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Compact circuit-breaker NZM up to 1600 A
Compact switch-disconnectors N, PN up to 1600 A

Safe energy control, switching and control in industrial settings, buildings and machinery construction: innovative protection concept coupled with diagnostic and communication functions make it possible.

The NZM circuit-breaker assortment offers an interface for the SmartWire-Darwin communication system. → Page 17/140

Model series NZM1 – NZM4
Only four compact switches cover all applications +++ 3- and 4-pole +++ Flexible mounting through modular functions groups +++ Complete nominal current up to 50 °C ambient temperature +++ Suitable for use worldwide → Page 17/4

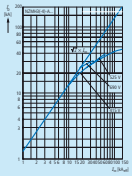
Door coupling rotary handles
Very wide range of variants for each application +++ All applications have identical drilling template +++ Automatic centering +++ Shaft support for years of operational safety +++ Sidewall installation for space-saving main switch installation → Page 17/118

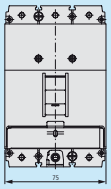
Standard auxiliary contacts, trip-indicator auxiliary contacts from the Eaton command device program.
Favorably priced identical parts from the Titan program reduce variety of types and stockkeeping +++ Installation from front to same position +++ Easy clip-in reduces assembling costs → Page 17/106

Remote operators
Unified functions concept for all variants +++ Small closing delays from 60 – 100 ms +++ Can be locked and sealed to provide safety → Page 17/134

Diagnostics software NZM-XPC-SOFT
Diagnostics in fault scenario +++ Error-free commissioning +++ Load analysis in operation → Page 17/138

Eaton After Sales Service
Testing switching devices in compliance with regulations applicable to this technology → S22/2





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xEnergy is a freely combinable range of system products for energy distribution systems – specially designed for infrastructures in buildings and industrial applications up to 4000 A. The Moeller xEnergy system – consisting of switching and protective devices, the mounting system, the switchboard, as well as the planning and calculation tool – is optimally tailored for safe and reliable energy distribution.

The optimum mechanical adaption of the switchboard components to the Moeller switchgear keeps mounting times short and ensures a high level of flexibility. Type-testing of the complete switchgear–mounting system–switchboard assemblies to IEC EN 60 439 ensures a high level of safety.

Moeller Configurator

Moeller Configurator

The software tool offers you the support you need for configuring the required xEnergy switchgear assembly simply and quickly. You can thus create your quotations and generate the exact parts list at the click of a mouse.

xEnergy Product features

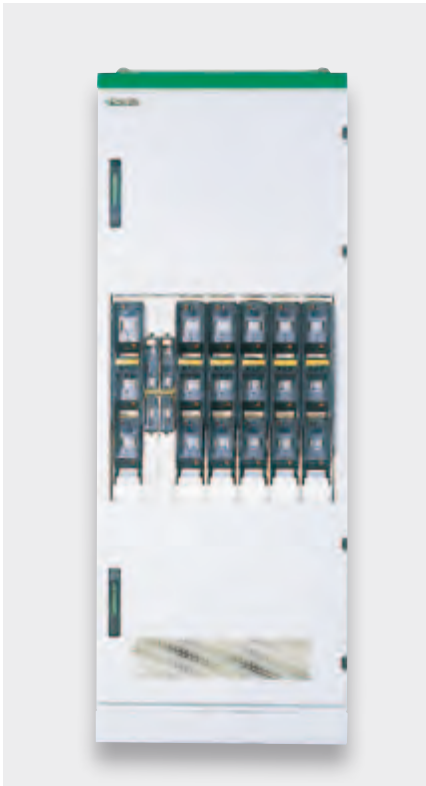
- Enclosures for combination- and separate mounting
- Protection type IP 31 or 55
- Main busbars up to 4000 A
- 2 main busbar systems can be integrated in each section
- Clear separation into functional areas to Form 1 up to Form 4b for increased personal and system protection
- Widths 425, 600, 800, 1000 und 1200 mm
- Height 2000 mm
- Color RAL 7035 (others possible)
- Mains system types TN-C, TN-C-S, TN-S, TT, IT
- Type-tested switchgear assembly (TSK) according to IEC/EN 60439-1
- Optimized for 3 and 4 pole switchgear from Moeller

IZM and NZM circuit-breakers for xEnergy XPower sections

- Clear and symmetrical design reduces the number of busbar connections and saves mounting time
- Simple installation with cable terminal system for drill-free connection in section width

NZM and PKZ circuit-breakers for xEnergy XFixed sections

- High packing density with up to 38 modules in one section thus optimum component utilization
- Flexible module mounting to Form 4 with individual swing front panels
- Simple module mounting to Form 2 on one mounting level
- Flexible combination of functional areas and busbars to IEC/EN 60439 and national installation practices



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Prefabricated energy and control distributions
Our system partner operate prefabricated energy and control distributions worldwide.

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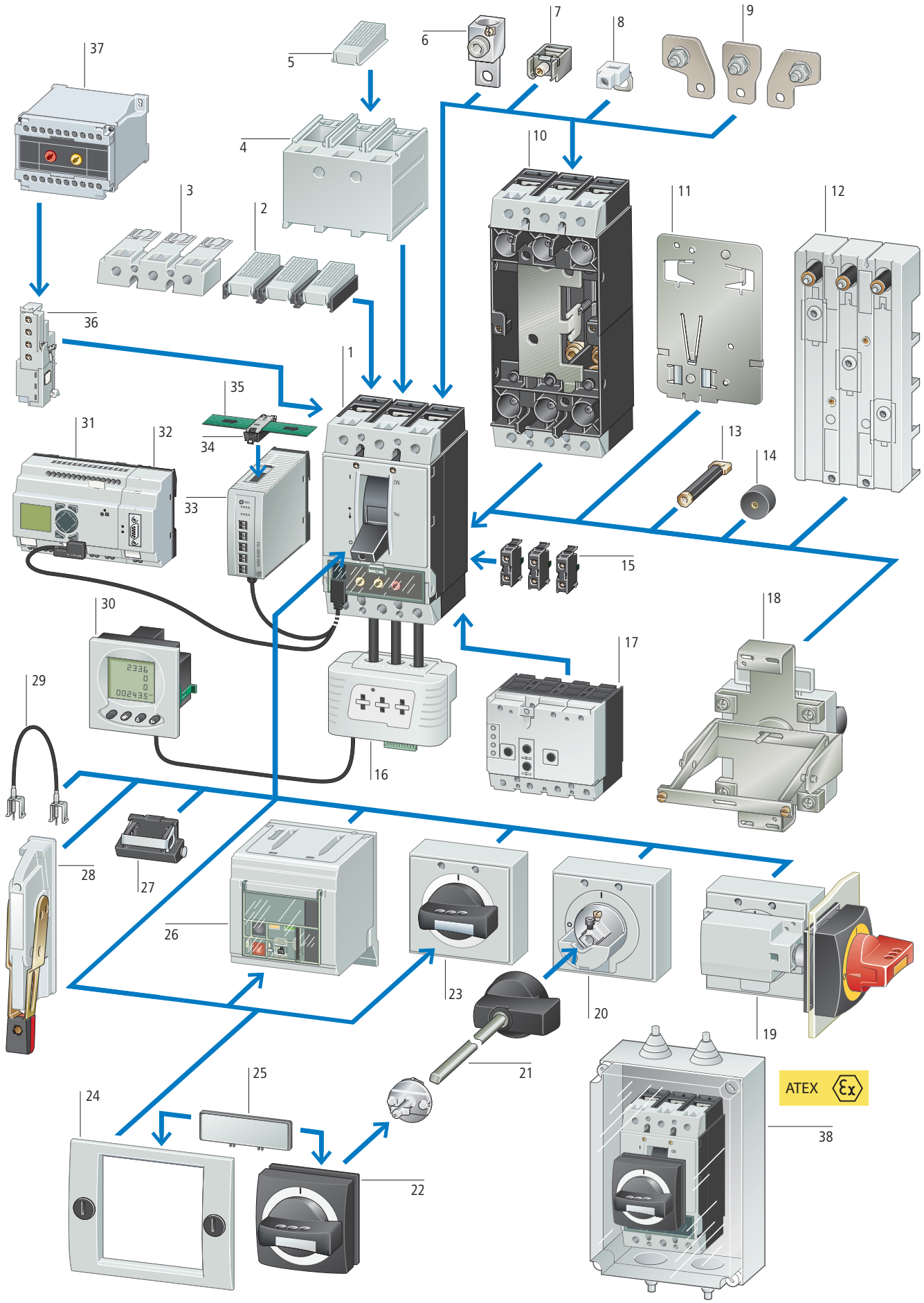
NZM

System overview



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Circuit-breakers

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

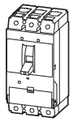
Rated uninterrupted current I_u = Rated current I_n Adjustable overload releases I_r Adjustable short-circuit releases I_i Delayed short-circuit releases I_{sd}	**Thermomagnetic releases**								
	System and cable protection					**Motor protection**			
	I_u	I_u	I_o	I_r	I_i	I_u	I_u	I_r	I_i
	A	A	A	A	A	A	A	A	A
Ambient temperature at 100% I_u min./max. -25/+50 °C	20	20		0.8 – 1 × I_n	350		20	0.8 – 1 × I_n	350
	25	25					25		
	32	32					32		10 – 14 × I_n
	40	40			8 – 10 × I_n	40	40		8 – 14 × I_n
	50	50			6 – 10 × I_n	50	50		
	63	63				63	63		
	80	80				80	80		
	100	100				**100**	100		NZM1: 8 – 12.5 × I_n NZM2: 8 – 14 × I_n
	125	125					125		8 – 14 × I_n
	160	160			NZM1: 8 × I_n 6 – 10 × I_n		160		
		200					**200**		
		250							
			320						
			400						
			500						

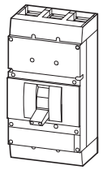
Basic switching capacity		**NZMB1-A...**		**NZMB2-A...**						**NZMB1-M...**		**NZMB2-M...**					
400/415 V	kA/p.f	25	0.25	25	0.25					25	0.25	25	0.25				
440 V	kA/p.f	25	0.25	25	0.25					25	0.25	25	0.25				
Comfort switching capacity		**NZMC1-A...**		**NZMC2-A...**		**NZMC3-A...**											
400/415 V	kA/p.f	36	0.25	36	0.25	36	0.25										
440 V	kA/p.f	30	0.25	30	0.25	30	0.25										
525 V	kA/p.f	12	0.5	12	0.5	12	0.5										
690 V	kA/p.f	8	0.5	8	0.5	8	0.5										
Normal switching capacity		**NZMN1-A...**		**NZMN2-A...**		**NZMN3-A...**				**NZMN1-M...**		**NZMN2-M...**					
400/415 V	kA/p.f	50	0.25	50	0.25	50	0.25			50	0.25	50	0.25				
440 V	kA/p.f	35	0.25	35	0.25	35	0.25			35	0.25	35	0.25				
525 V	kA/p.f	20	0.30	25	0.25	25	0.25			20	0.30	25	0.25				
690 V	kA/p.f	10	0.50	20	0.30	20	0.30			10	0.50	20	0.30				
High switching capacity		**NZMH1-A-...**		**NZMH2-A-...**		**NZMH3-A-...**						**NZMH2-M...**					
400/415 V	kA/p.f	100	0.20	150	0.20	150	0.20					150	0.20				
440 V	kA/p.f	35	0.25	130	0.20	130	0.20					130	0.20				
525 V	kA/p.f	20	0.30	50	0.25	65	0.20					50	0.25				
690 V	kA/p.f	10	0.50	20	0.30	35	0.25					20	0.30				

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

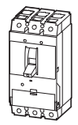
Switch-disconnectors

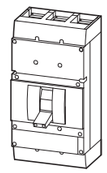
With main switch characteristics to IEC/EN 60204 and VDE 0113
Isolating characteristics to IEC/EN 60947, VDE 0660
without overload and short-circuit release





Rated uninterrupted current I_u = Rated current I_n		63 – **160**		160 – **250**		400 – **630**		630 – **1600**
Type N can be triggered with U/A shunt release		**PN1-...**	**N1-...**	**PN2-...**	**N2-...**	**PN3-...**	**N3-...**	**N4-...**
Rated short-circuit making capacity I_{cm}	kA	2.8	2.8	5.5	5.5	25	25	53
Rated short-time withstand current I_{cw} (1s-current$_{rms}$)	kA	2	2	3.5	3.5	12	12	25





Rated uninterrupted current I_u = Rated current I_n Adjustable overload releases I_r Adjustable short-circuit releases I_{sd} Delayed short-circuit releases I_i	**Electronic releases**								
	Systems, cable, selectivity and generator protection						**Motor protection**		
	I_u	I_u	I_u	I_r	I_{sd}	I_i	I_u	I_r	I_i
	A	A	A	A	A	A	A	A	A
	100	250		0.5 – 1 × I_n	2 – 10 × I_r	2 – 12 × I_n	90	0.5 – 1 × I_n	2 – 14 × I_r
	160	400					140		
	250	**630**	630				220		
			800				350		
			1000				450		
			1250		2 – 6 × I_r	2 – 8 × I_r	550		
			1600				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...**	
150	0.20	150	0.20	85[1]	0.20					150	0.20	150	0.20	85[1]	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	0.30	50	0.25					20	0.30	35	0.30	50	0.25

A selection of approved circuit-breakers and switch-disconnectors for world-wide use → Page 17/54

[1] For higher switching capacity please inquire

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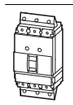
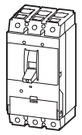
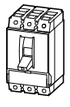
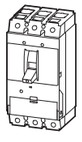
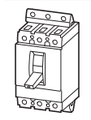
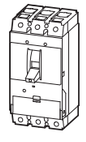
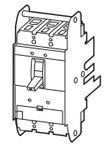
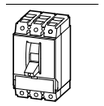
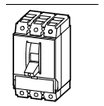
Ordering

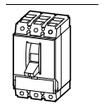
	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals		
			Overload releases	Short-circuit releases	**Part no.** Article no.	**Price** See price list	
				Non-delayed			
	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...			
	kA	A	A				
System and cable protection							
Basic switching capacity							
	**25**	20	15-20	350 A fixed	Screw terminals as accessories		
		25	20-25	350 A fixed			
		32	25-32	350 A fixed			
		40	32-40	8-10			
		50	40-50	6-10			
		63	50-63	6-10			
		80	63-80	6-10			
		100	80-100	6-10			
		125	100-125	6-10			
		160	125-160	1280 A fixed			
		160	125-160	6-10	**NZMB2-A160** 259088		S
		200	160-200	6-10	**NZMB2-A200** 259089		S
		250	200-250	6-10	**NZMB2-A250** 259090		S
		300	240-300	6-10	**NZMB2-A300** 107518		S
Comfort switching capacity							
	**36**	20	15-20	350 A fixed	Screw terminals as accessories		
		25	20-25	350 A fixed			
		32	25-32	350 A fixed			
		40	32-40	8-10			
		50	40-50	6-10			
		63	50-63	6-10			
		80	63-80	6-10			
		100	80-100	6-10			
		125	100-125	6-10			
		160	125-160	1280 A fixed			

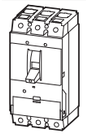
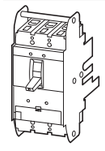
Fixed mounting with box terminals				**Plug-in units**				
Part no. Article no.	**Price** See price list			**Part no.** Article no. Order base separately	**Price** See price list		Std. pack	**Notes**
								B = box terminals **S = screw terminals** For further terminal types see accessories
NZMB1-A20 280987		B		**NZMB1-A20-SVE** 112733			1 off	IEC/EN 60947-2
NZMB1-A25 280988		B		**NZMB1-A25-SVE** 112734				
NZMB1-A32 280989		B		**NZMB1-A32-SVE** 112735				
NZMB1-A40 259075		B		**NZMB1-A40-SVE** 112703				
NZMB1-A50 259076		B		**NZMB1-A50-SVE** 112704				
NZMB1-A63 259077		B		**NZMB1-A63-SVE** 112705				
NZMB1-A80 259078		B		**NZMB1-A80-SVE** 112706				
NZMB1-A100 259079		B		**NZMB1-A100-SVE** 112707				
NZMB1-A125 259080		B		**NZMB1-A125-SVE** 112708				
NZMB1-A160 281230		B		–				
NZMB2-A160-BT 110215		B		**NZMB2-A160-SVE** 113193				
NZMB2-A200-BT 110216		B		**NZMB2-A200-SVE** 113194				
NZMB2-A250-BT 110217		B		**NZMB2-A250-SVE** 113195				
NZMB2-A300-BT 110214		B		–				
NZMC1-A20 283293		B		**NZMC1-A20-SVE** 112753			1 off	IEC/EN 60947-2
NZMC1-A25 283294		B		**NZMC1-A25-SVE** 112754				
NZMC1-A32 283295		B		**NZMC1-A32-SVE** 112755				
NZMC1-A40 271392		B		**NZMC1-A40-SVE** 112737				
NZMC1-A50 271393		B		**NZMC1-A50-SVE** 112738				
NZMC1-A63 271394		B		**NZMC1-A63-SVE** 112739				
NZMC1-A80 271395		B		**NZMC1-A80-SVE** 112740				
NZMC1-A100 271396		B		**NZMC1-A100-SVE** 112741				
NZMC1-A125 271397		B		**NZMC1-A125-SVE** 112742				
NZMC1-A160 283296		B		–				

	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in units** **Part no.** Article no. Order base separately	**Price** See price list	Std. pack	**Notes**
			Overload releases	Short-circuit releases Non-delayed										
	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x ...										
System and cable protection														**B = box terminals** **S = screw terminals** For further terminal types see accessories
Comfort switching capacity														
	**36**	160	125-160	6-10	**NZMC2-A160** 271421		S	**NZMC2-A160-BT** 110219		B	**NZMC2-A160-SVE** 113220		1 off	IEC/EN 60947-2
		200	160-200	6-10	**NZMC2-A200** 271422		S	**NZMC2-A200-BT** 110280		B	**NZMC2-A200-SVE** 113221			
		250	200-250	6-10	**NZMC2-A250** 271423		S	**NZMC2-A250-BT** 110281		B	**NZMC2-A250-SVE** 113222			
		300	240-300	6-10	**NZMC2-A300** 107519		S	**NZMC2-A300-BT** 110218		B	–			
		320	250-320	6-10	**NZMC3-A320** 109665		S	**NZMC3-A320-BT** 110299		B	**NZMC3-A320-AVE** 113509			
		400	320-400	6-10	**NZMC3-A400** 109666		S	**NZMC3-A400-BT** 110300		B	**NZMC3-A400-AVE** 113510			
		500	400-500	6-10	**NZMC3-A500** 109667		S	**NZMC3-A500-BT** 110301		B	**NZMC3-A500-AVE** 113511			
Normal switching capacity														
	**50**	20	15-20	350 A fixed	Screw terminals as accessories			**NZMN1-A20** 281231		B	**NZMN1-A20-SVE** 112776		1 off	IEC/EN 60947-2
		25	20-25	350 A fixed				**NZMN1-A25** 281232		B	**NZMN1-A25-SVE** 112777			
		32	25-32	350 A fixed				**NZMN1-A32** 281233		B	**NZMN1-A32-SVE** 112778			
		40	32-40	8-10				**NZMN1-A40** 259081		B	**NZMN1-A40-SVE** 112757			
		50	40-50	6-10				**NZMN1-A50** 259082		B	**NZMN1-A50-SVE** 112758			
		63	50-63	6-10				**NZMN1-A63** 259083		B	**NZMN1-A63-SVE** 112759			
		80	63-80	6-10				**NZMN1-A80** 259084		B	**NZMN1-A80-SVE** 112760			
		100	80-100	6-10				**NZMN1-A100** 259085		B	**NZMN1-A100-SVE** 112761			
		125	100-125	6-10				**NZMN1-A125** 259086		B	**NZMN1-A125-SVE** 112762			
		160	125-160	1280 A fixed				**NZMN1-A160** 281234		B	–			
		160	125-160	6-10	**NZMN2-A160** 259092		S	**NZMN2-A160-BT** 110283		B	**NZMN2-A160-SVE** 113244			IEC/EN 60947-2
		200	160-200	6-10	**NZMN2-A200** 259093		S	**NZMN2-A200-BT** 110284		B	**NZMN2-A200-SVE** 113245			
		250	200-250	6-10	**NZMN2-A250** 259094		S	**NZMN2-A250-BT** 110285		B	**NZMN2-A250-SVE** 113246			
		300	240-300	6-10	**NZMN2-A300** 107580		S	**NZMN2-A300-BT** 110282		B	–			
		320	250-320	6-10	**NZMN3-A320** 109669		S	**NZMN3-A320-BT** 110302		B	**NZMN3-A320-AVE** 110858			
		400	320-400	6-10	**NZMN3-A400** 109670		S	**NZMN3-A400-BT** 110303		B	**NZMN3-A400-AVE** 110859			
		500	400-500	6-10	**NZMN3-A500** 109671		S	**NZMN3-A500-BT** 110304		B	**NZMN3-A500-AVE** 110860			

	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals		**Fixed mounting** with box terminals			**Plug-in units**			Std. pack	**Notes**
			Overload releases	Short-circuit releases	**Part no.** Article no.	**Price** See price list	**Part no.** Article no.	**Price** See price list		**Part no.** Article no. Order base separately	**Price** See price list			**B = box terminals** **S = screw terminals** For further terminal types see accessories
				Non-delayed										
	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x ...										
System and cable protection														
High switching capacity														
	**100**	20	15-20	350 A fixed	Screw terminals as accessories		**NZMH1-A20** 284376		B		**NZMH1-A20-SVE** 112795		1 off	IEC/EN 60947-2
		25	20-25	350 A fixed			**NZMH1-A25** 284377		B		**NZMH1-A25-SVE** 112796			
		32	25-32	350 A fixed			**NZMH1-A32** 284378		B		**NZMH1-A32-SVE** 112797			
		40	32-40	8-10			**NZMH1-A40** 284379		B		**NZMH1-A40-SVE** 112798			
		50	40-50	6-10			**NZMH1-A50** 284410		B		**NZMH1-A50-SVE** 112799			
		63	50-63	6-10			**NZMH1-A63** 284411		B		**NZMH1-A63-SVE** 112800			
		80	63-80	6-10			**NZMH1-A80** 284412		B		**NZMH1-A80-SVE** 112801			
		100	80-100	6-10			**NZMH1-A100** 284413		B		**NZMH1-A100-SVE** 112802			
		125	100-125	6-10			**NZMH1-A125** 284414		B		**NZMH1-A125-SVE** 112803			
		160	125-160	1280 A fixed			**NZMH1-A160** 284415		B		–			
	**150**	20	15-20	350 A fixed	**NZMH2-A20** 281281		**NZMH2-A20-BT** 110296		B		**NZMH2-A20-SVE** 113351		1 off	
		25	20-25	6-10	**NZMH2-A25** 281282		**NZMH2-A25-BT** 110297		B		**NZMH2-A25-SVE** 113352			
		32	25-32	350 A fixed	**NZMH2-A32** 281283		**NZMH2-A32-BT** 110298		B		**NZMH2-A32-SVE** 113353			
		40	32-40	8-10	**NZMH2-A40** 259095		**NZMH2-A40-BT** 110287		B		**NZMH2-A40-SVE** 113328			
		50	40-50	6-10	**NZMH2-A50** 259096		**NZMH2-A50-BT** 110288		B		**NZMH2-A50-SVE** 113329			
		63	50-63	6-10	**NZMH2-A63** 259097		**NZMH2-A63-BT** 110289		B		**NZMH2-A63-SVE** 113330			
		80	63-80	6-10	**NZMH2-A80** 259098		**NZMH2-A80-BT** 110290		B		**NZMH2-A80-SVE** 113331			
		100	80-100	6-10	**NZMH2-A100** 259099		**NZMH2-A100-BT** 110291		B		**NZMH2-A100-SVE** 113332			
		125	100-125	6-10	**NZMH2-A125** 259100		**NZMH2-A125-BT** 110292		B		**NZMH2-A125-SVE** 113333			
		160	125-160	6-10	**NZMH2-A160** 259101		**NZMH2-A160-BT** 110293		B		**NZMH2-A160-SVE** 113334			
		200	160-200	6-10	**NZMH2-A200** 259102		**NZMH2-A200-BT** 110294		B		**NZMH2-A200-SVE** 113335			
		250	200-250	6-10	**NZMH2-A250** 259103		**NZMH2-A250-BT** 110295		B		**NZMH2-A250-SVE** 113336			
		300	240-300	6-10	**NZMH2-A300** 107581		**NZMH2-A300-BT** 110286		B		–			
		320	250-320	6-10	**NZMH3-A320** 109673		**NZMH3-A320-BT** 110305		B		**NZMH3-A320-AVE** 110861			
		400	320-400	6-10	**NZMH3-A400** 109674		**NZMH3-A400-BT** 110306		B		**NZMH3-A400-AVE** 110862			
		500	400-500	6-10	**NZMH3-A500** 109675		**NZMH3-A500-BT** 110307		B		**NZMH3-A500-AVE** 110863			

	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range: Overload releases	Setting range: Short-circuit releases Non-delayed	Rated operational power AC-3 50/60 Hz	Rated operational current	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
					400 V	400 V							Order base separately			
	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...	P	I_e										
	kA	A	A		kW	A										
Motor protection																**B = box terminals** **S = screw terminals**
• NZM...1-M...: with phase failure sensitivity • Tripping class 10 A																For further terminal types see accessories
Basic switching capacity																
	**25**	40	32-40	8-14	18.5	36	Screw terminals as accessories			**NZMB1-M40** 265710		B	**NZMB1-M40-SVE** 112709		1 off	IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breakers fulfill all requirements for utilization category AC-3.
		50	40-50	8-14	22	41				**NZMB1-M50** 265711		B	**NZMB1-M50-SVE** 112720			**Tripping class** / **Tripping time T_p with load on all poles of 7.2 times set current value.**
		63	50-63	8-14	30	55				**NZMB1-M63** 265712		B	**NZMB1-M63-SVE** 112721			10 A: $2 s < T_p \leqq 10 s$
		80	63-80	8-14	37	68				**NZMB1-M80** 265713		B	**NZMB1-M80-SVE** 112722			10: $4 s < T_p \leqq 10 s$
		100	80-100	8-12.5	45	81				**NZMB1-M100** 265714		B	**NZMB1-M100-SVE** 112723			20: $6 s < T_p \leqq 20 s$
		125	100-125	8-14	45	99	**NZMB2-M125** 265715		S	Terminals as accessory			**NZMB2-M125-SVE** 113196			30: $9 s < T_p \leqq 30 s$
		160	125-160	8-14	75	134	**NZMB2-M160** 265716		S				**NZMB2-M160-SVE** 113197			
		200	160-200	8-14	110	196	**NZMB2-M200** 265717		S				**NZMB2-M200-SVE** 113198			
Comfort switching capacity																
	**36**	40	32-40	8-14	18.5	36	Screw terminals as accessories			**NZMC1-M40** 271398		B	**NZMC1-M40-SVE** 112743		1 off	
		50	40-50	8-14	22	41				**NZMC1-M50** 271399		B	**NZMC1-M50-SVE** 112744			
		63	50-63	8-14	30	55				**NZMC1-M63** 271400		B	**NZMC1-M63-SVE** 112745			
		80	63-80	8-14	37	68				**NZMC1-M80** 271401		B	**NZMC1-M80-SVE** 112746			
		100	80-100	8-12.5	45	81				**NZMC1-M100** 271402		B	**NZMC1-M100-SVE** 112747			
		125	100-125	8-14	45	99	**NZMC2-M125** 271424		S	Terminals as accessory			**NZMC2-M125-SVE** 113223			
		160	125-160	8-14	75	134	**NZMC2-M160** 271425		S				**NZMC2-M160-SVE** 113224			
		200	160-200	8-14	110	196	**NZMC2-M200** 271426		S				**NZMC2-M200-SVE** 113225			
Normal switching capacity																
	**50**	40	32-40	8-14	18.5	36	Screw terminals as accessories			**NZMN1-M40** 265718		B	**NZMN1-M40-SVE** 112763		1 off	
		50	40-50	8-14	22	41				**NZMN1-M50** 265719		B	**NZMN1-M50-SVE** 112764			
		63	50-63	8-14	30	55				**NZMN1-M63** 265720		B	**NZMN1-M63-SVE** 112765			
		80	63-80	8-14	37	68				**NZMN1-M80** 265721		B	**NZMN1-M80-SVE** 112766			
		100	80-100	8-12.5	45	81				**NZMN1-M100** 265722		B	**NZMN1-M100-SVE** 112767			
		125	100-125	8-14	45	99	**NZMN2-M125** 265723		S	Terminals as accessory			**NZMN2-M125-SVE** 113250			
		160	125-160	8-14	75	134	**NZMN2-M160** 265724		S				**NZMN2-M160-SVE** 113251			
		200	160-200	8-14	110	196	**NZMN2-M200** 265725		S				**NZMN2-M200-SVE** 113252			

	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range		Rated operational power AC-3 50/60 Hz	Rated operational current	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
			Overload releases	Short-circuit releases Non-delayed	400 V	400 V										
	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...	P	I_e							Order base separately			
	kA	A	A		kW	A										
Motor protection																**B = box terminals** **S = screw terminals** For further terminal types see accessories
• NZM...1-M...: with phase failure sensitivity • Tripping class 10 A																
High switching capacity																
	**100**	40	32-40	8-14	18.5	36	Screw terminals as accessories			**NZMH1-M40** 115450		B	**NZMH1-M40-SVE** 115790		1 off	IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breakers fulfill all requirements for utilization category AC-3.
		50	40-50	8-14	22	41				**NZMH1-M50** 115451		B	**NZMH1-M50-SVE** 115791			
		63	50-63	8-14	30	55				**NZMH1-M63** 115452		B	**NZMH1-M63-SVE** 115792			
		80	63-80	8-14	37	68				**NZMH1-M80** 115453		B	**NZMH1-M80-SVE** 115793			
		100	80-100	8-12.5	45	81				**NZMH1-M100** 115454		B	**NZMH1-M100-SVE** 115794			
	**150**	20	16-20	350 A fixed	7.5	16	**NZMH2-M20** 281299		S	Terminals as accessory			**NZMH2-M20-SVE** 113354			**Tripping class** / **Tripping time T_p with load on all poles of 7.2 times set current value.** 10 A: $2 s < T_p \leqq 10 s$ 10: $4 s < T_p \leqq 10 s$ 20: $6 s < T_p \leqq 20 s$ 30: $9 s < T_p \leqq 30 s$
		25	20-25	350 A fixed	11	21.7	**NZMH2-M25** 281300		S				**NZMH2-M25-SVE** 113355			
		32	25-32	10-14	15	29.3	**NZMH2-M32** 281301		S				**NZMH2-M32-SVE** 113356			
		40	32-40	8-14	18.5	36	**NZMH2-M40** 281302		S				**NZMH2-M40-SVE** 113357			
		50	40-50	8-14	22	41	**NZMH2-M50** 281303		S				**NZMH2-M50-SVE** 113358			
		63	50-63	8-14	30	55	**NZMH2-M63** 281304		S				**NZMH2-M63-SVE** 113359			
		80	63-80	8-14	37	68	**NZMH2-M80** 281305		S				**NZMH2-M80-SVE** 113360			
		100	80-100	8-14	45	81	**NZMH2-M100** 281306		S				**NZMH2-M100-SVE** 113361			
		125	100-125	8-14	45	99	**NZMH2-M125** 281307		S				**NZMH2-M125-SVE** 113362			
		160	125-160	8-14	75	134	**NZMH2-M160** 281308		S				**NZMH2-M160-SVE** 113363			
		200	160-200	8-14	110	196	**NZMH2-M200** 281309		S				**NZMH2-M200-SVE** 113364			

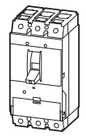
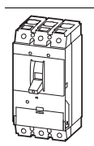
Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range	Rated operational power AC-3 50/60 Hz	Rated operational current AC-3 50/60 Hz	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in/withdrawable units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
		Short-circuit releases	400 V	400 V										
I_{cu}	$I_n = I_u$	Non-delayed	P	I_e										**B = box terminals** **S = screw terminals**
kA	A	$I_i = I_n$ x ...	kW	A							Order base separately			For further terminal types see accessories
		$I>$												
Short-circuit protection														
Motor protection in conjunction with overload relay • With short-circuit releases • Without overload releases I_r														
Basic switching capacity														
	**25**	40	8-14	18.5	max. 36	Screw terminals as accessories								IEC/EN 60947-4-1, IEC/EN 60947-2
		50	8-14	22	max. 41									The circuit-breakers fulfill all requirements for utilization category AC-3.
		63	8-14	30	max. 55									
		80	8-14	37	max. 68									
		100	8-12.5	45	max. 99									
		125	8-14	45	max. 99	**NZMB2-S125** 265736		S						
		160	8-14	75	max. 134	**NZMB2-S160** 265737		S						
		200	8-12.5	110	max. 196	**NZMB2-S200** 265738		S						
Comfort switching capacity														
	**36**	40	8-14	18.5	max. 36	Screw terminals as accessories								
		50	8-14	22	max. 41									
		63	8-14	30	max. 55									
		80	8-14	37	max. 68									
		100	8-12.5	45	max. 99									
		125	8-14	45	max. 99	**NZMC2-S125** 271427		S						
		160	8-14	75	max. 134	**NZMC2-S160** 271428		S						
		200	8-12.5	110	max. 196	**NZMC2-S200** 271429		S						
		250	8-14	132	max. 231	**NZMC3-S250** 109676		S						
		320	8-14	160	max. 279	**NZMC3-S320** 109677		S						
		400	6-10	200	max. 349	**NZMC3-S400** 109678		S						
		500	6-10	250	max. 437	**NZMC3-S500** 109679		S						
Normal switching capacity														
	**50**	40	8-14	18.5	max. 36	Screw terminals as accessories								
		50	8-14	22	max. 41									
		63	8-14	30	max. 55									
		80	8-14	37	max. 68									
		100	8-12.5	45	max. 99									
									NZMB1-S40 265726		B		**NZMB1-S40-SVE** 112724	1 off
									NZMB1-S50 265727		B		**NZMB1-S50-SVE** 112725	
									NZMB1-S63 265728		B		**NZMB1-S63-SVE** 112726	
									NZMB1-S80 265729		B		**NZMB1-S80-SVE** 112727	
									NZMB1-S100 265730		B		**NZMB1-S100-SVE** 112728	
									Terminals as accessory				**NZMB2-S125-SVE** 113199	
													NZMB2-S160-SVE 113200	
													NZMB2-S200-SVE 113201	
									NZMC1-S40 271403		B		**NZMC1-S40-SVE** 112748	1 off
									NZMC1-S50 271404		B		**NZMC1-S50-SVE** 112749	
									NZMC1-S63 271405		B		**NZMC1-S63-SVE** 112750	
									NZMC1-S80 271406		B		**NZMC1-S80-SVE** 112751	
									NZMC1-S100 271407		B		**NZMC1-S100-SVE** 112752	
									Terminals as accessory				**NZMC2-S125-SVE** 113226	
													NZMC2-S160-SVE 113227	
													NZMC2-S200-SVE 113228	
													**NZMC3-S250-AVE** 113512	
													NZMC3-S320-AVE 113513	
													NZMC3-S400-AVE 113514	
													NZMC3-S500-AVE 113515	
									NZMN1-S40 265731		B		**NZMN1-S40-SVE** 112768	1 off
									NZMN1-S50 265732		B		**NZMN1-S50-SVE** 112769	
									NZMN1-S63 265733		B		**NZMN1-S63-SVE** 112770	
									NZMN1-S80 265734		B		**NZMN1-S80-SVE** 112771	
									NZMN1-S100 265735		B		**NZMN1-S100-SVE** 112772	

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

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

The tripping response of the motor-protective relay is matched by setting the tripping class to match the starting behavior of the motor to be protected.

	I_n in A	**Maximum permissible tripping class**
NZM...1-S...	40	30
	50	30
	63	30
	80	20
	100	15
NZM...2-S...	40	30
	50	30
	63	30
	80	30
	100	30
	125	30
	160	20
	200	10
NZM...3-S...	250	30
	320	30
	400	30
	500	20

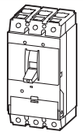
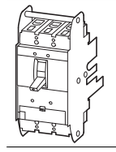
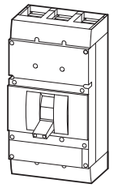
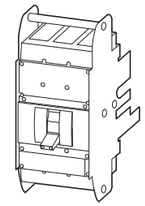
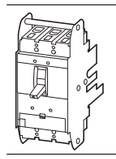
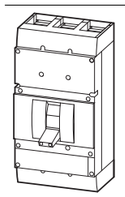
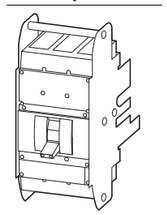
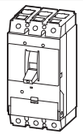
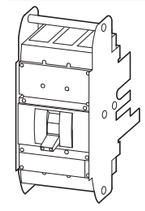
Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range	Rated operational power AC-3 50/60 Hz	Rated operational current AC-3 50/60 Hz	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Plug-in/withdrawable units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
		Short-circuit releases	400 V	400 V							
I_{cu}	$I_n = I_u$	Non-delayed	P	I_e				Order base separately			
kA	A	$I_i = I_n$ x …	kW	A							
		$I>$									
Short-circuit protection											**B = box terminals** **S = screw terminals** For further terminal types see accessories
Motor protection in conjunction with overload relay • With short-circuit release • Without overload release I_r											
Normal switching capacity											
	**50**	125	8-14	45	max. 99	**NZMN2-S125** 265739		Terminals as accessory		1 off	IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breakers fulfill all requirements for utilization category AC-3.
		160	8-14	75	max. 134	**NZMN2-S160** 265740					
		200	8-12.5	110	max. 196	**NZMN2-S200** 265741					
		250	8-14	132	max. 231	**NZMN3-S250** 109680					
		320	8-14	160	max. 279	**NZMN3-S320** 109681					
		400	6-10	200	max. 349	**NZMN3-S400** 109682					
		500	6-10	250	max. 437	**NZMN3-S500** 109683					
High switching capacity											
	100	40	8-14	18.5	max. 36	Screw terminals as accessories		**NZMH1-S40** 284436	B	**NZMH1-S40-SVE** 112805	1 off
		50	8-14	22	max. 41			**NZMH1-S50** 284437	B	**NZMH1-S50-SVE** 112806	
		63	8-14	30	max. 55			**NZMH1-S63** 284438	B	**NZMH1-S63-SVE** 112807	
		80	8-14	37	max. 68			**NZMH1-S80** 284439	B	**NZMH1-S80-SVE** 112808	
		100	8-12.5	45	max. 99			**NZMH1-S100** 284440	B	**NZMH1-S100-SVE** 112809	
	**150**	40	8-14	18.5	max. 36	**NZMH2-S40** 265742		Terminals as accessory		**NZMH2-S40-SVE** 113340	
		50	8-14	22	max. 41	**NZMH2-S50** 265743				**NZMH2-S50-SVE** 113341	
		63	8-14	30	max. 55	**NZMH2-S63** 265744				**NZMH2-S63-SVE** 113342	
		80	8-14	37	max. 68	**NZMH2-S80** 265745				**NZMH2-S80-SVE** 113343	
		100	8-14	45	max. 99	**NZMH2-S100** 265746				**NZMH2-S100-SVE** 113344	
		125	8-14	45	max. 99	**NZMH2-S125** 265747				**NZMH2-S125-SVE** 113345	
		160	8-14	75	max. 134	**NZMH2-S160** 265748				**NZMH2-S160-SVE** 113346	
		200	8-12.5	110	max. 196	**NZMH2-S200** 265749				**NZMH2-S200-SVE** 113347	
		250	8-14	132	max. 231	**NZMH3-S250** 109684				**NZMH3-S250-AVE** 113566	
		320	8-14	160	max. 279	**NZMH3-S320** 109685				**NZMH3-S320-AVE** 113567	
		400	6-10	200	max. 349	**NZMH3-S400** 109686				**NZMH3-S400-AVE** 113568	
		500	6-10	250	max. 437	**NZMH3-S500** 109687				**NZMH3-S500-AVE** 113569	

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

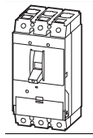
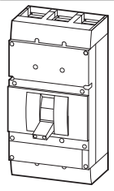
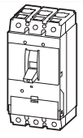
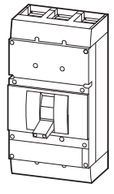
Selection of circuit-breakers without overload release when combining for instance with ZEV electronic motor-protective relays:

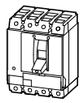
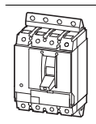
The tripping response of the motor-protective relay is matched by setting the tripping class to match the starting behavior of the motor to be protected.

	I_n in A	**Maximum permissible tripping class**
NZM...1-S...	40	30
	50	30
	63	30
	80	20
	100	15
NZM...2-S...	40	30
	50	30
	63	30
	80	30
	100	30
	125	30
	160	20
	200	10
NZM...3-S...	250	30
	320	30
	400	30
	500	20

	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals			**Fixed mounting** with box terminals			**Withdrawable units**				
			Overload releases	Short-circuit releases Non-delayed	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		**Part no.** Article no. Order base separately	**Price** See price list		Std. pack	**Notes**
	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x …											**B = box terminals** **S = screw terminals** For further terminal types see accessories
System and cable protection															
Normal switching capacity															
	**50**	630	315-630	2-8	**NZMN3-AE630** 259115		S	**NZMN3-AE630-BT** 111656		B 	**NZMN3-AE630-AVE** 110842			1 off	IEC/EN 60947-2 R.m.s. value measurement and “thermal memory”
	**50**	630	315-630	2-12	**NZMN4-AE630** 265758		S	Terminals as accessory			Withdrawable units as accessories				
		800	400-800	2-12	**NZMN4-AE800** 265759		S								
		1000	500-1000	2-12	**NZMN4-AE1000** 265760		S								
		1250	630-1250	2-12	**NZMN4-AE1250** 265761		S								
		1600	800-1600	2-12	**NZMN4-AE1600** 265762		S								
High switching capacity															
	150	630	315-630	2-8	**NZMH3-AE630** 259118		S	Terminals as accessory			**NZMH3-AE630-AVE** 110851			1 off	
	**85**	630	315-630	2-12	**NZMH4-AE630** 265763		S				Withdrawable units as accessories				
		800	400-800	2-12	**NZMH4-AE800** 265764		S								
		1000	500-1000	2-12	**NZMH4-AE1000** 265765		S								
		1250	630-1250	2-12	**NZMH4-AE1250** 265766		S								
		1600	800-1600	2-12	**NZMH4-AE1600** 265767		S								
Earth fault protection															
	**50**	250	125-250	2-11	**NZMN3-AE250-T** 110888		S	Terminals as accessory			**NZMN3-AE250-T-AVE** 113527			1 off	
		400	200-400	2-11	**NZMN3-AE400-T** 110889		S				**NZMN3-AE400-T-AVE** 113528				
		630	315-630	2-8	**NZMN3-AE630-T** 110890		S				**NZMN3-AE630-T-AVE** 113093				
	150	250	125-250	2-11	**NZMH3-AE250-T** 110894		S				**NZMH3-AE250-T-AVE** 113570				
		400	200-400	2-11	**NZMH3-AE400-T** 110895		S				**NZMH3-AE400-T-AVE** 113571				
		630	315-630	2-8	**NZMH3-AE630-T** 110896		S				**NZMH3-AE630-T-AVE** 113572				

Switching capacity 400/415 V 50/60 Hz I_{cu} kA	Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range: Overload releases I_r A	Short-circuit releases: Non-delayed $I_i = I_n$ x …	Short-circuit releases: Delayed $I_{sd} = I_r$ x …	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in/withdrawable units** **Part no.** Article no. Order base separately	**Price** See price list	Std. pack	**Notes**
Systems protection, cable protection, selectivity, generator protection														**B = box terminals** **S = screw terminals** For further terminal types see accessories
Normal switching capacity														
50	100	50-100	1200 A fixed	2-10	**NZMN2-VE100** 259122		S	Terminals as accessory			**NZMN2-VE100-SVE** 113247			1 off IEC/EN 60947-2 R.m.s. value measurement and "thermal memory" Adjustable delay setting t_r • 2 – 20 s at 6 x I_r and infinite (without overload release) Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
	160	80-160	1920 A fixed	2-10	**NZMN2-VE160** 259123		S				**NZMN2-VE160-SVE** 113248			
	250	125-250	3000 A fixed	2-10	**NZMN2-VE250** 259124		S				**NZMN2-VE250-SVE** 113249			
	250	125-250	2-11	2-10	**NZMN3-VE250** 259131		S				**NZMN3-VE250-AVE** 110843			
	400	200-400	2-11	2-10	**NZMN3-VE400** 259132		S	**NZMN3-VE400-BT** 111659	**1,467.37** 43	B	**NZMN3-VE400-AVE** 110844			
	630	315-630	2-8	1.5-7	**NZMN3-VE630** 259133		S	**NZMN3-VE630-BT** 111730	**1,914.22** 43	B	**NZMN3-VE630-AVE** 110845			
	630	315-630	2-12	1.5-7	**NZMN4-VE630** 265768		S	Terminals as accessory			Withdrawable units as accessories			
	800	400-800	2-12	2-10	**NZMN4-VE800** 265769		S							
	1000	500-1000	2-12	2-10	**NZMN4-VE1000** 265770		S							
	1250	630-1250	2-12	2-10	**NZMN4-VE1250** 265771		S							
	1600	800-1600	2-12	2-10	**NZMN4-VE1600** 265772		S							
High switching capacity														
150	100	50-100	1200 A fixed	2-10	**NZMH2-VE100** 259125		S	Terminals as accessory			**NZMH2-VE100-SVE** 113337			1 off
	160	80-160	1920 A fixed	2-10	**NZMH2-VE160** 259126		S				**NZMH2-VE160-SVE** 113338			
	250	125-250	3000 A fixed	2-10	**NZMH2-VE250** 259127		S				**NZMH2-VE250-SVE** 113339			
	250	125-250	2-11	2-10	**NZMH3-VE250** 259134		S				**NZMH3-VE250-AVE** 110852			
	400	200-400	2-11	2-10	**NZMH3-VE400** 259135		S	**NZMH3-VE400-BT** 111731	**1,668.52** 43	B	**NZMH3-VE400-AVE** 110853			
	630	315-630	2-8	1.5-7	**NZMH3-VE630** 259136		S	**NZMH3-VE630-BT** 111732	**2,079.92** 43	B	**NZMH3-VE630-AVE** 110854			
85	630	315-630	2-12	1.5-7	**NZMH4-VE630** 265773		S	Terminals as accessory			Withdrawable units as accessories			
	800	400-800	2-12	2-10	**NZMH4-VE800** 265774		S							
	1000	500-1000	2-12	2-10	**NZMH4-VE1000** 265775		S							
	1250	630-1250	2-12	2-10	**NZMH4-VE1250** 265776		S							
	1600	800-1600	2-12	2-10	**NZMH4-VE1600** 265777		S							
Earth fault protection														
50	250	125-250	2-11	2-10	**NZMN3-VE250-T** 110891		S	Terminals as accessory			**NZMN3-VE250-T-AVE** 113529			1 off
	400	200-400	2-11	2-10	**NZMN3-VE400-T** 110892		S				**NZMN3-VE400-T-AVE** 113530			
	630	315-630	2-8	1.5-7	**NZMN3-VE630-T** 110893		S				**NZMN3-VE630-T-AVE** 113531			
150	250	125-250	2-11	2-10	**NZMH3-VE250-T** 110897		S				**NZMH3-VE250-T-AVE** 113573			
	400	200-400	2-11	2-10	**NZMH3-VE400-T** 110898		S				**NZMH3-VE400-T-AVE** 113574			
	630	315-630	2-8	1.5-7	**NZMH3-VE630-T** 110899		S				**NZMH3-VE630-T-AVE** 113575			

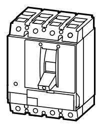
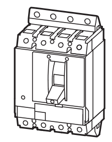
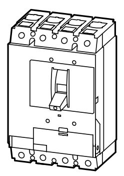
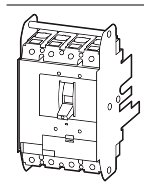
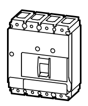
	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range: Overload releases	Setting range: Short-circuit releases	Rated operational power AC-3 50/60 Hz		Rated operational current AC-3 50/60 Hz		**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Plug-in units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
				Non-delayed	400 V	690 V	400 V	690 V	Order base separately			Order base separately			
	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...	P	P	I_e	I_e							
	kA	A	A		kW	kW	A	A							
Motor protection															**B = box terminals** **S = screw terminals**
With phase-failure sensitivity															For further terminal types see accessories
Normal switching capacity															
	**50**	90	45-90	2-14	45	75	81	78	**NZMN2-ME90** 265778		S	**NZMN2-ME90-SVE** 113256		1 off	IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breakers fulfill all requirements for utilization category AC-3.
		140	70-140	2-14	75	132	134	134	**NZMN2-ME140** 265779		S	**NZMN2-ME140-SVE** 113257			
		220	110-220	2-14	110	200	196	202	**NZMN2-ME220** 265780		S	**NZMN2-ME220-SVE** 113258			R.m.s. value measurement and "thermal memory"
		220	110-220	2-14	110	200	196	202	**NZMN3-ME220** 265781		S	**NZMN3-ME220-AVE** 110846			Adjustable delay setting t_r • 2 – 20 s at 6 x I_r, and infinite (without overload release)
		350	175-350	2-14	200	315	349	316	**NZMN3-ME350** 265782		S	**NZMN3-ME350-AVE** 110847			
		450	225-450	2-12	250	450	437	446	**NZMN3-ME450** 284468		S	**NZMN3-ME450-AVE** 110848			
		550	275-550	2-14	315	560	544	550	**NZMN4-ME550** 265783		S	Withdrawable units as accessories			
		875	438-875	2-14	500	600	820	588	**NZMN4-ME875** 265784		S				
		1400	700-1400	2-14	630	600	1066	588	**NZMN4-ME1400** 265785		S				
High switching capacity															
	**150**	90	45-90	2-14	45	45	81	78	**NZMH2-ME90** 265786		S	**NZMH2-ME90-SVE** 113348		1 off	
		140	70-140	2-14	75	132	134	134	**NZMH2-ME140** 265787		S	**NZMH2-ME140-SVE** 113349			
		220	110-220	2-14	110	200	196	202	**NZMH2-ME220** 265788		S	**NZMH2-ME220-SVE** 113350			
		220	110-220	2-14	110	200	196	202	**NZMH3-ME220** 265789		S	**NZMH3-ME220-AVE** 110855			
		350	175-350	2-14	200	315	349	316	**NZMH3-ME350** 265790		S	**NZMH3-ME350-AVE** 110856			
		450	225-450	2-12	250	450	437	446	**NZMH3-ME450** 284469		S	**NZMH3-ME450-AVE** 110857			
	**85**	550	275-550	2-14	315	560	544	550	**NZMH4-ME550** 265791		S	Withdrawable units as accessories			
		875	438-875	2-14	500	600	820	588	**NZMH4-ME875** 265792		S				
		1400	700-1400	2-14	630	600	1066	588	**NZMH4-ME1400** 265793		S				

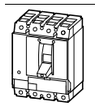
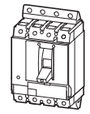
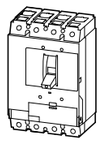
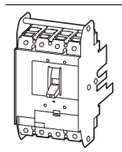
	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range			**Fixed mounting** with screw terminals		**Fixed mounting** with box terminals			**Plug-in units**		Std. pack	**Notes**
				Overload releases		Short-circuit releases	**Part no.** Article no.	**Price** See price list	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		
		Phase conductors	Neutral conductor		Phase conductors	Non-delayed						Order base separately			
	I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	I_r	$I_i = I_n$ x …									
	kA	A	%	A	A										
															B = box terminals **S = screw terminals** For further terminal types see accessories
System and cable protection															
Basic switching capacity															
	**25**	20	100	15-20	15…20	350 A fixed	Screw terminals as accessories		**NZMB1-4-A20** 281237		B	–	–	1 off	IEC/EN 60947-2 Set value for neutral conductor is same as set value I_r for main pole.
		25	100	20-25	20…25	350 A fixed			**NZMB1-4-A25** 281239		B		–		
		32	100	25-32	25…32	350 A fixed			**NZMB1-4-A32** 281241		B		–		
		40	100	32-40	32…40	8-10			**NZMB1-4-A40** 265799		B		–		
		50	100	40-50	40…50	6-10			**NZMB1-4-A50** 265801		B		–		
		63	100	50-63	50…63	6-10			**NZMB1-4-A63** 265803		B		–		
		80	100	63-80	63…80	6-10			**NZMB1-4-A80** 265805		B		–		
		100	100	80-100	80…100	6-10			**NZMB1-4-A100** 265807		B		–		
		125	100	100-125	100…125	6-10			**NZMB1-4-A125** 265809		B		–		
		160	100	125-160	125…160	1280 A fixed			**NZMB1-4-A160** 281243		B		–		
		160	100	125-160	125…160	6-10	**NZMB2-4-A160** 265849		Terminals as accessory				**NZMB2-4-A160-SVE** 113209		S
		160	60	125-160	80…100	6-10	**NZMB2-4-A160/100** 265850						**NZMB2-4-A160/100-SVE** 113210		S
		200	100	160-200	160…200	6-10	**NZMB2-4-A200** 265852						**NZMB2-4-A200-SVE** 113212		S
		200	60	160-200	100…125	6-10	**NZMB2-4-A200/125** 265853						**NZMB2-4-A200/125-SVE** 113213		S
		250	100	200-250	200…250	6-10	**NZMB2-4-A250** 265855						**NZMB2-4-A250-SVE** 113215		S
		250	60	200-250	125…160	6-10	**NZMB2-4-A250/160** 265856						**NZMB2-4-A250/160-SVE** 113216		S
		300	100	240-300	240…300	6-10	**NZMB2-4-A300** 107582						–		S
		300	60	240-300	160…200	6-10	**NZMB2-4-A300/200** 107583						–		S
Comfort switching capacity															
	**36**	20	100	15-20	15…20	350 A fixed	Screw terminals as accessories		**NZMC1-4-A20** 283300		B	–	–	1 off	
		25	100	20-25	20…25	350 A fixed			**NZMC1-4-A25** 283302		B		–		
		32	100	25-32	25…32	350 A fixed			**NZMC1-4-A32** 283304		B		–		
		40	100	32-40	32…40	8-10			**NZMC1-4-A40** 271408		B		–		
		50	100	40-50	40…50	6-10			**NZMC1-4-A50** 271410		B		–		
		63	100	50-63	50…63	6-10			**NZMC1-4-A63** 271412		B		–		
		80	100	63-80	63…80	6-10			**NZMC1-4-A80** 271414		B		–		
		100	100	80-100	80…100	6-10			**NZMC1-4-A100** 271416		B		–		
		125	100	100-125	100…125	6-10			**NZMC1-4-A125** 271418		B		–		
		160	100	125-160	125…160	1280 A fixed			**NZMC1-4-A160** 283306		B		–		

System and cable protection

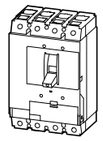
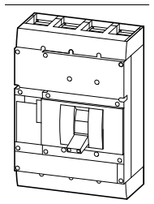
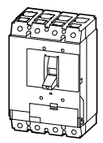
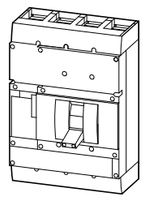
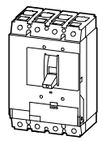
B = box terminals
S = screw terminals

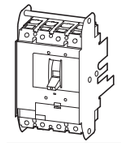
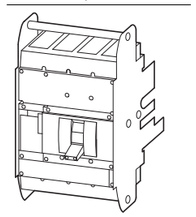
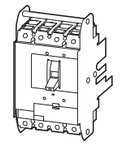
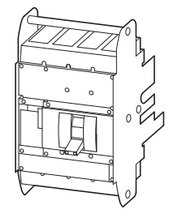
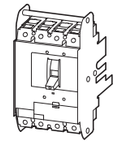
For further terminal types see accessories

	Switching capacity 400/415 V 50/60 Hz I_{cu} kA	Rated current = Rated uninterrupted current: Phase conductors $I_n = I_u$ A	Neutral conductor I_r x % of phase conductor %	Setting range: Overload releases I_r A	Phase conductors I_r A	Short-circuit releases: Non-delayed $I_i = I_n$ x …	**Fixed mounting** with screw terminals: **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals: **Part no.** Article no.	**Price** See price list			**Plug-in units**: **Part no.** Article no. (Order base separately)	**Price** See price list	Std. pack	**Notes**
Comfort switching capacity																	
	**36**	125	100	100-125	100…125	6-10	**NZMC2-4-A125** 271430		S	Terminals as accessory				**NZMC2-4-A125-SVE** 113231		1 off	IEC/EN 60947-2 Set value for neutral conductor is same as set value I_r for main pole.
		160	100	125-160	125…160	6-10	**NZMC2-4-A160** 271432		S					**NZMC2-4-A160-SVE** 113233			
		160	60	125-160	80…100	6-10	**NZMC2-4-A160/100** 271433		S					**NZMC2-4-A160/100-SVE** 113234			
		200	100	160-200	160…200	6-10	**NZMC2-4-A200** 271435		S					**NZMC2-4-A200-SVE** 113236			
		200	60	160-200	100…125	6-10	**NZMC2-4-A200/125** 271436		S					**NZMC2-4-A200/125-SVE** 113237			
		250	100	200-250	200…250	6-10	**NZMC2-4-A250** 271438		S					**NZMC2-4-A250-SVE** 113239			
		250	60	200-250	125…160	6-10	**NZMC2-4-A250/160** 271439		S					**NZMC2-4-A250/160-SVE** 113240			
		300	100	240-300	240…300	6-10	**NZMC2-4-A300** 107584		S					–			
		300	60	240-300	160…200	6-10	**NZMC2-4-A300/200** 107585		S					–			
		320	100	250-320	250…320	6-10	**NZMC3-4-A320** 109688		S					**NZMC3-4-A320-AVE** 113516			
		320	60	250-320	160…200	6-10	**NZMC3-4-A320/200** 109689		S					**NZMC3-4-A320/200-AVE** 113517			
		400	100	320-400	320…400	6-10	**NZMC3-4-A400** 109690		S					**NZMC3-4-A400-AVE** 113518			
		400	60	320-400	200…250	6-10	**NZMC3-4-A400/250** 109691		S					**NZMC3-4-A400/250-AVE** 113519			
		500	100	400-500	400…500	6-10	**NZMC3-4-A500** 109692		S					**NZMC3-4-A500-AVE** 113520			
		500	60	400-500	250…320	6-10	**NZMC3-4-A500/320** 109693		S					**NZMC3-4-A500/320-AVE** 113521			
Normal switching capacity																	
	**50**	20	100	15-20	15…20	350 A fixed	Screw terminals as accessories			**NZMN1-4-A20** 281245		B	–	–		1 off	
		25	100	20-25	20…25	350 A fixed				**NZMN1-4-A25** 281247		B		–			
		32	100	25-32	25…32	350 A fixed				**NZMN1-4-A32** 281249		B		–			
		40	100	32-40	32…40	8-10				**NZMN1-4-A40** 265811		B		–			
		50	100	40-50	40…50	6-10				**NZMN1-4-A50** 265813		B		–			
		63	100	50-63	50…63	6-10				**NZMN1-4-A63** 265815		B		–			
		80	100	63-80	63…80	6-10				**NZMN1-4-A80** 265817		B		–			
		100	100	80-100	80…100	6-10				**NZMN1-4-A100** 265819		B		–			
		125	100	100-125	100…125	6-10				**NZMN1-4-A125** 265821		B		–			
		160	100	125-160	125…160	1280 A fixed				**NZMN1-4-A160** 281251		B		–			

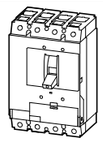
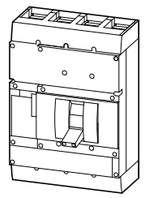
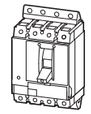
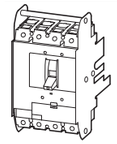
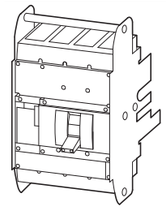
	Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range			**Fixed mounting** with screw terminals			**Fixed mounting** with box terminals			**Plug-in units**				
				Overload releases		Short-circuit releases	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		Std. pack	**Notes**
		Phase conductors	Neutral conductor		Phase conductors	Non-delayed											
	I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	I_r	$I_i = I_n$ x ...							Order base separately				
	kA	A	%	A	A												
																	B = box terminals **S = screw terminals** For further terminal types see accessories
System and cable protection																	
Normal switching capacity																	
	**50**	160	100	125-160	125...160	6-10	**NZMN2-4-A160** 265860		S	Terminals as accessory			**NZMN2-4-A160-SVE** 113266			1 off	IEC/EN 60947-2 Set value for neutral conductor is same as set value I_r for main pole.
		160	60	125-160	80...100	6-10	**NZMN2-4-A160/100** 265861		S				**NZMN2-4-A160/100-SVE** 113267				
		200	100	160-200	160...200	6-10	**NZMN2-4-A200** 265863		S				**NZMN2-4-A200-SVE** 113269				
		200	60	160-200	100...125	6-10	**NZMN2-4-A200/125** 265864		S				**NZMN2-4-A200/125-SVE** 113270				
		250	100	200-250	200...250	6-10	**NZMN2-4-A250** 265866		S				**NZMN2-4-A250-SVE** 113272				
		250	60	200-250	125...160	6-10	**NZMN2-4-A250/160** 265867		S				**NZMN2-4-A250/160-SVE** 113273				
		300	100	240-300	240...300	6-10	**NZMN2-4-A300** 107586		S				–				
		300	60	240-300	160...200	6-10	**NZMN2-4-A300/200** 107587		S				–				
		320	100	250-320	250...320	6-10	**NZMN3-4-A320** 109694		S				**NZMN3-4-A320-AVE** 113532				
		320	60	250-320	160...200	6-10	**NZMN3-4-A320/200** 109695		S				**NZMN3-4-A320/200-AVE** 113533				
		400	100	320-400	320...400	6-10	**NZMN3-4-A400** 109696		S				**NZMN3-4-A400-AVE** 113534				
		400	60	320-400	200...250	6-10	**NZMN3-4-A400/250** 109697		S				**NZMN3-4-A400/250-AVE** 113535				
		500	100	400-500	400...500	6-10	**NZMN3-4-A500** 109698		S				**NZMN3-4-A500-AVE** 113536				
		500	60	400-500	250...320	6-10	**NZMN3-4-A500/320** 109699		S				**NZMN3-4-A500/320-AVE** 113537				
High switching capacity																	
	**100**	20	100	15-20	15...20	350 A fixed	Screw terminals as accessories			**NZMH1-4-A20** 284416		B –	–			1 off	
		25	100	20-25	20...25	350 A fixed				**NZMH1-4-A25** 284418		B	–				
		32	100	25-32	25...32	350 A fixed				**NZMH1-4-A32** 284420		B	–				
		40	100	32-40	32...40	8-10				**NZMH1-4-A40** 284422		B	–				
		50	100	40-50	40...50	6-10				**NZMH1-4-A50** 284424		B	–				
		63	100	50-63	50...63	6-10				**NZMH1-4-A63** 284426		B	–				
		80	100	63-80	63...80	6-10				**NZMH1-4-A80** 284428		B	–				
		100	100	80-100	80...100	6-10				**NZMH1-4-A100** 284430		B	–				
		125	100	100-125	100...125	6-10				**NZMH1-4-A125** 284432		B	–				
		160	100	125-160	125...160	1280 A fixed				**NZMH1-4-A160** 284434		B	–				

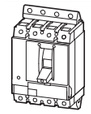
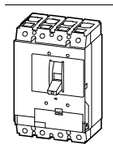
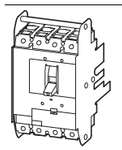
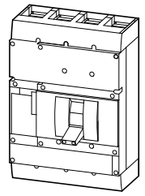
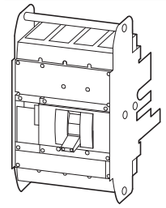
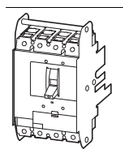
		Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range			**Fixed mounting** with screw terminals		**Fixed mounting** with box terminals			**Plug-in units**				
					Overload releases		Short-circuit releases	**Part no.** Article no.	**Price** See price list	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		Std. pack	**Notes**
			Phase conductors	Neutral conductor		Phase conductors	Non-delayed										
		I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	I_r	$I_i = I_n$ x …						Order base separately				
		kA	A	%	A	A											
System and cable protection																	**B = box terminals** **S = screw terminals** For further terminal types see accessories
High switching capacity																	
	150	20	100	15-20	15…20	350 A fixed		**NZMH2-4-A20** 281287		Terminals as accessory			**NZMH2-4-A20-SVE** 113396			1 off	IEC/EN 60947-2 Set value for neutral conductor is same as set value I_r for main pole.
		25	100	20-25	20…25	350 A fixed		**NZMH2-4-A25** 281289					**NZMH2-4-A25-SVE** 113398				
		32	100	25-32	25…32	350 A fixed		**NZMH2-4-A32** 281291					**NZMH2-4-A32-SVE** 113400				
		40	100	32-40	32…40	6-10		**NZMH2-4-A40** 265823					**NZMH2-4-A40-SVE** 113367				
		50	100	40-50	40…50	6-10		**NZMH2-4-A50** 265825					**NZMH2-4-A50-SVE** 113369				
		63	100	50-63	50…63	6-10		**NZMH2-4-A63** 265827					**NZMH2-4-A63-SVE** 113371				
		80	100	63-80	63…80	6-10		**NZMH2-4-A80** 265829					**NZMH2-4-A80-SVE** 113373				
		100	100	80-100	80…100	6-10		**NZMH2-4-A100** 265831					**NZMH2-4-A100-SVE** 113375				
		125	100	100-125	100…125	6-10		**NZMH2-4-A125** 265833					**NZMH2-4-A125-SVE** 113377				
		160	100	125-160	125…160	6-10		**NZMH2-4-A160** 265871					**NZMH2-4-A160-SVE** 113379				
		160	60	125-160	80…100	6-10		**NZMH2-4-A160/100** 265872					**NZMH2-4-A160/100-SVE** 113380				
		200	100	160-200	160…200	6-10		**NZMH2-4-A200** 265874					**NZMH2-4-A200-SVE** 113382				
		200	60	160-200	100…125			**NZMH2-4-A200/125** 265875					**NZMH2-4-A200/125-SVE** 113383				
		250	100	200-250	200…250	6-10		**NZMH2-4-A250** 265877					**NZMH2-4-A250-SVE** 113385				
		250	60	200-250	125…160	6-10		**NZMH2-4-A250/160** 265878					**NZMH2-4-A250/160-SVE** 113386				
		300	100	240-300	240…300	6-10		**NZMH2-4-A300** 107588					–				
		300	60	240-300	160…200	6-10		**NZMH2-4-A300/200** 107589					–				
	150	320	100	250-320	250…320	6-10		**NZMH3-4-A320** 109700					**NZMH3-4-A320-AVE** 113578			1 off	
		320	60	250-320	160…200	6-10		**NZMH3-4-A320/200** 109701					**NZMH3-4-A320/200-AVE** 113579				
		400	100	320-400	320…400	6-10		**NZMH3-4-A400** 109702					**NZMH3-4-A400-AVE** 113580				
		400	60	320-400	200…250	6-10		**NZMH3-4-A400/250** 109703					**NZMH3-4-A400/250-AVE** 113581				
		500	100	400-500	400…500	6-10		**NZMH3-4-A500** 109704					**NZMH3-4-A500-AVE** 113582				
		500	60	400-500	250…320	6-10		**NZMH3-4-A500/320** 109705					**NZMH3-4-A500/320-AVE** 113583				

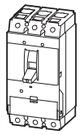
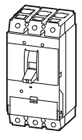
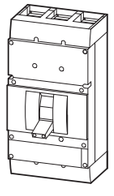
Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range				**Fixed mounting** with screw terminals		**Fixed mounting** with box terminals			**Withdrawable units**				
	Phase conductors	Neutral conductor	Overload releases		Short-circuit releases		**Part no.** Article no.	**Price** See price list	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list		Std. pack	**Notes**
I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	Phase conductors I_r	Non-delayed $I_i = I_n$ x …	Delayed $I_{sd} = I_r$ x …						Order base separately				
kA	A	%	A	A												
																B = box terminals S = screw terminals
System and cable protection																
Normal switching capacity																
	**50**	630	100	315-630	315…630	2-8	–	**NZMN3-4-AE630** 265894		S		**NZMN3-4-AE630-AVE** 110875			1 off	For further terminal types see accessories IEC/EN 60947-2 R.m.s. value measurement and "thermal memory" Set value for neutral conductor is same as set value I_r for main pole.
		630	60	315-630	200…400	2-8	–	**NZMN3-4-AE630/400** 265895		S		**NZMN3-4-AE630/400-AVE** 113544				
		800	100	400-800	400…800	2-12	–	**NZMN4-4-AE800** 265909		S		Withdrawable units as accessories				
		800	60	400-800	250…500	2-12	–	**NZMN4-4-AE800/500** 265910		S						
		1000	100	500-1000	500…1000	2-12	–	**NZMN4-4-AE1000** 265912		S						
		1000	60	500-1000	315…630	2-12	–	**NZMN4-4-AE1000/630** 265913		S						
		1250	100	630-1250	630…1250	2-12	–	**NZMN4-4-AE1250** 265915		S						
		1250	60	630-1250	400…800	2-12	–	**NZMN4-4-AE1250/800** 265916		S						
		1600	100	800-1600	800…1600	2-12	–	**NZMN4-4-AE1600** 265918		S						
		1600	60	800-1600	500…1000	2-12	–	**NZMN4-4-AE1600/1000** 265919		S						
High switching capacity																
	**150**	630	100	315-630	315…630	2-8	–	**NZMH3-4-AE630** 265900		S		**NZMH3-4-AE630-AVE** 110879			1 off	
	150	630	60	315-630	200…400	2-8	–	**NZMH3-4-AE630/400** 265901		S		**NZMH3-4-AE630/400-AVE** 113590				
	**85**	800	100	400-800	400…800	2-12	–	**NZMH4-4-AE800** 265921		S		Withdrawable units as accessories				
		800	60	400-800	250…500	2-12	–	**NZMH4-4-AE800/500** 265922		S						
		1000	100	500-1000	500…1000	2-12	–	**NZMH4-4-AE1000** 265924		S						
		1000	60	500-1000	315…630	2-12	–	**NZMH4-4-AE1000/630** 265925		S						
		1250	100	630-1250	630…1250	2-12	–	**NZMH4-4-AE1250** 265927		S						
		1250	60	630-1250	400…800	2-12	–	**NZMH4-4-AE1250/800** 265928		S						
		1600	100	800-1600	800…1600	2-12	–	**NZMH4-4-AE1600** 265930		S						
		1600	60	800-1600	500…1000	2-12	–	**NZMH4-4-AE1600/1000** 265931		S						
Earth fault protection																
	**50**	400	100	200-400	200…400	2-11	–	**NZMN3-4-AE400-T** 110902		S		**NZMN3-4-AE400-T-AVE** 113538			1 off	
		400	60	200-400	125…250	2-11	–	**NZMN3-4-AE400/250-T** 110903		S		**NZMN3-4-AE400/250-T-AVE** 113539				
		630	100	315-630	315…630	2-8	–	**NZMN3-4-AE630-T** 110904		S		**NZMN3-4-AE630-T-AVE** 113540				
		630	60	315-630	200…400	2-8	–	**NZMN3-4-AE630/400-T** 110905		S		**NZMN3-4-AE630/400-T-AVE** 113541				
	150	400	100	200-400	200…400	2-11	–	**NZMH3-4-AE400-T** 110906		S		**NZMH3-4-AE400-T-AVE** 113584				
		400	60	200-400	125…250	2-11	–	**NZMH3-4-AE400/250-T** 110907		S		**NZMH3-4-AE400/250-T-AVE** 113585				
		630	100	315-630	315…630	2-8	–	**NZMH3-4-AE630-T** 110908		S		**NZMH3-4-AE630-T-AVE** 113586				
		630	60	315-630	200…400	2-8	–	**NZMH3-4-AE630/400-T** 110909		S		**NZMH3-4-AE630/400-T-AVE** 113587				

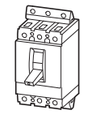
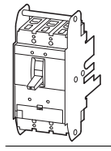
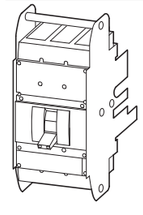






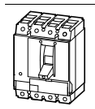
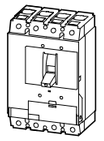
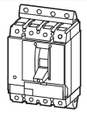
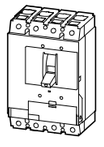
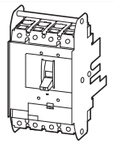
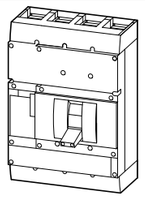
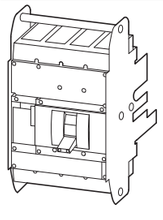
Terminals as accessory

Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range				**Fixed mounting** with screw terminals		**Plug-in/withdrawable units**			
	Phase conductors	Neutral conductor	Overload releases		Short-circuit releases		**Part no.** Article no.	**Price** See price list	**Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
				Phase conductor	Non-delayed	Delayed						
I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …			Order base separately			
kA	A	%	A	A								
					I>	I>						**B = box terminals** **S = screw terminals** For further terminal types see accessories
Systems protection, cable protection, selectivity, generator protection												
Normal switching capacity												
	**50**	100	100	50-100	50…100	1200 A fixed	2-10	**NZMN2-4-VE100** 265933		Terminals as accessory		IEC/EN 60947-2
		160	100	80-160	80…160	1920 A fixed	2-10	**NZMN2-4-VE160** 265935				Set value for neutral conductor is same as set value I_r for main pole.
		160	60	80-160	50…100	1920 A fixed	2-10	**NZMN2-4-VE160/100** 265936				
		250	100	125-250	125…250	3000 A fixed	2-10	**NZMN2-4-VE250** 265938				R.m.s. value measurement and "thermal memory"
		250	60	125-250	80…160	3000 A fixed	2-10	**NZMN2-4-VE250/160** 265939				
		400	100	200-400	200…400	2-11	2-10	**NZMN3-4-VE400** 265957				Adjustable delay setting t_r • 2 – 20 s at 6 x I_r and infinite (without overload release) – NZM...3-4-VE400(630): 2 – 14 s at 6 x I_r and infinite (without overload release)
		400	60	200-400	125…250	2-11	2-10	**NZMN3-4-VE400/250** 265958				
		630	100	315-630	315…630	2-8	1.5-7	**NZMN3-4-VE630** 265960				
		630	60	315-630	200…400	2-8	1.5-7	**NZMN3-4-VE630/400** 265961				
		800	100	400-800	400…800	2-12	2-10	**NZMN4-4-VE800** 265975				Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms
		800	60	400-800	250…500	2-12	2-10	**NZMN4-4-VE800/500** 265976				
		1000	100	500-1000	500…1000	2-12	2-10	**NZMN4-4-VE1000** 265978				i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
		1000	60	500-1000	315…630	2-12	2-10	**NZMN4-4-VE1000/630** 265979				
		1250	100	630-1250	630…1250	2-12	2-10	**NZMN4-4-VE1250** 265981				
		1250	60	630-1250	400…800	2-12	2-10	**NZMN4-4-VE1250/800** 265982				
		1600	100	800-1600	800…1600	2-12	2-10	**NZMN4-4-VE1600** 265984				
		1600	60	800-1600	500…1000	2-12	2-10	**NZMN4-4-VE1600/1000** 265985				
												
												
												
										Withdrawable units as accessories		
										NZMN2-4-VE100-SVE 113275	1 off	
										NZMN2-4-VE160-SVE 113277		
										NZMN2-4-VE160/100-SVE 113278		
										NZMN2-4-VE250-SVE 113280		
										NZMN2-4-VE250/160-SVE 113281		
										NZMN3-4-VE400-AVE 110876		
										NZMN3-4-VE400/250-AVE 113546		
										NZMN3-4-VE630-AVE 110877		
										NZMN3-4-VE630/400-AVE 113548		

Switching capacity 400/415 V 50/60 Hz	Rated current = Rated uninterrupted current		Setting range				**Fixed mounting** with screw terminals			**Plug-in/withdrawable units**			Std. pack	**Notes**
			Overload releases		Short-circuit releases		**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list			
	Phase conductors	Neutral conductor		Phase conductor	Non-delayed	Delayed				Order base separately				
I_{cu}	$I_n = I_u$	I_r x % of phase conductor	I_r	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …								
kA	A	%	A	A										
														B = box terminals **S = screw terminals** For further terminal types see accessories
Systems protection, cable protection, selectivity, generator protection														
High switching capacity														
	**150**	100	100	50-100	50…100	1200 A fixed	2-10	**NZMH2-4-VE100** 265941		S	Terminals as accessory			**NZMH2-4-VE100-SVE** 113388			1 off	IEC/EN 60947-2 Set value for neutral conductor is same as set value I_r for main pole. R.m.s. value measurement and "thermal memory" Adjustable delay setting t_r • 2 – 20 s at 6 x I_r and infinite (without overload release) – NZM...3-4-VE400(630): 2 – 14 s at 6 x I_r and infinite (without overload release) Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable
		160	100	80-160	80…160	1920 A fixed	2-10	**NZMH2-4-VE160** 265943		S				**NZMH2-4-VE160-SVE** 113390				
		160	60	80-160	50…100	1920 A fixed	2-10	**NZMH2-4-VE160/100** 265944		S				**NZMH2-4-VE160/100-SVE** 113391				
		250	100	125-250	125…250	3000 A fixed	2-10	**NZMH2-4-VE250** 265946		S				**NZMH2-4-VE250-SVE** 113393				
		250	60	125-250	80…160	3000 A fixed	2-10	**NZMH2-4-VE250/160** 265947		S				**NZMH2-4-VE250/160-SVE** 113394				
		400	100	200-400	200…400	2-11	2-10	**NZMH3-4-VE400** 265963		S				**NZMH3-4-VE400-AVE** 110880				
		400	60	200-400	125…250	2-11	2-10	**NZMH3-4-VE400/250** 265964		S				**NZMH3-4-VE400/250-AVE** 113592				
		630	100	315-630	315…630	2-8	1.5-7	**NZMH3-4-VE630** 265966		S				**NZMH3-4-VE630-AVE** 110881				
		630	60	315-630	200…400	2-8	1.5-7	**NZMH3-4-VE630/400** 265967		S				**NZMH3-4-VE630/400-AVE** 113594				
	**85**	800	100	400-800	400…800	2-12	2-10	**NZMH4-4-VE800** 265987		S				Withdrawable units as accessories			1 off	
		800	60	400-800	250…500	2-12	2-10	**NZMH4-4-VE800/500** 265988		S								
		1000	100	500-1000	500…1000	2-12	2-10	**NZMH4-4-VE1000** 265990		S								
		1000	60	500-1000	315…630	2-12	2-10	**NZMH4-4-VE1000/630** 265991		S								
		1250	100	630-1250	630…1250	2-12	2-10	**NZMH4-4-VE1250** 265993		S								
		1250	60	630-1250	400…800	2-12	2-10	**NZMH4-4-VE1250/800** 265994		S								
		1600	100	800-1600	800…1600	2-12	2-10	**NZMH4-4-VE1600** 265996		S								
		1600	60	800-1600	500…1000	2-12	2-10	**NZMH4-4-VE1600/1000** 265997		S								
Earth fault protection																		
	50	400	100	200-400	200…400	2-11	2-10	–			–			**NZMN3-4-VE400-T-AVE** 119902			1 off	
		630	100	315-630	315…630	2-8	1.5-7	–			–			**NZMN3-4-VE630-T-AVE** 119903				
	150	400	100	200-400	200…400	2-11	2-10	–			–			**NZMH3-4-VE400-T-AVE** 119900				
		630	100	315-630	315…630	2-8	1.5-7	–			–			**NZMH3-4-VE630-T-AVE** 119901				

	Rated current = Rated uninterrupted current $I_n = I_u$ A	Short-circuit protection, max. fuse gL-characteristic A gL	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in/withdrawable units** **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
Switch-disconnectors												**B = box terminals** **S = screw terminals** For further terminal types see accessories
2 switch positions I, 0												
	63	125	Screw terminals as accessories			**PN1-63** 259140		B	–		1 off	IEC/EN 60947-3 Main switch characteristics including positive operation to IEC/EN 60204, VDE 0113 Isolating characteristics to IEC/EN 60947-3, VDE 0660 Contact protection to VDE 0160 part 100
	100	125				**PN1-100** 259141		B	–			
	125	125				**PN1-125** 259142		B	–			
	160	160				**PN1-160** 281235		B	–			
	160	250	**PN2-160** 266005		S	**PN2-160-BT** 110308		B	–			
	200	250	**PN2-200** 266006		S	**PN2-200-BT** 110309		B	–			
	250	250	**PN2-250** 266007		S	**PN2-250-BT** 110310		B	–			
	400	630	**PN3-400** 266017		S	**PN3-400-BT** 110314		B	–			
	630	630	**PN3-630** 266018		S	**PN3-630-BT** 110315		B	–			
3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, Can be equipped with trip-indicating auxiliary contact M22-K..												
	63	125	Screw terminals as accessories			**N1-63** 259143		B	**N1-63-SVE** 113729		1 off	
	100	125				**N1-100** 259144		B	**N1-100-SVE** 113730			
	125	125				**N1-125** 259145		B	**N1-125-SVE** 113731			
	160	160				**N1-160** 281236		B	–			
	160	250	**N2-160** 266008		S	**N2-160-BT** 110311		B	**N2-160-SVE** 113733			
	200	250	**N2-200** 266009		S	**N2-200-BT** 110312		B	**N2-200-SVE** 113734			
	250	250	**N2-250** 266010		S	**N2-250-BT** 110313		B	**N2-250-SVE** 113735			
	400	630	**N3-400** 266019		S	**N3-400-BT** 110316		B	**N3-400-AVE** 110768			
	630	630	**N3-630** 266020		S	**N3-630-BT** 110317		B	**N3-630-AVE** 110769			
	800	1600	**N4-800** 266025		S	Terminals as accessory			Withdrawable units as accessories			
	1000	1600	**N4-1000** 266026		S							
	1250	1600	**N4-1250** 266027		S							
	1600	1600	**N4-1600** 266028		S							

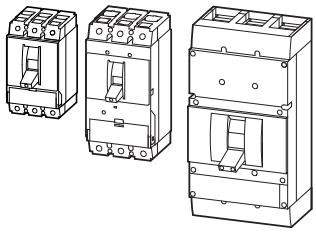





	Rated current = Rated uninterrupted current $I_n = I_u$ A	Short-circuit protection, max. fuse gL-characteristic A gL	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list		**Plug-in units** **Part no.** Article no. Order base separately	**Price** See price list	Std. pack	**Notes**
Switch-disconnectors												**B = box terminals** **S = screw terminals** For further terminal types see accessories
2 switch positions I, 0												
	63	125	Screw terminals as accessories			**PN1-4-63** 265999		B	–		1 off	IEC/EN 60947-3 Main switch characteristics including positive operation to IEC/EN 60204, VDE 0113 Isolating characteristics to IEC/EN 60947-3, VDE 0660 Contact protection to VDE 0160 part 100
	100	125				**PN1-4-100** 266000		B	–			
	125	125				**PN1-4-125** 266001		B	–			
	160	160				**PN1-4-160** 281253		B	–			
	160	250	**PN2-4-160** 266011		S	**PN2-4-160-BT** 118880		B	–			
	200	250	**PN2-4-200** 266012		S	**PN2-4-200-BT** 118881		B	–			
	250	250	**PN2-4-250** 266013		S	**PN2-4-250-BT** 118882		B	–			
	400	630	**PN3-4-400** 266021		S	**PN3-4-400-BT** 111653		B	–			
	630	630	**PN3-4-630** 266022		S	**PN3-4-630-BT** 111654		B	–			
3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, Can be equipped with trip-indicating auxiliary contact M22-K..												
	63	125	Screw terminals as accessories			**N1-4-63** 266002		B	–		1 off	
	100	125				**N1-4-100** 266003		B	–			
	125	125				**N1-4-125** 266004		B	–			
	160	160				**N1-4-160** 281254		B	–			
	160	250	**N2-4-160** 266014		S	**N2-4-160-BT** 118883		B		**N2-4-160-SVE** 113736		
	200	250	**N2-4-200** 266015		S	**N2-4-200-BT** 118884		B		**N2-4-200-SVE** 113737		
	250	250	**N2-4-250** 266016		S	**N2-4-250-BT** 118885		B		**N2-4-250-SVE** 113738		
	400	630	**N3-4-400** 266023		S	**N3-4-400-BT** 111651		B		**N3-4-400-AVE** 110872		
	630	630	**N3-4-630** 266024		S	**N3-4-630-BT** 111652		B		**N3-4-630-AVE** 110873		
	800	1600	**N4-4-800** 266029		S	Terminals as accessory				Withdrawable units as accessories		
	1000	1600	**N4-4-1000** 266030		S							
	1250	1600	**N4-4-1250** 266031		S							
	1600	1600	**N4-4-1600** 266032		S							

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

Circuit-breakers for 1000 V AC, 3 pole

Switch-disconnectors for 1000 V DC, 2 pole
Without overload and short-circuit release

			System and cable protection			Selectivity protection		Motor protection				
Switching capacity												
1000 V	kA/p.f.	I_{cu}	10/0.5	15/0.5	20/0.3	10/0.5	20/0.3	15/0.5	20/0.3			
		I_{cs}	3/0.5	10/0.5	15/0.3	3/0.5	15/0.3	10/0.5	15/0.3			
Rated uninterrupted current I_u = Rated current I_n			I_u	I_u	I_u	I_u	I_u	I_u	I_u	I_u	I_u	I_u
Ambient air temperature at 100% I_u min./max. –25/+50 °C N... S1-DC max. +70 °C			A	A	A	A	A	A	A	A	A	A
			NZMH2-A...-S1	NZMH3-AE...-S1	NZMH4-AE...-S1	NZMH2-VE...-S1	NZMH4-VE...-S1	NZMH3-ME...-S1	NZMH4-ME...-S1	N2-...-S1-DC	N3-...-S1-DC	N4-...-S1-DC
			20	250	630	100	630	220	550	160	320	800
			25	400	800	160	800	350	875	**200**	400	1000
			32	**630**	1000	**250**	1000	**450**	**1400**		**500**	1250
			40		1250		1250					**1400**
			50		**1600**		**1600**					
			63									
			80									
			100									
			125									
			160									
			200									
			250									
			300									
Rated short-time withstand current I_{cw} (0.1s current$_{rms}$)		kA								3	6	25

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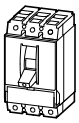
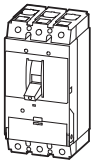
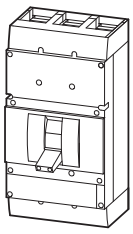
	Switching capacity 1000 V 50/60 Hz	Rated current = Rated uninterrupted current	**Setting range** Overload releases	Short-circuit releases		**Fixed mounting** **Part no.** Article no.	**Price** See price list		Std. pack
				Non-delayed	Delayed				
	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x …	$I_{sd} = I_r$ x …				
				I>	I>				
System and cable protection									
Thermomagnetic releases									
	**10**	20	15-20	350 A fixed	–	**NZMH2-A20-S1** 290355		S	1 off
		25	20-25	350 A fixed	–	**NZMH2-A25-S1** 290356		S	
		32	25-32	350 A fixed	–	**NZMH2-A32-S1** 290357		S	
		40	32-40	8-10	–	**NZMH2-A40-S1** 290358		S	
		50	40-50	6-10	–	**NZMH2-A50-S1** 290359		S	
		63	50-63	6-10	–	**NZMH2-A63-S1** 290360		S	
		80	63-80	6-10	–	**NZMH2-A80-S1** 290361		S	
		100	80-100	6-10	–	**NZMH2-A100-S1** 290362		S	
		125	100-125	6-10	–	**NZMH2-A125-S1** 290363		S	
		160	125-160	6-10	–	**NZMH2-A160-S1** 290364		S	
		200	160-200	6-10	–	**NZMH2-A200-S1** 290365		S	
		250	200-250	6-10	–	**NZMH2-A250-S1** 290366		S	
		300	240-300	6-10	–	**NZMH2-A300-S1** 107577		S	
Electronic releases R.m.s. value measurement and “thermal memory”									
	**15**	250	125-250	2-11	–	**NZMH3-AE250-S1** 119361		S	1 off
		400	200-400	2-11	–	**NZMH3-AE400-S1** 119362		S	
		630	315-630	2-8	–	**NZMH3-AE630-S1** 119363		S	
	**20**	630	315-630	2-12	–	**NZMH4-AE630-S1** 290370		S	
		800	400-800	2-12	–	**NZMH4-AE800-S1** 290371		S	
		1000	500-1000	2-12	–	**NZMH4-AE1000-S1** 290372		S	
		1250	630-1250	2-12	–	**NZMH4-AE1250-S1** 290373		S	
		1600	800-1600	2-12	–	**NZMH4-AE1600-S1** 290374		S	

Notes

B = box terminals
S = screw terminals

IEC/EN 60947-2

Terminal type:
NZM2: Cover NZM2-XKSA required
NZM3: Cover NZM3-XKSA required
NZM4: Isolated bar connection (screw terminal NZM4-XKS)

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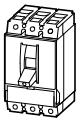
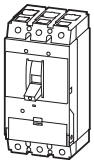
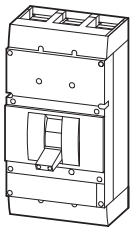
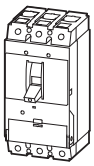
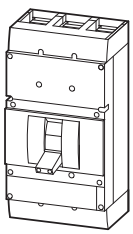
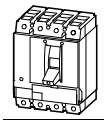
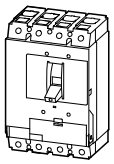
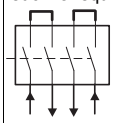
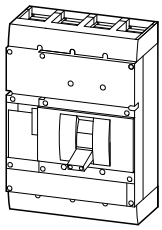
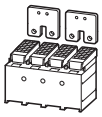
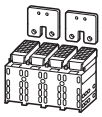
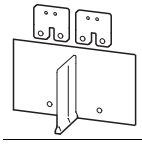
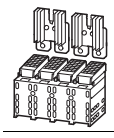
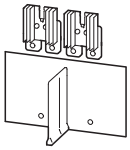
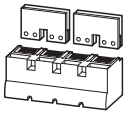
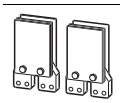
	Switching capacity 1000 V 50/60 Hz	Rated current = Rated uninterrupted current	Setting range Overload releases	Short-circuit releases		Fixed mounting Part no. Article no.	Price See price list		Std. pack
				Non-delayed	Delayed				
	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …				
	kA	A	A						
Systems protection, cable protection, selectivity, generator protection									
IEC/EN 60947-2 R.m.s. value measurement and “thermal memory” Adjustable delay setting t_r • 2 – 20 s at 6 x I_r and infinite (without overload release) Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable									
	**10**	100	50-100	1200 A fixed	2-10	**NZMH2-VE100-S1** 100777		S	1 off
		160	80-160	1920 A fixed	2-10	**NZMH2-VE160-S1** 100778		S	
		250	125-250	3000 A fixed	2-10	**NZMH2-VE250-S1** 100779		S	
		400	200-400	2-11	2-10	**NZMH3-VE400-S1** 119367		S	
		630	315-630	2-8	1.5-7	**NZMH3-VE630-S1** 119368		S	
	**20**	630	315-630	2-12	2-10	**NZMH4-VE630-S1** 290375		S	
		800	400-800	2-12	2-10	**NZMH4-VE800-S1** 290376		S	
		1000	500-1000	2-12	2-10	**NZMH4-VE1000-S1** 290377		S	
		1250	630-1250	2-12	2-10	**NZMH4-VE1250-S1** 290378		S	
		1600	800-1600	2-12	2-10	**NZMH4-VE1600-S1** 290379		S	
Motor protection									
IEC/EN 60947-4-1, IEC/EN 60947-2 Phase-failure sensitivity R.m.s. value measurement and “thermal memory” Adjustable delay setting t_r • 2 – 20 s at 6 x I_r and infinite (without overload release)									
	**15**	220	110-220	2-14	–	**NZMH3-ME220-S1** 119364		S	1 off
		350	175-350	2-14	–	**NZMH3-ME350-S1** 119365		S	
		450	225-450	2-12	–	**NZMH3-ME450-S1** 119366		S	
	**20**	550	275-550	2-14	–	**NZMH4-ME550-S1** 290383		S	
		875	438-875	2-14	–	**NZMH4-ME875-S1** 290384		S	
		1400	700-1400	2-14	–	**NZMH4-ME1400-S1** 290385		S	

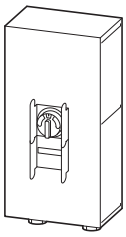
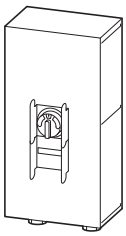
Notes

B = box terminals
S = screw terminals

Terminal type:
NZM2: Cover NZM2-XKSA required
NZM3: Cover NZM3-XKSA required
NZM4: Isolated bus connection (screw terminal NZM4-XKS)

	Rated current = Rated uninterrupted current $I_n = I_u$ A	Short-circuit protection, max. fuse gR-characteristic A gR	**Fixed mounting** **Part no.** Article no.	**Price** See price list	Std. pack		**Notes**
Switch-disconnectors for 1000 V DC							**B = box terminals S = screw terminals**
	160	200	**N2-4-160-S1-DC** 127732		1 off	S	IEC/EN 60947-3
	200	200	**N2-4-200-S1-DC** 127733			S	Main switch characteristics including positive operation to IEC/EN 60204, VDE 0113. Isolating characteristics to IEC/EN 60947, VDE 0660. Protection against electric shock to VDE 0160 part 100. Switch-disconnectors N can, in addition, be combined with shunt releases NZM...-XU, NZM...-XA and auxiliary contacts as well as with remote operator NZM...-XR...
	320	500	**N3-4-320-S1-DC** 127734			S	
	400	500	**N3-4-400-S1-DC** 142267			S	
	500	500	**N3-4-500-S1-DC** 142268			S	Connection types: For 2 pole switching, series connection of two poles each is required. See jumper kits under accessories 
	800	1600	**N4-4-800-S1-DC** 119890			S	
	1000	1600	**N4-4-1000-S1-DC** 119891			S	
	1250	1600	**N4-4-1250-S1-DC** 119886			S	
	1400	1400	**N4-4-1400-S1-DC** 119887			S	Terminals as accessory Switch can not be combined with plug-in/withdrawable units and/or connection on rear.

		Rated operational current I_n A	For use with	Number of poles	Degree of protection	**Part no.** Article no.	**Price** See price list	Std. pack
Jumper kits								
Model contains parts for upper switch side for 4 pole switches N...-S1-DC that are used as 2 pole switches for DC. The jumpers each connect two current paths in series. Incomer and outgoer at bottom or top, freely selectable. ≥ 1250 A: For 65 °C ambient air temperature connection at bottom through module plates NZM4-4-XKM2S-1600.								
	Jumper kit with cover	200 at 65 °C 160 at 70 °C	N2-4-…S1-DC	4 pole/ 2 pole	IP2X	**NZM2-4-XKV2P** 131730		1 off
	Terminal jumpers with cover	400 at 70 °C	N3-320(400)-S1-DC	4 pole/ 2 pole	IP2X	**NZM3-4-XKV2P** 131731		
	Jumper kit with insulating plates	500 at 50 °C 400 at 70 °C	N3-400(500)-S1-DC	4 pole/ 2 pole	IP00	**NZM3-4-XKVI2P** 142269		
	Jumper kit with cover and heat sink	400 at 70 °C 500 at 55 °C 500 at 40 °C	N3-400(500)-S1-DC	4 pole/ 2 pole	IP1X IP2X	**NZM3-4-XKV2P-K** 142271		
	Jumper kit with insulating plates and heat sinks	500 at 65 °C	N3-500-S1-DC	4 pole/ 2 pole	IP00	**NZM3-4-XKVI2P-K** 142270		
	Jumper kit with cover	1400 at 40 °C 1250 at 65 °C	N4-4-…S1-DC	4 pole/ 2 pole	IP2X	**NZM4-4-XKV2P** 119888		
	Jumper kit with heat sink	1400 at 65 °C	N4-4-1400-S1-DC	4 pole/ 2 pole	IP00	**NZM4-4-XKV2P-1400** 119905		

	Number of conductors	Rated current = Rated uninterrupted current $I_n = I_u$ A	Short-circuit protection, max. fuse gL-characteristic A gL	Fixed mounting **Part no.** Article no.	**Price** See price list	Std. pack
Switch-disconnectors for ATEX type						
2 switch positions I, 0						
	3 pole	125	125	**PN1-125/HIV/DA-SVD-SW/ATEX22** 119386		1 off
		160	160	**PN1-160/HIV/DA-SVD-SW/ATEX22** 119387		
		200	250	**PN2-200/HIV/DA-SVD-SW/ATEX22** 119388		
		240	250	**PN2-250/HIV/DA-SVD-SW/ATEX22** 119389		
		400	630	**PN3-400/HIV/DA-SVD-SW/ATEX22** 119410		
		630	630	**PN3-630/HIV/DA-SVD-SW/ATEX22** 119411		
	6 pole	160	160	**2PN1-160/HIV/DA-SVD-SW/ATEX22** 119418		
	6 pole	250	250	**2PN2-250/HIV/DA-SVD-SW/ATEX22** 119419		
ATEX switches for EMC type						
	3 pole	125	125	**PN1-125/HIV/DA-SVD-SW/EMV/ATEX22** 119412		
		160	160	**PN1-160/HIV/DA-SVD-SW/EMV/ATEX22** 119413		
		200	250	**PN2-200/HIV/DA-SVD-SW/EMV/ATEX22** 119414		
		240	250	**PN2-250/HIV/DA-SVD-SW/EMV/ATEX22** 119415		
		400	630	**PN3-400/HIV/DA-SVD-SW/EMV/ATEX22** 119416		
		630	630	**PN3-630/HIV/DA-SVD-SW/EMV/ATEX22** 119417		

Notes

Main switch characteristics including positive operation to IEC/EN 60204, VDE 0113.
Isolating characteristics to IEC/EN 60947-3, VDE 0660.
Protection against electric shock to VDE 0160 part 100.

ATEX = Atmosphères explosibles = explosive atmospheres
Eaton supplies switch-disconnectors PN1, PN2 and PN3 for a current range of up to 630 A as complete device according to ATEX Directive 94/9 EG (binding as of 06/2003).
The switches are approved for device group II, the application “everything, except for mining” and for category 3 (normal safety).
Switch-disconnectors in surface mounting enclosure with ATEX approval are used in potentially explosive dust-laden areas, such as mills, metal grinding works, wood processing operations, cement works, the aluminum industry, the foodstuffs industry, grain storage and processing plants, agriculture, and in the pharmaceuticals industry.

ATEX switches for EMC are suitable for use with screened cables.
For important general flush mounting and application notes, see the included installation instructions AWA1230-2480, which you can also download from our homepage www.moeller.net.

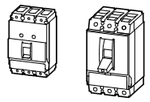
WWW.TM2A.PT info@tm2a.pt

Circuit-breakers

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

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

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

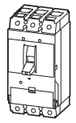
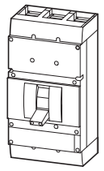


Thermomagnetic releases
Overload release

Fixed			Adjustable				None	
I_u			I_u		I_r		I_u	
A			A		A		A	
NZM1		NZM2	NZM1	NZM2			NZM1	NZM2
15-**125**		15-**250**	20-**125**	20-**250**	0.8-1 x I_n		1.2-**100**	1.6-**250**

Basic switching capacity[1]			**NZMB1-...-NA**		**NZMB2-...-NA**					
NEMA Test Procedure	240 V 60 Hz	sym. rms kA	35		35					
SCCR	480 V 60 Hz	sym. rms kA	25[2]		25					
	600 V 60 Hz	sym. rms kA	–		18[4]					
IEC/EN 60947	400/415 V	kA/p.f.	25	0.25	25	0.25				
	440 V	kA/p.f.	25	0.25	25	0.25				
Normal switching capacity[1]			**NZMN1-...-NA**		**NZMN2-...-NA**					
NEMA Test Procedure	240 V 60 Hz	sym. rms kA	85		85					
SCCR	480 V 60 Hz	sym. rms kA	35[2]		35					
	600 V 60 Hz	sym. rms kA	–		25[4]					
IEC/EN 60947	400/415 V	kA/p.f.	50	0.25	50	0.25				
	440 V	kA/p.f.	35	0.25	35	0.25				
	525 V	kA/p.f.	20	0.30	25	0.25				
	690 V	kA/p.f.	10	0.50	20	0.30				
High switching capacity[1]					**NZMH2-...-NA**					
NEMA Test Procedure	240 V 60 Hz	sym. rms kA			150					
SCCR	480 V 60 Hz	sym. rms kA			100					
	600 V 60 Hz	sym. rms kA			65[3][4]					
IEC/EN 60947	400/415 V	kA/p.f.			150	0.20				
	440 V	kA/p.f.			130	0.20				
	525 V	kA/p.f.			50	0.25				
	690 V	kA/p.f.			20	0.30				

Notes
[1] Switches correspond with both UL/CSA and IEC regulations
IEC switching performance values shown on type label. → Technical data
[2] For NZM...1-...-NA 480Y/277V
[3] For NZMH2 > 125 A: 50 kA
[4] For NZM...2: 600Y/347 V

Electronic releases
Overload release

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

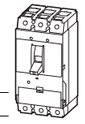
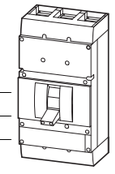
NZMN2-...E...-NA				**NZMN3-...E...-NA**				**NZMN4-...E...-NA**					
85				85				85					
35				42				42					
25[4]				35				35					
50	0.25			50	0.25			50	0.25				
35	0.25			35	0.25			35	0.25				
25	0.25			25	0.25			25	0.25				
20	0.30			20	0.30			20	0.30				
NZMH2-...E...-NA				**NZMH3-...E...-NA**				**NZMH4-...E...-NA**					
150				150				125					
100				100				85					
50[4]				50				50					
150	0.20			150	0.20			85	0.20				
130	0.20			130	0.20			85	0.20				
50	0.25			65	0.25			65	0.25				
20	0.30			35	0.25			50	0.25				

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. 5-09 as well as IEC/EN 60947-2 Annex L

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



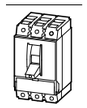



63	160	400	800
100	200	**600**	1000
125	**250**		**1200**

	Switching capacity		**NS1-...-NA**	**NS2-...-NA**	**NS3-...-NA**	**NS4-...-NA**
	according to UL 489, CSA 22.2	240 V	85	150	150	85
	SCCR	480 V	35[1]	100	100	65
		600 V	–	50[4]	50	42
	IEC/EN 60947	400/415 V	50	150	150	70
		440 V	35	130	130	65
		525 V	20	50	65	40
		690	10	20	35	35

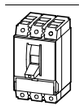
Notes
[1] For NS1-...-NA: 480Y/277V
[4] For NZM...2: 600Y/347 V

Switching capacity				Rated current = Rated uninterrupted current	Setting range		**Fixed mounting**			**Fixed mounting** with box terminals					
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
					Fixed	Non-delayed								
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...								
kA	kA	kA	kA	A	A									
													B = box terminals **S = screw terminals**	
System and cable protection														
Fixed overload releases I_r														
Basic switching capacity														
25	–	–	–	20	20	350 A fixed	Screw terminals as accessories		–	**NZMB1-AF20-NA** 281554		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
			–	25	25	350 A fixed			–	**NZMB1-AF25-NA** 281555		B		
			–	30	30	350 A fixed			–	**NZMB1-AF30-NA** 281556		B		
			–	35	35	Approx. 8-10			–	**NZMB1-AF35-NA** 272204		B		
			–	40	40	Approx. 8-10			–	**NZMB1-AF40-NA** 272205		B		
			–	45	45	Approx. 6-10			–	**NZMB1-AF45-NA** 272206		B		
			–	50	50	Approx. 6-10			–	**NZMB1-AF50-NA** 272207		B		
			–	60	60	Approx. 6-10			–	**NZMB1-AF60-NA** 272208		B		
			–	70	70	Approx. 6-10			–	**NZMB1-AF70-NA** 272209		B		
			–	80	80	Approx. 6-10			–	**NZMB1-AF80-NA** 272250		B		
			–	90	90	Approx. 6-10			–	**NZMB1-AF90-NA** 272251		B		
			–	100	100	Approx. 6-10			–	**NZMB1-AF100-NA** 272252		B		
			–	110	110	Approx. 6-10			–	**NZMB1-AF110-NA** 281557		B		
			–	125	125	Approx. 6-10			–	**NZMB1-AF125-NA** 281558		B		
25	**25**	18	–	15	15	350 A fixed	**NZMB2-AF15-NA** 269142		S	**NZMB2-AF15-BT-NA** 107611		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
			–	20	20	350 A fixed	**NZMB2-AF20-NA** 269143		S	**NZMB2-AF20-BT-NA** 107612		B		
			–	25	25	350 A fixed	**NZMB2-AF25-NA** 269144		S	**NZMB2-AF25-BT-NA** 107613		B		
			–	30	30	350 A fixed	**NZMB2-AF30-NA** 269145		S	**NZMB2-AF30-BT-NA** 107614		B		
			–	35	35	Approx. 8-10	**NZMB2-AF35-NA** 269146		S	**NZMB2-AF35-BT-NA** 107615		B		
			–	40	40	Approx. 8-10	**NZMB2-AF40-NA** 269147		S	**NZMB2-AF40-BT-NA** 107616		B		
			–	45	45	Approx. 6-10	**NZMB2-AF45-NA** 269148		S	**NZMB2-AF45-BT-NA** 107617		B		
			–	50	50	Approx. 6-10	**NZMB2-AF50-NA** 269149		S	**NZMB2-AF50-BT-NA** 107618		B		
			–	60	60	Approx. 6-10	**NZMB2-AF60-NA** 269160		S	**NZMB2-AF60-BT-NA** 107619		B		
			–	70	70	Approx. 6-10	**NZMB2-AF70-NA** 269161		S	**NZMB2-AF70-BT-NA** 107620		B		
			–	80	80	Approx. 6-10	**NZMB2-AF80-NA** 269162		S	**NZMB2-AF80-BT-NA** 107621		B		
			–	90	90	Approx. 6-10	**NZMB2-AF90-NA** 269163		S	**NZMB2-AF90-BT-NA** 107622		B		
			–	100	100	Approx. 6-10	**NZMB2-AF100-NA** 269164		S	**NZMB2-AF100-BT-NA** 107623		B		
			–	110	110	Approx. 6-10	**NZMB2-AF110-NA** 269165		S	**NZMB2-AF110-BT-NA** 107624		B		
			–	125	125	Approx. 6-10	**NZMB2-AF125-NA** 269166		S	**NZMB2-AF125-BT-NA** 107625		B		
			–	150	150	Approx. 6-10	**NZMB2-AF150-NA** 269167		S	**NZMB2-AF150-BT-NA** 107626		B		

Switching capacity				Rated current = Rated uninterrupted current	Setting range		**Fixed mounting**			**Fixed mounting** with box terminals					
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
					Fixed	Non-delayed								
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...								
kA	kA	kA	kA	A	A									
													B = box terminals **S = screw terminals**	
System and cable protection														
Fixed overload releases I_r														
Basic switching capacity														
	**25**	**25**	18	–	175	175	Approx. 6-10	**NZMB2-AF175-NA** 269168		**NZMB2-AF175-BT-NA** 107627		B	1 off 	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
				–	200	200	Approx. 6-10	**NZMB2-AF200-NA** 269169		**NZMB2-AF200-BT-NA** 107628		B		
				–	225	225	Approx. 6-10	**NZMB2-AF225-NA** 271089		**NZMB2-AF225-BT-NA** 107629		B		
				–	250	250	Approx. 6-10	**NZMB2-AF250-NA** 271100		**NZMB2-AF250-BT-NA** 107630		B		
Normal switching capacity														
	**35**	–	–	–	20	20	350 A fixed	Screw terminals as accessories		**NZMN1-AF20-NA** 281565		B	1 off 	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
			–	–	25	25	350 A fixed			**NZMN1-AF25-NA** 281566		B		
			–	–	30	30	350 A fixed			**NZMN1-AF30-NA** 281567		B		
			–	–	35	35	Approx. 8-10			**NZMN1-AF35-NA** 274220		B		
			–	–	40	40	Approx. 8-10			**NZMN1-AF40-NA** 274223		B		
			–	–	45	45	Approx. 6-10			**NZMN1-AF45-NA** 274230		B		
			–	–	50	50	Approx. 6-10			**NZMN1-AF50-NA** 274231		B		
			–	–	60	60	Approx. 6-10			**NZMN1-AF60-NA** 274232		B		
			–	–	70	70	Approx. 6-10			**NZMN1-AF70-NA** 274233		B		
			–	–	80	80	Approx. 6-10			**NZMN1-AF80-NA** 274234		B		
			–	–	90	90	Approx. 6-10			**NZMN1-AF90-NA** 274235		B		
			–	–	100	100	Approx. 6-10			**NZMN1-AF100-NA** 274236		B		
			–	–	110	110	Approx. 6-10			**NZMN1-AF110-NA** 281568		B		
			–	–	125	125	Approx. 6-10			**NZMN1-AF125-NA** 281569		B		
	**35**	**35**	25	–	15	15	350 A fixed	**NZMN2-AF15-NA** 269170		**NZMN2-AF15-BT-NA** 107631		B	1 off 	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
				–	20	20	350 A fixed	**NZMN2-AF20-NA** 269171		**NZMN2-AF20-BT-NA** 107632		B		
				–	25	25	350 A fixed	**NZMN2-AF25-NA** 269172		**NZMN2-AF25-BT-NA** 107633		B		
				–	30	30	350 A fixed	**NZMN2-AF30-NA** 269173		**NZMN2-AF30-BT-NA** 107634		B		
				–	35	35	Approx. 8-10	**NZMN2-AF35-NA** 269174		**NZMN2-AF35-BT-NA** 107635		B		
				–	40	40	Approx. 8-10	**NZMN2-AF40-NA** 269175		**NZMN2-AF40-BT-NA** 107636		B		
				–	45	45	Approx. 6-10	**NZMN2-AF45-NA** 269176		**NZMN2-AF45-BT-NA** 107637		B		
				–	50	50	Approx. 6-10	**NZMN2-AF50-NA** 269177		**NZMN2-AF50-BT-NA** 107638		B		
				–	60	60	Approx. 6-10	**NZMN2-AF60-NA** 269178		**NZMN2-AF60-BT-NA** 107639		B		
				–	70	70	Approx. 6-10	**NZMN2-AF70-NA** 269179		**NZMN2-AF70-BT-NA** 107640		B		

Switching capacity				Rated current = Rated uninterrupted current	Setting range		Fixed mounting			Fixed mounting with box terminals					
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
					Fixed	Non-delayed								
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...								
kA	kA	kA	kA	A	A									
													B = box terminals **S = screw terminals**	
System and cable protection														
Fixed overload releases I_r														
Normal switching capacity														
	**35**	**35**	25	–	80	80	Approx. 6-10	**NZMN2-AF80-NA** 269180		S	**NZMN2-AF80-BT-NA** 107641		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
				–	90	90	Approx. 6-10	**NZMN2-AF90-NA** 269181		S	**NZMN2-AF90-BT-NA** 107642		B			
				–	100	100	Approx. 6-10	**NZMN2-AF100-NA** 269182		S	**NZMN2-AF100-BT-NA** 107643		B			
				–	110	110	Approx. 6-10	**NZMN2-AF110-NA** 269183		S	**NZMN2-AF110-BT-NA** 107644		B			
				–	125	125	Approx. 6-10	**NZMN2-AF125-NA** 269184		S	**NZMN2-AF125-BT-NA** 107645		B			
				–	150	150	Approx. 6-10	**NZMN2-AF150-NA** 269185		S	**NZMN2-AF150-BT-NA** 107646		B			
				–	175	175	Approx. 6-10	**NZMN2-AF175-NA** 269186		S	**NZMN2-AF175-BT-NA** 107647		B			
				–	200	200	Approx. 6-10	**NZMN2-AF200-NA** 269187		S	**NZMN2-AF200-BT-NA** 107648		B			
				–	225	225	Approx. 6-10	**NZMN2-AF225-NA** 271101		S	**NZMN2-AF225-BT-NA** 107649		B			
				–	250	250	Approx. 6-10	**NZMN2-AF250-NA** 271102		S	**NZMN2-AF250-BT-NA** 107650		B			
High switching capacity															
	**150**	**150**	65	–	15	15	350 A fixed	**NZMH2-AF15-NA** 269188		S	**NZMH2-AF15-BT-NA** 107809		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
					20	20	350 A fixed	**NZMH2-AF20-NA** 269189		S	**NZMH2-AF20-BT-NA** 107810		B			
					25	25	350 A fixed	**NZMH2-AF25-NA** 269190		S	**NZMH2-AF25-BT-NA** 107811		B			
					30	30	350 A fixed	**NZMH2-AF30-NA** 269191		S	**NZMH2-AF30-BT-NA** 107812		B			
					35	35	Approx. 8-10	**NZMH2-AF35-NA** 269192		S	**NZMH2-AF35-BT-NA** 107813		B			
					40	40	Approx. 8-10	**NZMH2-AF40-NA** 269193		S	**NZMH2-AF40-BT-NA** 107814		B			
					45	45	Approx. 6-10	**NZMH2-AF45-NA** 269194		S	**NZMH2-AF45-BT-NA** 107815		B			
					50	50	Approx. 6-10	**NZMH2-AF50-NA** 269195		S	**NZMH2-AF50-BT-NA** 107816		B			
					60	60	Approx. 6-10	**NZMH2-AF60-NA** 269196		S	**NZMH2-AF60-BT-NA** 107817		B			
					70	70	Approx. 6-10	**NZMH2-AF70-NA** 269197		S	**NZMH2-AF70-BT-NA** 107818		B			
					80	80	Approx. 6-10	**NZMH2-AF80-NA** 269198		S	**NZMH2-AF80-BT-NA** 107819		B			
					90	90	Approx. 6-10	**NZMH2-AF90-NA** 269199		S	**NZMH2-AF90-BT-NA** 107820		B			
					100	100	Approx. 6-10	**NZMH2-AF100-NA** 269200		S	**NZMH2-AF100-BT-NA** 107821		B			
					110	110	Approx. 6-10	**NZMH2-AF110-NA** 269201		S	**NZMH2-AF110-BT-NA** 107822		B			
					125	125	Approx. 6-10	**NZMH2-AF125-NA** 269202		S	**NZMH2-AF125-BT-NA** 107823		B			
	100	**100**	50	–	150	150	Approx. 6-10	**NZMH2-AF150-NA** 269203		S	**NZMH2-AF150-BT-NA** 107824		B			
					175	175	Approx. 6-10	**NZMH2-AF175-NA** 269204		S	**NZMH2-AF175-BT-NA** 107825		B			
					200	200	Approx. 6-10	**NZMH2-AF200-NA** 269205		S	**NZMH2-AF200-BT-NA** 107826		B			
					225	225	Approx. 6-10	**NZMH2-AF225-NA** 271103		S	**NZMH2-AF225-BT-NA** 107827		B			
					250	250	Approx. 6-10	**NZMH2-AF250-NA** 271104		S	**NZMH2-AF250-BT-NA** 107828		B			

Switching capacity				Rated current = Rated uninterrupted current	Setting range		**Fixed mounting**						
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases Non-delayed	**Part no.** Article no.	**Price** See price list		**Fixed mounting** with box terminals **Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
I_{cu} kA	I_{cu} kA	I_{cu} kA	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x ...							**B = box terminals S = screw terminals**	
System and cable protection														
Adjustable overload release I_r														
Basic switching capacity														
25	–	–	–	20	15-20	350 A fixed	Screw terminals as accessories			**NZMB1-A20-NA** 281559		B	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
		–	–	25	20-25	350 A fixed				**NZMB1-A25-NA** 281560		B		
		–	–	32	25-32	350 A fixed				**NZMB1-A32-NA** 281561		B		
		–	–	40	32-40	8-10				**NZMB1-A40-NA** 272253		B		
		–	–	50	40-50	6-10				**NZMB1-A50-NA** 272254		B		
		–	–	63	50-63	6-10				**NZMB1-A63-NA** 272255		B		
		–	–	80	63-80	6-10				**NZMB1-A80-NA** 272256		B		
		–	–	100	80-100	6-10				**NZMB1-A100-NA** 272258		B		
		–	–	125	100-125	6-10				**NZMB1-A125-NA** 281562		B		
25	**25**	18	–	20	15-20	350 A fixed	**NZMB2-A20-NA** 269206		S	**NZMB2-A20-BT-NA** 107773		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA Certified Specially designed for NA: Yes Suitable for: Feeder circuits, Branch Circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -
			–	25	20-25	350 A fixed	**NZMB2-A25-NA** 269207		S	**NZMB2-A25-BT-NA** 107774		B		
			–	32	25-32	350 A fixed	**NZMB2-A32-NA** 269208		S	**NZMB2-A32-BT-NA** 107775		B		
			–	40	32-40	8-10	**NZMB2-A40-NA** 269209		S	**NZMB2-A40-BT-NA** 107776		B		
			–	50	40-50	6-10	**NZMB2-A50-NA** 269210		S	**NZMB2-A50-BT-NA** 107777		B		
			–	63	50-63	6-10	**NZMB2-A63-NA** 269211		S	**NZMB2-A63-BT-NA** 107778		B		
			–	80	63-80	6-10	**NZMB2-A80-NA** 269212		S	**NZMB2-A80-BT-NA** 107779		B		
			–	100	80-100	6-10	**NZMB2-A100-NA** 269213		S	**NZMB2-A100-BT-NA** 107780		B		
			–	125	100-125	6-10	**NZMB2-A125-NA** 269214		S	**NZMB2-A125-BT-NA** 107781		B		
			–	160	125-160	6-10	**NZMB2-A160-NA** 269215		S	**NZMB2-A160-BT-NA** 107782		B		
			–	200	160-200	6-10	**NZMB2-A200-NA** 269216		S	**NZMB2-A200-BT-NA** 107783		B		
			–	250	200-250	6-10	**NZMB2-A250-NA** 271105		S	**NZMB2-A250-BT-NA** 107784		B		
Normal switching capacity														
35	–	–	–	20	15-20	350 A fixed	Screw terminals as accessories			**NZMN1-A20-NA** 281570		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA Certified Specially designed for NA: Yes Suitable for: Feeder circuits, Branch Circuits Current Limiting CB: Yes Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -
		–	–	25	20-25	350 A fixed				**NZMN1-A25-NA** 281571		B		
		–	–	32	25-32	350 A fixed				**NZMN1-A32-NA** 281572		B		
		–	–	40	32-40	8-10				**NZMN1-A40-NA** 274237		B		
		–	–	50	40-50	6-10				**NZMN1-A50-NA** 274239		B		
		–	–	63	50-63	6-10				**NZMN1-A63-NA** 274240		B		

Switching capacity				Rated current = Rated uninterrupted current	Setting range		**Fixed mounting**			**Fixed mounting** with box terminals					
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases Non-delayed	**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
I_{cu} kA	I_{cu} kA	I_{cu} kA	I_{cu} kA	$I_n = I_u$ A	I_r A	$I_i = I_n$ x ...								
													B = box terminals S = screw terminals	
System and cable protection														
Adjustable overload release I_r														
Normal switching capacity														
	**35**	–	–	–	80	63-80	6-10	Screw terminals as accessories			**NZMN1-A80-NA** 274241		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking Max. Voltage Rating: 480Y/277 V Other Standards as NZMN2... below.	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
			–	–	100	80-100	6-10				**NZMN1-A100-NA** 274242		B			
			–	–	125	100-125	6-10				**NZMN1-A125-NA** 281573		B			
	**35**	**35**	25	–	20	15-20	350 A fixed	**NZMN2-A20-NA** 269217		S	**NZMN2-A20-BT-NA** 107785		B		Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA Certified Specially designed for NA: Yes Suitable for: Feeder circuits, Branch Circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
				–	25	20-25	350 A fixed	**NZMN2-A25-NA** 269218		S	**NZMN2-A25-BT-NA** 107786		B			
				–	32	25-32	350 A fixed	**NZMN2-A32-NA** 269219		S	**NZMN2-A32-BT-NA** 107787		B			
				–	40	32-40	8-10	**NZMN2-A40-NA** 269220		S	**NZMN2-A40-BT-NA** 107788		B			
				–	50	40-50	6-10	**NZMN2-A50-NA** 269221		S	**NZMN2-A50-BT-NA** 107789		B			
				–	63	50-63	6-10	**NZMN2-A63-NA** 269222		S	**NZMN2-A63-BT-NA** 107790		B			
				–	80	63-80	6-10	**NZMN2-A80-NA** 269223		S	**NZMN2-A80-BT-NA** 107791		B			
				–	100	80-100	6-10	**NZMN2-A100-NA** 269224		S	**NZMN2-A100-BT-NA** 107792		B			
				–	125	100-125	6-10	**NZMN2-A125-NA** 269225		S	**NZMN2-A125-BT-NA** 107793		B			
				–	160	125-160	6-10	**NZMN2-A160-NA** 269226		S	**NZMN2-A160-BT-NA** 107794		B			
				–	200	160-200	6-10	**NZMN2-A200-NA** 269227		S	**NZMN2-A200-BT-NA** 107795		B			
				–	250	200-250	6-10	**NZMN2-A250-NA** 271106		S	**NZMN2-A250-BT-NA** 107796		B			
High switching capacity																
	**150**	**150**	65	–	20	15-20	350 A fixed	**NZMH2-A20-NA** 269228		S	**NZMH2-A20-BT-NA** 107797		B			
					25	20-25	350 A fixed	**NZMH2-A25-NA** 269229		S	**NZMH2-A25-BT-NA** 107798		B			
					32	25-32	350 A fixed	**NZMH2-A32-NA** 269230		S	**NZMH2-A32-BT-NA** 107799		B			
					40	32-40	8-10	**NZMH2-A40-NA** 269231		S	**NZMH2-A40-BT-NA** 107800		B			
					50	40-50	6-10	**NZMH2-A50-NA** 269232		S	**NZMH2-A50-BT-NA** 107801		B			
					63	50-63	6-10	**NZMH2-A63-NA** 269233		S	**NZMH2-A63-BT-NA** 107802		B			
					80	63-80	6-10	**NZMH2-A80-NA** 269234		S	**NZMH2-A80-BT-NA** 107803		B			
					100	80-100	6-10	**NZMH2-A100-NA** 269235		S	**NZMH2-A100-BT-NA** 107804		B			
					125	100-125	6-10	**NZMH2-A125-NA** 269236		S	**NZMH2-A125-BT-NA** 107805		B			
	100	**100**	50	–	160	125-160	6-10	**NZMH2-A160-NA** 269237		S	**NZMH2-A160-BT-NA** 107806		B			
					200	160-200	6-10	**NZMH2-A200-NA** 269238		S	**NZMH2-A200-BT-NA** 107807		B			
					250	200-250	6-10	**NZMH2-A250-NA** 271107		S	**NZMH2-A250-BT-NA** 107808		B			

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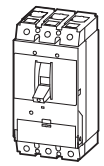
Switching capacity				Rated current = Rated uninterrupted current	Setting range			Fixed mounting			
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases Non-delayed		**Part no.** Article no.	**Price** See price list		Std. pack
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...					
kA	kA	kA	kA	A	A						

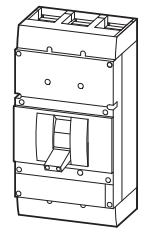
System and cable protection

Fixed overload release I_r
R.m.s. value measurement and "thermal memory"

Normal switching capacity

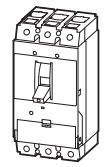


42	**42**	35	35	250	250	2-11	1)	**NZMN3-AEF250-NA** 269275		S	1 off
				300	300	2-11		**NZMN3-AEF300-NA** 269276		S	
				350	350	2-11		**NZMN3-AEF350-NA** 269277		S	
				400	400	2-11		**NZMN3-AEF400-NA** 269278		S	
				450	450	2-8		**NZMN3-AEF450-NA** 269279		S	
				500	500	2-8		**NZMN3-AEF500-NA** 269280		S	
				550	550	2-8		**NZMN3-AEF550-NA** 269281		S	
				600	600	2-8		**NZMN3-AEF600-NA** 269282		S	

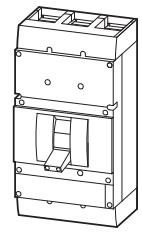


42	**42**	35	35	600	600	2-12	2)	**NZMN4-AEF600-NA** 271108		S	
				700	700	2-12		**NZMN4-AEF700-NA** 271109		S	
				800	800	2-12		**NZMN4-AEF800-NA** 271110		S	
				900	900	2-12		**NZMN4-AEF900-NA** 271111		S	
				1000	1000	2-12		**NZMN4-AEF1000-NA** 271112		S	
				1200	1200	2-12		**NZMN4-AEF1200-NA** 271113		S	

High switching capacity



100	**100**	50	50	250	250	2-11	1)	**NZMH3-AEF250-NA** 269283		S	1 off
				300	300	2-11		**NZMH3-AEF300-NA** 269284		S	
				350	350	2-11		**NZMH3-AEF350-NA** 269285		S	
				400	400	2-11		**NZMH3-AEF400-NA** 269286		S	
				450	450	2-8		**NZMH3-AEF450-NA** 269287		S	
				500	500	2-8		**NZMH3-AEF500-NA** 269288		S	
				550	550	2-8		**NZMH3-AEF550-NA** 269289		S	
				600	600	2-8		**NZMH3-AEF600-NA** 269290		S	



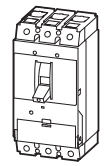
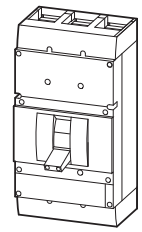
85	**85**	50	50	600	600	2-12	2)	**NZMH4-AEF600-NA** 271114		S	
				700	700	2-12		**NZMH4-AEF700-NA** 271115		S	
				800	800	2-12		**NZMH4-AEF800-NA** 271116		S	
				900	900	2-12		**NZMH4-AEF900-NA** 271117		S	
				1000	1000	2-12		**NZMH4-AEF1000-NA** 271118		S	
				1200	1200	2-12		**NZMH4-AEF1200-NA** 271119		S	

Switching capacity				Rated current = Rated uninterrupted current	Setting range			Fixed mounting			
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases Non-delayed		**Part no.** Article no.	**Price** See price list		Std. pack
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x ...					
kA	kA	kA	kA	A	A						

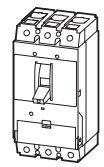
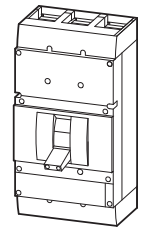
System and cable protection

Adjustable overload release I_r
R.m.s. value measurement and "thermal memory"

Normal switching capacity

	**42**	**42**	35	35	250	125-250	2-11	1)	**NZMN3-AE250-NA** 269299		S	1 off
					400	200-400	2-11		**NZMN3-AE400-NA** 269300		S	
					600	300-600	2-8		**NZMN3-AE600-NA** 269301		S	
	**42**	**42**	35	35	800	400-800	2-12	2)	**NZMN4-AE800-NA** 271120		S	
					1000	500-1000	2-12		**NZMN4-AE1000-NA** 271121		S	
					1200	600-1200	2-12		**NZMN4-AE1200-NA** 271122		S	

High switching capacity

	**100**	**100**	50	50	250	125-250	2-11	1)	**NZMH3-AE250-NA** 269302		S	1 off
					400	200-400	2-11		**NZMH3-AE400-NA** 269303		S	
					600	300-600	2-8		**NZMH3-AE600-NA** 269304		S	
	**85**	**85**	50	50	800	400-800	2-12	2)	**NZMH4-AE800-NA** 271123		S	
					1000	500-1000	2-12		**NZMH4-AE1000-NA** 271124		S	
					1200	600-1200	2-12		**NZMH4-AE1200-NA** 271125		S	

Notes

Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.

B = box terminals
S = screw terminals

Information relevant for export to North America

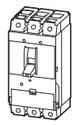
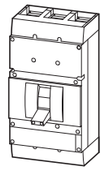
Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL CCN	DIVQ
CSA File No.	022086
CSA Class No.	1432-01
NA Certification	UL Listed, CSA certified
Specially designed for NA	Yes
Suitable for	Feeder circuits, branch circuits
Current Limiting CB	1)Yes 2)No
Max. Voltage Rating	600 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

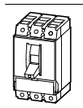
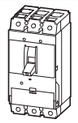
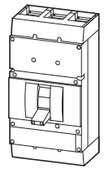
	Switching capacity				Rated current = Rated uninterrupted current	Setting range			Fixed mounting			Fixed mounting with box terminals					
	SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases		**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
						Fixed	Non-delayed	Delayed								
	I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …								
	kA	kA	kA	kA	A	A										

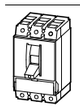
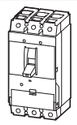
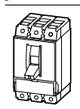
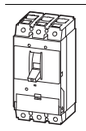
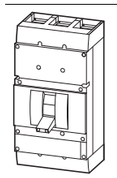
Systems protection, cable protection, selectivity, generator protection

Fixed overload release I_r
R.m.s. value measurement and "thermal memory"

Normal switching capacity

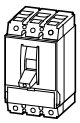
	**35**	**35**	25	–	150	150	1800 A fixed	2-10	**NZMN2-VEF150-NA** 271126		S	**NZMN2-VEF150-BT-NA** 107593		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Adjustable delay setting t_r • 2 – 20 s at 6 x I_r Adjustable delay t_{sd} • Steps 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable (ex-works OFF)
				–	175	175	2100 A fixed	2-10	**NZMN2-VEF175-NA** 271127		S	**NZMN2-VEF175-BT-NA** 107594		B			
				–	200	200	2400 A fixed	2-10	**NZMN2-VEF200-NA** 271128		S	**NZMN2-VEF200-BT-NA** 107595		B			
				–	225	225	2700 A fixed	2-10	**NZMN2-VEF225-NA** 271129		S	**NZMN2-VEF225-BT-NA** 107596		B			
				–	250	250	3000 A fixed	2-10	**NZMN2-VEF250-NA** 271130		S	**NZMN2-VEF250-BT-NA** 107597		B			
	**42**	**42**	35	35	250	250	2-11	2-10	**NZMN3-VEF250-NA** 269308		S	Terminals as accessory			1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
					300	300	2-11	2-10	**NZMN3-VEF300-NA** 269309		S						
					350	350	2-11	2-10	**NZMN3-VEF350-NA** 269310		S						
					400	400	2-11	2-10	**NZMN3-VEF400-NA** 269311		S						
					450	450	2-8	1.5-7	**NZMN3-VEF450-NA** 269312		S						
					500	500	2-8	1.5-7	**NZMN3-VEF500-NA** 269313		S						
					550	550	2-8	1.5-7	**NZMN3-VEF550-NA** 269314		S						
					600	600	2-8	1.5-7	**NZMN3-VEF600-NA** 269315		S						
	**42**	**42**	35	35	600	600	2-12	2-10	**NZMN4-VEF600-NA** 271136		S	Terminals as accessory			1 off		
					700	700	2-12	2-10	**NZMN4-VEF700-NA** 271137		S						
					800	800	2-12	2-10	**NZMN4-VEF800-NA** 271138		S						
					900	900	2-12	2-10	**NZMN4-VEF900-NA** 271139		S						
					1000	1000	2-12	2-10	**NZMN4-VEF1000-NA** 271140		S						
					1200	1200	2-12	2-10	**NZMN4-VEF1200-NA** 271141		S						

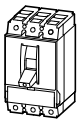
	Switching capacity				Rated current = Rated uninterrupted current	Setting range			**Fixed mounting**			**Fixed mounting** with box terminals					
	SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases		**Part no.** Article no.	**Price** See price list		**Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
						Fixed	Non-delayed	Delayed								
	I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …								
	kA	kA	kA	kA	A	A										
							I>	I>								
Systems protection, cable protection, selectivity, generator protection																
Fixed overload release I_r R.m.s. value measurement and "thermal memory"																
High switching capacity																
	**100**	**100**	50	–	150	150	1800 A fixed	2-10	**NZMH2-VEF150-NA** 271131		S	**NZMH2-VEF150-BT-NA** 107598		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	IEC switching performance values shown on type label. Adjustable delay setting t_r • 2 – 20 s at 6 x I_r Adjustable delay t_{sd} • Steps 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable (ex-works OFF)
				–	175	175	2100 A fixed	2-10	**NZMH2-VEF175-NA** 271132		S	**NZMH2-VEF175-BT-NA** 107599		B			
				–	200	200	2400 A fixed	2-10	**NZMH2-VEF200-NA** 271133		S	**NZMH2-VEF200-BT-NA** 107840		B			
				–	225	225	2700 A fixed	2-10	**NZMH2-VEF225-NA** 271134		S	**NZMH2-VEF225-BT-NA** 107841		B			
				–	250	250	3000 A fixed	2-10	**NZMH2-VEF250-NA** 271135		S	**NZMH2-VEF250-BT-NA** 107842		B			
	**100**	**100**	50	50	250	250	2-11	2-10	**NZMH3-VEF250-NA** 269316		S	Terminals as accessory			1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
					300	300	2-11	2-10	**NZMH3-VEF300-NA** 269317		S						
					350	350	2-11	2-10	**NZMH3-VEF350-NA** 269318		S						
					400	400	2-11	2-10	**NZMH3-VEF400-NA** 269319		S						
					450	450	2-8	1.5-7	**NZMH3-VEF450-NA** 269320		S						
					500	500	2-8	1.5-7	**NZMH3-VEF500-NA** 269321		S						
					550	550	2-8	1.5-7	**NZMH3-VEF550-NA** 269322		S						
					600	600	2-8	1.5-7	**NZMH3-VEF600-NA** 269323		S						
	**85**	**85**	50	50	600	600	2-12	2-10	**NZMH4-VEF600-NA** 271142		S	Terminals as accessory					
					700	700	2-12	2-10	**NZMH4-VEF700-NA** 271143		S						
					800	800	2-12	2-10	**NZMH4-VEF800-NA** 271144		S						
					900	900	2-12	2-10	**NZMH4-VEF900-NA** 271145		S						
					1000	1000	2-12	2-10	**NZMH4-VEF1000-NA** 271146		S						
					1200	1200	2-12	2-10	**NZMH4-VEF1200-NA** 271147		S						

Switching capacity				Rated current = Rated uninterrupted current	Setting range			**Fixed mounting**		
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Short-circuit releases		**Part no.** Article no.	**Price** See price list	
						Non-delayed	Delayed			
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …			
kA	kA	kA	kA	A	A					
						I>	I>			
Systems protection, cable protection, selectivity, generator protection										
Adjustable overload release I_r R.m.s. value measurement and “thermal memory”										
Normal switching capacity										
	**35**	**35**	25	–	100	50-100	1200 A fixed	2-10	**NZMN2-VE100-NA** 271148	S
				–	160	80-160	1920 A fixed	2-10	**NZMN2-VE160-NA** 271149	S
				–	250	125-250	3000 A fixed	2-10	**NZMN2-VE250-NA** 271150	S
	**42**	**42**	35	35	250	125-250	2-11	2-10	**NZMN3-VE250-NA** 269332	S
					400	200-400	2-11	2-10	**NZMN3-VE400-NA** 269333	S
					600	300-600	2-8	1.5-7	**NZMN3-VE600-NA** 269334	S
	42	**42**	35	35	800	400-800	2-12	2-10	**NZMN4-VE800-NA** 271154	S
					1000	500-1000	2-12	2-10	**NZMN4-VE1000-NA** 271155	S
					1200	630-1200	2-12	2-10	**NZMN4-VE1200-NA** 271156	S
High switching capacity										
	**100**	**100**	50	–	100	50-100	1200 A fixed	2-10	**NZMH2-VE100-NA** 271151	S
					160	80-160	1920 A fixed	2-10	**NZMH2-VE160-NA** 271152	S
					250	125-250	3000 A fixed	2-10	**NZMH2-VE250-NA** 271153	S
	**100**	**100**	50	50	250	125-250	2-11	2-10	**NZMH3-VE250-NA** 269335	S
					400	200-400	2-11	2-10	**NZMH3-VE400-NA** 269336	S
					600	300-600	2-8	1.5-7	**NZMH3-VE600-NA** 269337	S
	**85**	**85**	50	50	800	400-800	2-12	2-10	**NZMH4-VE800-NA** 271157	S
					1000	500-1000	2-12	2-10	**NZMH4-VE1000-NA** 271158	S
					1200	630-1200	2-12	2-10	**NZMH4-VE1200-NA** 271159	S

Fixed mounting with box terminals			Std. pack	**Information relevant for export to North America**	**Notes**
Part no. Article no.	**Price** See price list				
NZMN2-VE100-BT-NA 107843		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Adjustable delay setting t_r • 2 – 20 s at 6 x I_r Adjustable delay t_{sd} • Steps: 0, 20, 60, 100, 200, 300, 500, 750, 1000 ms i^2t constant function • NZM2 fixed OFF • NZM3, NZM4 switchable (ex-works OFF)
NZMN2-VE160-BT-NA 107844		B			
NZMN2-VE250-BT-NA 107845		B			
Terminals as accessory				Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
NZMH2-VE100-BT-NA 107846		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
NZMH2-VE160-BT-NA 107847		B			
NZMH2-VE250-BT-NA 107848		B			
Terminals as accessory				Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 600 V Degree of Protection: IEC: IP20; UL/CSA Type: -	

Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range Short-circuit releases Non-delayed $I_i = I_n$ x ... $I>$	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
Short-circuit protection						**B = box terminals** **S = screw terminals** For further terminal types see accessories
Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r						
Basic switching capacity						
1.2	7-12	Screw terminals as accessories		B	1 off Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DKPU2 CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Recognized, CSA certified Conditions of Acceptability: Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay. Specially designed for NA: Yes Suitable for: Branch circuits, feeder circuits Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
2	6-11			B		
3	6-11			B		
5	6-11			B		
8	6-11			B		
12	7-12			B		
18	7-12			B		
26	8-13			B		
33	8-14			B		
40	8-14			B		
50	8-14			B		
63	8-14			B		
80	8-14			B		
100	8-13			B		
1.6	8-14	**NZMB2-S1.6-CNA** 269472		S	**NZMB2-S1.6-BT-CNA** 107651	B	1 off Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DKPU2 CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Recognized, CSA certified Conditions of Acceptability: Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay. Specially designed for NA: Yes Suitable for: Branch circuits, feeder circuits Max. Voltage Rating: 600Y/347 V, 480 V Degree of Protection: IEC: IP20; UL/CSA Type: -	
2.4	8-14	**NZMB2-S2.4-CNA** 269473		S	**NZMB2-S2.4-BT-CNA** 107652	B		
5	6-11	**NZMB2-S5-CNA** 103034		S	**NZMB2-S5-BT-CNA** 107653	B		
8	6-11	**NZMB2-S8-CNA** 103035		S	**NZMB2-S8-BT-CNA** 107654	B		
12	7-12	**NZMB2-S12-CNA** 103036		S	**NZMB2-S12-BT-CNA** 107655	B		
18	7-12	**NZMB2-S18-CNA** 103037		S	**NZMB2-S18-BT-CNA** 107656	B		
26	8-13	**NZMB2-S26-CNA** 103038		S	**NZMB2-S26-BT-CNA** 107657	B		
33	8-14	**NZMB2-S33-CNA** 103039		S	**NZMB2-S33-BT-CNA** 107658	B		
40	8-14	**NZMB2-S40-CNA** 269243		S	**NZMB2-S40-BT-CNA** 107659	B		
50	8-14	**NZMB2-S50-CNA** 269244		S	**NZMB2-S50-BT-CNA** 107660	B		
63	8-14	**NZMB2-S63-CNA** 269245		S	**NZMB2-S63-BT-CNA** 107661	B		
80	8-14	**NZMB2-S80-CNA** 269246		S	**NZMB2-S80-BT-CNA** 107662	B		
100	8-14	**NZMB2-S100-CNA** 269247		S	**NZMB2-S100-BT-CNA** 107663	B		
125	8-14	**NZMB2-S125-CNA** 269248		S	**NZMB2-S125-BT-CNA** 107664	B		
160	8-14	**NZMB2-S160-CNA** 269249		S	**NZMB2-S160-BT-CNA** 107665	B		
200	8-13	**NZMB2-S200-CNA** 269250		S	**NZMB2-S200-BT-CNA** 107666	B		
250	8-10	**NZMB2-S250-CNA** 102478		S	**NZMB2-S250-BT-CNA** 107667	B		

	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		Std. pack
		Short-circuit releases					
	$I_n = I_u$	Non-delayed					
	A	$I_i = I_n$ x ...					
		$I>$					
Short-circuit protection							
Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r							
Normal switching capacity							
	1.2	7-12	1)	**NZMN1-S1.2-CNA** 103025		B	1 off
	2	6-11		**NZMN1-S2-CNA** 103026		B	
	3	6-11		**NZMN1-S3-CNA** 103027		B	
	5	6-11		**NZMN1-S5-CNA** 103028		B	
	8	6-11		**NZMN1-S8-CNA** 103029		B	
	12	7-12		**NZMN1-S12-CNA** 103030		B	
	18	7-12		**NZMN1-S18-CNA** 103031		B	
	26	8-13		**NZMN1-S26-CNA** 103032		B	
	33	8-14		**NZMN1-S33-CNA** 103033		B	
	40	8-14		**NZMN1-S40-CNA** 281276		B	
	50	8-14		**NZMN1-S50-CNA** 281277		B	
	63	8-14		**NZMN1-S63-CNA** 281278		B	
	80	8-14		**NZMN1-S80-CNA** 281279		B	
	100	8-13		**NZMN1-S100-CNA** 281280		B	
	1.6	8-14	2)	**NZMN2-S1.6-CNA** 269478		S	
	2.4	8-14		**NZMN2-S2.4-CNA** 269479		S	
	5	6-11		**NZMN2-S5-CNA** 103040		S	
	8	6-11		**NZMN2-S8-CNA** 103041		S	
	12	7-12		**NZMN2-S12-CNA** 103042		S	
	18	7-12		**NZMN2-S18-CNA** 103043		S	
	26	8-13		**NZMN2-S26-CNA** 103044		S	
	33	8-14		**NZMN2-S33-CNA** 103045		S	
	40	8-14		**NZMN2-S40-CNA** 269255		S	
	50	8-14		**NZMN2-S50-CNA** 269256		S	
	63	8-14		**NZMN2-S63-CNA** 269257		S	
	80	8-14		**NZMN2-S80-CNA** 269258		S	
	100	8-14		**NZMN2-S100-CNA** 269259		S	
	125	8-14		**NZMN2-S125-CNA** 269260		S	
	160	8-14		**NZMN2-S160-CNA** 269261		S	
	200	8-13		**NZMN2-S200-CNA** 269262		S	
	250	8-10		**NZMN2-S250-CNA** 102479		S	

	Rated current = Rated uninterrupted current	Setting range		**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list		Std. pack
		Short-circuit releases					
	$I_n = I_u$	Non-delayed					
	A	$I_i = I_n$ x ...					
		$I>$					
Short-circuit protection							
Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r							
High switching capacity							
	1.6	8-14	[2]	**NZMH2-S1.6-CNA** 269482		S	1 off
	2.4	8-14		**NZMH2-S2.4-CNA** 269483		S	
	5	6-11		**NZMH2-S5-CNA** 103046		S	
	8	6-11		**NZMH2-S8-CNA** 103047		S	
	12	7-12		**NZMH2-S12-CNA** 103048		S	
	18	5-9		**NZMH2-S18-CNA** 103049		S	
	26	8-13		**NZMH2-S26-CNA** 103050		S	
	33	8-14		**NZMH2-S33-CNA** 103051		S	
	40	8-14		**NZMH2-S40-CNA** 269267		S	
	50	8-14		**NZMH2-S50-CNA** 269268		S	
	63	8-14		**NZMH2-S63-CNA** 269269		S	
	80	8-14		**NZMH2-S80-CNA** 269270		S	
	100	8-14		**NZMH2-S100-CNA** 269271		S	
	125	8-14		**NZMH2-S125-CNA** 269272		S	
	160	8-14		**NZMH2-S160-CNA** 269273		S	
	200	8-13		**NZMH2-S200-CNA** 269274		S	
	250	8-10		**NZMH2-S250-CNA** 102490		S	

Notes

B = box terminals
S = screw terminals

For further terminal types see accessories

Switches correspond with both UL/CSA and IEC regulations.
IEC switching performance values shown on type label.

