

Switching, protection, communication – the new NZM1-4 circuit-breaker series up to 1600 A

xEnergy

Reliable and safely controlling,
switching and managing
power. In industry, in buildings
and in machine construction.
Innovative protection concepts.
With built-in diagnostics and
communication functions.
Housed in modern switch-
board systems.

NZM circuit-breaker

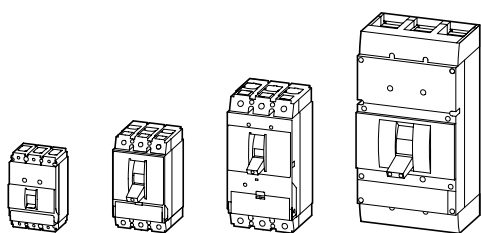
IZM circuit-breaker

Switchboard
systems



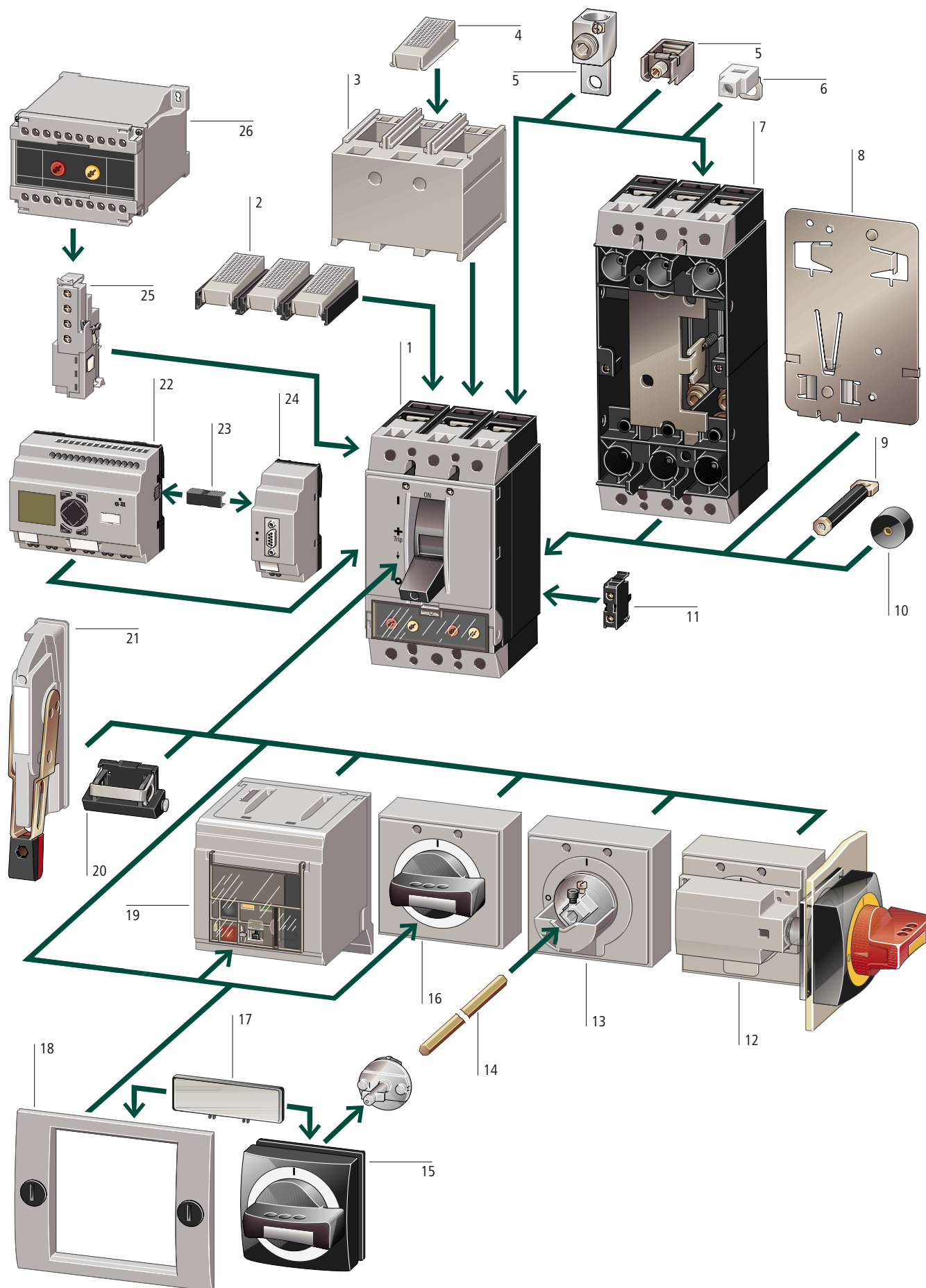
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Think future. Switch to green.



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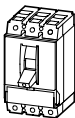
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Basic Units		Add-on functions		Mounting accessories	
Circuit-breakers 1		Standard auxiliary contact 11		Control circuit terminal 6	
Rated uninterrupted current up to 1600 A		Switching with the main contacts		For two terminals at top or bottom	
Switching capacity 25, 50, 100, 150 kA at 415 V		Used for indication and interlocking tasks		NZM1 → 96	
Adjustable releases for overload and short-circuit		Trip-indicating auxiliary contact 11		NZM2 → 100	
Adjustable time selectivity		General indication of tripping with trip due to overload or short-circuit as well as voltage release		NZM3 → 104	
Earth-fault protection		Early-make auxiliary contacts 25		NZM4 → 114	
Protection of systems, cables, motors, generators		For interlocking and load shedding circuits, as well as for early make of the undervoltage release in main switch/ Emergency-stop applications		Tunnel terminals for Al and Cu cable 5	
3 and 4 pole versions, IEC/EN 60947		→ 50		Standard with control circuit terminal	
→ 6				NZM1 → 94	
Switch-disconnector: 1		Voltage releases 25		NZM2 → 98	
Rated uninterrupted current up to 1600 A		Undervoltage release		NZM3 → 104	
Remotely tripped switch-disconnector with undervoltage or shunt release		• Non-delayed		NZM4 → 110	
3 and 4 pole versions, IEC/EN 60947		• OFF-delayed		Box terminals 5	
→ 24		Shunt release		Standard equipment of frame size 1	
		→ 52		Fitted within the switch housing	
Circuit-breakers for North America 1		Spacers 10		NZM1 → 94	
Rated uninterrupted current up to 1200 A		→ 86		NZM2 → 98	
Switching capacity 25, 35, 65, 100 kA at 480 V		Delay unit for undervoltage releases 26		NZM3 → 102	
Adjustable releases for overload and short-circuit		→ 63		Terminal cover 3	
Adjustable time selectivity		Door coupling rotary handle 13, 15		Protection against direct contact where cable lugs, busbars or tunnel terminals are used.	
Earth-fault protection		• Lockable		NZM1 → 96	
Protection of systems, cables, motors, generators		• With door interlock		NZM2 → 100	
3 pole version, UL489/CSA5, IEC 60947		→ 76		NZM3 → 106	
→ 28		Main switch rotary handle for side panel mounting 12		NZM4 → 114	
Circuit-breakers without overcurrent protection for North America 1		→ 82		Clip plates 8	
Rated uninterrupted current up to 1200 A		Extension shaft 14		NZM1-XC35 for 35 mm top-hat rail	
Remotely tripped, with undervoltage or shunt release		Can be cut to required length.		NZM1-XC75 for 75 mm top-hat rail	
3 pole version, UL489/CSA5		→ 76		→ 86	
→ 42		Rotary handle 16		Rear connection 9	
Switch-disconnector for North America 1		Lockable		NZM1 → 94	
Rated uninterrupted current up to 1200 A		→ 80		NZM2 → 98	
Remotely tripped switch-disconnector with undervoltage or shunt release		Remote operator 19		NZM3 → 104	
3 pole version, UL489/CSA5, IEC 60947		For ON and OFF switching and resetting by means of 2-wire or 3-wire control.		NZM4 → 110	
→ 43		→ 90		Plug-in and withdrawable unit 7	
		Toggle lever interlock device 20		→ 92	
		→ 86		Insulating surround 18	
		Side operator handle 21		For use with toggle levers, rotary drives and remote operators protruding from the enclosure	
		In preparation		NZM1 → 86	
		Data Management Interface (DMI Module) 22		External warning plate/designation label 17	
		Access to diagnostics and operational data		NZM1 → 85	
		Recording of current values		IP2X protection against contact with a finger 2	
		Parameterization and control of the circuit-breakers with electronic releases		For box terminals	
		→ 116		NZM1 → 96	
		EASY-LINK-DS data plug 23		NZM2 → 100	
		→ see main Moeller catalogue for industrial switchgear		NZM3 → 106	
		PROFIBUS-DP interface 24		IP2X protection against contact with a finger 4	
		→ 116		For barrier	
				NZM1 → 96	
				NZM2 → 100	
				NZM3 → 106	

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Circuit-breakers

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
Protection of systems and cables

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	$0.8 - 1 \times I_n$	350	20	20	$0.8 - 1 \times I_n$	350
	25	25			25	25		
	32	32			32	32		
	40	40			$8 - 10 \times I_n$	40		$10 - 14 \times I_n$
	50	50				40		
	63	63			$6 - 10 \times I_n$	50		$8 - 14 \times I_n$
	80	80				63		
	100	100				80		
					100	100		NZM1: $8 - 12.5 \times I_n$ NZM2: $8 - 14 \times I_n$
	125	125				125		$8 - 14 \times I_n$
	160	160		NZM1: $8 \times I_n$ $6 - 10 \times I_n$		160		
		200				200		
		250						

Basic switching capacity		NZMB1-A...		NZMB2-A...				NZMB1-M...		NZMB2-M...			
400/415 V	kA/cos φ	25	0,25	25	0,25			25	0,25	25	0,25		
440 V	kA/cos φ	25	0,25	25	0,25			25	0,25	25	0,25		
525 V	kA/cos φ	15	0,30	15	0,30			15	0,30	15	0,30		

Normal switching capacity		NZMN1-A...		NZMN2-A...				NZMN1-M...		NZMN2-M...			
400/415 V	kA/cos φ	50	0,25	50	0,25			50	0,25	50	0,25		
440 V	kA/cos φ	35	0,25	35	0,25			35	0,25	35	0,25		
525 V	kA/cos φ	20	0,30	25	0,25			20	0,30	25	0,25		
690 V	kA/cos φ	10	0,50	20	0,30			10	0,50	20	0,30		

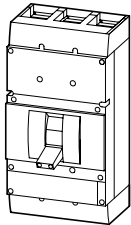
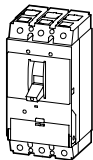
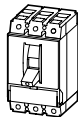
High switching capacity		NZMH1-A-...		NZMH2-A-...				NZMH2-M...			
400/415 V	kA/cos φ	100	0,20	100	0,20			100	0,20		
440 V	kA/cos φ	35	0,25	65	0,20			65	0,20		
525 V	kA/cos φ	20	0,30	40	0,25			40	0,25		
690 V	kA/cos φ	10	0,50	20	0,30			20	0,30		

Limiter switching capacity		NZML2-A...				NZML2-M...			
400/415 V	kA/cos φ		150	0,20		150	0,20		
440 V	kA/cos φ		130	0,20		130	0,20		
525 V	kA/cos φ		50	0,25		50	0,25		
690 V	kA/cos φ		20	0,30		20	0,30		

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

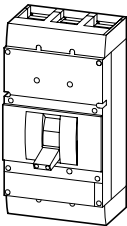
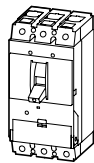
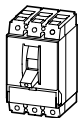
Switch-disconnector:

With main switch characteristics to IEC/EN 60204 and VDE 0113 and 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 voltage 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 current _{rms})	kA	2	2	3.5	3.5	12	12	25	

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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	$0.5 - 1 \times I_n$	$2 - 10 \times I_r$	$2 - 12 \times I_n$	90	$0.5 - 1 \times I_n$	$2 - 14 \times I_r$
160	400	800				140		
250	630	1000				220		
		1250				350		
		1600				450		
						550		
						875		
						1400		

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

NZMH2-...E...		NZMH3-...E...		NZMH4-...E...				NZMH2-ME...		NZMH3-ME...		NZMH4-ME...	
100	0,20	100	0,20	100	0,20			100	0,20	100	0,20	100	0,20
65	0,20	65	0,20	65	0,20			65	0,20	65	0,20	65	0,20
40	0,25	45	0,25	40	0,25			40	0,25	45	0,25	40	0,25
20	0,30	25	0,30	35	0,25			20	0,30	25	0,30	35	0,25

NZML2-...E...		NZML3-...E...		NZML4-...E...				NZML2-ME...		NZML3-ME...		NZML4-ME...	
150	0,20	150	0,20	100	0,20			150	0,20	150	0,20	100	0,20
130	0,20	130	0,20	85	0,20			130	0,20	130	0,20	85	0,20
50	0,25	65	0,20	65	0,20			50	0,25	65	0,20	65	0,20
20	0,30	35	0,25	50	0,25			20	0,30	35	0,25	50	0,25

A selection of approved circuit-breakers and switch-disconnectors for world-wide use can be found from page 26

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Rated current = rated uninterrupted current		Setting range	Short-circuit releases	Basic switching capacity 25 kA at 415 V 50/60 Hz	Part no. Article no.	Price see price list
Overload releases						
$I_n = I_u$ A	I_r A	I_i A				
						

Protection of systems and cables						
3 pole						
Terminals standard, terminal screws as accessories						
	20	15 – 20	350	NZMB1-A20 280987		
	25	20 – 25	350	NZMB1-A25 280988		
	32	25 – 32	350	NZMB1-A32 280989		
	40	32 – 40	320 – 400	NZMB1-A40 259075		
	50	40 – 50	300 – 500	NZMB1-A50 259076		
	63	50 – 63	380 – 630	NZMB1-A63 259077		
	80	63 – 80	480 – 800	NZMB1-A80 259078		
	100	80 – 100	600 – 1000	NZMB1-A100 259079		
	125	100 – 125	750 – 1250	NZMB1-A125 259080		
160	125 – 160	1280	NZMB1-A160 281230			
Terminals standard, terminal screws 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 – 125	750 – 1250			
	160	125 – 160	960 – 1600	NZMB2-A160 259088		
	200	160 – 200	1200 – 2000	NZMB2-A200 259089		
	250	200 – 250	1500 – 2500	NZMB2-A250 259090		

Notes Notes for terminals → 95

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Normal switching capacity 50 kA at 415 V 50/60 Hz		High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity 150 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMN1-A20 281231		NZMH1-A20 284376				1 off	IEC/EN 60947-2 Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) Adjustable short-circuit release I_i • $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...-A40: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$) Fixed short-circuit release I_i • 350 A With $I_n = 20 - 32$ A • 1280 A with $I_n = 160$ A (NZM1)
NZMN1-A25 281232		NZMH1-A25 284377					
NZMN1-A32 281233		NZMH1-A32 284378					
NZMN1-A40 259081		NZMH1-A40 284379					
NZMN1-A50 259082		NZMH1-A50 284410					
NZMN1-A63 259083		NZMH1-A63 284411					
NZMN1-A80 259084		NZMH1-A80 284412					
NZMN1-A100 259085		NZMH1-A100 284413					
NZMN1-A125 259086		NZMH1-A125 284414					
NZMN1-A160 281234		NZMH1-A160 284415					
		NZMH2-A20 281281		NZML2-A20 281284		1 off	
		NZMH2-A25 281282		NZML2-A25 281285			
		NZMH2-A32 281283		NZML2-A32 281286			
		NZMH2-A40 259095		NZML2-A40 259104			
		NZMH2-A50 259096		NZML2-A50 259105			
		NZMH2-A63 259097		NZML2-A63 259106			
		NZMH2-A80 259098		NZML2-A80 259107			
		NZMH2-A100 259099		NZML2-A100 259108			
		NZMH2-A125 259100		NZML2-A125 259109			
NZMN2-A160 259092		NZMH2-A160 259101		NZML2-A160 259110			
NZMN2-A200 259093		NZMH2-A200 259102		NZML2-A200 259111			
NZMN2-A250 259094		NZMH2-A250 259103		NZML2-A250 259112			

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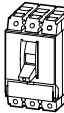
						Basic switching capacity 25 kA at 415 V 50/60 Hz			
Rated current = rated uninterrupted current		Setting range		Motor rating	Rated operational current AC-3 at 400 V 50/60 Hz	Part no. Article no.	Price see price list		
$I_n = I_u$ A		Overload releases	Short-circuit releases	P kW	I_e A				
		I_r A	I_l A						
									
Motor protection									
3 pole									
Terminals standard, terminal screws as accessories									
	20	16 – 20	350	7.5	16	NZMB1-M20 ¹⁾ 281537			
	25	20 – 25	350	11	21.7	NZMB1-M25 ¹⁾ 281538			
	32	25 – 32	320 – 448	15	29.3	NZMB1-M32 ¹⁾ 281539			
	40	32 – 40	320 – 560	18.5	36	NZMB1-M40 265710			
	50	40 – 50	400 – 700	22	41	NZMB1-M50 265711			
	63	50 – 63	504 – 882	30	55	NZMB1-M63 265712			
	80	63 – 80	640 – 1120	37	68	NZMB1-M80 265713			
	100	80 – 100	800 – 1250	55	99	NZMB1-M100 265714			
Terminal screws standard 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	NZMB2-M125 265715			
	160	125 – 160	1280 – 2240	75	134	NZMB2-M160 265716			
	200	160 – 200	1600 – 2800	110	196	NZMB2-M200 265717			

Note Notes for terminals → 95
¹⁾ on request

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Normal switching capacity 50 kA at 415 V 50/60 Hz		High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity 150 kA at 415 V 50/60 Hz		Std. pack	Notes	
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list			
NZMN1-M20 ¹⁾ 281550						1 off	IEC/EN 60947-4-1 and IEC/EN 60947-2 Circuit-breakers fulfil all the demands of utilization category AC-3. Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) – NZM...1-M...: with single-phasing sensitivity – Tripping class 10 A Adjustable short-circuit release I_i • $8 - 14 \times I_n$ (ex-factory $12 \times I_n$) – NZM...-M32: $10 - 14 \times I_n$ (ex-factory $12 \times I_n$) – NZM...1-M100: $8 - 12.5 \times I_n$ (ex-factory $12 \times I_n$) Fixed short-circuit release I_f • 350 A With $I_n = 20 - 25$ A	
NZMN1-M25 ¹⁾ 281551								
NZMN1-M32 ¹⁾ 281552								
NZMN1-M40 265718								
NZMN1-M50 265719								
NZMN1-M63 265720								
NZMN1-M80 265721								
NZMN1-M100 265722								
		NZMH2-M20 281299		NZML2-M20 281310		1 off		
		NZMH2-M25 281300		NZML2-M25 281311				
		NZMH2-M32 281301		NZML2-M32 281312				
		NZMH2-M40 281302		NZML2-M40 281313				
		NZMH2-M50 281303		NZML2-M50 281314				
		NZMH2-M63 281304		NZML2-M63 281315				
		NZMH2-M80 281305		NZML2-M80 281316				
		NZMH2-M100 281306		NZML2-M100 281317				
NZMN2-M125 265723		NZMH2-M125 281307		NZML2-M125 281318				
NZMN2-M160 265724		NZMH2-M160 281308		NZML2-M160 281319				
NZMN2-M200 265725		NZMH2-M200 281309		NZML2-M200 281320				

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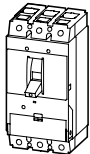
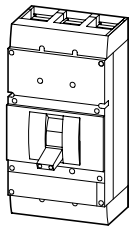
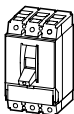
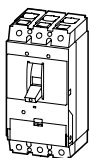
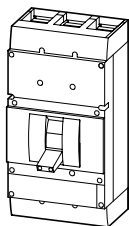
Rated current = rated uninterrupted current					Basic switching capacity 25 kA at 415 V 50/60 Hz			
Setting range Short-circuit releases					Part no. Article no.	Price see price list		
Motor rating AC-3 at 400 V 50/60 Hz								
Rated operational current AC-3 at 400 V 50/60 Hz								
$I_n = I_u$ A					I_i A	P kW	I_e A	
								
Short-circuit protection								
Motor protection in conjunction with overload relay								
• With short-circuit release • Without overload release								
3-pole								
Terminals standard, terminal screws as accessories								
	40	320 – 560	18.5	36	NZMB1-S40 265726			
	50	400 – 700	22	41	NZMB1-S50 265727			
	63	504 – 882	30	55	NZMB1-S63 265728			
	80	640 – 1120	37	68	NZMB1-S80 265729			
	100	800 – 1250	55	99	NZMB1-S100 265730			
Terminal screws standard, terminals as accessories								
	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 265736			
	160	1280 – 2240	75	134	NZMB2-S160 265737			
	200	1600 – 2500	110	196	NZMB2-S200 265738			

Notes
Higher currents:
NZM...3/4...ME → 14
Notes for terminals → 95

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Normal switching capacity 50 kA at 415 V 50/60 Hz		High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity 150 kA at 415 V 50/60 Hz		Std. pack	Notes																																										
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list																																												
NZMN1-S40 265731		NZMH1-S40 284436				1 off	IEC/EN 60947-4-1 and IEC/EN 60947-2 Circuit-breakers conform to all demands of utilization category AC-3. Adjustable short-circuit release I_i • $8 - 14 \times I_n$ (ex-factory $12 \times I_n$) – NZM...1-S100, NZM...2-S200: $8 - 12.5 \times I_n$ (ex-factory $12 \times I_n$) Without overload release I_r Selection of circuit-breakers without overload release when combining with ZEV electronic motor-protective relay: The tripping response of the ZEV motor-protective relay is matched by setting of the tripping class (CLASS), to the starting behaviour of the motor to be protected.																																										
NZMN1-S50 265732		NZMH1-S50 284437																																															
NZMN1-S63 265733		NZMH1-S63 284438																																															
NZMN1-S80 265734		NZMH1-S80 284439																																															
NZMN1-S100 265735		NZMH1-S100 284440																																															
		NZMH2-S40 265742		NZML2-S40 265750		1 off	<table><tr><th></th><th>I_n in A</th><th>Maximum permissible tripping class CLASS</th></tr><tr><td rowspan="5">NZM...1-S...</td><td>40</td><td>30</td></tr><tr><td>50</td><td>30</td></tr><tr><td>63</td><td>30</td></tr><tr><td>80</td><td>20</td></tr><tr><td>100</td><td>15</td></tr><tr><td rowspan="8">NZM...2-S...</td><td>40</td><td>30</td></tr><tr><td>50</td><td>30</td></tr><tr><td>63</td><td>30</td></tr><tr><td>80</td><td>30</td></tr><tr><td>100</td><td>30</td></tr><tr><td>125</td><td>30</td></tr><tr><td>160</td><td>20</td></tr><tr><td>200</td><td>10</td></tr><tr><td colspan="2">Tripping class</td><td>Tripping time T_p with loading on all poles with 7.2 times the current setting value</td></tr><tr><td>10 A</td><td>$2 \text{ s} < T_p \leq 10 \text{ s}$</td></tr><tr><td>10</td><td>$4 \text{ s} < T_p \leq 10 \text{ s}$</td></tr><tr><td>20</td><td>$6 \text{ s} < T_p \leq 20 \text{ s}$</td></tr><tr><td>30</td><td>$9 \text{ s} < T_p \leq 30 \text{ s}$</td></tr></table> Motor-starter combination of classification types 1 and 2 can be found in the "Main catalogue Industrial switchgear" in the "Fuseless motor-starter combinations" chapter.		I_n in A	Maximum permissible tripping class 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 loading on all poles with 7.2 times the current setting value	10 A	$2 \text{ s} < T_p \leq 10 \text{ s}$	10	$4 \text{ s} < T_p \leq 10 \text{ s}$	20	$6 \text{ s} < T_p \leq 20 \text{ s}$	30	$9 \text{ s} < T_p \leq 30 \text{ s}$
	I_n in A	Maximum permissible tripping class 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 loading on all poles with 7.2 times the current setting value																																															
10 A	$2 \text{ s} < T_p \leq 10 \text{ s}$																																																
10	$4 \text{ s} < T_p \leq 10 \text{ s}$																																																
20	$6 \text{ s} < T_p \leq 20 \text{ s}$																																																
30	$9 \text{ s} < T_p \leq 30 \text{ s}$																																																
		NZMH2-S50 265743		NZML2-S50 265751																																													
		NZMH2-S63 265744		NZML2-S63 265752																																													
		NZMH2-S80 265745		NZML2-S80 265753																																													
		NZMH2-S100 265746		NZML2-S100 265754																																													
NZMN2-S125 265739		NZMH2-S125 265747		NZML2-S125 265755																																													
NZMN2-S160 265740		NZMH2-S160 265748		NZML2-S160 265756																																													
NZMN2-S200 265741		NZMH2-S200 265749		NZML2-S200 265757																																													

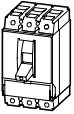
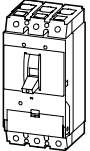
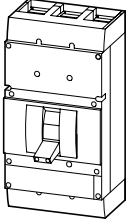
Moeller SK1230-1157GB-INT

					Normal switching capacity 50 kA at 415 V 50/60 Hz				
Rated current = rated uninterrupted current					Part no. Article no.	Price see price list			
Setting range									
Overload releases									
Short-circuit releases									
Non-delayed									
Delayed short-circuit									
$I_n = I_u$ A									
I_r A									
I_i A									
I_{sd} A									
									
Protection of systems and cables									
3-pole									
Terminal screws standard terminals as accessories									
	250	125 – 250	500 – 2750	–	NZMN3-AE250 259113				
	400	200 – 400	800 – 4400	–	NZMN3-AE400 259114				
	630	315 – 630	1260 – 5040	–	NZMN3-AE630 259115				
	630	315 – 630	1260 – 7560	–	NZMN4-AE630 265758				
	800	400 – 800	1600 – 9600	–	NZMN4-AE800 265759				
	1000	500 – 1000	2000 – 12000	–	NZMN4-AE1000 265760				
	1250	630 – 1250	2500 – 15000	–	NZMN4-AE1250 265761				
	1600	800 – 1600	3200 – 19200	–	NZMN4-AE1600 265762				
Systems protection, cable protection, selectivity, generator protection									
3-pole									
Terminal screws standard terminals as accessories									
	100	50 – 100	1200	100 – 1000	NZMN2-VE100 259122				
	160	80 – 160	1920	160 – 1600	NZMN2-VE160 259123				
	250	125 – 250	3000	250 – 2500	NZMN2-VE250 259124				
	250	125 – 250	500 – 2750	250 – 2500	NZMN3-VE250 259131				
	400	200 – 400	800 – 4400	400 – 4000	NZMN3-VE400 259132				
	630	315 – 630	1260 – 5040	472 – 4410	NZMN3-VE630 259133				
	630	315 – 630	1260 – 7560	630 – 6300	NZMN4-VE630 265768				
	800	400 – 800	1600 – 9600	800 – 8000	NZMN4-VE800 265769				
	1000	500 – 1000	2000 – 12000	1000 – 10000	NZMN4-VE1000 265770				
	1250	630 – 1250	2500 – 15000	1250 – 12500	NZMN4-VE1250 265771				
	1600	800 – 1600	3200 – 19200	1600 – 16000	NZMN4-VE1600 265772				

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High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity ¹⁾ 150 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH3-AE250 259116		NZML3-AE250 259119		1 off	IEC/EN 60947-2 Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) R.m.s. value measurement and “thermal memory” Adjustable short-circuit release I_i • NZM...3-AE250/400: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • NZM...3-AE630: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • NZM...4-AE...: $2 - 12 \times I_n$ (ex-factory $6 \times I_n$) ¹⁾ For limiter switching capacity with NZML4-AE... the following applies: 100 kA
NZMH3-AE400 259117		NZML3-AE400 259120			
NZMH3-AE630 259118		NZML3-AE630 259121			
NZMH4-AE630 265763		NZML4-AE630 283128			
NZMH4-AE800 265764		NZML4-AE800 283129			
NZMH4-AE1000 265765		NZML4-AE1000 283210			
NZMH4-AE1250 265766		NZML4-AE1250 283211			
NZMH4-AE1600 265767		NZML4-AE1600 283212			
NZMH2-VE100 259125		NZML2-VE100 259128		1 off	IEC/EN 60947-2 Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) R.m.s. value measurement and “thermal memory” Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$ as well as infinity (without overload release) (ex-factory 10 s) Adjustable delayed short-circuit releases I_{sd} • $2 - 10 \times I_r$ (ex-factory $6 \times I_r$) – NZM...3-VE630: $1.5 - 7 \times I_r$ (ex-factory $6 \times I_r$) Adjustable delay time t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (ex-factory 0 ms) Adjustable non-delayed short-circuit releases I_i • NZM2 fixed $12 \times I_n$ • NZM...3-VE250/400: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • NZM...3-VE630: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • NZM...4-VE...: $2 - 12 \times I_n$ (ex-factory $12 \times I_n$) Switchable i^2t constant function (ex-factory OFF) • NZM2 fixed OFF • NZM3, NZM4 switchable (ex-factory OFF) ¹⁾ For limiter switching capacity with NZML4-VE... the following applies: 100 kA
NZMH2-VE160 259126		NZML2-VE160 259129			
NZMH2-VE250 259127		NZML2-VE250 259130			
NZMH3-VE250 259134		NZML3-VE250 259137			
NZMH3-VE400 259135		NZML3-VE400 259138			
NZMH3-VE630 259136		NZML3-VE630 259139			
NZMH4-VE630 265773		NZML4-VE630 283213			
NZMH4-VE800 265774		NZML4-VE800 283214			
NZMH4-VE1000 265775		NZML4-VE1000 283215			
NZMH4-VE1250 265776		NZML4-VE1250 283216			
NZMH4-VE1600 265777		NZML4-VE1600 283217			

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							Normal switching capacity 50 kA at 415 V 50/60 Hz	
Rated current = rated uninterrupted current		Setting range		Motor rating AC-3 at 400 V 50/60 Hz	Rated operational current AC-3 at 400 V 50/60 Hz		Part no. Article no.	Price see price list
$I_n = I_u$ A		Overload releases I_r A 	Short-circuit releases I_i A 	P kW	I_e A			
Motor protection								
3-pole								
Terminal screws standard, terminals as accessories								
	90	45 – 90	90 – 1260	45	81		NZMN2-ME90 265778	
	140	70 – 140	140 – 1960	75	134		NZMN2-ME140 265779	
	220	110 – 220	220 – 3080	110	196		NZMN2-ME220 265780	
	220	110 – 220	220 – 3080	110	196		NZMN3-ME220 265781	
	350	175 – 350	350 – 4900	200	349		NZMN3-ME350 265782	
	450	225 – 450	450 – 6300	250	437		NZMN3-ME450 284468	
	550	275 – 550	550 – 7700	315 ¹⁾	544 ¹⁾		NZMN4-ME550 265783	
	875	438 – 875	875 – 12250	500 ¹⁾	820 ¹⁾		NZMN4-ME875 265784	
	1400	700 – 1400	1400 – 19600	630 ¹⁾	1066 ¹⁾		NZMN4-ME1400 265785	

Notes

Notes for terminals → 99

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

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High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity ²⁾ 150 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-ME90 265786		NZML2-ME90 265794		1 off	IEC/EN 60947-2 and IEC/EN 60947-4-1 Circuit-breakers fulfil all the demands of utilization category AC-3. Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) R.m.s. value measurement and “thermal memory” Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$, as well as infinity (without overload release) (ex-factory 10 s) Phase-failure sensitivity Adjustable short-circuit release I_i • $2 - 14 \times I_r$ (ex-factory $12 \times I_r$) ²⁾ For limiter switching capacity with NZML4-ME... the following applies: 85 kA
NZMH2-ME140 265787		NZML2-ME140 265795			
NZMH2-ME220 265788		NZML2-ME220 265796			
NZMH3-ME220 265789		NZML3-ME220 265797			
NZMH3-ME350 265790		NZML3-ME350 265798			
NZMH3-ME450 284469		NZML3-ME450 284470			
NZMH4-ME550 265791		NZML4-ME550 283218			
NZMH4-ME875 265792		NZML4-ME875 283219			
NZMH4-ME1400 265793		NZML4-ME1400 283220			

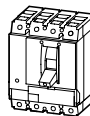
Moeller SK1230-1157GB-INT

Rated current = rated uninterrupted current					Basic switching capacity 25 kA at 415 V 50/60 Hz	Part no. Article no.	Price see price list
Setting range							
Overload releases		Short-circuit releases					
Main pole	Neutral conductor						
$I_n = I_u$ A	I_r A	I_r A	I_i A				
							
Protection of systems and cables							
4-pole							
Terminals standard							
terminal screw as accessories							
	20	15 – 20	15 – 20	350	NZMB1-4-A20 281237		
	20	15 – 20	–	350	NZMB1-4-A20/0 281238		
	25	20 – 25	20 – 25	350	NZMB1-4-A25 281239		
	25	20 – 25	–	350	NZMB1-4-A25/0 281240		
	32	25 – 32	25 – 32	350	NZMB1-4-A32 281241		
	32	25 – 32	–	350	NZMB1-4-A32/0 281242		
	40	32 – 40	32 – 40	320 – 400	NZMB1-4-A40 265799		
	40	32 – 40	–	320 – 400	NZMB1-4-A40/0 265800		
	50	40 – 50	40 – 50	300 – 500	NZMB1-4-A50 265801		
	50	40 – 50	–	300 – 500	NZMB1-4-A50/0 265802		
	63	50 – 63	50 – 63	380 – 630	NZMB1-4-A63 265803		
	63	50 – 63	–	380 – 630	NZMB1-4-A63/0 265804		
	80	63 – 80	63 – 80	480 – 800	NZMB1-4-A80 265805		
	80	63 – 80	–	480 – 800	NZMB1-4-A80/0 265806		
	100	80 – 100	80 – 100	600 – 1000	NZMB1-4-A100 265807		
	100	80 – 100	–	600 – 1000	NZMB1-4-A100/0 265808		
	125	100 – 125	100 – 125	750 – 1250	NZMB1-4-A125 265809		
	125	100 – 125	–	750 – 1250	NZMB1-4-A125/0 265810		
	160	125 – 160	125 – 160	1280	NZMB1-4-A160 281243		
	160	125 – 160	–	1280	NZMB1-4-A160/0 281244		

Notes Notes for terminals → 95

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Normal switching capacity 50 kA at 415 V 50/60 Hz		High switching capacity 100 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMN1-4-A20 281245		NZMH1-4-A20 284416		1 off	IEC/EN 60947-2
NZMN1-4-A20/0 281246		NZMH1-4-A20/0 284417			Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$)
NZMN1-4-A25 281247		NZMH1-4-A25 284418			Setting on neutral pole implemented via the main pole setting I_r of the main pole.
NZMN1-4-A25/0 281248		NZMH1-4-A25/0 284419			Adjustable short-circuit release I_i • $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...1-4-A40: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$) – NZM...2-4-A40: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$)
NZMN1-4-A32 281249		NZMH1-4-A32 284420			Fixed short-circuit release I_i • 350 A with $I_n = 20 - 32$ A • 1280 A with $I_n = 160$ A ($8 \times I_n$)
NZMN1-4-A32/0 281250		NZMH1-4-A32/0 284421			NZM..1-4-A...
NZMN1-4-A40 265811		NZMH1-4-A40 284422			• With 100% overload and short-circuit protection in 4th pole NZM...1-4-A.../0
NZMN1-4-A40/0 265812		NZMH1-4-A40/0 284423			• No overload and short-circuit protection in 4th pole
NZMN1-4-A50 265813		NZMH1-4-A50 284424			• Not for use in IT electrical power networks
NZMN1-4-A50/0 265814		NZMH1-4-A50/0 284425			
NZMN1-4-A63 265815		NZMH1-4-A63 284426			
NZMN1-4-A63/0 265816		NZMH1-4-A63/0 284427			
NZMN1-4-A80 265817		NZMH1-4-A80 284428			
NZMN1-4-A80/0 265818		NZMH1-4-A80/0 284429			
NZMN1-4-A100 265819		NZMH1-4-A100 284430			
NZMN1-4-A100/0 265820		NZMH1-4-A100/0 284431			
NZMN1-4-A125 265821		NZMH1-4-A125 284432			
NZMN1-4-A125/0 265822		NZMH1-4-A125/0 284433			
NZMN1-4-A160 281251		NZMH1-4-A160 284434			
NZMN1-4-A160/0 281252		NZMH1-4-A160/0 284435			

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Rated current = rated uninterrupted current	Setting range		Short-circuit releases	Basic switching capacity 25 kA at 415 V 50/60 Hz	Part no. Article no.	Price see price list
	Overload releases					
	Main pole	Neutral conductor				
$I_n = I_u$ A	I_r A	I_r A	I_i A			
						
Protection of systems and cables						
4-pole						
Terminal screws standard terminals as accessories						
	20	15 – 20	15 – 20	350		
	20	15 – 20	–	350		
	25	20 – 25	20 – 25	350		
	25	20 – 25	–	350		
	32	25 – 32	25 – 32	350		
	32	25 – 32	–	350		
	40	32 – 40	32 – 40	320 – 400		
	40	32 – 40	–	320 – 400		
	50	40 – 50	40 – 50	300 – 500		
	50	40 – 50	–	300 – 500		
	63	50 – 63	50 – 63	380 – 630		
	63	50 – 63	–	380 – 630		
	80	63 – 80	63 – 80	480 – 800		
	80	63 – 80	–	480 – 800		
	100	80 – 100	80 – 100	600 – 1000		
	100	80 – 100	–	600 – 1000		
	125	100 – 125	100 – 125	750 – 1250		
	125	100 – 125	–	750 – 1250		
	160	125 – 160	125 – 160	960 – 1600	NZMB2-4-A160 265849	
	160	125 – 160	80 – 100	960 – 1600	NZMB2-4-A160/100 265850	
	160	125 – 160	–	960 – 1600	NZMB2-4-A160/0 265851	
	200	160 – 200	160 – 200	1200 – 2000	NZMB2-4-A200 265852	
	200	160 – 200	100 – 125	1200 – 2000	NZMB2-4-A200/125 265853	
	200	160 – 200	–	1200 – 2000	NZMB2-4-A200/0 265854	
250	200 – 250	200 – 250	1500 – 2500	NZMB2-4-A250 265855		
250	200 – 250	125 – 160	1500 – 2500	NZMB2-4-A250/160 265856		
250	200 – 250	–	1500 – 2500	NZMB2-4-A250/0 265857		

Moeller SK1230-1157GB-INT							
Normal switching capacity 50 kA at 415 V 50/60 Hz		High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity 150 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
		NZMH2-4-A20 281287		NZML2-4-A20 281293		1 off	IEC/EN 60947-2
		NZMH2-4-A20/0 281288		NZML2-4-A20/0 281294			Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$)
		NZMH2-4-A25 281289		NZML2-4-A25 281295			Setting on neutral pole implemented via the main pole setting I_r of the main pole.
		NZMH2-4-A25/0 281290		NZML2-4-A25/0 281296			Adjustable short-circuit release I_i • $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...1-4-A40: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$) – NZM...2-4-A40: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$)
		NZMH2-4-A32 281291		NZML2-4-A32 281297			Fixed short-circuit release I_i • 350 A with $I_n = 20 - 32$ A • 1280 A with $I_n = 160$ A ($8 \times I_n$)
		NZMH2-4-A32/0 281292		NZML2-4-A32/0 281298			NZM...2-4-A...
		NZMH2-4-A40 265823		NZML2-4-A40 265835			• With 100% overload and short-circuit protection in 4th pole NZM...2-4-A.../60
		NZMH2-4-A40/0 265824		NZML2-4-A40/0 265836			• With 60% overload and short-circuit protection in 4th pole NZM...2-4-A.../0
		NZMH2-4-A50 265825		NZML2-4-A50 265837			• No overload and short-circuit protection in 4th pole
		NZMH2-4-A50/0 265826		NZML2-4-A50/0 265838			• Not for use in IT electrical power network
		NZMH2-4-A63 265827		NZML2-4-A63 265839			
		NZMH2-4-A63/0 265828		NZML2-4-A63/0 265840			
		NZMH2-4-A80 265829		NZML2-4-A80 265841			
		NZMH2-4-A80/0 265830		NZML2-4-A80/0 265842			
		NZMH2-4-A100 265831		NZML2-4-A100 265843			
		NZMH2-4-A100/0 265832		NZML2-4-A100/0 265844			
		NZMH2-4-A125 265833		NZML2-4-A125 265845			
		NZMH2-4-A125/0 265834		NZML2-4-A125/0 265846			
NZMN2-4-A160 265860		NZMH2-4-A160 265871		NZML2-4-A160 265882			
NZMN2-4-A160/100 265861		NZMH2-4-A160/100 265872		NZML2-4-A160/100 265883			
NZMN2-4-A160/0 265862		NZMH2-4-A160/0 265873		NZML2-4-A160/0 265884			
NZMN2-4-A200 265863		NZMH2-4-A200 265874		NZML2-4-A200 265885			
NZMN2-4-A200/125 265864		NZMH2-4-A200/125 265875		NZML2-4-A200/125 265886			
NZMN2-4-A200/0 265865		NZMH2-4-A200/0 265876		NZML2-4-A200/0 265887			
NZMN2-4-A250 265866		NZMH2-4-A250 265877		NZML2-4-A250 265888			
NZMN2-4-A250/160 265867		NZMH2-4-A250/160 265878		NZML2-4-A250/160 265889			
NZMN2-4-A250/0 265868		NZMH2-4-A250/0 265879		NZML2-4-A250/0 265890			

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	Rated current = rated uninterrupted current	Setting range		Short-circuit releases	Normal switching capacity 50 kA at 415 V 50/60 Hz Part no. Article no.	Price see price list
		Overload releases				
		Main pole	Neutral conductor			
		$I_n = I_u$ A	I_r A			
Protection of systems and cables						
4-pole						
Terminal screws standard, terminals as accessories						
	400	200 – 400	200 – 400	800 – 4400	NZMN3-4-AE400 265891	
	400	200 – 400	125 – 250	800 – 4400	NZMN3-4-AE400/250 265892	
	400	200 – 400	–	800 – 4400	NZMN3-4-AE400/0 265893	
	630	315 – 630	315 – 630	1260 – 5040	NZMN3-4-AE630 265894	
	630	315 – 630	200 – 400	1260 – 5040	NZMN3-4-AE630/400 265895	
	630	315 – 630	–	1260 – 5040	NZMN3-4-AE630/0 265896	
	800	400 – 800	400 – 800	1600 – 9600	NZMN4-4-AE800 265909	
	800	400 – 800	250 – 500	1600 – 9600	NZMN4-4-AE800/500 265910	
	800	400 – 800	–	1600 – 9600	NZMN4-4-AE800/0 265911	
	1000	500 – 1000	500 – 1000	2000 – 12000	NZMN4-4-AE1000 265912	
	1000	500 – 1000	315 – 630	2000 – 12000	NZMN4-4-AE1000/630 265913	
	1000	500 – 1000	–	2000 – 12000	NZMN4-4-AE1000/0 265914	
	1250	630 – 1250	630 – 1250	2500 – 15000	NZMN4-4-AE1250 265915	
	1250	630 – 1250	400 – 800	2500 – 15000	NZMN4-4-AE1250/800 265916	
	1250	630 – 1250	–	2500 – 15000	NZMN4-4-AE1250/0 265917	
	1600	800 – 1600	800 – 1600	3200 – 19200	NZMN4-4-AE1600 265918	
	1600	800 – 1600	500 – 1000	3200 – 19200	NZMN4-4-AE1600/1000 265919	
	1600	800 – 1600	–	3200 – 19200	NZMN4-4-AE1600/0 265920	

Notes Notes for terminals → 103

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High switching capacity 100 kA at 415 V 50/60 Hz Part no. Article no.	Price see price list	Limiter switching capacity ¹⁾ 150 kA at 415 V 50/60 Hz Part no. Article no.	Price see price list	Std. pack	Notes
NZMH3-4-AE400 265897		NZML3-4-AE400 265903		1 off	IEC/EN 60947-2 Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) Setting on neutral pole implemented via the main pole setting I_r of the main pole. R.m.s. value measurement and “thermal memory” Adjustable short-circuit release I_i • NZM...3-4-AE400: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • NZM...3-4-AE630: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • NZM...4-4-AE...: $2 - 12 \times I_n$ (ex-factory $6 \times I_n$) NZM...-4-AE... • With 100% overload and short-circuit protection in 4th pole NZM...-4-AE.../... • With 60% overload and short-circuit protection in 4th pole NZM...-4-AE.../0 • No overload and 100 % short-circuit protection in the 4th pole • Not for use in IT electrical power networks ¹⁾ For limiter switching capacity with NZML4-4-AE... the following applies: 100 kA
NZMH3-4-AE400/250 265898		NZML3-4-AE400/250 265904			
NZMH3-4-AE400/0 265899		NZML3-4-AE400/0 265905			
NZMH3-4-AE630 265900		NZML3-4-AE630 265906			
NZMH3-4-AE630/400 265901		NZML3-4-AE630/400 265907			
NZMH3-4-AE630/0 265902		NZML3-4-AE630/0 265908			
NZMH4-4-AE800 265921		NZML4-4-AE800 283221			
NZMH4-4-AE800/500 265922		NZML4-4-AE800/500 283222			
NZMH4-4-AE800/0 265923		NZML4-4-AE800/0 283223			
NZMH4-4-AE1000 265924		NZML4-4-AE1000 283224			
NZMH4-4-AE1000/630 265925		NZML4-4-AE1000/630 283225			
NZMH4-4-AE1000/0 265926		NZML4-4-AE1000/0 283226			
NZMH4-4-AE1250 265927		NZML4-4-AE1250 283227			
NZMH4-4-AE1250/800 265928		NZML4-4-AE1250/800 283228			
NZMH4-4-AE1250/0 265929		NZML4-4-AE1250/0 283229			
NZMH4-4-AE1600 265930		NZML4-4-AE1600 283230			
NZMH4-4-AE1600/1000 265931		NZML4-4-AE1600/1000 283231			
NZMH4-4-AE1600/0 265932		NZML4-4-AE1600/0 283232			

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						Normal switching capacity 50 kA at 415 V 50/60 Hz	
	Rated current = rated uninterrupted current $I_n = I_u$ A	Setting range		Short-circuit releases		Part no. Article no.	Price see price list
		Overload releases		Non-delayed			
		Main pole	Neutral conductor	Non-delayed	Delayed short- circuit release		
		I_r A	I_r A	I_i A	I_{sd} A		
Systems protection, cable protection, selectivity, generator protection							
4-pole							
Terminals standard, terminal screws as accessories							
	100	50 – 100	50 – 100	1200	100 – 1000	NZMN2-4-VE100 265933	
	100	50 – 100	–	1200	100 – 1000	NZMN2-4-VE100/0 265934	
	160	80 – 160	80 – 160	1920	160 – 1600	NZMN2-4-VE160 265935	
	160	80 – 160	50 – 100	1920	160 – 1600	NZMN2-4-VE160/100 265936	
	160	80 – 160	–	1920	160 – 1600	NZMN2-4-VE160/0 265937	
	250	125 – 250	125 – 250	3000	250 – 2500	NZMN2-4-VE250 265938	
	250	125 – 250	80 – 160	3000	250 – 2500	NZMN2-4-VE250/160 265939	
	250	125 – 250	–	3000	250 – 2500	NZMN2-4-VE250/0 265940	
	400	200 – 400	200 – 400	800 – 4400	400 – 4000	NZMN3-4-VE400 265957	
	400	200 – 400	125 – 250	800 – 4400	400 – 4000	NZMN3-4-VE400/250 265958	
	400	200 – 400	–	800 – 4400	400 – 4000	NZMN3-4-VE400/0 265959	
	630	315 – 630	315 – 630	1260 – 5040	472 – 4410	NZMN3-4-VE630 265960	
	630	315 – 630	200 – 400	1260 – 5040	472 – 4410	NZMN3-4-VE630/400 265961	
	630	315 – 630	–	1260 – 5040	472 – 4410	NZMN3-4-VE630/0 265962	
	800	400 – 800	400 – 800	1600 – 9600	800 – 8000	NZMN4-4-VE800 265975	
	800	400 – 800	250 – 500	1600 – 9600	800 – 8000	NZMN4-4-VE800/500 265976	
	800	400 – 800	–	1600 – 9600	800 – 8000	NZMN4-4-VE800/0 265977	
	1000	500 – 1000	500 – 1000	2000 – 12000	1000 – 10000	NZMN4-4-VE1000 265978	
	1000	500 – 1000	315 – 630	2000 – 12000	1000 – 10000	NZMN4-4-VE1000/630 265979	
	1000	500 – 1000	–	2000 – 12000	1000 – 10000	NZMN4-4-VE1000/0 265980	
	1250	630 – 1250	630 – 1250	2500 – 15000	1250 – 12500	NZMN4-4-VE1250 265981	
	1250	630 – 1250	400 – 800	2500 – 15000	1250 – 12500	NZMN4-4-VE1250/800 265982	
	1250	630 – 1250	–	2500 – 15000	1250 – 12500	NZMN4-4-VE1250/0 265983	
	1600	800 – 1600	800 – 1600	3200 – 19200	1600 – 16000	NZMN4-4-VE1600 265984	
	1600	800 – 1600	500 – 1000	3200 – 19200	1600 – 16000	NZMN4-4-VE1600/1000 265985	
	1600	800 – 1600	–	3200 – 19200	1600 – 16000	NZMN4-4-VE1600/0 265986	

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High switching capacity 100 kA at 415 V 50/60 Hz		Limiter switching capacity ¹⁾ 150 kA at 415 V 50/60 Hz		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-4-VE100 265941		NZML2-4-VE100 265949		1 off	IEC/EN 60947-2 Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) Setting on neutral pole implemented via the main pole setting I_r of the main pole. R.m.s. value measurement and "thermal memory" Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$ as well as infinity (without overload release) (ex-factory 10 s) – NZM...3-4-VE630: $2 - 14$ s With $6 \times I_r$ as well as infinity (without overload release) Adjustable delayed short-circuit releases I_{sd} • $2 - 10 \times I_r$ (ex-factory $6 \times I_r$) – NZM...3-4-VE630: $1.5 - 7 \times I_r$ (ex-factory $6 \times I_r$) Adjustable delay time t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (ex-factory 0 ms) Adjustable non-delayed short-circuit releases I_i • NZM2 fixed $12 \times I_n$ • NZM...3-4-VE400: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • NZM...3-4-VE630: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • NZM...4-4-VE...: $2 - 12 \times I_n$ (ex-factory $12 \times I_n$) i^2t constant function (ex-factory OFF) NZM2 fixed OFF NZM3, NZM4 switched (ex-factory OFF) NZM...-4-VE... • With 100% overload and short-circuit protection in 4th pole NZM...-4-VE.../... • With 60% overload and short-circuit protection in 4th pole NZM...-4-VE.../0 • No overload and 100 % short-circuit protection in the 4th pole • Not for use in IT electrical power networks ¹⁾ For limiter switching capacity with NZML4-4-VE... the following applies: 100 kA
NZMH2-4-VE100/0 265942		NZML2-4-VE100/0 265950			
NZMH2-4-VE160 265943		NZML2-4-VE160 265951			
NZMH2-4-VE160/100 265944		NZML2-4-VE160/100 265952			
NZMH2-4-VE160/0 265945		NZML2-4-VE160/0 265953			
NZMH2-4-VE250 265946		NZML2-4-VE250 265954			
NZMH2-4-VE250/160 265947		NZML2-4-VE250/160 265955			
NZMH2-4-VE250/0 265948		NZML2-4-VE250/0 265956			
NZMH3-4-VE400 265963		NZML3-4-VE400 265969			
NZMH3-4-VE400/250 265964		NZML3-4-VE400/250 265970			
NZMH3-4-VE400/0 265965		NZML3-4-VE400/0 265971			
NZMH3-4-VE630 265966		NZML3-4-VE630 265972			
NZMH3-4-VE630/400 265967		NZML3-4-VE630/400 265973			
NZMH3-4-VE630/0 265968		NZML3-4-VE630/0 265974			
NZMH4-4-VE800 265987		NZML4-4-VE800 283233			
NZMH4-4-VE800/500 265988		NZML4-4-VE800/500 283234			
NZMH4-4-VE800/0 265989		NZML4-4-VE800/0 283235			
NZMH4-4-VE1000 265990		NZML4-4-VE1000 283236			
NZMH4-4-VE1000/630 265991		NZML4-4-VE1000/630 283237			
NZMH4-4-VE1000/0 265992		NZML4-4-VE1000/0 283238			
NZMH4-4-VE1250 265993		NZML4-4-VE1250 283239			
NZMH4-4-VE1250/800 265994		NZML4-4-VE1250/800 283240			
NZMH4-4-VE1250/0 265995		NZML4-4-VE1250/0 283241			
NZMH4-4-VE1600 265996		NZML4-4-VE1600 283242			
NZMH4-4-VE1600/1000 265997		NZML4-4-VE1600/1000 283243			
NZMH4-4-VE1600/0 265998		NZML4-4-VE1600/0 283244			

	Rated current = rated uninterrupted current	Short-circuit protection max. fuse gL-characteristic	2 switch positions 1 , 0; cannot be tripped remotely.		3 switch positions 1 , +, 0 ; can be tripped remotely with undervoltage and shunt release.		Std. pack
			Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	
	$I_n = I_u$ A	A gL					
Switch-disconnectors							
3 pole							
Terminals standard, terminal screws as accessories							
	63	125	PN1-63 259140		N1-63 259143		1 off
	100	125	PN1-100 259141		N1-100 259144		
	125	125	PN1-125 259142		N1-125 259145		
	160	160	PN1-160 281235		N1-160 281236		
Terminal screws standard, terminals as accessories							
	160	250	PN2-160 266005		N2-160 266008		1 off
	200	250	PN2-200 266006		N2-200 266009		
	250	250	PN2-250 266007		N2-250 266010		
	400	630	PN3-400 266017		N3-400 266019		
	630	630	PN3-630 266018		N3-630 266020		
	800	1600			N4-800 266025		
	1000	1600			N4-1000 266026		
	1250	1600			N4-1250 266027		
	1600	1600			N4-1600 266028		

Notes

Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113

Isolating characteristics to IEC/EN 60947-3 and VDE 0660

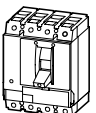
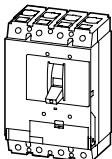
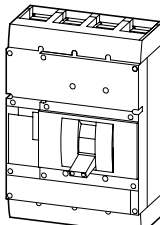
Protection against accidental contact according to IEC 100

With the switch-disconnector N additional voltage releases NZM...-XU, NZM...-XA and trip-indicating auxiliary contacts (HIA) can be used.

N2..., N3... and N4... can also be combined with the NZM...-XR... remote operator.

Notes for terminals → 95

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	Rated current = rated uninterrupted current	Short-circuit protection max. fuse gL-characteristic	2 switch positions I , 0; cannot be tripped remotely	3 switch positions I , +, 0 ; can be tripped remotely with undervoltage and shunt release.	
	$I_n = I_u$ A	A gL	Part no. Article no.	Part no. Article no.	Std. pack
Switch-disconnectors					
4 pole					
Terminals standard, terminal screws as accessories					
	63	125	PN1-4-63 265999	N1-4-63 266002	1 off
	100	125	PN1-4-100 266000	N1-4-100 266003	
	125	125	PN1-4-125 266001	N1-4-125 266004	
	160	160	PN1-4-160 281253	N1-4-160 281254	
Terminal screws standard, terminals as accessories					
	160	250	PN2-4-160 266011	N2-4-160 266014	1 off
	200	250	PN2-4-200 266012	N2-4-200 266015	
	250	250	PN2-4-250 266013	N2-4-250 266016	
	400	630	PN3-4-400 266021	N3-4-400 266023	
	630	630	PN3-4-630 266022	N3-4-630 266024	
	800	1600		N4-4-800 266029	
	1000	1600		N4-4-1000 266030	
	1250	1600		N4-4-1250 266031	
	1600	1600		N4-4-1600 266032	

Notes

Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113

Isolating characteristics to IEC/EN 60947-3 and VDE 0660

Protection against accidental contact according to IEC 100

With the switch-disconnector N additional voltage releases NZM...-XU, NZM...-XA and trip-indicating auxiliary contacts (HIA) can be used.

N2..., N3... and N4... can also be combined with the NZM...-XR... remote operator.

Notes for terminals → 95

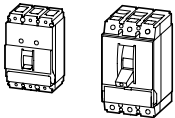
Moeller SK1230-1157GB-INT

Circuit-breakers

UL/CSA approved to UL 489, CSA 22.2 No. 5.1 and to 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 releases

Fixed

Adjustable

Without

I_u
A

I_u
A

I_r
A

I_u
A

NZM1

NZM2

NZM1

NZM2

NZM1

NZM2

15 – 125

15 – 250

20 – 125

20 – 250

$1.2 - 1 \times I_n$

1.2 – 100

1.6 – 200

Basic switching capacity¹⁾

NEMA Test Procedure	240 V 60 Hz	sym. rms kA	35	35				
	480 V 60 Hz	sym. rms kA	25 ²⁾	25				
	600 V 60 Hz	sym. rms kA	–	18				
IEC/EN 60947	400/415 V	kA/cos φ	25	0.25	25	0.25		
	440 V	kA/cos φ	25	0.25	25	0.25		
	525 V	kA/cos φ	15	0.30	15	0.30		

Normal switching capacity¹⁾

NEMA Test Procedure	240 V 60 Hz	sym. rms kA	85	85				
	480 V 60 Hz	sym. rms kA	35 ²⁾	35				
	600 V 60 Hz	sym. rms kA	–	25				
IEC/EN 60947	400/415 V	kA/cos φ	50	0.25	50	0.25		
	440 V	kA/cos φ	35	0.25	35	0.25		
	525 V	kA/cos φ	20	0.30	25	0.25		
	690 V	kA/cos φ	10	0.50	20	0.30		

High switching capacity¹⁾

NEMA Test Procedure	240 V 60 Hz	sym. rms kA		100				
	480 V 60 Hz	sym. rms kA		65				
	600 V 60 Hz	sym. rms kA		35				
IEC/EN 60947	400/415 V	kA/cos φ		100	0.20			
	440 V	kA/cos φ		65	0.20			
	525 V	kA/cos φ		40	0.25			
	690 V	kA/cos φ		20	0.30			

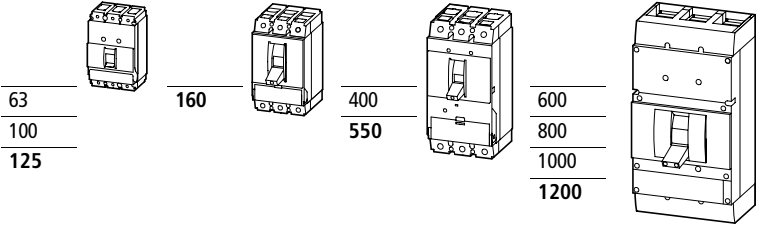
Limiter switching capacity¹⁾

NEMA Test Procedure	240 V 60 Hz	sym. rms kA		150				
	480 V 60 Hz	sym. rms kA		100				
	600 V 60 Hz	sym. rms kA		50				
IEC/EN 60947	400/415 V	kA/cos φ		150	0.20			
	440 V	kA/cos φ		130	0.20			
	525 V	kA/cos φ		50	0.25			
	690 V	kA/cos φ		20	0.30			

Notes
¹⁾ Breakers conform to UL/CSA as well as the IEC regulations
IEC switching performance values are contained on the rating plate. → Technical data
²⁾ for NZM...1-...-NA > 50 A 480Y/277V

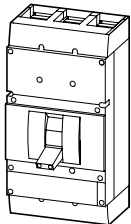
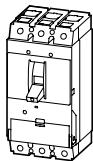
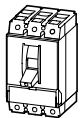
Switch-disconnector:
UL/CSA approved to UL 489, CSA 22.2 No. 5.1 and to IEC/EN 60947

With main switch characteristics to IEC/EN 60204 and VDE 0113
isolating characteristics to IEC/EN 60947-3 and VDE 0660.
without overload and short-circuit releases
Rated uninterrupted current $I_u = I_n$



		N1-...-NA	N2-...-NA	N3-...-NA	N4-...-NA
Rated short-circuit making capacity I_{cm}	kA	2.8	5.5	25	53
Rated short-time withstand current I_{cw} (1s current _{rms})	kA	2	3,5	12	25

Moeller SK1230-1157GB-INT



Electronic releases

Overload releases

Fixed

Adjustable

Without

Fixed

Adjustable

Without

Fixed

Adjustable

Short-circuit releases

System protection

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

$0.5 - 1 \times I_n$

90 – 220

250 – 600

250 – 600

$0.5 - 1 \times I_n$

220 – 450

600 – 1200

800 – 1200

$0.5 - 1 \times I_n$

$2 - 10 \times I_r$

$2 - 12 \times I_n$

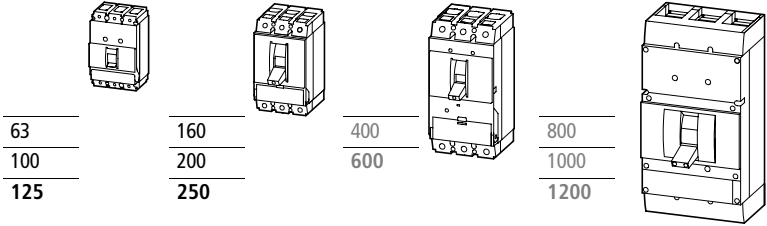
$2 - 14 \times I_n$

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		
100			100			100		
65			65			65		
35			42			42		
100	0.20		100	0.20		100	0.20	
65	0.20		65	0.20		65	0.20	
40	0.25		45	0.25		40	0.25	
20	0.30		25	0.30		35	0.30	
NZML2-...E...-NA			NZML3-...E...-NA			NZML4-...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	

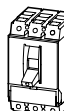
The approved switches are suitable for world-wide use. The UL and CSA certificates can be found at www.ul.com and www.csa.com
UL Certificates: file no.: E 31593 (NZM1-4), E 148671 (N(S)1-4)
CSA certificates: file no. 165628 (NZM1-4)

Molded case switch
UL/CSA approved to UL 489, CSA 22.2 No. 5.1 and to IEC/EN 60947-2, Annex L

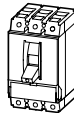
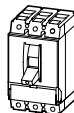
With main switch characteristics to IEC/EN 60204 and VDE 0113
isolating characteristics to IEC/EN 60947
without overcurrent protection
Rated uninterrupted current $I_u = I_n$
Values printed in grey available on request



		NS1-...-NA	NS2-...-NA
Switching capacity to UL 489, CSA 22.2 No. 5.1	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	10	20

Moeller SK1230-1157GB-INT							
			Basic switching capacity 35 kA 240 V 25 kA 480 V ⁽¹⁾ 18 kA 600 V ⁽²⁾		Normal switching capacity 85 kA 240 V 35 kA 480 V ⁽¹⁾ 25 kA 600 V ⁽²⁾		
Rated current = rated uninterrupted current		Setting range		Part no.		Price	
		Overload releases		Article no.		see price list	
$I_n = I_u$		I_r		I_i			
A		A		A			
Protection of systems and cables							
3-pole							
Fixed overload releases Terminals standard terminal screw 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		NZMN1-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	
Terminal screws standard 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	

[illegible]

Moeller SK1230-1157GB-INT						
			Basic switching capacity 35 kA 240 V 25 kA 480 V ¹⁾ 18 kA 600 V ²⁾		Normal switching capacity 85 kA 240 V 35 kA 480 V ¹⁾ 25 kA 600 V ²⁾	
Rated current = rated uninterrupted current	Setting range Overload releases	Short-circuit releases	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list
$I_n = I_u$ A	I_r A	I_i A				
Protection of systems and cables						
3-pole						
Fixed overload releases Terminal screws standard terminals as accessories						
	110	110	750 – 1250	NZMB2-AF110-NA 269165	NZMN2-AF110-NA 269183	
	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	
Adjustable overload releases Terminals standard terminal screw as accessories						
	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	
Adjustable overload releases Terminal screws standard terminals as accessories						
	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	

Moeller SK1230-1157GB-INT					
High switching capacity 100 kA 240 V 65 kA 480 V 35 kA 600 V		Limiter switching capacity 150 kA 240 V 100 kA 480 V 50 kA 600 V		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-AF110-NA 269201		NZML2-AF110-NA 102521		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r Adjustable short-circuit release I_i • Approx. $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...-AF35/40-NA: approx. $8 - 10 \times I_n$ Fixed short-circuit releases I_i • 350 A at $I_n = 15 - 30$ A 2) For basic switching capacity 18 kA 600 V and normal switching capacity 25 kA 600 V the following applies: for NZM2.
NZMH2-AF125-NA 269202		NZML2-AF125-NA 102522			
NZMH2-AF150-NA 269203		NZML2-AF150-NA 102523			
NZMH2-AF175-NA 269204		NZML2-AF175-NA 102524			
NZMH2-AF200-NA 269205		NZML2-AF200-NA 102525			
NZMH2-AF225-NA 271103		NZML2-AF225-NA 102526			
NZMH2-AF250-NA 271104		NZML2-AF250-NA 102527			
				1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, calibration to UL 508, CSA-C22.2-5.1, IEC/EN 60947-2 Use in motor control circuits only in conjunction with a suitable contactor. Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) Adjustable short-circuit release I_i • $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...-A40-NA: $8 - 10 \times I_n$ Fixed short-circuit releases I_i • 350 A with $I_n = 20 - 32$ A 1) For basic switching capacity 25 kA 480 V and normal switching capacity 35 kA 480 V the following applies: for NZM...-1...-NA: 480Y/277 V AC from 60 A.
NZMH2-A20-NA 269228		NZML2-A20-NA 102528		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, calibration to UL 508, CSA-C22.2-5.1, IEC/EN 60947-2 Use in motor control circuits only in conjunction with a suitable contactor. Adjustable overload release I_r • $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) Adjustable short-circuit release I_i • $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) – NZM...-A40-NA: $8 - 10 \times I_n$ Fixed short-circuit releases I_i • 350 A with $I_n = 20 - 32$ A 2) For basic switching capacity 18 kA 600 V and normal switching capacity 25 kA 600 V the following applies: for NZM2.
NZMH2-A25-NA 269229		NZML2-A25-NA 102529			
NZMH2-A32-NA 269230		NZML2-A32-NA 102530			
NZMH2-A40-NA 269231		NZML2-A40-NA 102531			
NZMH2-A50-NA 269232		NZML2-A50-NA 102532			
NZMH2-A63-NA 269233		NZML2-A63-NA 102533			
NZMH2-A80-NA 269234		NZML2-A80-NA 102534			
NZMH2-A100-NA 269235		NZML2-A100-NA 102535			
NZMH2-A125-NA 269236		NZML2-A125-NA 102536			
NZMH2-A160-NA 269237		NZML2-A160-NA 102537			
NZMH2-A200-NA 269238		NZML2-A200-NA 102538			
NZMH2-A250-NA 271107		NZML2-A250-NA 102539			

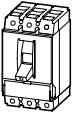
Moeller SK1230-1157GB-INT							
Rated current = rated uninterrupted current		Setting range Short-circuit releases	Basic switching capacity 480 V ¹⁾	Normal switching capacity 480 V ¹⁾	Std. pack		
$I_n = I_u$ A		I_i A 	Part no. Article no.	Price see price list	Part no. Article no.	Price see price list	
Short-circuit protection							
Motor protection in conjunction with contactor and overload relay							
• With short-circuit release • Without overload release							
3 pole							
Terminals standard terminal screw as accessories							
	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		
	3	19.2 – 33.6	NZMB1-S3-CNA 102908		NZMN1-S3-CNA 103027		
	5	32 – 56	NZMB1-S5-CNA 102909		NZMN1-S5-CNA 103028		
	8	48 – 84	NZMB1-S8-CNA 103020		NZMN1-S8-CNA 103029		
	12	80 – 140	NZMB1-S12-CNA 103021		NZMN1-S12-CNA 103030		
	18	128 – 224	NZMB1-S18-CNA 103022		NZMN1-S18-CNA 103031		
	26	200 – 350	NZMB1-S26-CNA 103023		NZMN1-S26-CNA 103032		
	33	256 – 448	NZMB1-S33-CNA 103024		NZMN1-S33-CNA 103033		
	40	320 – 560	NZMB1-S40-CNA 281263		NZMN1-S40-CNA 281276		
	50	400 – 700	NZMB1-S50-CNA 281264		NZMN1-S50-CNA 281277		
	63	504 – 882	NZMB1-S63-CNA 281265		NZMN1-S63-CNA 281278		
	80	640 – 1120	NZMB1-S80-CNA 281266		NZMN1-S80-CNA 281279		
	100	800 – 1250	NZMB1-S100-CNA 281267		NZMN1-S100-CNA 281280		

Notes

Notes for terminals → 95

Moeller SK1230-1157GB-INT	
Notes	
Switches conform to UL/CSA as well as the IEC regulations. 40 IEC switching performance values from 40 A are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-4-1 Adjustable short-circuit release I_i • $8 - 14 \times I_n$ (ex-factory $12 \times I_n$) – NZM...1-S1,2 – 33-CNA: approx. $8 - 14 \times I_n$ – NZM...1-S100-CNA: $8 - 12.5 \times I_n$ (ex-factory $12 \times I_n$) Without overload release I_r  CNA: The device has components approved to UL, the conditions of approval must be observed during use. i.e. the device must be combined with a suitable contactor and overload relay. A switching capacity is stated for the complete motor-starter combination. The device is approved as a CSA approved single device. ¹⁾ 480 Y/277 V AC from 60 A.	

