box terminals. With two conductors maximum cross-section 70 mm² or AWG0 • Can not be combined with control cable terminal NZM-XSTK.
			NZM3-4-XIPK 266805	1 set	
			NZM3-XIPA 266808	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection to IP2X • When fitting to NZM3-..-(C)NA or N3...-NA: with two conductors maximum cross-section 70mm² or AWG0
			NZM3-4-XIPA 266809	1 set	
			NZM3-XKS240 260041	3 set	• Special cable lug, narrow style
			NZM3-4-XKS185 260040	3 set	

NZM4 Terminals

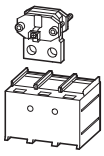
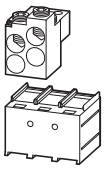
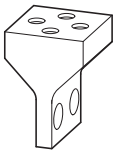
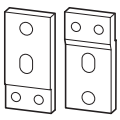
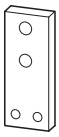
	Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
2-hole	**Screw terminals (Standard equipment)**						
		Max. 1250	NZM4(-4) N4(-4), N(S)4	3 pole and 4 pole	Copper cable lugs	1 × 120-185 4 × 50-185	1 × 250-350 4 × 0-350
		1600	NZM4(-4) N4(-4), N(S)4	3 pole and 4 pole	Copper cable lugs	1 × 120-185 4 × 50-185	1 × 250-350 4 × 0-350
	Module plate						
1-hole 	-	Max. 1250	NZM4 N(S)4	3 pole	Copper cable lugs	1 × 120-300 2 × 95-300	1 × 250-600 2 × 000-600
	-	Max. 1250	NZM4-4 N4-4	4 pole	Copper cable lugs	1 × 120-300 2 × 95-300	1 × 250-600 2 × 000-600
2-hole 	-	Max. 1400	NZM4 N(S)4	3 pole	Copper cable lugs	2 × 95-185 4 × 35-185 4 × 50	2 × 000-350 4 × 2-350 4 × 0
	-	Max. 1400	NZM4-4 N4-4	4 pole	Copper cable lugs		
2-hole 	-	Max. 1250	NZM4 N(S)4	3 pole	Copper cable lugs	2 × 95-300	2 × 000-600
	-	Max. 1250	NZM4-4 N4-4	4 pole	Copper cable lugs	2 × 95-300	2 × 000-600
	-	Max. 1600	NZM4 N(S)4	3 pole	Copper cable lugs	2 × 95-300	2 × 000-500
	-	Max. 1600	NZM4-4 N4-4	4 pole	Copper cable lugs	2 × 95-300	2 × 000-500
	**Connection width extension**						
	-	Max. 1600	NZM4 N(S)4	3 pole	Copper cable lugs	4 × 300 6 × 95-240	4 × 600 6 × 000-500
	-	Max. 1600	NZM4 N(S)4	3 pole	Copper cable lugs	4 × 300 6 × 95-240	4 × 600 6 × 000-500
	-	Max. 1600	NZM4-4 N4-4	4 pole	Copper cable lugs	4 × 300 6 × 95-240	4 × 600 6 × 000-500
	-	Max. 1600	NZM4-4 N4-4	4 pole	Copper cable lugs	4 × 300 6 × 95-240	4 × 600 6 × 000-500

Notes

[1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide.
The engineering standards which apply in each case must be observed.

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered separately	Std. pack	**Note**
2 × (10 × 40 × 1.0)	(2 ×) 50 × 10		1 set	• Double hole fitting with M10 screw at 25 mm spacing. • Use special cable lug narrow version. • $U_e \geq$ 525 V AC, cross section>185mm²: Use of shroud NZM4(-4)-XKSA required.
2 × (10 × 40 × 1.0)	(2 ×) 50 × 10		1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-XKM1** 266814	1 set	• Contains parts for a terminal located at top or bottom • For M10 screws. Can be enlarged for M12 screws • Use special cable lug narrow version. • Can be fitted to circuit-breaker with screw terminal. • Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-4-XKM1** 266818	1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-XKM2** 266820	1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-4-XKM2** 266821	1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-XKM2S-1250** 284471	1 set	• Contains parts for a terminal located at top or bottom • Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-4-XKM2S-1250** 284472	1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-XKM2S-1600** 284473	1 set	
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	**NZM4-4-XKM2S-1600** 284474	1 set	
min.10 × 50 × 1.0	min.(2 ×) 80 × 10	**NZM4-XKV95** 281591	1 set	• Contains parts for a terminal located at top or bottom • Five-hole fitting, for example, for up to nine cable lugs per phase. • Can be fitted to circuit-breaker with screw terminal. • Phase isolator supplied. • Distance between pole centres with NZM4(-4)-XKV95: 95 mm Installation conditions for current transformer up to 130 mm width with 80 mm bar width. • Distance between pole centers with NZM4-XKV110: 107.5 mm Installation conditions for current transformer up to 135 mm width with 80 mm bar width. • Distance between pole centers with NZM4-4-XKV120: 122 mm Installation conditions for current transformer up to 164 mm width with 80 mm bar width. • 4 mm holes predrilled for control cable terminal.
min.10 × 50 × 1.0	min.(2 ×) 80 × 10	**NZM4-XKV110** 281593	1 set	
min.10 × 50 × 1.0	min.(2 ×) 80 × 10	**NZM4-4-XKV95** 281592	1 set	
min.10 × 50 × 1.0	min.(2 ×) 80 × 10	**NZM4-4-XKV120** 281594	1 set	

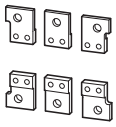
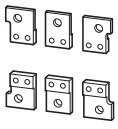
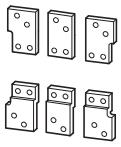
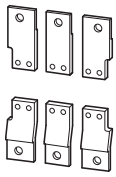
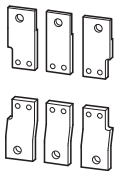
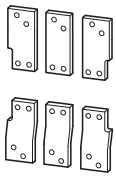
NZM4 Terminals

	Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	**Flat cable terminal**						
	-	Max.1100	NZM4, N(S)4	3 pole			
	-	Max.1100	NZM4-4, N(S)4-4	4 pole			
	**Tunnel terminal**						
	-	Max.1400	NZM4, N(S)4	3 pole	Copper cable lugs Aluminum cable lugs	1 × 50-240 4 × 50-240 1 × 50-240 4 × 50-240	1 × 0-500 4 × 0-500 1 × 0-500 4 × 0-500
	-	Max.1400	NZM4-4, N(S)4-4	4 pole			
	**Rear terminal bolts** Not UL/CSA approved						
	-	Max.1250	NZM4-4, N4-4	3 pole and 4 pole	Copper cable lugs Aluminum cable lugs	1 × 120-185 2 × 95-185 4 × 35-185 1 × 185 2 × 70-185 4 × 50-185	
	-	Max.1600					
	Adapter set NZM14 and NZM4 Not UL/CSA approved						
	-	Max.1250	NZM4, N4	3 pole			
	-	Max.1600	NZM4, N4	4 pole			

Notes [1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide.
The engineering standards which apply in each case must be observed.

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	Part no. Article no. when ordered separately	Std. pack	Note
Min. 6 × 16 × 0.8 Max.20 × 32 × 0.5		**NZM4-XKB** 266829	1 set	• Contains parts for a terminal located at top or bottom • Conversion kit for circuit-breaker with screw terminal. • Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary. • When the circuit-breaker is installed on a conductive mounting plate, cover NZM4(-4)-XKSA must be used
Min. 6 × 16 × 0.8 Max.20 × 32 × 0.5		**NZM4-4-XKB** 266831	1 set	
		NZM4-XKA 266836	1 set	• Contains parts for a terminal located at top or bottom • With control circuit terminal for 1 × 0.75-2.5 mm² (18-14 AWG) or 2 × 0.75-1.5 mm² (18-16 AWG) copper cable as standard. • Can be fitted to circuit-breaker with screw terminal. • Use ferrules with flexible and highly flexible conductors. • Cover NZM4(-4)-XKSA must be fitted (included as standard).
		NZM4-4-XKA 266837	1 set	
(2 ×) 10 × 50 × 1.0	(2 ×) 50 × 10	**NZM4-XKR** 266842	1 set	• Contains parts for a terminal located at top or bottom • Can also be retrofitted: Module plate NZM4...-XKM... or connection width extension NZM4-...-XKV...
(2 ×) 10 × 50 × 1.0	(2 ×) 50 × 10	**NZM4-4-XKR** 266843	1 set	
		NZM4-XAS14-1250 283291	1 set	• Conversion kit for NZM14 to NZM4. Same connections as NZM14. Contains for both sides of switch. 3 connection extensions on outlet side 3 connection extensions on trip block side. 1 long shroud for the outlet side • Paper drilling template in the instructional leaflet (AWA) • Cannot be combined with the module plate (NZM4-XKM...), flat cable terminal (NZM4-XKB), connection width extension (NZM4-XKV...), tunnel terminal (NZM4-XKA), connection on rear (NZM4-XKR) and withdrawable unit (NZM4-XAV...).
		NZM4-XAS14-1600 283292	1 set	

NZM4 Terminals

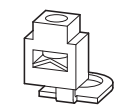
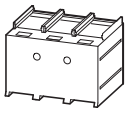
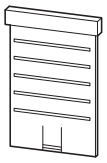
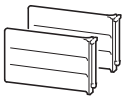
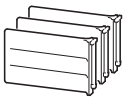
	Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	Adapter set N(ZM)4/N(ZM)12						
	-	Max.1000	N4	3 pole			
	-	Max.1250	N4	3 pole			
	-	Max.1600	N4	3 pole			
	-	Max.1000	NZM4	3 pole			
	-	Max.1250	NZM4	3 pole			
	-	Max.1600	NZM4	3 pole			

Notes

[1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide.
The engineering standards which apply in each case must be observed.

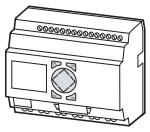
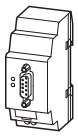
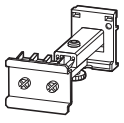
Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered separately	Std. pack	**Note**
		N4-XAS12-1000 285609	1 set	• Conversion kit from N(ZM)12 to N(ZM)4. With the terminal lugs of the replacement kit all three-pole NZM12 and N12 can be adapted to the connection dimensions of the NZM4 or N4 supplied from model year 1983. 4 pole basic devices, withdrawable units and basic devices with remote operator can not be replaced.
		N4-XAS12-1250 285610	1 set	• Contents of replacement kits N(ZM)4-XAS12…: 3 connection extensions on outlet side 3 connection extensions on trip block side 2 mounting brackets 4 fixing screws 4 phase isolators 6 fixing screws, nuts and washers
		N4-XAS12-1600 285611	1 set	• Paper drilling template in the instructional leaflet (AWA) The replacement kits have the same dimensions as models N(ZM)12…, which correspond to production status 02/97 to the present.
		NZM4-XAS12-1000 285612	1 set	• Special feature: Prior to 02/97 the N(ZM)12-800 was supplied with 10 mm instead of 8 mm terminal lugs. With these models the customer must determine the device's year of manufacture by measuring the thickness of the terminal lug and order replacement kit N(ZM)4-XAS12-1250.
		NZM4-XAS12-1250 285613	1 set	• Example: • N(ZM)12-800…(1000) > N(ZM)4-XAS12-1000 • N(ZM)12-800 before 02/97 > N(ZM)4-XAS12-1250 • N(ZM)12-1250 > N(ZM)4-XAS12-1250 • N(ZM)12-1600 > N(ZM)4-XAS12-1600
		NZM4-XAS12-1600 285614	1 set	

NZM4 Terminals

	Max. cable connection area	Rated current[1] I_n A	For use with	Number of poles	Terminal capacity Connection	Terminal capacity mm²	Terminal capacity AWG/kcmil
	**Control cable terminals**						
	-		NZM3(-4), PN3, N(S)3(-4) NZM4(-4), N(S)4(-4)	3 pole and 4 pole	Screw terminals	1 × 0.75-2.5 2 × 0.75-1.5	1 × 18-14 2 × 18-16
	**Cover**						
	-		NZM4, N(S)4	3 pole			
	-		NZM4-4, N4-4	4 pole			
	**Terminal covers, knockout**						
	-		NZM4, N4	3 pole			
	-		NZM4-4, N4-4	4 pole			
	Phase isolators						
	-		NZM4, N(S)4	3 pole			
	-		NZM4-4, N4-4	4 pole			
	**Cable lug** Not UL/CSA approved						
	185 mm²		NZM3(-4), PN3, N3(-4) NZM4(-4), N4(-4)	3 pole and 4 pole			
	240 mm²						

Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width × thickness mm	**Part no.** Article no. when ordered separately	Std. pack	**Note**
		NZM3/4-XSTS 266797	1 set	• Contains parts for a terminal located at top or bottom • Included as standard with tunnel terminal • Degree of protection IP1X • NZM-XSTK cannot be combined with NZM3(-4)-XIPK or NZM4(-4)-XIPK protection against contact with a finger • Height or thickness of connection: 2mm
		NZM4-XKSA 266846	1 set	• Contains parts for a terminal located at top or bottom • Contact protection against direct contact where cable lugs, bars or tunnel terminals are used • Contained in the set with tunnel terminals and screw terminals • When using insulated conductor material to degree of protection IP4X
		NZM4-4-XKSA 266847	1 set	
		NZM4-X KSFA 292193	1 set	• Contains parts for a terminal located at top or bottom • Enhanced contact protection (simplified finger protection)
		NZM4-4-XKSFA 292194	1 set	
		NZM4-XKP 281595	1 set	• Contains parts for a terminal located at top or bottom • Included with the connection width extension. • Cannot be combined with the NZM4(-4)-XKA tunnel terminal, NZM4(-4)-XKR connection on rear. • Insulation protection where cable lugs, bars, or flat conductor are used
		NZM4-4-XKP 281596	1 set	
		NZM3-XKS185 260040	1 set	• Special cable lug, narrow style
		NZM3-XKS240 260041	1 set	

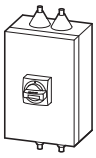
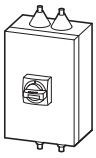
Accessory

Description	Part no. Article no. when ordered separately	Std. pack	Notes
Diagnostics and configuration software for NZM and DMI (local)			
PC software for direct connection to all new NZM circuit breakers with electronic releases (IEC and UL/CSA devices) or for direct connection to the DMI module, including the required connection cable to NZM. • Protection parameter: online display and curve display, export option to curve characteristics program "Moeller CurveSelect". • Warning and release messages: reading of diagnostic memory also in voltage-free state. • Load currents: display and trend indication. • Recording and export options to Excel for load currents and diagnostic messages. • Configuration of the DMI: motor starter, remote operator, assignment of the DMI inputs and outputs and displays.	**NZM-XPC-KIT** 265631	1 off	Only for use in combination with circuit-breakers with electronic releases. Download the manual AWB1230-1459 and demo-software at www.eaton.com.cn/electrical.
Data management interface (DMI module)			
 • Access to diagnostics and operational data. • Recording current values, motor starter function, and setting parameters. • Control of the circuit-breakers with electronic trip block. • Comprehensive remote diagnostic options and remote operation via fieldbus in combination with a field Bus connection	**NZM-XDM1612** 260217	1 off	Only for use in combination with circuit-breakers with electronic releases. Download the manual AWB1230-1441 and demosoftware at www.eaton.com.cn/electrical.
Fieldbus interface for DMI			
Connection to the DMI module • Transfer of phase currents, parameter data, status data and diagnostics data. • Transfer of circuit-breaker position (wiring of auxiliary contacts to DMI inputs. • Actuation of the DM I motor starter functions and the NZM remote operator. • Detection of digital inputs and actuation via field Bus.			
 • PRDFIBUS-DPV1-Slave fieldbus interface. Can be operated with class 1 and class 2 masters. Addresses available: 1 to 126	**NZM-XDMI-DPV1** 270333	1 off	Connected to the DMI module and has the same contour appearance.
Switched-mode power supply unit For DMI module			
• Rated input voltage: 50/60 HZ: 115/230 V AC • Rated output voltage (residual ripple): 24 V DC (± 3 %) • Rated output current: 1.25 A	**EASY400-POW** 212319	1 off	-
Telescopic adapter For DMI module For equalization of the mounting depth when rear mounted in CI-K... enclosures and cabinets.			
 With 35 mm top-hat rail IEC/EN 60715, adjustable from 75 – 115 mm. Screw and snap fitting.	**M22-TA** 226161	1 off	-

Accessory

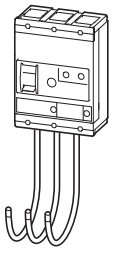
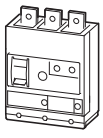
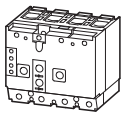
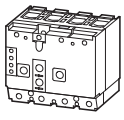
	Part no. Article no. when ordered separately	Std. pack	Notes
FDT frame software for operating field devices			
PC software for integration of software modules (DTM's) according to the FDT standard V1.2 (e.g. NZM-XPC-DTM). • Operation of a temporary or stationary service station for engineering, remote diagnostics, remote operation and remote parameter definition of networked switchgear and field devices. • Engineering of the network topology of networked field devices. • Overview representation of the topology with online status information. • Access to the device-specific DTM's for configuration, operation, parameterization and diagnostics of the devices. • Storage of all engineering information in a central database. Download and upload from/to the devices.	**FDT-NAVIGATOR** 281623	1 off	The connection of the field devices can be implemented via the PROFIBUS DPV1 master or via gateways (e.g.: USB/PROFIBUS, Ethernet/PROFIBUS). Communication interfacing for the PC and a communication DTM (driver) is necessary for this purpose.
DTM software module to FTD standard			
PC software module (Device Type Manager) to FDT/DTM standard V1.2 for integration in the FDT navigator or other FDT-capable framework software packages (primary control system, PLC engineering systems). • Remote diagnostics, remote monitoring, remote parameter definition and remote operation of the new NZM2,3,4 circuit-breakers with electronic trip release via PROFIBUS-DPV1. • Indication of the circuit-breaker state (on/off/tripped), the phase currents, parameter data, status data and diagnostics data. • Definition of the trip parameters. • Display and setting the DMI motor starter functions and assignment of the DMI inputs and outputs. • Control of the motor starter functions.	**NZM-XPC-DTM** 281624	1 off	For connection of the circuitbreaker to the PROFIBUS-DP fieldbus, the accessory device NZM-XDMI612 and the fieldbus interface NZM-XDMI-DPV1 are required.

Insulated enclosures

	Max. rated uninterrupted current I_n A	For use with	Part no. Article no. when ordered separately	Std. pack
Insulated enclosures				
With door coupling rotary handle Complete includes all necessary functional parts Degree of protection IP65 Not UL/CSA approved				
Standard, black/grey				
 Lockable in 0 position on handle with up to 3 padlocks. Additionally with cover interlock.	≤ 63 A	PN1.N1	**NZM1-XCIKS-TVD** 271521	1 off
	≤ 63 A	NZM1. PN1.N1	**NZM1-XC123-TVD** 271522	1 off
	≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XC143-TVD** 271523	1 off
	≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XC143/2-TVD** 104645	1 off
	≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XC143-TVD** 271524	1 off
	≤ 250 A	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XC145-TVD** 280418	1 off
	≤ 400 A	NZM3(-4), PN3(-4), N3(-4)	**NZM3-XC148-TVD** 271525	1 off
Red-yellow for emergency switching off				
 Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. Additionally with cover interlock and locking facility on circuit-breaker in 0 position.	≤ 63 A	PN1.N1	**NZM1-XCIKS-TVDVR** 271526	1 off
	≤ 63 A	NZM1. PN1.N1	**NZM1-XC123-TVDVR** 271527	1 off
	≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XC143-TVDVR** 271528	1 off
	≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	**NZM1-XC143/2-TVDVR** 104646	1 off
	≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XC143-TVDVR** 271529	1 off
	≤ 250 A	NZM2(-4), PN2(-4), N2(-4)	**NZM2-XC145-TVDVR** 279356	1 off
	≤ 400 A	NZM3(-4), PN3(-4), N3(-4)	**NZM3-XC148-TVDVR** 271530	1 off

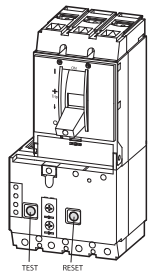
Insulated enclosure description	Terminals for 3-pole switches fitted by user for fourth and fifth conductor (N and PE), on 4 pole switches: for fifth conductor (PE)	Notes
CIK5-160-M	K10/1, K25/1	Enclosures for separate mounting with top and bottom cable entry, suitable for installation of circuit-breakers and switch-disconnectors. Include fixing straps for wall mounting. Short-circuit resistance at 415 V 50/60 Hz up to 10 kA. Cannot be used in combination with remote operator NZM...-XR..., plug-in unit NZM...-XSV or withdrawable unit NZM...-XAV. Order insulated additional terminal for 4th or 5th pole separately. Enclosure CI-K5 with hard metric knock-outs Enclosure CI23 with flanges CI43, CI45 and CI48 feature gland plates. Only for switches with box terminals for direct connection of cables.
CI23-150	K10/1, K25/1	
CI43-150	K10/1, K25/1, K50/1, K95/1 N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1 N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
CI45-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
CI48-250	K95/1N/BR, K150/1/BR, K240/1/BR, K2X240/1/BR	
CIK5-160-M	K10/1, K25/1	
CI23-150	K10/1, K25/1	
CI43-150	K10/1, K25/1, K50/1, K95/1 N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1 N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
CI45-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
CI48-250	K95/1N/BR, K150/1/BR, K240/1/BR, K2X240/1/BR	

Earth-fault release

	For use with		Part no. Article no. when ordered separately	Std. pack	Notes
Earth-fault release Not UL/CSA approved Suitable for use in three- and single-phase systems					
Pulse-current sensitive according to core-balance principle For 3 and 4 pole NZM1(-4) circuit-breakers and N1(-4) switch-disconnectors, dependant on mains power U_e = 200 … 415 V 50/60 Hz					
 Rated fault current $I_{\Delta n}$ = 0.03 A	NZM1 N1	3 pole	**NZM1-XFI30R** 104603	1 off	At $I_{\Delta n}$ = 0.03 A: delay time t_v always fixed at 10 ms. Alarm indication > 30 % $I_{\Delta n}$ by yellow LED. Trip indication by up to 2 auxiliary contacts (HIAFI) can be retrofitted: N/O = M22-K01, NC = M22-K10 are reset with the reset toggle lever. If the trip-indicating auxiliary contact in the fault current block is used, the NC contacts operates as a N/O contact and the NC contact operates as N/O contacts. Double contact not permissible. Not in combination with insulated enclosure or main switch assembly kit for side wall installation with mounting bracket. NZM1-XFI...R can not be used in combination with lower cover NZM1-XKSA. NZM1-XFI…U not in combination with shunt or undervoltage release
	NZM1-4 N1-4	4 pole	**NZM1-4 -XFI30R** 104606	1 off	
Rated fault current $I_{\Delta n}$ = 0.3 A	NZM1 N1	3 pole	**NZM1-XFI300R** 104604	1 off	
	NZM1-4 N1-4	4 pole	**NZM1-4-XFI300R** 104607	1 off	
Rated fault current $I_{\Delta n}$ = 0.03-0.1-0.3-0.5-1-3 A Delay time t_v = 10-60-150-300-450 ms	NZM1 N1	3 pole	**NZM1-XFIR** 104605	1 off	
	NZM1-4 N1-4	4 pole	**NZM1-4-XFIR** 104608	1 off	
 Rated fault current $I_{\Delta n}$ = 0.03 A	NZM1 N1	3 pole	**NZM 1-XFI30U** 104609	1 off	
	NZM1-4 N1-4	4 pole	**NZM1-4-XFI30U** 104612	1 off	
Rated fault current $I_{\Delta n}$ = 0.3 A	NZM1 N1	3 pole	**NZM 1-XFI300U** 104610	1 off	
	NZM1-4 N1-4	4 pole	**NZM1-4-XFI300U** 104613		
Rated fault current $I_{\Delta n}$ = 0.03-0.1-0.3-0.5-1-3 A Delay time t_v = 10-60-150-300-450 ms	NZM1 N1	3 pole	**NZM1-XFIU** 104611	1 off	
	NZM1-4 N1-4	4 pole	**NZM1-4-XFIU** 104614	1 off	
 Pulse-current sensitive according to core-balance principle For 4 pole circuit-breaker NZM2-4 and switch-disconnector N2-4 independent of mains voltage U_e = 280 … 690 V 50/60 Hz					
Rated fault current $I_{\Delta n}$ = 0.3 A	NZM2-4 N2-4	4 pole	**NZM2-4-XFI30** 292343	1 off	Auxiliary contacts (1 N/O, 1 NC built-in) are reset with the reset button. Not in combination with plug-in units, insulated enclosure or main switch assembly kit for side wall installation with mounting bracket.
Rated fault current $I_{\Delta n}$ = 0.03-0.1-0.3-0.5-1-3 A Delay time t_v = 10-60-150-300-450 ms	NZM2-4 N2-4	4 pole	**NZM2-4-XFI** 292344	1 off	
 Core-balance principle with AC/DC current sensitivity (in range 0 … 100 kHz) For 4 pole circuit-breaker NZM2-4 and switch-disconnector N2-4 Internal voltage supply U_e = 50 … 400 V					
Rated fault current $I_{\Delta n}$ = 0.3 A	NZM2-4 N2-4	4 pole	**NZM2-4-XFIA30** 292345	1 off	Observe response threshold dependence on frequency! See “Frequency response” characteristic curve. Adjusting buttons can be sealed.
Rated fault current $I_{\Delta n}$ = 0.03-0.1-0.3-0.5-1-3 A Delay time t_v = 10-60-150-300-450 ms	NZM2-4 N2-4	4 pole	**NZM2-4-XFIA** 292346	1 off	

Earth-fault release

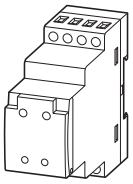
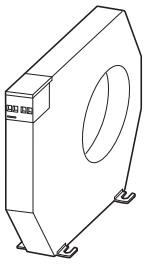
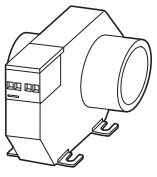
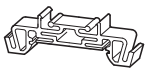
	For use with	Part no. Article no. when ordered separately	Std. pack	Notes
Earth-fault release, 3 pole, 4 pole Not UL/CSA approved Not dependent on mains and control voltages I_g = 0.35-0.4-0.5-0.6-0.7-0.8-0.9-1.0 × I_n t_g = 0-20-60-100-200-300-500-750-1000 ms				
	NZM4	**+NZM4-XT** 266721	1 off	Only suitable for use in conjunction with circuit breakers with electronic releases. Not in combination with motor-protective circuitbreakers NZM…-ME… Indication of the earth-fault in optional DMI communication module.
	NZM4-4	**+NZM4-4-XT** 266722	1 off	



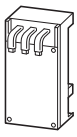
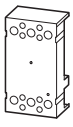
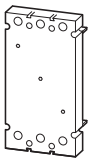
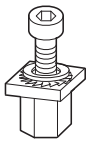
Circuit-breakers with earth-fault release, 3 pole
For apparatus with power electronics, such as power inverters and frequency inverters

	Rated current = Rated uninterrupted current $I_n = I_u$ A	Overload releases Phase conductors I_r A	Short-circuit releases I_i A	Number of poles	Part no. Article no. High switching capacity 150 kA; 415 V 50/60 Hz
AC/DC sensitive according to core-balance principle in range of 0 – 100 kHz residual-current frequency. Not UL/CSA approved. Suitable for use in three-phase systems. Rated operating voltage: 400 V (50/60 Hz) Rated fault current $I_{\Delta n}$ = 0.03 A Internal power supply U_e = 50 - 400 V	160	125...160	960...1600	3 pole	**NZMH2-A160-FIA30** 112627
	200	160...200	1200...2000	4 pole	**NZMH2-A200-FIA30** 112628
	250	200...250	1500...2500	3 pole	**NZMH2-A250-FIA30** 112629

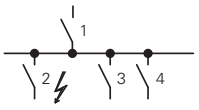
Residual-current relay

	Description	Rated current Energy I_n A	Motor I_n A	Part no. Article no.	Std. pack	Notes
	**Residual-current relays** Pulsed current sensitive Rated control voltage: U_s = 230 V AC (50/60 Hz) Integrated auxiliary contact (1 C/O) Ring-type transformer must also be ordered.					
	Rated fault current $I_{\Delta n}$ = 0.03 A			**PFR-003** 285555	1 off	-
	Rated fault current $I_{\Delta n}$ = 0.3 A			**PFR-03** 285556	1 off	-
	Rated fault current $I_{\Delta n}$ = 0.03-5 A Adjustable fault current and delay time Fault current early warning by flashing, red LED			**PFR-5** 285557	1 off	Adjustable fault current: 0.03, 0.1, 0.3, 0.5, 1, 3, 5 A Adjustable delay time: 0.02, 0.1, 0.3, 0.5, 1, 3, 5 A
	Ring-type transformer Rated operating voltage: 690 V (50/60 Hz)					
	Internal diameter: 20 mm	50A	50A	**PFR-W-20** 285558	1 off	Includes fixing clip for DIN rail mounting
	Internal diameter: 30 mm	150A	100A	**PFR-W-30** 285559	1 off	
	Internal diameter: 35 mm	150A	100A	**PFR-W-35** 285600	1 off	Includes screw fixing alternative: fixing clip for DIN mounting rail note on engineering: the current transformer diameter must be selected 1.5 times larger than the envelope diameter of the passed through conductor.
	Internal diameter: 70 mm	400A	200A	**PFR-W-70** 285601	1 off	
	Internal diameter: 105 mm	600A	250A	**PFR-W-105** 285602	1 off	
	Internal diameter: 140mm	1200A	630A	**PFR-W-140** 285603	1 off	
	Internal diameter: 210mm	1800A	800A	**PFR-W-210** 285604	1 off	
	**Magnetic shielding**					
	PFR-W-35			**PFR-WMA-35** 286001	1 off	Required for load circuits with high inrush currents > 4 × I_n, e.g. motors and capacitors.
	PFR-W-70			**PFR-WMA-70** 286002	1 off	
	PFR-W-105			**PFR-WMA-105** 286003	1 off	
	PFR-W-140			**PFR-WMA-140** 286004	1 off	
	PFR-W-210			**PFR-WMA-210** 286005	1 off	
	**Mounting clip**					
	For the DIN rail mounting current transformers PFR-W-35 and larger			**PFR-WC** 286006	1 off	1 set = 2 off

Multi-function component adapters

	For use with	Rated current = Rated uninterrupted current $I_n = I_u$ A	Part no. Article no. when ordered with basic unit	Part no. Article no. when ordered separately	Std. pack	Notes
	Component adapters for circuit-breakers and switch-disconnectors For mounting on flat copper bars 12–30 × 5–10 mm, double T and triple T profile Rated operating voltage U_e: 690 V • Temperature resistant to 120 °C • Self-extinguishing to UL 94 • Track resistance CTI 200					
	NZM1, PN1, N1, NS1	160		**NZM1-XAD160** 104554	1 off	For switch and standard connection with box terminal. Connection to the system at top using supplied connection cable. In conjunction with IP2X protection against contact with a finger. Enhanced contact protection on the switch secondary side.
	NZM2, PN2, N2, NS2	250		**NZM2-XAD250** 104555	1 off	Connection to the system possible at top or bottom via connection on rear (+)NZM2-XKR4…
	NZM3, PN3, N3	550		**NZM3-XAD550** 104556	1 off	Connection to the system possible at top or bottom via connection on rear (+)NZM3-XKR13…
	**Connection block for component adapters** For NZM2, NZM3 circuit-breakers					
	NZM2, PN2, N2, NS2	250	**+NZM2-XKR40** 281664	**NZM2-XKR4** 281666	1 off	Part no. and part no. suffix include parts for one switch side at top or bottom (for NZM3 top only). Required with component adapter and switch with connection on rear. See Component adapters NZM1-XAD-160, NZM1-XAD-250 and NZM1-XAD-550, for example. • O = for fitting at the top • U = for fitting at the bottom
	NZM2, PN2, N2, NS2	250	**+NZM2-XKR4U** 281665		1 off	
	NZM3, PN3, N3	550	**+NZM3-XKR130** 281667	**NZM3-XKR13** 281668	1 off	

Selectivity protection between incoming circuit-breaker NZM and outgoing circuit-breaker FAZ-B(C), PKZ...



Incoming circuit-breaker
Outgoing circuit-breaker

Selectivity 415 V AC

between circuit-breakers enables separate shut-down of faulty system sections.
Selectivity (discrimination) exists between incoming circuit-breaker 1 and outgoing circuit-breaker 2 if, only outgoing breaker 2 trips at position 2 during a short-circuit.
System sections 3 and 4 continue to operate.

Incoming circuit-breaker (S1)

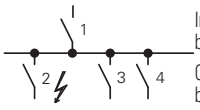
			NZM...1-A...							**NZM...2-A...**								
	I_{cu} [kA]		25(36)(50)(70)(100)							25(36)(50)(70)(150)								
	I_n [A]		20-40	50	63	80	100	125	160	20-40	50	63	80	100	125	160	200	250
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu\ (415V)}$ [kA]	Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value															
FAZ–B(C)	0.5	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2	15	2	T	T	T	T	T	T	3	T	T	T	T	T	T	T	T
	3	15	1.2	2	3	3	10	T	T	1.5	1.5	3	5	T	T	T	T	T
	4	15	1.2	2	3	3	8	T	T	1.2	1.5	3	4	T	T	T	T	T
	6	15	1.2	2	2.5	3	5	10	10	1.2	1.5	2.5	3	T	T	T	T	T
	10	15	1.2	1.5	2	2	4	10	10	1	1.5	2.5	3	10	10	10	10	10
	13	15	1	1.5	2	2	4	10	10	1	1.2	2	3	10	10	10	10	10
	16	15	1	1.2	1.5	2	3	8	8	1	1.2	1.5	2.5	10	10	10	10	10
	20	15	0.8	1.2	1.5	1.5	3	8	8	1	1.2	1.5	2.5	10	10	10	10	10
	25	15	0.7	1.2	1.5	1.5	3	7	7	0.8	1	1.5	2	10	10	10	10	10
	32	15	–	1.2	1	1.5	2	6	6	–	1	1.5	2	8	8	8	8	10
	40	15	–	–	1	1.5	2	5	5	–	–	1.2	1.5	7	7	7	7	10
	50	15	–	–	–	1.2	1.5	4	4	–	–	–	1.5	6	6	6	6	10
	63	15	–	–	–	–	1.5	3	3	–	–	–	–	6	6	6	6	10
PKZM0-...	0.16	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.25	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	0.63	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2.5	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6.3	100	4	5	5	T	T	T	T	2	3	4	5	T	T	T	T	T
	10	100	3	4	5	6	25	T	T	1.5	2.5	4	4	T	T	T	T	T
	12	50	3	4	5	6	25	T	T	1.5	2.5	4	4	T	T	T	T	T
	16	50	1.5	1.5	2	3	5	7	T	1	1.6	2	2.5	T	T	T	T	T
	20	50	0.8	1.5	1.5	2	3	5	T	0.8	1.2	1.5	2	T	T	T	T	T
	25	50	–	1	1.5	1.5	2.5	4	T	–	1	1.5	2	10	T	T	T	T
	32	50	–	–	1	1	2	3.5	T	–	–	1	1.5	8	40	T	T	T
PKZ2/ZM-...	0.6	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1.0	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1.6	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2.4	100	1.2	2	2.5	10	T	T	T	1.2	2	2.5	10	T	T	T	T	T
	4	100	1	1.5	2	2.5	2.5	4	10	1	1.5	2	2.5	2.5	10	10	10	T
	6	100	0.6	0.8	1	1.2	2	3	8	0.6	0.8	1	1.2	2	8	8	8	10
	10	100	0.5	0.7	0.8	1	1.2	2	4	0.5	0.7	0.8	1	1.2	4	4	4	5
	16	100	0.5	0.6	0.7	0.8	1.2	1.5	3	0.5	0.6	0.7	0.8	1.2	3	3	3	4
	25	30	–	0.6	0.7	0.7	1.2	1.5	2	–	0.6	0.7	0.7	1.2	2	2	2	3
	32	30	–	–	0.6	0.7	1.2	1.5	2	–	–	0.6	0.7	1.2	2	2	2	3
	40	30	–	–	0.6	0.7	1	1.5	2	–	–	0.6	0.7	1	2	2	2	2
PKZM4	16	100	0.5	0.8	0.8	0.8	2	5	5	0.5	0.8	0.8	0.8	2	5	5	5	5
	25	100	–	0.7	0.8	0.8	1.5	5	5	–	0.7	0.8	0.8	1.5	5	5	5	5
	32	50	–	–	0.8	0.8	1.5	4	4	–	–	0.8	0.8	1.5	4	4	4	4
	40	50	–	–	–	0.8	1.5	3	3	–	–	–	0.8	1.5	3	3	3	3
	50	50	–	–	–	–	1	2.5	2.5	–	–	–	–	1	2.5	2.5	2.5	2.5
	58	50	–	–	–	–	–	2.5	2.5	–	–	–	–	–	2.5	2.5	2.5	2.5
	63	50	–	–	–	–	–	2	2	–	–	–	–	–	2	2	2	2

Notes T: total selectivity

Incoming circuit-breaker (S1)

NZM...2-VE...			NZM...3-AE...			NZM…3-VE…			NZM...4-AE...					NZM…4-VE…				
50(70)(150)			50(70)(150)			50(70)(150)			50(100)					50(100)				
100	160	250	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value																		
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
8	8	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
7	7	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
6	6	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
6	6	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
8	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
8	8	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
4	4	5	5	13	T	5	13	T	T	T	T	T	T	T	T	T	T	T
3	3	4	4	7	T	4	7	T	T	T	T	T	T	T	T	T	T	T
2	2	3	3	5	20	3	5	20	T	T	T	T	T	T	T	T	T	T
2	2	3	3	3.5	15	3	3.5	15	T	T	T	T	T	T	T	T	T	T
2	2	2.5	2.5	3.5	15	2.5	3.5	15	T	T	T	T	T	T	T	T	T	T
5	5	6	6	16	45	6	16	45	45	T	T	T	T	45	T	T	T	T
5	5	3.3	3.3	10	25	3.3	10	25	25	42	T	T	T	25	42	T	T	T
4	4	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
3	3	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
2.5	2.5	3	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
2.5	2.5	2.5	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T
2	2	2.5	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T

Selectivity protection between incoming circuit-breaker NZM… and outgoing circuit-breaker NZM…



Incoming circuit-breaker

Outgoing circuit-breaker

Selectivity 415 V AC

between circuit-breakers enables separate shut-down of faulty system sections.
Selectivity (discrimination) exists between incoming breaker 1 and outgoing breaker 2 if, only outgoing breaker 2 trips at position 2 during a short-circuit.
System sections 3 and 4 continue to be operational.

Incoming circuit-breaker (S1)

			NZM...1-A...							**NZM...2-A...**								
	I_{cu} [kA]		25(36)(50)(70)(100)							25(36)(50)(70)(150)								
	I_n [A]		20-40	50	63	80	100	125	160	20-40	50	63	80	100	125	160	200	250
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu\ (415V)}$ [kA]	Prospective short-circuit current (kA). Set the overload and short-circuit release of the incoming circuit-breaker to the max. value.															
NZM...1-A...	20-40	25-100	–	–	0.5	0.7	0.8	1.5	1.5	–	–	0.6	0.8	1.5	1.5	1.5	2	3
	50	25-100	–	–	–	0.6	0.8	1.5	1.5	–	–	–	0.8	1.5	1.5	1.5	2	3
	63	25-100	–	–	–	–	0.8	1.5	1.5	–	–	–	–	1.5	1.5	1.5	2	3
	80	25-100	–	–	–	–	–	1.5	1.5	–	–	–	–	–	1.5	1.5	2	3
	100	25-100	–	–	–	–	–	–	1.5	–	–	–	–	–	–	1.5	2	3
	125	25-100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3
	160	25-100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3
NZM...2-A...	20-40	25-150	–	–	0.5	0.6	0.8	1	1	–	–	0.5	0.6	0.8	1	1.2	1.6	2
	50	25-150	–	–	–	0.6	0.8	1	1	–	–	–	0.6	0.8	1	1.2	1.6	2
	63	25-150	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2
	80	25-150	–	–	–	–	–	1	1	–	–	–	–	–	1	1.2	1.6	2
	100	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2
	125	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2
	160	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
	200	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...1-M...	20-40	25-150	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2
	50	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2
	63	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2
	80	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2
	100	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
NZM...2-M...	20-12	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	160	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	200	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...2-VE...	100	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2
	160	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...2-ME...	90	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2
	140	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	220	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...3-AE...	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	400	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM…3-VE…	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	400	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...3-ME...	220	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	350	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	450	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...4-AE...	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM…4-VE…	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...4-ME...	550	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	875	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1400	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Notes T: total selectivity

Incoming circuit-breaker (S1)

NZM...2-VE...			NZM...3-AE...			NZM…3-VE…			NZM...4-AE...					NZM…4-VE…				
50(70)(150)			50(70)(150)			50(70)(150)			50(100)					50(100)				
100	160	250	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Prospective short-circuit current (kA). Set the overload and short-circuit release of the incoming circuit-breaker to the max. value.																		
2	5	7.5	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
2	5	7.5	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
2	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	5	6	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
1	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
1	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
1	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	–	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	–	4	5	10	10	10	15	15	T	T	T	T	T	T	T	T	T	T
–	–	–	–	10	10	–	15	15	T	T	T	T	T	T	T	T	T	T
–	–	–	–	10	10	–	15	15	T	T	T	T	T	T	T	T	T	T
1	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	2	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	–	4	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
–	–	2	6	7	10	7	10	12	T	T	T	T	T	T	T	T	T	T
–	–	–	6	7	10	7	10	12	T	T	T	T	T	T	T	T	T	T
–	–	–	–	7	10	–	10	12	T	T	T	T	T	T	T	T	T	T
–	1.2	2	6	7	10	7	8	11	T	T	T	T	T	T	T	T	T	T
–	–	2	6	7	10	7	8	11	T	T	T	T	T	T	T	T	T	T
–	–	–	–	7	10	–	8	11	T	T	T	T	T	T	T	T	T	T
–	–	2	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
–	–	–	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
–	–	–	–	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
–	–	–	–	5	7.5	–	10	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	7.5	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
–	–	–	–	3.5	4	–	10	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	4	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
–	–	–	–	3.5	4	–	10	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	4	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
–	–	–	–	–	–	–	–	–	–	10	15	20	20	–	10	15	20	20
–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	10	15	20	20	–	10	15	20	20
–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Protection of PVC insulated cables against thermal overload due to short-circuits

According to VDE 0100 Part 430 Wiring Regulations, cables and conductors must be protected from overload and short-circuits. In circuit-breakers NZM, overload protection is implemented through the adjustable, current-dependently delayed overload release.