Information relevant for export to North America

Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL CCN	DKPU2
CSA File No.	022086
CSA Class No.	1432-01
NA Certification	UL Recognized, CSA certified
Conditions of Acceptability	Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay.
Specially designed for NA	Yes
Suitable for	Branch circuits, feeder circuits
Max. Voltage Rating	[1] 480Y/277 V [2] 600Y/347 V, 480 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Switching capacity SCCR 480Y/277 V 60 Hz I_{cu} kA	Switching capacity SCCR 480 V 60 Hz I_{cu} kA	Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range Overload releases I_r A	Setting range Short-circuit releasess Non-delayed $I_i = I_n \times \ldots$	Motor power 460 V 480 V HP	**Fixed mounting with screw terminals** **Part no.** Article no.	**Price** See Price list	Std. pack	**Information relevant for export to North America**	**Notes**
Motor protection										
100% rated Adjustable overload releases For use in motor circuits with contactor. Additional motor protective characteristics (calibration) to UL508, CSA-C22.2 No. 14-05.										**B = box terminals S = screw terminals** For further terminal types see accessories
Normal switching capacity										
 35	35	90	45-90	2-14	60	**NZMN2-ME90-NA** 118964		S	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Adjustable delay setting t_r • 2 – 20 s at 6 x I_r
		140	70-140	2-14	100	**NZMN2-ME140-NA** 118965		S		
		200	100-200	2-14	150	**NZMN2-ME200-NA** 118966		S		
High switching capacity										
 100	100	90	45-90	2-14	60	**NZMH2-ME90-NA** 118967		S	1 off	
		140	70-140	2-14	100	**NZMH2-ME140-NA** 118968		S		
		200	100-200	2-14	150	**NZMH2-ME200-NA** 118969		S		

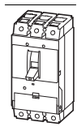
Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL CCN	DKPU2
CSA File No.	022086
CSA Class No.	1432-01
NA Certification	UL Recognized, CSA certified
Conditions of Acceptability	Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay.
Specially designed for NA	Yes
Suitable for	Branch circuits, feeder circuits
Max. Voltage Rating	480 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Switching capacity SCCR 480Y/277 V 60 Hz I_{cu} kA	Switching capacity SCCR 480 V 60 Hz I_{cu} kA	Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range Overload releases I_r A	Setting range Short-circuit releasess Non-delayed $I_i = I_n \times \ldots$	Motor power 460 V 480 V HP	**Fixed mounting with box terminals** **Part no.** Article no.	**Price** See Price list	Std. pack	**Information relevant for export to North America**	**Notes**
Motor protection										
100% rated Adjustable overload releases For use in motor circuits with contactor. Additional motor protective characteristics (calibration) to UL508, CSA-C22.2 No. 14-05.										**B = box terminals S = screw terminals** For further terminal types see accessories
Normal switching capacity										
35	35	90	45-90	2-14	60	**NZMN2-ME90-BT-NA** 142421		S	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label. Adjustable delay setting t_r • 2 – 20 s at 6 x I_r
		140	70-140	2-14	100	**NZMN2-ME140-BT-NA** 142422		S		
		200	100-200	2-14	150	**NZMN2-ME200-BT-NA** 142423		S		
100	100	90	45-90	2-14	60	**NZMH2-ME90-BT-NA** 142424		S	1 off	
		140	70-140	2-14	100	**NZMH2-ME140-BT-NA** 142425		S		
		200	100-200	2-14	150	**NZMH2-ME200-BT-NA** 142426		S		

Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL CCN	DIVQ
NA Certification	Request filed for UL and CSA
Specially designed for NA	Yes, additionally calibrated according to UL 508
Suitable for	Feeder circuits, branch circuits
Max. Voltage Rating	480 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range Short-circuit releases Non-delayed $I_i = I_n \times \ldots$	**Fixed mounting with screw terminals** **Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
Short-circuit protection						**B = box terminals S = screw terminals** For further terminal types see accessories
Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r						
Normal switching capacity						
 90	2-14	**NZMN2-SE90-CNA** 271160		S	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
140	2-14	**NZMN2-SE140-CNA** 271161		S		
220	2-14	**NZMN2-SE220-CNA** 271162		S		

Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL CCN	DKPU2
CSA File No.	022086
CSA Class No.	1432-01
NA Certification	UL Recognized, CSA certified
Conditions of Acceptability	Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay.
Specially designed for NA	Yes
Suitable for	Branch circuits, feeder circuits
Max. Voltage Rating	480 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Rated current = Rated uninterrupted current $I_n = I_u$ A	Setting range Short-circuit releases Non-delayed $I_i = I_n \times \ldots$	**Fixed mounting with screw terminals** **Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
Short-circuit protection						**B = box terminals S = screw terminals** For further terminal types see accessories
Motor protection in conjunction with contactor and overload relay • With short-circuit release • Without overload release I_r						
Normal switching capacity						
 220	2-14	**NZMN3-SE220-CNA** 269341		S	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
350	2-14	**NZMN3-SE350-CNA** 269342		S		
450	2-12	**NZMN3-SE450-CNA** 284465		S		

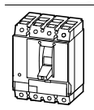
Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL CCN	DKPU2
CSA File No.	022086
CSA Class No.	1432-01
NA Certification	UL Recognized, CSA certified
Conditions of Acceptability	Only used in motor circuits in conjunction with suitable contactor and overload relay. SCCR value applies for complete combination starter only, consisting of instantaneous trip circuit breaker, contactor and overload relay.
Specially designed for NA	Yes
Suitable for	Branch circuits, feeder circuits
Max. Voltage Rating	600 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Switching capacity				Rated current = Rated uninterrupted current	Setting range		
SCCR 480Y/ 277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/ 347 V 60 Hz	SCCR 600 V 60 Hz		Overload releases	Neutral conductor	Short-circuit releases
						I_r × % of phase conductor	Non-delayed
I_{cu}	I_{cu}	I_{cu}	I_{cu}	$I_n = I_u$	I_r		$I_i = I_n$ x ...
kA	kA	kA	kA	A	A	%	

System and cable protection

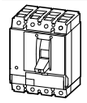
Fixed overload releases I_r

Basic switching capacity



25	**25**	–	–	125	125	100	Approx. 6 - 10
		–	–	150	150	100	Approx. 6 - 10
		–	–	175	175	100	Approx. 6 - 10
		–	–	200	200	100	Approx. 6 - 10
		–	–	225	225	100	Approx. 6 - 10
		–	–	250	250	100	Approx. 6 - 10

Normal switching capacity



35	**35**	–	–	125	125	100	Approx. 6 - 10
		–	–	150	150	100	Approx. 6 - 10
		–	–	175	175	100	Approx. 6 - 10
		–	–	200	200	100	Approx. 6 - 10
		–	–	225	225	100	Approx. 6 - 10
		–	–	250	250	100	Approx. 6 - 10

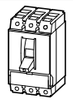
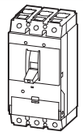
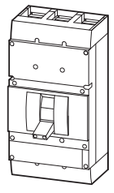
High switching capacity

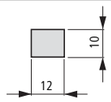
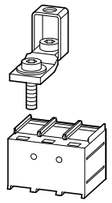
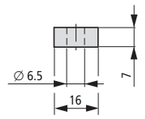
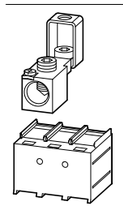
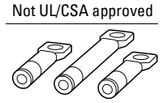
150	**150**	–	–	125	125	100	Approx. 6 - 10
100	**100**	–	–	150	150	100	Approx. 6 - 10
		–	–	175	175	100	Approx. 6 - 10
		–	–	200	200	100	Approx. 6 - 10
		–	–	225	225	100	Approx. 6 - 10
		–	–	250	250	100	Approx. 6 - 10

Fixed mounting
with box terminals

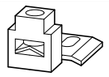
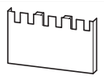
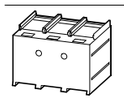
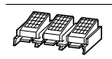
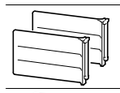
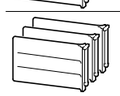
Part no. Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
				B = box terminals **S = screw terminals** For further terminal types see accessories
NZMB2-4-AF125-BT-NA 113011		B	1 off	Switches correspond with both UL/CSA and IEC regulations. IEC switching performance values shown on type label.
NZMB2-4-AF150-BT-NA 113012		B		
NZMB2-4-AF175-BT-NA 113013		B		
NZMB2-4-AF200-BT-NA 113014		B		
NZMB2-4-AF225-BT-NA 113015		B		
NZMB2-4-AF250-BT-NA 113016		B		
NZMN2-4-AF125-BT-NA 113005		B	1 off	
NZMN2-4-AF150-BT-NA 113006		B		
NZMN2-4-AF175-BT-NA 113007		B		
NZMN2-4-AF200-BT-NA 113008		B		
NZMN2-4-AF225-BT-NA 113009		B		
NZMN2-4-AF250-BT-NA 113010		B		
NZMH2-4-AF125-BT-NA 113017		B	1 off	
NZMH2-4-AF150-BT-NA 113018		B		
NZMH2-4-AF175-BT-NA 113019		B		
NZMH2-4-AF200-BT-NA 113020		B		
NZMH2-4-AF225-BT-NA 113021		B		
NZMH2-4-AF250-BT-NA 113022		B		

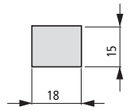
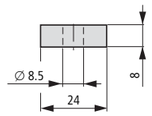
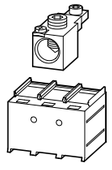
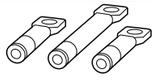
Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.: E31593
UL CCN: DIVQ
CSA File No.: –
CSA Class No.: –
NA Certification: UL Listed
Specially designed for NA: Yes
Suitable for: Feeder circuits, branch circuits
Current Limiting CB: Yes
Max. Voltage Rating: 480 V
Degree of Protection: IEC: IP20; UL/CSA Type: -

	Rated current = Rated uninterrupted current	Switching capacity SCCR 480Y/277 V 60 Hz	SCCR 480 V 60 Hz	SCCR 600Y/347 V 60 Hz	SCCR 600 V 60 Hz	Response value of short-circuit releases	**Fixed mounting** with screw terminals **Part no.** Article no.	**Price** See price list	Std. pack	**Information relevant for export to North America**	**Notes**
	$I_n = I_u$	I_{cu}	I_{cu}	I_{cu}	I_{cu}	I_i					
	A	kA	kA	kA	kA	A					
Molded case switches for North America											**B = box terminals** **S = screw terminals** For further terminal types see accessories
With permanently set short-circuit release (self-protection)											
3 switch positions I, +, 0 Can be remotely operated with shunt release XU/XA, remote operator XR, Can be equipped with trip-indicating auxiliary contact M22-K..											
	63	**35**	–	–	–	1250	Screw terminals as accessories				
	100			–	–	1250					
	125			–	–	1250					
	160	**100**	**100**	50	–	2500	**NS2-160-NA** 102684				S
	200					2500	**NS2-200-NA** 102685				S
	250					2500	**NS2-250-NA** 102686				S
	400	**100**	**100**	50	50	6600	**NS3-400-NA** 102687				S
	600					6600	**NS3-600-NA** 102688				S
	800	**65**	**65**	42	42	25000	**NS4-800-NA** 102689				S
	1000					25000	**NS4-1000-NA** 102690				S
	1200					25000	**NS4-1200-NA** 102691				S
									B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E148671 UL CCN: WJAZ CSA File No.: 022086 CSA Class No.: 4652-06 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -	IEC/EN 60947-2: circuit-breaker without overcurrent protection (CBI-X) with main switch characteristics and isolating characteristics to IEC/EN 60204
							NS1-63-NA 102681				
							NS1-100-NA 102682				
							NS1-125-NA 102683				
							NS2-160-BT-NA 107578		B	1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E148671 UL CCN: WJAZ CSA File No.: 022086 CSA Class No.: 4652-06 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Max. Voltage Rating: 600Y/347 V Degree of Protection: IEC: IP20; UL/CSA Type: -
							NS2-200-BT-NA 107579		B		
							NS2-250-BT-NA 107610		B		
							Terminals as accessory			1 off	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E148671 UL CCN: WJAZ CSA File No.: 022086 CSA Class No.: 4652-06 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Max. Voltage Rating: 600 V Degree of Protection: IEC: IP20; UL/CSA Type: -

	Max. cable connection area	Number of poles	For use with	Terminal capacity Cable Cable lugs	Terminal capacity Terminal capacity mm²	AWG/kcmil	Terminal capacity Copper strip No. of discs × width × disc thickness mm	Terminal capacity Copper bar width x thickness mm	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Box terminal													
Standard equipment													
		3 pole	NZM1, PN1, N(S)1	Copper cable	1 x 10 - 70 2 x 6 - 25 [1]	1 x 12 - 2/0	≧ 2 x 9 x 0.8	–	**NZM1-XKC** 260015		1 set	Standard connection with all NZM1, PN1 and N(S)1 switches. Conversion kit for circuit-breaker with screw terminal. Contains parts for a 3 or 4 pole switch side. Fitted within the switch housing. Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		4 pole	NZM1-4, PN1-4, N1-4						**NZM1-4-XKC** 267075		1 set		–
Screw terminals													
		3 pole	NZM1, PN1, N(S)1	Copper cable lugs Aluminium cable lugs	1 x 10 - 70 2 x 6 - 25 1 x 10 - 35 2 x 10 - 35 [1]	1 x 12 - 2/0	–	≧ 12 x 5	**NZM1-XKS** 260019		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. Flush mounting outside the switch housing. Cover NZM1(-4)-XKSA must be fitted (included as standard).	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		4 pole	NZM1-4, PN1-4, N1-4						**NZM1-4-XKS** 266725		1 set		–
Tunnel terminal													
		3 pole	NZM1, PN1, N(S)1	Copper cable ⊙ ▽ Aluminium cable ⊙ ▽	1 x 16 - 95 [1]	1 x 6 - 3/0 -	–	–	**NZM1-XKA** 266730		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. With control circuit terminal for 1 x 0.75 - 2.5 mm² (18 - 14 AWG) or 2 x 0.75 - 1.5 mm² (18 - 14 AWG) copper conductor. Flush mounting outside the switch housing. Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules. Cover NZM1(-4)-XKSA must be fitted (included as standard).	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		4 pole	NZM1-4, PN1-4, N1-4						**NZM1-4-XKA** 266731		1 set		–
Rear terminal bolts													
Not UL/CSA approved													
	–	3 pole	NZM1, PN1, N1	Copper cable lugs Aluminium cable lugs	1 x 10-70 2 x 6-25 1 x 10-35 2 x 10-35 [1]	–	–	min. 12 x 5 max. 16 x 5	**NZM1-XKR** 266734		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches.	–
	–	4 pole	NZM1-4, PN1-4, N1-4						**NZM1-4-XKR** 266737		1 set		–

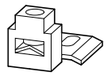
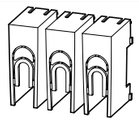
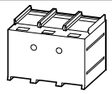
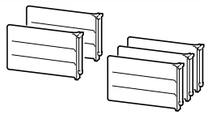
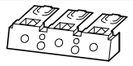
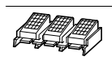
Notes [1] Up to 95 mm² can be connected depending on make of cable.

	Max. cable connection area	Number of poles	For use with	Connection	Terminal capacity[1] mm²	AWG/kcmil	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**	
Control cable terminals												
	–	3 and 4 pole	NZM1(-4), PN1(-4), N(S)1(-4)	Screw terminals	1 x 0.75-2.5 2 x 0.75-1.5	1 x 18-14 2 x 18-16	**NZM1-XSTS** 260150		1 set	Contains 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 Height or thickness of connections: 2 mm	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E140305 DIHS 022086 1437-01 UL Listed, CSA certified Refer to main component information
	–	3 and 4 pole	NZM1(-4), PN1(-4), N(S)1(-4)	Box terminal	1 x 0.75-2.5 2 x 0.75-1.5	1 x 18-14 2 x 18-16	**NZM-XSTK** 266739		1 set	Contains for two terminal locations located at top or bottom for 3 or 4 pole circuit-breakers. cannot be combined with NZM1(-4)-XIPK IP2X protection against contact with a finger. Degree of protection IP1X Height or thickness of connections: 2 mm		
Terminal covers knockout												
Not UL/CSA approved For box terminal												
	–	3 pole	NZM1, PN1, N1	–	–	–	**NZM1-XKSFA** 100780		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection (simplified finger protection). Cannot be combined with NZM-XSTK control circuit terminal.	UL/CSA certification not required	
	–	4 pole	NZM1-4, PN1-4, N1-4	–	–	–	**NZM1-4-XKSFA** 100781		1 off		–	
Cover												
	–	3 pole	NZM1, PN1, N(S)1	–	–	–	**NZM1-XKSA** 260021		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Contact protection against direct contact where cable lugs, bars or tunnel terminals are used. Contained in the set with tunnel terminals and screw terminals. When using insulated conductor material to degree of protection IP1X.	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E31593 DIHS 022086 1437-01 UL Listed, CSA certified Refer to main component information
	–	4 pole	NZM1-4, PN1-4, N1-4	–	–	–	**NZM1-4-XKSA** 266741		1 off		–	
IP2X protection against contact with finger												
For box terminal												
	–	3 pole	NZM1, PN1, N1	–	–	–	**NZM1-XIPK** 266744		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection 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.	–	
	–	4 pole	NZM1-4, PN1-4, N1-4	–	–	–	**NZM1-4-XIPK** 266745		1 set		–	
For covers NZM1(-4)-XKSA or NZM1…(C)NA, N(S)1…NA												
	–	3 pole	NZM1, PN1, NS1	–	–	–	**NZM1-XIPA** 266748		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection to IP2X.	UL/CSA certification not required	
	–	4 pole	NZM1-4, PN1-4, N1-4	–	–	–	**NZM1-4-XIPA** 266749		1 set		–	
Phase isolators												
	–	3 pole	NZM1, PN1, N(S)1	–	–	–	**NZM1-XKP** 119862		1 set	Contains parts, including insulating plate for mounting plate, for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. Insulation protection up to a rated operating voltage U_e of 415 V AC when minimum distances are not maintained. Can not be combined with connection on rear NZM1(-4)-XKR.	UL/CSA certification not required	
	–	4 pole	NZM1-4, PN1-4, N1-4	–	–	–	**NZM1-4-XKP** 119863		1 set		–	

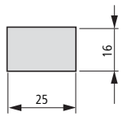
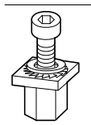
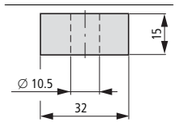
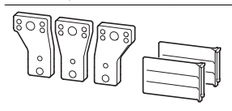
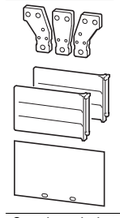
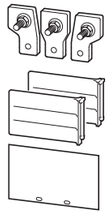
	Max. cable connection area	Number of poles	For use with	Terminal capacity Cable Cable lugs	Terminal capacity[1)] mm²	AWG/kcmil	Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width x thickness mm
Box terminal								
		3 pole	NZM2, PN2, N(S)2 ≤ 160 A	Copper cable	1 x 10-185 2 x 4-70	1 x 12 - 350	≧ 2 x 9 x 0.8	–
			NZM2, PN2, N(S)2 > 160 A					
		4 pole	NZM2-4, PN2-4, N2-4 ≤ 160 A					
			NZM2-4, PN2-4, N2-4 > 160 A					
Screw terminals								
Standard equipment								
		3 pole	NZM2, PN2, N(S)2	Copper cable lugs Aluminium cable lugs	1 x 10 - 185 2 x 4 - 70 1 x 10 - 50 2 x 10 - 50	1 x 12 - 350	≧ 2 x 16 x 0.8	≧ 16 x 5
		4 pole	NZM2-4, PN2-4, N2-4					
Tunnel terminal								
		3 pole	NZM2, PN2, N(S)2	Copper cable Aluminium cable	1 x 16 - 185 1 x 16 - 185 Up to 240 mm² can be connected depending on the cable manufacturer.	1 x 6 - 350	–	–
		4 pole	NZM2-4, PN2-4, N2-4					
Rear terminal bolts								
Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.								
	–	3 pole	NZM2, PN2, N2	Copper cable lugs Aluminium cable lugs	1 x 10 - 185 2 x 4 - 70 1 x 10 - 50 2 x 10 - 50	–	≧ 2 x 16 x 0.8 ≦ 6 x 24 x 0.5	≧ 16 x 5 ≦ 20 x 5
		4 pole	NZM2-4, PN2-4, N2-4					

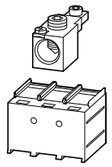
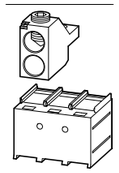
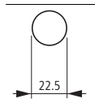
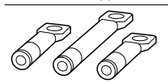
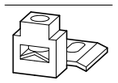
Notes [1)] Up to 240 mm² can be connected depending on the cable manufacturer.

Part no. suffix Article no. for ordering with basic device	**Price** See price list	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
+NZM2-160-XKCO 262218		**NZM2-160-XKC** 262240		1 set	Part no. suffix and part no.contain parts for a circuit-breaker side at top or bottom for 3 or 4 pole switches. Conversion kit for circuit-breaker with screw terminal. Fitted within the switch housing. O = for fitting at the top U = for fitting at the bottom U_e ≧ 525 V AC: Use NZM2(-4)-XKSA cover. Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules.	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E31593 UL CCN DIHS CSA File No. 022086 CSA Class No. 1432-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
+NZM2-160-XKCU 262223		–		1 set		
+NZM2-250-XKCO 262242		**NZM2-250-XKC** 262244		1 set		
+NZM2-250-XKCU 262243		–		1 set		
+NZM2-4-160-XKCO 266751		**NZM2-4-160-XKC** 266755		1 set		–
+NZM2-4-160-XKCU 266753		–		1 set		
+NZM2-4-250-XKCO 266752		**NZM2-4-250-XKC** 266756		1 set		
+NZM2-4-250-XKCU 266754		–		1 set		
–		**NZM2-XKS** 260030		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Standard connection with all NZM2, PN2 and N2 circuit-breakers. Conversion kit for circuit-breaker with box terminal. Use special cable lugs narrow version, → 17/88 Fitted within the switch housing. If a bar is used, insulation (400 mm) e.g sleeving and a NZM2(-4)-XKSA cover are required. U_e ≧ 525 V AC: With all other connection materials, e.g. cables and strips, use cover NZM2(-4)-XKSA.	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E31593 UL CCN DIHS CSA File No. 022086 CSA Class No. 1432-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
–		**NZM2-4-XKS** 266750		1 set		–
–		**NZM2-XKA** 271457		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. With control circuit terminal for 1 x 0.75 - 2.5 mm² (18 - 14 AWG) or 2 x 0.75 - 1.5 mm² (18 - 16 AWG) copper conductor. Flush mounting outside the switch housing. Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules. Cover NZM2(-4)-XKSA must be fitted (included as standard).	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E31593 UL CCN DIHS CSA File No. 022086 CSA Class No. 1432-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
–		**NZM2-4-XKA** 271458		1 set		–
+NZM2-XKRO 266763		**NZM2-XKR** 266765		1 set	Part no. suffix and part no.contain parts for a circuit-breaker side at top or bottom for 3 or 4 pole switches. O = for fitting at the top U = for fitting at the bottom	–
+NZM2-XKRU 266764		–		1 set		
+NZM2-4-XKRO 266766		**NZM2-4-XKR** 266768		1 set		
+NZM2-4-XKRU 266767		–		1 set		

	Number of poles	For use with	Terminal capacity Connection	Terminal capacity[1] mm²	AWG/kcmil	**Part no. suffix** Article no. for ordering with basic device	**Price** See price list
Control cable terminals							
	3 and 4 pole	NZM2(-4), PN2(-4), N(S)2(-4)	Screw terminals	1 x 0.75 - 2.5 2 x 0.75 - 1.5	1 x 18 - 14 2 x 18 - 16	–	
	3 and 4 pole	NZM2(-4), PN2(-4), N(S)2(-4)	Box terminal			–	
Cable lug cover							
	3 pole	NZM2, PN2, NS2	Copper cable lugs Aluminium cable lugs	1 x 10-185 2 x 4-70 1 x 10-50 2 x 10-50	–	–	
	4 pole	NZM2-4, PN2-4, N2-4			–	–	
Cover							
	3 pole	NZM2, PN2, NS2	–	–	–	–	
	4 pole	NZM2-4, PN2-4, N2-4	–	–	–	–	
Phase isolators							
	3 pole	NZM2, PN2, N(S)2	–	–	–	–	
	4 pole	NZM2-4, PN2-4, N2-4	–	–	–	–	
Terminal covers, knockout							
	3 pole	NZM2, PN2, N(S)2	–	–	–	**+NZM2-XKSFA0** 108269	
			–	–	–	**+NZM2-XKSFAU** 108270	
	4 pole	NZM2-4, PN2-4, N2-4	–	–	–	**+NZM2-4-XKSFA0** 108271	
			–	–	–	**+NZM2-4-XKSFAU** 108272	
IP2X protection against contact with finger							
For box terminal							
	3 pole	NZM2, PN2, N(S)2	–	–	–	–	
	4 pole	NZM2-4, PN2-4, N2-4	–	–	–	–	
For covers NZM2(-4)-XKSA or NZM2(-4) or NZM2…(C)NA and N(S)2…NA							
	3 pole	NZM2, PN2, N(S)2	–	–	–	–	
	4 pole	NZM2-4, PN2-4, N2-4	–	–	–	–	
Copper cable lug							
Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.							
	3 and 4 pole	NZM2(-4), PN2(-4), N2(-4)	–	150 mm²	–	–	
			–	120 mm²	–	–	
			–	95 mm²	–	–	
			–	185 mm²	–	–	

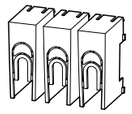
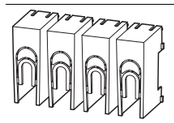
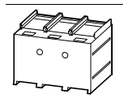
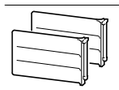
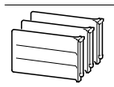
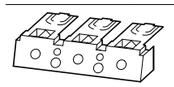
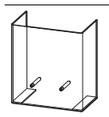
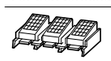
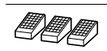
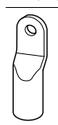
Part no. Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
NZM2-XSTS 260156		1 set	Contains parts for two terminal locations located at top or bottom for 3 or 4 pole switches. Included as standard with tunnel terminal. Degree of protection IP1X NZM-XSTK cannot be combined with NZM1(-4)-XIPK IP2X protection against contact with a finger. Height or thickness of connections: 2 mm	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E140305 UL CCN DIHS CSA File No. 022086 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
NZM-XSTK 266739		1 set		
NZM2-XKSAE 119868		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Contact protection where cable lugs are used on screw terminals. When using insulated conductor material, degree of protection IP2X	UL/CSA certification not required
NZM2-4-XKSAE 119870		1 set		–
NZM2-XKSA 260038		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Contact protection where cable lugs, bars or tunnel terminals are used. When using insulated conductor material, degree of protection IP1X	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E31593 UL CCN DIHS CSA File No. 22086 CSA Class No. 1432-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
NZM2-4-XKSA 266770		1 off		–
NZM2-XKP 119864		1 set	Contains parts, including insulating plate for mounting plate, for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. Can not be combined with connection on rear NZM2(-4)-XKR. Insulation protection up to a rated operating voltage U_e of 415 V AC when minimum distances are not maintained.	UL/CSA certification not required
NZM2-4-XKP 119865		1 set		–
NZM2-XKSFA 104640		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection (simplified finger protection). O = for fitting at the top U = for fitting at the bottom	UL/CSA certification not required
NZM2-4-XKSFA 104641		1 off		
NZM2-XIPK 266773		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection to IP2X. Protection on grasping terminal chamber when connecting cables in box terminals. With two conductors maximum cross-section 25 mm² or AWG4. Can not be combined with control cable terminal NZM-XSTK.	UL/CSA certification not required
NZM2-4-XIPK 266774		1 set		–
NZM2-XIPA 266777		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection to IP2X. When fitting to NZM2-..-(C)NA or NZM...-NA: With 2 conductors maximum cross-section 25 mm² or AWG4.	UL/CSA certification not required
NZM2-4-XIPA 266778		1 set		–
KS150-NZM7 059777		3 off	Contains a cable lug for 3 or 4 pole switch. Special cable lug, narrow style	–
KS120-NZM7 059776				
KS95-NZM7 059775				
NZM2-XKS185 260032				

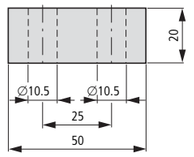
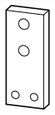
Max. cable connection area	Number of poles	For use with	Rated current[1] I_n A	Terminal capacity Cable Cable lugs	Terminal capacities[1] mm²	AWG/kcmil	Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width x thickness mm	**Part no. suffix** Article no. for ordering with basic device	**Price** See price list	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**	
Box terminal																
 	3 pole	NZM3(-4), PN3(-4), N(S)3(-4)	max. 500 400 UL/ CSA	Copper cable Copper cable	1 x 35 - 240 2 x 16 - 120	1 x 2 - 350	min. 6 x 16 x 0.8 max. 10 x 24 x 1.0 or max. 11 x 21 x 1	–	**+NZM3-XKCO** 262246		**NZM3-XKC** 260042		1 set	Part no. suffix and part no.contain parts for a circuit-breaker side at top or bottom for 3 or 4 pole switches. Conversion kit for circuit-breaker with screw terminal. Fitted within the switch housing. O = for fitting at the top U = for fitting at the bottom U_e ≧ 525 V AC: Use NZM3(-4)-XKSA cover. Use ferrules with flexible and highly flexible conductors. Observe limited cable cross-section through sleeve.	Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
									+NZM3-XKCU 262245		–				UL File No.	E31593
			630	Copper cable	1 x 35 - 240 2 x 16 - 120	1 x 2 - 350	10 x 24 x 1.0 + 5 x 24 x 1.0 or (2 x) 8 x 24 x 1.0								UL CCN	DIHS
															CSA File No.	022086
															CSA Class No.	1437-01
															NA Certification	UL Listed, CSA certified
															Suitable for	Refer to main component information
	4 pole								**+NZM3-4-XKCO** 266781		**NZM3-4-XKC** 266783		1 set		–	
									+NZM3-4-XKCU 266782		–					
Screw connection, standard																
 	3 pole	NZM3, PN3, N(S)3	630	Copper cable lugs	1 x 16 - 300 2 x 16 - 240	1 x 4 - 350 2 x 350	10 x 32 x 1.0 + 5 x 32 x 1.0	30 x 10 + 30 x 5	–	–	**NZM3-XKS** 260039		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Standard connection with all NZM3, PN3 and N3 circuit-breakers. Conversion kit for circuit-breaker with box terminal. Use special cable lugs narrow version, → 17/88 Fitted within the switch housing. If a bar is used, insulation (400 mm) heat-shrink tubing and a cover NZM3(-4)-XKSA are required. U_e ≧ 525 V AC: For all other connection types use cover NZM3(-4)-XKSA.	Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
				Aluminium cable lugs	1 x 10 - 120 2 x 10 - 120	1 x 4 - 350 2 x 350									UL File No.	E31593
															UL CCN	DIHS
															CSA File No.	022086
															CSA Class No.	1437-01
															NA Certification	UL Listed, CSA certified
															Suitable for	Refer to main component information
	4 pole	NZM3-4, PN3-4, N(S)3-4							–	–	**NZM3-4-XKS** 266780		1 set		–	
Connection width extension																
One hole, for screws or terminals																
	3 pole	NZM3, PN3, N(S)3	630	Copper cable lugs Aluminium cable lugs	2 x 300	2 x 500	(2 x) 10 x 50 x 1.0	(2 x) 10 x 50	–	–	**NZM3-XKV70** 100514		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Central drilling for e.g. up to 2 cable lugs per phase. For fitting to switches with screw terminal. Phase isolator and insulation plate are included as standard. Distance between pole centres with NZM3(-4)-XKV70: 70 mm Hole for control wire exists. Connection terminals NZM3(-4)-XK300 and NZM3(-4)-XK22X21 can be installed.	Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
															UL File No.	E140305
															UL CCN	DIHS
															CSA File No.	022086
															CSA Class No.	1432-01
															NA Certification	UL Listed, CSA certified
	4 pole	NZM3-4, PN3-4, N3-4							–	–	**NZM3-4-XKV70** 100515		1 set		–	
Two holes, for screws or terminals																
	3 pole	NZM3, PN3, N(S)3	630	Copper cable lugs	NZM3-XKV70-2: 4 x 35 - 185 NZM3-XKV70-2 + NZM4-XKA: 4 x 50 - 240	NZM3-XKV70-2: 2 x 350 NZM3-XKV70-2 + NZM4-XKA: 4 x 500	NZM3-XKV70-2 + NZM4-XKB: ≧ 6 x 16 - 0.8 ≦ (2 x) 10 x 32 x 1	(2 x) 10 x 50	–	–	**NZM3-XKV70-2** 119860		1 set	Contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Double hole fitting for up to four 185 mm² cable lugs, 50 mm bbar or large flat cable terminal NZM4-XKB or large tunnel terminal NZM4-XKA For fitting to switches with screw terminal. Phase isolator, insulation plate and 2 control circuit terminals supplied.	Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
															NA Certification	Request filed for UL and CSA
															Suitable for	Refer to main component information
	4 pole	NZM3-4, PN3-4, N3-4							–	–	**NZM3-4-XKV70-2** 132673					
One threaded stud																
	3 pole	NZM3, PN3, N(S)3	630	Copper cable lugs	2 x 95-300	2 x 500	(2x) 10 x 32 x 1.0	(2 x) 10 x 40	–	–	**NZM3-XKV70KB** 112884		1 set	Contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Threaded stud for cable lugs up to 2 × 300 mm² For fitting to switches with screw terminal. Phase isolator, insulation plate and 2 control circuit terminals supplied.	–	

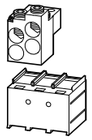
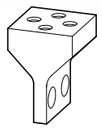
	Max. cable connection area	Number of poles	For use with	Rated current[1] I_n A	Terminal capacity Cable Cable lugs	Terminal capacities[1] mm²	AWG/kcmil	Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width x thickness mm	**Part no. suffix** Article no. for ordering with basic device	**Price** See price list	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Terminals for connection width extension																
		3 pole	NZM3, PN3, N(S)3	Max. 500	Copper cable	1 x 120 - 300	–	–	–	–		**NZM3-XK300** 100782		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Only in combination with connection width extension NZM3(-4)-XKV70. Use ferrules with flexible and highly flexible conductors. With control cable terminal for 1 × 0.75 – 2.5 mm² or 2 × 0.75 – 1.5 mm² copper conductor as standard.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		4 pole	NZM3-4, PN3-4, N3-4							–		**NZM3-4-XK300** 100783		1 set		–
Not UL/CSA approved																
		3 pole	NZM3, PN3, N(S)3	630	–	–	–	(2 ×) 11 x 21 x 1.0	–	–		**NZM3-XK22X21** 100784		1 set		–
		4 pole	NZM3-4, PN3-4, N3-4							–		**NZM3-4-XK22X21** 100785		1 set		
Tunnel terminal																
		3 pole	NZM3, PN3, N(S)3	Max. 350	Copper cable ⊙ ⍒ Aluminium cable ⊙ ⍒	1 x 16 - 185	1 x 6 - 350	–	–	–		**NZM3-XKA1**[2] 271459		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. With control cable terminal for 1 × 0.75 – 2.5 mm² (18 – 14 AWG) or 2 × 0.75 – 1.5 mm² (18 – 16 AWG) copper cable as standard. Fitting outside switch housing. Use ferrules with flexible and highly flexible conductors. Max. cross section shown can only be connected when flexible and without ferrules. Cover NZM3(-4)-XKSA must be fitted (included as standard).	–
		4 pole	NZM3-4, PN3-4, N3-4							–		**NZM3-4-XKA1**[2] 271460		1 set		
		3 pole	NZM3, PN3, N(S)3	Max. 630	Copper cable ⊙ ⍒ Aluminium cable ⊙ ⍒	1 x 50-240 2 x 50-240	1 x 0-500 2 x 0-500	–	–	–		**NZM3-XKA2** 271461		1 set		Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		4 pole	NZM3-4, PN3-4, N3-4							–		**NZM3-4-XKA2** 271462		1 set		–
Rear terminal bolts																
Not UL/CSA approved																
		3 pole	NZM3, PN3, N3	Max. 630 Max. 500	Copper cable lugs Aluminium cable lugs	1 x 16-240 2 x 16-240 1 x 10-120 2 x 10-120	–	min. 6 x 16 x 0.8 max. 10 x 32 x 1.0	min. 20 x 5 max. 30 – 10	**+NZM3-XKRO** 266790		**NZM3-XKR** 266792		1 set	Part no. suffix and part no.contain parts for a circuit-breaker side at top or bottom for 3 or 4 pole switches. O = for fitting at the top U = for fitting at the bottom	–
										+NZM3-XKRU 266791		–		1 set		
		4 pole	NZM3-4, PN3-4, N3-4							**+NZM3-4-XKRO** 266793		**NZM3-4-XKR** 266795		1 set		
										+NZM3-4-XKRU 266794		–		1 set		
Control cable terminals																
		3 and 4 pole	NZM3, PN3, N(S)3	–	Screw terminals	1 x 0.75-2.5 2 x 0.75-1.5	1 x 18-14 2 x 18-16	–	–	–	–	**NZM3/4-XSTS** 266797		1 set	Contains 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 Height or thickness of connections: 2 mm	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
		3 and 4 pole	NZM3-4, PN3, N(S)3-4	–	Box terminal	1 x 0.75-2.5 2 x 0.75-1.5	1 x 18-14 2 x 18-16	–	–	–	–	**NZM-XSTK** 266739		1 set	Contains 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 connections: 2 mm	

Notes

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

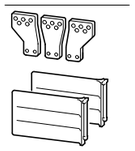
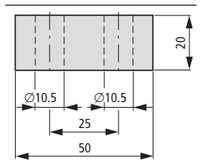
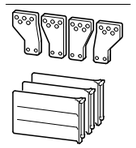
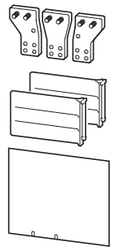
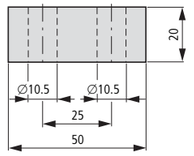
	Max. cable connection area	Number of poles	For use with	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Cable lug cover								
	–	–	3 pole	NZM3, PN3, N(S)3	**NZM3-XKSAE** 119869		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Contact protection where cable lugs are used on screw terminals. When using insulated conductor material, degree of protection IP2X.	UL/CSA certification not required
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XKSAE** 119871		1 set		–
Cover									
	–	–	3 pole	NZM3, PN3, N(S)3	**NZM3-XKSA** 260045		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Insulation/protection against direct contact where cable lugs, bars or tunnel terminals are used. Included in set with tunnel terminals. When using insulated conductor material to degree of protection IP1X.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XKSA** 266801		1 off		–
Phase isolators									
	–	–	3 pole	NZM3, PN3, N(S)3	**NZM3-XKP** 100512		1 set	Contains parts, including insulating plate for mounting plate, 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(-4)-XKR connection on rear. Insulation protection where cable lugs, bars, or flat conductor are used.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XKP** 100513		1 set		
Terminal covers, knockout									
	–	–	3 pole	NZM3, PN3, N(S)3	**NZM3-XKSFA** 104642		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection (simplified finger protection).	UL/CSA certification not required
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XKSFA** 104643		1 off		–
Large cover for connection width extension									
	–	–	3 pole	NZM3, PN3, N3 + NZM3-XKV70(-2)	**NZM3-XKSAV** 119858		1 off	Contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Insulation protection/protection against direct contact for connection of cable lugs or bars to connection width extension. Can also be used fir connection width extension NZM3-XKV70 with terminals NZM3-XK300, NZM3-XK22x21 or NZM4-XKA. When using insulated conductor material, degree of protection IP2X.	–
			4 pole	NZM3-4, PN3-4, N3-4 + NZM3-4-XKV70	**NZM3-4-XKSAV** 132675		1 off		
IP2X protection against contact with finger									
For box terminal									
	–	–	3 pole	NZM3, PN3, N3	**NZM3-XIPK** 266804		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. Enhanced contact protection to IP2X. Protection when reaching into the cable connection area with the connection of cables in the box terminal. with 2 conductors max. cross section 70 mm². Cannot be combined with NZM-XSTK control circuit terminal.	UL/CSA certification not required
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XIPK** 266805		1 set		–
For covers NZM3(-4)-XKSA or NZM3...(C)NA and N(S)3…NA									
	–	–	3 pole	NZM3, PN3, N(S)3	**NZM3-XIPA** 266808		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Enhanced contact protection to IP2X. When fitting to NZM3...-(C)NA or N3...-NA: with 2 conductors max. cross section 70 mm².	UL/CSA certification not required
	–	–	4 pole	NZM3-4, PN3-4, N3-4	**NZM3-4-XIPA** 266809		1 set		–
Copper cable lug									
Not UL/CSA approved When using cable lugs **without** NZM3(-4)-XKSA cover, they must be insulated.									
	185 mm²	–	3 and 4 pole	NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XKS185** 260040		3 off	The part no. contains a cable lug for 3 or 4 pole switch. Special cable lug, narrow style	–
	240 mm²	–			**NZM3-XKS240** 260041		3 off		–

		Space requirement	Rated current[1)]	Number of poles	For use with	Terminal capacity			Terminal capacity		**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
						Cable Cable lugs	Terminal capacity	AWG/kcmil	Copper strip No. of discs × width × disc thickness	Copper bar width x thickness					
			I_n A				mm²		mm	mm					
Screw terminals															
Threaded stud standard equipment	2-hole		Max. 1600	3 and 4 pole	NZM4(-4) N4(-4) N(S)4	Copper cable lugs	1 x 120-185 4 x 50-185	1 x 250-350 4 x 0-350	(2 x) 10 x 50 x 1.0	(2 x) 50 x 10	–			Double hole fitting with M10 threaded stud at 25 mm spacing. Use special cable lug narrow version.	–
Screws				3 pole	NZM4, N(S)4						**NZM4-XKS** 127736		1 set	Double hole fitting with M10 screw at 25 mm spacing. Use special cable lug narrow version.	UL/CSA certification not required
				4 pole	NZM4-4, N4-4						**NZM4-4-XKS** 127737		1 set		–
Module plate															
	1-hole	–	Max. 1250	3 pole	NZM4, N(S)4	Copper cable lugs	1 x 120-300 2 x 95-300	1 x 250-600 2 x 000-600	(2 x) 10 x 40 x 1.0 (2 x) 10 x 50 x 1.0	(2 x) 40 x 10 (2 x) 50 x 10	**NZM4-XKM1** 266814		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. For M10 screws. Can be enlarged for M12 screws. Use special cable lug narrow version. Can be fitted to circuit-breaker with screw terminal. Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 22086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
				4 pole	NZM4-4, N4-4						**NZM4-4-XKM1** 266815		1 set		–
	2-hole	–	Max. 1400	3 pole	NZM4, N(S)4		2 x 95-185 4 x 35-185	2 x 000-350 4 x 2-350	(2 x) 10 x 50 x 1.0	(2 x) 50 x 10	**NZM4-XKM2** 266820		1 set		Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 22086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
				4 pole	NZM4-4, N4-4						**NZM4-4-XKM2** 266821		1 set		–
	2-hole	–	Max. 1250	3 pole	NZM4, N(S)4	Copper cable lugs	2 x 95-300	2 x 000-600	(2 x) 10 x 40 x 1.0 (2 x) 10 x 50 x 1.0	(2 x) 40 x 10 (2 x) 50 x 10	**NZM4-XKM2S-1250** 284471		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole circuit-breakers. Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 22086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
				4 pole	NZM4-4, N4-4						**NZM4-4-XKM2S-1250** 284472		1 set		–
		–	Max. 1600	3 pole	NZM4, N(S)4						**NZM4-XKM2S-1600** 284473		1 set		Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E31593 UL CCN: DIHS CSA File No.: 22086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Suitable for: Refer to main component information
				4 pole	NZM4-4, N4-4						**NZM4-4-XKM2S-1600** 284474		1 set		–

	Rated current [1] I_n A	Number of poles	For use with	Terminal capacity Cable Cable lugs	Terminal capacity mm²	AWG/kcmil	Terminal capacity Copper strip No. of discs × width × disc thickness mm	Copper bar width x thickness mm	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Flat cable terminal													
	Max. 1100	3 pole	NZM4, N(S)4	–	–	–	min. 6 x 16 x 0.8 max. (2 x) 10 x 32 x 1.0	–	**NZM4-XKB** 266829		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Conversion kit for circuit-breaker with screw terminal. Insulation using cover NZM4(-4)-XKSA or phase divider NZM4(-4)-XKP necessary. When the circuit-breaker is installed on a conductive mounting plate, cover NZM4(-4)-XKSA must be used With control circuit terminal for 1 x 0.75-2.5 mm² or 2x 0.75-1.5 mm² copper conductors as standard.	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking NA Certification Request filed for UL and CSA
		4 pole	NZM4-4, N4-4	–	–	–	min. 6 x 16 x 0.8 max. (2 x) 10 x 32 x 1.0	–	**NZM4-4-XKB** 266831		1 set		–
Tunnel terminal													
  	Max. 1400	3 pole	NZM4, N(S)4	Copper cable ☺ ♀ Aluminium cable ☺ ♀	1 x 50-240 4 x 50-240	1 x 0-500 4 x 0-500	–	–	**NZM4-XKA** 266836		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. With control circuit terminal for 1 x 0.75-2.5 mm² (18-14 AWG) or 2 x 0.75-1.5 mm² (18-16 AWG) copper cable as standard. Can be fitted to circuit-breaker with screw terminal. Use ferrules with flexible and highly flexible conductors. Cover NZM4(-4)-XKSA must be fitted (included as standard).	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E31593 UL CCN DIHS CSA File No. 22086 CSA Class No. 1432-01 NA Certification UL Listed, CSA certified Suitable for Refer to main component information
		4 pole	NZM4-4, N4-4				–	–	**NZM4-4-XKA** 266837		1 set		–
Rear terminal bolts													
Not UL/CSA approved													
	Max. 1250	3 pole	NZM4, N4	Copper cable lugs Aluminium cable lugs	1 x 120-185 2 x 95-185 4 x 35-185 1 x 185 2 x 70-185 4 x 50-185	–	(2 x) 10 x 50 x 1.0	(2 x) 50 x 10	**NZM4-XKR** 266842		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Can also be retrofitted: Module plate NZM4...-XKM... or connection width extension NZM4-...-XKV...	–
		4 pole	NZM4(-4), N4(-4)						**NZM4-4-XKR** 266843		1 set		–

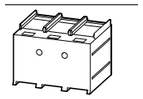
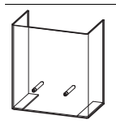
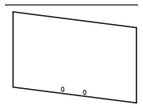
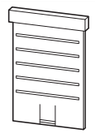
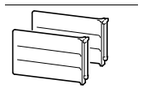
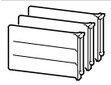
Notes

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

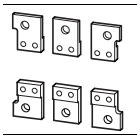
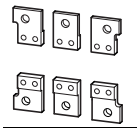
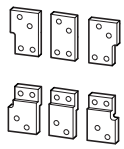
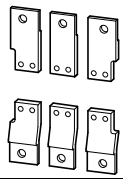
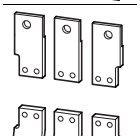
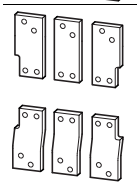
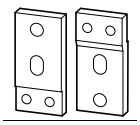
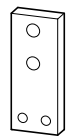
	Space requirement	Rated current[1]	Number of poles	For use with	Terminal capacity			Terminal capacity		**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**	
					Cable Cable lugs	Terminal capacity	AWG/kcmil	Copper strip No. of discs × width × disc thickness	Copper bar width x thickness						
		I_n A				mm²		mm	mm						
Connection width extension															
		Max. 1600	3 pole	NZM4, N(S)4	Copper cable lugs	4 x 300 6 x 95-240	4 x 600 6 x 000-500	max. (2 x) 10 x 80 x 1.0	max. (2 x) 80 x 10	**NZM4-XKV95** 281591		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Five-hole fitting, for example, for up to nine cable lugs per phase. Can be fitted to circuit-breaker with screw terminal. Phase isolator supplied. Distance between pole centres with NZM4(-4)-XKV95: 95 mm Installation conditions for current transformer up to 130 mm width with 80 mm bar width. Distance between pole centers with NZM4-XKV110: 107.5 mm Installation conditions for current transformer up to 135 mm width with 80 mm bar width. Distance between pole centers with NZM4-4-XKV120: 122 mm Installation conditions for current transformer up to 164 mm width with 80 mm bar width. 4 mm holes predrilled for control cable terminal. NZM4-XKV95 contains hole for large cover NZM4-XKSAV.	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E31593 DIHS 022086 1432-01 UL Listed, CSA certified Refer to main component information
										NZM4-XKV110 281593					
		Max. 1600	4 pole	NZM4-4, N4-4						**NZM4-4-XKV95** 281592		1 set		–	
										NZM4-4-XKV120 281594				–	
With two threaded studs															
		1600	3 pole	NZM4, N(S)4	Copper cable lugs	4 x 95-300	4 x 500	(2x) 10 x 80 x 1.0	(2 x) 10 x 80	**NZM4-XKV95-2KB** 119861		1 set	Contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Threaded stud for cable lugs up to 4 × 300 mm². Can be fitted to circuit-breaker with screw terminal. Phase isolator, insulation plate and 2 control circuit terminals supplied.	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E31593 DIHS 022086 1432-01 UL Listed, CSA certified Refer to main component information

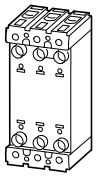
Notes

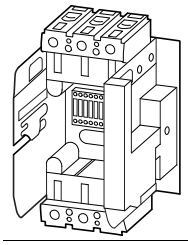
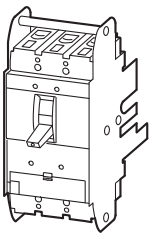
[1] The rated operational current values have been determined according to IEC/EN 60947 (switchgear standard). They generally relate to the max. defined cross-sections and are intended as a general guide. The engineering standards which apply in each case must be observed.

	Number of poles	For use with	Terminal capacity Connection	Terminal capacity mm²	AWG/kcmil
Control cable terminals					
	3 and 4 pole	NZM3(-4), PN3, N(S)3(-4)	Screw terminals	1 x 0.75-2.5 2 x 0.75-1.5	1 x 18-14 2 x 18-16
Cover					
	3 pole	NZM4, N(S)4			
	4 pole	NZM4-4, N4-4			
Cover size					
For connection width extension					
	3 pole	NZM4, N(S)4 + NZM4-XKV95(KB)			
Insulation plate					
	3 pole	NZM4, N(S)4 + NZM4-XKV…			
	4 pole	NZM4(-4), N(S)4(-4) + NZM4-4-XKV…			
Terminal covers, knockout					
	3 pole	NZM4, N(S)4			
	4 pole	NZM4-4, N4-4			
Phase isolators					
	3 pole	NZM4 N(S)4			
	4 pole	NZM4-4, N4-4			
Cable lug					
Not UL/CSA approved When using cable lugs without NZM3(-4)-XKSA cover, they must be insulated.					
	3 and 4 pole	NZM4(-4), N(S)4(-4)		185 mm² 240 mm²	

Part no. Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**	
NZM3/4-XSTS 266797		1 off	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 Height or thickness of the control circuit terminals: NZM-XSTS = 2 mm	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E140305 DIHS 022086 1437-01 UL Listed, CSA certified Refer to main component information
NZM4-XKSA 266846		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Contact protection where cable lugs, bars, flat cable terminals or tunnel terminals are used. Included in set with tunnel terminals. When using insulated conductor material, degree of protection IP1X.	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E31593 DIHS 022086 1432-01 UL Listed, CSA certified Refer to main component information
NZM4-4-XKSA 266847		1 off			
NZM4-XKSAV 119876		1 off	Contains parts for a terminal located at top or bottom for 3 pole circuit-breakers. Insulation protection/protection against direct contact for connection of cable lugs or bars to connection width extension. When using insulated conductor material, degree of protection IP2X.	UL/CSA certification not required	
NZM4-XISP 119866		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Insulation protection when minimum distance from mounting plate not observed. Included with the connection width extension.	Product Standards NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking Request filed for UL and CSA Refer to main component information
NZM4-4-XISP 119867		1 off			
NZM4-XKSFA 292193		1 off	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Increased contact protection with connection of insulated bars or flat band.	UL/CSA certification not required	
NZM4-4-XKSFA 292194		1 off			
NZM4-XKP 281595		1 set	Contains parts for a terminal located at top or bottom for 3 or 4 pole switches. Included with the connection width extension. Cannot be combined with tunnel terminal NZM4(-4)-XKA or rear connection NZM4-XKR. Insulation protection where cable lugs, bars, module plates or tunnel terminals are used.	Product Standards UL File No. UL CCN CSA File No. CSA Class No. NA Certification Suitable for	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking E31593 DIHS 022086 1432-01 UL Listed, CSA certified Refer to main component information
NZM4-4-XKP 281596		1 set			
NZM3-XKS185 260040		3 off	The part no. contains a cable lug for 3 or 4 pole switch. Special cable lug, narrow style		
NZM3-XKS240 260041					

	Rated current I_n A	For use with		**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Adapter set N(ZM)4/N(ZM)12							
Not UL/CSA approved							
	Max. 1000	N4	3 pole	**N4-XAS12-1000** 285609		1 set	Conversion kit from N(ZM)12 to N(ZM)4. With the terminal lugs of the replacement kit all three-pole NZM12 and N12 can be adapted to the connection dimensions of the NZM4 or N4 supplied from model year 1983. 4 pole basic devices, withdrawable units and basic devices with remote operator can not be replaced.
	Max. 1250	N4	3 pole	**N4-XAS12-1250** 285610		1 set	Contents of replacement kits N(ZM)4-XAS12…: 3 connection extensions on outlet side 3 connection extensions on trip block side 2 mounting brackets 4 fixing screws 4 phase isolators 6 fixing screws, nuts and washers Paper drilling template in the instructional leaflet (AWA) The replacement kits have the same dimensions as models N(ZM)12…, which correspond to production status 02/97 to the present.
	Max. 1600	N4	3 pole	**N4-XAS12-1600** 285611		1 set	
	Max. 1000	NZM4	3 pole	**NZM4-XAS12-1000** 285612		1 set	Special feature: Prior to 02/97 the N(ZM)12-800 was supplied with 10 mm instead of 8 mm terminal lugs. With these models the customer must determine the device's year of manufacture by measuring the thickness of the terminal lug and order replacement kit N(ZM)4-XAS12-1250. 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 Addition for devices constructed prior to 1983! Here the replacement kit for switch-disconnectors can be used in full. For circuit-breakers with "long" ZM design, the adapter fit only at the top! At the bottom the devices are about 65 mm longer and the lower connection is about 26 mm deeper. Consequently the bottom adapters are too short and the heights do not correspond.
	Max. 1250	NZM4	3 pole	**NZM4-XAS12-1250** 285613		1 set	
	Max. 1600	NZM4	3 pole	**NZM4-XAS12-1600** 285614		1 set	
	Max. 1250	NZM4, N4	3 pole	**NZM4-XAS14-1250** 283291		1 set	Conversion kit for NZM14 to NZM4. Same connections as NZM14. Contains for both sides of switch. 3 connection extensions on outlet side 3 connection extensions on trip block side. 1 long shroud for the outlet side Paper drilling template in the instructional leaflet (AWA) Cannot be combined with the module plate (NZM4-XKM...), flat cable terminal (NZM4-XKB), connection width extension (NZM4-XKV...), tunnel terminal (NZM4-XKA), connection on rear (NZM4-XKR) and withdrawable unit (NZM4-XAV...).
	1600	NZM4, N4	3 pole	**NZM4-XAS14-1600** 283292		1 set	

	For use with	Number of poles	Part no. Article no.	Price See Price List		Std. pack	Notes
Plug-in units							**B = box terminals** **S = screw terminals**
For circuit-breakers NZM and switch-disconnectors N Not UL/CSA approved Not for U_e > 690 V							For further terminal types see accessories
Plug-in socket							
	Completion through switches with plug-in insert NZM...-SVE...	NZM1 N1	3 pole	**NZM1-XSVS** 109777		B 1 off	$I_{nmax.}$ at: 20°C: 125 A (NZM1) 70°C: 100 A (NZM1) Mounting position: vertical, 90° right, 90° left Order control circuit plug unit separately!
		NZM2 N2	3 pole	**NZM2-XSVS** 266699		S 1 off	$I_{nmax.}$ 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-XSVS** 266700		S 1 off	
Control circuit plug unit							
	–	NZM1, N1 NZM2(-4) N2(-4)	For auxiliary contact, shunt/over-voltage release	**NZM2-XSVHI** 266705		– 1 off	10 terminals
	–	NZM2(-4) N2(-4)	For remote operator	**NZM2-XSVR** 266706		– 1 off	

	For use with	Number of poles	Part no. suffix Article no. for order with basic device	Price See Price List	Std. pack	Part no. Article no. for separate order	Price See Price List		Std. pack	Notes
Withdrawable unit										
For circuit-breakers NZM and switch-disconnectors N Not UL/CSA approved Not for U_e > 690 V										
Socket base For switches with withdrawable carrier. Also for reserved compartments.										
	NZM3 N3	3 pole	–			**NZM3-XAVS** 266711		S	1 off	$I_{nmax.}$ 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 Position indication is mechanical with pointers. Additional electrical indication with auxiliary contacts possible. One N/O or NC contact M22-(C)K01 or M22-(C)K10 each per position. Alternatively also double contacts M22-CK... Complete with control circuit plug unit. All auxiliary contact (HIA, HIN, HIV) and shunt release connections to the control circuit plug unit are already present. Maximum configuration: 3 contacts HIN, 2 contacts HIA, 2 contacts HIV Cannot be combined with adapter set NZM4/NZM14 (NZM4-XSAS14-…) or N(ZM)4/N(ZM)12.
	NZM3-4 N3-4	4 pole	–			**NZM3-4-XAVS** 266712		S	1 off	
	NZM4 N4	3 pole	–			**NZM4-XAVS** 266713		S	1 off	
	NZM4-4 N4-4	4 pole	–			**NZM4-4-XAVS** 266714		S	1 off	
Withdrawable carrier Suitable for socket base Only in combination with switch										
	NZM4 N4	3 pole	**+NZM4-XAVE** 266717		1 off	–		–		
	NZM4-4 N4-4	4 pole	**+NZM4-4-XAVE** 266718		1 off	–		–		

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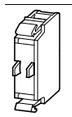
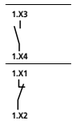
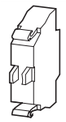
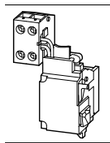
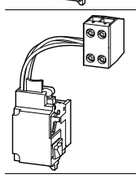
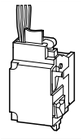
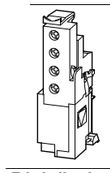
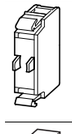
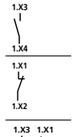
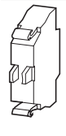
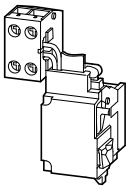
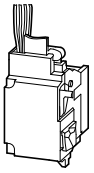
	For use with	Contact configuration: ⊖ = safety function by positive opening according to IEC/EN 60947-5-1 N/O = normally open contact	NC = normally closed contact	Contact sequences	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Notes**
Auxiliary contacts												
Standard auxiliary contacts (HIN)[1] Switches with the main contacts. Used for indicating and interlocking tasks.												
	Single contact	NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) N(S)1(-4), 2(-4), 3(-4), 4(-4)	1 N/O			**M22-K10** 216376		20 off	**M22-CK10** 216384		20 off	The following applies for the std. pack: M22-(C)K… : Std. pack = 20 off	The following can be clipped into the switch: • NZM1: one standard auxiliary contact • NZM2: up to two standard auxiliary contacts M22-(C)K... • NZM3: up to three standard auxiliary contacts M22-(C)K... • NZM4: up to three standard auxiliary contacts M22-(C)K... Any combinations of the auxiliary contact types are possible. Marking on switch: HIN On combination with remote operator NZM-XR... the right mounting location of standard auxiliary contact HIN can be fitted only with individual contacts.
			1 NC ⊖			**M22-K01** 216378			**M22-CK01** 216385			
	Double contact	NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) N(S)1(-4), 2(-4), 3(-4), 4(-4)	1 N/O	1 NC ⊖					**M22-CK11** 107940			
				2 NC ⊖					**M22-CK02** 107899			
			2 N/O						**M22-CK20** 107898			
Early-make auxiliary contact[2] For interlocking and load shedding circuits, as well as for early make of the undervoltage release in main switch/emergency switching off applications												
	With clamp terminal on left switch side.	NZM1(-4) PN1(-4) N(S)1(-4)	2 N/O	–		**NZM1-XHIV** 259426		1 off				Not in conjunction with undervoltage release NZM…-XU… or shunt release NZM…-XA… Early make with switch on and switch off (manual actuation): approx. 20 ms
	With clamp terminal on right switch side.		2 N/O	–		**NZM1-XHIVR** 292195						
	With 3 m connection cable instead of screw connection.		2 N/O	–		**NZM1-XHIVL** 259432						
	–	NZM2(-4), 3(-4) PN2(-4), 3(-4) N(S)2(-4), 3(-4)	2 N/O	–		**NZM2/3-XHIV** 259430						Not in conjunction with undervoltage release NZM…-XU…, shunt release NZM…-XA… or remote operator NZM…-XR… Early make (manual operation): approx. 20...90 ms
		NZM4(-4) N(S)4(-4)	2 N/O	–		**NZM4-XHIV** 266172						
Trip indicating auxiliary contact (HIA), (HIAFI)[1] General trip indication "+", when tripped by shunt release, overload release, short-circuit release or earth-fault release due to fault current.												
	Single contact	NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) N(S)1(-4), 2(-4), 3(-4), 4(-4)	1 N/O			**M22-K10** 216376		20 off	**M22-CK10** 216384		20 off	The following applies for the std. pack: M22-(C)K… : Std. pack = 20 off	The following can be clipped into the switch: • NZM1 - one trip-indicating auxiliary switch • NZM2 - one trip-indicating auxiliary switch M22-(C)K… • NZM3 - one trip-indicating auxiliary switch M22-(C)K… • NZM4 - up to two trip-indicating auxiliary switches M22-(C)K…. Any combinations of the auxiliary contact types are possible. Not in combination with switch-disconnector PN… Marking on switch: HIA Labeling in residual-current block: HIAFI. If the trip-indicating auxiliary contacts are used in the residual-current block, the NC contacts operates as N/O contacts and the N/O contact operates as an NC contact.
			1 NC ⊖			**M22-K01** 216378		20 off	**M22-CK01** 216385		20 off	
	Double contact	NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) N(S)1(-4), 2(-4), 3(-4), 4(-4)	1 N/O	1 NC ⊖					**M22-CK11** 107940		20 off	
				2 NC ⊖					**M22-CK02** 107899		20 off	
			2 N/O						**M22-CK20** 107898		20 off	

Information relevant for export to North America

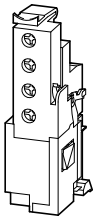
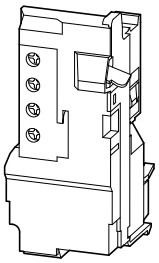
[1] Product Standards: IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking
UL File No.: E29184
UL CCN: NKCR
CSA File No.: 012528
CSA Class No.: 3211-03
NA Certification: UL Listed, CSA certified
Degree of Protection: UL/CSA Part no.:

[2] Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.: E140305
UL CCN: DIHS
CSA File No.: 022086
CSA Class No.: 1437-01
NA Certification: UL Listed, CSA certified

		For use with	Rated control voltage U_s V	**Part no.** Article no. for separate order	**Price** See price list	Std. pack	**Notes**
Undervoltage releases							
Without auxiliary contacts							
Non-delayed disconnection of circuit-breaker NZM or switch-disconnector N when control voltage drops below 35 – 70% U_S. For use with emergency switching off devices in conjunction with emergency switching off button.							
	With clamp terminal on left switch side.	NZM1(-4), N(S)1(-4)	24 V 50/60 Hz	**NZM1-XU24AC** 259434		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented. Undervoltage releases cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA...
			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			
			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 terminal.	NZM1(-4), N(S)1(-4)	24 V 50/60 Hz	**NZM1-XUL24AC** 259462		1 off	
			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			
			110 V-130 V DC	**NZM1-XUL110-130DC** 259487			
			220 V-250 V DC	**NZM1-XUL220-250DC** 259489			

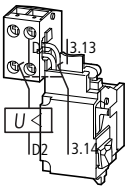
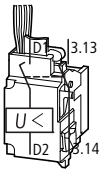
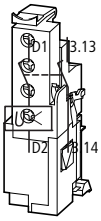
Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	Rated control voltage U_s V	Part no. Article no. when ordered separately	Price See price list	Std. pack	Notes
Undervoltage releases						
Without auxiliary contacts Non-delayed disconnection of circuit-breaker NZM or switch-disconnector N when control voltage drops below 35 – 70% U_S. For use with emergency switching off devices in conjunction with emergency switching off button						
	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	24 V 50/60 Hz	**NZM2/3-XU24AC** 259491		1 off	When the undervoltage release is de-energized, accidental contact with the main switches of the switch during attempts to switch on is reliably prevented. Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XA...
		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			
		110 V-130 V DC	**NZM2/3-XU110-130DC** 259515			
		220 V-250 V DC	**NZM2/3-XU220-250DC** 259517			
	NZM4(-4), N(S)4(-4)	24 V 50/60 Hz	**NZM4-XU24AC** 266189		1 off	
		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			
		110 V-130 V DC	**NZM4-XU110-130DC** 266207			
		220 V-250 V DC	**NZM4-XU220-250DC** 266208			

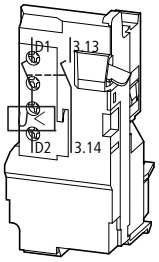
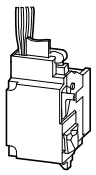
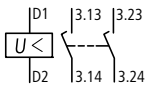
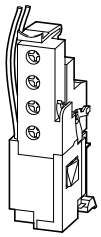
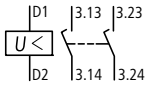
Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	Rated control voltage U_s V	**Part no.** Article no. for separate order	**Price** See price list	Std. pack	**Notes**
Undervoltage releases						
With two early-make auxiliary contacts For interlocking and load-shedding circuits, as well as for early-make of the undervoltage release in main-switch applications. For use with emergency switching off devices in conjunction with emergency switching off button.						
	With clamp terminal on left switch side.	NZM1(-4), N(S)1(-4)				
		24 V 50/60 Hz	**NZM1-XUHIV24AC** 259531		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented. Early-make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms Undervoltage releases cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA... .
		48 V 50/60 Hz	**NZM1-XUHIV48AC** 259533			
		60 V 50/60 Hz	**NZM1-XUHIV60AC** 259535			
		110 V-130 V 50/60 Hz	**NZM1-XUHIV110-130AC** 259537			
		208 V-240 V 50/60 Hz	**NZM1-XUHIV208-240AC** 259539			
		380 V-440 V 50/60 Hz	**NZM1-XUHIV380-440AC** 259541			
		480 V-525 V 50/60 Hz	**NZM1-XUHIV480-525AC** 259543			
		12 V DC	**NZM1-XUHIV12DC** 259545			
		24 V DC	**NZM1-XUHIV24DC** 259547			
		110 V-130 V DC	**NZM1-XUHIV110-130DC** 259553			
		220 V-250 V DC	**NZM1-XUHIV220-250DC** 259555			
	With 3 m connection cable instead of screw connection.	NZM1(-4), N(S)1(-4)				
		24 V 50/60 Hz	**NZM1-XUHIVL24AC** 259557		1 off	
		110 V-130 V 50/60 Hz	**NZM1-XUHIVL110-130AC** 259563			
		208 V-240 V 50/60 Hz	**NZM1-XUHIVL208-240AC** 259565			
		380 V-440 V 50/60 Hz	**NZM1-XUHIVL380-440AC** 259567			
		480 V-525 V 50/60 Hz	**NZM1-XUHIVL480-525AC** 259569			
		12 V DC	**NZM1-XUHIVL12DC** 259571			
		24 V DC	**NZM1-XUHIVL24DC** 259573			
		110 V-130 V DC	**NZM1-XUHIVL110-130DC** 259579			
		220 V-250 V DC	**NZM1-XUHIVL220-250DC** 259581			
		NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)				
		24 V 50/60 Hz	**NZM2/3-XUHIV24AC** 259583		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented. Early-make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms Cannot be used in conjunction with remote operator NZM...-XR.... Undervoltage releases cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA....
		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			
		110 V-130 V DC	**NZM2/3-XUHIV110-130DC** 259608			
		220 V-250 V DC	**NZM2/3-XUHIV220-250DC** 259610			

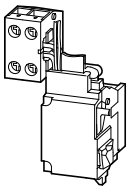
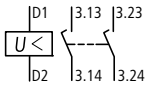
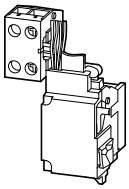
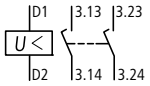
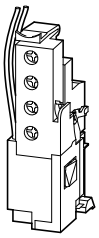
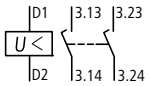
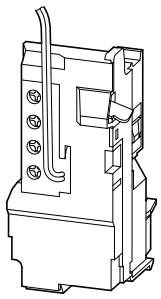
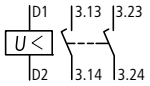
Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	Rated operating voltage U_s V	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Undervoltage releases						
With two early-make auxiliary contacts						
For interlocking and load-shedding circuits, as well as for early-make of the undervoltage release in main-switch applications. For use with emergency switching off devices in conjunction with emergency switching off button.						
	NZM4(-4), N(S)4(-4)	24 V 50/60 Hz	**NZM4-XUHIV24AC** 266217		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented. Early make of auxiliary contacts on switching on (manual operation): approx. 90 ms Cannot be used in conjunction with remote operator NZM...-XR.... Undervoltage release cannot be installed together with early-make auxiliary contact NZM…-XHIV… or shunt release NZM…-XA…
		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			
		110 V-130 V DC	**NZM4-XUHIV110-130DC** 266235			
		220 V-250 V DC	**NZM4-XUHIV220-250DC** 266236			
With 2 separate early-make auxiliary contacts						
With 3 m connection cable instead of screw terminal.						
 	NZM1(-4), N(S)1(-4)	24 V 50/60 Hz	**NZM1-XUHIV20L24AC** 259612		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 auxiliary contacts on switching on and off (manual operation): approx. 20 ms Cannot be used in conjunction with remote operator NZM...-XR.... Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA...
		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			
		24 V DC	**NZM1-XUHIV20L24DC** 259630			
Contacts 3.23 and 3.24 with separate 3 m connection cables.						
 	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	24 V 50/60 Hz	**NZM2/3-XUHIV2024AC** 259640		1 off	
		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			
		24 V DC	**NZM2/3-XUHIV2024DC** 259659			

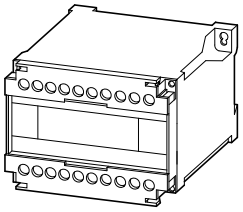
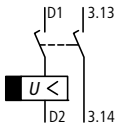
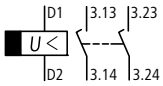
Information relevant for export to North America

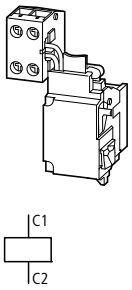
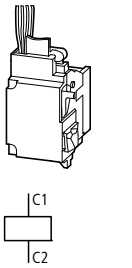
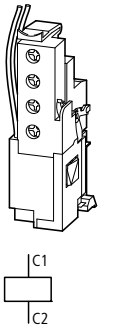
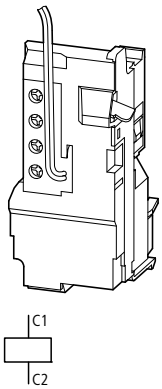
Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Undervoltage releases						
With 2 separate early-make auxiliary contacts For use with emergency switching off devices in conjunction with emergency switching off button.						
Coil connections wired to clamp terminals, auxiliary contact connections with 3 m loose connection cables.						
		NZM1(-4), N(S)1(-4)	24 V 50/60 Hz	**NZM1-XUHIV20KL24AC** 284388		1 off	When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is reliably prevented.
			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 connections with 3 m loose connection cables, auxiliary contact connections wired to clamp terminals.							Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms
		NZM1(-4), N(S)1(-4)	24 V 50/60 Hz	**NZM1-XUHIV20LK24AC** 284402		1 off	Cannot be used in conjunction with remote operator NZM...-XR....
			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			
		NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	24 V 50/60 Hz	**NZM2/3-XUHIV20LK24AC** 285291		1 off	Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA...
			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			
Contacts 3.23 and 3.24 with separate 3 m connection cables.							
		NZM4(-4), N(S)4(-4)	24 V 50/60 Hz	**NZM4-XUHIV2024AC** 266244		1 off	
			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			
			24 V DC	**NZM4-XUHIV2024DC** 266258			

Information relevant for export to North America

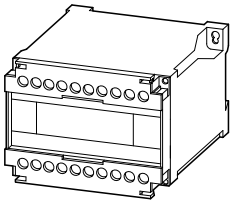
Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

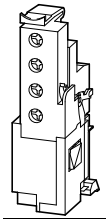
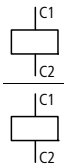
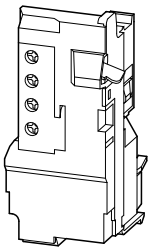
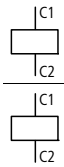
	For use with	Part no. Article no. when ordered separately	Price See price list	Std. pack	Notes
Undervoltage releases, off-delayed					
Combination of separate delay unit and special releases. For use with emergency switching off devices in conjunction with emergency switching off button. Not UL/CSA approved					
Delay unit					
Voltage dips of less than 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) N(S)1(-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	Delay time can be set from 70 ms – 4 s. With additional external capacitor: • 30,000 µF ≧ 35 V up to 8 s • 90,000 µF ≧ 35 V up to 16 s A special release is required. Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA... . Delay unit for separate installation (mounting: top-hat rail or screws). For other operating voltages use a control transformer.
Special trip block					
For combination with separate delay unit					
Without auxiliary contacts					
NZM1 with 3 m loose connection cables instead of screw terminal, NZM2, 3, and 4 with screw terminals					
	NZM1(-4) N(S)1(-4)	**NZM1-XUVL** 271607		1 off	Delay unit UVU-NZM is additionally required. Cannot be installed simultaneously with separate early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA....
	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	**NZM2/3-XUV** 259527			
	NZM4(-4) N(S)4(-4)	**NZM4-XUV** 266588			
With two early-make auxiliary contacts					
	NZM1(-4) N(S)1(-4)	**NZM1-XUVHIVL** 271608		1 off	Cannot be used in conjunction with remote operator NZM...-XR.... Delay unit UVU-NZM is additionally required. Cannot be installed simultaneously with separate early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XA.... NZM1, 2, 3: Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms. NZM4: Early make of auxiliary contacts on switching on (manual operation): approx. 90 ms.
	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	**NZM2/3-XUVHIV** 259684			
	NZM4(-4) N(S)4(-4)	**NZM4-XUVHIV** 266596			
With two independently operating early-make auxiliary contacts					
NZM1 with 3 m separate connection cables instead of screw terminal, NZM2, 3, 4 with screw terminal, contact 3.23 and 3.24 with 3 m separate connection cables.					
	NZM1(-4) N(S)1(-4)	**NZM1-XUVHIV20L** 271609		1 off	
	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	**NZM2/3-XUVHIV20** 259688			
	NZM4(-4) N(S)4(-4)	**NZM4-XUVHIV20** 266604			

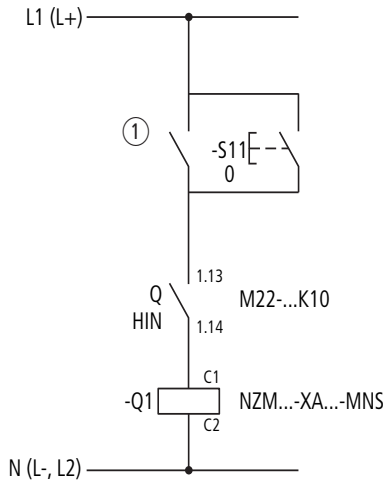
	For use with	Rated cntrol voltage U_s V	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Shunt releases						
Without auxiliary contacts						
Switches are tripped by a voltage pulse or by the application of uninterrupted voltage.						
	With clamp terminal on left switch side.	NZM1(-4), N(S)1(-4)	12 V AC/DC	**NZM1-XA12AC/DC** 259706		1 off	When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented. Undervoltage releases cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or shunt release NZM...-XU... .
			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		
	With 3 m connection cable instead of screw terminal.	NZM1(-4), N(S)1(-4)	12 V AC/DC	**NZM1-XAL12AC/DC** 259734		1 off	
			24 V AC/DC	**NZM1-XAL24AC/DC** 259736		
			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		
		NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	12 V AC/DC	**NZM2/3-XA12AC/DC** 259752		1 off	
			24 V AC/DC	**NZM2/3-XA24AC/DC** 259754		
			48 V AC/DC	**NZM2/3-XA48AC/DC** 259756		
			60 V AC/DC	**NZM2/3-XA60AC/DC** 259758		
			110 V-130 V AC/DC	**NZM2/3-XA110-130AC/DC** 259760		
			208 V-250 V AC/DC	**NZM2/3-XA208-250AC/DC** 259763		
			380 V-440 V AC/DC	**NZM2/3-XA380-440AC/DC** 259766		
		NZM4(-4), N(S)4(-4)	12 V AC/DC	**NZM4-XA12AC/DC** 266446		1 off	
			24 V AC/DC	**NZM4-XA24AC/DC** 266447		
			48 V AC/DC	**NZM4-XA48AC/DC** 266448		
			60 V AC/DC	**NZM4-XA60AC/DC** 266449		
			110 V-130 V AC/DC	**NZM4-XA110-130AC/DC** 266450		
			208 V-250 V AC/DC	**NZM4-XA208-250AC/DC** 266451		
			380 V-440 V AC/DC	**NZM4-XA380-440AC/DC** 266452		

Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	With screw terminal **Part no.** Article no. With screw terminal	**Price** See price list	Std. pack	**Notes**
Shunt releases					
Capacitor unit 230 V 50/60 Hz in conjunction with shunt release NZM...-XA208-250 AC/DC Enclosure: degree of protection IP20 Not UL/CSA approved					Enables the reliable use of circuit-breakers as mesh network circuit-breakers in the range from 0 – 110 % U_n with constant switch-off 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 capacitor unit is arranged independently of the circuit-breaker. Connect NZM-XCM to the power feed side. Note on engineering: Connect a standard auxiliary contact (HIN) as N/O in series with the coil of the shunt release! Standard auxiliary contact not included as standard.
	NZM1(-4), N(S)1(-4) NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM-XCM** 229413		1 off	

			Part no. Article no. With screw terminal	**Price** See price list	Std. pack	**Notes**
Shunt releases						
For mesh network circuit-breakers For intermittent operation Maximum On-time = 1 s Operating range 10-110 % U_s Not UL/CSA approved						Rated control voltage 230 V AC For use with NZM3(-4), N3(-4) and NZM4(-4), N4(-4) Cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU... . Intermittent operation guaranteed by series connection of a make contact M22-(C)K10. The maximum duty factor of the shunt releases for mesh network circuit-breakers is 1 s.
		Without auxiliary contacts	**NZM3-XA-230AC-MNS** 274097		1 off	
		With early-make auxiliary contact	**NZM3-XAHIV-230AC-MNS** 274141		1 off	
		Without auxiliary contacts	**NZM4-XA-230AC-MNS** 274138			
		With early-make auxiliary contact	**NZM4-XAHIV-230AC-MNS** 274143		1 off	



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

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

NZM3: Early make of auxiliary contact on switching on and off (manual operation): approx. 20 ms.
NZM4: Early make of auxiliary contact on switching on (manual operation): approx. 90 ms.