Moeller SK1230-1157GB-INT

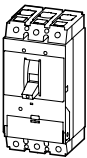
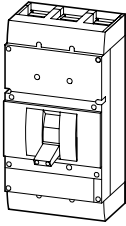
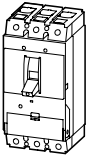
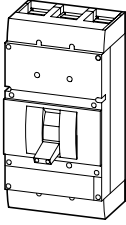
			Basic switching capacity 480 V 600 V		Normal switching capacity 480 V 600 V	
Rated current = rated uninterrupted current			Part no. Article no.	Price see price list	Part no. Article no.	Price see price list
Setting range						
Short-circuit releases						
$I_n = I_u$ A			I_i A 			
Short-circuit protection						
Motor protection in conjunction with contactor and overload relay						
• With short-circuit release						
• Without overload release						
3 pole						
Terminal screws standard terminals as accessories						
	1.6	12.8 – 22.4	NZMB2-S1,6-CNA 269472		NZMN2-S1,6-CNA 269478	
	2.4	19.2 – 33.6	NZMB2-S2,4-CNA 269473		NZMN2-S2,4-CNA 269479	
	5	32 – 56	NZMB2-S5-CNA 103034		NZMN2-S5-CNA 103040	
	8	48 – 84	NZMB2-S8-CNA 103035		NZMN2-S8-CNA 103041	
	12	80 – 140	NZMB2-S12-CNA 103036		NZMN2-S12-CNA 103042	
	18	128 – 224	NZMB2-S18-CNA 103037		NZMN2-S18-CNA 103043	
	26	200 – 350	NZMB2-S26-CNA 103038		NZMN2-S26-CNA 103044	
	33	256 – 448	NZMB2-S33-CNA 103039		NZMN2-S33-CNA 103045	
	40	320 – 560	NZMB2-S40-CNA 269243		NZMN2-S40-CNA 269255	
	50	400 – 700	NZMB2-S50-CNA 269244		NZMN2-S50-CNA 269256	
	63	504 – 882	NZMB2-S63-CNA 269245		NZMN2-S63-CNA 269257	
	80	640 – 1120	NZMB2-S80-CNA 269246		NZMN2-S80-CNA 269258	
	100	800 – 1400	NZMB2-S100-CNA 269247		NZMN2-S100-CNA 269259	
	125	1000 – 1750	NZMB2-S125-CNA 269248		NZMN2-S125-CNA 269260	
	160	1280 – 2240	NZMB2-S160-CNA 269249		NZMN2-S160-CNA 269261	
	200	1600 – 2500	NZMB2-S200-CNA 269250		NZMN2-S200-CNA 269262	
	250	2000 – 2500	NZMB2-S250-CNA 102478		NZMN2-S250-CNA 102479	

Notes Notes for terminals → 99

Moeller SK1230-1157GB-INT

High switching capacity 480 V 600 V		Limiter switching capacity 480 V 600 V		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-S1,6-CNA 269482		NZML2-S1,6-CNA 102491		1 off	Switches conform to UL/CSA as well as the IEC regulations. 40 IEC switching performance values from 40 A are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-4-1 • NZM...2-S250-CNA: IEC/EN 60947-2 Adjustable short-circuit release I_i • $8 - 14 \times I_n$ (ex-factory $12 \times I_n$) – NZM...2-S5 – 33-CNA: approx. $6 - 10 \times I_n$ (ex-factory $10 \times I_n$) – NZM...2-S250-CNA: $8 - 10 \times I_n$ (ex-factory $10 \times I_n$) Without overload release I_r  CNA: The device has components approved to UL, the conditions of approval must be observed during use. i.e. the device must be combined with a suitable contactor and overload relay. A switching capacity is stated for the complete motor-starter combination. The device is approved as a CSA approved single device.
NZMH2-S2,4-CNA 269483		NZML2-S2,4-CNA 102492			
NZMH2-S5-CNA 103046		NZML2-S5-CNA 103052			
NZMH2-S8-CNA 103047		NZML2-S8-CNA 103053			
NZMH2-S12-CNA 103048		NZML2-S12-CNA 103054			
NZMH2-S18-CNA 103049		NZML2-S18-CNA 103055			
NZMH2-S26-CNA 103050		NZML2-S26-CNA 103056			
NZMH2-S33-CNA 103051		NZML2-S33-CNA 103057			
NZMH2-S40-CNA 269267		NZML2-S40-CNA 102499			
NZMH2-S50-CNA 269268		NZML2-S50-CNA 102500			
NZMH2-S63-CNA 269269		NZML2-S63-CNA 102501			
NZMH2-S80-CNA 269270		NZML2-S80-CNA 102502			
NZMH2-S100-CNA 269271		NZML2-S100-CNA 102503			
NZMH2-S125-CNA 269272		NZML2-S125-CNA 102504			
NZMH2-S160-CNA 269273		NZML2-S160-CNA 102505			
NZMH2-S200-CNA 269274		NZML2-S200-CNA 102506			
NZMH2-S250-CNA 102490		NZML2-S250-CNA 102507			

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				Normal switching capacity 85 kA 240 V 42 kA 480 V 35 kA 600 V	
	Rated current = rated uninterrupted current	Setting range Overload releases	Short-circuit releases	Part no. Article no.	Price see price list
	$I_n = I_u$ A	I_r A 	Non-delayed I_i A 		
Protection of systems and cables					
3 pole					
Fixed overload releases Terminal screws standard terminals as accessories					
	250	250	500 – 2750	NZMN3-AEF250-NA 269275	
	300	300	600 – 3300	NZMN3-AEF300-NA 269276	
	350	350	700 – 3850	NZMN3-AEF350-NA 269277	
	400	400	800 – 4400	NZMN3-AEF400-NA 269278	
	450	450	900 – 3600	NZMN3-AEF450-NA 269279	
	500	500	1000 – 4000	NZMN3-AEF500-NA 269280	
	550	550	1100 – 4400	NZMN3-AEF550-NA 269281	
	600	600	1200 – 4800	NZMN3-AEF600-NA 269282	
	600	600	1200 – 7200	NZMN4-AEF600-NA 271108	
	700	700	1400 – 8400	NZMN4-AEF700-NA 271109	
	800	800	1600 – 9600	NZMN4-AEF800-NA 271110	
	900	900	1800 – 10800	NZMN4-AEF900-NA 271111	
	1000	1000	2000 – 12000	NZMN4-AEF1000-NA 271112	
	1200	1200	2400 – 14400	NZMN4-AEF1200-NA 271113	
3 pole					
Adjustable overload releases Terminal screws standard terminals as accessories					
	250	125 – 250	500 – 2750	NZMN3-AE250-NA 269299	
	400	200 – 400	800 – 4400	NZMN3-AE400-NA 269300	
	600	300 – 600	1200 – 4800	NZMN3-AE600-NA 269301	
	800	400 – 800	1600 – 9600	NZMN4-AE800-NA 271120	
	1000	500 – 1000	2000 – 12000	NZMN4-AE1000-NA 271121	
	1200	600 – 1200	2400 – 14400	NZMN4-AE1200-NA 271122	

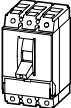
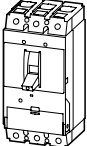
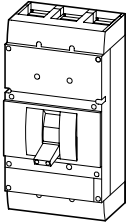
Notes

Notes for terminals → 99

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High switching capacity 100 kA 240 V 65 kA 480 V 42 kA 600 V		Limiter switching capacity 125 kA/150 kA 240 V 100 kA 480 V ¹⁾ 50 kA 600 V		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH3-AEF250-NA 269283		NZML3-AEF250-NA 269291		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r R.m.s. value measurement and “thermal memory” Adjustable short-circuit release I_i • With NZM...3-AEF250...400-NA: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • With NZM...3-AEF450...600-NA: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • With NZM...4-AEF...-NA: $2 - 12 \times I_n$ (ex-factory $6 \times I_n$) ¹⁾ For limiter switching capacity with NZML4, the following applies: 85 kA/480 V
NZMH3-AEF300-NA 269284		NZML3-AEF300-NA 269292			
NZMH3-AEF350-NA 269285		NZML3-AEF350-NA 269293			
NZMH3-AEF400-NA 269286		NZML3-AEF400-NA 269294			
NZMH3-AEF450-NA 269287		NZML3-AEF450-NA 269295			
NZMH3-AEF500-NA 269288		NZML3-AEF500-NA 269296			
NZMH3-AEF550-NA 269289		NZML3-AEF550-NA 269297			
NZMH3-AEF600-NA 269290		NZML3-AEF600-NA 269298			
NZMH4-AEF600-NA 271114		NZML4-AEF600-NA 271092			
NZMH4-AEF700-NA 271115		NZML4-AEF700-NA 271093			
NZMH4-AEF800-NA 271116		NZML4-AEF800-NA 271094			
NZMH4-AEF900-NA 271117		NZML4-AEF900-NA 271095			
NZMH4-AEF1000-NA 271118		NZML4-AEF1000-NA 271096			
NZMH4-AEF1200-NA 271119		NZML4-AEF1200-NA 271097			
NZMH3-AE250-NA 269302		NZML3-AE250-NA 269305		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Use in motor control circuits only in conjunction with a suitable contactor. Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) R.m.s. value measurement and “thermal memory” Adjustable short-circuit release I_i • With NZM...3-AE250/400-NA: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • With NZM...3-AE600-NA: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • With NZM...4-AE...-NA: $2 - 12 \times I_n$ (ex-factory $6 \times I_n$) ¹⁾ For limiter switching capacity with NZML4, the following applies: 85 kA/480 V
NZMH3-AE400-NA 269303		NZML3-AE400-NA 269306			
NZMH3-AE600-NA 269304		NZML3-AE600-NA 269307			
NZMH4-AE800-NA 271123		NZML4-AE800-NA 271098			
NZMH4-AE1000-NA 271124		NZML4-AE1000-NA 271099			
NZMH4-AE1200-NA 271125		NZML4-AE1200-NA 271210			

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	Rated current = rated uninterrupted current	Setting range Overload releases	Short-circuit releases		Normal switching capacity 42 kA 480 V ¹⁾ 35 kA 600 V ²⁾	Part no. Article no.	Price see price list
			Non-delayed	Delayed			
			I_i A	I_{sd} A			
	$I_n = I_u$ A	I_r A					
Systems, cable, transformer and generator protection							
3 pole							
Fixed overload releases Terminal screws standard, 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	NZMN2-VEF200-NA 271128		
	225	225	2700	450 – 2250	NZMN2-VEF225-NA 271129		
	250	250	3000	500 – 2500	NZMN2-VEF250-NA 271130		
	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		
	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		

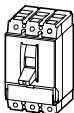
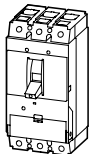
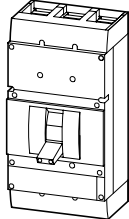
Notes

Notes for terminals → 99

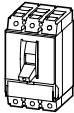
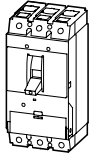
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High switching capacity 65 kA 480 V 42 kA 600 V ³⁾	Price see price list	Limiter switching capacity 100 kA 480 V ⁴⁾ 50 kA 600 V	Price see price list	Std. pack	Notes
NZMH2-VEF150-NA 271131		NZML2-VEF150-NA 271211		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Fixed overload releases I_r R.m.s. value measurement and 'thermal memory' Adjustable time delay setting to overcome current peaks t_r • 2 – 20 s with $6 \times I_r$ (ex-factory 10 s) Adjustable delayed short-circuit releases I_{sd} • 2 – 10 $\times I_r$ (ex-factory $6 \times I_r$) – NZM...3-VEF450...600-NA: 1.5 – 7 $\times I_r$ (ex-factory 6 x I_r) Adjustable delay time t_{sd} • Steps 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (ex-factory 0 ms) Adjustable non-delayed short-circuit releases I_i • NZM2 fixed 12 $\times I_n$ • NZM...3-VEF250...400-NA: 2 – 11 $\times I_n$ (ex-factory 11 $\times I_n$) • NZM...3-VEF450...600-NA: 2 – 8 $\times I_n$ (ex-factory 8 $\times I_n$) • NZM...4-VEF...-NA: 2 – 12 $\times I_n$ (ex-factory 12 $\times I_n$) i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switched (ex-factory OFF) ¹⁾ For normal switching capacity with NZMN2-...-NA, the following applies: 35 kA/480 V ²⁾ For normal switching capacity with NZMN2-...-NA, the following applies: 25 kA/600 V ³⁾ For high switching capacity with NZMH2-...-NA, the following applies: 35 kA/600 V ⁴⁾ For limiter switching capacity with NZML4-...-NA, the following applies: 85 kA/480 V
NZMH2-VEF175-NA 271132		NZML2-VEF175-NA 271212			
NZMH2-VEF200-NA 271133		NZML2-VEF200-NA 271213			
NZMH2-VEF225-NA 271134		NZML2-VEF225-NA 271214			
NZMH2-VEF250-NA 271135		NZML2-VEF250-NA 271215			
NZMH3-VEF250-NA 269316		NZML3-VEF250-NA 269324			
NZMH3-VEF300-NA 269317		NZML3-VEF300-NA 269325			
NZMH3-VEF350-NA 269318		NZML3-VEF350-NA 269326			
NZMH3-VEF400-NA 269319		NZML3-VEF400-NA 269327			
NZMH3-VEF450-NA 269320		NZML3-VEF450-NA 269328			
NZMH3-VEF500-NA 269321		NZML3-VEF500-NA 269329			
NZMH3-VEF550-NA 269322		NZML3-VEF550-NA 269330			
NZMH3-VEF600-NA 269323		NZML3-VEF600-NA 269331			
NZMH4-VEF600-NA 271142		NZML4-VEF600-NA 271222			
NZMH4-VEF700-NA 271143		NZML4-VEF700-NA 271223			
NZMH4-VEF800-NA 271144		NZML4-VEF800-NA 271224			
NZMH4-VEF900-NA 271145		NZML4-VEF900-NA 271225			
NZMH4-VEF1000-NA 271146		NZML4-VEF1000-NA 271226			
NZMH4-VEF1200-NA 271147		NZML4-VEF1200-NA 271227			

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					Normal switching capacity 42 kA 480 V ¹⁾ 35 kA 600 V ²⁾	Part no. Article no.	Price see price list
Rated current = rated uninterrupted current	Setting range Overload releases	Short-circuit releases					
		Non-delayed	Delayed				
$I_n = I_u$ A	I_r A	I_i A	I_{sd} A				
Systems, cable, transformer and generator protection							
3 pole							
Adjustable overload releases Terminal screws standard 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	NZMN2-VE250-NA 271150		
	250	125 – 250	500 – 2750	250 – 2500	NZMN3-VE250-NA 269332		
	400	200 – 400	800 – 4400	400 – 4000	NZMN3-VE400-NA 269333		
	600	300 – 600	1200 – 4800	450 – 4200	NZMN3-VE600-NA 269334		
	800	400 – 800	1600 – 9600	800 – 8000	NZMN4-VE800-NA 271154		
	1000	500 – 1000	2000 – 12000	1000 – 10000	NZMN4-VE1000-NA 271155		
	1200	630 – 1200	2400 – 14400	1260 – 12000	NZMN4-VE1200-NA 271156		

Notes Notes for terminals → 99

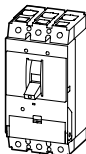
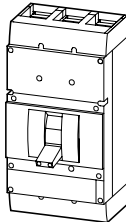
Rated current = rated uninterrupted current			Setting range Short-circuit releases	Normal switching capacity 480 V 600 V	Price see price list
$I_n = I_u$ A		I_i A	Part no. Article no.		
Short-circuit protection					
Motor protection in conjunction with contactor and overload relay					
• With short-circuit release • Without overload release					
3 pole					
Terminal screws standard terminals as accessories					
	90	180 – 1260	NZMN2-SE90-CNA 271160		
	140	280 – 1960	NZMN2-SE140-CNA 271161		
	220	440 – 3080	NZMN2-SE220-CNA 271162		
	220	440 – 3080	NZMN3-SE220-CNA 269341		
	350	700 – 4900	NZMN3-SE350-CNA 269342		
	450	900 – 6300	NZMN3-SE450-CNA 284465		

Notes Notes for terminals → 99

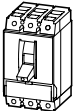
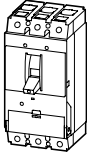
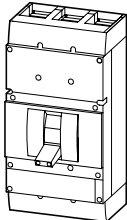
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High switching capacity 65 kA 480 V 42 kA 600 V ³⁾		Limiter switching capacity 100 kA 480 V ⁴⁾ 50 kA 600 V		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-VE100-NA 271151		NZML2-VE100-NA 271216		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2 Use in motor control circuits only in conjunction with a suitable contactor. Adjustable overload release I_r • $0.5 - 1 \times I_n$ R.m.s. value measurement and “thermal memory” Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$ (ex-factory 10 s) Adjustable delayed short-circuit releases I_{sd} • $2 - 10 \times I_r$ (ex-factory $6 \times I_r$) – NZM...3-VE600-NA: $1.5 - 7 \times I_r$ (ex-factory $6 \times I_r$) Adjustable delay time t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (ex-factory 0 ms) Adjustable non-delayed short-circuit releases I_i • NZM2 fixed $12 \times I_n$ • NZM...3-VE250/400-NA: $2 - 11 \times I_n$ (ex-factory $11 \times I_n$) • NZM...3-VE600-NA: $2 - 8 \times I_r$ (ex-factory $8 \times I_n$) • NZM...4-VE...-NA: $2 - 12 \times I_n$ (ex-factory $12 \times I_n$) i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switched (ex-factory OFF) ¹⁾ For normal switching capacity with NZMN2-...-NA: 35 kA/480 V ²⁾ For normal switching capacity with NZMN2-...-NA: 25 kA/600 V ³⁾ For high switching capacity with NZMH2-...-NA: 35 kA/600 V ⁴⁾ For limiter switching capacity with NZML4-...-NA: 85 kA/480 V
NZMH2-VE160-NA 271152		NZML2-VE160-NA 271217			
NZMH2-VE250-NA 271153		NZML2-VE250-NA 271218			
NZMH3-VE250-NA 269335		NZML3-VE250-NA 269338			
NZMH3-VE400-NA 269336		NZML3-VE400-NA 269339			
NZMH3-VE600-NA 269337		NZML3-VE600-NA 269340			
NZMH4-VE800-NA 271157		NZML4-VE800-NA 271219			
NZMH4-VE1000-NA 271158		NZML4-VE1000-NA 271220			
NZMH4-VE1200-NA 271159		NZML4-VE1200-NA 271221			

High switching capacity 480 V 600 V		Limiter switching capacity 480 V 600 V		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
NZMH2-SE90-CNA 271163		NZML2-SE90-CNA 271228		1 off	Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. UL 489, CSA-C22.2-5.1, IEC/EN 60947-2and IEC/EN 60947-4 Adjustable short-circuit release I_i • 2 – 14 × I_n (ex-factory 12 × I_n) Without overload release I_r  CNA: The device has components approved to UL, the conditions of approval must be observed during use. i.e. the device must be combined with a suitable contactor and overload relay. A switching capacity is stated for the complete motor-starter combination. The device is approved as a CSA approved single device.
NZMH2-SE140-CNA 271164		NZML2-SE140-CNA 271229			
NZMH2-SE220-CNA 271165		NZML2-SE220-CNA 271230			
NZMH3-SE220-CNA 269343		NZML3-SE220-CNA 269345			
NZMH3-SE350-CNA 269344		NZML3-SE350-CNA 269346			
NZMH3-SE450-CNA 284466		NZML3-SE450-CNA 284467			

					3 switch positions I, + , 0 ; can be tripped remotely with shunt/under voltage release			
	Rated current = rated uninterrupted current	Switching capacity		Response range of the short-circuit releases	Part no. Article no.	Price see price list	Std. pack Notes	
	$I_n = I_u$ A	At 480 V kA	At 600 V kA	I_f A				
Molded case switches								
These switches are recommended especially as incoming circuit-breakers for the North American market.								
3 pole								
Terminals standard terminal screw as accessories								
	63	35	–	1250	NS1-63-NA 102681		1 off Switches feature a fixed short-circuit release (self-protection) and comply to UL 489/CSA 22.2 No 5.1 regulations. Furthermore the switches are tested to IEC/EN 60947-2 as circuit-breakers without overcurrent protection (CBI-X) with main switch characteristics to IEC/EN 60204 and isolating characteristics to IEC 60947.	
	100	35	–	1250	NS1-100-NA 102682			
	125	35	–	1250	NS1-125-NA 102683			
Terminal screws standard terminals as accessories								
	160	100	50	2500	NS2-160-NA 102684		1 off Switches feature a fixed short-circuit release (self-protection) and comply to UL 489/CSA 22.2 No 5.1 regulations. Furthermore the switches are tested to IEC/EN 60947-2 as circuit-breakers without overcurrent protection (CBI-X) with main switch characteristics to IEC/EN 60204 and isolating characteristics to IEC 60947.	
	200	100	50	2500	NS2-200-NA 102685			
	250	100	50	2500	NS2-250-NA 102686			
	400	100	50	4800	NS3-400-NA 102687			
	600	100	50	4800	NS3-600-NA 102688			
	800	100	50	14400	NS4-800-NA ¹⁾ 102689			
	1000	100	50	14400	NS4-1000-NA ¹⁾ 102690			
	1200	100	50	14400	NS4-1200-NA ¹⁾ 102691			
Notes								
1) on request								
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NS2, NS3 and NS4 can be combined with remote operator NZM...-XR... Voltage releases U/A and trip-indicating auxiliary contacts can be used.								

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	Rated current = rated uninterrupted current	Short-circuit protection, max. gG/gL fuse ¹⁾	Short-circuit protection max. fuse OTS characteristic	Short-circuit rating with OTS fuse		Part no. Article no.	Price see price list	Std. pack
	$I_n = I_u$			At 480 V:	At 600 V:			
	A	A	A	kA	kA			
Switch-disconnector								
3 pole								
Terminals standard, terminal screws as accessories								
	63	125	150	10	–	N1-63-NA 272259		1 off
	100	125	150	10	–	N1-100-NA 272260		
	125	125	150	10	–	N1-125-NA 272261		
Terminal screws standard terminals as accessories								
	160	250	225	10	10	N2-160-NA 271166		1 off
	400	630	– 2)	14	14	N3-400-NA 271169		
	550	630	– 2)	14	14	N3-550-NA 293635		
	600	1600	– 2)	25	25	N4-600-NA 292386		
	800	1600	– 2)	25	25	N4-800-NA 271171		
	1000	1600	– 2)	25	25	N4-1000-NA 271172		
	1200	1600	– 2)	25	25	N4-1200-NA 271173		

Notes

Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113.
Isolating characteristics to IEC/EN 60947-3 and VDE 0660.
Protection against accidental contact according to IEC.
Undervoltage and shunt releases and HIA trip-indicating auxiliary contacts can be used in addition with N switch-disconnectors.
N2..., N3... and N4... can also be combined with the NZM...-XR... remote operator.
Switches conform to UL 489/CSA 22.2 No. 5.1 as well as to the IEC regulations.

Rated current ranges 200 A and 250 A are covered by the molded case switches NS2-200-NA or NS2-250-NA.

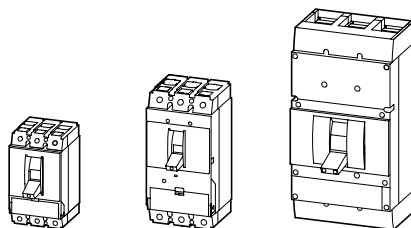
Notes for terminals → 95

¹⁾ for use when using a switch-disconnector to EN 60947-3.

²⁾ for use when using a switch-disconnector to N3...-NA and N4...-NA without protective device to UL 1087, CSA 22.2 No 5.2.

**Circuit-breakers,
3 pole**

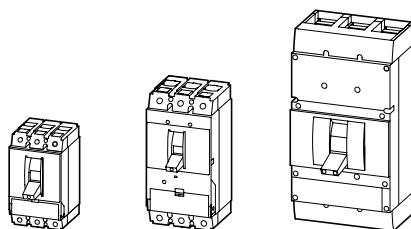
With main switch characteristics to IEC/EN 60204
and isolating characteristics to IEC/EN 60947, VDE 0660

**Protection of systems and cables****Selectively-opening circuit-breakers****Motor protection****Switching capacity**

1000 V	kA/cos φ	I_{cu}	3/0.5	10/0.5	20/0.3	3/0.5	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
Ambient temperature at 100 % I_u min./max. -25/+50 °C			A	A	A	A	A	A	A
			NZMH2-A...-S1	NZMN3-AE...-S1	NZMH4-AE...-S1	NZMH2-VE...-S1	NZMH4-VE...-S1	NZMN3-ME...-S1	NZMH4-ME...-S1
			20	250	630	100	630	220	550
			25	400	800	160	800	350	875
			32	630	1000	250	1000	450	1400
			40		1250		1250		
			50		1600		1600		
			63						
			80						
			100						
			125						
			160						
			200						
			250						

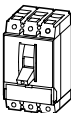
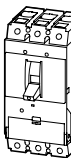
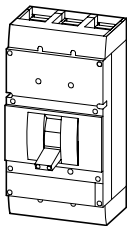
**Switch-disconnectors,
3 pole**

With main switch characteristics to IEC/EN 60204 and VDE 0113
and isolating characteristics to IEC/EN 60947, VDE 660
without overload and short-circuit release



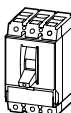
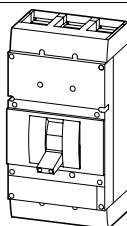
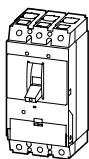
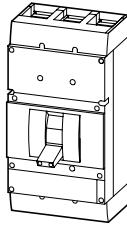
Rated uninterrupted current I_u = rated current I_n		I_u	I_u	I_u
Ambient temperature at 100% I_u min./max. -25/+50 °C		A	A	A
		N2-...-S1	N3-...-S1	N4-...-S1
		160	400	800
		200	630	1000
		250		1250
				1600
Rated short-circuit making capacity I_{cm}	kA	5.5	25	53
Rated short-time withstand current I_{cw} (1s current _{rms})	kA	3.5	12	25

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	Rated current = rated uninterrupted current $I_n = I_u$ A	Setting range		Part no. Article no.	Price see price list	Std. pack	Notes
		Overload releases I_r A 	Short-circuit releases I_{rm} A 				
Protection of systems and cables							
3 pole							
Terminal screws standard terminals as accessories							
	20	15 – 20	350	NZMH2-A20-S1 290355		1 off	IEC/EN 60947-2 Adjustable overload release I_r • NZMH2-A...-S1: $0.8 - 1 \times I_n$ (ex-factory $0.8 \times I_n$) • NZMN3-AE...-S1: $0.5 - 1 \times I_n$ (ex-factory $0.5 \times I_n$) • NZMH4-AE...-S1: $0.5 - 1 \times I_n$ (ex-factory $0.5 \times I_n$) Adjustable short-circuit release I_i • NZMH2-A40-S1: $8 - 10 \times I_n$ (ex-factory $8 \times I_n$) • NZMH2-A50...250-S1: $6 - 10 \times I_n$ (ex-factory $6 \times I_n$) • NZMN3-AE250/400-S1: $2 - 11 \times I_n$ (ex-factory $6 \times I_n$) • NZMN3-AE630-S1: $2 - 8 \times I_n$ (ex-factory $6 \times I_n$) • NZMH4-AE...-S1: $2 - 12 \times I_n$ (ex-factory $6 \times I_n$) Fixed short-circuit release I_i • 350 A With $I_n = 20 - 32$ A Permissible terminals: NZM2: box terminal (+)NZM2-...-XKC..., type of conductor: insulated, stranded round conductor NZM3: insulated cable lug connection (screw connection NZM3-XKS) with NZM3-XKSA cover NZM4: insulated busbar connection (screw connection NZM4-XKS)
	25	20 – 25	350	NZMH2-A25-S1 290356			
	32	25 – 32	350 –	NZMH2-A32-S1 290357			
	40	32 – 40	320 – 400	NZMH2-A40-S1 290358			
	50	40 – 50	300 – 500	NZMH2-A50-S1 290359			
	63	50 – 63	380 – 630	NZMH2-A63-S1 290360			
	80	63 – 80	480 – 800	NZMH2-A80-S1 290361			
	100	80 – 100	600 – 1000	NZMH2-A100-S1 290362			
	125	100 – 125	750 – 1250	NZMH2-A125-S1 290363			
	160	125 – 160	960 – 1600	NZMH2-A160-S1 290364			
	200	160 – 200	1200 – 2000	NZMH2-A200-S1 290365			
	250	200 – 250	1500 – 2500	NZMH2-A250-S1 290366			
	250	125 – 250	500 – 2750	NZMN3-AE250-S1 290367			
	400	200 – 400	800 – 4400	NZMN3-AE400-S1 290368			
	630	315 – 630	1260 – 5040	NZMN3-AE630-S1 290369			
	630	315 – 630	1260 – 7560	NZMH4-AE630-S1 290370			
	800	400 – 800	1600 – 9600	NZMH4-AE800-S1 290371			
	1000	500 – 1000	2000 – 12000	NZMH4-AE1000-S1 290372			
	1250	630 – 1250	2500 – 15000	NZMH4-AE1250-S1 290373			
	1600	800 – 1600	3200 – 19200	NZMH4-AE1600-S1 290374			

Notes

Accessories → Plug in and withdrawable units on request

Rated current = rated uninterrupted current		Setting range			Part no. Article no.	Price see price list	Std. pack
$I_n = I_u$ A	Overload releases I_r A 	Short-circuit releases I_{irm} A 	Delayed short-circuit releases I_{sd} A 				
Systems and cable protection, selectivity and generator protection ¹⁾							
3 pole							
Terminal screws standard 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		
	250	125 – 250	3000	250 – 2500	NZMH2-VE250-S1 100779		
	630	315 – 630	1260 – 7560	630 – 6300	NZMH4-VE630-S1 290375		
	800	400 – 800	1600 – 9600	800 – 8000	NZMH4-VE800-S1 290376		
	1000	500 – 1000	2000 – 12000	1000 – 10000	NZMH4-VE1000-S1 290377		
	1250	630 – 1250	2500 – 15000	1250 – 12500	NZMH4-VE1250-S1 290378		
	1600	800 – 1600	3200 – 19200	1600 – 16000	NZMH4-VE1600-S1 290379		
Motor protection ²⁾							
3 pole							
Terminal screws standard terminals as accessories							
	220	110 – 220	220 – 3080		NZMN3-ME220-S1 290380		1 off
	350	175 – 350	350 – 4900		NZMN3-ME350-S1 290381		
	450	225 – 450	450 – 6300		NZMN3-ME450-S1 290382		
	550	275 – 550	550 – 7700		NZMH4-ME550-S1 290383		
	875	438 – 875	875 – 12250		NZMH4-ME875-S1 290384		
	1400	700 – 1400	1400 – 19600		NZMH4-ME1400-S1 290385		

Notes

Accessories → Plug in and withdrawable units on request

¹⁾ IEC/EN 60947-2Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$)

R.m.s. value measurement and "thermal memory"

Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$ as well as infinity (without overload release) (ex-factory 10 s)Adjustable delayed short-circuit releases I_{sd} • $2 - 10 \times I_r$ (ex-factory $6 \times I_r$)Adjustable delay time t_{sd}

Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms (ex-factory 0 ms)

Adjustable non-delayed short-circuit releases I_i • NZM2 fixed $12 \times I_n$ • NZM4: $2 - 12 \times I_n$ (ex-factory $12 \times I_n$) i^2t constant function

• NZM2 fixed OFF

• NZM4 switched (ex-factory OFF)

Permissible terminals:

NZM2: box terminal (+)NZM2-...-XKC..., type of conductor: insulated, stranded round conductor

NZM4: Insulated busbar connection (NZM4-XKS screw connection)

²⁾ IEC/EN 60947-2

Release with motor protection characteristic

Adjustable overload release I_r • $0.5 - 1 \times I_n$ (ex-factory $0.8 \times I_n$)

R.m.s. value measurement and "thermal memory"

Adjustable time delay setting to overcome current peaks t_r • $2 - 20$ s with $6 \times I_r$ as well as infinity (without overload release) (ex-factory 10 s)

Phase-failure sensitivity

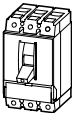
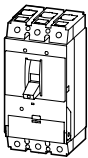
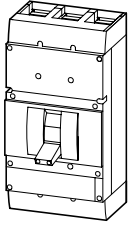
Adjustable short-circuit release I_i • $2 - 14 \times I_r$ (ex-factory $12 \times I_r$)

Permissible terminals:

NZM3: Insulated cable lug connection (NZM3-XKS screw connection) with NZM3-XKSA cover

NZM4: Insulated busbar connection (NZM4-XKS screw connection)

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			3 switch positions I, +, 0 ; can be tripped remotely with shunt/under voltage release		Std. pack	Notes
	Rated current = rated uninterrupted current	Short-circuit protection, max. gG/gL fuse	Part no. Article no.	Price see price list		
	$I_n = I_u$ A	A gL				
Switch-disconnectors						
3 pole						
Terminal screws standard terminals as accessories						
	160	250	N2-160-S1¹⁾ 290386		1 off	IEC/EN 60947-3 Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947 and VDE 0660. Protection against accidental contact according to IEC 0160 With the switch-disconnector N additional voltage releases NZM...-XU, NZM...-XA and trip-indicating auxiliary contacts (HIA) can be used. N2..., N3... and N4... can also be combined with the NZM...-XR... remote operator. Permissible terminals: NZM2: box terminal (+)NZM2-...-XKC..., type of conductor: insulated, stranded round conductor NZM3: Insulated cable lug connection (NZM3-XKS screw connection) with NZM3-XKSA cover NZM4: Insulated busbar connection (NZM4-XKS screw connection)
	200	250	N2-200-S1¹⁾ 290387			
	250	250	N2-250-S1¹⁾ 290388			
	400	630	N3-400-S1¹⁾ 290389			
	630	630	N3-630-S1¹⁾ 290390			
	800	1600	N4-800-S1¹⁾ 290391			
	1000	1600	N4-1000-S1¹⁾ 290392			
	1250	1600	N4-1250-S1¹⁾ 290393			
	1600	1600	N4-1600-S1¹⁾ 290394			

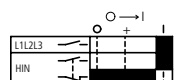
Notes

Accessories → Plug in and withdrawable units on request

¹⁾ on request

Contact sequence of the auxiliary contacts

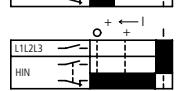
Standard auxiliary contact (HIN)



0 → I Switch-on



0 <- I Switch-off



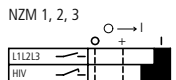
+ <- I Trip

■ Contact closed

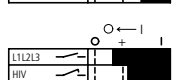
□ Contact open

Early-make auxiliary contact (HIV)

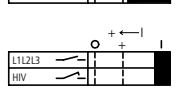
NZM 1, 2, 3



0 → I Switch-on



0 <- I Switch-off

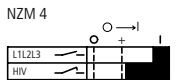


+ <- I Trip

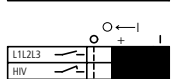
■ Contact closed

□ Contact open

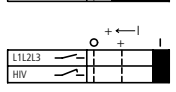
NZM 4



0 → I Switch-on



0 <- I Switch-off

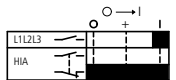


+ <- I Trip

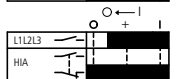
■ Contact closed

□ Contact open

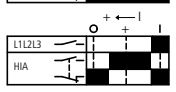
Trip-indicating auxiliary contact (HIA)



0 → I Switch-on



0 <- I Switch-off



+ <- I Trip

■ Contact closed

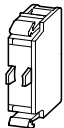
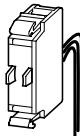
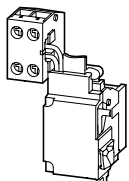
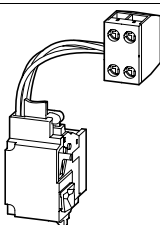
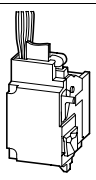
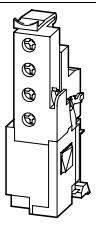
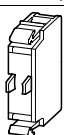
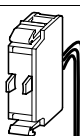
□ Contact open

Maximum component fitting		NZM1	NZM2	NZM3	NZM4
HIN	1 N/O or 1 N/C	1	2	3	3
HIA	1 N/O or 1 N/C	1	1	1	2
HIV	2 N/O	1	1	1	1

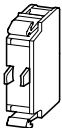
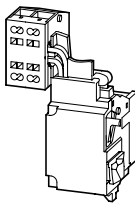
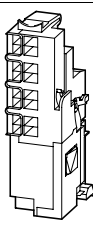
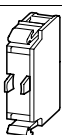
Notes If early-make contacts are required in combination with shunt or undervoltage releases, please select the combination type in the "Release" section.

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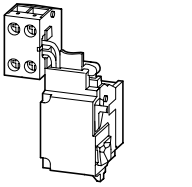
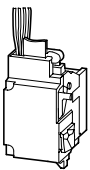
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		For use with	Auxiliary contacts: ☹ = safety function, by positive opening to IEC/EN 60947-5-1 N/O = Normally open N/C = Normally closed		Contact sequence	Part no. Article no. when ordered separately	Price see price list
Auxiliary contacts							
Standard auxiliary contact Switching 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	
	With 3 m connection cable instead of screw termination.	NZM1(-4) PN1(-4) N1(-4)	1 N/O	1 N/C ☹		NZM-XHI11L ¹⁾ 266098	
			2 N/O	—		NZM-XHI20L ¹⁾ 266099	
			—	2 N/C ☹		NZM-XHI02L ¹⁾ 266170	
Early-make auxiliary contact For interlock and load-shedding circuits							
	With clamp terminal on the left-hand switch side.	NZM1(-4) PN1(-4) N1(-4)	2 N/O	—		NZM1-XHIV 259426	
	With clamp terminal on the right-hand switch side.		2 M	—		NZM1-XHIVR 292195	
	With 3 m connection cable instead of screw termination.		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 voltage release, overload release or short-circuit release							
		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	
	With 3 m connection cable instead of screw termination.	NZM1(-4) N1(-4)	1 N/O	1 N/C ☹		NZM-XHI11L ¹⁾ 266098	
			2 N/O	—		NZM-XHI20L ¹⁾ 266099	
			—	2 N/C ☹		NZM-XHI02L ¹⁾ 266170	

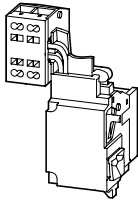
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	Part no. Article no. when ordered separately	Price see price list	Std. pack		Notes
	M22-CK10 216384		20 off	For Std. pack: M22-(C)K... : Std. pack = 20 off	The following can be clipped into the switches: • NZM1 – a standard auxiliary contact • NZM2 up to two M22-K... standard auxiliary contacts • NZM3 as well as NZM4 - up to 3 standard auxiliary contacts M22-(C)K... Any combinations of the auxiliary contact types is possible. Marking on switch: HIN
	M22-CK01 216385		20 off		
			1 off		
	NZM1-XHIVC 266176		1 off		Not in conjunction with undervoltage release NZM...-XU(C)... or shunt release NZM...-XA(C)... Early-make with on and off switching (manual operation): approx. 20 ms
	NZM2/3-XHIVC 266178				Not in conjunction with undervoltage release NZM...-XU(C)..., shunt release NZM...-XA(C)... or remote operator NZM...-XR... Early-make with switch on (manual operation): approx. 90 ms
	NZM4-XHIVC 266180				
	M22-CK10 216384		20 off	For Std. pack: M22-(C)K... : Std. pack = 20 off For Std. pack: M22-(C)K... : Std. pack = 20 off	The following can be clipped into the switches: • NZM1 - one trip-indicating auxiliary switch • NZM2 - one M22-(C)K... trip-indicating auxiliary switch • NZM3 - one M22-(C)K... trip-indicating auxiliary switch • NZM4 - up to two M22-(C)K... trip-indicating auxiliary switches Any combinations of the auxiliary contact types is possible. Marking on switch: HIA
	M22-CK01 216385		20 off		
			1 off		

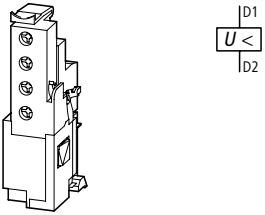
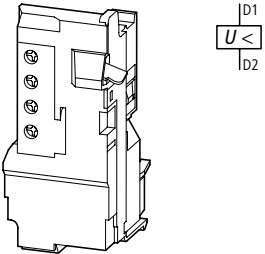
Moeller SK1230-1157GB-INT

For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Undervoltage releases			
Without auxiliary contact Non-delayed disconnection of NZM circuit-breakers or N switch-disconnectors when the control voltage sinks below 35 – 70% U_s . For use with Emergency-Stop devices in conjunction with Emergency-Stop button.			
 	With clamp terminal on the left-hand switch side.	NZM1(-4), N1(-4)	24 V 50/60 Hz NZM1-XU24AC 259434
			48 V 50/60 Hz NZM1-XU48AC 259436
			60 V 50/60 Hz NZM1-XU60AC 259438
			110 V – 130 V 50/60 Hz NZM1-XU110-130AC 259440
			208 V 240 V 50/60 Hz NZM1-XU208-240AC 259442
			380 V – 440 V 50/60 Hz NZM1-XU380-440AC 259444
			480 V – 525 V 50/60 Hz NZM1-XU480-525AC 259446
			600 V 50/60 Hz NZM1-XU600AC 259448
			12 V DC NZM1-XU12DC 259450
			24 V DC NZM1-XU24DC 259452
			48 V DC NZM1-XU48DC 262631
			60 V DC NZM1-XU60DC 259454
			110 V – 130 V DC NZM1-XU110-130DC 259458
			220 V – 250 V DC NZM1-XU220-250DC 259460
 	With 3 m connection cable instead of screw termination.	NZM1(-4), N1(-4)	24 V 50/60 Hz NZM1-XUL24AC 259462
			48 V 50/60 Hz NZM1-XUL48AC 259464
			60 V 50/60 Hz NZM1-XUL60AC 259466
			110 V – 130 V 50/60 Hz NZM1-XUL110-130AC 259468
			208 V 240 V 50/60 Hz NZM1-XUL208-240AC 259471
			380 V – 440 V 50/60 Hz NZM1-XUL380-440AC 259473
			480 V – 525 V 50/60 Hz NZM1-XUL480-525AC 259475
			600 V 50/60 Hz NZM1-XUL600AC 259477
			12 V DC NZM1-XUL12DC 259479
			24 V DC NZM1-XUL24DC 259481
			48 V DC NZM1-XUL48DC 259483
			60 V DC NZM1-XUL60DC 259485
			110 V 130 V DC NZM1-XUL110-130DC 259487
			220 V – 250 V DC NZM1-XUL220-250DC 259489

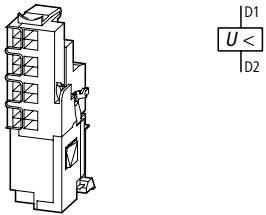
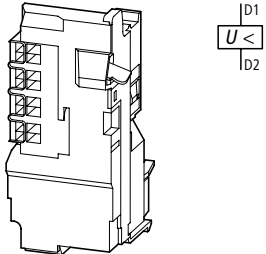
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
 	NZM1-XUC24AC 266271		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented . Undervoltage release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
	NZM1-XUC48AC 266272			
	NZM1-XUC60AC 266273			
	NZM1-XUC110-130AC 266274			
	NZM1-XUC208-240AC 266275			
	NZM1-XUC380-440AC 266276			
	NZM1-XUC480-525AC 266277			
	NZM1-XUC600AC 266278			
	NZM1-XUC12DC 266285			
	NZM1-XUC24DC 266286			
	NZM1-XUC48DC 266287			
	NZM1-XUC60DC 266288			
	NZM1-XUC110-130DC 266289			
	NZM1-XUC220-250DC 266290			
			1 off	

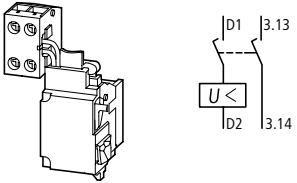
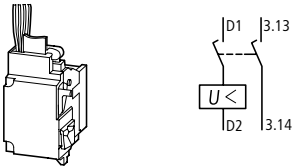
Moeller SK1230-1157GB-INT

For use with	Rated control voltage	Part no. Article no. when ordered separately
	U_s V	
Undervoltage releases		
Without auxiliary contact Non-delayed disconnection of NZM circuit-breakers or N switch-disconnectors when the control voltage sinks below 35 – 70% U_s . For use with Emergency-Stop devices in conjunction with Emergency-Stop button.		
	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz NZM2/3-XU24AC 259491
		48 V 50/60 Hz NZM2/3-XU48AC 259493
		60 V 50/60 Hz NZM2/3-XU60AC 259495
		110 V – 130 V 50/60 Hz NZM2/3-XU110-130AC 259497
		208 V 240 V 50/60 Hz NZM2/3-XU208-240AC 259499
		380 V – 440 V 50/60 Hz NZM2/3-XU380-440AC 259501
		480 V – 525 V 50/60 Hz NZM2/3-XU480-525AC 259503
		600 V 50/60 Hz NZM2/3-XU600AC 259505
		12 V DC NZM2/3-XU12DC 259507
		24 V DC NZM2/3-XU24DC 259509
		48 V DC NZM2/3-XU48DC 259511
		60 V DC NZM2/3-XU60DC 259513
		110 V 130 V DC NZM2/3-XU110-130DC 259515
		220 V – 250 V DC NZM2/3-XU220-250DC 259517
	NZM4(-4), N4(-4)	24 V 50/60 Hz NZM4-XU24AC 266189
		48 V 50/60 Hz NZM4-XU48AC 266190
		60 V 50/60 Hz NZM4-XU60AC 266191
		110 V – 130 V 50/60 Hz NZM4-XU110-130AC 266192
		208 V – 240 V 50/60 Hz NZM4-XU208-240AC 266193
		380 V – 440 V 50/60 Hz NZM4-XU380-440AC 266194
		480 V – 525 V 50/60 Hz NZM4-XU480-525AC 266195
		600 V 50/60 Hz NZM4-XU600AC 266196
		12 V DC NZM4-XU12DC 266203
		24 V DC NZM4-XU24DC 266204
		48 V DC NZM4-XU48DC 266205
		60 V DC NZM4-XU60DC 266206
		110 V – 130 V DC NZM4-XU110-130DC 266207
		220 V – 250 V DC NZM4-XU220-250DC 266208

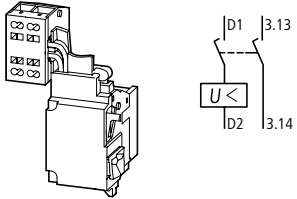
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
	NZM2/3-XUC24AC 266299		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented . Undervoltage release cannot be installed simultaneously with NZM....-XHIV... early-make auxiliary contact or NZM....-XA... shunt release.
	NZM2/3-XUC48AC 266300			
	NZM2/3-XUC60AC 266301			
	NZM2/3-XUC110-130AC 266302			
	NZM2/3-XUC208-240AC 266303			
	NZM2/3-XUC380-440AC 266304			
	NZM2/3-XUC480-525AC 266305			
	NZM2/3-XUC600AC 266306			
	NZM2/3-XUC12DC 266313			
	NZM2/3-XUC24DC 266314			
	NZM2/3-XUC48DC 266315			
	NZM2/3-XUC60DC 266316			
	NZM2/3-XUC110-130DC 266317			
	NZM2/3-XUC220-250DC 266318			
	NZM4-XUC24AC 266327		1 off	
	NZM4-XUC48AC 266328			
	NZM4-XUC60AC 266329			
	NZM4-XUC110-130AC 266330			
	NZM4-XUC208-240AC 266331			
	NZM4-XUC380-440AC 266332			
	NZM4-XUC480-525AC 266333			
	NZM4-XUC600AC 266334			
	NZM4-XUC12DC 266341			
	NZM4-XUC24DC 266342			
	NZM4-XUC48DC 266343			
	NZM4-XUC60DC 266344			
	NZM4-XUC110-130DC 266345			
	NZM4-XUC220-250DC 266346			

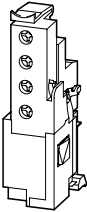
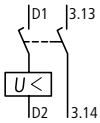
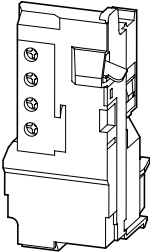
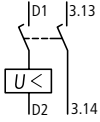
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For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Undervoltage releases			
With two early-make auxiliary contacts For interlocking and load-shedding circuits, as well as for early-make of the undervoltage release in main-switch applications.			
	With clamp terminal on the left-hand switch side.	NZM1(-4), N1(-4)	24 V 50/60 Hz
			48 V 50/60 Hz
			60 V 50/60 Hz
			110 V – 130 V 50/60 Hz
			208 V – 240 V 50/60 Hz
			380 V – 440 V 50/60 Hz
			480 V – 525 V 50/60 Hz
			12 V DC
			24 V DC
			48 V DC
			60 V DC
			110 V 130 V DC
			220 V – 250 V DC
	With 3 m connection cable instead of screw termination.	NZM1(-4), N1(-4)	24 V 50/60 Hz
			48 V 50/60 Hz
			60 V 50/60 Hz
			110 V – 130 V 50/60 Hz
			208 V 240 V 50/60 Hz
			380 V – 440 V 50/60 Hz
			480 V – 525 V 50/60 Hz
			12 V DC
			24 V DC
			48 V DC
			60 V DC
			110 V 130 V DC
			220 V – 250 V DC

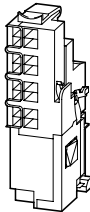
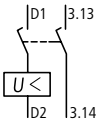
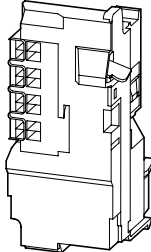
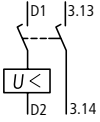
Moeller SK1230-1157GB-INT

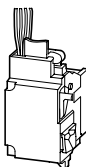
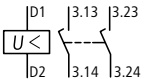
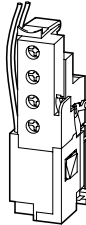
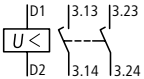
	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
	NZM1-XUHIVC24AC 266355		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
	NZM1-XUHIVC48AC 266356			
	NZM1-XUHIVC60AC 266357			
	NZM1-XUHIVC110-130AC 266358			
	NZM1-XUHIVC208-240AC 266359			
	NZM1-XUHIVC380-440AC 266360			
	NZM1-XUHIVC480-525AC 266361			
	NZM1-XUHIVC12DC 266369			
	NZM1-XUHIVC24DC 266370			
	NZM1-XUHIVC48DC 266371			
	NZM1-XUHIVC60DC 266372			
	NZM1-XUHIVC110-130DC 266373			
	NZM1-XUHIVC220-250DC 266374			
			1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.

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For use with	Rated control voltage	Part no. Article no. when ordered separately
	U_s V	
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.		
 	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz NZM2/3-XUHIV24AC 259583
		48 V 50/60 Hz NZM2/3-XUHIV48AC 259585
		60 V 50/60 Hz NZM2/3-XUHIV60AC 259587
		110 V – 130 V 50/60 Hz NZM2/3-XUHIV110-130AC 259589
		208 V – 240 V 50/60 Hz NZM2/3-XUHIV208-240AC 259591
		380 V – 440 V 50/60 Hz NZM2/3-XUHIV380-440AC 259594
		480 V – 525 V 50/60 Hz NZM2/3-XUHIV480-525AC 259598
		12 V DC NZM2/3-XUHIV12DC 259600
		24 V DC NZM2/3-XUHIV24DC 259602
		48 V DC NZM2/3-XUHIV48DC 259604
		60V DC NZM2/3-XUHIV60DC 259606
		110 V 130 V DC NZM2/3-XUHIV110-130DC 259608
		220 V – 250 V DC NZM2/3-XUHIV220-250DC 259610
 	NZM4(-4), N4(-4)	24 V 50/60 Hz NZM4-XUHIV24AC 266217
		48 V 50/60 Hz NZM4-XUHIV48AC 266218
		60 V 50/60 Hz NZM4-XUHIV60AC 266219
		110 V – 130 V 50/60 Hz NZM4-XUHIV110-130AC 266220
		208 V – 240 V 50/60 Hz NZM4-XUHIV208-240AC 266221
		380 V – 440 V 50/60 Hz NZM4-XUHIV380-440AC 266222
		480 V – 525 V 50/60 Hz NZM4-XUHIV480-525AC 266223
		12 V DC NZM4-XUHIV12DC 266231
		24 V DC NZM4-XUHIV24DC 266232
		48 V DC NZM4-XUHIV48DC 266233
		60V DC NZM4-XUHIV60DC 266234
		110 V – 130 V DC NZM4-XUHIV110-130DC 266235
		220 V – 250 V DC NZM4-XUHIV220-250DC 266236

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	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
 	NZM2/3-XUHIVC24AC 266383		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms. Cannot be used in conjunction with NZM....XR... remote operator. Undervoltage releases cannot be installed simultaneously with NZM....XHIV... early-make auxiliary contact or NZM....XA... shunt release.
	NZM2/3-XUHIVC48AC 266384			
	NZM2/3-XUHIVC60AC 266385			
	NZM2/3-XUHIVC110-130AC 266386			
	NZM2/3-XUHIVC208-240AC 266387			
	NZM2/3-XUHIVC380-440AC 266388			
	NZM2/3-XUHIVC480-525AC 266389			
	NZM2/3-XUHIVC12DC 266397			
	NZM2/3-XUHIVC24DC 266398			
	NZM2/3-XUHIVC48DC 266399			
	NZM2/3-XUHIVC60DC 266400			
	NZM2/3-XUHIVC110-130DC 266401			
	NZM2/3-XUHIVC220-250DC 266402			
 	NZM4-XUHIVC24AC 266411		1 off	When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms. Cannot be used in conjunction with NZM....XR... remote operator. Undervoltage releases cannot be installed simultaneously with NZM....XHIV... early-make auxiliary contact or NZM....XA... shunt release.
	NZM4-XUHIVC48AC 266412			
	NZM4-XUHIVC60AC 266413			
	NZM4-XUHIVC110-130AC 266414			
	NZM4-XUHIVC208-240AC 266415			
	NZM4-XUHIVC380-440AC 266416			
	NZM4-XUHIVC480-525AC 266417			
	NZM4-XUHIVC12DC 266425			
	NZM4-XUHIVC24DC 266426			
	NZM4-XUHIVC48DC 266427			
	NZM4-XUHIVC60DC 266428			
	NZM4-XUHIVC110-130DC 266429			
	NZM4-XUHIVC220-250DC 266430			

For use with		Rated control voltage	Part no. Article no. when ordered separately	Price see price list	Std. pack
		U_s V			
Undervoltage releases					
With two separate early-make auxiliary contacts					
With 3 m connection cable instead of screw termination.					
		NZM1(-4), N1(-4)	24 V 50/60 Hz	NZM1-XUHIV20L24AC 259612	1 off
			48 V 50/60 Hz	NZM1-XUHIV20L48AC 259616	
			60 V 50/60 Hz	NZM1-XUHIV20L60AC 259618	
			110 V – 130 V 50/60 Hz	NZM1-XUHIV20L110-130AC 259620	
			208 V – 240 V 50/60 Hz	NZM1-XUHIV20L208-240AC 259622	
			380 V – 440 V 50/60 Hz	NZM1-XUHIV20L380-440AC 259624	
			480 V – 525 V 50/60 Hz	NZM1-XUHIV20L480-525AC 259626	
			12 V DC	NZM1-XUHIV20L12DC 259628	
			24 V DC	NZM1-XUHIV20L24DC 259630	
			48 V DC	NZM1-XUHIV20L48DC 259632	
			60 V DC	NZM1-XUHIV20L60DC 259634	
			110 V – 130 V DC	NZM1-XUHIV20L110-130DC 259636	
			220 V – 250 V DC	NZM1-XUHIV20L220-250DC 259638	
		Contacts 3.23 and 3.24 with separate 3 m connection cables.			
		NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz	NZM2/3-XUHIV2024AC 259640	1 off
			48 V 50/60 Hz	NZM2/3-XUHIV2048AC 259643	
			60 V 50/60 Hz	NZM2/3-XUHIV2060AC 259646	
			110 V – 130 V 50/60 Hz	NZM2/3-XUHIV20110-130AC 259648	
			208 V – 240 V 50/60 Hz	NZM2/3-XUHIV20208-240AC 259651	
			380 V – 440 V 50/60 Hz	NZM2/3-XUHIV20380-440AC 259653	
			480 V – 525 V 50/60 Hz	NZM2/3-XUHIV20480-525AC 259655	
			12 V DC	NZM2/3-XUHIV2012DC 259657	
			24 V DC	NZM2/3-XUHIV2024DC 259659	
			48 V DC	NZM2/3-XUHIV2048DC 259661	
			60 V DC	NZM2/3-XUHIV2060DC 259663	
			110 V – 130 V DC	NZM2/3-XUHIV20110-130DC 259665	
			220 V – 250 V DC	NZM2/3-XUHIV20220-250DC 259667	

Notes

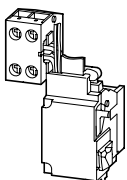
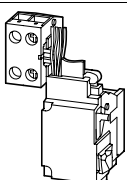
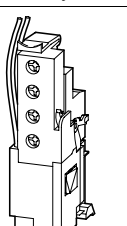
When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is safely prevented.

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

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

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

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For use with	Rated control voltage	Part no. Article no. when ordered separately	Price see price list	Std. pack
	U_s V			
Undervoltage releases				
With two separate early-make auxiliary contacts				
Coil connection wired to clamp terminal, auxiliary switch connections wired with 3 m loose connection cables				
	NZM1(-4), N1(-4)	24 V 50/60 Hz	NZM1-XUHIV20KL24AC 284388	1 off
		110 V – 130 V 50/60 Hz	NZM1-XUHIV20KL110-130AC 284389	
		208 V – 240 V 50/60 Hz	NZM1-XUHIV20KL208-240AC 284400	
		24 V DC	NZM1-XUHIV20KL24DC 284387	
Coil connection with 3 m loose connection cables, auxiliary switch connections wired to clamp terminal				
	NZM1(-4), N1(-4)	24 V 50/60 Hz	NZM1-XUHIV20LK24AC 284402	1 off
		110 V – 130 V 50/60 Hz	NZM1-XUHIV20LK110-130AC 284403	
		208 V – 240 V 50/60 Hz	NZM1-XUHIV20LK208-240AC 284404	
		24 V DC	NZM1-XUHIV20LK24DC 284401	
Coil connection with 3 m loose connection cables, auxiliary switch connections wired to clamp terminal				
	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	24 V 50/60 Hz	NZM2/3-XUHIV20LK24AC 285291	1 off
		110 V – 130 V 50/60 Hz	NZM2/3-XUHIV20LK110-130AC 284407	
		208 V – 240 V 50/60 Hz	NZM2/3-XUHIV20LK208-240AC 284408	
		24 V DC	NZM2/3-XUHIV20LK24DC 284405	

Notes

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

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

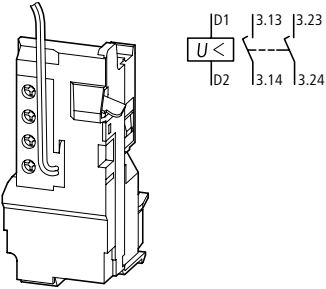
Cannot be used in conjunction with NZM...-XR... remote operator.

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

62 **Circuit-breakers, switch-disconnectors**
Undervoltage releases, with screw terminal

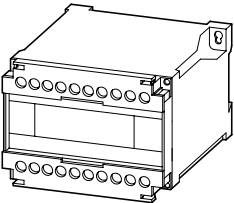
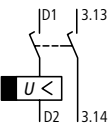
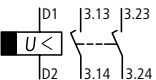
Moeller SK1230-1157GB-INT

Circuit-breakers, switch-disconnectors
up to 1600 A

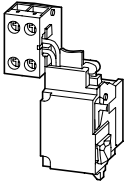
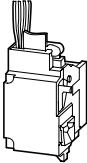
For use with	Rated control voltage U_s V	Part no. Article no. when ordered separately	Price see price list	Std. pack
Undervoltage releases				
With two separate early-make auxiliary contacts				
Contacts 3.23 and 3.24 with separate 3 m connection cables.				
	NZM4(-4), N4(-4)	24 V 50/60 Hz	NZM4-XUHIV2024AC 266244	1 off
		48 V 50/60 Hz	NZM4-XUHIV2048AC 266245	
		60 V 50/60 Hz	NZM4-XUHIV2060AC 266246	
		110 V – 130 V 50/60 Hz	NZM4-XUHIV20110-130AC 266247	
		208 V 240 V 50/60 Hz	NZM4-XUHIV20208-240AC 266248	
		380 V – 440 V 50/60 Hz	NZM4-XUHIV20380-440AC 266249	
		480 V – 525 V 50/60 Hz	NZM4-XUHIV20480-525AC 266250	
		12 V DC	NZM4-XUHIV2012DC 266257	
		24 V DC	NZM4-XUHIV2024DC 266258	
		48 V DC	NZM4-XUHIV2048DC 266259	
		60 V DC	NZM4-XUHIV2060DC 266260	
		110 V – 130 V DC	NZM4-XUHIV20110-130DC 266261	
		220 V – 250 V DC	NZM4-XUHIV20220-250DC 266262	

Notes When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is safely prevented.
Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms.
Cannot be used in conjunction with NZM...-XR... remote operator.
Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.

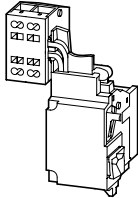
Moeller SK1230-1157GB-INT

For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Undervoltage releases, off-delayed				
Combination of separate delay unit and special tripping device.				
Delay unit Voltage dips of less than the setting between 0.06 – 16 s do not cause disconnection of the NZM circuit-breaker or N switch-disconnector.				
	NZM1(-4), 2(-4), 3(-4), 4(-4) N1(-4), 2(-4), 3(-4), 4(-4) 50/60 Hz 220 V – 240 V 380 V – 440 V 480 V – 550 V DC/AC 24 V	UVU-NZM 260154	1 off	Adjustable delay time 70 ms – 4 s. With additional capacitor up to 16 s. A special tripping device is required. Cannot be installed simultaneously with NZM...-XHIV... or NZM...-XA... shunt release. Delay unit for separate installation (Fixing: top-hat rail or screws). For other operating voltages use control transformer.
Special tripping device For combination with separate delay unit				
Without auxiliary contacts				
NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal				
	NZM1(-4) N1(-4) NZM2(-4), N2(-4) NZM3(-4), N3(-4) NZM4(-4) N4(-4)	NZM1-XUVL 271607 NZM2/3-XUV 259527 NZM4-XUV 266588	1 off	UVU-NZM delay unit is additionally required. Cannot be installed simultaneously with separate NZM...-XHIV early-make auxiliary contact or NZM...-XA... shunt release.
With 2 early-make auxiliary contacts				
NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal				
	NZM1(-4) N1(-4) NZM2(-4), N2(-4) NZM3(-4), N3(-4) NZM4(-4) N4(-4)	NZM1-XUVHIVL 271608 NZM2/3-XUVHIV 259684 NZM4-XUVHIV 266596	1 off	Cannot be used in conjunction with NZM...-XR... remote operator. UVU-NZM delay unit is additionally required. Cannot be installed simultaneously with separate NZM...-XHIV early-make auxiliary contact or NZM...-XA... shunt release. NZM1, 2, 3: Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms. NZM4: Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms.
With 2 separately 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) NZM2(-4), N2(-4) NZM3(-4), N3(-4) NZM4(-4) N4(-4)	NZM1-XUVHIV20L 271609 NZM2/3-XUVHIV20 259688 NZM4-XUVHIV20 266604	1 off	Cannot be used in conjunction with NZM...-XR... remote operator. UVU-NZM delay unit is additionally required. Cannot be installed simultaneously with separate NZM...-XHIV early-make auxiliary contact or NZM...-XA... shunt release. NZM1, 2, 3: Early-make of the auxiliary contacts with on and off switching (manual operation): approx. 20 ms. NZM4: Early-make of the auxiliary contacts with switch on (manual operation): approx. 90 ms.

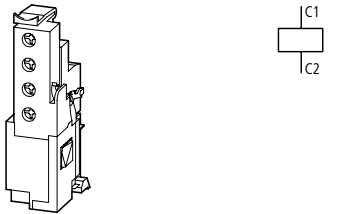
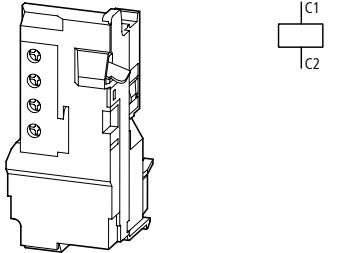
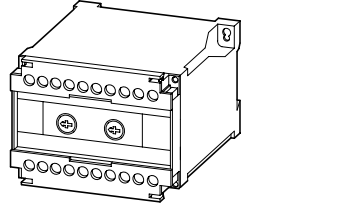
Moeller SK1230-1157GB-INT

For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Shunt releases			
Without auxiliary contact Switches are tripped by a voltage pulse or by the application of uninterrupted voltage.			
		With clamp terminal on the left-hand switch side.	NZM1(-4), N1(-4)
		12 V AC/DC	NZM1-XA12AC/DC 259706
		24 V AC/DC	NZM1-XA24AC/DC 259708
		48 V AC/DC	NZM1-XA48AC/DC 259720
		60 V AC/DC	NZM1-XA60AC/DC 259722
		110 V – 130 V AC/DC	NZM1-XA110-130AC/DC 259724
		208 V – 250 V AC/DC	NZM1-XA208-250AC/DC 259726
		380 V – 440 V AC/DC	NZM1-XA380-440AC/DC 259728
		480 V – 525 V AC/DC	NZM1-XA480-525AC/DC 259730
		600 V AC/DC	NZM1-XA600AC/DC 259732
		12 V AC/DC	NZM1-XAL12AC/DC 259734
		24 V AC/DC	NZM1-XAL24AC/DC 259736
		48 V AC/DC	NZM1-XAL48AC/DC 259738
		60 V AC/DC	NZM1-XAL60AC/DC 259740
		110 V – 130 V AC/DC	NZM1-XAL110-130AC/DC 259742
		208 V – 250 V AC/DC	NZM1-XAL208-250AC/DC 259744
		380 V – 440 V AC/DC	NZM1-XAL380-440AC/DC 259746
		480 V – 525 V AC/DC	NZM1-XAL480-525AC/DC 259748
		600 V AC/DC	NZM1-XAL600AC/DC 259750

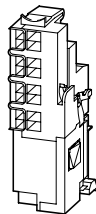
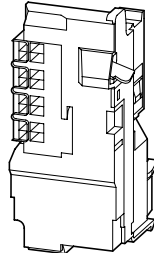
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
		NZM1-XAC12AC/DC 266488	1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented. Shunt release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.
		NZM1-XAC24AC/DC 266489		
		NZM1-XAC48AC/DC 266490		
		NZM1-XAC60AC/DC 266491		
		NZM1-XAC110-130AC/DC 266492		
		NZM1-XAC208-250AC/DC 266493		
		NZM1-XAC380-440AC/DC 266494		
		NZM1-XAC480-525AC/DC 266495		
		NZM1-XAC600AC/DC 266496		
			1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented. Shunt release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.

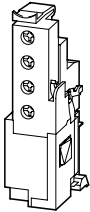
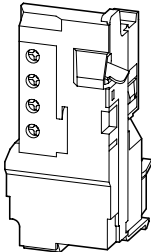
Moeller SK1230-1157GB-INT

For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Shunt releases			
Without auxiliary contact Switches are tripped by a voltage pulse or by the application of uninterrupted voltage.			
	—	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	12 V AC/DC 24 V AC/DC 48 V AC/DC 60 V AC/DC 110 V – 130 V AC/DC 208 V – 250 V AC/DC 380 V – 440 V AC/DC 480 V – 525 V AC/DC 600 V AC/DC
			NZM2/3-XA12AC/DC 259752
			NZM2/3-XA24AC/DC 259754
			NZM2/3-XA48AC/DC 259756
			NZM2/3-XA60AC/DC 259758
			NZM2/3-XA110-130AC/DC 259760
			NZM2/3-XA208-250AC/DC 259763
			NZM2/3-XA380-440AC/DC 259766
			NZM2/3-XA480-525AC/DC 259768
			NZM2/3-XA600AC/DC 259770
	—	NZM4(-4), N4(-4)	12 V AC/DC 24 V AC/DC 48 V AC/DC 60 V AC/DC 110 V – 130 V AC/DC 208 V – 250 V AC/DC 380 V – 440 V AC/DC 480 V – 525 V AC/DC 600 V AC/DC
			NZM4-XA12AC/DC 266446
			NZM4-XA24AC/DC 266447
			NZM4-XA48AC/DC 266448
			NZM4-XA60AC/DC 266449
			NZM4-XA110-130AC/DC 266450
			NZM4-XA208-250AC/DC 266451
			NZM4-XA380-440AC/DC 266452
			NZM4-XA480-525AC/DC 266453
			NZM4-XA600AC/DC 266454
Capacitor unit 230 V 50/60 Hz in conjunction with NZM...-XA2082-50AC/DC shunt release Enclosure: degree of protection IP20 not UL/CSA approved			
	NZM1(-4), N1(-4) NZM2(-4), N2(-4) NZM3(-4), N3(-4) NZM4(-4), N4(-4)	—	NZM-XCM 229413

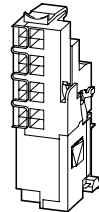
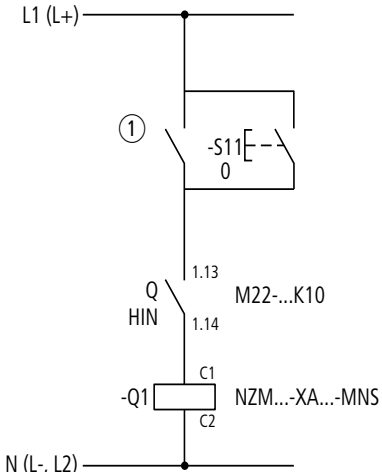
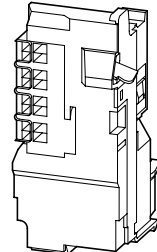
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
	 NZM2/3-XAC12AC/DC 266506		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented. Shunt release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.
	NZM2/3-XAC24AC/DC 266507			
	NZM2/3-XAC48AC/DC 266508			
	NZM2/3-XAC60AC/DC 266509			
	NZM2/3-XAC110-130AC/DC 266510			
	NZM2/3-XAC208-250AC/DC 266511			
	NZM2/3-XAC380-440AC/DC 266512			
	NZM2/3-XAC480-525AC/DC 266513			
	NZM2/3-XAC600AC/DC 266514			
	 NZM4-XAC12AC/DC 266524		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on, is safely prevented. Shunt release cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release.
	NZM4-XAC24AC/DC 266525			
	NZM4-XAC48AC/DC 266526			
	NZM4-XAC60AC/DC 266527			
	NZM4-XAC110-130AC/DC 266528			
	NZM4-XAC208-250AC/DC 266529			
	NZM4-XAC380-440AC/DC 266530			
	NZM4-XAC480-525AC/DC 266531			
	NZM4-XAC600AC/DC 266532			
			1 off	Enables safe use of the circuit-breaker as a mesh network circuit-breaker in a range from 0 – 110 % U_n with constant shutdown time of 40 ms. If the mains voltage is absent, the installed capacitor supplies power for actuating the shunt release for at least 12 hours. The configuration of the capacitor unit is undertaken independently of the circuit-breaker. Connect NZM-XCM to the power feed side. Engineering note: Connect the standard auxiliary contact (HIN) als N/O in series to the coil of the shunt release. Standard auxiliary contact not supplied.

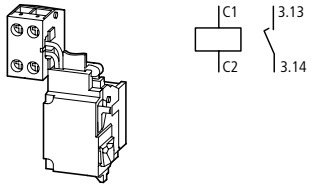
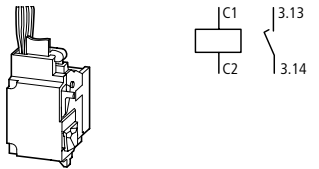
Moeller SK1230-1157GB-INT

For use with	Rated control voltage	Part no. Article no. when ordered separately	Price see price list	Std. pack
	U_s V			
Shunt releases Without auxiliary contacts For mesh-network circuit-breakers For intermittent operation Maximum on time = 1 s Operating range 10 – 110 % U_s not UL/CSA approved				
 	NZM3(-4), N3(-4)	230 V AC	NZM3-XA-230AC-MNS 274097	1 off
 	NZM4(-4), N4(-4)	230 V AC	NZM4-XA-230AC-MNS 274138	1 off

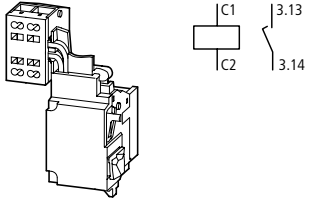
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
 	NZM3-XAC-230AC-MNS 274137		1 off	Cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release. Intermittent operation guaranteed by series connection of an M22-(C)K10 make contact. The maximum operating time of the shunt release for mesh network circuit-breaker is 1 s. 
 	NZM4-XAC-230AC-MNS 274140		1 off	

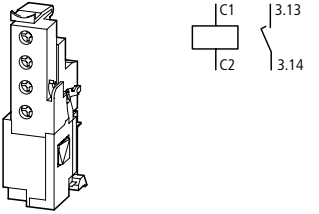
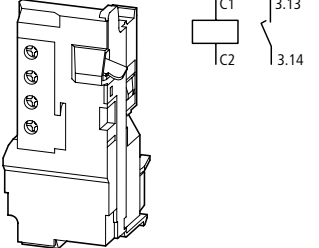
Moeller SK1230-1157GB-INT

		For use with	Rated control voltage	Part no. Article no. when ordered separately
			U_s V	
Shunt releases				
With early-make auxiliary contact				
	With clamp terminal on the left-hand switch side.	NZM1(-4), N1(-4)	12 V AC/DC	NZM1-XAHIV12AC/DC 259772
			24 V AC/DC	NZM1-XAHIV24AC/DC 259774
			48 V AC/DC	NZM1-XAHIV48AC/DC 259776
			60 V AC/DC	NZM1-XAHIV60AC/DC 259778
			110 V – 130 V AC/DC	NZM1-XAHIV110-130AC/DC 259780
			208 V – 250 V AC/DC	NZM1-XAHIV208-250AC/DC 259782
			380 V – 440 V AC/DC	NZM1-XAHIV380-440AC/DC 259784
			480 V – 525 V AC/DC	NZM1-XAHIV480-525AC/DC 259786
	With 3 m connection cable instead of screw termination.	NZM1(-4), N1(-4)	12 V AC/DC	NZM1-XAHIVL12AC/DC 259790
			24 V AC/DC	NZM1-XAHIVL24AC/DC 259792
			48 V AC/DC	NZM1-XAHIVL48AC/DC 259794
			60 V AC/DC	NZM1-XAHIVL60AC/DC 259796
			110 V – 130 V AC/DC	NZM1-XAHIVL110-130AC/DC 259798
			208 V – 250 V AC/DC	NZM1-XAHIVL208-250AC/DC 259800
			380 V – 440 V AC/DC	NZM1-XAHIVL380-440AC/DC 259802
			480 V – 525 V AC/DC	NZM1-XAHIVL480-525AC/DC 259804

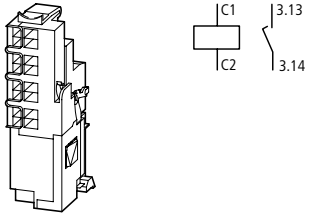
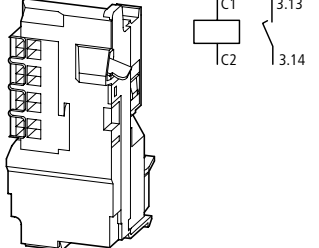
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
	NZM1-XAHIVC12AC/DC 266542		1 off	When the shunt release is energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contact with on and off switching (manual operation): approx. 20 ms. Shunt release cannot be installed simultaneously with NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... undervoltage release.
	NZM1-XAHIVC24AC/DC 266543			
	NZM1-XAHIVC48AC/DC 266544			
	NZM1-XAHIVC60AC/DC 266545			
	NZM1-XAHIVC110-130AC/DC 266546			
	NZM1-XAHIVC208-250AC/DC 266547			
	NZM1-XAHIVC380-440AC/DC 266548			
	NZM1-XAHIVC480-525AC/DC 266549			
			1 off	

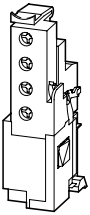
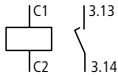
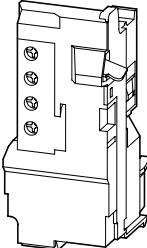
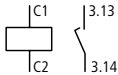
Moeller SK1230-1157GB-INT

For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Shunt releases			
With early-make auxiliary contact			
	NZM2(-4), N2(-4) NZM3(-4), N3(-4)	12 V AC/DC	NZM2/3-XAHIV12AC/DC 259808
		24 V AC/DC	NZM2/3-XAHIV24AC/DC 259810
		48 V AC/DC	NZM2/3-XAHIV48AC/DC 259812
		60 V AC/DC	NZM2/3-XAHIV60AC/DC 259814
		110 V – 130 V AC/DC	NZM2/3-XAHIV110-130AC/DC 259816
		208 V – 250 V AC/DC	NZM2/3-XAHIV208-250AC/DC 259818
		380 V – 440 V AC/DC	NZM2/3-XAHIV380-440AC/DC 259820
		480 V – 525 V AC/DC	NZM2/3-XAHIV480-525AC/DC 259822
	NZM4(-4), N4(-4)	12 V AC/DC	NZM4-XAHIV12AC/DC 266470
		24 V AC/DC	NZM4-XAHIV24AC/DC 266471
		48 V AC/DC	NZM4-XAHIV48AC/DC 266472
		60 V AC/DC	NZM4-XAHIV60AC/DC 266473
		110 V – 130 V AC/DC	NZM4-XAHIV110-130AC/DC 266474
		208 V – 250 V AC/DC	NZM4-XAHIV208-250AC/DC 266475
		380 V – 440 V AC/DC	NZM4-XAHIV380-440AC/DC 266476
		480 V – 525 V AC/DC	NZM4-XAHIV480-525AC/DC 266477

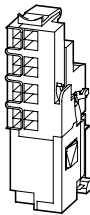
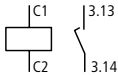
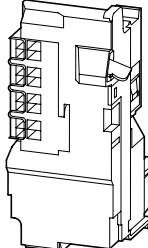
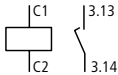
Moeller SK1230-1157GB-INT

	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
	NZM2/3-XAHIVC12AC/DC 266560		1 off	When the shunt release is energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contact with on and off switching (manual operation): approx. 20 ms. Cannot be used in conjunction with NZM...-XR... remote operator. Shunt release cannot be installed simultaneously with NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... undervoltage release.
	NZM2/3-XAHIVC24AC/DC 266561			
	NZM2/3-XAHIVC48AC/DC 266562			
	NZM2/3-XAHIVC60AC/DC 266563			
	NZM2/3-XAHIVC110-130AC/DC 266564			
	NZM2/3-XAHIVC208-250AC/DC 266565			
	NZM2/3-XAHIVC380-440AC/DC 266566			
	NZM2/3-XAHIVC480-525AC/DC 266567			
	NZM4-XAHIVC12AC/DC 266578		1 off	When the shunt release is energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early-make of the auxiliary contact with switch on (manual operation): approx. 90 ms. Cannot be used in conjunction with NZM...-XR... remote operator. Shunt release cannot be installed simultaneously with NZM...-XHIV.. early-make auxiliary contact or NZM...-XU... undervoltage release.
	NZM4-XAHIVC24AC/DC 266579			
	NZM4-XAHIVC48AC/DC 266580			
	NZM4-XAHIVC60AC/DC 266581			
	NZM4-XAHIVC110-130AC/DC 266582			
	NZM4-XAHIVC208-250AC/DC 266583			
	NZM4-XAHIVC380-440AC/DC 266584			
	NZM4-XAHIVC480-525AC/DC 266585			

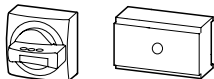
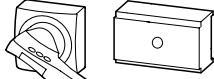
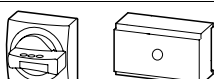
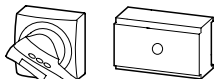
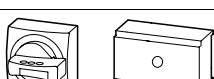
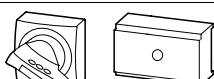
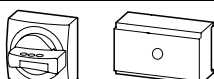
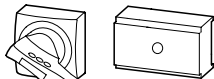
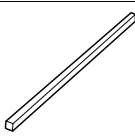
Moeller SK1230-1157GB-INT

For use with		Rated control voltage	Part no. Article no. when ordered separately
		U_s V	
Shunt releases			
With early-make auxiliary contact For mesh-network circuit-breakers For intermittent operation Maximum on time = 1 s Operating range 10 – 110 % U_s not UL/CSA approved			
		NZM3(-4), N3(-4)	230 V AC
			NZM3-XAHIV-230AC-MNS 274141
		NZM4(-4), N4(-4)	230 V AC
			NZM4-XAHIV-230AC-MNS 274143

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	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
		NZM3-XAHIVC-230AC-MNS 274142	1 off	Cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release. Cannot be used in conjunction with NZM...-XR... remote operator.
		NZM4-XAHIVC-230AC-MNS 274144	1 off	Intermittent operation guaranteed by series connection of a N/O contact M22-(C)K10 (standard auxiliary contact). The maximum operating time of the shunt release for mesh network circuit-breaker is 1 s. NZM3: Early-make of the auxiliary contact with on and off switching (manual operation): approx. 20 ms. NZM4: Early-make of the auxiliary contact with switch on (manual operation): approx. 90 ms.

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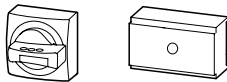
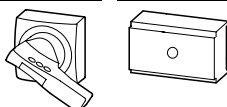
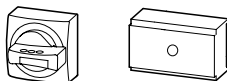
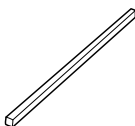
		For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes	
Door coupling rotary handle							
Complete including rotary drive and coupling parts An additional extension shaft is necessary with the NZM...-XT(V)D(V)(R)(-60) types. Degree of protection IP66/UL/CSA Type 4X							
Standard, black/grey							
 	—	NZM1(-4), PN1(-4), N1(-4)	NZM1-XTD 260160		1 off	NZM...-XTD • External warning plate/ designation label can be clipped on	
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XTD 260162				
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XTD 260164				
		NZM4(-4), N4(-4)	NZM4-XTD 266612				
 	Lockable in 0 position on handle. With door interlock	NZM1(-4), PN1(-4), N1(-4)	NZM1-XTVD 260166			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				
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XTVD 260170				
		NZM4(-4), N4(-4)	NZM4-XTVD 266614				
 	Lockable on handle and switch. Can be locked in 0 position, with adequate modification also in I position. With door interlock Lockable in 0 position on circuit- breaker.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XTVDV 260172				
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XTVDV 260174				
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XTVDV 260176				
		NZM4(-4), N4(-4)	NZM4-XTVDV 266616				
Red-yellow for Emergency-Stop							
 	Lockable on handle and switch. Lockable in 0 position on handle. With door interlock Lockable in 0 position on circuit- breaker.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XTVDVR 260178		1 off	Door interlock • Not defeatable in the locked OFF position. • 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...-XTVDVR • External warning plate/ designation label can be clipped on	
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XTVDVR 260180				
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XTVDVR 260182				
		NZM4(-4), N4(-4)	NZM4-XTVDVR 266618				
Extension shaft							
	Max. mounting depth: 400 mm	NZM1(-4), PN1(-4), N1(-4)	NZM1/2-XV4 261232		1 off	Can be cut to required length	
		NZM2(-4), PN2(-4), N2(-4)	NZM3/4-XV4 261234				
	Max. mounting depth: 600 mm	NZM1(-4), PN1(-4), N1(-4)	NZM1/2-XV6 260191				
		NZM2(-4), PN2(-4), N2(-4)	NZM3/4-XV6 260193				

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

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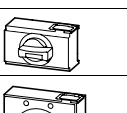
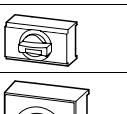
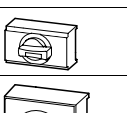
For a max. shaft length of 60 mm		Std. pack	Notes	Extremely narrow fittings		Std. pack	Notes
Part no. Article no. when ordered separately	Price see price list			Part no. Article no. when ordered separately	Price see price list		
NZM1-XTD-60 271500		1 off	NZM...-XTD-60 • For a maximum shaft length of 60 mm • Without shaft support • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on	NZM1-XTD-0 279358		1 off	NZM...-XTD-0 • For extremely narrow fittings • With special short extension shaft • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on
NZM2-XTD-60 271501				NZM2-XTD-0 279359			
NZM3-XTD-60 271502				NZM3-XTD-0 279390			
NZM4-XTD-60 271503				NZM4-XTD-0 279391			
NZM1-XTVD-60 271504			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)-60 • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on	NZM1-XTVD-0 279392			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)-0 • For extremely narrow fittings • With special short extension shaft • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on
NZM2-XTVD-60 271505				NZM2-XTVD-0 279393			
NZM3-XTVD-60 271506				NZM3-XTVD-0 279394			
NZM4-XTVD-60 271507				NZM4-XTVD-0 279395			
NZM1-XTVDV-60 271508				NZM1-XTVDV-0 279396			
NZM2-XTVDV-60 271509				NZM2-XTVDV-0 279397			
NZM3-XTVDV-60 271510				NZM3-XTVDV-0 279398			
NZM4-XTVDV-60 271511				NZM4-XTVDV-0 279399			
NZM1-XTVDVR-60 271512		1 off	Door interlock • Not defeatable in the locked OFF position. • 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...-XTVDVR-60 • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on	NZM1-XTVDVR-0 279400		1 off	Door interlock • Not defeatable in the locked OFF position. • 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...-XTVDVR-0 • For extremely narrow fittings • With special short extension shaft • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped on
NZM2-XTVDVR-60 271513				NZM2-XTVDVR-0 279401			
NZM3-XTVDVR-60 271514				NZM3-XTVDVR-0 279402			
NZM4-XTVDVR-60 271515				NZM4-XTVDVR-0 279403			

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For use with		Standard Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes			
Door coupling rotary handle								
Complete including rotary drive and coupling parts Extension shaft additionally required. Degree of protection IP66/UL/CSA Type 4X								
Standard, black/grey								
	Lockable in 0 position on handle. With door interlock	NZM1, N1	NZM1-XTVD-NA 271445	1 off	Door interlock • Non defeatable in the locked OFF position. • Door opening possible after active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/ designation label can be clipped on			
		NZM2, N2	NZM2-XTVD-NA 271446					
		NZM3, N3	NZM3-XTVD-NA 271447					
		NZM4, N4	NZM4-XTVD-NA 271448					
	Lockable on handle and switch. Can be locked in 0 position, with adequate modification also in I position. With door interlock Lockable in 0 position on breaker.	NZM1, N1	NZM1-XTVDV-NA 100683	1 off	Door interlock • Not 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			
		NZM2, N2	NZM2-XTVDV-NA 100684					
		NZM3, N3	NZM3-XTVDV-NA 100685					
		NZM4, N4	NZM4-XTVDV-NA 100686					
Red-yellow for Emergency-Stop								
	Lockable on handle and switch. Lockable in 0 position on handle. With door interlock Lockable in 0 position on breaker.	NZM1, N1	NZM1-XTVDVR-NA 271449	1 off	Door interlock • Not defeated in the locked OFF position • Door opening possible with active rotation beyond the 0 position. • Cannot be combinedwith mechanical interlock • External warning plate/ designation label can be clipped on			
		NZM2, N2	NZM2-XTVDVR-NA 271450					
		NZM3, N3	NZM3-XTVDVR-NA 271451					
		NZM4, N4	NZM4-XTVDVR-NA 271452					
Extension shaft								
	Max. mounting depth: 400 mm	NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	NZM1/2-XV4 261232	1 off	Can be cut to required length			
		NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	NZM3/4-XV4 261234					
	Max. mounting depth: 600 mm	NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	NZM1/2-XV6 260191					
		NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	NZM3/4-XV6 260193					
Notes								
Circuit-breaker can also be installed in a lying position 90 ° left/right, with the handle still in the same position.								