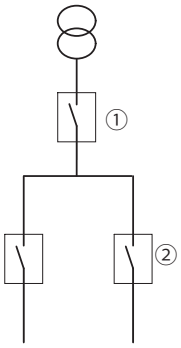
Short-circuit protection is provided by adjustable instantaneous releases, which open the main contacts in less than 25 ms. The short-circuit total opening time restricts the temperature rise of the cable to a minimum.

The tables indicate the minimum conductor crosssection reliably protected by circuit-breakers during a short-circuit. (Operating voltage U_n = 415 V)

	Minimum protected cross-section mm² copper
NZM...1(-4)-...20	6
NZM...1(4)-...25...160	10
NZM...2(-4)-...20...250	4
NZM...3(-4)-...250...630	16
NZM...4(-4)-...630...1600	95

Backup protection

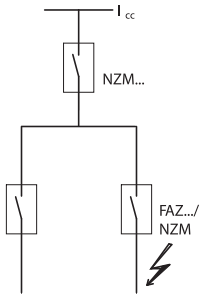
between incoming circuit-breaker NZM(N)(H) and outgoing circuit-breaker NZMB(N)(H)…



			Incoming circuit-breaker ①												
			NZM1					NZM2					NZM3		
		I_n	Up to 160 A					Up to 250 A					Up to 630 A		
		$I_{cu\ (415V)}$	25 kA	36 kA	50 kA	70 kA	100 kA	25 kA	36 kA	50 kA	70 kA	150 kA	50 kA	70 kA	150 kA
Outgoing circuit-breaker ②															
	$I_{cu\ (415V)}$	I_n													
NZMB1	25 kA	Up to 160 A	25	36	50	70	100	25	36	50	70	150	50	70	150
NZMC1	36 kA	Up to 160 A	–	36	50	70	100	–	36	50	70	150	50	70	150
NZMN1	50 kA	Up to 160 A	–	–	50	70	100	–	–	50	70	150	50	70	150
NZMS1	70 kA	Up to 160 A	–	–	–	70	100	–	–	–	70	150	–	70	150
NZMH1	100 kA	Up to 160 A	–	–	–	–	100	–	–	–	–	150	–	–	150
NZMB2	25 kA	Up to 250 A	–	–	–	–	–	25	36	50	70	150	50	70	150
NZMC2	36 kA	Up to 250 A	–	–	–	–	–	–	36	50	70	150	50	70	150
NZMN2	50 kA	Up to 250 A	–	–	–	–	–	–	–	50	70	150	50	70	150
NZMS2	70 kA	Up to 250 A	–	–	–	–	–	–	–	–	70	150	–	70	150
NZMH2	150 kA	Up to 250 A	–	–	–	–	–	–	–	–	–	150	–	–	150
NZMN3	50 kA	Up to 630 A	–	–	–	–	–	–	–	–	–	–	50	70	150
NZMS3	70 kA	Up to 630 A	–	–	–	–	–	–	–	–	–	–	–	70	150
NZMH3	150 kA	Up to 630 A	–	–	–	–	–	–	–	–	–	–	–	–	150

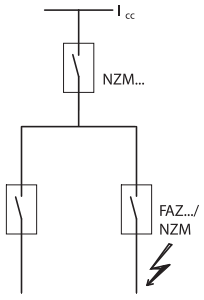
Where the prospective fault current at the mounting location of circuit-breakers is very high current-limiting circuit-breakers NZMN(H) are normally used. A cost-effective alternative if the fault level is too high for circuit-breakers NZMB(C)(N) is to fit a current-limiting circuit-breaker NZMN(H) upstream of an arrangement of standard circuit-breakers NZMB(C)(N).
The table shows which current-limiting circuit-breakers NZMN(H) provide reliable protection at network locations with high short-circuit ratings in combination with NZMB(C)(N).
The selectivity limit is determined by the response current of the non-delayed short-circuit release in the upstream incoming circuit-breaker. In many applications this is sufficient.

between incoming circuit-breaker NZM...1-A... and outgoing circuit-breaker FAZ-B(C)/PLSM-B(C)...



Outgoing circuit-breaker	**Incoming circuit-breaker**	
	NZM(B)(C)2...A	**NZMC(N)(S)(H)1...A**
FAZ-(2)(3)(4)(N)-B(C)...		
0,5...16	25 kA	30 kA
20...40	20 kA	20 kA
50,63	15 kA	15 kA
PLSM-B(C). .. (/...)		
0,5...16	25 kA	30 kA
20...40	20 kA	20 kA
50,63	15 kA	15 kA

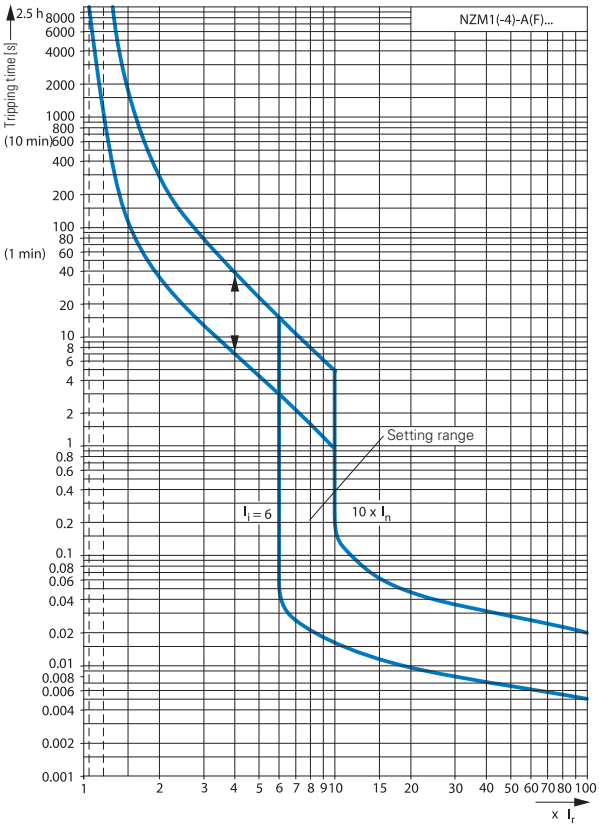
between incoming circuit-breaker NZM...2-A... and outgoing circuit-breaker FAZ-B(C)/PLSM-B(C)...



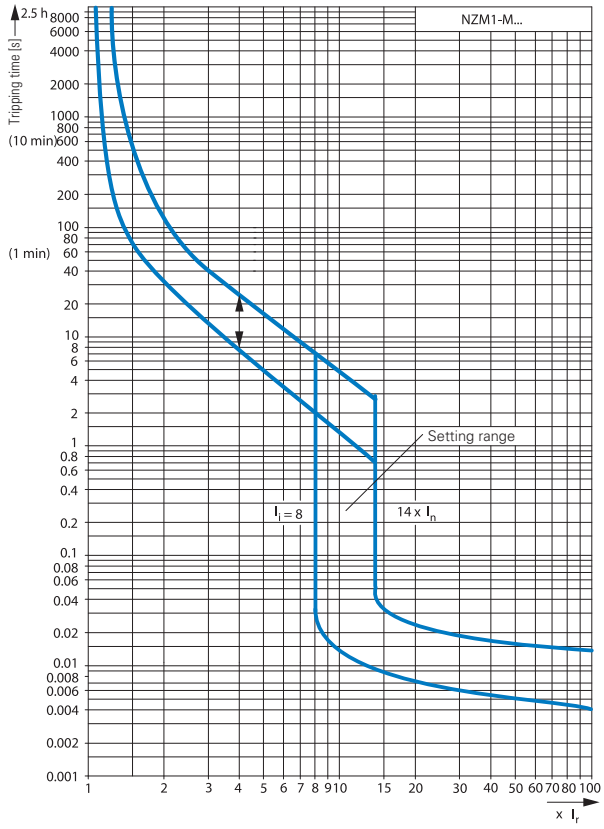
Outgoing circuit-breaker	**Incoming circuit-breaker**	
	NZMB(C)2...A	**NZMN(S)(H)2...A**
FAZ-(2)(3)(4)(N)-B(C)...		
0,5...10	25 kA	50 kA
13...32	25 kA	30 kA
40...63	20 kA	20 kA
PLSM-B(C)... (/...)		
0,5...10	25 kA	50 kA
13...32	25 kA	30 kA
40...63	20kA	20 kA

Tripping characteristics NZM1, NZM2

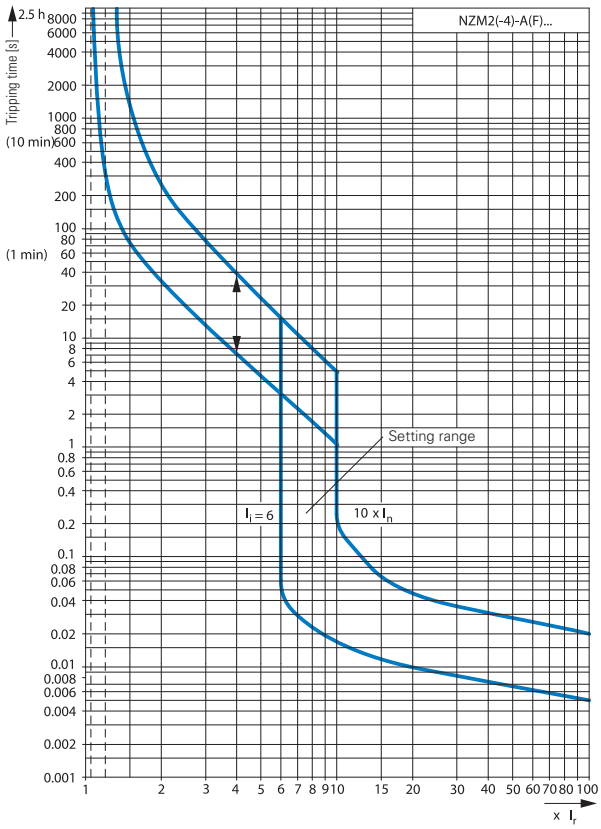
System and line protection with NZM1



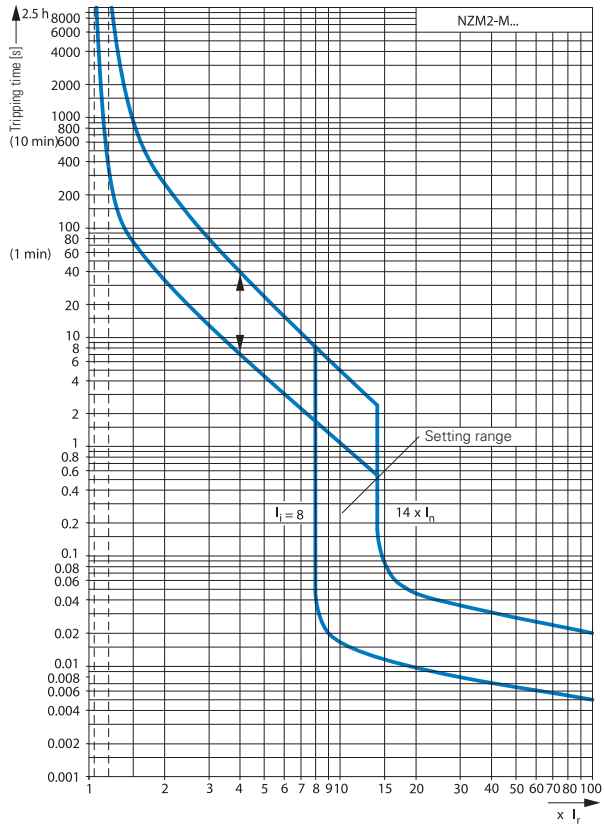
Motor protection with NZM1



System and line protection with NZM2

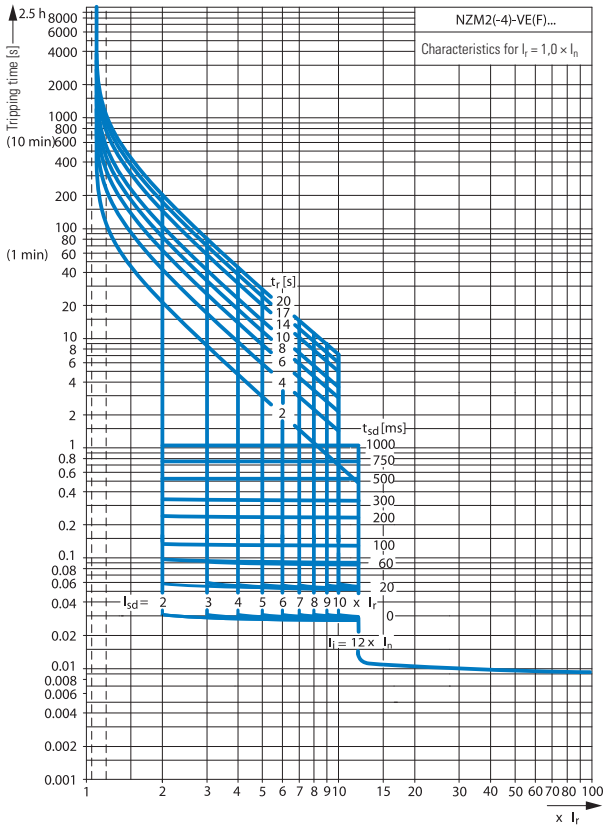


Motor protection with NZM2

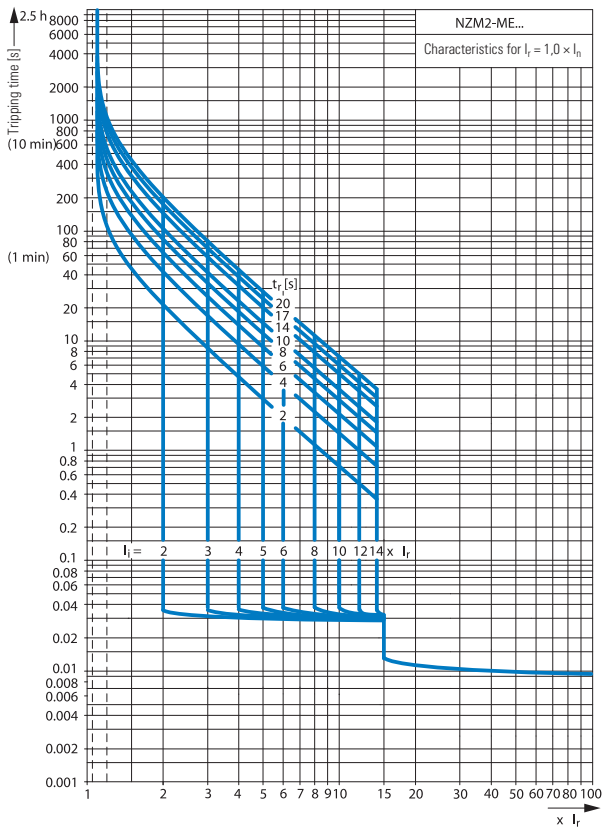


Tripping characteristics NZM2, NZM3

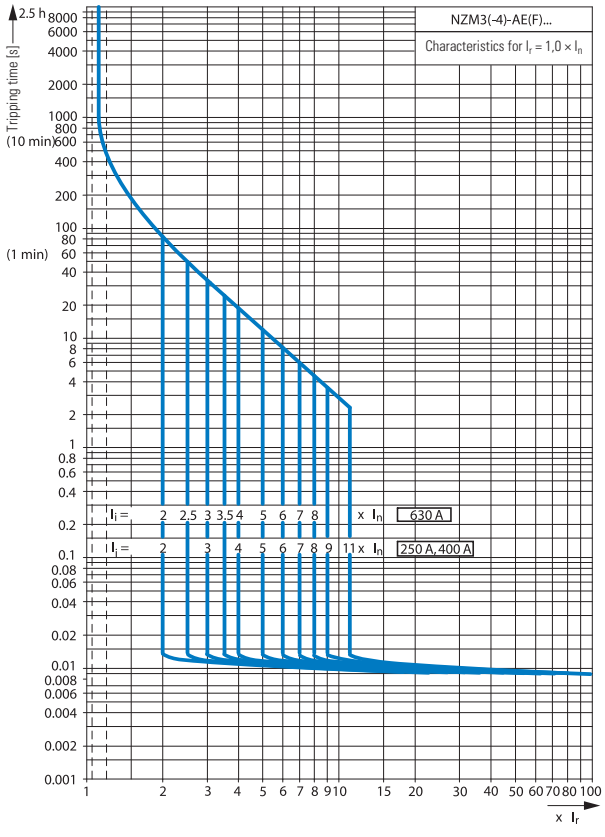
Systems, cable, selectivity and generator protection with NZM2



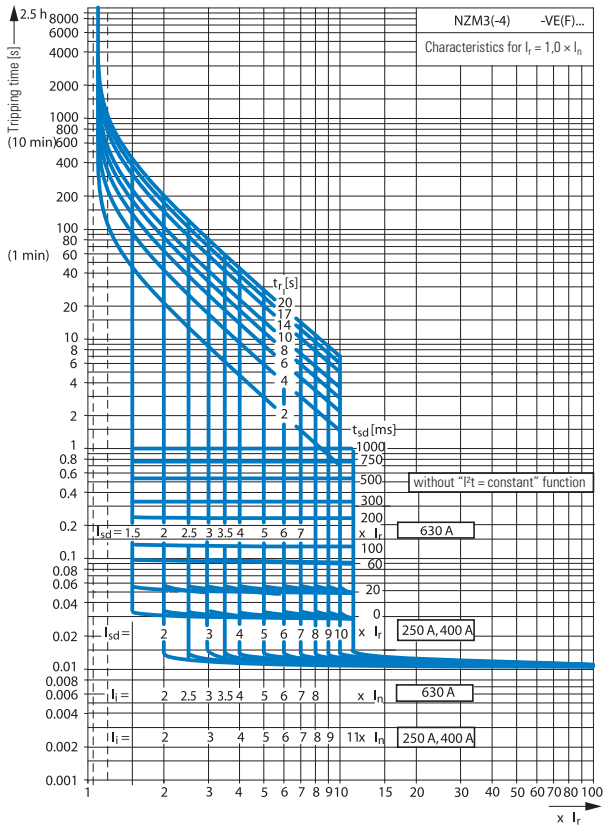
Motor protection with NZM2



System and line protection with NZM3

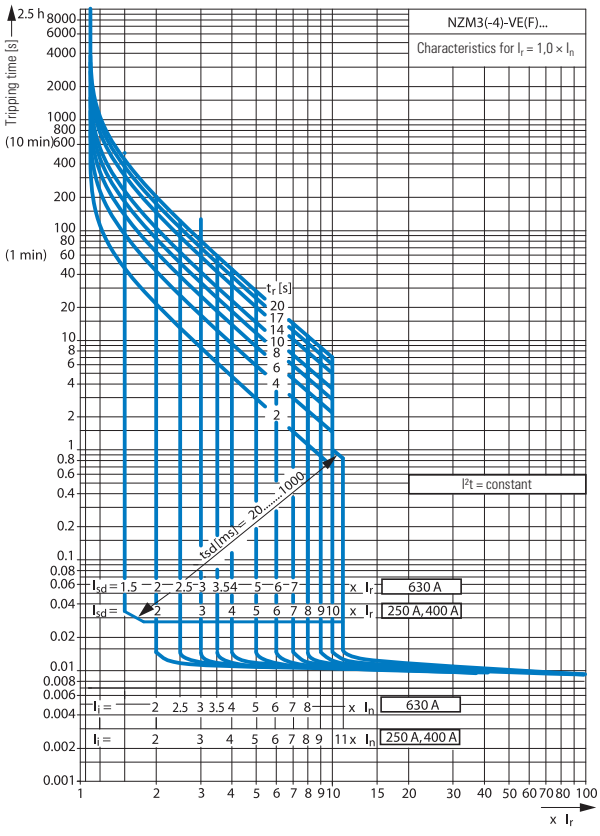


Systems, cable, selectivity and generator protection with NZM3

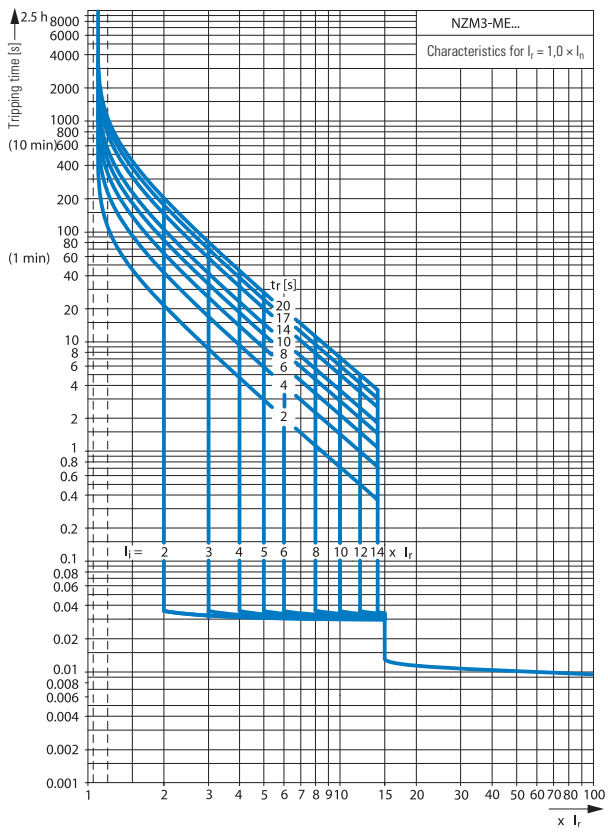


Tripping characteristics NZM3, NZM4

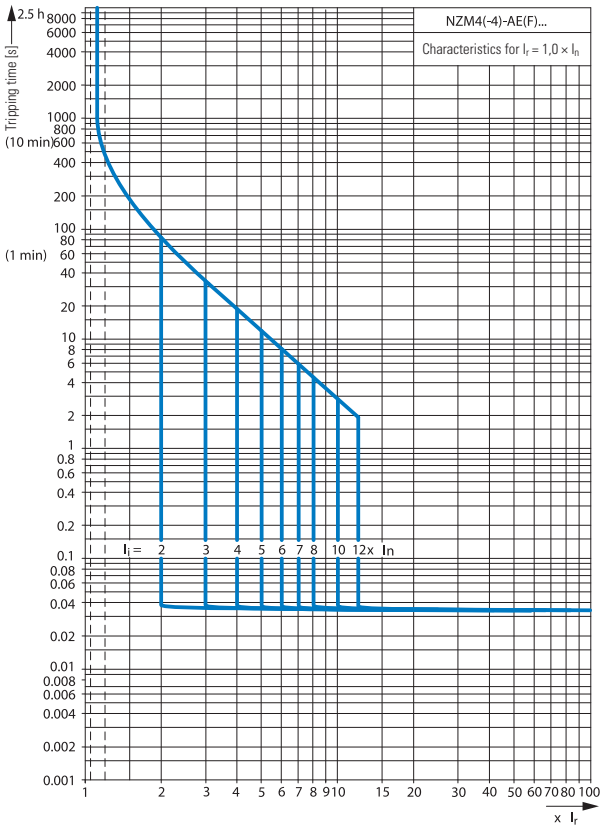
Systems, cable, selectivity and generator protection with NZM3