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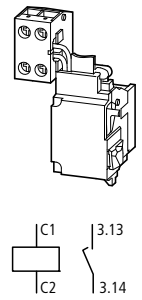
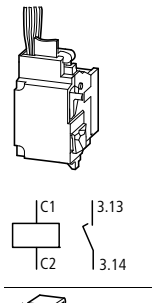
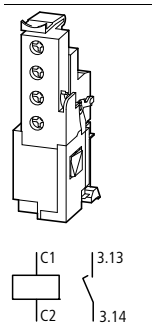
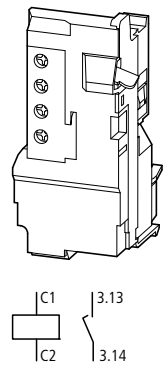
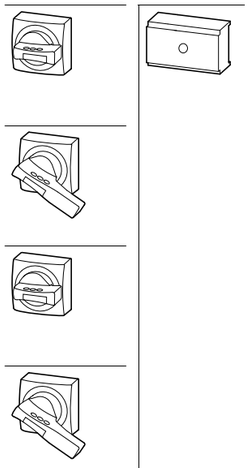
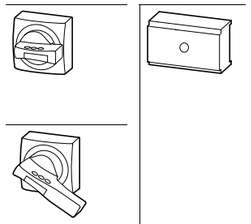
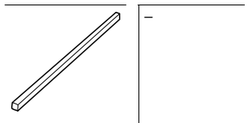
	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Shunt releases						
With early-make auxiliary contact						
Not in combination with remote operator.						
	With clamp terminal on left switch side.	NZM1(-4), N(S)1(-4)	12 V AC/DC	**NZM1-XAHIV12AC/DC** 259772		1 off	When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented. Early make of auxiliary contact on switching on and off (manual operation): approx. 20 ms. Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...
			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			
	With 3 m connection cable instead of screw connection .	NZM1(-4), N(S)1(-4)	12 V AC/DC	**NZM1-XAHIVL12AC/DC** 259790		1 off	
			24 V AC/DC	**NZM1-XAHIVL24AC/DC** 259792			
			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			
		NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)	12 V AC/DC	**NZM2/3-XAHIV12AC/DC** 259808		1 off	
			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			
		NZM4(-4), N(S)4(-4)	12 V AC/DC	**NZM4-XAHIV12AC/DC** 266470		1 off	When the shunt release is live, contact with the switch's main contacts on switching on is reliably prevented. Early make of auxiliary contact on switching on (manual operation): approx. 90 ms. Cannot be used in conjunction with remote operator NZM...-XR.... Undervoltage release cannot be installed simultaneously with early-make auxiliary contact NZM...-XHIV... or undervoltage release NZM...-XU...
			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			

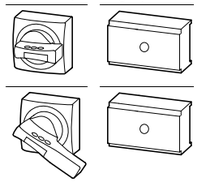
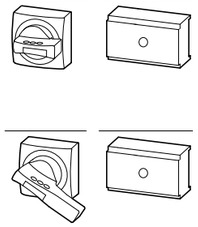
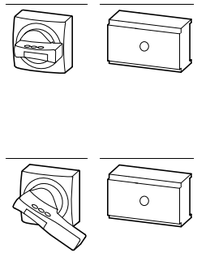
Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

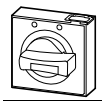
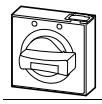
WWW.TM2A.PT info@tm2a.pt

Product view	For use with	Standard: **Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	For maximum shaft length 60 mm: **Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	Extremely narrow fittings: **Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Door coupling rotary handles														
Complete including rotary drive and coupling parts An additional extension shaft is necessary with the NZM...-XT(V)D(V)(R)(-60) part numbers. Degree of protection IP66/UL/CSA type 4X, 12														
Standard, black/grey														
	Lockable in 0 position on handle with up to 3 padlocks. With door interlock.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XTVD** 260166		1 off	**NZM1-XTVD-60** 271504		1 off	Door interlock • Can **not** be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF NZM…-XTVD(V)-60 • For maximum shaft length 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVD-0** 279392		1 off	Door interlock • Can **not** be defeated in the locked OFF and ON positions • Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position. • Door can be opened in OFF NZM…-XTVD(V)-0 • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E140305 UL CCN DIHS CSA File No. 022086 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified Degree of Protection IEC: IP66, UL/CSA Type 4X, 12
		NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XTVD** 260168			**NZM2-XTVD-60** 271505				**NZM2-XTVD-0** 279393				
		NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XTVD** 260170			**NZM3-XTVD-60** 271506				**NZM3-XTVD-0** 279394				
		NZM4(-4), N(S)4(-4)	**NZM4-XTVD** 266614			**NZM4-XTVD-60** 271507				**NZM4-XTVD-0** 279395				
	Lockable on handle and switch with up to 3 padlocks. Can be locked in 0 position, with adequate modification also in I position. With door interlock. Lockable on switch in 0 position.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XTVDV** 260172			**NZM1-XTVDV-60** 271508				**NZM1-XTVDV-0** 279396				
		NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XTVDV** 260174			**NZM2-XTVDV-60** 271509				**NZM2-XTVDV-0** 279397				
		NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XTVDV** 260176			**NZM3-XTVDV-60** 271510				**NZM3-XTVDV-0** 279398				
		NZM4(-4), N(S)4(-4)	**NZM4-XTVDV** 266616			**NZM4-XTVDV-60** 271511				**NZM4-XTVDV-0** 279399				
Red-yellow for emergency switching off														
	Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XTVDVR** 260178		1 off	**NZM1-XTVDVR-60** 271512		1 off	Door interlock • Can **not** be defeated 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 additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVDVR-0** 279400		1 off	Door interlock • Can **not** be defeated in the locked OFF 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 additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	
		NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XTVDVR** 260180			**NZM2-XTVDVR-60** 271513				**NZM2-XTVDVR-0** 279401				
		NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XTVDVR** 260182			**NZM3-XTVDVR-60** 271514				**NZM3-XTVDVR-0** 279402				
		NZM4(-4), N(S)4(-4)	**NZM4-XTVDVR** 266618			**NZM4-XTVDVR-60** 271515				**NZM4-XTVDVR-0** 279403				
Extension shaft														
	–	400 mm max. mounting depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV4** 261232	1 off	Length 290 mm, can be cut to required length.	–		–	–	–		–	UL/CSA certification not required
			NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV4** 261234			–			–				
		600 mm max. mounting depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV6** 260191		Length 425 mm, can be cut to required length.	–			–				
			NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV6** 260193			–			–				

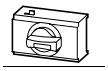
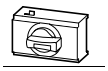
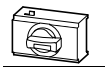
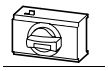
Notes Circuit-breaker can also be installed in a horizontal position 90° left/right, with the handle still in the same position.

Product view	For use with	Standard **Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**	For maximum shaft length 60 mm **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**	Extremely narrow fittings **Part no.** Article no.	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Door coupling rotary handles Complete including rotary drive and coupling parts Extension shaft additionally required. Degree of protection IP66/UL/CSA type 4X, 12 Difference to normal IEC handles: Door opening only possible with active rotation beyond the 0 position.														
Standard, black/grey														
 Lockable in 0 position on handle. With door interlock.	NZM1, N1	**NZM1-XTVD-NA** 271445		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on.	–			–	–			–	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E140305 UL CCN DIHS CSA File No. 022086 CSA Class No.1437-01 NA Certification UL Listed, CSA certified Degree of Protection IEC: IP66, UL/CSA Type 4X, 12
	NZM2, N2	**NZM2-XTVD-NA** 271446				–				–				
	NZM3, N3	**NZM3-XTVD-NA** 271447				–				–				
	NZM4, N4	**NZM4-XTVD-NA** 271448				–				–				
 Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1, N(S)1	**NZM1-XTVDV-NA** 100683		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on.	**NZM1-XTVDV-60-NA** 100667		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. NZM…-XTVDV-60-NA • For a maximum shaft length of 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVDV-0-NA** 100675		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening possible with active rotation beyond the 0 position. Can be defeated from the outside using a screwdriver. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. NZM…-XTVDV-0-NA • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	
	NZM2, N(S)2	**NZM2-XTVDV-NA** 100684				**NZM2-XTVDV-60-NA** 100668				**NZM2-XTVDV-0-NA** 100676				
	NZM3, N(S)3	**NZM3-XTVDV-NA** 100685				**NZM3-XTVDV-60-NA** 100669				**NZM3-XTVDV-0-NA** 100677				
	NZM4, N(S)4	**NZM4-XTVDV-NA** 100686				**NZM4-XTVDV-60-NA** 100670				**NZM4-XTVDV-0-NA** 100678				
Red-yellow for emergency switching off														
 Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. With door interlock. Lockable on switch in 0 position.	NZM1, N(S)1	**NZM1-XTVDVR-NA** 271449		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on.	**NZM1-XTVDVR-60-NA** 100671		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. NZM…-XTVDVR-60-NA • For a maximum shaft length of 60 mm • Without shaft support • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	**NZM1-XTVDVR-0-NA** 100679		1 off	Door interlock • Can **not** be defeated in the locked OFF position. • Door opening with active rotation beyond the 0 position. • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on. NZM…-XTVDVR-0-NA • For extremely narrow fittings • With special short extension shaft • Cannot be combined with additional handle NZM...-XDZ • External warning plate/designation label can be clipped on.	
	NZM2, N(S)2	**NZM2-XTVDVR-NA** 271450				**NZM2-XTVDVR-60-NA** 100672				**NZM2-XTVDVR-0-NA** 100680				
	NZM3, N(S)3	**NZM3-XTVDVR-NA** 271451				**NZM3-XTVDVR-60-NA** 100673				**NZM3-XTVDVR-0-NA** 100681				
	NZM4, N(S)4	**NZM4-XTVDVR-NA** 271452				**NZM4-XTVDVR-60-NA** 100674				**NZM4-XTVDVR-0-NA** 100682				
Extension shaft														
	400 mm max. mounting depth NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV4** 261232		1 off	Length 290 mm, can be cut to required length.	–			–	–			–	UL/CSA certification not required
	NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV4** 261234				–				–				
	600 mm max. mounting depth NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV6** 260191			Length 425 mm, can be cut to required length.	–			–	–			–	
	NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-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.

	For use with	Part no. Article no. for separate order	Price See price list	Std. pack	Notes	Information relevant for export to North America
Rotary handle on circuit-breaker						
Complete with rotary drive						
Standard, black/grey						
 Lockable in 0 position on switch with up to 3 padlocks.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XDV** 260125		1 off	NZM1, 2, 3: Can also be combined with insulating surround. MODAN handle position detection by wire release can be retrofitted.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified
	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDV** 260127				
	NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XDV** 260129				
	NZM4(-4), N(S)4(-4)	**NZM4-XDV** 266608				
 Lockable in 0 position on handle with up to 3 padlocks.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XDVG** 285247		1 off	Can also be combined with insulating surround.	
	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDVG** 285248				
Red-yellow for emergency switching off						
 Lockable in 0 position on switch with up to 3 padlocks.	NZM1(-4), PN1(-4), N(S)1(-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.	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified
	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDVR** 260137				
	NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XDVR** 260140				
	NZM4(-4), N(S)4(-4)	**NZM4-XDVR** 266610				
 Lockable in 0 position on handle with up to 3 padlocks.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XDVGR** 285249		1 off	Can also be combined with insulating surround.	
	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDVGR** 285280				

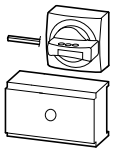
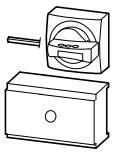
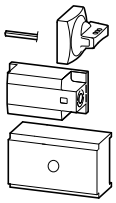
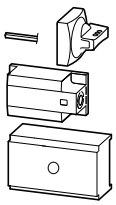
Notes Circuit-breaker can also be installed in a lying position 90° left/right, with the handle still in the same position.

		For use with	Part no. Article no. when ordered separately	Price See price list	Std. pack	Notes	Information relevant for export to North America
Rotary handles on switch with door interlock							
Complete with rotary drive and insulating surround							
Standard, black/grey							
 	Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. Also available with door interlock e.g. for MCC service distribution.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XDTV** 260131		1 off	Door interlock • In the ON position, can be defeated from the outside using a 1 mm pin • Can **not** be defeated in the locked OFF and ON positions • Door can be opened in OFF • Can only be switched ON when the door is closed	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified
		NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDTV** 260133				
Red-yellow for emergency switching off							
 	Lockable in 0 position on handle with up to 3 padlocks. Also available with door interlock e.g. for MCC service distribution.	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XDTVR** 260142		1 off		
		NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XDTVR** 260144				
Rotary handles on switch with door interlock for UL/CSA approved NA switches							
Difference to normal IEC handles: Door opening only possible with active rotation beyond the 0 position.							
Complete with rotary drive and insulating surround							
Standard, black/grey							
 	Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. Also available with door interlock e.g. for MCC service distribution.	NZM1, N(S)1	**NZM1-XDTV-NA** 271453		1 off	Door interlock • In the ON position, can be defeated from the outside using a 1 mm pin • Can **not** be 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	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified
		NZM2, N(S)2	**NZM2-XDTV-NA** 271454				
Red-yellow for emergency switching off							
 	Lockable in 0 position on handle with up to 3 padlocks. Also available with door interlock e.g. for MCC service distribution.	NZM1, N(S)1	**NZM1-XDTVR-NA** 271455		1 off		
		NZM2, N(S)2	**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.

Main switch assembly kit

NZM...-XHB..., NZM...-XS...

		Model	For use with	Part no. Article no. for separate order	Price See price list	Std. pack	Information relevant for export to North America
Main switch assembly kit							
Equipment supplied: • Door coupling rotary handle • Extension shaft NZM...-XV4 • 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 → Page 17/84 Other external warning plates/designation labels can be clipped on. Degree of protection IP66/UL/CSA type 4X, 12							
With black door coupling rotary handle							
	Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. With door interlock.	–	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XHB** 266626		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
		–	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHB** 266627			
		–	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHB** 266628			
		–	NZM4(-4) N(S)4(-4)	**NZM4-XHB** 271779			
With red door coupling rotary handle for use of switch as emergency switching off device to IEC/EN 60204-1							
	Lockable in 0 position on handle with up to 3 padlocks. Lockable door as additional feature, locking facility on circuit-breaker in 0 position.	–	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XHBR** 266632			
		–	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHBR** 266633			
		–	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHBR** 266634			
		–	NZM4(-4) N(S)4(-4)	**NZM4-XHBR** 271842			
For side wall installation Actuation of the switch on the control panel side wall Switch mounting on mounting plate							
Standard, black/grey							
	Lockable in 0 position on handle with up to 3 padlocks, with adequate modification also in I position.	For operation on the left	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XS-L** 266641		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
			NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XS-L** 266642			
			NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XS-L** 266643			
			NZM4(-4) N(S)4(-4)	**NZM4-XS-L** 289806			
		For operation on the right	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XS-R** 266644			
			NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XS-R** 266645			
			NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XS-R** 266646			
			NZM4(-4) N(S)4(-4)	**NZM4-XS-R** 289807			
Red-yellow for emergency switching off							
	Lockable in 0 position on handle with up to 3 padlocks.	For operation on the left	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSR-L** 266653		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
			NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSR-L** 266654			
			NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XSR-L** 266655			
			NZM4(-4) N(S)4(-4)	**NZM4-XSR-L** 289808			
		For operation on the right	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSR-R** 266656			
			NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSR-R** 266657			
			NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XSR-R** 266658			
			NZM4(-4) N(S)4(-4)	**NZM4-XSR-R** 289809			

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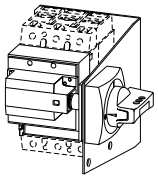
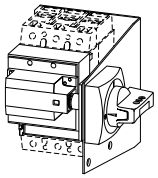
	Model	For use with	Part no. Article no. when ordered separately	Price See price list	Std. pack	Information relevant for export to North America
Main switch assembly kit for side wall installation with mounting bracket.						
For direct mounting of circuit-breaker and handle in the side wall of the control cabinet Equipment supplied: • Door coupling rotary handle • Mounting bracket • Special short extension shaft • External warning plate/designation label in German/English • Black and yellow flash For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → Page 17/84 Other external warning plates/designation labels can be clipped on. Degree of protection IP66/UL/CSA type 4X, 12						
Standard, black/grey						
	Lockable in 0 position, with adequate modification also in I position. Minimum clearance between control panel side walls and circuit-breaker is defined by mounting bracket. Extension cannot be used.	For operation on the left	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSM-L** 266663		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
		For operation on the left	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSM-L** 266664			
		For operation on the right	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSM-R** 266665			
		For operation on the right	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSM-R** 266666			
Red-yellow for emergency switching off							
	Lockable in 0 position on handle. Minimum clearance between control panel side walls and circuit-breaker is defined by mounting bracket. Extension cannot be used.	For operation on the left	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSRM-L** 266671		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
		For operation on the left	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSRM-L** 266672			
		For operation on the right	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XSRM-R** 266673			
		For operation on the right	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XSRM-R** 266674			
Additional plate							
For fitting to the mounting bracket when using neutral conductor or PE conductor terminals K25, K50, K95 or K150.							
	–	–	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), N(S)2(-4)	**NZM1/2-XZB** 266676		1 off	UL/CSA certification not required

Notes Additional terminal arrangement for side wall operator with mounting bracket.
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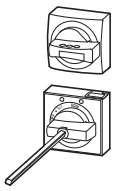
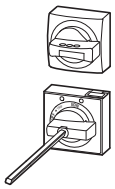
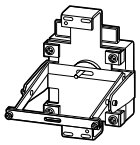
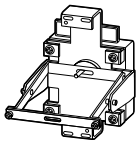
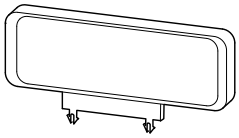
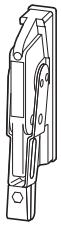
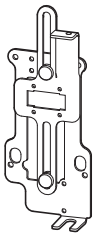
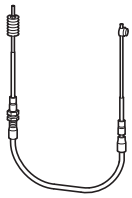
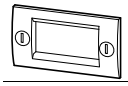
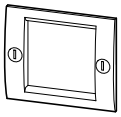
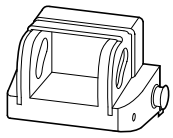
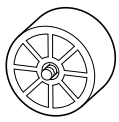
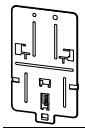
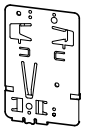
	Model	For use with	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Information relevant for export to North America**
Main switch assembly kit with additional rotary handle						
Main switch assembly kit with additional rotary handle for switching with opened control panel door Equipment supplied: • Door coupling rotary handle • Additional rotary handle on switch with "Deliberate Action" operation • Extension shaft NZM…-XV6 for mounting depth 600 mm, NZM1/2-XV4 with NZM1 for mounting depth 400 mm • 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 → Page 17/84 Other external warning plates/designation labels can be clipped on. Degree of protection IP66/UL/CSA type 4X, 12						
With black door coupling rotary handle						
	Lockable in 0 position on handle with up to 3 padlocks, can also be modified for the I position. Lockable door as additional feature, locking facility on circuit-breaker in 0 position.	IEC	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XHB-DA** 125956		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
		UL/CSA	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XHB-DA-NA** 125958			
		IEC	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHB-DA** 116895			
		UL/CSA	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHB-DA-NA** 116897			
		IEC	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHB-DA** 118988			
		UL/CSA	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHB-DA-NA** 119000			
		IEC	NZM4(-4) PN4(-4), N(S)4(-4)	**NZM4-XHB-DA** 119002			
		UL/CSA	NZM4(-4) PN4(-4), N(S)4(-4)	**NZM4-XHB-DA-NA** 119004			
With red door coupling rotary handle For use of switch as emergency switching off device							
	Lockable in 0 position on handle with up to 3 padlocks. With door interlock and lockable on switch in 0 position.	IEC	NZM1(-4) PN1(-4), N1(-4)	**NZM1-XHB-DAR** 125957		1 off	Product Standards: UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No.: E140305 UL CCN: DIHS CSA File No.: 022086 CSA Class No.: 1437-01 NA Certification: UL Listed, CSA certified Degree of Protection: IEC: IP66, UL/CSA Type 4X, 12
		UL/CSA	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XHB-DAR-NA** 125959			
		IEC	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHB-DAR** 116896			
		UL/CSA	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XHB-DAR-NA** 116898			
		IEC	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHB-DAR** 118989			
		UL/CSA	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XHB-DAR-NA** 119001			
		IEC	NZM4(-4) PN4(-4), N(S)4(-4)	**NZM4-XHB-DAR** 119003			
		UL/CSA	NZM4(-4) PN4(-4), N(S)4(-4)	**NZM4-XHB-DAR-NA** 119005			

		For use with	Part no. Article no.	Price See price list	Std. pack	Notes
Rear-mounted drives						
For direct rear connection of the switch to the side of the control panel or control panel door. Switch actuation on rear through side wall or control panel door. For switch with toggle lever. For enhanced protection against direct contact on the incomer side, IP2X protection against contact with a finger can be ordered → Page 17/84 Degree of protection IP66, UL/CSA type 4X, 12						
Standard, black/grey						
	Lockable in 0 position on handle with up to 3 padlocks.	NZM1, N1, NS1, PN1	**NZM1-XRAV** 107245		1 off	External warning plate can be clipped on
		NZM2, N2, NS2, PN2	**NZM2-XRAV** 107247			
Red-yellow for emergency switching off						
	Lockable in 0 position on handle with up to 3 padlocks.	NZM1, N1, NS1, PN1	**NZM1-XRAVR** 107249		1 off	
		NZM2, N2, NS2, PN2	**NZM2-XRAVR** 107261			
External warning plate/designation label						
						
"Main switch – open in 0 position"	German/English	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4) NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-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			
	Chinese/English		**ZFS82-NZM** 104910		1 off	External warning plates are available in the following languages: 64 Bulgarian, 65 Danish, 66 Finnish, 67 Dutch, 68 Italian, 69 Greek, 70 Norwegian, 71 Polish, 72 Portuguese, 73 Romanian, 74 Russian, 75 Swedish, 76 Serbo-Croatian, 77 Spanish, 78 Czech, 79 Turkish, 80 Hungarian, 81 Afrikaans, 82 Chinese/English, 83 Chinese. To obtain the order number, insert the language code number into the part number required. **Ordering example** External warning plate in Finnish: ZFS**66**-NZM7
	Chinese		**ZFS83-NZM** 105945			
	Further languages		**ZFS*-NZM7** 999978			
Symbol	Circuit-breaker symbol		**ZFS-LS-NZM** 104829			
	Switch-disconnector symbol		**ZFS-LTS-NZM** 104828			
	Disconnector symbol		**ZFS-TS-NZM** 115365			
Blank	Blank (for engraving or printing)		**ZFS60-NZM7** 065896		10 off	
Lightning symbol						
Including terminal marking for main switch						
Small		NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**BPF-NZM7** 217294		10 off	Included as standard in main switch assembly kit Marking of the input side of the switch is possible
Large		NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**BPF-NZM10** 231363			

Information relevant for export to North America

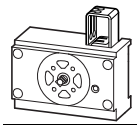
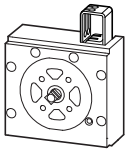
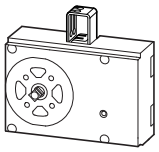
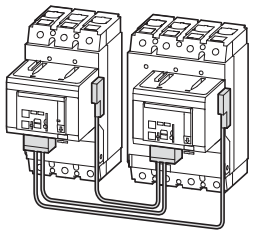
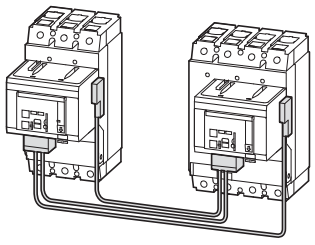
Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified
Degree of Protection	IEC: IP66, UL/CSA Type 4X, 12

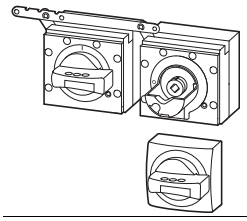
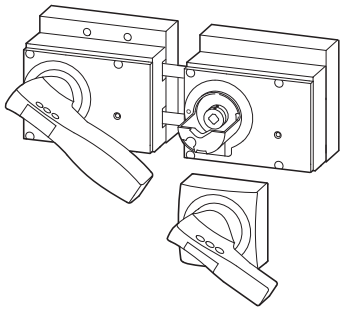
	For use with	Part no. Article no.	Price See price list	Std. pack	Notes	Information relevant for export to North America
Side-mounted handle For mounting outside the control panel door. Actuation of a switch with toggle lever using a Bowden cable and mechanical components mounted on the front of the switch. For switch with toggle lever. **Caution! Intended exclusively for use outside the scope of validity of the IEC/EN 60947 area.**						
Handle, metal, black/red						
	Degree of protection UL/CSA Type 12	NZM2...-NA, NS2...-NA NZM3...-NA, NS3...-NA	**NZM-XSHGVR12-NA** 107269		1 off	Lockable in 0-position on handle with up to 3 padlocks, for 1 door of an American style control panel (door plus wide bar beside the door). For each handle 1 additional mechanical unit and 1 Bowden cable is required.	Product Standards UL489; CSA-C22.2 No. 5-09 UL File No. E140305 UL CCN DIHS CSA File No. 236770 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified Degree of Protection IEC: IP66, UL/CSA Type 12
	Degree of protection UL/CSA Type 4X		**NZM-XSHGVR4X-NA** 107268				Product Standards UL489; CSA-C22.2 No. 5-09 UL File No. E140305 UL CCN DIHS CSA File No. 236770 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified Degree of Protection IEC: IP66, UL/CSA Type 4X
Mechanical unit							
		NZM2...-NA, NS2...-NA	**NZM2-XSHM-NA** 107266		1 off	For mounting on the front of a switch with toggle lever, including fixing sundries.	UL/CSA certification not required
		NZM3...-NA, NS3...-NA	**NZM3-XSHM-NA** 107267				
Bowden cables							
	Nominal length 36" = 91.4 cm	NZM2...-NA, NS2...-NA NZM3...-NA, NS3...-NA	**NZM-XSHBZ36-NA** 107263		1 off	–	Product Standards UL489; CSA-C22.2 No. 5-09 UL File No. E140305 UL CCN DIHS CSA File No. 236770 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified
	Nominal length 48" = 121.9 cm		**NZM-XSHBZ48-NA** 107264				
	Nominal length 60" = 152.4 cm		**NZM-XSHBZ60-NA** 107265				Product Standards UL489; CSA-C22.2 No. 5-09 UL File No. E140306 UL CCN DIHS CSA File No. 236771 CSA Class No. 1437-02 NA Certification UL Listed, CSA certified

	For use with	Part no. Article no. when ordered separately	Price See price list	Std. pack	Notes
Additional handle					
Enables switching when control panel door is open					
	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XDZ** 266621		1 off	Push-fits on to the extension shaft. 100 mm free extension shaft required. Cannot be combined with door coupling rotary handles NZM...-XT...-60 or NZM...-XT...0.
	NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XDZ** 266622			
Insulating surround					
For toggle levers, rotary handles with rotary drive and remote operators Degree of protection IP40					
	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XBR** 260195		1 off	For rectangular 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 can not be combined with rotary handle with rotary mechanism.
	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XBR** 260197			
	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XBR** 284645			
	NZM4(-4) N(S)4(-4)	**NZM4-XBR** 284646			
Toggle lever locking device					
Lockable in Off position with up to three padlocks (hasp thickness 4 – 8 mm)					
	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XKAV** 260199		1 off	Cannot be combined with insulating surround.
	NZM2(-4), PN2(-4), N(S)2(-4) NZM3(-4), PN3(-4), N(S)3(-4)	**NZM2/3-XKAV** 260201			
Spacers					
Enables fast and attractively priced offsetting of varying construction sizes with/without rotary handle or remote operator to the same front depth					
	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XAB** 260203		1 set	Grid depth 17.5 mm, M4 thread One set contains 4 spacers Maximum component fitting: NZM1: 4 off per fixing screw, NZM2: 2 off per fixing screw, 2 (NZM1) or 4 (NZM2) fixing screws contained per switch
	NZM3(-4) PN3(-4), N(S)3(-4) NZM4(-4) N(S)4(-4)	**NZM3-XAB** 260211			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
Clips					
Allows switches to be clipped onto DIN rails					
	NZM1(-4) PN1(-4) N(S)1(-4)	**NZM1-XC35** 260213		1 off	For 35 mm top-hat rails
	NZM2(-4) PN2(-4) N(S)2(-4)	**NZM2-XC75** 260215			For 75 mm top-hat rails Not in combination with remote operator.

Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

	For use with	Part no. Article no. for separate order	Price See price list	Std. pack	Notes	Information relevant for export to North America
Mechanical interlock for (door coupling) rotary handles						
	NZM1(-4) PN1(-4), N(S)1(-4)	**NZM1-XMV** 281581		1 off	Allows interlocking of 2, 3 or 4 switches, including different construction sized switches, with Bowden cables. For every switch an interlocking module NZM…-XMV and a rotary handle on switch NZM…-XDV or a door coupling rotary handle NZM…-XTVD and Bowden cables are required. Possible combinations and interlock variants, → Engineering Cannot be combined with UL/CSA door coupling rotary handles NZM…-XTV…-NA, paralleling mechanisms, side wall operators, remote operators or insulating surrounds. Selection and combinations of required Bowden cables → Engineering	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E140305 UL CCN DIHS CSA File No. 022086 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified
	NZM2(-4) PN2(-4), N(S)2(-4)	**NZM2-XMV** 281582				
	NZM3(-4) PN3(-4), N(S)3(-4)	**NZM3-XMV** 281583				
	NZM4(-4) N(S)4(-4)	**NZM4-XMV** 281584				
Bowden cables						
For mechanical interlock for (door coupling) rotary handles						
 Length: 225 mm	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4) NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM-XBZ225** 281585		1 off	Selection and combinations of Bowden cables → Engineering	Product Standards UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking UL File No. E140305 UL CCN DIHS CSA File No. 022086 CSA Class No. 1437-01 NA Certification UL Listed, CSA certified
Length: 600 mm		**NZM-XBZ600** 281586				
Length: 1000 mm		**NZM-XBZ1000** 281587				
Mechanical interlock for remote operator						
For 2 switches of the same or different construction size with opposed operation. Adjacent mounting.						
	NZM2(-4), N(S)2(-4) +NZM2(-4), N(S)2(-4)	**NZM2-XMVR** 104543		1 off	Contains parts for both switch sides. Extension shaft additionally required. Maximum switch spacing → Engineering Can not be combined with rotary handles, door coupling rotary handles, early-make auxiliary contacts, and direct-switching remote operator NZM2-XRD.	–
	NZM2(-4), N(S)2(-4) +NZM3(-4), N(S)3(-4)	**NZM2/3-XMVR** 104544				
	NZM3(-4), N(S)3(-4) +NZM3(-4), N(S)3(-4)	**NZM3-XMVR** 104545				
	NZM3(-4), N(S)3(-4) +NZM4(-4), N(S)4(-4)	**NZM3/4-XMVR** 104546				
	NZM4(-4), N(S)4(-4) +NZM4(-4), N(S)4(-4)	**NZM4-XMVR** 104547				
For 2 switches of the same or different construction size with opposed operation. Extra long Bowden cable for mounting one above the other or in adjacent enclosures.						
	NZM2(-4), N(S)2(-4) +NZM2(-4), N(S)2(-4)	**NZM2-XMVRL** 104548		1 off	Contains parts for both switch sides. Extension shaft additionally required. Maximum switch spacing → Engineering Can not be combined with rotary handles, door coupling rotary handles, early-make auxiliary contacts, and direct-switching remote operator NZM2-XRD.	–
	NZM2(-4), N(S)2(-4) +NZM3(-4), N(S)3(-4)	**NZM2/3-XMVRL** 104549				
	NZM3(-4), N(S)3(-4) +NZM3(-4), N(S)3(-4)	**NZM3-XMVRL** 104550				
	NZM3(-4), N(S)3(-4) +NZM4(-4), N(S)4(-4)	**NZM3/4-XMVRL** 104551				
	NZM4(-4), N(S)4(-4) +NZM4(-4), N(S)4(-4)	**NZM4-XMVRL** 104552				

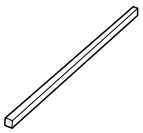
	For use with	Part no. Article no. for separate order	Price See price list	Std. pack	Notes	Information relevant for export to North America
Paralleling mechanism Simultaneous actuation of 2 PN switch-disconnectors of the same type mounted side-by-side. Not UL/CSA approved						
	PN1(-4) + PN1(-4)	**PN1-XPA** 283471		1 off	**PN1, PN2** • 1 × rotary handle on switch (-XD) supplied. • 1 × door coupling rotary handle (-XTVD) supplied.	–
	PN2(-4) + PN2(-4)	**PN2-XPA** 283472				
	PN3(-4) + PN3(-4)	**PN3-XPA** 283473			**PN3** • 1 × rotary handle on switch (not lockable) supplied. • 1 × door coupling rotary handle (not lockable) supplied. • Not suitable for use as a main switch.	

Notes

Extension shaft (-XV4(6)) additionally required for the door coupling rotary handle.
Cannot be combined with mechanical interlock, insulating surrounds, side wall operators or remote operators.

For use as emergency switching off device
For this the door coupling rotary handle requires an exchange thumb-grip in red/yellow according to the following order number:
- for PN1 and PN2: NZM2-XDGVR → 100747
- for PN3: NZM4-XDGVR → 100774

Note: The locking function of these handles must not be used.

		For use with	Part no. Article no. for separate order	Price See price list	Std. pack	Notes	Information relevant for export to North America
Extension shaft							
	400 mm max. built-in depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV4** 261232		1 off	Length 290 mm, can be cut to required length.	UL/CSA certification not required
		NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-4)	**NZM3/4-XV4** 261234				
	600 mm max. built-in depth	NZM1(-4), PN1(-4), N(S)1(-4) NZM2(-4), PN2(-4), N(S)2(-4)	**NZM1/2-XV6** 260191			Length 425 mm, can be cut to required length.	
		NZM3(-4), PN3(-4), N(S)3(-4) NZM4(-4), N(S)4(-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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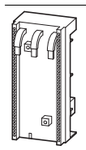
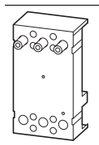
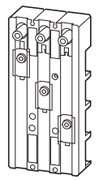
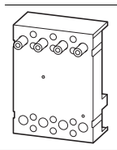
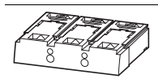
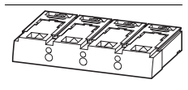
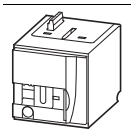
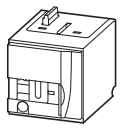
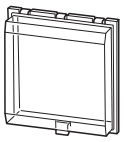
	Number of poles	Rated operational current I_e A	Adapter width mm	For use with	**Part no. suffix** Article no. for ordering with basic device	**Price** See price list	**Part no.** Article no. for separate order	**Price** See price list	Std. pack	**Notes**	**Information relevant for export to North America**
Component adapters for circuit-breakers and switch-disconnectors											
For mounting on flat copper bars 12–30x5–10 mm, double T and triple T profile Rated operating voltage U_e: 690 V • Temperature resistant to 120 °C • Self-extinguishing to UL 94 • Track resistance CTI 200											
	3 pole	160	90	NZM1, PN1, N(S)1	–		**NZM1-XAD160** 104554		1 off	For switch and standard connection with box terminal. Connection to the system at top using supplied connection cable. In conjunction with IP2X protection against contact with a finger. Enhanced contact protection on the switch secondary side. Clips onto busbar with combination foot. Combination foot for adjustment to 5 and 10 mm rail thickness , terminal capacity 6 x 9 x 0.8. Rated short-circuit switching capacity 35 kA at 480 V. Mounted by latching onto de-energized busbar.	Product Standards: UL508A; CSA-C22.2 No. 14; IEC 60439-1; CE marking UL File No.: E300273 UL CCN: NMTR, NMTR7 CSA File No.: 236217 CSA Class No.: 3211-37 NA Certification: UL Listed, CSA certified Conditions of Acceptability: Refer to approbation report Suitable for: Feeder circuits Max. Voltage Rating: 600 V AC Degree of Protection: Feeder circuits
		250	106	NZM2, PN2, N(S)2	–		**NZM2-XAD250** 104555			Connection to the system possible at top or bottom via connection on rear (+)NZM2-XKR4… Mounting using clamp and screw fixing. Rated short-circuit switching capacity 65 kA at 480 V, 50 kA at 600 V. Mounted by latching onto de-energized busbar.	
		630	140	NZM3, PN3, N(S)3	–		**NZM3-XAD630** 107206			Connection to the system possible at top or bottom via connection on rear (+)NZM3-XKR13… For mounting use claw terminal. Rated short-circuit switching capacity 65 kA at 480 V, 50 kA at 600 V. Mounted by latching onto de-energized busbar.	
	4 pole	250	140	NZM2-4, PN2-4, N2-4	–		**NZM2-4-XAD250** 138388			Connection to the system possible at top via connection on rear with (+)NZM2-4-XKR4… Mounting using clamp and screw fixing.	
		630	185	NZM3-4, PN3-4, N3-4	–		**NZM3-4-XAD630** 138389			Connection to the system possible at top via connection on rear with (+)NZM3-4-XKR13… Mounting using clamp and screw fixing.	
Connection block for component adapters											
For NZM2, NZM3 circuit-breakers											
	3 pole	Above	250	–	NZM2, PN2, N(S)2	**+NZM2-XKR4O** 281664	**NZM2-XKR4** 281666		1 off	Part no. and part no. suffix include parts for one switch side at top or bottom (for NZM3 top only). Required with component adapter and switch with connection on rear.	Product Standards: UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking UL File No.: E31593 UL CCN: DIVQ CSA File No.: 022086 CSA Class No.: 1432-01 NA Certification: UL Listed, CSA certified Specially designed for NA: Yes Suitable for: Feeder circuits, branch circuits Current Limiting CB: Yes Max. Voltage Rating: 480Y/277 V Degree of Protection: IEC: IP20; UL/CSA Type: -
		Below		–	NZM2, PN2, N(S)2	**+NZM2-XKR4U** 281665	–				
		Above	630	–	NZM3, PN3, N(S)3	**+NZM3-XKR13O** 281667	**NZM3-XKR13** 281668				
		Below		–	NZM3-4, PN3-4, N(S)3-4	**+NZM3-XKR13U** 115796	–				
	4 pole	Above	250	–	NZM2-4, PN2-4, N(S)2-4	**+NZM2-4-XKR4O** 118905	**NZM2-4-XKR4** 118907				
		Below		–	NZM3, PN3, N(S)3	**+NZM2-4-XKR4U** 118906	–				
		Above	630	–	NZM3-4, PN3-4, N(S)3-4	**+NZM3-4-XKR13O** 118908	**NZM3-4-XKR13** 119020				
		Below		–	NZM2-4, PN2-4, N(S)2-4	**+NZM3-4-XKR13U** 118909	–				

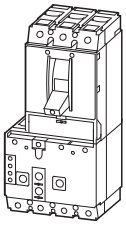
	For use with	Rated control voltage U_s V	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	**Notes**
Remote operators						
For remote switching of circuit-breakers and switch-disconnectors. ON and OFF switching and resetting by means of two-wire or three-wire control. Local switching by hand possible. Lockable in the 0 position of the remote operator with up to 3 padlocks (hasp thickness: 4 – 8 mm)						
Closing delay 110 – 170 ms, opening delay 110 – 170 ms						
	NZM2(-4) N(S)2(-4)	110-130 V 50/60 Hz	**NZM2-XRD110-130AC** 115390		1 off	Sliding switch for "Auto" or "Manual" Max. number auxiliary contacts: - Standard auxiliary contacts: 2 - Trip-indicating auxiliary contact: 1 Cannot be combined with switch-disconnector PN... Cannot be combined with mechanical interlock [1] Not UL/CSA approved
		208-240 V 50/60 Hz	**NZM2-XRD208-240AC** 115391			
		380-440 V 50/60 Hz[1]	**NZM2-XRD380-440AC** 115392			
		24-30 V DC	**NZM2-XRD24-30DC** 115393			
		110-130 V DC	**NZM2-XRD110-130DC** 115394			
		220-250 V DC	**NZM2-XRD220-250DC** 115395			
Closing delay 60 – 100 ms, opening delay 300 – 3000 ms Can be synchronized						
	NZM2(-4) N(S)2(-4)	110-130 V 50/60 Hz	**NZM2-XR110-130AC** 259830		1 off	Cannot be combined with switch-disconnector PN... Dual auxiliary switch M 22-CK11 (20/02) can not be combined with remote operator NZM3-XR...
		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) N(S)3(-4)	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) N(S)4(-4)	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-XR380-440AC** 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			

Notes
Two- and three-wire control, circuit diagram → Engineering, Page 17/153

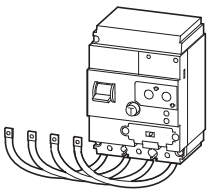
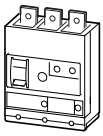
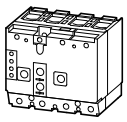
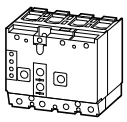
Information relevant for export to North America

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL CCN	DIHS
CSA File No.	022086
CSA Class No.	1437-01
NA Certification	UL Listed, CSA certified

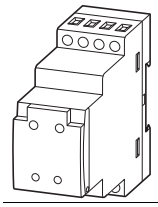
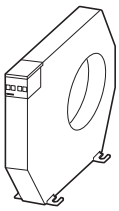
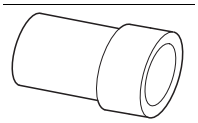
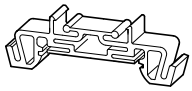
	For use with	Part no. Article no. when ordered separately	Price See price list	Std. pack	Notes
Cover for 4th pole					
Additional shroud for mounting the NZM2-XR... and NZM3-XR... on a 4 pole switch	NZM2-4 N2-4	**NZM2-XAVPR** 266677		1 off	–
	NZM3-4 N3-4	**NZM3-XAVPR** 266678		1 off	
Sealing device for "Auto" position					
Manual operation possible only after removing seal	NZM2(-4) N(S)2(-4)	**NZM2-XRDPL** 137305		1 off	Suitable for remote operator NZM2-XRD
Protective cover for door cutout					
	NZM2-XR NZM3-XR NZM4-XR	**RTR-NZM10** 034825		1 off	Electrical remote switching and manual tripping (push to trip) are still possible.

	Number of poles	Rated current = Rated uninterrupted current	Setting range		High switching capacity 150 kA; 415 V 50/60 Hz Part no. Article no.	Price See price list		Std. pack
			Overload releases	Short-circuit releases				
		I_u	I_r	I_i	**B = box terminals** **S = screw terminals**			
		A	A	A				
Circuit-breakers with earth-fault release, 3 pole **For apparatus with power electronics, such as power inverters and frequency inverters**								
AC/DC sensitive according to core-balance principle in range of 0 – 100 kHz residual-current frequency. Not UL/CSA approved. Suitable for use in three-phase systems. Rated operating voltage: 400 V (50/60 Hz) Rated fault current $I_{\Delta n}$ = 0.03 A Internal power supply U_e = 50 - 400 V Turnkey combination of current-limiting circuit-breaker and residual-current device. Adjusting buttons can be sealed.								
	3 pole	125	100-125	750…1250	**NZMH2-A125-FIA30** 129710		S	1 off
		160	125-160	960…1600	**NZMH2-A160-FIA30** 112627		S	
		200	160-200	1200…2000	**NZMH2-A200-FIA30** 112628		S	
		250	200-250	1500…2500	**NZMH2-A250-FIA30** 112629		S	
		125	100-125	750…1250	**NZMH2-A125-FIA30-BT** 129711		B	
		160	125-160	960…1600	**NZMH2-A160-FIA30-BT** 116304		B	
		200	160-200	1200…2000	**NZMH2-A200-FIA30-BT** 116305		B	
		250	200-250	1500…2500	**NZMH2-A250-FIA30-BT** 116306		B	

Notes Notes about terminals → Page 17/86

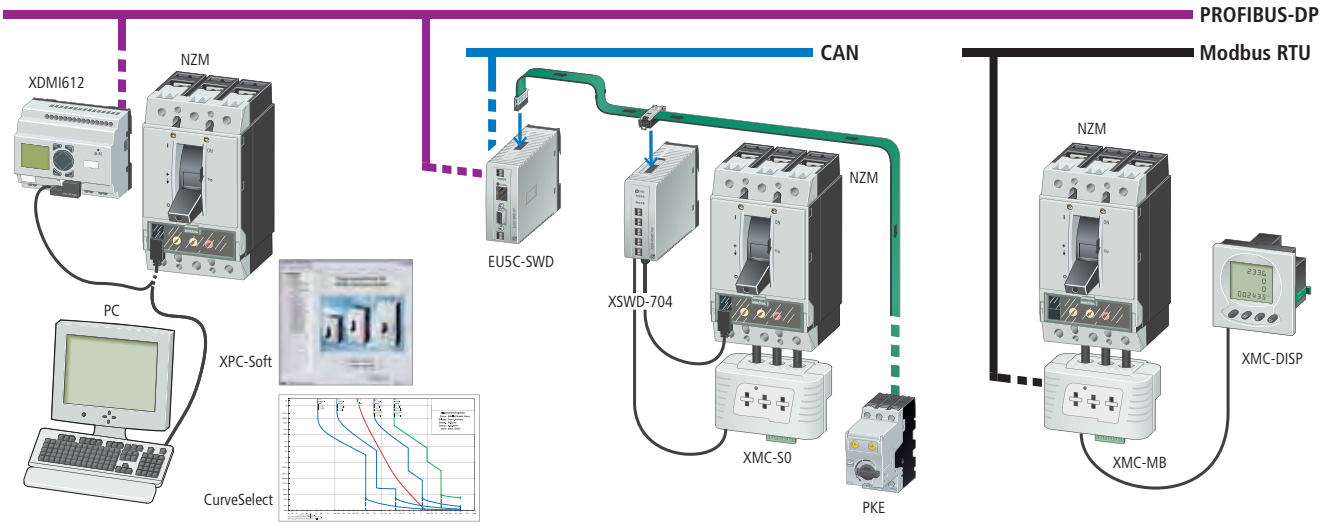
		For use with	Number of conductors	**Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
Earth-fault release							
To IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three- and single-phase systems							
Pulse-current sensitive according to core-balance principle For 3 and 4 pole NZM1(-4) circuit-breakers and N1(-4) switch-disconnectors, dependant on mains power U_e = 200 … 415 V 50/60 Hz							
Mounting on right side up to I_n = 160 A at I_{cu} = 50 kA							
	Rated fault current $I_{\Delta n}$ = 0.03 A	NZM1 N(S)1	3 pole	**NZM1-XFI30R** 104603		1 off	At $I_{\triangle n}$ = 0.03 A: delay time t_v always fixed at 10 ms. Alarm indication > 30 % $I_{\triangle n}$ by yellow LED. Trip indication by up to 2 auxiliary contacts (HIAFI) can be retrofitted: N/O = M22-K01, NC = M22-K10 are reset with the reset toggle lever. If the trip-indicating auxiliary contact in the fault current block is used, the NC contacts operates as a N/O contact and the NC contact operates as N/O contacts. Double contact not permissible. Not in combination with insulated enclosure or main switch assembly kit for side wall installation with mounting bracket. NZM1-XFI...R can not be used in combination with lower cover NZM1-XKSA. NZM1-XFI…U not in combination with shunt or undervoltage release, early-make auxiliary contacts. Rated ultimate short-circuit breaking capacity is determined by the fitted NZM1 or NS1, or, Iif a switch-disconnector N1 is used, by the fitted back-up fuse → Technical data. Adjusting buttons can be sealed.
		NZM1-4 N1-4	4 pole	**NZM1-4-XFI30R** 104606			
	Rated fault current $I_{\Delta n}$ = 0.3 A	NZM1 N(S)1	3 pole	**NZM1-XFI300R** 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 A Delay time t_v = 10-60-150-300-450 ms	NZM1 N(S)1	3 pole	**NZM1-XFIR** 104605			
		NZM1-4 N1-4	4 pole	**NZM1-4-XFIR** 104608			
Mounting below up to 100 A							
	Rated fault current $I_{\Delta n}$ = 0.03 A	NZM1 N(S)1	3 pole	**NZM1-XFI30U** 104609		1 off	
		NZM1-4 N1-4	4 pole	**NZM1-4-XFI30U** 104612			
	Rated fault current $I_{\Delta n}$ = 0.3 A	NZM1 N(S)1	3 pole	**NZM1-XFI300U** 104610			
		NZM1-4 N1-4	4 pole	**NZM1-4-XFI300U** 104613			
	Rated fault current $I_{\Delta n}$ = 0.03-0.1-0.3-0.5-1-3 A Delay time t_v = 10-60-150-300-450 ms	NZM1 N(S)1	3 pole	**NZM1-XFIU** 104611			
		NZM1-4 N1-4	4 pole	**NZM1-4-XFIU** 104614			
Mounting below up to 250 A							
Pulse-current sensitive according to core-balance principle For 4 pole circuit-breaker NZM2-4 and switch-disconnector N2-4 independent of mains voltage U_e = 280 … 690 V 50/60 Hz							
	Rated fault current $I_{\Delta n}$ = 0.03 A	NZM2-4 N2-4	4 pole	**+NZM2-4-XFI30** 292343		1 off	Auxiliary contacts (1 N/O, 1 NC built-in) are reset with the reset button. Not in combination with plug-in units, insulated enclosure or main switch assembly kit for side wall installation with mounting bracket. Rated ultimate short-circuit breaking capacity is determined by fitted NZM2 and, when using a switch-disconnector N2, by the back-up fuse used → Technical data. Adjusting buttons can be sealed.
	Rated fault current $I_{\Delta n}$ 0.1-0.3-1-3 A Delay time t_v = 60-150-300-450 ms	NZM2-4 N2-4	4 pole	**+NZM2-4-XFI** 292344		1 off	
Core-balance principle with AC/DC current sensitivity (in range 0 … 100 kHz) For 4 pole circuit-breaker NZM2-4 and switch-disconnector N2-4 Internal voltage supply U_e = 50 … 400 V							
	Rated fault current $I_{\Delta n}$ = 0.03 A	NZM2-4 N2-4	4 pole	**+NZM2-4-XFIA30** 292345		1 off	Observe response threshold dependence on frequency! See "Frequency response" characteristic curve. Adjusting buttons can be sealed.
	Rated fault current $I_{\Delta n}$ 0.3- 0.5-1 A Delay time t_v = 60-150-300-450 ms	NZM2-4 N2-4	4 pole	**+NZM2-4-XFIA** 292346		1 off	

	For use with	Part no. suffix Article no. for ordering with basic device	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 x I_n t_g = 0-20-60-100-200-300-500-750-1000 ms Not UL/CSA approved	NZM4 NS4	**+NZM4-XT** 266721		1 off	Only suitable for use in conjunction with circuit-breakers with electronic releases. Not in combination with motor-protective circuit-breakers NZM…-ME… Indication of the earth-fault in optional DMI communication module.
	NZM4-4	**+NZM4-4-XT** 266722		1 off	

	Description	Rated current Energy I_n A	Rated current Motor I_n A	Part no. Article no.	Price See price list	Std. pack	Notes
Residual-current relays							
Pulsed current sensitive Rated control voltage: U_s = 230 V AC (50/60 Hz) Integrated auxiliary contact (1 C/O) Ring-type transformer must also be ordered. Not UL/CSA approved							
	Rated fault current $I_{\triangle N}$ = 0.03 A	–	–	**PFR-003** 285555		1 off	–
	Rated fault current $I_{\triangle N}$ = 0.3 A	–	–	**PFR-03** 285556			–
	Rated fault current $I_{\triangle N}$ = 0.03-5 A Adjustable fault current and delay time Fault current early warning by flashing, red LED	–	–	**PFR-5** 285557			Adjustable fault current: 0.03, 0.1, 0.3, 0.5, 1, 3, 5 A Adjustable delay time: 0.02, 0.1, 0.3, 0.5, 1, 3, 5 A
–	–	–	–	**PFR-5-110AC** 116963			–
Ring-type transformer							
Rated operating voltage: 690 V (50/60 Hz) Not UL/CSA approved							
	Internal diameter: 20 mm	50	50	**PFR-W-20** 285558		1 off	Includes fixing clip for DIN rail mounting
	Internal diameter: 30 mm	150	100	**PFR-W-30** 285559			
	Internal diameter: 35 mm	150	100	**PFR-W-35** 285600			Includes screw fixing Alternative: fixing clip for DIN mounting rail **Note on engineering:** The current transformer diameter must be selected 1.5 times larger than the envelope diameter of the passed through conductor.
	Internal diameter: 70 mm	400	200	**PFR-W-70** 285601			
	Internal diameter: 105 mm	600	250	**PFR-W-105** 285602			
	Internal diameter: 140 mm	1200	630	**PFR-W-140** 285603			
	Internal diameter: 210 mm	1800	800	**PFR-W-210** 285604			
Magnetic shielding							
Not UL/CSA approved							
	PFR-W-35	–	–	**PFR-WMA-35** 286001		1 off	Required for load circuits with high inrush currents > 4 × I_n, e.g. motors and capacitors.
	PFR-W-70	–	–	**PFR-WMA-70** 286002			
	PFR-W-105	–	–	**PFR-WMA-105** 286003			
	PFR-W-140	–	–	**PFR-WMA-140** 286004			
	PFR-W-210	–	–	**PFR-WMA-210** 286005			
Mounting clip							
	For the DIN rail mounting current transformers PFR-W-35 and larger	–	–	**PFR-WC** 286006		1 off	1 set = 2 off

info@tm2a.pt WWW.TM2A.PT

Description



Overview

For the compact circuit-breakers NZM Eaton supplies the following energy measurement and communication components:

- NZM-XPC-Soft: Diagnostics software
- CurveSelect: Software for viewing characteristic curves
- NZM-XMC-S0: Energy measuring module
- NZM-XMC-MB: Measuring and communication module
- NZM-XSWD-704: Communication interface for SmartWire-Darwin with S0 input for energy data
- NZM-XDMI612: Data management interface with field bus connection for PROFIBUS-DP and bus diagnostics software

XPC-Soft

Circuit-breakers NZM with electronic trip block provide all required diagnostics data directly to the USB or COM interface of a connected PC through a built-in interface.
On overload or short-circuit, the NZM instantly switches off the system and, if a PC is connected, documents the events complete with date and time.
With the software XPC-Soft, users can view the history and analyze possible causes. The software can also output power consumption trend graphs as MS Excel table.

CurveSelect

The free characteristic curve program Moeller CurveSelect allows a settings-specific representation of the tripping characteristics of several protective devices with the same time and current scales.
This clearly simplifies an assessment of the interaction of Eaton's circuit-breakers NZM and IZM, motor-protective circuit-breakers PKZ, overload relays ZB, miniature circuit-breakers, and LV h.b.c. fuses.
Available for free download from www.moeller.net:
Products & Solutions > Power Distribution > Switching and Protecting Power > CurveSelect: Characteristics program for short-circuit- and overload protection.

Measuring and communication module

For measuring and optimizing energy consumption, Eaton provides module NZM-XMC. This compact device with built-in current converter determines the power and energy values per phase from the measured voltage and current. The module can operate the circuit-breaker through a remote operator. The data is made available on the MODBUS RTU.
With the XMC applications up to 500 A can be operated; the readings have a high accuracy of 0.5 %. Cables, strip or bar can be used. The conductors pass through a tunnel in the device and do not have to be severed. An optional external door display provides real-time local indication of the measured values.

Communication interface for SmartWire-Darwin

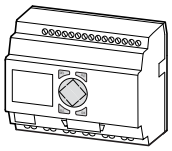
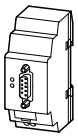
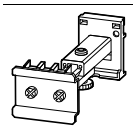
For remote diagnostics of the circuit-breaker, communication module NZM-XSWD-704 is used. With this module, the switch settings, trip causes, and actual currents can be transmitted to a field bus through SmartWire-Darwin. The circuit-breaker can therefore also be operated through SmartWire-Darwin, like the electronic motor protection PKE and the typical devices such as RMQ and DIL.
As a special feature, the XSWD features a built-in power meter, which can be supplied from an external energy measurement module XMC-S0. This provides everything that is necessary for optimizing energy usage.
With the data from the XSWD-704 all relevant information about energy supply or the respective outgoer on the desired field bus are available. This allows visualization and logging of the machines or system components.
For visualization, the free software BreakerVisu can, for example, be used, available for download from www.moeller.net:
www.moeller.net, Products & Solutions > Power Distribution > Switching and Protecting Power Distribution > Moeller BreakerVisu: Visualization for circuit-breakers

Data Management with PROFIBUS-DP interface

An alternative to the XSWD-704 is provided by data management interface NZM-XDMI612 with a field bus connection for PROFIBUS-DP.

The advantages of this solution are:

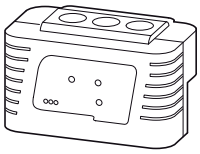
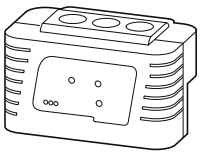
- For motor starter applications a ZMR function is available that does not trip the circuit-breaker in the event of an overload but that deactivates the contactor through the DMI.
- The built-in display provides a local indication of all parameters of the circuit-breaker.
- The DMI can change the circuit-breakers' tripping parameters. (remote parameterization)
- The DMI's six inputs and six outputs can be used for remote control and for any user functions.
- Through the outputs a "Tripped" signal can be issued locally.
- A central diagnosis across the entire bus to the FDT standard can be implemented through the DMI with the DPV1 module. For this purpose, software NZM-XPC-DTM and, in some cases, FDT-FAVIGATOR are required.

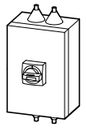
	Description	Part no. Article no.	Price See price list	Std. pack	Notes
Diagnostics and configuration software for NZM and DMI (local)					
	PC software for direct connection to all new NZM circuit-breakers with electronic releases (IEC and UL/CSA devices) or for direct connection to the DMI module, including the required connection cable to NZM. • Protection parameter: online display and curve display, export option to curve characteristics program "Moeller CurveSelect". • Warning and release messages: reading of diagnostic memory also in voltage-free state. • Load currents: display and trend indication. • Recording and export options to Excel for load currents and diagnostic messages. • Configuration of the DMI: motor starter, remote operator, assignment of the DMI inputs and outputs and displays.	**NZM-XPC-KIT** 265631		1 off	Only for use in combination with circuit-breakers with **electronic** releases. Download the manual AWB1230-1459 and demo-software at www.moeller.net. Order connecting cable to DMI separately: EASY-USB-CAB.
Connecting cable PC (USB) to DMI					
	• For transmission of DMI configuration between PC with XPC-Soft and DMI • For upgrading DMI firmware	**EASY-USB-CAB** 107926		1 off	Can also be used for programming easy small controllers.
Data management interface (DMI module)					
	• Access to diagnostics and operational data. • Recording current values, motor starter function, and setting parameters. • Control of the circuit-breakers with electronic trip block. • Comprehensive remote diagnostic options and remote operation via fieldbus in combination with a field Bus connection.	**NZM-XDMI612** 260217		1 off	Includes connection cable NZM-XDMI-CAB between NZM and DMI (length: 2 m). Only for use in combination with circuit-breakers with **electronic** releases.
Fieldbus interface for DMI					
	Connection to the DMI module • Transfer of phase currents, parameter data, status data and diagnostics data. • Transfer of circuit-breaker position (wiring of auxiliary contacts to DMI inputs). • Actuation of the DMI motor starter functions and the NZM remote operator. • Detection of digital inputs and actuation via field Bus. • PROFIBUS-DPV1-Slave fieldbus interface. Can be operated with class 1 and class 2 masters. Addresses available: 1 to 126.	**NZM-XDMI-DPV1** 270333		1 off	Connected to the DMI module and has the same contour appearance.
Switched-mode power supply unit For DMI module					
	• Rated input voltage: 50/60 HZ: 115/230 V AC • Rated output voltage (residual ripple): 24 V DC (± 3 %) • Rated output current: 1.25 A	**EASY400-POW** 212319		1 off	–
Telescopic adapter For DMI module For equalization of the mounting depth when rear mounted in CI-K... enclosures and cabinets.					
	With 35 mm top-hat rail IEC/EN 60715, adjustable from 75 – 115 mm. Screw and snap fitting.	**M22-TA** 226161		1 off	–

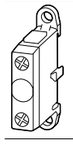
Information relevant for export to North America

Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking
UL File No.	E29184
UL CCN	NKCR
CSA File No.	012528
CSA Class No.	3211-03
NA Certification	UL Listed, CSA certified

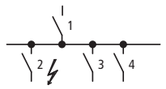
	Description	**Part no.** Article no.	**Price** See price list	Std. pack	**Notes**
FDT frame software for operating field devices					
	PC software for integration of software modules (DTM's) according to the FDT standard V1.2 (e.g. NZM-XPC-DTM). • Operation of a temporary or stationary service station 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.
DTM software module to FTD standard					
	PC software module (Device Type Manager) to FDT/DTM standard V1.2 for integration in the FDT navigator or other FDT-capable framework software packages (primary control system, PLC engineering systems). • Remote diagnostics, remote monitoring, remote parameter definition and remote operation of the new NZM2,3,4 circuit-breakers with electronic trip release via PROFIBUS-DPV1. • Indication of the circuit-breaker state (on/off/tripped), the phase currents, parameter data, status data and diagnostics data. • Definition of the trip parameters. • Display and setting the DMI motor starter functions and assignment of the DMI inputs and outputs. • Control of the motor starter functions.	**NZM-XPC-DTM** 281624		1 off	For connection of the circuit-breaker to the PROFIBUS-DP fieldbus, the accessory device NZM-XDMI612 and the fieldbus interface NZM-XDMI-DPV1 are required.
NZM interface module to SmartWire-Darwin					
	The module implements the data connection between the NZM2/3/4 with electronic release and SmartWire-Darwin. The following data is transmitted: • Digital status data (ON/OFF/Tripped) • Load warnings • Reason for last trip • The actual currents • Switch model • The current settings of the rotary coding switches The switch can also be operated with a remote operator. • Two digital inputs for the switch status • Two transistor outputs for remote switching • Retentive memory for energy data (kWh) Energy data is transmitted through digital input (S_0) from an external energy measuring module NZN...-XMC-SO.	**NZM-XSWD-704** 135530		1 off	A connection cable to the circuit-breaker and auxiliary contacts NZM is included as standard.