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For a max. shaft length of 60 mm			Extremely narrow fittings		Std. pack	Notes
Part no. Article no. when ordered separately	Price see price list	Notes	Part no. Article no. when ordered separately	Price see price list		
NZM1-XTVDV-60-NA 100667		Door interlock • Not 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 a maximum shaft length of 60 mm • Without shaft support • Cannot be combined with NZM...-XDZ additional handle • External warning plate/	NZM1-XTVDV-0-NA 100675		1 off	Door interlock • Not 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-0-NA • For extremely narrow fittings • With special short extension shaft • Cannot be combined with NZM...-XDZ additional handle • External warning plate/ designation label can be clipped
NZM2-XTVDV-60-NA 100668			NZM2-XTVDV-0-NA 100676			
NZM3-XTVDV-60-NA 100669			NZM3-XTVDV-0-NA 100677			
NZM4-XTVDV-60-NA 100670			NZM4-XTVDV-0-NA 100678			
NZM1-XTVDVR-60-NA 100671		Door interlock • Not 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-60-NA • For a maximum shaft length of 60 mm • Without shaft support • Cannot be combined with NZM...-XDZ additional handle • External warning plate/	NZM1-XTVDVR-0-NA 100679		1 off	Door interlock • Not 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 NZM...-XDZ additional handle • External warning plate/ designation label can be clipped
NZM2-XTVDVR-60-NA 100672			NZM2-XTVDVR-0-NA 100680			
NZM3-XTVDVR-60-NA 100673			NZM3-XTVDVR-0-NA 100681			
NZM4-XTVDVR-60-NA 100674			NZM4-XTVDVR-0-NA 100682			

		For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Rotary handles						
Complete with rotary drive						
Standard, black/grey						
	—	NZM1(-4), PN1(-4), N1(-4)	NZM1-XD 260116		1 off	NZM1, 2, 3: Can also be combined with insulating surround.
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XD 260121			
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XD 260123			
		NZM4(-4), N4(-4)	NZM4-XD 266606			
	Lockable on the 0 position on the switch using up to 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XDV 260125			NZM1, 2, 3: Can also be combined with insulating surround. MODAN handle position detection by wire release can be retrofitted.
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XDV 260127			
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XDV 260129			
		NZM4(-4), N4(-4)	NZM4-XDV 266608			
	Lockable on the 0 position on the handle using up to 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XDVG 285247			Can also be combined with insulating surround.
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XDVG 285248			
Red-yellow for Emergency-Stop						
	Lockable on the 0 position on the switch using up to 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XDVR 260135		1 off	NZM1, 2, 3: Can also be combined with insulating surround. MODAN handle position detection by wire release can be retrofitted.
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XDVR 260137			
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XDVR 260140			
		NZM4(-4), N4(-4)	NZM4-XDVR 266610			
	Lockable on the 0 position on the handle using up to 3 padlocks.	NZM1(-4), PN1(-4), N1(-4)	NZM1-XDVGR 285249			Can also be combined with insulating surround.
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XDVGR 285280			

Notes

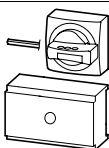
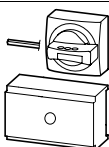
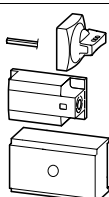
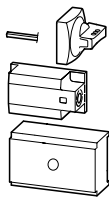
Circuit-breaker can also be installed in a lying position 90 ° left/right, with the handle still in the same position.

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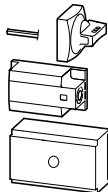
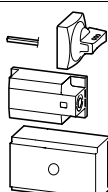
For use with		Part no. Article no.	Price see price list	Std. pack	Notes	
Rotary handles on switch with door interlock						
Complete with rotary drive and insulating surround						
Standard, black/grey						
	Can be locked in 0 position, with adequate modification also in I position. Also available with 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 defeated from the outside using a 1 mm pin • Not defeated in the locked OFF and ON positions • Door can be opened in OFF • Can only be switched ON when the door is closed	
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XDTV 260133			
Red-yellow for Emergency-Stop						
	Lockable in 0 position on handle. Also available with 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			
Rotary handle on switch with door interlock for UL/CSA approved NA switches						
Divergent to normal IEC handles: door opening only possible after active rotation beyond the 0 position. Complete with rotary drive and insulating surround						
Standard, black/grey						
	Can be locked in 0 position, with adequate modification also in I position. Available with door interlock e.g. for MCC service distribution.	NZM1, N1	NZM1-XDTV-NA 271453	1 off	Door interlock • In the ON position, can be defeated from the outside using a 1 mm pin • Not defeated in the locked OFF and ON positions • Door opening only possible with active rotation beyond the 0 position. • Can only be switched ON when the door is closed • Cannot be combined with mechanical interlock	
		NZM2, N2	NZM2-XDTV-NA 271454			
Red-yellow for Emergency-Stop						
	Lockable in 0 position on handle. Available with door interlock e.g. for MCC service distribution.	NZM1, N1	NZM1-XDTVR-NA 271455			
		NZM2, N2	NZM2-XDTVR-NA 271456			

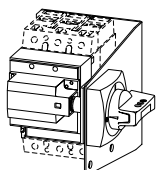
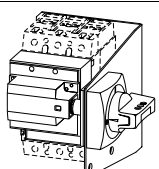
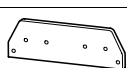
Notes

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

			For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack
Main switch assembly kit						
Equipment supplied: • Rotary door-coupling handle • NZM...-XV4 extension shaft • External warning plate/designation label in German/English • Black and yellow flash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → 97 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		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XHB 266628		
			NZM4(-4) N4(-4)	NZM4-XHB 271779		
With red door coupling rotary handle for using switch as Emergency-Stop device according to IEC/EN 602041						
	Lockable in 0 position on handle. Lockable door, locking facility on circuit-breaker in 0 position.	—	NZM1(-4) PN1(-4), N1(-4)	NZM1-XHBR 266632		
			NZM2(-4) PN2(-4), N2(-4)	NZM2-XHBR 266633		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XHBR 266634		
			NZM4(-4) N4(-4)	NZM4-XHBR 271842		
Main switch assembly kit for side panel mounting						
Actuation of the switch on the control panel side wall						
Switch mounting on mounting plate						
Equipment supplied: • Door coupling rotary handle • NZM...-XV4 extension shaft • External warning plate/designation label in German/English • Black and yellow flash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → 97 Other external warning plates/designation labels can be clipped on.						
Standard, black/grey						
	Can be locked 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		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XS-L 266643		
			NZM4(-4) N4(-4)	NZM4-XS-L 289806		
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	NZM1-XS-R 266644		
			NZM2(-4) PN2(-4), N2(-4)	NZM2-XS-R 266645		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XS-R 266646		
			NZM4(-4) N4(-4)	NZM4-XS-R 289807		
Red-yellow for Emergency-Stop						
	Lockable in 0 position on handle.	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	NZM1-XSR-L 266653		
			NZM2(-4) PN2(-4), N2(-4)	NZM2-XSR-L 266654		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XSR-L 266655		
			NZM4(-4) N4(-4)	NZM4-XSR-L 289808		
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	NZM1-XSR-R 266656		
			NZM2(-4) PN2(-4), N2(-4)	NZM2-XSR-R 266657		
			NZM3(-4) PN3(-4), N3(-4)	NZM3-XSR-R 266658		
			NZM4(-4) N4(-4)	NZM4-XSR-R 289809		

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		For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack
Main switch assembly kit for side wall installation Actuation of the switch on the control panel door. Mounting the breaker on the control panel side wall Equipment supplied: • Door coupling rotary handle • NZM...-XV4 extension shaft • External warning plate/designation label in German/English • Black and yellow flash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → 97 Other external warning plates/designation labels can be clipped on.					
Standard, black/grey					
	Lockable on handle and switch. Can be locked in 0 position, with adequate modification also in I position. Tamperproof with door interlock in closed OFF and ON position.	For operation on the left	NZM1(-4), PN1(-4), N1(-4)	NZM1-XSF-L 289810	1 off
			NZM2(-4), PN2(-4), N2(-4)	NZM2-XSF-L 289811	
			NZM3(-4), PN3(-4), N3(-4)	NZM3-XSF-L 289812	
			NZM4(-4), N4(-4)	NZM4-XSF-L 289813	
	For operation on the right	NZM1(-4), PN1(-4), N1(-4)	NZM1-XSF-R 289814		
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XSF-R 289815		
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XSF-R 289816		
		NZM4(-4), N4(-4)	NZM4-XSF-R 289817		
Red-yellow for Emergency-Stop					
	Lockable on handle and switch. Lockable in 0 position on handle. Tamperproof with door interlock in closed OFF position.	For operation on the left	NZM1(-4), PN1(-4), N1(-4)	NZM1-XSRF-L 289818	1 off
			NZM2(-4), PN2(-4), N2(-4)	NZM2-XSRF-L 289819	
			NZM3(-4), PN3(-4), N3(-4)	NZM3-XSRF-L 289820	
			NZM4(-4), N4(-4)	NZM4-XSRF-L 289821	
	For operation on the right	NZM1(-4), PN1(-4), N1(-4)	NZM1-XSRF-R 289822		
		NZM2(-4), PN2(-4), N2(-4)	NZM2-XSRF-R 289823		
		NZM3(-4), PN3(-4), N3(-4)	NZM3-XSRF-R 289824		
		NZM4(-4), N4(-4)	NZM4-XSRF-R 289825		

	For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack
Main switch assembly kit for side panel mounting 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 yellow flash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → 97 Other external warning plates/designation labels can be clipped on.				
Standard, black/grey				
	Can be locked in 0 position, with adequate modification also in I position. Narrowest minimum clearance between enclosure side plates of control panel and circuit-breaker is defined by mounting bracket. Extensions cannot be used.	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	1 off
		For operation on the left	NZM2(-4) PN2(-4), N2(-4)	
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	
		For operation on the right	NZM2(-4) PN2(-4), N2(-4)	
Red-yellow for Emergency-Stop				
	Lockable in 0 position on handle. Narrowest minimum clearance between enclosure side plates of control panel and circuit-breaker is defined by mounting bracket. Extensions cannot be used.	For operation on the left	NZM1(-4) PN1(-4), N1(-4)	1 off
		For operation on the left	NZM2(-4) PN2(-4), N2(-4)	
		For operation on the right	NZM1(-4) PN1(-4), N1(-4)	
		For operation on the right	NZM2(-4) PN2(-4), N2(-4)	
Add-on plate				
For fitting to the mounting bracket when using N conductor or PE conductor terminals K25, K50, K95 or K150.				
	—	—	NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	1 off

Additional terminal arrangement for side wall operator with mounting bracket

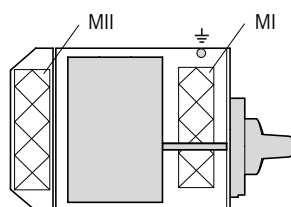
NZM1-XS(R)M-..., NZM2-XS(R)M-...

Additional terminals K25, K50, K95, K150

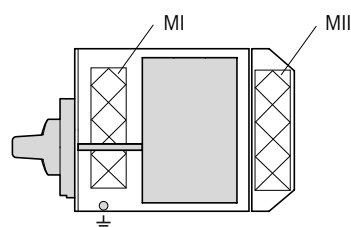
Actuation:

3-pole

For operation on the right

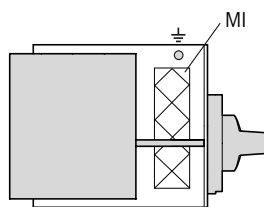


For operation on the left

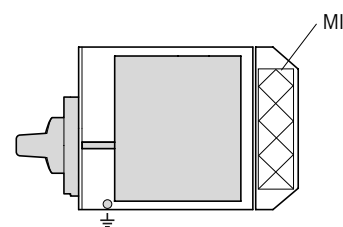


4-pole

For operation on the right



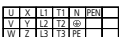
For operation on the left

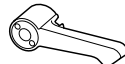
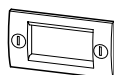
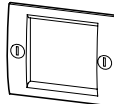
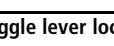
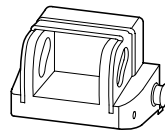
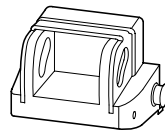
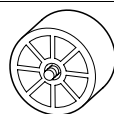
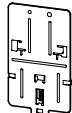


Mounting areas		MI				MII	
Variation options		V1	V2	V3	V4	V1	V2
Maximum number of additional terminals	K25	2 ×	—	—	—	—	—
	K50	—	2 ×	—	—	—	—
	K95	—	—	1 ×	—	1 ×	—
	K150	—	—	—	1 ×	—	1 ×

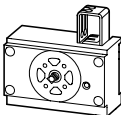
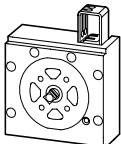
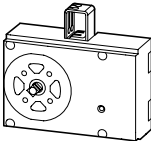
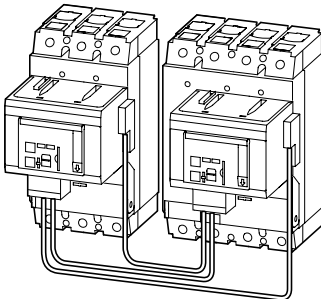
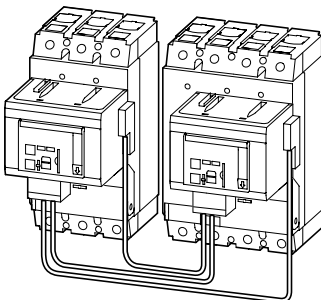
Example: In mounting area MI, variation option 1 allows the K25 additional terminal to be mounted twice.

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For use with		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
External warning/markling plate					
“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			
English		ZFS62-NZM7 065957			
French		ZFS63-NZM7 065958			
Blank (for engraving or printing)		ZFS60-NZM7 065896			
Further languages		ZFS*-NZM7 999978			
		External warning plates are available in the following languages: 64 Bulgarian 73 Romanian 65 Danish 74 Russian 66 Finnish 75 Swedish 67 Dutch 76 Serbo-Croatian 68 Italian 77 Spanish 69 Greek 78 Czech 70 Norwegian 79 Turkish 71 Polish 80 Hungarian 72 Portugese 81 Afrikaans To obtain the reference for ordering, insert the language code number into the type reference required Ordering example External warning plate in Finnish: ZFS66-NZM7			
Lightning symbol					
For main switches					
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	

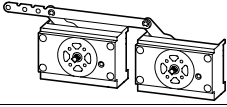
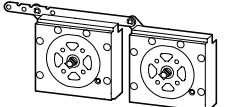
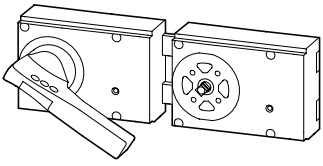
For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Add-on handle				
Enables switching when the control panel door is open				
 NZM1(-4), PN1(-4), N1(-4) NZM2(-4), PN2(-4), N2(-4)	NZM1/2-XDZ 266621		1 off	Push-fits on to the extension shaft 100 mm free extension shaft required.
 NZM3(-4), PN3(-4), N3(-4) NZM4(-4), N4(-4)	NZM3/4-XDZ 266622		1 off	
Insulating surrounds				
For toggle lever, rotary handle with rotary drive and remote operator.				
 NZM1(-4) PN1(-4), N1(-4)	NZM1-XBR 260195		1 off	For oblong cut-out on doors and enclosures with material thicknesses of 1.5 – 5 mm. External warning plate/designation label can be clipped on NZM4-XBR cannot be combined with rotary handle with rotary drive.
 NZM2(-4) PN2(-4), N2(-4)	NZM2-XBR 260197			
 NZM3(-4) PN3(-4), N3(-4)	NZM3-XBR 284645			
 NZM4(-4) N4(-4)	NZM4-XBR 284646			
Toggle lever locking device				
Off position lockable using up to 3 padlocks (hasp thickness 4 – 8 mm)				
 NZM1(-4) PN1(-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 low-priced adjustment of differing frame sizes with/without rotary handle to the same front depth				
 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 Type contains 4 off spacer Maximum component capacity: NZM1: 4 units per fixing screw, NZM2: 2 units per fixing screw 2 (NZM1) or 4 (NZM2) fixing screws contained per circuit-breaker
 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 NZM3, NZM4: 1 off per fixing screw 4 fixing screws per switch included
Clip plate				
Enables snap-fit of the circuit-breaker to a DIN rail				
 NZM1(-4) PN1(-4) N1(-4)	NZM1-XC35 260213		1 off	For top-hat rail 35 mm
 NZM2 PN2 N2	NZM2-XC75 260215		1 off	For top-hat rail 75 mm Not suitable for circuit-breakers with remote operator.

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	For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Mechanical interlocking of (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. Cannot be combined with rotary handles and door coupling rotary handles for -UL/CSA approved NA switches. In order to establish a mechanical interlock at least 2 interlock modules are required. Possible combinations and interlock variants → engineering Order Bowden cables separately
	NZM2(-4) PN2(-4), N2(-4)	NZM2-XMV 281582			
	NZM3(-4) PN3(-4), N3(-4)	NZM3-XMV 281583			
	NZM4(-4) N4(-4)	NZM4-XMV 281584			
Bowden cables					
For mechanical interlocking of (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			
		NZM-XBZ1000 281587			
Mechanical interlock for remote operator					
For 2 switches of the same or next frame size with each other. Mounting beside one another.					
	NZM2(-4), N2(-4) +NZM2(-4), N2(-4)	NZM2-XMVR ¹⁾ 104543		1 off	Type contains parts for both switches. Remote operator also required. Maximum switching distance → engineering 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 ¹⁾ 104544			
	NZM3(-4), N3(-4) +NZM3(-4), N3(-4)	NZM3-XMVR ¹⁾ 104545			
	NZM3(-4), N3(-4) +NZM4(-4), N4(-4)	NZM3/4-XMVR ¹⁾ 104546			
	NZM4(-4), N4(-4) +NZM4(-4), N4(-4)	NZM4-XMVR ¹⁾ 104547			
For 2 switches of the same or next frame size with each other. Extra long Bowden cables for mounting in neighbouring control panel fields.					
	NZM2(-4), N2(-4) +NZM2(-4), N2(-4)	NZM2-XMVRL ¹⁾ 104548		1 off	Type contains parts for both switches. Remote operator also required. Maximum switching distance → engineering 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 ¹⁾ 104549			
	NZM3(-4), N3(-4) +NZM3(-4), N3(-4)	NZM3-XMVRL ¹⁾ 104550			
	NZM3(-4), N3(-4) +NZM4(-4), N4(-4)	NZM3/4-XMVRL ¹⁾ 104551			
	NZM4(-4), N4(-4) +NZM4(-4), N4(-4)	NZM4-XMVRL ¹⁾ 104552			

Notes

¹⁾ on request

	For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Paralleling mechanism					
Simultaneous actuation of 2 PN switch-disconnectors of the same type mounted side-by-side.					
	PN1(-4) + PN1(-4)	PN1-XPA 283471		1 off	Rotary handle on switch or door coupling rotary handle per PN... is additionally required. Combinations as required are also possible. Cannot be combined with mechanical interlock, insulating surrounds, side wall operators or remote operators. PN3-XPA: Only in conjunction with non lockable rotary handles or door coupling rotary handles. • Rotary handle on switch: NZM3...-XD • Door coupling rotary handle: NZM3...-XTD Not suitable for use as a main switch.
	PN2(-4) + PN2(-4)	PN2-XPA 283472			
	PN3(-4) + PN3(-4)	PN3-XPA¹⁾ 283473			

Notes¹⁾ A non-lockable rotary handle is supplied (necessary due to the double torque).

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For use with	Rated control voltage	Part no. Article no. when ordered separately	Price see price list	Std. pack
	U_s V			
Remote operator				
For remote switching of circuit-breakers and switch-disconnectors. ON and OFF switching and resetting by means of 2-wire or 3-wire control. Can be synchronized. Local switching by hand possible Lockable in the 0 position of the remote operator with up to 3 padlocks (hasp thickness: 4 – 8 mm)				
	NZM2(-4) N2(-4)	48 – 60 V 50/60 Hz	NZM2-XR48-60AC 259828	1 off
		110 – 130 V 50/60 Hz	NZM2-XR110-130AC 259830	
		208 – 240 V 50/60 Hz	NZM2-XR208-240AC 259832	
		380 – 440 V 50/60 Hz	NZM2-XR380-440AC 259834	
		24 – 30 V DC	NZM2-XR24-30DC 259836	
		48 – 60 V DC	NZM2-XR48-60DC 259838	
		110 – 130 V DC	NZM2-XR110-130DC 259840	
		220 – 250 V DC	NZM2-XR220-250DC 259842	
	NZM3(-4) N3(-4)	48 – 60 V 50/60 Hz	NZM3-XR48-60AC 259846	
		110 – 130 V 50/60 Hz	NZM3-XR110-130AC 259848	
		208 – 240 V 50/60 Hz	NZM3-XR208-240AC 259850	
		380 – 440 V 50/60 Hz	NZM3-XR380-440AC 259852	
		24 – 30 V DC	NZM3-XR24-30DC 259854	
		48 – 60 V DC	NZM3-XR48-60DC 259856	
		110 – 130 V DC	NZM3-XR110-130DC 259858	
		220 – 250 V DC	NZM3-XR220-250DC 259860	
	NZM4(-4) N4(-4)	48 – 60 V 50/60 Hz	NZM4-XR48-60AC 266683	
		110 – 130 V 50/60 Hz	NZM4-XR110-130AC 266684	
		208 – 240 V 50/60 Hz	NZM4-XR208-240AC 266685	
		380 – 440 V 50/60 Hz	NZM4-XR380-440AC¹⁾ 266686	
		24 – 30 V DC	NZM4-XR24-30DC 266691	
		48 – 60 V DC	NZM4-XR48-60DC 266692	
		110 – 130 V DC	NZM4-XR110-130DC 266693	
		220 – 250 V DC	NZM4-XR220-250DC 266694	
Shroud for 4th pole Additional shroud for mounting the NZM2-XR... and NZM3-XR... on a 4-pole switch.				
	NZM2-4 N2-4	–	NZM2-XAVPR 266677	1 off
	NZM3-4 N3-4	–	NZM3-XAVPR 266678	1 off
Clamp terminal springloaded clamp Control circuit terminal springloaded terminals				
	NZM...-XR...	–	NZM-XRC 266696	1 off

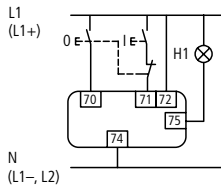
Notes ¹⁾ Not UL/CSA approved.

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Notes

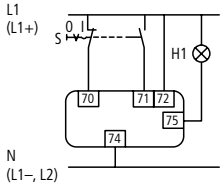
Remote operator are combinable with NZM circuit-breakers and N switch-disconnectors but not with PN switch-disconnectors.
A standard auxiliary contact (HIN) for the switch position detection is supplied.
When installing the NZM2-XR... and NZM3-XR... remote operators on 4-pole switches, an additional 4th pole NZM2-XAVPR or NZM3-XAVPR shroud is necessary.

3-wire control



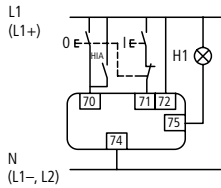
Terminal 70/71:
Please note during engineering:
Full current flows through the contact during make and break!
RMQ series contact elements can be used for the NZM2(3,4)-XR... remote operators.

2-wire control



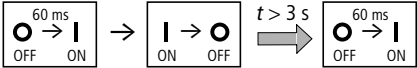
Terminal 75:
Ready for activation signal after the cover is closed and not locked.
AC-15: 400 V; 2 A
DC-13: 220 V; 0.2 A

3-wire control with automatic reset to the OFF position after the switch has tripped

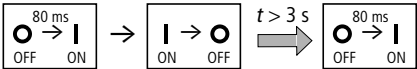


Switching cycle:

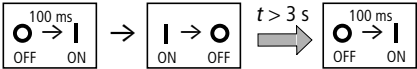
NZM2-XR



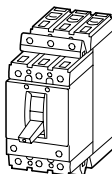
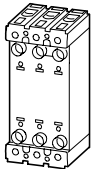
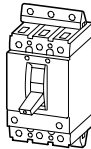
NZM3-XR



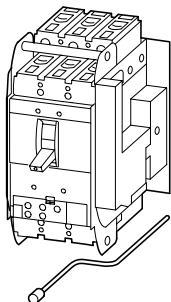
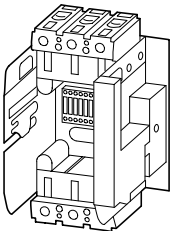
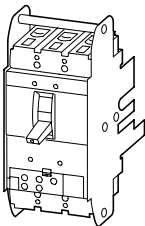
NZM4-XR



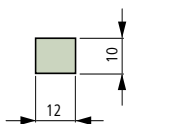
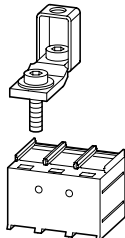
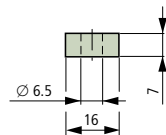
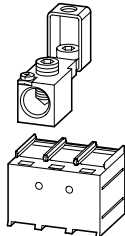
The time interval between OFF and ON is 3 seconds.
On commands received during the time interval are ignored within the first 3 seconds after switch off.

For use with	Number of poles	Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes	
Plug-in units								
For circuit-breakers NZM and switch-disconnectors N not UL/CSA approved								
Plug-in adapter elements								
Complete								
Only in combination with circuit-breaker								
	NZM2 N2	3 pole	+NZM2-XSV 266697			1 off	<i>I</i> _{max.} at: 20 °C: 250 A 40 °C: 230 A (NZM...2-...) 250 A (NZM...2-E...) Mounting position: vertical, 90° right, 90° left Order control circuit plug unit separately!	
	NZM2-4 N2-4	4 pole	+NZM2-4-XSV 266698			1 off		
Sockets e.g. for reserved slots Retrofit of circuit-breaker with plug-in module.								
	NZM2 N2	3 pole		NZM2-XSVS 266699		1 off		
	NZM2-4 N2-4	4 pole		NZM2-4-XSVS 266700		1 off		
Removable module Fits socket base Only in combination with circuit-breaker								
	NZM2 N2	3 pole	+NZM2-XSVE 266701			1 off		
	NZM2-4 N2-4	4-pole	+NZM2-4-XSVE 266702			1 off		
Control circuit plug unit								
	NZM2(-4) N2(-4)	for auxiliary contact, shunt/undervoltage		NZM2-XSVHI 266705		1 off	—	
	NZM2(-4) N2(-4)	for remote operator		NZM2-XSVR 266706		1 off	—	

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	For use with	Number of poles	Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Withdrawable unit with control circuit plug unit For circuit-breakers NZM and switch-disconnectors N not UL/CSA approved								
Withdrawable unit with auxiliary plug-in adapter Complete Only in combination with circuit-breaker								
	NZM3 N3	3 pole	+NZM3-XAV 266707				1 off	<i>I</i> _{nmax} . at: 20 °C: 605 A (NZM3), 1600 A (NZM4) 40 °C: 550 A (NZM3), 1500 A (NZM4) Mounting position: NZM3: vertical, 90 ° left NZM4: vertical, 3 positions Connected, test, disconnected The 3 positions are indicated mechanically. Additionally, auxiliary contacts are use for remote signalling. An optional M22-(C)K01 N/C contact or M22-(C)K10 N/O contact per position. Also see the RMQ-Titan control circuit device range. All connections of auxiliary switches (HIA, HIN, HIV) and undervoltage and shunt releases to the control circuit plug units are already present. Cannot be combined with NZM4/NZM14 (NZM4-XSAS14-...) or N(ZM)4/N(ZM)12 adapter kits.
	NZM3-4 N3-4	4 pole	+NZM3-4-XAV 266708					
	NZM4 N4	3 pole	+NZM4-XAV 266709					
	NZM4-4 N4-4	4 pole	+NZM4-4-XAV 266710					
Socket base e.g. for reserved slots Retrofit of circuit-breaker with withdrawable carrier.								
	NZM3 N3	3 pole			NZM3-XAVS 266711		1 off	
	NZM3-4 N3-4	4 pole			NZM3-4-XAVS 266712			
	NZM4 N4	3 pole			NZM4-XAVS 266713			
	NZM4-4 N4-4	4-pole			NZM4-4-XAVS 266714			
Withdrawable carrier Not UL/CSA approved.								
	NZM3 N3	3 pole	+NZM3-XAVE 266715				1 off	
	NZM3-4 N3-4	4 pole	+NZM3-4-XAVE 266716					
	NZM4 N4	3 pole	+NZM4-XAVE 266717					
	NZM4-4 N4-4	4 pole	+NZM4-4-XAVE 266718					

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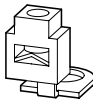
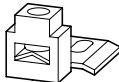
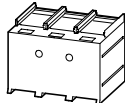
	Max. cable connection	For use with		Terminal capacities Type of conductor	Terminal capacities mm ²	AWG/kcmil
Box terminal						
Standard equipment		NZM1(-4), PN1(-4), N(S)1(-4)	Three- and four- pole	Cu cable	1 × 10 – 70 ¹⁾ 2 × 6 – 25	1 × 8 – 2/0
Screw connection						
		NZM1(-4), PN1(-4), N(S)1(-4)	Three- and four- pole	Copper cable lugs Aluminium cable lugs	1 × 10 – 70 2 × 6 – 25 1 × 10 – 35 2 × 10 – 35	1 × 8 – 2/0
Tunnel terminal						
	– –	NZM1(-4), PN1(-4), N(S)1(-4)	Three- and four- pole	Copper cable ☺☹ Al cable ☺☹	1 × 16 – 95	1 × 6 – 3/0
Connection on rear						
not UL/CSA approved	– –	NZM1(-4), PN1(-4), N(S)1(-4)	Three- and four- pole	Copper cable lugs	1 × 2.5 – 25 2 × 2.5 – 25 1 × 10 – 35 2 × 10 – 35	

Notes ¹⁾ Up to 240 mm² can be connected depending on the cable manufacturer.

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Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × thickness mm				
2 × 9 × 0.8		NZM1-XKC 260015		1 off	Standard connection with all switches NZM1, PN1 and N(S)1. Conversion kit for circuit-breaker with screw connection. Type contains parts for a 3 or 4-pole switch side. Fitted within the switch housing
		NZM1-4-XKC 267075		1 off	
	min. 12 × 5	NZM1-XKS 260019		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Fitted outside the switch housing Mounting of the cover NZM1(-4)-XKSA obligatory (supplied).
		NZM1-4-XKS 266725		1 off	
		NZM1-XKA 266730		1 off	Type contains parts for a terminal located at top or bottom for 3 or -pole circuit-breakers. A standard with control circuit terminal for 1 × 0.75 – 2.5 mm² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm² (18 – 14 AWG) copper conductors. Fitted outside the switch housing Use with flexible and highly flexible conductors ferrules. Maximum specified cross-section can only be connected when stranded and without ferrules. Mounting of the cover NZM1(-4)-XKSA obligatory (supplied).
		NZM1-4-XKA 266731		1 off	
	min. 12 × 5 max. 16 × 5	NZM1-XKR 266734		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers.
		NZM1-4-XKR 266737		1 off	

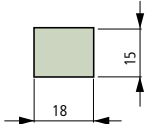
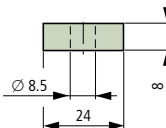
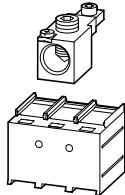
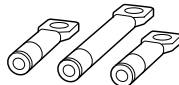
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	Max. cable connection	For use with	Terminal capacities			
			Type of conductor	Terminal capacities	AWG/kcmil	
				mm ²		
Control circuit terminal						
	–	NZM1(-4), PN1(-4), N(S)1(-4)	Three- and four- pole	Screw connection	1 × 0.75 – 2.5 2 × 0.75 – 1.5	1 × 18 – 14 2 × 18 – 16
	–			Box terminal		
Cover						
	–	NZM1(-4), PN1(-4), N(S)1(-4)	3 pole			
	–		4 pole			
Connection cover, knockout						
For box terminals						
	–	NZM1, PN1, N1	3-pole			
		NZM1(-4), PN1(-4), N1(-4)	4 pole			
IP2X protection against contact with a finger						
For box terminals						
	–	NZM1, PN1, N1	3 pole			
		NZM1(-4), PN1(-4), N1(-4)	4 pole			
For cover NZM1(-4)-XKSA or NZM1...(C)NA, N(S)1...NA						
	–	NZM1, PN1, NS1	3 pole			
		NZM1(-4), PN1(-4), N1(-4)	4 pole			

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Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × thickness mm				
		NZM1-XSTS 260150		1 off	Type contains parts for two terminal locations located at top or bottom for 3 or 4-pole circuit-breakers. 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 the control terminals: NZM-XSTK = 2 mm NZM-XSTS = 2 mm
		NZM-XSTK 266739		1 off	
		NZM1-XKSA 260021		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers.
		NZM1-4-XKSA 266741		1 off	Protection against direct contact where cable lugs, busbars or tunnel terminals are used Contained in kit with tunnel terminals or screw connection terminals. Degree of protection IP1X on the connection side when using insulated conductor material.
		NZM1-XKSFA 100780		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers.
		NZM1-4-XKSFA 100781		1 off	Enhancement of the protection against direct contact (simplified protection against contact with a finger). Cannot be combined with NZM-XSTK control circuit terminal.
		NZM1-XIPK 266744		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers.
		NZM1-4-XIPK 266745		1 off	Enhancement of the protection against direct contact to IP2X. Protection when reaching into the cable connection area with the connection of cables in the box terminal. Cannot be combined with NZM-XSTK control circuit terminal.
		NZM1-XIPA 266748		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers.
		NZM1-4-XIPA 266749		1 off	Enhancement of the protection against direct contact to IP2X.

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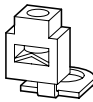
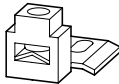
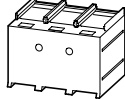
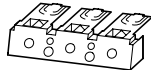
	Max. cable connection area	For use with	Terminal capacities			Terminal capacities	
			Type of conductor	Terminal capacities	AWG/kcmil	Cu strip (number of segments × width × segment thickness)	
				mm ²		mm	
Box terminal							
		NZM2(-4), PN2(-4), N(S)2(-4)	Three- and four- pole	Copper conductors Cu cable	1 × 4 – 185 2 × 4 – 70	1 × 11 – 350	≥ 2 × 9 × 0.8
Screw connection							
		NZM2(-4), PN2(-4), N(S)2(-4)	Three- and four- pole	Copper cable lugs Aluminium cable lugs	1 × 4 – 185 2 × 4 – 70 1 × 10 – 50 2 × 10 – 50	1 × 11 – 3/0	≥ 2 × 16 × 0.8
Tunnel terminal							
	– –	NZM2(-4), PN2(-4), N(S)2(-4)	Three- and four- pole	Copper cable ☹ Copper cable ☹	1 × 16 – 185 ¹⁾	1 × 6 – 350 –	
Connection on rear							
not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.							
	– – – –	NZM2(-4), PN2(-4), N2(-4)	Three- and four- pole	Copper cable lugs Aluminium cable lugs	1 × 4 – 185 2 × 4 – 70 1 × 10 – 50 2 × 10 – 50		min. 2 × 16 × 0.8 max. 6 × 24 × 0.5

Notes ¹⁾ Up to 240 mm² can be connected depending on the cable manufacturer.

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Copper busbar width × thickness mm	Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std.	Notes
	+NZM2-160-XKCO 262218		NZM2-160-XKC 262240		1 off	Type suffix and type contain parts for a circuit-breaker side at top or bottom for 3 or 4-pole circuit-breakers. Conversion kit for circuit-breaker with screw connection. Fitted within the switch housing O = for fitting at the top U = for fitting at the bottom U _e ≧ 525 V AC: • Use cover NZM2(-4)-XKSA.
	+NZM2-160-XKCU 262223					
	+NZM2-250-XKCO 262242		NZM2-250-XKC 262244			
	+NZM2-250-XKCU 262243					
	+NZM2-4-160-XKCO 266751		NZM2-4-160-XKC 266755			
	+NZM2-4-160-XKCU 266753					
	+NZM2-4-250-XKCO 266752		NZM2-4-250-XKC 266756			
	+NZM2-4-250-XKCU 266754					
≧ 16 × 5			NZM2-XKS 260030		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Standard connection with all NZM2, PN2 and N2 circuit-breakers. Conversion kit for circuit-breaker with box terminal. Use special cable lug narrow version, → 101 Fitted within the switch housing If a busbar is used its insulation (400 mm) e.g. by heat-shrink and a shroud NZM2(-4)-XKSA are necessary. U _e ≧ 525 V AC: • On all other connection types a shroud NZM2(-4)-XKSA should be used.
			NZM2-4-XKS 266750		1 off	
			NZM2-XKA 271457		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. A standard with control circuit terminal for 1 × 0.75 – 2.5 mm ² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm ² (18 – 16 AWG) copper conductors. Fitted outside the switch housing Use with flexible and highly flexible conductors ferrules. Maximum specified cross-section can only be connected when stranded and without ferrules. Mounting of the cover NZM2(-4)-XKSA obligatory (supplied).
			NZM2-4-XKA 271458		1 off	
Min. 16 × 5 Max. 20 × 5	+NZM2-XKRO 266763		NZM2-XKR 266765		1 off	Type suffix and type contain parts for a circuit-breaker side at top or bottom for 3 or 4-pole circuit-breakers. O = for fitting at the top U = for fitting at the bottom
	+NZM2-XKRU 266764					
	+NZM2-4-XKRO 266766		NZM2-4-XKR 266768			
	+NZM2-4-XKRU 266767					

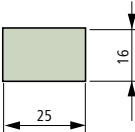
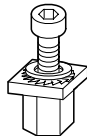
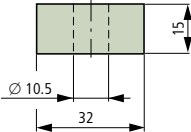
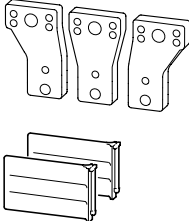
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	Max. cable connection area		For use with		Terminal capacities Type of conductor	Terminal capacities mm ²	AWG/kcmil
Control circuit terminal							
	–	–	NZM2(-4), PN2(-4), N(S)2(-4)	Three- and four-pole	Screw connection	1 × 0.75 – 2.5 2 × 0.75 – 1.5	1 × 18 – 14 2 × 18 – 16
	–	–	NZM2(-4), PN2(-4), N(S)2(-4)	Three- and four-pole	Box terminal	1 × 0.75 – 2.5 2 × 0.75 – 1.5	1 × 18 – 14 2 × 18 – 16
Cover							
	–	–	NZM2, PN2, NS2	3 pole			
	–	–	NZM2(-4), PN2(-4), N(S)2(-4)	4 pole			
Connection cover, knockout							
	–	–	NZM2, PN2, N(S)2	3 pole			
	–	–	NZM2(-4), PN2(-4), N(-4)	4 pole			
IP2X protection against							
For box terminals							
	–		NZM2, PN2, N(S)2	3 pole			
			NZM2(-4), PN2(-4), N2(-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), N2(-4)	4-pole			
Copper cable lug							
not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.							
	–	95 mm ²	NZM2(-4), PN2(-4), N2(-4)	Three- and four-pole			
	–	120 mm ²					
	–	150 mm ²					
	–	185 mm ²					

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Terminal capacities Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × thickness mm	Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
				NZM2-XSTS 260156		1 off	Type contains parts for two terminal locations located at top or bottom for 3 or 4-pole circuit-breakers. Included as standard with tunnel terminal Degree of protection IP1X NZM-XSTK cannot be combined with NZM2(-4)-XIPK IP2X protection against contact with a finger. Height or thickness of the control circuit terminals: NZM-XSTK = 2 mm NZM-XSTS = 2 mm
				NZM-XSTK 266739		1 off	
				NZM2-XKSA 260038		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit- breakers. Protection against direct contact where cable lugs, busbars or tunnel terminals are used Degree of protection IP1X on the connection side when using insulated conductor material.
				NZM2-4-XKSA 266770		1 off	
				NZM2-XKSFA 104640		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit- breakers. Enhancement of the protection against direct contact (simplified protection against contact with a finger).
				NZM2-4-XKSFA 104641		1 off	
				NZM2-XIPK 266773		1 off	Type contains parts for a terminal located at top or bottom for3 or 4-pole circuit- breakers. Enhancement of the protection against direct contact to IP2X. Protection when reaching into the cable connection area with the connection of cables in the box terminal. With 2 conductors minimum cross-section 25 mm² or AWG4. Cannot be combined with NZM-XSTK control circuit terminal.
				NZM2-4-XIPK 266774		1 off	
				NZM2-XIPA 266777		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit- breakers. Enhancement of the protection against direct contact to IP2X. When mounting NZM2-...(C)NA or NZM...-NA the following applies: With 2 conductors minimum cross-section 25 mm² or AWG4.
				NZM2-4-XIPA 266778		1 off	
				KS95-NZM7 059775		3 off	Type contains a cable lug for 3-pole or 4-pole switches. Special cable lug, narrow style
				KS120-NZM7 059776			
				KS150-NZM7 059777			
				NZM2-XKS185 260032			

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	Max. cable connection	Rated current ¹⁾	For use with	Terminal capacities		AWG/kcmil	
		I_n A		Type of conductor	Terminal capacities		
					mm ²		
Box terminal							
		Max. 500 400 UL/CSA	NZM3(-4), PN3(-4), N(S)3(-4)	Three- and four- pole	Copper conductors Cu cable	1 × 35 – 240 2 × 16 – 120	1 × 2 – 500
		Max. 630					
Screw connection							
		Max. 630	NZM3(-4), PN3(-4), N(S)3(-4)	Three- and four- pole	Copper cable lugs	1 × 16 – 240 2 × 16 – 240	1 × 4 – 350
		Max. 400			Aluminium cable lugs	1 × 10 – 120 2 × 10 – 120	
Connection width extension							
		Max. 630	NZM3(-4), PN3(-4), N(S)3(-4)	Three- and four- pole	Copper cable lugs	2 × 300	2 × 500
					Aluminium cable lugs		

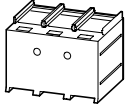
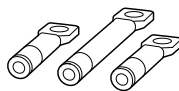
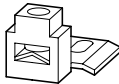
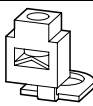
Notes

¹⁾ The following applies for the rated current: The values have been determined conform to IEC 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

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Terminal capacities Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × thickness mm	Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
min. 6 × 16 × 0.8 max. 20 × 24 × 0.5 max. 11 × 21 × 1		+NZM3-XKCO 262246				1 off	Type suffix and type contain parts for a circuit-breaker side at top or bottom for 3 or 4-pole circuit-breakers. Conversion kit for circuit-breaker with screw connection. Fitted within the switch housing O = for fitting at the top U = for fitting at the bottom <i>U_e</i> ≥ 525 V AC: • Use NZM3(-4)-XKSA cover. Use with flexible and highly flexible conductors ferrules, note the max. terminal capacity when using ferrules.
				NZM3-XKC 260042			
10 × 24 × 1.0 + 5 × 24 × 1.0 or (2 ×) 8 × 24 × 1.0		+NZM3-XKCU 262245					
		+NZM3-4-XKCO 266781					
				NZM3-4-XKC 266783			
		+NZM3-4-XKCU 266782					
10 × 32 × 1.0 + 5 × 32 × 1.0	30 × 10 + 30 × 5			NZM3-XKS 260039		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Standard connection with all NZM3, PN3 and N3 circuit-breakers. Conversion kit for circuit-breaker with box terminal. Use special cable lugs narrow version, → 101 Fitted within the switch housing When a busbar is used insulation is required (400 mm) e.g. using heat shrink and a shroud NZM3(-4)-XKSA. <i>U_e</i> ≥ 525 V AC: A shroud NZM3(-4)-XKSA must be used with all other connection types.
				NZM3-4-XKS 266780		1 off	
(2 ×) 10 × 50 × 1.0	(2 ×) 10 × 50			NZM3-XKV70 100514		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Central holes, e.g. for up to 2 cable lugs per phase. Can be fitted to circuit-breaker with screw termination Phase isolator supplied. Distance between pole centres with NZM3(-4)-XKV70: 70 mm Drilled hole available for control cable. Terminals NZM3(-4)-XK300 and NZM3(-4)-XK22X21 can be mounted.
				NZM3-4-XKV70 100515		1 off	

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Max. cable connection		Rated current ¹⁾	For use with	Terminal capacities			AWG/kcmil	
		I_n A		Type of conductor	Terminal capacities			
mm ²								
Terminals for connection width extension								
not UL/CSA approved								
		Max. 500	NZM3, PN3, N3	3-pole	Cu cable	1 × 120 – 300		
			NZM3(-4), PN3(-4), N3(-4)	4-pole	Cu cable	1 × 120 – 300		
		Max. 630	NZM3, PN3, N3	3-pole				
			NZM3(-4), PN3(-4), N3(-4)	4-pole				
Tunnel terminal								
	–	Max. 350	NZM3(-4), PN3(-4), N(S)3(-4)	Three- and four-pole	Copper cable ☉ ☿ Al-Kabel ☉ ☿	1 × 16 – 185 ²⁾	1 × 6 – 350	
	–						–	
		Max. 630				1 × 50 – 240 2 × 50 – 240	1 × 0 – 500 2 × 0 – 500	
	–							
Connection on rear								
not UL/CSA approved								
	–	Max. 630	NZM3(-4), PN3(-4), N3(-4)	Three- and four-pole	Copper conductors Cu cable	1 × 16 – 240 2 × 16 – 240		
	–							
	–	Max. 500			Al conductors Al cable	1 × 10 – 120 2 × 10 – 120		
	–							
Control circuit terminal								
	–	–	NZM3(-4), PN3, N(S)3(-4)	Three- and four-pole	Box terminal	1 × 0.75 – 2.5 2 × 0.75 – 1.5	1 × 18 – 14 2 × 18 – 16	
	–	–	NZM3(-4), PN3, N(S)3(-4)		Screw connection			

Notes

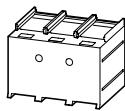
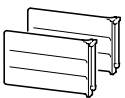
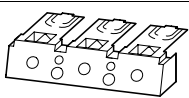
¹⁾ The following applies for the rated current: The values have been determined conform to IEC 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

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

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Terminal capacities		Part no.	Price	Part no.	Price	Std. pack	Notes
Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × mm	Article no. when ordered with basic unit	see price list	Article no. when ordered separately	see price list		
				NZM3-XK300 100782		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Only in conjunction with connection width extension NZM3(-4)-XKV70. Use with flexible and highly flexible conductors ferrules. Standard with control circuit terminal for 1 × 0.75 – 2.5 mm ² or 2 × 0.75 – 1.5 mm ² copper conductors.
				NZM3-4-XK300 100783			
22 × 21 × 1.0				NZM3-XK22X21 100784			
				NZM3-4-XK22X21 100785			
				NZM3-XKA1 271459		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. A standard with control circuit terminal for 1 × 0.75 – 2.5 mm ² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm ² (18 – 16 AWG) copper conductors. Fitted outside the switch housing Use with flexible and highly flexible conductors ferrules. Maximum specified cross-section can only be connected when stranded and without ferrules. Mounting of the cover NZM3(-4)-XKSA obligatory (supplied).
				NZM3-4-XKA1 271460			
				NZM3-XKA2 271461			
				NZM3-4-XKA2 271462			
						1 off	Type suffix and type contain parts for a circuit-breaker side at top or bottom for 3 or 4-pole circuit-breakers. 0 = for fitting at the top U = for fitting at the bottom
		+NZM3-XKRO 266790					
				NZM3-XKR 266792			
		+NZM3-XKRU 266791					
min.6 × 16 × 0.8 max. 10 × 32 × 1.0	Min. 20 × 5 Max. 30 – 10	+NZM3-4-XKRO 266793					
				NZM3-4-XKR 266795			
		+NZM3-4-XKRU 266794					
				NZM-XSTK 266739		1 off	Type contains parts for two terminal locations located at top or bottom for 3 or 4-pole circuit-breakers. 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 the control terminals: NZM-XSTK = 2 mm NZM-XSTS = 2 mm
				NZM3/4-XSTS 266797		1 off	

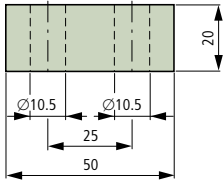
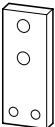
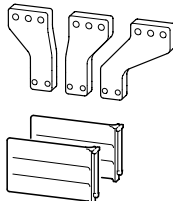
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		Max. cable connection area	For use with	Terminal capacities		Type of conductor	Terminal capacities mm ²	AWG/kcmil	Terminal capacities		Copper busbar width × thickness mm
									Cu strip (number of segments × width × segment thickness) mm		
Cover											
	—		NZM3(-4), PN3(-4), N(S)3(-4)	3 pole							
	—			4 pole							
Phase isolator											
	—		NZM3(-4), PN3(-4), N(S)3(-4)	3 pole							
	—			4 pole							
Connection cover, knockout											
	—		NZM3(-4), PN3(-4), N(S)3(-4)	3 pole							
	—			4 pole							
IP2X protection against contact with a finger											
For box terminals											
			NZM3(-4), PN3(-4), N3(-4)	3 pole							
				4 pole							
For cover NZM3(-4)-XKSA or NZM3...(C)NA and N(S)3...NA											
			NZM3(-4), PN3(-4), N(S)3(-4)	3 pole							
				4 pole							
Copper cable lug											
not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.											
	240 mm ²		NZM3(-4), PN3, N3(-4) NZM4(-4), N4(-4)	Three- and four- pole							
	185 mm ²										

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Part no. Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
		NZM3-XKSA 260045		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Insulation/protection against direct contact where cable lugs, busbars or tunnel terminals are used. Included in set with tunnel terminals Degree of protection IP1X on the connection side when using insulated conductor material.
		NZM3-4-XKSA 266801		1 off	
		NZM3-XKP 100512		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Included with the connection width extension. Cannot be combined with the NZM3(-4)-XKA tunnel terminal, NZM3-XKR connection on rear. Insulation protection where cable lugs, busbars or flat conductor.
		NZM3-4-XKP 100513		1 off	
		NZM3-XKSFA 104642		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Enhancement of the protection against direct contact to (simplified protection against contact with a finger).
		NZM3-4-XKSFA 104643		1 off	
		NZM3-XIPK 266804		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Enhancement of the protection against direct contact to IP2X. Protection when reaching into the cable connection area with the connection of cables in the box terminal. With 2 conductors minimum cross-section 70 mm² 00 or AW00. Cannot be combined with NZM-XSTK control circuit terminal.
		NZM3-4-XIPK 266805		1 off	
		NZM3-XIPA 266808		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Enhancement of the protection against direct contact to IP2X. When mounting NZM3-...(C)NA or N3...-NA the following applies: With 2 conductors minimum cross-section 70 mm² 00 or AW00.
		NZM3-4-XIPA 266809		1 off	
		NZM3-XKS240 260041		3 off	Type contains a cable lug for 3-pole or 4-pole switches. Special cable lug, narrow style
		NZM3-XKS185 260040		3 off	

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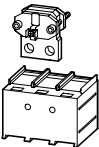
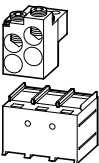
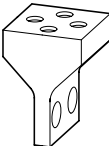
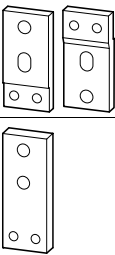
Max. cable connection area		Rated current ¹⁾	For use with	Terminal capacities				
		I_n A		Type of conductor	Terminal capacities	AWG/kcmil		
					mm ²			
Screw connection								
Standard equipment								
	Double hole		Max. 1250	NZM4(-4) N4(-4) N(S)4	Three- and four- pole	Cu cable lugs	1 × 120 – 185	1 × 250 – 350
		Max.	4 × 50 – 185				4 × 0 – 350	
Module plate								
	Single hole		Max. 1250	NZM4, N(S)4	3 pole	Copper cable lugs	1 × 120 – 300	1 × 250 – 600
				NZM4-4, N4-4	4 pole		2 × 95 – 300	2 × 000 – 600
	Double hole		Max. 1400	NZM4, N(S)4	3 pole	Copper cable lugs	2 × 95 – 185	2 × 000 – 350
				NZM4-4, N4-4	4 pole		4 × 35 – 185 4 × 50	4 × 2 – 350 4 × 0
	Double hole		Max. 1250	NZM4, N(S)4	3 pole	Copper cable lugs	2 × 95 – 300	2 × 000 – 600
				NZM4-4, N4-4	4 pole			
			Max. 1600	NZM4, N(S)4	3 pole	Copper cable lugs		
				NZM4-4, N4-4	4 pole	Copper cable lugs		
Connection width extension								
			Max. 1600	NZM4, N(S)4	3 pole	Cu cable lugs	4 × 300	4 × 600
				NZM4-4, N4-4	4 pole		6 × 95 – 240	6 × 000 – 500

Notes ¹⁾ The following applies for the rated current: The values have been determined conform to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

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Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness)	Copper busbar width × thickness				
mm	mm				
2 × (10 × 40 × 1.0)	(2 ×) 50 × 10			off	Double hole fitting for M10 screws with 25 mm clearance. Use special cable lug narrow version. <i>U_e</i> ≙ 525 V or cross-section > 185 mm²: Use of shroud NZM4(-4)-XKSA required.
2 × (10 × 40 × 1.0) 2 × (10 × 50 × 1.0)	(2 ×) 40 × 10 (2 ×) 50 × 10	NZM4-XKM1 266814 NZM4-4-XKM1 266815 NZM4-XKM2 266820 NZM4-4-XKM2 266821 NZM4-XKM2S-1250 284471 NZM4-4-XKM2S-1250 284472 NZM4-XKM2S-1600 284473 NZM4-4-XKM2S-1600 284474		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. For M10 screws. Can be enlarged for M12 screws. Use special cable lug narrow version. Can be fitted to circuit-breaker with screw termination Insulation through NZM4(-4)-XKSA cover or NZM4(-4)-XKP phase separator necessary Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Insulation through cover NZM4(-4)-XKSA or phase isolator NZM4(4)-XKP necessary.
		NZM4-XKV95 281591 NZM4-XKV110 281593 NZM4-4-XKV95 281592 NZM4-4-XKV120 281594		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Five way holes, e.g. for up to 9 cable lugs per phase. Can be fitted to circuit-breaker with screw termination 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 busbar width. Distance between pole centres with NZM4-XKV110: 107.5 mm Installation conditions for current transformer up to 135 mm width with 80 mm busbar width. Distance between pole centres with NZM4-4-XKV120: 122 mm Installation conditions for current transformer up to 164 mm width with 80 mm busbar width. 4 mm drilled holes for control circuit terminal available.

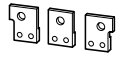
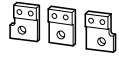
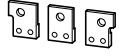
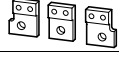
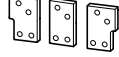
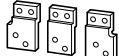
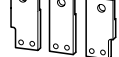
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Max. cable connection area		Rated current ¹⁾ <i>I_n</i> A	For use with	Terminal capacities			
				Type of conductor	Terminal capacities	AWG/kcmil	
					mm ²		
Flat cable terminal							
	–	Max. 1100	NZM4, N(S)4	3 pole			
	–		NZM4-4, N(S)4-4	4 pole			
Tunnel terminal							
	–	Max. 1400	NZM4, N(S)4	3 pole	Copper cable ☉ ☿ Al cable ☉ ☿	1 × 50 – 240 4 × 50 – 240 1 × 50 – 240 4 × 50 – 240	1 × 0 – 500 4 × 0 – 500
	–		NZM4-4, N(S)4-4	4 pole			
Connection on rear							
not UL/CSA approved							
	–	Max. 1250	NZM4-4, N4-4	Three- and four-pole	Copper cable lugs	1 × 120 – 185 2 × 95 – 185 4 × 35 – 185	
	–	Max. 1600			Aluminium cable lugs	1 × 185 2 × 70 – 185 4 × 50 – 185	
NZM4/NZM14 adapter kit							
not UL/CSA approved							
	–	Max. 1250	NZM4, N4	3 pole			
	–	Max. 1600	NZM4, N4	3 pole			
Notes							
¹⁾ The following applies for the rated current: The values have been determined conform to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.							

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Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness)	Copper busbar width × thickness				
mm	mm				
Min. 6 × 16 × 0.8 Max. 20 × 32 × 0.5		NZM4-XKB 266829		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Conversion kit for circuit-breaker with screw connection. Insulation through cover NZM4(-4)-XKSA or phase isolator NZM4(4)-XKP necessary. With switch mpunting on conductive mounting plates use of the shroud NZM4(-4)-XKSA necessary (supplied item).
Min. 6 × 16 × 0.8 Max. 20 × 32 × 0.5		NZM4-4-XKB 266831		1 off	
		NZM4-XKA 266836		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. A standard with control circuit terminal for 1 × 0.75 – 2.5 mm ² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm ² (18 – 16 AWG) copper conductors. Can be fitted to circuit-breaker with screw termination Use with flexible and highly flexible conductors ferrules. Mounting of the cover NZM4 (-4)-XKSA obligatory (supplied).
		NZM4-4-XKA 266837		1 off	
		NZM4-XKR 266842		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Can also be retrofitted: NZM4...-XKM... module plate or NZM4-...-XKV... connection width extension
(2 ×) 10 × 50 × 1.0	(2 ×) 50 × 10	NZM4-4-XKR 266843		1 off	
		NZM4-XAS14-1250 283291		1 off	Conversion kit from NZM14 to NZM4. Same connection schematic as NZM14. Type contains parts for both switch sides. 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 installation instructions (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 off	

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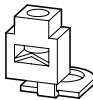
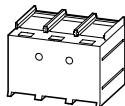
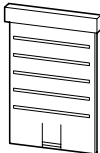
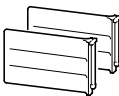
	Max. cable connection area	Rated current ¹⁾ <i>I_n</i> A	For use with	Terminal capacities				
				Type of conductor	Terminal capacities	AWG/kcmil		
					mm ²			
Adapter set N(ZM)4/N(ZM)12								
	—	Max. 1000	N4	3 pole				
								
	—	Max. 1250	N4	3 pole				
								
	—	Max. 1600	N4	3 pole				
								
	—	Max. 1000	NZM4	3 pole				
								
	—	Max. 1250	NZM4	3 pole				
								
	—	Max. 1600	NZM4	3 pole				
								
								

Notes ¹⁾ The following applies for the rated current: The values have been determined conform to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.

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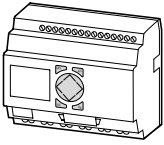
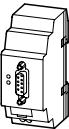
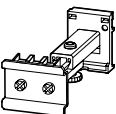
Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness) mm	Copper busbar width × thickness mm				
		N4-XAS12-1000 285609		1 off	Kit for conversion of N(ZM)12 to N(ZM)4. Using the connection lugs of the exchange kit all 3-pole NZM12 or N12 can be adapted to the connection dimensions of the NZM4 or N4, which have been manufactured since 1983. Non-exchangable are 4-pole base units as well as devices with withdrawable units and remote operators.
		N4-XAS12-1250 285610		1 off	
					Scope of the exchange 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 Paper drilling template in the assembly instructions (AWA) The exchange kits have identical dimensions to the types N(ZM)12..., which correspond to the types manufactured from 02/97 onwards.
		N4-XAS12-1600 285611		1 off	
		NZM4-XAS12-1000 285612		1 off	Special feature: The N(ZM)12-800 manufactured before 02/97 features 10 mm connection lugs instead of the 8 mm connections lugs currently used. With these types the customer must determine the year of manufacture of the device by measuring the thickness of the connection lugs and order the exchange kit N(ZM)4-XAS12-1250.
		NZM4-XAS12-1250 285613		1 off	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 off	Expansion for devices manufactured before 1983! The exchange kit for switch-disconnector can be used completely here. The adapters will only fit on top on the circuit-breaker with the longer “ZM” version! The devices are about 65 mm longer at the bottom and the lower connection is about 26 mm lower. Accordingly, the adapters are too short for the bottom and the height does not correspond either.

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Max. cable		For use with		Terminal capacities		Terminal capacities		AWG/kcmil	
				Type of conductor		mm ²			
Control circuit terminal									
	–		NZM3(-4), PN3, N(S)3(-4) NZM4(-4), N(S)4(-4)	Three- and four-pole	Screw connection	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 cover									
	–		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 mm ²		NZM3(-4), PN3, N3(-4) NZM4(-4), N4(-4)	3 and 4 pole					
	240 mm ²								

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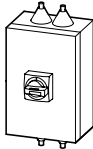
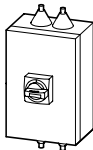
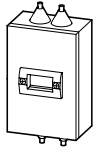
Terminal capacities		Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Cu strip (number of segments × width × segment thickness)	Copper busbar width × thickness				
mm	mm				
		NZM3/4-XSTS 266797		1 off	Type contains parts for two terminal locations located at top or bottom for 3 or 4-pole circuit-breakers. Included as standard with tunnel terminal Degree of protection IP1X NZM-XSTK cannot be combined with NZM3(-4)-XIPK or NZM4(-4)-XIPK IP2X protection against contact with a finger. Height or thickness of the control circuit terminals: NZM-XSTK = 2 mm NZM-XSTS = 2 mm
		NZM4-XKSA 266846		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Protection against direct contact where cable lugs, busbars, flat conductor terminals or tunnel terminals are used. Contained in kit with module plates, flat conductor terminals and tunnel terminals. Degree of protection IP4X at front, side and rear, on the connection side when using insulated conductor material to IP1X.
		NZM4-4-XKSA 266847		1 off	
		NZM4-XKSFA 292193		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Enhancement of the protection against direct contact to (simplified protection against contact with a finger).
		NZM4-4-XKSFA 292194		1 off	
		NZM4-XKP 281595		1 off	Type contains parts for a terminal located at top or bottom for 3 or 4-pole circuit-breakers. Included with the connection width extension. Cannot be combined with the tunnel terminal NZM4(-4)-XKA, connection NZM4-XKR on rear. Insulation protection where cable lugs, busbars, module plates or flat cable terminals are used.
		NZM4-4-XKP 281596		1 off	
		NZM3-XKS185 260040		3 off	Type contains a cable lug for 3-pole or 4-pole switches. Special cable lug, narrow style
		NZM3-XKS240 260041		3 off	

Description	Part no. Article no.	Price see price list	Std. pack	Notes
Diagnostic and configurator software for NZM and DMI (at the machine) 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 connection cable. Protection parameters: Online display and characteristic representation, export option to "Moeller CurveSelect" characteristics program. Warning and trip messages: Read of the diagnostics memory even in a no-voltage state. Load currents: Display and trend representation. Recording and export feature to MS-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 suitable for use in conjunction with circuit-breakers having electronic releases. Free-of-charge download of the manual AWB1230-1459 and a demo software at www.moeller.net .
Data Management Interface (DMI Module)  Query of diagnostics and operational data, display of currents, motor starter function, parameterization and control of the circuit-breaker with electronic release. Comprehensive remote diagnostic options and remote operation via fieldbus in combination with fieldbus connection. Inclusive NZM-XDMI-CAB connection cable between NZM and DMI (length: 2 m).	NZM-XDMI612 260217		1 off	Only suitable for use in conjunction with circuit-breakers having electronic releases. Free download of manual AWB1230-1441 at www.moeller.net .
Expansion unit, networking Connection to the DMI module for transfer of the phase currents, parameter-, status- and diagnostics data as well as the position of the circuit-breaker (wiring of the auxiliary contact to the DMI inputs). DMI configuration via field bus. Actuation of the DMI motor starter function and the NZM remote operator (via DMI output wiring). Detection of digital inputs and actuation of the outputs via the fieldbus.				
 Fieldbus interface: to PROFIBUS-DPV1 slave. Can be operated with class 1 and class 2 masters. Addresses available: 1 to 126 Fieldbus connection to CANopen Addresses available: 1 to 127 Fieldbus connection to DeviceNet Addresses available: 0 to 63	NZM-XDMI-DPV1 270333		1 off	Connected to the DMI module and has the same contour appearance. Replaces the DPV0 interface EASY204-DP.
	EASY221-CO 233539		1 off	
	EASY222-DN 233540		1 off	
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 ($\pm 3\%$) - 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-on and snap fitting.	M22-TA 226161		1 off	–

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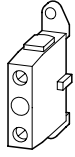
Description	Part no. Article no.	Price see price list	Std. pack	Notes
FDT frame software for operating field devices				
PC software for integration of software modules (DTM's) according to the FDT standard V1.2 (e.g. NZM-XPC-DTM). • Operation of a temporary or stationary service station for engineering, 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. Please inquire.
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. • Display 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 of 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 circuit-breaker to the PROFIBUS-DP fieldbus, the accessory device NZM-XDMI-612 and the fieldbus interface NZM-XDMI-DPV1 are required.

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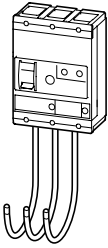
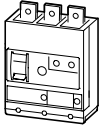
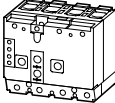
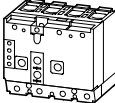
	Max. rated uninterrupted current I_u A	For use with	Part no. Article no. when ordered separately	Price see price list	Std. pack	
Insulated enclosures						
With door coupling rotary handle Complete including all necessary functional parts Degree of protection IP65 Not UL/CSA approved. Standard, black/grey						
	≤ 63 A	PN1, N1	NZM1-XCIK5-TD 271516		1 off	
	≤ 63 A	NZM1, PN1, N1	NZM1-XCI23-TD 271517			
	≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43-TD 271518			
	≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43/2-TD 104644			
	≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI43-TD 271519			
	≤ 250 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI45-TD 279354			
	≤ 400 A	NZM3(-4), PN3(-4), N3(-4)	NZM3-XCI48-TD 271520			
	Lockable in 0 position on handle. Additionally with cover interlock.	≤ 63 A	PN1, N1	NZM1-XCIK5-TVD 271521		
		≤ 63 A	NZM1, PN1, N1	NZM1-XCI23-TVD 271522		
		≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43-TVD 271523		
		≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43/2-TVD 104645		
		≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI43-TVD 271524		
		≤ 250 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI45-TVD 280418		
		≤ 400 A	NZM3(-4), PN3(-4), N3(-4)	NZM3-XCI48-TVD 271525		
Red-yellow for Emergency-Stop						
	≤ 63 A	PN1, N1	NZM1-XCIK5-TVDVR 271526		1 off	
	≤ 63 A	NZM1, PN1, N1	NZM1-XCI23-TVDVR 271527			
	≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43-TVDVR 271528			
	≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43/2-TVDVR 104646			
	≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI43-TVDVR 271529			
	≤ 250 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI45-TVDVR 279356			
	≤ 400 A	NZM3(-4), PN3(-4), N3(-4)	NZM3-XCI48-TVDVR 271530			
With insulating surround for circuit-breaker with toggle lever Complete including all necessary functional parts Degree of protection IP40						
	≤ 63 A	PN1, N1	NZM1-XCIK5-BR 271531		1 off	
	≤ 63 A	NZM1, PN1, N1	NZM1-XCI23-BR 271532			
	≤ 125 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43-BR 271533			
	≤ 160 A	NZM1(-4), PN1(-4), N1(-4)	NZM1-XCI43/2-BR 104647			
	≤ 200 A	NZM2(-4), PN2(-4), N2(-4)	NZM2-XCI43-BR 271534			

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Insulated enclosure description	Retrofit terminals with 3-pole switches: for 4th and 5th (if required) conductor (N, PE-conductor), with 4-pole switches: for 5th conductor (PE conductor)	Notes
Suitable for installation of circuit-breakers and switch-disconnectors Enclosure for separate mounting with top and bottom cable entry. Include fixing straps for wall mounting.		
Cannot be used in combination with NZM...-XR... remote operator..., NZM...-XSV plug-in unit or NZM...-XAV withdrawable unit. Insulated additional terminal for 4th or 5th pole should be ordered separately.		
CI-K5 enclosure with hard metric knock-outs CI23 enclosure with flanges CI43, CI45 and CI48 feature gland plates.		
Only for switches with box terminal for direct connection of cables.		
CI-K5-160-M	K10/1, K25/1	
CI23-150	K10/1, K25/1	
CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1N/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	
CI-K5-160-M	K10/1, K25/1	
CI23-150	K10/1, K25/1	
CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1N/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	
CI-K5-160-M	K10/1, K25/1	
CI23-150	K10/1, K25/1	
CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
CI43-200	K10/1, K25/1, K50/1, K95/1N/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	
CI-K5-160-M	K10/1, K25/1	
CI23-125	K10/1, K25/1	
CI43-125	K10/1, K25/1, K50/1, K95/1N/BR	
CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
CI43-125	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	

	Rated uninterrupted current I_u A	Terminal capacities mm ²	Part no. Article no. when ordered separately	Price see price list	Std. pack
Additional insulated terminals					
For looping through the neutral and protective conductor 1 pole					
	32	Flexible, 1 × (1.5 – 6)	K10/1 093827		10 off
	63	Flexible, 1 × (6 – 16), stranded, 1 × (16 – 25)	K25/1 096200		
	100	Flexible, 1 × (10 – 35), stranded, 1 × (16 – 50)	K50/1 098573		
	160	Stranded, 1 × (16 – 95)	K95/1N/BR 012336		1 off
	250	Stranded, 1 × (35 – 150), 2 × (16 – 70)	K150/1/BR 014709		
	400	Stranded, 1 × (50 – 240), 2 × (25 – 120)	K240/1/BR 017082		
	630	Stranded, 1 × (240 – 300), 2 × (50 – 240)	K2X240/1/BR 019455		

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	For use with	Part no. Order number for separate orders	Price see price list	Std. pack	Notes	
Earth-fault release						
not UL/CSA approved Suitability for use in three- and single-phase systems Pulse current sensitive acc. to core-balance principle						
						
For 3 and 4 pole circuit-breakers NZM1(-4) and switch-disconnectors N1(-4), dependant on mains power $U_e = 200 - 415 \text{ V } 50/60 \text{ Hz}$, lateral mounting on the right hand side up to 125 A						
	Rated fault current $I_{\Delta n} = 0.03 \text{ A}$	NZM1 N1	3 pole	NZM1-XFI30R ¹⁾ 104603	1 off XFI30R suitable for personnel protection to IEC/EN 60947-2 Annex B and EN 61009-1 (VDE 0664-20). With $I_{\Delta n} = 0.03 \text{ A}$: delay time t_v always fixed setting at 10 ms. Alarm message > 30% $I_{\Delta n}$ via yellow LED. Trip indication max. 2 auxiliary contacts can be fitted by user: N/O = M22-K01, N/C = M22-K10 are reset via the reset toggle lever. Not in combination with insulated enclosure. NZM1-XFI...U not in combination with shunt or undervoltage release.	
		NZM1-4 N1-4	4 pole	NZM1-4-XFI30R 104606		
	Rated fault current $I_{\Delta n} = 0.3 \text{ A}$	NZM1 N1	3 pole	NZM1-XFI300R ¹⁾ 104604		
		NZM1-4 N1-4	4 pole	NZM1-4-XFI300R 104607		
	Rated fault current $I_{\Delta n} = 0.03 - 0.1 - 0.3 - 0.5 - 1 - 3 \text{ A}$, delay time $t_v = 10 - 60 - 150 - 300 - 450 \text{ ms}$.	NZM1 N1	3 pole	NZM1-XFIR ¹⁾ 104605		
		NZM1-4 N1-4	4 pole	NZM1-4-XFIR 104608		
Bottom mounting up to 100 A						
	Rated fault current $I_{\Delta n} = 0.03 \text{ A}$	NZM1 N1	3 pole	NZM1-XFI30U 104609		
		NZM1-4 N1-4	4 pole	NZM1-4-XFI30U ¹⁾ 104612		
	Rated fault current $I_{\Delta n} = 0.3 \text{ A}$	NZM1 N1	3 pole	NZM1-XFI300U ¹⁾ 104610		
		NZM1-4 N1-4	4 pole	NZM1-4-XFI300U ¹⁾ 104613		
	Rated fault current $I_{\Delta n} = 0.03 - 0.1 - 0.3 - 0.5 - 1 - 3 \text{ A}$, delay time $t_v = 10 - 60 - 150 - 300 - 450 \text{ ms}$.	NZM1 N1	3 pole	NZM1-XFIU 104611		
		NZM1-4 N1-4	4 pole	NZM1-4-XFIU 104614		
Pulse current sensitive acc. to core-balance principle						
						
For 4 pole circuit-breakers NZM2-4 and switch-disconnectors N2-4, independent of mains voltage $U_e = 280 - 690 \text{ V } 50/60 \text{ Hz}$, bottom mounting up to 250 A						
	Rated fault current $I_{\Delta n} = 0.03 \text{ A}$	NZM2-4 N2-4	4 pole	NZM2-4-XFI30 292343	1 off	XFI30 suitable for personnel protection to IEC/EN 60947-2 Annex B and EN 61009-1 (VDE 0664-20). Auxiliary contacts (1 N/O, 1 N/C integrated) are reset via the reset button. Not in combination with plug-in
	Rated fault current $I_{\Delta n} 0.1 - 0.3 - 1 - 3 \text{ A}$, delay time $t_v = 60 - 150 - 300 - 450 \text{ ms}$	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-breakers NZM2-4 and switch-disconnectors N2-4, internal power supply $U_e = 50 - 400 \text{ V}$, bottom mounting up to 250 A						
	Rated fault current $I_{\Delta n} = 0.03 \text{ A}$	NZM2-4 N2-4	4 pole	NZM2-4-XFIA30 292345	1 off	XFIA30 suitable for personnel protection to IEC/EN 60947-2 Annex B and EN 61009-1 (VDE 0664-20). Observe response threshold dependence on frequency! See "Frequency response" characteristic curve Auxiliary contacts (1 N/O, 1 N/C integrated) are reset via the reset button.
	Rated fault current $I_{\Delta n} 0.1 - 0.3 - 1 \text{ A}$, delay time $t_v = 60 - 150 - 300 - 450 \text{ ms}$	NZM2-4 N2-4	4 pole	NZM2-4-XFIA 292346	1 off	

Notes

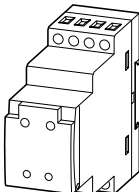
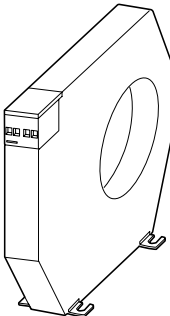
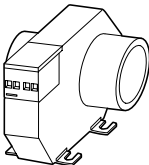
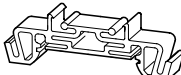
¹⁾ on request

122 Circuit-breakers, switch-disconnectors

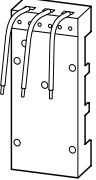
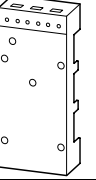
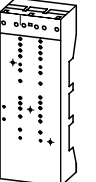
Earth-fault release, residual current relay

Moeller SK1230-1157GB-INT

Circuit-breakers, switch-disconnectors up to 1600 A

For use with	Part no. Article no. when ordered with basic unit	Price see price list	Std. pack	Notes
Earth-fault release, 3-pole, 4-pole				
Not dependent on mains and control voltages $I_g = 0.35 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 1.0 \times I_n$ $t_g = 0 - 20 - 60 - 100 - 200 - 300 - 500 - 750 - 1000 \text{ ms}$				
NZM3	+NZM3-XT 260756		1 off	Only suitable for use in conjunction with circuit-breakers having electronic releases. Cannot be used in conjunction with NZM...-ME... remote operator. Display of the earth-fault in optional DMI communication module.
NZM3-4	+NZM3-4-XT 260757			
NZM4	+NZM4-XT 266721			
NZM4-4	+NZM4-4-XT 266722			
Description	Part no. Article no.	Price see price list	Std. pack	Notes
Residual current relay				
Pulse current sensitive Rated control voltage: $U_s = 230 \text{ V AC (50/60Hz)}$ Integrated auxiliary contact (1 C/O)				
	Rated fault current $I_{\Delta N} = 0.03 \text{ A}$	PFR-003 285555	1 off	–
	Rated fault current $I_{\Delta N} = 0.3 \text{ A}$	PFR-03 285556		–
		Rated fault current $I_{\Delta N} = 0.03 - 5 \text{ A}$ Adjustable fault current and delay time Fault current early warning by flashing, red LED	PFR-5 285557	
Ring-type transformer				
Rated operational voltage: 690 V (50/60 Hz)				
	Internal diameter: 20 mm	PFR-W-20 285558	1 off	incl. fixing clip for DIN rail mounting
	Internal diameter: 30 mm	PFR-W-30 285559		
	Internal diameter: 35 mm	PFR-W-35 285600		incl. screw fixing Alternative: fixing clip for DIN mounting rail Design note: The current transformer diameter must be selected 1.5 times larger than the envelope diameter of the passed through conductor.
	Internal diameter: 70 mm	PFR-W-70 285601		
	Internal diameter: 105 mm	PFR-W-105 285602		
	Internal diameter: 140 mm	PFR-W-140 285603		
	Internal diameter: 210 mm	PFR-W-210 285604		
Magnetic shielding				
	PFR-W-35	PFR-WMA-35 286001	1 off	Necessary for a load circuit with high inrush currents $> 4 \times I_N$, such as for example motors and capacitors
	PFR-W-70	PFR-WMA-70 286002		
	PFR-W-105	PFR-WMA-105 286003		
	PFR-W-140	PFR-WMA-140 286004		
	PFR-W-210	PFR-WMA-210 286005		
Fixing clip				
	for the DIN rail mounting of the PFR-W-35 current transformer and all larger	PFR-WC 286006	1 off	1 set = 2 pieces

Moeller SK1230-1157GB-INT

	Rated current	Supply cable/terminal	Adapter width	For surface mounting of (example)	Terminal compartment W × H	Tightening torque		Part no. Article no.	Price see price list	Std. pack
	I_e A		mm		mm	Fixing screw	Terminal screw			
Multi-function device adapter for busbar system 60 mm										
Component adapter for NZM1, (P)N1 circuit-breakers and switch-disconnectors For mounting on flat copper busbars 20/30 x 5 mm or 20/30 x 10 mm and 800 or 1600 A rigid copper busbars. Mounted by latching onto de-energized busbar Rated operational voltage U_e : 690 V AC Not UL/CSA approved										
	125	Connection cable 35 mm ² included	90	NZM1 PN1, N1	—	4 – 6	—	AD100/5 272059		1 off
	125		90	NZM1 PN1, N1	—	4 – 6	—	AD100/10 272150		1 off
Component adapter for NZM2, (P)N2 circuit-breakers and switch-disconnectors For mounting on 30 × 10, 20 × 10, 20 × 5 mm flat copper busbars and 800/1600 A rigid copper busbars. Mounting using clamp and screw fixing. Rated operational voltage U_e : 690 V AC Connection cable not included as standard. not UL/CSA approved										
	200	Round conductor: 6 – 70 mm ² ; Cu-band (n × B × H): 9 × 9 × 0.8	110	NZM2 PN2, N2	13 × 10	4 – 6	2 – 3	SV34381 272058		1 off
	250	Round conductor: 50 – 120 mm ² ; Cu-band (n × B × H): 6 × 16 × 0.8	110	NZM2 PN2, N2	16 × 12	4 – 6	8 – 10	SV34372 272335		1 off

Notes

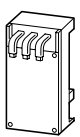
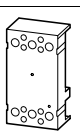
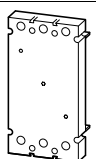
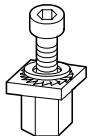
When using adapter SV... to assemble an NZM with rotary handle a minimum distance of 18 mm must be maintained.
The busbars in the area between the adapters can be covered by the SV30921/SV35061

124 Circuit-breakers, switch-disconnectors

Multi-function device adapter

Moeller SK1230-1157GB-INT

Circuit-breakers, switch-disconnectors
up to 1600 A

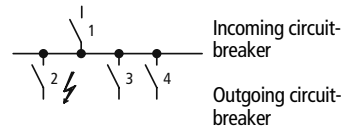
For use with	Rated current I_e A	Part no. suffix Article no. when ordered with basic unit	Price see price list	Part no. Article no. when ordered separately	Price see price list	Std. pack	Notes
Component adapter for circuit-breakers and switch-disconnectors for busbar system 60 mm For mounting on flat copper busbars 12 – 30 × 5 – 10, Double T and triple T profile Mounting using clamp and screw fixing. Rated operational voltage U_e : 690 V • Silicone-free • Heat resistance 120 °C • Self-extinguishing to UL 94 • UL 508 conform							
	NZM1, PN1, N1, NS1	160 ¹⁾		NZM1-XAD160²⁾ 104554		1 off	For breakers with box terminal as standard connection Connection to system at top using the supplied connection cable In conjunction with IP2X protection against contact with a finger Enhancement of the protection against direct contact on the switch outgoer side possible
	NZM2, PN2, N2, NS2	250		NZM2-XAD250²⁾ 104555			Connection to system optionally at top or bottom via connection on rear (+)NZM2-XKR4...
	NZM3, PN3, N3	550		NZM3-XAD550²⁾ 104556			Connection to system at top by connection on rear (+)NZM3-XKR13...
Connection on rear for component adapters For component adapters NZM2-XAD250 and NZM2-XAD550							
	NZM2, PN2, N2, NS2	250	+NZM2-XKR40 281664	NZM2-XKR4 281666		1 off	Type and part no. suffix contain parts for a switch at the top and bottom (on the NZM3 at the top only). Necessary with component adapters and switches with connection on rear, see the component adapter NZM1-XAD-160, NZM1-XAD-250 and NZM1-XAD-550 for an example. O = for fitting at the top U = for fitting at the bottom
	NZM2, PN2, N2, NS2	250	+NZM2-XKR4U 281665				
	NZM3, PN3, N3	550	+NZM3-XKR13O 281667	NZM3-XKR13 281668			

Notes

¹⁾ Not yet UL508 listed at date of publish.