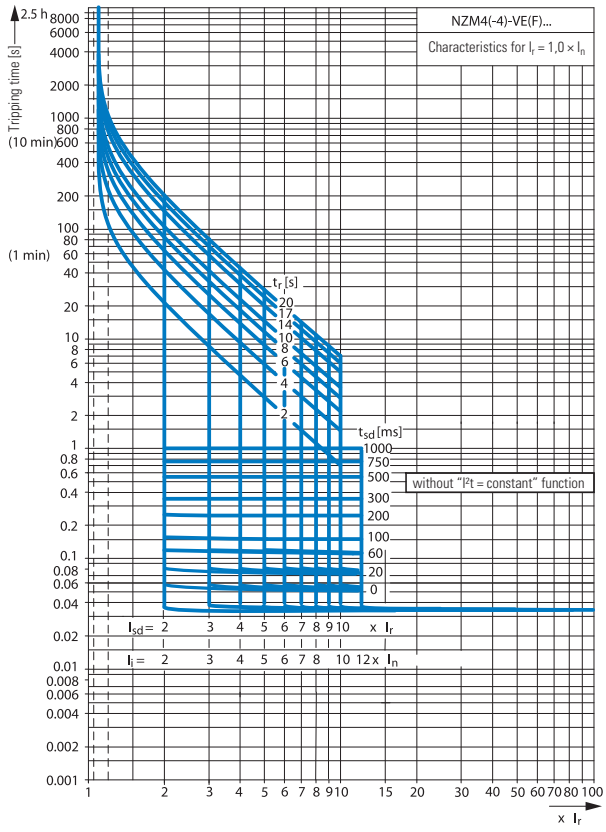
Motor protection with NZM3



System and line protection with NZM4

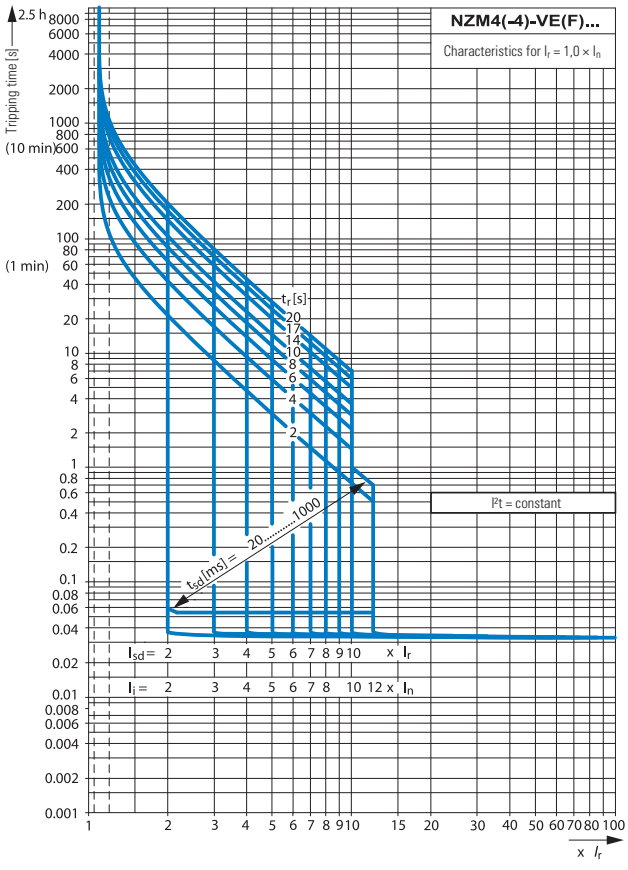


Systems, cable, selectivity and generator protection with NZM4

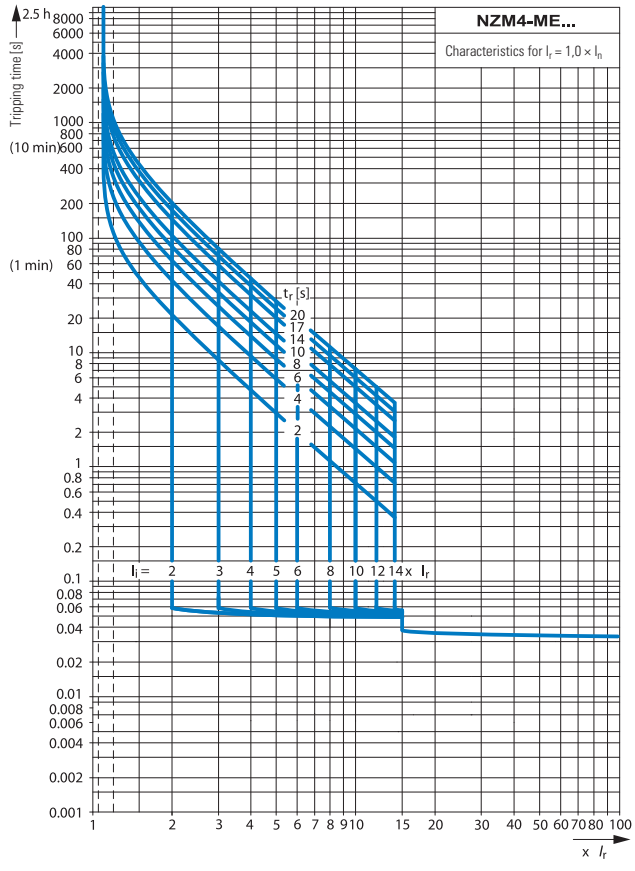


Tripping characteristics NZM4

Systems, cable, selectivity and generator protection with NZM4

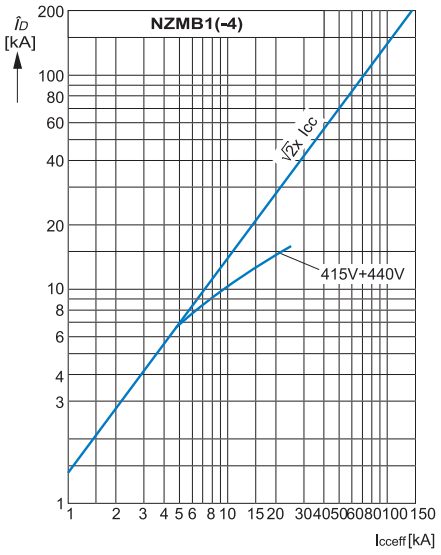


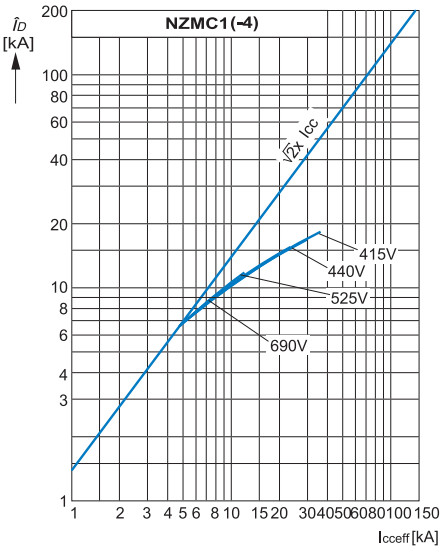
Motor protection with NZM4

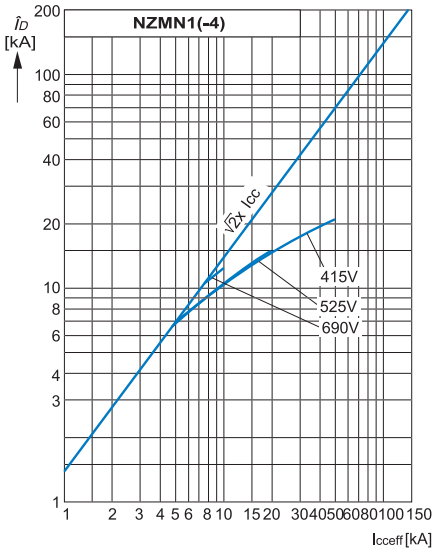


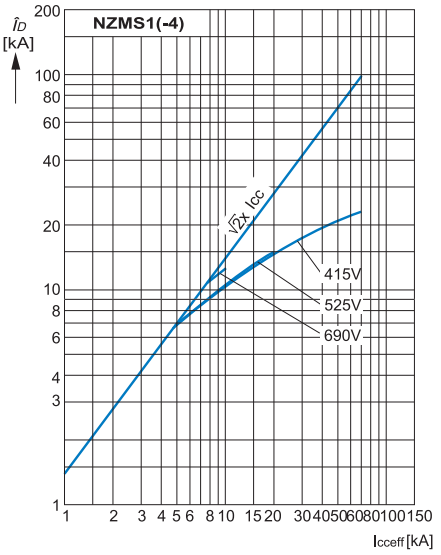
Let-through characteristics NZM1

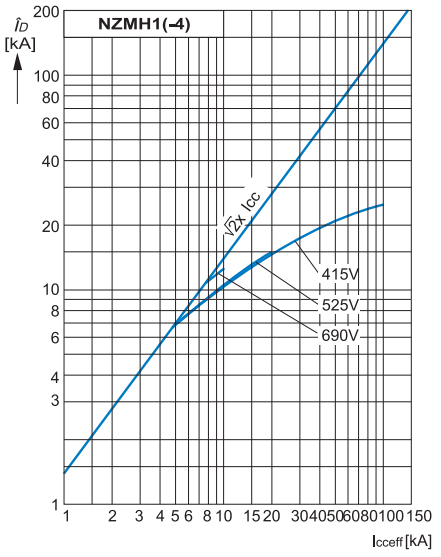
Let-through current $\hat{I}_D$





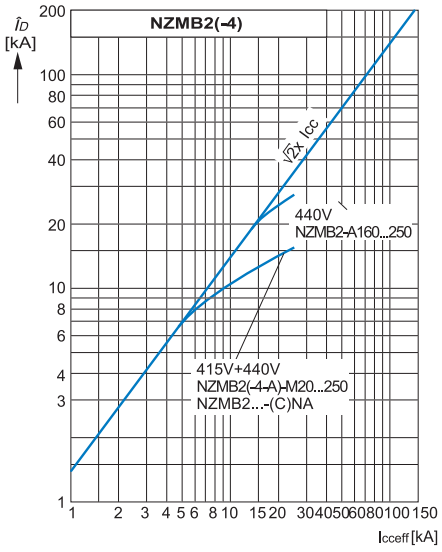


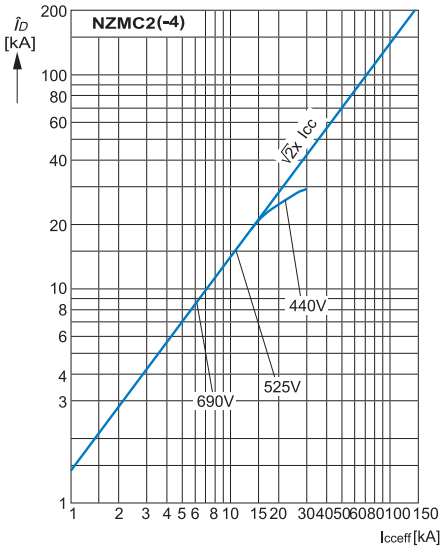


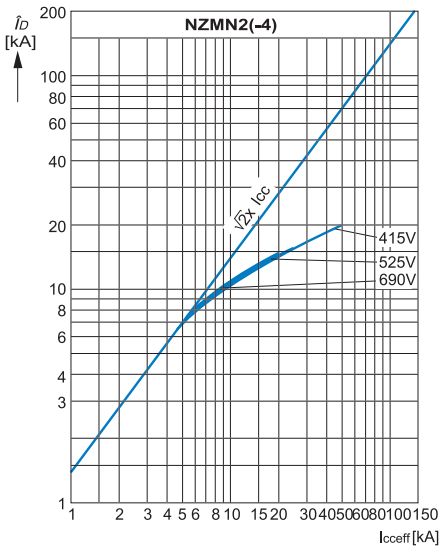


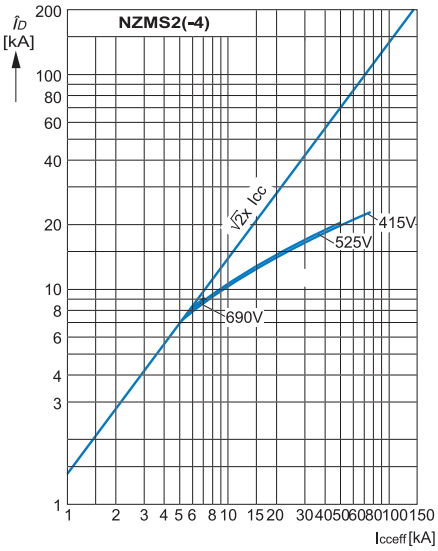
Let-through characteristics NZM2

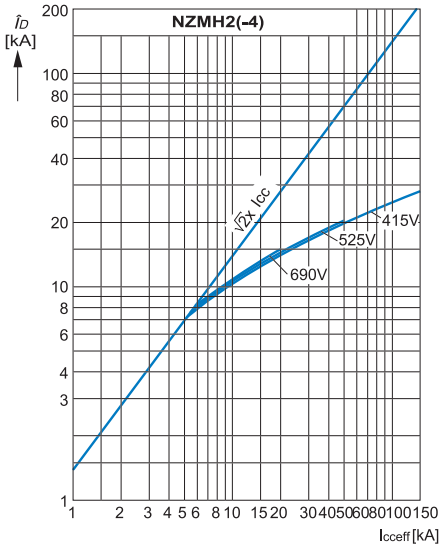
Let-through current $\hat{I}_D$





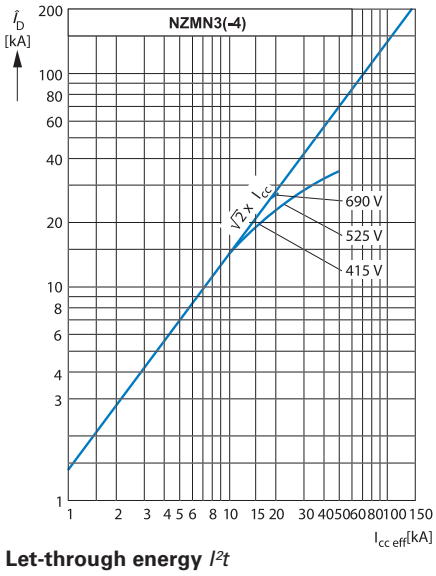


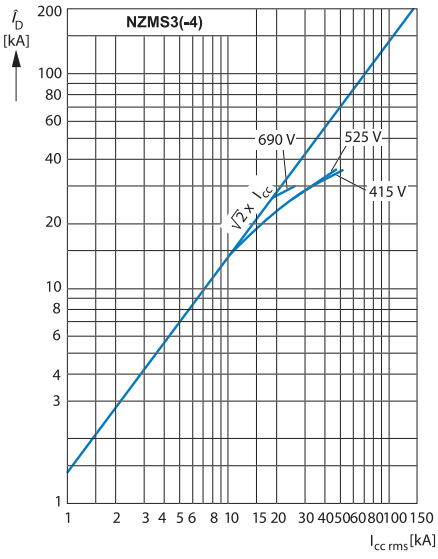


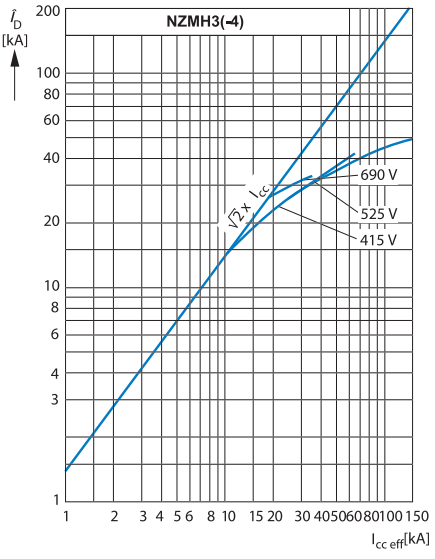


Let-through characteristics NZM2

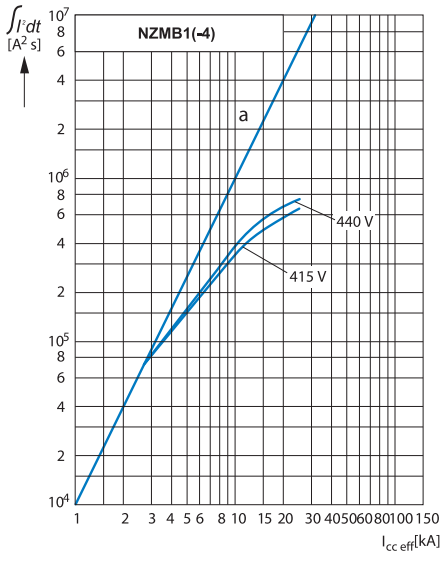
Let-through current $\hat{I}_D$

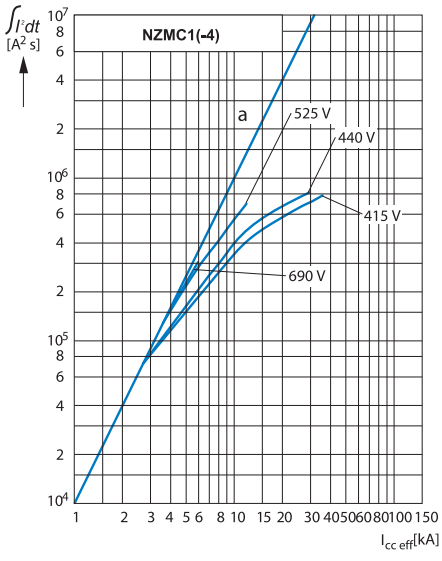


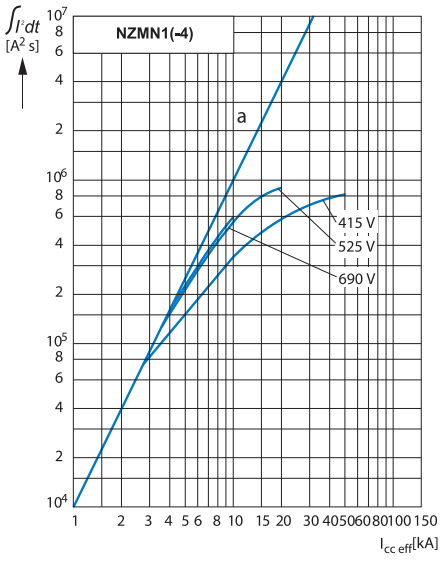


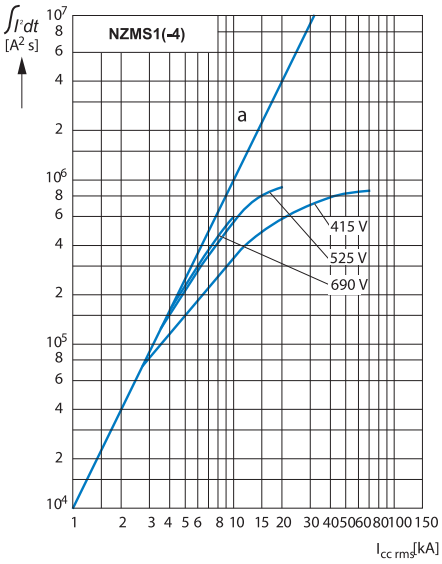


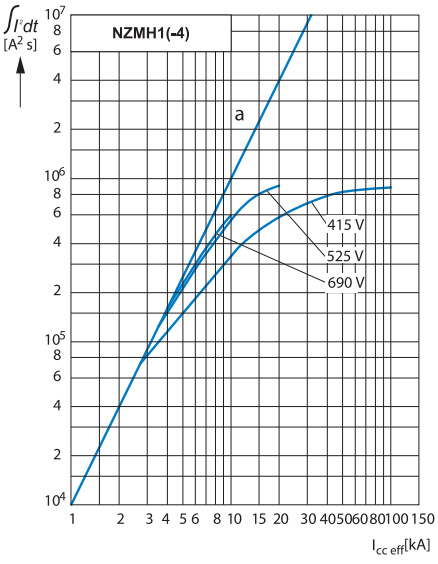
Let-through energy I^2t





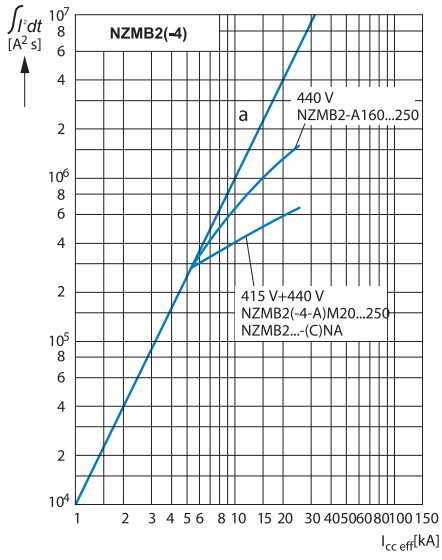


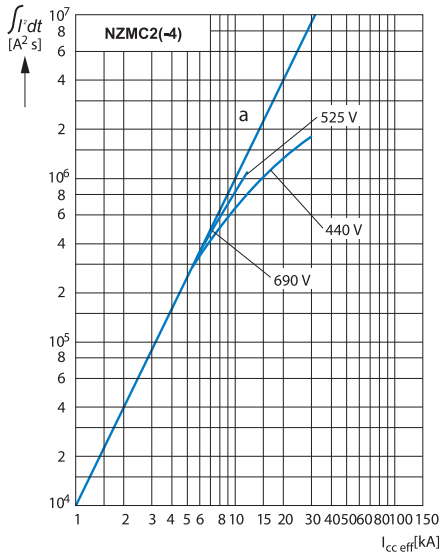


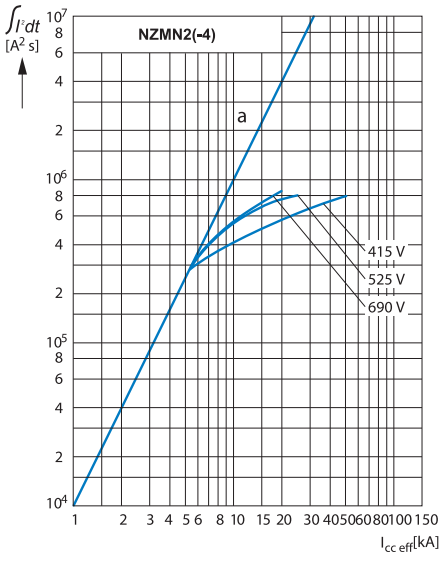


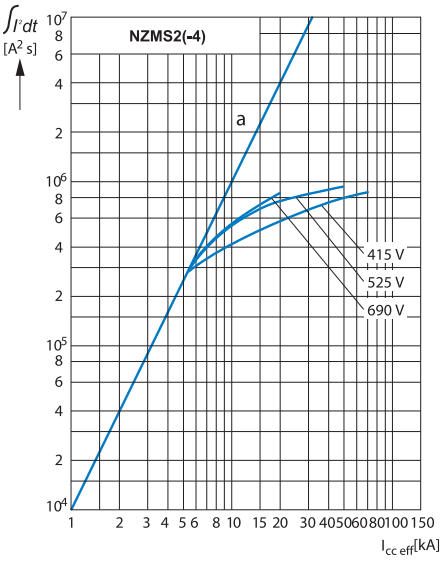
Let-through characteristics NZM2, 3

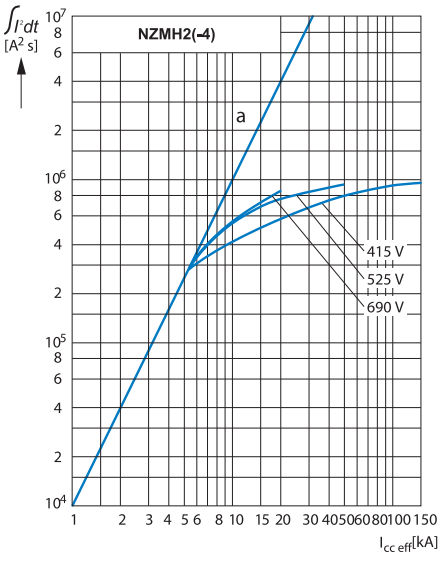
Let-through energy I^2t

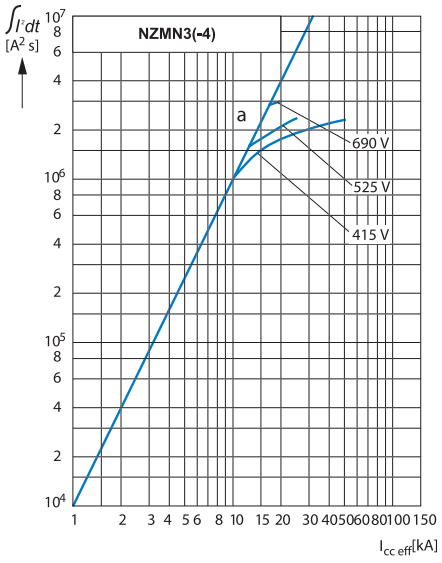


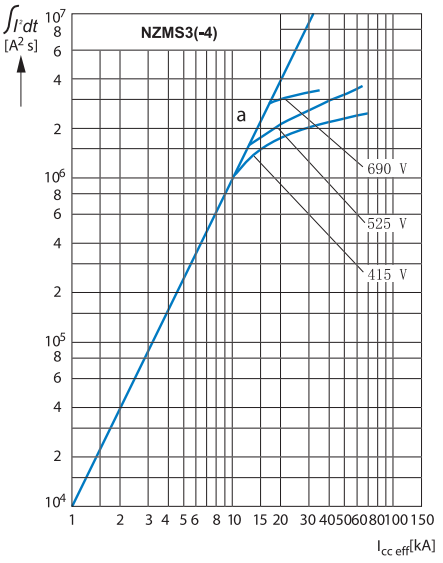


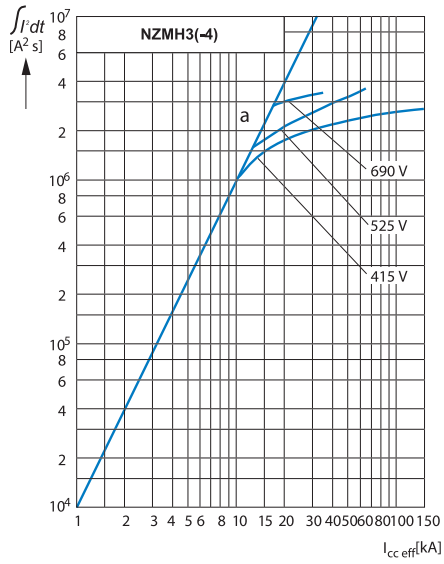






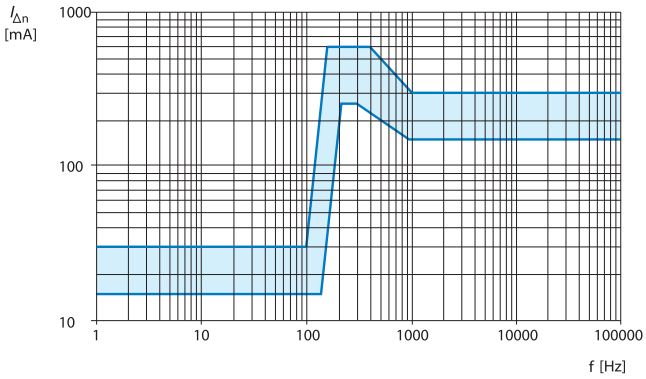




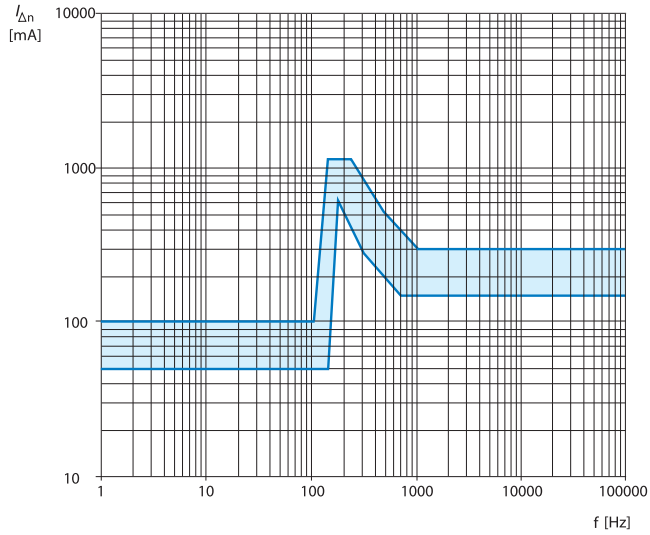


Residual-current release frequency response

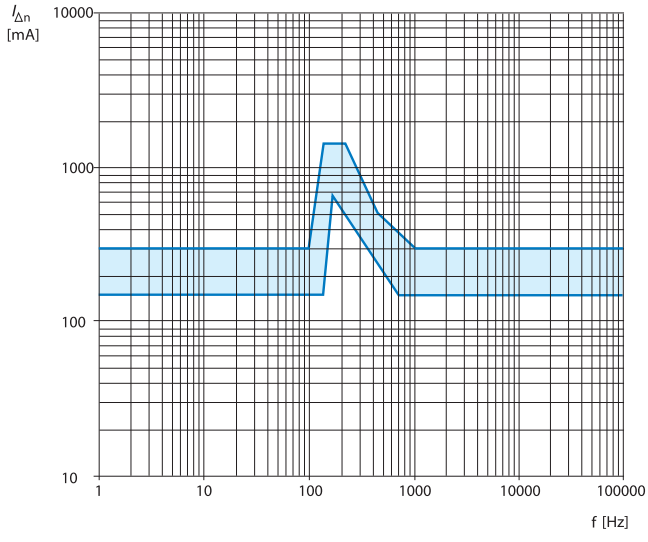
Frequency response NZM2-4-XFIA30
30 mA



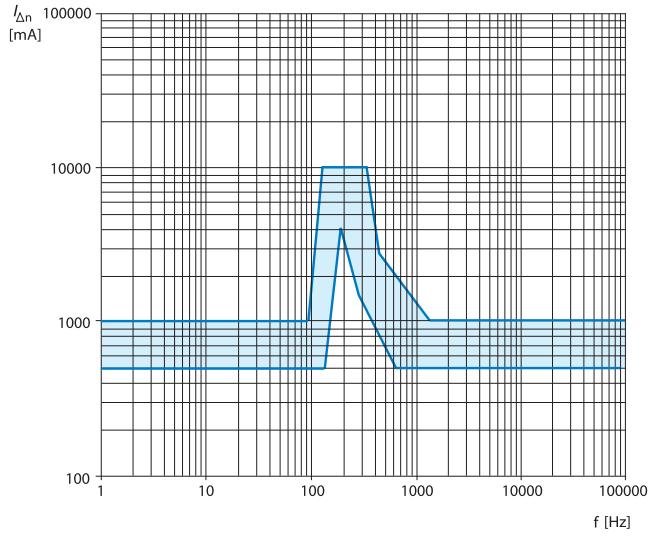
Frequency response NZM2-4-XFIA
100 mA



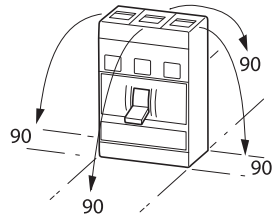
Frequency response NZM2-4-XFIA
300 mA

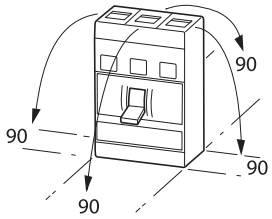


Frequency response NZM2-4-XFIA
1000 mA



Circuit-breakers

		Rated uninterrupted current max. 160 A				
		NZMB1	NZMC1	NZMN1	NZMS1	NZMH1
General						
Standards		IEC/EN 60947				
Contact protection		Finger and back-of-hand proof to DIN EN 50274/VDE 0660 Part 514				
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30				
Ambient temperature						
Storage	°C	-25/+70				
Operation	°C	-25/+70				
Mechanical shock resistance (IEC/EN 60068-2-27)		20 (half-sinusoidal shock 20 ms)				
Safe isolation according to EN 61140						
Between auxiliary contacts and main contacts	V AC	500				
Between the auxiliary contacts	V AC	300				
Built-in position		Vertical and 90° in all directions 				
Direction of incoming supply		Any				
Degree of protection						
Device		In the area of the HMI devices: IP20 (basic degree of protection)				
Enclosure		With insulating surround: IP40 With door coupling rotary handle: IP66				
Terminal type		Tunnel terminal: IP10 Phase isolator and cable terminal: IP00				

Rated uninterrupted current max. 250 A					Rated uninterrupted current max. 630 A			Rated uninterrupted current max. 1600 A	
NZMB2	**NZMC2**	**NZMN2**	**NZMS2**	**NZMH2**	**NZMN3**	**NZMS3**	**NZMH3**	**NZMN4**	**NZMH4**
IEC/EN 60947									
Finger and back-of-hand proof to DIN EN 50274/VDE 0660 Part 514									
Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30									
-25/+70									
-25/+70									
20 (half-sinusoidal shock 20 ms)									
500									
300									
Vertical and 90° in all directions  					With plug-in adapter elements • NZM2: vertical, 90° right/left With withdrawable unit: • NZM3: vertical, 90° left • NZM4: vertical With remote operator: • NZM2, N(S)2, NZM3, N(S)3, NZM4, N(S)4: vertical and 90° in all directions				
Any									
In the area of the HMI devices: IP20 (basic degree of protection)									
With insulating surround: IP40 With door coupling rotary handle: IP66									
Tunnel terminal: IP10 Phase isolator and cable terminal: IP00									

Circuit-breakers

				Rated uninterrupted current max. 160 A				
				NZMB1	NZMC1	NZMN1	NZMS1	NZMH1
Circuit-breaker								
Rated impulse withstand voltage U_{imp}								
Main contacts			V	6000	6000	6000	6000	6000
Auxiliary contacts			V	6000	6000	6000	6000	6000
Rated operating voltage		U_e	V AC	690	690	690	690	690
Overvoltage category/degree of pollution				III/3	III/3	III/3	III/3	III/3
Rated insulation voltage		U_i	V	690	690	690	690	690
For use in IT electrical power networks			V	525	525	690	690	690
Switching capacity								
Rated short-circuit making capacity								
	240 V 50/60 Hz	I_{cm}	kA	63	121	187	220	220
	400/415 V 50/60 Hz	I_{cm}	kA	53	76	105	220	220
	440 V 50/60 Hz	I_{cm}	kA	53	63	74	74	74
	525 V 50/60 Hz	I_{cm}	kA	30	24	40	40	40
	690 V 50/60 Hz	I_{cm}	kA	-	14	17	17	17
Rated short-circuit breaking capacity I_{cn}								
I_{cu} according to IEC/EN 60947 Operating sequence O-t-CO	240 V 50/60 Hz	I_{cu}	kA	30	55	85	90	100
	400/415 V 50/60 Hz	I_{cu}	kA	25	36	50	70	100
	440 V 50/60 Hz	I_{cu}	kA	25	30	35	35	35
	525 V 50/60 Hz	I_{cu}	kA	15	12	20	20	20
	690 V 50/60 Hz	I_{cu}	kA	-	8	10	10	10
I_{cs} according to IEC/EN 60947 Operating sequence O-t-CO-t-CO	240 V 50/60 Hz	I_{cs}	kA	30	55	85	90	100
	400/415 V 50/60 Hz	I_{cs}	kA	25	36	50	50	50
	440 V 50/60 Hz	I_{cs}	kA	18.5	22.5	35	35	35
	525 V 50/60 Hz	I_{cs}	kA	7.5	6	10	10	10
	690 V 50/60 Hz	I_{cs}	kA	-	4	7.5	7.5	7.5
Utilization category to IEC/EN 60947-2				A	A	A	A	A
Rated short-time withstand current								
t = 0.3 s		I_{cw}	kA	-	-	-	-	-
t = 1s		I_{cw}	kA	-	-	-	-	-
Rated making and breaking capacity								
Rated operational current								
AC-1	400/415 V 50/60 Hz	I_e	A	160	160	160	160	160
	690 V 50/60 Hz	I_e	A	160	160	160	160	160
AC-3	400/415 V 50/60 Hz	I_e	A	160	160	160	160	160
	690 V 50/60 Hz	I_e	A	160	160	160	160	160
Lifespan, mechanical of which max. 50 % trip by shunt/undervoltage release		Operations		20000	20000	20000	20000	20000
Max. operating frequency			Ops/h	120	120	120	120	120
Lifespan, electrical, according to IEC/EN 60947-4-1 part B								
AC-1	400/415 V 50/60 Hz	Operations		10000	7500	10000	10000	10000
	690 V 50/60 Hz	Operations		7500	5000	7500	7500	7500
AC-3	400/415 V 50/60 Hz	Operations		7500	-	7500	7500	7500
	690 V 50/60 Hz	Operations		5000	-	5000	5000	5000
Heat dissipation per pole at I_u			W	13	13	13	13	13
Overload releases								
Temperature compensation residual error for T > 40 °C								
Thermomagnetic releases			%/k	0.7[5]	0.7[5]	0.7[5]	0.7[5]	0.7[5]
Electronic releases				-	-	-	-	-
Total opening delay on short-circuit			ms	<10	<10	<10	<10	<10
Technical data that diverge from products for the IEC market								
Switching capacity of NA switch (UL489, CSA 22.2 No. 5-1)								
	240 V 60 Hz		kA	35	-	85	-	-
	480 V60Hz		kA	25	-	35[2]	-	-
	600 V 60 Hz		kA	-	-	-	-	-

Notes

[1] Switching capacity of NA switches with NZM…1-…(C)NA: 480 Y/277 V
[2] For rated operational current AC-3 with NZM4: 400 V: max. 650 kW; 690 V: max. 600 kW
[3] DC data apply only for NZM...A... with thermomagnetic release
[4] For switching capacity NZM2...NA: 600 V/347 V
[5] For thermal losses per pole the specification refers to the maximum rated operational current of the construction size
[6] Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker
[7] For higher switching capacity please inquire

Rated uninterrupted current max. 250 A					Rated uninterrupted current max. 630 A			Rated uninterrupted current max. 1600 A	
NZMB2	**NZMC2**	**NZMN2**	**NZMS2**	**NZMH2**	**NZMN3**	**NZMS3**	**NZMH3**	**NZMN4**	**NZMH4**
8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
690	690	690	690	690	690	690	690	690	690
III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
525	525	690	690	690	690	690	690	525	525
63	121	187	220	330	187	220	330	105	275
53	76	105	220	330	105	220	330	105	220
53	63	74	143	286	74	143	286	74	187
30	24	53	84	105	53	95	143	53	143
-	9	40	40	40	40	53	74	40	105
30	55	85	100	150	85	100	150	50	125
25	36	50	70	150	50	70	150	50	85
25	30	35	65	130	35	65	130	35	85
15	15	25	36	50	25	36	65	25	65
...	8	20	20	20	20	25	35	20	50
30	55	85	100	150	85	100	150	37	63
25	36	50	70	150	50	70	150	37	50
18.5	22.5	35	65	130	35	65	130	26	43
-	9	25	36	38	13	18	33	19	49
-	4	5	5	5	5	6	9	15	37
A	A	A	A	A	A	A	A	B	B
-	-	1.9	1.9	1.9	3.3	3.3	3.3	19.2	-
-	-	1.9	1.9	1.9	3.3	3.3	3.3	19.2	-
250	250	250	250	250	630	630	630	1600	1600
250	250	250	250	250	630	630	630	1600	1600
250	250	250	250	250	630	630	630	1600[3)]	1600[3)]
250	250	250	250	250	630	630	630	1600[3)]	1600[3)]
20000	20000	20000	20000	20000	15000	15000	15000	10000	10000
120	120	120	120	120	60	60	60	60	60
10000	10000	10000	10000	10000	5000	5000	5000	3000	3000
7500	7500	7500	7500	7500	3000	3000	3000	2000	2000
6500	6500	6500	6500	6500	2000	2000	2000	2000	2000
5000	5000	5000	5000	5000	2000	2000	2000	1000	1000
19	19	19	19	19	40	40	40	97	97
0	0	0	0	0	-	-	-	-	-
0	0	0	0	0	0	0	0	0	0
<10	<10	<10	<10	<10	<10	<10	<10	<25≤415V <35>415V	<25≤415V <35>415V
35	-	85	100	150[4)]	85	100	150[4)]	85	125[6)]
25	-	35	65	100[4)]	42	65	100[4)]	42	85
18	-	25	35	50[4)]	35	42	50[4)]	35	50

Circuit-breakers NZMH2-XFIA30, circuit-breakers with earth-fault release

				NZMH2...-XFIA30
Circuit-breakers with earth-fault release				
Electrical				
Standards				IEC/EN 60947-2
Rated uninterrupted current		$I_n = I_u$	A	max. 250
Rated short-circuit breaking capacity I_{cn}				
I_{cu} according to IEC/EN 60947	400/415V50/60Hz	I_{cu}	kA	150
I_{cu} according to IEC/EN 60947	400/415V50/60Hz	I_{cs}	kA	150
Sensitivity				Pulse-current sensitive, type B
Min. operating voltage				
For detecting type A/AC fault currents				0 V (dependent on mains power)
For detecting type B fault currents				50 V (dependent on mains power)
Suitable for use in				For three- and singlephase systems
Rated operating voltage		U_e	V AC	50...400 (3~)
Rated frequency		f	Hz	50/60
Number of poles		I_n	A	3 pole
Rated operational current range				160...250
Rated fault currents		$I_{\Delta n}$	A	0.03
Detection range of fault current				With AC voltage: 0 – 100 kHz With pulsed DC voltage: 50 Hz
Rated ultimate short-circuit making and rated breaking capacity		$I_{\Delta m}$	A	= I_{cu}
Fault current early warning				-
Shock resistance (IEC 60068-2-27)				20 (half-sinusoidal shock 20 ms)
Lifespan, mechanical (50 % with fault current)		Operations		20000
Mechanical				
Standard front dimension			mm	96
Mounting				Bottom
Mounting position				Vertical and 90° in all directions
Direction of incoming supply				Any
Degree of protection				IP20 in the operating component area
Ambient temperature			°C	-25...+70
Sealability				Yes, setting buttons
Terminal capacities				
Flexible without ferrule			mm²	Same as NZM2 standard terminal
Flexible with ferrule			mm²	Same as NZM2 standard terminal

Switch-disconnectors

				PN1/N1 160A max.	PN2/N2 250 A max.	PN3/N3 630 A max.	N4 1600 A max.
Switch-disconnectors							
Rated impulse withstand voltage U_{imp}							
Main contacts			V	6000	8000	8000	8000
Auxiliary contacts			V	6000	6000	6000	6000
Rated operating voltage		U_e	V AC	690	690	690	690
Max. rated uninterrupted current							
IEC/EN 61131-3		I_u	A	160	250	630	1600
Technical data that diverge from products for the IEC market (UL489, CSA 22.2 No. 5-1)		I_u	A	125	160	550	1200
Overvoltage category/degree of pollution				III/3	III/3	III/3	III/3
Rated insulation voltage		U_e	VAC	690	1000	1000	1000
Switching capacity							
Rated short-circuit making capacity		I_{cm}	kA	2.8	5.5	25	53
Rated short-time withstand current							
t = 0.3s		I_{cw}	kA	2	3.5[1]	12	25
t = 1s		I_{cw}	kA	2	3.5[1]	12	25
Rated conditional short-circuit current I_q							
With back-up fuse			A gG/gL	125 PN1(N1)-160:160	250	630	2 x 800
400/415V			kA	100	100	100	100
690V			kA	100	100	80	80
With downstream fuse			A gG/gL	125 PN1(N1)-160:160	250	630	2 x 800
400/415V			kA	100	100	100	100
690V			kA	10	100	100	80
Rated making and breaking capacity							
Rated operational current, AC-22/23 A							
400/415V		I_e	A	160	250	630	1600
690V		I_e	A	160	250	630	1600
Lifespan, mechanical		Operations		20000	20000	15000	10000
Maximum operating frequency			Ops/h	120	120	60	60
Lifespan, electrical according to IEC/EN 60947-4-1 Annex B							
AC-1	400/415V	Operations		10000	10000	5000	3000
	690V	Operations		7500	7500	3000	3000
AC-3	400/415V	Operations		7500	7500	3000	2000
	690V	Operations		5000	5000[3]	2000	1000
Heat dissipation per pole at I_u[2]			W	8	16	40	97

Notes
[1] The rated short-time withstand current for PN2/N2 in conjunction with residual-current release NZM2-4-XFI..., I_{cw} = 1.5 kA
[2] For thermal losses per pole the specification refers to the maximum rated operational current of the construction size.
[3] For the electrical life at AC-3 for PN2/N2 the following applies: 690 V: max. 160 kW

Derating

			NZM1, PN1, N1, NS1 125 A	160A	NZM2, PN2, N2, NS2 250 A			NZM3, PN3, N3, NS3 630 A		NZM4, N4, NS4 1600 A	
					Without	With XSV TM	E	Without	With XAV	Without	With XAV
In determining the maximum permissible current loads at different ambient temperatures,the derating coefficients											
Open	20 °C	%	100	100	100	100	100	100	96	100	100
	30 °C	%	100	100	100	97	100	100	92	100	98
	40 °C	%	100	100	100	92	100	100	87	100	93
	50 °C	%	100	95	100	87	94	100	83	100	89
	60 °C	%	86	90	90	81	88	88	78	87	85
	65 °C	%	83	85	85	78	84	85	75	85	83
	70 °C	%	79	80	80	75	81	80	73	82	80

Notes
XSV = Plug-in units
XAV = Withdrawable units
TM = Thermomagnetic
E = Electronic

Molded Case Switch

				NS1-...-NA max. 125A	NS2-... -NA max. 250A
Molded Case Switch					
Rated peak withstand current U_{imp}					
Main contacts				6000	8000
Auxiliary contacts				6000	6000
Rated operating voltage			U_e	690	690
Max. rated uninterrupted current					
IEC/EN 60947-2 Annex L			I_u	125	250
UL489/CSA 22.2 No. 5.1			I_u	125	250
Overvoltage category/pollution degree				III/3	III/3
Rated insulation voltage			U_i	690	1000
Switching capacity according to UL 489, CSA 22.2 No. 5.1					
		240V		85	150
		480V		35	100
		600V		-	50
Switching capacity divergent from products for North America.					
Rated short-circuit making capacity		240V	I_{cm}	187	330
		400/415 V	I_{cm}	105	330
		440V	I_{cm}	74	286
		525V	I_{cm}	53	105
		690V	I_{cm}	17	53
Rated short-circuit breaking capacity $I_{cc} = I_{cu}$ To IEC/EN 60947-2 Annex L	I_{cu} according to IEC/EN 60947 test cycle O-t-CO	240V	I_{cu}	85	150
		400/415V	I_{cu}	50	150
		440V	I_{cu}	35	130
		525V	I_{cu}	20	50
		690V	I_{cu}	10	20
	I_{cs} according to IEC/EN 60947 test cycle O-t-CO-t-CO	240V	I_{cs}	85	150
		400/415V	I_{cs}	50	150
		440V	I_{cs}	35	130
		525V	I_{cs}	10	37.5
		690V	I_{cs}	7.5	5
Lifespan, mechanical			Operations	20000	20000
Maximum operating frequency				120	120
Lifespan, electrical	AC-1	400/415 V	Operations	10000	10000
		690V	Operations	7500	7500
	AC-3	400/415 V	Operations	7500	6500
		690 V	Operations	5000	5000
Heat dissipation per pole at I_u[1)]				13	19
Total downtime on short-circuit				>10	<10

Notes [1)] Figures apply to the maximum rated operational current of the construction size

Active power loss

NZM up to 250 A with thermomagnetic release (3 and 4 pole)

	Fixed mounted											
	NZM1-								NS1-		N1-, PN1-	
	A...(-NA)		M...		AF...-NA		S... (-CNA)		...-NA		...(-NA)	
I_n [A]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]
1.2	-	-	-	-	-	-	1.2	413000	-	-	-	-
1.6	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	0.5	66000	-	-	-	-
2.4	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	1.1	66000	-	-	-	-
5	-	-	-	-	-	-	0.4	9180	-	-	-	-
8	-	-	-	-	-	-	1	9180	-	-	-	-
12	-	-	-	-	-	-	0.5	1670	-	-	-	-
15	-	-	-	-	5.5	8180	-	-	-	-	-	-
18	-	-	-	-	-	-	1.3	1670	-	-	-	-
20	9.8	8180	k.A.	k.A.	9.8	8180	-	-	-	-	-	-
25	8.8	4680	k.A.	k.A.	8.8	4680	-	-	-	-	-	-
26	-	-	-	-	-	-	2	1050	-	-	-	-
30	-	-	-	-	8.2	3030	-	-	-	-	-	-
32	9.1	3030	k.A.	k.A.	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	3.2	1050	-	-	-	-
35	-	-	-	-	8.2	2220	-	-	-	-	-	-
40	11	2220	13.5	2810	11	2220	2.7	562	-	-	-	-
45	-	-	-	-	10.7	1760	-	-	-	-	-	-
50	13.5	1760	15	1880	13.5	1760	4.2	562	-	-	-	-
60	-	-	-	-	12.9	1190	-	-	-	-	-	-
63	14	1190	16.7	1250	-	-	6.7	562	6.7	562	6	380
70	-	-	-	-	12.5	850	-	-	-	-	-	-
80	15.5	850	21.1	1085	15.5	850	10.8	562	-	-	-	-
90	-	-	-	-	17.5	730	-	-	-	-	-	-
100	24	730	25	795	24	730	16.9	562	16.9	562	15	380
110	-	-	-	-	20.7	570	-	-	-	-	-	-
125	38	570	-	-	38	570	-	-	26.3	562	24	380
150	-	-	-	-	-		-	-	-	-	-	-
160	50	460	-	-	-	-	-	-	-	-	38	380
175	-	-	-	-	-	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-	-	-	-	-	-
225	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-	-	-	-

Notes

The values stated in the table apply for 3 and 4 pole fixed mounted devices with an equal load distribution.
On 4 pole devices the current in the N-conductor is equal to zero.
The total resistive load is the measured value for a 3 pole or a 4 pole switch.
The total heat dissipation is the value measured at I_n, 50/60Hz for a 3 pole or 4 pole switch.
The heat dissipation can be calculated with the formula: $P = 3 \times R \times I^2$

Active power loss

NZM up to 1600 A with electronic release (3 and 4 pole)

Fixed mounted		Supplementary Plug-in units	Fixed mounted		Supplementary Withdrawable units	Fixed mounted		Supplementary Withdrawable units
NZM2-	N2, PN2		NZM3-	N3, PN3-		NZM4-	N4-	
R [µohms]	R [µohms]	R [µohms]	R [µohms]	R [µohms]	R [µohms]	R [µohms]	R [µohms]	R [µohms]
275	256	100	100	90	70	37	37	10

Fixed mounted

NZM2-								NS2-		N2-, PN2-	
A...(-NA)		M...		AF...-NA		S... (-CNA)		...-NA		...(-NA)	
P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]	P [W]	R [µohms]
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	6.2	750000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	8.4	450000	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	0.2	4600	-	-	-	-
-	-	-	-	-	-	0.5	4600	-	-	-	-
-	-	-	-	-	-	0.4	1200	-	-	-	-
-	-	-	-	3	4250	-	-	-	-	-	-
-	-	-	-	-	-	1	1200	-	-	-	-
5.1	4250	5.1	4250	5.1	4250	-	-	-	-	-	-
8	4250	8	4250	6	3140	-	-	-	-	-	-
-	-	-	-	-	-	0.5	780	-	-	-	-
-	-	-	-	9	3140	-	-	-	-	-	-
10	3140	10	3140	-	-	-	-	-	-	-	-
-	-	-	-	-	-	0.9	780	-	-	-	-
-	-	-	-	11	2800	-	-	-	-	-	-
13	2800	13	2800	13	2800	1.5	317	-	-	-	-
-	-	-	-	15	2270	-	-	-	-	-	-
18	2270	18	2270	18	2270	2.5	317	-	-	-	-
-	-	-	-	19	1700	-	-	-	-	-	-
20	1700	20	1700	-	-	4	317	-	-	-	-
-	-	-	-	17	1070	-	-	-	-	-	-
22	1070	22	1070	22	1070	6	317	-	-	-	-
-	-	-	-	23	855	-	-	-	-	-	-
28	855	28	855	28	855	10	317	-	-	-	-
-	-	-	-	22	589	-	-	-	-	-	-
29	589	29	589	29	589	15	317	-	-	-	-
-	-	-	-	35	427	-	-	-	-	-	-
40	427	40	427	-	-	25	317	25	317	19.7	256
-	-	-	-	37	332	-	-	-	-	-	-
48	332	48	332	48	332	40	317	40	317	30.7	256
-	-	-	-	46	310	-	-	-	-	-	-
57	310	-	-	57	310	59.4	317	59.4	317	48	256

Terminal capacities

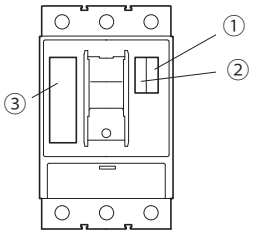
				NZM1, PN1, N1 NS1 160 A	I_n [1] A	NZM2, PN2,N2, NS2 250A	I_n [1] A	NZM3, PN3,N3, NS3 630A	I_n [1] A
Standard equipment				Box terminal	-	Screw terminal	-	Screw terminal	-
Accessories				Screw terminals Tunnel terminals Rear terminal bolts		Box terminal Tunnel terminals Rear terminal bolts		Box terminal Tunnel terminals Rear terminal bolts	
Copper conductors and cables									
Box terminal	Solid		mm²	1 x (10-16) 2 x (6-16)	160	1 x (4-16) 2 x (4-16)	250	2 x 16 -	500
	Stranded		mm²	1 x (25-70)3) 2 x 25	160	1 x (25-185) 2 x (25-70)	250	1 x (35-240) 2 x (25-120)	500
Tunnel terminal	Solid		mm²	1 x 16	160	1 x (16-185)	250	-	-
	Stranded	1-hole	mm²	1 x (25-95)	160	1 x (25-185)	250	1 x (25-185)	350
		Double-hole	mm²	-	-	-	-	1 x (50-240) 2 x (50-240)	630
		4-hole	mm²	-	-	-	-	-	-
Screw terminals and connection on rear									
Directly on switch	Solid		mm²	1 x (10-16) 2 x (6-16)	160	1 x (4-16) 2 x (4-16)	250	1 x 16 2 x 16	630 2 x 185
	Stranded		mm²	1 x (25-70)3) 2 x 25	160	1 x (25-185) 2 x (25-70)	250	1 x (25-240) 2 x (25-240)	630 2 x 185
Module plate	1-hole	min.	mm²	-	-	-	-	-	-
		max	mm²	-	-	-	-	-	-
Module plate	2-hole	min.	mm²	-	-	-	-	-	-
		max	mm²	-	-	-	-	-	-
Connection width extension								2 x 300	630 2 x 185
Aluminium conductors and cables									
Tunnel terminal	Solid		mm²	1 x 16	160	1 x 16	250	1 x 16	350
	Stranded	1-hole	mm²	1 x (25-95)	160	1 x (25-185)	250	1 x (25-185)	
		Double-hole	mm²	-	-	-	-	1 x (50-240) 2 x (50-240)	630
		4-hole	mm²	-	-	-	-		-
Screw terminals and connection on rear								-	
Directly on switch	Solid		mm²	1 x (10-16) 2 x (10-16)	160	1 x (10-16) 2 x (10-16)	250	1 x 16 2 x (10-16)	400
	Stranded		mm²	1 x (25-35) 2 x (25-35)	160	1 x (25-50) 2 x (25-50)	250	1 x (25-120) 2 x (25-120)	400
Module plate	1-hole	min.	mm²	-	-	-	-	-	-
	1-hole	max.	mm²	-	-	-	-	-	-
Module plate	Double-hole		mm²	-	-	-	-	-	-
Connection width extension			mm²						
Copper strip (number of segments x width x segment thickness)									
Box terminal		min.	mm²	2 x 9 x 0.8	160	2 x 9 x 0.8	250	6 x 16 x 0.8	630
		max.	mm²	9 x 9 x 0.8	160	10 x 16 x 0.8	250	10 x 24 x 1.0+5 x 24 x 1.0 (2x)8 x 24 x 1.0	630
Single flat cable terminal		min.	mm	-	-	-	-	-	-
		max.	mm	-	-	-	-	-	-
Module plate	1-hole		mm²	-	-	-	-	-	-
Screw terminals and connection on rear									
Copper strip, perforated		min.	mm	-	-	2 x 9 x 0.8	250	6 x 16 x 0.8	630
Copper strip, perforated		max.	mm	-	-	10 x 16 x 0.8	-	10 x 32 x 1.0+5 x 32 x 1.0	630
Connection width extension			mm²	-	-	-	-	(2x)10 x 50 x 1.0	630
Copper bar (width x thickness)									
Screw terminals and connection on rear									
Screw terminals				M6	-	M8	-	M10	-
Directly on switch		min.	mm²	12 x 5	160	16 x 5	250	20 x 5	630
		max.	mm²	16 x 5	-	20 x 5	-	30 x 10 +30 x 5	630
Module plate 1-hole		min.	mm²	-	-	-	-	-	-
		max.	mm²	-	-	-	-	-	-
Module plate 2-hole			mm²	-	-	-	-	-	-
Connection width extension		min.	mm²	-	-	-	-	-	630
		max.	mm²	-	-	-	-	2 x (10 x 50)	10 x 40

NZM4, N4 NS4 1600 A	I_n [1] A		NZM...1...NA, N1...NA,NS1...NA	NZM...2...NA, N2...NA,NS2...NA	NZM...3...NA, N3...NA,NS3...NA	NZM...4...NA, N4...NA,NS4...NA
Screw terminal	-	-	Screw terminal	Screw terminal	Screw terminal	Screw terminal
Tunnel terminals Rear terminal bolts Strip terminal		-	Box terminal Tunnel terminals Rear terminal bolts	Box terminal Tunnel terminals Rear terminal bolts	Box terminal Tunnel terminals Rear terminal bolts	Tunnel terminals Rear terminal bolts Strip terminal
-	-	AWG	1 x (12-6)	1 x (12-6)	-	-
-		AWG/kcmil	1 x (4-20)	1 x (4-350)	1 x (2-500)	-
-	-	AWG	1 x 6	1 x 6	1 x 6	-
-	-	AWG/kcmil	1 x (4-3/0)	1 x (4-350)	1 x (4-350)	-
-	-	AWG/kcmil	-	-	1 x (0-500) 1 x (0-500)	-
4 x (50-240)	1400	AWG/kcmil	-	-	-	4 x (0-500)
-	-	AWG	1 x (12-6) 2 x (9-6)	1 x (12-6)	-	-
1 x (120-185) 4 x (50-185)	1250	AWG/kcmil	1 x (4-2/0)	1 x (4-3/0)	1 x (4-350)	1 x (250-350) 4 x (0-350)
1 x (120-300)	1000	kcmil	-	-	-	1 x (250-600)
2x (95-300)	1000	AWG/kcmil	-	-	-	2 x (3/0-600)
2x (95-185)	1400	AWG/kcmil	-	-	-	2 x (3/0-350)
4 x (35-185)	1400	AWG/kcmil	-	-	-	4 x (2-350)
4 x 300 6 x (95-240)	1600 4x240	AWG/kcmil			2 x500	4 x600 6 x (3/0-500)
-	-	AWG	-	-	-	-
-	-	AWG/kcmil	-	-	-	-
-	-	AWG/kcmil	-	-	-	-
4 x (50-240)	1400	AWG/kcmil	-	-	-	-
-	-	AWG	- -	- -	- -	-
-	-	AWG/kcmil	- -	- -	- -	-
1 x (185-240)	Please inquire	kcmil	-	-	-	-
2 x (70-185)	Please inquire	AWG/kcmil	-	-	-	-
4 x 50	-	AWG	-	-	-	-
2 x 240 6 x (70-240)	Please inquire	AWG/kcmil	-	-	-	-
-	-	mm	2 x 9 x 0.8	2 x 9 x 0.8	6 x 16 x 0.8	-
-	-	mm	9 x 9 x 0.8	10 x 16 x 0.8	10 x 24 x 1.0 +5 x 24 x 1.0 (2x)8 x 24 x 1.0	-
6 x 16 x 0.8	1100	mm	-	-	-	6 x 16 x 0.8
(2x)10 x 32 x 1.0	1100	mm	-	-	-	(2x)10 x 32 x 1.0
(2x)10 x 50 x 1.0	1250 (2x)10 x 40 x 1.0	mm	-	-	-	(2x)10- x 50 x 1.0
(2x)10 x 50 x 1.0	1600	mm	-	2 x 16 x 0.8	6 x 16 x 0.8	(2x)10 x 50 x 1.0
(2x)10 x 50 x 1.0	1600	mm	-	10 x 16 x 0.8	10 x 32 x 1.0 +5 x 32 x 1.0	(2x)10- x 50 x 1.0
(2x)10 x 80 x 1.0	1600 (2x)10 x 50 x 1.0	mm	-	-	(2x)10 x 50 x 1.0	(2x)10 x 80 x 1.0
M10	-		M6	M8	M10	M10
25 x 5	1600	mm	12 x 5	16 x 5	20 x 5	25 x 5
2x(50x10)	1600	mm	16x 5	20x 5	30 x 10 +30 x 5	2 x(50 x 10)
25 x 5	1250	mm	-	-	-	25 x 5
2x(50x10)	(2x)40 x 1.0	mm	-	-	-	2 x(50 x 10)
2x(50x10)	1500	mm	-	-	-	2 x(50 x 10)
60x10	1600	mm	-	-	-	60 x 10
2x(80x10)	(2x)50 x 1.0	mm	-	-	2 x(10 x 50)	2 x(80 x 10)