	Number of conductors	Description	For use with	Part no. Article no.	Price See price list	Std. pack	Notes
Energy measuring module							
For measuring the electrical active energy. The module has three built-in current transformers and three voltage taps, which are contacted with self-tapping screws that penetrate the cable insulation. Power supply 24 VDC The module supplies S0 pulses, which can be counted with an external device. One pulse output for active energy. The pulse rate is fixed.							
	3 pole	–	NZM 2 ≦ 300 A	**NZM2-XMC-S0** 129839		1 off	When mounting, observe the minimum clearances to circuit-breaker NZM. The module can be fitted on the input or output side.
		–	NZM 3 ≦ 500 A	**NZM3-XMC-S0** 129960		1 off	
	4 pole	–	NZM 2 ≦ 300 A	**NZM2-4-XMC-S0** 129963		1 off	
		–	NZM 3 ≦ 500 A	**NZM3-4-XMC-S0** 129964		1 off	
Measuring and communication module							
For measuring current, voltage, power and energy. The module has three built-in current transformers and three voltage taps, which are contacted with self-tapping screws that penetrate the cable insulation. Power supply 24 VDC Two S0 pulse outputs MODBUS interface (slave) The total energy consumption value is permanently stored in the module. Display device NZM-XMC-DISP can be connected for local indication of the readings. Can be extended with up to two add-on cards +NZM-XMC.							
	3 pole	–	NZM 2 ≦ 300 A	**NZM2-XMC-MB** 129961		1 off	When mounting, observe the minimum clearances to circuit-breaker NZM. The module can be fitted on the input or output side.
		–	NZM 3 ≦ 500 A	**NZM3-XMC-MB** 129962		1 off	
	4 pole	–	NZM 2 ≦ 300 A	**NZM2-4-XMC-MB** 129965		1 off	
		–	NZM 3 ≦ 500 A	**NZM3-4-XMC-MB** 129966		1 off	
Digital display device							
For door-mounting (connection to local display) For all measurement and communication modules with MODBUS interface Per-phase indication of current, voltage, power and energy values Includes fixed display configurations							
	3/4 pole	Front cutout 96 × 96 knockout	NZM...XMC-MB	**NZM-XMC-DISP** 129967		1 off	–
Power supply							
Power supply 230 V AC							
	3/4 pole	Can be plugged onto basic device	NZM...XMC-MB	**NZM-XMC-AC** 129968		1 off	–
Add-on cards for NZM-XMC modules							
Every measurement and communication module can be equipped with up to two expansion cards.		MODBUS interface	–	**+NZM-XMC-MB** 135524		1 off	Order add-on cards together with basic device. The cards are then supplied readily fitted in the basic device.
		Analog output for 4–20 mA pointer-type instruments	–	**+NZM-XMC-1AO** 135525		1 off	
		2 relay outputs (changeover contact)	–	**+NZM-XMC-2DO-R** 135526		1 off	
		4 relay outputs (changeover contact)	–	**+NZM-XMC-4DO-R** 135527		1 off	
		4 digital inputs and 4 digital outputs	–	**+NZM-XMC-4DI-4DO** 135528		1 off	

	Degree of protection	Max. rated uninterrupted current I_u A	For use with	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack	Basic enclosure	Terminals for 3-pole switches fitted by user: for fourth and fifth conductor (N and PE), on 4 pole switches: for fifth conductor (PE)	**Notes**
Insulated enclosures									
With door coupling rotary handle Complete includes all necessary functional parts Not UL/CSA approved									
Standard, black/grey									
 Lockable in 0 position on handle with up to 3 padlocks. Additionally with cover interlock.	IP65	≦ 63 A	PN1, N(S)1	**NZM1-XCIK5-TVD** 271521		1 off	CI-K5-160-M	K10/1, K25/1	Enclosures for separate mounting with top and bottom cable entry, suitable for installation of circuit-breakers and switch-disconnectors. Include fixing straps for wall mounting. Short-circuit resistance at 415 V 50/60 Hz up to 10 kA. Cannot be used in combination with remote operator NZM...-XR..., plug-in unit NZM...-XSV or withdrawable unit NZM...-XAV. Order insulated additional terminal for 4th or 5th pole separately. Enclosure CI-K5 with hard metric knock-outs Enclosure CI23 with flanges CI43, CI45 and CI48 feature gland plates. **Only for switches with box terminals for direct connection of cables.**
	IP65	≦ 63 A	NZM1, PN1, N(S)1	**NZM1-XCI23-TVD** 271522		1 off	CI23-150	K10/1, K25/1	
	IP64	≦ 125 A	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XCI43-TVD** 271523		1 off	CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
	IP64	≦ 160 A	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XCI43/2-TVD** 104645		1 off	CI43-200	K10/1, K25/1, K50/1, K95/1N/BR	
	IP64	≦ 200 A	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XCI43-TVD** 271524		1 off	CI43-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
	IP64	≦ 250 A	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XCI45-TVD** 280418		1 off	CI45-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
	IP64	≦ 400 A	NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XCI48-TVD** 271525		1 off	CI48-250	K95/1N/BR, K150/1/BR, K240/1/BR, K2X240/1/BR	
Red-yellow for emergency switching off									
 Lockable on handle and switch with up to 3 padlocks. Lockable in 0 position on handle. Additionally with cover interlock and locking facility on circuit-breaker in 0 position.	IP65	≦ 63 A	PN1, N(S)1	**NZM1-XCIK5-TVDVR** 271526		1 off	CI-K5-160-M	K10/1, K25/1	
	IP65	≦ 63 A	NZM1, PN1, N(S)1	**NZM1-XCI23-TVDVR** 271527		1 off	CI23-150	K10/1, K25/1	
	IP64	≦ 125 A	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XCI43-TVDVR** 271528		1 off	CI43-150	K10/1, K25/1, K50/1, K95/1N/BR	
	IP64	≦ 160 A	NZM1(-4), PN1(-4), N(S)1(-4)	**NZM1-XCI43/2-TVDVR** 104646		1 off	CI43-200	K10/1, K25/1, K50/1, K95/1N/BR	
	IP64	≦ 200 A	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XCI43-TVDVR** 271529		1 off	CI43-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
	IP64	≦ 250 A	NZM2(-4), PN2(-4), N(S)2(-4)	**NZM2-XCI45-TVDVR** 279356		1 off	CI45-200	K10/1, K25/1, K50/1, K95/1N/BR, K150/1/BR, K240/1/BR	
	IP64	≦ 400 A	NZM3(-4), PN3(-4), N(S)3(-4)	**NZM3-XCI48-TVDVR** 271530		1 off	CI48-250	K95/1N/BR, K150/1/BR, K240/1/BR, K2X240/1/BR	

	Rated uninterrupted current I_u A	Terminal capacity mm²	**Part no.** Article no. when ordered separately	**Price** See price list	Std. pack
Insulated additional terminals					
For passing 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		10 off
	100	Flexible, 1 × (10 – 35), stranded, 1 × (16 – 50)	**K50/1** 098573		10 off
	160	Stranded, 1 × (16 – 95)	**K95/1N/BR** 012336		1 off
	250	Stranded, 1 × (35 – 150), 2 x (16 – 70)	**K150/1/BR** 014709		1 off
	400	Stranded, 1 × (50 – 240), 2 × (25 – 120)	**K240/1/BR** 017082		1 off
	630	Stranded, 1 × (240 – 300), 2 × (50 – 240)	**K2X240/1/BR** 019455		1 off

Engineering



Incoming circuit-breaker

Outgoing circuit-breaker

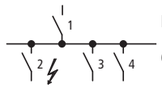
Selectivity 415 V AC

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

			Incoming circuit-breaker (S1)																	
			NZM...1-A...							**NZM...2-A...**										
	I_{cu} [kA]		25(36)(50)(100)							25(36)(50)(150)										
	I_n [A]		20-40	50	63	80	100	125	160	20-40	50	63	80	100	125	160	200	250	300
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu(415V)}$ [kA]	Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value																	
FAZ–B(C)	0.5	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	15	T	T	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	T	T
	3	15	1.2	2	3	3	10	T	T	1.5	1.5	3	5	T	T	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	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	T	T
	10	15	1.2	1.5	2	2	4	10	10	1	1.5	2.5	3	10	10	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	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	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	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	10	10
	32	15	–	1.2	1	1.5	2	6	6	–	1	1.5	2	8	8	8	8	10	10	10
	40	15	–	–	1	1.5	2	5	5	–	–	1.2	1.5	7	7	7	7	10	10	10
	50	15	–	–	–	1.2	1.5	4	4	–	–	–	1.5	6	6	6	6	10	10	10
	63	15	–	–	–	–	1.5	3	3	–	–	–	–	6	6	6	6	10	10	10
PKZM0-...	0.16	100	T	T	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	T	T
	0.4	100	T	T	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	T	T
	1	100	T	T	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	T	T
	2.5	100	T	T	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	T	T
	6.3	100	4	5	5	T	T	T	T	2	3	4	5	T	T	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	T	T
	12	50	3	4	5	6	25	T	T	1.5	2.5	4	4	T	T	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	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	T	T
	25	50	–	1	1.5	1.5	2.5	4	T	–	1	1.5	2	10	T	T	T	T	T	T
	32	50	–	–	1	1	2	3.5	T	–	–	1	1.5	8	40	T	T	T	T	T
PKZ2/ZM-...	0.6	100	T	T	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	T	T
	1.6	100	T	T	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	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	T	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	T
	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	5	T
	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	4	T
	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	3	T
	32	30	–	–	0.6	0.7	1.2	1.5	2	–	–	0.6	0.7	1.2	2	2	2	3	3	T
	40	30	–	–	0.6	0.7	1	1.5	2	–	–	0.6	0.7	1	2	2	2	2	2	T
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	5	T
	25	100	–	0.7	0.8	0.8	1.5	5	5	–	0.7	0.8	0.8	1.5	5	5	5	5	5	T
	32	50	–	–	0.8	0.8	1.5	4	4	–	–	0.8	0.8	1.5	4	4	4	4	4	T
	40	50	–	–	–	0.8	1.5	3	3	–	–	–	0.8	1.5	3	3	3	3	3	T
	50	50	–	–	–	–	1	2.5	2.5	–	–	–	–	1	2.5	2.5	2.5	2.5	2.5	T
	58	50	–	–	–	–	–	2.5	2.5	–	–	–	–	–	2.5	2.5	2.5	2.5	2.5	T
	63	50	–	–	–	–	–	2	2	–	–	–	–	–	2	2	2	2	2	T

Notes T: total selectivity

			Incoming circuit-breaker (S1)																	
			NZM...2-VE...			**NZM...3-A...**				**NZM...3-AE...**			**NZM…3-VE…**			**NZM...4-AE...**					**NZM…4-VE…**				
	I_{cu} [kA]		50(150)			36(50)(150)				50(150)			50(150)			50(85)					50(85)				
	I_n [A]		100	160	250	250	320	400	500	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu(415V)}$ [kA]	Selectivity threshold I_s [kA] for selectivity between S2 and S1, overload and short-circuit release set to max. value																						
FAZ–B(C)	0.5	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	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	T	T	T	T	T	T	T
	2	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	3	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	15	10	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	13	15	10	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	15	10	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	15	10	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	15	10	10	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	15	8	8	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	40	15	7	7	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	50	15	6	6	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	63	15	6	6	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
PKZM0-...	0.16	100	T	T	T	T	T	T	T	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	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	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	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	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	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	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	T	T	T	T	T	T	T
	6.3	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	12	50	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	50	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	50	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	50	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	50	8	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
PKZ2/ZM-...	0.6	100	T	T	T	T	T	T	T	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	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	T	T	T	T	T	T	T
	2.4	100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	100	10	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	100	8	8	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	100	4	4	5	5	6	9	T	5	13	T	5	13	T	T	T	T	T	T	T	T	T	T	T
	16	100	3	3	4	4	4	5	30	4	7	T	4	7	T	T	T	T	T	T	T	T	T	T	T
	25	30	2	2	3	3	3	4	10	3	5	20	3	5	20	T	T	T	T	T	T	T	T	T	T
	32	30	2	2	3	3	3	4	8	3	3.5	15	3	3.5	15	T	T	T	T	T	T	T	T	T	T
	40	30	2	2	2.5	2	3	4	8	2.5	3.5	15	2.5	3.5	15	T	T	T	T	T	T	T	T	T	T
PKZM4	16	100	5	5	6	5	10	13	30	6	16	45	6	16	45	45	T	T	T	T	45	T	T	T	T
	25	100	5	5	3.3	5	6	10	15	3.3	10	25	3.3	10	25	25	42	T	T	T	25	42	T	T	T
	32	50	4	4	3	4	5	7	12	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	40	50	3	3	3	3	5	7	12	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	50	50	2.5	2.5	3	2.5	5	7	10	3	8	18	3	8	18	18	30	45	T	T	18	30	45	T	T
	58	50	2.5	2.5	2.5	2.5	4	6	10	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T
	63	50	2	2	2.5	2	4	6	10	2.5	6.5	15	2.5	6.5	15	15	25	40	T	T	15	25	40	T	T



Incoming circuit-breaker

Outgoing circuit-breaker

Selectivity 415 V AC

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

Incoming circuit-breaker (S1)

			NZM...1-A...							NZM...2-A...									
	I_{cu}[kA]		25(36)(50)(100)							25(36)(50)(150)									
	I_n[A]		20-40	50	63	80	100	125	160	20-40	50	63	80	100	125	160	200	250	300
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu(415V)}$ [kA]	Prospective short-circuit current (kA). Set the overload and short-circuit release of the incoming circuit-breaker to the max. value.																
NZM...1-A...	20-40	25-100	–	–	0.5	0.7	0.8	1.5	1.5	–	–	0.6	0.8	1.5	1.5	1.5	2	3	3
	50	25-100	–	–	–	0.6	0.8	1.5	1.5	–	–	–	0.8	1.5	1.5	1.5	2	3	3
	63	25-100	–	–	–	–	0.8	1.5	1.5	–	–	–	–	1.5	1.5	1.5	2	3	3
	80	25-100	–	–	–	–	–	1.5	1.5	–	–	–	–	–	1.5	1.5	2	3	3
	100	25-100	–	–	–	–	–	–	1.5	–	–	–	–	–	–	1.5	2	3	3
	125	25-100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3	3
	160	25-100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3	3
NZM...2-A...	20-40	25-150	–	–	0.5	0.6	0.8	1	1	–	–	0.5	0.6	0.8	1	1.2	1.6	2	2
	50	25-150	–	–	–	0.6	0.8	1	1	–	–	–	0.6	0.8	1	1.2	1.6	2	2
	63	25-150	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2	2
	80	25-150	–	–	–	–	–	1	1	–	–	–	–	–	1	1.2	1.6	2	2
	100	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	2
	125	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2	2
	160	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
	200	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	300	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...1-M...	40	25-150	–	–	–	–	0.8	1	1	–	–	–	–	0.8	1	1.2	1.6	2	2
	50	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	2
	63	25-150	–	–	–	–	–	–	1	–	–	–	–	–	–	1.2	1.6	2	2
	80	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.6	2	2
	100	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
NZM...2-M...	20-12	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	160	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	200	25-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...2-VE...	100	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2	2
	160	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...2-ME...	90	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	1.2	1.6	2	2
	140	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	220	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...3-AE...	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	320	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	400	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	500	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM…3-VE…	250	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	400	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...3-ME...	220	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	350	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	450	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...4-AE...	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM…4-VE…	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...4-ME...	550	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	875	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1400	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Incoming circuit-breaker (S1)

			NZM...2-VE...			NZM...3-A...				NZM...3-AE...			NZM…3-VE…			NZM...4-AE...					NZM…4-VE…				
	I_{cu}[kA]		50(150)			36(50)(150)				50(150)			50(150)			50(85)					50(85)				
	I_n[A]		100	160	250	250	320	400	500	250	400	630	250	400	630	630	800	1000	1250	1600	630	800	1000	1250	1600
Outgoing circuit-breaker (S2)	I_n [A]	$I_{cu(415V)}$ [kA]	Prospective short-circuit current (kA). Set the overload and short-circuit release of the incoming circuit-breaker to the max. value.																						
NZM...1-A...	20-40	25-100	2	5	7.5	3	4	6	7	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
	50	25-100	2	5	7.5	3	4	6	7	7.5	20	20	12.5	25	25	T	T	T	T	T	T	T	T	T	T
	63	25-100	2	5	6	3	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25-100	–	5	6	3	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25-100	–	5	6	3	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	125	25-100	–	5	6	3	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	160	25-100	–	5	6	3	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
NZM...2-A...	20-40	25-150	1	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	50	25-150	1	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	63	25-150	1	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25-150	–	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25-150	–	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	125	25-150	–	–	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	160	25-150	–	–	4	2.5	4	5	6	5	10	10	10	15	15	T	T	T	T	T	T	T	T	T	T
	200	25-150	–	–	–	–	–	5	6	–	10	10	–	15	15	T	T	T	T	T	T	T	T	T	T
	250	25-150	–	–	–	–	–	5	6	–	10	10	–	15	15	T	T	T	T	T	T	T	T	T	T
	300	25-150				–	–	5	6		10	10	–	15	15	T	T	T	T	T	T	T	T	T	T
NZM...1-M...	40	25-150	1	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	50	25-150	–	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	63	25-150	–	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	80	25-150	–	2	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
	100	25-150	–	–	4	2.5	4	6	7	6	15	15	11	20	20	T	T	T	T	T	T	T	T	T	T
NZM...2-M...	20-12	25-150	–	–	2	2.5	4	6	7	6	7	10	7	10	12	T	T	T	T	T	T	T	T	T	T
	160	25-150	–	–	–	2.5	4	6	7	6	7	10	7	10	12	T	T	T	T	T	T	T	T	T	T
	200	25-150	–	–	–	–	–	6	7	–	7	10	–	10	12	T	T	T	T	T	T	T	T	T	T
NZM...2-VE...	100	50-150	–	1.2	2	2.5	4	6	7	6	7	10	7	8	11	T	T	T	T	T	T	T	T	T	T
	160	50-150	–	–	2	2.5	4	6	7	6	7	10	7	8	11	T	T	T	T	T	T	T	T	T	T
	250	50-150	–	–	–	–	–	6	7	–	7	10	–	8	11	T	T	T	T	T	T	T	T	T	T
NZM...2-ME...	90	50-150	–	–	2	2.5	4	6	7	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
	140	50-150	–	–	–	2.5	4	6	7	6	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
	220	50-150	–	–	–	–	–	6	7	–	7	10	5	10	12	T	T	T	T	T	T	T	T	T	T
NZM...3-AE...	250	50-150	–	–	–	–	–	–	–	–	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
	320	50-150				–	–	–	–		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
	400	50-150	–	–	–	–	–	–	–	–	–	7.5	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
	500	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
NZM…3-VE…	250	50-150	–	–	–	–	–	–	–	–	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
	400	50-150	–	–	–	–	–	–	–	–	–	4	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
	630	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
NZM...3-ME...	220	50-150	–	–	–	–	–	–	–	–	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
	350	50-150	–	–	–	–	–	–	–	–	–	4	–	–	12	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80	T/80
	450	50-150	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T/80	T/80	T/80	T/80	–	T/80	T/80	T/80	T/80
NZM...4-AE...	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	15	20	20	–	10	15	20	20
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM…4-VE…	630	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	15	20	20	–	10	15	20	20
	800	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
	1000	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
	1250	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
	1600	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
NZM...4-ME...	550	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	20	–	–	–	20	20
	875	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20
	1400	50-85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Notes T: total selectivity

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

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

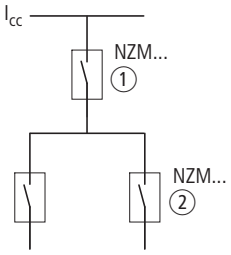
Short-circuit protection is provided by adjustable instantaneous releases, which open the main contacts in less than 25 ms. The short-circuit total opening time restricts the temperature rise of the cable to a minimum.

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

	Minimum protected cross-section mm² copper
NZM...1(-4)-...20	6
NZM...1(-4)-...25 – 160	10
NZM...2(-4)-...20 – 300	10
NZM...3(-4)-...250 – 630	16
NZM...4(-4)-...630 – 1600	95

Backup protection

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



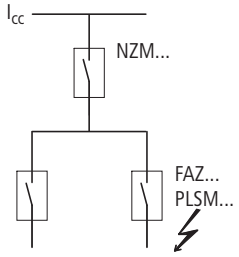
		Incoming circuit-breaker ①										
		NZM1				NZM2				NZM3		
	I_n	Up to 160 A				Up to 250 A				Up to 500 A	Up to 630 A	
	I_{cu}(415 V)	25 kA	36 kA	50 kA	100 kA	25 kA	36 kA	50 kA	150 kA	36 kA	50 kA	150 kA
Outgoing circuit-breaker ②												
I_{cu}(415 V)	I_n											
NZMB1 25 kA	Up to 160 A	25	36	50	100	25	36	50	100	36	50	100
NZMC1 36 kA	Up to 160 A	–	36	50	100	–	36	50	100	36	50	100
NZMN1 50 kA	Up to 160 A	–	–	50	100	–	–	50	100	–	50	100
NZMH1 100 kA	Up to 160 A	–	–	–	100	–	–	–	100	–	–	100
NZMB2 25 kA	Up to 300 A	25	36	50	100	25	36	50	150	36	50	150
NZMC2 36 kA	Up to 300 A	–	36	50	100	–	36	50	150	36	50	150
NZMN2 50 kA	Up to 300 A	–	–	50	100	–	–	50	150	–	50	150
NZMH2 150 kA	Up to 300 A	–	–	–	–	–	–	–	150	–	–	150
NZMC3 36 kA	Up to 500 A	–	–	–	–	–	–	–	–	–	50	150
NZMN3 50 kA	Up to 630 A	–	–	–	–	–	–	–	–	–	50	150
NZMH3 150 kA	Up to 630 A	–	–	–	–	–	–	–	–	–	–	150

Where the prospective fault current at the mounting location of circuit-breakers is very high current-limiting circuit-breakers NZMN(H) are normally used. A cost-effective alternative if the fault level is too high for circuit-breakers NZMB(C)(N) is to fit a current-limiting circuit-breaker NZMN(H) upstream of an arrangement of standard circuit-breakers NZMB(C)(N).

The table shows which current-limiting circuit-breakers NZMN(H) provide reliable protection at network locations with high short-circuit ratings in combination with NZMB(C)(N).

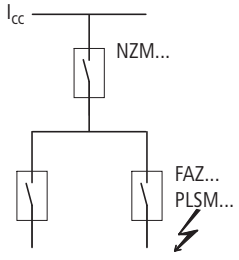
The selectivity limit is determined by the response current of the non-delayed short-circuit release in the upstream incoming circuit-breaker. In many applications this is sufficient.

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



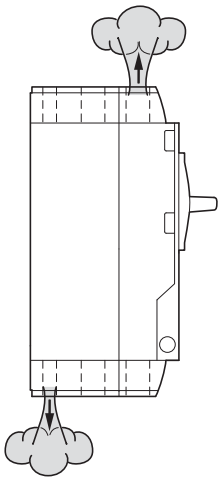
Outgoing circuit-breaker	Incoming circuit-breaker	
	NZMB1-A...	NZMC(N)(H)1-A...
FAZ-B(C)...		
0.5 – 16	25 kA	30 kA
20 – 40	20 kA	20 kA
50, 63	15 kA	15 kA
PLSM-B(C)...(/...)		
0.5 – 16	25 kA	30 kA
20 – 40	20 kA	20 kA
50, 63	15 kA	15 kA

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



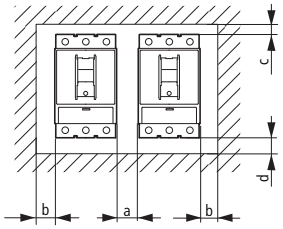
Outgoing circuit-breaker	Incoming circuit-breaker	
	NZMB2-A...	NZMN(H)2-A...
FAZ-B(C)...		
0.5 – 10	25 kA	50 kA
13 – 32	25 kA	30 kA
40 – 63	20 kA	20 kA
PLSM-B(C)...(/...)		
0.5 – 10	25 kA	50 kA
13 – 32	25 kA	30 kA
40 – 63	20 kA	20 kA

Direction of blow-out



	Top, front	Bottom, rear
NZM1	X	–
NZMB(C)2-A... 250	X	–
(P)N2(-4)-...	X	–
NZMN(H)2...	X	X
NZM...2-4..	X	X
NZM3	X	X
NZM4	X	–

Minimum clearances



between two adjacently mounted switches
Minimum clearance a in mm

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

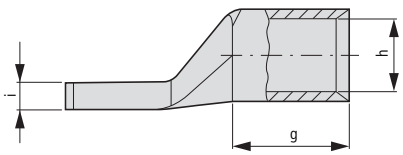
between switches and other parts
Minimum clearances in mm

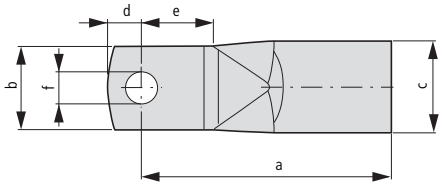
	b		c			d	
	≦ 690 V	1000 V	≦ 440 V	≦ 690 V	1000 V	≦ 690 V	1000 V
NZM1	0	–	30	60	–	0	–
NZM2[1)]	5	5	20[1)]	35[1)]	35	35	35
NZM3	5	5	30	60	60	60	60
NZM4	15	15	50	100[2)]	200	0	0

[1)] NZMB(C)2 – A … ≦ 440 V: C= 20 mm, d = 0 mm
≦ 690 V: C= 60 mm, d = 0 mm

[2)] At 690 V IT network: 200 mm

Tube cable lugs, dimensions





For pressing the cable lugs a press tool K22, HK60/22 or EK22 from Klauke with the following press inserts is required:
R22/95 for 95 mm²
R22/120 for 120 mm²
R22/150 for 150 mm²
R22/185 for 185 mm²
R22/240 for 240 mm²

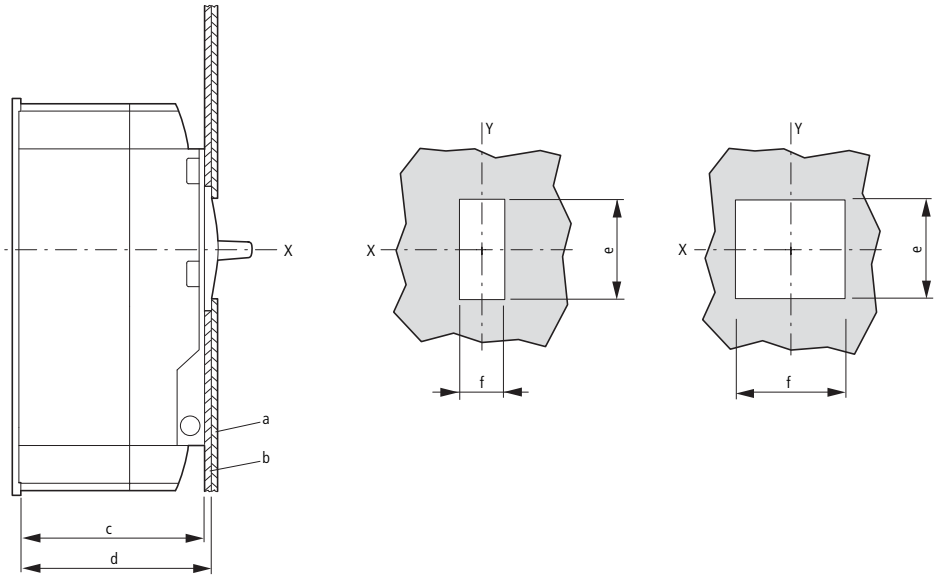
Cable lug	For use with	Nominal cross section	Terminal bolt	Dimensions in mm								
		mm²	∅	a	b	c	d	e	f	g	h	i
KS95-NZM7	NZM2	95	M8	53_{+2}	$23_{\pm0.5}$	$18_{\pm0.2}$	$10_{\pm1}$	19	8.5	25	13.5	4.4
KS120-NZM7	NZM2	120	M8	56_{+2}	$23_{\pm0.5}$	$19.5_{\pm0.2}$	$10_{\pm1}$	19	8.5	26	15	4.4
KS150-NZM7	NZM2	150	M8	61_{+2}	$23_{\pm0.5}$	$21_{\pm0.2}$	$10_{\pm1}$	19	8.5	30	16.5	4.4
NZM2-XKS185	NZM2	185	M8	$65_{\pm1.5}$	$22_{\pm1}$	$24_{\pm0.3}$	$9^{+1}_{-0.5}$	$19^{+2,5}_{-0.5}$	$8.5^{+0,05}_{-0.1}$	$30_{\pm2}$	$19_{\pm0.4}$	7
NZM3-XKS185	NZM3, NZM4	185	M10	65	24.5	24	11.5	18	10.5	30	19	$7.0_{\pm0.8}$
NZM3-XKS240	NZM3, NZM4	240	M10	72	31	26	11.5	19	10.5	35	21	$5.0_{\pm0.8}$

Engineering

Front cut-outs

Cut-out **a**
Rocker lever

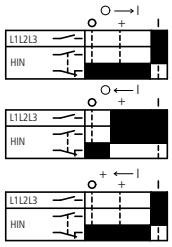
Cut-out **b**
Rotary handle, remote operator



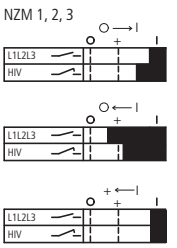
	Distance from mounting plate and door cut-out		Cut-out **a**		Cut-out **b**	
	c	d	e	f	e	f
	mm	mm	mm	mm	mm	mm
NZM1	68	73	40	23	46	91
NZM2	103	108	79	36	96	101
NZM3	120.5	125.5	79	36	96	136
NZM4	138	146	101	105	118	204

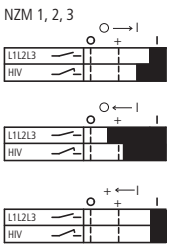
Contact sequence of the auxiliary contacts

Standard auxiliary contacts (HIN)

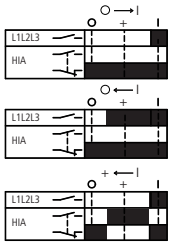


Early-make auxiliary contact (HIV)





Trip-indicating auxiliary contacts (HIA)



0 → I Switch-on

0 ← I Switch-off

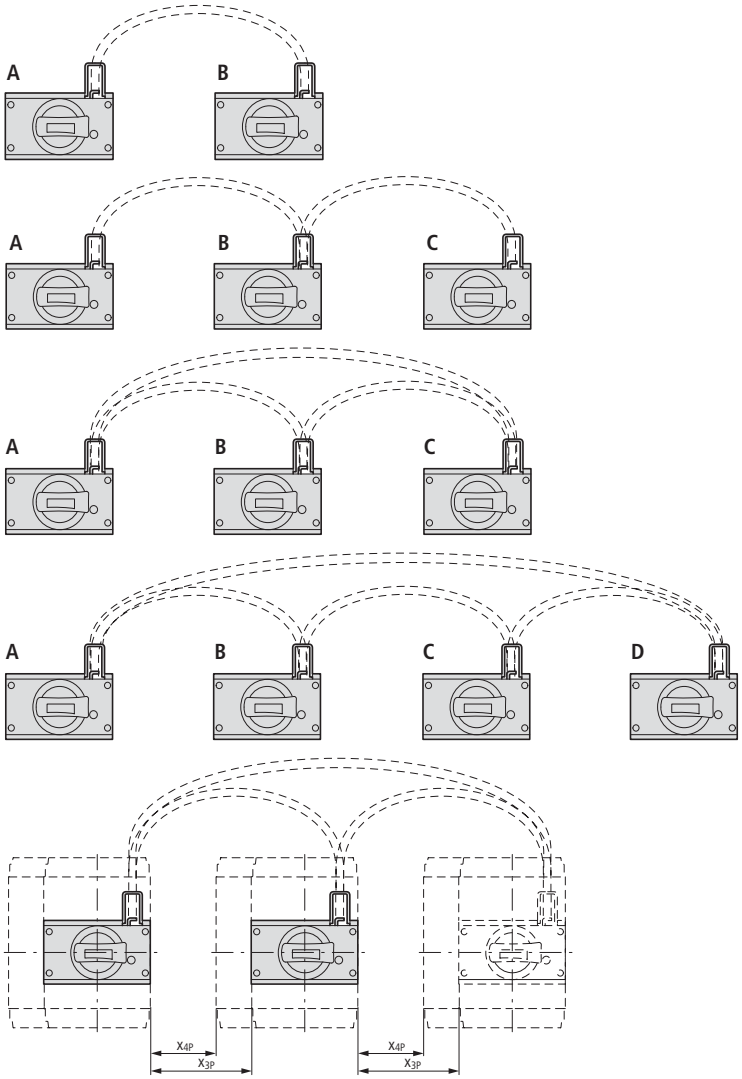
+← I Trip

■ Contact closed

□ Contact opened

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

Interlock variations and combination possibilities



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

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

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

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

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

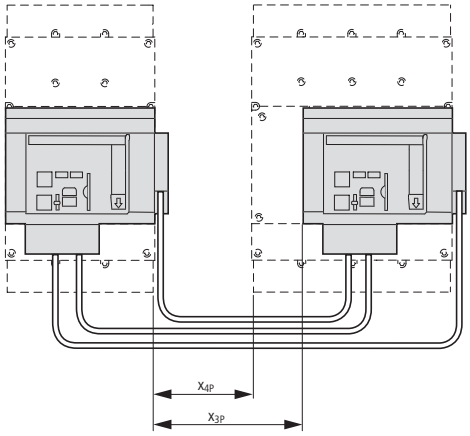
NZM-						Right switch			
Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
Left switch		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	135	105	120	85	135	90	125	80
NZM2	3/4 pole	135	105	120	85	135	90	125	80
NZM3	3/4 pole	90	75	75	35	85	40	80	45
NZM4	3/4 pole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

NZM-XBZ600						Right switch			
Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
Left switch		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	510	480	495	460	510	465	475	405
NZM2	3/4 pole	510	480	495	460	510	465	475	405
NZM3	3/4 pole	460	430	450	410	460	415	460	390
NZM4	3/4 pole	400	370	380	340	400	375	390	320

NZM-XBZ1000						Right switch			
Max. switch spacing		NZM1		NZM2		NZM3		NZM4	
		X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}	X_{3P}	X_{4P}
Left switch		mm	mm	mm	mm	mm	mm	mm	mm
NZM1	3/4 pole	910	880	895	860	910	865	865	795
NZM2	3/4 pole	910	880	895	860	910	865	865	795
NZM3	3/4 pole	820	790	850	810	860	815	860	790
NZM4	3/4 pole	750	720	730	700	800	775	790	720

Mechanical interlock for remote operator, residual-current relay

NZM...-XMVR(L)



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

Mechanical interlock XMVR

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

Max. switch spacing Right switch

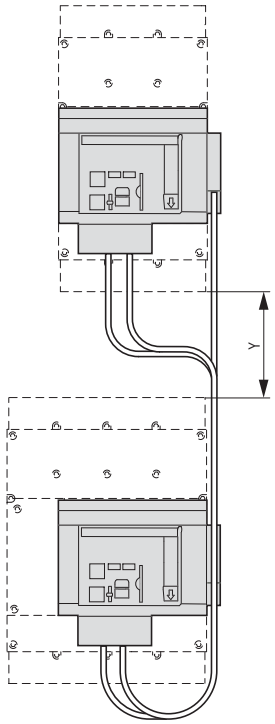
		NZM2		NZM3		NZM4	
		X_{3p}	X_{4p}	X_{3p}	X_{4p}	X_{3p}	X_{4p}
Left switch		mm	mm	mm	mm	mm	mm
NZM2	3/4 pole	130	95	95	50	–	–
NZM3	3/4 pole	–	–	135	90	155	85
NZM4	3/4 pole	–	–	–	–	120	50

Mechanical interlock XMVRL

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

Max. switch spacing Right switch

		NZM2		NZM3		NZM4	
		X_{3p}	X_{4p}	X_{3p}	X_{4p}	X_{3p}	X_{4p}
Left switch		mm	mm	mm	mm	mm	mm
NZM2	3/4 pole	350	315	420	385	–	–
NZM3	3/4 pole	–	–	400	365	460	390
NZM4	3/4 pole	–	–	–	–	420	350



Mechanical interlock XMVRL

NZM...-XMVRL (mounted one above the other)

Max. switch spacing Switch at top

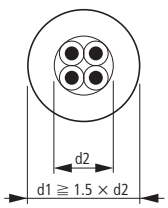
		NZM2	NZM3	NZM4
		3/4 pole	3/4 pole	3/4 pole
		Y	Y	Y
Switch at bottom		mm	mm	mm
NZM2	3/4 pole	220	225	–
NZM3	3/4 pole	–	220	230
NZM4	3/4 pole	–	–	230

Y = max. switch spacing

Residual-current relay PFR

Ring-type transformer PFR-W...

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

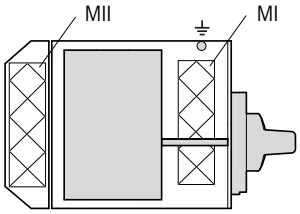


WWW.TM2A.PT info@tm2a.pt

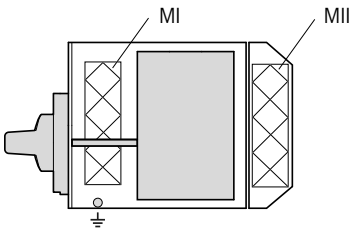
Additional terminal arrangement for side wall operator with mounting bracket.
NZM1-XS(R)M-..., NZM2-XS(R)M-...
Additional terminals K25, K50, K95, K150
Actuation:

3 pole

For operation on the right

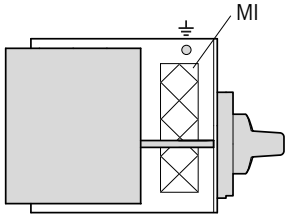


For operation on the left

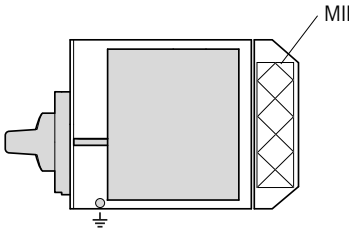


4 pole

For operation on the right



For operation on the left

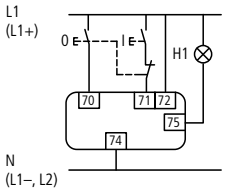


Mounting areas		MI				MII	
Variation options		V1	V2	V3	V4	V1	V2
Maximum number of additional terminals	K25	2 x	–	–	–	–	–
	K50	–	2 x	–	–	–	–
	K95	–	–	1 x	–	1 x	–
	K150	–	–	–	1 x	–	1 x

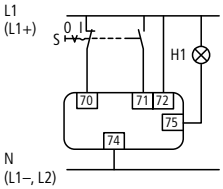
Example: In mounting area MI, variation option 1 allows the K25 additional terminal to be mounted twice.

2/3-wire control remote operator

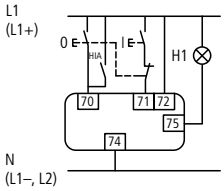
Three-wire control



Two-wire control

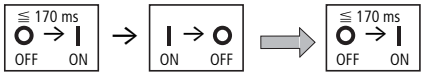


Three-wire control with automatic reset to the 0 position after the switch has tripped



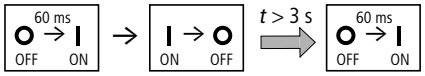
Switching cycle:

NZM2-XRD

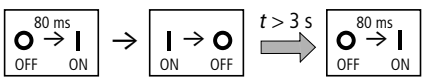


The time interval between OFF and ON is 3 seconds.
ON commands received during the time interval are ignored within the first 3 seconds after switch off.

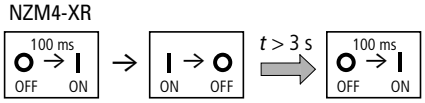
NZM2-XR



NZM3-XR



NZM4-XR



Please note for engineering:

Terminal 70/71:

NZM-XR: Contact loading according to technical data

NZM2-XRD: Full current flows though the contact during make and break!

RMQ series contact elements can be used for the remote operators.NZM2(3.4)-XR(D)...

Terminal 75:

NZM-XR: Operational readiness signal when cover closed and not locked.

NZM2-XRD: Operational readiness signal when sliding switch set to Auto.

Sliding switch with three positions: Manual/Auto/Locked for reliable differentiation of operating positions.

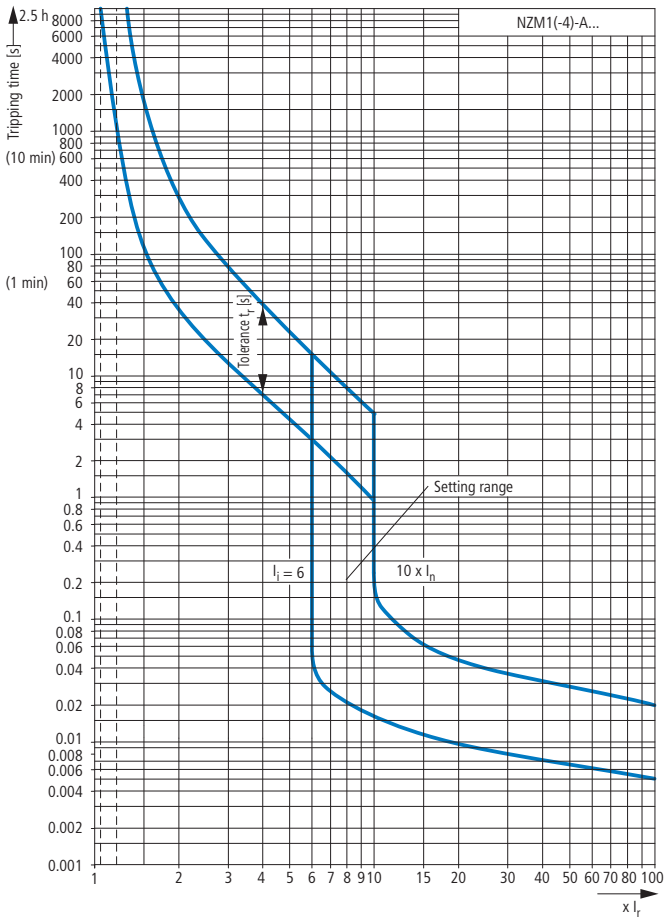
AC-15: 400 V; 2 A

DC-13: 220 V; 0.2 A

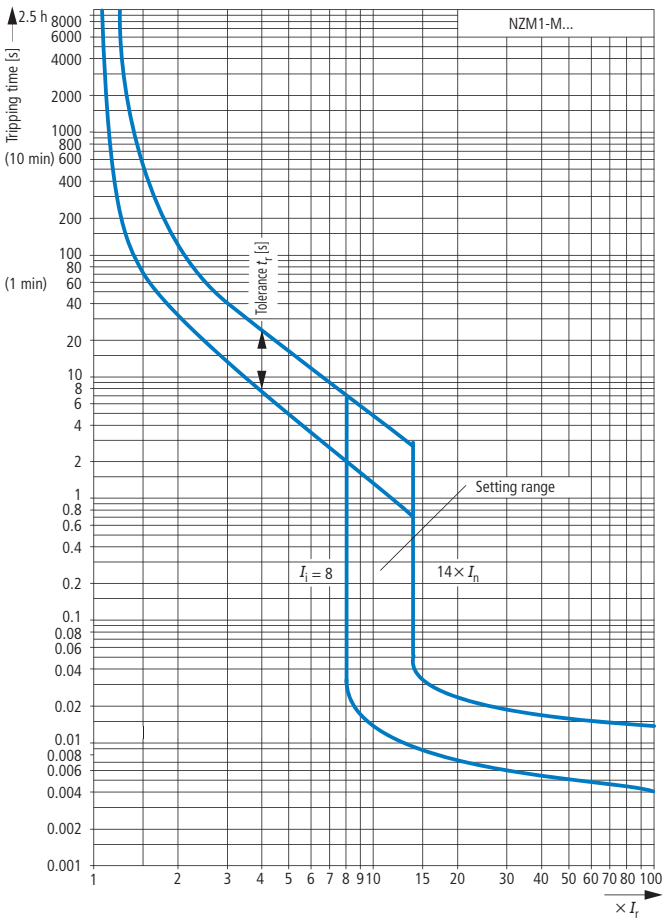
Construction size 1, 2: tripping characteristics

NZM1, NZM2

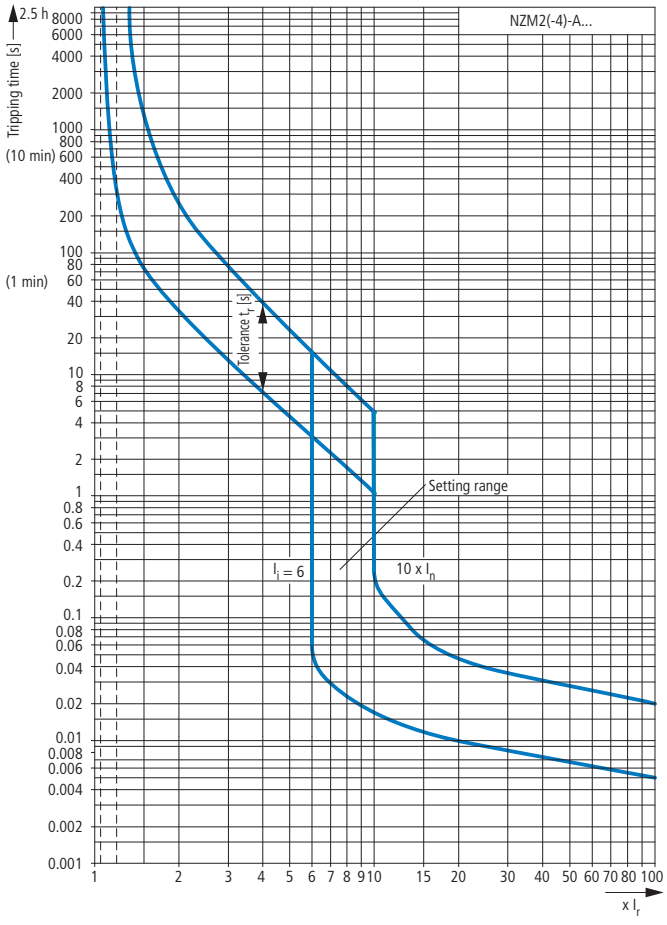
System and line protection with NZM1



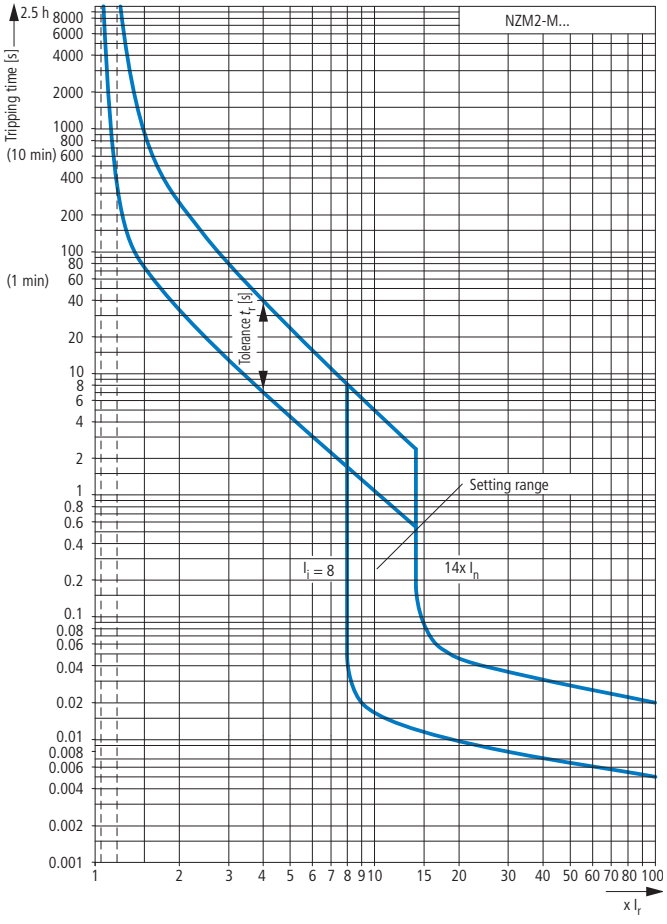
Motor protection with NZM1



System and line protection with NZM2

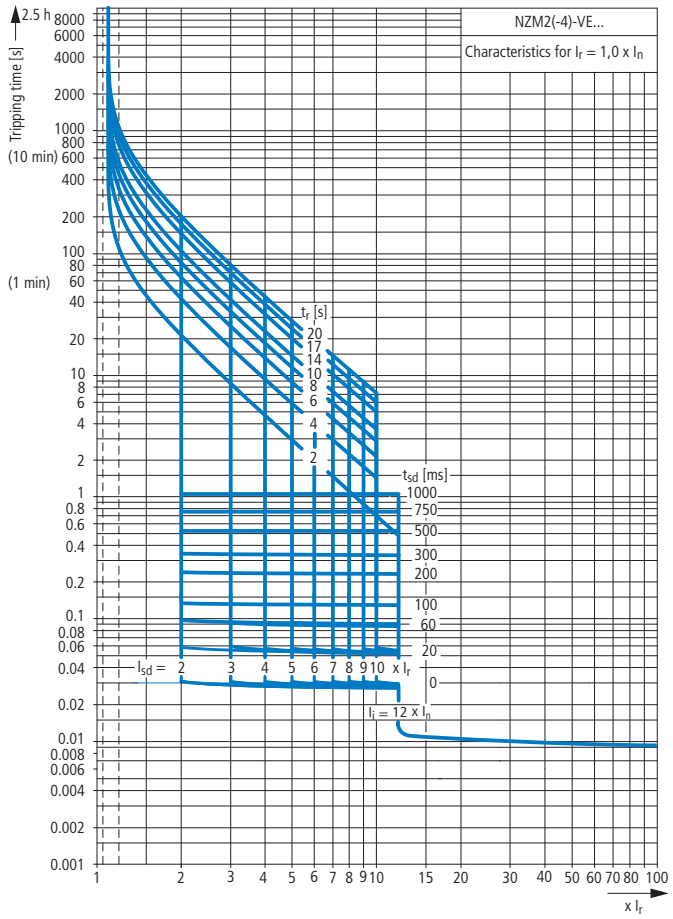


Motor protection with NZM2

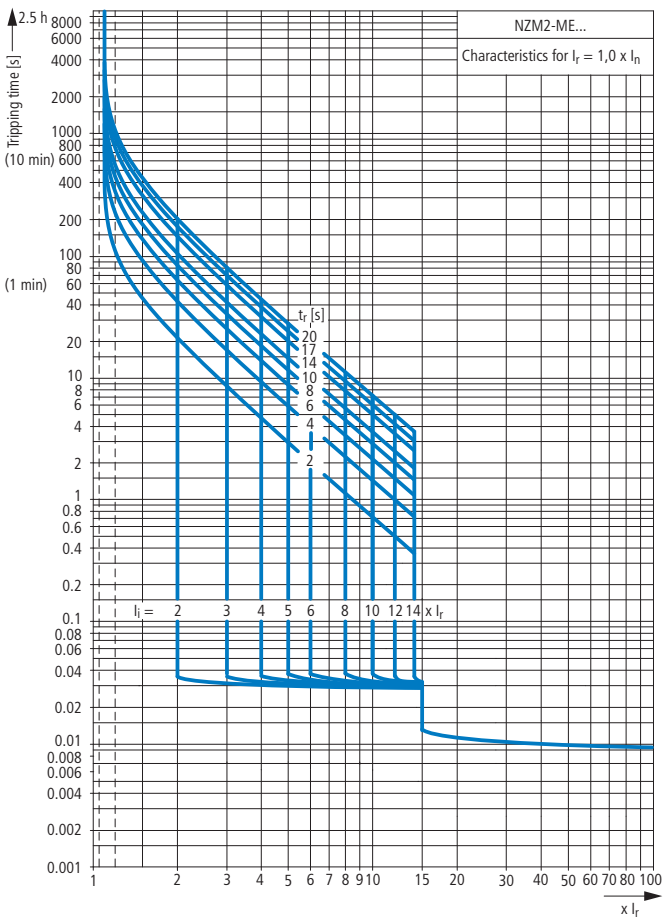


Notes With the free CurveSelect software you can quickly and easily create detailed representations of individual settings:
www.moeller.net, Products & Solutions > Power Distribution > Switching and Protecting Power Distribution > CurveSelect: Characteristics program

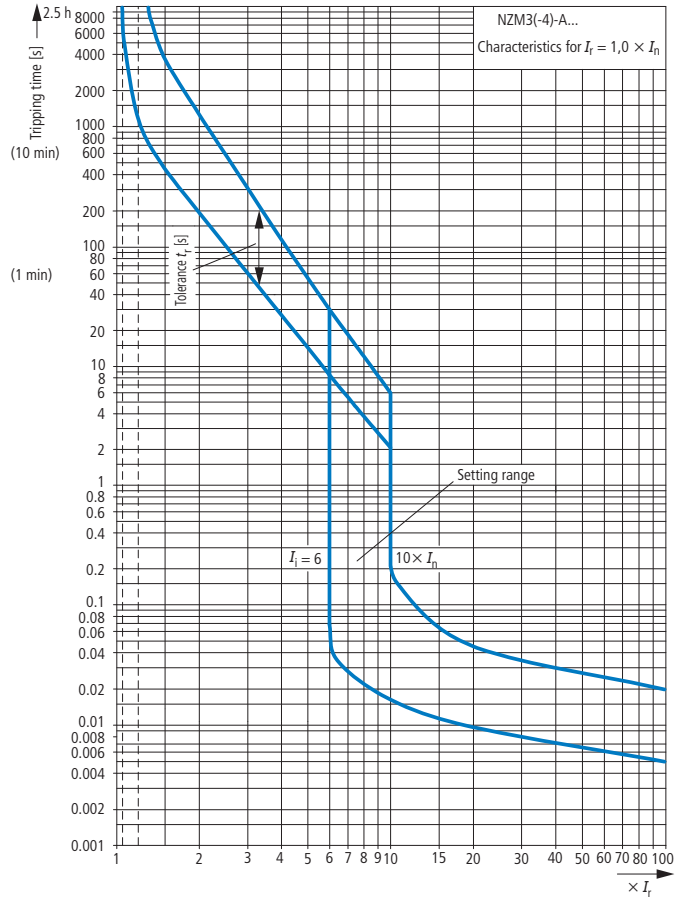
Systems, cable, selectivity and generator protection with NZM2

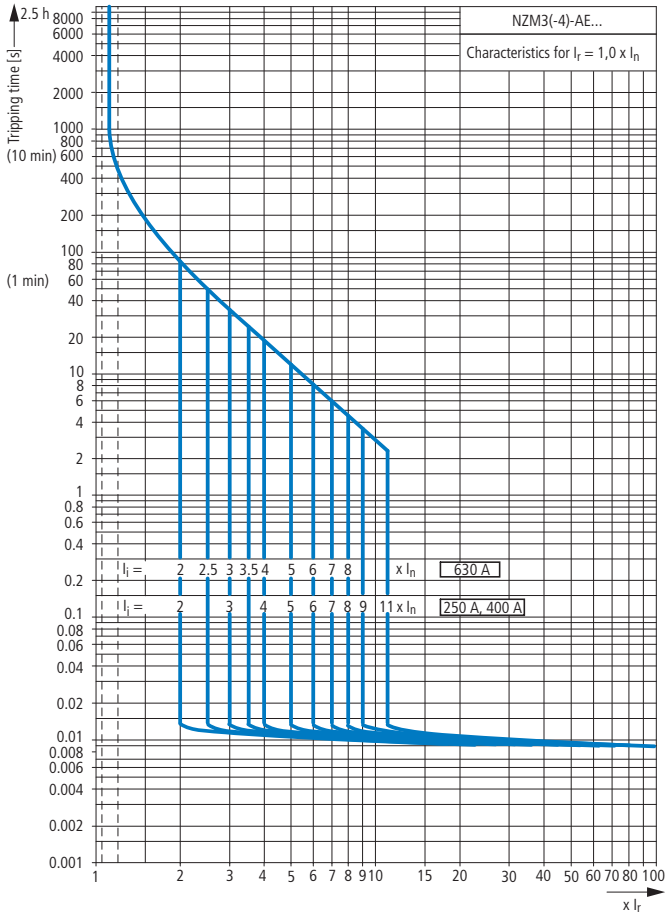


Motor protection with NZM2



System and line protection with NZM3





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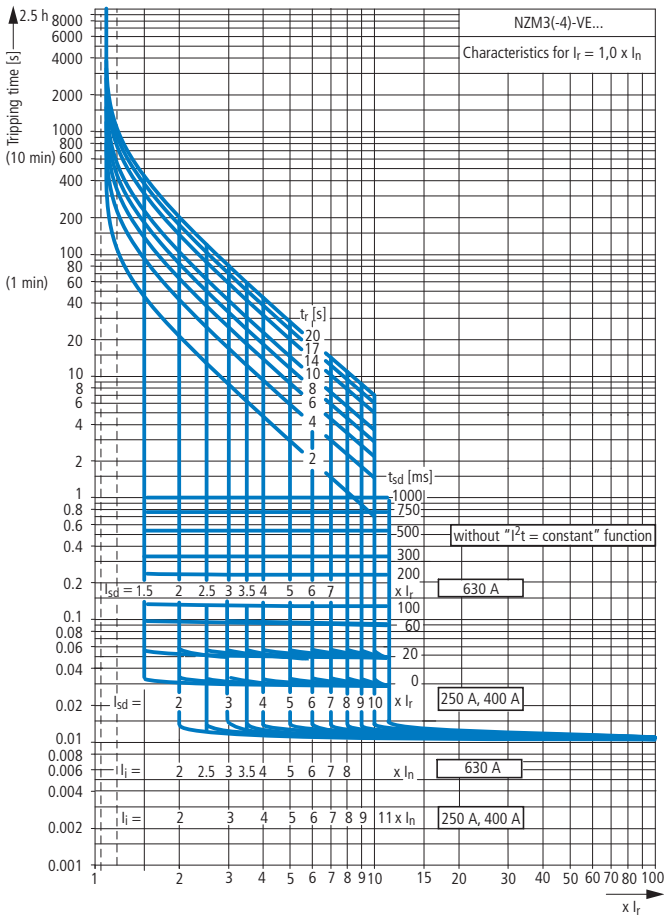
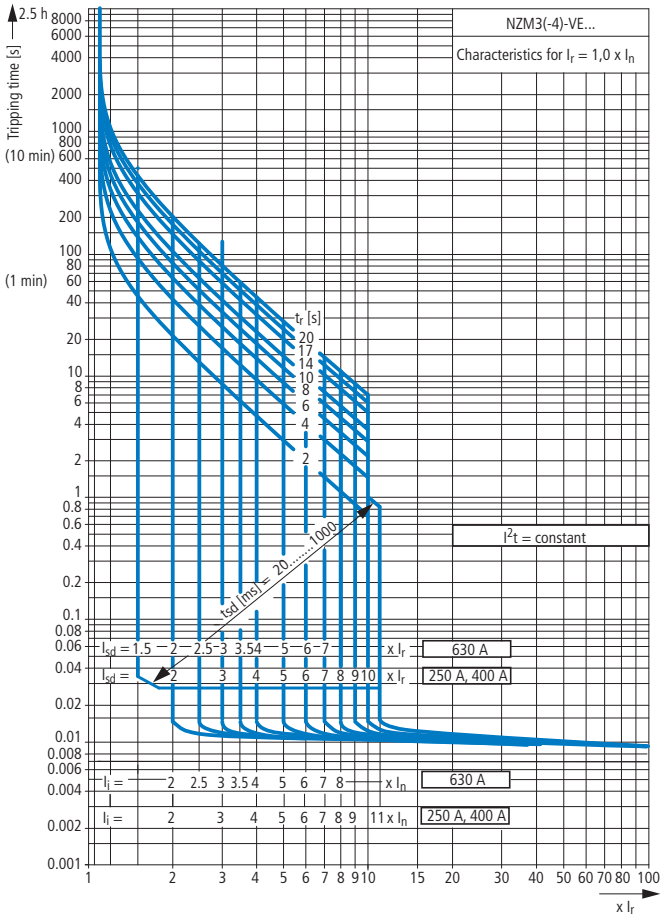
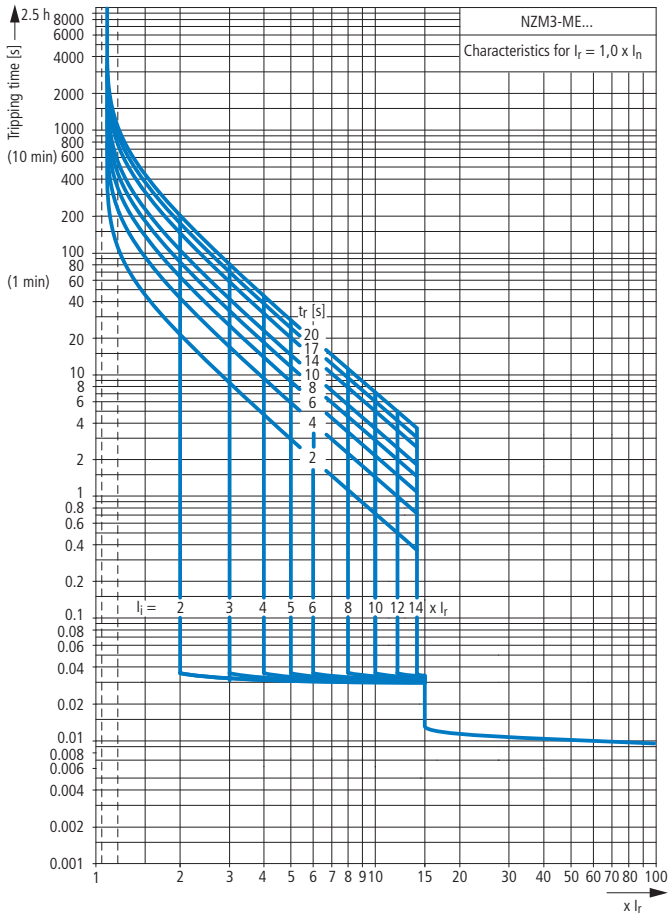
Systems, cable, selectivity and generator protection with NZM3





Motor protection with NZM3



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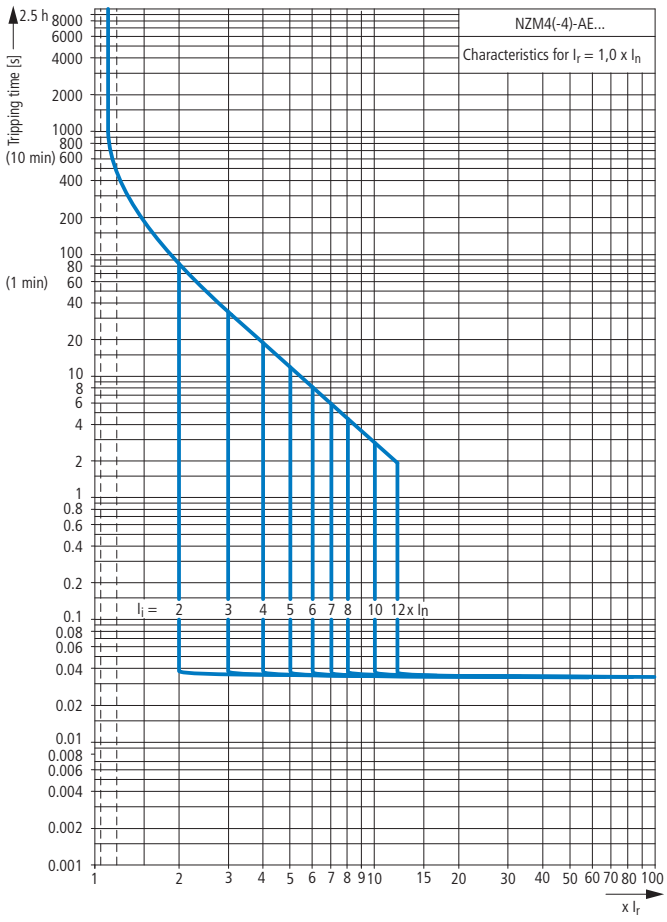
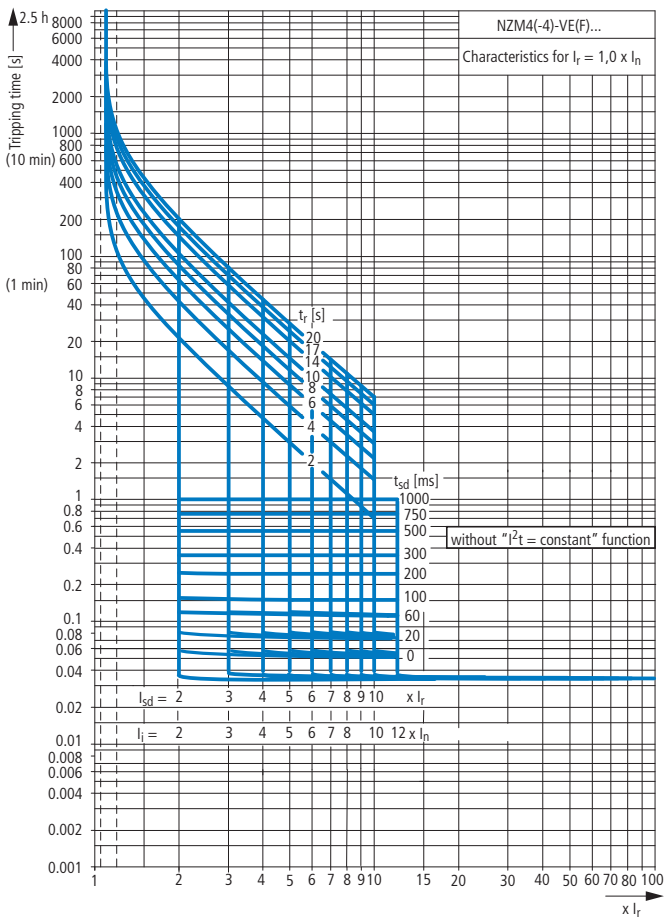
www.moeller.net, Products & Solutions > Power Distribution > Switching and Protecting Power Distribution > CurveSelect: Characteristics program

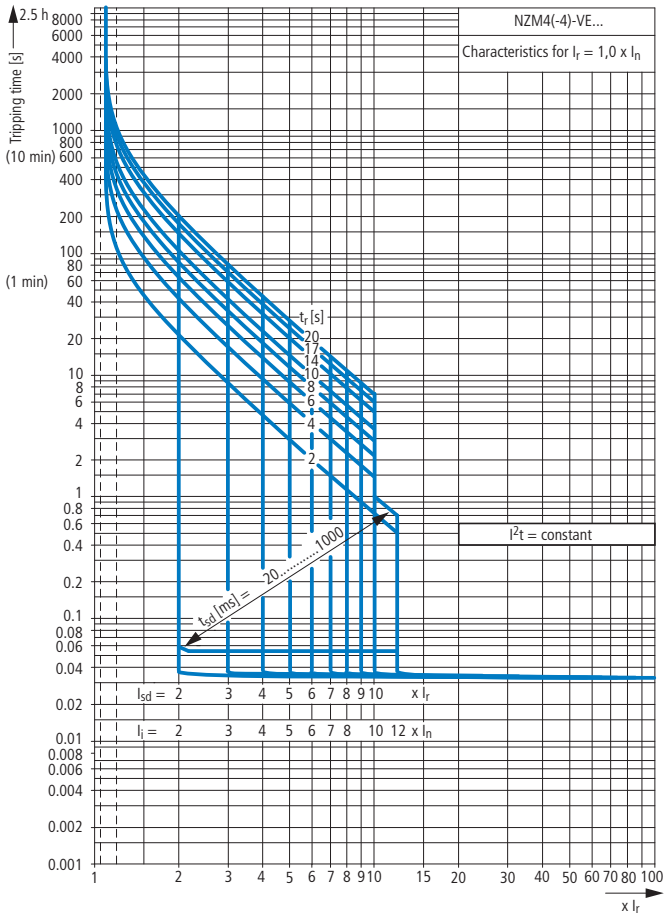
System and line protection with NZM4



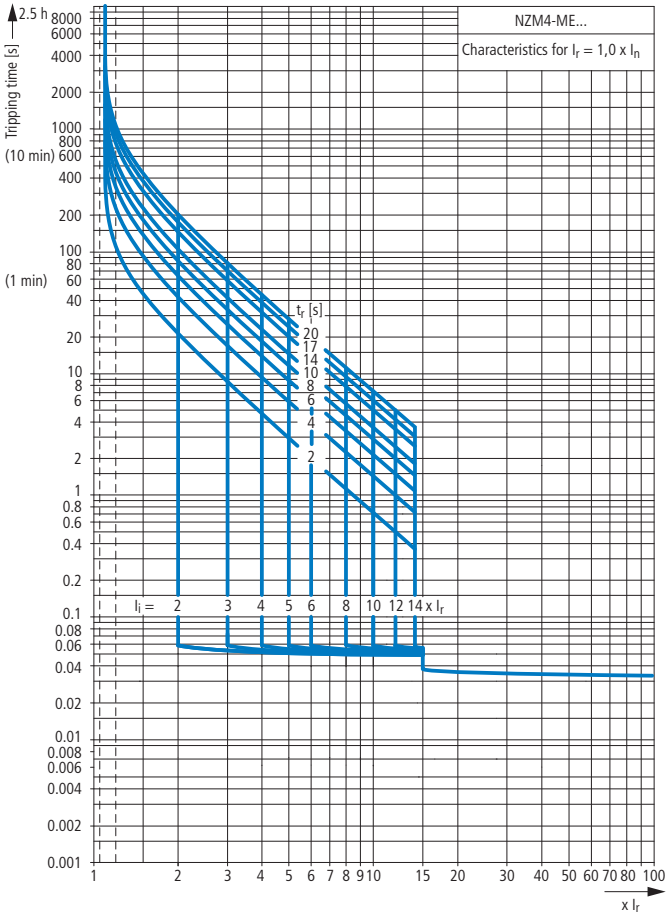
Systems, cable, selectivity and generator protection with NZM4



Systems, cable, selectivity and generator protection with NZM4



Motor protection with NZM4

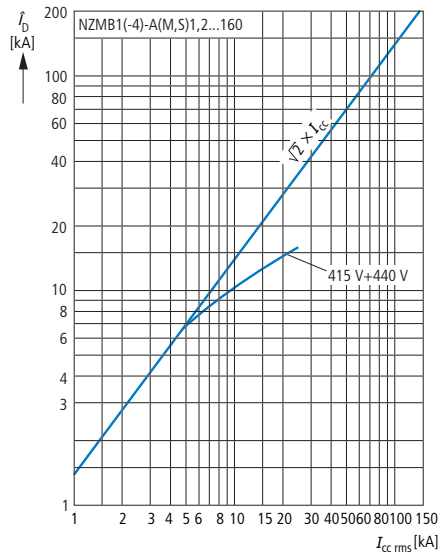


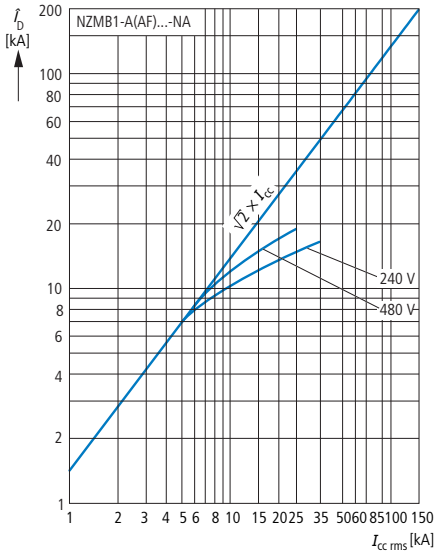
Notes With the free CurveSelect software you can quickly and easily create detailed representations of individual settings:
www.moeller.net, Products & Solutions > Power Distribution > Switching and Protecting Power Distribution > CurveSelect: Characteristics program

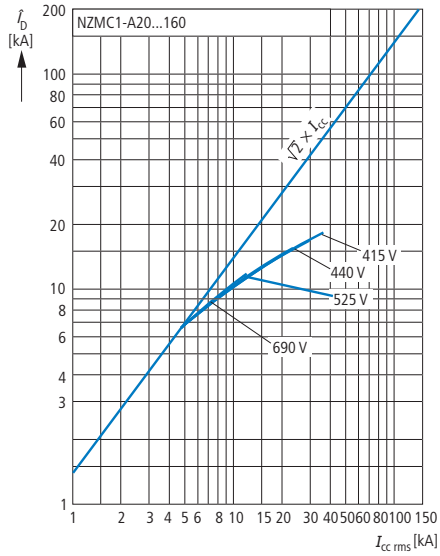
Construction size 1: let-through characteristsics