²⁾ on request

Moeller SK1230-1157GB-INT



Selectivity 415 V AC
between circuit-breakers enables separate shut-down of faulty system sections. Incoming circuit-breaker 1 and outgoing circuit-breaker 2 operate selectively if in the event of a short-circuit at position 2 **only** the outgoing circuit-breaker 2 trips out. System sections 3 and 4 continue to operate.

Incoming circuit-breaker (S1)

NZM...1-A...

NZM...2-A...

	I_{cu} [kA]		25(50)(100)							25(50)(100)(150)								
	I_n [A]		20 ...	50	63	80	100	125	160	20 ...	50	63	80	100	125	160	200	250
Outgoing circuit-breaker (S2)	I_n [A]	I_{cu} [kA]	Selectivity limit 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

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Incoming circuit-breaker (S1)

NZM...2-VE...

NZM...3-AE...

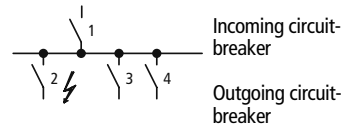
NZM...3-VE...

NZM...4-AE...

NZM...4-VE...

50(100)(150)			50(100)(150)			50(100)(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 limit 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
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
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
10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
8	8	5	5	13	T	5	13	T	T	T	T	T	T	T	T	T	T	T
4	4	3	4	7	T	4	7	T	T	T	T	T	T	T	T	T	T	T
3	3	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

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Selectivity 415 V AC
between circuit-breakers enables separate shut-down of faulty system sections.
Incoming circuit-breaker 1 and outgoing circuit-breaker 2 operate selectively
if in the event of a short-circuit at position 2 **only** the outgoing circuit-breaker 2 trips out.
System sections 3 and 4 continue to operate.

		breaker		Incoming circuit-breaker								NZM...2-A...							
				NZM...1-A...															
		[kA]		25(50)(100)								25(50)(100)(150)							
	[A]		20...40	50	63	80	100	125	160	20...40	50	63	80	100	125	160	200	250	
Outgoing circuit-breaker		$I_{cu}(415V)$ [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 ...	–	–	0.5	0.7	0.8	1.5	1.5	–	–	0.6	0.8	1.5	1.5	1.5	2	3	
	50	25 ...	–	–	–	0.6	0.8	1.5	1.5	–	–	–	0.8	1.5	1.5	1.5	2	3	
	63	25 ...	–	–	–	–	0.8	1.5	1.5	–	–	–	–	1.5	1.5	1.5	2	3	
	80	25 ...	–	–	–	–	–	1.5	1.5	–	–	–	–	–	1.5	1.5	2	3	
	100	25 ...	–	–	–	–	–	–	1.5	–	–	–	–	–	–	1.5	2	3	
	125	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3	
160	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3		
NZM...2-A...	20 ... 40	25 ...	–	–	0.5	0.6	0.8	1	1	–	–	0.5	0.6	0.8	1	1.2	1.6	2	
	50	25 ...	–	–	–	0.6	0.8	1	1	–	–	–	0.6	0.8	1	1.2	1.6	2	
	63	25 ...	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2	
	80	25 ...	–	–	–	–	–	1	1	–	–	–	–	–	1	1.2	1.6	2	
	100	25 ...	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	
	125	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2	
	160	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	
	200	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
250	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
NZM...1-M...	20 ... 40	25 ... 50	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2	
	50	25 ... 50	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	
	63	25 ... 50	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	
	80	25 ... 50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2	
	100	25 ... 50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	
NZM...2-M...	20 ...	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	160	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	200	25 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...2-VE...	100	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2	
	160	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	250	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...2-ME...	90	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2	
	140	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	220	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...3-AE...	250	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	400	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	630	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...3-VE...	250	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	400	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	630	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...3-ME...	220	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	350	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	450	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...4-AE...	630	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	800	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1000	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1250	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1600	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...4-VE...	630	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	800	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1000	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1250	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1600	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
NZM...4-ME...	550	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	875	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	1400	50 ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

Notes T: total selectivity

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Incoming circuit-breaker			NZM...3-AE...			NZM...3-VE...			NZM...4-AE...					NZM...4-VE...				
NZM...2-VE...			NZM...3-AE...			NZM...3-VE...			NZM...4-AE...					NZM...4-VE...				
50(100)(150)			50(100)(150)			50(100)(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	12.52	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	20	20	50	T	T	20	20	50	T	T
–	–	–	6	7	10	7	10	12	20	20	50	T	T	20	20	50	T	T
–	–	–	–	7	10	–	10	12	20	20	50	T	T	20	20	50	T	T
–	1.2	2	6	7	10	7	8	11	20	20	50	T	T	20	20	50	T	T
–	–	2	6	7	10	7	8	11	20	20	50	T	T	20	20	50	T	T
–	–	–	–	7	10	–	8	11	20	20	50	T	T	20	20	50	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
–	–	–	–	–	–	–	–	–	–	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 with short-circuits

In accordance to VDE 0100 part 430 the cables and conductors must be protected against overload and short-circuit. In circuit-breakers NZM, the overload protection is implemented via the adjustable, current-dependant time-delayed overload releases.

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 cross-section reliably protected by circuit-breakers during a short-circuit.
(Operating voltage $U_n = 415$ V)

	Minimum protected cross-section mm ² 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 NZM(N)(H)(L) incoming circuit-breaker and NZMB(N)(H)... outgoing circuit-breaker

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

Where the prospective fault current at the point of installation of circuit-breakers is very high, it is conventional to use NZMN(H)(L) current-limiting circuit-breakers. An attractively priced alternative is to fit a NZMN(H)(L) current-limiting circuit-breaker at the point in the network upstream of NZMB(N)(H) standard circuit-breakers, if the fault level is too high for NZMB(N)(H) switches.

The table indicates which current-limiting circuit-breakers NZMN(H)(L) in combination with NZMB(N)(H) are to be used to provide protection at the network locations with high short-circuit capacities.

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

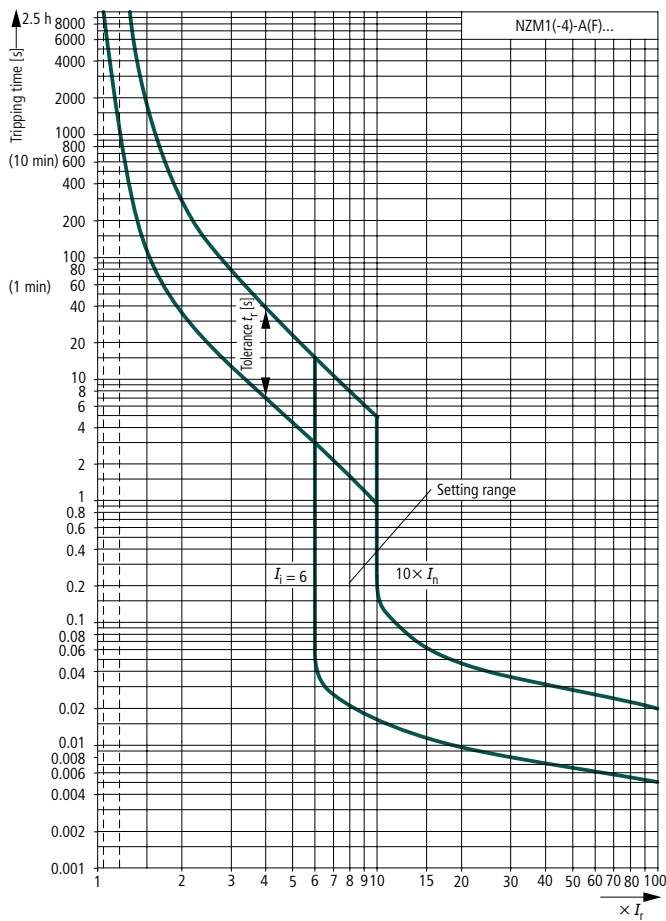
Outgoing circuit-breaker		Incoming circuit-breaker	
		NZMB1-A...	NZMN1-A...
FAZ-(2)(3)(4)(N)-B(C)...			
0,5 – 16		25 kA	30 kA
20 – 40		20 kA	20 kA
50, 63		15 kA	15 kA
PLSM-B(C)...(/...)			
0,5 – 16		25 kA	30 kA
20 – 40		20 kA	20 kA
50, 63		15 kA	15 kA

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

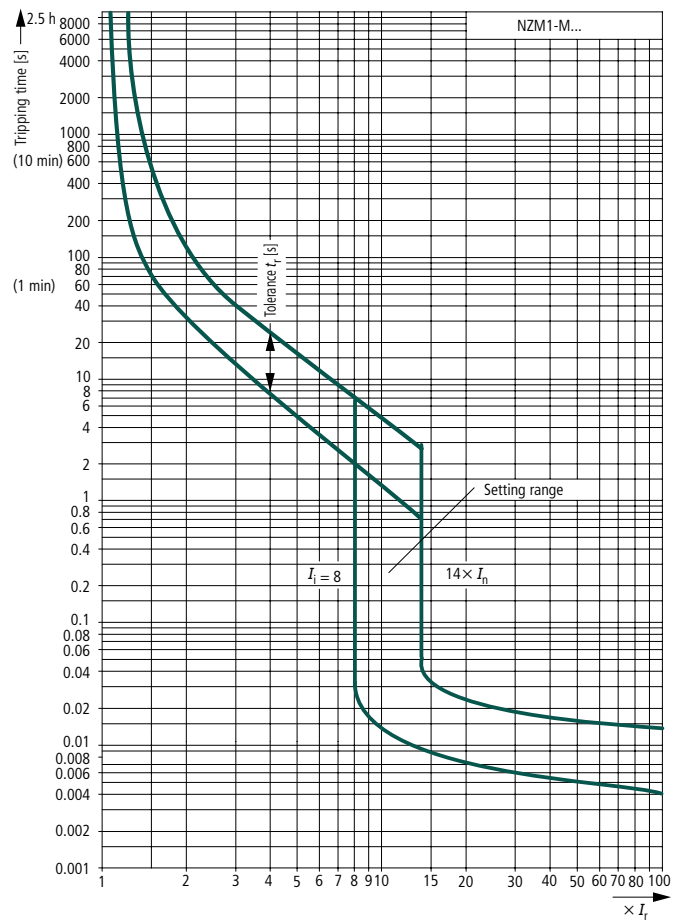
Outgoing circuit-breaker		Incoming circuit-breaker	
		NZMB2-A...	NZMN(H)(L)2-A...
FAZ-(2)(3)(4)(N)-B(C)...			
0,5 – 10		25 kA	50 kA
13 – 32		25 kA	30 kA
40 – 63		20 kA	20 kA
PLSM-B(C)...(/...)			
0,5 – 10		25 kA	50 kA
13 – 32		25 kA	30 kA
40 – 63		20 kA	20 kA

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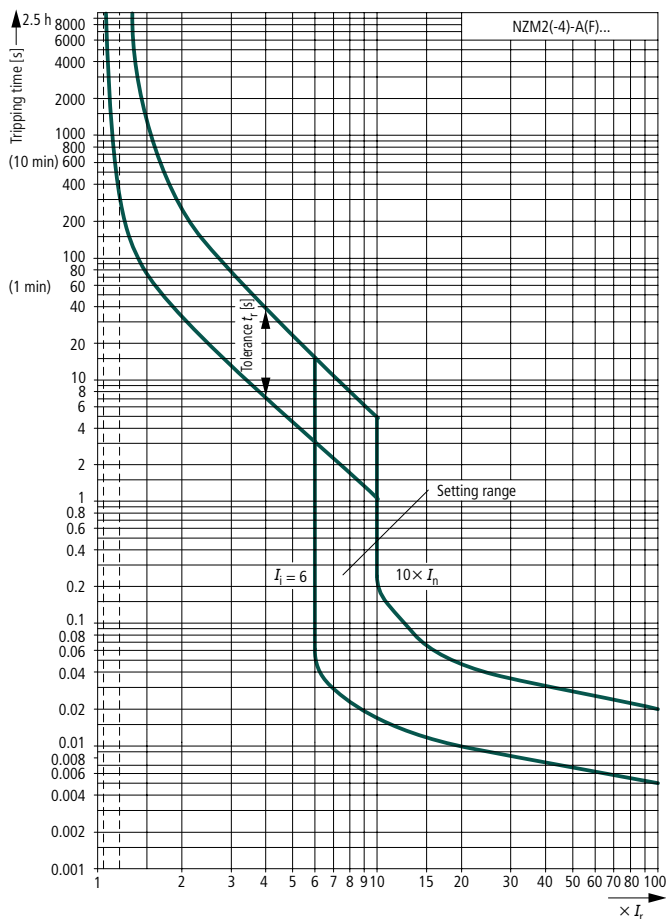
System and line protection with NZM1



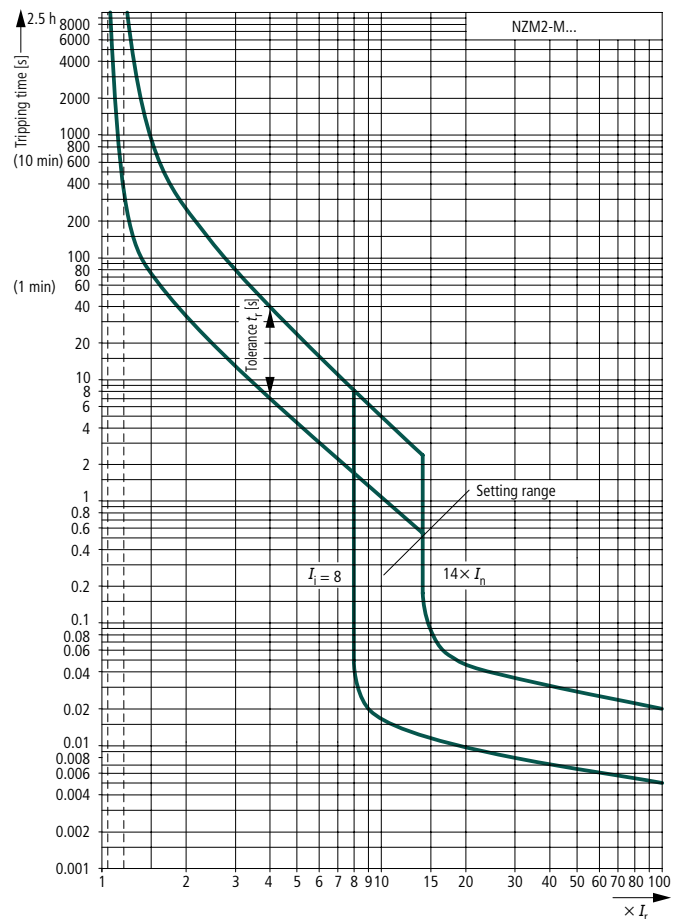
Motor protection with NZM1



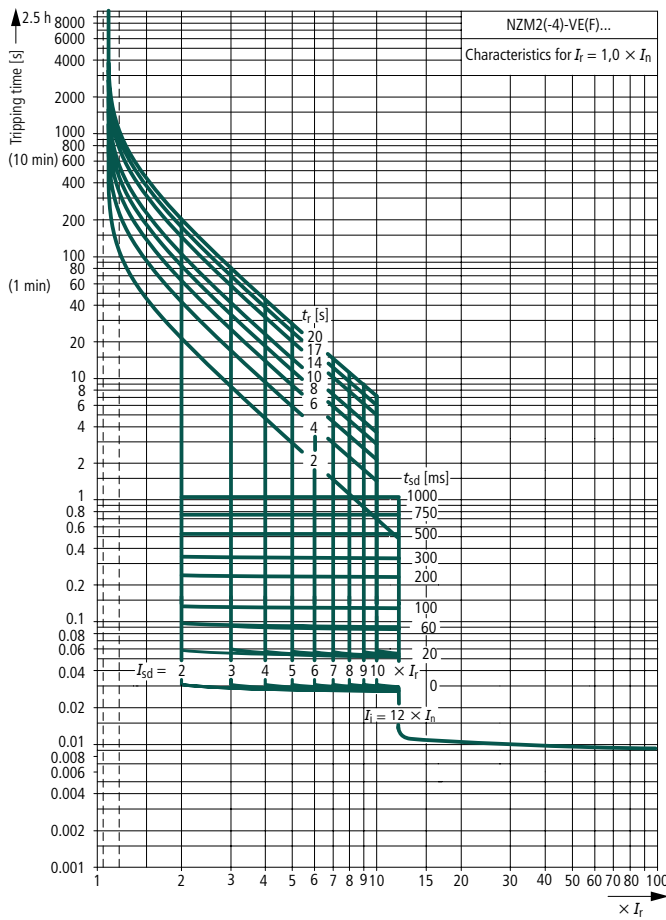
System and line protection with NZM2



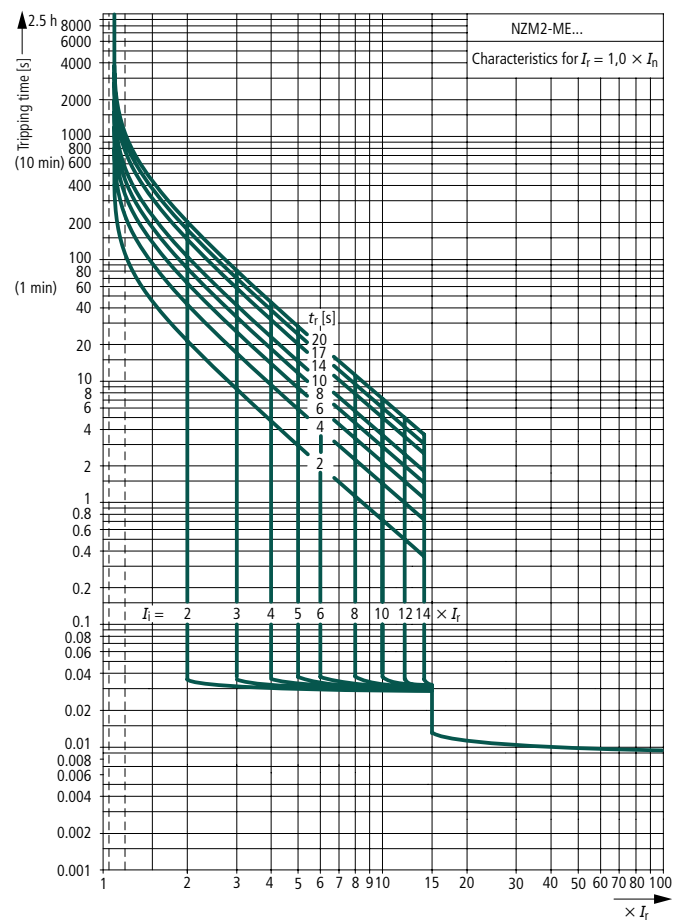
Motor protection with NZM2



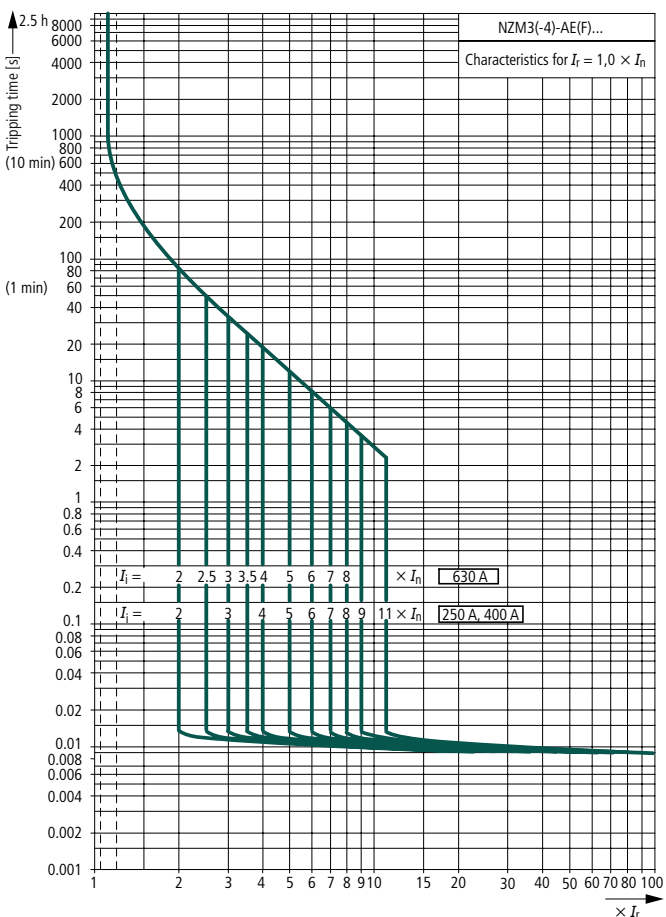
Systems, cable, selectivity and generator protection with NZM2



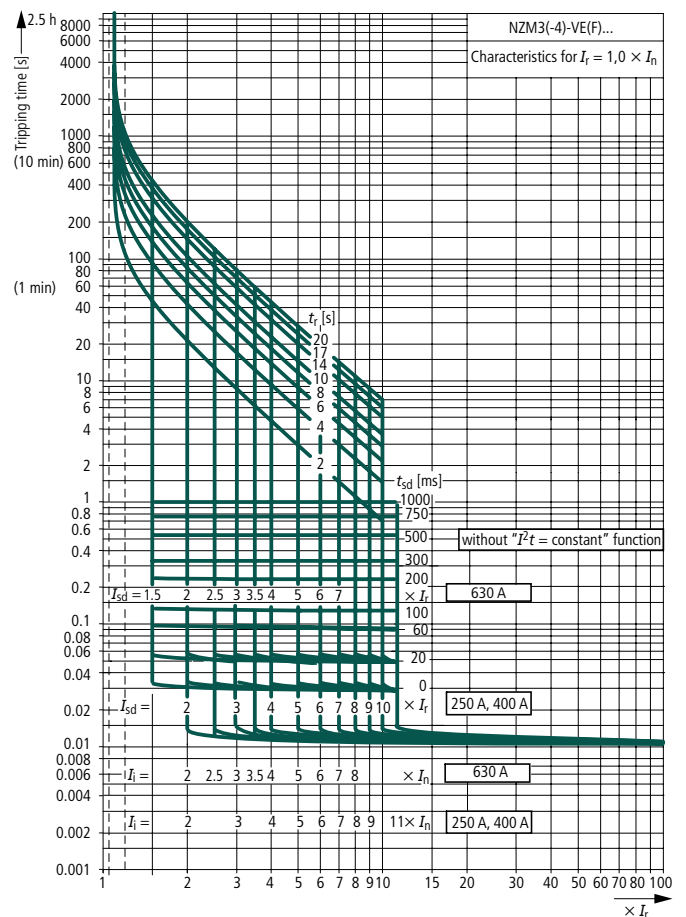
Motor protection with NZM2



System and line protection with NZM3

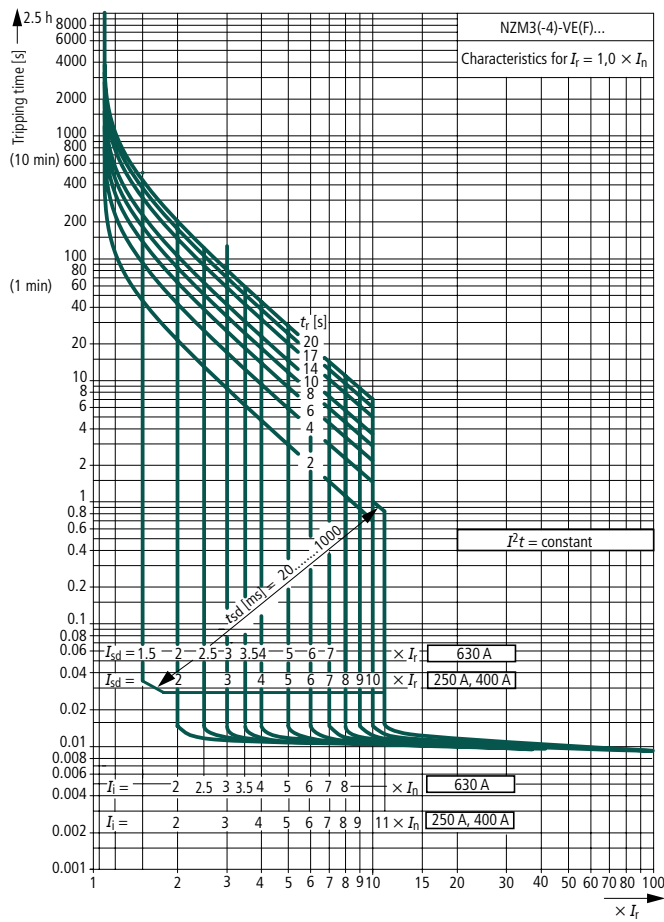


Systems, cable, selectivity and generator protection with NZM3

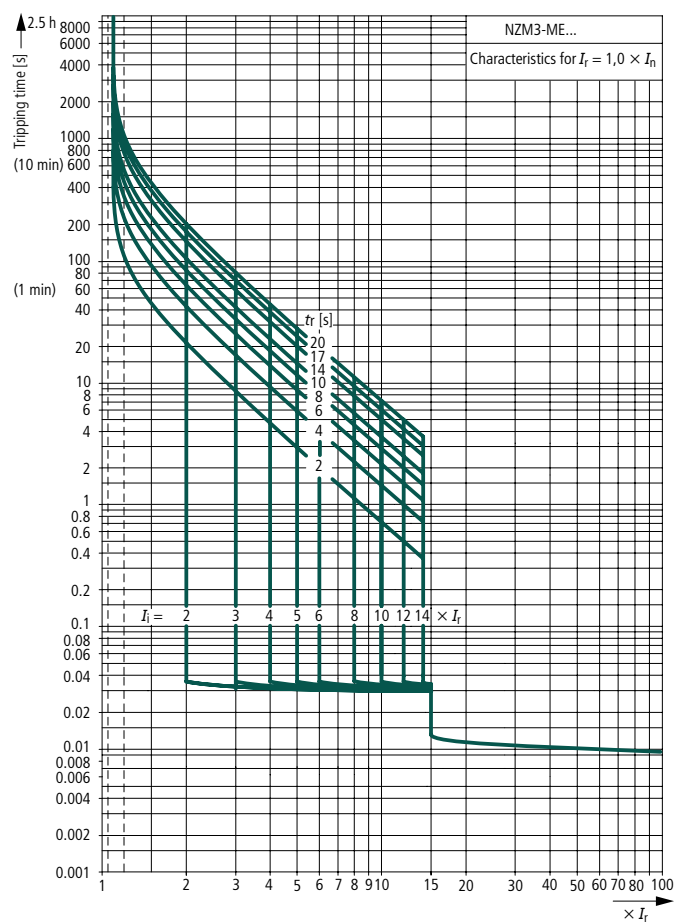


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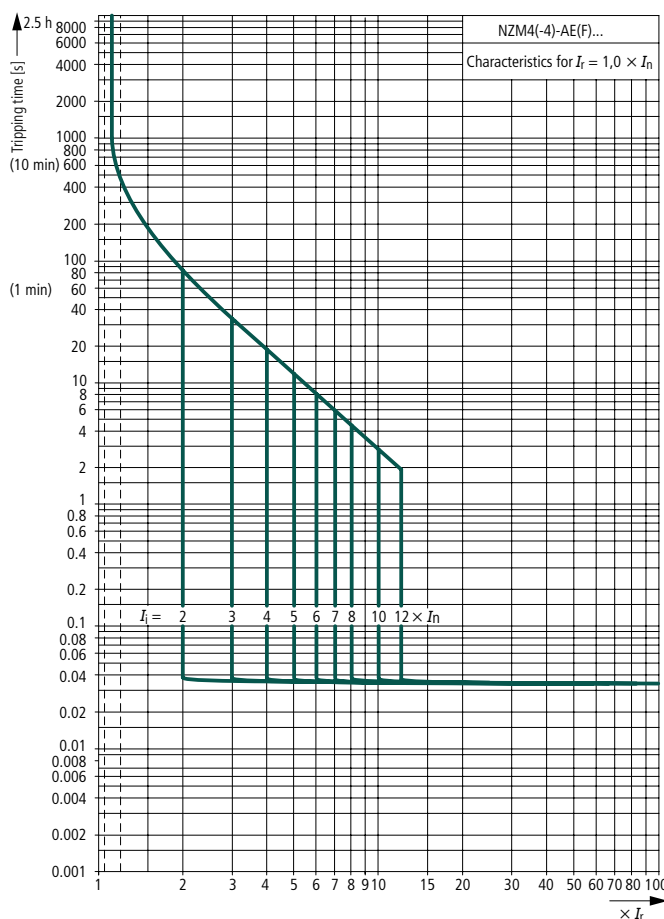
Systems, cable, selectivity and generator protection with NZM3



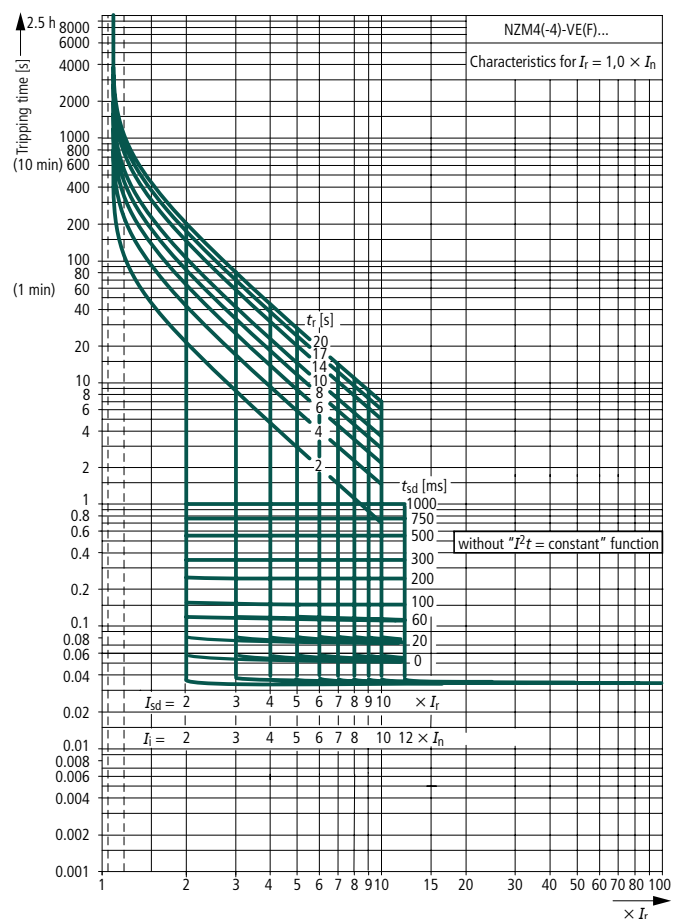
Motor protection with NZM3



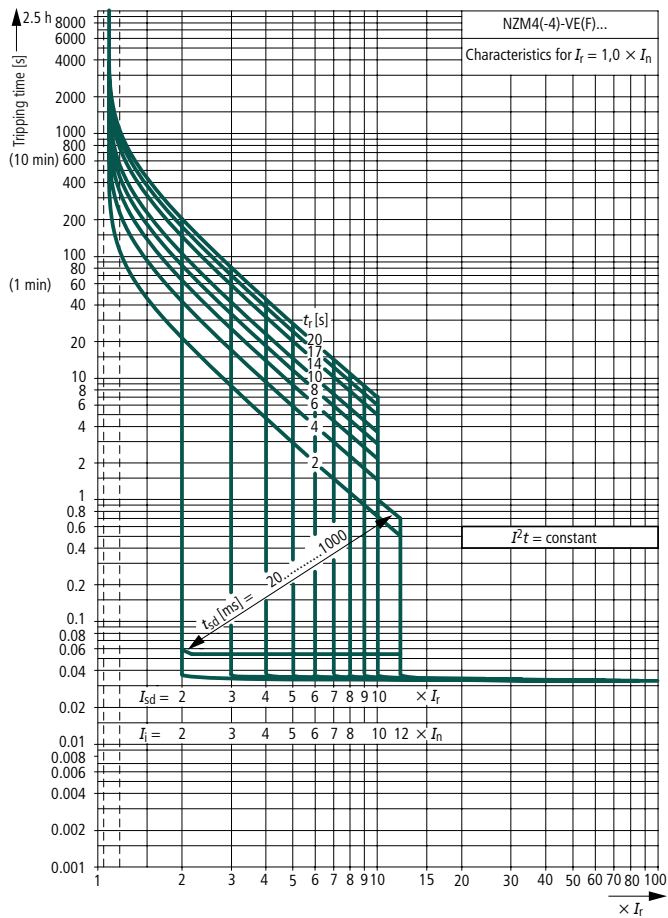
System and line protection with NZM4



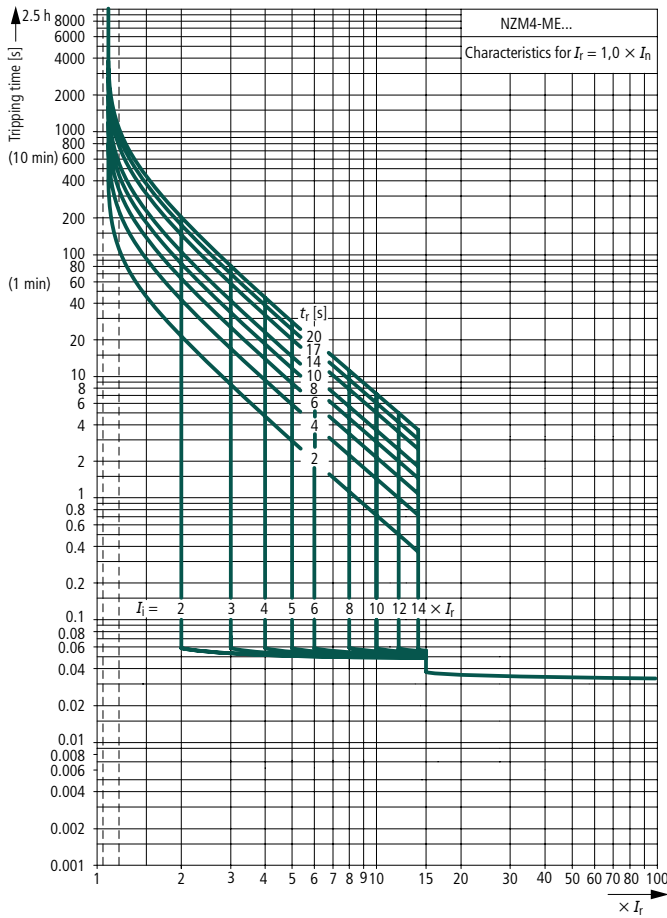
Systems, cable, selectivity and generator protection with NZM4



Systems, cable, selectivity and generator protection with NZM4

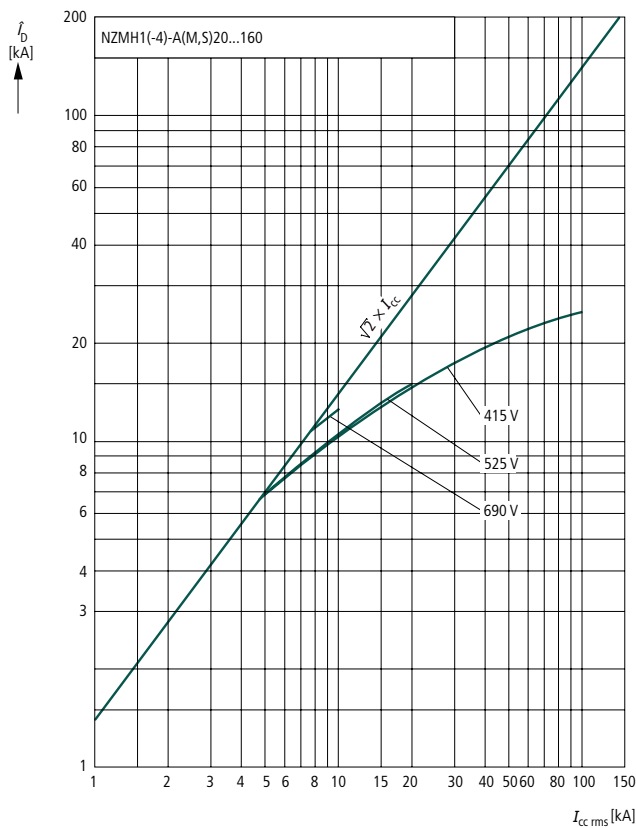
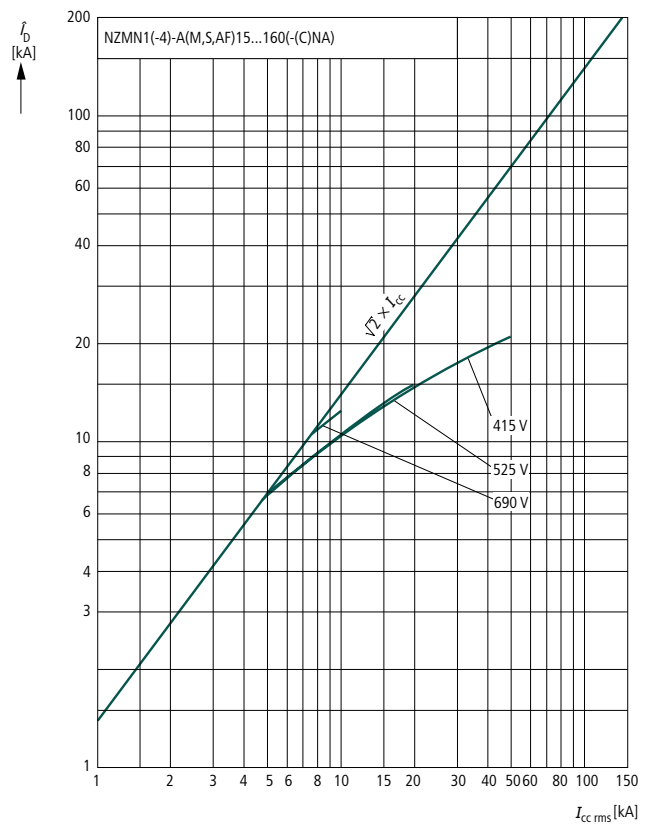
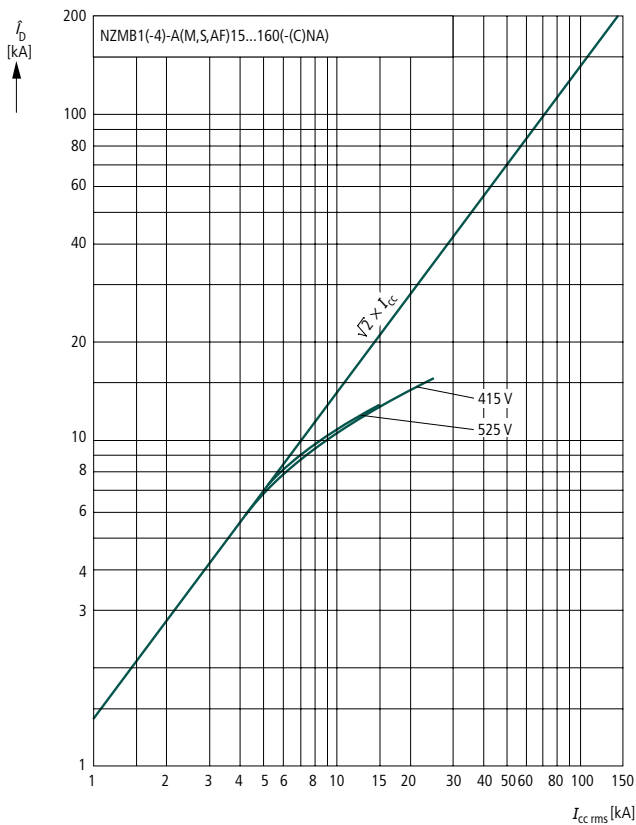


Motor protection with NZM4

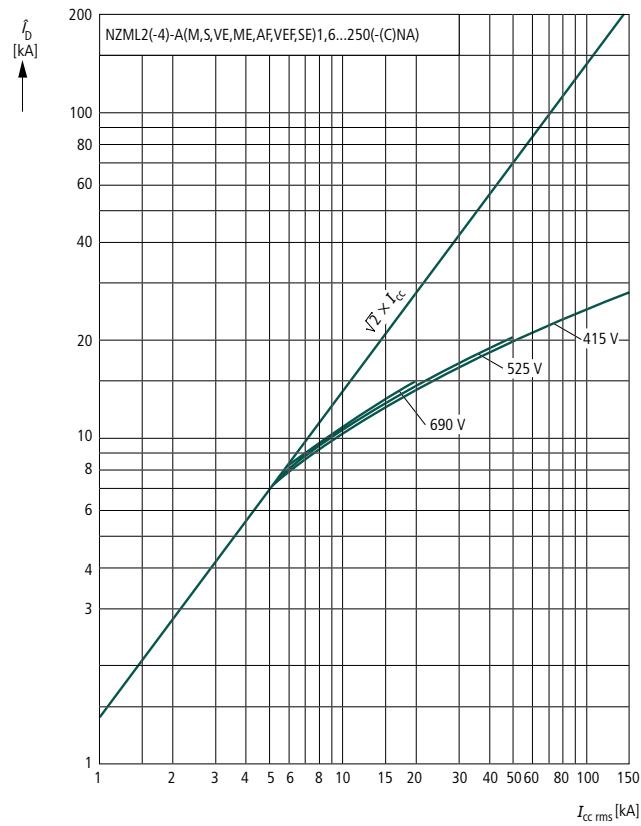
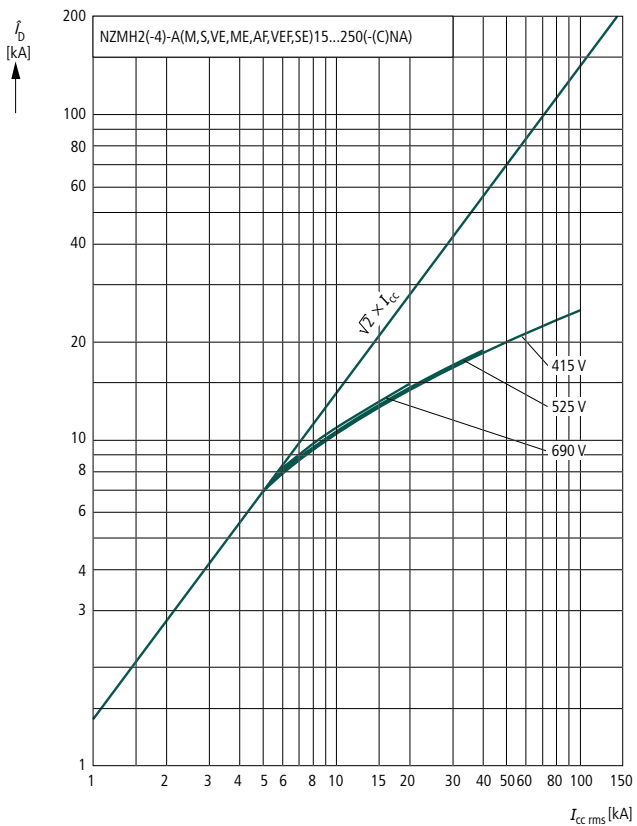
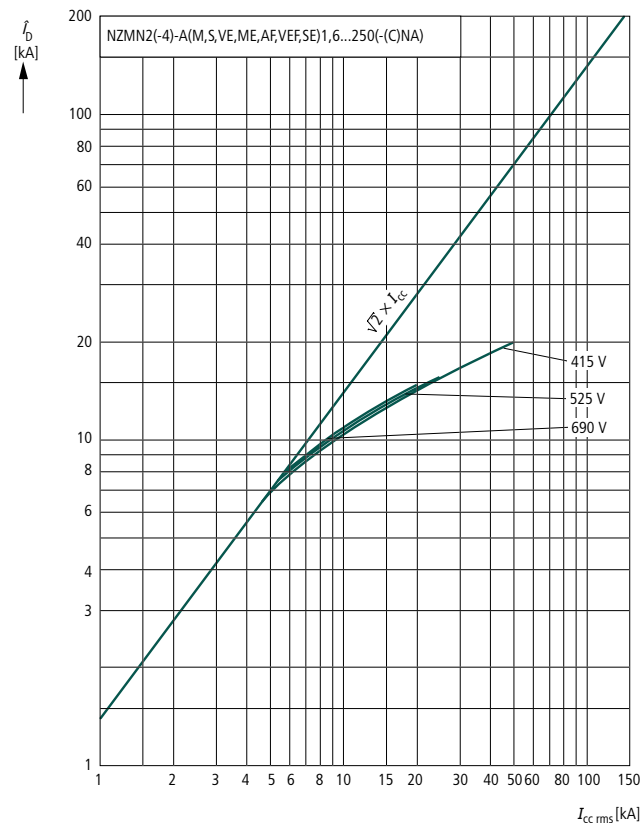
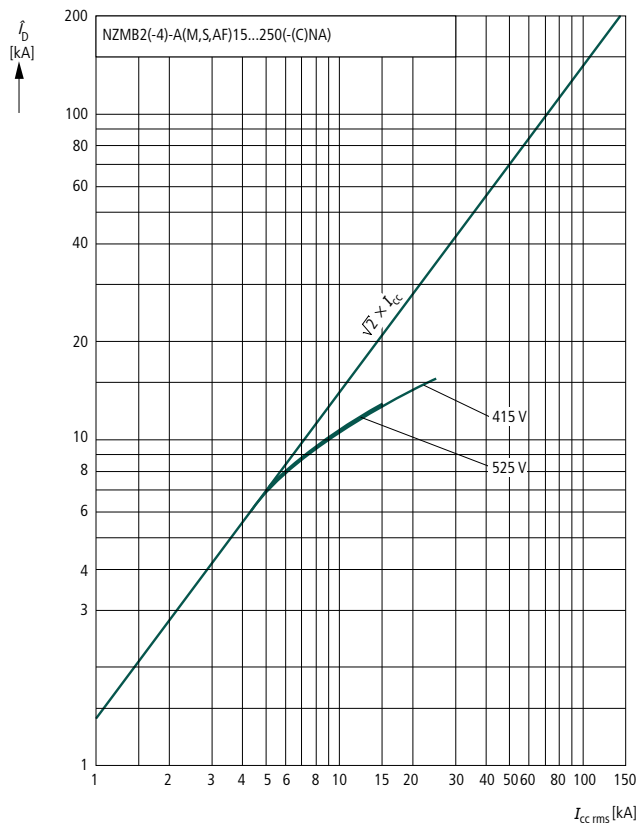


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Let-through current $\hat{i}_D$

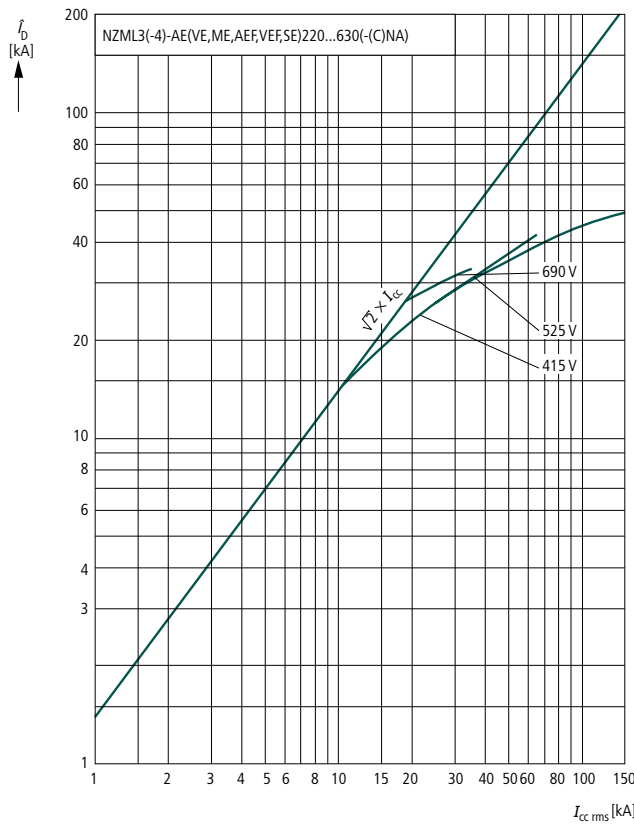
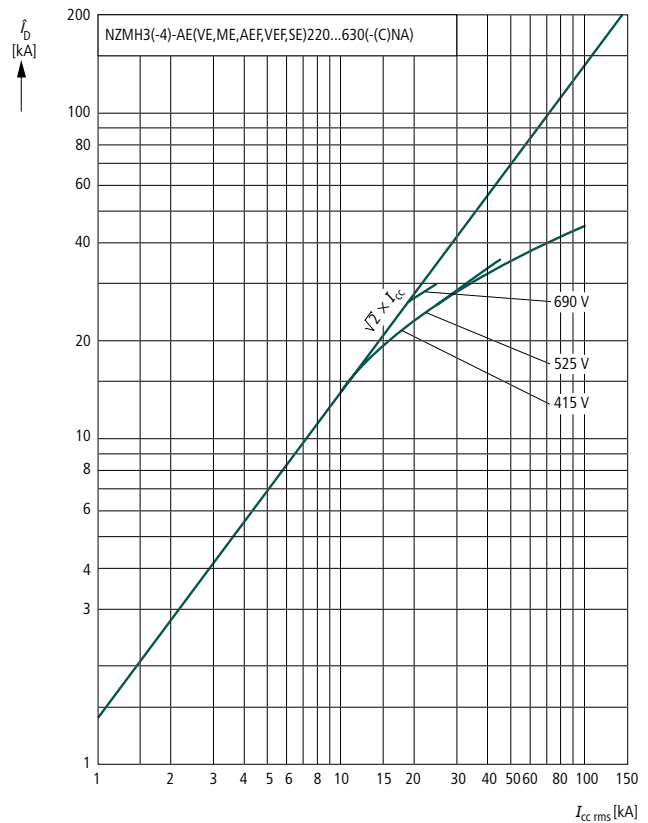
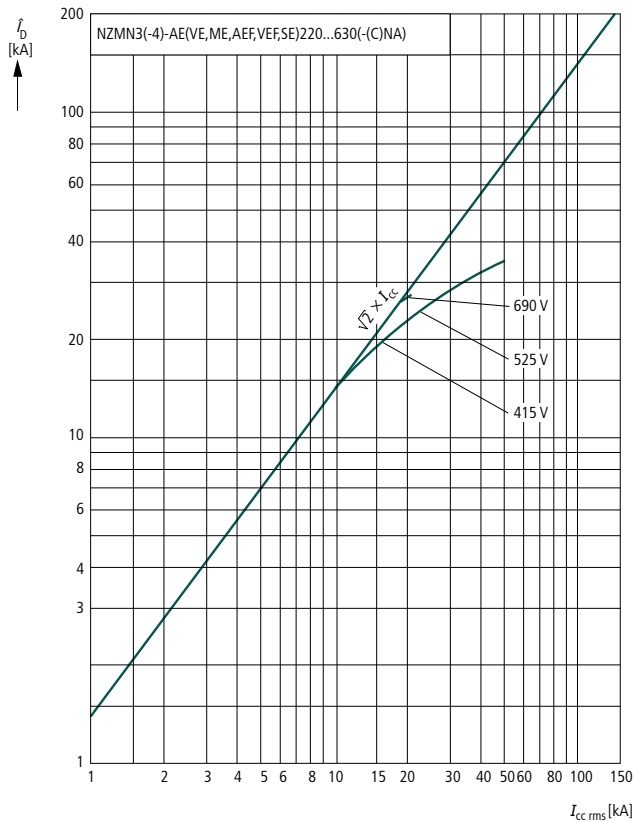


Let-through current $\hat{i}_D$

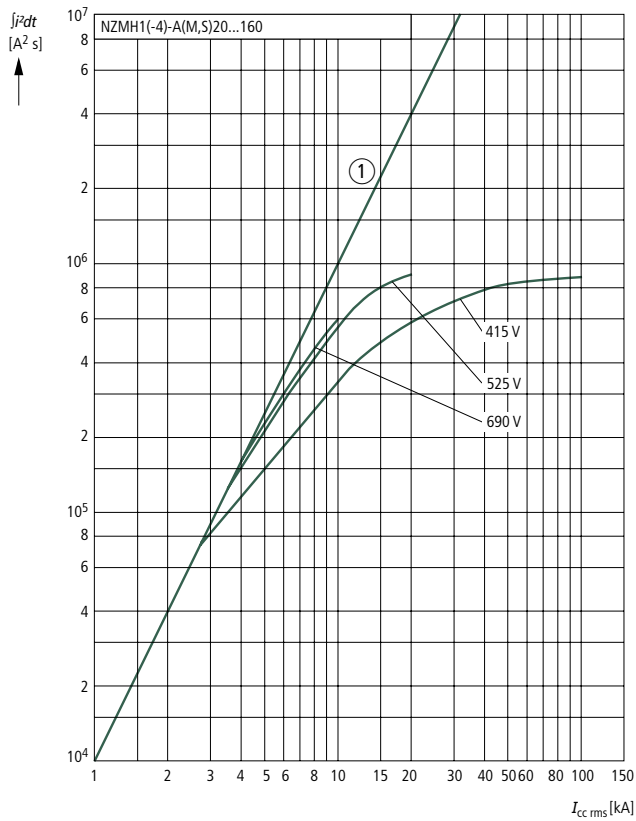
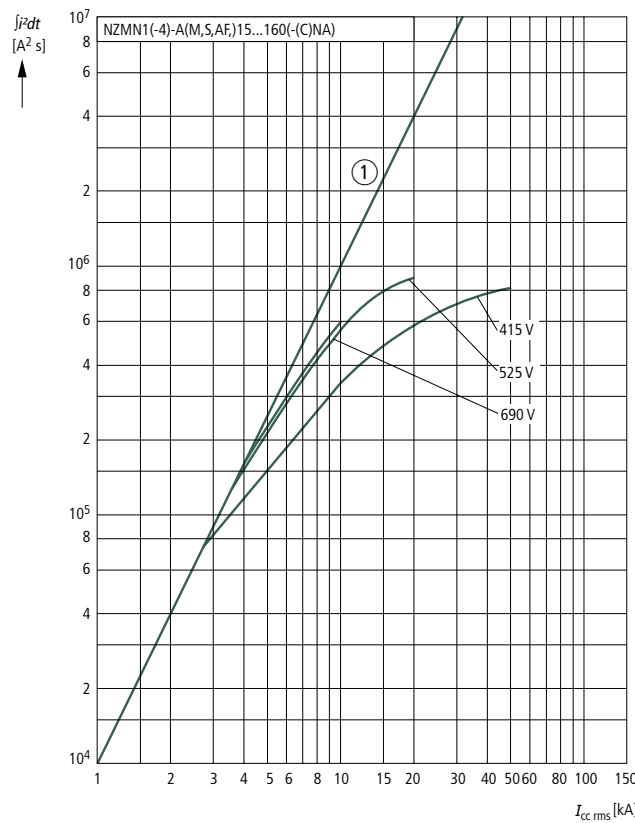
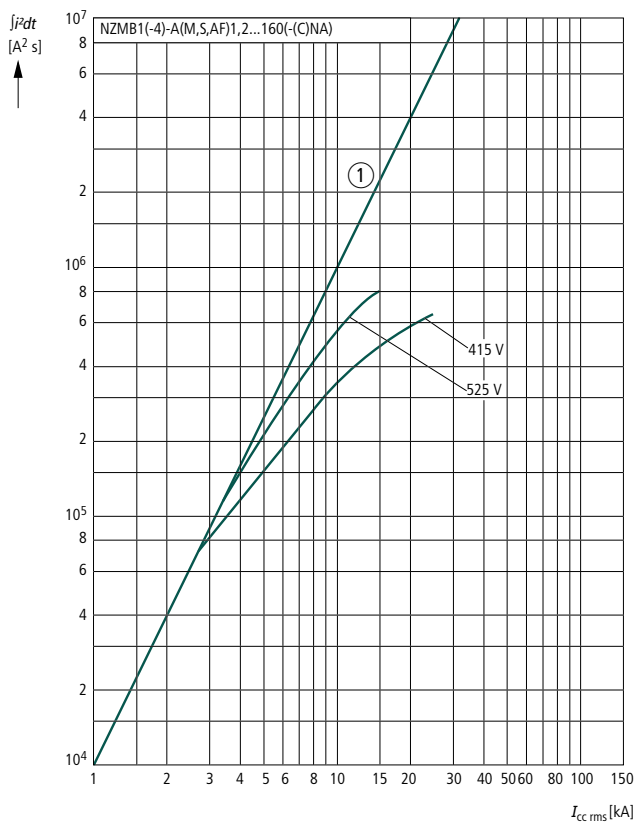


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Let-through current $\hat{i}_D$



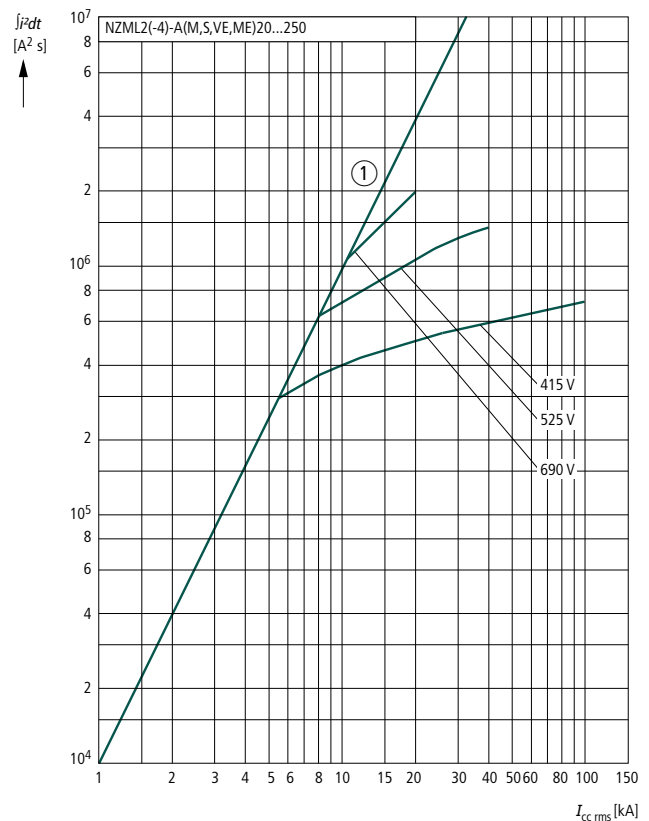
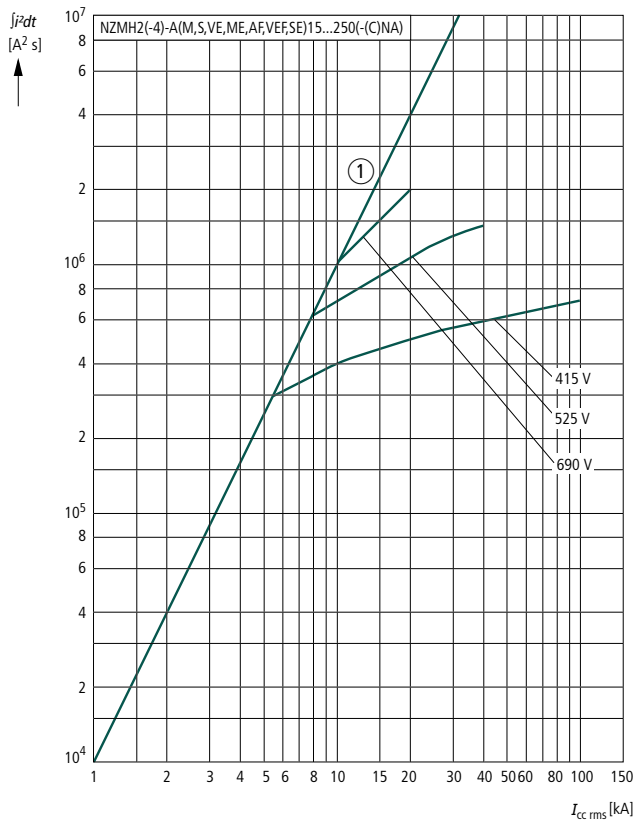
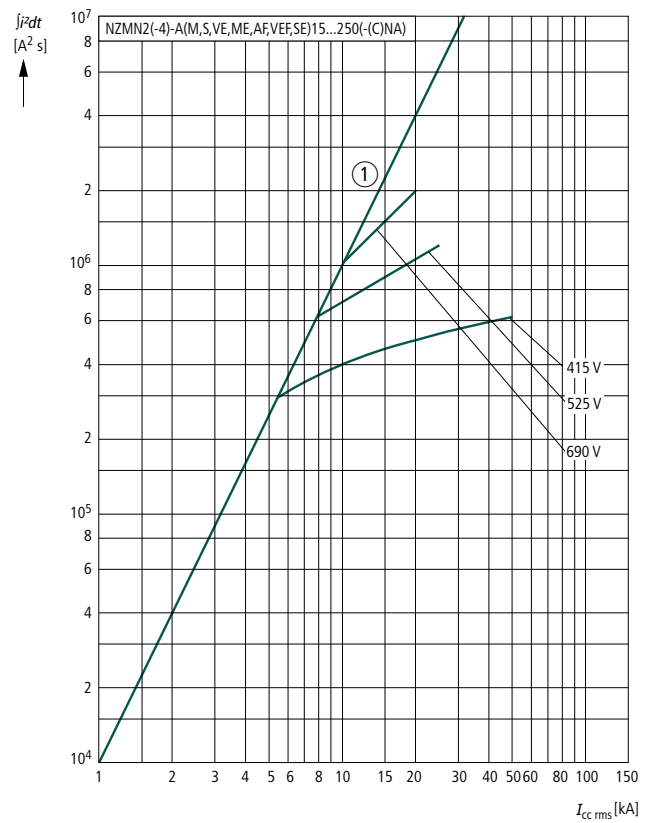
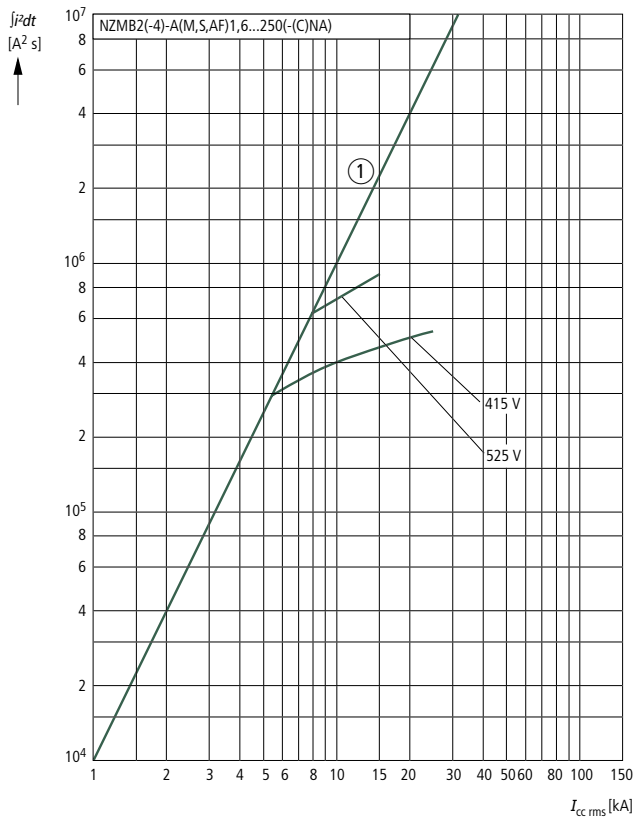
Let-through energy I^2t



① 1st half-wave

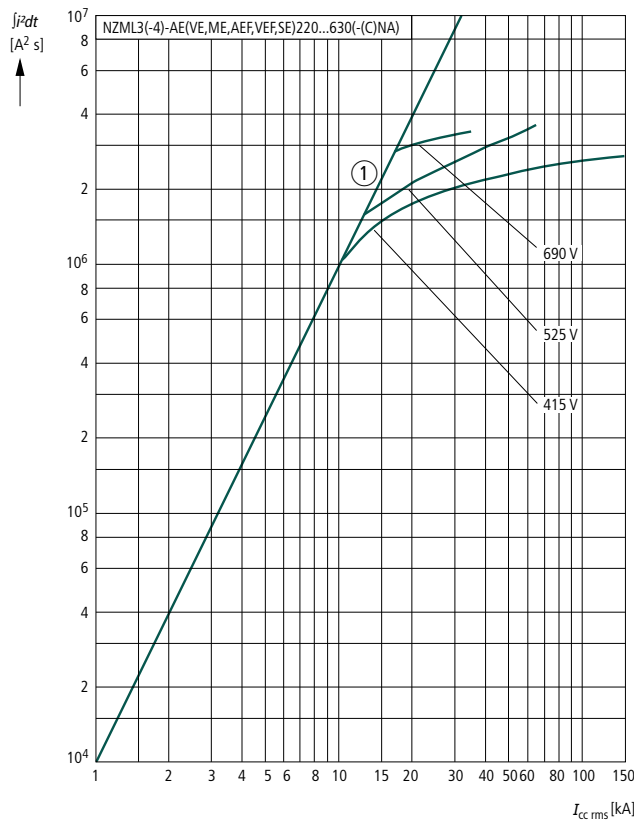
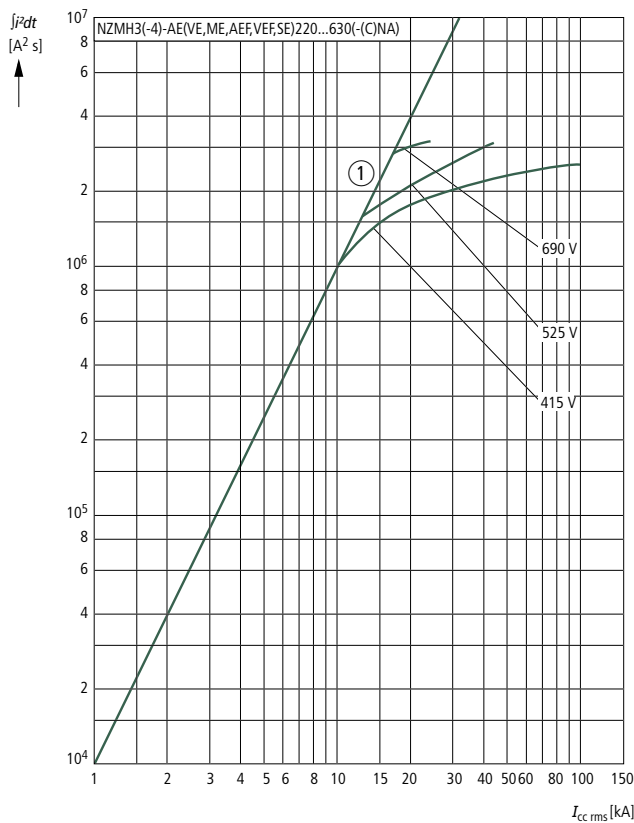
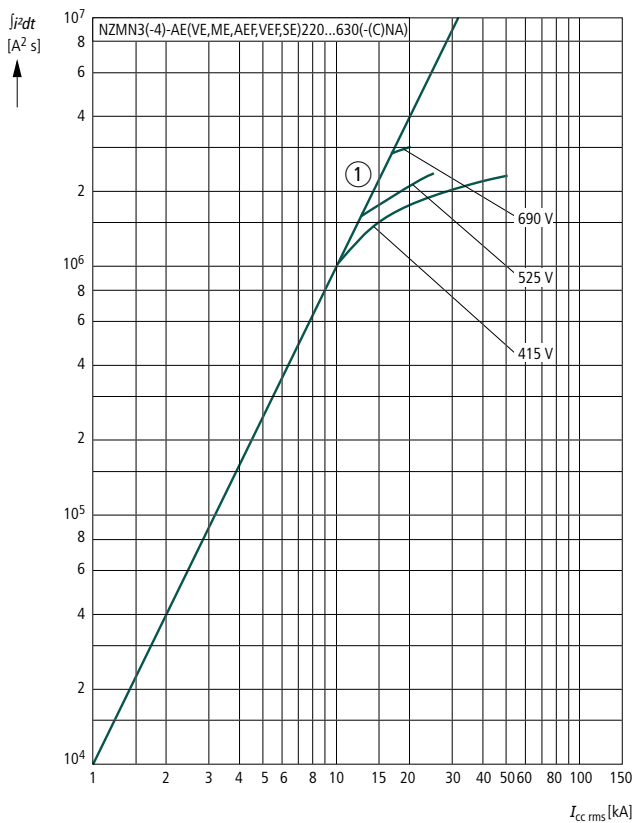
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Let-through energy I^2t



① 1st half-wave

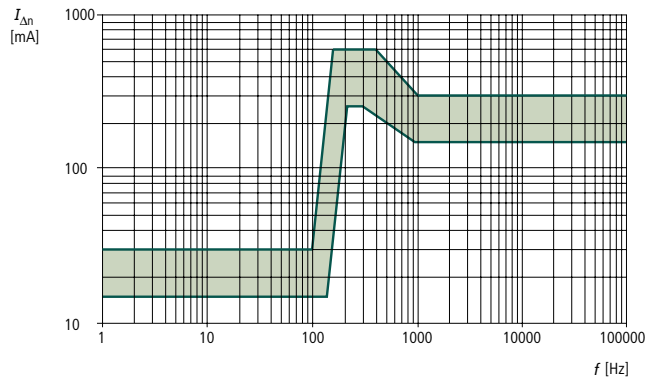
Let-through energy I^2t



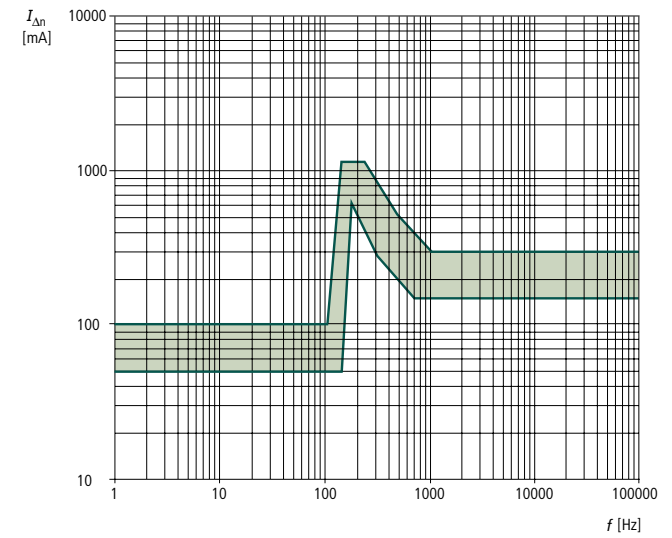
① 1st half-wave

Moeller SK1230-1157GB-INT

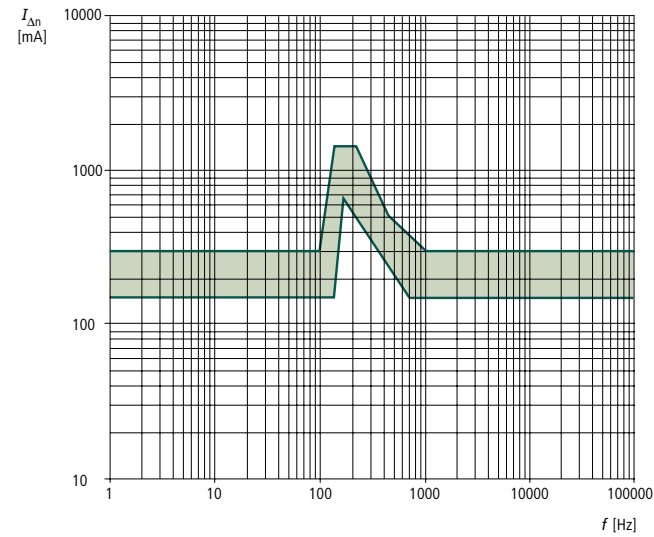
Frequency response NZM2-4-XFIA30
30 mA



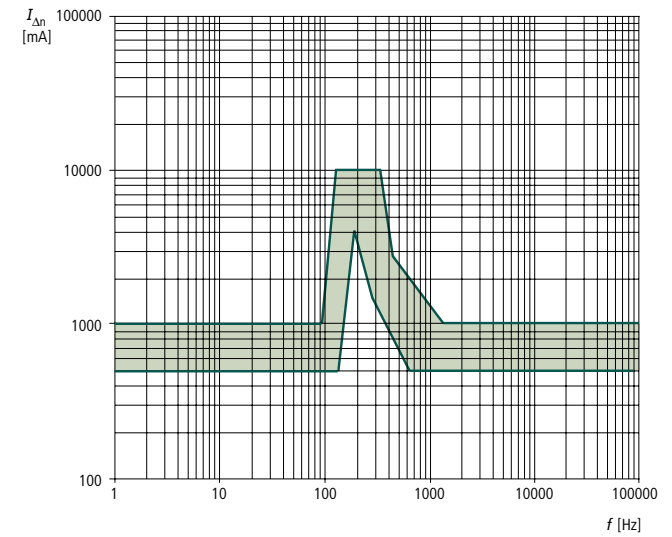
Frequency response NZM2-4-XFIA
100 mA



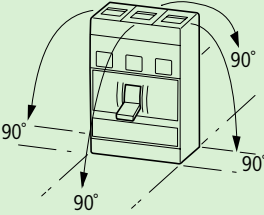
Frequency response NZM2-4-XFIA
300 mA



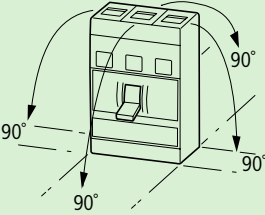
Frequency response NZM2-4-XFIA
1000 mA



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			Rated uninterrupted current: 160 A		
			NZMB1	NZMN1	NZMH1
General					
Standards			IEC/EN 60947		
Protection against direct contact			Finger and back of hand proof to VDE 0106 Part 100		
Climatic proofing			Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical 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 to VDE 0106 Part 101 and Part 101/A1					
Between auxiliary contacts and main contacts		V AC	500		
between the auxiliary contacts		V AC	300		
Mounting position			Vertical and 90° in all directions 		
Direction of incoming supply			As required		
Degree of protection					
Device			In the operating controls area: IP20 (basic degree of protection)		
Enclosures			With insulating surround: IP40, with door coupling rotary handle: IP66		
Terminals			Tunnel terminal: IP10 Phase isolator and strip terminal: IP00		

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Rated uninterrupted current: 250 A				Rated uninterrupted current: 630 A			Rated uninterrupted current: 1600 A		
NZMB2	NZMN2	NZMH2	NZML2	NZMN3	NZMH3	NZML3	NZMN4	NZMH4	NZML4
IEC/EN 60947									
Finger and back of hand proof to VDE 0106 Part 100									
Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical 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 NZM2: vertical, 90° right/left With withdrawable unit NZM3: vertical, 90° left NZM4: vertical with remote operator: NZM2, NZM3, NZM4: vertical and 90° in all directions									
As required									
In the operating controls area: IP20 (basic degree of protection)									
With insulating surround: IP40, with door coupling rotary handle: IP66									
Tunnel terminal: IP10 Phase isolator and strip terminal: IP00									

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				Rated uninterrupted current: 160 A		
				NZMB1	NZMN1	NZMH1
Circuit-breakers						
Rated impulse withstand voltage U_{imp}						
Main contacts			V	6000	6000	6000
Auxiliary contacts			V	6000	6000	6000
Rated operational voltage		U_e	V AC	690	690	690
Overvoltage category/pollution degree				III/3	III/3	III/3
Rated insulation voltage		U_i	V	690	690	690
For use in IT electrical power networks			V	525	690	690
Switching capacity						
Rated short-circuit making capacity						
240 V 50/60 Hz		I_{cm}	kA	63	187	220
400/415 V 50/60 Hz		I_{cm}	kA	53	105	220
440 V 50/60 Hz		I_{cm}	kA	53	74	74
525 V 50/60 Hz		I_{cm}	kA	30	40	40
690 V 50/60 Hz		I_{cm}	kA	–	17	17
Rated short-circuit breaking capacity I_{cn}						
I_{cu} to IEC/EN 60947 operating sequence O-t-CO	240 V 50/60 Hz	I_{cu}	kA	30	85	100
	400/415 V 50/60 Hz	I_{cu}	kA	25	50	100
	440 V 50/60 Hz	I_{cu}	kA	25	35	35
	525 V 50/60 Hz	I_{cu}	kA	15	20	20
	690 V 50/60 Hz	I_{cu}	kA	–	10	10
I_{cs} to IEC/EN 60947 operating sequence O-t-CO-t-CO	240 V 50/60 Hz	I_{cs}	kA	30	85	100
	400/415 V 50/60 Hz	I_{cs}	kA	25	50	50
	440 V 50/60 Hz	I_{cs}	kA	25	35	35
	525 V 50/60 Hz	I_{cs}	kA	7.5	10	10
	690 V 50/60 Hz	I_{cs}	kA	–	7.5	7.5
Utilization category to IEC/EN 60947-2				A	A	A
Rated short-time withstand current						
t = 0.3 s		I_{cw}	kA	–	–	–
t = 1 s		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
	690 V 50/60 Hz	I_e	A	160	160	160
AC—3	400/415 V 50/60 Hz	I_e	A	160	160	160
	690 V 50/60 Hz	I_e	A	160	160	160
Lifespan, mechanical (of which max. 50 % trip by shunt/undervoltage release)		Operations		20000	20000	20000
Maximum operating frequency		Ops/h		120	120	120
Lifespan, electrical to IEC/EN 60947-4-1 section B						
AC-1	400/415 V 50/60 Hz	Operations		10000	10000	10000
	690 V 50/60 Hz	Operations		7500	7500	7500
AC—3	400/415 V 50/60 Hz	Operations		7500	7500	7500
	690 V 50/60 Hz	Operations		5000	5000	5000
Current heat loss per pole at I_u		W		13	13	13
Overload releases						
Temperature compensation for NZM2 to IEC/EN 60947, residual error in the range -25 °C/+70 °C (reference temperature 40 °C)						
Thermomagnetic		% /K		0.7 ⁵⁾	0.7 ⁵⁾	0.7 ⁵⁾
Electronic				–	–	–
Total opening delay at short-circuit		ms		< 10	< 10	< 10
Technical data, divergent from the products for the IEC market						
Switching capacity NA switches (UL489, CSA 22.2 No. 5.1)						
240 V 60 Hz		kA		35	85	–
480V 60Hz		kA		25 ²⁾	35 ²⁾	–
600 V 60 Hz		kA		–	–	–

Notes

- 1) For rated operational voltage the following applies: DC voltage values on request
- 2) For switching capacity of NA switches with NZM...1-...NA the following applies: 480Y/277 V from 60 A
- 3) For rated operational current AC-3 at NZMB2, NZMN2, NZMH2, NZM4 the following applies: 400 V: max. 650 kW; 600 V: max. 600 kW
- 4) For switching capacity of NA switches with NZML2 and NZML3 the following applies: current limiting switch to UL489
- 5) For overload release temperature compensation NZM2 thermomagnetic the following applies: with NZM1...1-...160: 0.4
- 6) For switching capacity of NA switches with NZML4 at 240 V 60 Hz the following applies: please enquire
- 7) The current heat loss per pole ratings refer to the maximum current rating of the frame size.