Auxiliary contacts

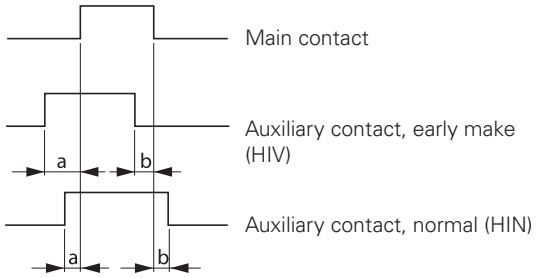
	At AC = 50/60 Hz		M22-K...	XHIV	XHI
Auxiliary contacts					
Rated operating voltage					
AC voltage	U_e	V AC	500	500	500
DC voltage	U_e	V DC	220	220	220
Conventional thermal current	$I_{th} = I_e$	A	4	4	4
Rated operational current					
AC-15	I_e	A	4	4	4
	I_e	A	4	4	4
	I_e	A	2	2	2
	I_e	A	1	1	1
DC-13	I_e	A	3	3	3
	I_e	A	1.7	1.5	-
	I_e	A	1.2	0.8	1.2
	I_e	A	0.8	0.5	0.5
	I_e	A	0.3	0.2	0.2
Short-circuit protection					
Max. fuse		A gG/gL	10	10	10
Max. miniature circuit-breaker		A	PKZM0-10/FAZ-B6	FAZ-B6	FAZ-B6
Early make times compared to main contacts on make and break (switching times on manual operation).		ms	-	NZM1, PN1, N(S)1: approx. 20 NZM2, PN2, N(S)2: approx. 20 NZM3, PN3, N(S)3: approx. 20 NZM4, N(S)4: approx. 90 With NZM4/N(S)4 the HIV does not feature early break.	-
Terminal capacities					
Solid or flexible conductor with ferrule		mm^2	1x(0.75-2.5)	1x(0.75-2.5)	1x(0.75-2.5)
			2x(0.75-2.5)	2x(0.75-2.5)	2x(0.75-2.5)
		AWG	1x(18-14)	1x(18-14)	1x(18-14)
			2x(18-14)	2x(18-14)	2x(18-14)
UL/CSA					
Rated operational current	I_e	A	10A-600 V AC	2.5A-240 V AC	2.5A-240 V AC
			1A-250 V DC	1A-250 V DC	1A-250 V DC
Heavy Pilot Duty			A600/P300 via 300 V AC same polarity	C300/R300	C300/R300

Maximum equipment and position of the built-in accessories



	① -XHIV or-XA or-XU	② HIA	③ HIN
NZM1	1	1	1
NZM2	1	1	2
NZM3	1	1	3
NZM4	1	2	4

Time differences ON-OFF



	Time difference a (ms) Manual operation			Motor drive			Time difference a (ms) Manual operation			Motor drive		
	HIV	**HIN** K10	K01	**HIV**	**HIN** K10	K01	**HIV**	**HIN** K10	K01	**HIV**	**HIN** K10	K01
NZM1	20 [2]	0	2.5	-	-	-	20 [2]	0	2.5	-	-	-
NZM2	20 [2]	3.5	6.5		2.5	4.5	20 [2]	3	4.5		3	4
NZM3	20 [2]	4	8		2	4	20 [2]	3.5	8		3	6.5
NZM4	90 [2]	7	11				0 [1][2]	12	15			

Undervoltage release

			NZM1(2/3)-XU...	NZM4-XU...
Undervoltage releases				
Rated control voltage				
AC voltage at 50/60 Hz	U_s	V AC	24-690	24-690
DC voltage	U_s	V DC	12-250	12-250
Operating range				
Drop-out voltage		× U_s	0.35-0.7	0.35-0.7
Pick-up voltage		× U_s	0.85-1.1	0.85-1.1
Power consumption				
AC voltage				
Sealing AC		VA	1.5	3.6
DC voltage				
Sealing DC		W	0.8	2.5
Max. opening delay (response time until the main circuits open)		ms	19	23
Minimum command time		ms	10-15	10-15
Terminal capacities				
Solid or flexible conductor with ferrule		mm²	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)
		AWG	1 × (18-14) 2 × (18-14)	1 × (18-14) 2 × (18-14)

Undervoltage releases, off-delayed

			UVU-NZM
Undervoltage releases, off-delayed			
Rated control voltage			
AC voltage at 50/60 Hz	U_e	V AC	24, 220-550
AC voltage	U_e	V DC	24
Inrush current (peak value)	I_e	mA	<500
Power consumption		VA	50
Deceleration time	t_{sd}	ms	70-4000
With additional external capacitor 90,000 µF ≥ 35 V		s	To 16
With additional external capacitor 30,000 µF ≥ 35 V		s	To 8
Terminal capacities			
Solid or flexible conductor with ferrule		mm²	1 × (0.5-2.5) 2 × (0.5-1.5)

Shunt release

			NZM1(2/3)-XA...	NZM4-XA...	NZM2/3-XA..-MNS	NZM4-XA..-MNS
Shunt release						
Rated control voltage						
AC voltage	U_s	V AC	12-600	12-600	230	230
DC voltage	U_s	V DC	12-600	12-600	-	-
Frequency range		Hz	0-400	0-400	50/60	50/60
Operating range						
AC voltage		× U_s	0.7-1.1	0.7-1.1	0.1-1.1	0.1-1.1
DC voltage		× U_s	0.7-1.1	0.7-1.1	-	-
Power consumption						
Sealing AC/DC		VA/W	2.5	2.5	-	-
Maximum power consumption at 110 % U_s (230 V 50 Hz)		A	-	-	0.5	1
Max. opening delay (response time until the main circuits open)		ms	20	22	20	22
Max. duty factor		ms	L	L	1000	1000
Minimum signal duration		ms	10-15	10-15	10-15	10-15
Terminal capacity						
Solid or flexible conductor with ferrule		mm²	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)
		AWG	1 × (18-14) 2 × (18-14)	1 × (18-14) 2 × (18-14)	1 × (18-14) 2 × (18-14)	1 × (18-14) 2 × (18-14)

Capacitor unit for shunt release

			NZM-XCM
Capacitor unit for shunt release			
Rated operating voltage	U_e	V AC	230
Rated operational current	I_e	mA	<10
Inrush current (peak value)	I_e	A	3
Terminal capacity			
Solid or flexible conductor with ferrule		mm²	1 × (0.5-2.5) 2 × (0.5-1.5)
		AWG	1 × (20-14) 2 × (20-16)

Remote operator

				NZM2-XR...	NZM2-XRD...	NZM3-XR...	NZM4-XR...
Remote operator							
Rated control voltage							
AC voltage		U_s	V AC	48- 440	110- 440	48-440	48- 440
DC voltage		U_s	V DC	24-250	24-250	24-250	24-250
Operating range							
AC voltage		U_s		0.85-1.1	0.85-1.1	0.85-1.1	0.85-1.1
DC voltage		U_s		0.85-1.1	0.85-1.1	0.85-1.1	0.85-1.1
Motor rating							
AC voltage	48 V-60 V AC		VA	350	-	350	350
	110 V-130VAC		VA	350	550	350	350
	208V-240 V AC		VA	350	550	350	350
	380V-440 V AC		VA	350	650	350	350
DC voltage	24V-30 V DC		W	250	450	250	250
	48 V-60 V DC		W	250	-	250	250
	110V-130VDC		W	250	450	250	250
	220V-250 V DC		W	250	450	250	250
Total make time			ms	60	110-130[1)]	80	100
Total opening delay			ms	300	110-130[1)]	1000	3000
Minimum signal duration							
With switch on			ms	30	100	30	30
With switch off			ms	150	100	150	500
Lifespan, mechanical		Operations		20000	20000	20000	10000
Maximum operating frequency			Ops./h	120	120	60	20
Terminal capacities							
Solid or flexible conductor with ferrule			mm²	0.75-2.5	0.75-2.5	0.75-2.5	0.75-2.5
			AWG	18-14	18-14	18-14	18-14

Notes When 24 V-30 V DC, as to 150-170 ms.

Data Management Interface (DMI module)

			DMI
General			
Dimensions (W x H x D)		mm	107.5 x 90 x 53
Modular spacing (space units)			6 SU (space units) wide
Weight		kg	0.3
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Ambient climatic conditions			
Operating ambient temperature		°C	0 to +55
Built-in position			Horizontal/vertical
Condensation			Prevent condensation by means of suitable measures
LCD display (clearly legible)		°C	0-55
Storage/transport		°C	-40 to +70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5-95
Air pressure (in operation)		hPa	795-1080
Corrosion resistance			
IEC/E N 60068-2-42	4 days SO_2	cm^3/m^3	10
IEC/E N 60068-2-43	4 days H_2S	cm^3/m^3	1
Ambient mechanical conditions			
Pollution degree			2
Degree of protection IEC/EN 60529			IP20
Vibrations (IEC/EN 60068-2-6)			
Constant amplitude 0.15 mm		Hz	10-57
Constant acceleration, 2 g		Hz	57-150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11		Shocks	18
Drop IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	1
Power supply			
Rated operating voltage	U_e	V	24
Permissible range		V DC	20.4-28.8
Residual ripple		%	F5
Input current at 24 V DC		mA	210
Voltage dips (IEC/EN 61131-2)		ms	10
Power loss at 24 V DC		W	5

Fieldbus interface

			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
General					
Standards			EN 55011.EN 55022. EN 61000-4. IEC 60068-2-6. IEC 60068-2-27		
Dimensions (W x H x D)		mm	35.5x90x58(2SU)	35.5x90x58(2SU)	35.5x90x58(2SU)
Weight		kg	0.15	0.15	0.15
Mounting			Top-hat rail EN 50022, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)		
Terminal capacity					
Solid		mm^2	0.2/4(AWG 22-12)	0.2/4(AWG 22-12)	0.2/4(AWG 22-12)
Flexible with ferrule		mm^2	0.2/2.5(AWG 22-12)	0.2/2.5(AWG 22-12)	0.2/2.5(AWG 22-12)
Standard screwdriver		mm	3.5 x 0.8	3.5 x 0.8	3.5 x 0.8
Max. tightening torque		Nm	0.6	0.6	0.6
Ambient climatic conditions					
Operating ambient temperature		°C	-25 to 55, low temperatures to IEC 60068-2-1, high temperatures to IEC 60068-2-2		
Condensation			Prevent condensation by means of suitable measures		
Storage		°C	40-70	40-70	40-70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5-95	5-95	5-95
Air pressure (in operation)		hPa	795-1080	795-1080	795-1080
Corrosion resistance					
IEC/E N 60068-2-42	4 days SO_2	cmC/mC	10	10	10
IEC/E N 60068-2-43	4 days H_2S	cmC/mC	1	1	1
Ambient mechanical conditions					
Pollution degree			2	2	2
Degree of protection (IEC/EN 60529)			IP20	IP20	IP20
Vibrations (IEC/EN 60068-2-6)					
Constant amplitude 0.15 mm		Hz	10-57	10-57	10-57
Constant acceleration, 2 g		Hz	57-150	57-150	57-150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Shocks	18	18	18
Drop (IEC/EN 60 068-2-31)	Drop height	mm	50	50	50
Free fall, packaged (IEC/EN 60068-2-32)			1	1	1
Mounting position		m	Horizontal/vertical	Horizontal/vertical	Horizontal/vertical
Electromagnetic compatibility (EMC)					
Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)					
Air discharge		kV	8	8	8
Contact discharge		kV	6	6	6
Electromagnetic fields (IEC/EN 61000-4-3, RFI)		V/m	10	10	10
Radio interference suppression (EN 55011)			EN 55011 Class B EN 55022 Class B		EN 55011 Class A EN 55022 Class A
Burst impulse (IEC/EN 61000-4-4, Level 3)					
Supply cables		kV	2	2	2
Signal cables		kV	2	2	2
High-energy pulses (surge) (IEC/EN 61000-4-5, Level 2)		kV	0.5 (supply cables, symmetrical)		
Immunity to line-conducted interference (IEC/EN 61000-4-6)		V	10	10	10

Fieldbus interface

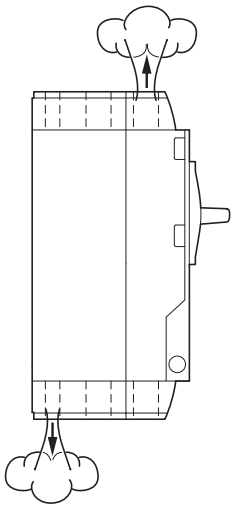
			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
Insulation resistance					
Clearances and creepage distances			EN 50178, UL 508, CSA C22.2, No. 142		
Insulation resistance			EN 50178		
Power supply					
Rated operating voltage	U_e	V	24 (-15/+20%)	24 (-15/+20%)	24 (-15/+20%)
Permissible range		VDC	20.4-28.8	20.4-28.8	20.4-28.8
Ripple		%	<5	<5	<5
At 24 V DC		mA	typ. 200	typ. 200	typ. 200
Voltage dips (IEC/EN 61131-2)		ms	10	10	10
Heat dissipation at 24 V DC		W	4.8	4.8	4.8
Polarity reversal protection					
Power supply			Yes	Yes	Yes
LED indicators					
Power supply			RUN LED (RUN): green	Module status LED (MS): green	Power LED (POW): green
LED display			LED ERROR (ERR): red	Network status LED (NS): red/green	PROFIBUS-DP LED (BUS): red
Network					
Terminal type			RJ45	5 pole, pluggable screw terminal	-
Potential isolation			Between bus and power supply (simple), between bus and power supply and NZM-XDMI612 (safe isolation)	Between bus and power supply (simple), between bus and power supply and NZM-XDMI612 (safe isolation)	-
Function			CANopen slave	DeviceNet slave	-
Interface			CAN	CAN	-
Bus protocol			CANopen	DeviceNet	-
Baud rates			Automatic search up to 1 MBit/s	Automatic search up to 500 kBit/s	-
Bus terminating resistors			Separate external bus termination required (120Ω) NZM-XDMI612	Separate external bus termination required (120Ω) NZM-XDMI612	-
Bus addresses			1 – 127 addressed via display	0 – 63 addressed via display	-
Services					
Cyclical			All data R1 – R16, S1 – S8	All data R1 – R16, S1 – S8	-
Acyclical			Read/write, real-time, day, summer/winter time, all parameters of the easy function relay	Read/write, real-time, day, summer/winter time, all parameters of the easy function relay	-
PROFIBUS-DP					
Terminal type			-	-	SUB-D 9 pole, socket
Potential isolation			-	-	Between bus and power supply (simple, between bus and power supply and NZM-XD M1612
Function			-	-	PROFIBUS-DP slave
Interface			-	-	RS 485
Bus protocol			-	-	PROFIBUS-DP
Baud rates			-	-	Automatic search up to 12 MBit/s
Bus terminating resistors			-	-	Separate external bus termination required
Bus addresses			-	-	1-126 via DMI

Residual-current relay

			PFR-003	PFR-03	PFR-5
Electrical					
Standards			IEC/EN 60947-2, IEC755, IEC 1008, IEC 1009		
Sensitivity			Pulse-current sensitive, type A		
Rated control voltage	U_s	V AC	230+20%(50/60Hz)		
Motor rating	P_e	W	3	3	3
Rated fault currents	$I_{\Delta n}$	mA	0.03	0.3	0.03,0.1,0.3,0.5,1,3,5
Deceleration time	t_v	s	0.02 (non-delayed)	0.02 (non-delayed)	0.02,0.1,0.3,0.5,1,3,5
Relay contacts			1 built-in changeover contact	1 built-in changeover contact	1 built-in changeover contact
Rated operating voltage of the relay contacts		V AC/DC	250/100	250/100	250/100
Rated operational current of the relay contacts		A	6	6	6
Fault current early warning		Hz	-	-	0.5 = 25%-50% $I_{\Delta n}$ 1 = 50%-75% $I_{\Delta n}$ 2 = 75%-100% $I_{\Delta n}$
Mechanical					
Standard front dimension		mm	45	45	45
Device height		mm	85	85	85
Built-in width		mm	45	45	45
Mounting			Quick attachment for top-hat rail DIN 46277, EN 50022		
Terminals top and bottom			Box terminals		
Terminal protection			Finger and back-of-hand proof BGV A2, VDE 106 Part 100		
Terminal capacities		mm^2	2 x 0.75 – 2.5 solid, 2 x 0.75 – 1.5 flexible/with sleeve		
Sealing facility for setting buttons			-	-	Yes

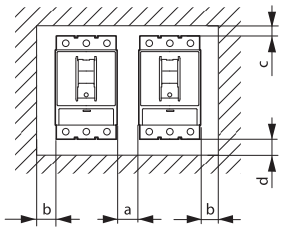
Direction of blow-out, minimum clearances, tube cable lugs

Direction of blow-out



	Top, front	Bottom, rear
NZM1	X	-
NZM2	X	X
NZM3	X	X
NZM4	X	-

Minimum clearances



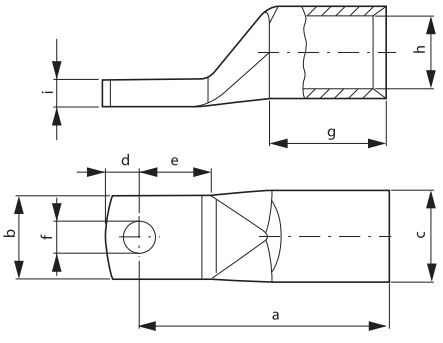
between two adjacently mounted switches
Minimum clearance a in mm

	NZM1	NZM2	NZM3	NZM4
NZM1	0	5	5	15
NZM2	5	5	5	15
NZM3	5	5	5	15
NZM4	15	15	15	15

between switches and other parts
Minimum clearances in mm

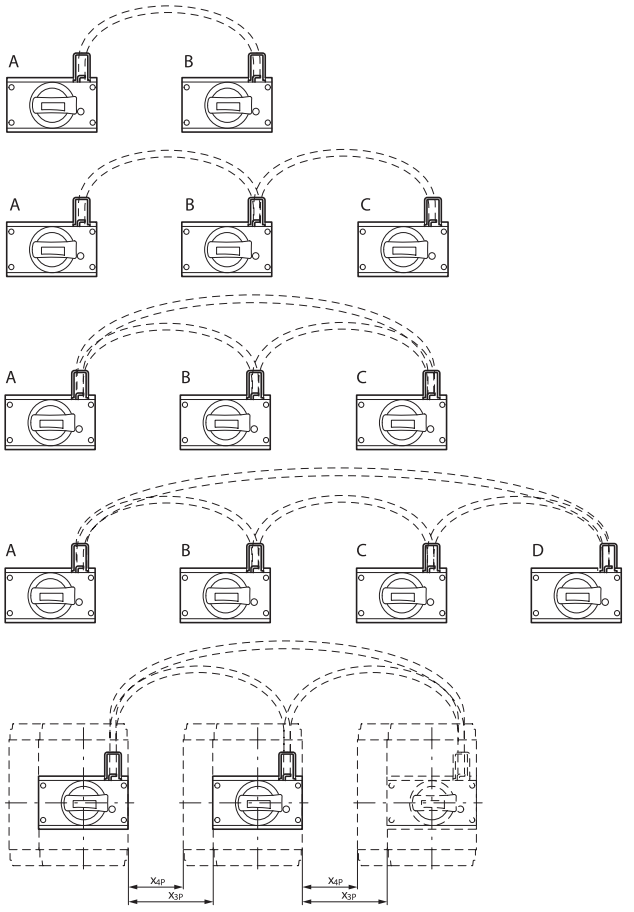
	b		c		d	
	≥ 690V	1000V	≥ 690V	1000V	≥ 690V	1000V
NZM1	0	-	60	-	0	-
NZM2	5	5	35	35	35	35
NZM3	5	5	60	60	60	60
NZM4	15	15	100	200	0	0

Tube cable lugs, dimensions



Cable lug	For use with	Nominal cross section mm²	Terminal bolt	Dimensions in mm								
			Ø	a	b	C	d	e	f	g	h	i
KS95-NZM7	NZM2	95	M8	53_{+2}	$23_{\pm0.5}$	$18_{\pm0.2}$	$10_{\pm1}$	19	8,5	25	13,5	4,4
KS120-NZM7	NZM2	120	M8	56_{+2}	$23_{\pm0.5}$	$19.5_{\pm0.2}$	$10_{\pm1}$	19	8,5	26	15	4,4
KS150-NZM7	NZM2	150	M8	61_{+2}	$23_{\pm0.5}$	$21_{\pm0.2}$	$10_{\pm1}$	19	8,5	30	16,5	4,4
NZM2-XKS185	NZM2	185	M8	$65_{\pm1.5}$	$22_{\pm1}$	$24_{\pm0.3}$	$9^{+1}_{-0.5}$	$19^{+2.5}_{-0.5}$	$8,5^{+0.05}_{-0.1}$	$30_{\pm2}$	$19_{\pm0.8}$	7
NZM3-XKS185	NZM3, NZM4	185	M 10	65	24,5	24	11,5	18	10,5	30	19	$7.0_{\pm0.8}$
NZM3-XKS240	NZM3, NZM4	240	M10	72	31	26	11.5	19	10,5	35	21	$5.0_{\pm0.8}$

Interlock variations and combination possibilities



A	B
OFF	OFF
ON/TRIP	~~ON~~
~~ON~~	ON/TRIP

A	B	C
OFF	OFF	OFF
~~ON~~	ON/TRIP	~~ON~~
ON/TRIP	~~ON~~	ON/TRIP

A	B	C
OFF	OFF	OFF
ON/TRIP	~~ON~~	~~ON~~
~~ON~~	ON/TRIP	~~ON~~
~~ON~~	~~ON~~	ON/TRIP

A	B	C	D
OFF	OFF	OFF	OFF
ON/TRIP	~~ON~~	ON/TRIP	~~ON~~
~~ON~~	ON/TRIP	~~ON~~	ON/TRIP

X_{3p} = switch spacing, 3 pole
X_{4p} = switch spacing, 4 pole

NZM-XBZ225

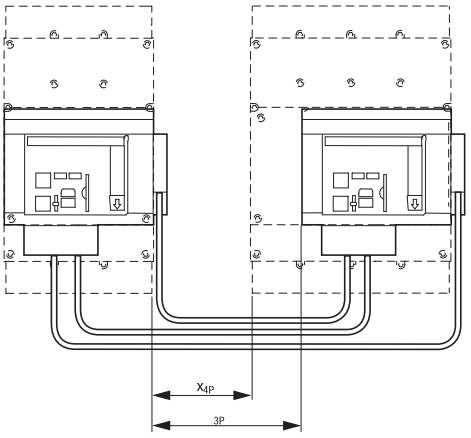
Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	135	105	120	85	135	90	125	80
NZM2	3/4 pole	135	105	120	85	135	90	125	80
NZM3	3/4 pole	90	75	75	35	85	40	80	45
NZM4	3/4 pole	50	35	40	15	25	-	15	-

NZM-XBZ600

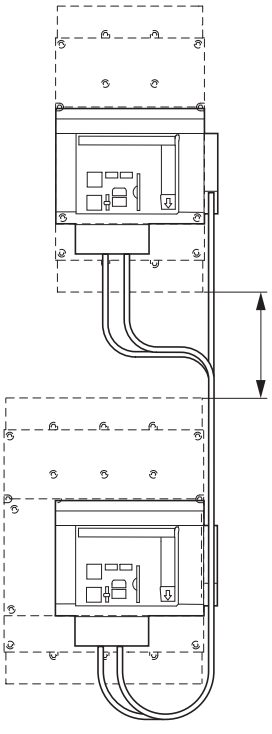
Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	510	480	495	460	510	465	475	405
NZM2	3/4 pole	510	480	495	460	510	465	475	405
NZM3	3/4 pole	460	430	450	410	460	415	460	390
NZM4	3/4 pole	400	370	380	340	400	375	390	320

NZM-XBZ1000

Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	910	880	895	860	910	865	865	795
NZM2	3/4 pole	910	880	895	860	910	865	865	795
NZM3	3/4 pole	820	790	850	810	860	815	860	790
NZM4	3/4 pole	750	720	730	700	800	775	790	720



X_{3P} = max. switch spacing 3 pole
X_{3P} = max. switch spacing 4 pole



Mechanical interlock XMVR

NZM...-XMVR (mounted side-by-side)

Max. switch spacing				Right switch			
		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
Left switch		mm	mm	mm	mm	mm	mm
NZM2	3/4 pole	130	95	95	50	...	...
NZM3	3/4 pole	...	...	135	90	155	85
NZM4	3/4 pole	...	...	...	...	120	50

Mechanical interlock XMVRL

NZM...-XMVRL (mounted side-by-side, in adjacent enclosures)

Max. switch spacing				Right switch			
		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
Left switch		mm	mm	mm	mm	mm	mm
NZM2	3/4 pole	350	315	420	385	...	...
NZM3	3/4 pole	...	...	400	365	460	390
NZM4	3/4 pole	...	...	...	...	420	350

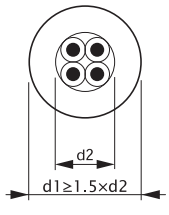
Mechanical interlock XMVRL

NZM…-XMVRL (mounted one above the other)

Max. switch spacing		Switch at top NZM2 3/4 pole Y	Switch at top NZM3 3/4 pole Y	Switch at top NZM4 3/4 pole Y
Switch at bottom		mm	mm	mm
NZM2	3/4 pole	220	225	...
NZM3	3/4 pole	...	220	230
NZM4	3/4 pole	...	...	230

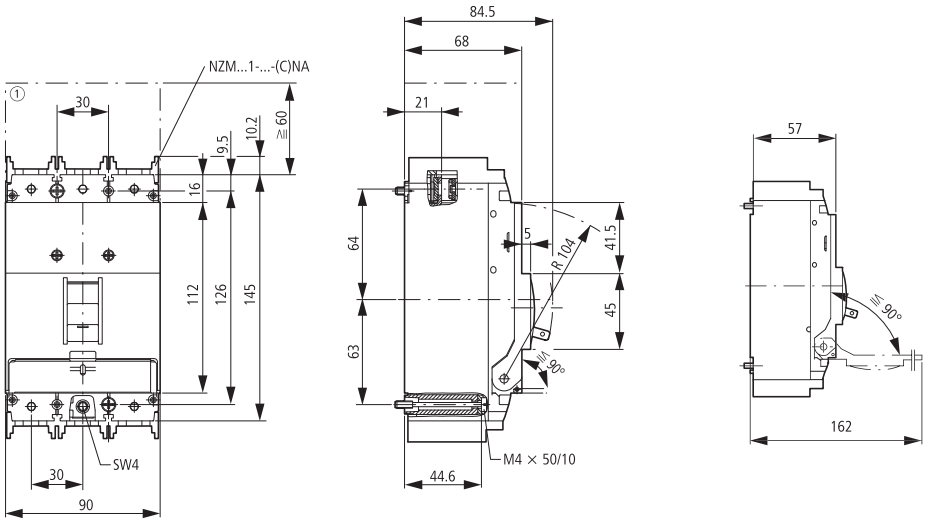
Ring-type transformer PFR-W...

Maximum rated operational current [A]		Diameter Transformer part no. PFR-W-…	Maximum conductor circumference (mm)
Power distribution	Motor/capacitor	d1	d2
50	50	20	13
150	100	30	20
150	100	35	23
400	200	70	47
600	250	105	70
1200	630	140	93
1800	800	210	140



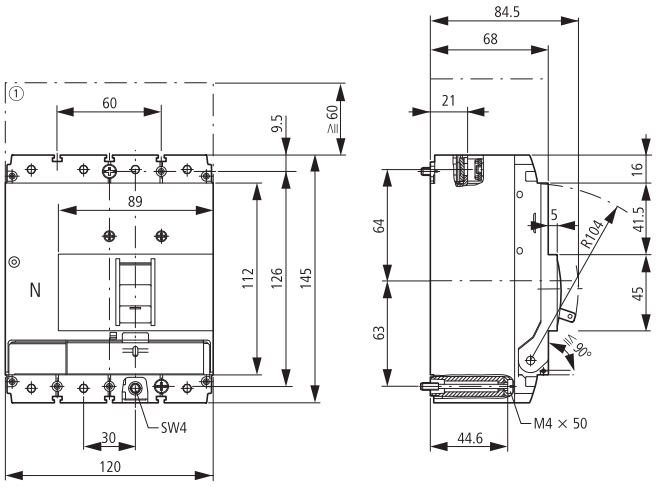
Size 1: basic devices (NZM1. PN1. N1. NS1)

Circuit-breakers
Switch-disconnectors
3 pole
NZMB1
NZMC1
NZMN1
NZMH1
PN1
N1
NS1



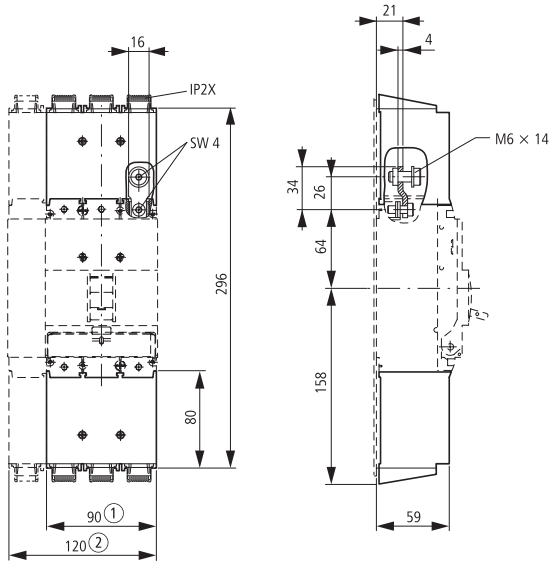
① Blow-out area, minimum distance to other parts ≥ 60mm

Circuit-breakers
Switch-disconnectors
4 pole
NZMB1-4
NZMN1-4
NZMH1-4
PN1-4
N1-4



① Blow-out area, minimum distance to other parts ≥60mm

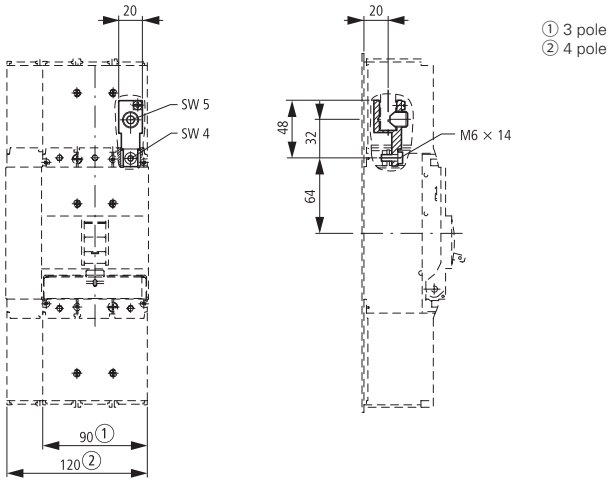
Covers
NZM1(-4)-XKSA
Screw terminals
NZM 1(-4)-XKS
IP2X protection against contact with a finger for cover
NZM1(-4)-XIPA



① 3 pole
② 4 pole

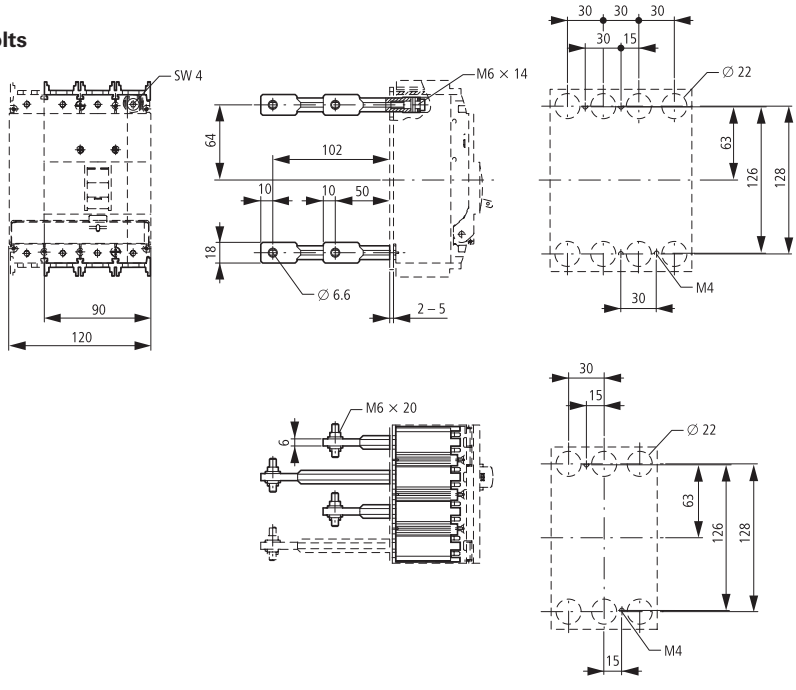
Size 1: accessories (NZM1...-XK..., NZM1...XIPK, NZM-XSTK)

Tunnel terminal
NZM1(-4)-XKA

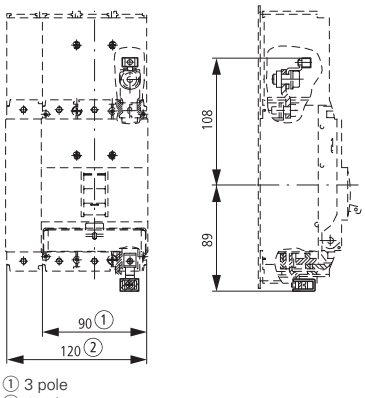


① 3 pole
② 4 pole

Rear terminal bolts
NZM1(-4)-XKR

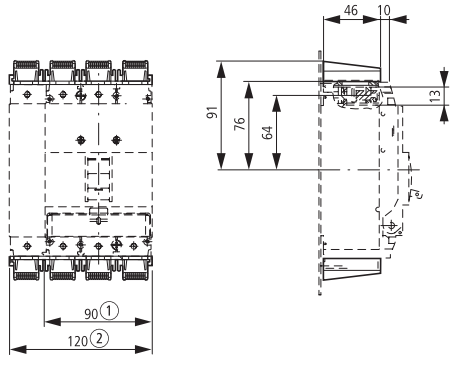


Control cable terminals
NZM1-XIPK.NZM-XSTK



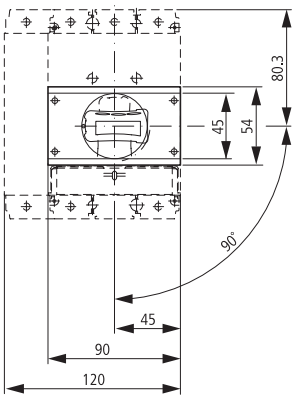
① 3 pole
② 4 pole

IP2X protection against contact with finger
NZM1(-4)-XIPK

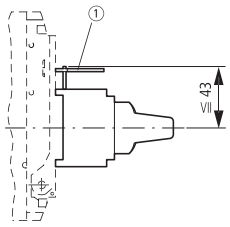


Size 1: accessories (NZM1-XDV.... NZM1-XTVD...)

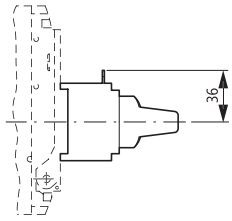
Rotary handle on circuit-breaker

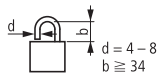


NZM1-XDV
NZM1-XDVR



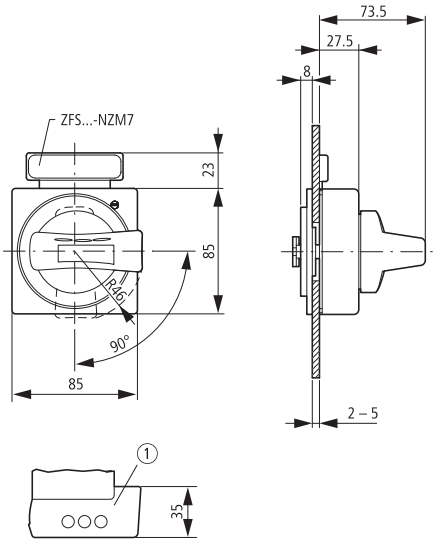
NZM1-XDTV

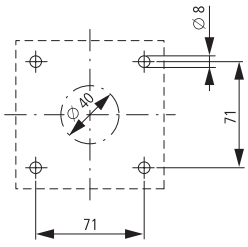


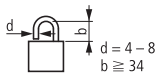


① Up to 3 padlocks

Door coupling rotary handles
NZM1-XTVD(V)(R)(-NA)





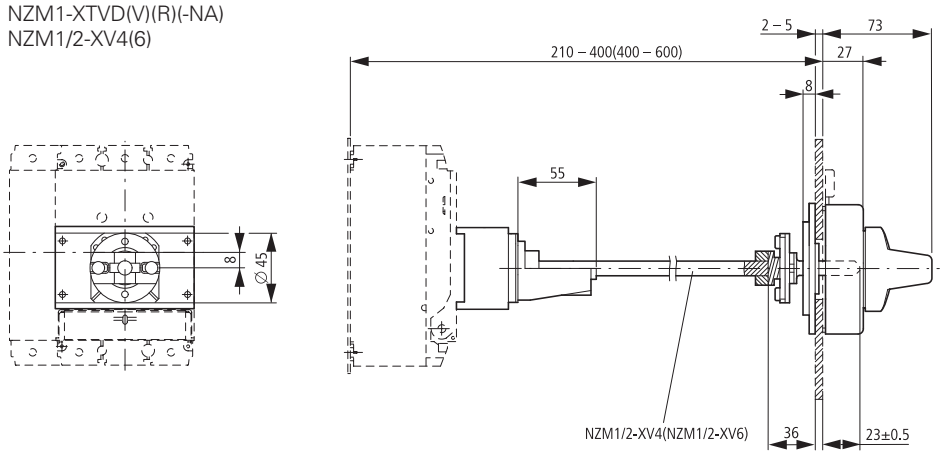


① Up to 3 padlocks

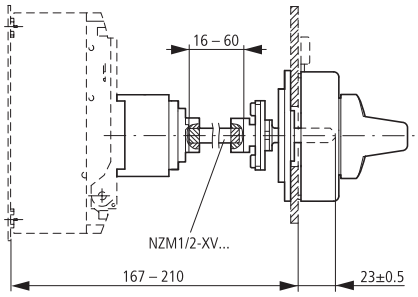
Size 1: accessories (NZM1-XTVD...)