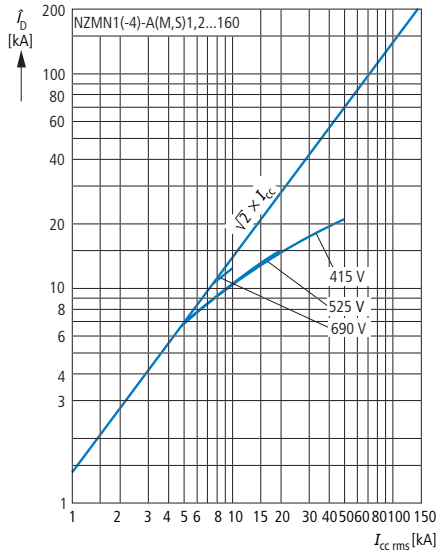
NZM1

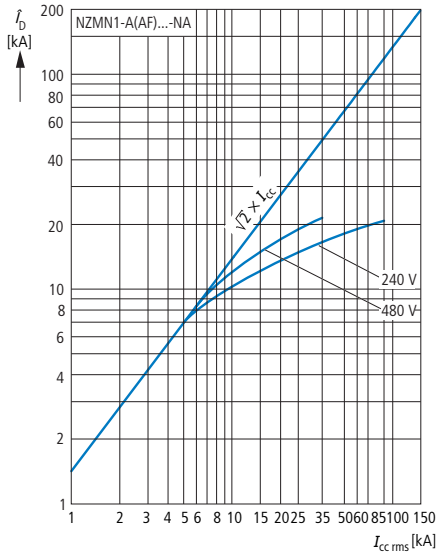
Let-through current I_D

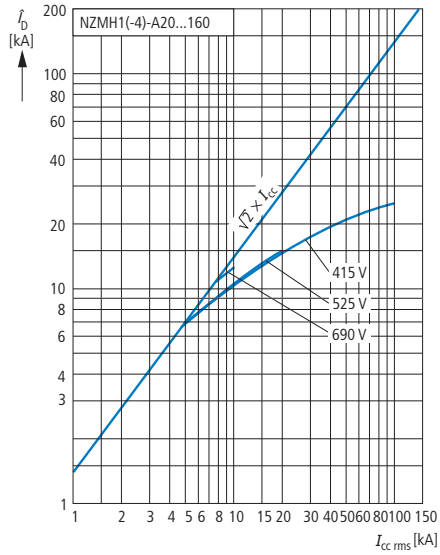




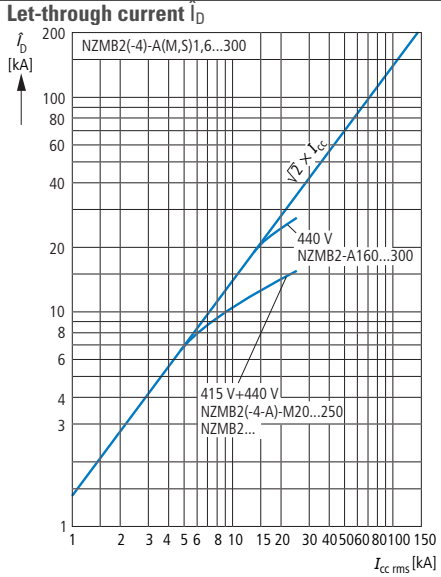


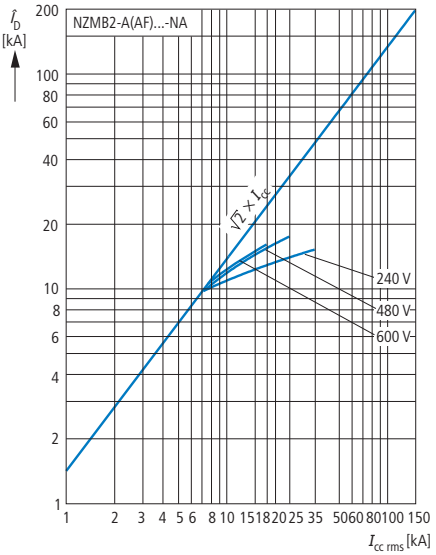


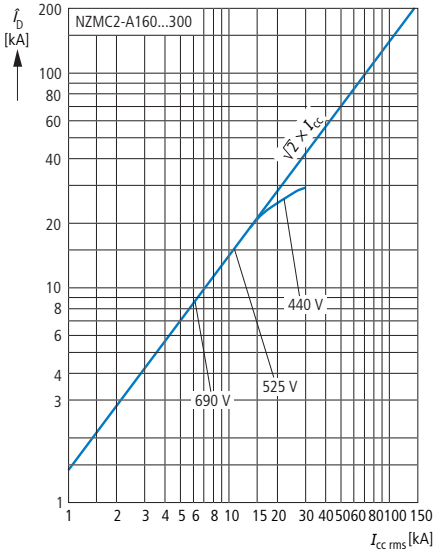


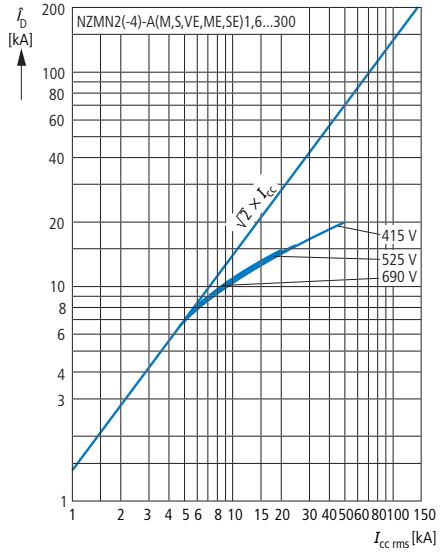


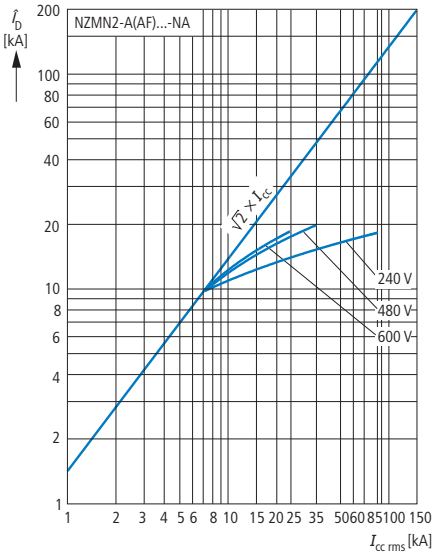
Let-through current $\hat{i}_D$

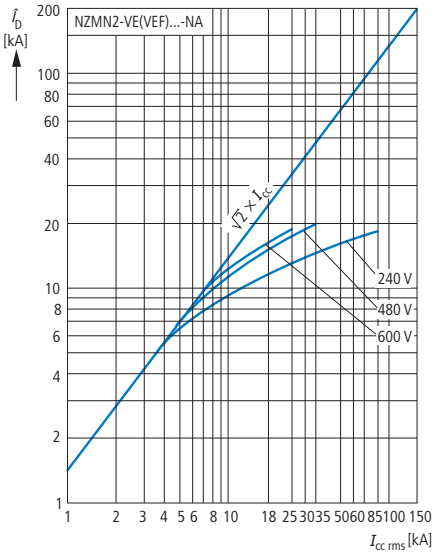


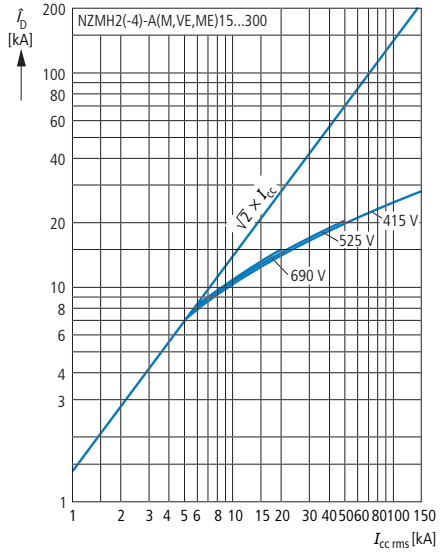


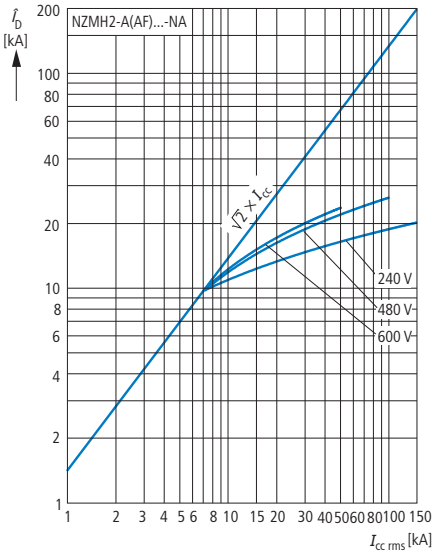


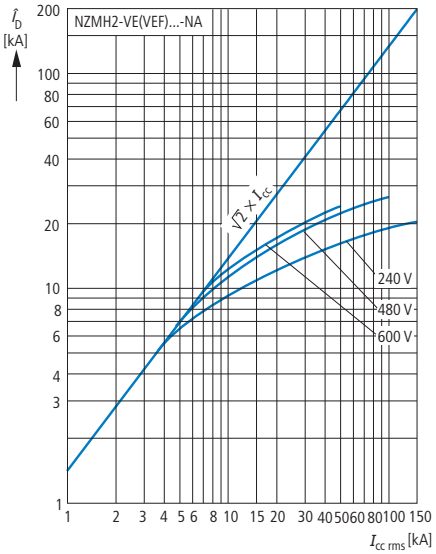




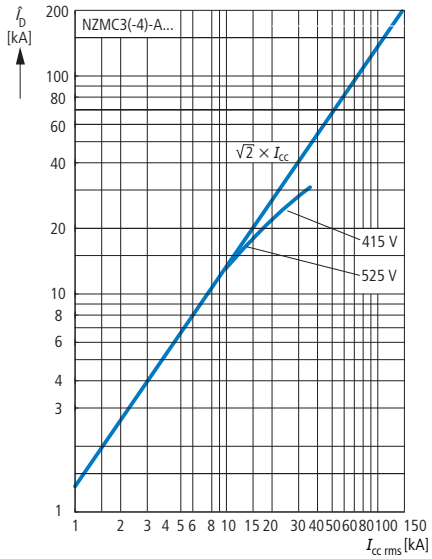


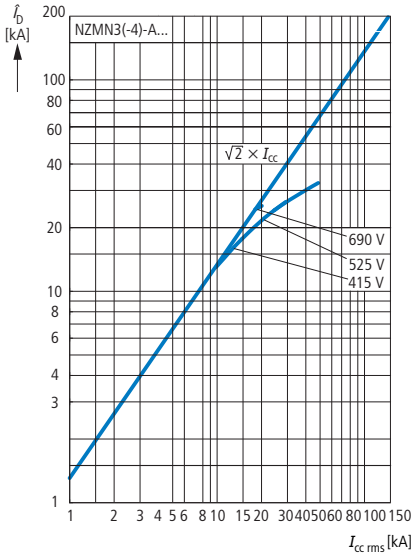


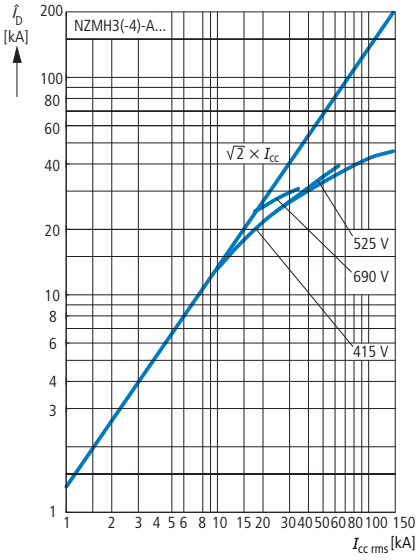


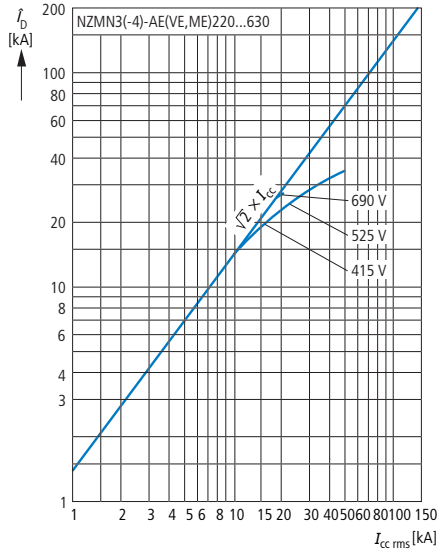


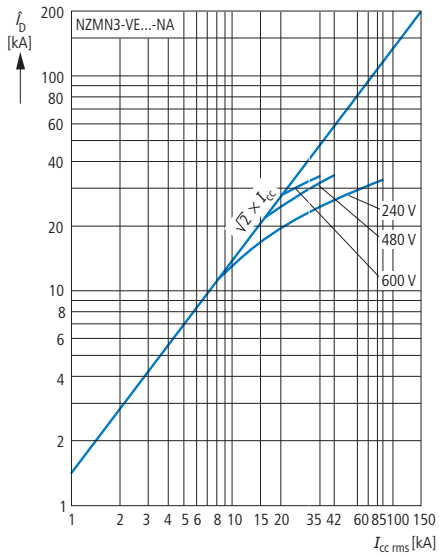
Let-through current $\hat{i}_D$

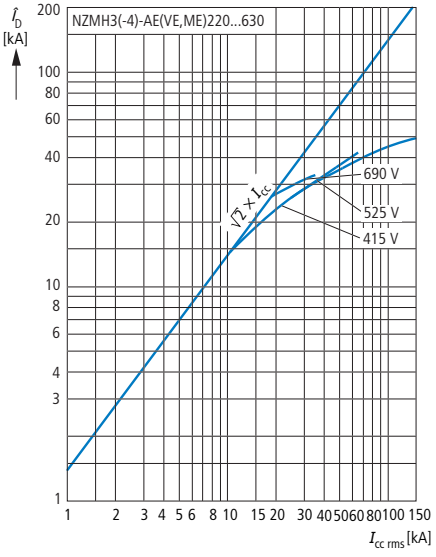


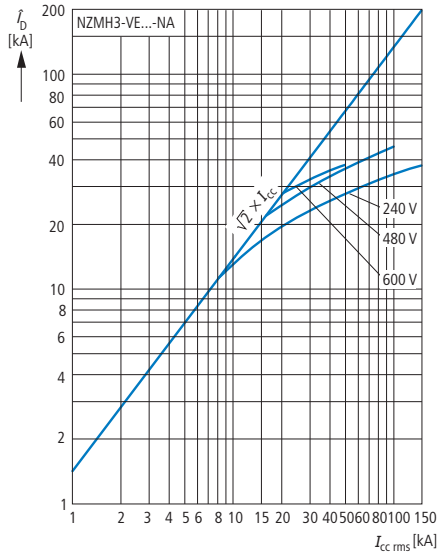




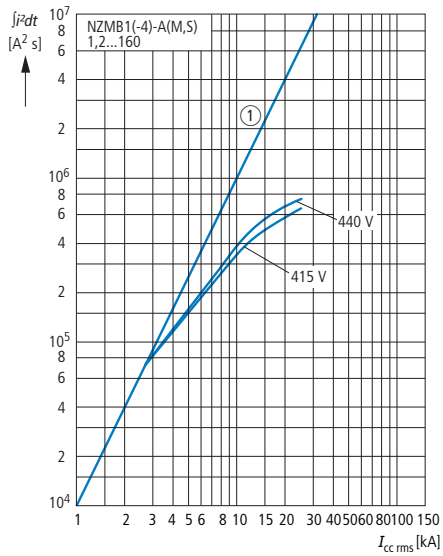


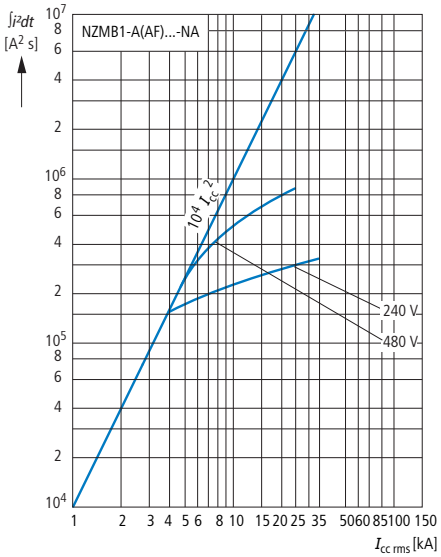


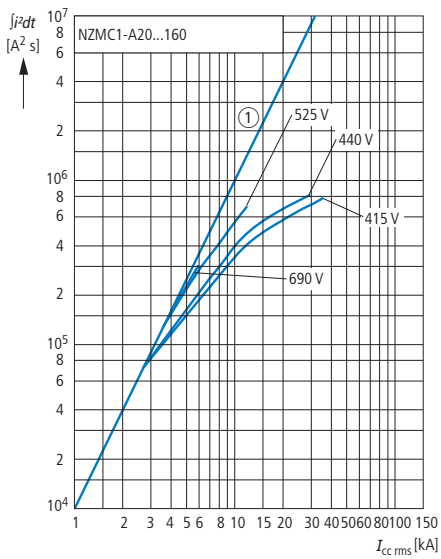


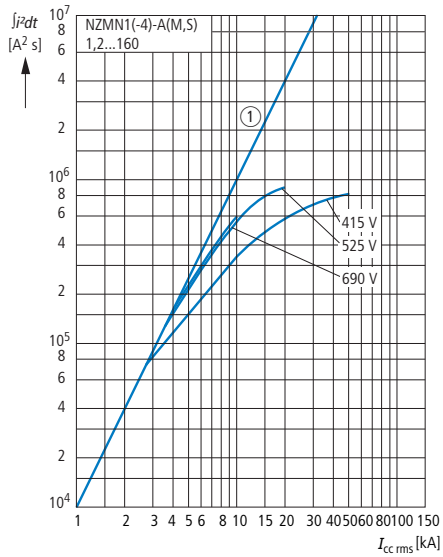


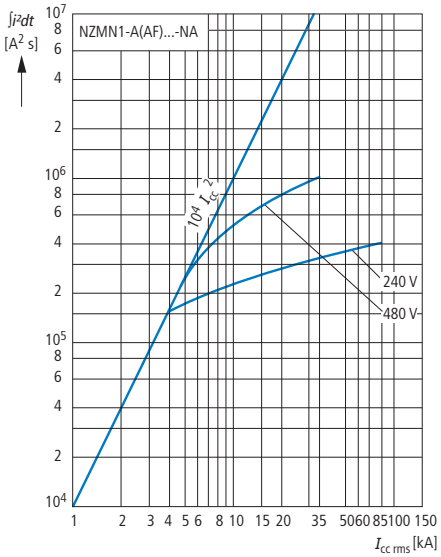
Let-through energy I^2t

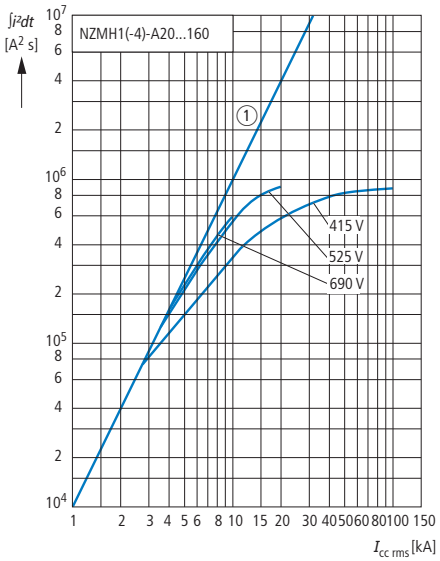








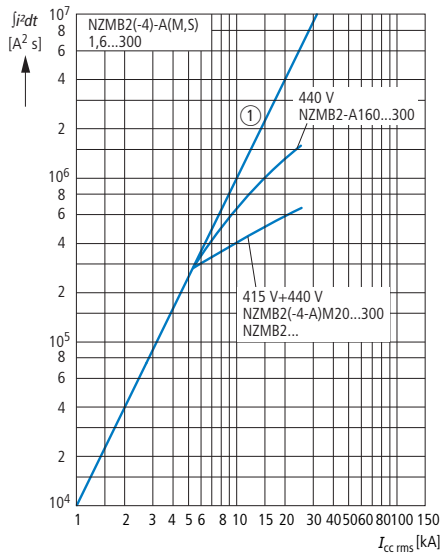


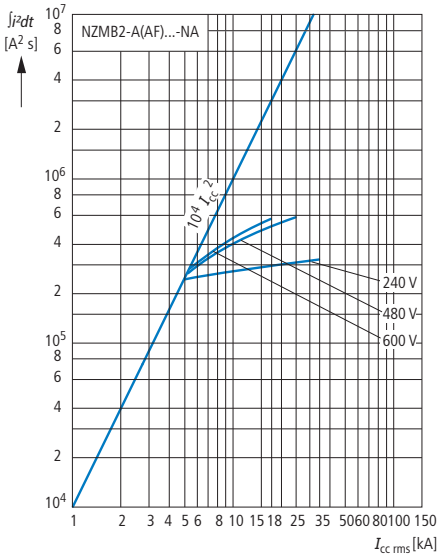


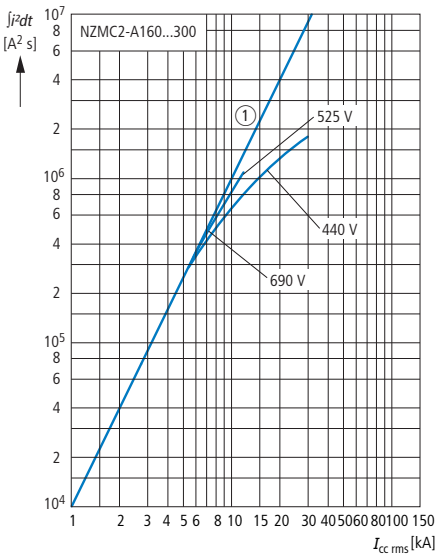
① 1 half-cycle

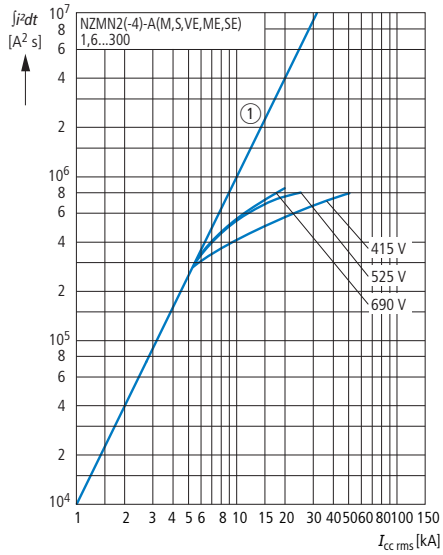
① 1 half-cycle

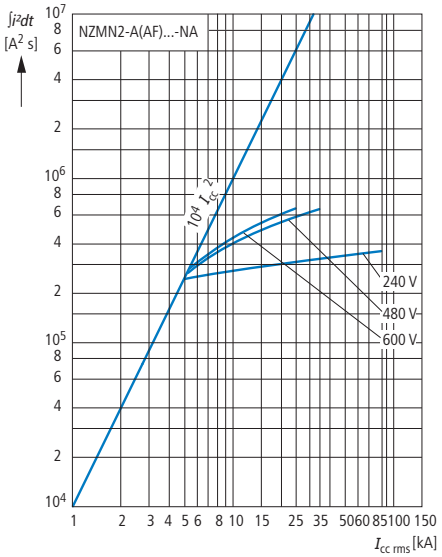
Let-through energy I^2t

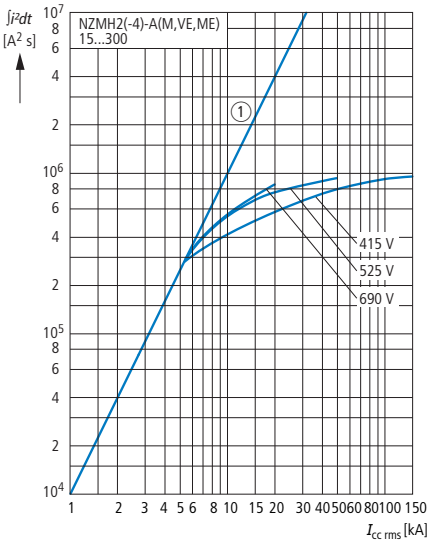


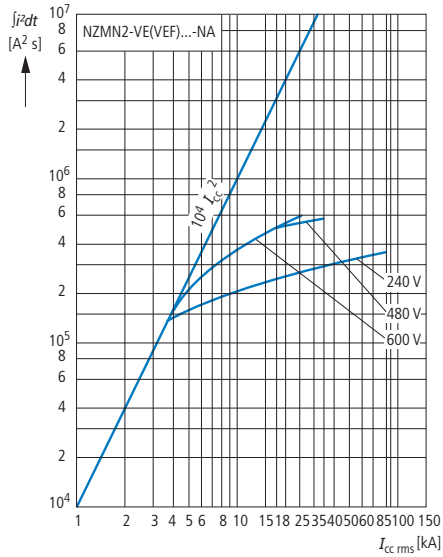


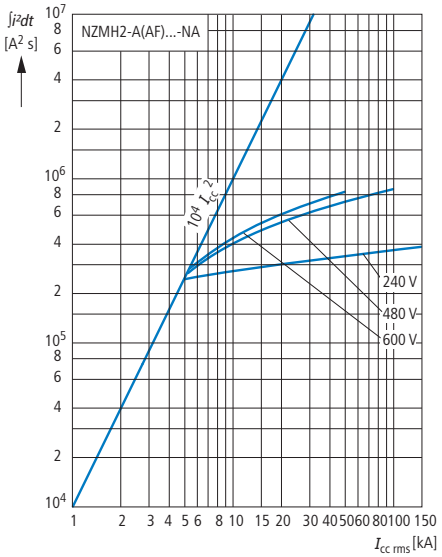


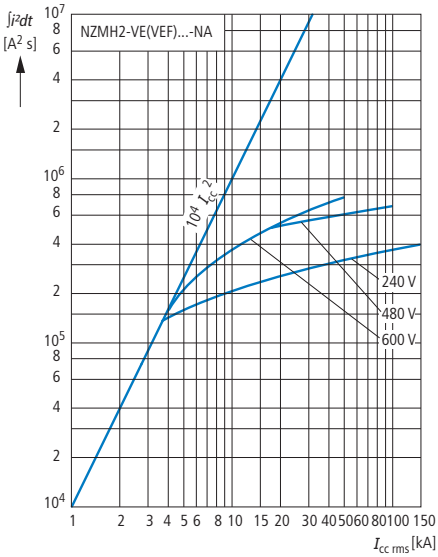








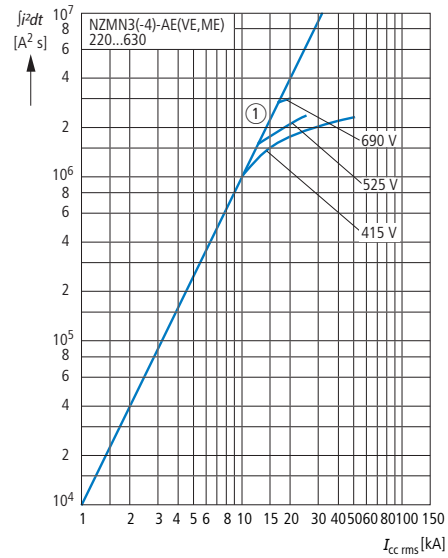


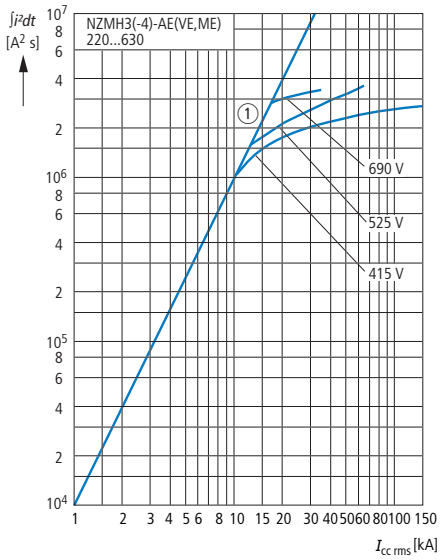


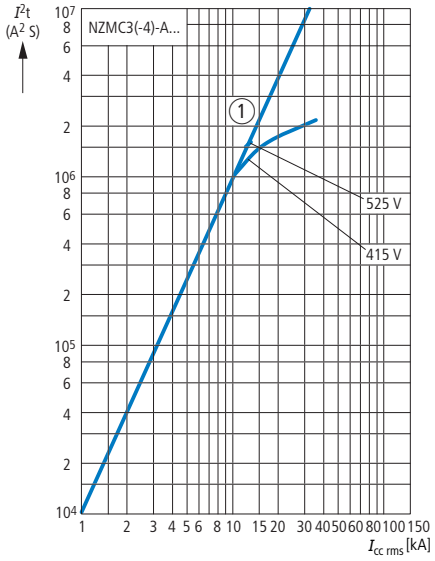
① 1 half-cycle

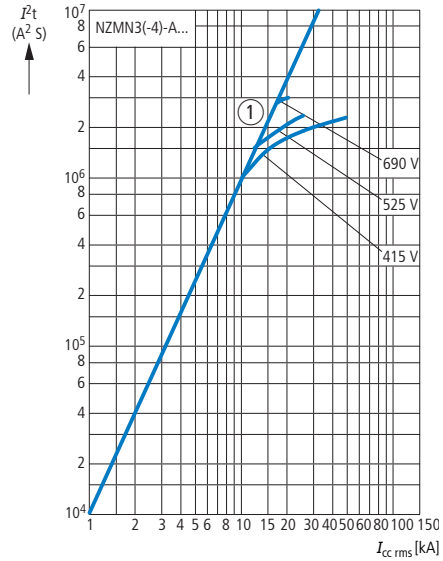
① 1 half-cycle

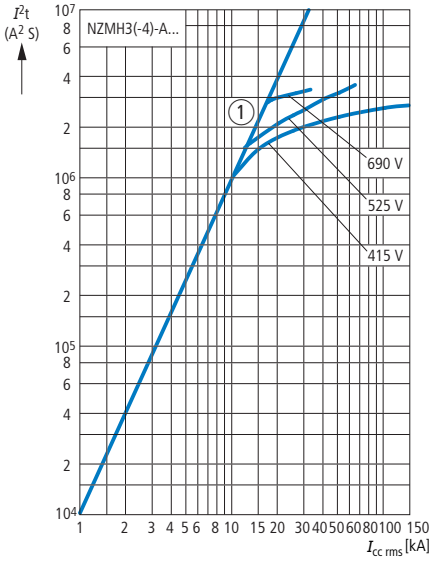
Let-through energy I^2t

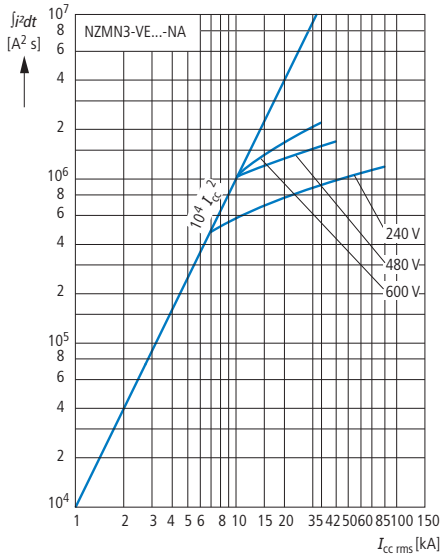


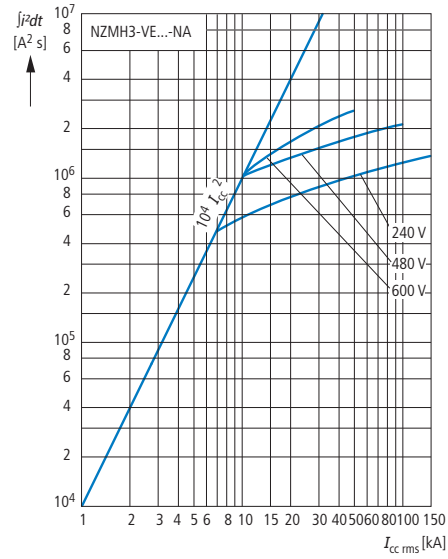










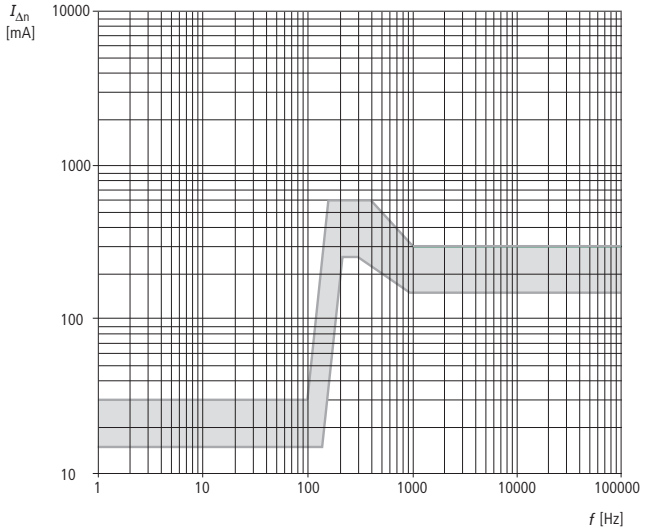


① 1 half-cycle

Frequency response

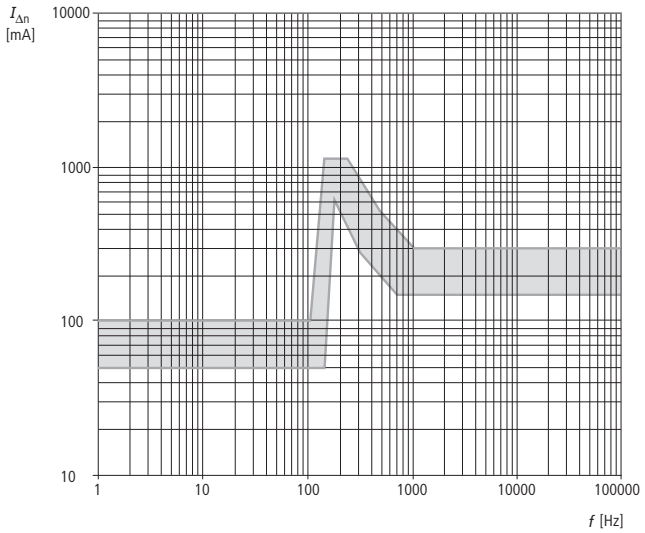
+NZM2-4-XFIA30

30 mA



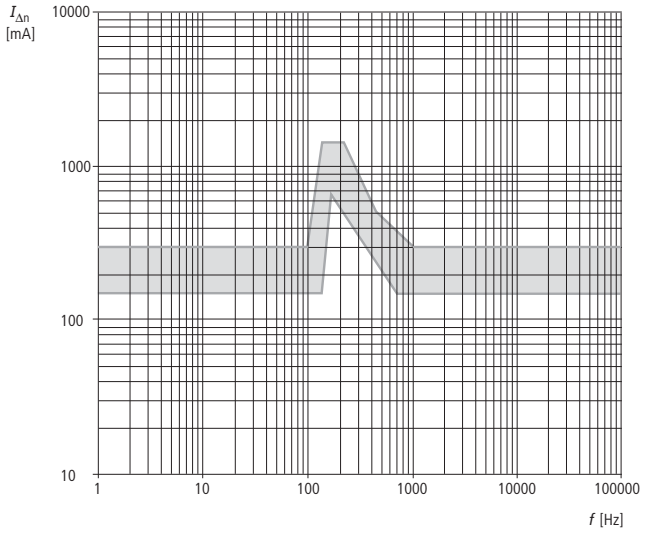
+NZM2-4-XFIA

100 mA

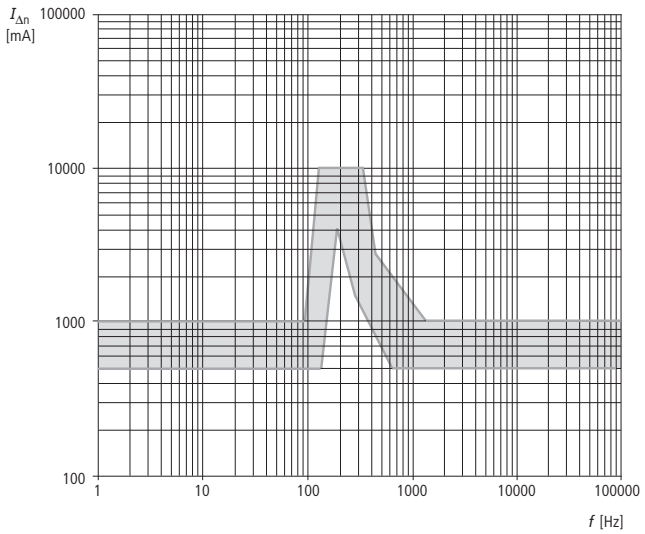


+NZM2-4-XFIA

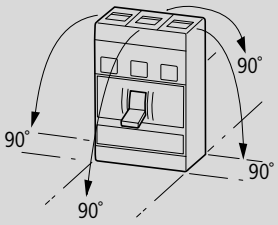
300 mA



1000 mA



Technical data

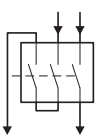
General			
Standards			IEC/EN 60947 and VDE 0660
Contact protection			Finger and back-of-hand proof to DIN EN 50274/VDE 0660 Part 514
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Storage		°C	-25…+70
Operation		°C	-25…+70
Mechanical shock resistance (IEC/EN 60068-2-27)		g	20 (half-sinusoidal shock 20 ms)
Safe isolation according to EN 61140			
Between auxiliary contacts and main contacts		V AC	500
Between the auxiliary contacts		V AC	300
Built-in position			Vertical and 90° in all directions  With residual-current release XFI: - NZM1, N1, NZM2, N2: vertical and 90° in all directions With plug-in adapter elements - NZM1, N1, NZM2, N2: vertical, 90° right/left With withdrawable unit: - NZM3, N3: vertical, 90° left - NZM4, N4: vertical With remote operator: - NZM2, N(S)2, NZM3, N(S)3, NZM4, N(S)4: vertical and 90° in all directions
Direction of incoming supply			Any
Degree of protection			
Device			In the area of the HMI devices: IP20 (basic degree of protection)
Enclosure			With insulating surround: IP40 With door coupling rotary handle: IP66
Terminal type			Tunnel terminal: IP10 Phase isolator and cable terminal: IP00

			Rated uninterrupted current									
			max. 160 A			**max. 300 A**			**max. 630 A**		**max. 1600 A**	
			NZMB1	**NZMC1**	**NZMN1 NZMH1**	**NZMB2**	**NZMC2**	**NZMN2 NZMH2**	**NZMC3**	**NZMN3 NZMH3**	**NZMN4**	**NZMH4**
Circuit-breaker												
Rated impulse withstand voltage U_{imp}												
Main contacts		V	6000	6000	6000	8000	8000	8000	8000	8000	8000	8000
Auxiliary contacts		V	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
Rated operating voltage	U_e	V AC	440	690	690	440	690	690	690	690	690	690
		V DC[1]	–	–	500	–	–	750	750	–	–	–
Overvoltage category/degree of pollution			III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
Rated insulation voltage	U_i	V	690	690	690	690	690	1000	1000	1000	1000	1000
For use in IT electrical power networks		V	440	690	690	440	690	690	690	690	525	690[2]

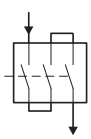
Notes

[1] Details apply for 3 pole system protection circuit-breaker with thermomagnetic release NZMN(H)1(2)(3)-A... up to 500 A.
For rated operating voltage switching on 3 contacts the following applies:
DC correction factor for instantaneous release
response value NZM1: 1.25, NZM2: 1.35, NZM3: 1.45
Setting for I_i at DC = setting I_i AC/correction factor DC

Switching of one pole via two series contacts



Switching of one pole via three series contacts



[2] > 800 A = 525

NZM...1, NZM...2, NZM...3, NZM...4

NZM...1, NZM...2, NZM...3, NZM...4

					Max. rated uninterrupted current 160 A				Max. rated uninterrupted current 300 A				Max. rated uninterrupted current 630 A			Max. rated uninterrupted current 1600 A	
					NZMB1	NZMC1	NZMN1	NZMH1	NZMB2	NZMC2	NZMN2	NZMH2	NZMC3	NZMN3	NZMH3	NZMN4	NZMH4
Switching capacity																	
Rated short-circuit making capacity																	
	240 V		I_{cm}	kA	63	121	187	220	63	121	187	330	121	187	330	105	275
	400/415 V		I_{cm}	kA	53	76	105	220	53	76	105	330	76	105	330	105	187
	440 V		I_{cm}	kA	53	63	74	74	53	63	74	286	63	74	286	74	187
	525 V		I_{cm}	kA	–	24	40	40	–	24	53	105	24	53	143	53	143
	690 V		I_{cm}	kA	–	14	17	17	–	9	40	40	14	40	74	40	105
Rated short-circuit breaking capacity I_{cn}																	
I_{cu} according to IEC/EN 60947 Operating sequence O-t-CO	240 V 50/60 Hz		I_{cu}	kA	30	55	85	100	30	55	85	150	55	85	150	50	125
	400/415 V 50/60 Hz		I_{cu}	kA	**25**	**36**	**50**	**100**	**25**	**36**	**50**	**150**	**36**	**50**	**150**	**50**	**85**
	440 V 50/60 Hz		I_{cu}	kA	25	30	35	70	25	30	35	130	30	35	130	35	85[7]
	525 V 50/60 Hz		I_{cu}	kA	–	12	20	20	–	12	25	50	12	25	65	25	65
	690 V 50/60 Hz		I_{cu}	kA	–	8	10	10	–	8	20	20	8	20	35	20	50
	500 V DC[3]		I_{cu}	kA	–	–	15	30	–	–	30	60	–	30	70	–	–
	750 V DC[3]		I_{cu}	kA	–	–	–	–	–	–	30	60	–	30	70	–	–
I_{cs} according to IEC/EN 60947 Operating sequence O-t-CO-t-CO	240 V 50/60 Hz		I_{cs}	kA	30	55	85	100	30	55	85	150	55	85	150	37	63
	400/415 V 50/60 Hz		I_{cs}	kA	**25**	**36**	**50**	**50**	**25**	**36**	**50**	**150**	**36**	**50**	**150**	**37**	**43**
	440 V 50/60 Hz		I_{cs}	kA	18.5	22.5	35	35	18.5	22.5	35	130	22.5	35	130	26	43
	525 V 50/60 Hz		I_{cs}	kA	–	6	10	10	–	6	25	37.5	9	13	33	19	49
	690 V 50/60 Hz		I_{cs}	kA	–	4	7.5	7.5	–	4	5	5	4	5	9	15	37
Maximum LV h.b.c. fuse[6]				A gG/gL	NZM.1-…20…100: 200 NZM.1-…125, 160: 315				355	355	355	355	NZMC3...500: 630	NZMH3-...250, 400: 400 NZMH3...500: 630 NZMH3...630: 630	NZMH3-...250, 400: 400 NZMH3...500: 630 NZMH3...630: 630	NZMN4-…630…1250: 2 x 630 NZMN4-…1600: 2 x 800	
Rated short-time withstand current																	
t = 0.3 s			I_{cw}	kA	–	–	–	–	–	–	1.9	1.9	3.3	3.3	3.3	19.2	19.2
t = 1 s			I_{cw}	kA	–	–	–	–	–	–	1.9	1.9	3.3	3.3	3.3	19.2	19.2
Utilization category according to IEC/EN 60947-2					A	A	A	A	A	A	A	A	A	A	A	B	B
Rated making and breaking capacity																	
Rated operational current	AC-1	**400/415 V 50/60 Hz**	I_e	A	**160**	**160**	**160**	**160**	**300**	**300**	**300**	**300**	**500**	**630**	**630**	**1600**	**1600**
		690 V 50/60 Hz	I_e	A	160	160	160	160	250	250	250	250	500	630	630	1600	1600
	AC-3	**400/415 V 50/60 Hz**	I_e	A	**160**	**160**	**160**	**160**	**300**	**300**	**300**	**300**	**450**	**450**	**450**	**1600[2]**	**1600[2]**
		690 V 50/60 Hz	I_e	A	160	160	160	160	250	250	250	250	450	450	450	1600[2]	1600[2]
	DC-1[3]	500 V DC	I_e	A	–	–	125	125	–	–	250	250	–	500	500	–	–
		750 V DC	I_e	A	–	–	–	–	–	–	250	250	–	500	500	–	–
	DC-3[3]	500 V DC	I_e	A	–	–	125	125	–	–	250	250	–	500	500	–	–
		750 V DC	I_e	A	–	–	–	–	–	–	250	250	–	500	500	–	–
Lifespan, mechanical of which max. 50 % trip by shunt/undervoltage release			Operations		20000	20000	20000	20000	20000	20000	20000	20000	15000	15000	15000	10000	10000
Lifespan, electrical																	
	AC-1	**400/415 V 50/60 Hz**	Operations		**7500**	**7500**	**10000**	**10000**	**7500**	**7500**	**10000**	**10000**	**5000**	**5000**	**5000**	**3000**	**3000**
		690 V 50/60 Hz	Operations		–	5000	7500	7500	–	7500	7500	7500	3000	3000	3000	2000	2000
	AC-3	**400/415 V 50/60 Hz**	Operations		–	–	**7500**	**7500**	–	–	**6500**	**6500**	**2000**	**2000**	**2000**	**2000**	**2000**
		690 V 50/60 Hz	Operations		–	–	5000	5000	–	5000	5000	5000	2000	2000	2000	1000	1000
	DC-1[3]	500 V DC	Operations		–	–	10000	10000	–	–	7500	7500	–	5000	5000	–	–
		750 V DC	Operations		–	–	–	–	–	–	7500	7500	–	5000	5000	–	–
	DC-3[3]	500 V DC	Operations		–	–	5000	5000	–	–	3000	3000	–	2000	2000	–	–
		750 V DC	Operations		–	–	–	–	–	–	3000	3000	–	2000	2000	–	–
Max. operating frequency				Ops/h	120	120	120	120	120	120	120	120	60	60	60	60	60
Heat dissipation per pole at I_u[5]				W	16.7	16.7	16.7	16.7	19	19	19	19	31	31	31	97	97
Total opening delay on short-circuit				ms	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25 ≤ 415 V; < 35 > 415 V	< 25 ≤ 415 V; < 35 > 415 V
Technical data that diverge from products for the IEC market Switching capacity of NA switch (UL489, CSA 22.2 No. 5-09) Short-circuit current rating (SCCR)																	
	240 V 60 Hz			kA	35	–	85	–	35	–	85	150	–	85	150	85	125
	480 V 60 Hz			kA	25[1]	–	35[1]	–	25	–	35	100	–	42	100	42	85
	600 V 60 Hz			kA	–	–	–	–	18[4]	–	25[4]	50[4]	–	35	50	35	50

Notes

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

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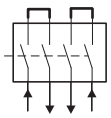
Circuit-breakers for 1000 V AC			**NZMH2...S1 max. 300 A**	**NZMH3...S1 max. 630 A**	**NZMH4...S1 max. 1600 A**
Rated operating voltage	U_e	V AC	1000	1000	1000
Rated uninterrupted current	I_u	A	300/50 °C	630/50 °C	1600/50 °C
Rated operational current					
AC-1			300	630	1600
Rated short-circuit making capacity					
1000 V 50/60 Hz	I_{cm}	kA	17	17	40
Rated short-circuit breaking capacity I_{cn}					
I_{cu} according to IEC/EN 60947 Operating sequence O-t-CO	I_{cu}	kA	10	15	20
I_{cs} according to IEC/EN 60947 Operating sequence O-t-CO-t-CO	I_{cs}	kA	3	10	15
Utility category			A	A	A/B
Maximum operating frequency		Ops/h	120	60	60
Durability					
Mechanical (of which max. 50 % trip by shunt/ undervoltage release)		Operations	20000	15000	10000
Electrical, AC-1 1000 V		Operations	3000	1000	500
Rated insulation voltage	U_i	V AC	1000	1000	1000
For use in IT electrical power networks			–	–	–

Switch-disconnectors for 1000 V DC			**N2-4...S1-DC max. 200 A**	**N3-4...S1-DC max. 500 A**	**N4-4...S1-DC max. 1400 A**
Rated operating voltage	U_e	V DC	1000	1000	1000
Rated uninterrupted current with terminal jumpers	I_u	A	200/65 °C	500/65 °C	1400/65 °C
Rated operational current	I_e		200 (DC 22-B)	500 (DC 22-B)	1400 (DC 21-B)
Rated short-time withstand current t =0.1 s	I_{cw}	kA	3	6	25
Rated conditional short-circuit current	I_q	kA	15	15	–
With back-up fuse		A_gR	200	500	–
Maximum operating frequency		Ops/h	120	60	60
Durability					
Mechanical (of which max. 50 % trip by shunt/ undervoltage release)		Operations	20000	15000	10000
Electrical, 1000 V DC		Operations	2500 (DC 22-B)	1000 (DC 22-B)	500 (DC 21-B)
Rated insulation voltage	U_i	V DC	1250	1250	1250
For use in IT electrical power networks		V DC	1000	1000	1000

Notes

NZM...S1 and N...S1-DC can not be combined with withdrawable units and/or connection on rear.
Can not be combined with early-make auxiliary contacts NZM-...XHIV or box terminal NZM2-4-XKC at U_i > 1000 V DC.

Terminal type N...S1-DC:
for 2 pole switches series connection of two poles each is required. See jumper kit NZM...-4-XKV2P



				PN1/N1 max. 160 A	PN2/N2 max. 250 A	PN3/N3 max. 630 A	N4 max. 1600 A
Switch-disconnectors							
Rated impulse withstand voltage U_{imp}							
Main contacts			V	6000	8000	8000	8000
Auxiliary contacts			V	6000	6000	6000	6000
Rated operating voltage AC (40-60 Hz)		U_e	V AC	690	690	690	690
Max. rated uninterrupted current							
IEC/EN 60947-3		I_u	A	160	250	630	1600
Overvoltage category/degree of pollution				III/3	III/3	III/3	III/3
Rated insulation voltage		U_i	V AC	690	690	1000	1000
For use in IT electrical power networks			V	690	690	690	525
Switching capacity							
Rated short-circuit making capacity		I_{cm}	kA	2.8	5.5	25	53
Rated short-time withstand current							
t = 0.3 s		I_{cw}	kA	2	3.5[1]	12	25
t = 1 s		I_{cw}	kA	2	3.5[1]	12	25
Rated conditional short-circuit current Iq							
With back-up fuse			A gG/gL	PN1(N1)-63…125: 125 PN1(N1)-160: 160	PN2(N2)-160…250: 250	PN3(N3)-400…630: 630	N4-630…1600: 2 x 800
400/415 V			kA	100	100	100	100
690 V			kA	80	80	80	80
With downstream fuse			A gG/gL	PN1(N1)-63…125: 125 PN1(N1)-160: 160	PN2(N2)-160…250: 250	PN3(N3)-400…630: 630	N4-630…1600: 2 x 800
400/415 V			kA	100	100	100	100
690 V			kA	10	80	80	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 according to IEC/EN 60947-4-1 Annex B							
AC-1							
	400/415 V	Operations		10000	10000[4]	5000	3000
	690 V	Operations		7500	7500[4]	3000	2000
AC-3							
	400/415 V	Operations		7500	7500[5]	3000	2000
	690 V	Operations		5000	5000[3][5]	2000	1000
Heat dissipation per pole at I_u[2]			W	12.7	16	40	97

Notes

[1] The rated short-time withstand current for PN2/N2 in conjunction with residual-current release NZM2-4-XFI... I_{cw} = 1.5 kA

[2] For thermal losses per pole the specification refers to the maximum rated operational current of the construction size.

[3] For the electrical life at AC-3 for PN2/N2 the following applies: 690 V: max. 160 kW

[4] For 4 pole switch-disconnectors the following applies: 400/415 V 7500 switching operations; 690 V 5000 switching operations

[5] For 4 pole switch-disconnectors the following applies: 400/415 V 6000 switching operations; 690 V 4000 switching operations

						NS1-...-NA max. 125A	NS2-...-NA max. 250A	NS3-...-NA max. 600A	NS4-...-NA max. 1200A
Molded Case Switch									
Rated peak withstand current			U_{imp}						
Main contacts					V	6000	8000	8000	8000
Auxiliary contacts					V	6000	6000	6000	6000
Rated operating voltage			U_e		VAC	690	690	690	690
Max. rated uninterrupted current									
IEC/EN 60947-2 Annex L			I_n		A	125	250	600	1200
UL489/CSA 22.2 No. 5.1			I_n		A	125	250	600	1200
Overvoltage category/pollution degree						III/3	III/3	III/3	III/3
Rated insulation voltage			U_{imp}		V	690	1000	1000	1000
Switching capacity according to UL 489, CSA 22.2 No. 5.1									
		240 V 60 Hz			KA	85	150	150	85
		480 V 60 Hz			KA	35	100	100	65
		600 V 60 Hz			KA	–	50	50	42
Switching capacity divergent from products for North America.									
Rated short-circuit making capacity		240 V 50/60 Hz	I_{cm}		KA	187	330	330	187
		400/415 V 50/60 Hz	I_{cm}		KA	105	330	330	154
		440 V 50/60 Hz	I_{cm}		KA	74	286	286	143
		525 V 50/60 Hz	I_{cm}		KA	53	105	143	84
		690 V 50/60 Hz	I_{cm}		KA	17	53	74	74
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 50/60 Hz	I_{cu}		KA	85	150	150	85
		400/415 V 50/60 Hz	I_{cu}		KA	50	150	150	70
		440 V 50/60 Hz	I_{cu}		KA	35	130	130	65
		525 V 50/60 Hz	I_{cu}		KA	20	50	85	40
		690 V 50/60 Hz	I_{cu}		KA	10	20	35	35
	I_{cs} according to IEC/EN 60947 test cycle O-t-CO-t-CO	240 V 50/60 Hz	I_{cs}		KA	85	150	150	43
		400/415 V 50/60 Hz	I_{cs}		KA	50	150	150	35
		440 V 50/60 Hz	I_{cs}		KA	35	130	130	33
		525 V 50/60 Hz	I_{cs}		KA	10	37.5	33	20
		690 V 50/60 Hz	I_{cs}		KA	7.5	5	9	18
Lifespan, mechanical (of which max. 50 % trip by shunt/undervoltage release)			Operations			20000	20000	15000	10000
Maximum operating frequency			ops./h			120	120	60	60
Lifespan, electrical	AC-1	400/415 V 50/60 Hz	Operations			10000	10000	5000	3000
		690 V 50/60 Hz	Operations			7500	7500	3000	2000
	AC-3	400/415 V 50/60 Hz	Operations			7500	6500	2000	2000
		690V 50/60 Hz	Operations			5000	5000	2000	1000
Heat dissipation per pole at I_u [1]			W			8.7	19	40	97
Total downtime on short-circuit			ms			< 10	< 10	< 10	< 25 ≦ 415 V < 35 > 415 V

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

Circuit-breaker		Volts AC	Threshold current			Intermediate current			High interrupting capacity		
Part no.	Cont. amps	60Hz		Maximum			Maximum			Maximum	
			rms sym	Peak	I^2dt	rms sym	Peak	I^2dt	rms sym	Peak	I^2dt
	(A)	(V)	(kA)	(kA)	(kA^2s)	(kA)	(kA)	(kA^2s)	(kA)	(kA)	(kA^2s)
NZM B1	125 A	240	8.125	7.4	0.18	22	13.53	0.33	35	16.78	0.35
A.../AF...NA		480	8.125	9.22	0.38	18	15.16	0.67	25	26.55	0.78
NZM N1-	125 A	240	8.125	7.4	0.18	50	18.53	0.38	85	19.16	0.36
A.../AF...NA		480	8.125	9.22	0.38	22	18.55	0.97	35	20.58	1.02
NZMB2-	250 A	240	16.25	13.00	0.4	22	14.5	0.6	35	15.5	0.4
A.../AF...NA		480	15	14	0.6	22	13.5	0.45	25	16.5	0.6
		600	10	12	0.5	14	14.5	0.75	18	15.5	0.75
NZMN2-	250 A	240	16.25	13	0.4	50	17	0.45	85	19.5	0.45
A.../AF...NA		480	16.25	13.5	0.6	22	14.5	0.6	35	20	0.65
		600	15	14.5	0.7	22	16.5	0.8	25	17	0.75
NZMN2-	250 A	240	16.25	12	0.45	50	18	0.4	85	19.5	0.4
VE(F)-NA		480	16.25	14.5	0.5	22	18	0.65	35	20	0.6
		600	15	14.5	0.6	22	17	0.75	25	18	0.65
NZMH2-	125 A	240	8.125	9	0.3	100	19	0.35	200	21.5	0.35
A.../AF...NA		480	8.125	9	0.35	55	23	0.7	150	29	0.85
		600	8.125	10	0.4	42	22.5	0.7	55	26	0.8
NZMH2-	250 A	240	16.25	13	0.4	100	20.5	0.4	150	20	0.4
A... /AF...NA		480	16.25	13.5	0.5	65	24	0.9	100	27	0.8
		600	16.25	13	0.6	30	20	0.7	50	25	0.9
NZMH2-	250 A	240	16.25	11.5	0.4	100	18.5	0.3	150	21	0.4
VE.../VEF...NA		480	16.25	14.5	0.5	65	24	0.6	100	27	0.7
		600	16.25	14.5	0.5	30	20	0.6	50	25	0.8
NZMN3-	250 A	39	24.5	1	-	-	-	85	33.5	1.1	240
VE...NA		25	27	1.8	-	-	-	42	35	1.8	480
		20	25	1.8	-	-	-	35	34	2.6	600
NZMH3-	600 A	240	39	45	4.5	100	35	2	150	40	2.5
VE...NA		480	39	35	2.5	65	39	3	100	47	3
		600	30	31	2.4	42	37	3	50	42	2.8

Part no.	Weight kg
Circuit-breakers	
NZM...1-...	1.046
NZM...1-4-...	1.325
NZM...2-...	2.345
NZM...2-4-...	3.5
NZM...3-...	6.34
NZM...3-4-...	8.4
NZM...4-...	21
NZM...4-4-...	27
Plug-in adapter elements	
+NZM2-XSV	4.7
+NZM2-4-XSV	5.9
Withdrawable units	
+NZM3-XAV	21
+NZM3-4-XAV	27
+NZM4-XAV	52
+NZM4-4-XAV	65

Part no.	Weight kg
Switch-disconnectors	
PN1-..., N1-...	0.926
PN1-4-..., N1-4-...	1.325
PN2-..., N2-...	2.15
PN2-4-..., N2-4-...	2.65
PN3-..., N3-...	5.7
PN3-4-..., N3-4...	7.1
N4-...	17
N4-4-...	22

Device part no.	Release type	**Response time of the overload release at temperatures deviating from the reference temperatures** Temperature compensation coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Thermomagnetic release (TM)								
System protection		System protection (reference temperature 40 °C)						
NZM…1(-4)-A(F)15…80(-NA)	TM	1.14	1.07	1	0.93	0.86	0.83	0.79
NZM…1(-4)-A(F)90…125(-NA)	TM	1.14	1.07	1	0.93	0.86	0.83	0.79
NZM…1(-4)-A160	TM	1.08	1.04	1	0.96	0.92	0.90	0.88
NZM…1-A20…125-SVE	TM with SVE	1.14	1.07	1	0.93	0.86	0.83	0.79
NZM…2(-4)-A(F)15…200(-NA)	TM	1.04	1.02	1	0.98	0.96	0.95	0.94
NZM…2(-4)-A(F)250(-NA)	TM	1.04	1.02	1	0.98	0.96	0.95	0.94
NZM…2(-4)-A20…200-SVE	TM with SVE	1.04	1.02	1	0.98	0.96	0.95	0.94
NZM…2(-4)-A250-SVE	TM with SVE	1.04	1.02	1	0.98	0.96	0.95	0.94
NZM…3(-4)A-250…500	TM	1.12	1.06	1	0.94	0.88	0.85	0.82
NZM…3(-4)A-250…500	TM with XAV	1.06	1	0.94	0.88	0.82	0.79	0.76
Short-circuit/motor protection		Motor protection (reference temperature 20 °C)						
NZM…1-M(S)40…80(-CNA)	TM	1	0.98	0.95	0.93	0.90	0.89	0.88
NZM…1-M(S)100(-CNA)	TM	1	0.98	0.95	0.93	0.90	0.89	0.88
NZM…1-M(S)40…100-SVE	TM with SVE	1	0.98	0.95	0.93	0.90	0.89	0.88
NZM…2-M(S)20…200(-CNA)	TM	1	0.98	0.96	0.94	0.92	0.91	0.90
NZM…2-M(S)20…200-SVE	TM with SVE	1	0.98	0.96	0.94	0.92	0.91	0.90
NZM…3-S250…500	TM with/without XAV	1	1	1	1	1	1	1

Notes

If temperatures deviate from the reference temperature, a slight change of the overload protection properties occurs. To determine the response time from the tripping characteristics, the temperature compensation coefficients listed in the table must be considered.
Example:
An NZM1-A100 is calibrated for a reference temperature of 40 °C.
What happens when it is operated at an ambient temperature of 60 °C ?
At 60 °C, the temperature compensation coefficient of 0.86 results in a reduced operating current of I_r = 100 A x 0.86 = 86 A. In other words at an ambient temperature of 60 °C the NZM1-A100 trips as if it were set to 86 A.

Device part no.	Release type	**Reduction of the rated operational current (derating) under particular ambient conditions (according to IEC 947)** Derating coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Thermomagnetic release (TM)								
System protection		System protection (reference temperature 40 °C)						
NZM…1(-4)-A(F)15…80(-NA)	TM	1	1	1	1	1	1	1
NZM…1(-4)-A(F)90…125(-NA)	TM	1	1	1	1	0.86	0.83	0.8
NZM…1(-4)-A160	TM	1	1	1	0.95	0.9	0.85	0.8
NZM…1-A20…100-SVE	TM with SVE	1	1	1	1	1	1	1
NZM…1-A125-SVE	TM with SVE	1	0.92	0.87	0.81	–	–	–
NZM…2(-4)-A(F)15…200(-NA)	TM	1	1	1	1	1	1	1
NZM…2(-4)-A(F)250(-NA)	TM	1	1	1	1	0.9	0.85	0.8
NZM…2(-4)-A20…200-SVE	TM with SVE	1	1	1	1	1	1	1
NZM…2(-4)-A250-SVE	TM with SVE	1	0.97	0.92	0.87	0.81	–	–
NZM…3(-4)A-250…500	TM	1	1	1	0.94	0.88	0.85	0.82
NZM…3(-4)A-250…500	TM with XAV	1	1	0.94	0.88	0.82	0.79	0.76
Short-circuit/motor protection		Motor protection (reference temperature 20 °C)						
NZM…1-M(S)40…80(-CNA)	TM	1	1	1	1	1	1	1
NZM…1-M(S)100(-CNA)	TM	1	1	1	1	0.86	0.83	0.8
NZM…1-M(S)40…100-SVE	TM with SVE	1	0.92	0.87	0.81	–	–	–
NZM…2-M(S)20…200(-CNA)	TM	1	1	1	1	1	1	1
NZM…2-M(S)20…200-SVE	TM with SVE	1	1	1	1	1	1	1
NZM…3-S250…500		1	1	1	0.94	0.88	0.85	0.82
NZM…3-S250…500	TM with XAV	1	1	1	0.94	0.88	0.85	0.82
NZM…3-S250…400	TM	1	1	1	1	1	1	1
NZM…3-S250…400	TM with XAV	1	1	1	1	1	0.97	0.94

Notes

In determining the maximum permissible current loads at different ambient temperatures, the derating coefficients listed in the table must be considered.
Example:
An NZM2-A250 should be operated at an ambient air temperature of 65 °C.
How high is the permissible rated operational current I_e?
At 65 °C the derating coefficient is 0.85, i.e. I_e = 250 A × 0.85 = 212.5 A.
At an ambient temperature of 65 °C the NZM2-A250 can therefore be operated at up to I_e = 212.5 A.

Device part no.	Release type	Reduction of the rated operational current (derating) under particular ambient conditions (according to IEC 947) Derating coefficient 20 °C	30 °C	40 °C	50 °C	60 °C	65 °C	70 °C
Electronic release (E)								
System protection								
NZM...3(-4)-AE(F)250...500(-NA)	E	1	1	1	1	1	1	1
NZM...3(-4)-AE(F)550...630(-NA)	E	1	1	1	1	0.9	0.85	0.8
NZM...3(-4)-AE250...400 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...3(-4)-AE630 + XAV	E with XAV	0.96	0.92	0.87	0.83	0.78	0.75	0.73
NZM...4(-4)-AE(F)600...1250(-NA)	E	1	1	1	1	1	1	1
NZM...4(-4)-AE1600	E	1	1	1	1	0.87	0.85	0.82
NZM...4(-4)-AE630...1250 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...4(-4)-AE1600 + XAV	E with XAV	1	0.98	0.93	0.89	0.85	0.83	0.8
Selectivity and generator protection								
NZM...2(-4)-VE(F)100...175(-NA) (-S1)	E	1	1	1	1	1	1	1
NZM...2(-4)-VE(F)200...250(-NA) (-S1)	E	1	1	1	1	0.9	0.85	0.8
NZM...2(-4)-VE100...160 + XSV	E with XSV	1	1	1	1	1	1	1
NZM...2(-4)-VE250 + XSV	E with XSV	1	1	1	0.94	0.88	0.84	0.81
NZM...3(-4)-VE(F)250...500(-NA)	E	1	1	1	1	1	1	1
NZM...3(-4)-VE(F)550...630(-NA)	E	1	1	1	1	0.9	0.85	0.8
NZM...3(-4)-VE250...400 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...3(-4)-VE630 + XAV	E with XAV	0.96	0.92	0.87	0.83	0.78	0.75	0.73
NZM...4(-4)-VE(F)600...1250(-NA) (-S1)	E	1	1	1	1	1	1	1
NZM...4(-4)-VE1600 (-S1)	E	1	1	1	1	0.87	0.85	0.82
NZM...4(-4)-VE630...1250 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...4(-4)-VE1600 + XAV	E with XAV	1	0.98	0.93	0.89	0.85	0.83	0.8
Motor protection								
NZM...2-ME(SE)90...140(-CNA)	E	1	1	1	1	1	1	1
NZM...2-ME(SE)220(-CNA)	E	1	1	1	1	0.9	0.85	0.8
NZM...2-ME90...140 + XSV	E with XSV	1	1	1	1	1	1	1
NZM...2-ME220 + XSV	E with XSV	1	1	1	0.94	0.88	0.84	0.81
NZM...3-ME(SE)220...350(-CNA) (-S1)	E	1	1	1	1	1	1	1
NZM...3-ME(SE)450(-CNA) (-S1)	E	1	1	1	1	1	1	1
NZM...3-ME220...350 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...3-ME450 + XAV	E with XAV	0.96	0.92	0.87	0.83	0.78	0.75	0.73
NZM...4-ME550...875 (-S1)	E	1	1	1	1	1	1	1
NZM...4-ME1400 (-S1)	E	1	1	1	1	1	1	1
NZM...4-ME550...875 + XAV	E with XAV	1	1	1	1	1	1	1
NZM...4-ME1400 + XAV	E with XAV	1	0.98	0.93	0.89	0.85	0.83	0.8
Switch-disconnectors/Molded Case Switch								
N1(-4) -63, PN1(-4)-63, NS1-63-NA		1	1	1	1	1	1	1
N1(-4) -100...125, PN1(-4)-100...125, NS1-100...125-NA		1	1	1	1	0.86	0.83	0.8
N1(-4) -160, PN1(-4)-160		1	1	1	0.95	0.9	0.85	0.8
N2(-4) -160...200, PN2(-4)-160...200, NS2-160...200-NA		1	1	1	1	1	1	1
N2(-4) -250, PN2(-4)-200, NS2-250-NA		1	1	1	1	0.9	0.85	0.8
N2(-4) -160...200 + XSV		1	1	1	1	1	1	1
N2(-4) -250, NS2-250-NA		1	0.97	0.92	0.87	0.81	-	-
N3(-4)-400, PN3(-4)-400, NS3-400-NA		1	1	1	1	1	1	1
N3(-4)-630, PN3(-4)-630, NS3-600-NA		1	1	1	0.94	0.89	0.86	0.84
N3(-4)-400 + XAV		1	1	1	1	1	1	1
N3(-4)-630 + XAV		0.96	0.92	0.87	0.83	0.78	0.75	0.73
N4(-4)-630...1250, NS4-800...1200-NA		1	1	1	1	1	1	1
N4(-4)-1600		1	1	1	1	0.87	0.85	0.82
N4(-4)-630...1250 + XAV		1	1	1	1	1	1	1
N4(-4)-1600 + XAV		1	0.98	0.93	0.89	0.85	0.83	0.8
Multi-function component adapters								
NZM...3-630...+NZM3-XAD630	with XAD	1	0.96	0.92	0.88	0.84	0.82	0.8

Notes

In determining the maximum permissible current loads at different ambient temperatures, the derating coefficients listed in the table must be considered.
Example:
An NZM2-A250 should be operated at an ambient air temperature of 65 °C.
How high is the permissible rated operational current I_e?
At 65 °C the derating coefficient is 0.85, this means I_e = 250 A x 0.85 = 212.5 A.
The NZM2-A250 may be operated at an ambient temperature of 65 °C with a maximum I_e = 212.5 A.

NZM up to 500 A with thermomagnetic release (3 and 4 pole)

	Fixed mounted											
	NZM1-								NS1-		N1-, PN1-	
	A...(-NA)		M...		AF...-NA		S...-CNA		...-NA			
I_n [A]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]
1.2	–	–	–	–	–	–	1.8	413000	–	–	–	–
1.6	–	–	–	–	–	–	–	–	–	–	–	–
2	–	–	–	–	–	–	0.8	66000	–	–	–	–
2.4	–	–	–	–	–	–	–	–	–	–	–	–
3	–	–	–	–	–	–	1.8	66000	–	–	–	–
5	–	–	–	–	–	–	0.7	9180	–	–	–	–
8	–	–	–	–	–	–	1.8	9180	–	–	–	–
12	–	–	–	–	–	–	0.7	1670	–	–	–	–
15	–	–	–	–	5.5	8180	–	–	–	–	–	–
18	–	–	–	–	–	–	1.6	1670	–	–	–	–
20	9.8	8180	–	–	9.8	8180	–	–	–	–	–	–
25	8.8	4680	–	–	8.8	4680	–	–	–	–	–	–
26	–	–	–	–	–	–	2.0	1050	–	–	–	–
30	–	–	–	–	8.2	3030	–	–	–	–	–	–
32	9.3	3030	–	–	–	–	–	–	–	–	–	–
33	–	–	–	–	–	–	3.4	1050	–	–	–	–
35	–	–	–	–	8.2	2220	–	–	–	–	–	–
40	10.7	2220	13.5	2810	10.7	2220	2.7	562	–	–	–	–
45	–	–	–	–	10.7	1760	–	–	–	–	–	–
50	13.2	1760	14.1	1880	13.2	1760	4.2	562	–	–	–	–
60	–	–	–	–	12.9	1190	–	–	–	–	–	–
63	14.2	1190	14.9	1250	–	–	6.7	562	6.7	562	6	380
70	–	–	–	–	12.5	850	–	–	–	–	–	–
80	16.3	850	20.8	1085	16.3	850	10.8	562	–	–	–	–
90	–	–	–	–	17.7	730	–	–	–	–	–	–
100	21.9	730	23.9	795	21.9	730	16.9	562	16.9	562	11.4	380
110	–	–	–	–	20.7	570	–	–	–	–	–	–
125	26.7	570	–	–	26.7	570	–	–	26.3	562	17.8	380
150	–	–	–	–	–	–	–	–	–	–	–	–
160	36.1	470	–	–	–	–	–	–	–	–	29.2	380
175	–	–	–	–	–	–	–	–	–	–	–	–
200	–	–	–	–	–	–	–	–	–	–	–	–
225	–	–	–	–	–	–	–	–	–	–	–	–
250	–	–	–	–	–	–	–	–	–	–	–	–
300	–	–	–	–	–	–	–	–	–	–	–	–
400												
500												

NZM2/3/4 with electronic release

	Fixed mounted	
	NZM2-...	
I_n [A]	P [W]	B [µohms]
200	–	–
250	52	275

	NZM3-...	
I_n [A]	P [W]	B [µohms]
450	–	–
630	119	100

	NZM4-...	
I_n [A]	P [W]	B [µohms]
1250	–	–
1400	–	–
1600	284	37

N2/3/4, PN2/3

Fixed mounted			
N2-..., PN2-...		N2-4-...-S1-DC (N+L1+L2+L3)	
P [W]	B [µohms]	P [W]	B [µohms]
–	–	44	275
48	256	–	–

N3-..., PN3-...		N3-4-...-S1-DC (N+L1+L2+L3)	
P [W]	B [µohms]	P [W]	B [µohms]
–	–	122	150
107	90	–	–

N4-...		N4-4-...-S1-DC (N+L1+L2+L3)	
P [W]	B [µohms]	P [W]	B [µohms]
–	–	231	37
–	–	290	37
284	37	–	–

Additional plug-in units

	NZM1-...	
I_n [A]	P [W]	B [µohms]
125	14	300

	NZM2-...	
I_n [A]	P [W]	B [µohms]
250	19	100

Additional withdrawable units

	NZM3-...	
I_n [A]	P [W]	B [µohms]
630	83	70

	NZM4-...	
I_n [A]	P [W]	B [µohms]
1600	77	10

	Fixed mounted																	
	NZM2-								NS2-		N2-, PN2-		NZM3-	
	A...(-NA)		M...		AF...-NA		S...-CNA		...-NA				A.../S...	
I_n [A]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]	P [W]	B [µohms]
1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1.6	–	–	–	–	–	–	5.8	750000	–	–	–	–	–	–
2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2.4	–	–	–	–	–	–	7.8	450000	–	–	–	–	–	–
3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
5	–	–	–	–	–	–	0.3	4600	–	–	–	–	–	–
8	–	–	–	–	–	–	0.9	4600	–	–	–	–	–	–
12	–	–	–	–	–	–	0.5	1200	–	–	–	–	–	–
15	–	–	–	–	2.9	4250	–	–	–	–	–	–	–	–
18	–	–	–	–	–	–	1.2	1200	–	–	–	–	–	–
20	5.1	4250	5.1	4250	5.1	4250	–	–	–	–	–	–	–	–
25	8	4250	8	4250	5.9	3140	–	–	–	–	–	–	–	–
26	–	–	–	–	–	–	1.6	780	–	–	–	–	–	–
30	–	–	–	–	8.5	3140	–	–	–	–	–	–	–	–
32	9.6	3140	9.6	3140	–	–	–	–	–	–	–	–	–	–
33	–	–	–	–	–	–	2.5	780	–	–	–	–	–	–
35	–	–	–	–	10.3	2800	–	–	–	–	–	–	–	–
40	13.4	2800	13.4	2800	13.4	2800	1.5	317	–	–	–	–	–	–
45	–	–	–	–	13.8	2270	–	–	–	–	–	–	–	–
50	17	2270	17	2270	17	2270	2.4	317	–	–	–	–	–	–
60	–	–	–	–	18.4	1700	–	–	–	–	–	–	–	–
63	20.2	1700	20.2	1700	–	–	3.8	317	–	–	–	–	–	–
70	–	–	–	–	15.7	1070	–	–	–	–	–	–	–	–
80	20.5	1070	20.5	1070	20.5	1070	6.1	317	–	–	–	–	–	–
90	–	–	–	–	20.8	855	–	–	–	–	–	–	–	–
100	25.7	855	25.7	855	25.7	855	9.5	317	–	–	–	–	–	–
110	–	–	–	–	21.4	589	–	–	–	–	–	–	–	–
125	27.6	589	27.6	589	27.6	589	14.9	317	–	–	–	–	–	–
150	–	–	–	–	33.6	500	–	–	–	–	–	–	–	–
160	38.4	500	38.4	500	–	–	24.3	317	24.3	317	19.7	256		
175	–	–	–	–	36.8	400	–	–	–	–	–	–		
200	48	400	48	400	48	400	38	317	38	317	30.7	256		
225	–	–	–	–	47.1	310	–	–	–	–	–	–		
250	58.1	310	–	–	58.1	310	59.4	317	59.4	317	48	256	68	364
300	83.7	310	–	–	83.7	310	85.6	317	–	–	–	–	79	256
400													72	151
500													93	124

Notes:
The values stated in the table apply for 3 and 4 pole fixed mounted devices with an equal load distribution.
On 4 pole devices the current in the neutral conductor is equal to zero.
The total resistive load is the measured value for a 3 pole or a 4 pole switch (independent of I_n and the type of release).
The total resistive load for a switch or withdrawable plug results from: the resistive value for fixed mounting + resistive value for plug-in or withdrawable.
The heat dissipation can be calculated with the formula: $P = 3 \times R \times I^2$

Terminal capacities

NZM..., PN..., NS..., N...

					NZM1, PN1, N1, NS1 160 A	I_n[1] A	NZM2, PN2, N2, NS2 300 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 terminals Tunnel terminals Rear terminal bolts		Box terminal Tunnel terminals Rear terminal bolts		Box terminal Tunnel terminals Rear terminal bolts	
Copper conductors and cables										
Box terminal	Solid			mm²	1 x (10 – 16) 2 x (6 – 16)	160	1 x (10 – 16) 2 x (4 – 16)	300	2 x 16	500
	Stranded			mm²	1 x (25 – 70)[3] 2 x (6 – 25)		1 x (25 – 185) 2 x (25 – 70)		1 x (35 – 240) 2 x (25 – 120)	
Tunnel terminal	Solid Stranded			mm²	1 x 16	160	1 x 16	300	–	–
		1-hole		mm²	1 x (25 – 95)		1 x (25 – 185)		1 x (25 – 185)	350
		Double-hole		mm²	–	–	–	–	1 x (50 – 240) 2 x (50 – 240)	630 2 x 185
		4-hole		mm²	–	–	–	–	–	–
Screw terminals and connection on rear										
Directly on switch	Solid			mm²	1 x (10 – 16) 2 x (6 – 16)	160	1 x (10 – 16) 2 x (4 – 16)	300	1 x 16 2 x 16	630 2 x 185
	Stranded			mm²	1 x (25 – 70)[3] 2 x 25		1 x (25 – 185) 2 x (25 – 70)		1 x (25 – 240) 2 x (25 – 240)	
Module plate	1-hole	min.		mm²	–	–	–	–	–	–
		max.		mm²	–	–	–	–	–	–
Module plate	2-hole	min.		mm²	–	–	–	–	–	–
		max.		mm²	–	–	–	–	–	–
Connection width extension				mm²					2 x 300	630 2 x 185
Aluminium conductors and cables										
Tunnel terminal	Solid Stranded			mm²	1 x 16	160	1 x 16	250	1 x 16	350
		1-hole		mm²	1 x (25 – 95)		1 x (25 – 185)		1 x (25 – 185)[2]	
		Double-hole		mm²	–	–	–	–	1 x (50 – 240) 2 x (50 – 240)	630
		4-hole		mm²	–	–	–	–	–	–
Screw terminals and connection on rear										
Directly on switch	Solid			mm²	1 x (10 – 16) 2 x (10 – 16)	160	1 x (10 – 16) 2 x (10 – 16)	250	1 x 16 2 x (10 – 16)	400
	Stranded			mm²	1 x (25 – 35) 2 x (25 – 35)		1 x (25 – 50) 2 x (25 – 50)		1 x (25 – 120) 2 x (25 – 120)	
Module plate	1-hole	min.		mm²	–	–	–	–	–	–
		max.		mm²	–	–	–	–	–	–
Module plate	2-hole			mm²	–	–	–	–	–	–
Connection width extension				mm²						
Copper strip (number of segments x width x segment thickness)										
Box terminal		min.		mm	2 x 9 x 0.8	160	2 x 9 x 0.8	300	6 x 16 x 0.8	630
		max.		mm	9 x 9 x 0.8		10 x 16 x 0.8 (2 x) 8 x15.5 x 0.8		10 x 24 x 1.0 + 5 x 24 x 1.0 (2 x) 8 x 24 x 1.0	
Single flat cable terminal		min.		mm	–	–	–	–	–	–
		max.		mm	–	–	–	–	–	–
Module plate	1-hole			mm	–	–	–	–	–	–
Screw terminals and connection on rear										
Copper strip, perforated		min.		mm	–	–	2 x 16 x 0.8	300	6 x 16 x 0.8	630
Copper strip, perforated		max.		mm	–	–	10 x 24 x 0.8		10 x 32 x 1.0 + 5 x 32 x 1.0	
Connection width extension				mm²	–	–	–	–	(2 x) 10 x 50 x 1.0	
Copper bar (width x thickness)										
Screw terminals and connection on rear										
Screw terminals					M6	–	M8	–	M10	–
Directly on switch		min.		mm	12 x 5	160	16 x 5	300	20 x 5	630
		max.		mm	16 x 5		24 x 8		30 x 10 +30 x 5	
Module plate	1-hole	min.		mm	–	–	–	–	–	–
		max.		mm	–	–	–	–	–	–
Module plate	2-hole			mm	–	–	–	–	–	–
Connection width extension		min.		mm	–	–	–	–	–	630
		max.		mm	–	–	–	–	2 x (10 x 50)	10 x 40

Notes

[1] The rated currents I_n have been determined according to IEC/EN 60947 (switchgear standard) and generally relate to the max. defined cross-sections. They are given for general reference here. The engineering standards which apply in each case must be observed.