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Rated uninterrupted current: 250 A				Rated uninterrupted current: 630 A			Rated uninterrupted current: 1600 A		
NZMB2	NZMN2	NZMH2	NZML2	NZMN3	NZMH3	NZML3	NZMN4	NZMH4	NZML4
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	690	690	690	690	690	690	525	525	525
63	187	220	330	187	220	330	105	220	275
53	105	220	330	105	220	330	105	220	220
53	74	143	286	74	143	286	74	143	187
30	53	84	105	53	95	143	53	84	143
–	40	40	40	40	53	74	40	74	105
30	85	100	150	85	100	150	50	100	125
25	50	100	150	50	100	150	50	100	100
25	35	65	130	35	65	130	35	65	85
15	25	40	50	25	45	65	25	40	65
–	20	20	20	20	25	35	20	35	50
30	85	100	150	85	100	150	37	50	63
25	50	100	150	50	100	150	37	50	50
25	35	65	130	35	65	130	26	49	43
15	25	30	38	13	22	33	19	30	49
–	5	5	5	5	6	9	15	26	37
A	A	A	A	A	A	A	B	B	B
–	1.9	1.9	1.9	3.3	3.3	3.3	19.2	19.2	–
–	1.9	1.9	1.9	3.3	3.3	3.3	19.2	19.2	–
250	250	250	250	630	630	630	1600	1600	1600
250	250	250	250	630	630	630	1600	1600	1600
250	250	250	250	630	630	630	1600 ³⁾	1600 ³⁾	1600 ³⁾
250	250	250	250	630	630	630	1600 ³⁾	1600 ³⁾	1600 ³⁾
20000	20000	20000	20000	15000	15000	15000	10000	10000	10000
120	120	120	120	60	60	60	60	60	60
10000	10000	10000	10000	5000	5000	5000	3000	3000	3000
7500	7500	7500	7500	3000	3000	3000	2000	2000	2000
6500	6500	6500	6500	2000	2000	2000	2000	2000	2000
5000	5000	5000	5000	2000	2000	2000	1000	1000	1000
19	19	19	19	40	40	40	97	97	97
0	0	0	0	–	–	–	–	–	–
0	0	0	0	0	0	0	0	0	0
< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25 ≤ 415 V; < 35 > 415 V	< 25 ≤ 415 V; < 35 > 415 V	< 25 ≤ 415 V; < 35 > 415 V
35	85	100	150 ⁴⁾	85	100	150 ⁴⁾	85	100	125 ⁶⁾
25	35	65	100 ⁴⁾	42	65	100 ⁴⁾	42	65	85
18	25	35	50 ⁴⁾	35	42	50 ⁴⁾	35	42	50

Current limiting specifications: NZML2... and NZML3...

Circuit-breakers		Voltage	Threshold current			Intermediate current			High interrupting capacity		
Type	max. frame size	At 60 Hz	sym. rms	Maximum		sym. rms	Maximum		sym. rms	Maximum	
	[A]	[V]	[kA]	Peak [kA]	I^2dt [kA²s]	[kA]	Peak [kA]	I^2dt [kA²s]	[kA]	Peak [kA]	I^2dt [kA²s]
NZML2-A... AF...	250 A	240	16,25	12,80	0,36	100	20,23	0,40	150	20,00	0,38
		480	16,25	13,20	0,50	65	23,63	0,85	100	26,55	0,78
		600	16,25	12,98	0,60	30	19,40	0,67	50	24,40	0,84
NZML2-VE... VEF...	250 A	240	16,25	11,40	0,31	100	18,23	0,27	150	20,40	0,32
		480	16,25	14,23	0,48	65	23,63	0,58	100	26,43	0,62
		600	16,25	14,33	0,48	30	19,60	0,60	50	24,63	0,79
NZML3	600 A	240	39	41,20	3,30	100	31,00	1,01	150	36,80	1,34
		480	39	29,50	1,60	65	36,40	2,34	100	43,10	1,92
		600	30	29,50	2,24	42	33,80	2,04	50	39,15	2,42

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				PN1/N1 160 A 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 operational voltage	U_e	V AC		690	690	690	690
Rated uninterrupted current max.							
IEC/EN 61131-3	I_u	A		160	250	630	1600
Technical data, divergent from the products for the IEC market UL489, CSA 22.2 No. 5.1	I_u	A		125	160	550	1200
Overvoltage category/pollution degree				III/3	III/3	III/3	III/3
Rated insulation voltage	U_e	V AC		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							
$t = 0.3 \text{ s}$	I_{cw}	kA		2	3.5 ¹⁾	12	25
$t = 1 \text{ s}$	I_{cw}	kA		2	3.5 ¹⁾	12	25
Rated conditional short-circuit current							
with back-up fuse		A gG/gL		125 PN1(N1) - 160: 160	250	630	2 x 800
400/415 V		kA		100	100	100	100
690 V		kA		100	100	80	80
With downstream fuse		A gG/gL		125 PN1(N1) - 160: 160	250	630	2 x 800
400/415 V		kA		100	100	100	100
690 V		kA		10	100	100	80
Rated making and breaking capacity							
Rated operational current, AC-22/23A							
415 V	I_e	A		160	250	630	1600
690 V	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 to IEC/EN 60947-4-1 section B							
AC-1	400/415 V	Operations		10000	10000	5000	3000
	690 V	Operations		7500	7500	3000	2000
AC-3	400/415 V	Operations		7500	7500	3000	2000
	690 V	Operations		5000	5000 ³⁾	2000	1000
Current heat loss per pole at I_u ²⁾		W		8	16	40	97

Notes

¹⁾ The rated short-time withstand current with PN2/N2 in conjunction with residual-current releases NZM2-4-XFI... $I_{cw} = 1.5 \text{ kA}$

²⁾ The current heat loss per pole ratings refer to the maximum current rating of the frame size.

³⁾ 690 V: max. 160 kW

			NZM1, PN1, N1, NS1		NZM2, PN2, N2, NS2			NZM3, PN3, N3, NS3		NZM4, N4, NS4	
			125 A	160 A	250 A	without	with XSV TM	E	630 A	without	with XAV
Permissible loading at different ambient temperatures (derating)											
open	20°C	%	100	100	100	100	100	100	100	96	100
	30°C	%	100	100	100	97	100	100	100	92	98
	40°C	%	100	100	100	92	100	100	100	87	93
	50°C	%	100	95	100	87	94	100	100	83	89
	60°C	%	86	90	90	81	88	90	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 unit
XAV = withdrawable unit
TM = thermomagnetic
E = electronic

			NS1-...-NA max. 125A	NS2-...-NA max. 250A	
Molded Case Switch					
Rated impulse withstand voltage		U_{imp}			
Main contacts			6000	8000	
Auxiliary contacts			6000	6000	
Rated operational voltage		U_e	690	690	
Rated uninterrupted current max.					
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 to UL 489, CSA 22.2 No. 5.1					
	240 V		85	150	
	480 V		35	100	
	600 V		–	50	
Switching capacity, divergent from the products for the NA market					
Rated short-circuit making capacity	240 V	I_{cm}	187	330	
	400/415 V	I_{cm}	105	330	
	440 V	I_{cm}	74	286	
	525 V	I_{cm}	53	105	
	690 V	I_{cm}	17	53	
Rated short-circuit breaking capacity $I_{cc} = I_{cu}$ to IEC/EN 60947-2 Annex L	I_{cu} to IEC/EN 60947 test cycle O-t-CO	240 V	I_{cu}	85	150
		400/415 V	I_{cu}	50	150
		440 V	I_{cu}	35	130
		525 V	I_{cu}	20	50
		690 V	I_{cu}	10	20
	I_{cs} to IEC/EN 60947 test cycle O-t-CO-t-CO	240 V	I_{cs}	85	150
		400/415 V	I_{cs}	50	150
		440 V	I_{cs}	35	130
		525 V	I_{cs}	10	37.5
		690 V	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
		690 V	Operations	7500	7500
	AC—3	400/415 V	Operations	7500	6500
		690 V	Operations	5000	5000
Current heat loss per pole at I_u ¹⁾			13	19	
Total opening delay on short-circuit			< 10	< 10	

Notes
¹⁾ Details relate to the maximum nominal current of the frame size

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				NZMH2, N2	NZMN3, N3	NZMH4, N4
General						
Utilization category				A	A	A/B
Maximum operating frequency		Ops/h		120	60	60
Lifespan						
mechanical (of which max. 50 % trip by shunt/undervoltage release)				20000	15000	10000
Electrical		Operations		3000	1000	500
Rated operational voltage	U_e	V AC		1000	1000	1000
Circuit-breakers						
Rated uninterrupted current	I_u	A		max. 250	max. 630	max. 1600
Rated short-circuit making capacity						
1000 V 50/60 Hz	I_{cm}	kA		17	17	40
Rated short-circuit breaking capacity I_{cn}						
I_{cu} to IEC/EN 60947 operating sequence O-t-CO	1000 V 50/60 Hz	I_{cu}	kA	10	10	20
I_{cu} to IEC/EN 60947 operating sequence O-t-CO-t-CO	1000 V 50/60 Hz	I_{cs}	kA	3	10	15
Rated making and breaking capacity						
Rated operational current						
AC-1	1000 V 50/60 Hz	I_e		250	630	1600
Switch-disconnectors						
Rated uninterrupted current	I_u	A		max. 250	max. 630	max. 1600
Rated short-time withstand current	I_{cw}	kA		3.5	12	25
Rated making and breaking capacity						
Rated operational current						
AC-22/23A	1000 V 50/60 Hz	I_e		250	630	1600

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NZM up to 250A with thermomagnetic release (3 and 4 pole)												
I _n [A]	Fixed mounted								NS1- ...-NA		N1-, PN1- ...(-NA)	
	NZM1- A...(-NA)		M...		AF...-NA		S...(-CNA)					
	P	R	P	R	P	R	P	R	P	R	P	R
	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]
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	—	—	—	—	17.7	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	—	—	—	—	—	—	—	—	—	—	—	—

Note: The values stated in the table apply for fixed mounted 3 and 4 pole devices which are loaded uniformly.
On 4 pole devices the current on the N conductor is equal to zero.
The entire resistive load is for the measured three-pole or four-pole value.
The total heat dissipation is the measured value for I_n at 50/60 Hz for a 3-pole or 4-pole switch.
The heat dissipation can be calculated using the fromula: P = 3 × R × I²

NZM up to 1600 A with electronic release (3 and 4 pole)								
Fixed mounted			Fixed mounted			Fixed mounted		
NZM2-	N2, PN2	Additional Plug-in units	NZM3-	N3-, PN3-	Additional Withdrawable	NZM4-	N4-	Additional Withdrawable
R	R	R	R	R	R	R	R	R
[μOhm]	[μOhm]	[μOhm]	[μOhm]	[μOhm]	[μOhm]	[μOhm]	[μOhm]	[μOhm]
275	256	100	100	90	70	37	37	10

Note: The values stated in the table apply for 3 and 4 pole devices which are loaded uniformly.
On 4 pole devices the current on the N conductor is equal to zero.
The total resistive load is the measured value for a 3 pole or 4 pole switch (independent of I_n and the type of release).
The total resistive load for a switch in fixed or withdrawable design results from:
the resistive value for fixed mounting + resistive value for plug-in or withdrawable design.
The heat dissipation can be calculated using the fromula: P = 3 × R × I²

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Fixed mounted											
NZM2-								NS2-		N2-, PN2-	
A...(-NA)		M...		AF...-NA		S...(-CNA)		...-NA		...(-NA)	
P	R	P	R	P	R	P	R	P	R	P	R
[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]	[W]	[μOhm]
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	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

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				NZM1, PN1, N1, NS1 160 A	$I_n^{(1)}$ A	NZM2, PN2, N2, NS2 250 A	$I_n^{(1)}$ A	NZM3, PN3, N3, NS3 630 A	$I_n^{(1)}$ A		
Terminal capacities											
Standard equipment				Box terminal	–	Screw terminal	–	Screw terminal	–		
Accessories				Screw connection Tunnel terminal Connection on rear		Box terminal Tunnel terminal Connection on rear		Box terminal Tunnel terminal Connection on rear			
Cu conductors, Cu cable											
Box terminal	Solid		mm ²	1 × (10 – 16) 2 × (6 – 16)	160	1 × (4 – 16) 2 × (4 – 16)	250	2 × 16	500		
	Stranded		mm ²	1 × (25 – 70) ³⁾ 2 × 25		1 × (25 – 185) 2 × (25 – 70)	250	1 × (35 – 240) 2 × (25 – 120)			
Tunnel terminal	Solid	Single hole	mm ²	1 × 16	160	1 × (16 – 185)	250	–	–		
			mm ²	1 × (25 – 95)		1 × (25 – 185)		1 × (25 – 185)			
	Stranded	Double hole fitting	mm ²	–	–	–	1 × (50 – 240)	630			
			mm ²	–	–	–	2 × (50 – 240)	–			
Bolt terminal and rear-side connection											
Direct on the switch	Solid		mm ²	1 × (10 – 16) 2 × (6 – 16)	160	1 × (4 – 16) 2 × (4 – 16)	250	1 × 16 2 × 16	630 2 × 185		
	Stranded		mm ²	1 × (25 – 70) ³⁾ 2 × 25		1 × (25 – 185) 2 × (25 – 70)		1 × (25 – 240) 2 × (25 – 240)			
Module plate	Single hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–			
Module plate	Double hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–			
Connection width extension				mm ²				2 × 300	630 2 × 185		
Al conductors, Al cable											
Tunnel terminal	Solid Stranded	Single hole Double hole fitting 4-hole	mm ²	1 × 16	160	1 × 16	250	1 × 16	350		
			mm ²	1 × (25 – 95)		1 × (25 – 185)		1 × (25 – 185) ²⁾			
			mm ²	–		–		–		1 × (50 – 240) 2 × (50 – 240)	630
			mm ²	–		–		–		–	–
Bolt terminal and rear-side connection											
Direct on the switch	Solid		mm ²	1 × (10 – 16) 2 × (10 – 16)	160	1 × (10 – 16) 2 × (10 – 16)	250	1 × 16 2 × (10 – 16)	400		
	Stranded		mm ²	1 × (25 – 35) 2 × (25 – 35)		1 × (25 – 50) 2 × (25 – 50)		1 × (25 – 120) 2 × (25 – 120)			
Module plate	Single hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–			
Module plate	Double hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–			
Connection width extension				mm ²							
Cu strip (number of segments × width × segment thickness)											
Box terminal	min.		mm ²	2 × 9 × 0.8	160	2 × 9 × 0.8	250	6 × 16 × 0.8	630		
	max.		mm ²	9 × 9 × 0.8		10 × 16 × 0.8		10 × 24 × 1.0 + 5 × 24 × 1.0 (2 ×) 8 × 24 × 1.0			
Flat conductor terminal			min.	mm	–	–	–	–	–		
			max.	mm	–	–	–	–	–		
Module plate			Single hole	mm ²	–	–	–	–	–		
Bolt terminal and rear-side connection											
Flat copper strip, with holes	min.		mm	–	–	2 × 16 × 0.8	250	6 × 16 × 0.8	630		
	max.		mm	–	–	10 × 16 × 0.8		10 × 32 × 1.0 + 5 × 32 × 1.0			
Connection width extension				mm ²	–	–	–	(2 ×) 10 × 50 × 1.0			
Copper busbar (width × thickness)											
Bolt terminal and rear-side connection											
Screw connection				M6	–	M8	–	M10	–		
	Direct on the switch		min.	mm ²	12 × 5	160	16 × 5	250	20 × 5	630	
			max.	mm ²	16 × 5	–	20 × 5	30 × 10 +30 × 5			
Module plate	Single hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–	–		
Module plate	Double hole	min.	mm ²	–	–	–	–	–	–		
		max.	mm ²	–	–	–	–	–	630		
Connection width extension				mm ²	–	–	–	2 × (10 × 50)	10 × 40		

Notes ¹⁾ The rated currents I_n have been determined conform to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections and are intended for the purpose of orientation. The engineering standards which apply in each case must be observed.
²⁾ depending on the cable manufacturer up to 240 mm² can be connected.
³⁾ depending on the cable manufacturer up to 95 mm² can be connected.

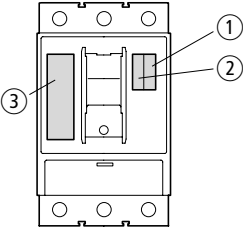
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NZM4, N4, NS4 1600 A	$I_n^{(1)}$ A		NZM...1...NA, N1...NA, NS1...NA	NZM...2...NA, N2...NA, NS2...NA	NZM...3...NA, N3...NA, NS3...NA	NZM...4...NA, N4...NA, NS4...NA
Screw terminal	–	–	Box terminal	Screw terminal	Screw terminal	Screw terminal
Tunnel terminal		–	Screw connection	Box terminal	Box terminal	Tunnel terminal
Connection on rear			Tunnel terminal	Tunnel terminal	Tunnel terminal	Connection on rear
Strip terminal			Connection on rear	Connection on rear	Connection on rear	Strip terminal
–	–	AWG	1 × (12 – 6)	1 × (12 – 6)	–	–
–	–	AWG/kcmil	1 × (4 – 2/0)	1 × (4 – 350)	1 × (2 – 500)	–
–	–	AWG	1 × 6	1 × 6	1 × 6	–
–	–	AWG/kcmil	1 × (4 – 3/0)	1 × (4 – 350)	1 × (4 – 350)	–
–	–	AWG/kcmil	–	–	1 × (0 – 500) 2 × (0 – 500)	–
4 × (50 – 240)	1400	AWG/kcmil	–	–	–	4 × (0 – 500)
–	–	AWG	1 × (12 – 6) 2 × (9 – 6)	1 × (12 – 6)	–	–
1 × (120 – 185) 4 × (50 – 185)	1250	AWG/kcmil	1 × (4 – 2/0)	1 × (4 – 3/0)	1 × (4 – 350)	1 × (250 – 350) 4 × (0 – 350)
1 × (120 – 300) 2 × (95 – 300)	1000	kcmil	–	–	–	1 × (250 – 600)
2 × (95 – 185) 4 × (35 – 185)	1400	AWG/kcmil	–	–	–	2 × (3/0 – 600)
4 × 300 6 × (95 – 240)	1600 4 × 240	AWG/kcmil	–	–	–	2 × (3/0 – 350)
–	–	AWG/kcmil	–	–	2 × 500	4 × 600 6 × (3/0 – 500)
–	–	AWG	–	–	–	–
–	–	AWG/kcmil	–	–	–	–
–	–	AWG/kcmil	–	–	–	–
4 × (50 – 240)	1400	AWG/kcmil	–	–	–	–
–	–	AWG	–	–	–	–
–	–	AWG/kcmil	–	–	–	–
1 × (185 – 240) 2 × (70 – 185) 4 × 50 2 × 240 6 × (70 – 240)	on request on request – on request	kcmil	–	–	–	–
–	–	AWG/kcmil	–	–	–	–
–	–	AWG	–	–	–	–
–	–	AWG/kcmil	–	–	–	–
–	–	mm	2 × 9 × 0.8	2 × 9 × 0.8	6 × 16 × 0.8	–
–	–	mm	9 × 9 × 0.8	10 × 16 × 0.8	10 × 24 × 1.0 + 5 × 24 × 1.0 (2 ×) 8 × 24 × 1.0	–
6 × 16 × 0.8 (2 ×) 10 × 32 × 1.0 (2 ×) 10 × 50 × 1.0	1100 1250 (2 ×) 10 × 40 × 1.0	mm	–	–	–	6 × 16 × 0.8 (2 ×) 10 × 32 × 1.0 (2 ×) 10 × 50 × 1.0
(2 ×) 10 × 50 × 1.0 (2 ×) 10 × 50 × 1.0	1600	mm	–	2 × 16 × 0.8	6 × 16 × 0.8	(2 ×) 10 × 50 × 1.0
(2 ×) 10 × 80 × 1.0	1600 2 × (10 × 50 × 1.0)	mm	–	10 × 16 × 0.8	10 × 32 × 1.0 + 5 × 32 × 1.0	(2 ×) 10 × 50 × 1.0
M10 25 × 5 2 × (50 × 10)	– 1600	mm	M6	M8	M10	M10
25 × 5 2 × (50 × 10) 2 × (50 × 10) 60 × 10 2 × (80 × 10)	1250 2 × (40 × 10) 1500 1600 2 × (50 × 10)	mm	12 × 5	16 × 5	20 × 5	25 × 5
–	–	mm	16 × 5	20 × 5	30 × 10 +30 × 5	2 × (50 × 10)
–	–	mm	–	–	–	25 × 5
–	–	mm	–	–	–	2 × (50 × 10)
–	–	mm	–	–	–	2 × (50 × 10)
–	–	mm	–	–	–	60 × 10
–	–	mm	–	–	2 × (10 × 50)	2 × (80 × 10)

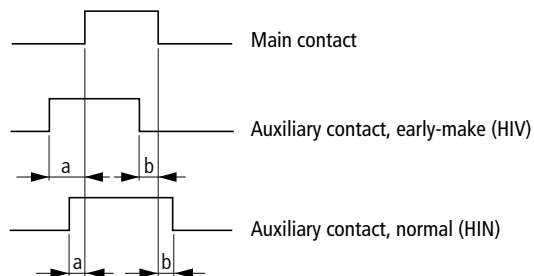
at AC = 50/60 Hz			M22-K...	XHIV	XHI
Auxiliary contacts					
Rated operational voltage					
AC	U_e	V AC	500	500	500
DC	U_e	V DC	220	220	220
Conventional thermal current					
	$I_{th} = I_e$	A	4	4	4
Rated operational current					
AC-15	115 V	I_e	4	4	4
	230 V	I_e	4	4	4
	400 V	I_e	2	2	2
	500 V	I_e	1	1	1
DC-13	24 V	I_e	3	3	3
	42 V	I_e	1.7	1.5	–
	60 V	I_e	1.2	0.8	1.2
	110 V	I_e	0.8	0.5	0.5
	220 V	I_e	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 time compared to the main contacts during switch on and off (switching times with manual operation)			–	NZM1, PN1, N1: approx. 20 NZM2, PN2, N2: approx. 20 NZM3, PN3, N3: approx. 20 NZM4, N4: ca. 90 With NZM4/N4 the HIV does not feature early break.	–
Terminal capacities					
Solid or flexible conductor with ferrule		mm ²	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)
UL/CSA					
Rated operational current	I_e	A	10 A – 600 V AC 1 A – 250 V DC	2.5 A – 240 V AC 1 A – 250 V DC	2.5 A – 240 V AC 1 A – 250 V DC
Heavy Pilot Duty			A600/P300 above 300 V AC same polarity	C300/R300	C300/R300

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Maximum component installation and position of the internal accessories

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

Time differences ON-OFF



	Time difference a (ms)						Time difference b (ms)					
	Manual operation			Motor operators			Manual operation			Motor operators		
	HIV	HIN	K01	HIV	HIN	K01	HIV	HIN	K01	HIV	HIN	K01
NZM1	20 ²⁾	0	2,5	—	—	—	20 ²⁾	0	2,5	—	—	—
NZM2	20 ²⁾	3,5	6,5	Not per- missible	2,5	4,5	20 ²⁾	3	4,5	Not per- missible	3	4
NZM3	20 ²⁾	4	8	Not per- missible	2	4	20 ²⁾	3,5	8	Not per- missible	3	6,5
NZM4	90 ²⁾	7	11	Not per- missible	on request	on request	0 ¹⁾²⁾	12	15	Not per- missible	on request	on request

Notes

¹⁾ With NZM4/N4 the HIV does **not** feature early break.

²⁾ Minimum value, as it is dependent on the switching speed

				NZM1(2/3)-XU...	NZM4-XU...
Undervoltage release					
Rated control voltage					
Alternating voltage at 50/60 Hz	U_s	V AC		24 – 600	24 – 600
DC	U_s	V DC		12 – 250	12 – 250
Operating range					
Drop-out voltage		$\times U_s$		0.35 – 0.7	0.35 – 0.7
Pick-up voltage		$\times U_s$		0.85 – 1.1	0.85 – 1.1
Power consumption					
AC					
Sealing AC		VA		1.5	3.6
DC					
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		mm ²		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)

				UVU-NZM
Undervoltage releases, off-delayed				
Rated operational voltage				
Alternating voltage at 50/60 Hz	U_e	V AC		24, 220 – 550
DC	U_e	V DC		24
Inrush current (peak value)	I_e	mA		< 500
Power consumption		VA		50
Delay 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		mm ²		1 × (0.5 – 2.5) 2 × (0.5 – 1.5)

				NZM1(2/3)-XA...	NZM4-XA...	NZM2/3-XA...-MNS	NZM4-XA...-MNS
Shunt release							
Rated control voltage							
AC	U_s	V AC		12 – 600	12 – 600	230	230
DC	U_s	V DC		12 – 600	12 – 600	–	–
Frequency range		Hz		0 – 400	0 – 400	50/60	50/60
Operating range							
AC		$\times U_s$		0.7 – 1.1	0.7 – 1.1	0.1 – 1.1	0.1 – 1.1
DC		$\times U_s$		0.7 – 1.1	0.7 – 1.1	–	–
Power consumption							
Sealing AC/DC		VA/W		2.5	2.5	–	–
Maximum current consumption at 110% U_s (230 V 50 Hz)		A		–	–	0.5	1
Maximum opening delay (response time until opening of the main contacts)		ms		20	22	20	22
Maximum duty factor		ms		∞	∞	1000	1000
Minimum command time		ms		10 – 15	10 – 15	10 – 15	10 – 15
Terminal capacities							
Solid or flexible conductor with ferrule		mm ²		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)

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				NZM-XCM			
Capacitor unit for shunt release							
Rated operational voltage	U_e	V AC		230			
Rated operational current	I_e	mA		< 10			
Inrush current (peak value)	I_e	A		3			
Terminal capacities							
Solid or flexible conductor with ferrule			mm ²	1 × (0.5 – 2.5) 2 × (0.5 – 1.5)			
			AWG	1 × (20 – 14) 2 × (20 – 16)			
				NZM2-XR...	NZM3-XR...	NZM4-XR...	
Remote operator							
Rated control voltage							
AC	U_s	V AC		48 – 440	48 – 440	48 – 440	
DC	U_s	V DC		24 – 250	24 – 250	24 – 250	
Operating range							
AC	U_s			0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	
DC	U_s			0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	
Motor rating							
AC	48 V – 60 V AC		VA	350	350	350	
	110 V – 130 V AC		VA	350	350	350	
	208 V – 240 V AC		VA	350	350	350	
	380 V – 440 V AC		VA	350	350	350	
DC	24 V – 30 V DC		W	250	250	250	
	48 V – 60 V DC		W	250	250	250	
	110 V – 130 V DC		W	250	250	250	
	220 V – 250 V DC		W	250	250	250	
Total make time			ms	60	80	100	
Total opening delay			ms	300	1000	3000	
Minimum signal duration							
with switch on			ms	30	30	30	
with switch off			ms	150	250	500	
Lifespan, mechanical			Operations	20000	15000	10000	
Maximum operating frequency			Ops./h	120	60	20	
Terminal capacities							
Solid or flexible conductor with ferrule			mm ²	0.75 – 2.5	0.75 – 2.5	0.75 – 2.5	
			AWG	18 – 14	18 – 14	18 – 14	

			DMI
General			
Dimensions (W × H × D)		mm	107.5 × 90 × 53
Modular spacing (space units)			6 space units wide
Weight		kg	0.3
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Climatic environmental conditions			
Operating ambient temperature		°C	0 to +55
Mounting position			horizontal, vertical
Condensation			Prevent condensation by means of suitable measures
LCD display (clearly legible)		°C	0 to +55
Storage/Transport		°C	-40 to +70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 – 95
Air pressure (operation)		hPa	795 – 1080
Corrosion resistance			
IEC/EN 60068-2-42	4 days SO ₂	cm ³ /m ³	10
IEC/EN 60068-2-43	4 days H ₂ S	cm ³ /m ³	1
Ambient conditions, mechanical			
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 ms		Impacts	18
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	1
Power supply			
Rated operational voltage	U _e	V	24
Admissible range		V DC	20.4 – 28.8
Residual ripple		%	≤ 5
Input current at 24 V DC		mA	210
Voltage dips (IEC/EN 61131-2)		ms	10
Heat dissipation at 24 V DC		W	5

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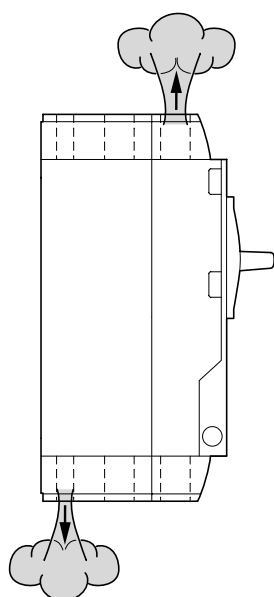
			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
General					
Standards			EN 55011, EN 55022, EN 61000-4, IEC 60068-2-6, IEC 60068-2-27		
Dimensions (W × H × D)		mm	35.5 × 90 × 58 (2 TE)	35.5 × 90 × 58 (2 TE)	35.5 × 90 × 58 (2 TE)
Weight		kg	0.15	0.15	0.15
Mounting			Top-hat rail IEC/EN 60715, 35 mm or screw fixing 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)
Flat-bladed screwdriver		mm	3.5 × 0.8	3.5 × 0.8	3.5 × 0.8
Max. tightening torque		Nm	0.6	0.6	0.6
Climatic environmental conditions					
Operating ambient temperature		°C	-25 to 55, cold as per IEC 60068-2-1, heat as per 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
Atmospheric pressure (operation)		hPa	795 – 1080	795 – 1080	795 – 1080
Corrosion resistance					
IEC/EN 60947-2-42	4 days SO ₂	cm ³ /m ³	10	10	10
IEC/EN 60068-2-43	4 days H ₂ S	cm ³ /m ³	1	1	1
Mechanical environmental 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		Impacts	18	18	18
Drop to IEC/EN 60068-2-31	Drop height	mm	50	50	50
Free fall, packaged (IEC/EN 60068-2-32)		m	1	1	1
Mounting position			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 impulses (IEC/EN 61000-4-4, level 3)					
Power lines		kV	2	2	2
Signal cables		kV	2	2	2
		kV	0.5 (power line symmetry)		
Immunity to line-conducted interference (IEC/EN 61000-4-6)		V	10	10	10

			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
Dielectric strength					
Rating of the air and creepage distance			EN 50178, UL 508, CSA C22.2, No. 142		
Dielectric strength			EN 50178		
Power supply					
Rated operational voltage	U_e	V	24 (-15/+20 %)	24 (-15/+20 %)	24 (-15/+20 %)
Admissible range		V DC	20.4 – 28.8	20.4 – 28.8	20.4 – 28.8
Residual ripple		%	< 5	< 5	< 5
At 24 V DC		mA	Averaged 200	Averaged 200	Averaged 200
Voltage dips (IEC/EN 61131-2)		ms	10	10	10
Heat dissipation at 24 V DC		W	4.8	4.8	4.8
Protection against polarity reversal					
Power supply			Yes	Yes	Yes
LED displays					
Power supply			LED RUN (RUN): green	LED module status (MS): green	LED power (POW): green
LED display			LED ERROR (ERR): red	LED network status (NS): red/green	LED-PROFIBUS-DP (BUS): red
Network					
Connection types			RJ45	5-pole, twin-level terminal block	–
Potential isolation			Bus to power supply (simple, bus and power supply to EASY base unit (safe isolation))	Bus to power supply (simple, bus and power supply to EASY base unit (safe isolation))	–
Function			CANopen slave	DeviceNet slave	–
Interface			CAN	CAN	–
Bus protocol			CANopen	DeviceNet	–
Baud rates			Automatic detection up to 1 MBit / s	Automatic detection up to 500 kBit / s	–
Bus termination resistors			Separate, external bus connection necessary (120 Ω)	Separate, external bus connection necessary (120 Ω)	–
Bus addresses			1 – 127 via EASY base unit with display or EASY-SOFT addressable	0 – 63 via EASY base unit with display or EASY-SOFT addressable	–
Services					
Cyclic			All data R1 – R16, S1 – S8	All data R1 – R16, S1 – S8	–
Acyclic			Read / write, time, day, summer- / winter time, all parameters of the EASY function	Read / write, time, day, summer- / winter time, all parameters of the EASY function	–
PROFIBUS-DP					
Connection types			–	–	Sub-D 9 pole, socket
Potential isolation			–	–	Bus to power supply (simple), bus and power supply to DMI base unit (safe isolation)
Function			–	–	PROFIBUS-DP slave
Interface			–	–	RS 485
Bus protocol			–	–	PROFIBUS-DP
Baud rates			–	–	Automatic detection up to 12 MBit / s
Bus termination resistors			–	–	Switch-in via connector
Bus addresses			–	–	1 – 126 via DMI

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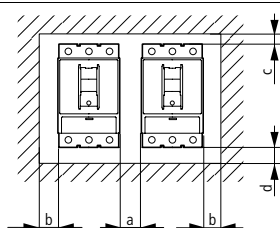
			PFR-003	PFR-03	PFR-5
Electrical					
Standards			IEC/EN 60947-2, IEC 755, IEC 1008, IEC 1009		
Sensitivity			Pulse current sensitive, type A		
Rated control voltage	U_s	V AC	230 ±20 % (50/60 Hz)		
Motor rating	P_e	W	3	3	3
Rated fault currents	$I_{\Delta n}$	mA	0.03	0.3	0.03, 0.1, 0.3, 0.5, 1, 3, 5
Delay 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 integrated changeover	1 integrated changeover	1 integrated changeover
Rated voltage of the relay contact		V AC/DC	250/100	250/100	250/100
Rated current of the relay contact		A	6	6	6
Fault current 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
Device width		mm	45	45	45
Mounting			Snap fixing, top-hat rail DIN 46277, IEC/EN 60715		
Terminals top and bottom			Box terminals		
Terminal protection			Finger/back-of-hand proof to BGV A2, VDE 106 part 100		
Terminal capacities		mm ²	2 × 0.75 – 2.5 solid, 2 × 0.75 – 1.5 flexible/with ferrules		
Sealability			–	–	Setting buttons

Direction of blow-out



	Top Front	Bottom Rear
NZM1	X	—
NZM2	X	X
NZM3	X	X
NZM4	X	—

Minimum clearance



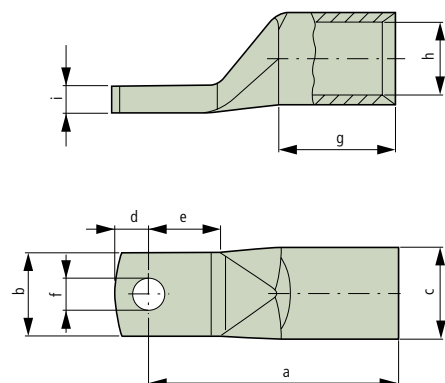
Between two switches mounted side-by-side
Minimum clearance a in mm

	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 switch and other components
Minimum clearance in mm

	b		c		d	
	≤ 690 V	1000 V	≤ 690 V	1000 V	≤ 690 V	1000 V
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

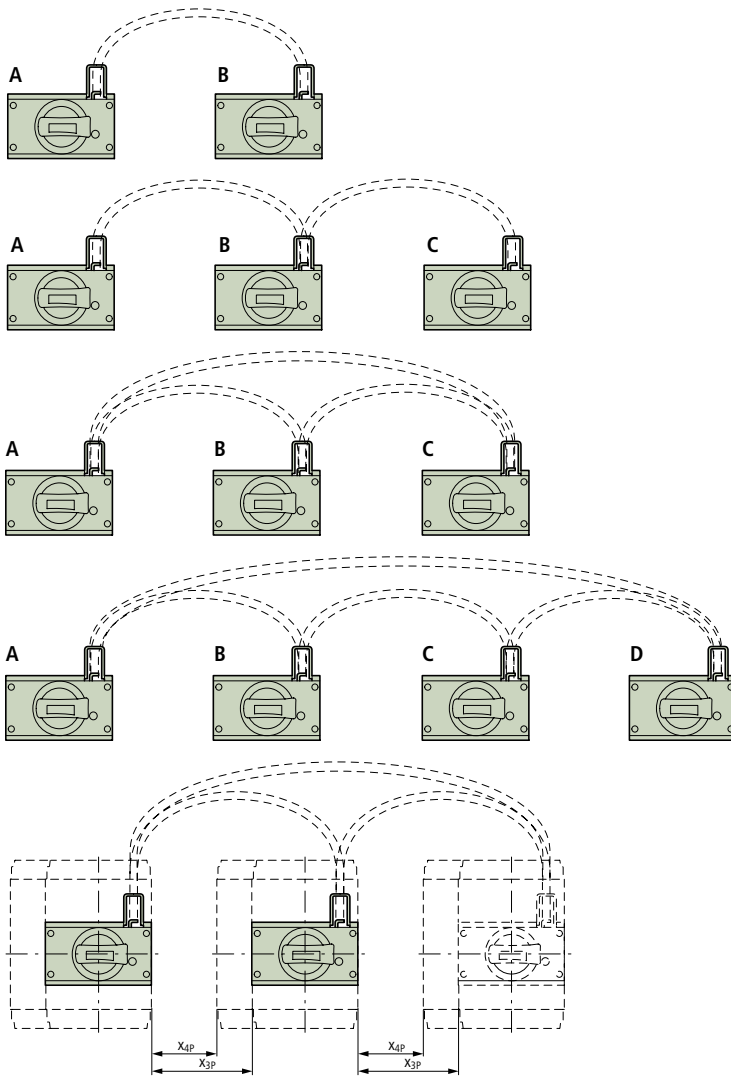
Dimensions



Cable lug	For use with	Nominal cross-section mm ²	Terminal bolts Ø	Dimensions in mm								
				a	b	c	d	e	f	g	h	i
KS95-NZM7	NZM2	95	M8	53±2	23±0.5	18±0.2	10±1	19	8,5	25	13,5	4,4
KS120-NZM7	NZM2	120	M8	56±2	23±0.5	19.5±0.2	10±1	19	8,5	26	15	4,4
KS150-NZM7	NZM2	150	M8	61±2	23±0.5	21±0.2	10±1	19	8,5	30	16,5	4,4
NZM2-XKS185	NZM2	185	M8	65±1.5	22±1	24±0.3	9 ⁺¹ _{-0,5}	19 ^{+2,5} _{-0,5}	8,5 ^{+0,05} _{-0,1}	30±2	19±0.4	7
NZM3-XKS185	NZM3, NZM4	185	M10	65	24,5	24	11,5	18	10,5	30	19	7.0±0.8
NZM3-XKS240	NZM3, NZM4	240	M10	72	31	26	11,5	19	10,5	35	21	5.0±0.8

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Interlocking variants combination options



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} = 3 pole switch clearance
 X_{4p} = 4 pole switch clearance

NZM-XBZ225

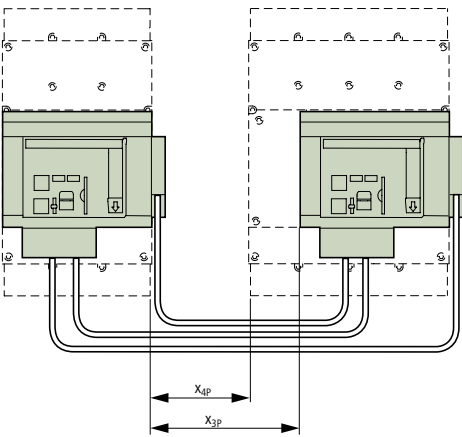
Max. switch clearance		NZM1		NZM2		NZM3		NZM4	
		X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm
NZM1	3/4 pole	135	105	120	85	135	90	125	80
NZM2	3/4 pole	135	105	120	85	135	90	125	80
NZM3	3/4 pole	90	75	75	35	85	40	80	45
NZM4	3/4 pole	50	35	40	15	25	–	15	–

NZM-XBZ600

Max. switch clearance		NZM1		NZM2		NZM3		NZM4	
		X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} 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 clearance		NZM1		NZM2		NZM3		NZM4	
		X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} mm	X_{3p} mm	X_{4p} 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



Mechanical interlock, XMVR
(mounting side-by-side)

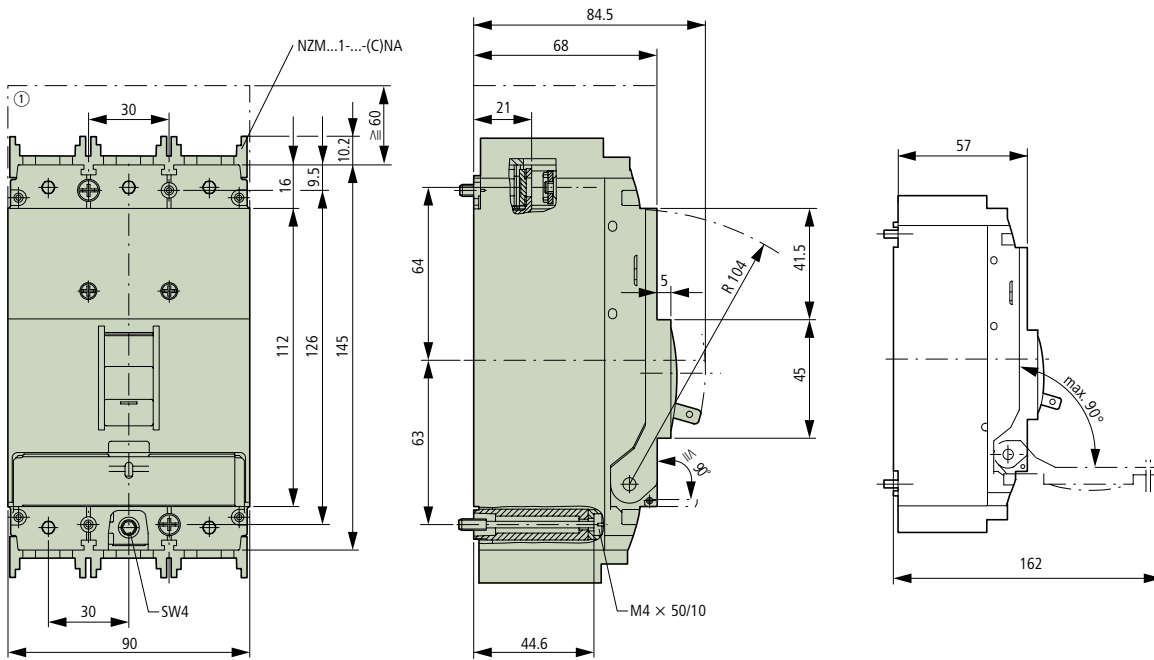
Max. switch clearance		NZM2		NZM3		NZM4	
		3 pole	4 pole	3 pole	4 pole	3 pole	4 pole
NZM2	3/4 pole	130	96	—	—	—	—
NZM3	3/4 pole	95	50	135	90	200	130
NZM4	3/4 pole	—	—	—	—	160	90

Mechanical interlock, XMVRL
(mounting in adjacent control panel sections)

Max. switch clearance		NZM2		NZM3		NZM4	
		3 pole	4 pole	3 pole	4 pole	3 pole	4 pole
NZM2	3/4 pole	on request	on request	—	—	—	—
NZM3	3/4 pole	on request	on request	on request	on request	on request	on request
NZM4	3/4 pole	—	—	—	—	on request	on request

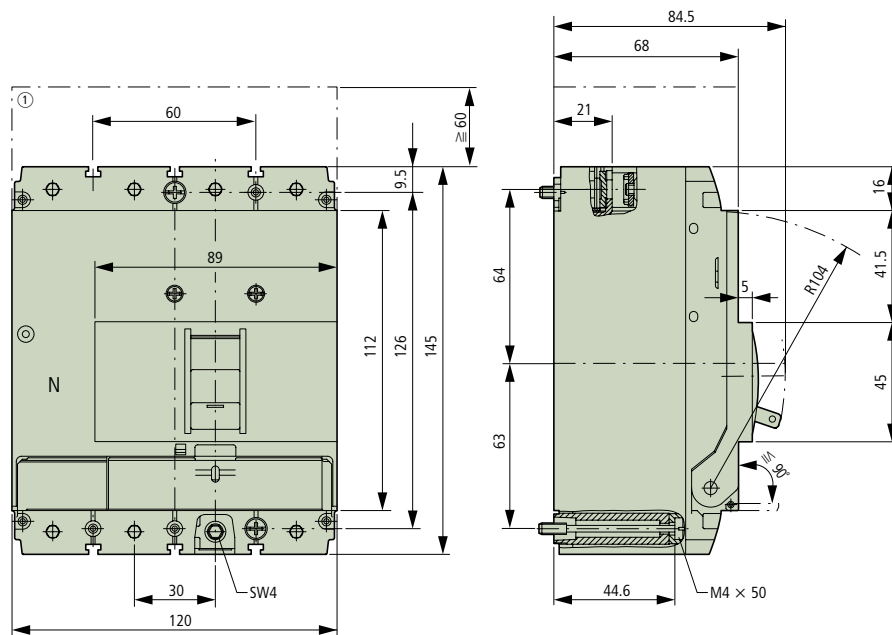
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Circuit-breaker, switch-disconnector, 3-pole
NZMB1, NZMN1, NZMH1, PN1, N1, NS1



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

Circuit-breaker, switch-disconnector, 4-pole
NZMB1-4, NZMN1-4, NZMH1-4, PN1-4, N1-4



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

Cover for screw terminals

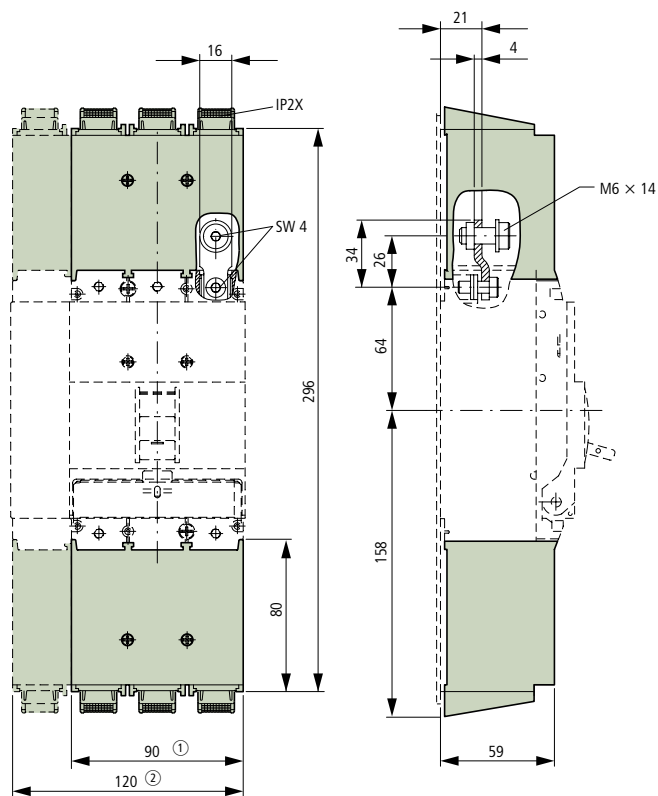
NZM1(-4)-XKSA

Screw connection

NZM1(-4)-XKS

IP2X protection against contact with a finger

NZM1(-4)-XIPA

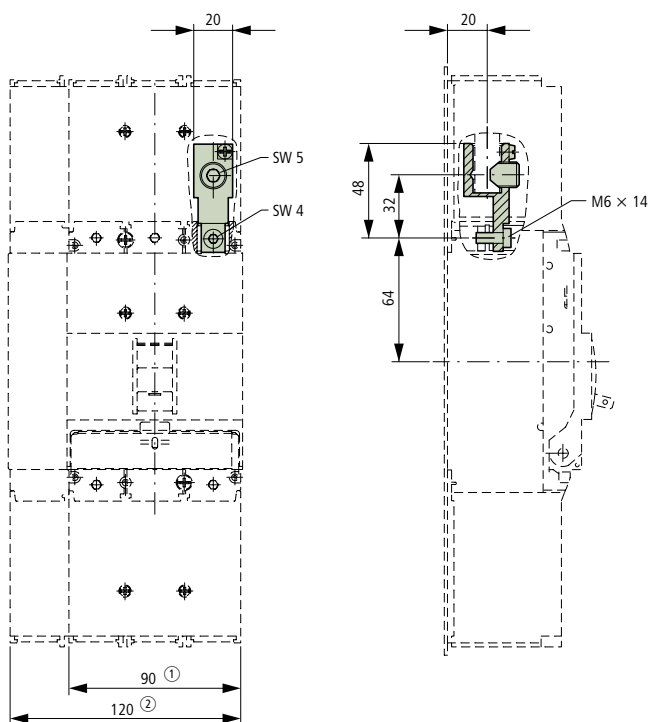


① 3-pole

② 4-pole

NZM1 tunnel terminal

NZM1(-4)-XKA



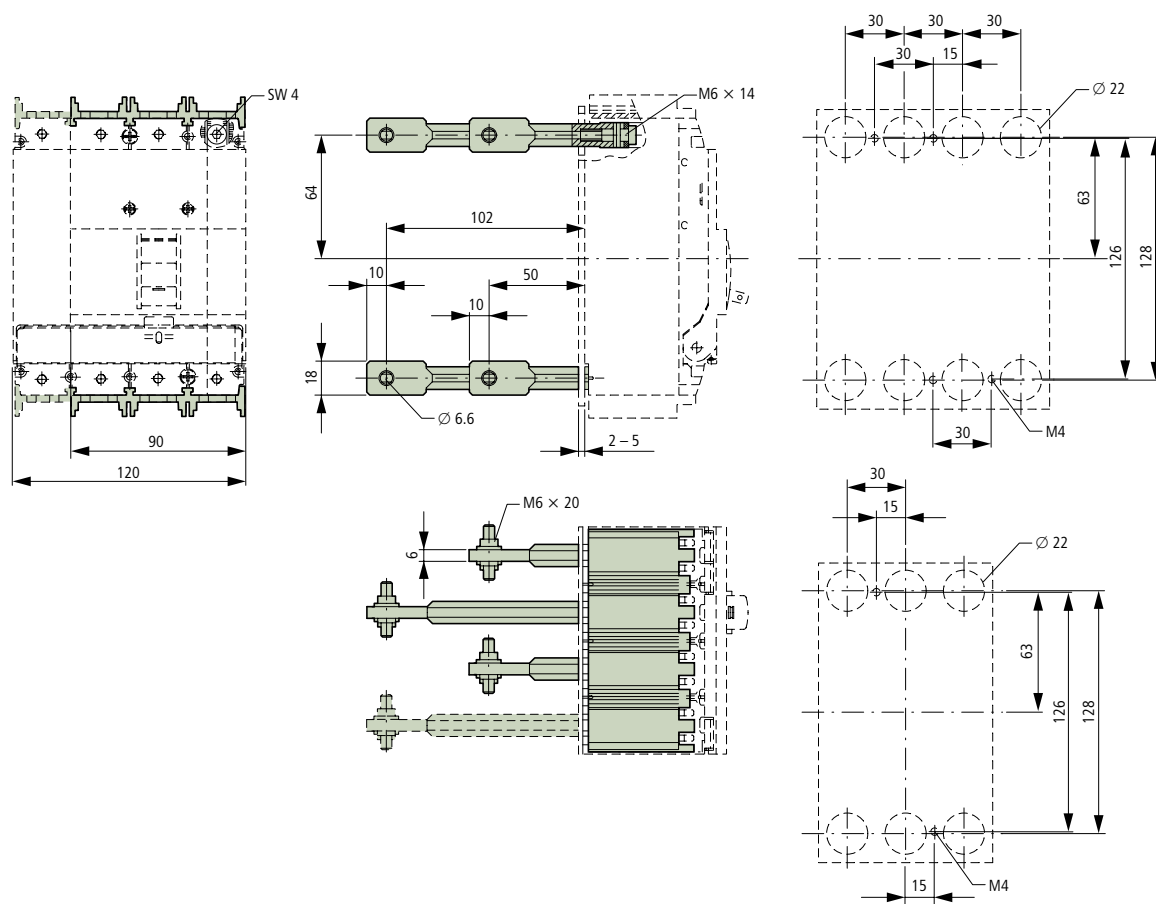
① 3-pole

② 4-pole

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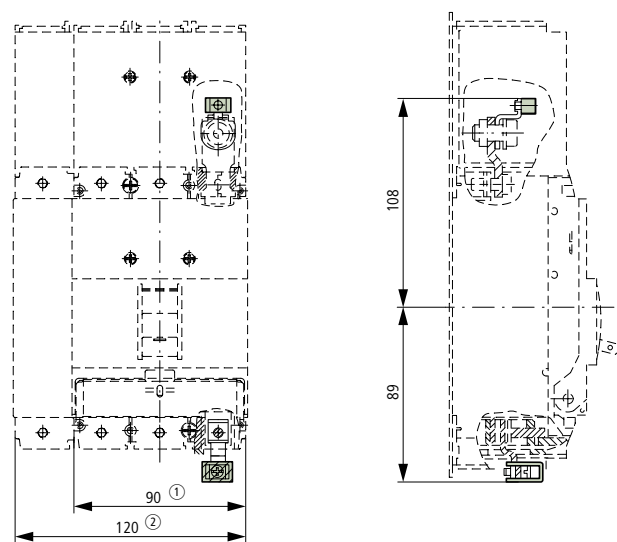
Connection on rear

NZM1(-4)-XKR



Control circuit terminal

NZM-XSTK, NZM1-XSTS

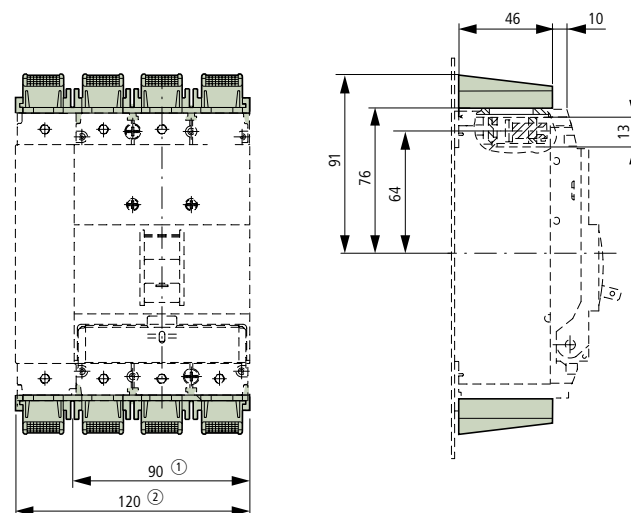


- ① 3-pole
- ② 4-pole

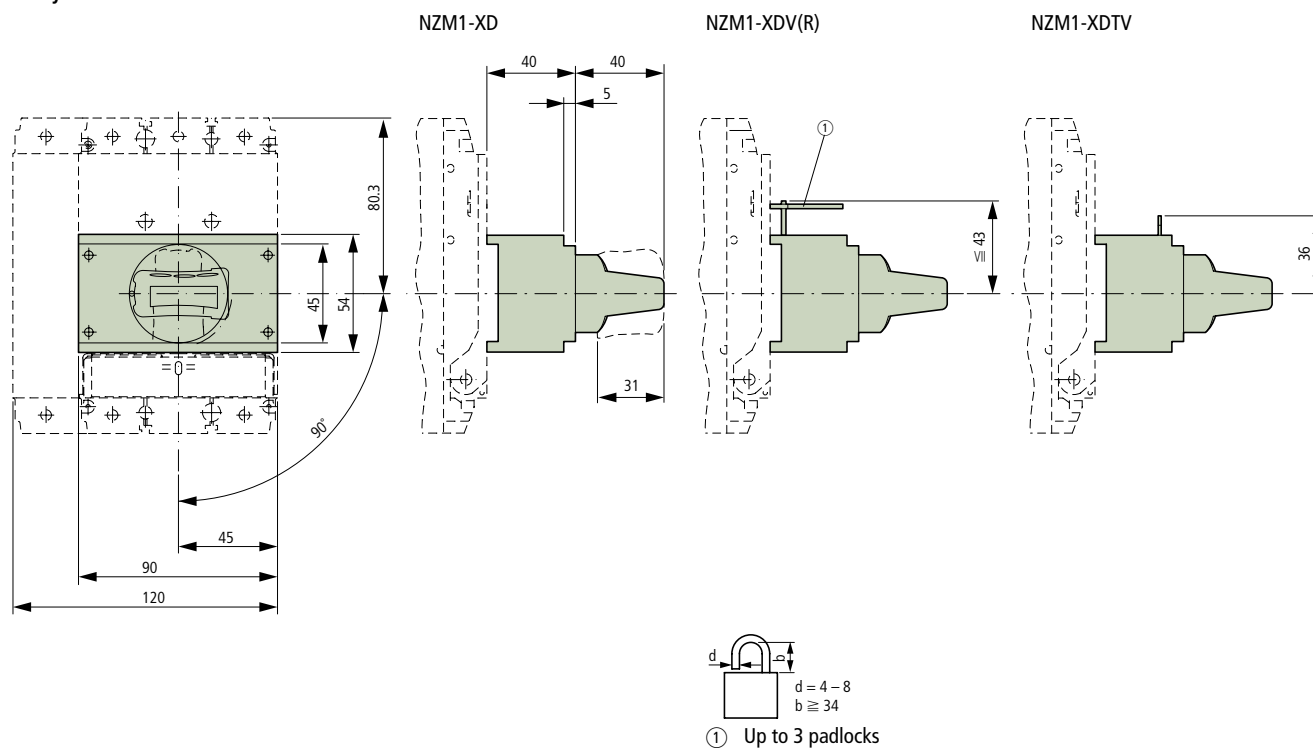
② 4-pole

IP2X protection against contact with a finger

NZM1(-4)-XIPK

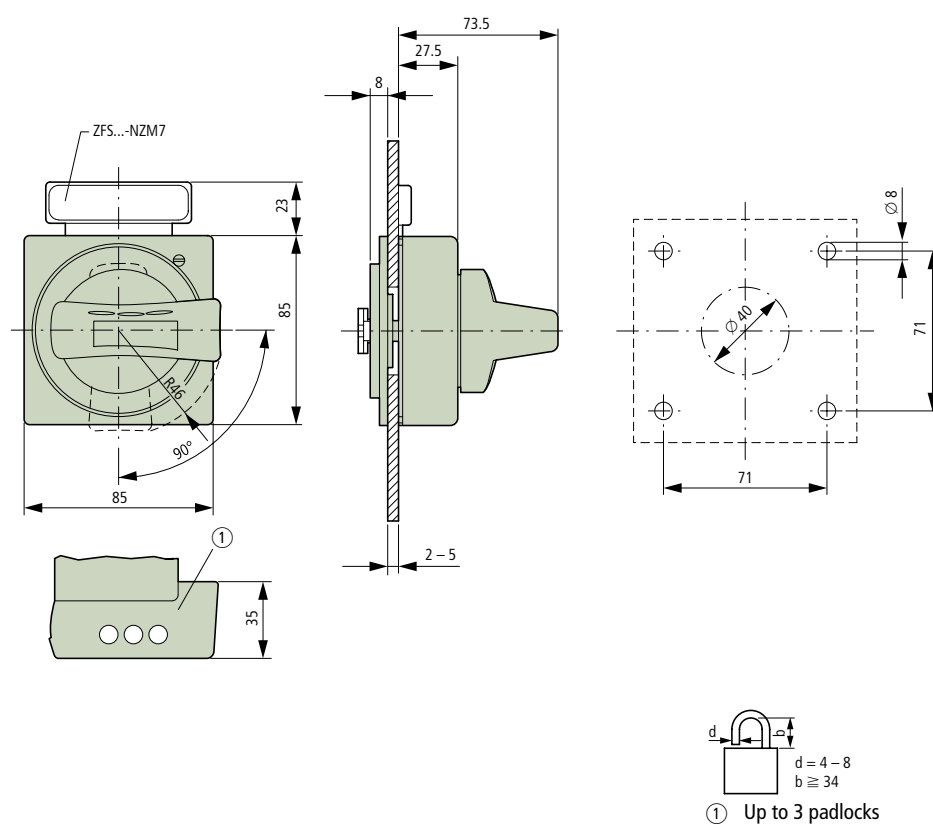


Rotary handle for circuit-breaker



Door coupling rotary handle

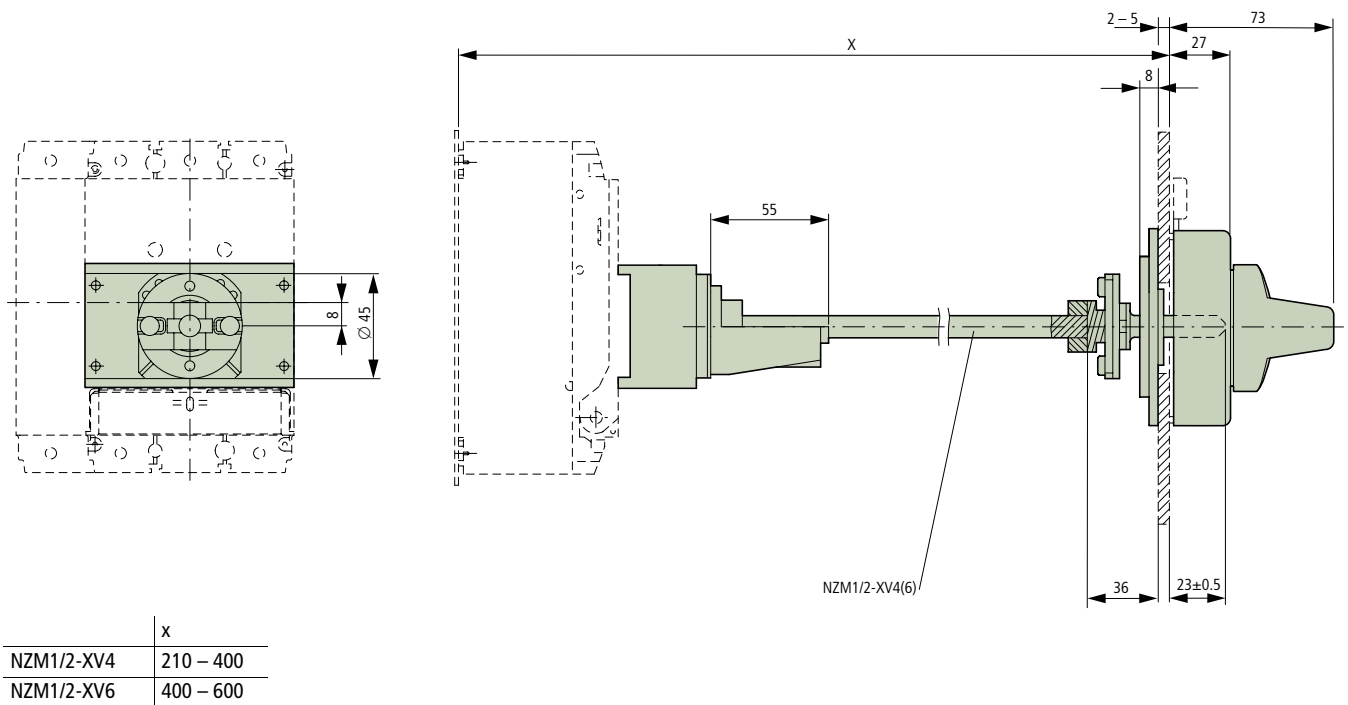
NZM1-XT(V)D(V)(R)



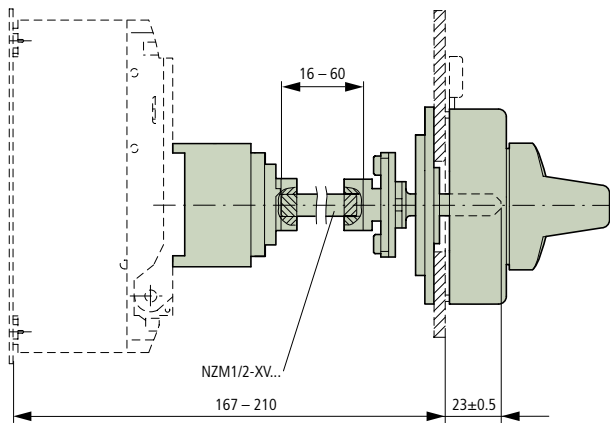
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Door coupling rotary handle with extension shaft

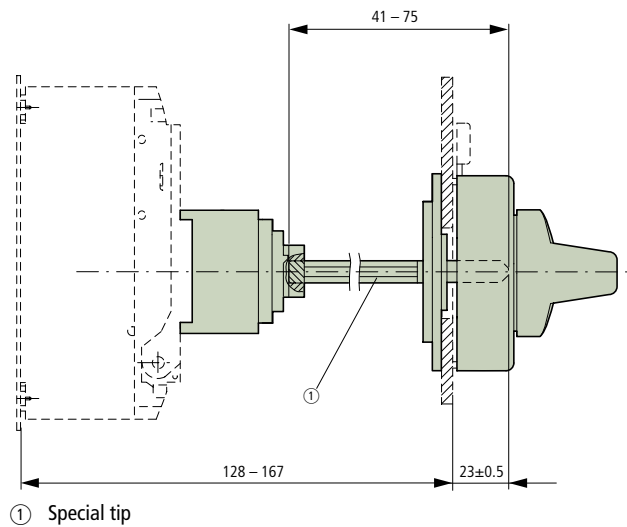
NZM1-XT(V)D(V)(R)(-NA)
NZM1/2-XV4(6)



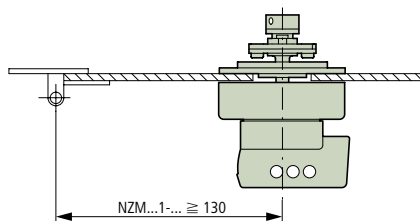
NZM1-XT(V)D(V)(R)(-60(-NA)



NZM1-XT(V)D(V)(R)-0(-NA)

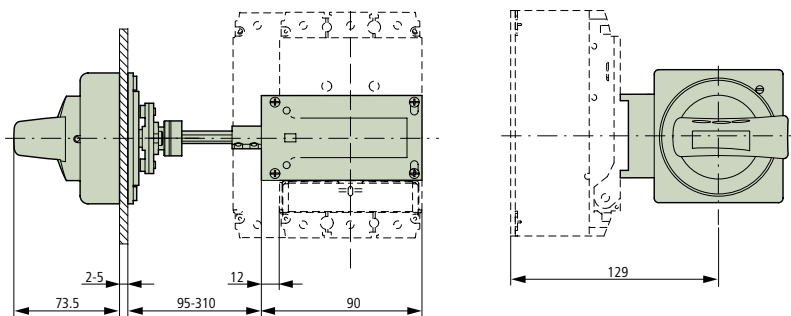


Minimum door coupling rotary handle clearance from door pivot point

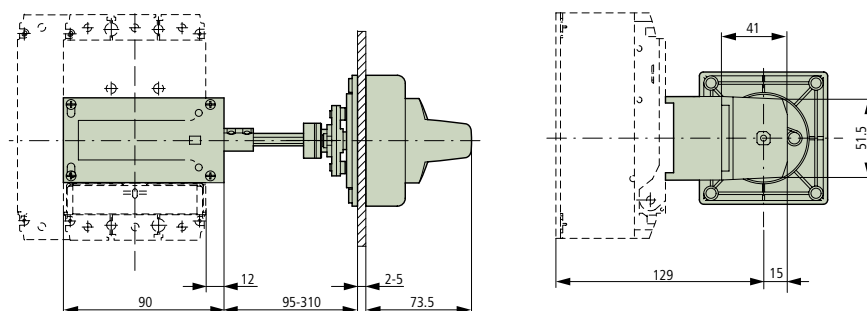


Main switch assembly kit for side wall installation

NZM1-XS(R)(F)-L

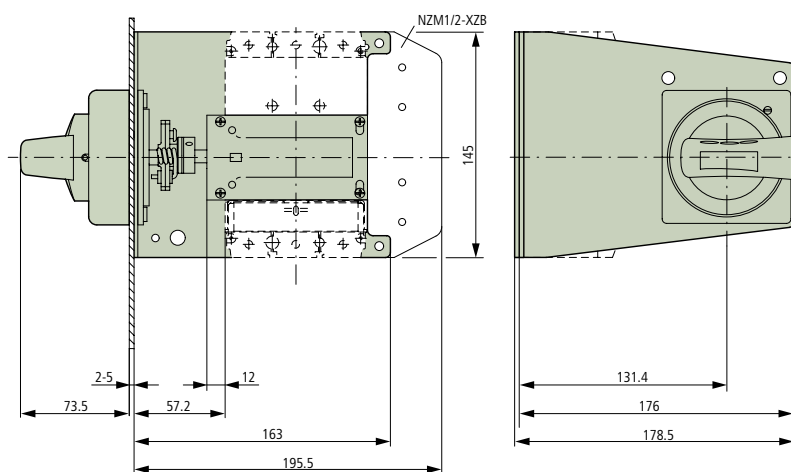


NZM1-XS(R)(F)-R

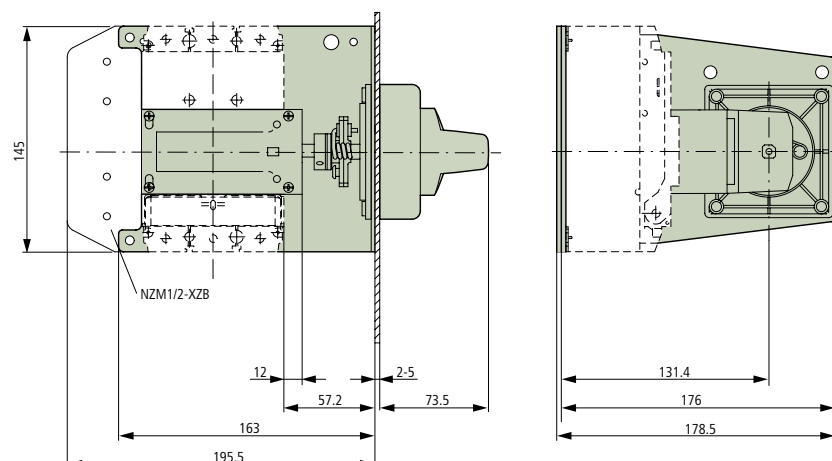


Main switch assembly kit for side panel mounting with mounting bracket

NZM1-XS(R)M-L

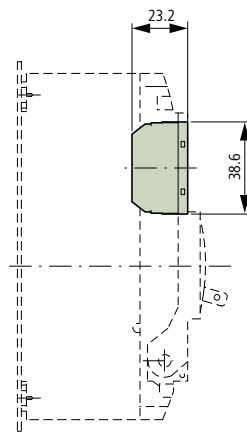
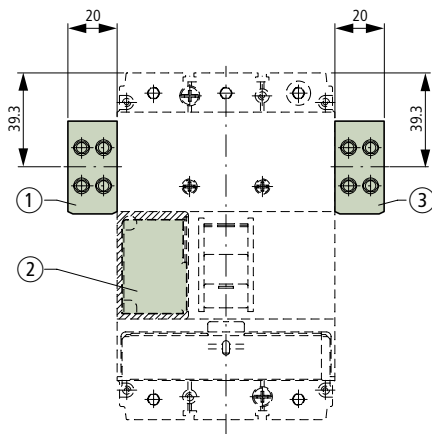


NZM1-XS(R)M-R



Moeller SK1230-1157GB-INT

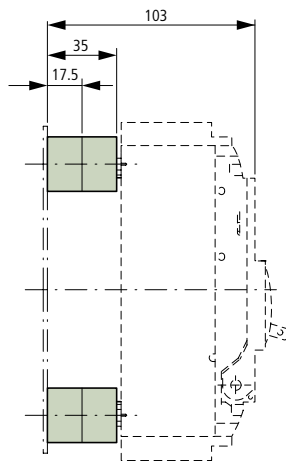
Undervoltage release, shunt release, early-make auxiliary contact



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

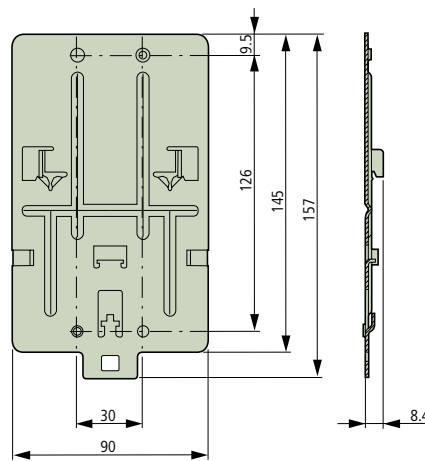
Spacers

NZM1/2-XAB



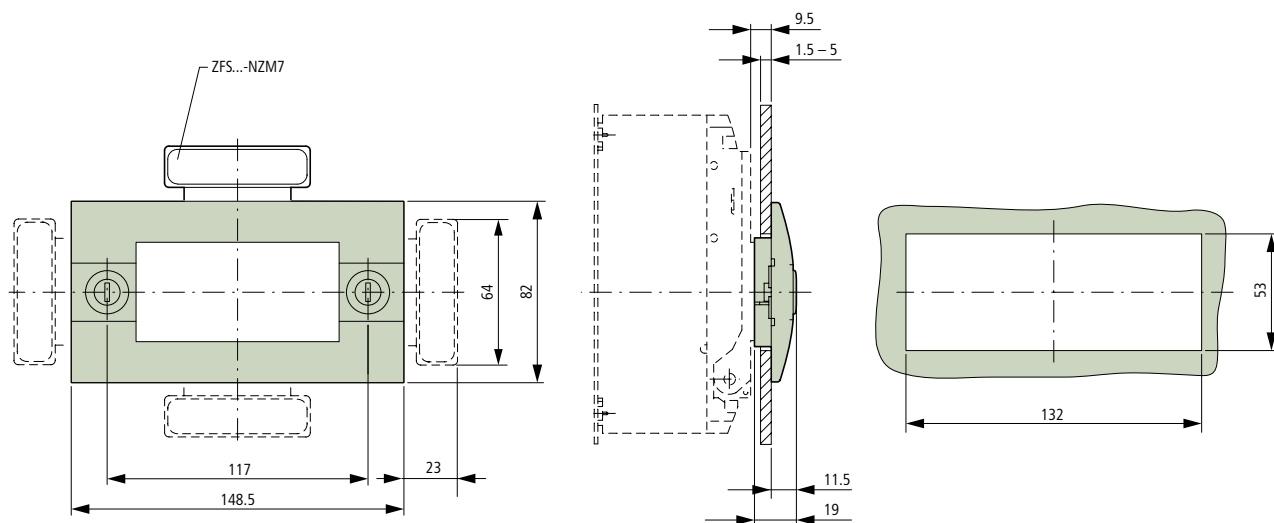
Clip plates

NZM1-XC35



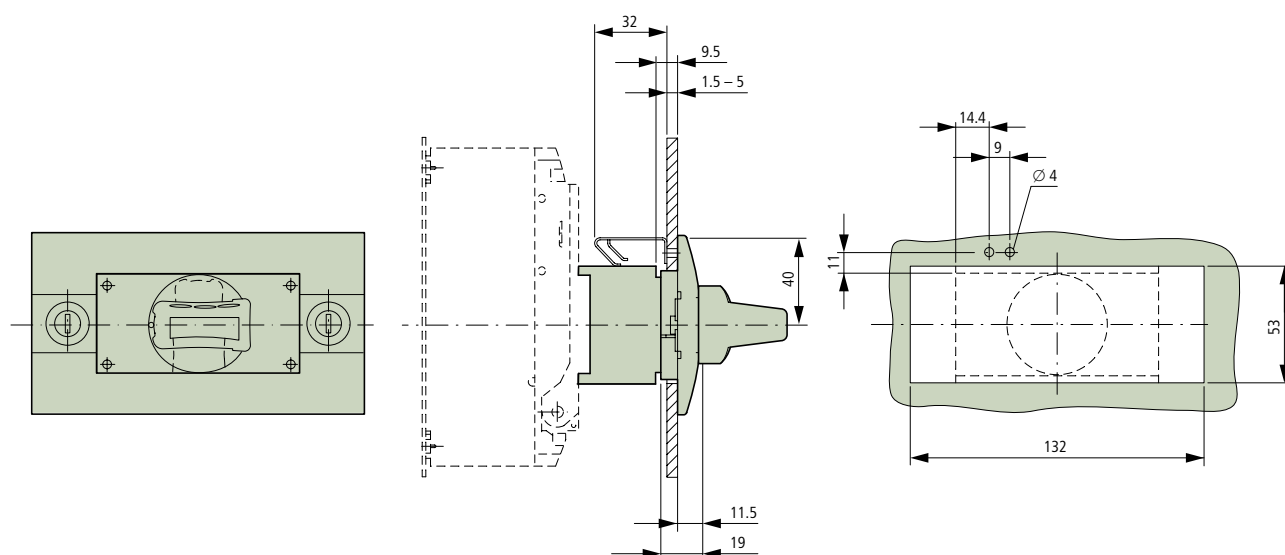
Insulating surround
NZM1-XBR

Mounting aperture

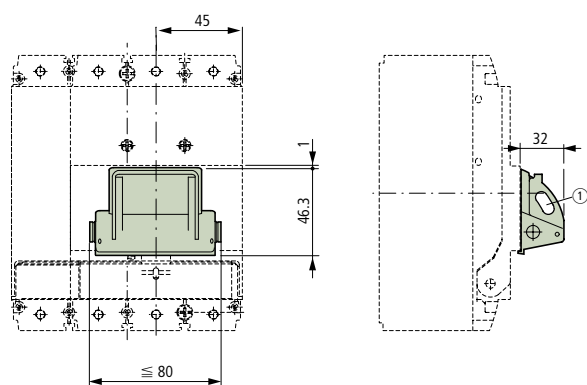


Rotary handle on switch with door interlock
NZM1-XDTV(R)