Door coupling rotary handle with extension shaft

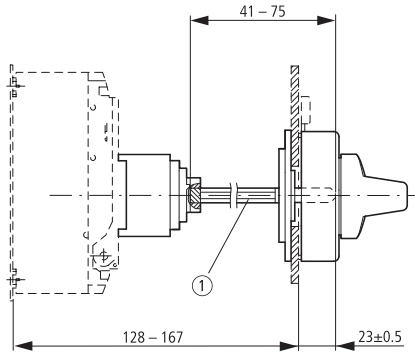
NZM1-XTVD(V)(R)(-NA)
NZM1/2-XV4(6)



NZM1-XTVD(V)(R)-60(-NA)

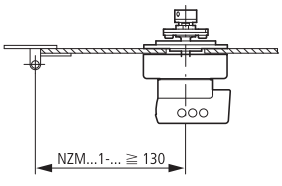


NZM1-XTVD(V)(R)-0(-NA)



① Special tip

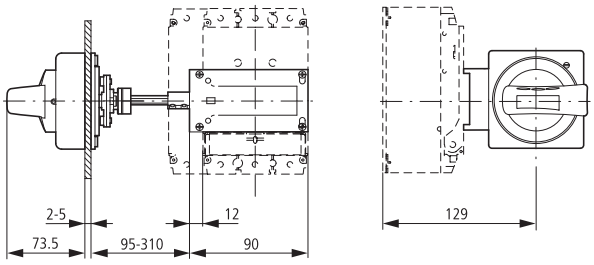
Minimum distance of door coupling rotary handle from door pivot point



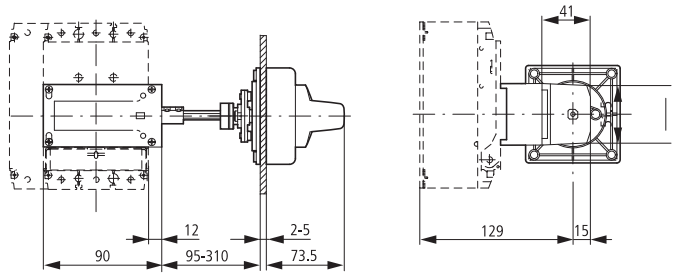
Size 1: accessories (NZM1-XS, NZM1...HIV)

Main switch assembly kit for side wall installation

NZM1-XS(R)-L

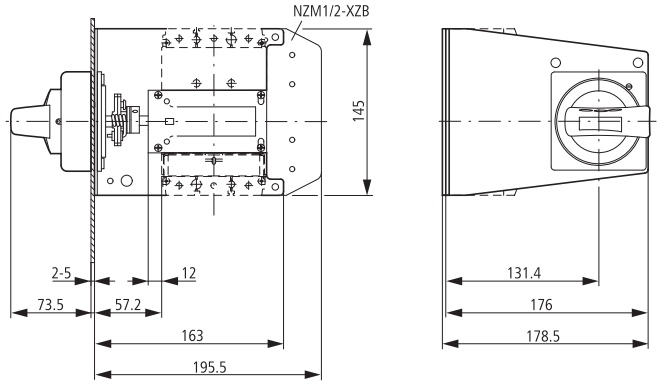


NZM1-XS(R)-R

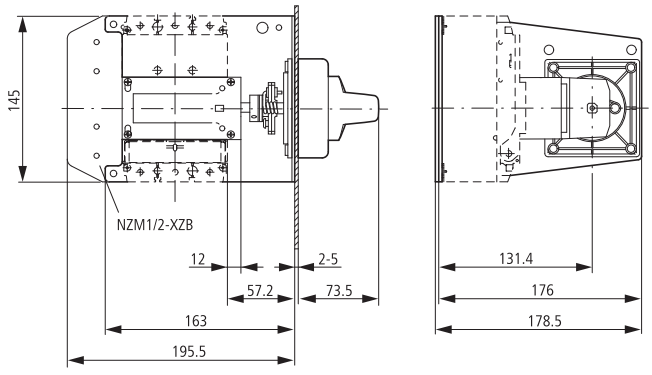


Main switch assembly kit for side wall installation with mounting bracket

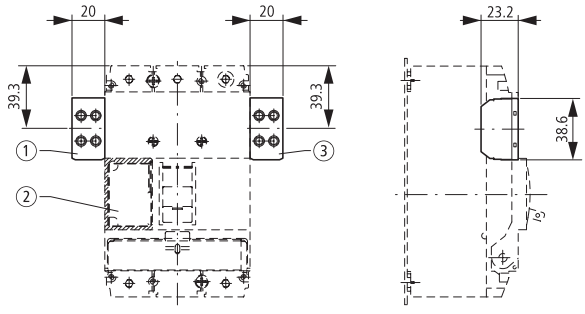
NZM1-XS(R)M-L



NZM1-XS(R)M-R



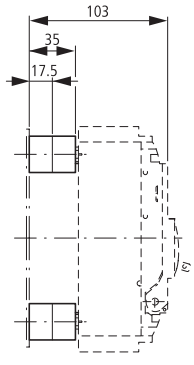
Undervoltage releases
Shunt releases (for power circuit breaker)
Early-make auxiliary contacts



①
NZM1-XA(HIV)
NZM1-XU(HIV)(20)
NZM1-XHIV
②
NZM1-XA(HIV)(L)
NZM1-XU(V)(HIV)(L)(20)
NZM1-XHIV(L)
③
NZM1-XHIVR

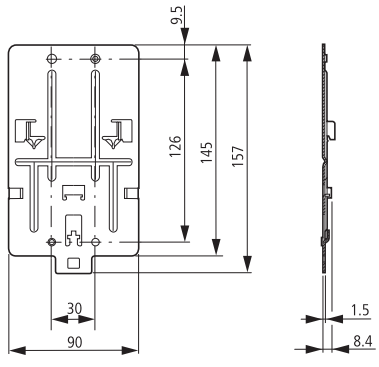
Spacers

NZM1/2-XAB



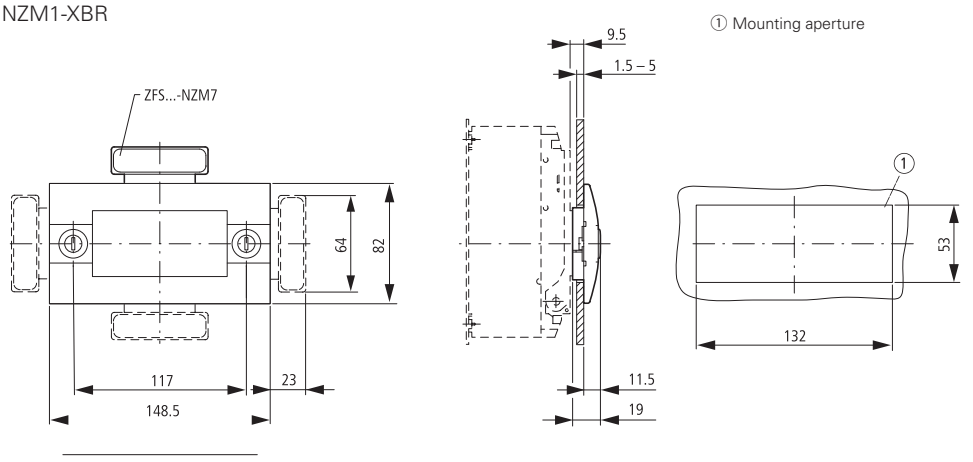
Clip plate

NZM1-XC35

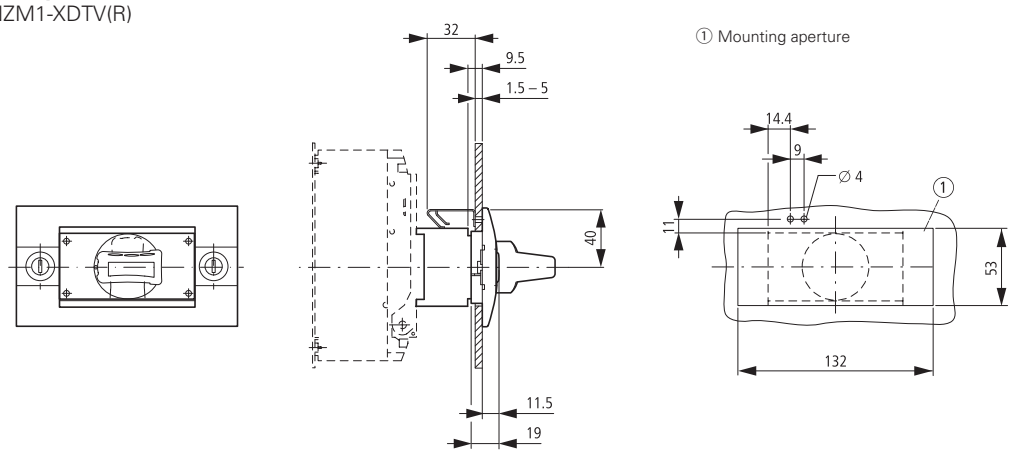


Size 1: accessories (NZM...-X...)

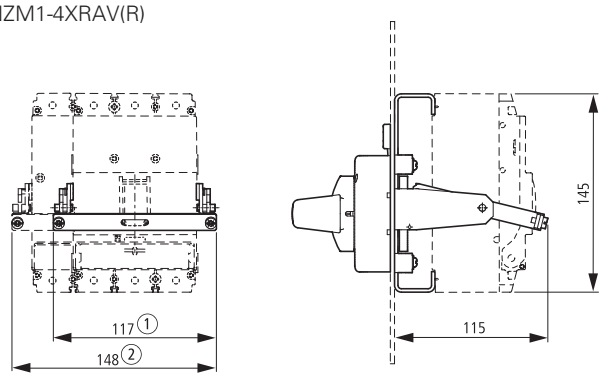
Insulating surround
NZM1-XBR



Rotary handle on switch with door interlock
NZM1-XDTV(R)

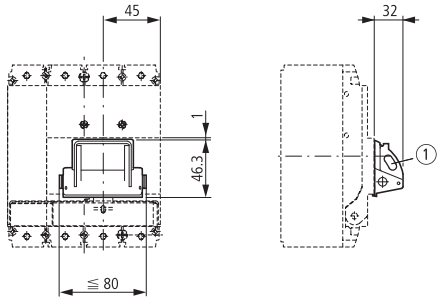


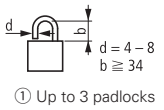
Rear-mounted drives
NZM1-XRAV(R)
NZM1-4XRAV(R)



① NZM1-XRAV(R)
② NZM1-4-XRAV(R)

Toggle lever locking device
NZM-XKAV



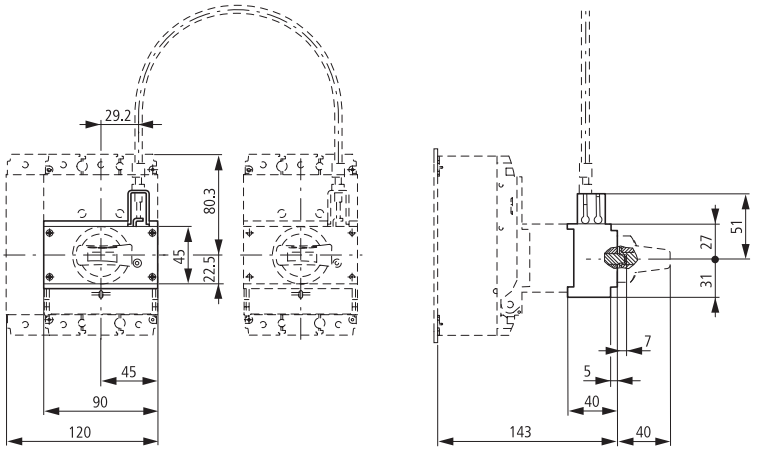


① Up to 3 padlocks

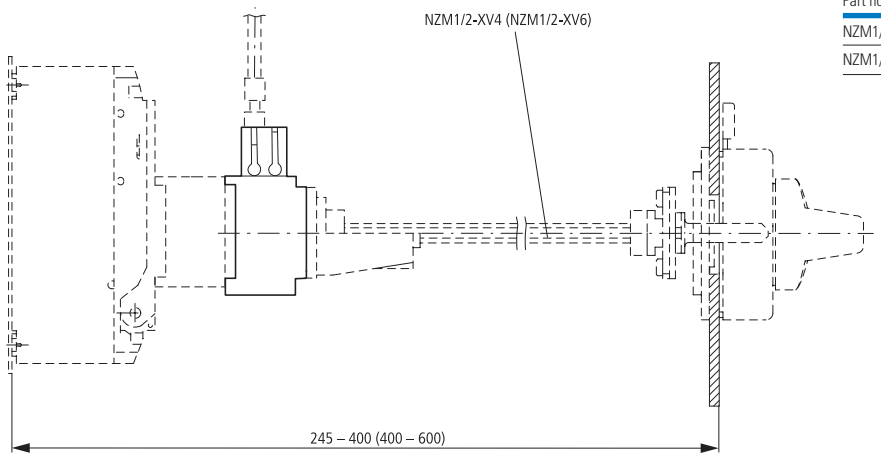
Size 1: accessories (NZM1-XMV, NZM1-XTV...)

Mechanical interlock

NZM1-XMV+NZM1-XDV(R)

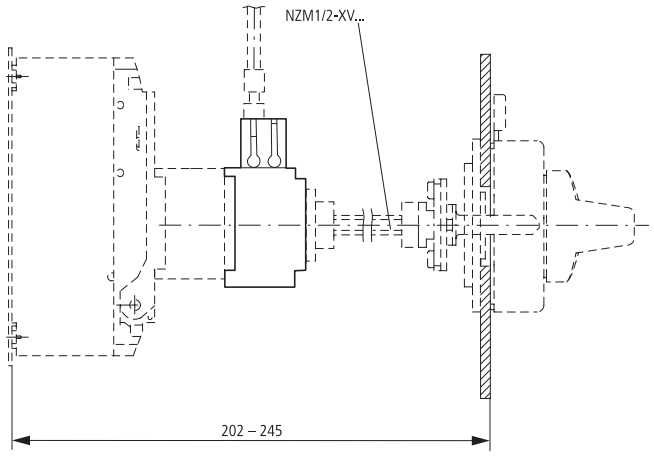


NZM1-XMV+NZM1-XTVD(V)(R)

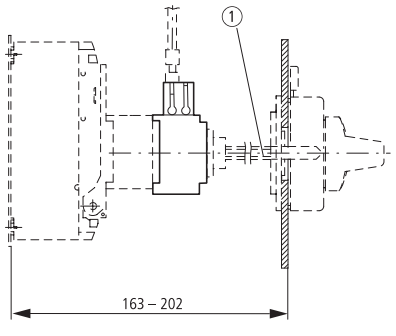


Part no.	X
NZM1/2-XV4	245–400
NZM1/2-XV6	400–600

NZM1-XMV+NZM1-XTVD(V)(R)-60



NZM1-XMV+NZM1-XTVD(V)(R)-0

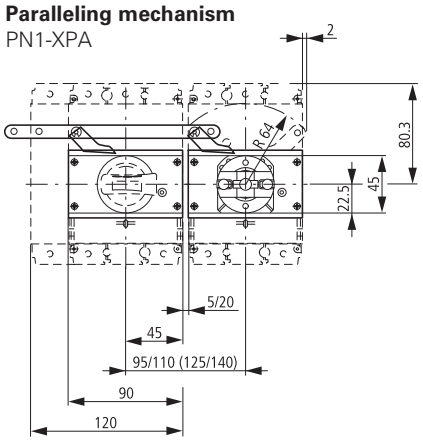


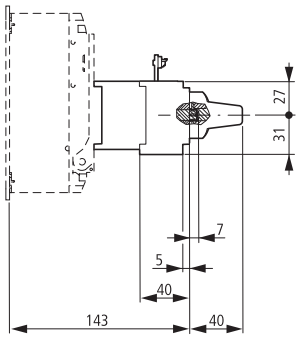
① Special tip

Size 1: accessories (PN1-XPA, NZM1-XCI...,NZM1-XAD)

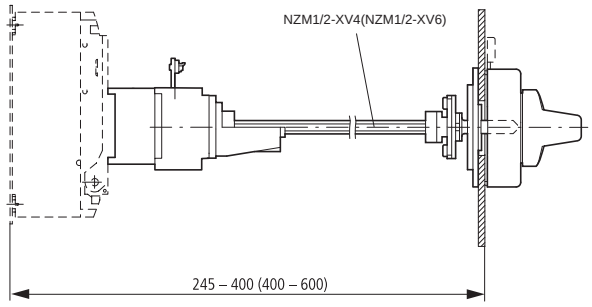
Paralleling mechanism

PN1-XPA



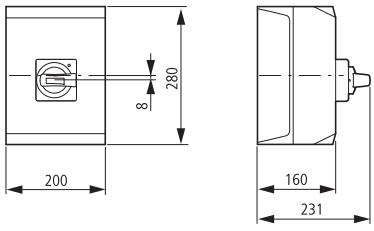


PN1-XPA

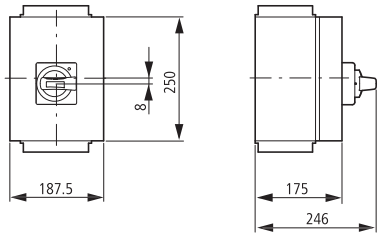


Insulated enclosures

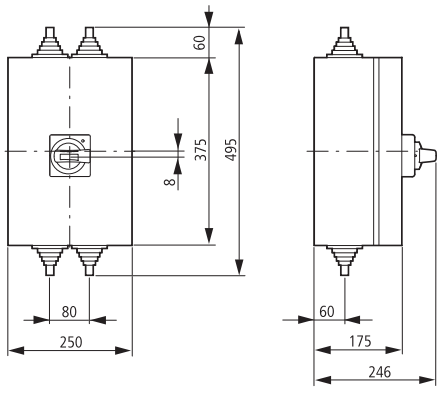
NZM1-XCIKS-T...



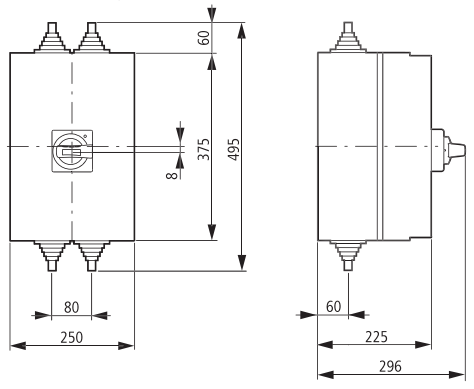
NZM1-XC123-T...



NZM1-XC143-T...

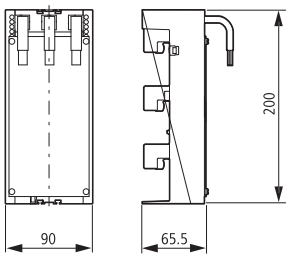


NZM1-XC143/2-T...



Component adapter

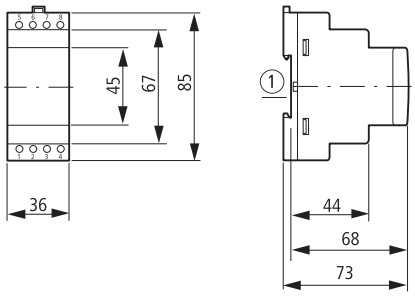
NZM1-XAD160



Size 1: accessories (NZM1...-XFL..., PFR-...)

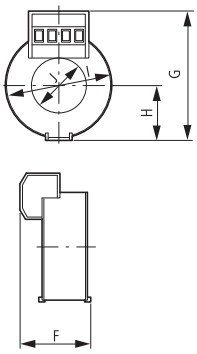
Residual-current relays

PFR-003
PFR-03
PFR-5

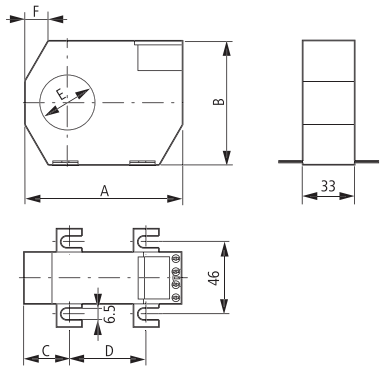


Ring-type transformer

PFR-W-20



PFR-W-35...210

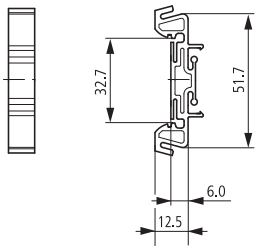


Part no.	A	B	C	D	E	F
PFR-W-35	100	79	26	48.5	35	35
PFR-W-70	130	110	32	66	70	52
PFR-W-105	170	146	38	94	105	72
PFR-W-140	220	196	48.5	123	140	97
PFR-W-210	299	284	69	161	210	141

Part no.	F	G	H	I	J
PFR-W-20	32	60	24	46	21
PFR-W-30	32	70	30	59	30

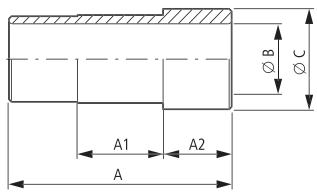
Mounting clip

PFR-WC



Magnetic shielding

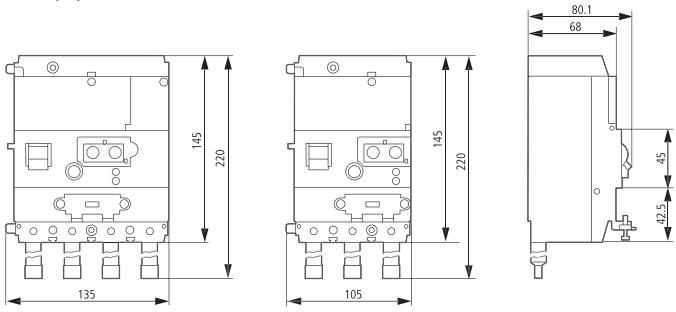
PFR-WMA



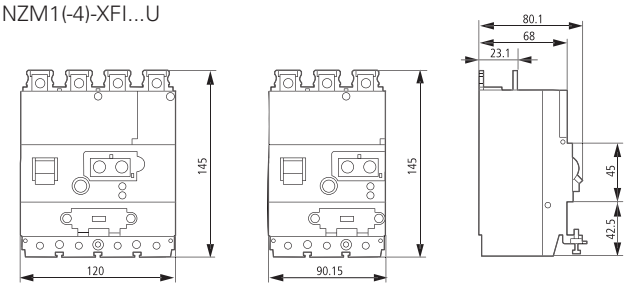
Part no.	A	ØB	ØC	A1	A2
PFR-WMA-35	91	28	40	35	28
PFR-WMA-70	105	62	75	35	35
PFR-WMA-105	153	98	110	35	60
PFR-WMA-140	153	133	145	35	60
PFR-WMA-210	153	203	215	35	60

Earth-fault release

NZM1(-4)-XFI...R

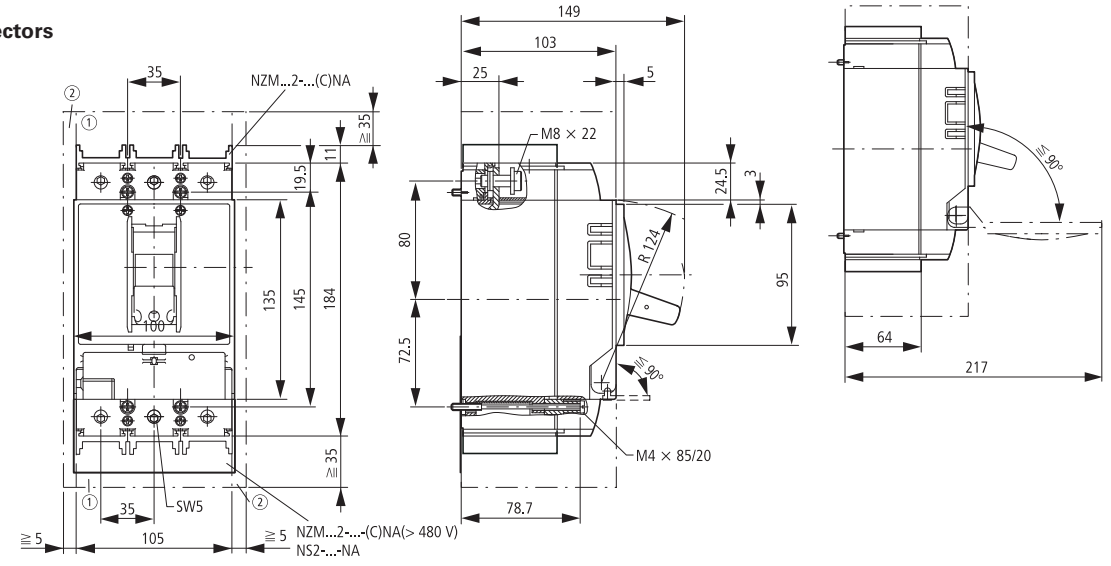


NZM1(-4)-XFI...U



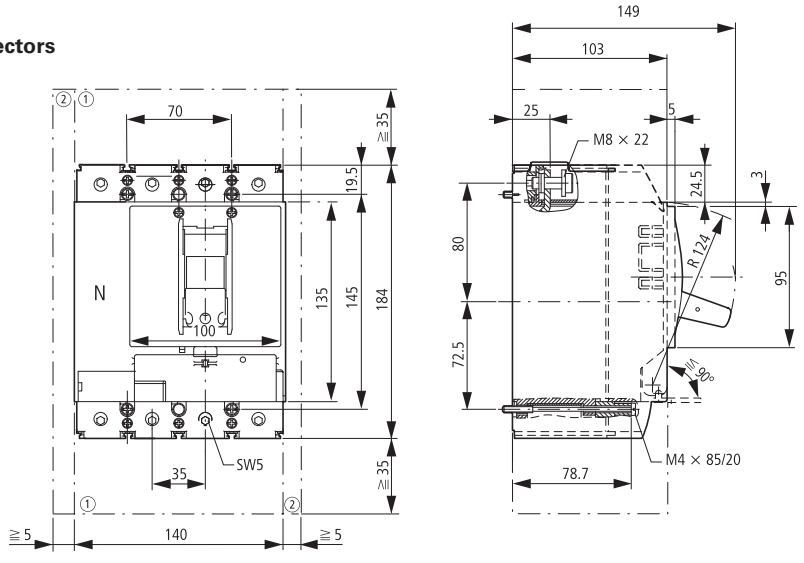
Size 2: basic devices (NZM2, PN2, N2, NS2)

Circuit-breakers
Switch-disconnectors
3 pole
NZMB2
NZMC2
NZMN2
NZMH2
PN2
N2
NS2



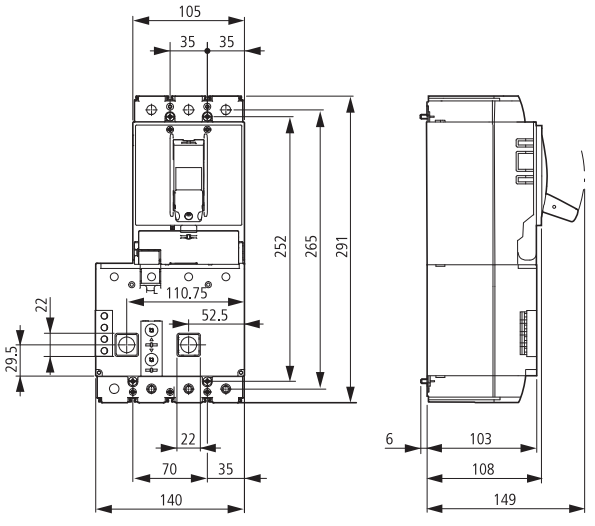
① Blow-out area, minimum distance to other parts ≥ 35 mm
② Minimum distance to adjacent parts ≥ 5 mm

Circuit-breakers
Switch-disconnectors
4 pole
NZMB2-4
NZMN2-4
NZMH2-4
PN2-4
N2-4



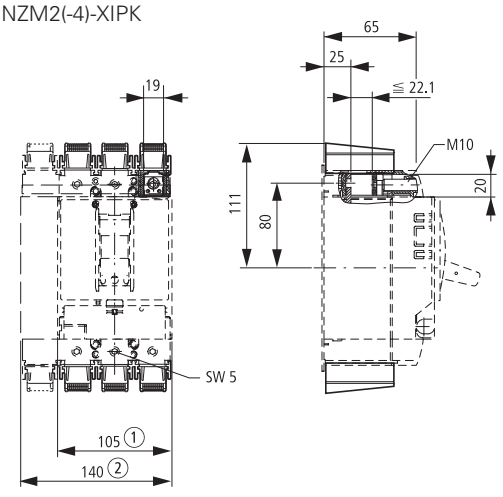
① Blow-out area, minimum distance to other parts ≥ 35 mm
② Minimum distance to adjacent parts ≥ 5 mm

Circuit-breakers
3 pole
NZMH2...-XFIA30



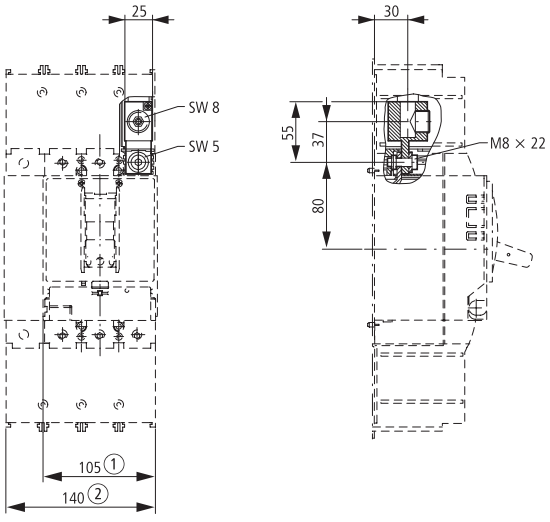
Size 2: basic devices (NZM2...-XK..., NZM2...-XIP..., NZM2-XST...)

Box terminal
NZM2(-4)-...-XKC(O)(U)
IP2X protection against contact with finger
NZM2(-4)-XIPK

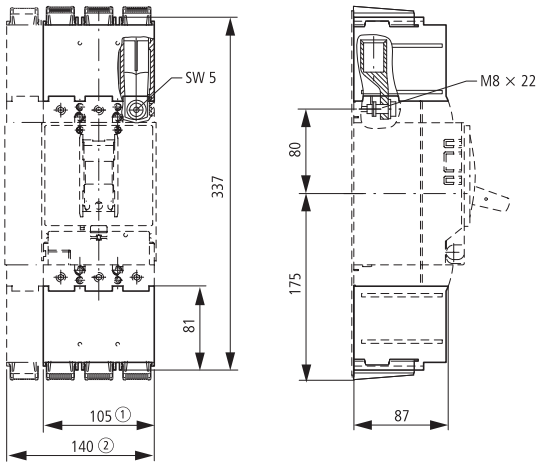


① 3 pole
② 4 pole

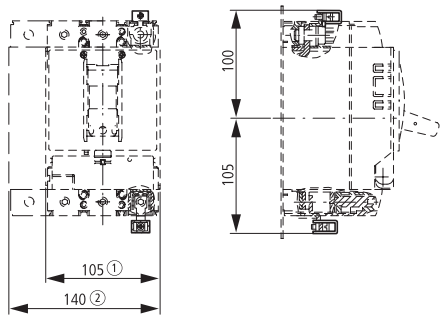
Tunnel terminal
NZM2(-4)-XKA



Covers
NZM2(-4)-XKSA
Cable lug
NZM2-XKS185
IP2X protection against contact with a finger for cover
NZM2(-4)-XIPA



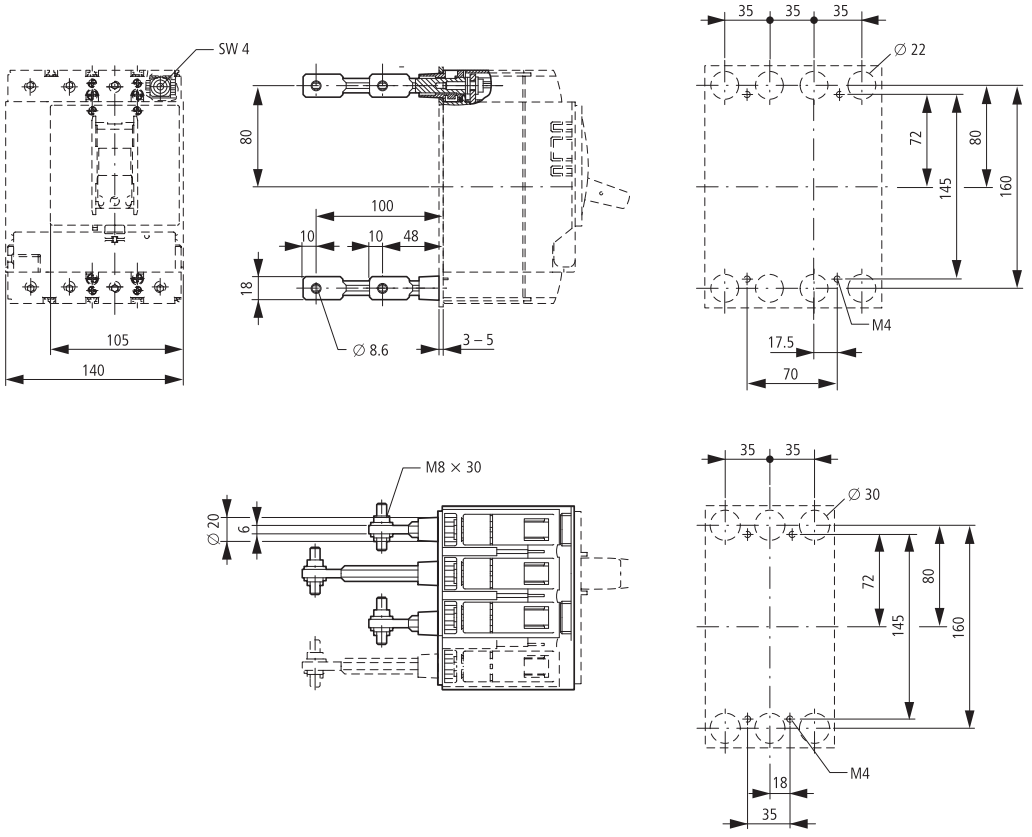
Cable lug cover
NZM2-XSTS
NZM-XSTK



① 3 pole
② 4 pole

Size 2: accessories (NZM2...-XKR.... NZM2-XDV..., NZM2-XDTV...)

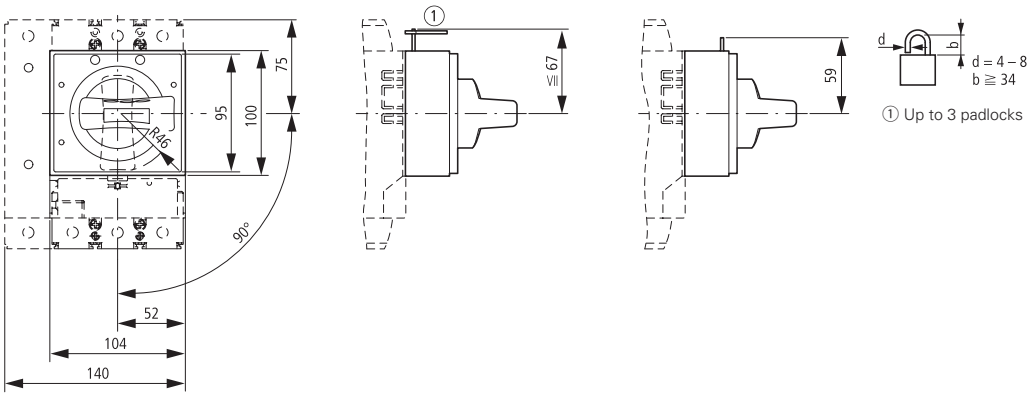
Rear terminal bolts
(+)NZM2(-4)-XKR(0)(U)



Rotary handle on circuit-breaker

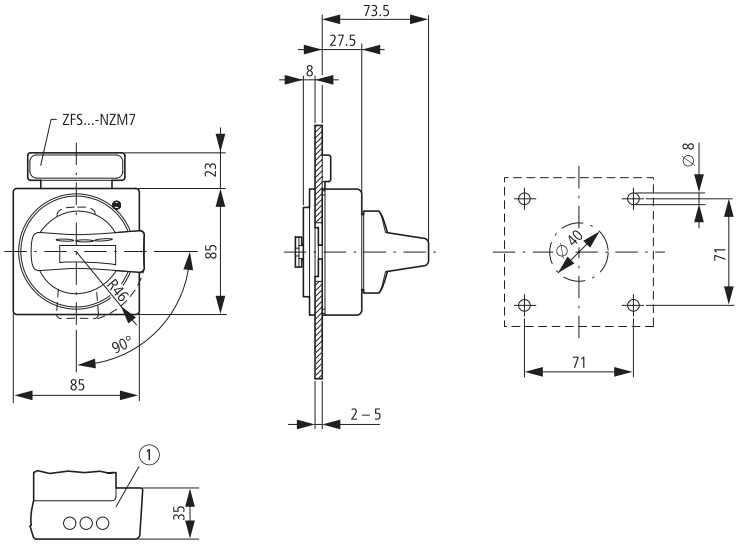
NZM2-XDV
NZM2-XDVR

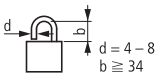
NZM2-XDTV
NZM2-XDTV2



Size 2: accessories (NZM2-XTV..., NZM1/2-XV4(6))

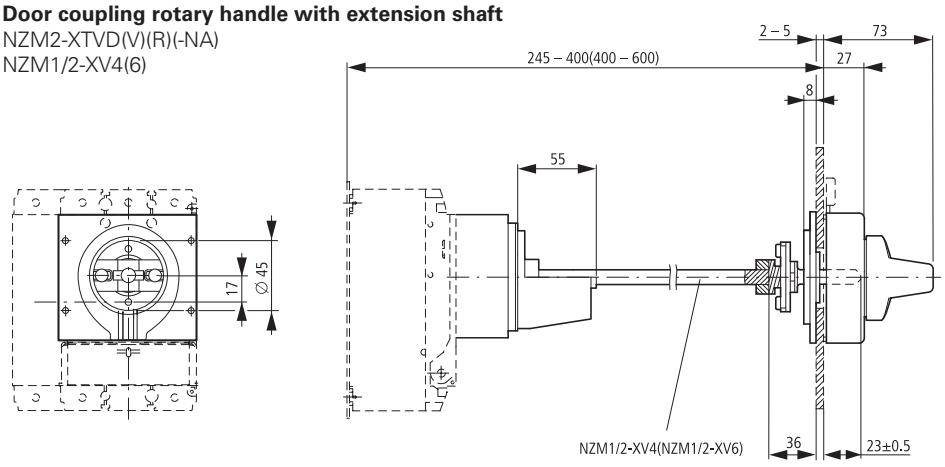
Door coupling rotary handles
NZM2-XTVD(V)(R)...





① Up to 3 padlocks

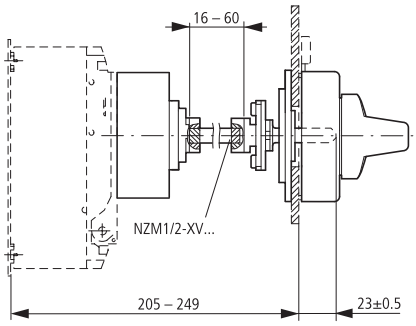
Door coupling rotary handle with extension shaft
NZM2-XTVD(V)(R)(-NA)
NZM1/2-XV4(6)



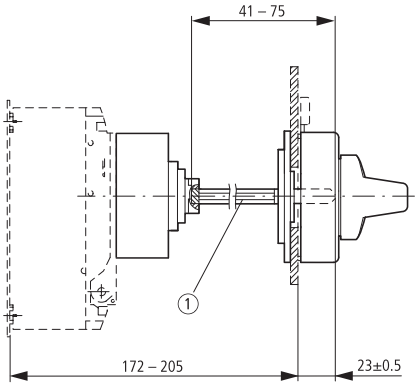
Size 2: accessories (NZM2-XTVD..., NZM2-XS...)

Door coupling rotary handle with extension shaft

NZM2-XTVD(V)(R)-60(-NA)

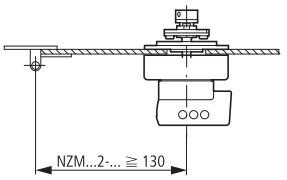


NZM2-XTVD(V)(R)-0(-NA)



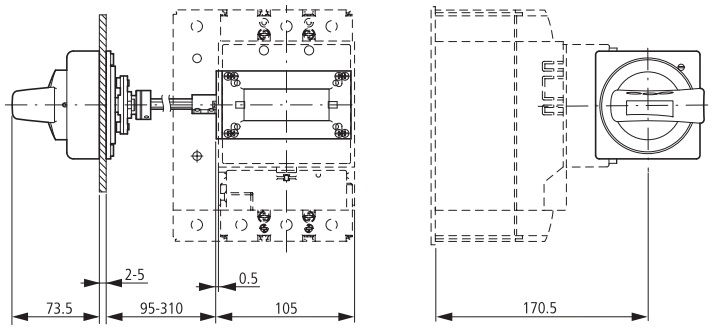
① Special tip

Minimum distance of door coupling rotary handle from door pivot point

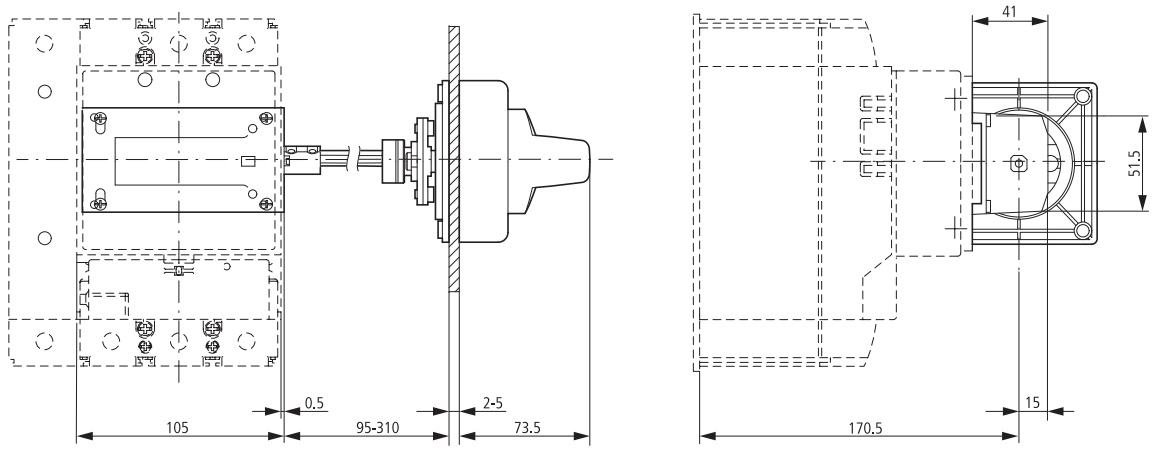


Main switch assembly kit for side wall installation

NZM2-XS(R)-L

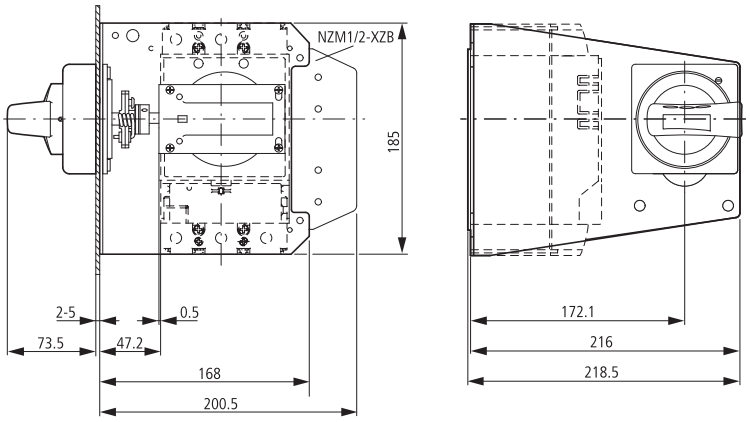


NZM2-XS(R)-R

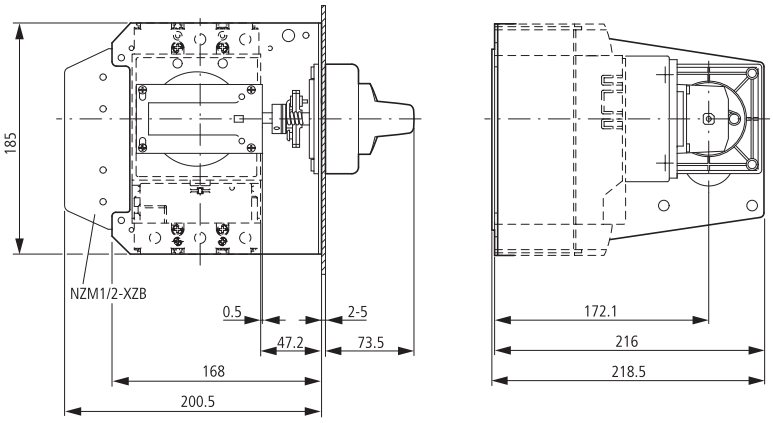


Size 2: accessories (NZM2-XS..., NZM2...-XRAV...)