[2] To 240 mm² can be connected depending on the make of cable.

[3] To 95 mm² can be connected depending on the make of cable.

Terminal capacities

NS..., NZM...-NA

					NZM4, N4, NS4 1600 A	I_n[1] A		NZM...1...NA, NS1...NA	NZM...2...NA, NS2...NA	NZM...3...NA, NS3...NA	NZM...4...NA, NS4...NA
Terminal capacities											
Standard equipment					Screw terminal	–	–	Box terminal	Screw terminal	Screw terminal	Screw terminal
Accessories					Tunnel terminals Rear terminal bolts Strip terminal		–	Screw terminals Tunnel terminals Rear terminal bolts	Box terminal Tunnel terminals Rear terminal bolts	Box terminal Tunnel terminals Rear terminal bolts	Tunnel terminals Rear terminal bolts Strip terminal
Copper conductors and cables											
Box terminal	Solid			mm²	–	–	AWG	1 x (12 – 6)	1 x (12 – 6)	–	–
	Stranded			mm²	–	–	AWG/kcmil	1 x (4 – 2/0)	1 x (4 – 350)	1 x (2 – 500)	–
Tunnel terminal	Solid Stranded			mm²	–	–	AWG	1 x 6	1 x 6	1 x 6	–
		1-hole		mm²	–	–	AWG/kcmil	1 x (4 – 3/0)	1 x (4 – 350)	1 x (4 – 350)	–
		Double-hole		mm²	–	–	AWG/kcmil	–	–	1 x (0 – 500) 2 x (0 – 500)	–
		4-hole		mm²	4 x (50 – 240)	1400	AWG/kcmil	–	–	–	4 x (0 – 500)
Screw terminals and connection on rear											
Directly on switch	Solid			mm²	–	–	AWG	1 x (12 – 6) 2 x (9 – 6)	1 x (12 – 6)	–	–
	Stranded			mm²	1 x (120 – 185) 4 x (50 – 185)	1250	AWG/kcmil	1 x (4 – 2/0)	1 x (4 – 3/0)	1 x (4 – 350) 2 x 350	1 x (250 – 350) 4 x (0 – 350)
Module plate	1-hole	min.		mm²	1 x (120 – 300)	1000	kcmil	–	–	–	1 x (250 – 600)
		max.		mm²	2 x (95 – 300)		AWG/kcmil	–	–	–	2 x (3/0 – 600)
Module plate	2-hole	min.		mm²	2 x (95 – 185)	1400	AWG/kcmil	–	–	–	2 x (3/0 – 350)
		max.		mm²	4 x (35 – 185)		AWG/kcmil	–	–	–	4 x (2 – 350)
Connection width extension				mm²	4 x 300 6 x (95 – 240)	1600 4 x 240	AWG/kcmil			2 x 500	4 x 600 6 x (3/0 – 500)
Aluminium conductors and cables											
Tunnel terminal	Solid Stranded			mm²	–	–	AWG	–	–	–	–
		1-hole		mm²	–	–	AWG/kcmil	–	–	–	–
		Double-hole		mm²	–	–	AWG/kcmil	–	–	–	–
		4-hole		mm²	4 x (50 – 240)	1400	AWG/kcmil	–	–	–	–
Screw terminals and connection on rear											
Directly on switch	Solid			mm²	–	–	AWG	–	–	–	–
	Stranded			mm²	–	–	AWG/kcmil	–	–	–	–
Module plate	1-hole	min.		mm²	1 x (185 – 240)	Please inquire	kcmil	–	–	–	–
		max.		mm²	2 x (70 – 185)	Please inquire	AWG/kcmil	–	–	–	–
Module plate	2-hole			mm²	4 x 50	–	AWG	–	–	–	–
Connection width extension				mm²	2 x 240 6 x (70 – 240)	Please inquire	AWG/kcmil				–
Copper strip (number of segments x width x segment thickness)											
Box terminal		min.		mm	–	–	mm	2 x 9 x 0.8	2 x 9 x 0.8	6 x 16 x 0.8	–
		max.		mm	–	–	mm	9 x 9 x 0.8	10 x 16 x 0.8	10 x 24 x 1.0 + 5 x 24 x 1.0 (2 x) 8 x 24 x 1.0	–
Single flat cable terminal		min.		mm	6 x 16 x 0.8	1100	mm	–	–	–	6 x 16 x 0.8
		max.		mm	(2 x) 10 x 32 x 1.0		mm	–	–	–	(2 x) 10 x 32 x 1.0
Module plate	1-hole			mm	(2 x) 10 x 50 x 1.0	1250 (2 x) 10 x 40 x 1.0	mm	–	–	–	(2 x) 10 x 50 x 1.0
Screw terminals and connection on rear											
Copper strip, perforated		min.		mm	(2 x) 10 x 50 x 1.0	1600	mm	–	2 x 16 x 0.8	6 x 16 x 0.8	(2 x) 10 x 50 x 1.0
Copper strip, perforated		max.		mm	(2 x) 10 x 50 x 1.0		mm	–	10 x 16 x 0.8	10 x 32 x 1.0 + 5 x 32 x 1.0	(2 x) 10 x 50 x 1.0
Connection width extension				mm²	(2 x) 10 x 80 x 1.0	1600 2 x (10 x 50 x 1.0)	mm	–	–	(2 x) 10 x 50 x 1.0	(2 x) 10 x 80 x 1.0
Copper bar (width x thickness)											
Screw terminals and connection on rear											
Screw terminals					M10	–	–	M6	M8	M10	M10
Directly on switch		min.		mm	25 x 5	1600	mm	12 x 5	16 x 5	20 x 5	25 x 5
		max.		mm	2 x (50 x 10) 2 x (80x 10)		mm	16 x 5	20 x 5	30 x 10 +30 x 5	2 x (50 x 10)
Module plate	1-hole	min.		mm	25 x 5	1250 2 x (40 x 10)	mm	–	–	–	25 x 5
		max.		mm	2 x (50 x 10)		mm	–	–	–	2 x (50 x 10)
Module plate	2-hole			mm	2 x (50 x 10)	1600	mm	–	–	–	2 x (50 x 10)
Connection width extension		min.		mm	60 x 10	1600 2 x (50 x 10)	mm	–	–	–	60 x 10
		max.		mm	2 x (80 x 10)		mm	–	–	2 x (10 x 50)	2 x (80 x 10)

Temperature dependency

N...S1-DC

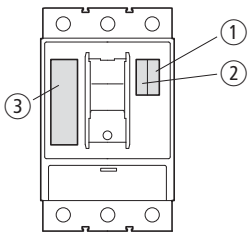
Basic devices	Jumper kits	Contact protection	Mounting position	Reduction of the rated operational current (derating) under particular ambient conditions Temperature compensation coefficient 20 °C	30 °C	40 °C	50 °C	55 °C	60 °C	65 °C	70 °C
Switch-disconnectors											
N2-4-160-S1-DC	+NZM2-4-XKV2P	IP2X	v	1	1	1	1	1	1	1	1
			h	1	1	1	1	1	1	1	1
N2-4-200-S1-DC	+NZM2-4-XKV2P	IP2X	v	1	1	1	1	1	1	1	0.95
			h	1	1	1	1	1	1	0.95	0.92
N3-4-320(400)-S1-DC	+NZM3-4-XKV2P	IP2X	v	1	1	1	1	1	1	1	1
			h	1	1	1	1	1	1	1	1
	+NZM3-4-XKVI2P	IP00	v	1	1	1	1	1	1	1	1
			h	1	1	1	1	1	1	1	1
N3-4-500-S1-DC	+NZM3-4-XKVI2P-K	IP00	v	1	1	1	1	1	1	1	0.97
			h	1	1	1	1	1	1	0.97	0.95
	+NZM3-4-XKVI2P	IP00	v	1	1	1	1	0.97	0.95	0.92	0.89
			h	1	1	1	0.97	0.95	0.92	0.89	0.87
	+NZM3-4-XKV2P-K	IP1X	v	1	1	1	1	1	0.98	0.95	0.92
			h	1	1	1	1	0.97	0.94	0.91	0.89
	+NZM3-4-XKV2P-K	IP2X	v	1	1	1	0.95	0.92	0.89	0.86	0.83
			h	1	1	0.98	0.93	0.9	0.87	0.84	0.81
N4-4-800(1000)-S1-DC	+NZM4-4-XKV2P	IP2X	v	1	1	1	1	1	1	1	1
			h	1	1	1	1	1	1	1	1
N4-4-1250-S1-DC	+NZM4-4-XKV2P	IP2X	v	1	1	1	1	1	1	1	0.97
			h	1	1	1	1	1	1	0.97	0.95
N4-4-1400-S1-DC	+NZM4-4-XKV2P	IP2X	v	1	1		0.94	0.92	0.9	–	–
			h	1	1	0.97	0.91	–	–	–	–
	+NZM3-4-XKV2P-1400	IP00	v	1	1	1	1	1[1)]	1[1)]	1[1)]	0.97
			h	1	1	1	1	1[1)]	1[1)]	1[1)]	0.97

Notes

Mounting position:
v = vertical, h = horizontal
Incomer and outgoer at bottom or top, freely selectable.
[1)] Incomer at from bottom only.

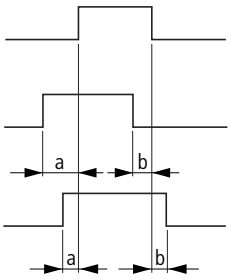
		At AC = 50/60 Hz		**M22-K...**	**M22-CK...**	**XHIV**
Auxiliary contacts						
Rated operating voltage						
AC voltage		U_e	V AC	500	230	500
DC voltage		U_e	V DC	220	220	220
Conventional thermal current		$I_{th} = I_e$	A	4	4	4
Rated operational current						
AC-15	115 V	I_e	A	4	4	4
	230 V	I_e	A	4	4	4
	400 V	I_e	A	2	–	2
	500 V	I_e	A	1	–	1
DC-13	24 V	I_e	A	3	3	3
	42 V	I_e	A	1.7	1	1.5
	60 V	I_e	A	1.2	0.8	0.8
	110 V	I_e	A	0.8	0.5	0.5
	220 V	I_e	A	0.3	0.2	0.2
Short-circuit protection						
Max. fuse			A gG/gL	10	10	10
Max. miniature circuit-breaker			A	PKZM0-10/FAZ-B6	FAZ-B6/B1	FAZ-B6
Early make times compared to main contacts on make and break (switching times on manual operation).			ms	–	–	NZM1, PN1, N(S)1: approx. 20 NZM2, PN2, N(S)2: approx. 20 NZM3, PN3, N(S)3: approx. 20 NZM4, N(S)4: approx. 90 With NZM4/N(S)4 the HIV does **not** feature early break.
Terminal capacities						
Solid or flexible conductor with ferrule			mm^2	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)	1 x (0.5 – 1.5) 2 x (0.5 – 0.75)	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)
			AWG	1 x (18 – 14) 2 x (18 – 14)	1 x (20 – 18) 2 x (20 – 18)	1 x (18 – 14) 2 x (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
Heavy Pilot Duty				A600/P300 via 300 V AC same polarity		C300/R300

Maximum equipment and position of the built-in accessories



	③ **-XHIV(2S) or -XA or -XU**	② **HIA**	① **HIN**
NZM1, N(S)1	1	1	1
NZM2, N(S)2	1	1	2
NZM3, N(S)3	1	1	3
NZM4, N(S)4	1	2	3
PN1	1	–	1
PN2	1	–	2
PN3	1	–	3

Time differences ON-OFF



Main contact

Auxiliary contact, early make (HIV)

Auxiliary contact, normal (HIN)

Notes On combination with remote operator NZM-XR..., the right slot for standard auxiliary contacts HIN can be equipped only with single contacts.

	Time difference a (ms)						**Time difference b (ms)**					
	Manual operation			**Motor drive**			**Manual operation**			**Motor drive**		
	HIV	**HIN**		**HIV**	**HIN**		**HIV**	**HIN**		**HIV**	**HIN**	
		K10	K01		K10	K01		K10	K01		K10	K01
NZM1	20[2)]	0	2.5	–	–	–	20[2)]	0	2.5	–	–	–
NZM2	20[2)]	3.5	6.5	Not permissible	2.5	4.5	20[2)]	3	4.5	Not permissible	3	4
NZM3	20[2)]	4	8	Not permissible	2	4	20[2)]	3.5	8	Not permissible	3	6.5
NZM4	90[2)]	7	11	Not permissible	Please inquire	Please inquire	0[1)2)]	12	15	Not permissible	Please inquire	Please inquire

Notes
[1)] With NZM4/N(S)4 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 releases				
Rated control voltage				
AC voltage at 50/60 Hz	U_s	V AC	24...600	24...600
DC voltage	U_s	V DC	12...250	12...250
Operating range				
Drop-out voltage		x U_s	0.35 – 0.7	0.35 – 0.7
Pick-up voltage		x U_s	0.85 – 1.1	0.85 – 1.1
Power consumption				
AC voltage				
AC pick-up rating		VA	1.5	3.6
AC consumption when closed		VA	1.5	3.6
DC voltage				
DC pick-up rating		W	0.8	2.5
DC consumption when closed		W	0.8	2.5
Max. opening delay (response time until the main circuits open)		ms	19	23
Minimum signal duration		ms	10 – 15	10 – 15
Terminal capacities				
Solid or flexible conductor with ferrule		mm²	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)
		AWG	1 x (18 – 14) 2 x (18 – 14)	1 x (18 – 14) 2 x (18 – 14)

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

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

			NZM1(2/3)-XA…	NZM4-XA…	NZM2/3-XA...-MNS	NZM4-XA...-MNS
Shunt releases (for power circuit breaker)						
Rated control voltage						
AC voltage	U_s	V AC	12...440	12...440	230	230
DC voltage	U_s	V DC	12...440	12...440	–	–
Frequency range		Hz	0 – 400	0 – 400	50/60	50/60
Operating range						
AC voltage		x U_s	0.7...1.1	0.7...1.1	0.1...1.1	0.1...1.1
DC voltage		x U_s	0.7...1.1	0.7...1.1	–	–
Power consumption						
AC/DC pick-up rating		VA/W	2.5	2.5	–	–
AC/DC consumption when closed		VA/W	2.5	2.5	–	–
Maximum power consumption at 110 % U_s (230 V 50 Hz)		A	–	–	0.5	1
Max. opening delay (response time until the main circuits open)		ms	20	22	20	22
Max. duty factor		ms	∞	∞	1000 ms	1000 ms
Minimum signal duration		ms	10 – 15	10 – 15	10 – 15	10 – 15
Terminal capacity						
Solid or flexible conductor with ferrule		mm²	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)	1 x (0.75 – 2.5) 2 x (0.75 – 2.5)
		AWG	1 x (18 – 14) 2 x (18 – 14)	1 x (18 – 14) 2 x (18 – 14)	1 x (18 – 14) 2 x (18 – 14)	1 x (18 – 14) 2 x (18 – 14)

				NZM2-XRD...	NZM2-XR…	NZM3-XR…	NZM4-XR…
Remote operators							
Rated control voltage							
AC voltage		U_s	V AC	100...440	110...440	110...440	110...440
DC voltage		U_s	V DC	24...250	24...250	24...250	24...250
Operating range							
AC voltage		U_s		0.85...1.1	0.85...1.1	0.85...1.1	0.85...1.1
DC voltage		U_s		0.85...1.1	0.85...1.1	0.85...1.1	0.85...1.1
Rated operational power							
AC voltage	110 V … 130 V AC		VA	550	350	350	350
	208 V … 240 V AC		VA	550	350	350	350
	380 V … 440 V AC		VA	650	350	350	350
DC voltage	24 V … 30 V DC		W	450	250 (max. 17A 30 ms)	250	250
	110 V … 130 V DC		W	450	250	250	250
	220 V … 250 V DC		W	450	250	250	250
Total make time			ms	110-170	60	80	100
Total opening delay			ms	110-170	300	1000	3000
Minimum signal duration							
With switch on			ms	100	30	30	30
With switch off			ms	100	150	250	500
Lifespan, mechanical		Operations		20000	20000	15000	10000
Maximum operating frequency			Ops/h	120	120	60	20
Terminal capacities							
Solid or flexible conductor with ferrule			mm²	0.75 – 2.5	0.75 – 2.5	0.75 – 2.5	0.75 – 2.5
			AWG	18 – 14	18 – 14	18 – 14	18 – 14

			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	$I_{\triangle n}$	A	0.03	0.3	0.03, 0.1, 0.3, 0.5, 1, 3, 5
Deceleration time	t_v	s	0.02 (non-delayed)	0.02 (non-delayed)	0.02, 0.1, 0.3, 0.5, 1, 3, 5
Relay contacts			1 built-in changeover contact	1 built-in changeover contact	1 built-in changeover contact
Rated operating voltage of the relay contacts		V AC/DC	250/100	250/100	250/100
Rated operational current of the relay contacts		A	6	6	6
Fault current early warning		Hz	–	–	0.5 = 25% – 50% $I_{\triangle n}$ 1 = 50% – 75% $I_{\triangle n}$ 2 = 75% – 100% $I_{\triangle n}$
Mechanical					
Standard front dimension		mm	45	45	45
Device height		mm	85	85	85
Built-in width		mm	36	36	36
Mounting			Quick attachment for top-hat rail DIN 46277, EN 50022		
Terminals top and bottom			Box terminals		
Terminal protection			Finger and back-of-hand proof BGV A2, VDE 106 Part 100		
Terminal capacities		mm²	2 x 0.75 – 2.5 solid, 2 x 0.75 – 1.5 flexible/with sleeve		
Sealing facility for setting buttons			–	–	Yes

			NZM1(-4)-XFI30R NZM1(-4)-XFI300R NZM1(-4)-XFIR	**NZM1(-4)-XFI30U NZM1(-4)-XFI300U NZM1(-4)-XFIU**	**+NZM2-4-XFI30 +NZM2-4-XFI**	**+NZM2-4-XFIA30 +NZM2-4-XFIA NZMH2...-XFIA30**
Electrical						
Standards			IEC/EN 60947-2			
Sensitivity			Pulse-current sensitive, type A			
Min. operating voltage						
For detecting type A/AC fault currents			80 V (dependent on mains power)	80 V (dependent on mains power)	0 V (independent of mains power)	0 V (independent of mains power)
For detecting type B fault currents			–	–	–	50 V (dependent on mains power)
Suitable for use in			Three- and single-phase systems	Three-phase systems	Three- and single-phase systems	Three- and single-phase systems
Rated operating voltage	U_e	V AC	200…415 (3~)	200…415 (3~)	280…690	50…400 (3~)
Rated frequency	*f*	Hz	50/60	50/60	50/60	50/60
Number of poles			3/4	3/4	3/4	3/4
Rated operational current range	I_n	A	15…160	15…100	15…250	15…250
Rated fault currents	$I_{\triangle n}$	A				
NZM1(-4)-XFI30R			0.03			
NZM1(-4)-XFI300R			0.3			
NZM1(-4)-XFIR			0.03-0.1-0.3-0.5-1-3			
NZM1(-4)-XFI30U				0.03		
NZM1(-4)-XFI300U				0.3		
NZM1(-4)-XFIU				0.03-0.1-0.3-0.5-1-3		
+NZM2-4-XFI30					0.03	
+NZM2-4-XFI					0.1-0.3-1-3	
+NZM2-4-XFIA30						0.03
+NZM2-4-XFIA						0.3-1
NZMH2...-XFIA30						0.03
Detection range of fault current			50/60 Hz	50/60 Hz	50/60 Hz	With AC voltage: 0 – 100 kHz With pulsed DC voltage: 50 Hz
Rated ultimate short-circuit making and rated breaking capacity	$I_{\triangle m}$	A	= I_{CU}	= I_{CU}	= I_{CU}	= I_{CU}
Fault current early warning			≧ 0.3 x $I_{\triangle n}$	≧ 0.3 x $I_{\triangle n}$	–	–
Shock resistance (IEC 60068-2-27)			20 (half-sinusoidal shock 20 ms)			
Lifespan, mechanical (50 % with fault current)	Operations		20000	20000	≧ 2000	≧ 2000 NZMH2: 20000
Mechanical						
Standard front dimension		mm	45	45	96	96
Mounting			On right side	Bottom	Bottom	Bottom
Mounting position			Vertical and 90° in all directions			
Feeder			NZM1 from above	NZM1 from above	Any	Bottom
Degree of protection			IP20 in the operating component area			
Ambient temperature		°C	–5…+40	–5…+40	–25…+70	–25…+70
Terminal capacities						
Flexible without ferrule		mm^2	Same as NZM1 standard terminal			
Flexible with ferrule		mm^2	Same as NZM1 standard terminal			
Sealability			Yes, setting buttons			

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

			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
General					
Standards			EN 55011, EN 55022, EN 61000-4, IEC 60068-2-6, IEC 60068-2-27		
Dimensions (W x H x D)		mm	35.5 x 90 x 58 (2 space units)	35.5 x 90 x 58 (2 space units)	35.5 x 90 x 58 (2 space units)
Weight		kg	0.15	0.15	0.15
Mounting			Top-hat rail EN 50022, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)		
Terminal capacity					
Solid		mm^2	0.2x4 (AWG 22 – 12)	0.2x4 (AWG 22 – 12)	0.2x4 (AWG 22 – 12)
Flexible with ferrule		mm^2	0.2x2.5 (AWG 22 – 12)	0.2x2.5 (AWG 22 – 12)	0.2x2.5 (AWG 22 – 12)
Standard screwdriver		mm	3.5 x 0.8	3.5 x 0.8	3.5 x 0.8
Max. tightening torque		Nm	0.6	0.6	0.6
Ambient climatic conditions					
Operating ambient temperature		°C	-25 to 55, low temperatures to IEC 60068-2-1, high temperatures to IEC 60068-2-2		
Condensation			Prevent condensation by means of suitable measures		
Storage		°C	40 – 70	40 – 70	40 – 70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 – 95	5 – 95	5 – 95
Air pressure (in operation)		hPa	795 – 1080	795 – 1080	795 – 1080
Corrosion resistance					
IEC/EN 60068-2-42	4 days SO_2	cm^3/m^3	10	10	10
IEC/EN 60068-2-43	4 days H_2S	cm^3/m^3	1	1	1
Ambient mechanical conditions					
Pollution degree			2	2	2
Degree of protection (IEC/EN 60529)			IP20	IP20	IP20
Vibrations (IEC/EN 60068-2-6)					
Constant amplitude 0.15 mm		Hz	10 – 57	10 – 57	10 – 57
Constant acceleration, 2 g		Hz	57 – 150	57 – 150	57 – 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Shocks	18	18	18
Drop (IEC/EN 60 068-2-31)	Drop height	mm	50	50	50
Free fall, packaged (IEC/EN 60068-2-32)		m	1	1	1
Mounting position			horizontal x vertical	horizontal x vertical	horizontal x vertical
Electromagnetic compatibility (EMC)					
Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)					
Air discharge		kV	8	8	8
Contact discharge		kV	6	6	6
Electromagnetic fields (IEC/EN 61000-4-3, RFI)		V/m	10	10	10
Radio interference suppression (EN 55011)			EN 55011 Class B EN 55022 Class B		EN 55011 Class A EN 55022 Class A
Burst impulse (IEC/EN 61000-4-4, Level 3)					
Supply cables		kV	2	2	2
Signal cables		kV	2	2	2
High-energy pulses (surge) (IEC/EN 61000-4-5, Level 2)		kV	0.5 (supply cables, symmetrical)		
Immunity to line-conducted interference (IEC/EN 61000-4-6)		V	10	10	10

			EASY221-CO	EASY222-DN	NZM-XDMI-DPV1
Insulation resistance					
Clearances and creepage distances			EN 50178, UL 508, CSA C22.2, No. 142		
Insulation resistance			EN 50178		
Power supply					
Rated operating voltage	U_e	V	24 (-15/+20 %)	24 (-15/+20 %)	24 (-15/+20 %)
Permissible range		V DC	20.4 – 28.8	20.4 – 28.8	20.4 – 28.8
Ripple		%	< 5	< 5	< 5
At 24 V DC		mA	typ. 200	typ. 200	typ. 200
Voltage dips (IEC/EN 61131-2)		ms	10	10	10
Heat dissipation at 24 V DC		W	4.8	4.8	4.8
Polarity reversal protection					
Power supply			Yes	Yes	Yes
LED indicators					
Power supply			RUN LED (RUN): green	Module status LED (MS): green	Power LED (POW): green
LED display			LED ERROR (ERR): red	Network status LED (NS): red/green	PROFIBUS-DP LED (BUS): red
Network					
Terminal type			RJ45	5 pole, pluggable screw terminal	SUB-D 9 pole, socket
Potential isolation			Between bus and power supply (simple), between bus and power supply and NZM-XDMI612 (safe isolation)	Between bus and power supply (simple), between bus and power supply and NZM-XDMI612 (safe isolation)	Between bus and power supply (simple), between bus and power supply and NZM-XDMI612
Function			CANopen slave	DeviceNet slave	PROFIBUS-DP slave
Interface			CAN	CAN	RS 485
Bus protocol			CANopen	DeviceNet	PROFIBUS-DP
Baud rates			Automatic search up to 1 MBit/s	Automatic search up to 500 kBit/s	Automatic search up to 12 MBit/s
Bus terminating resistors			Separate external bus termination required (120 Ω) NZM-XDMI612	Separate external bus termination required (120 Ω) NZM-XDMI612	Separate external bus termination required
Bus addresses			1 – 127 addressed via display	0 – 63 addressed via display	1 – 126 via DMI
Services					
Cyclical			All data R1 – R16, S1 – S8	All data R1 – R16, S1 – S8	Status On/Off, tripped (detailed), load early warnings, phase currents $I_1/I_2/I_3$[A], remote operator acutation, display/ operation NZM-XDMI612, inputs/outputs, motor starter functions
Acyclical			Read/write, real-time, day, summer/winter time, all parameters of the easy function relay	Read/write, real-time, day, summer/winter time, all parameters of the easy function relay	Display/match protection protection settings, event list, identification, hours of operation, switching operations, time

			NZM-XSWD-704
General			
Standards			IEC/EN 61131-2 EN 50178
Dimensions (W x H x D)		mm	35 x 90 x 101
Weight		kg	0.1
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Built-in position			Vertical
Ambient mechanical conditions			
Degree of protection (IEC/EN 60529)			IP20
Vibrations (IEC/EN 61131-2:2008)			
Constant amplitude 3.5 mm		Hz	5 … 8.4
Constant acceleration, 1 g		Hz	8.4 … 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Shocks	9
Drop (IEC/EN 60068-2-31)	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	0.3
Electromagnetic compatibility (EMC)			
Overvoltage category			II
Pollution degree			2
Electrostatic discharge (IEC/EN 61131-2:2008)			
Air discharge (Level 3)		kV	8
Contact discharge (Level 2)		kV	4
Electromagnetic fields (IEC/EN 61131-2:2008)			
80 -1000 MHz		V/m	10
1.4-2 GHz		V/m	3
2-2.7 GHz		V/m	1
Radio interference suppression (SmartWire-Darwin)			EN 55011 Class A
Burst (IEC/EN 61131-2:2008, Level 3)			
Supply cables		kV	2
Signal cables		kV	1
SmartWire-Darwin cables		kV	1
Surge (IEC/EN 61131-2:2008, Level 1)			–
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		V	10
Ambient climatic conditions			
Operating ambient temperature (IEC 60068-2)		°C	–25 … +55
Condensation			Prevent with suitable measures
Storage		°C	–40…70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 … 95
SmartWire-Darwin interface			
Station type			SmartWire-Darwin station (slave)
Baud rate setting			Automatic
SmartWire-Darwin status		LED	Green
Connection			8-pin connector Connection plug: External device plug SWD4-8SF2-5
Power consumption (15 V SWD supply)			See separate table
Supply and I/O connection			
Connection type			Push-In
Solid		mm^2	0.2-1.5 (AWG 24-16)
Flexible with ferrule[1)]		mm^2	0.25-1.5
24 V DC supply for output supply			
Rated operating voltage	U_e	V	–
Input voltage residual ripple		%	–
Polarity reversal protection reversal			–

Notes [1)] Minimum length 8 mm.

			NZM-XSWD-704
Digital inputs			
Number			2
Input current		mA	Typically 4 at 24 V DC
Voltage level to IEC/EN 61131-2			
Limit value type 1			Low < 5 V DC; High > 15 V DC
Input delay			High → Low typically < 0.2 ms Low → High typically < 0.2 ms
Status display inputs		LED	Yellow
Digital semiconductor outputs			
Number			2
Output current		A	0.2 at 24 V DC
Short-circuit tripping current		A	–
Lamp load	R_{LL}	W	–
Overload proof			Yes, with diagnostics
Switching capacity			EN 60947-5-1 utilization category DC-13
Relay outputs			
Number			–
Contact type			–
Operations			
Utilization category AC-1, 250 V, 6 A			–
Utilization category AC-15, 250 V, 3 A			–
Utilization category DC-13, 24 V, 1 A			–
Safe disconnection		V AC	–
Minimum load current		mA	–
Response/reset time		ms	–
Bounce duration		ms	–
Short-circuit protection			–
Status display outputs		LED	–
Potential isolation			
Inputs for SmartWire-Darwin			Yes
Semiconductor outputs to SmartWire-Darwin			Yes
Semiconductor outputs to inputs			–
Relays to SmartWire-Darwin			–
Relays to inputs			–
Relays to relays			–

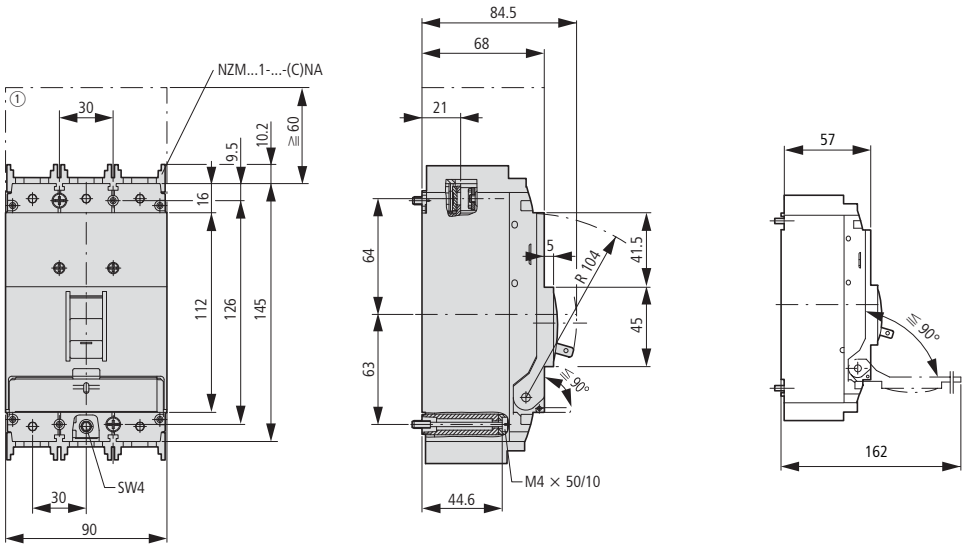
Measuring and communication module

NZM-...XMC

		NZM2-XMC-S0	NZM3-XMC-S0	NZM2/3-XMC-MB
General				
Dimensions	mm	209 × 91 × 132 (3 pole) 251 × 91 × 132 (4 pole)	209 × 91 × 132 (3 pole) 251 × 91 × 132 (4 pole)	209 × 91 × 132 (3 pole) 251 × 91 × 132 (4 pole)
Weight	g	850 (3 pole) 975 (4 pole)	850 (3 pole) 975 (4 pole)	850 (3 pole) 975 (4 pole)
Material characteristic		UL94-V0	UL94-V0	UL94-V0
Environmental conditions				
Operating temperature	°C	-15-+65	-15-+65	-15-+65
Storage temperature	°C	-40-+80	-40-+80	-40-+80
Humidity (non-condensed)	%	5-95	5-95	5-95
Maximum operating altitude	m	2000	2000	2000
IP protection class		IP 20	IP 20	IP 20
Supply				
Voltage	V DC	18 – 36	18 – 36	18 – 36
Maximum current	mA	200	200	200
Conductors		Phoenix Contact GMVSTBR 2.5-2-ST-7.62	Phoenix Contact GMVSTBR 2.5-2-ST-7.62	Phoenix Contact GMVSTBR 2.5-2-ST-7.62
Voltage measurement				
Rated operating voltage	V AC	690	690	690
Maximum surge voltage at 8/20 ms	kV	8	8	8
Maximum voltage	V AC	800	800	800
Surge impedance (impedance)	kohms	1	1	1
Frequency	Hz	45-65	45-65	45-65
Accuracy		0.4 % measured value +0.05 % FS	0.4 % measured value +0.05 % FS	0.4 % measured value +0.05 % FS
Overvoltage category according to EN61010		CAT IV (600 V)	CAT IV (600 V)	CAT IV (600 V)
Current measurement				
Rated operational current	A AC	300	500	300 (NZM2)/500 (NZM3)
Maximum current	A AC	350	740	30
Maximum current impulse 1s	kA	30	30	30
Frequency	Hz	45-200	45-200	45-200
Category EN61010		CAT IV-600 V	CAT IV-600 V	CAT IV-600 V
Power measurement				
Maximum power (per phase)	kWh	-	-	280
Accuracy		-	-	0.95 % measurement + 0.05 % FS
Accuracy, active power		Class 1 (IEC62053-21)	Class 1 (IEC62053-21)	Class 1 (IEC62053-21)
Accuracy, reactive energy		-	-	Class 2 (IEC62053-23)
Pulse output				
Output type		NPN-isolated transistor	NPN-isolated transistor	NPN-isolated transistor
VCE max	V	80	80	80
VCE sat	V	0.4	0.4	0.4
Ic max	mA	50	50	50
Ic recommended	mA	10	10	10
Isolation	kV	3	3	3
Max. switching frequency	Hz	2	2	4
Pulse width	ms	120	120	≥ 20
Pulse rate power	Pulses/kW h	15	7.5	
Digital output				
Type		-	-	
Maximum voltage	V	-	-	350
Maximum current	mA	-	-	120
Isolation	kV	-	-	2.5
Digital input				
Maximum voltage	V	-	-	50
VIHmax	V	-	-	3
MODBUS output-RS485				
Data rate	bit/s	-	-	9600, 19200, 38400, 56000, 57600
Stop bits		-	-	1, 2
Parity		-	-	None, odd, even
Isolation	kV	-	-	3
Output – display				
DC supply voltage	V DC	-	-	5
Maximum current	mA	-	-	180

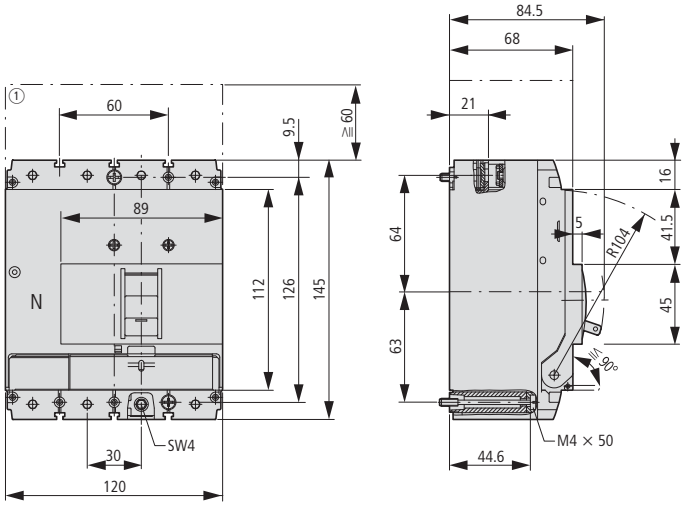
Dimensions

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



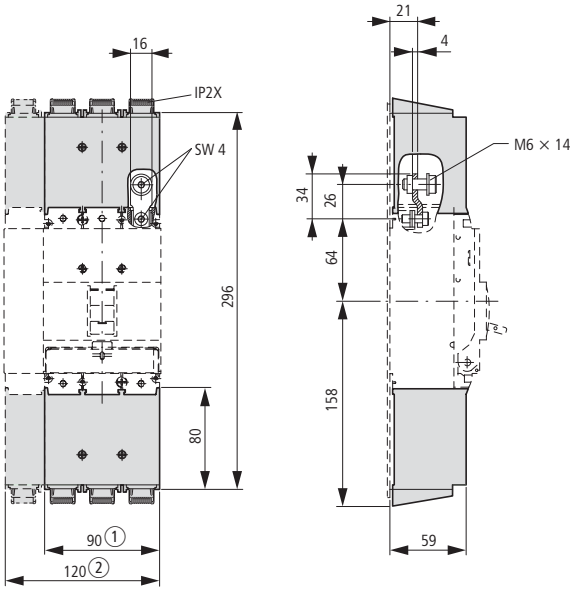
① Blow-out area, minimum distance to other parts ≧ 60 mm

Circuit-breakers
Switch-disconnectors
4 pole
NZMB1-4
NZMC1-4
NZMN1-4
NZMH1-4
PN1-4
N1-4



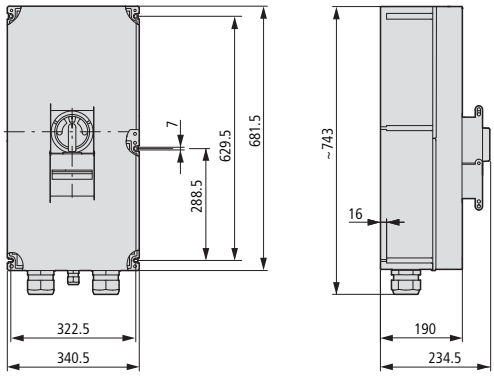
① Blow-out area, minimum distance to other parts ≧ 60 mm

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



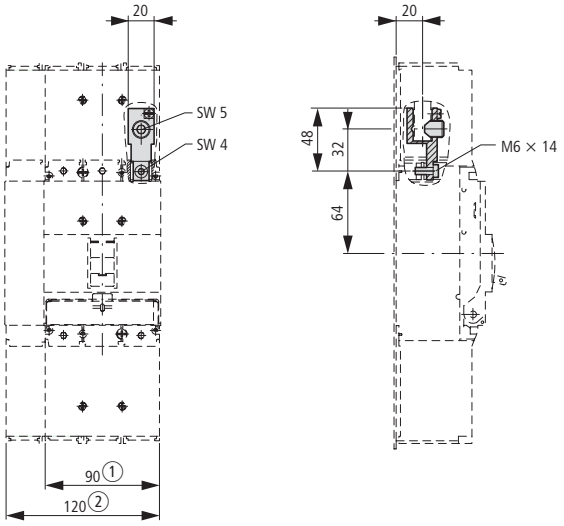
① 3 pole
② 4 pole

Switch-disconnectors
ATEX22-type
3 pole
PN1../ATEX22



Tunnel terminal

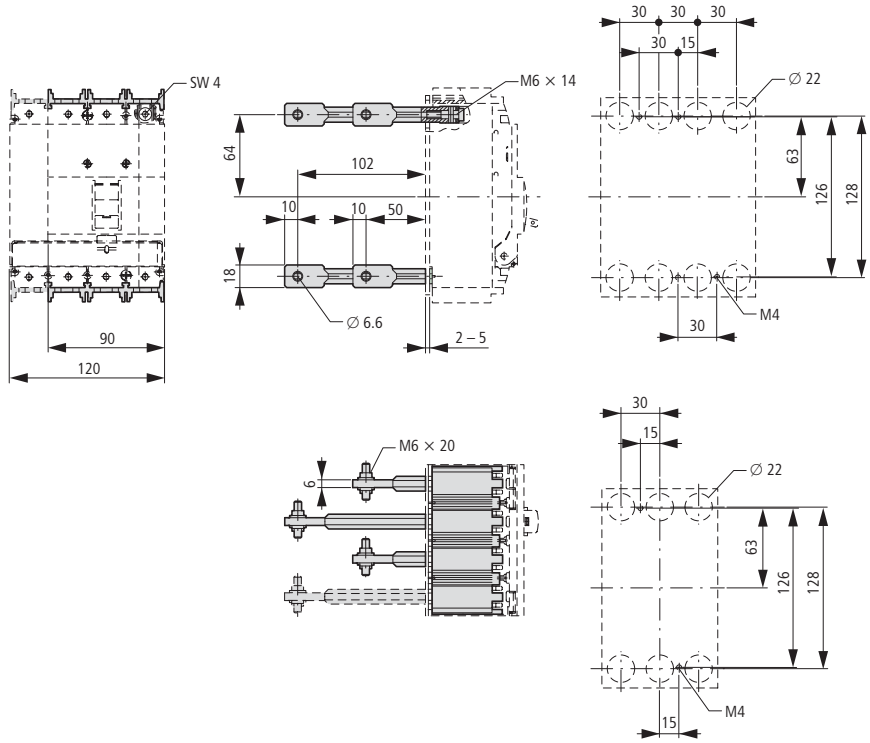
NZM1(-4)-XKA



① 3 pole
② 4 pole

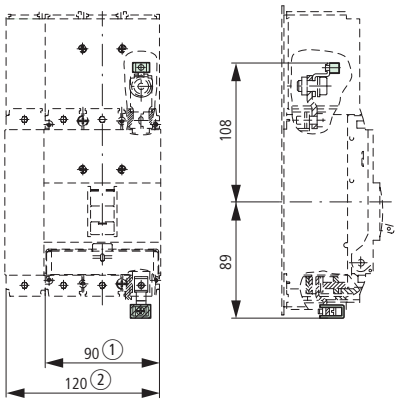
Rear terminal bolts

NZM1(4)-XKR



Control cable terminals

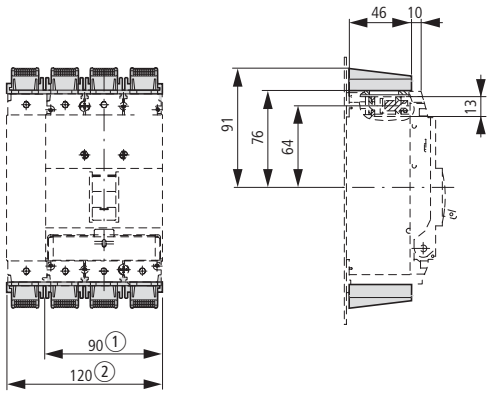
NZM1-XIPK, NZM-XSTK



① 3 pole
② 4 pole

IP2X protection against contact with finger

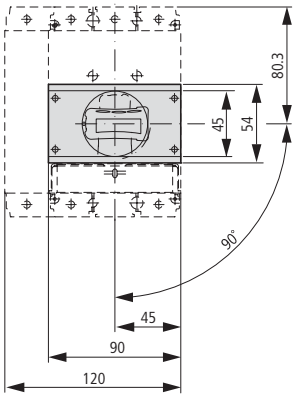
NZM1(-4)-XIPK

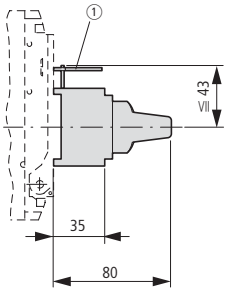


Rotary mechanism

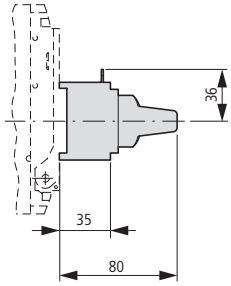
Rotary handle on circuit-breaker

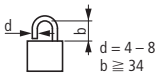
NZM1-XDV
NZM1-XDVR





NZM1-XDTV

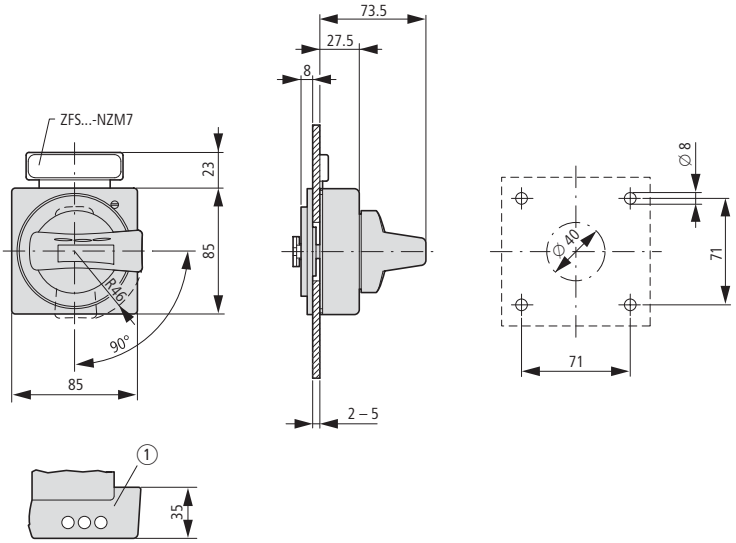


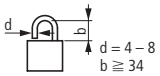


① Up to 3 padlocks

Door coupling rotary handles

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

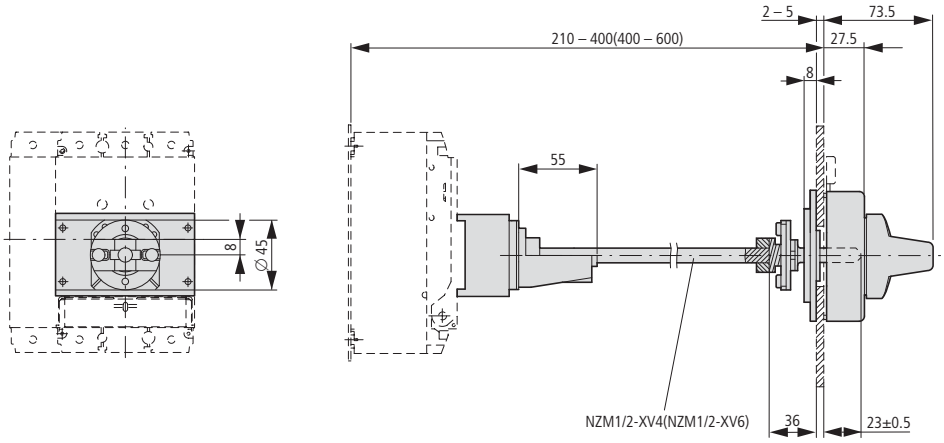




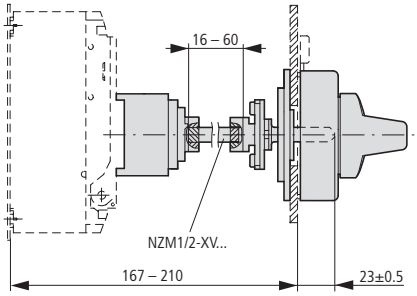
① Up to 3 padlocks

Door coupling rotary handle with extension shaft

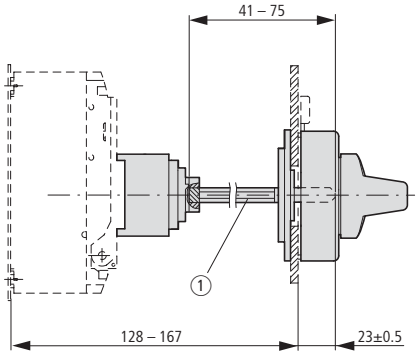
NZM1-XTVD(V)(R)(-NA)
NZM1/2-XV4(6)



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

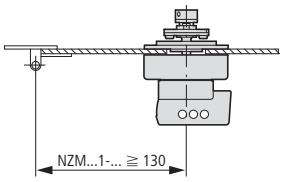


NZM1-XTVD(V)(R)-0(-NA)



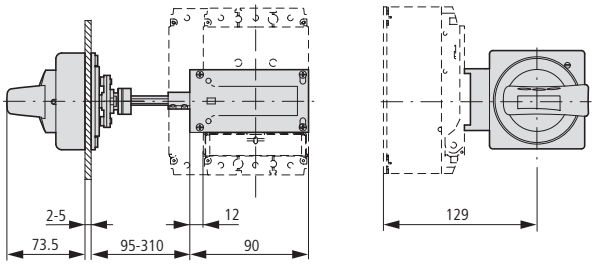
① Special tip

Minimum distance of door coupling rotary handle from door pivot point

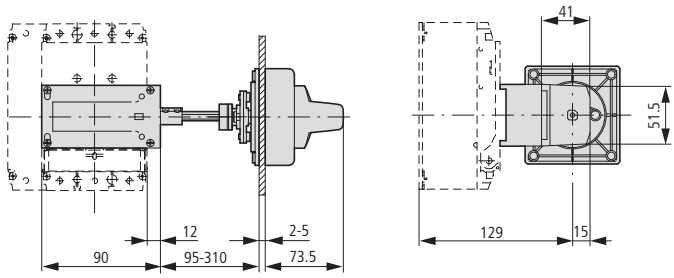


Main switch assembly kit for side wall installation

NZM1-XS(R)-L

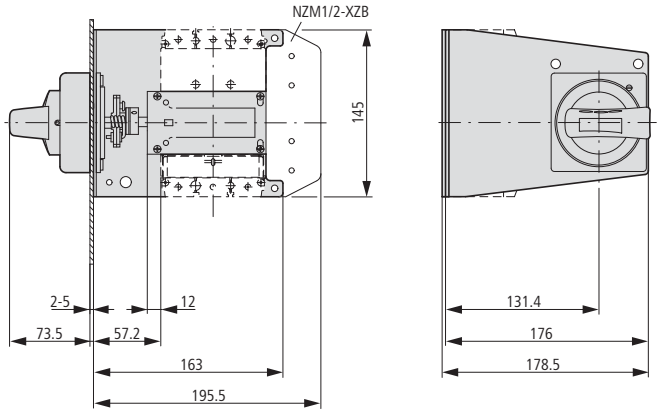


NZM1-XS(R)-R

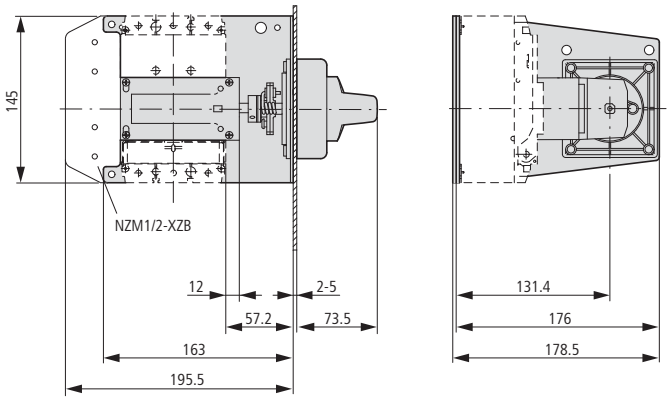


Main switch assembly kit for side wall installation with mounting bracket

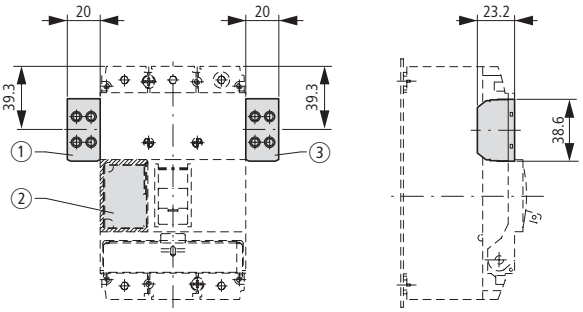
NZM1-XS(R)M-L



NZM1-XS(R)M-R



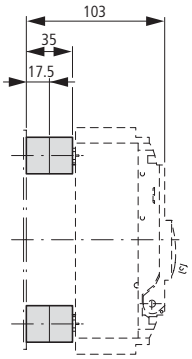
Undervoltage releases
Shunt releases (for power circuit breaker)
Early-make auxiliary contacts



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

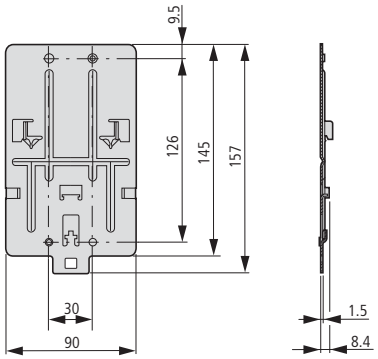
Spacers

NZM1/2-XAB

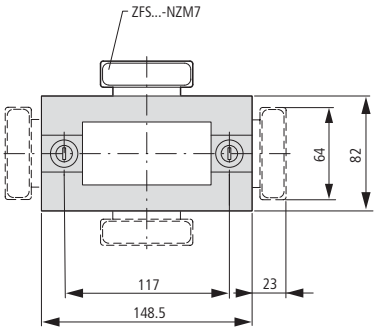


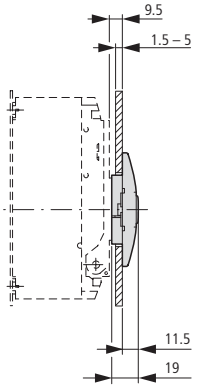
Clip plate

NZM1-XC35

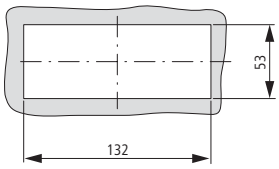


Insulating surround
NZM1-XBR

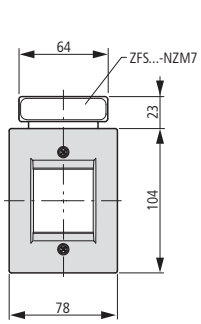


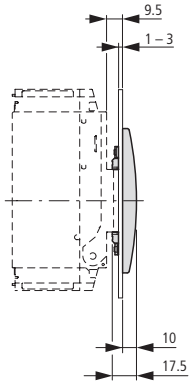


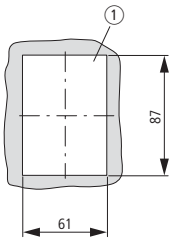
Mounting aperture



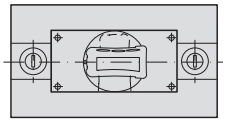
Insulating surround
NZM1-XBRS

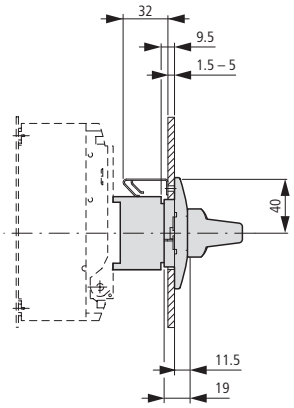




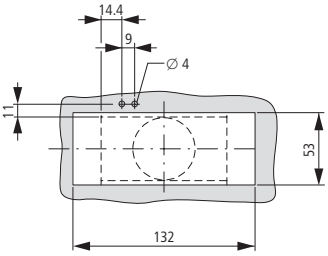


Rotary handle on switch with door interlock
NZM1-XDTV(R)

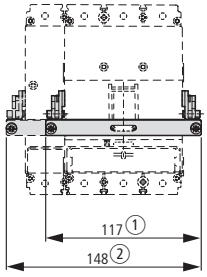


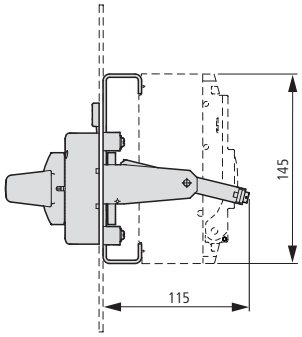


Mounting aperture



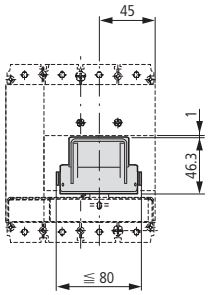
Rear-mounted drives
NZM1-XRAV(R)
NZM1-4-XRAV(R)

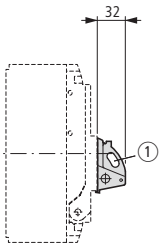


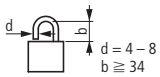


① NZM1-XRAV(R)
② NZM1-4-XRAV(R)

Toggle lever locking device
NZM-XKAV



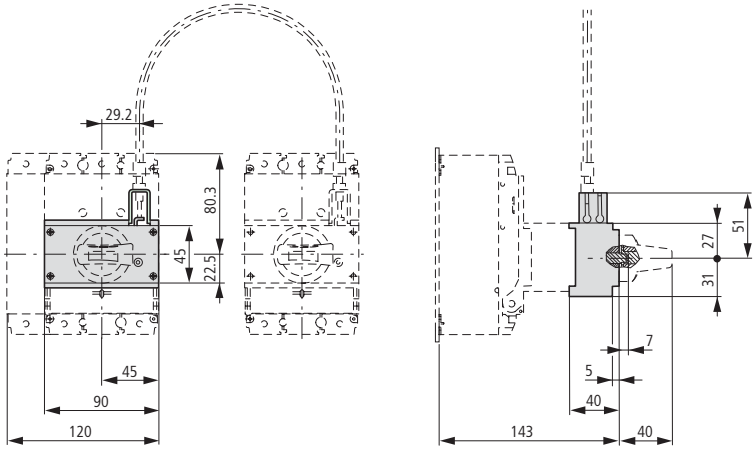




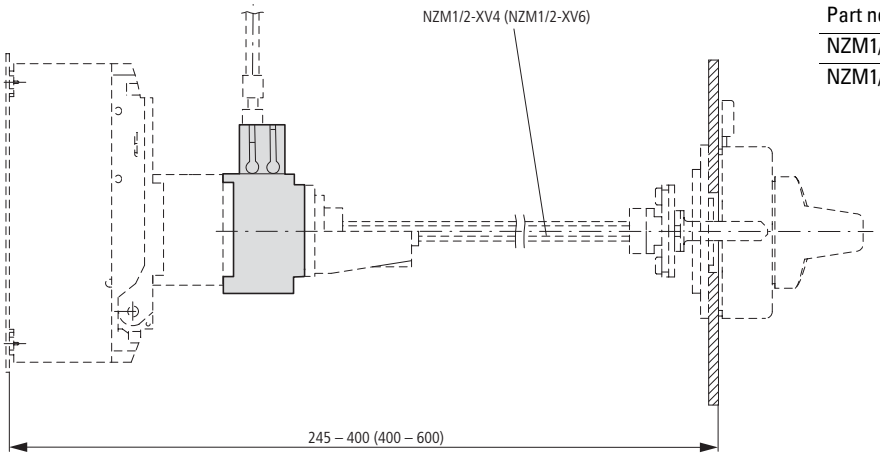
Up to 3 padlocks

Mechanical interlock

NZM1-XMV + NZM1-XDV(R)

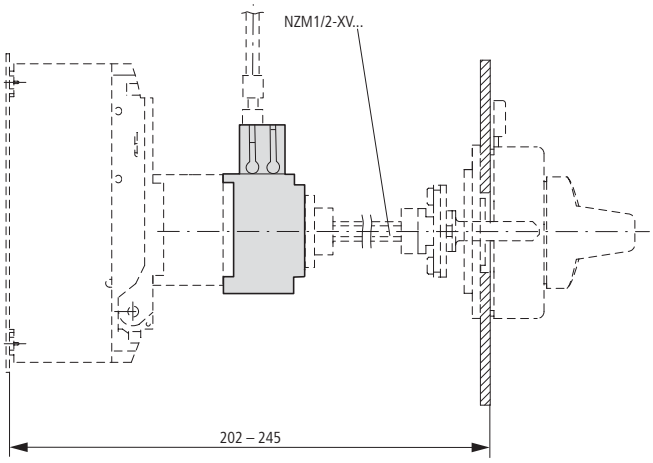


NZM1-XMV + NZM1-XTVD(V)(R)

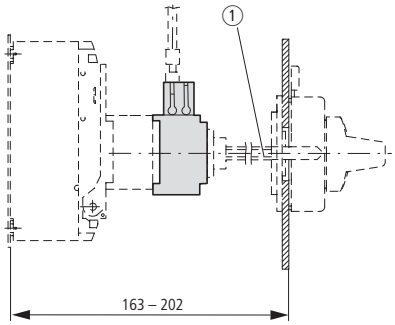


Part no.	x
NZM1/2-XV4	245 – 400
NZM1/2-XV6	400 – 600

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



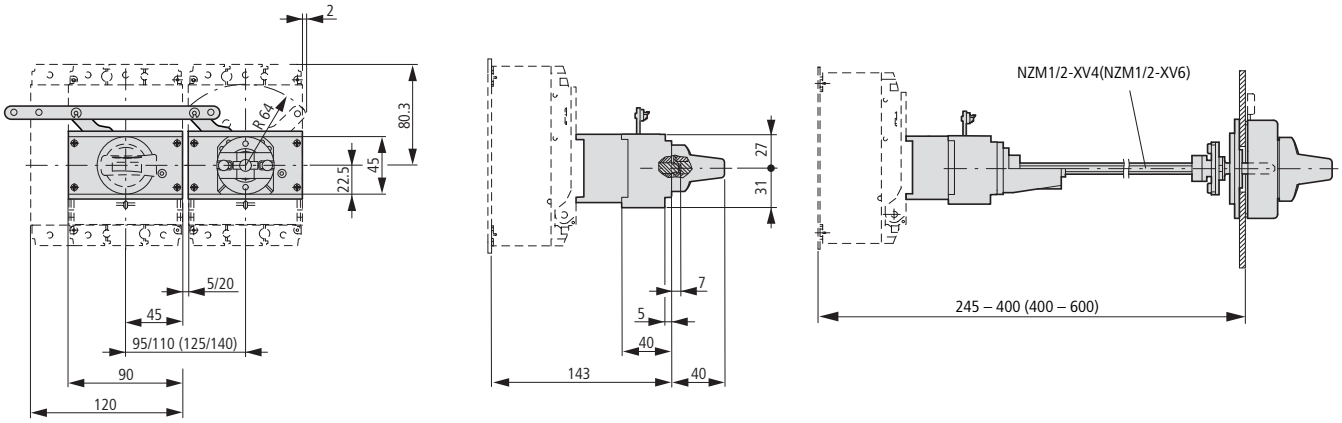
NZM1-XMV + NZM1-XTVD(V)(R)-0



① Special tip

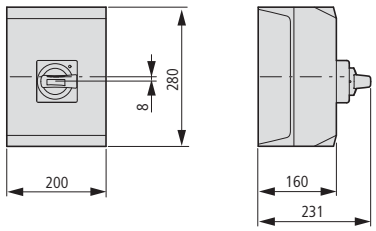
Paralleling mechanism

PN1-XPA

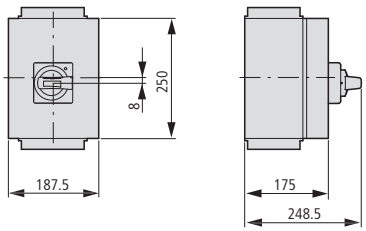


Insulated enclosures

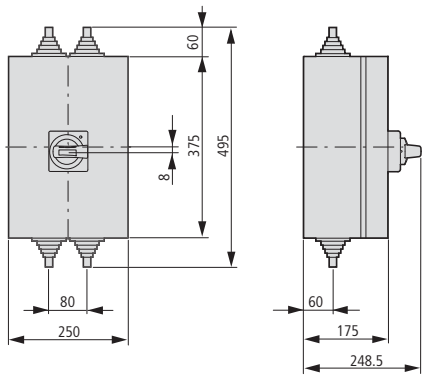
NZM1-XCIK5-T...



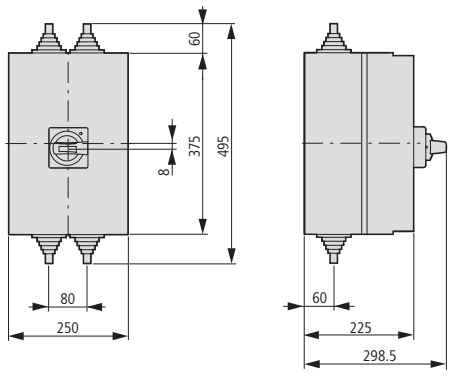
NZM1-XCI23-T...



NZM1-XCI43-T...

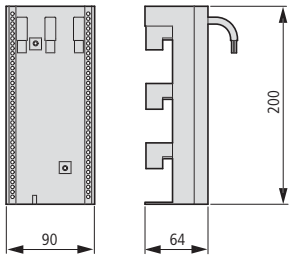


NZM1-XCI43/2-T...