Mounting aperture



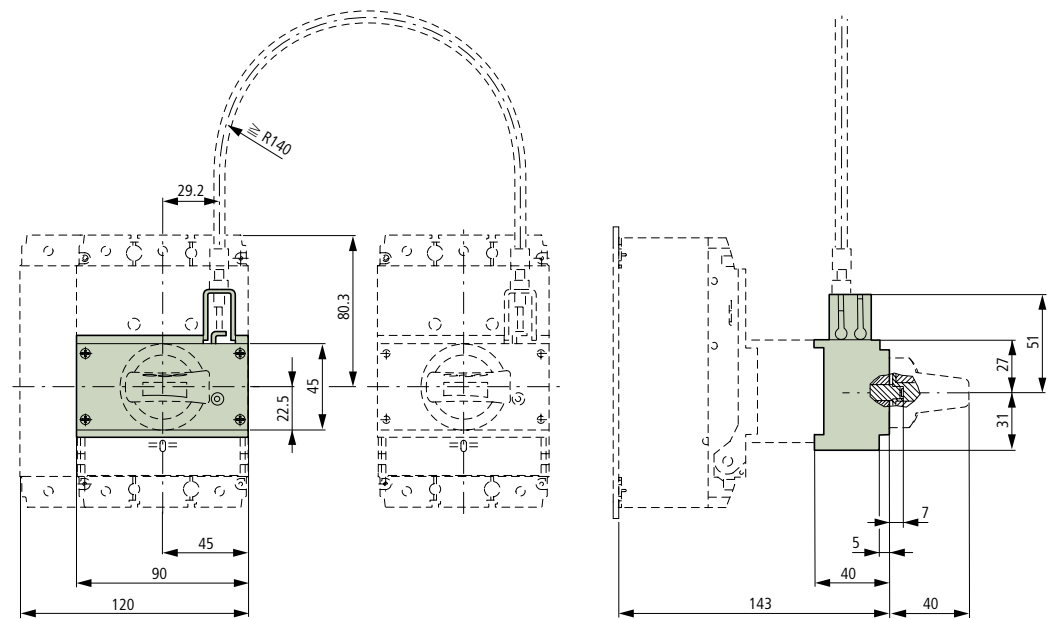
Toggle lever interlock device
NZM1-XKAV



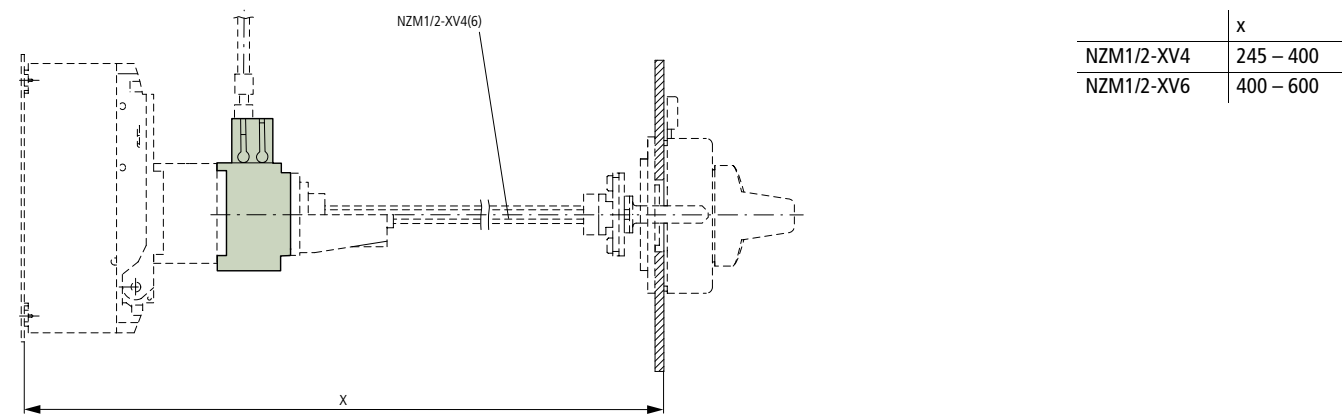
① Up to 3 padlocks

Moeller SK1230-1157GB-INT

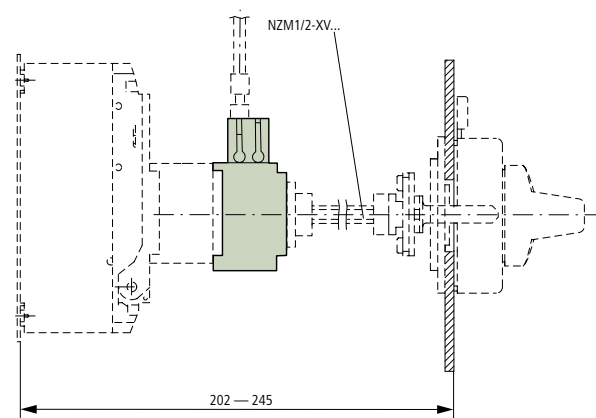
Mechanical interlock
NZM1-XMV with NZM1-XD



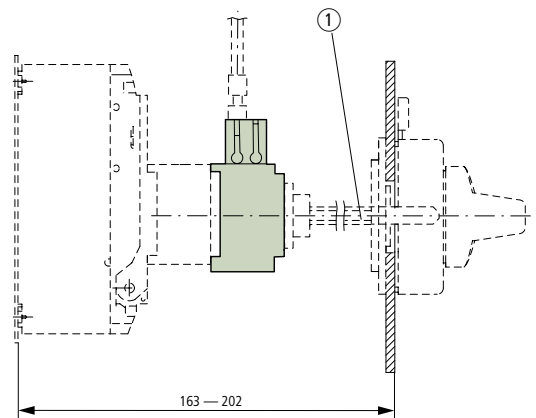
NZM1-XMV with NZM1-XT(V)D(V)(R)



NZM1-XMV with NZM1-XT(V)D(V)(R)-60

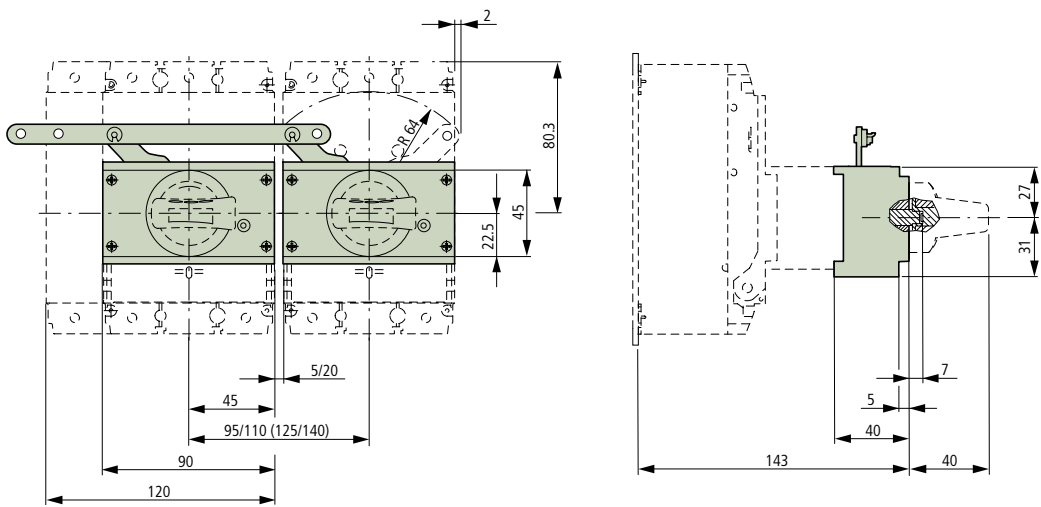


NZM1-XMV with NZM1-XT(V)D(V)(R)-0

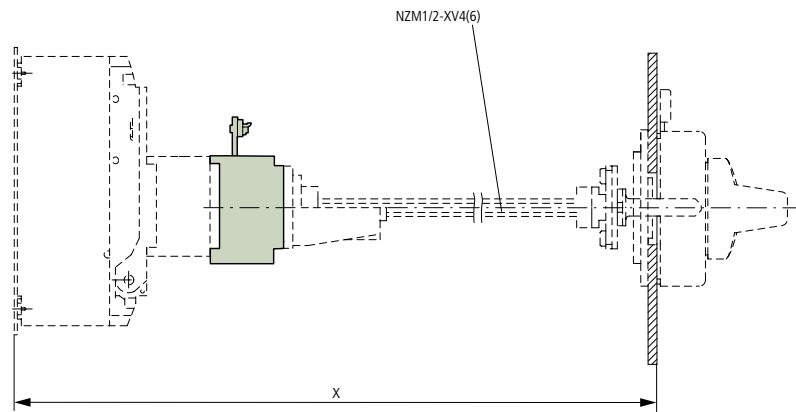


① Special tip

Paralleling mechanism
PN1-XPA with NZM1-XD

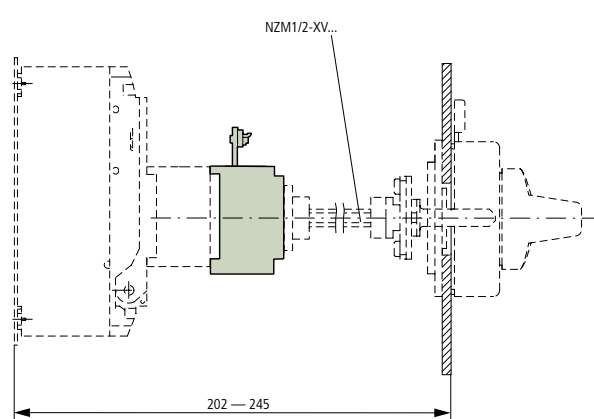


PN1-XPA with NZM1-XTD

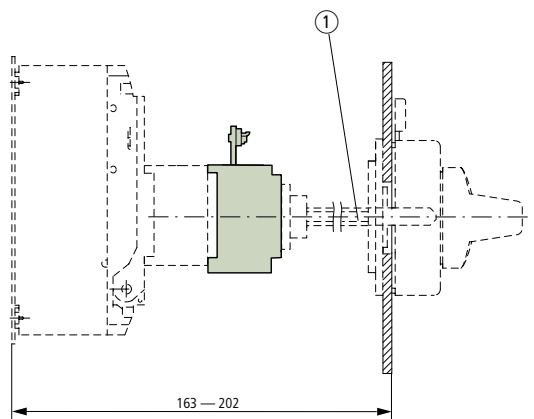


	x
NZM1/2-XV4	245 – 400
NZM1/2-XV6	400 – 600

PN1-XPA with NZM1-XTD-60



PN1-XPA with NZM1-XTD-0

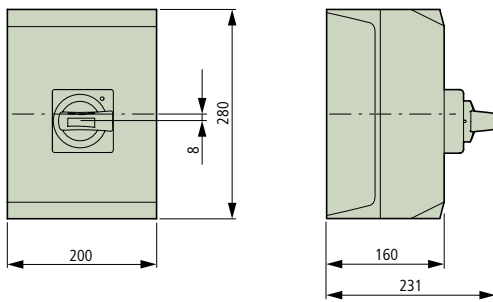


① Special tip

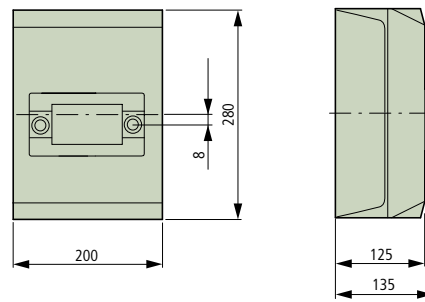
Moeller SK1230-1157GB-INT

Insulated enclosures

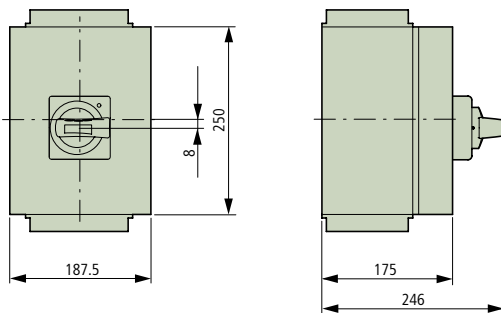
NZM1-XCIK5-T...



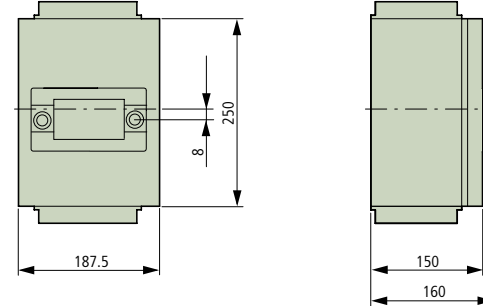
NZM1-XCIK5-BR



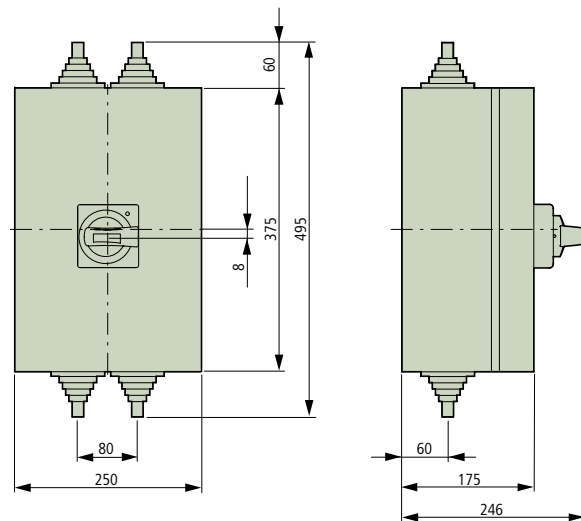
NZM1-XCI23-T...



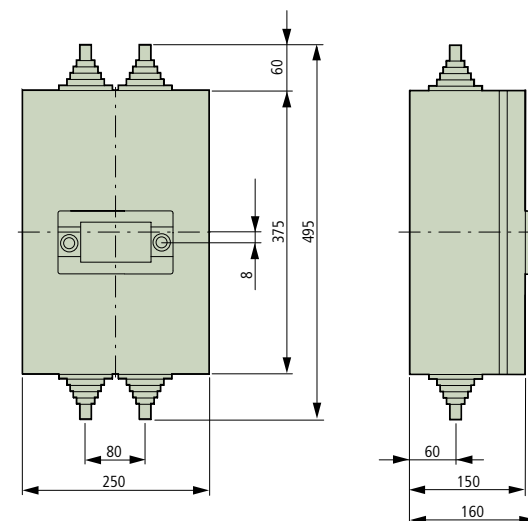
NZM1-XCI23-BR



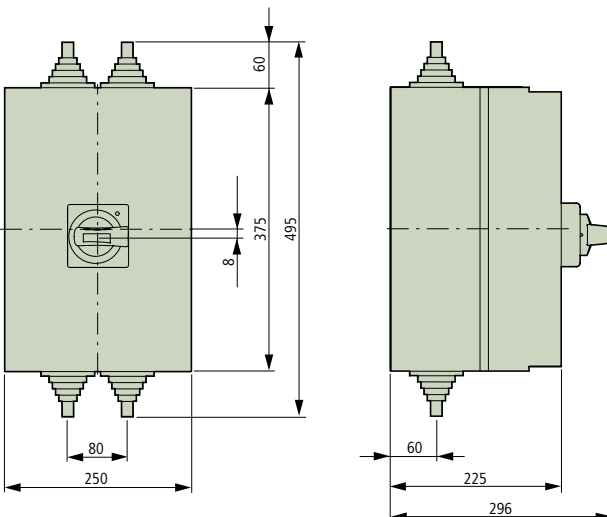
NZM1-XCI43-T...



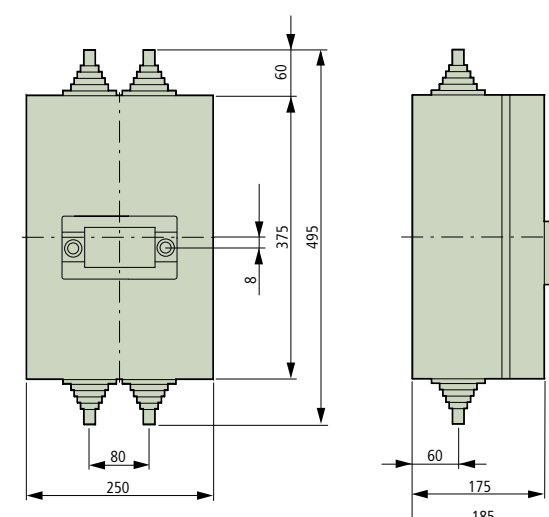
NZM1-XCI43-BR



NZM1-XCI43/2-T...



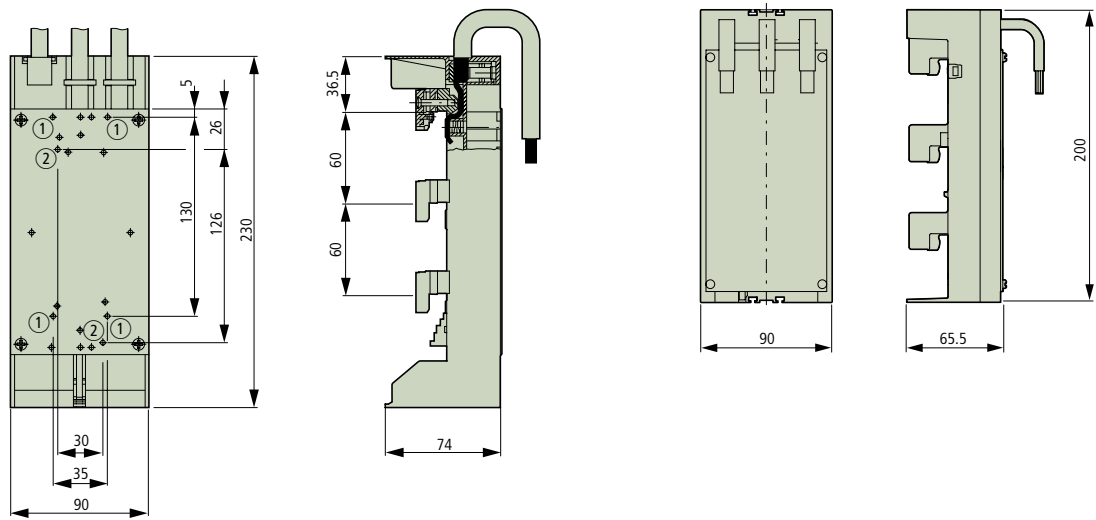
NZM1-XCI43/2-BR



Component adapter
AD100/5(10)

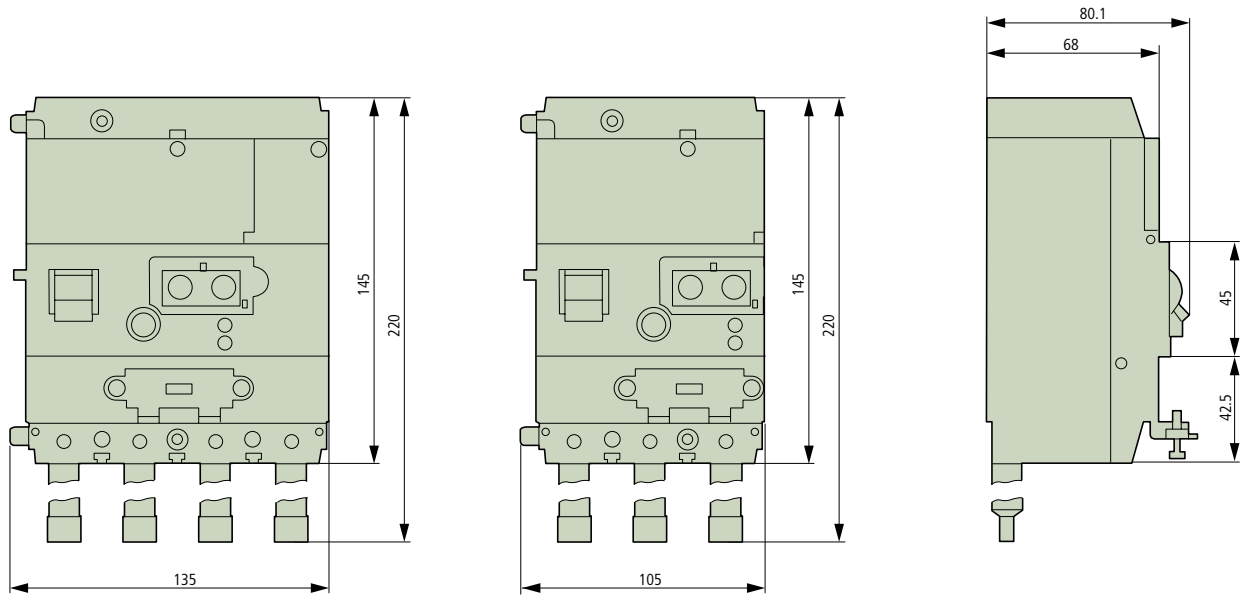
NZM1-XAD160

② NZM1

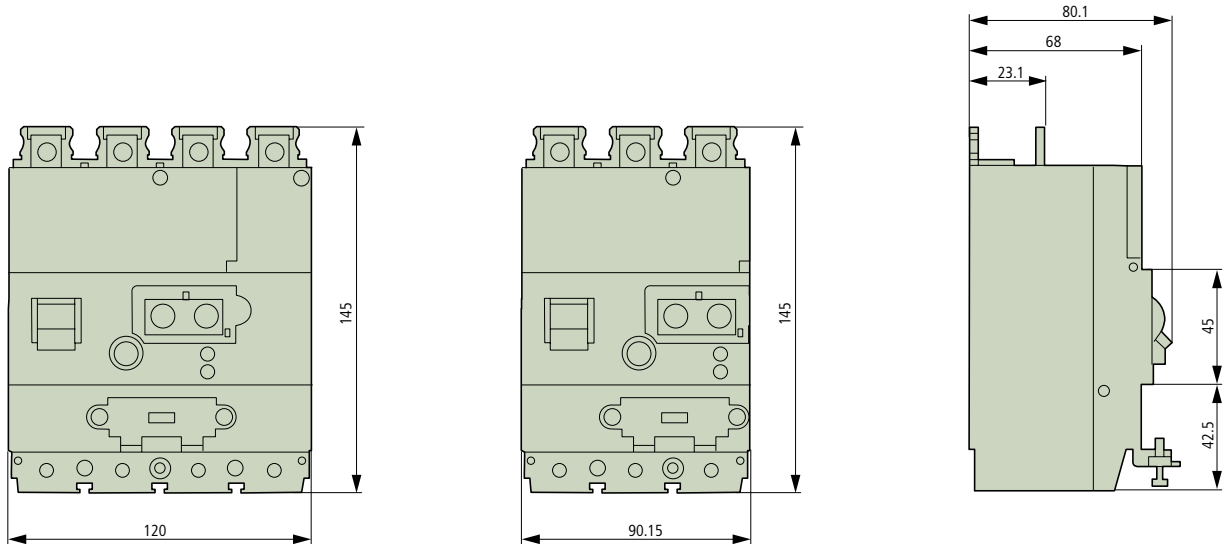


Earth-fault release

NZM1(-4)-XFI...R



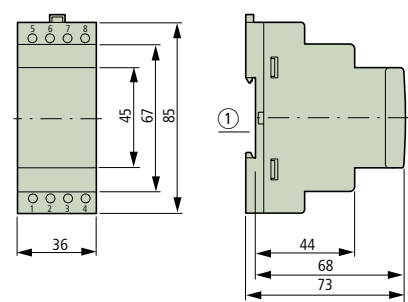
NZM1(-4)-XFI...U



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Residual current relay

PFR-003, PFR-03, PFR-5

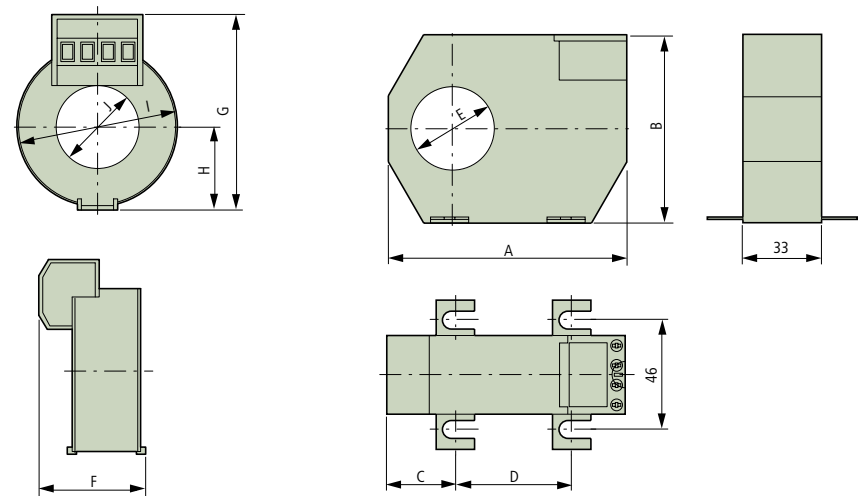


① Mounting on top-hat rail
TH35 to IEC/EN 60715

Ring-type transformer

PFR-W-20, PFR-W-30

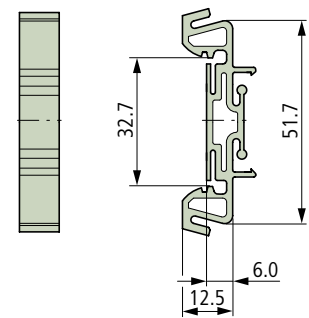
PFR-W-35(-70, -105, -140, -210)



	A	B	C	D	E
PFR-W-35	100	79	26	48,5	35
PFR-W-70	130	110	32	66	70
PFR-W-105	170	146	38	94	105
PFR-W-140	220	196	48,5	123	140
PFR-W-210	299	284	69	161	210
	F	G	H	I	J
PFR-W-20	32	60	24	46	21
PFR-W-30	32	70	30	59	30

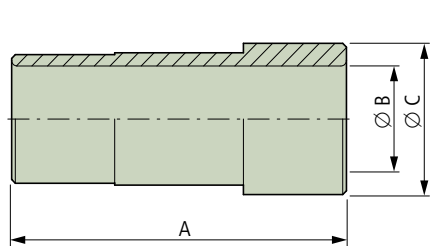
Fixing clip

PFR-WC



Magnetic shielding

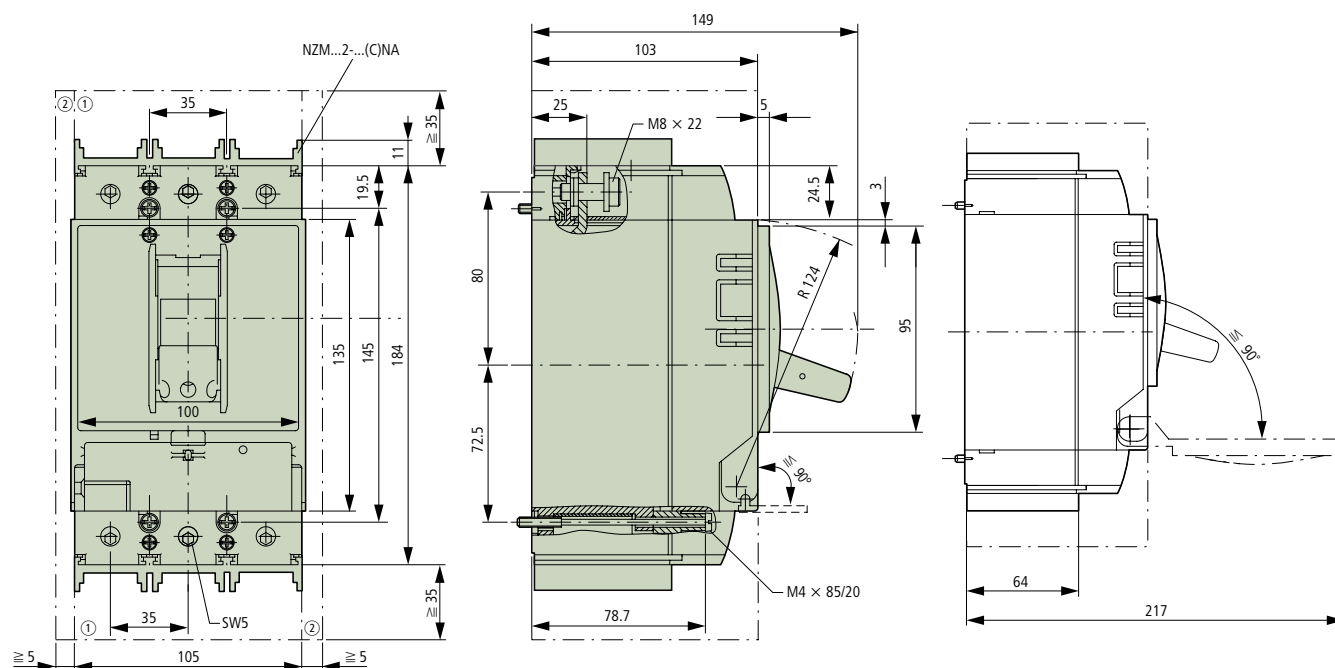
PFR-WMA



	A	Ø B	Ø C
PFR-WMA-35	91	28	40
PFR-WMA-70	105	62	75
PFR-WMA-105	153	98	110
PFR-WMA-140	153	133	145
PFR-WMA-210	153	203	215

Circuit-breaker, switch-disconnector, 3-pole

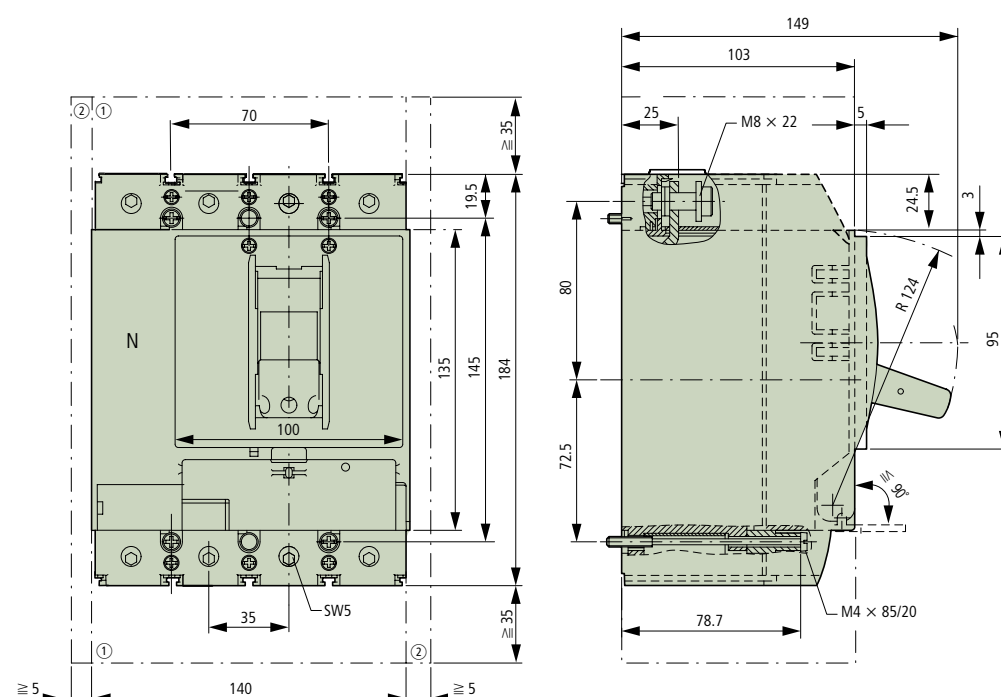
NZMB2, NZMN2, NZMH2, NZML2, PN2, N2, NS2



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

Circuit-breaker, switch-disconnector, 4-pole

NZMB2-4, NZMN2-4, NZMH2-4, NZML2-4, PN2-4, N2-4



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

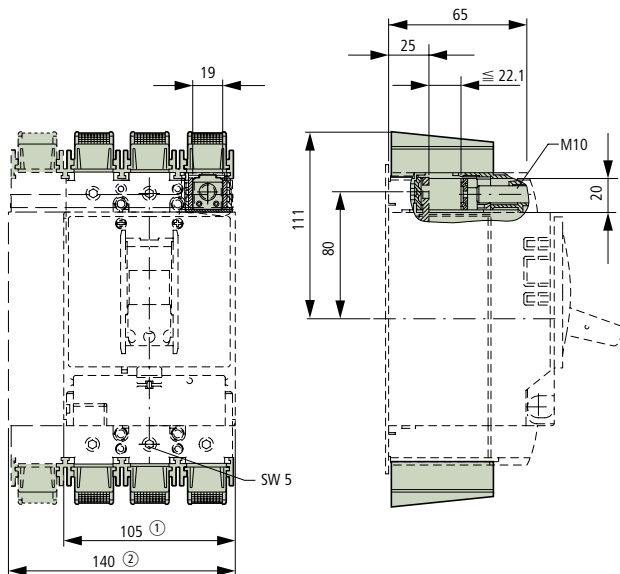
Moeller SK1230-1157GB-INT

Box terminal

NZM2(-4)-...-XKC(O)(U)

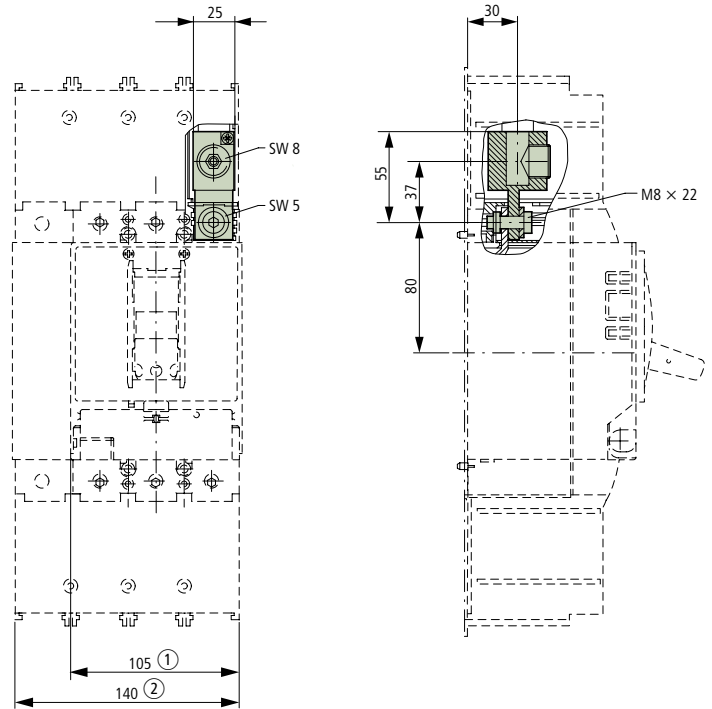
IP2X protection against contact with a finger

NZM2(-4)-XIPK



Tunnel terminal

NZM2(-4)-XKA



① 3-pole

② 4-pole

Cover for screw terminals

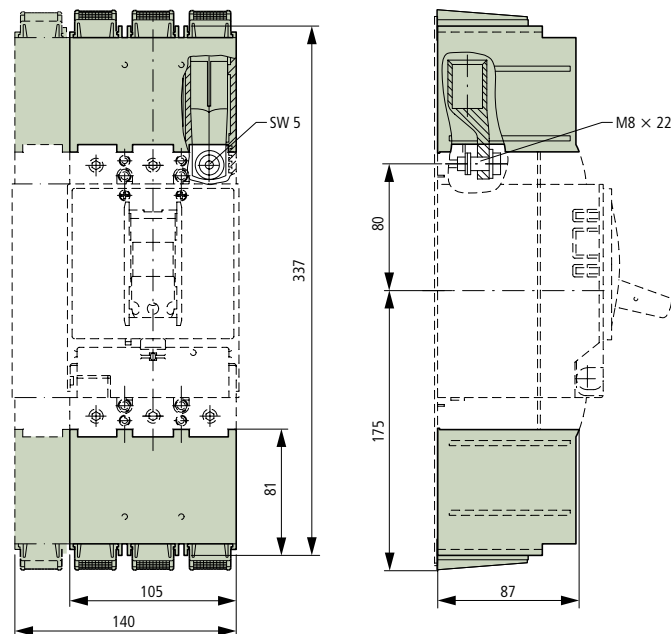
NZM2(-4)-XKSA

Cable lug

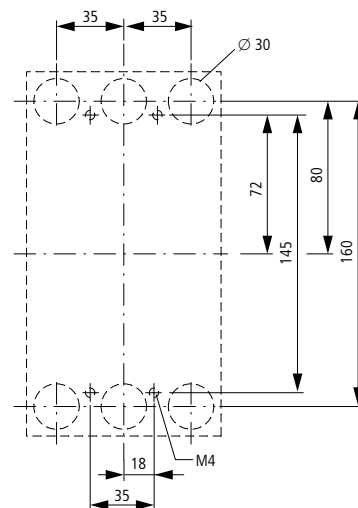
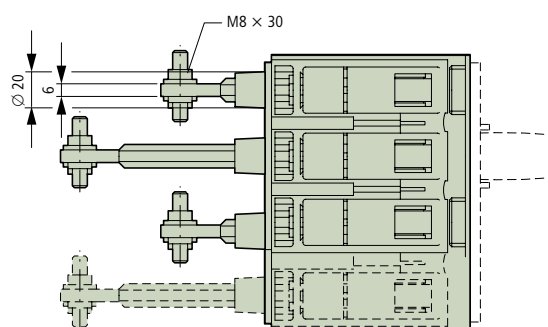
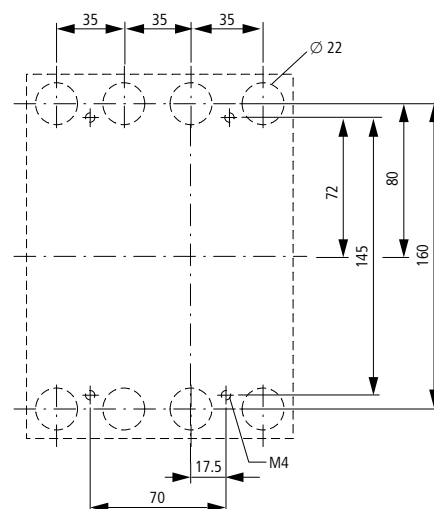
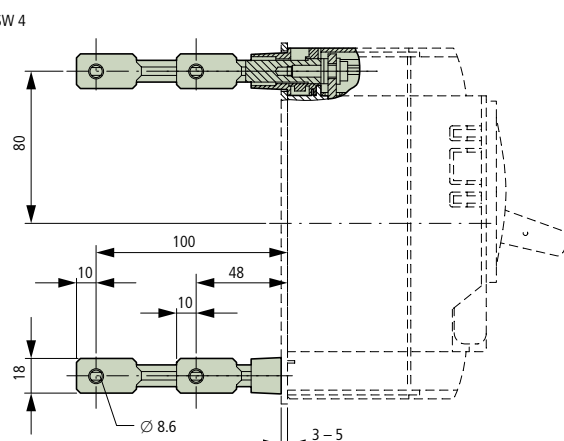
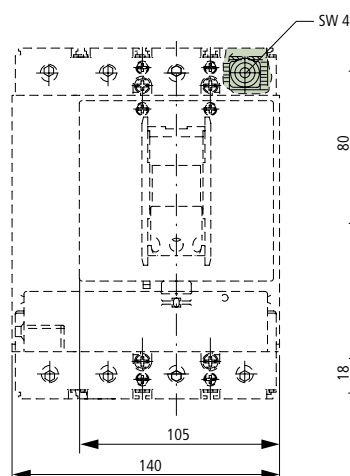
NZM2-XKS185

IP2X protection against contact with a finger for shroud

NZM2(-4)-XIPA

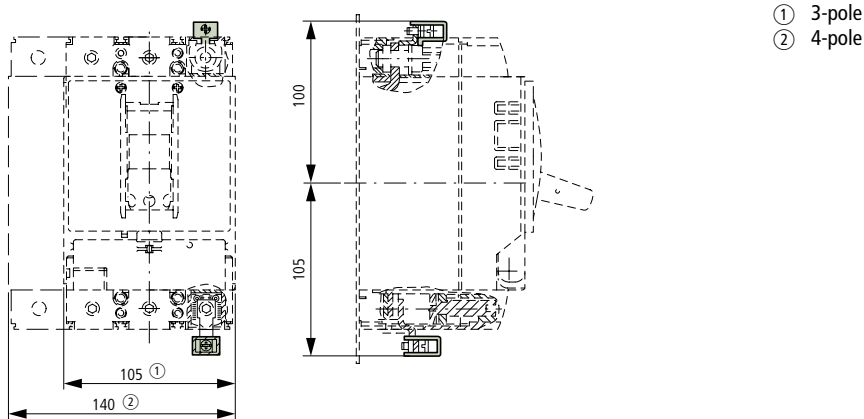


Connection on rear
(+)NZM2(-4)-XKR(O)(U)

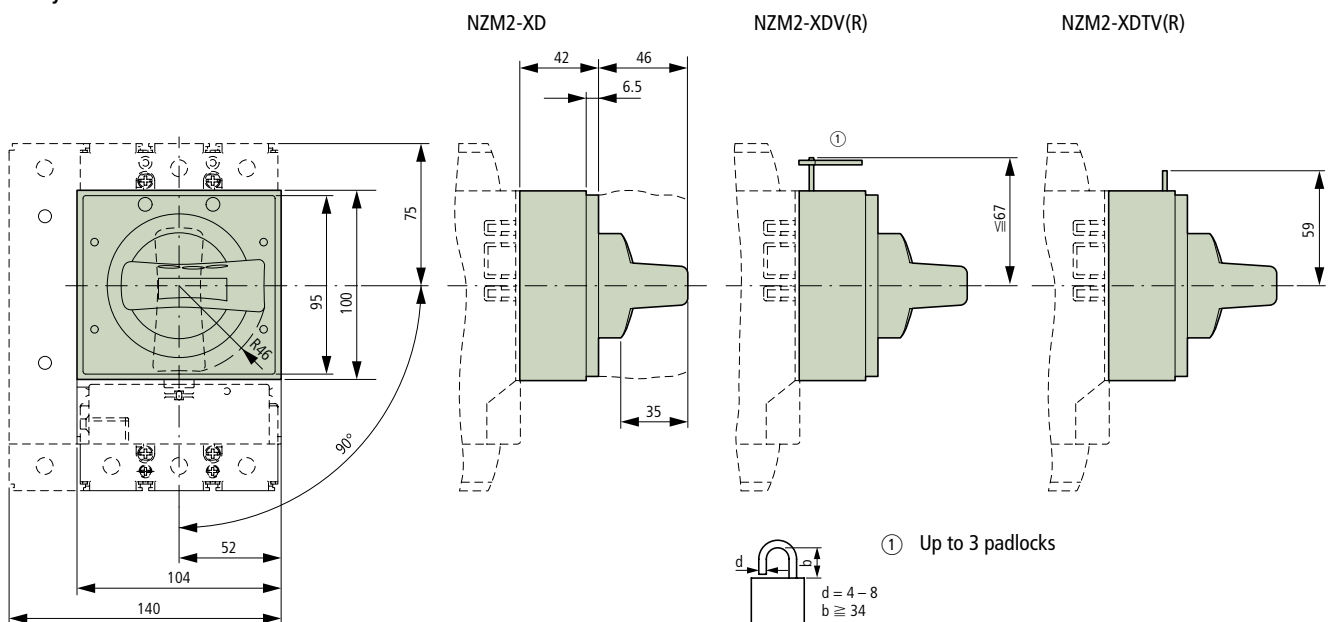


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Control circuit terminal
NZM2-XSTS, NZM2-XSTK

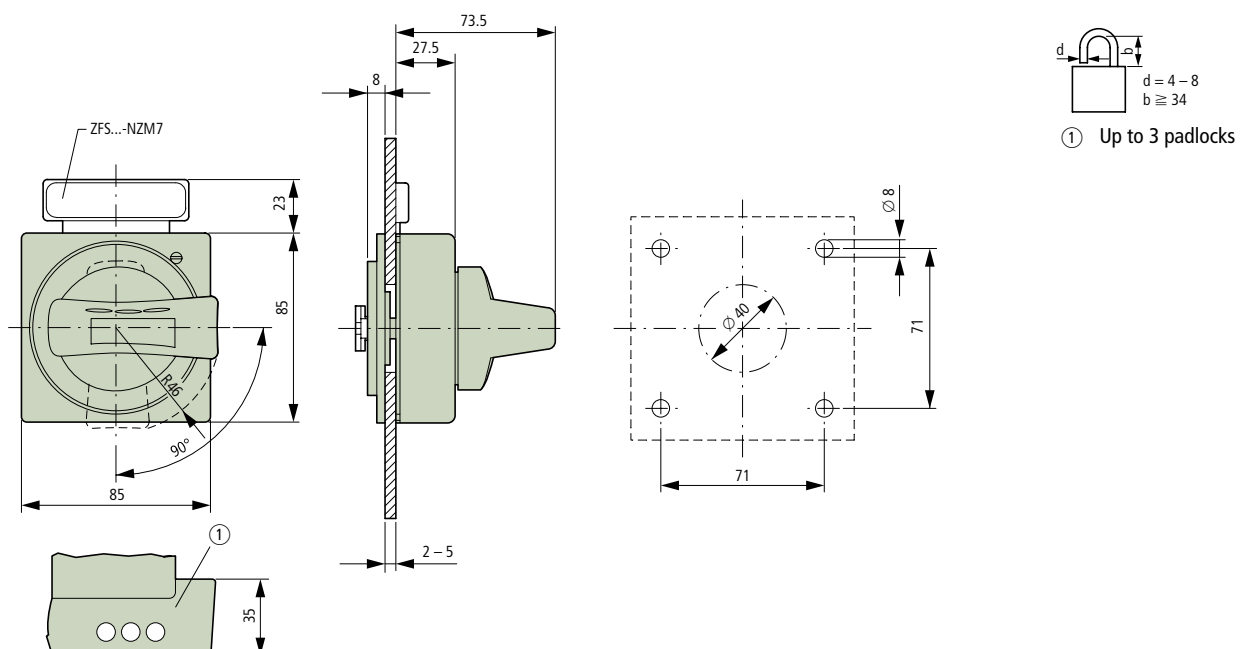


Rotary handle for circuit-breaker



Door coupling rotary handle

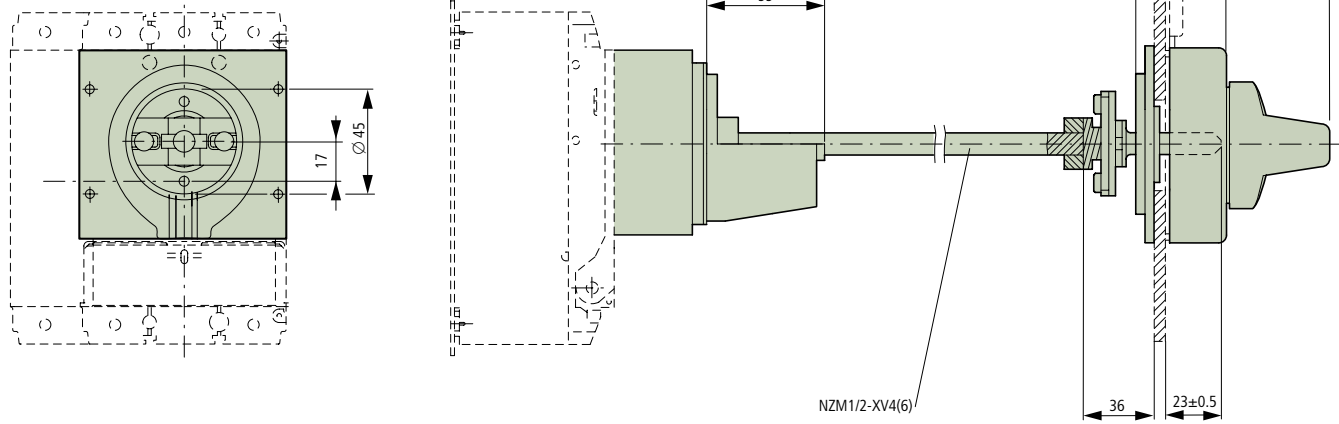
NZM2-XT(V)D(V)(R)



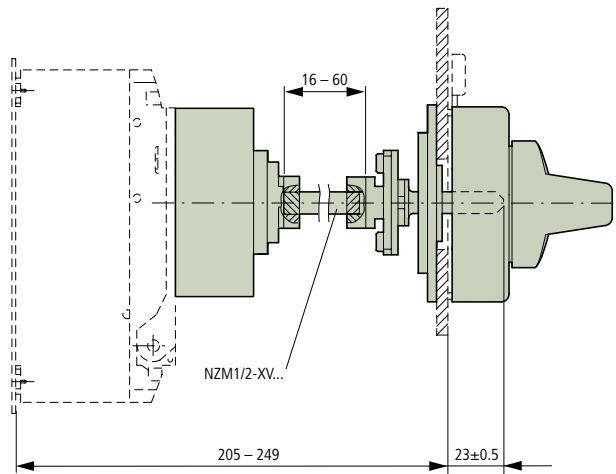
Door coupling rotary handle with extension shaft

NZM2-XT(V)D(V)(R)(-NA)
NZM1/2-XV4(6)

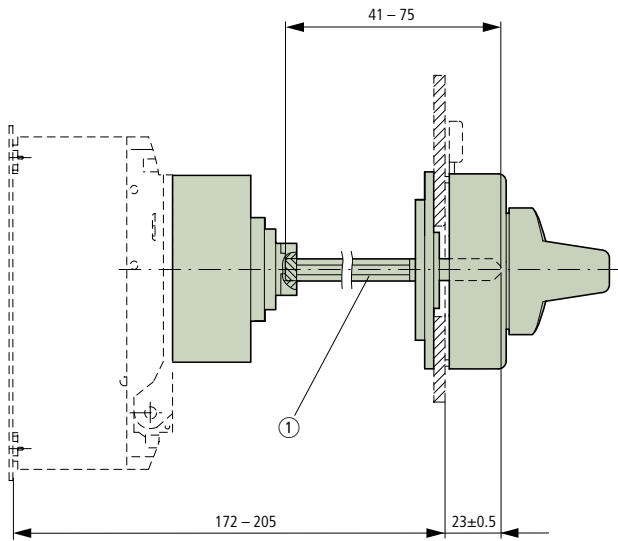
	x
NZM1/2-XV4	245 – 400
NZM1/2-XV6	400 – 600



NZM2-XT(V)D(V)(R)-60(-NA)

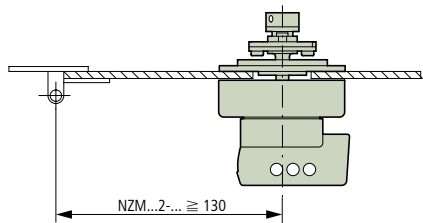


NZM2-XT(V)D(V)(R)-0(-NA)



① Special tip

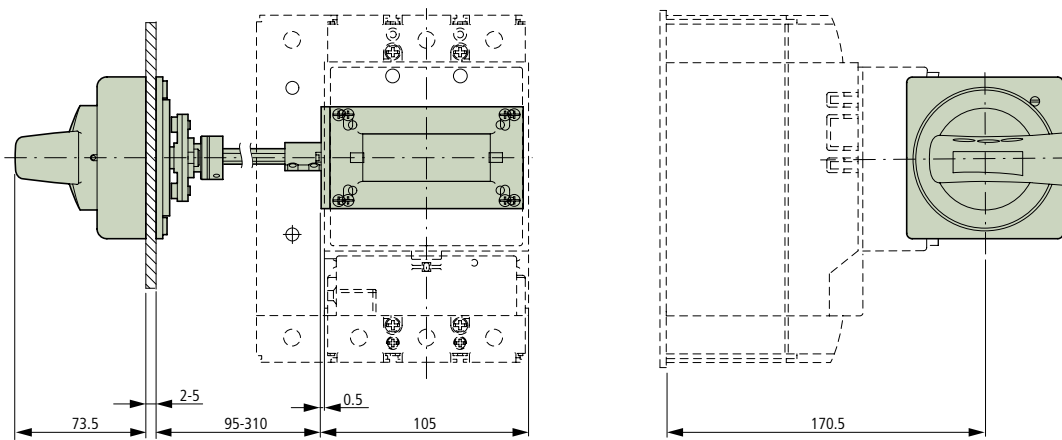
Minimum door coupling rotary handle clearance from door pivot point



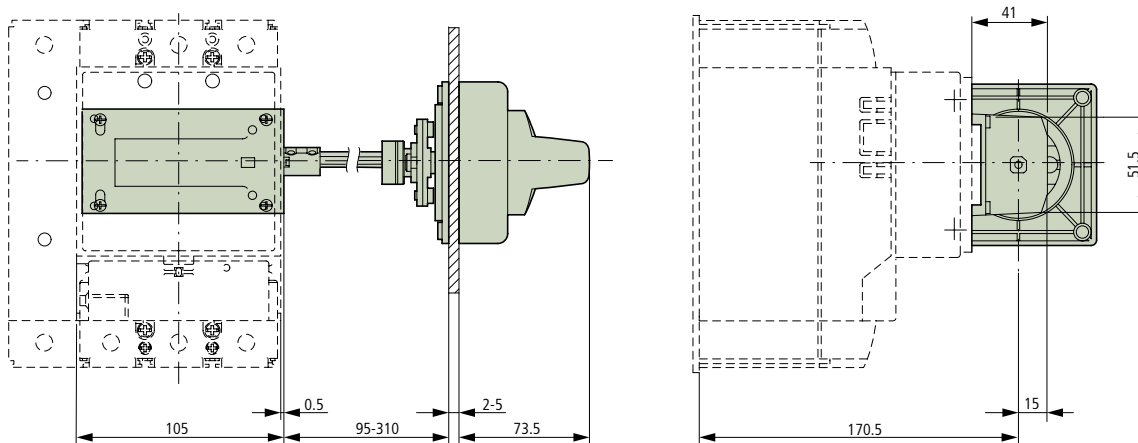
Moeller SK1230-1157GB-INT

Main switch assembly kit for side wall installation

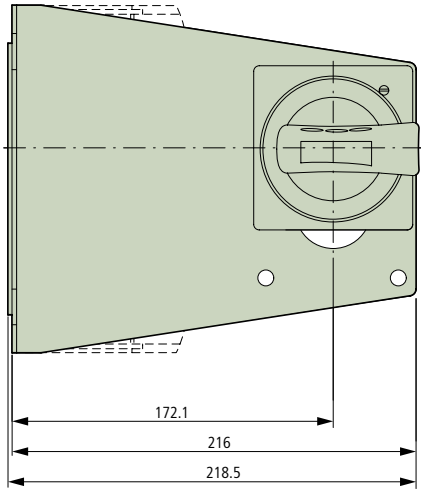
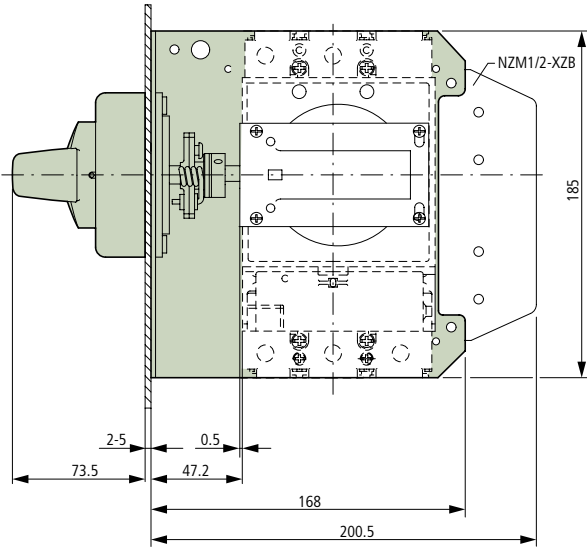
NZM2-XS(R)(F)-L



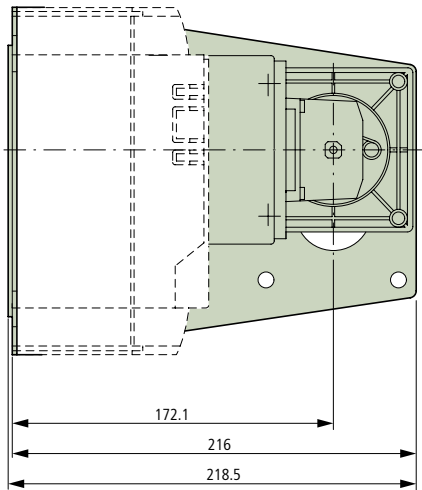
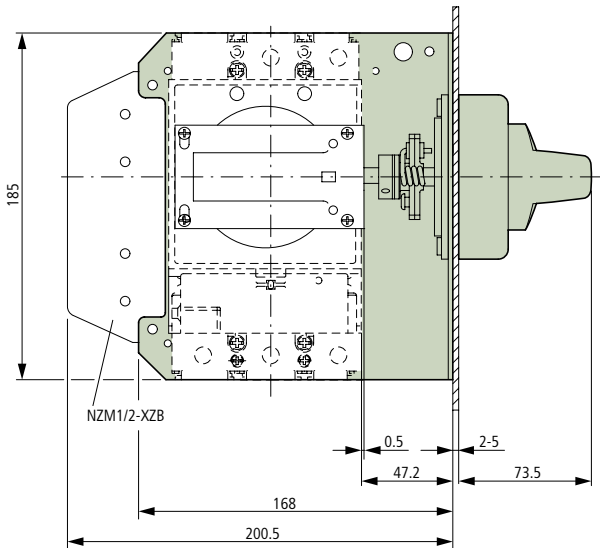
NZM2-XS(R)(F)-R



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



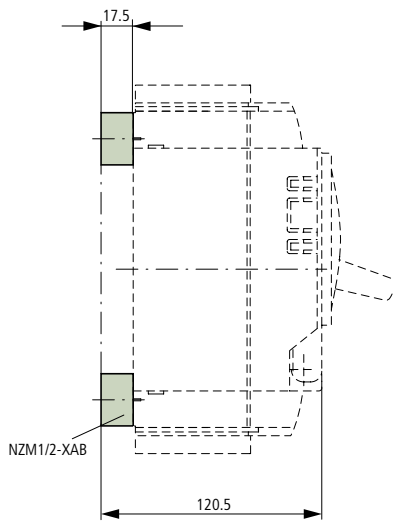
NZM2-XS(R)M-R



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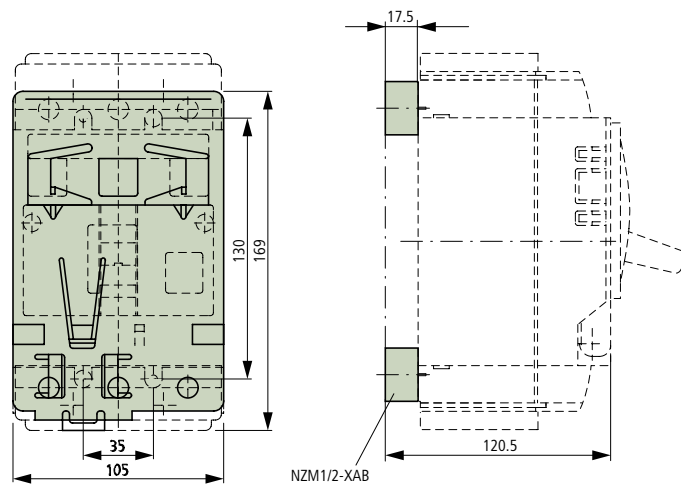
Spacers

NZM1/2-XAB



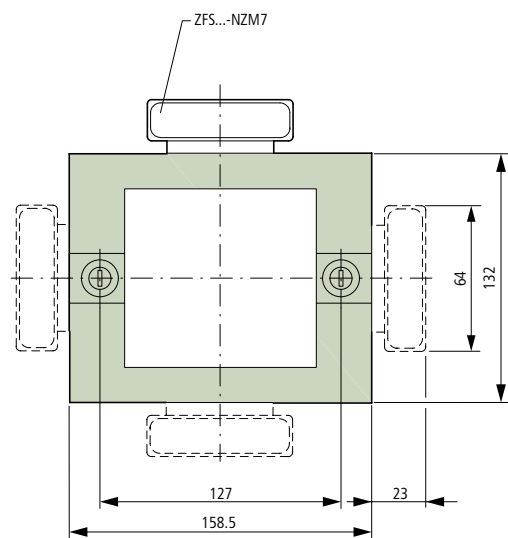
Clip plates

NZM2-XC75

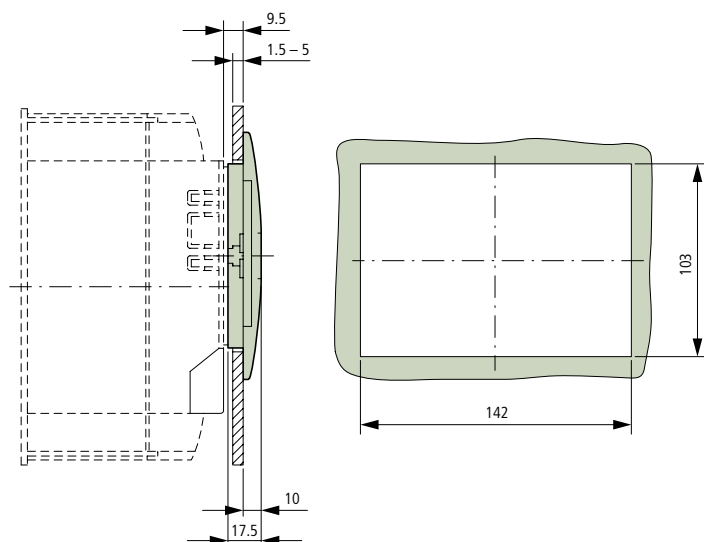


Insulating surround

NZM2-XBR

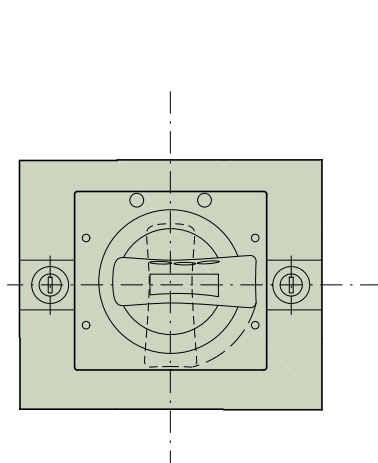


Mounting aperture

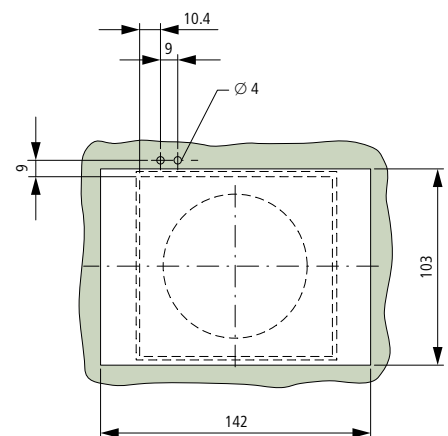


Rotary handle on switch with door interlock

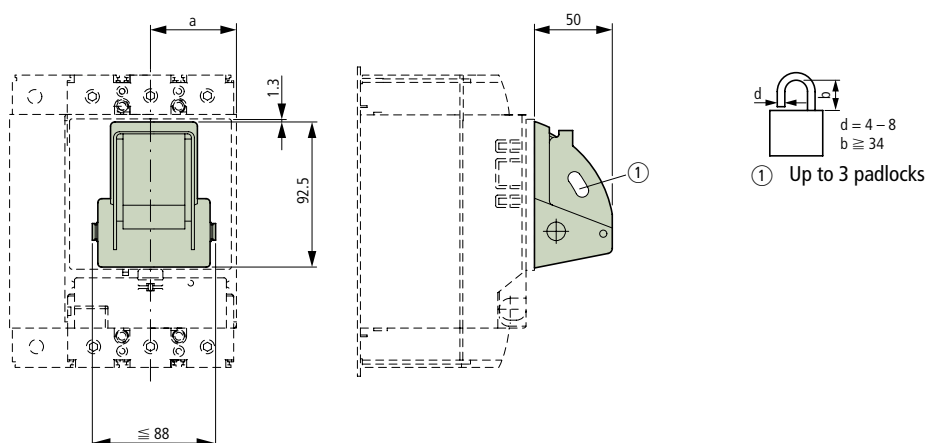
NZM2-XDTV(R)



Mounting aperture

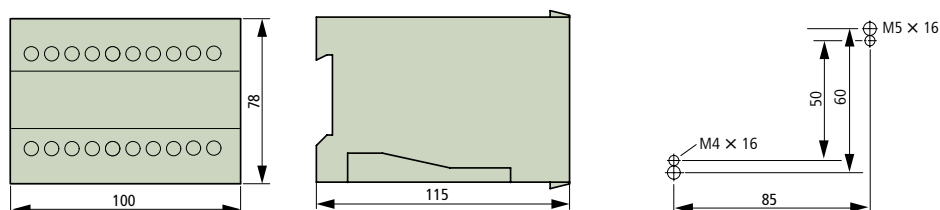


Toggle lever interlock device
NZM2/3-XKAV

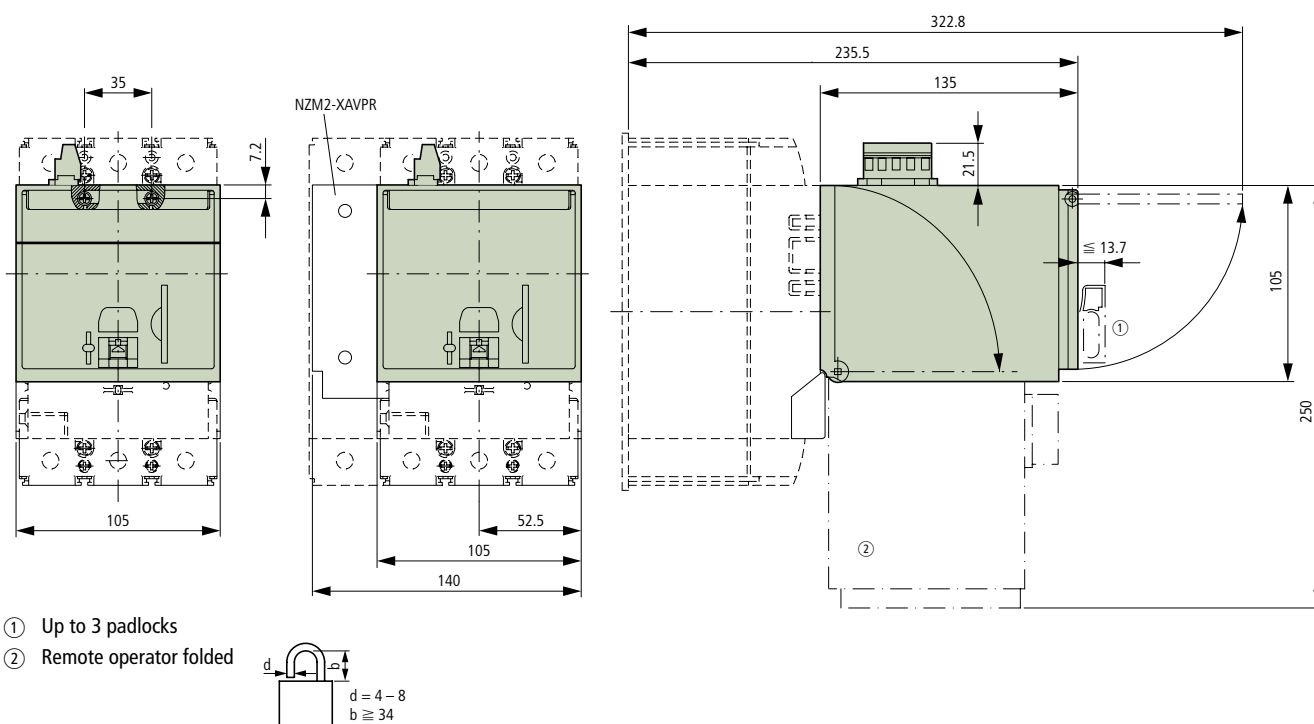


	a
NZM2, PN2, N2	52,5
NZM3, PN3, N3	70

Capacitor unit
NZM-XCM

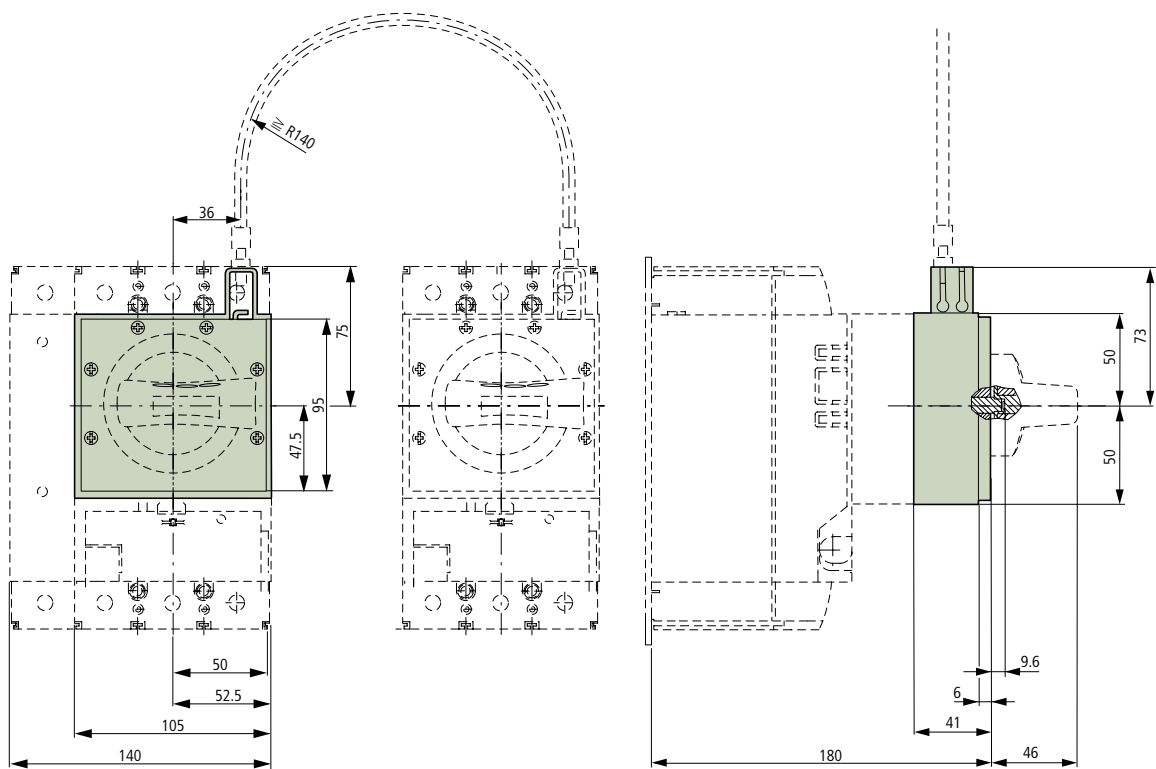


Remote operator
NZM2-XR...