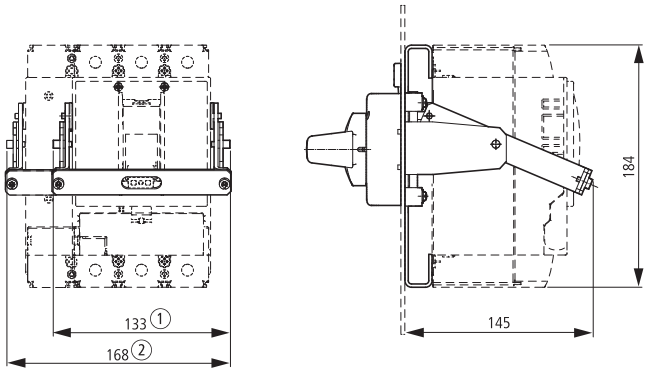
Main switch assembly kit for side wall installation with mounting bracket.
NZM2-XS(R)M-L



NZM2-XS(R)M-R



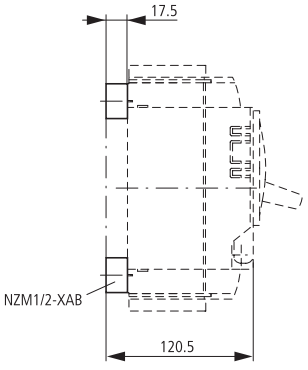
Rear-mounted drives
NZM2



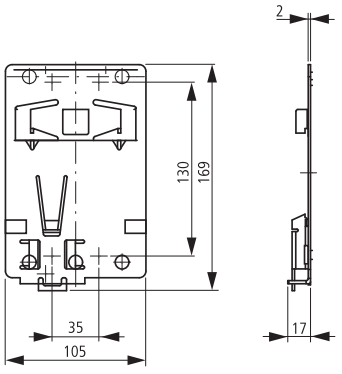
① NZM2-XRAV(R)
② NZM2-4-XRAV(R)

Size 2: accessories (NZM...-XAB, NZM2-XBR, NZM2-XDTV...)

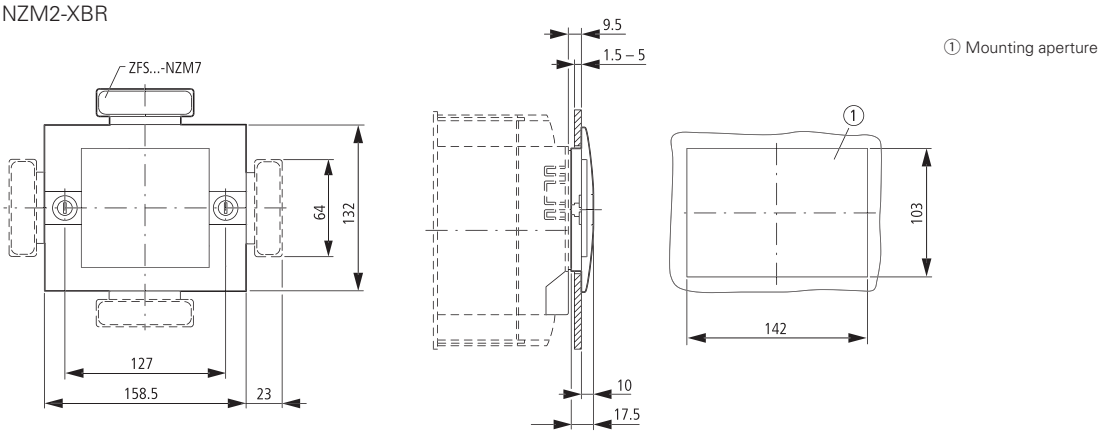
Spacers
NZM1/2-XAB



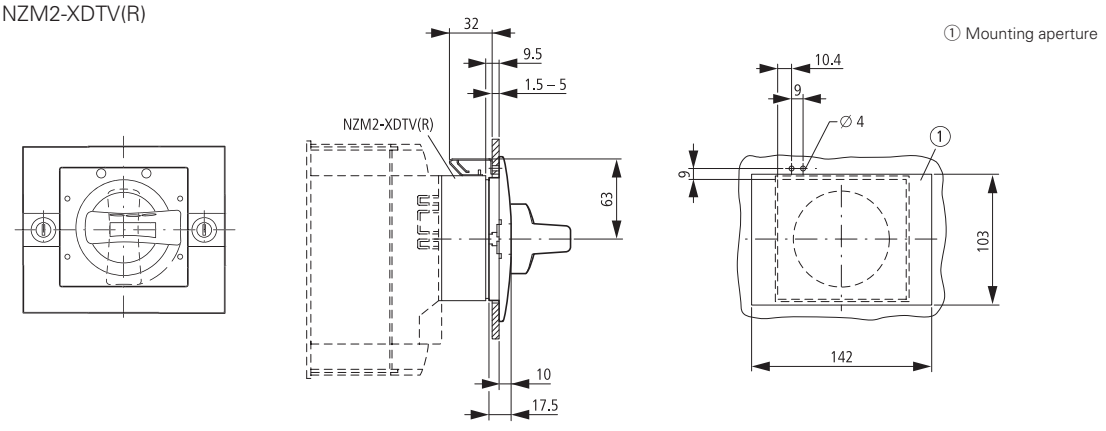
Clip plate
NZM2-XC75



Insulating surround
NZM2-XBR



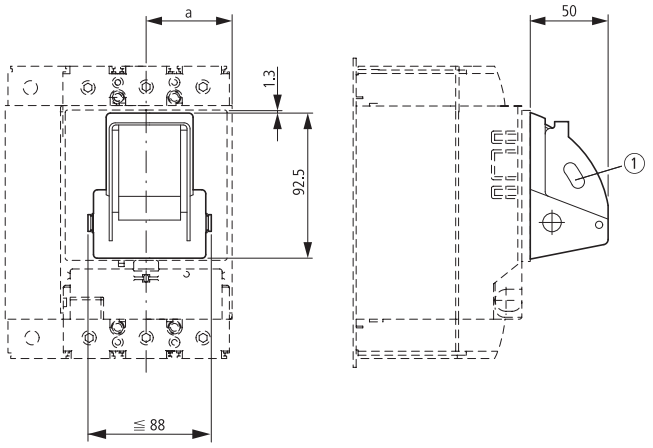
Rotary handle on switch with door interlock
NZM2-XDTV(R)

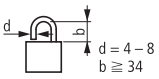


Size 2: accessories (NZM2...-XKAV, NZM2...)

Toggle lever locking device

NZM2/3-XKAV



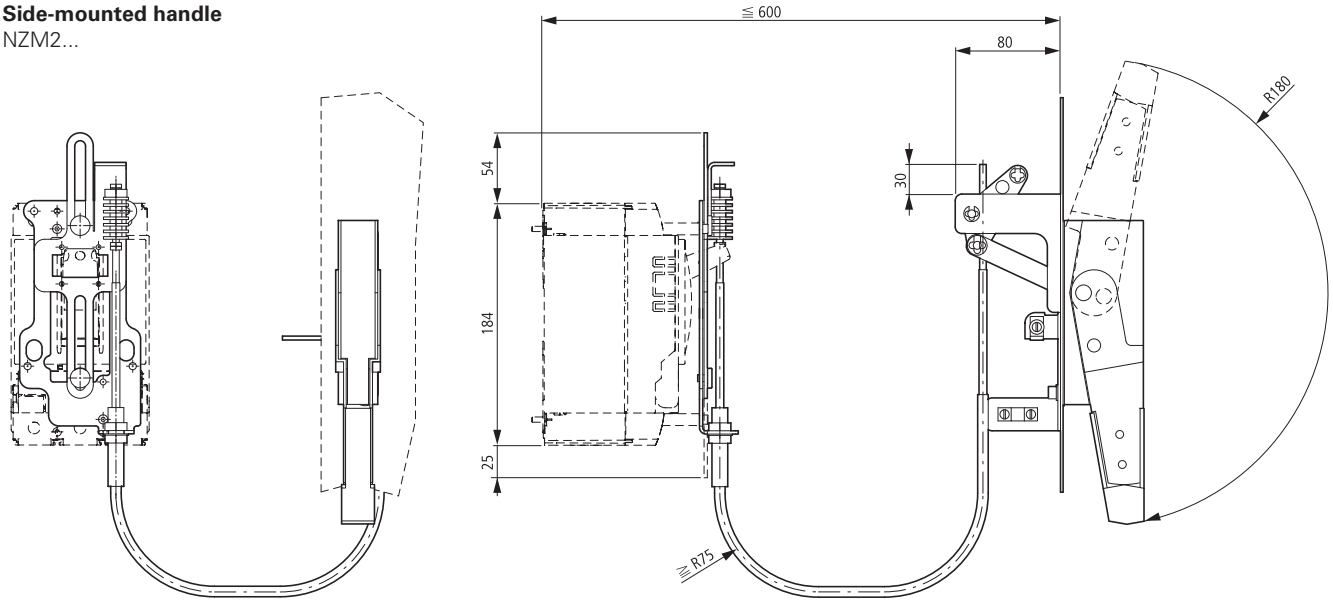


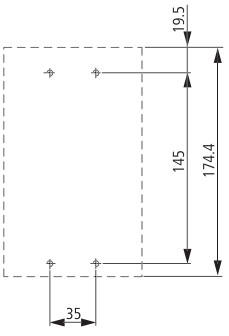
① Up to 3 padlocks

Part no.	a
NZM2, PN2, N2	52.5
NZM3, PN3, N3	70

Side-mounted handle

NZM2...



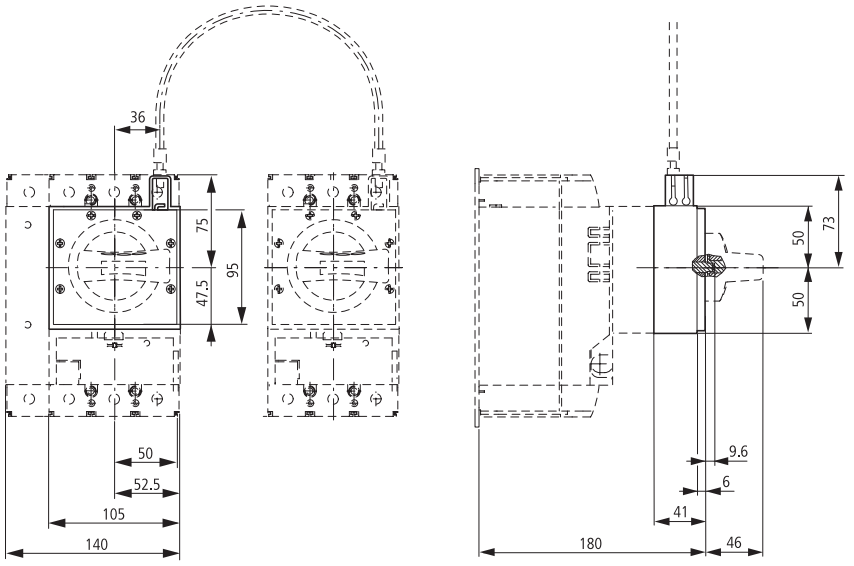


Drilling template

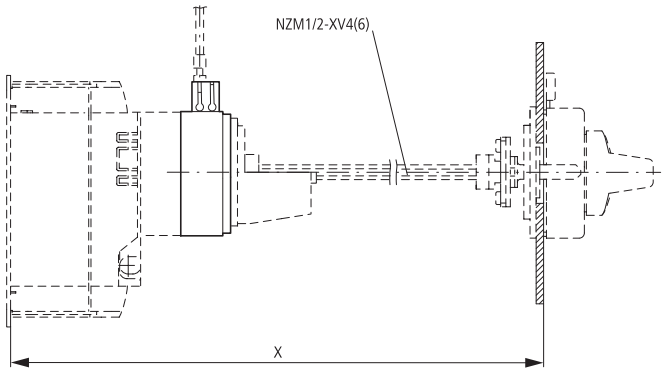
Size 2: accessories (NZM2-XMV, NZM2-XTVD..., NZM2-XD)

Mechanical interlock

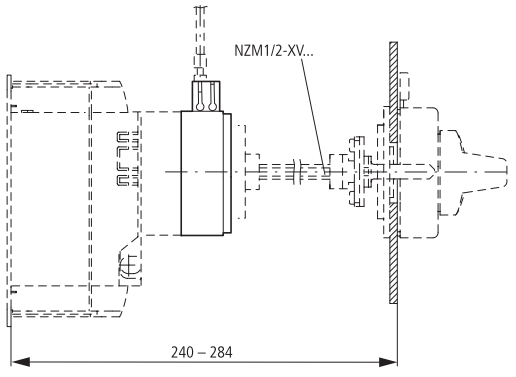
NZM2-XMV+NZM2-XD



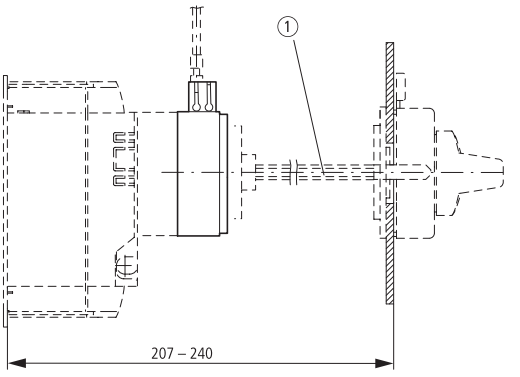
NZM2-XMV+NZM2-XTVD(V)(R)



NZM2-XMV+NZM 2-XTVD(V)(R)-60



NZM2-XMV + NZM2-XT(V)D(V)(R)-0

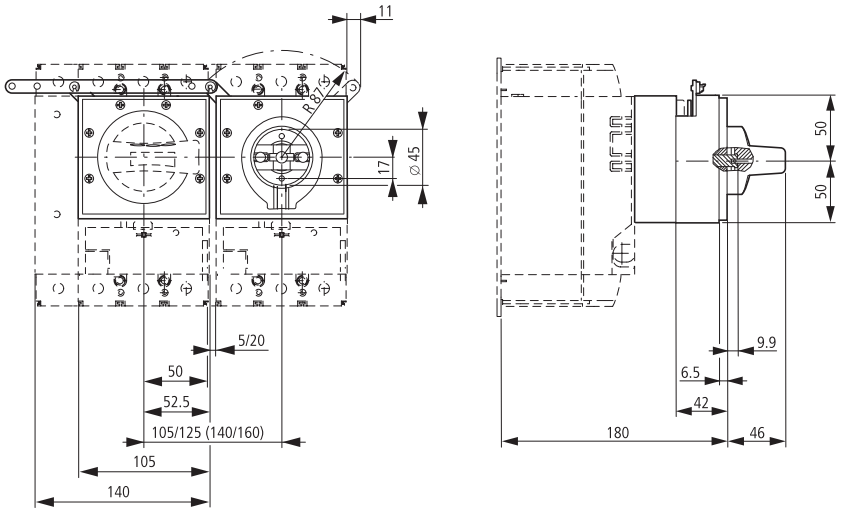


① Special tip

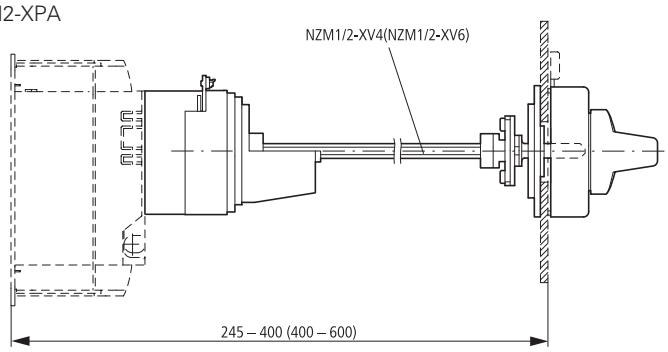
Size 2: accessories (PN2-XPA, NZM2-XR...)

Paralleling mechanism

PN2-XPA

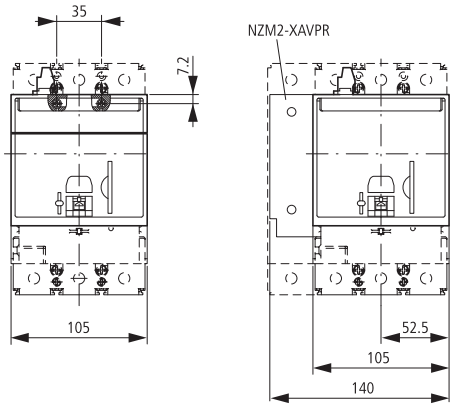


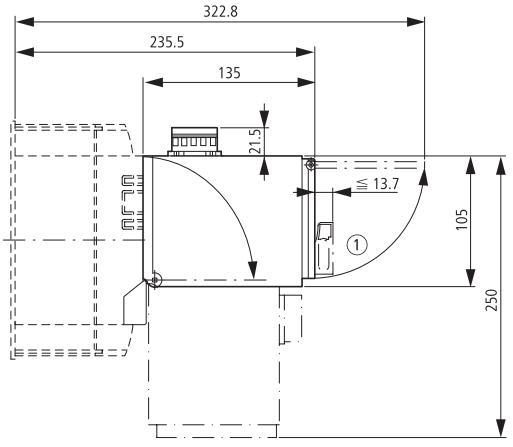
PN2-XPA

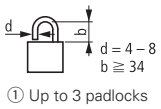


Remote operators

NZM2-XR...



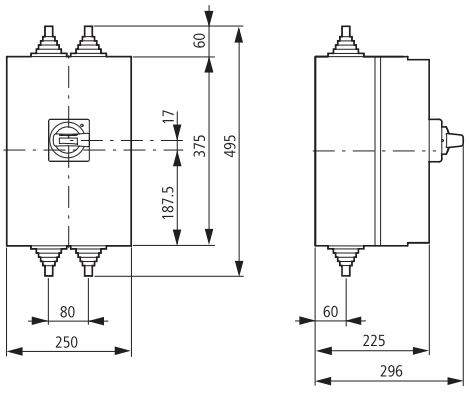




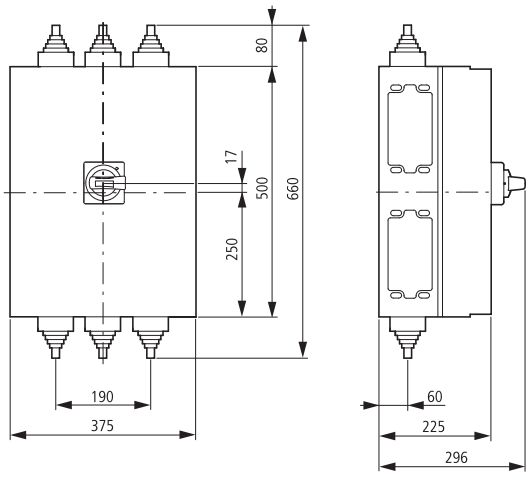
Size 2: accessories (NZM2-XCI..., NZM2-XAD, NZM2...-XSV)

Insulated enclosures

NZM2-XC143-T

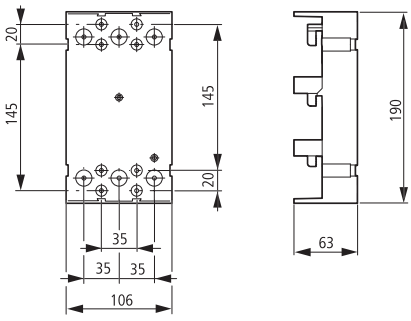


NZM2-XC145-T...



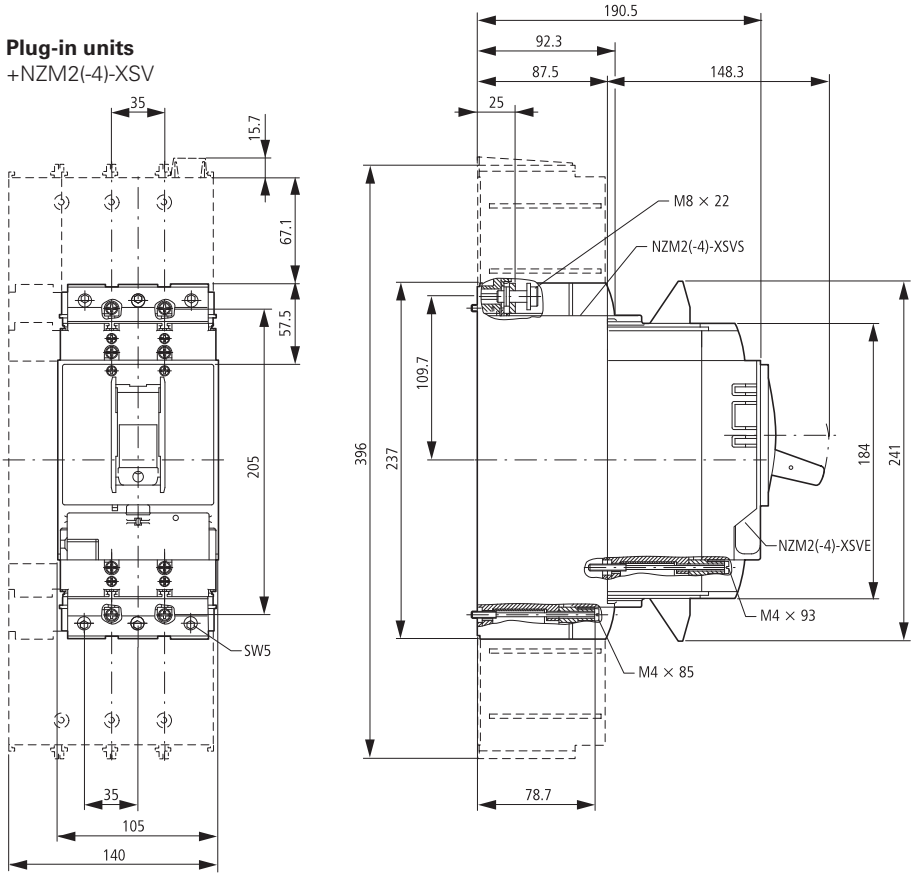
Component adapter

NZM2-XAD250



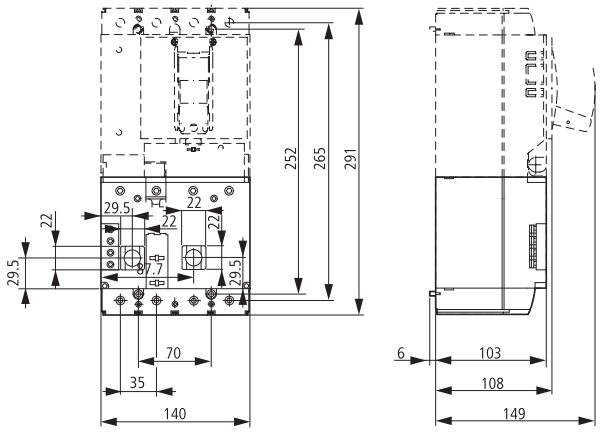
Plug-in units

+NZM2(-4)-XSV

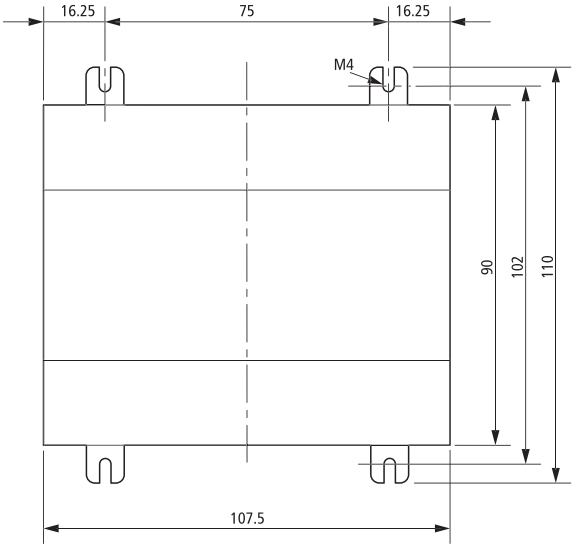


Size 2: accessories (NZM2(-4)-XFl. NZM-XDMI..., UVU-NZM)

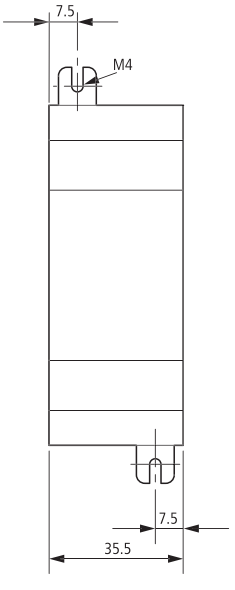
Earth-fault release
NZM2(-4)-XFL..



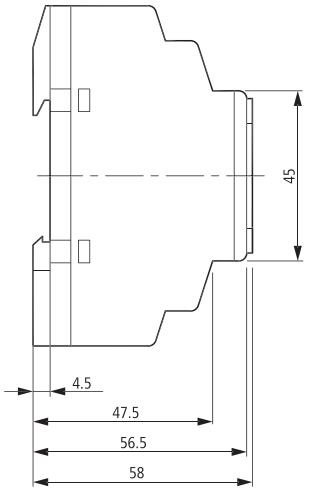
Data management interface (DMI module)
NZM-XDMI612



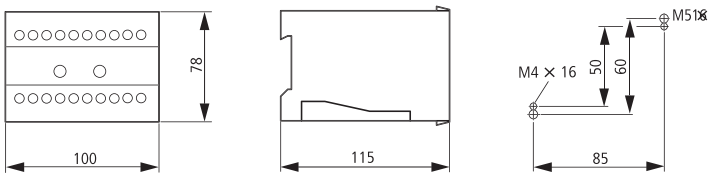
NZM-XDMI-DPV1
EASY2...



NZM-XDMI...
EASY2...

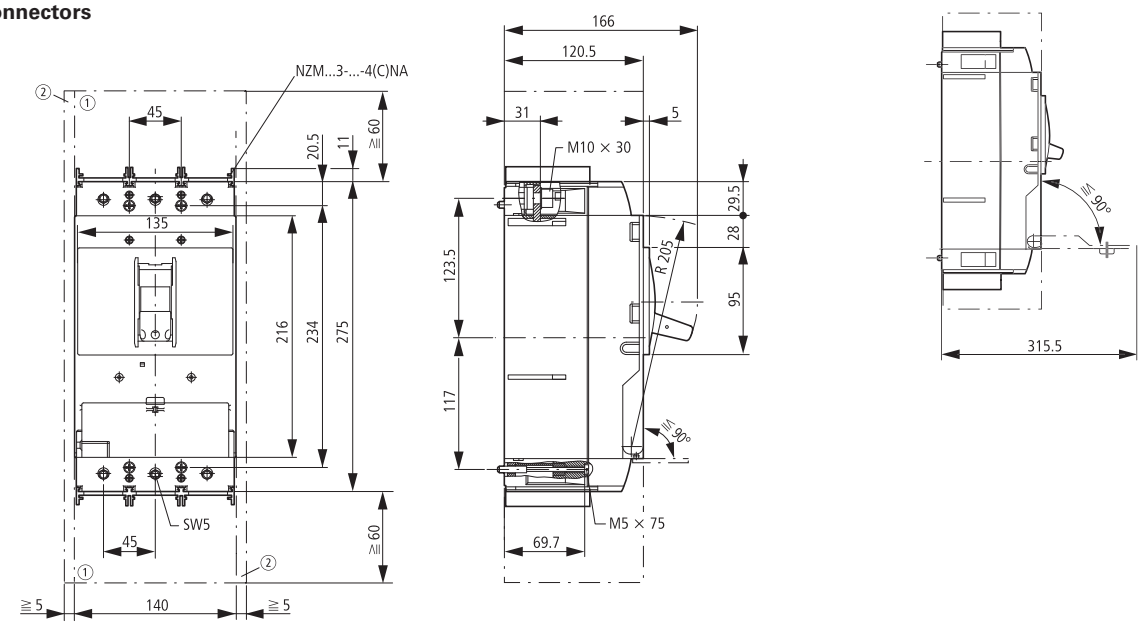


Undervoltage releases, off-delayed
UVU-NZM
Capacitor unit
NZM-XCM



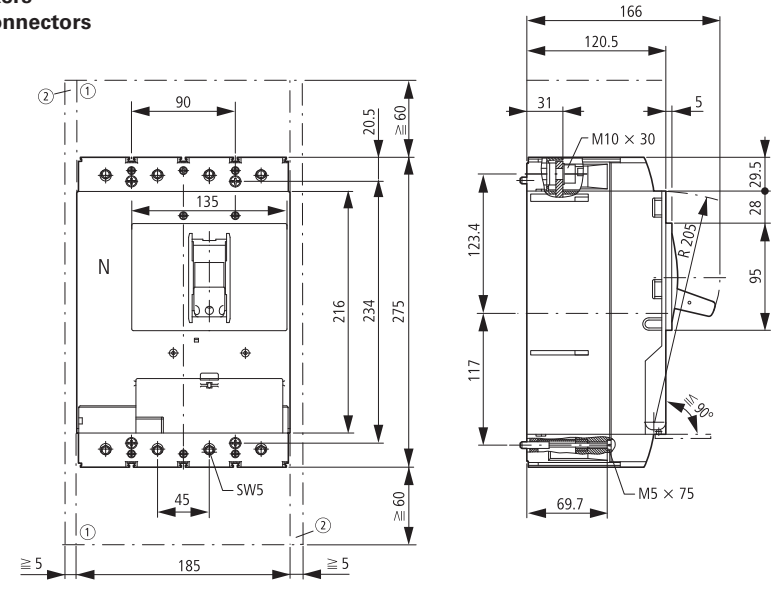
Size 3: basic devices (NZM3, PN3, N3, NS3)

Circuit-breakers
Switch-disconnectors
3 pole
NZMN3
NZMH3
PN3
N3
NS3



① Blow-out area, minimum distance to other parts ≥ 35 mm
② Minimum distance to adjacent parts ≥ 5 mm

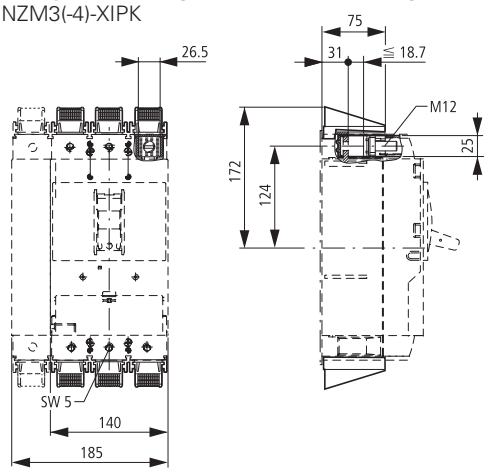
Circuit-breakers
Switch-disconnectors
4 pole
NZMN3-4
NZMH3-4
PN3-4
N3-4



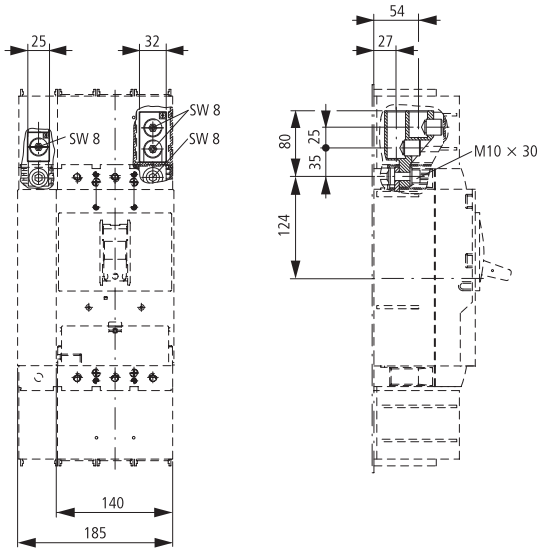
① Blow-out area, minimum distance to other parts ≥ 35 mm
② Minimum distance to adjacent parts ≥ 5 mm

Size 3: accessories (NZM3...-XK, NZM3...-XIP...,NZM3-XST...)

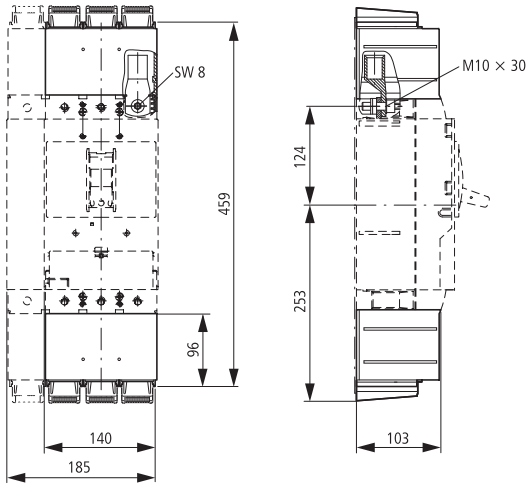
Box terminal
(+)NZM3(-4)-XKC(O)(U)
IP2X protection against contact with finger
NZM3(-4)-XIPK



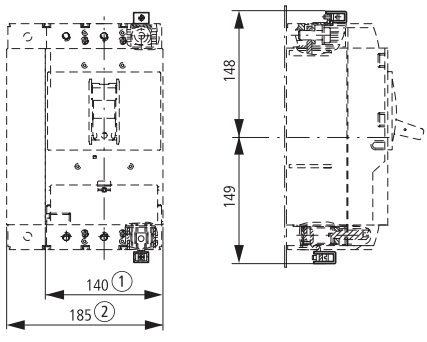
Tunnel terminal
NZM3(-4)-XKA1(2)



Cover
NZM3(-4)-XKSA
Cable lug
NZM3-XKS185
IP2X protection against contact with a finger
NZM3(-4)-XIPA



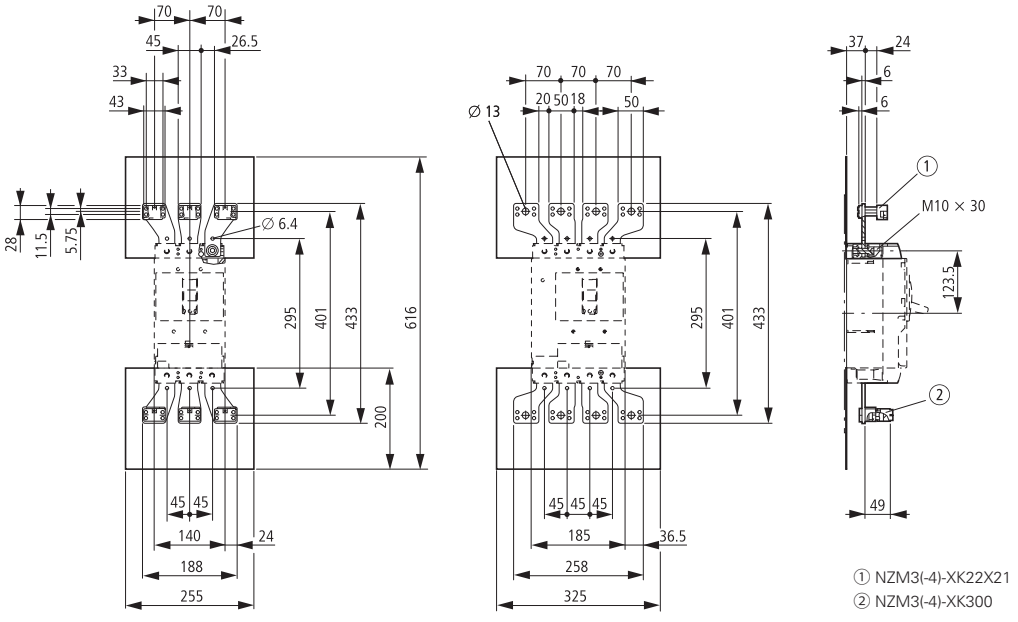
Cable lug cover
NZM3/4-XSTS
NZM-XSTK



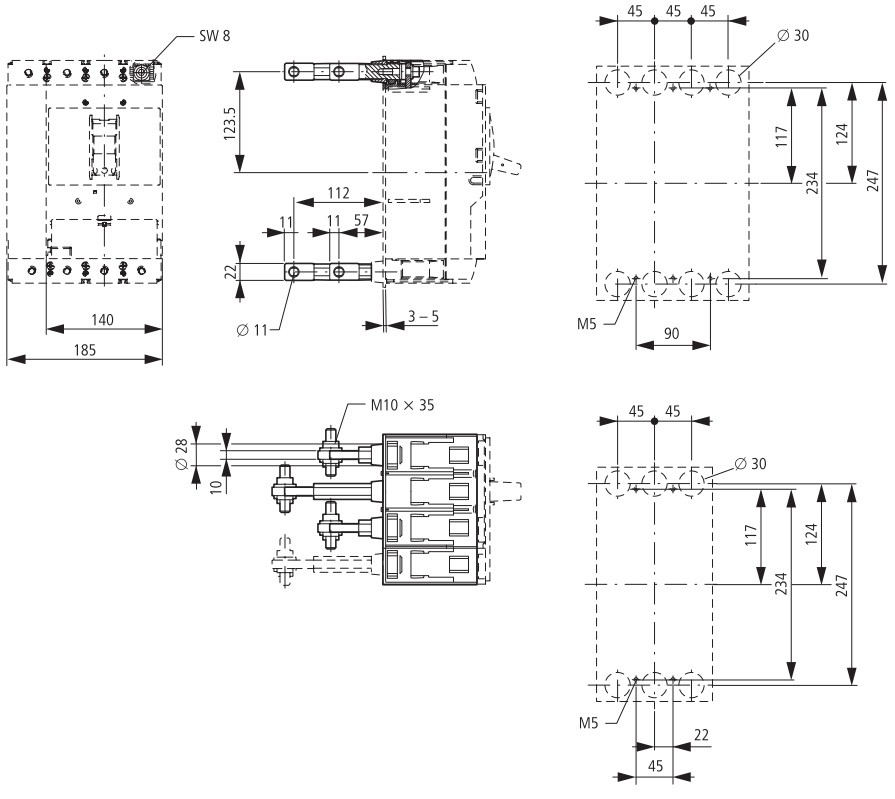
① 3 pole
② 4 pole

Size 3: accessories (NZM3...XK...)

Connection width extension
NZM3(-4)-XKV70
Terminals
NZM3(-4)-XK22X21
NZM3(-4)-XK300

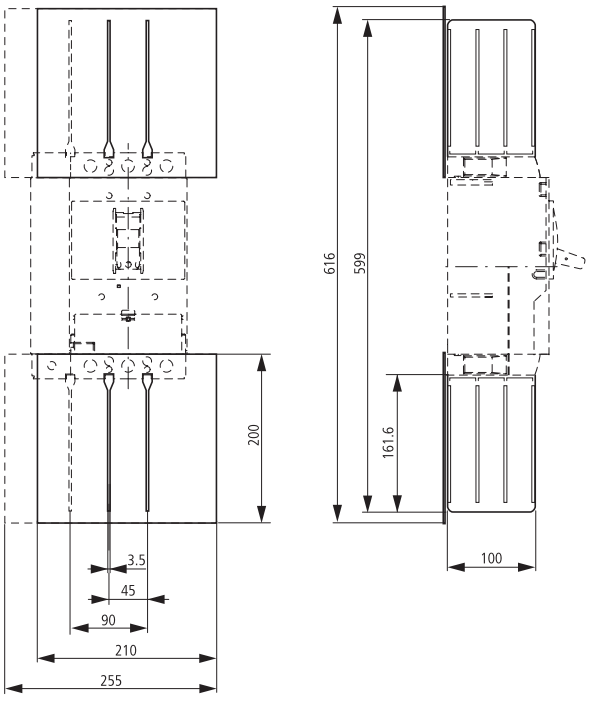


Rear terminal bolts
(+)NZM3(-4)-XKR(O)(U)

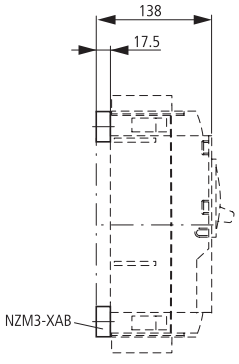


Size 3: accessories (NZM3...-XKP, NZM3-XAB, NZM3-XBR)

Phase isolators
NZM3-4-XKP

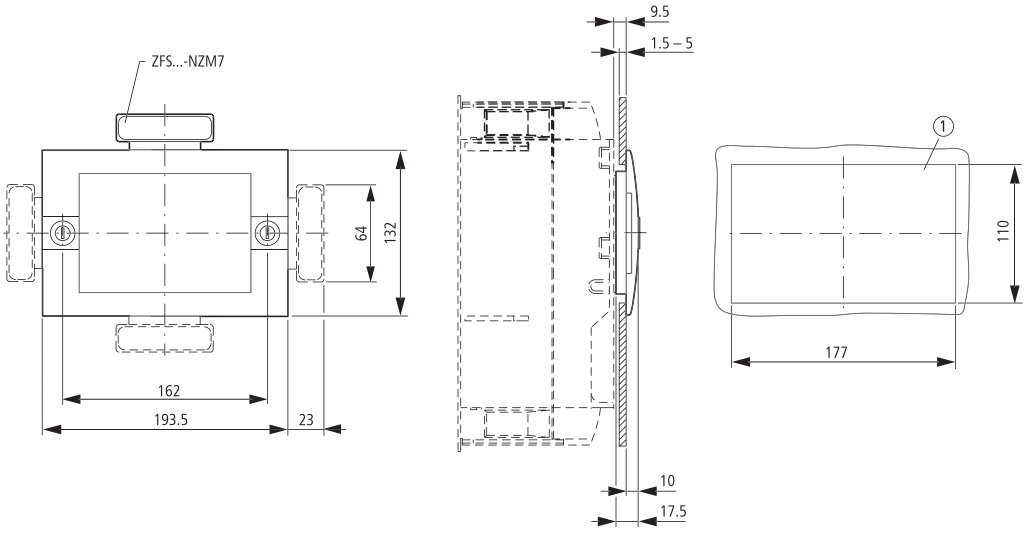


Spacers
NZM3-XAB



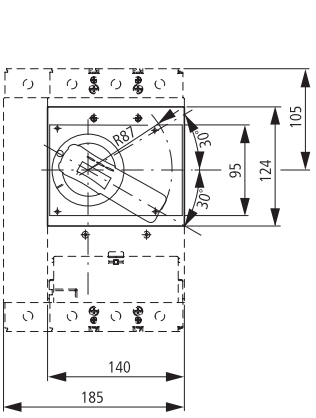
Insulating surround
NZM3-XBR

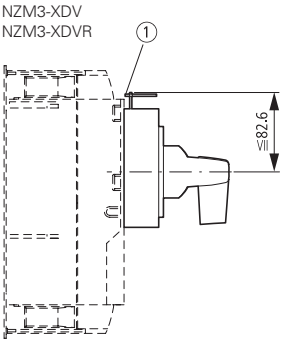
① Mounting aperture

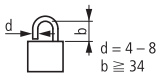


Size 3: accessories (NZM3-XDV..., NZM3-XTVD...)