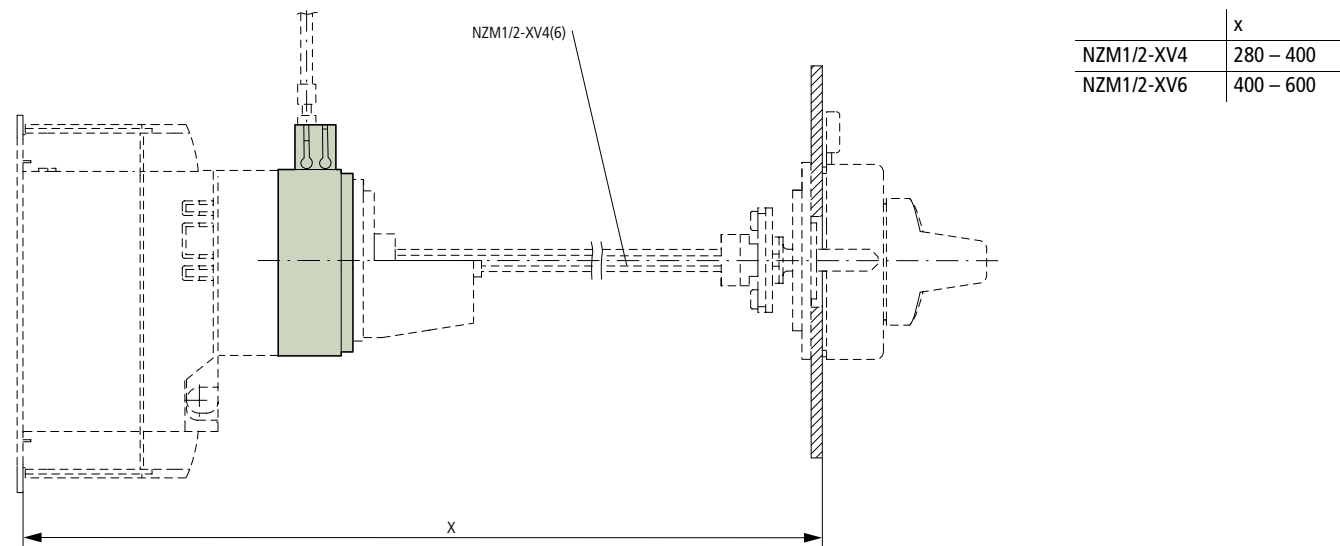


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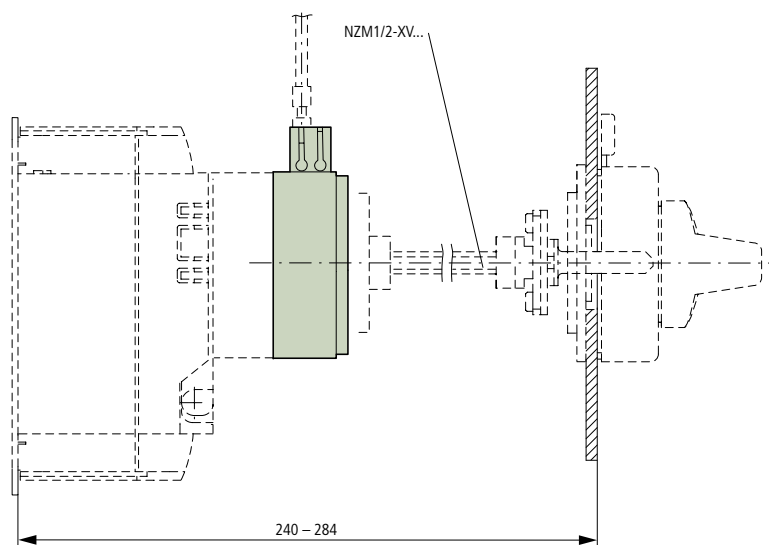
Mechanical interlock
NZM2-XMV with NZM2-XD



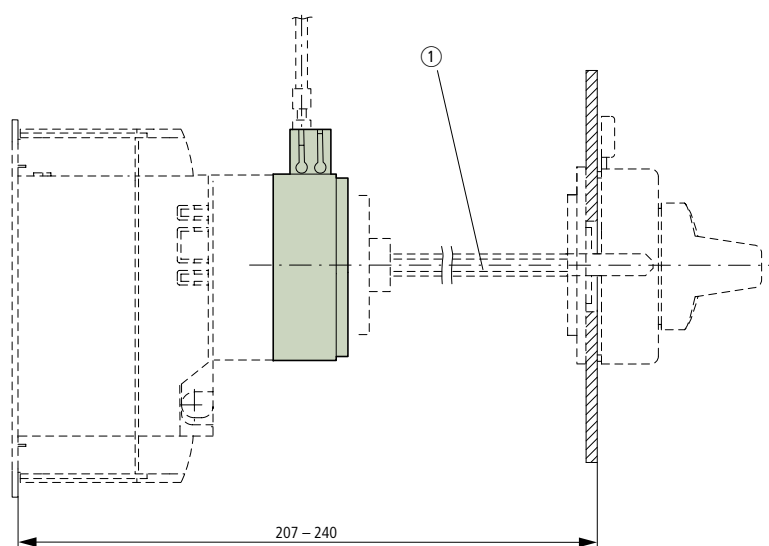
NZM2-XMV with NZM2-XT(V)D(V)(R)



NZM2-XMV with NZM2-XT(V)D(V)(R)-60

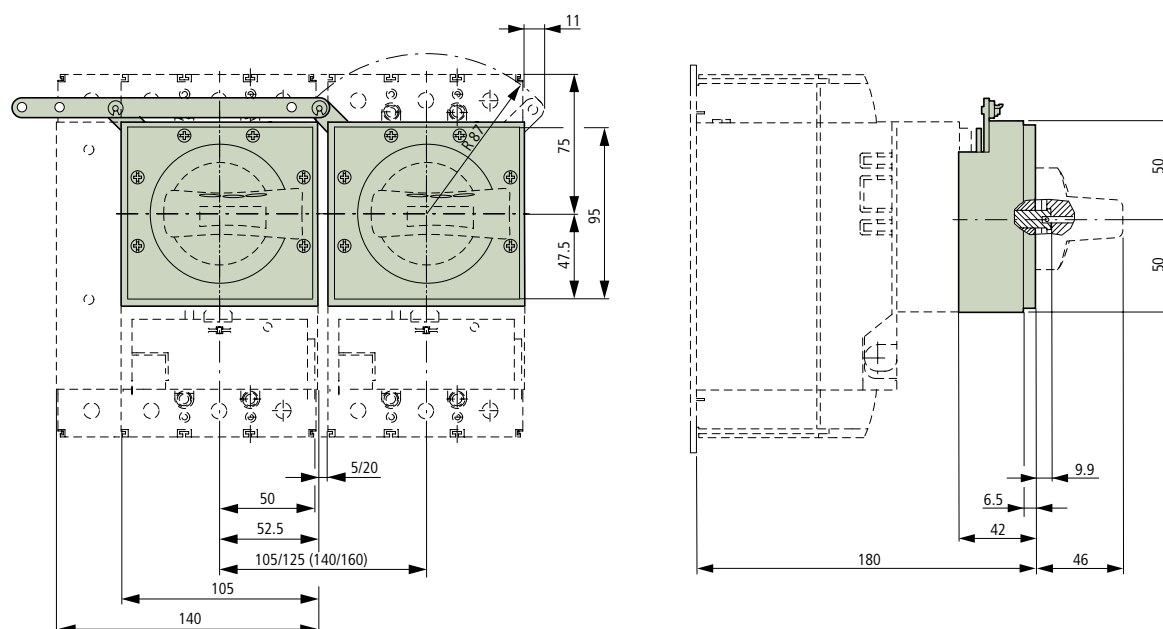


NZM2-XMV with NZM2-XT(V)D(V)(R)-0



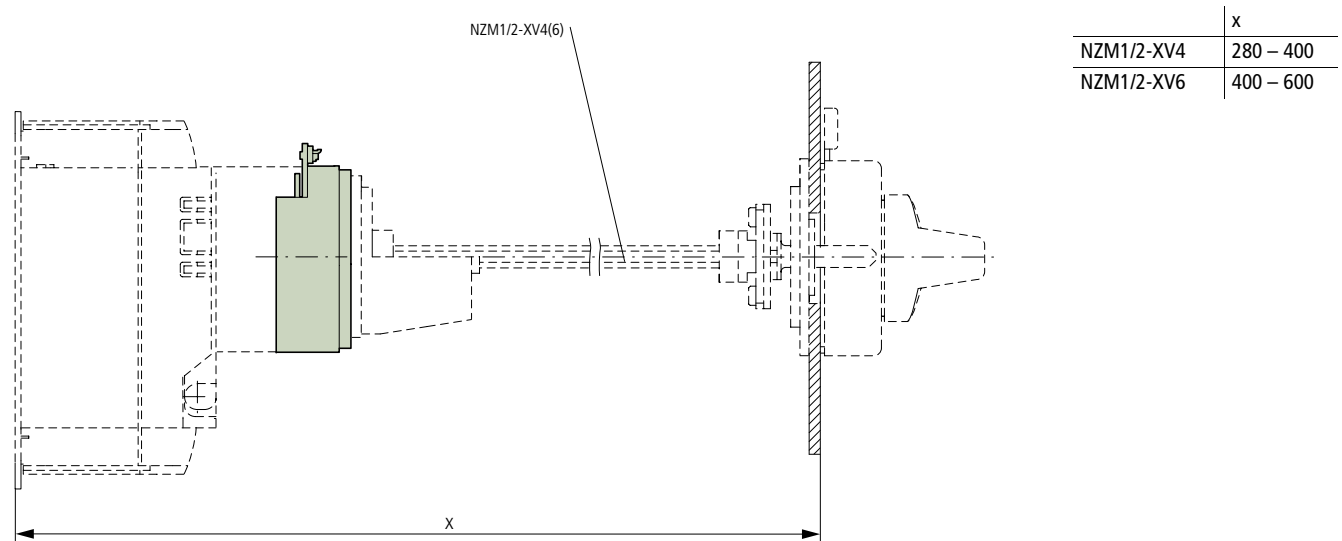
Paralleling mechanism

PN2-XPA with NZM2-XD

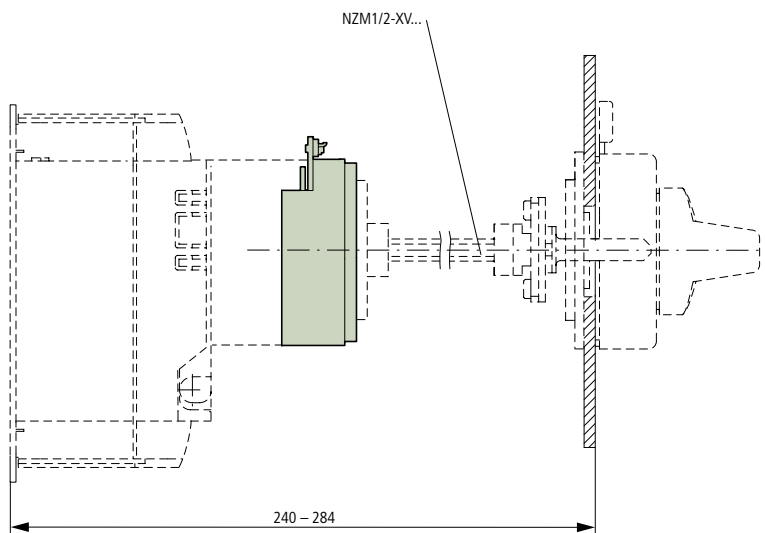


Moeller SK1230-1157GB-INT

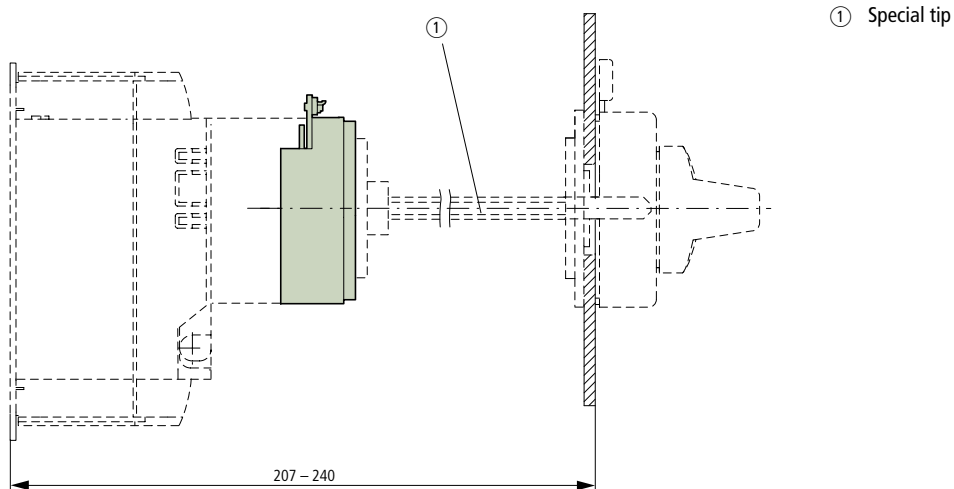
PN2-XPA with NZM2-XTD



PN2-XPA with NZM2-XTD-60

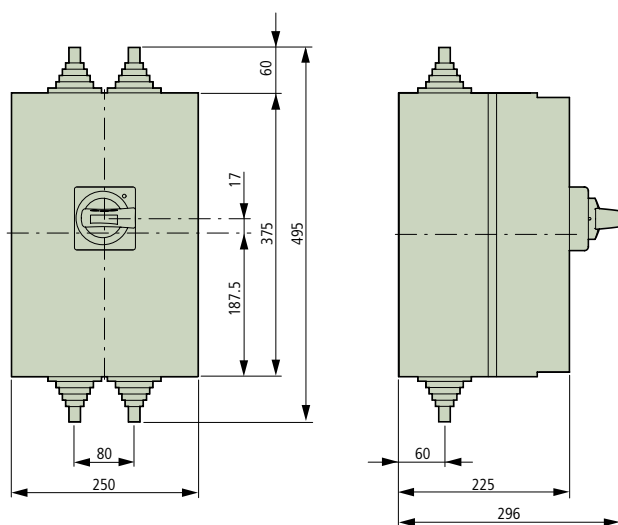


PN2-XPA with NZM2-XTD-0

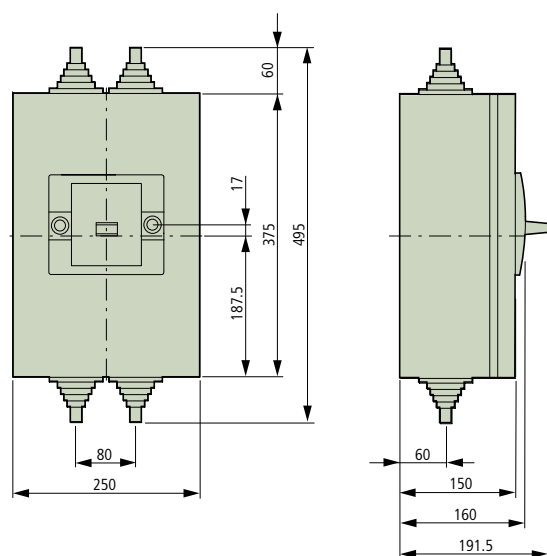


Insulated enclosures

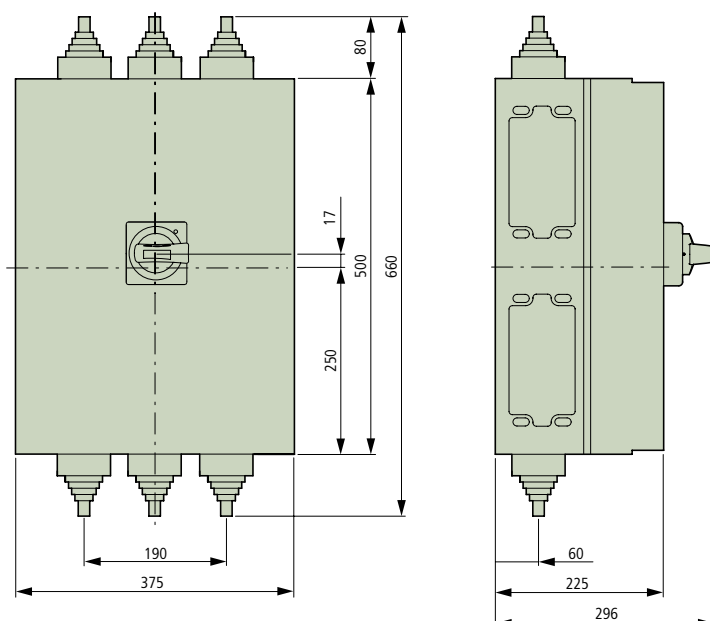
NZM2-XCI43-T...



NZM2-XCI43-BR

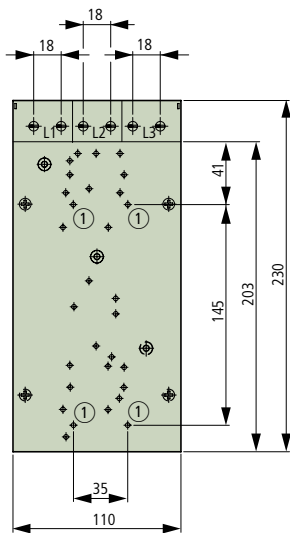


NZM2-XCI45-T...

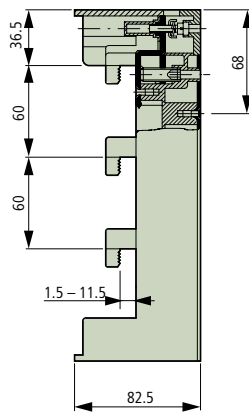


Moeller SK1230-1157GB-INT

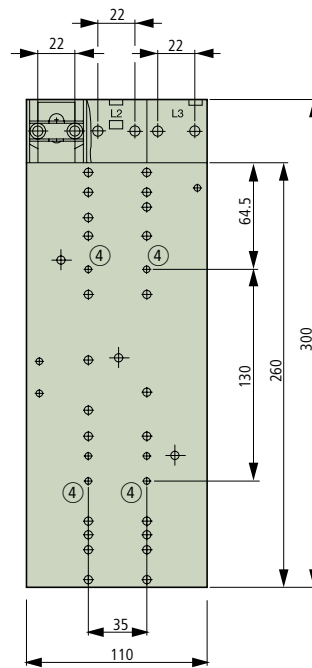
Component adapter SV34381



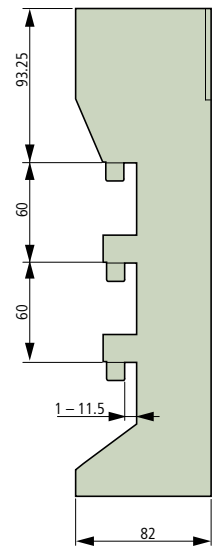
① NZM2



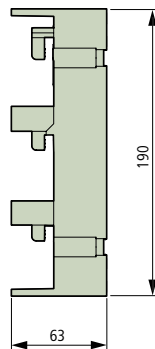
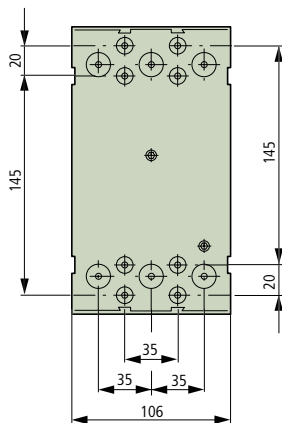
SV34372



④ NZM2

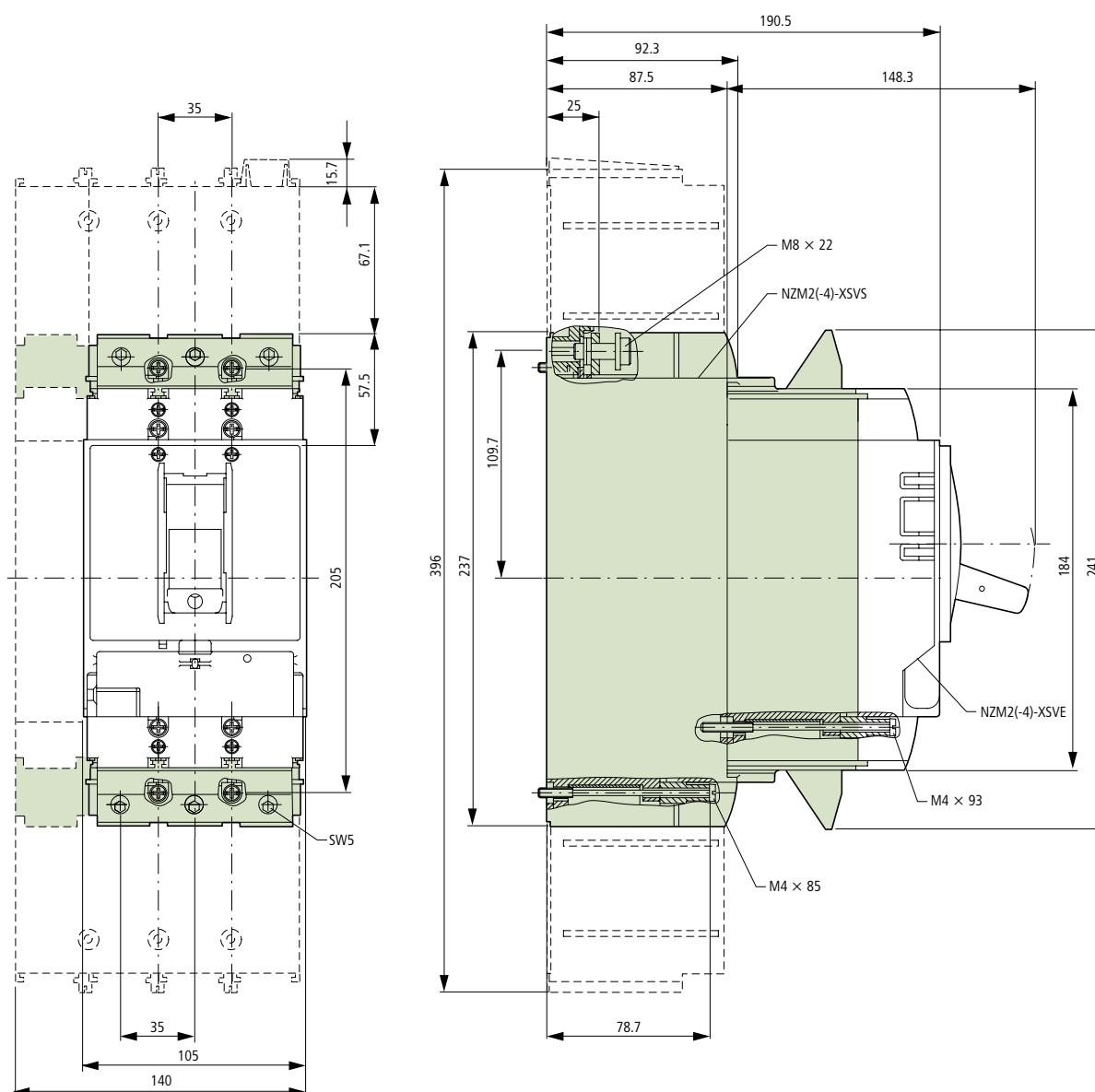


NZM2-XAD250



Plug-in adapter elements

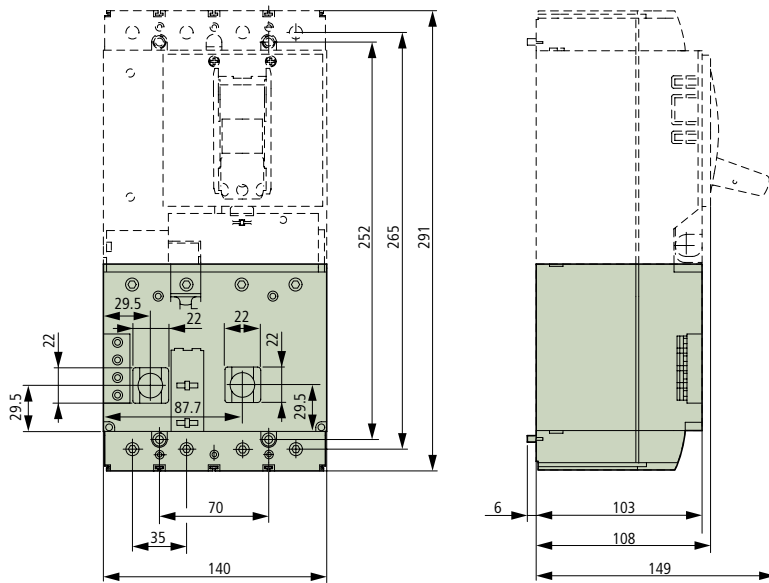
+NZM2(-4)-XSV



Moeller SK1230-1157GB-INT

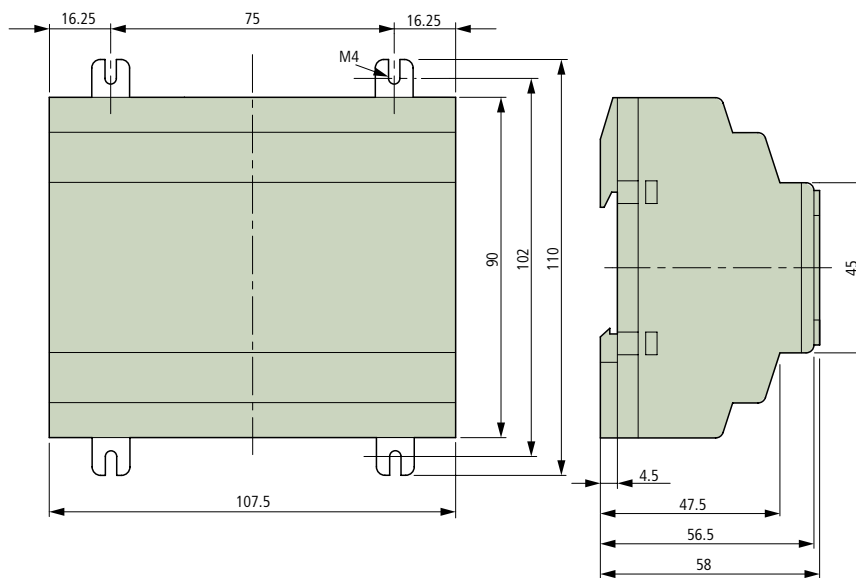
Residual current release

NZM2-4-XFI30, NZM2-4-XFI, NZM2-4-XFIA30, NZM2-4-XFIA



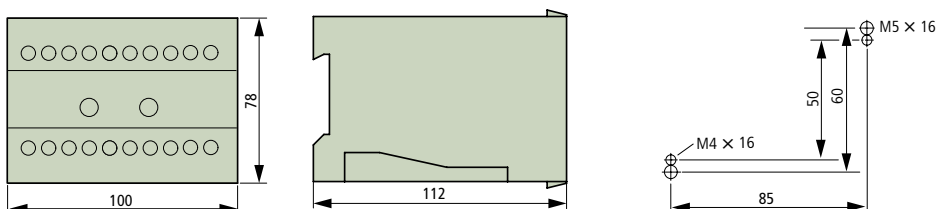
Data Management Interface (DMI Module)

NZM-XDMI612



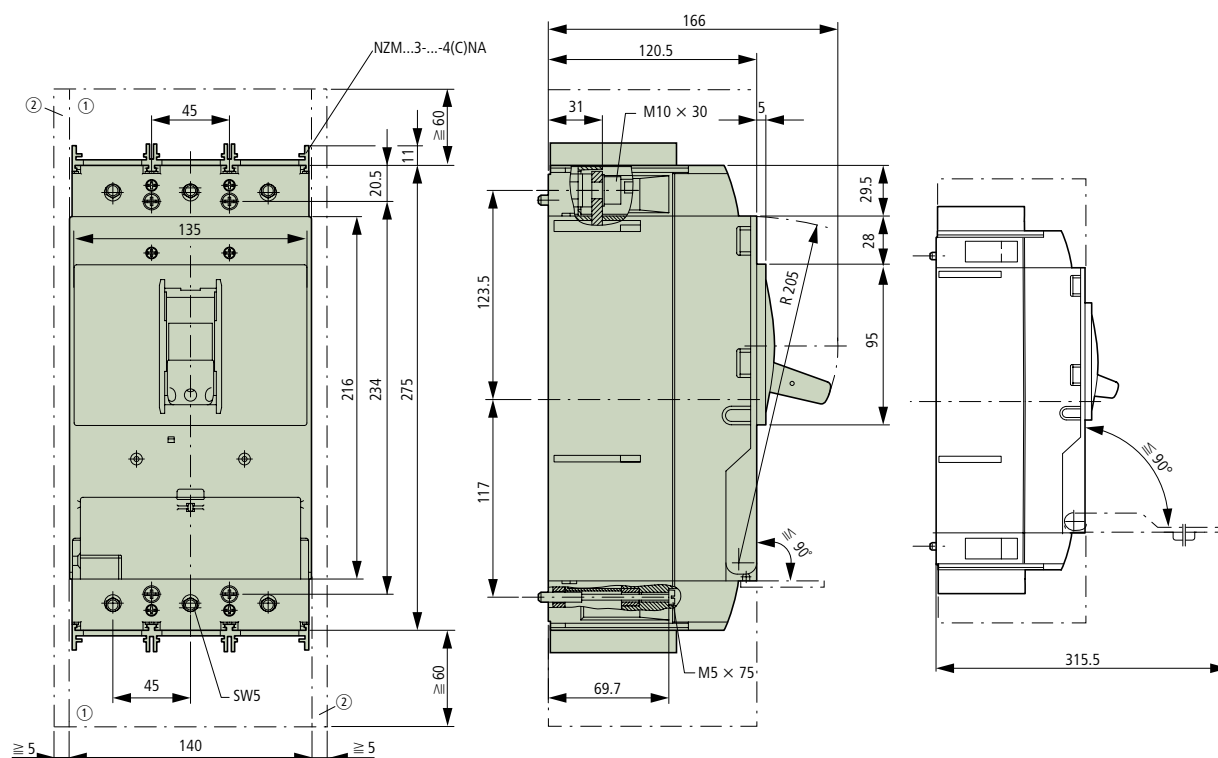
Undervoltage release, delayed

UVU-NZM



Circuit-breaker, switch-disconnector, 3-pole

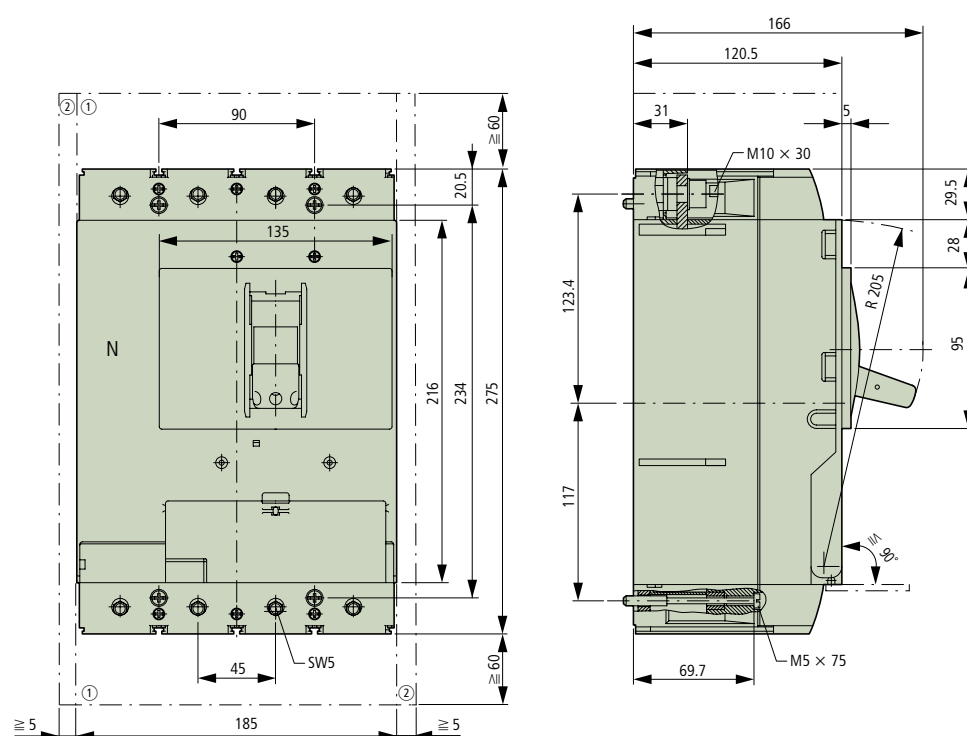
NZMN3, NZMH3, NZML3, PN3, N3, NS3



- ① Blow out area, minimum clearance to other parts ≥ 60 mm
- ② Minimum clearance from adjacent parts ≥ 5 mm

Circuit-breaker, switch-disconnector, 4-pole

NZMN3-4, NZMH3-4, NZML3-4, PN3-4, N3-4



- ① Blow out area, minimum clearance to other parts ≥ 60 mm
- ② Minimum clearance from adjacent parts ≥ 5 mm

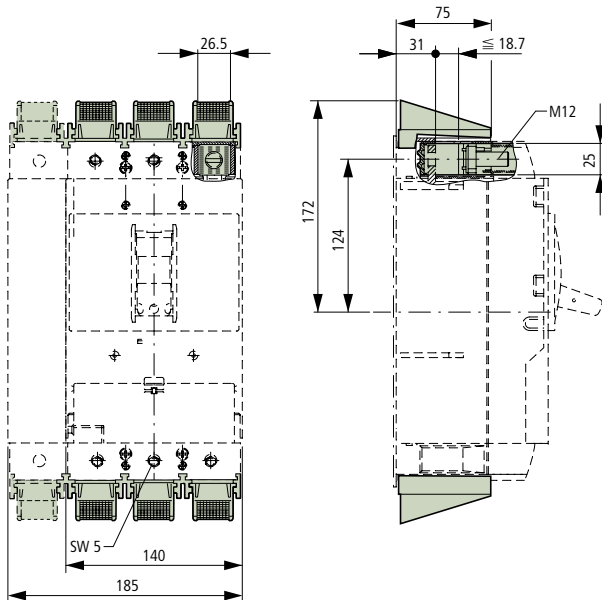
Moeller SK1230-1157GB-INT

Box terminal

NZM3(-4)-XKC(0)(U)

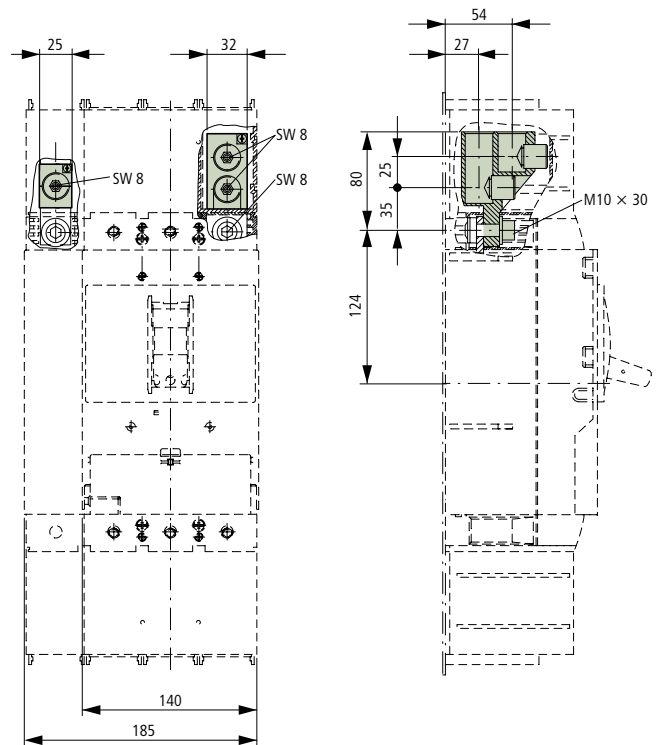
IP2X protection against contact with

NZM3(-4)-XIPK



Tunnel terminal

NZM3(-4)-XKA1(2)



Cover for screw terminals

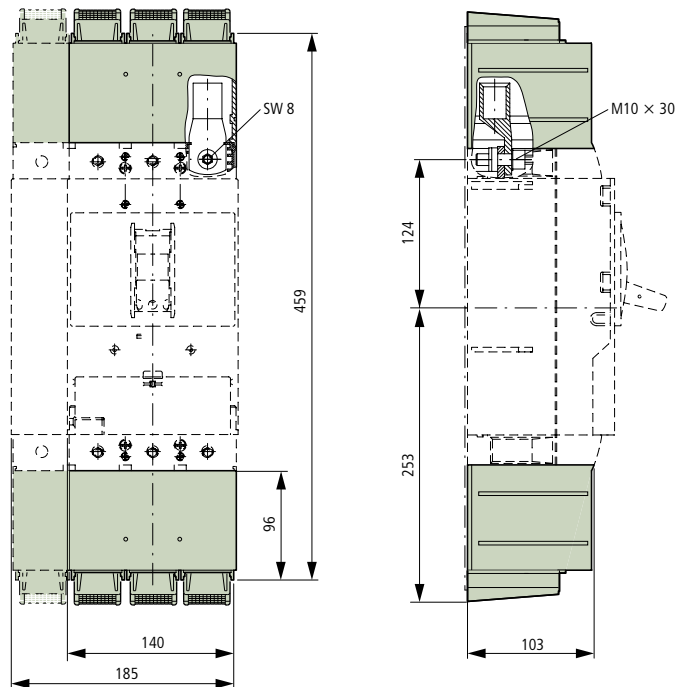
NZM3(-4)-XKSA

Cable lug

NZM3-XKS185

IP2X protection against contact with

NZM3(-4)-XIPA



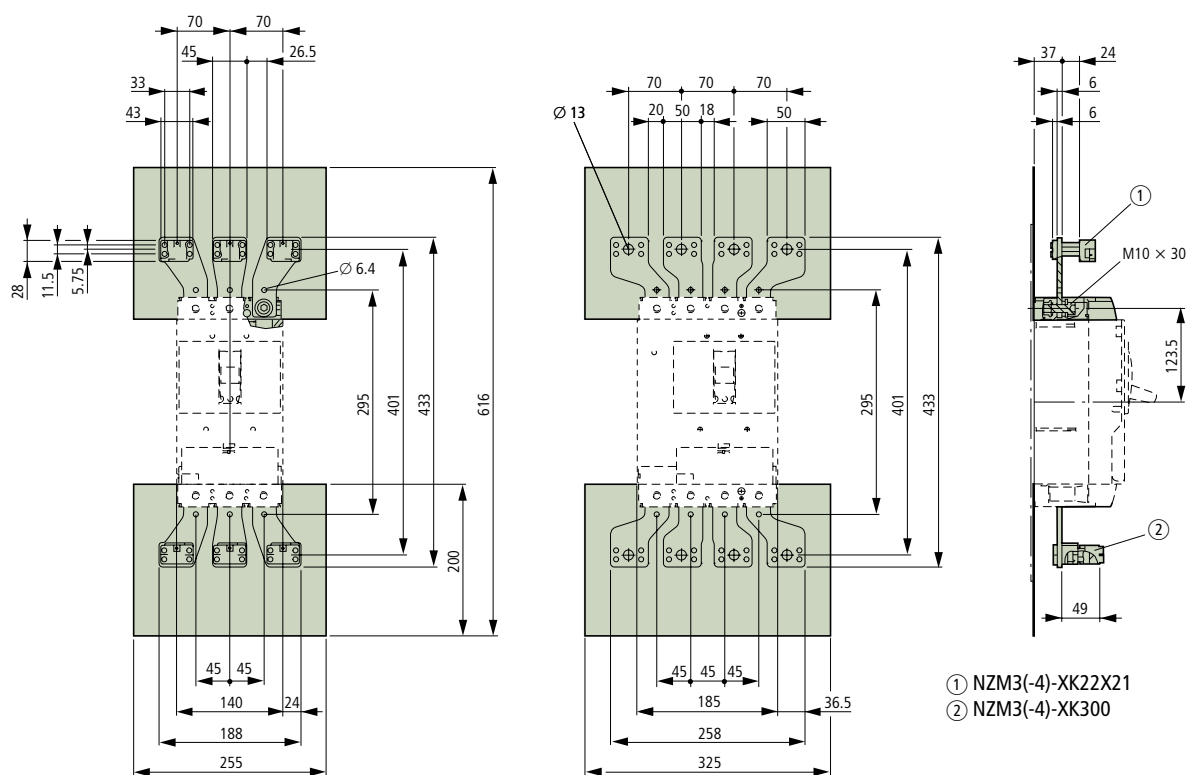
Connection width extension

NZM3(-4)-XKV70

Terminals

NZM3(-4)-XK22X21

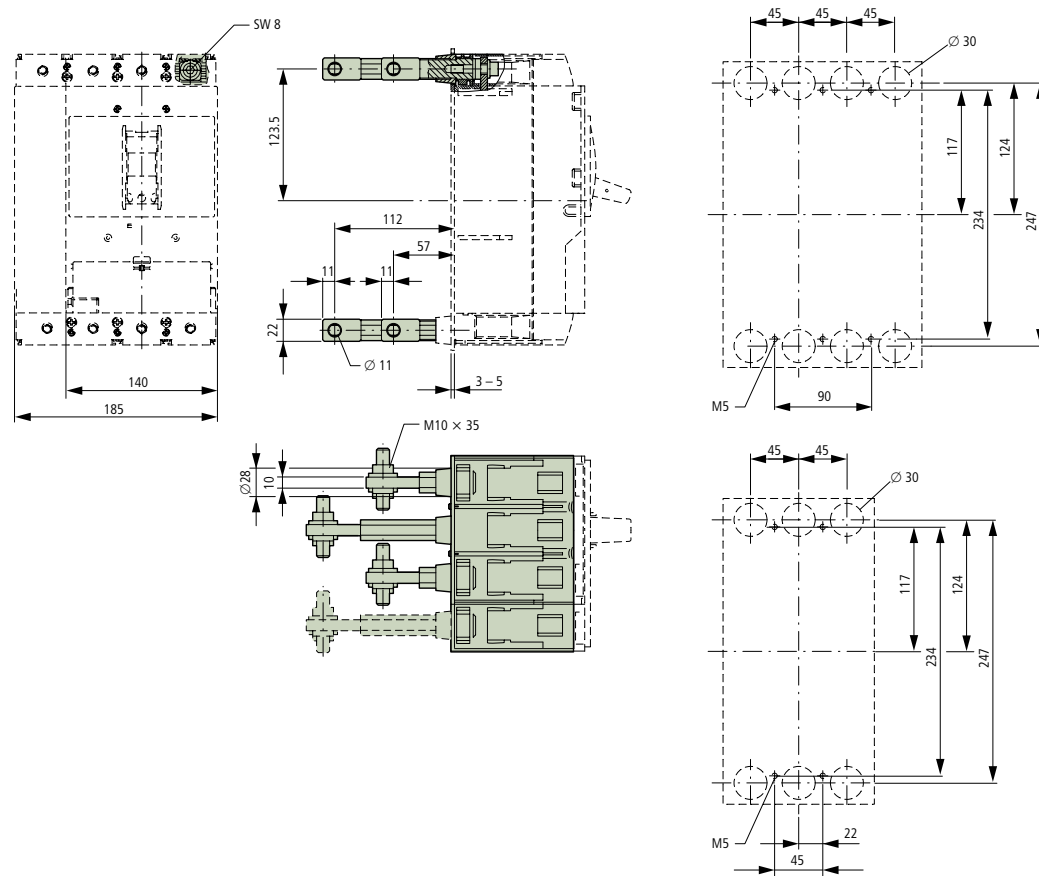
NZM3(-4)-XK300



Note: Length with phase isolators approx. 599 mm

Connection on rear

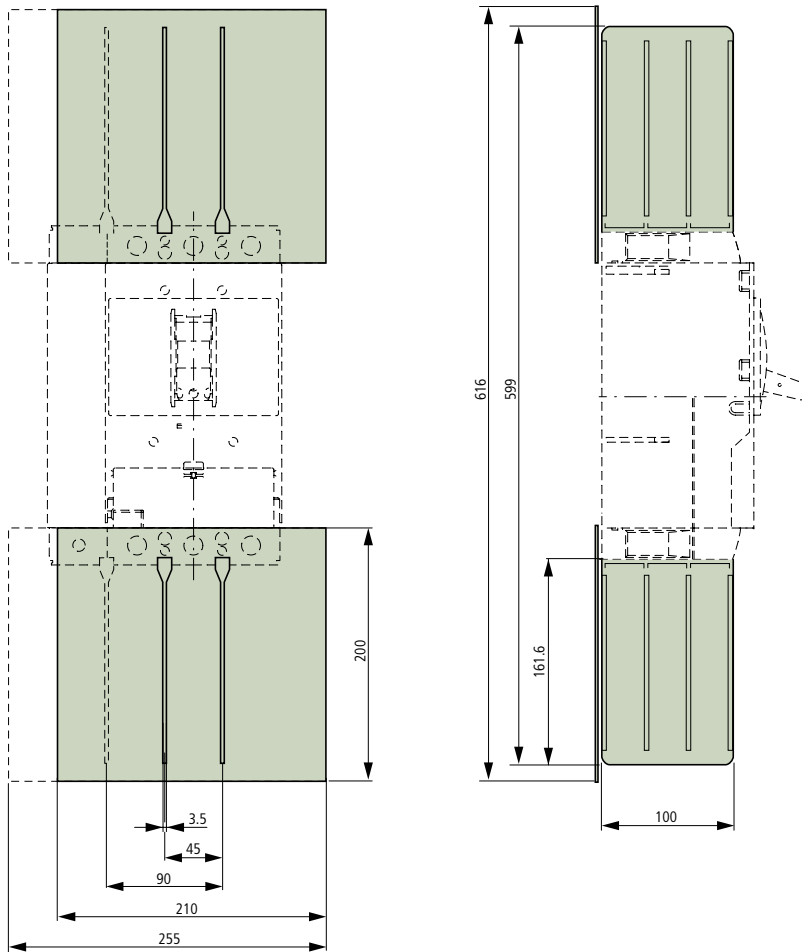
(+)NZM3(-4)-XKR(O)(U)



Moeller SK1230-1157GB-INT

Phase isolator

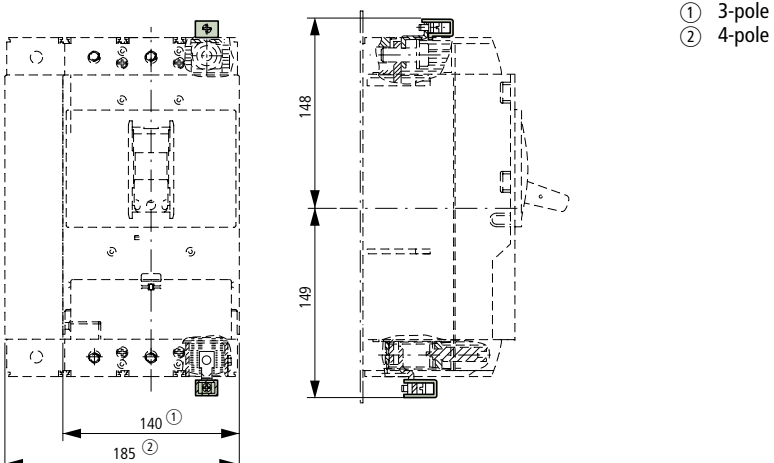
NZM3(-4)-XKP



Control circuit terminal

NZM3/4-XSTS

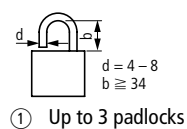
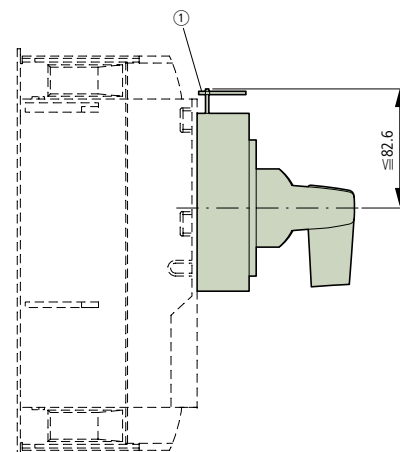
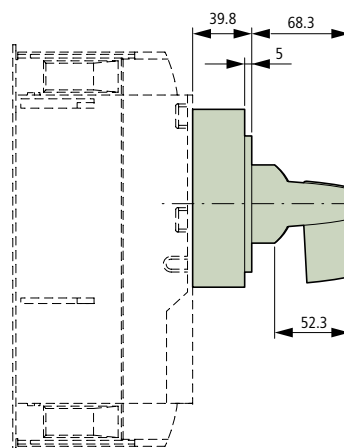
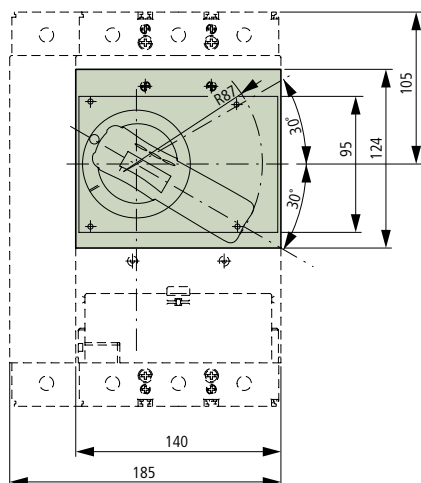
NZM-XSTK



Rotary handle on circuit-breaker

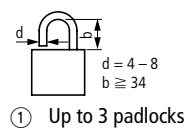
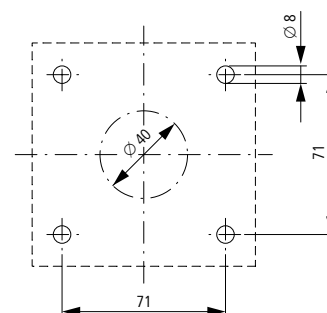
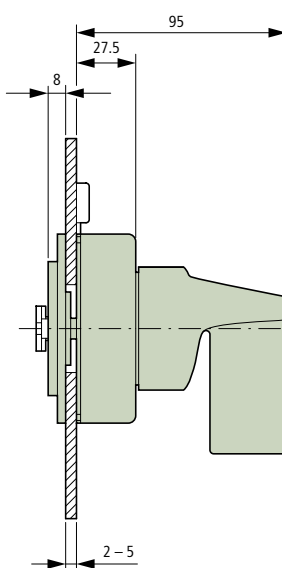
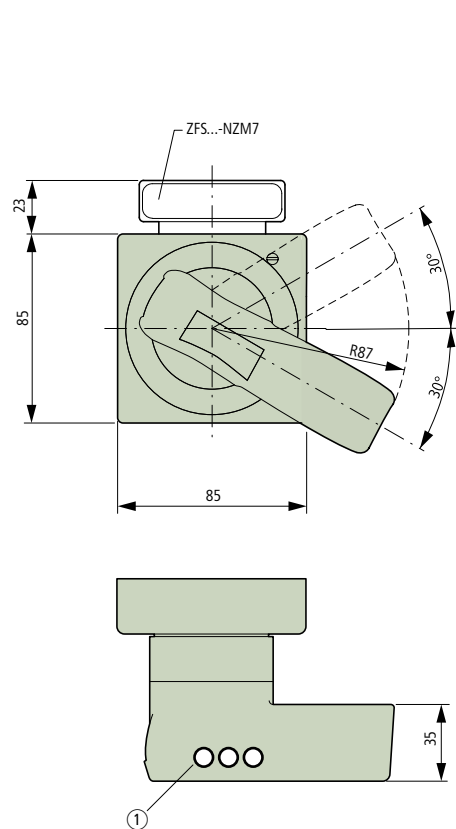
NZM3-XD

NZM3-XDV(R)



Door coupling rotary handle

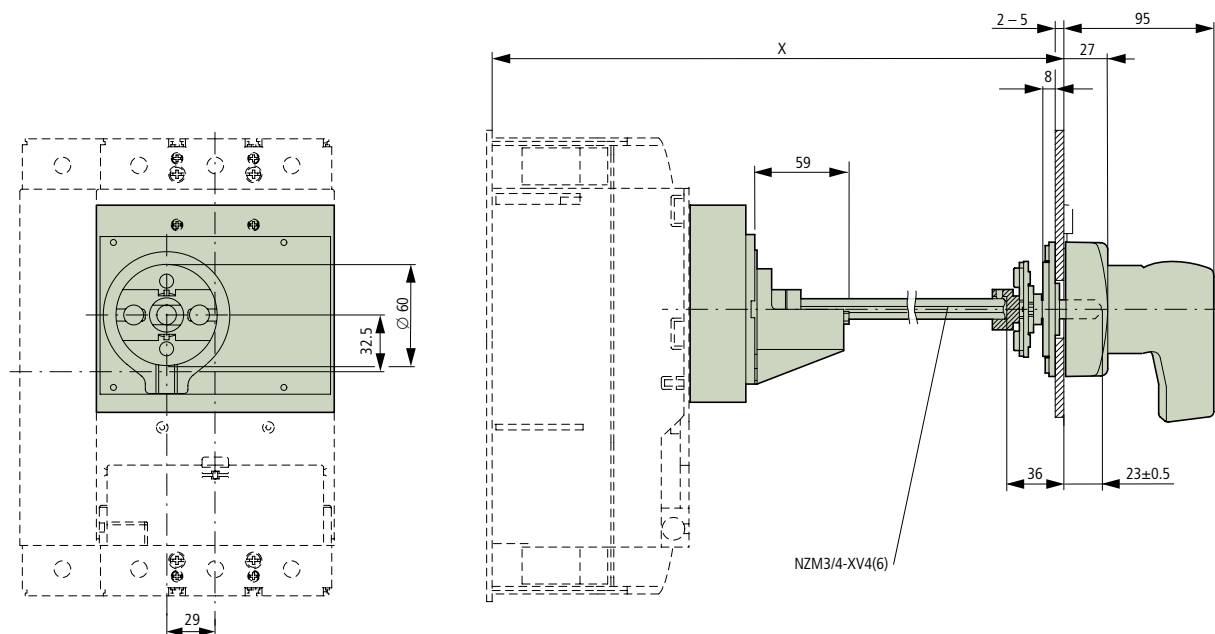
NZM3-XT(V)D(V)(R)



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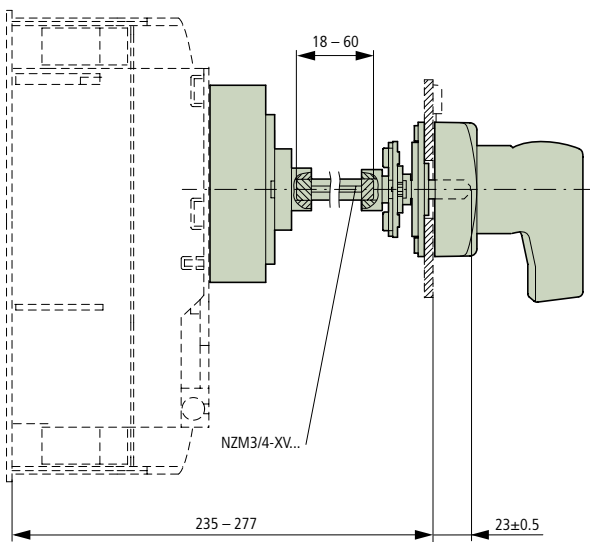
Door coupling rotary handle with extension shaft

NZM3-XT(V)D(V)(R)(-NA)
NZM3/4-XV4(6)

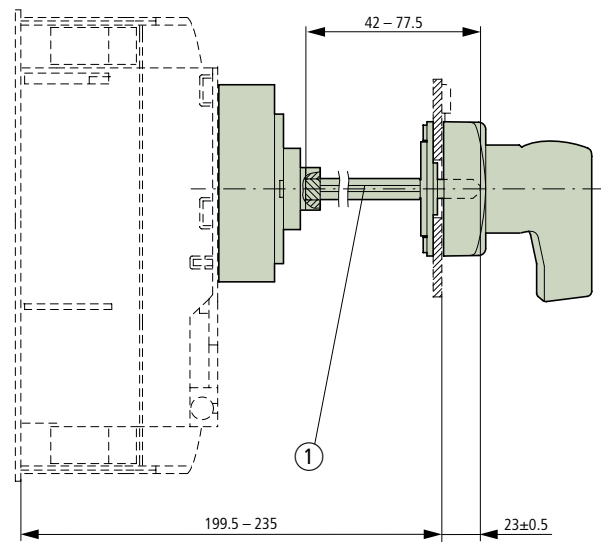


	X
NZM3/4-XV4	270 – 400
NZM3/4-XV6	400 – 600

NZM3-XT(V)D(V)(R)-60(-NA)

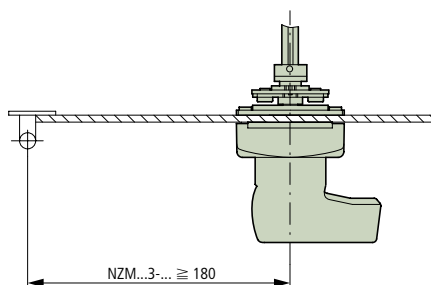


NZM3-XT(V)D(V)(R)-0(-NA)



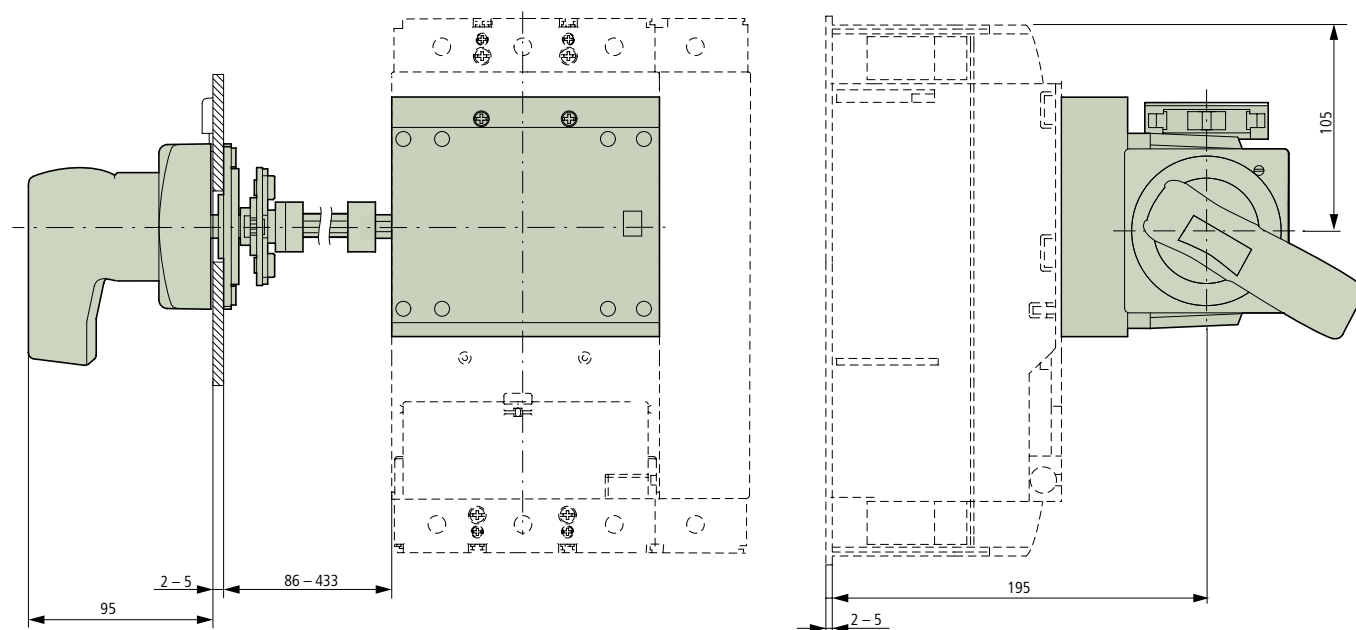
① Special tip

Minimum door coupling rotary handle clearance from door pivot point

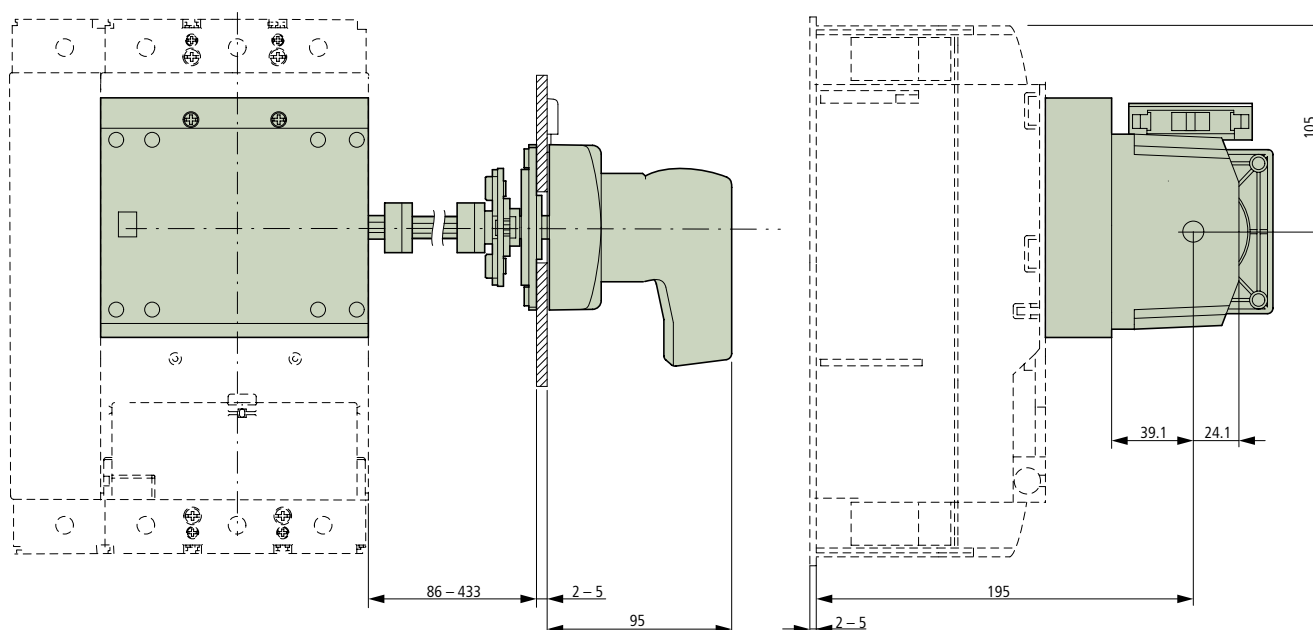


Main switch assembly kit for side wall installation

NZM3-XS(R)(F)-L

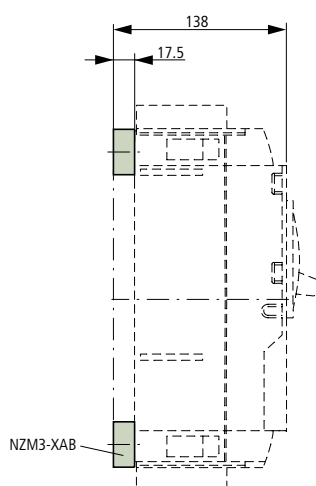


NZM3-XS(R)(F)-R



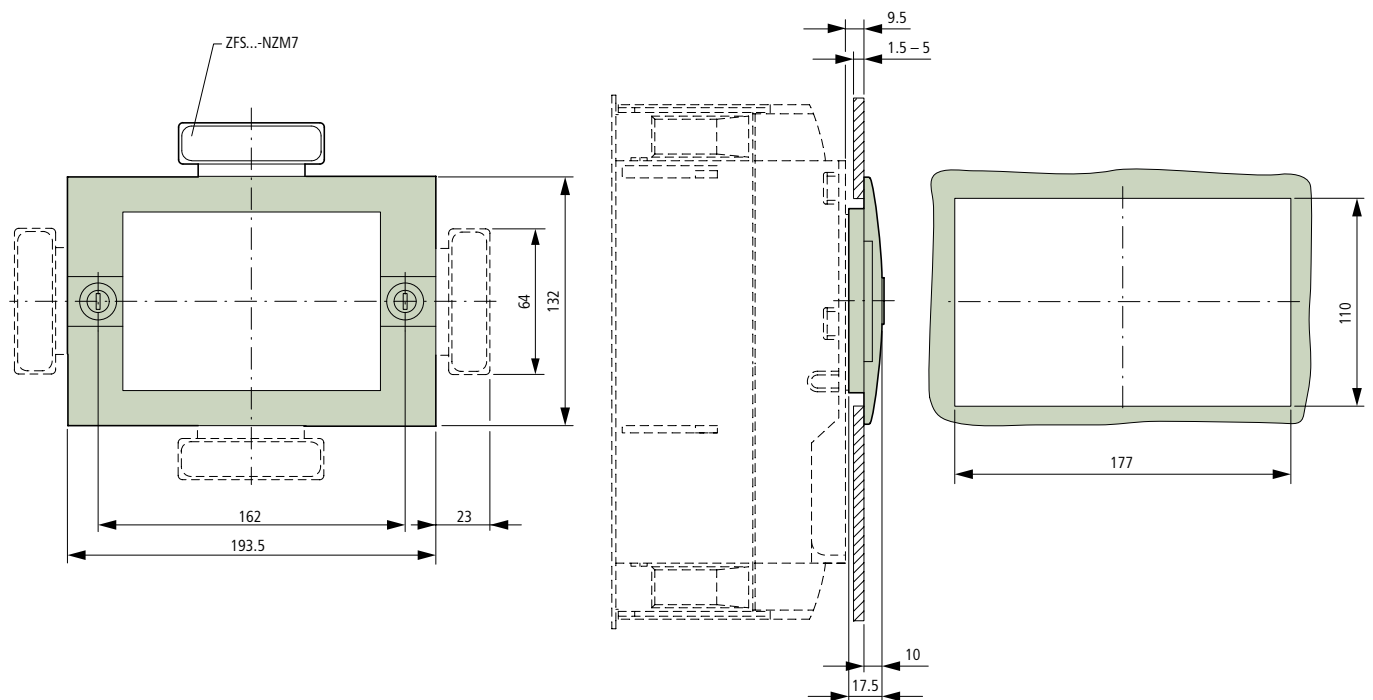
Spacers

NZM3-XAB

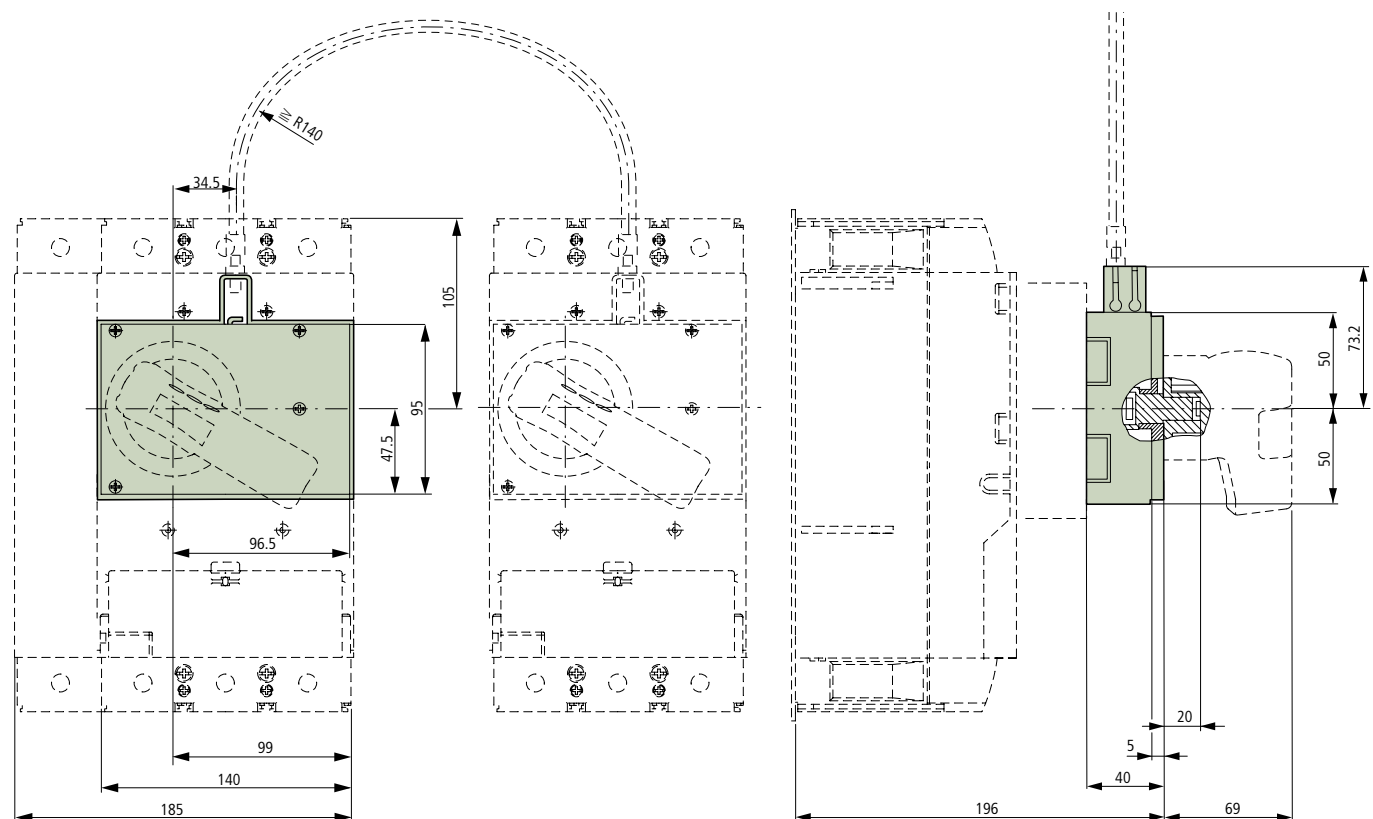


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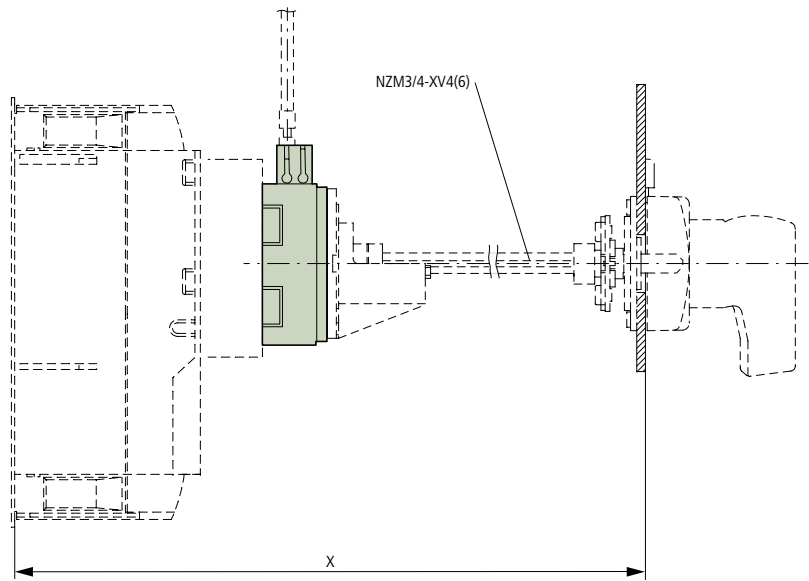
Insulating surround
NZM3-XBR



Mechanical interlock
NZM3-XMV with NZM3-XD

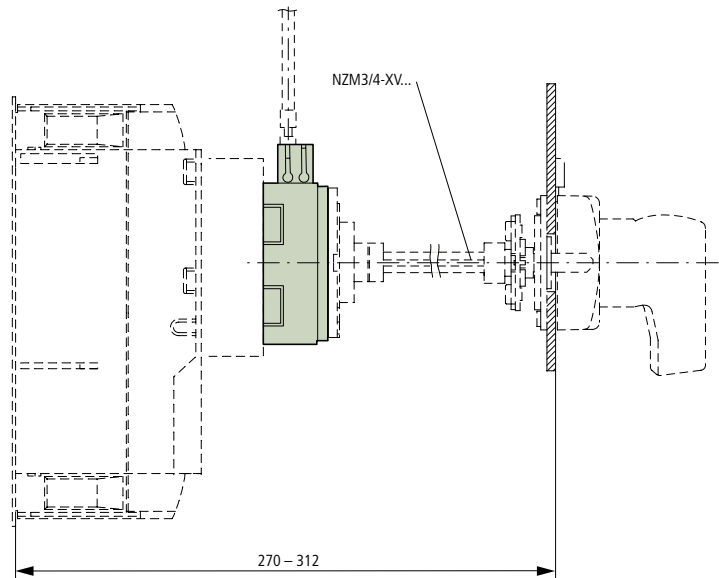


NZM3-XMV with NZM3-XT(V)D(V)(R)

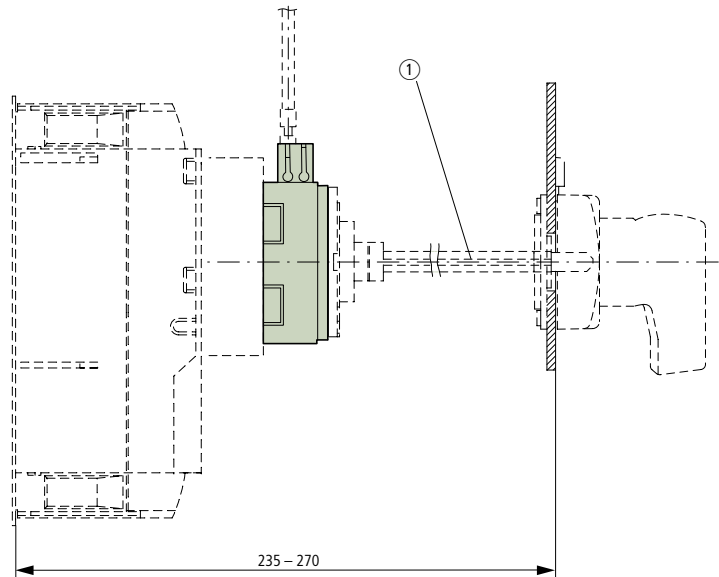


	x
NZM3/4-XV4	305 – 400
NZM3/4-XV6	400 – 600

NZM3-XMV with NZM3-XT(V)D(V)(R)-60



NZM3-XMV with NZM3-XT(V)D(V)(R)-0

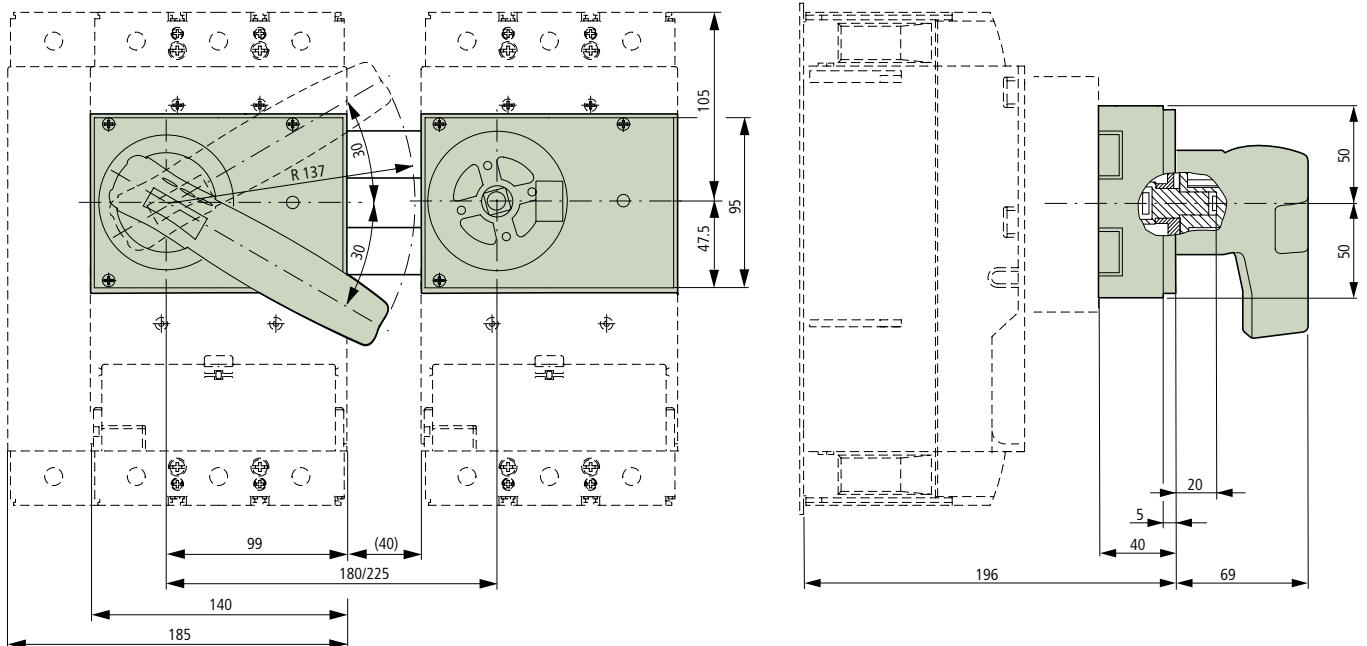


① Special tip

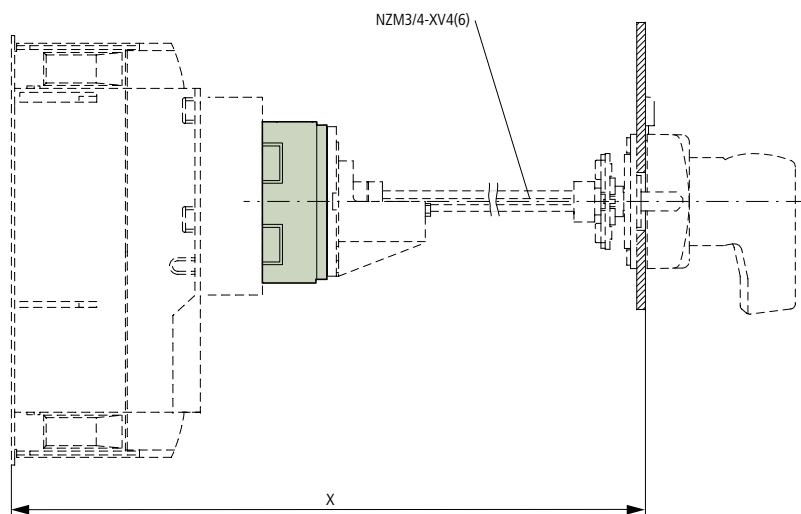
Moeller SK1230-1157GB-INT

Paralleling mechanism

PN3-XPA with NZM3-XD

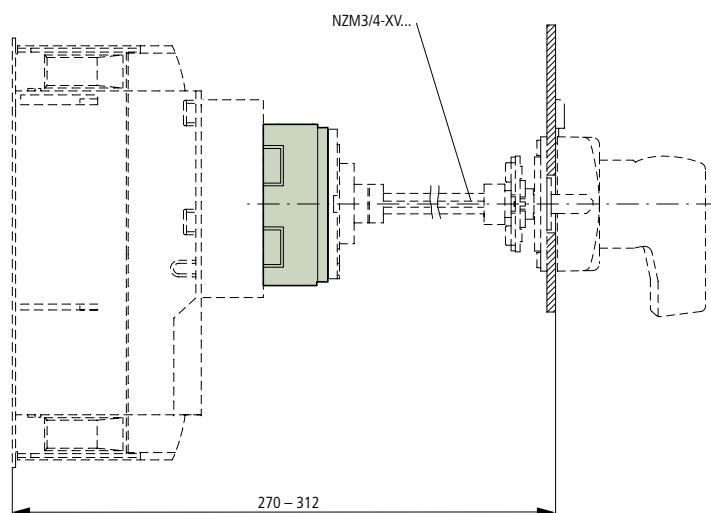


PN3-XPA with NZM3-XTD

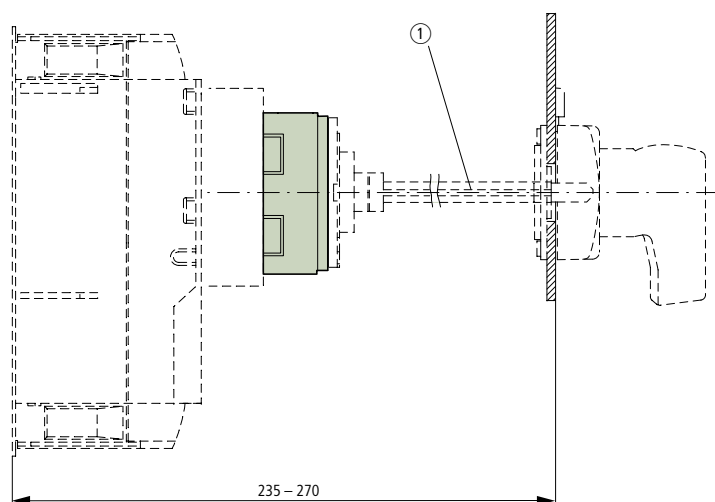


	x
NZM3/4-XV4	305 – 400
NZM3/4-XV6	400 – 600

PN3-XPA with NZM3-XTD-60



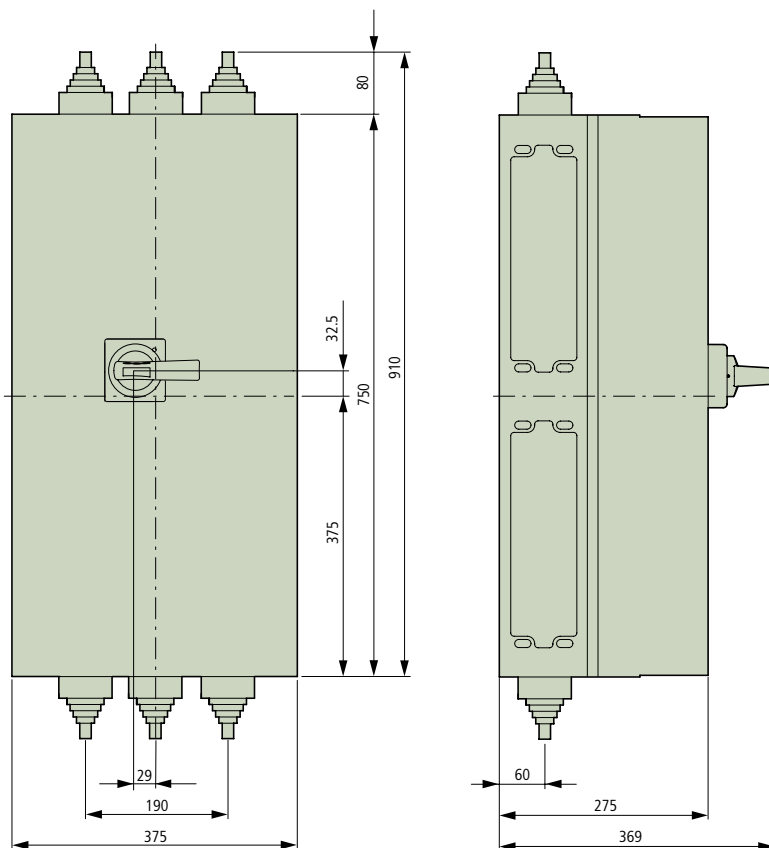
PN3-XPA with NZM3-XTD-0



① Special tip

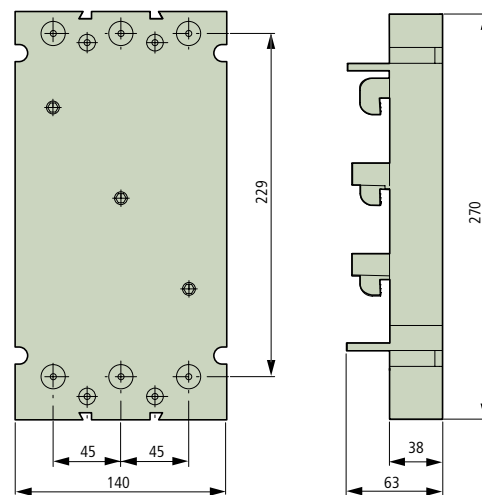
Insulated enclosures

NZM3-XCI48-T...