Rotary handle on circuit-breaker



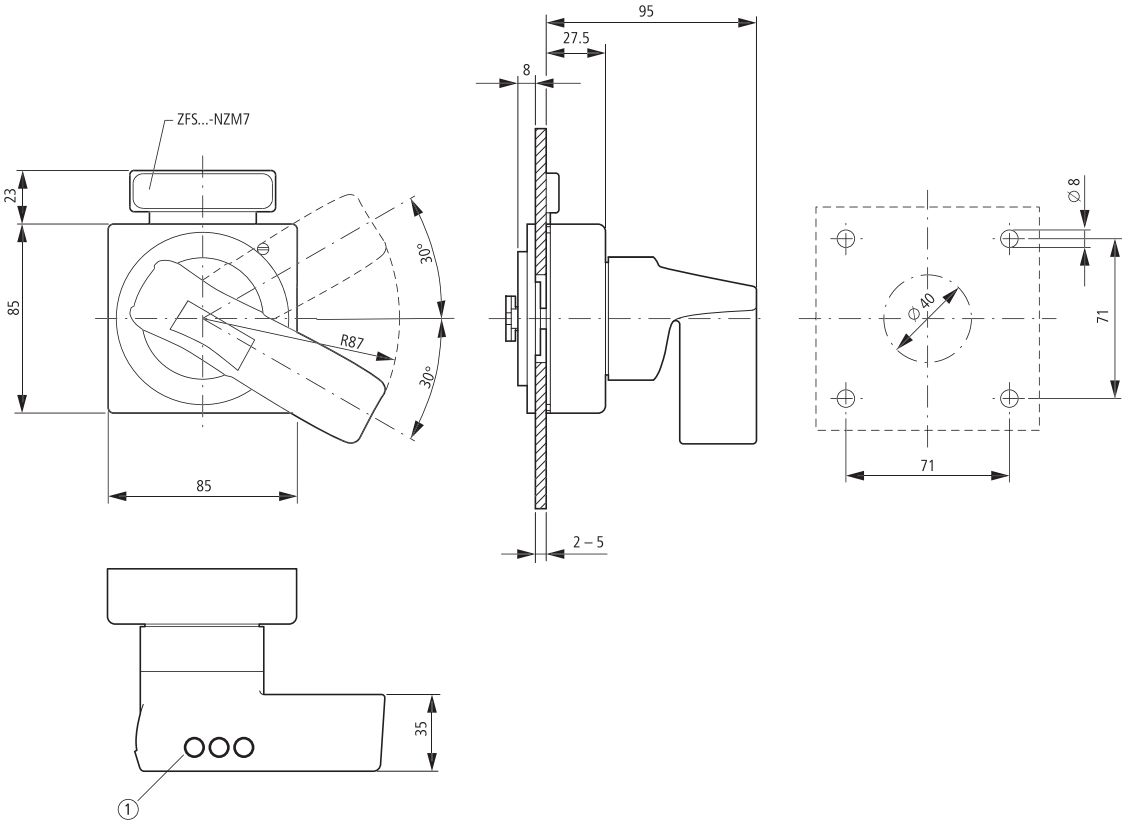


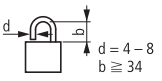


① Up to 3 padlocks

Door coupling rotary handles

NZM3-XTVD(V)(R)...

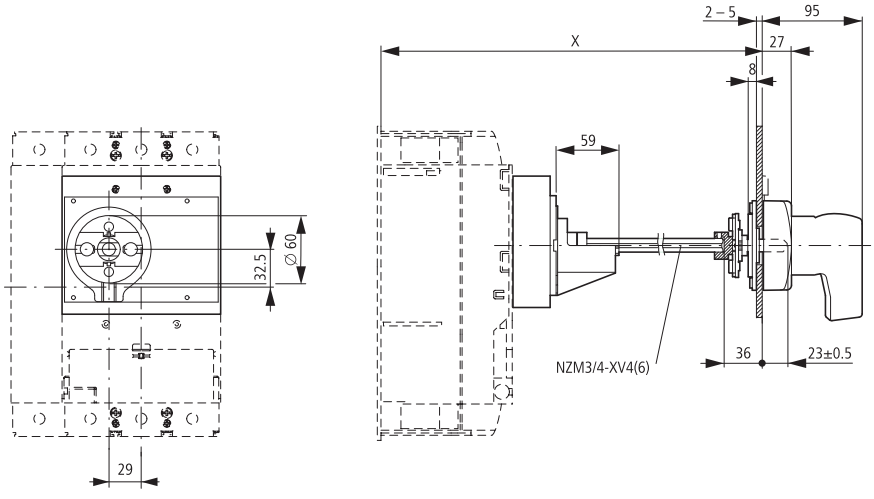




① Up to 3 padlocks

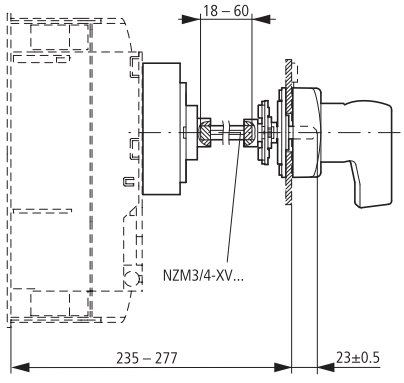
Size 3: accessories (NZM3-XTVD...)

Door coupling rotary handle with extension shaft
NZM3-XTVD(V)(R)(-NA)
NZM3/4-XV4(6)

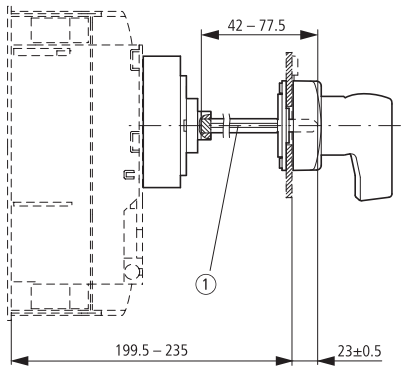


Part no.	X
NZM3/4-XV4	270 – 400
NZM3/4-XV6	400 – 600

NZM3-XTVD(V)(R)-60(-NA)

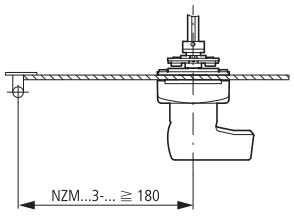


NZM3-XTVD(V)(R)-0(-NA)



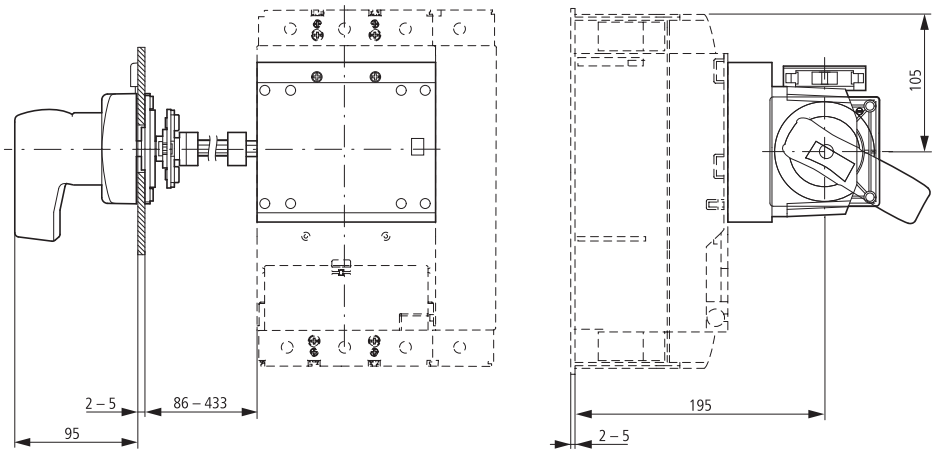
① Special tip

Minimum distance of door coupling rotary handle from door pivot point

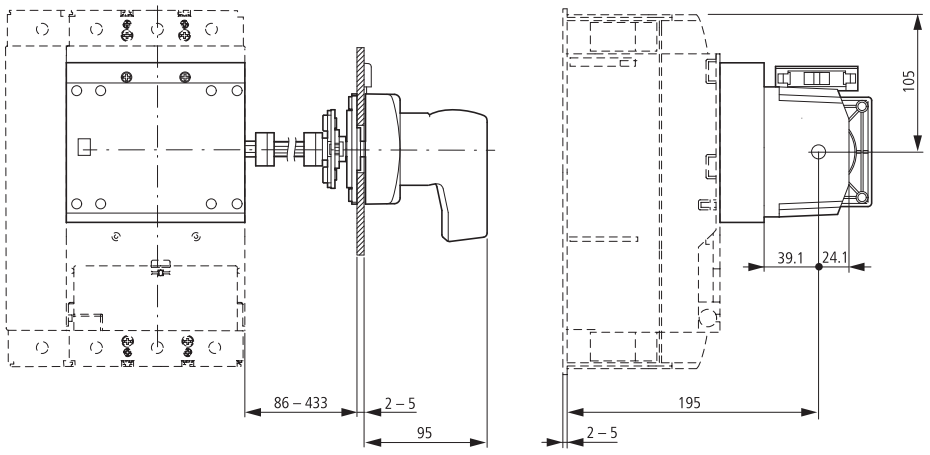


Size 3: accessories (NZM3-XS.... NZM3)

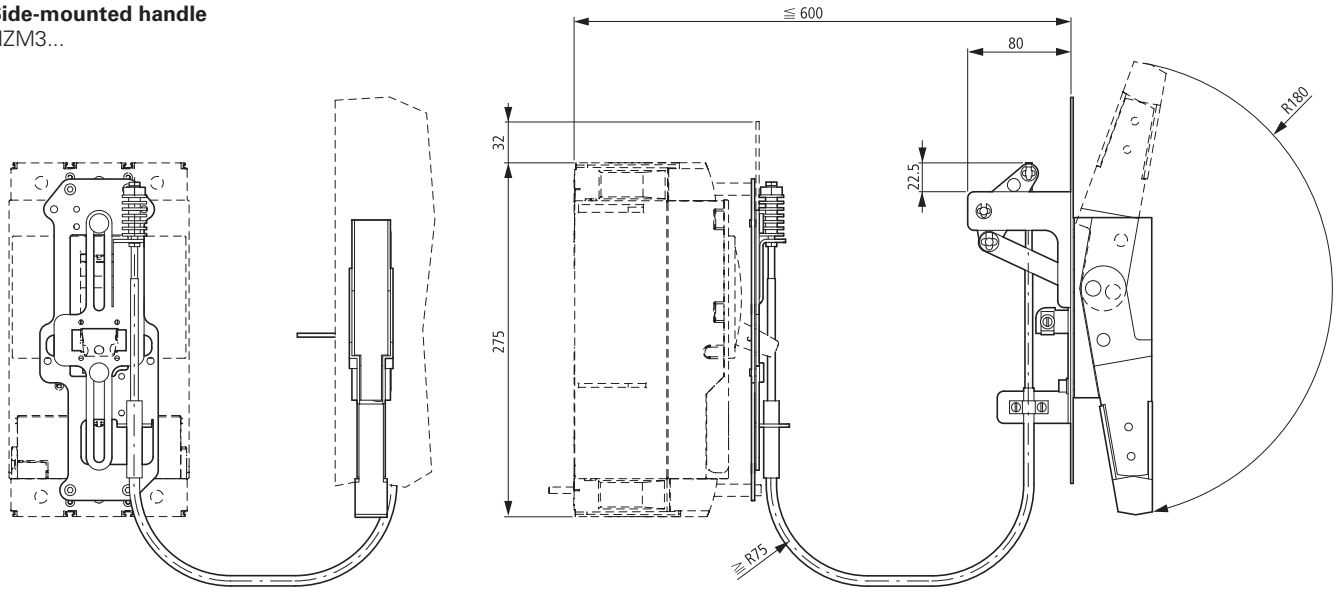
Main switch assembly kit for side wall installation
NZM3-XS(R)-L



NZM3-XS(R)-R



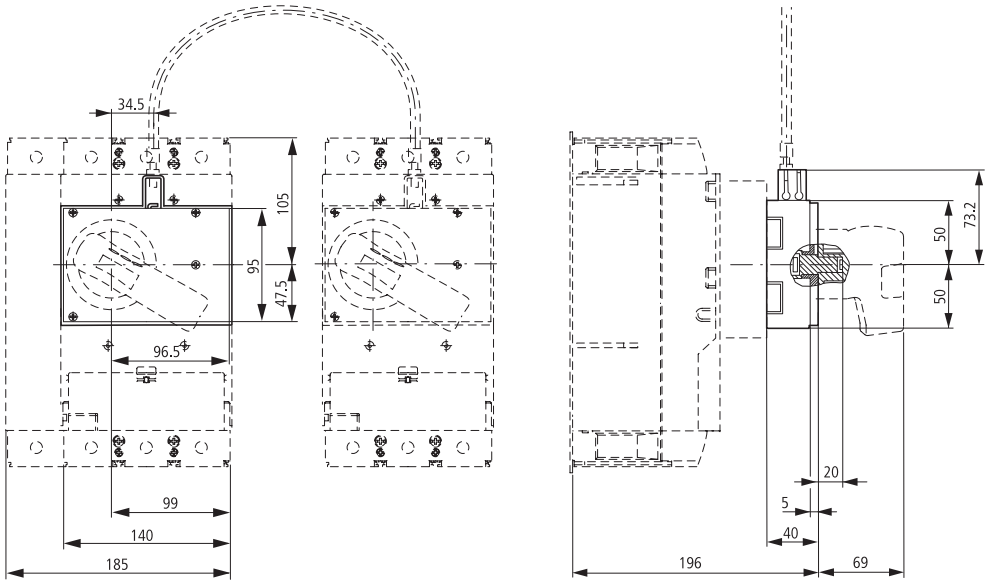
Side-mounted handle
NZM3...



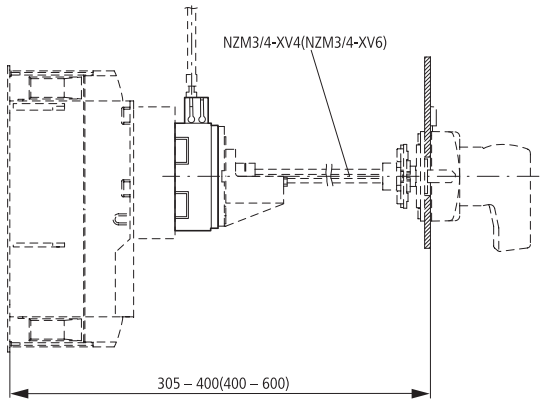
Size 3: accessories (NZM3-XMV. NZM3-XTVD.... NZM3-XDV)

Mechanical interlock

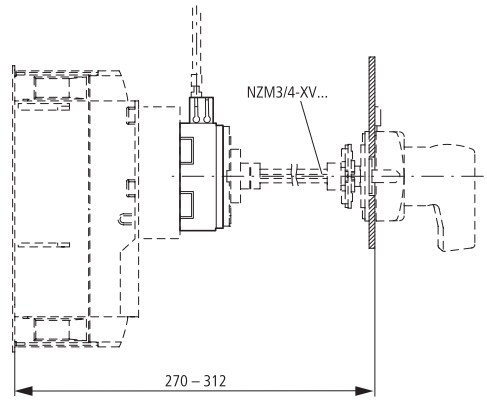
NZM3-XMV+NZM3-XDV(R)



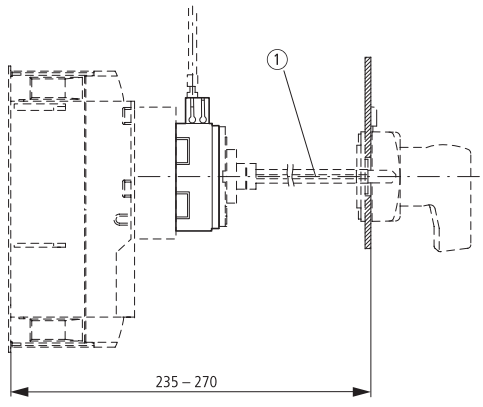
NZM3-XMV+NZM3-XTVD(V)(R)



NZM3-XMV+NZM 3-XTVD(V)(R)-60



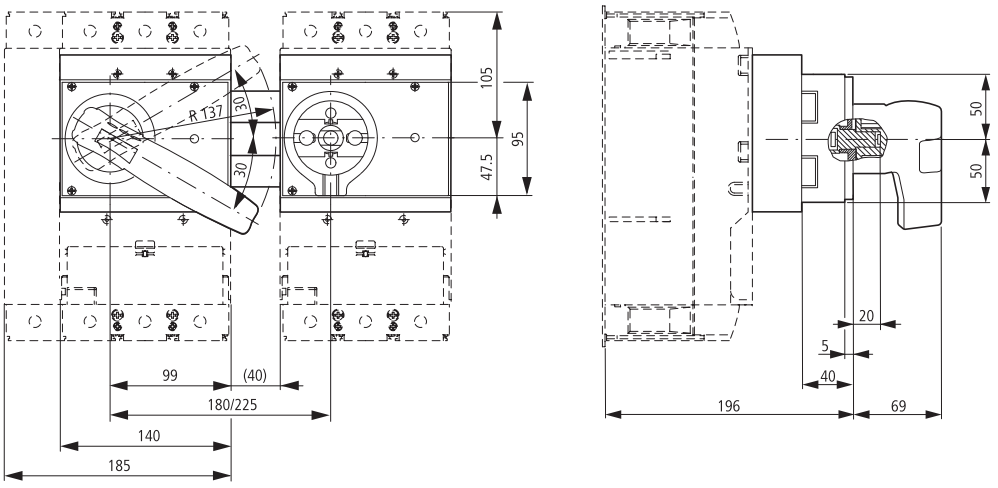
NZM3-XMV+NZM 3-XTVD(V)(R)-0



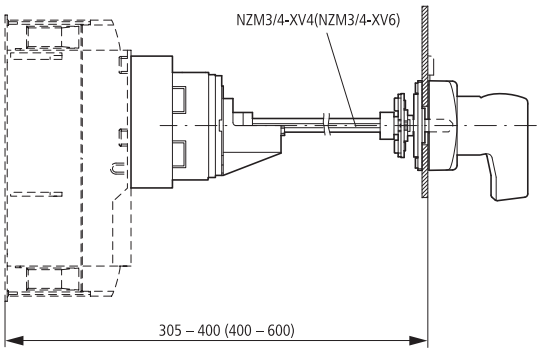
① Special tip

Size 3: accessories (PN3-XPA. NZM3-XCL... NZM3-XAD...)

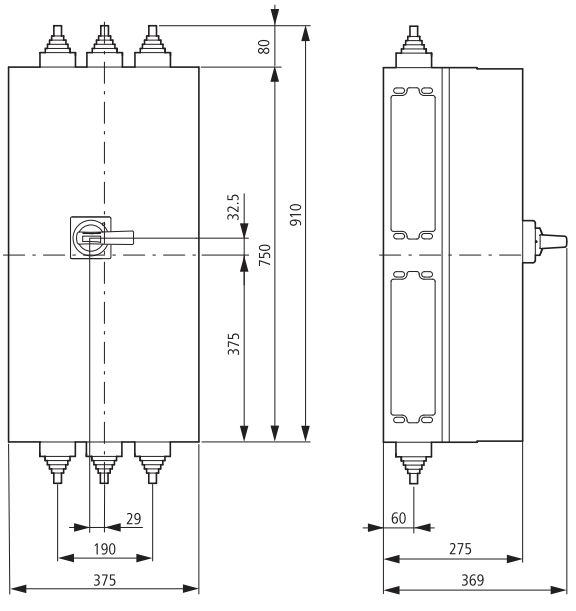
Paralleling mechanism
PN3-XPA



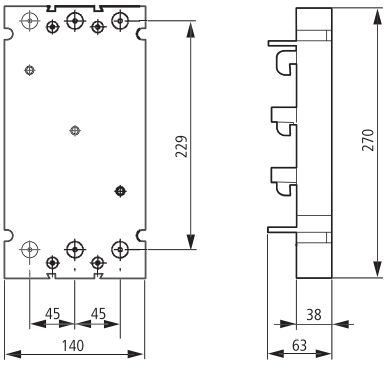
PN3-XPA



Insulated enclosures
NZM3-XCI48-TD

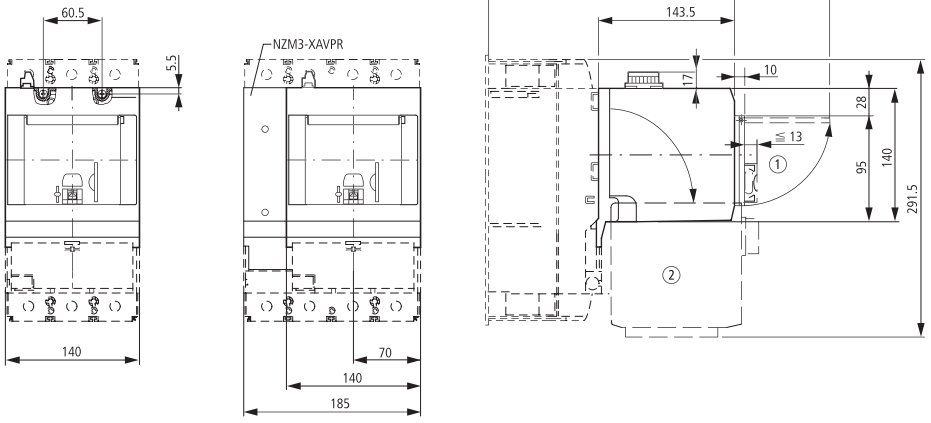


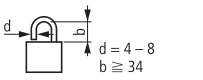
Component adapter
NZM3-XAD550



Size 3: accessories (NZM3-X...)

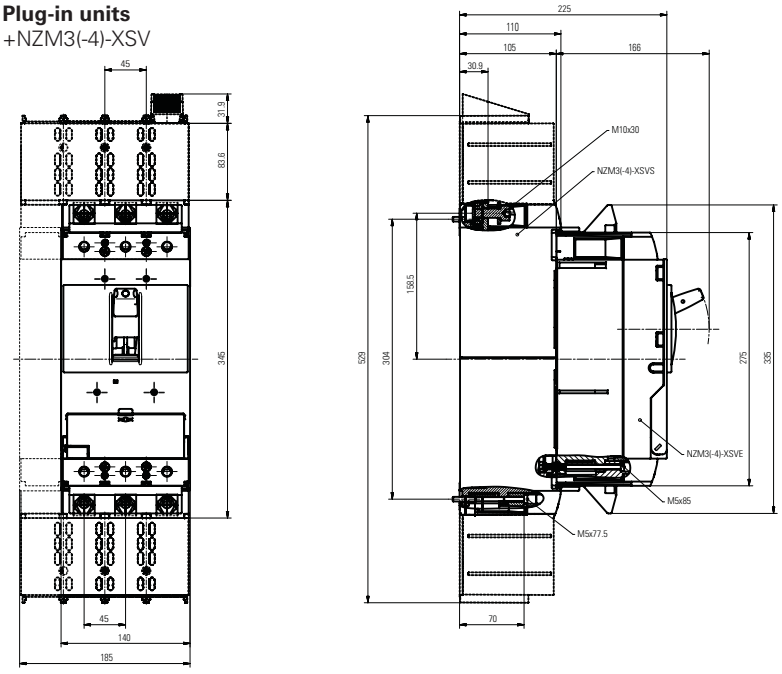
Remote operators
NZM3-XR...



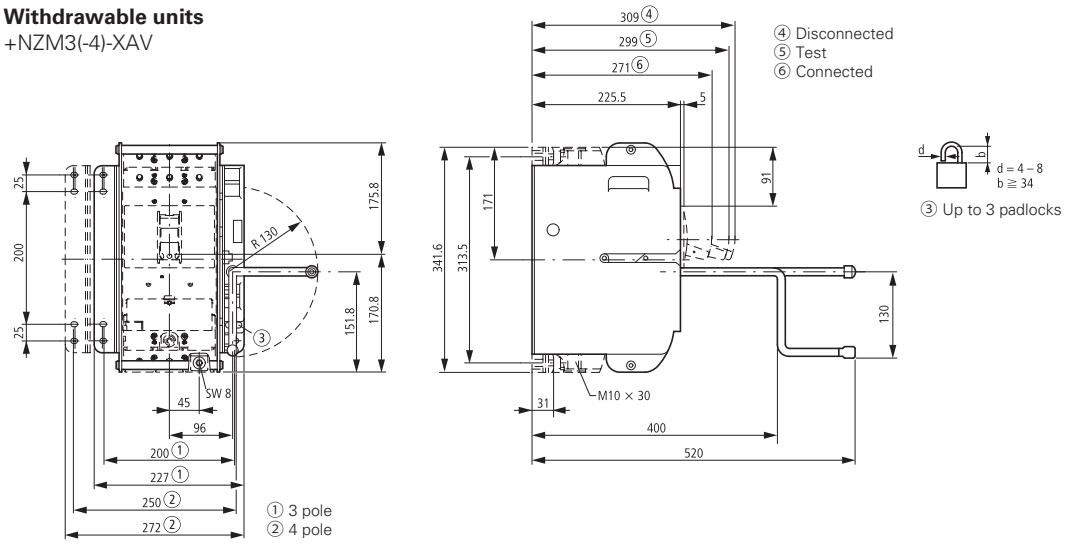


① Up to 3 padlocks
② Remote operator folded

Plug-in units
+NZM3(-4)-XSV



Withdrawable units
+NZM3(-4)-XAV

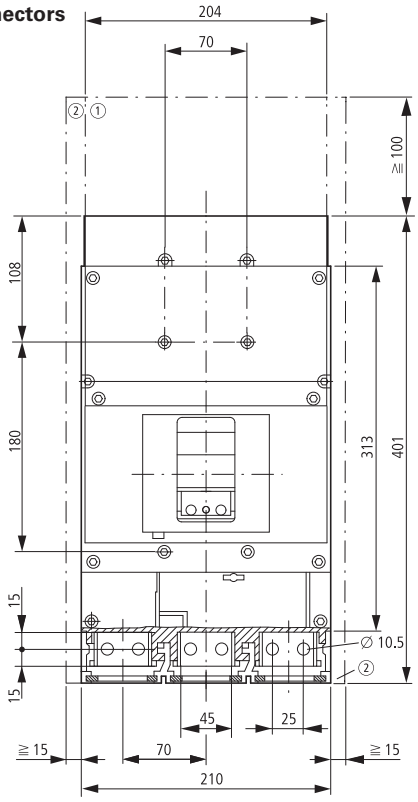


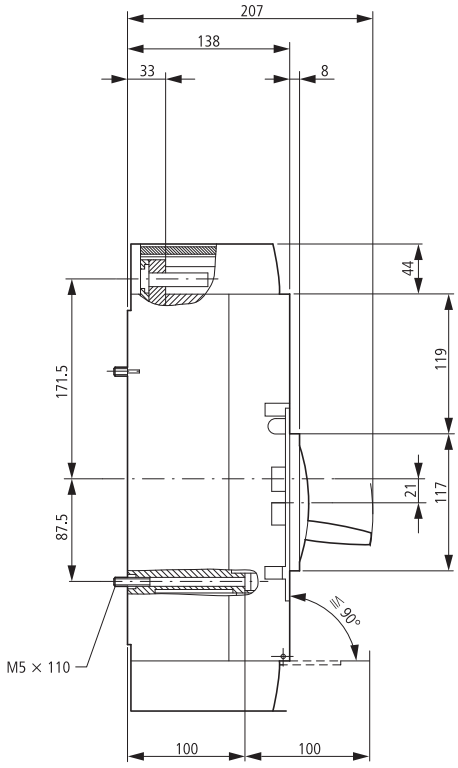
① 3 pole
② 4 pole

③ Up to 3 padlocks

Size 4: basic devices (NZM4. N4. NS4)

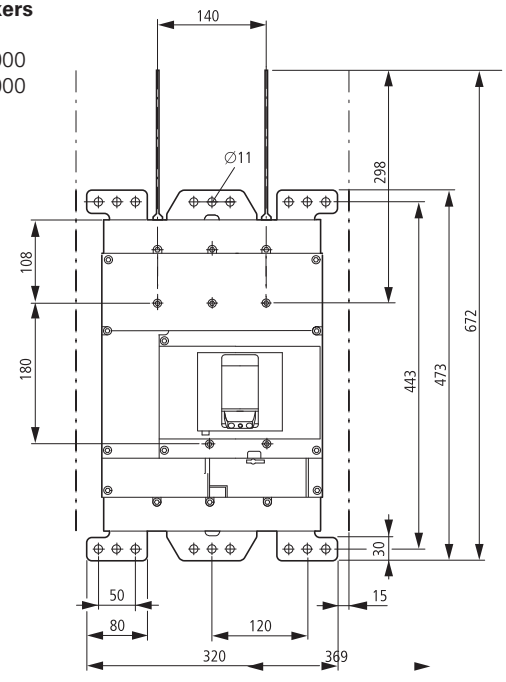
Circuit-breakers
Switch-disconnectors
3 pole
NZMN4
NZMH4
N4
NS4

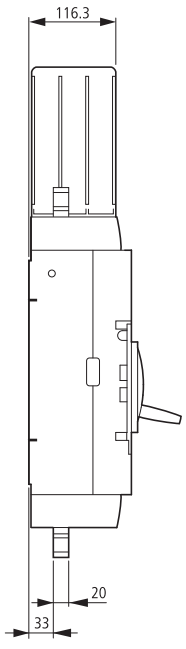




① Blow-out area, minimum distance to other parts ≥ 35 mm
② Minimum distance to adjacent parts ≥ 5 mm

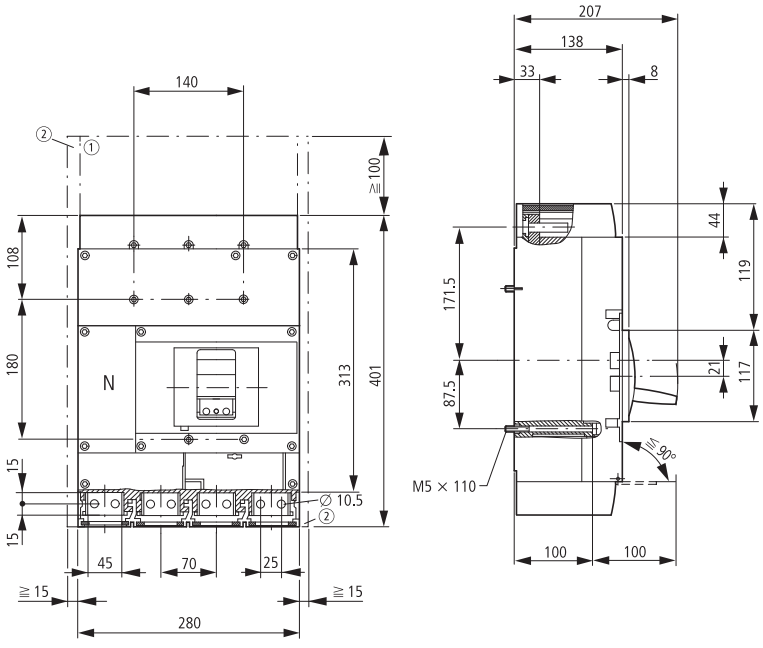
Circuit-breakers
3 pole
NZMN4-VE2000
NZMH4-VE2000





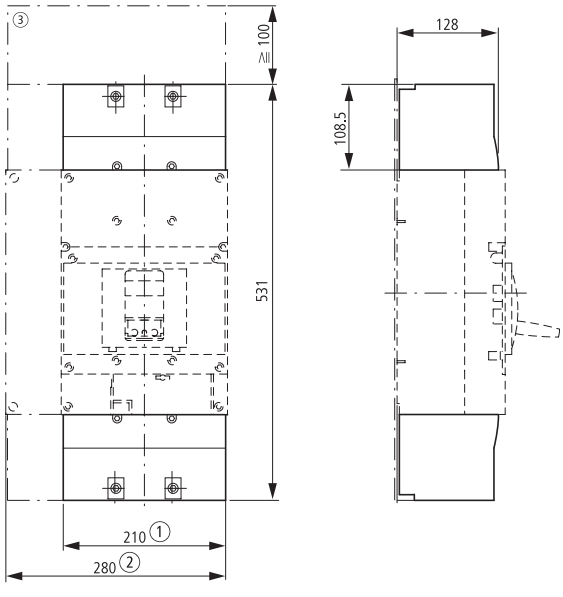
Size 4: accessories (NZM4, N4, NZM4..XK)

Circuit-breakers
Switch-disconnectors
4 pole
NZMN4-4
NZMH4-4
N4-4

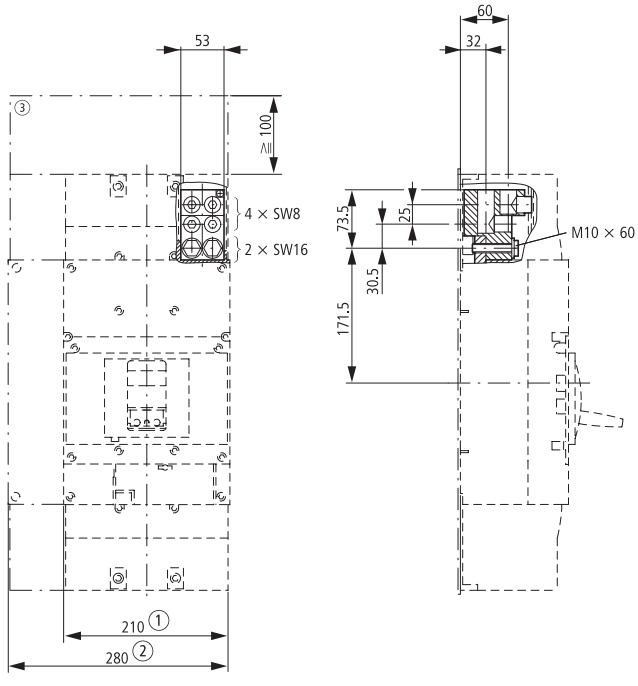


① Blow-out area, minimum distance to other parts ≥ 100 mm
② Minimum distance to adjacent parts ≥ 15 mm

Covers
NZMN4(-4)-XKSA



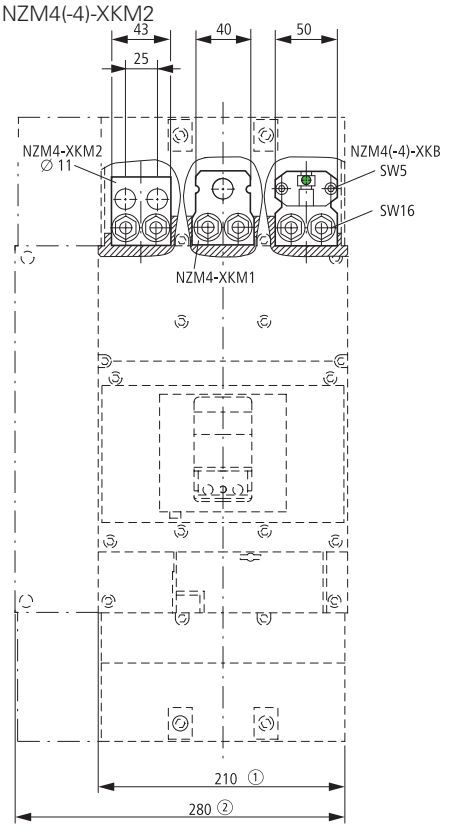
Tunnel terminal
NZMN 4-4-XKA

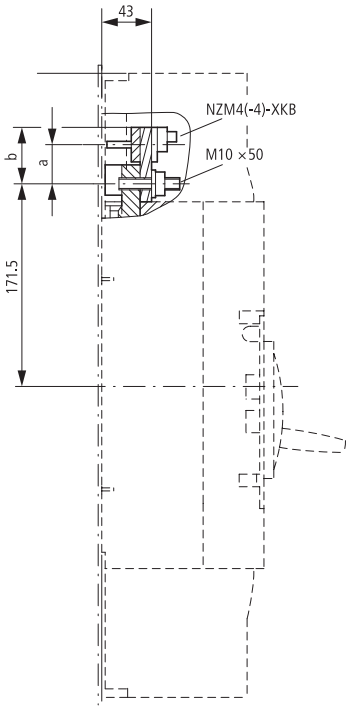


① 3 pole
② 4 pole
③ Clearance from conductive parts ≥ 100 mm up to 690 V; ≥ 200 mm up to 1000 V

Size 4: accessories (NZM4...-XKM)

Screw terminals **Flat cable terminal**
Module plate NZM4(-4)-XKB
1-hole
NZM4(-4)-XKM1
2-hole
NZM4(-4)-XKM2

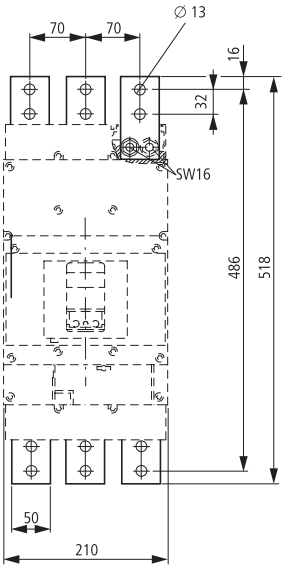


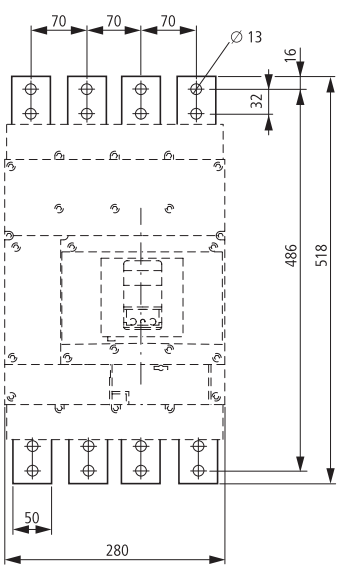


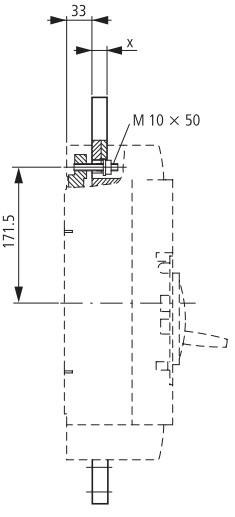
Part no.	a	b
NZM4(-4)-XKM1	36	47
NZM4(-4)-XKM2	32	40
NZM4(-4)-XKB	-	47

① 3 pole
② 4 pole
③ Clearance from conductive parts
≥ 100 mm up to 690 V;
≥ 200 mm up to 1000 V

Module plate
2 hole, vertical
NZM4(-4)-XKM2S...





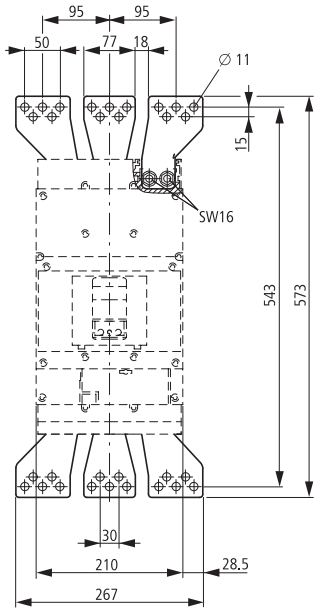


Part no.	x
NZM4(-4)-XKM2S-1250	12
NZM4(-4)-XKM2S-1600	20

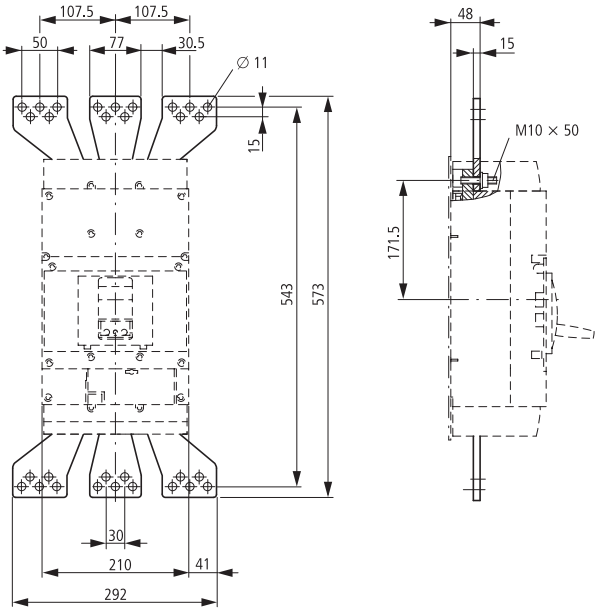
Size 4: accessories (NZM4-XKV...)

Connection width extension

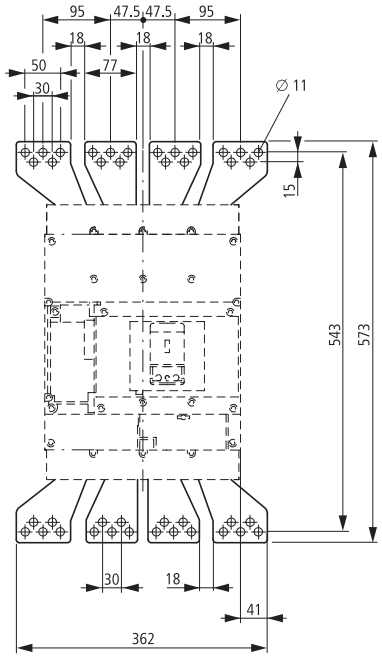
NZM4-XKV95



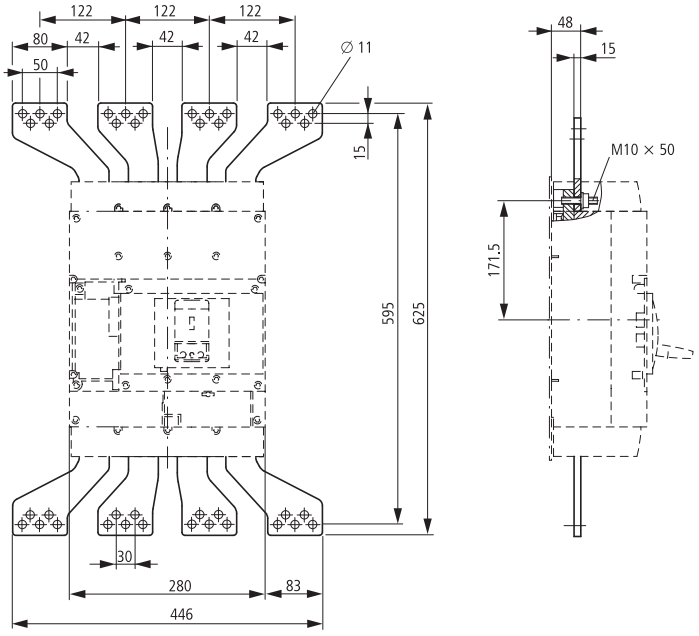
NZM4-XKV110



NZM4-4-XKV95

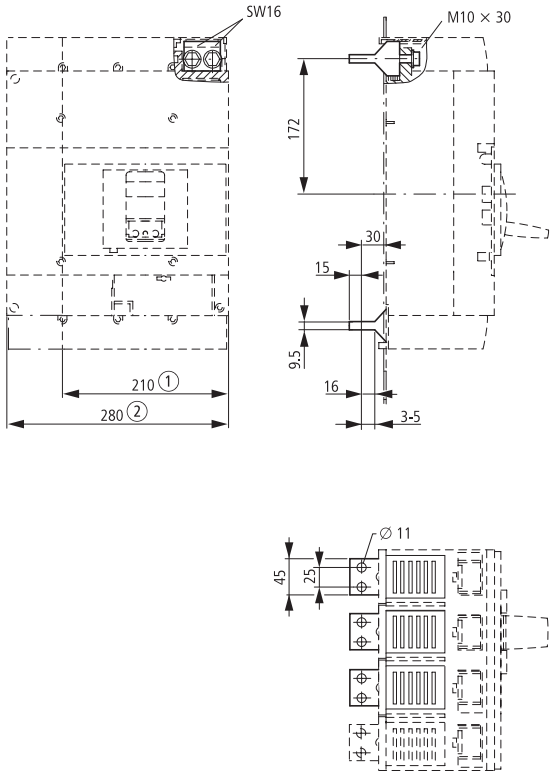


NZM4-4-XKV120

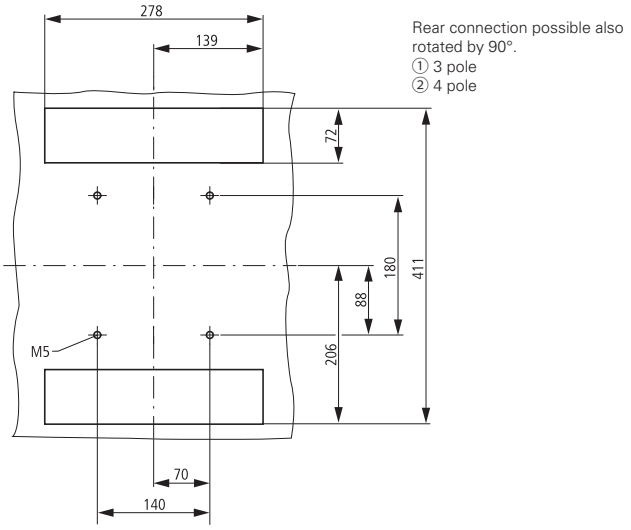


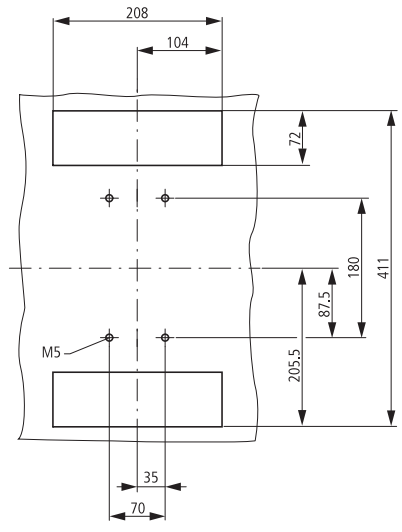
Size 4: accessories (NZM4(-4)-XKP, NZM4(-4)-XKR)

Rear terminal bolts
NZM4(-4)-XKR

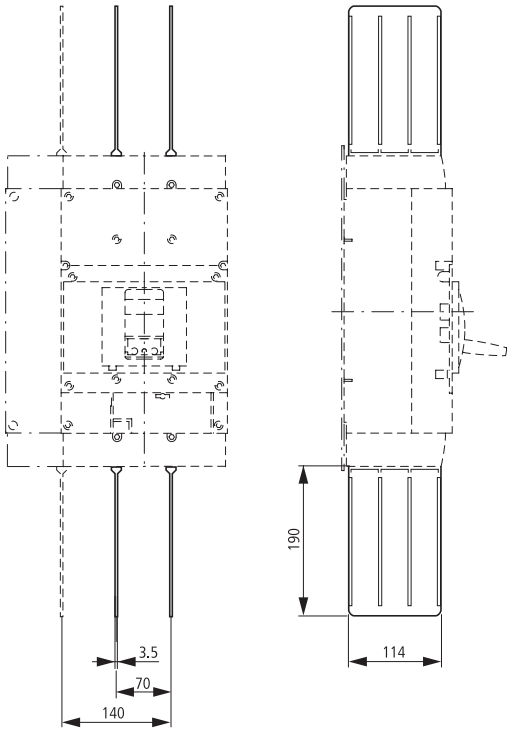


Fitting on mounting plate





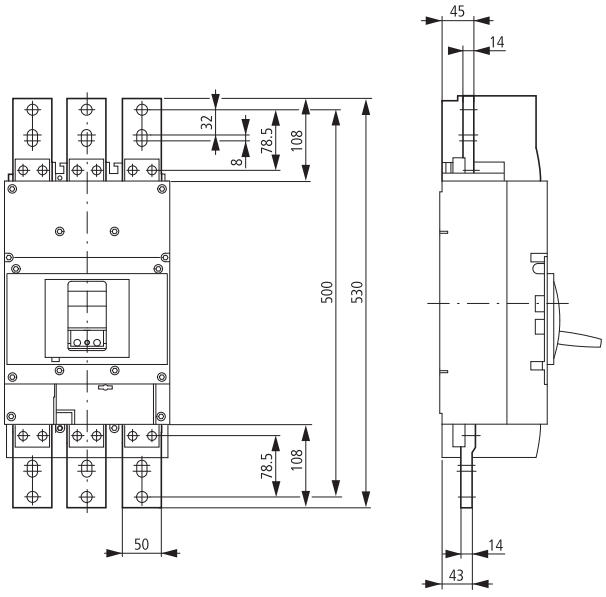
Phase isolators
NZM4-4-XKP



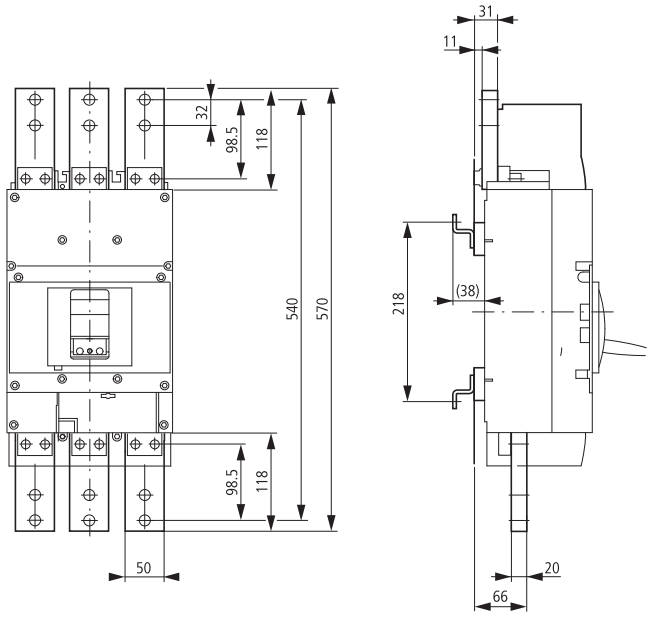
Size 4: accessories (NZM4-XAS..., NZM12)

Adapter kit

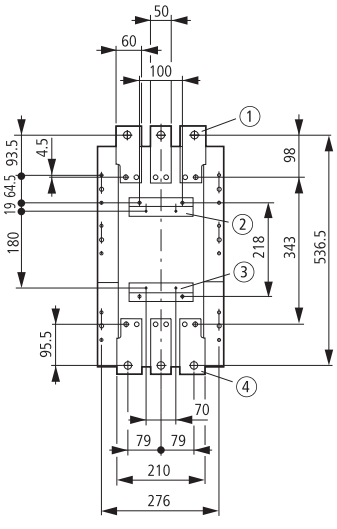
NZM4-XAS14-1250



NZM4-XAS14-1600



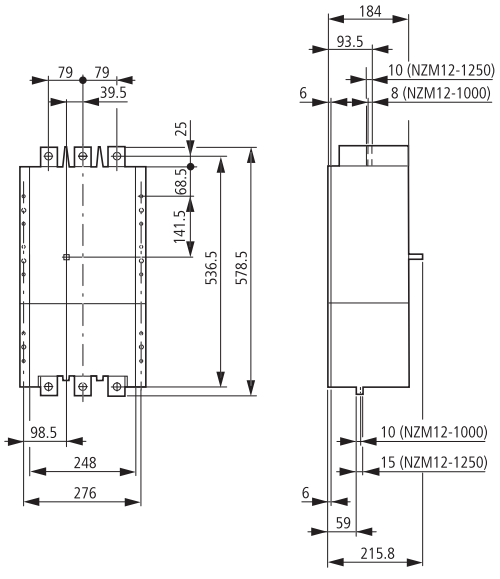
Drilling template NZM12-1000 (1250) conversion to NZM4



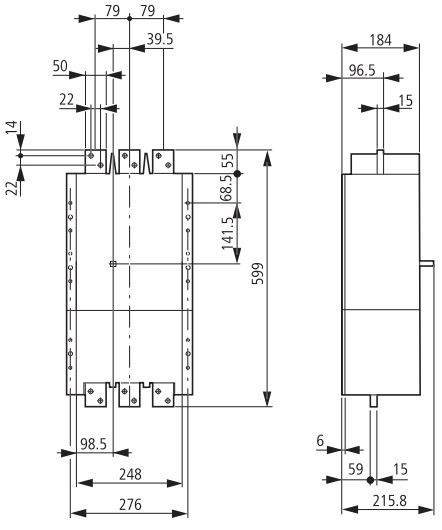
① Module plate NZM4-XAS12-1000(1250)
② Holes for mounting bracket NZM4-XAS12(M5)
③ Mounting bracket NZM4-XAS12
④ Mounting rail NZM12

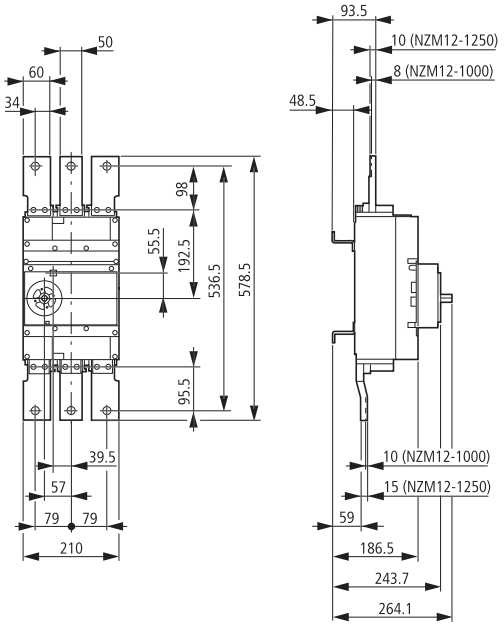
Size 4: NZM12 replacement (NZM12, NZM4-XAS...)

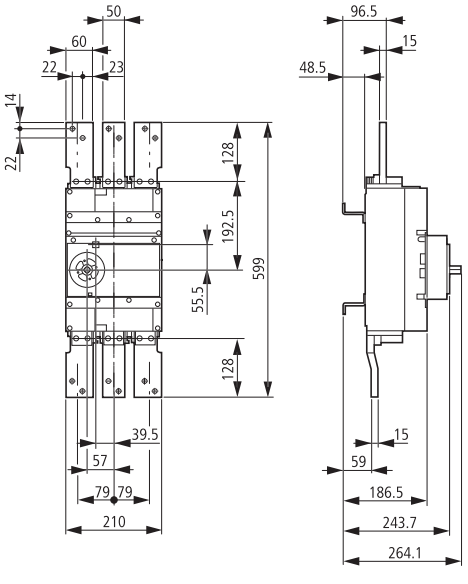
Replacement of NZM12-1000(1250) with NZM4 with module plate, fixed mounting on mounting plate
NZM4-XAS1 2-1000(1250)



Replacement of NZM12-1600 with NZM4 with module plate, fixed mounting on mounting plate
NZM4-XAS12-1600

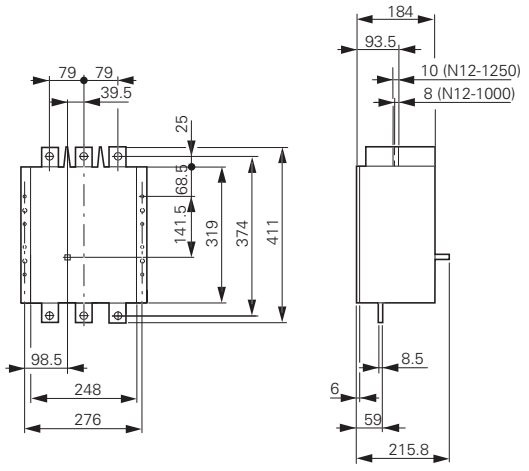


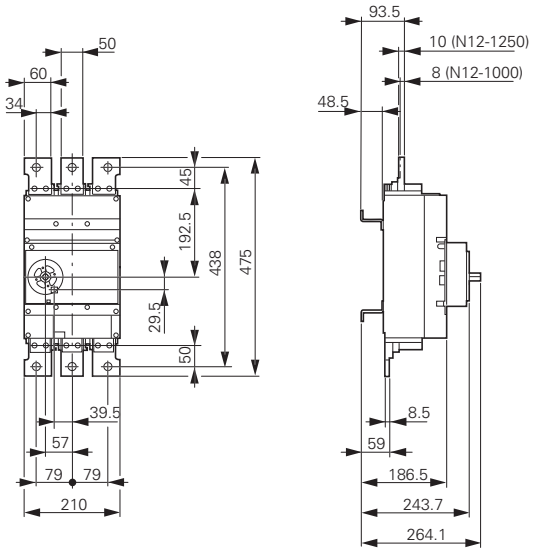




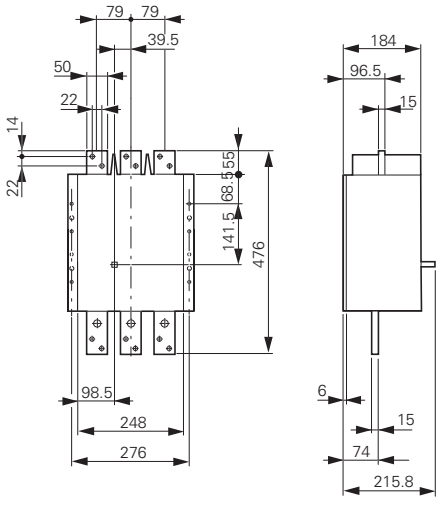
Size 4: NZM12 replacement (N12. N4-XAS)

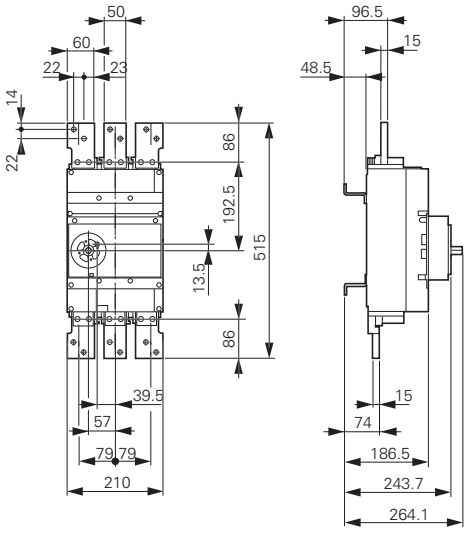
Replacement of N12-1000(1250) with N4 with module plate, fixed mounting on mounting plate
N4-XAS12-1000(1250)





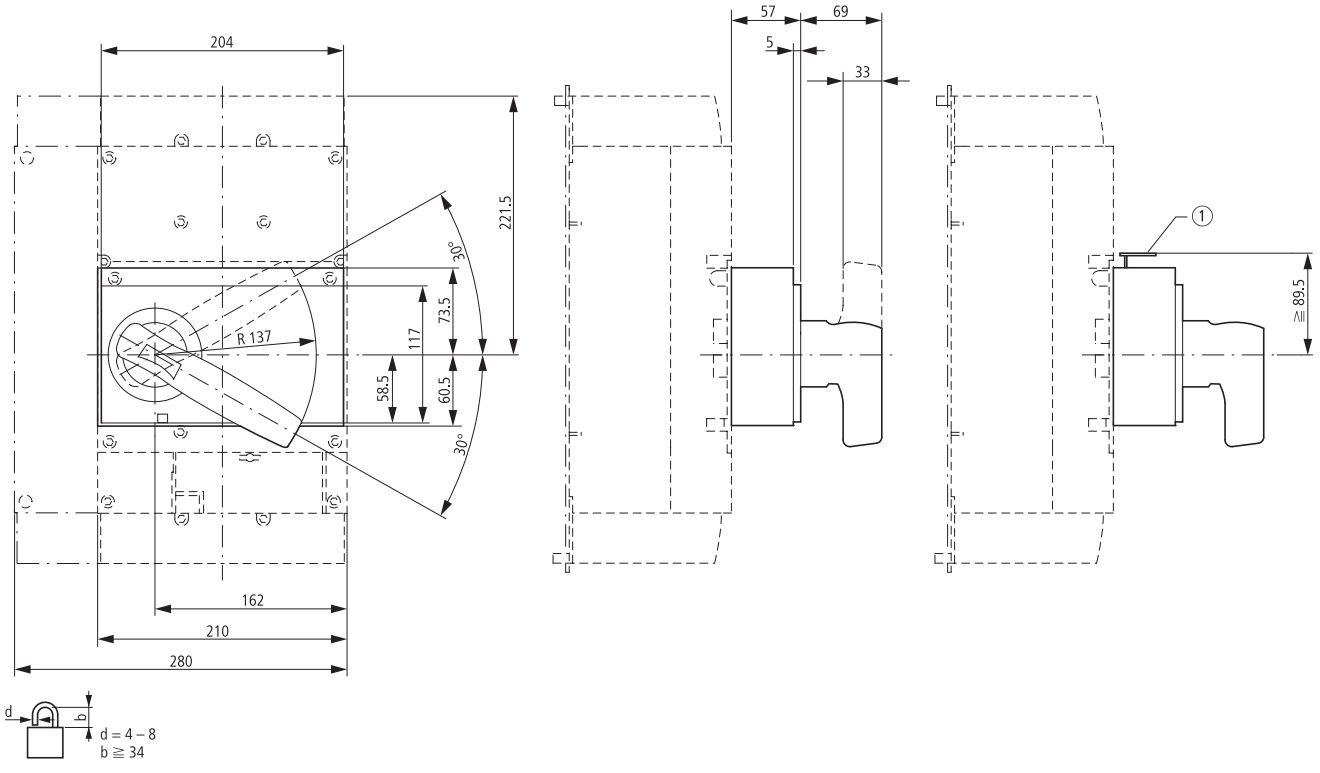
Replacement of N12-1600 with N4 with module plate, fixed mounting on mounting plate
N4-XAS12-1600





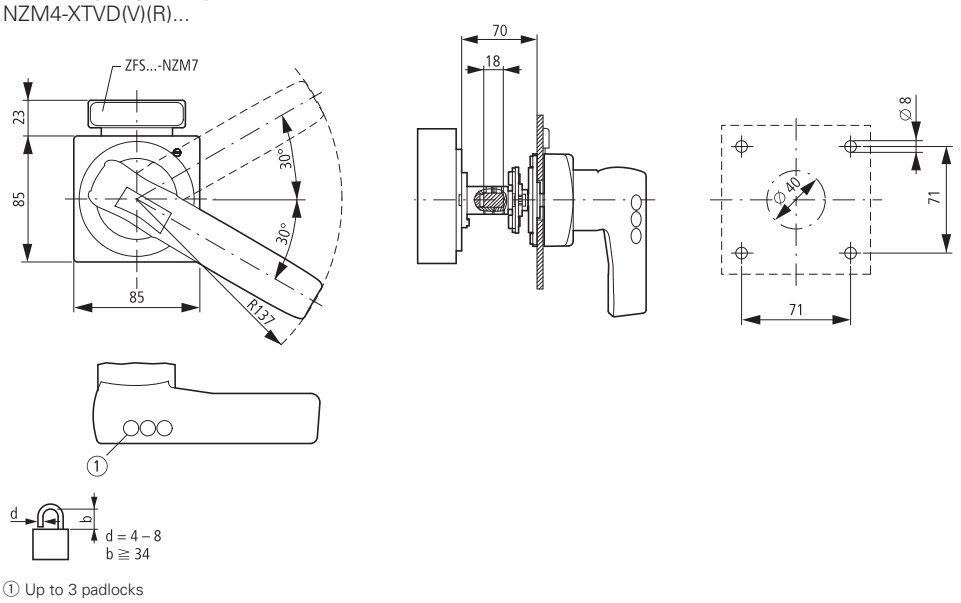
Size 4: accessories (NZM4-XDV..., NZM4-XTVD...)

Rotary handle on circuit-breaker
NZM4-XDV(R)



① Up to 3 padlocks

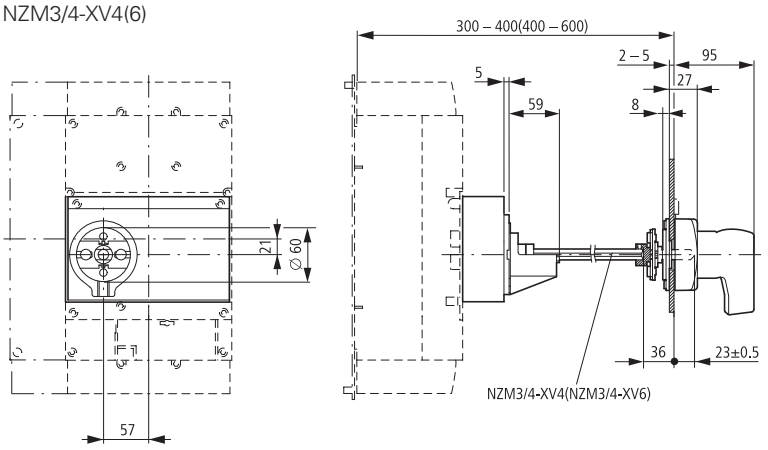
Door coupling rotary handles
NZM4-XTVD(V)(R)...



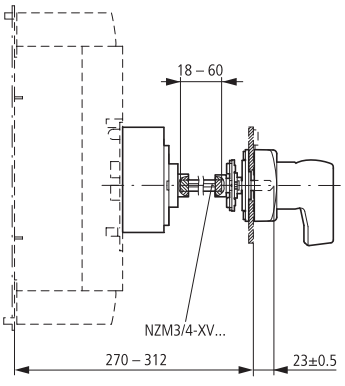
① Up to 3 padlocks

Size 4: accessories (NZM4-XTVD.... NZM4...-XV. NZM4-XS...)

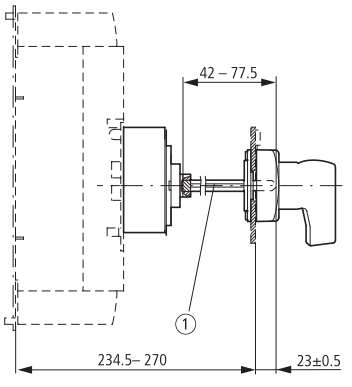
Door coupling rotary handle with extension shaft
NZM4-XTVD(V)(R)(-NA)
NZM3/4-XV4(6)



NZM4-XTVD(V)(R)-60(-NA)

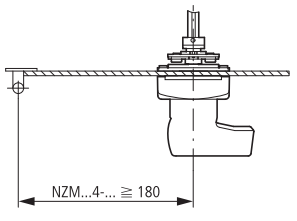


NZM4-XTVD(V)(R)-0(-NA)

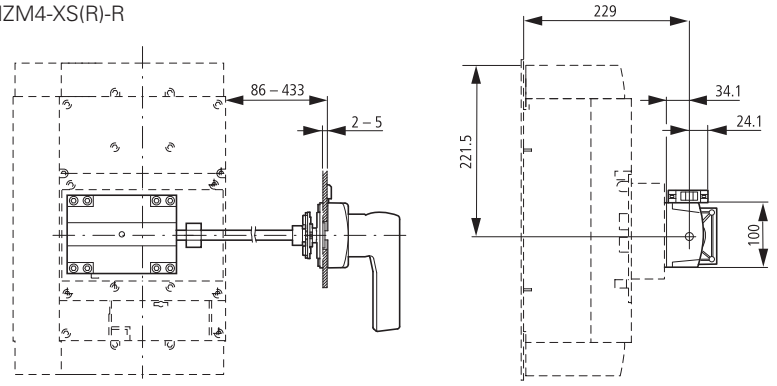


① Special tip

Minimum distance of door coupling rotary handle from door pivot point



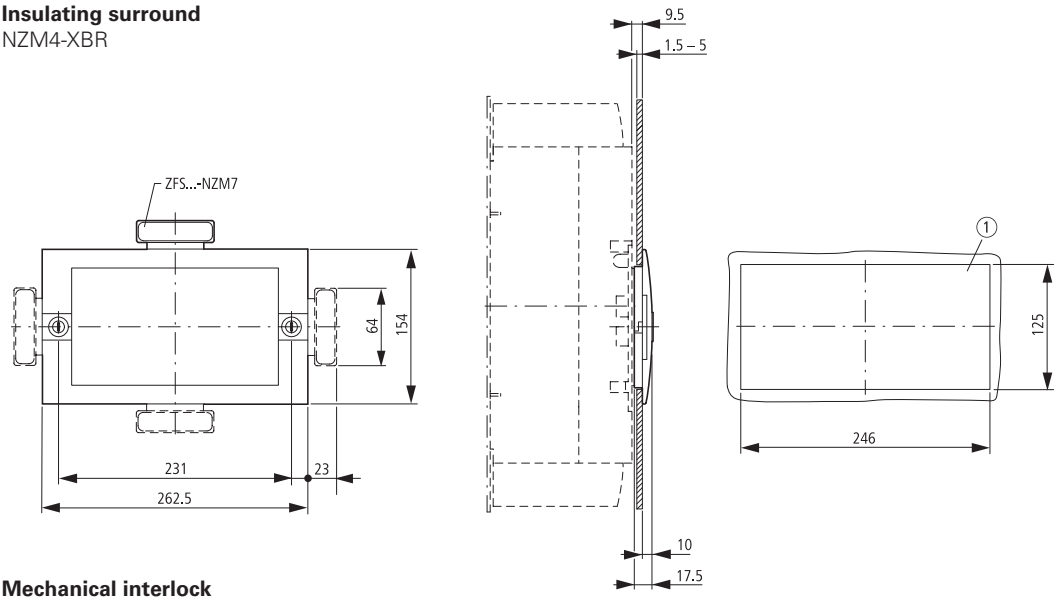
Main switch assembly kit for side wall installation
NZM4-XS(R)-L
NZM4-XS(R)-R



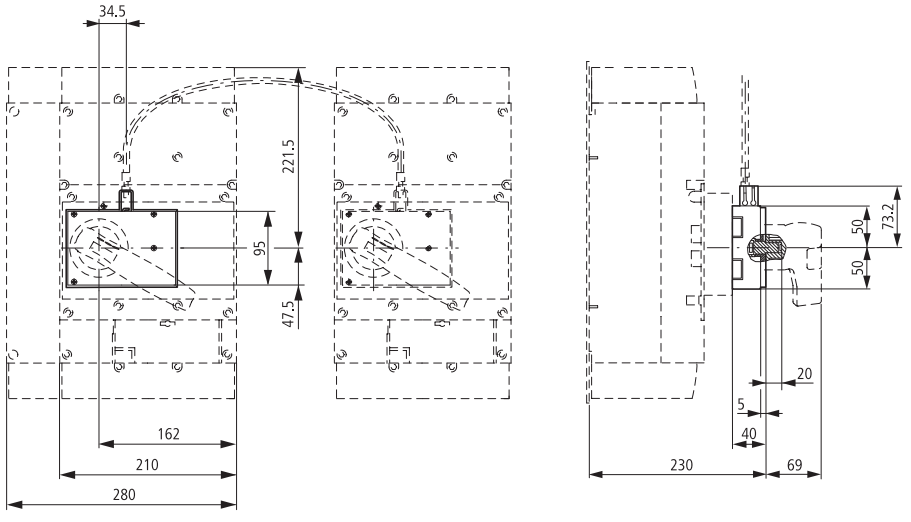
Size 4: accessories (NZM4-XBR. NZM4-XMV. NZM4-X...)

Insulating surround
NZM4-XBR

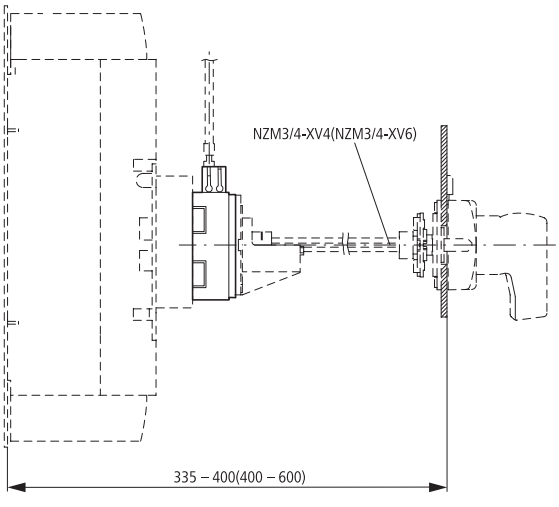
① Mounting aperture



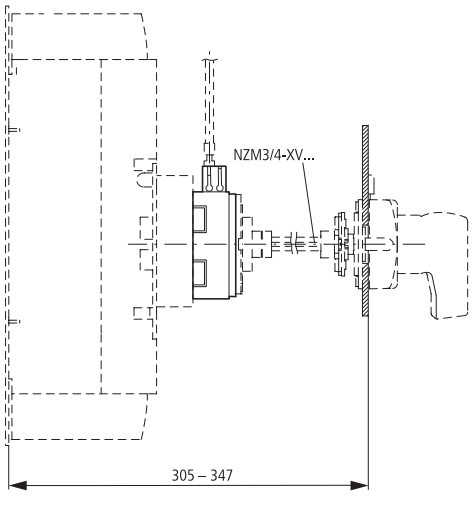
Mechanical interlock
NZM4-XMV+NZM4-XDV(R)



NZM4-XMV+NZM4-XTVD(V)(R)

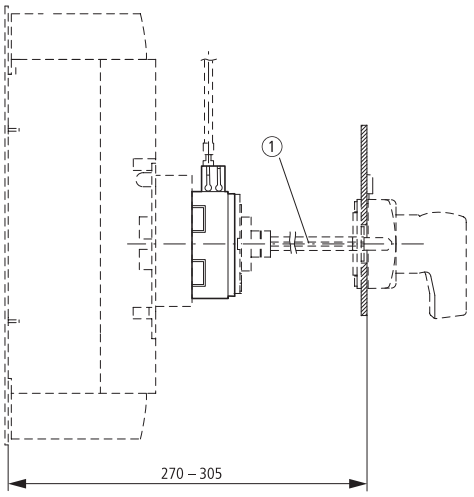


NZM4-XMV+NZM4-XTVD(V)(R)-60



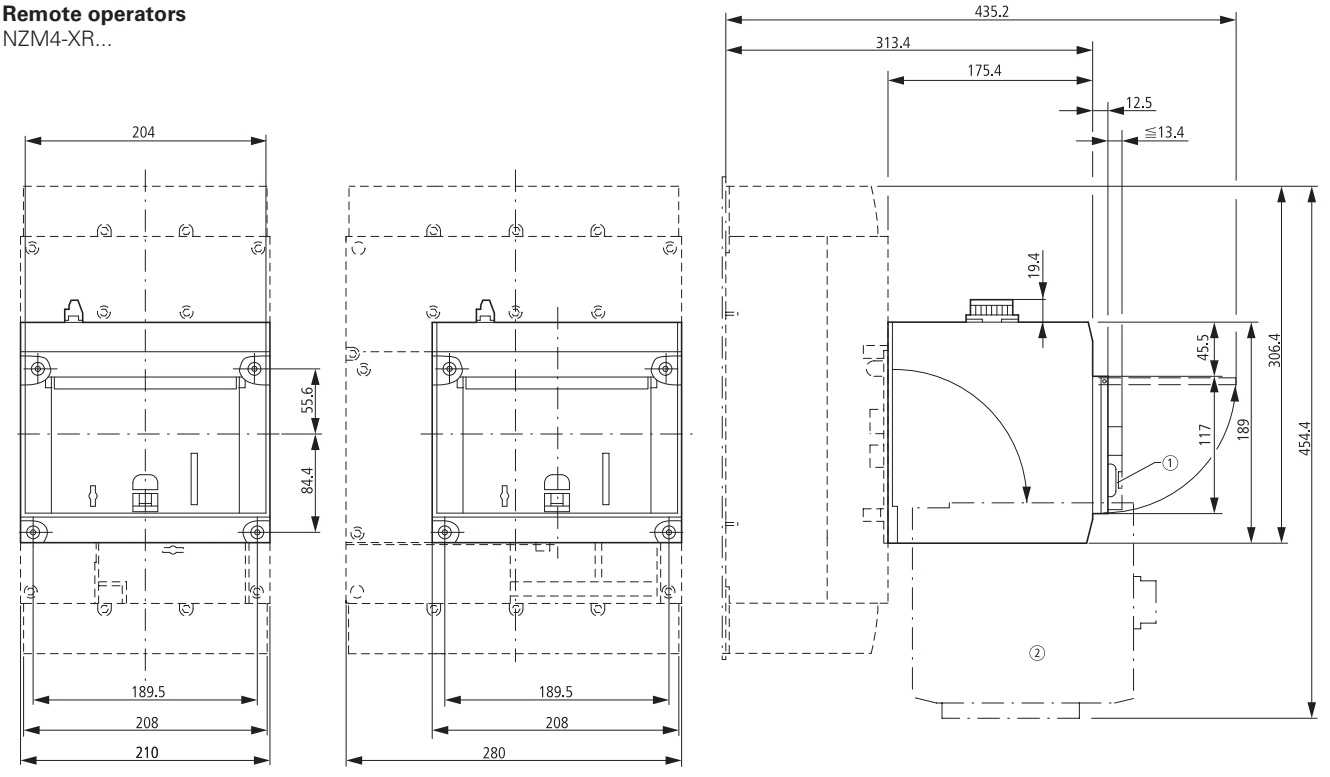
Size 4: accessories (NZM4-XMV, NZM4-X...)

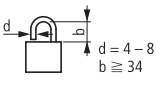
Mechanical interlock
NZM4-XMV+NZM4-XTVD(V)(R)-0



① Special tip

Remote operators
NZM4-XR...

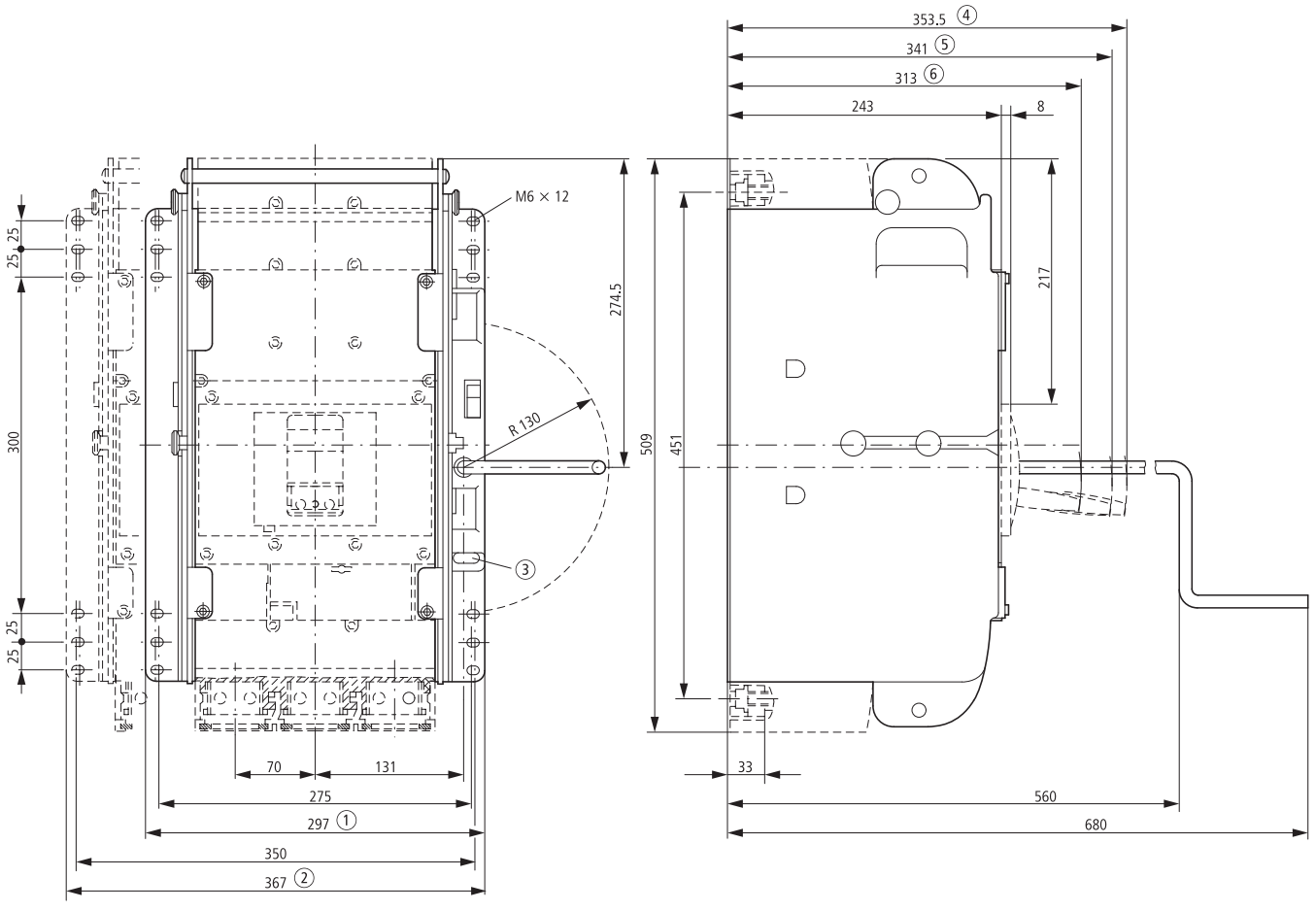


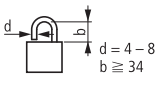


① Up to 3 padlocks
② Remote operator folded

Size 4: accessories (NZM4...-XAV)

Withdrawable units
+NZM4-4-XAV





① 3 pole
② 4 pole

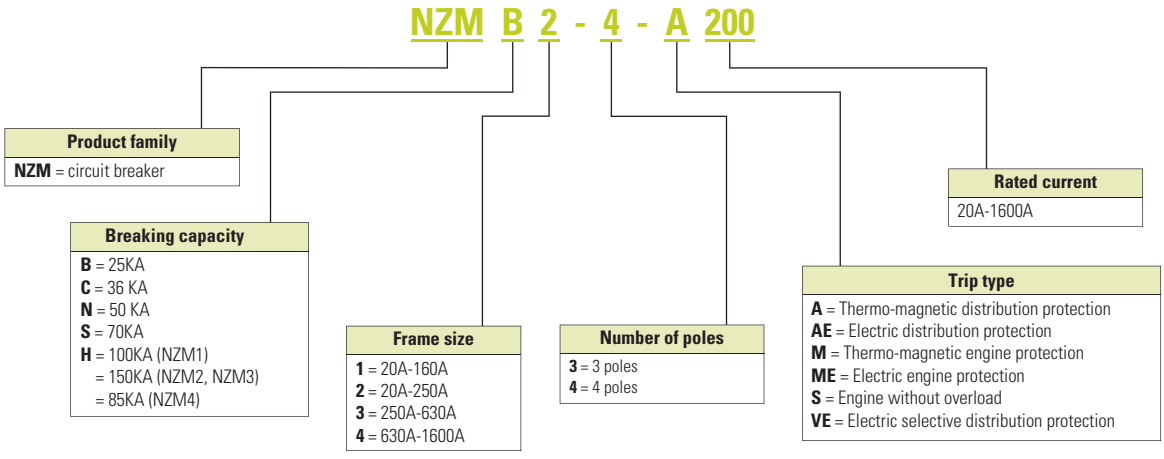
③ Up to 3 padlocks

④ Disconnected
⑤ Test
⑥ Connected

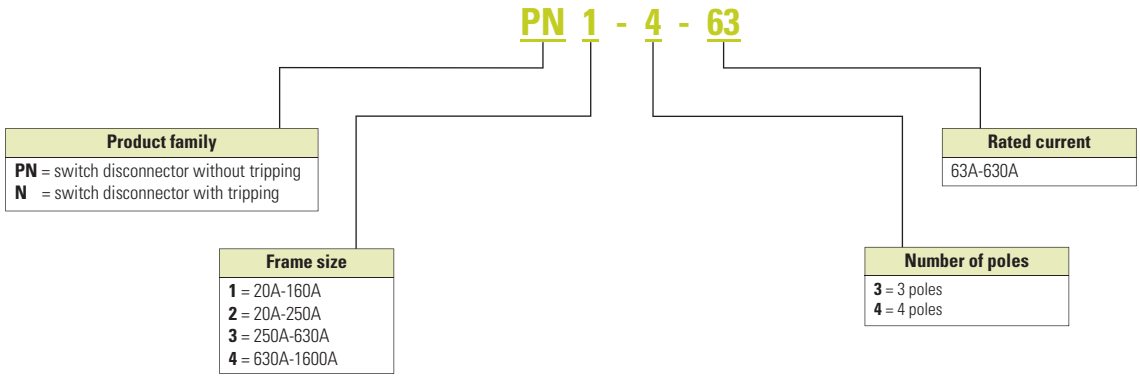
1.17 NZM1-4 molded case circuit-breakers

Selection guide

NZM selection guide



Switch-disconnection selection guide



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