Component adapter

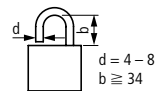
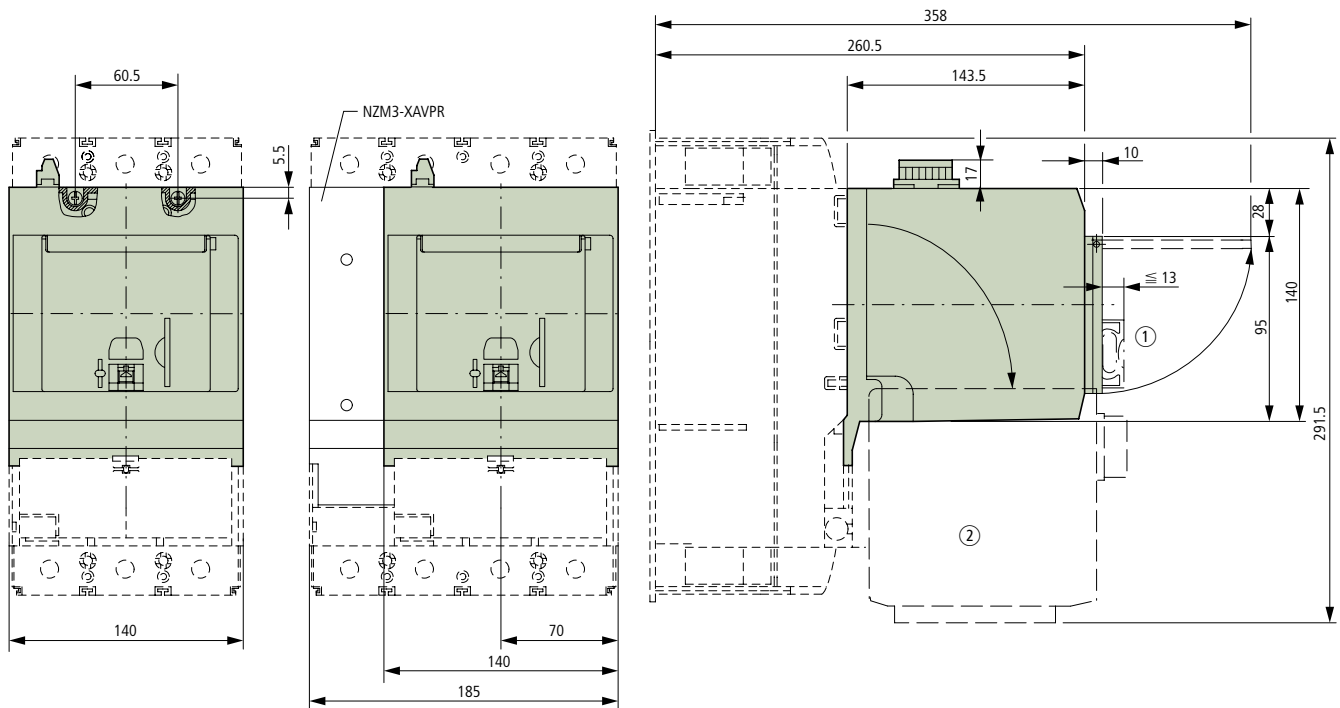
NZM3-XAD550



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Remote operator

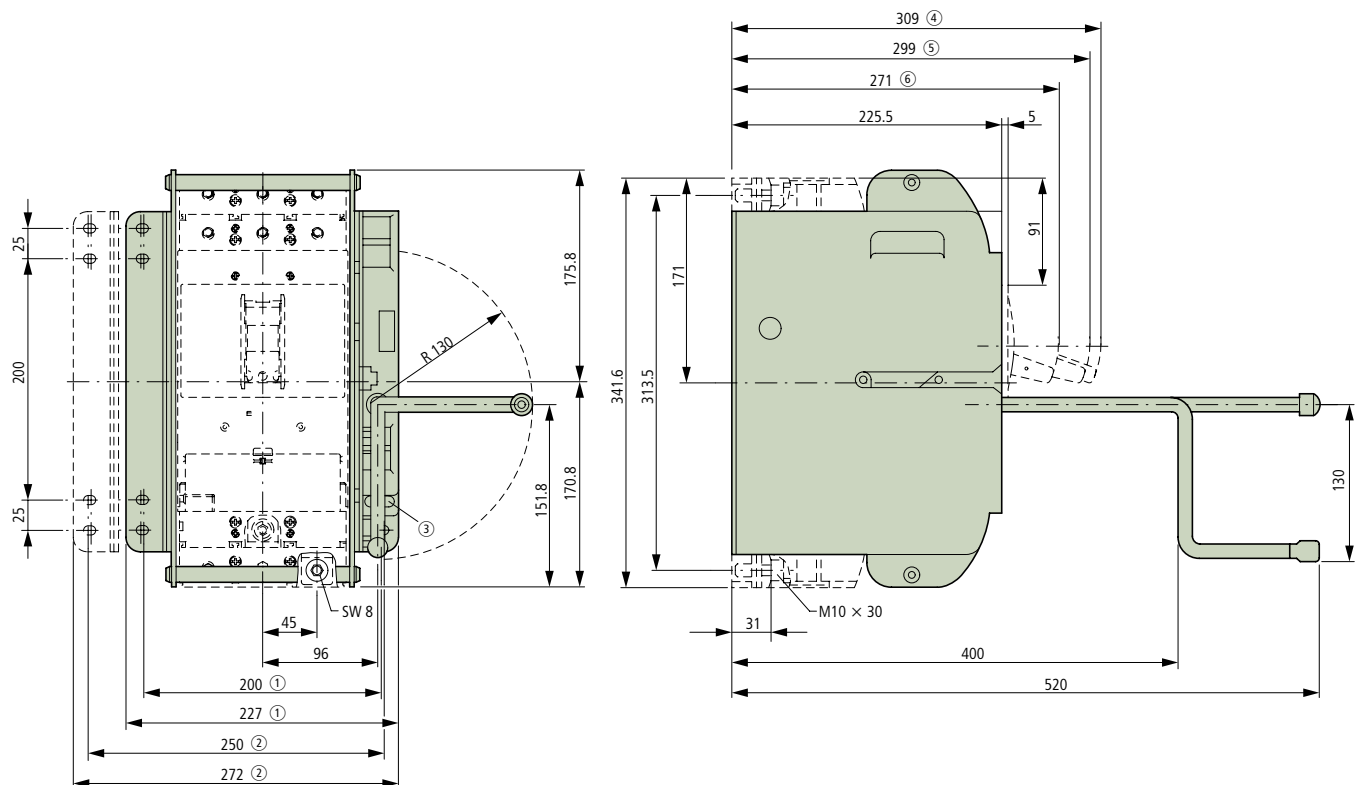
NZM3-XR...



- ① Up to 3 padlocks
- ② Remote operator folded

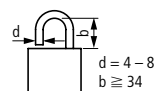
Withdrawable unit

+NZM3(-4)-XAV



- ① 3-pole
- ② 4-pole

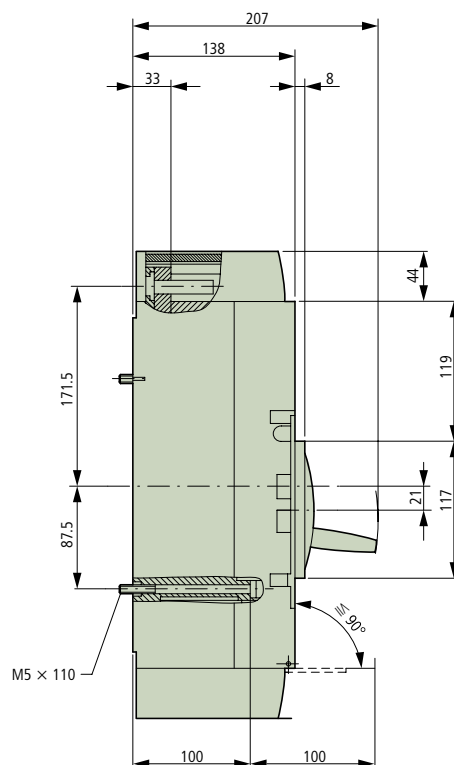
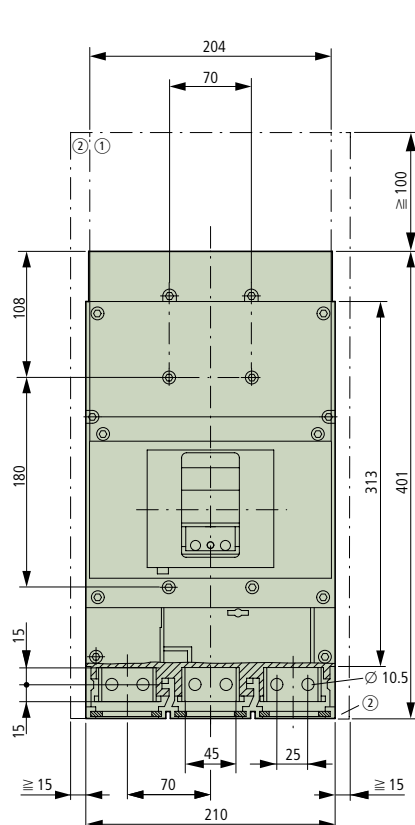
- ③ Up to 3 padlocks



- ④ disconnected
- ⑤ test
- ⑥ connected

Circuit-breaker, switch-disconnector, 3-pole

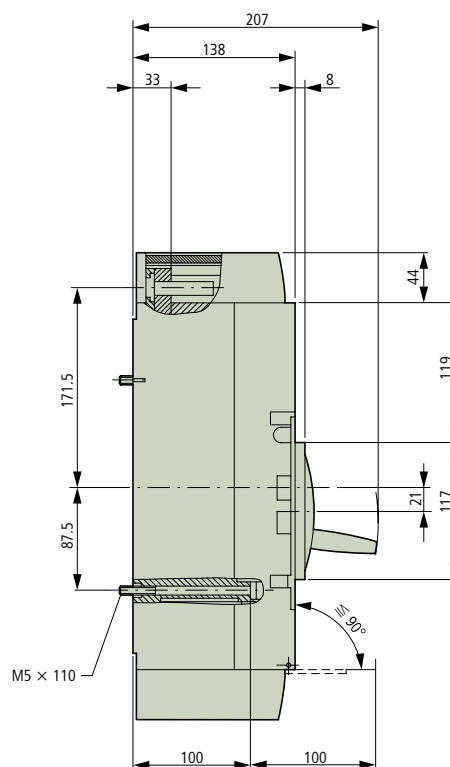
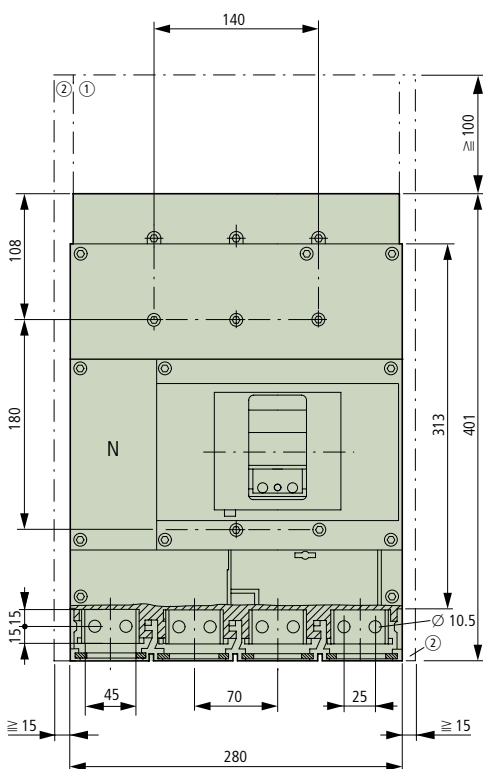
NZMN4, NZMH4, NZML4, N4, NS4



- ① Blow out area, minimum clearance to other parts ≥ 100 mm up to 690 V; ≥ 200 mm up to 1000 V
- ② Minimum clearance from adjacent parts ≥ 15 mm

Circuit-breaker, switch-disconnector, 4-pole

NZMN4-4, NZMH4-4, NZML4-4, N4-4

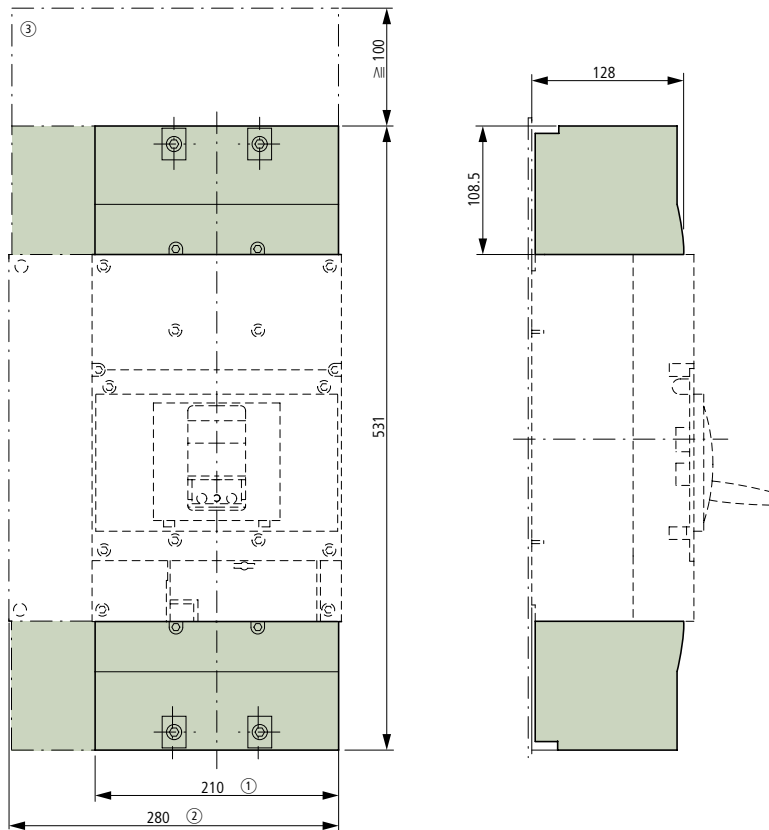


- ① Blow out area, minimum clearance to other parts ≥ 100 mm
- ② Minimum clearance from adjacent parts ≥ 15 mm

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Cover

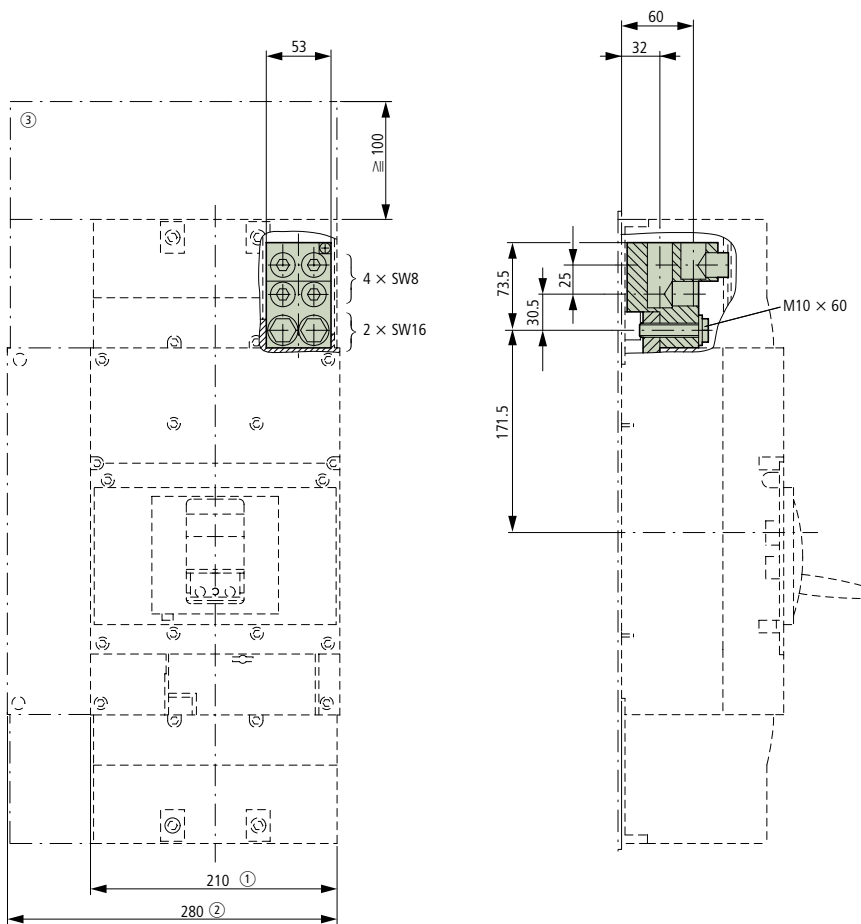
NZM4(-4)-XKSA



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

Tunnel terminal

NZM4(-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

Screw connection

Module plate 1-hole

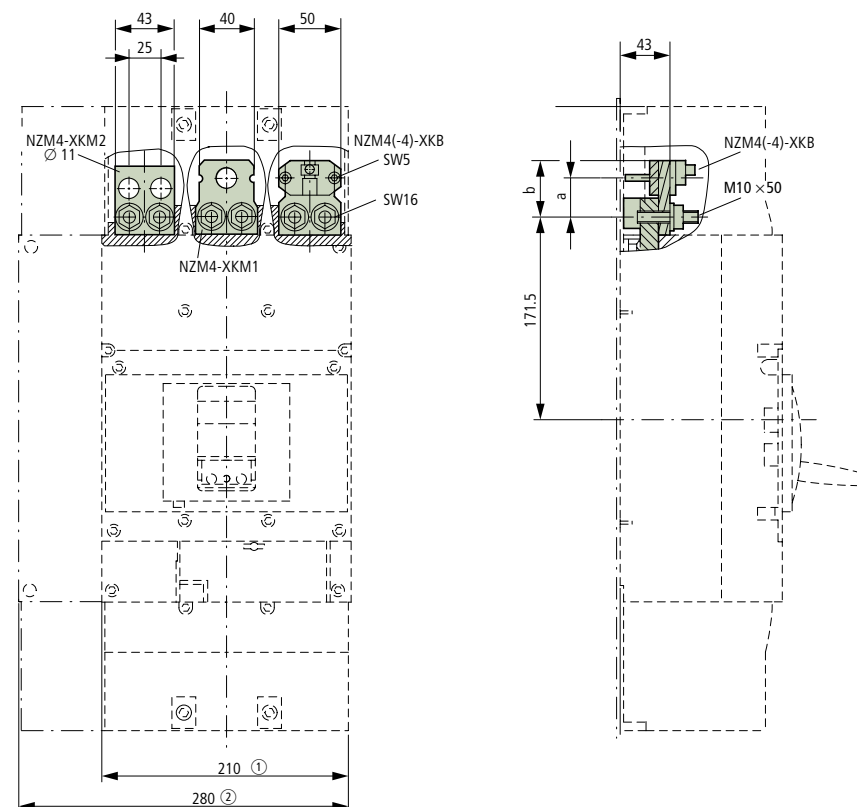
NZM4(-4)-XKM1

Module plate 2-hole

NZM4(-4)-XKM2

Flat cable terminal

NZM4(-4)-XKB

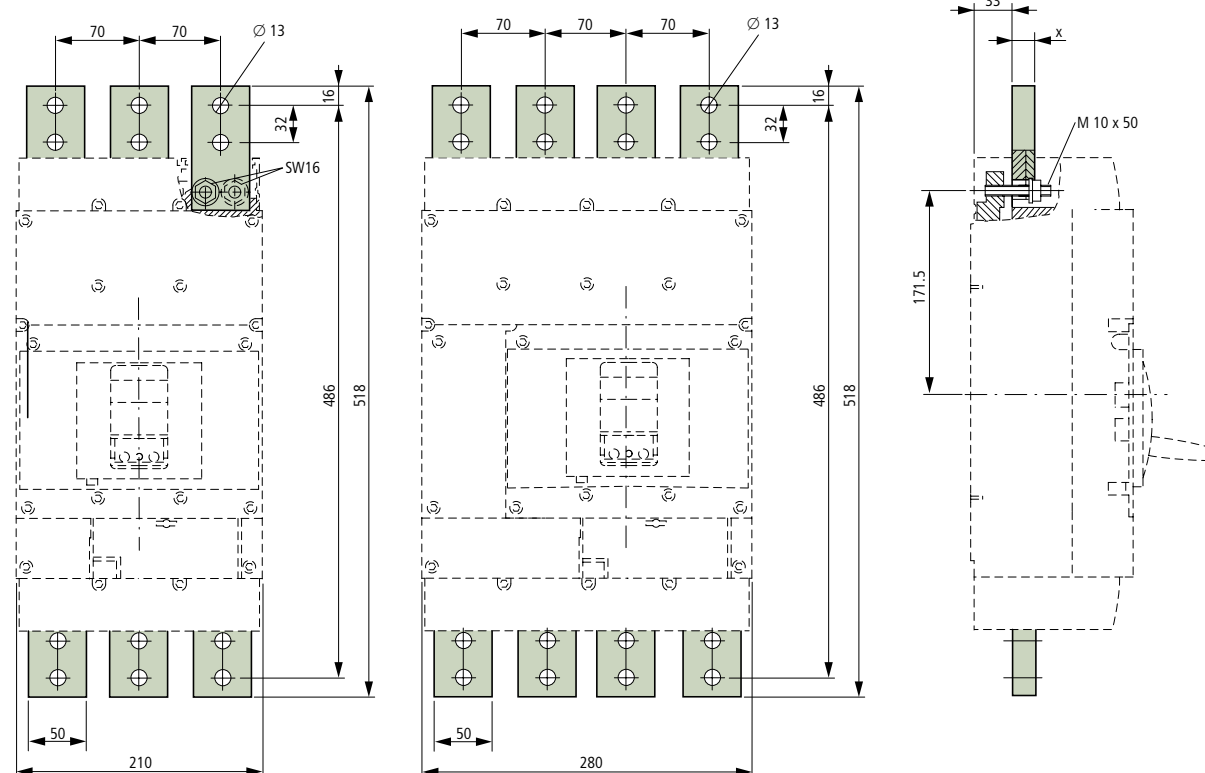


- ① 3-pole
- ② 4-pole
- ③ Clearance from conductive parts ≥ 100 mm up to 690 V; ≥ 200 mm up to 1000 V

	a	b
NZM4(-4)-XKM1	36	47
NZM4(-4)-XKM2	32	40
NZM4(-4)-XKB	—	47

Module plate 2-hole vertical

NZM4(-4)-XKM2S

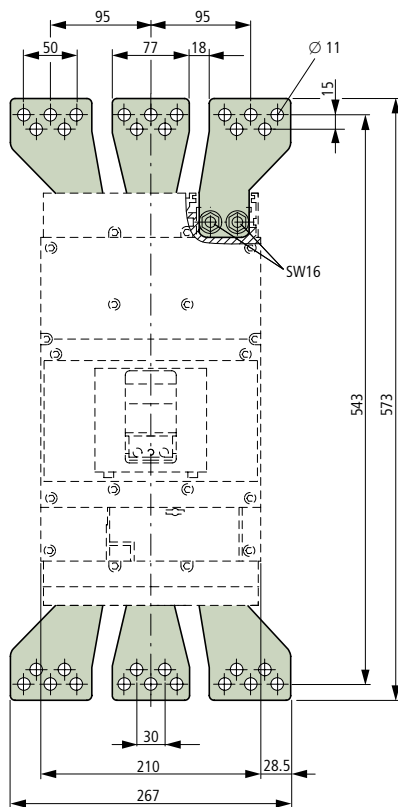


	x
NZM4(-4)-XKM2S-1250	12
NZM4(-4)-XKM2S-1600	20

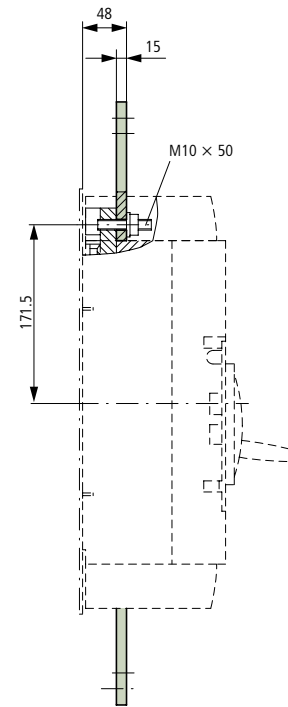
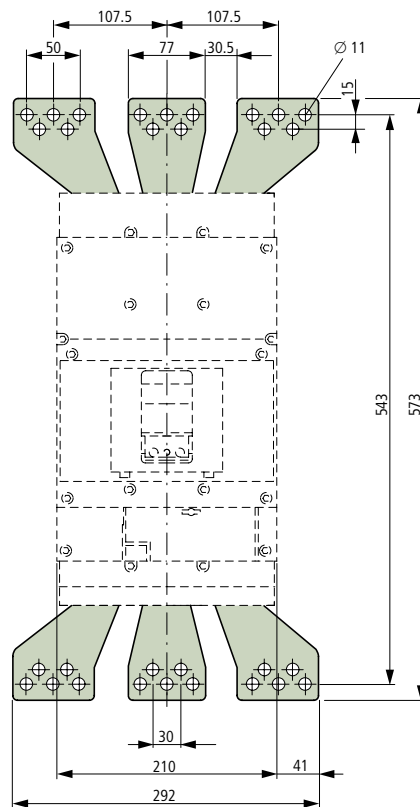
Moeller SK1230-1157GB-INT

Connection width extension

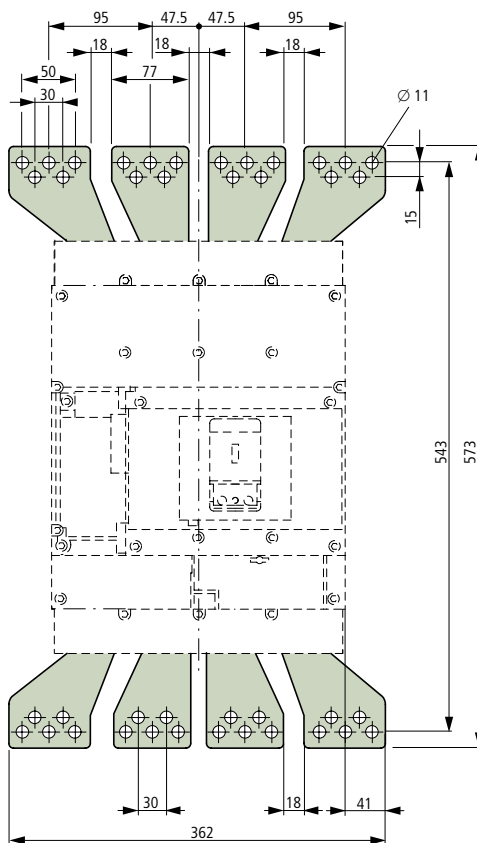
NZM4-XKV95



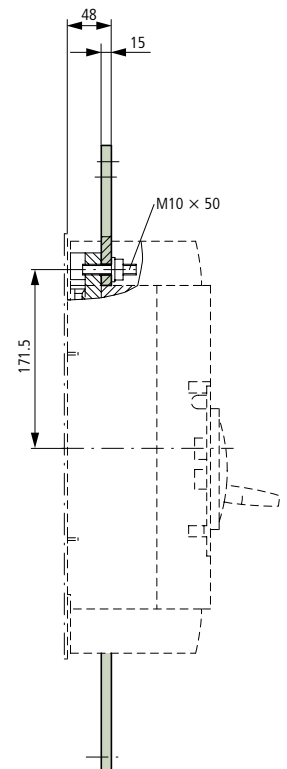
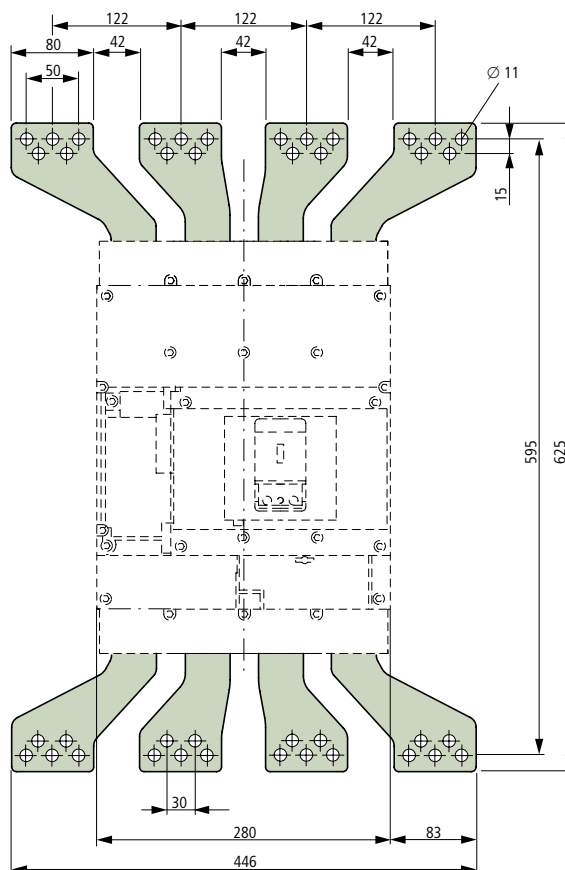
NZM4-XKV110



NZM4-4-XKV95

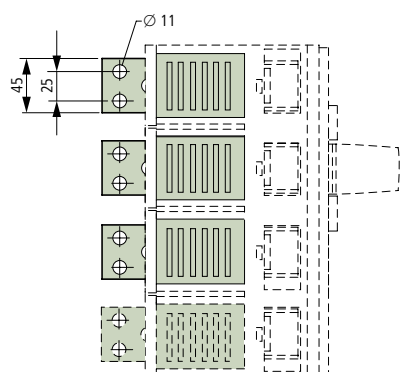
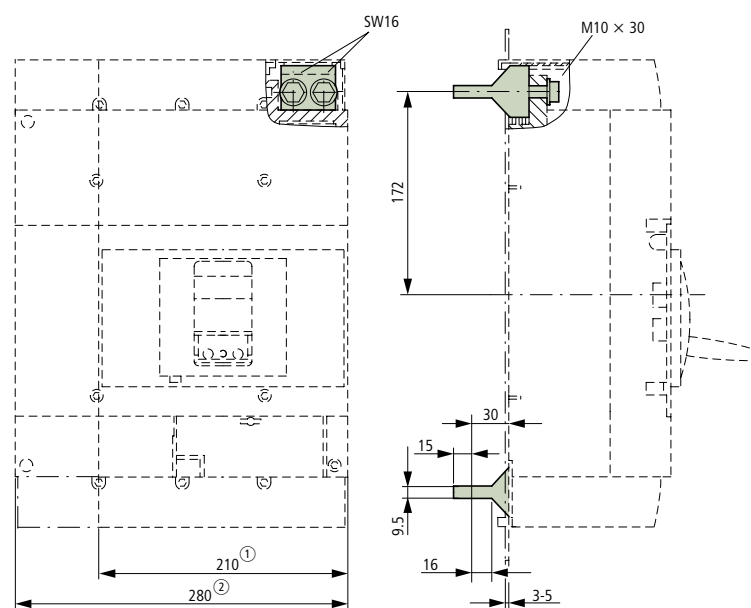


NZM4-4-XKV120

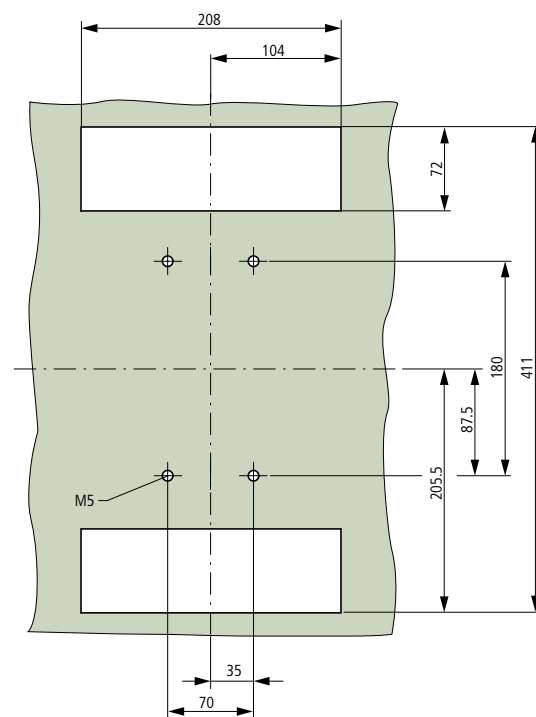
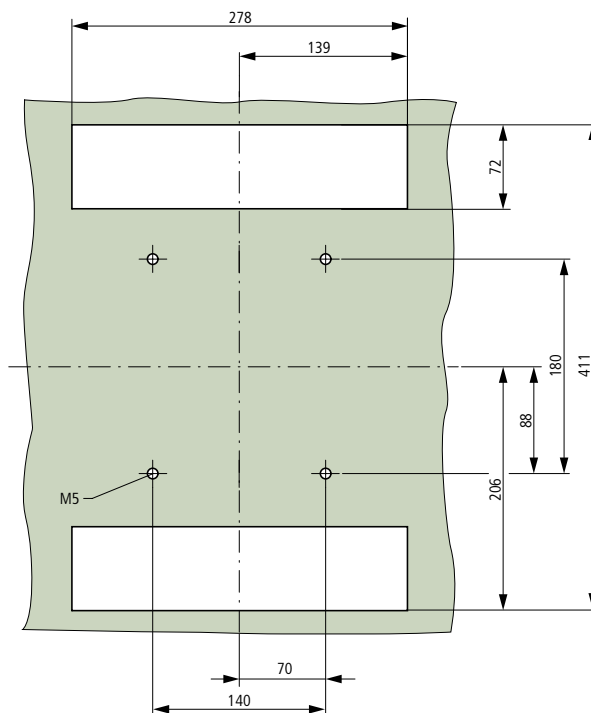


Connection on rear

NZM4(-4)-XKR



Fitting on mounting plate



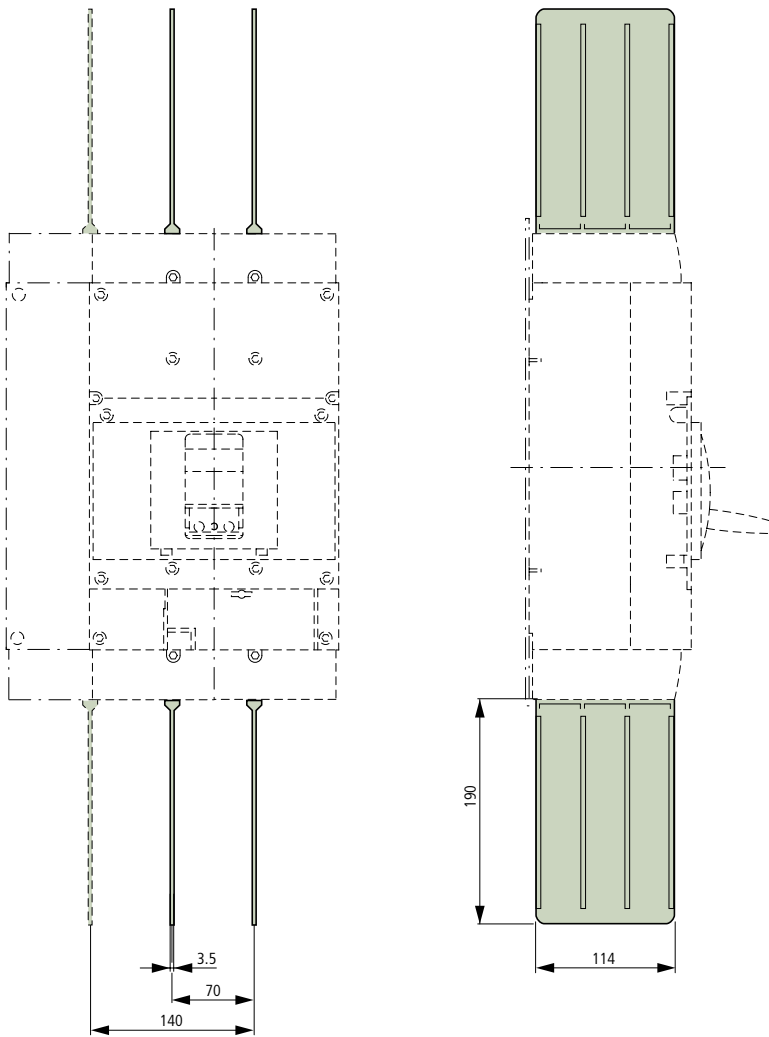
Rear connection possible also with rotation by 90°.

- ① 3-pole
- ② 4-pole

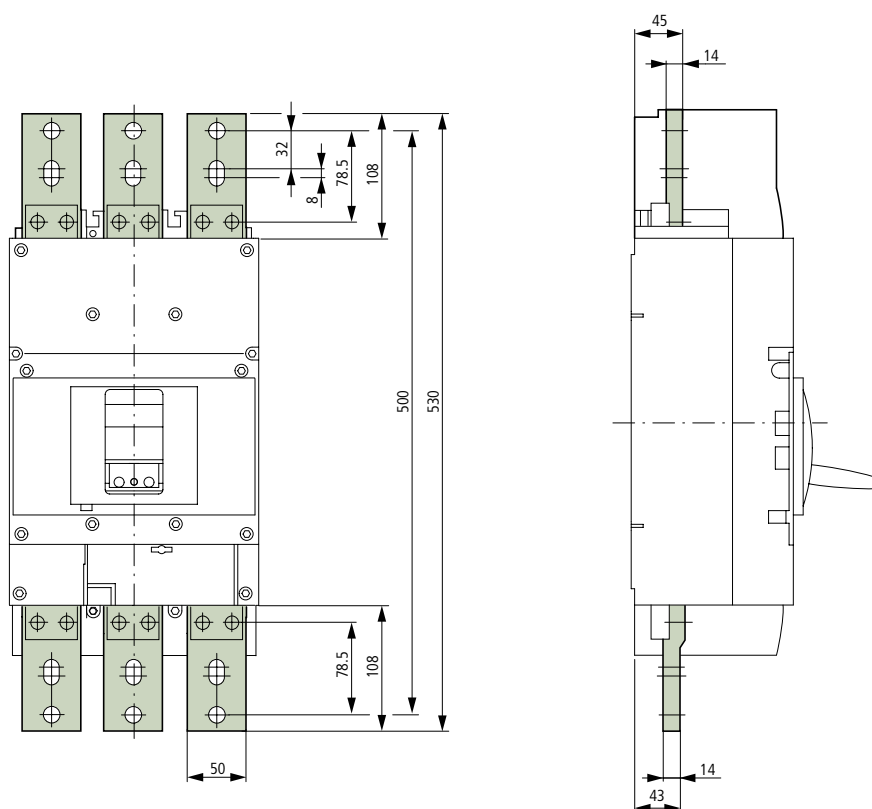
Moeller SK1230-1157GB-INT

Phase isolator

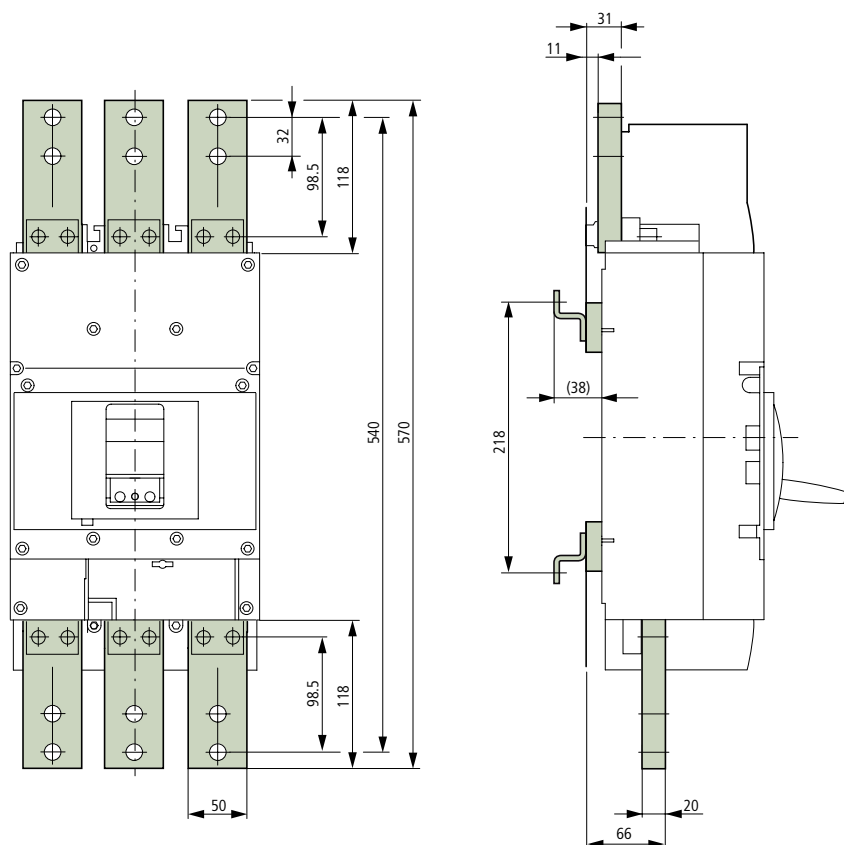
NZM4(-4)-XKP



Set of adapters NZM4-XAS14-1250

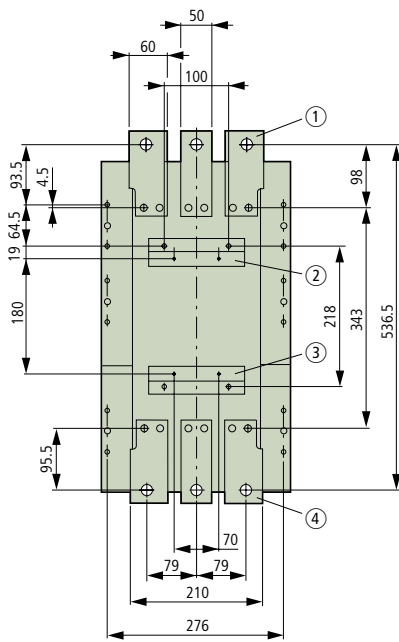


NZM4-XAS14-1600



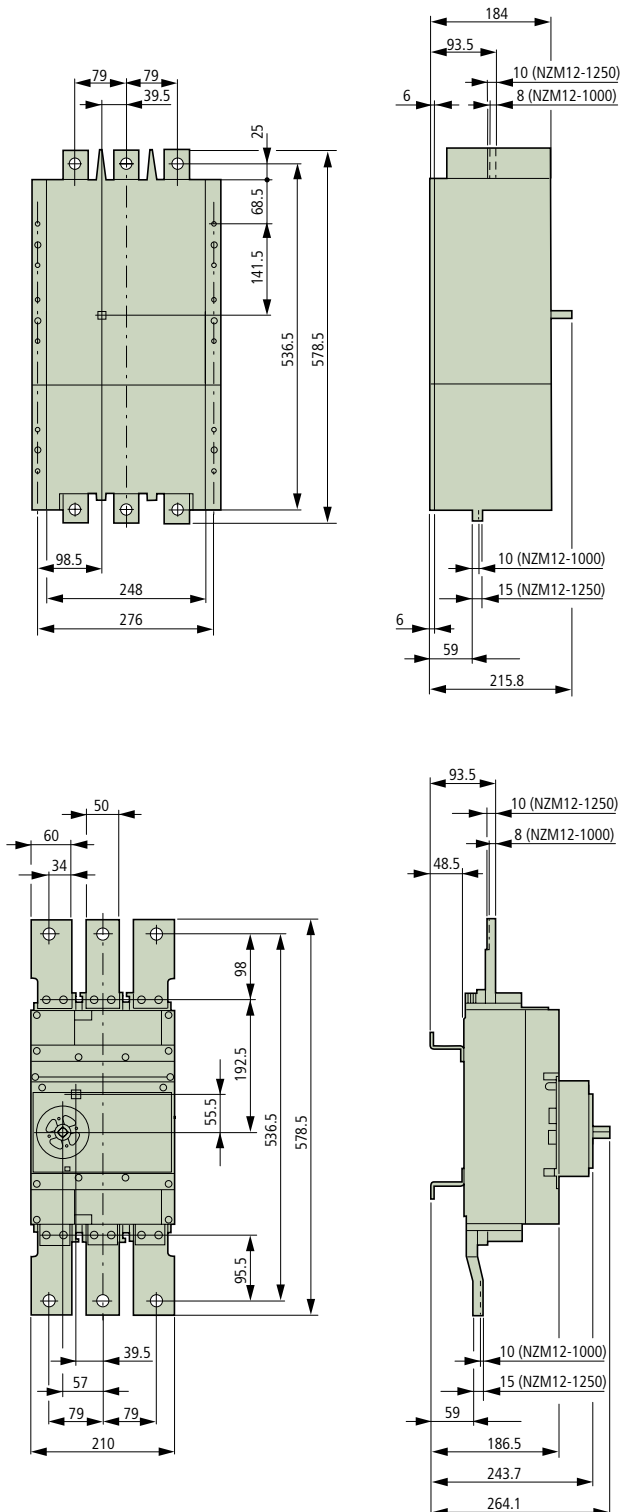
Moeller SK1230-1157GB-INT

Drilling template NZM12-1000 (1250) conversion to NZM4

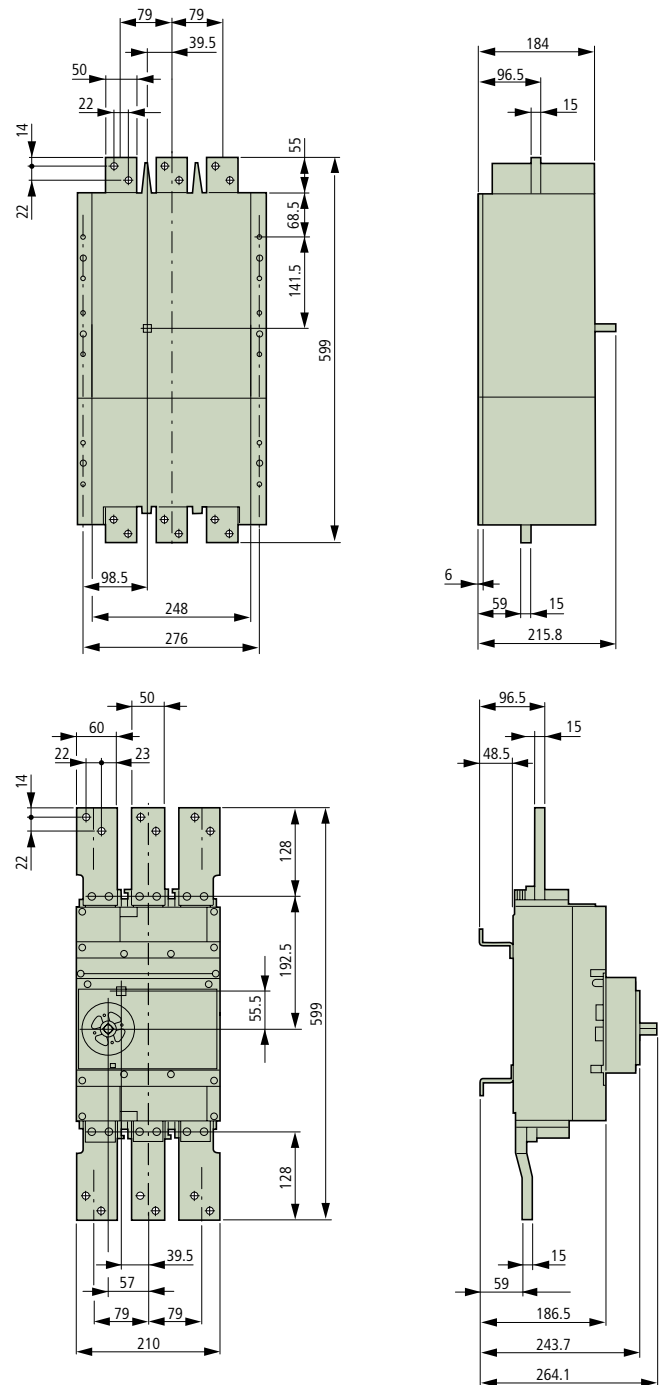


- ① Module plate NZM4-XAS12-1000(1250)
- ② Drilling dimensions for mounting bracket NZM4-XAS12(M5)
- ③ Mounting bracket NZM4-XAS12
- ④ DIN rail NZM12

Exchange of NZM12-1000(1250) by NZM4 with module plate,
fixed mounted on mounting plate
NZM4-XAS12-1000(1250)

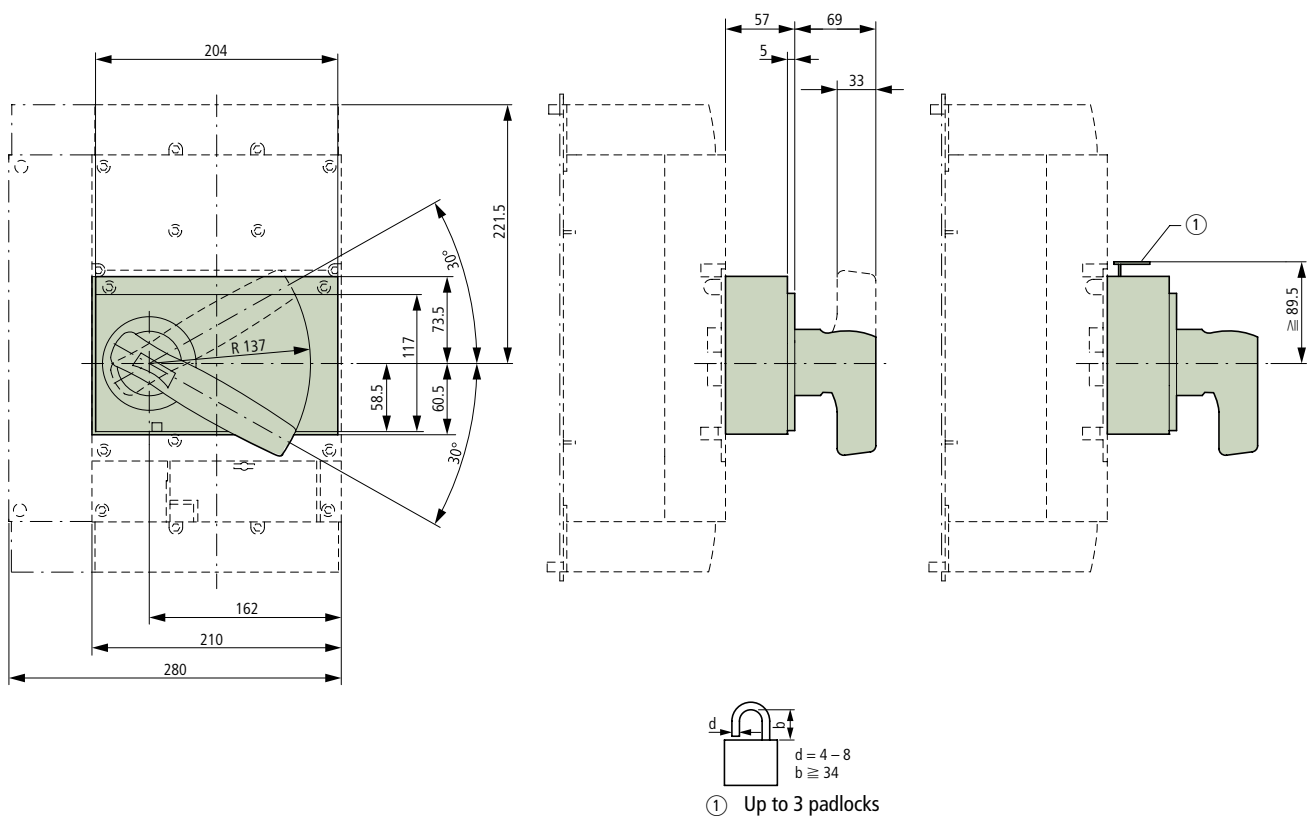


Exchange of NZM12-1600() by NZM4 with module plate,
fixed mounted on mounting plate
NZM4-XAS12-1600

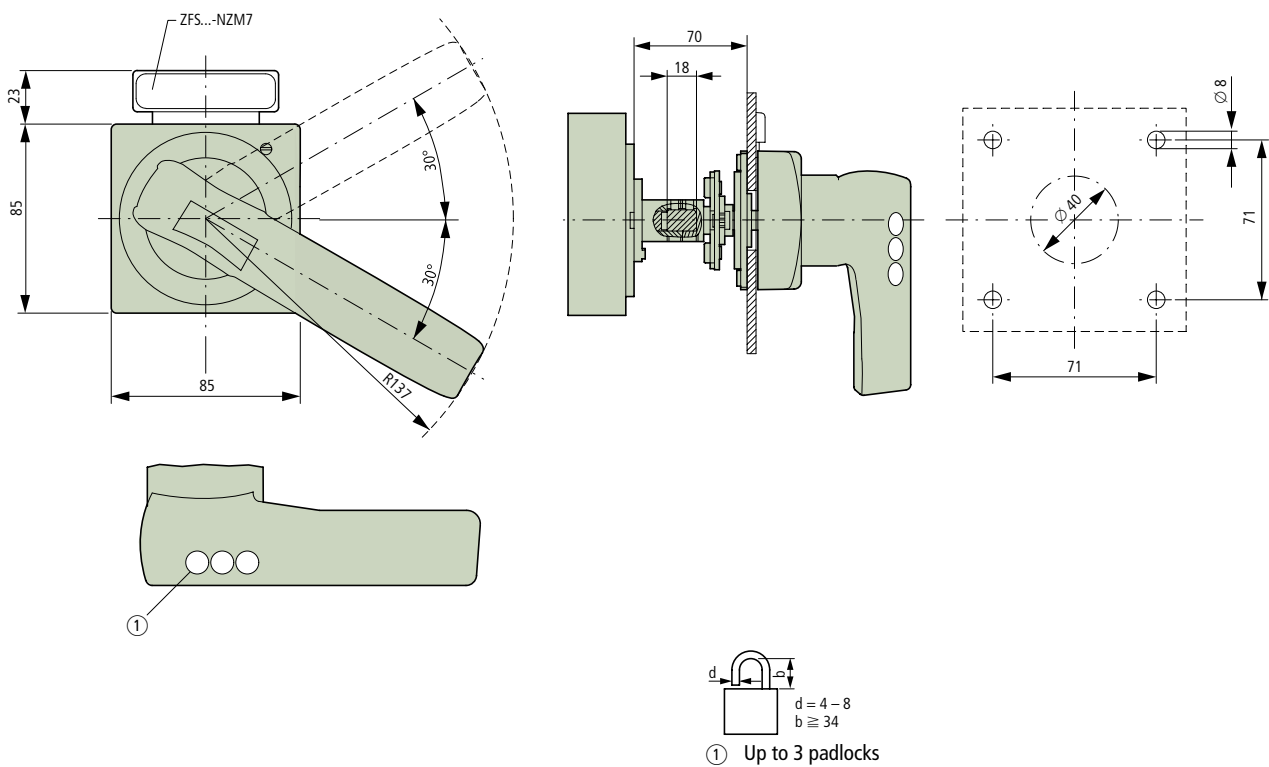


Moeller SK1230-1157GB-INT

Rotary handle on circuit-breaker
NZM4-XD(V)(R)

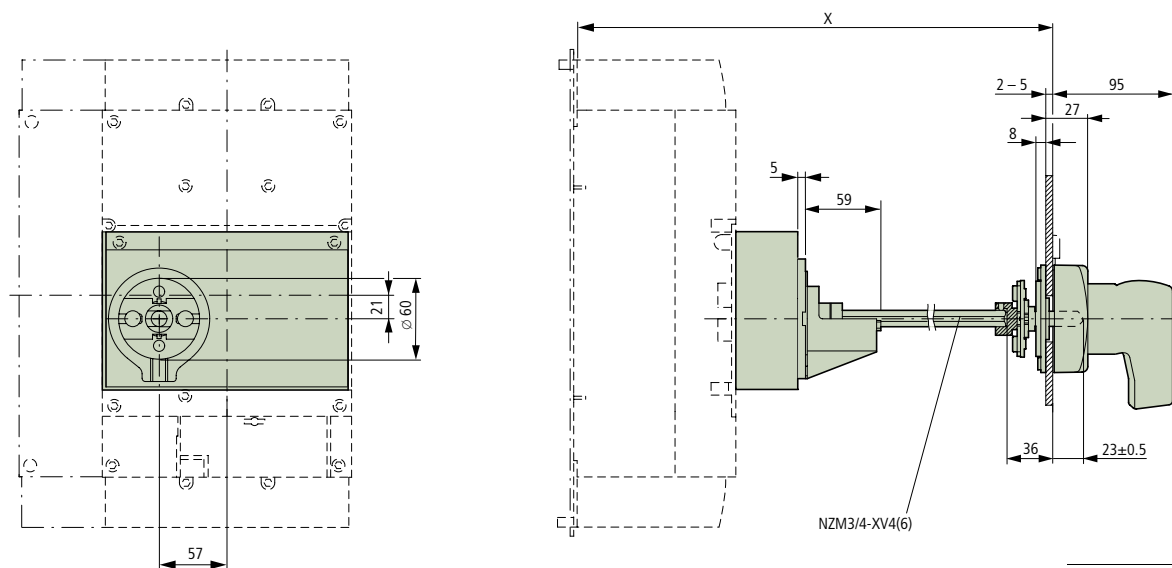


Door coupling rotary handle
NZM4-XT(V)D(V)(R)



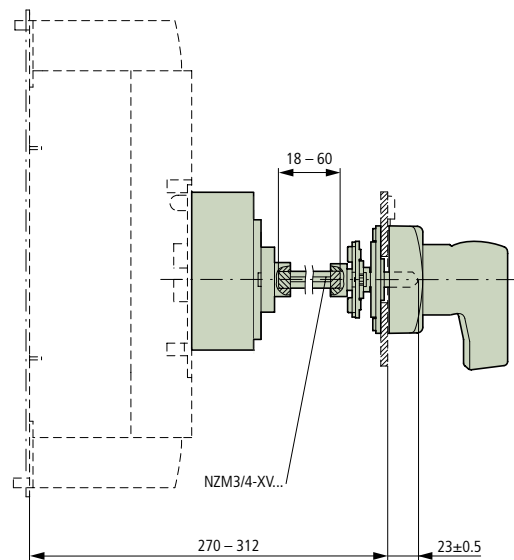
Door coupling rotary handle with extension shaft

NZM4-XT(V)D(V)(R)(-NA)
NZM3/4-XV4(6)

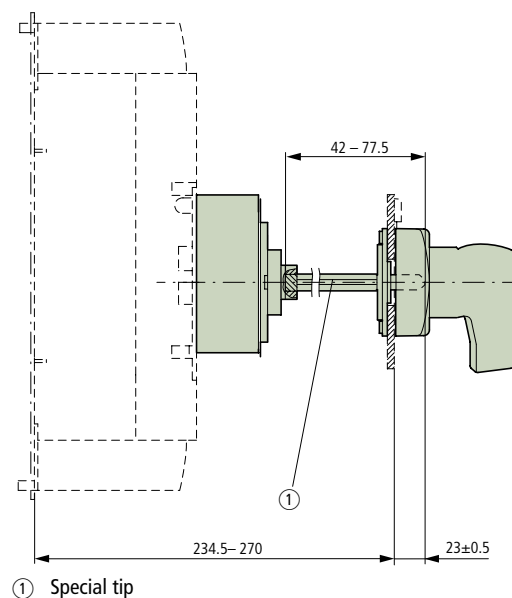


	x
NZM3/4-XV4	300 – 400
NZM3/4-XV6	400 – 600

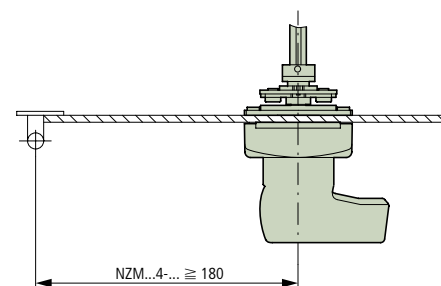
NZM4-XT(V)D(V)(R)-60(-NA)



NZM4-XT(V)D(V)(R)-0(-NA)



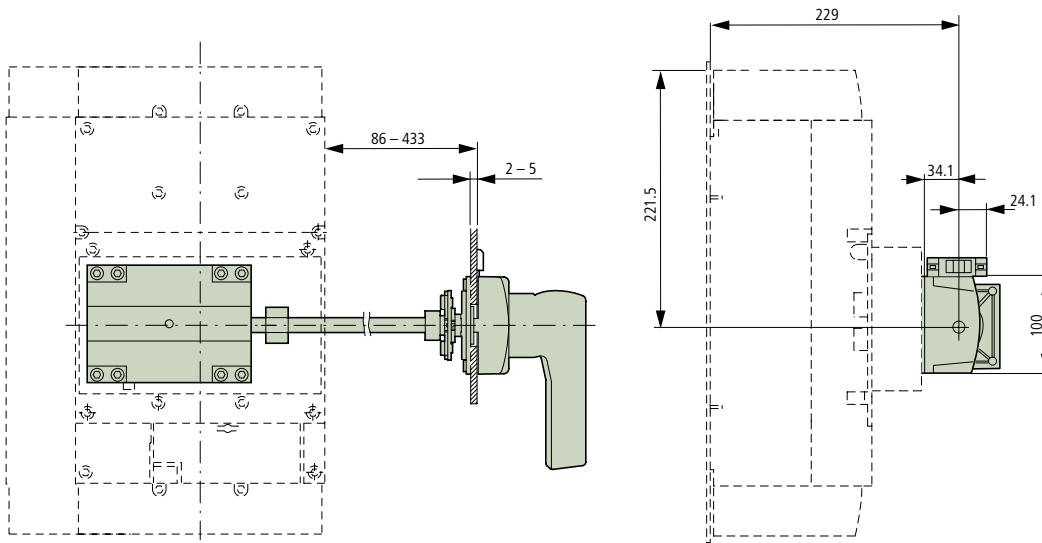
Minimum door coupling rotary handle clearance from door pivot point



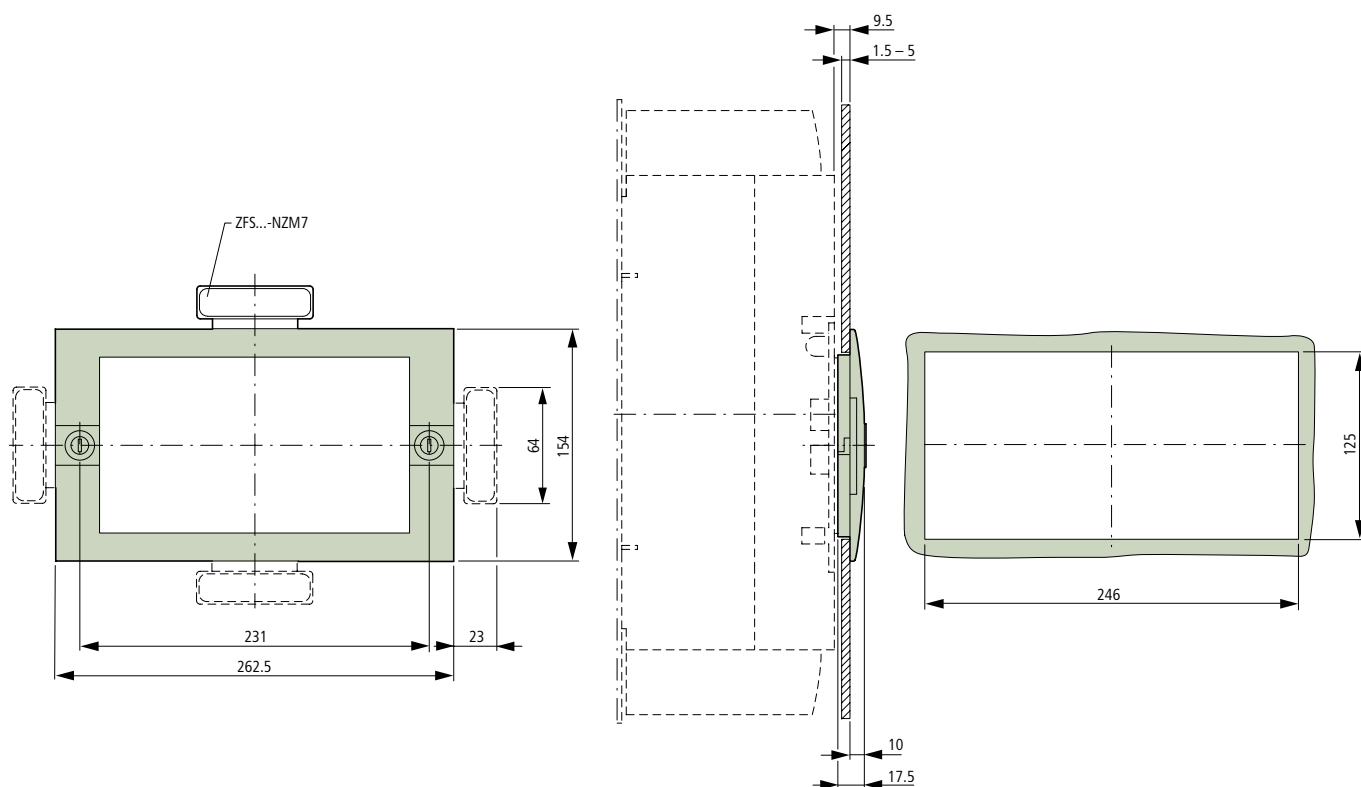
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Main switch assembly kit for side wall installation

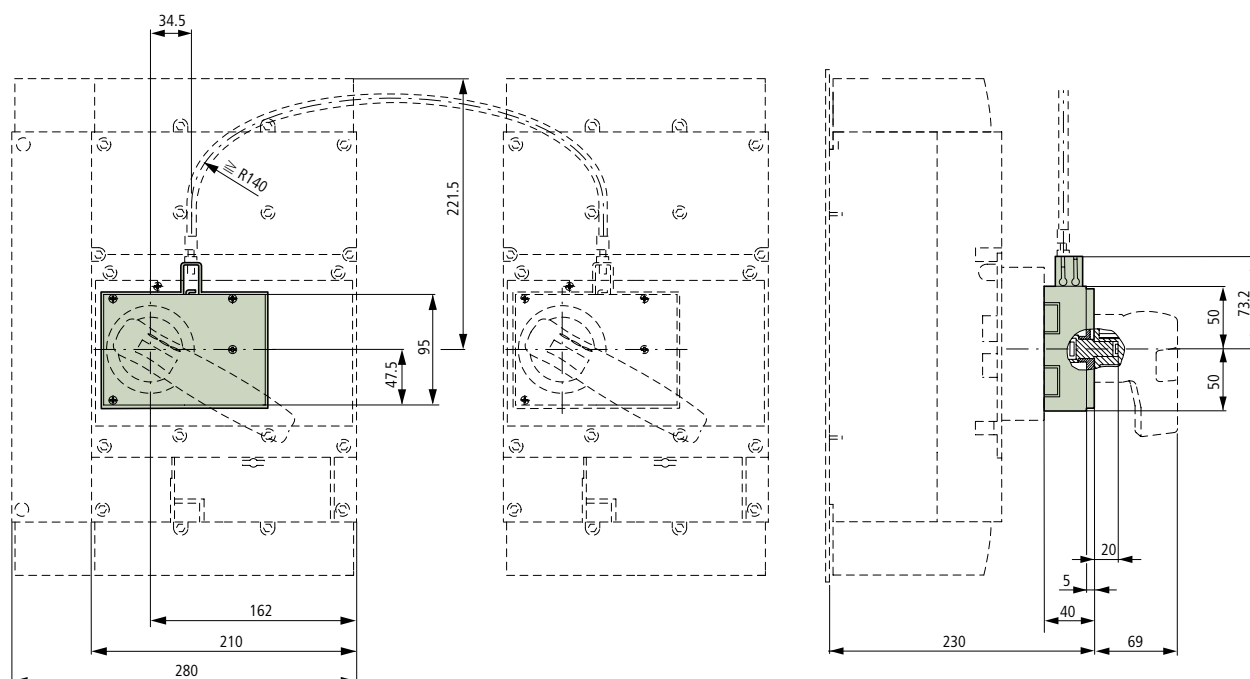
NZM4-XS(R)(F)-L
NZM4-XS(R)(F)-R



Insulating surround NZM4-XBR

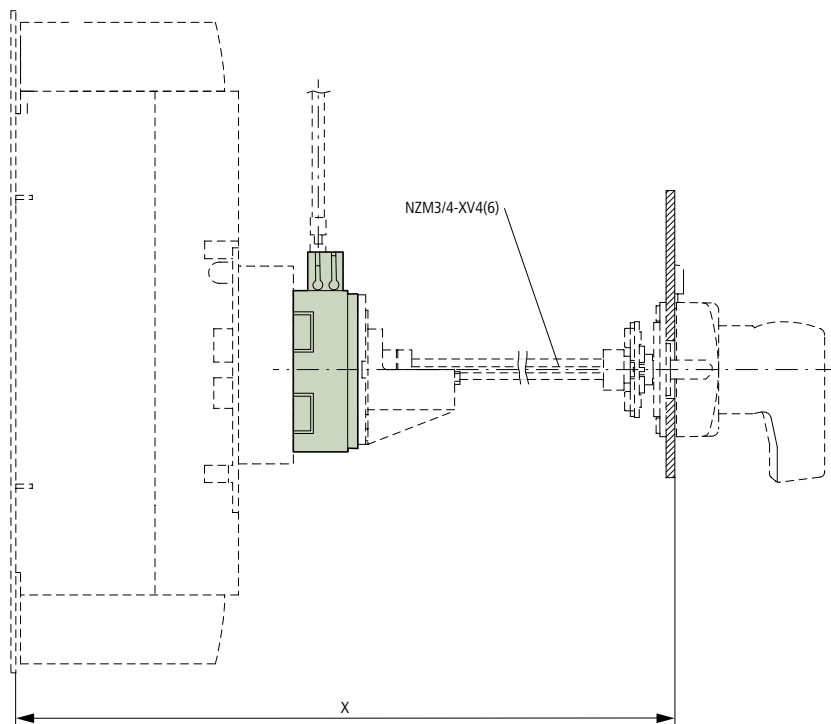


Mechanical interlock NZM4-XMV with NZM4-XD



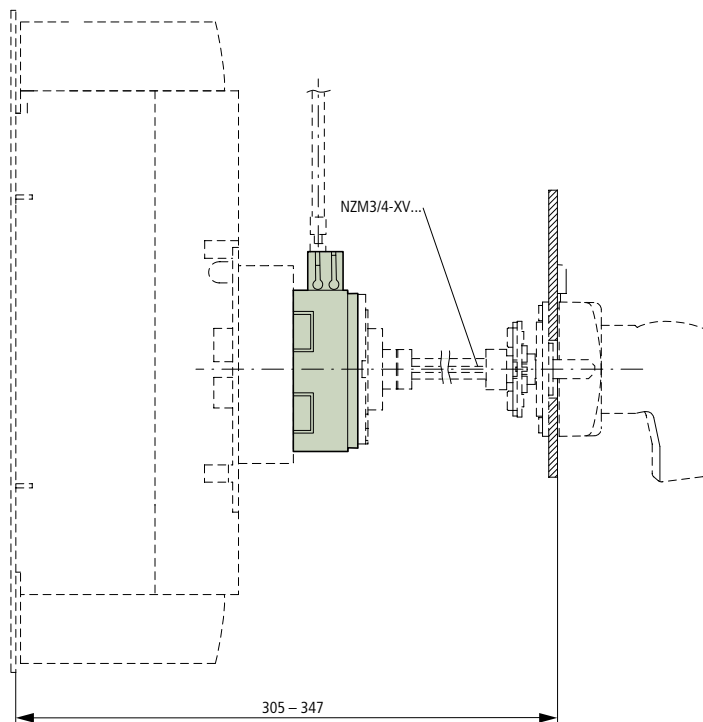
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NZM4-XMV with NZM4-XT(V)D(V)(R)



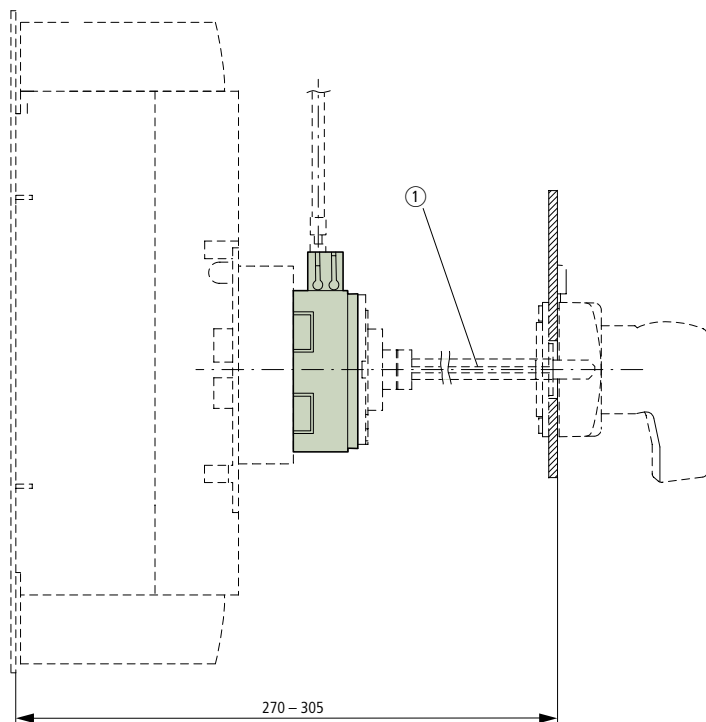
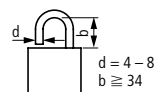
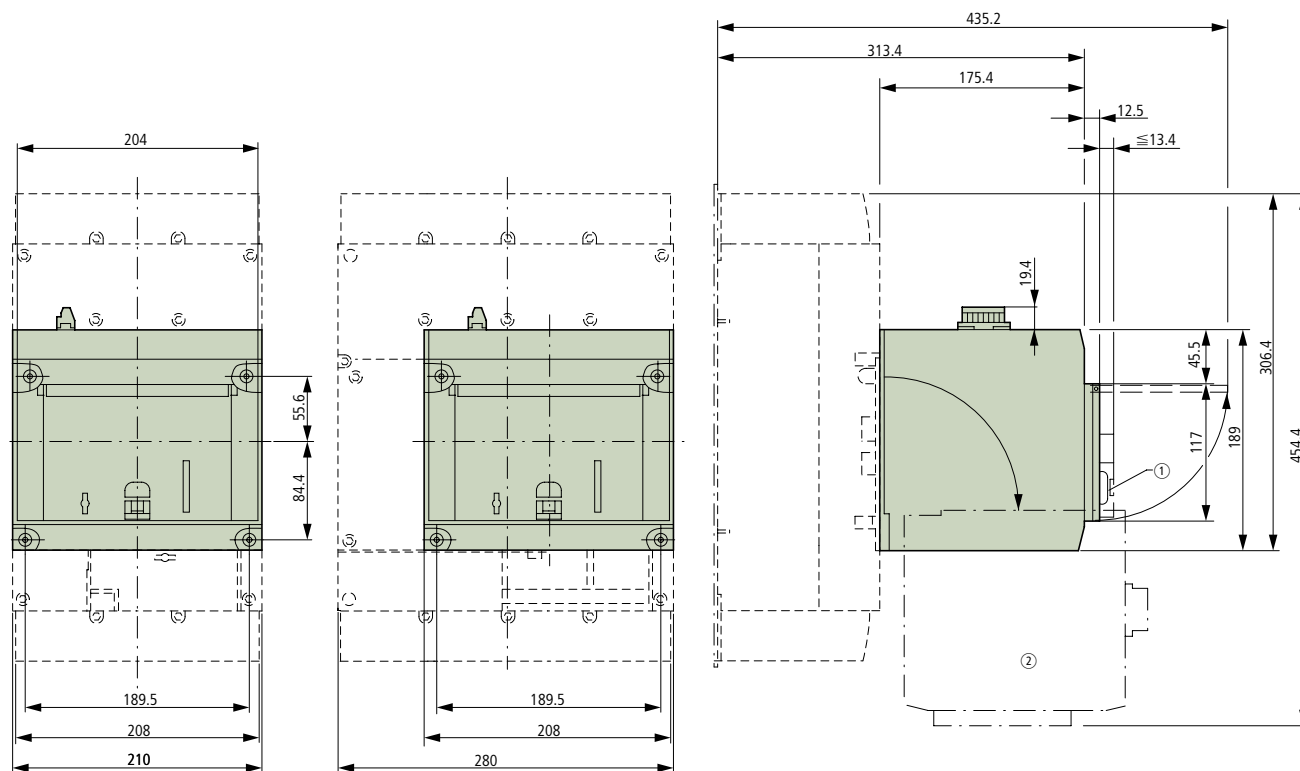
	x
NZM3/4-XV4	335 – 400
NZM3/4-XV6	400 – 600

NZM4-XMV with NZM4-XT(V)D(V)(R)-60



NZM4-XMV with NZM4-XT(V)D(V)(R)-0

① Special tip

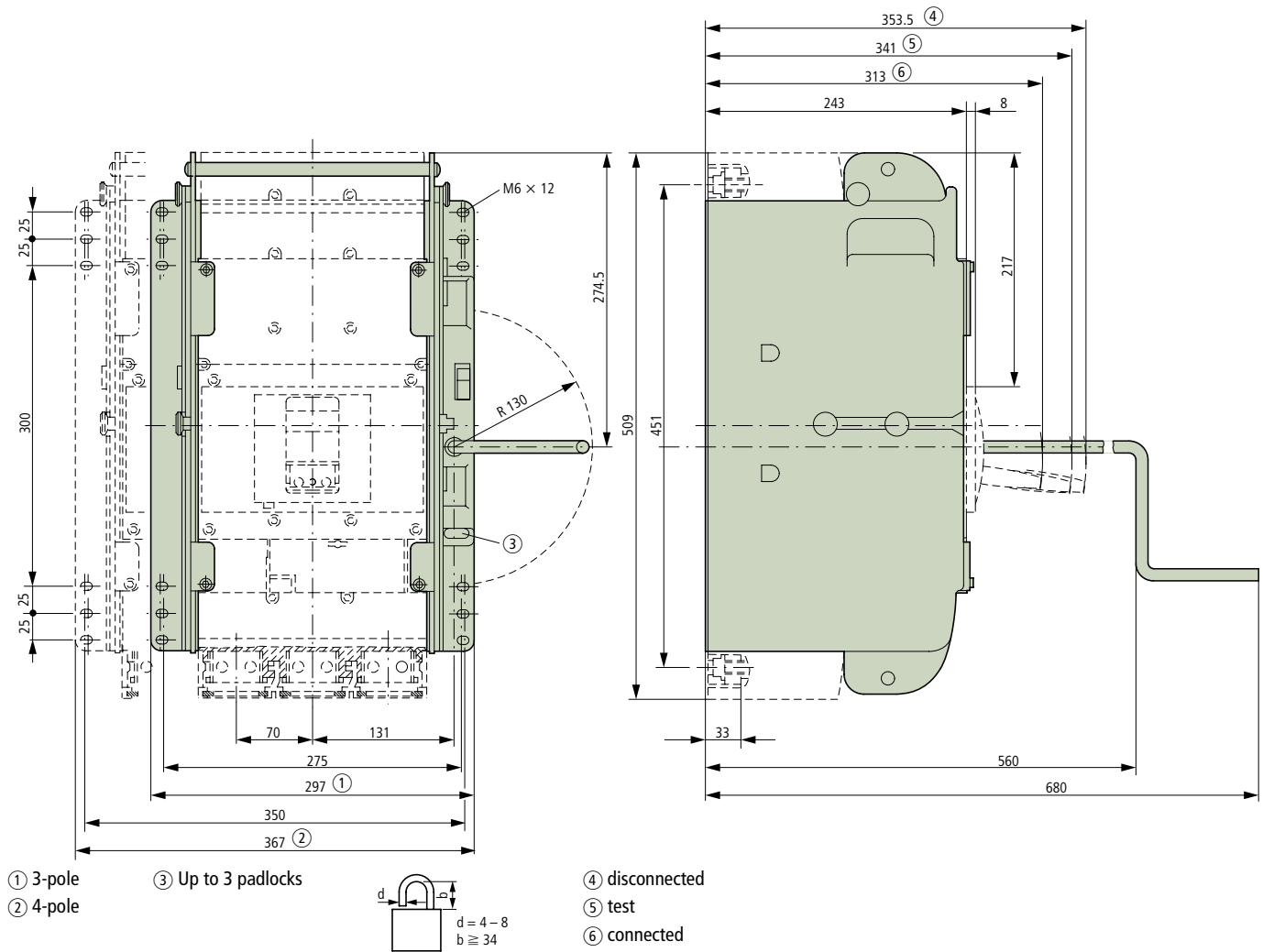

Remote operator
 NZM4-XR...


- ① Up to 3 padlocks
 ② Remote operator folded

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Withdrawable unit

+NZM4(-4)-XAV



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