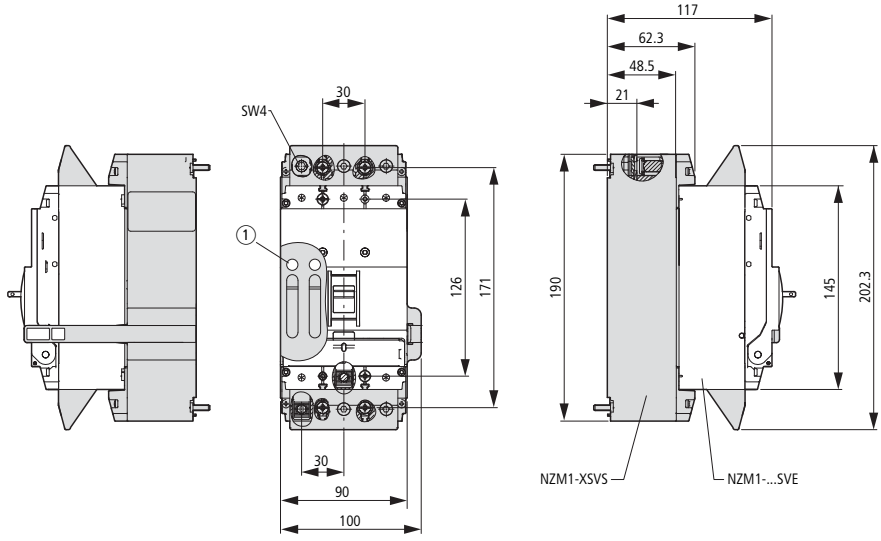
Component adapter

NZM1-XAD160

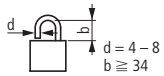


Plug-in units

NZM1-XSVS with
NZM.1-...-SVE
N1-...-SVE

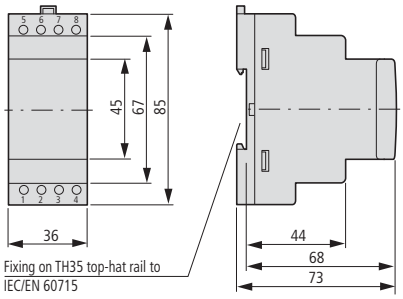


① Up to 2 padlocks



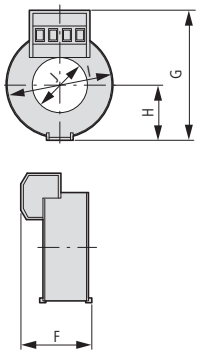
Residual-current relays

PFR-003
PFR-03
PFR-5

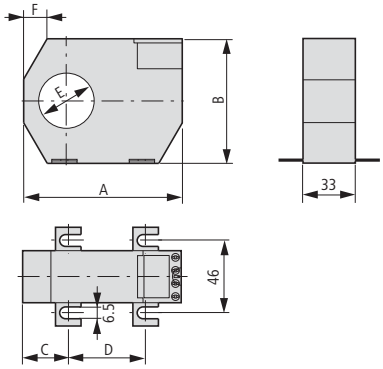


Ring-type transformer

PFR-W-20…30



PFR-W-35...210

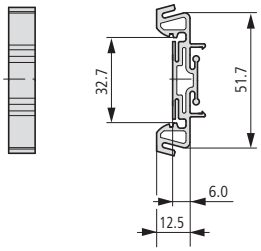


Part no.	F	G	H	I	J
PFR-W-20	32	60	24	46	21
PFR-W-30	32	70	30	59	30

	A	B	C	D	E	F
PFR-W-35	100	79	26	48.5	35	35
PFR-W-70	130	110	32	66	70	52
PFR-W-105	170	146	38	94	105	72
PFR-W-140	220	196	48.5	123	140	97
PFR-W-210	299	284	69	161	210	141

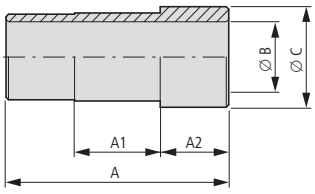
Mounting clip

PFR-WC



Magnetic shielding

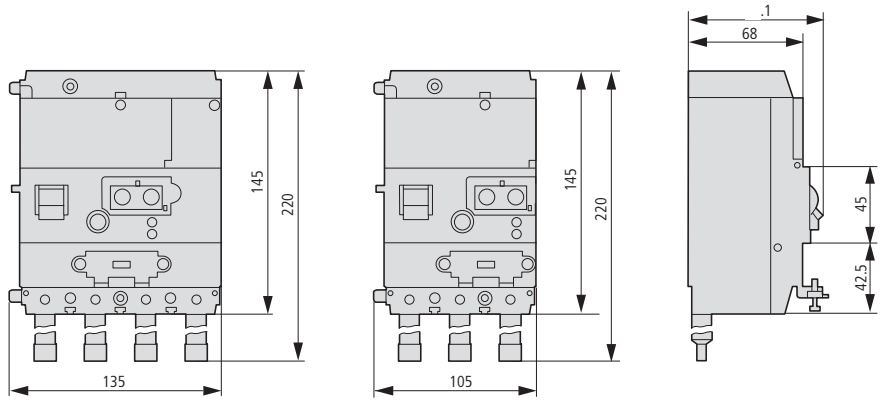
PFR-WMA



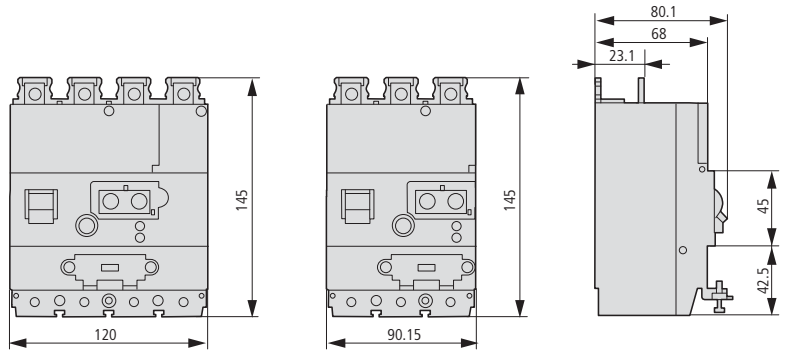
Part no.	A	B	C	A1	A2
PFR-WMA-35	91	28	40	35	28
PFR-WMA-70	105	62	75	35	35
PFR-WMA-105	153	98	110	35	60
PFR-WMA-140	153	133	145	35	60
PFR-WMA-210	153	203	215	35	60

Earth-fault release

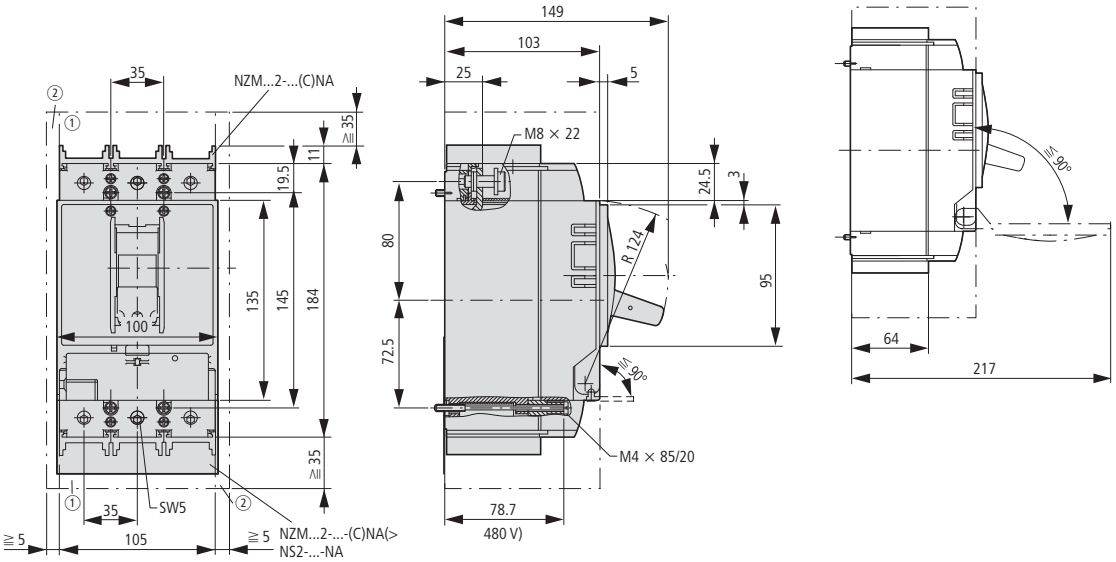
NZM1(-4)-XFI...R



NZM1(-4)-XFI...U

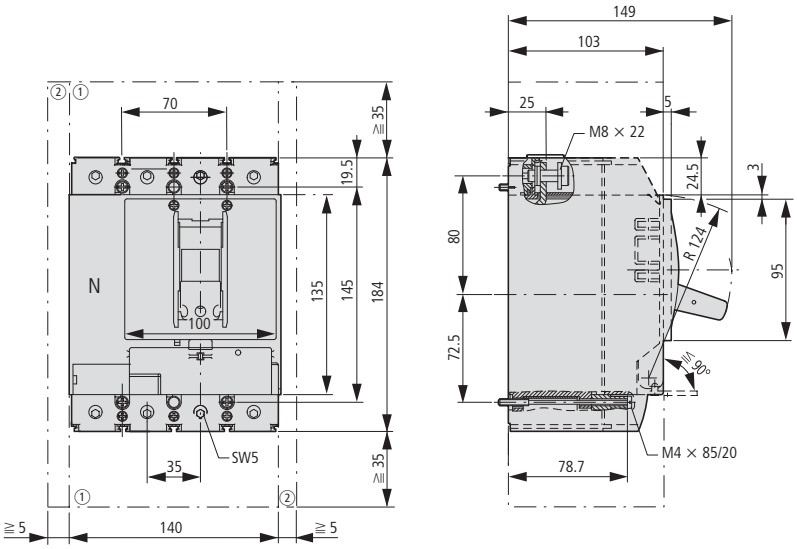


Circuit-breakers
Switch-disconnectors
3 pole
NZMB2
NZMC2
NZMN2
NZMH2
PN2
N2
NS2



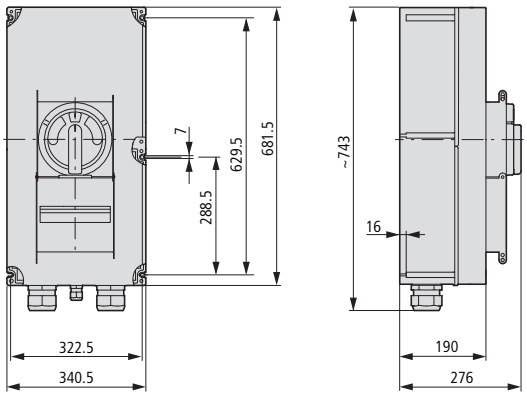
① Blow-out area, minimum distance to other parts ≧ 35 mm
② Minimum distance to adjacent parts ≧ 5 mm

Circuit-breakers
Switch-disconnectors
4 pole
NZMB2-4
NZMC2-4
NZMN2-4
NZMH2-4
PN2-4
N2-4



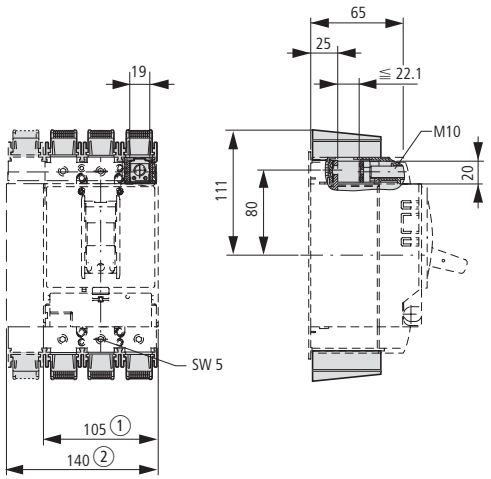
① Blow-out area, minimum distance to other parts ≧ 35 mm
② Minimum distance to adjacent parts ≧ 5 mm

Switch-disconnectors
ATEX22-type
3 pole
PN2.../ATEX22



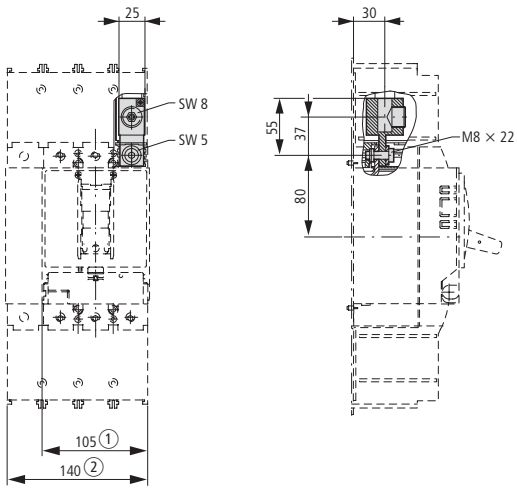
Box terminal
(+)NZM2(-4)-...-XKC(O)(U)

IP2X protection against contact with finger
NZM2(-4)-XIPK



① 3 pole
② 4 pole

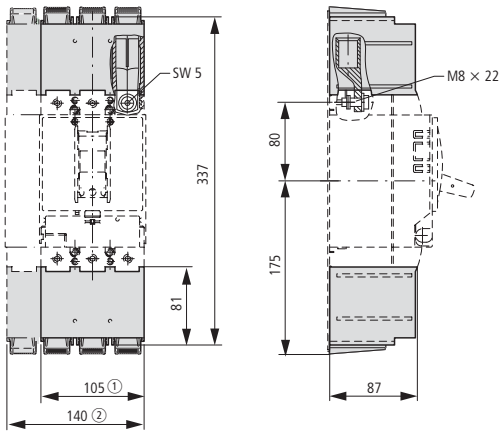
Tunnel terminal
NZM2(-4)-XKA



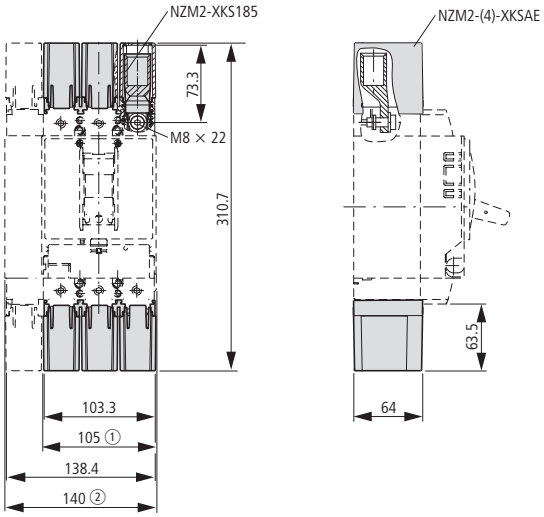
Covers
NZM2(-4)-XKSA

Cable lug
NZM2-XKS185

IP2X protection against contact with a finger for cover
NZM2(-4)-XIPA

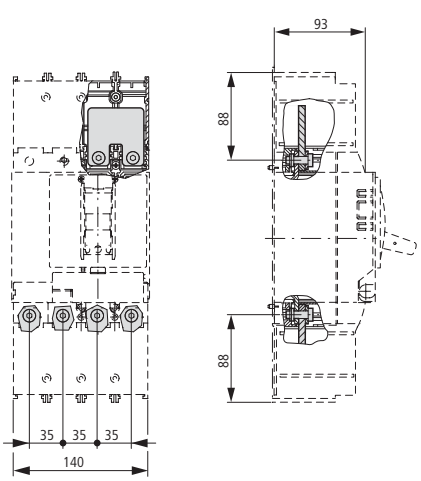


Cable lug cover
NZM2-(4)-XKSAE

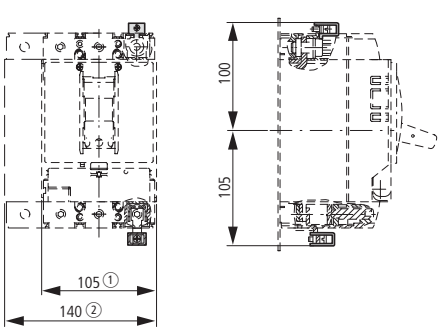


① 3 pole
② 4 pole

Jumper kit
NZM2-4-XKVP



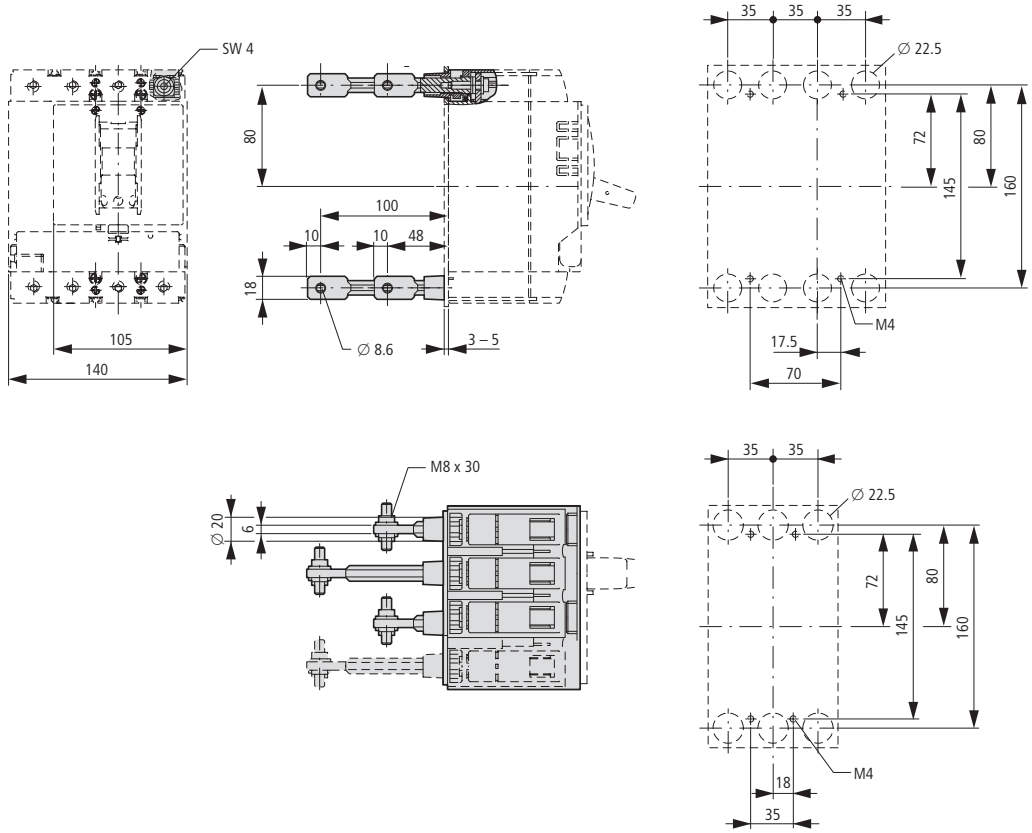
Control cable terminals
NZM2-XSTS
NZM-XSTK



① 3 pole
② 4 pole

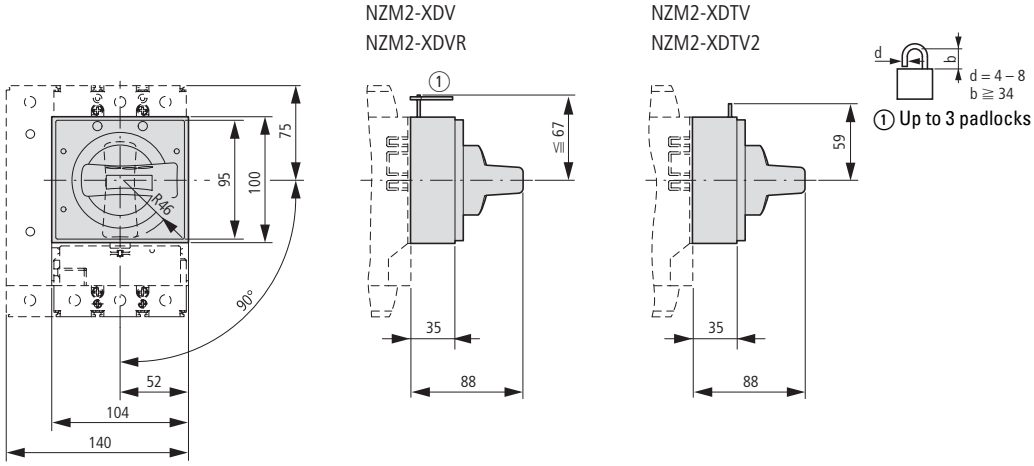
Rear terminal bolts

(+)NZM2(-4)-XKR(0)(U)



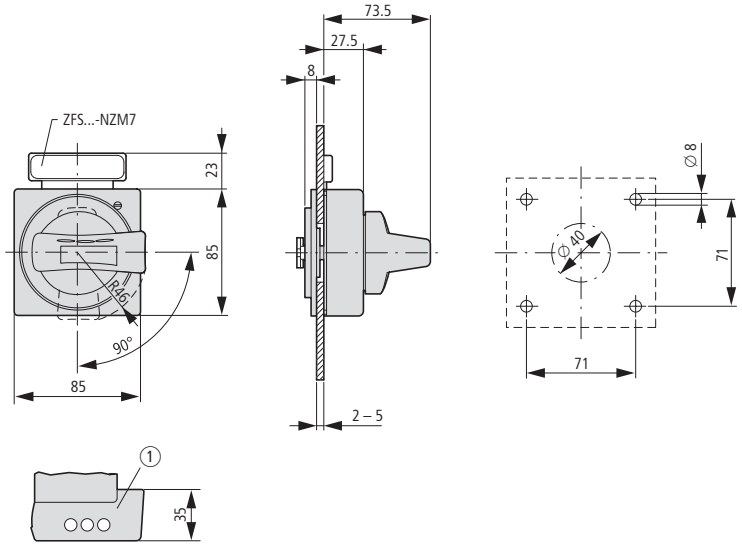
Rotary mechanism

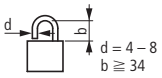
Rotary handle on circuit-breaker



Door coupling rotary handles

NZM2-XTVD(V)(R)...

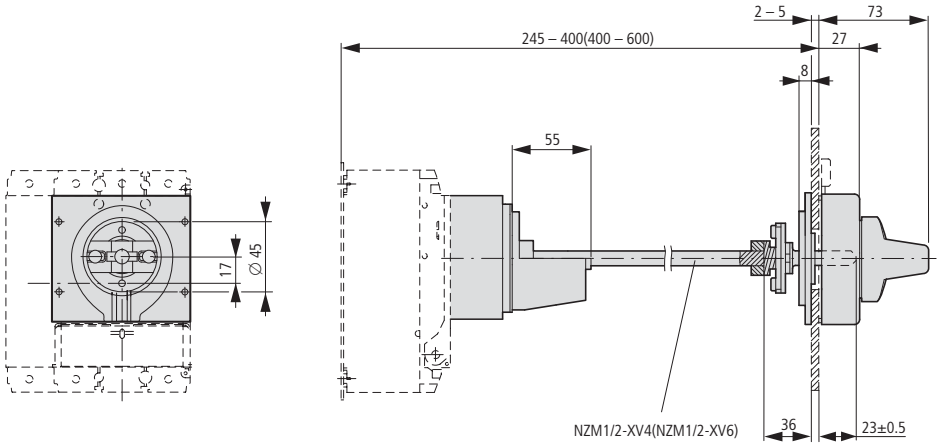




① Up to 3 padlocks

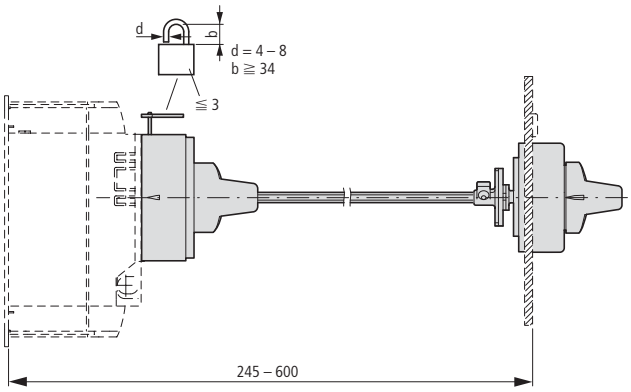
Door coupling rotary handle with extension shaft

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



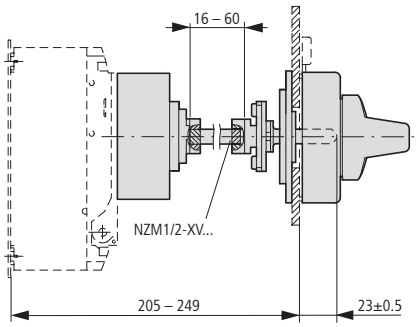
Main switch assembly kit with additional rotary handle

NZM2-XHB-DA(R)(-NA)

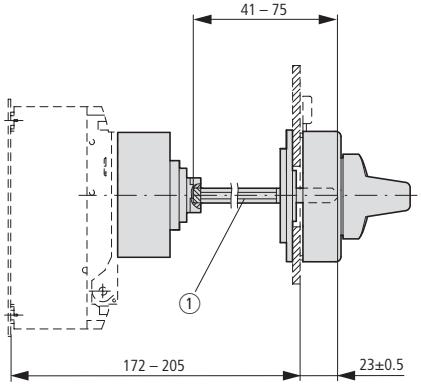


Door coupling rotary handle with extension shaft

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

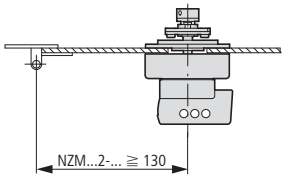


NZM2-XTVD(V)(R)-0(-NA)



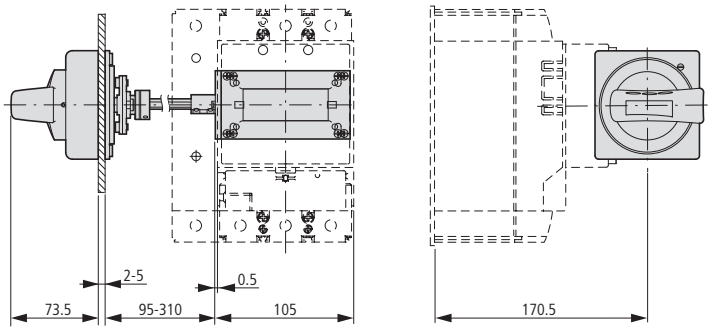
① Special tip

Minimum distance of door coupling rotary handle from door pivot point

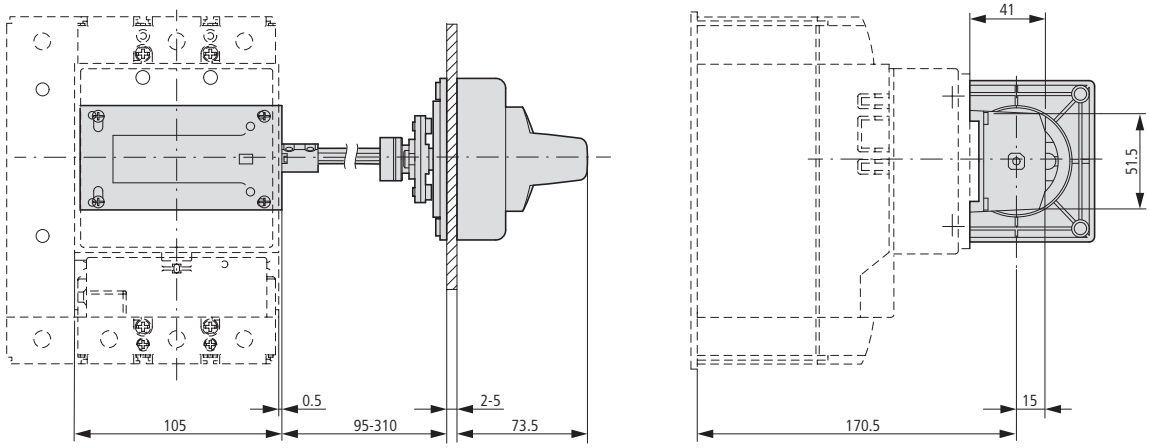


Main switch assembly kit for side wall installation

NZM2-XS(R)-L

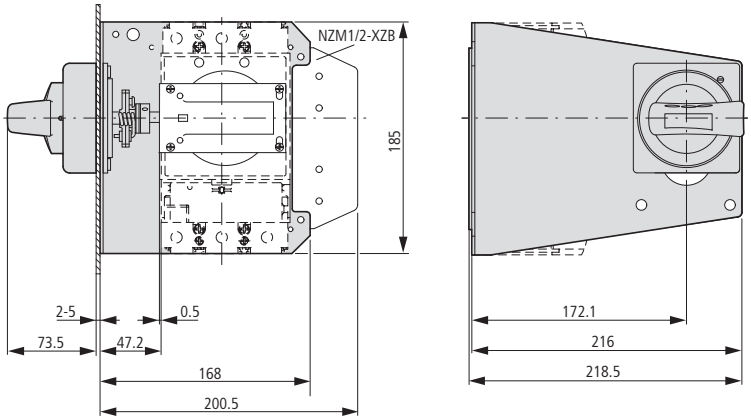


NZM2-XS(R)-R

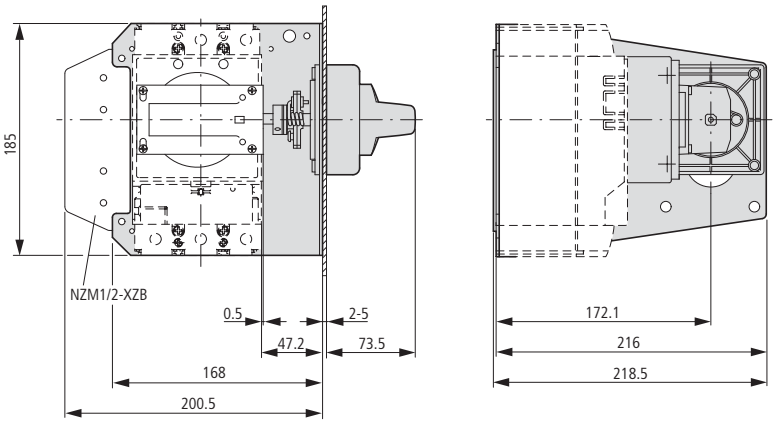


Main switch assembly kit for side wall installation with mounting bracket.

NZM2-XS(R)M-L

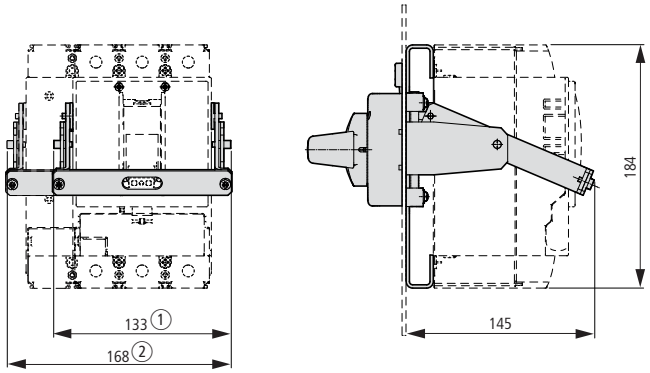


NZM2-XS(R)M-R



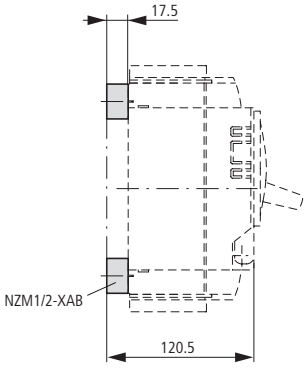
Rear-mounted drives

NZM2(-4)-XRAV(R)

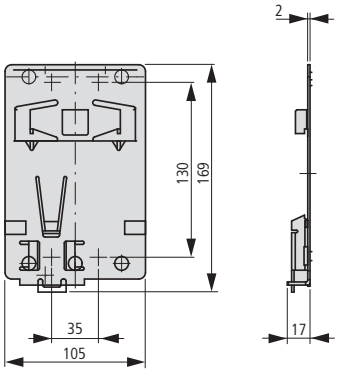


① NZM2-XRAV(R)
② NZM2-4-XRAV(R)

Spacers
NZM1/2-XAB

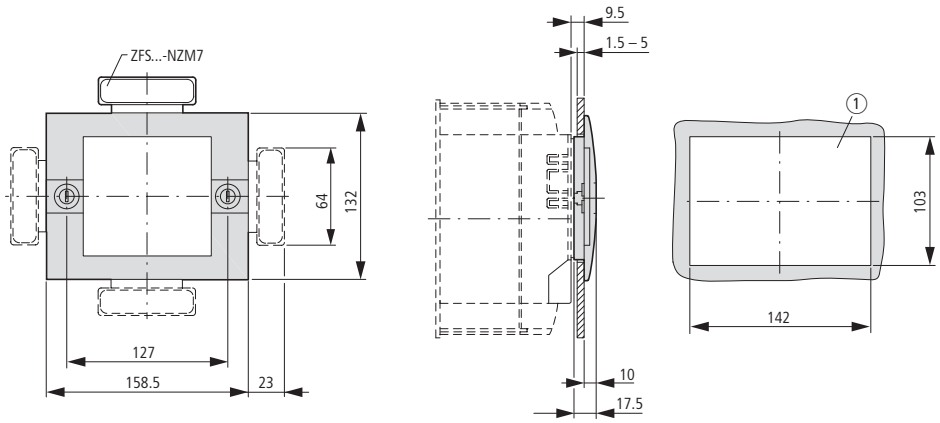


Clip plate
NZM2-XC75



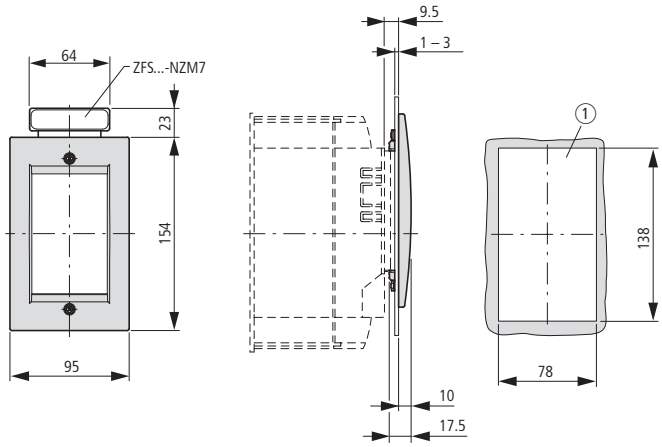
Insulating surround
NZM2-XBR

① Mounting aperture



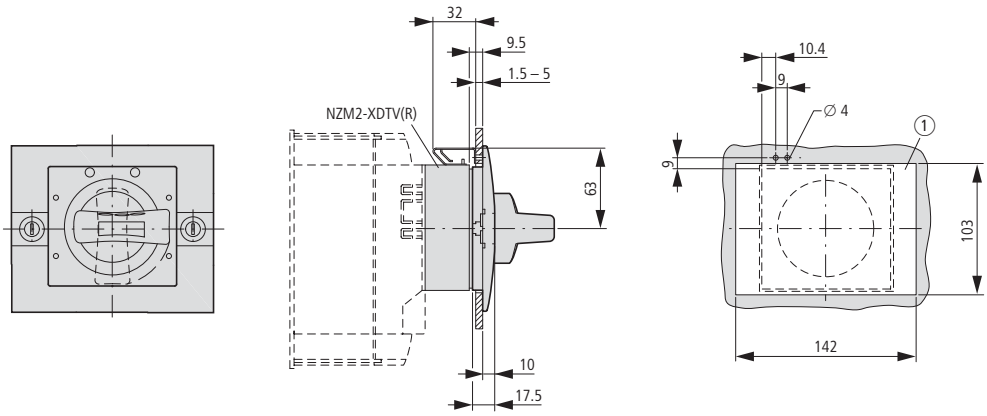
NZM2/3-XBRS

① Mounting aperture



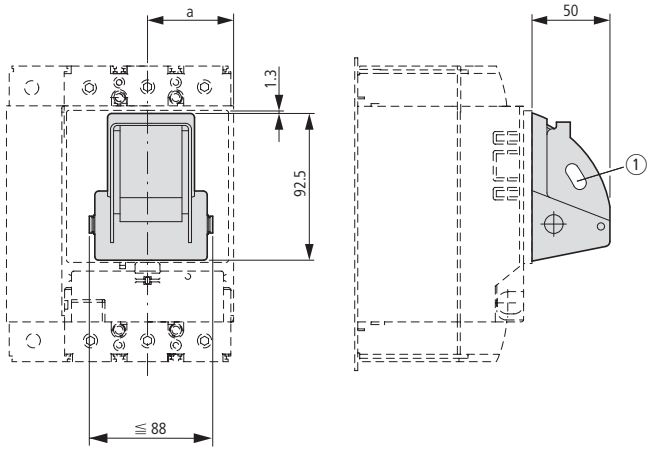
Rotary handle on switch with door interlock
NZM2-XDTV(R)

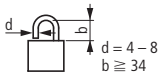
① Mounting aperture



Toggle lever locking device

NZM2/3-XKAV



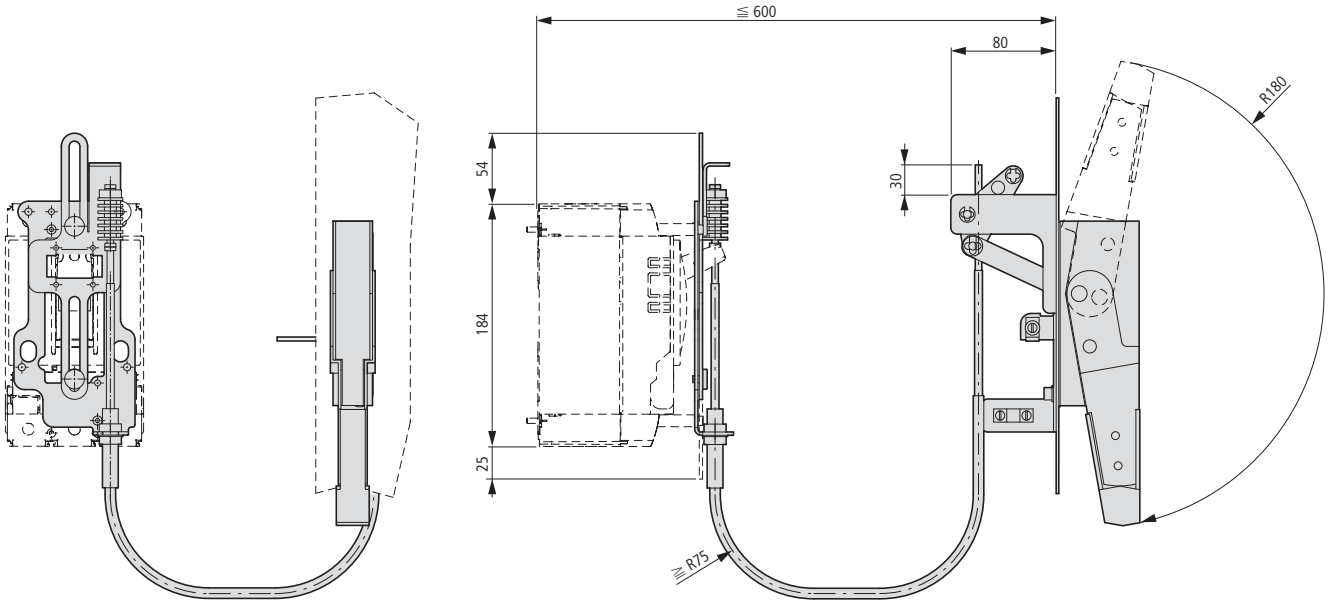


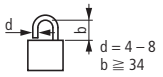
① Up to 3 padlocks

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

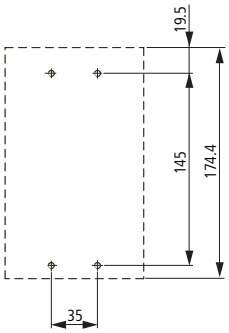
Side-mounted handle

NZM2...-XSH...





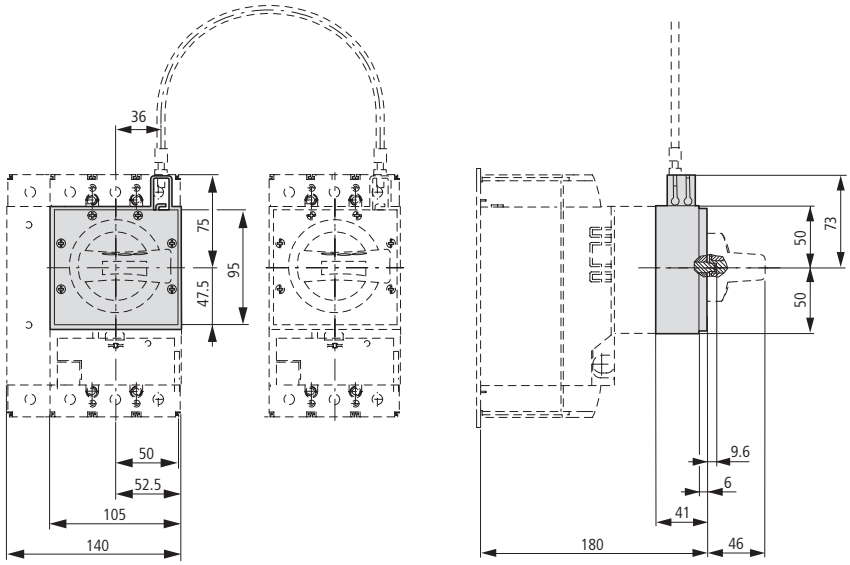
① Up to 3 padlocks



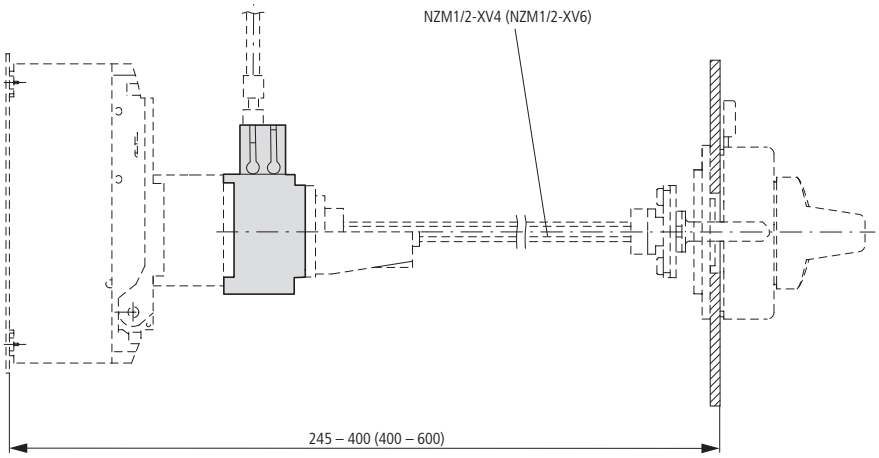
Drilling template

Mechanical interlock

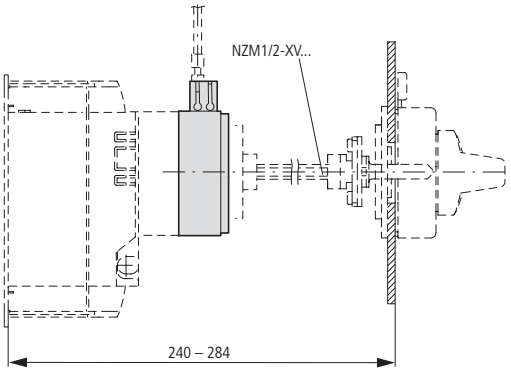
NZM2-XMV + NZM2-XD



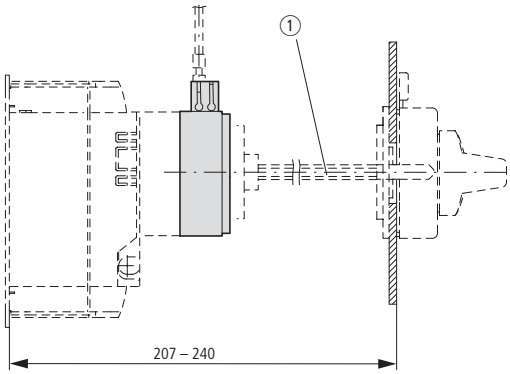
NZM2-XMV + NZM2-XTVD(V)(R)



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



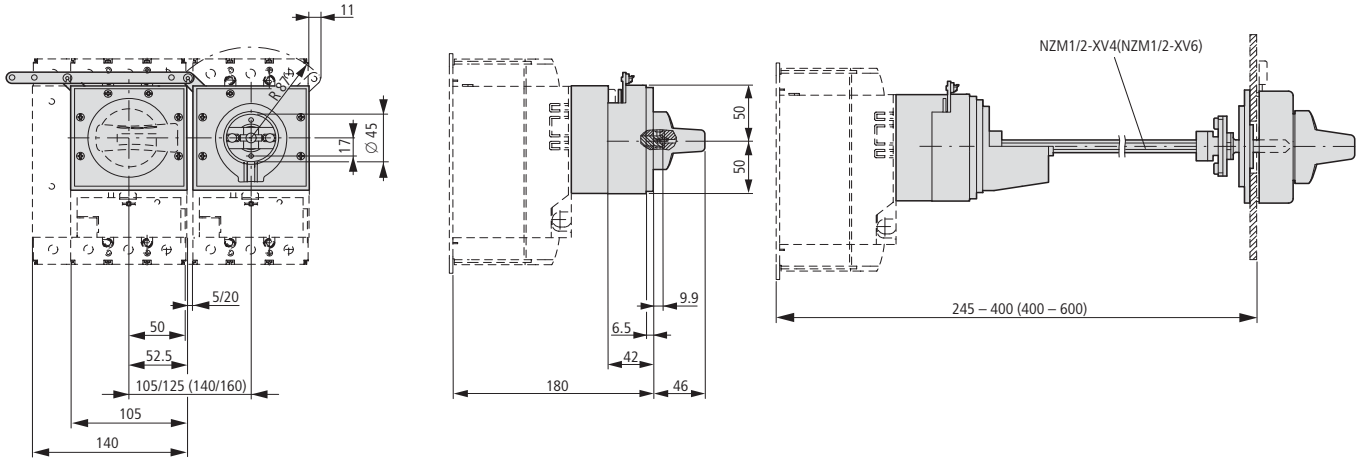
NZM2-XMV + NZM2-XT(V)D(V)(R)-0



① Special tip

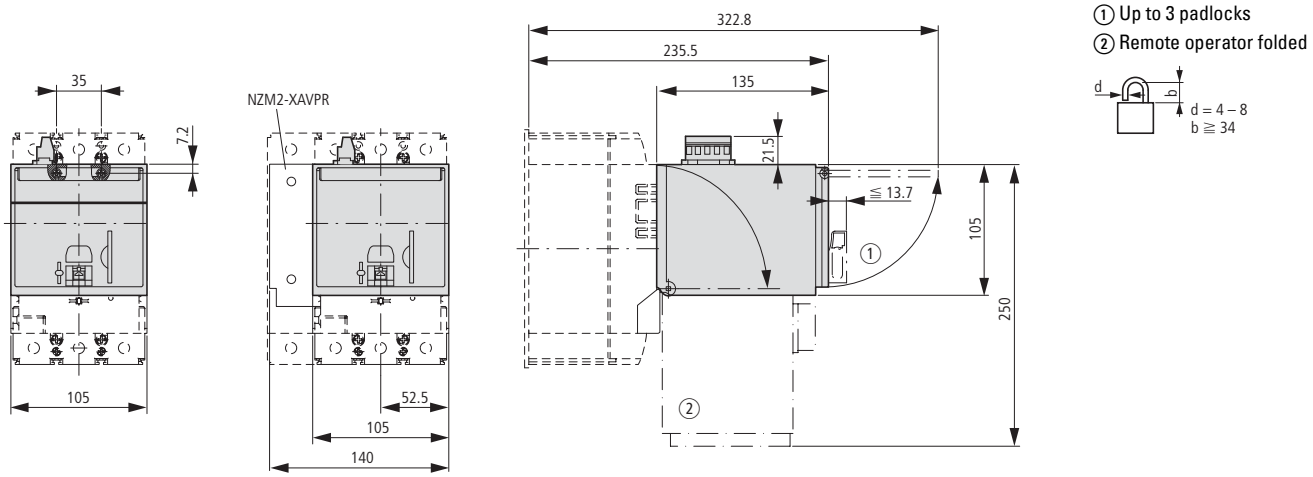
Paralleling mechanism

PN2-XPA

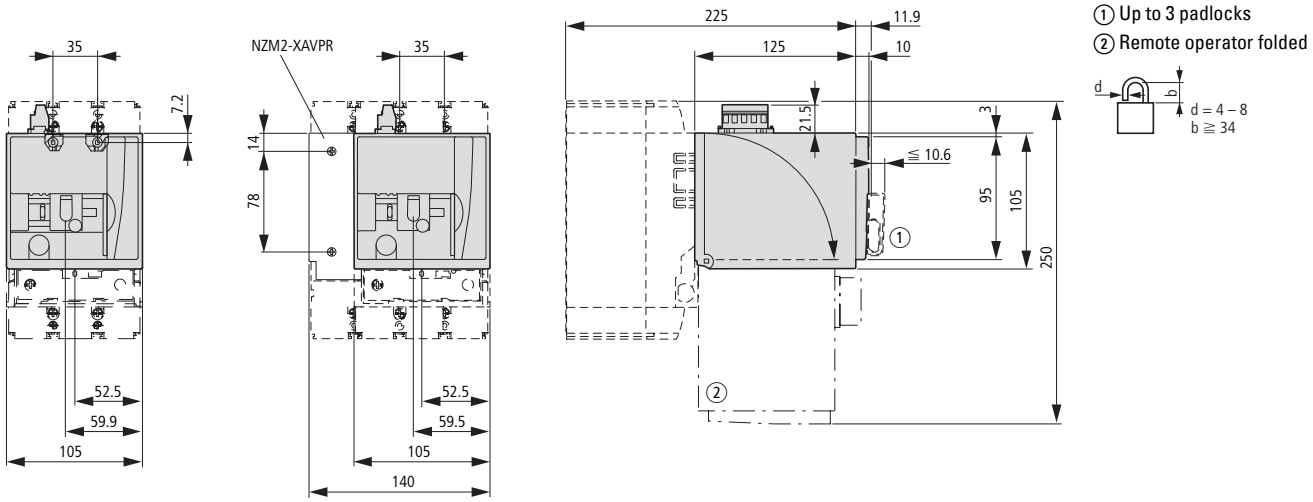


Remote operators

NZM2-XR…

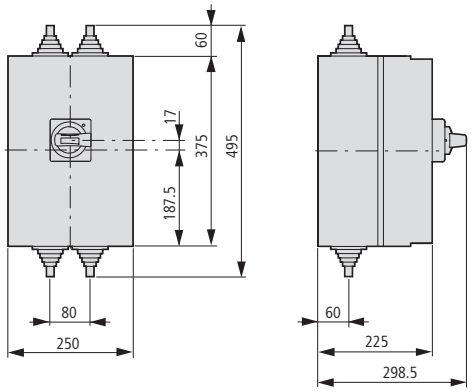


NZM2-XRD…

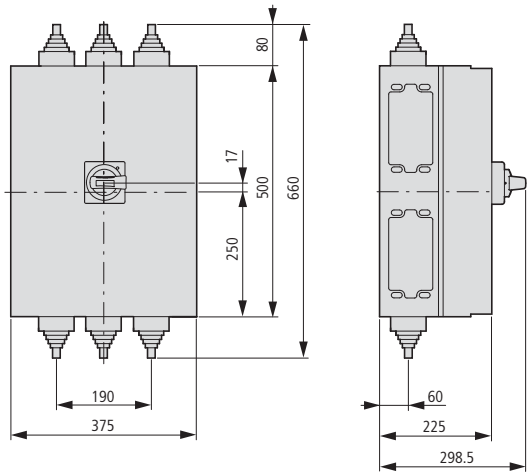


Insulated enclosures

NZM2-XCI43-T...

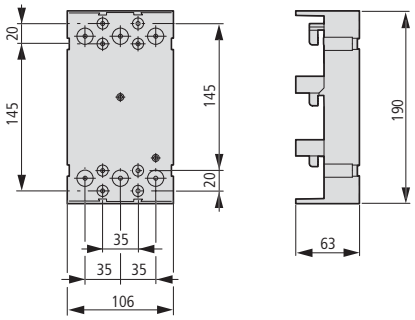


NZM2-XCI45-T...



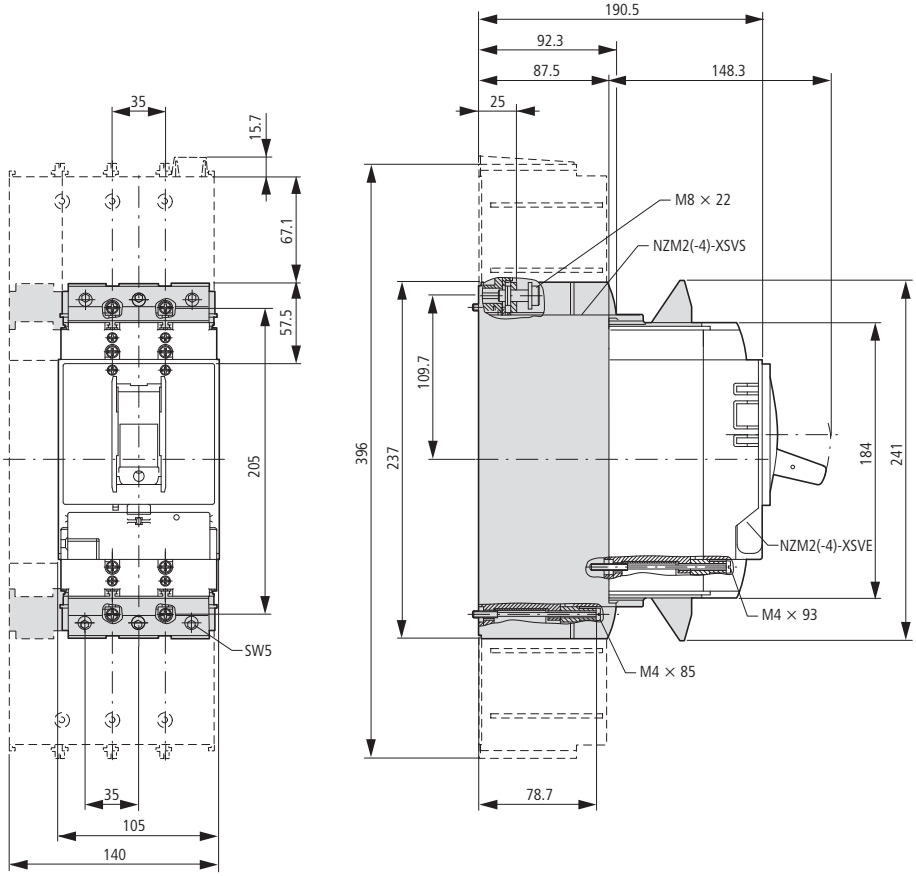
Component adapter

NZM2-XAD250



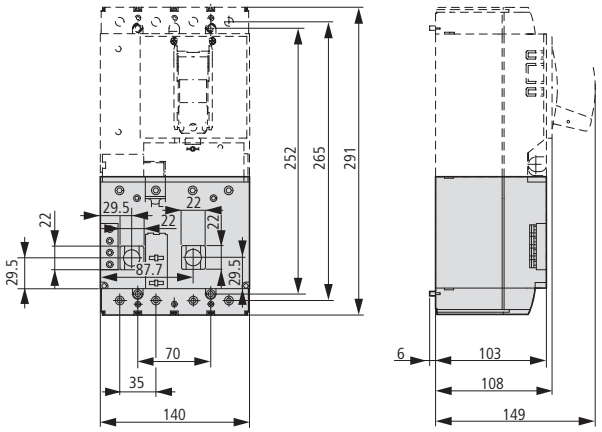
Plug-in units

NZM2-...-SVE
N2-...SVE
NZM2(-4)-XSVS



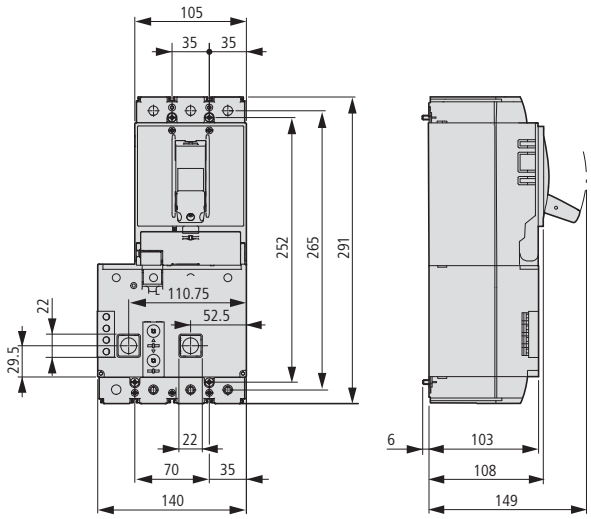
Earth-fault release

NZM2(-4)-XFI...



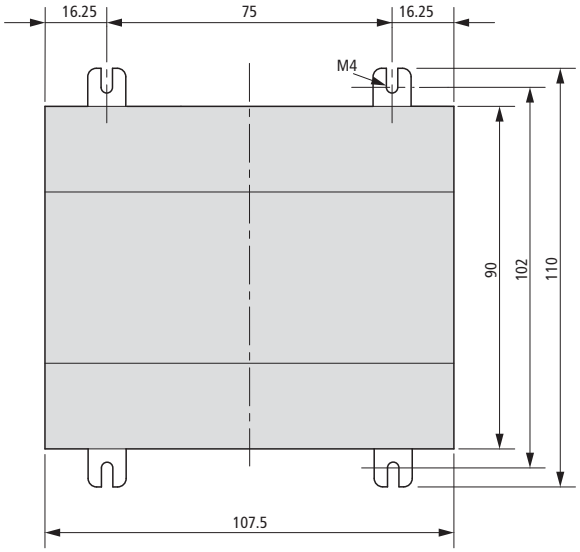
Earth-fault release

NZMH2…-XFIA30

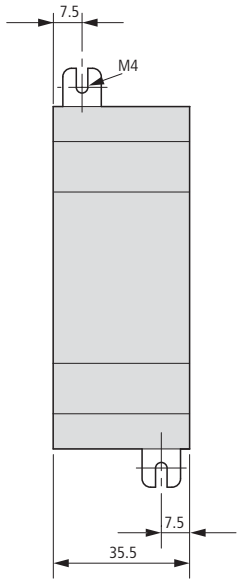


Data management interface (DMI module)

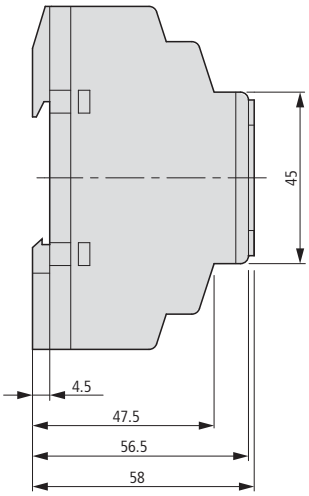
NZM-XDMI612



NZM-XDMI-DPV1
EASY2...



NZM-XDMI...
EASY2...

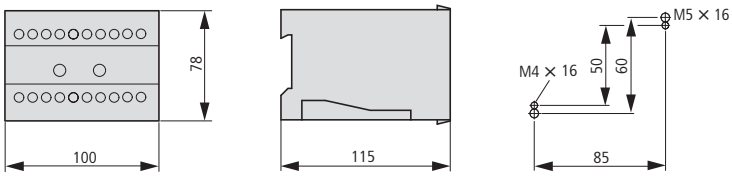


Undervoltage releases, off-delayed

UVU-NZM

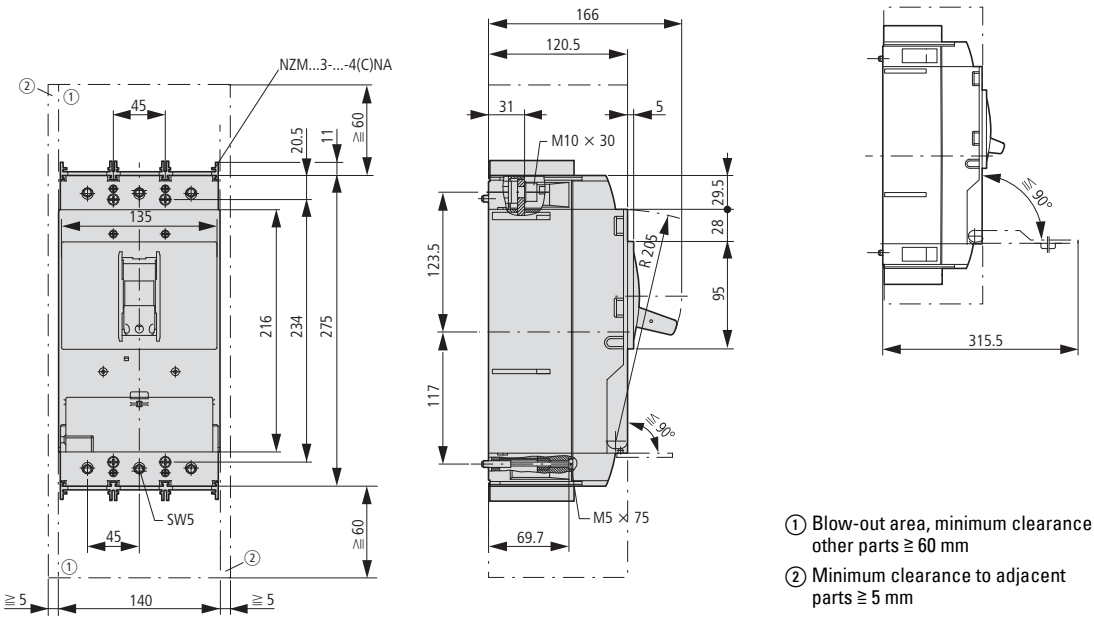
Capacitor unit

NZM-XCM



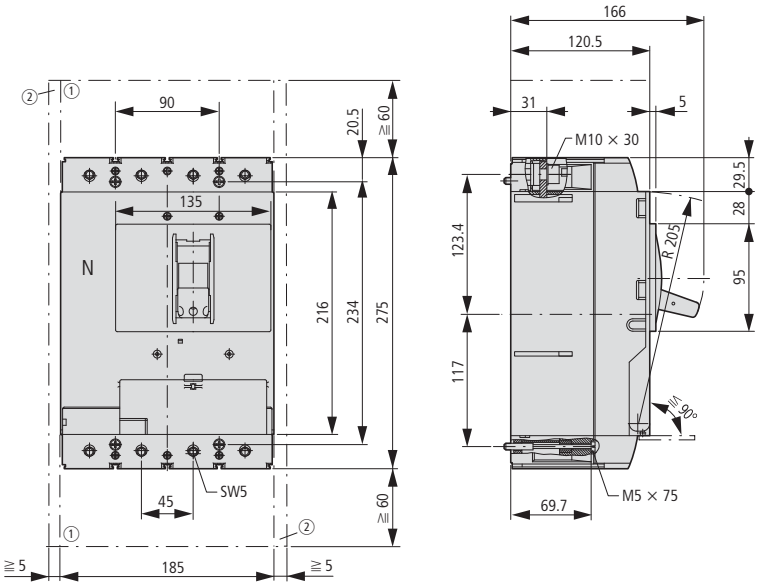
Circuit-breakers
Switch-disconnectors
3 pole
NZMC3

PN3
N3
NS3



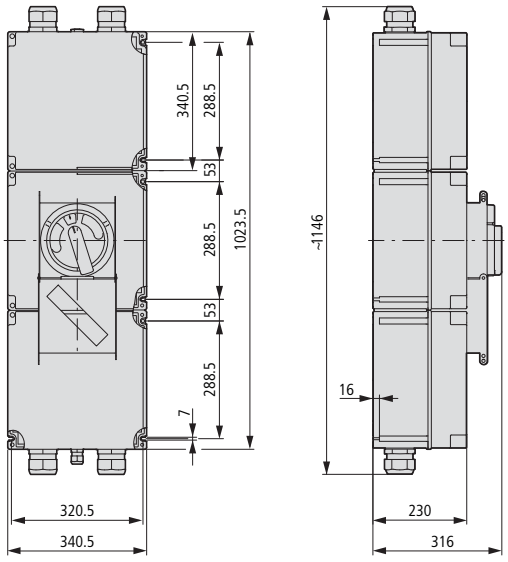
① Blow-out area, minimum clearance to other parts ≧ 60 mm
② Minimum clearance to adjacent parts ≧ 5 mm

Circuit-breakers
Switch-disconnectors
4 pole
NZMC3-4
NZMN3-4
NZMH3-4
PN3-4
N3-4

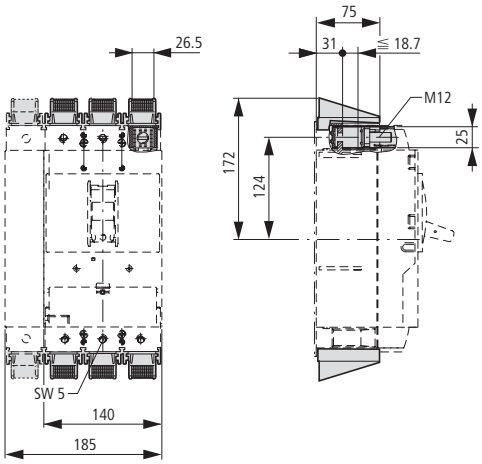


① Blow-out area, minimum clearance to other parts ≧ 60 mm
② Minimum clearance to adjacent parts ≧ 5 mm

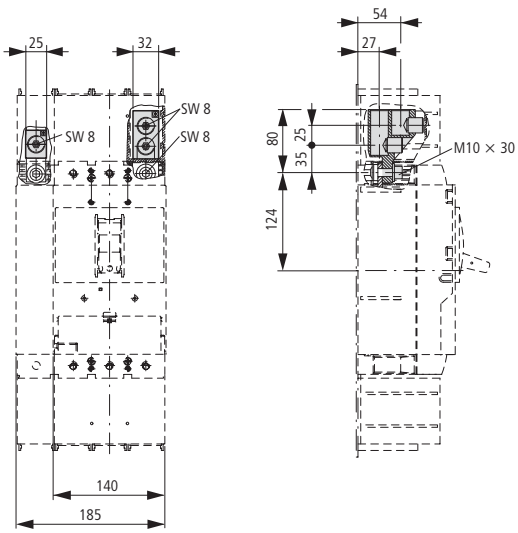
Switch-disconnectors
ATEX22-type
3 pole
PN3.../ATEX22



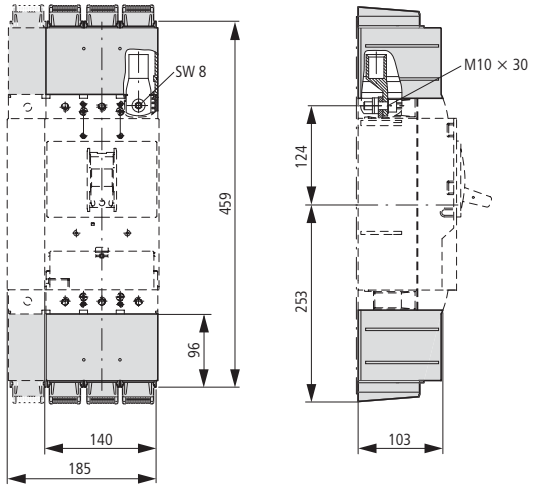
Box terminal
(+)NZM3(-4)-XKC(O)(U)
IP2X protection against contact with finger
NZM3(-4)-XIPK



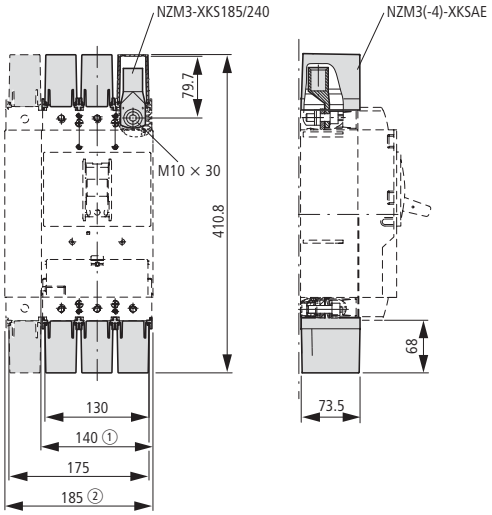
Tunnel terminal
NZM3(-4)-XKA1(2)



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



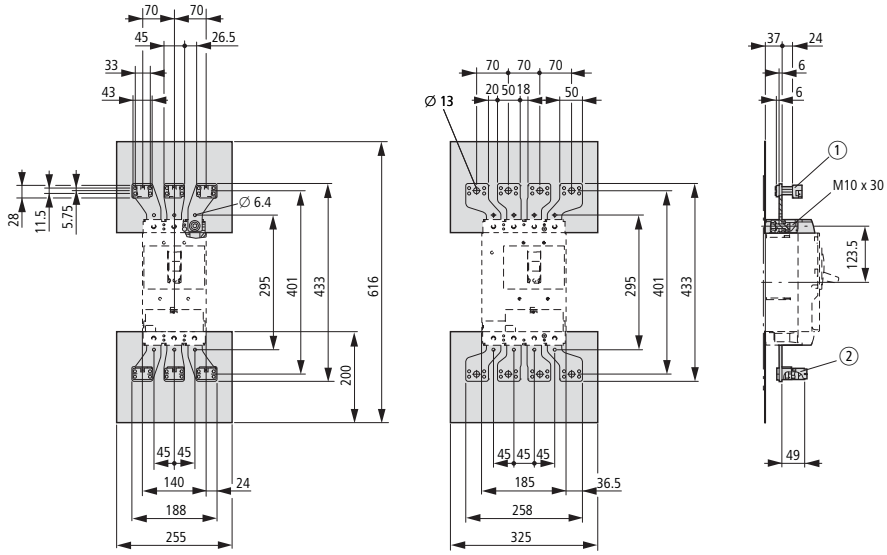
Cable lug cover
NZM3-(4)-XKSAE



① 3 pole
② 4 pole

Connection width extension
NZM3(-4)-XKV70

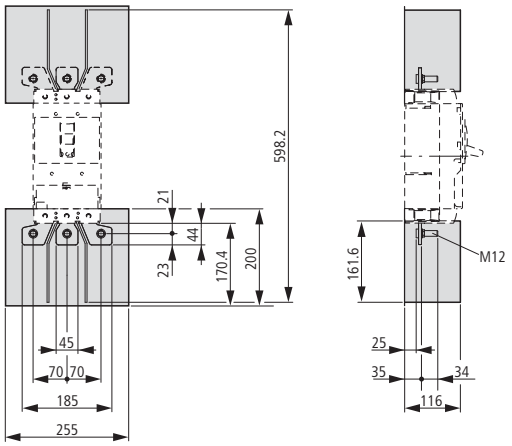
Terminals
NZM3(-4)-XK22X21
NZM3(-4)-XK300



Length with phase isolators approx. 599 mm

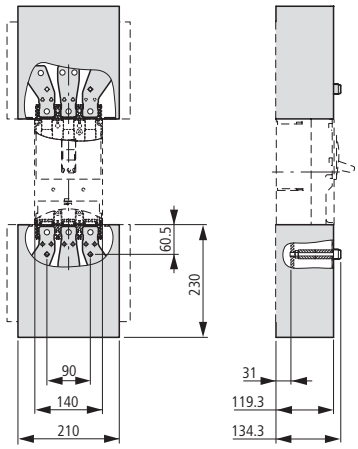
① NZM3(-4)-XK22X21
② NZM3(-4)-XK300

Connection width extension
NZM3-XKV70KB

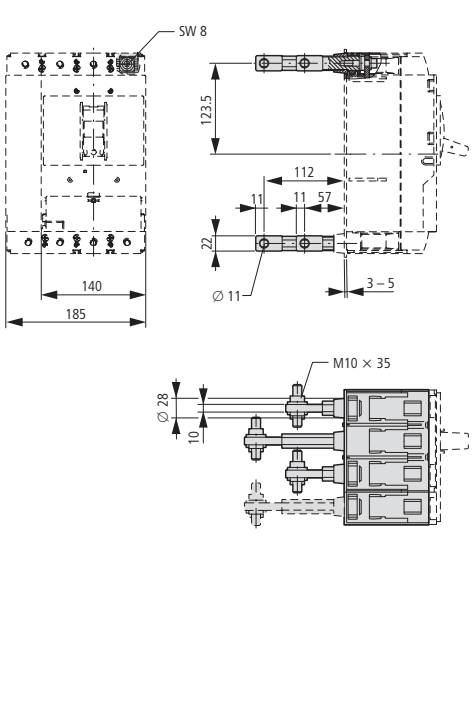


Connection width extension
NZM3-XKV70-2

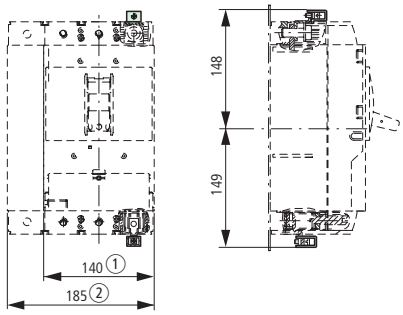
Cover, large
NZM3-XKSAV



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



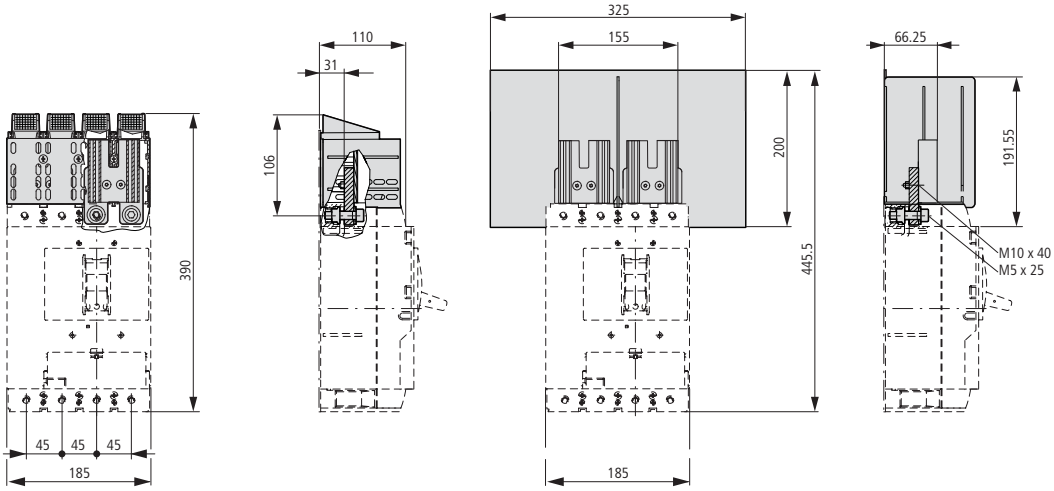
Control cable terminals
NZM3/4-XSTS
NZM-XSTK



① 3 pole
② 4 pole

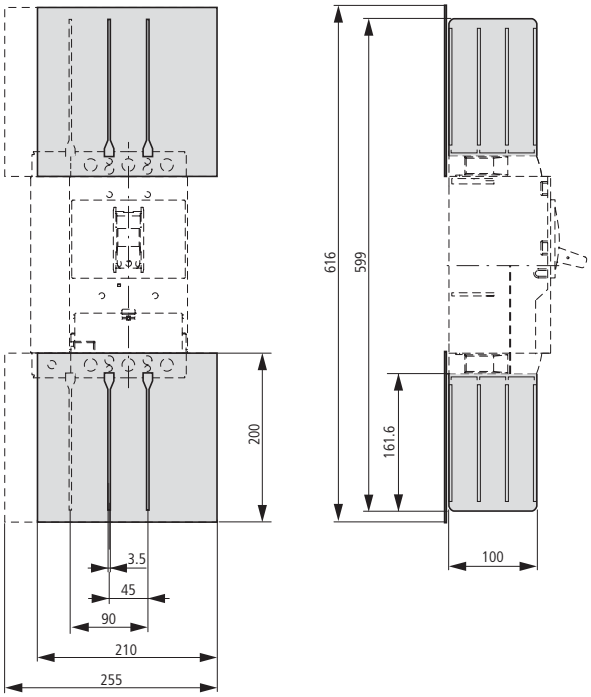
Jumper kit

NZM3(-4)-XKV2P...



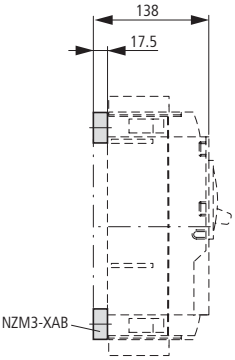
Phase isolators

NZM3-4-XKP



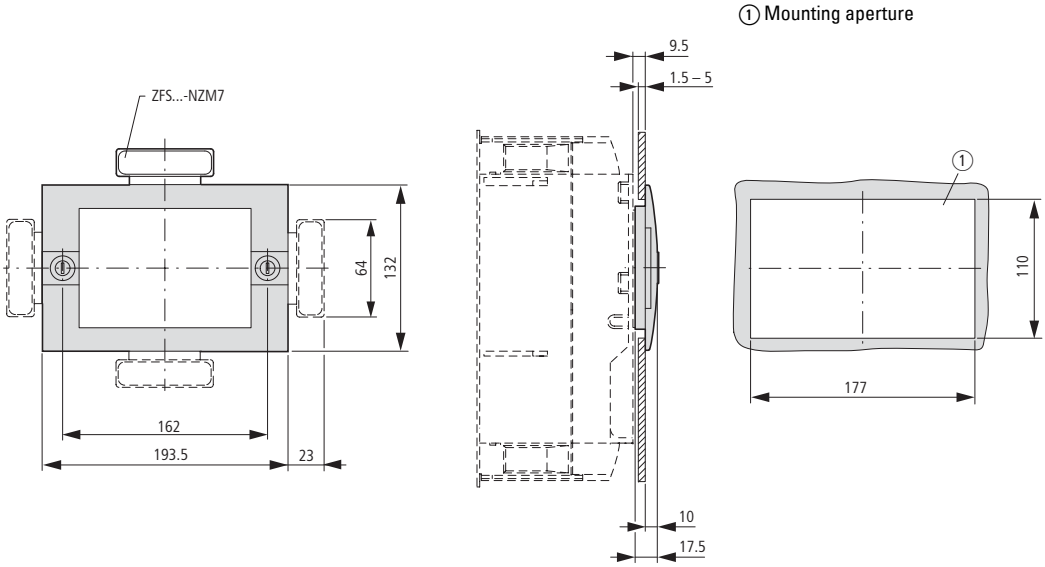
Spacers

NZM3-XAB



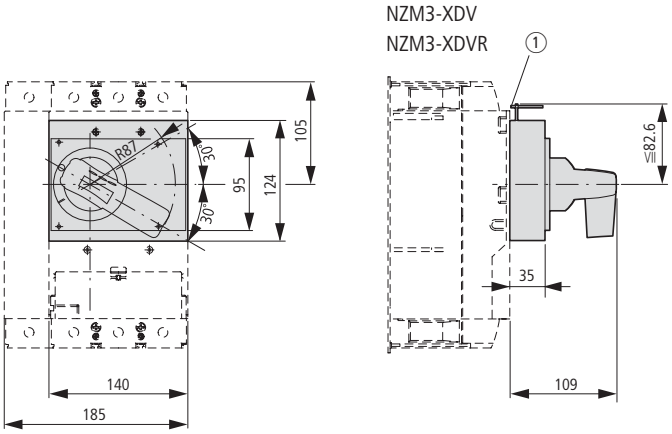
Insulating surround

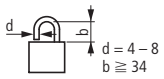
NZM3-XBR



Rotary drive

Rotary handle on circuit-breaker

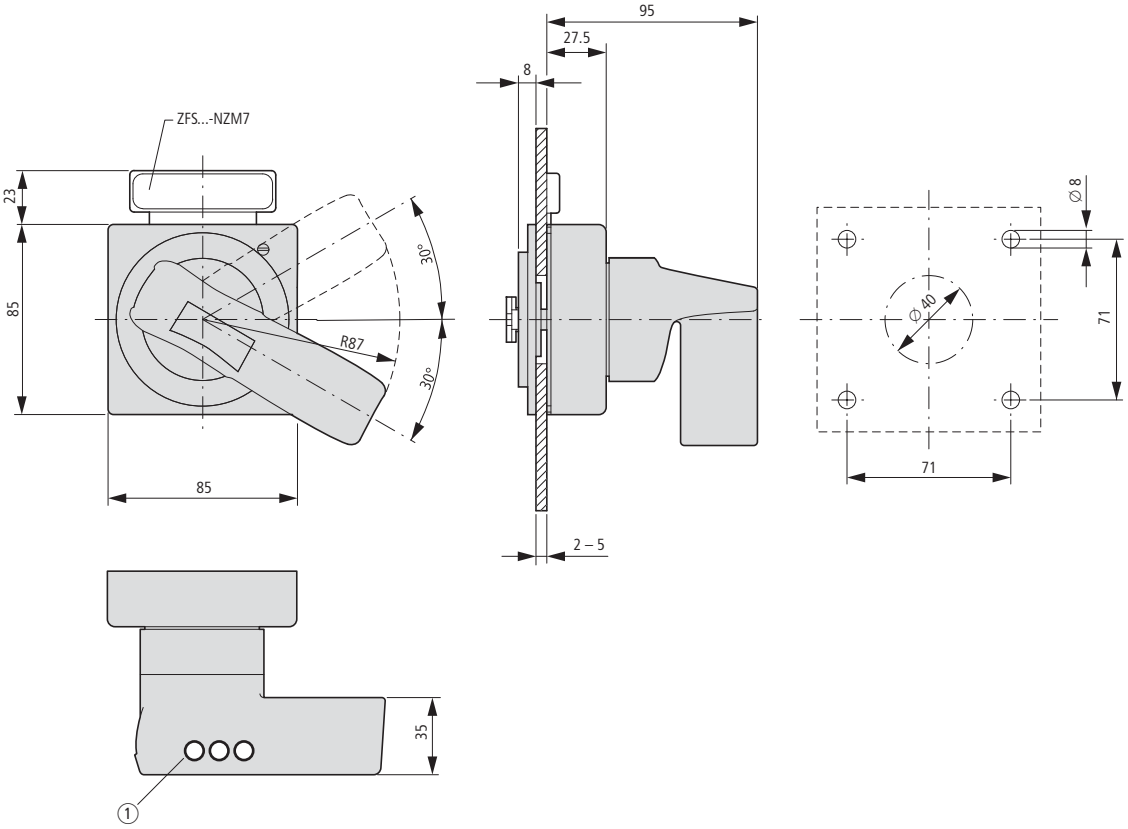


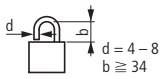


① Up to 3 padlocks

Door coupling rotary handles

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

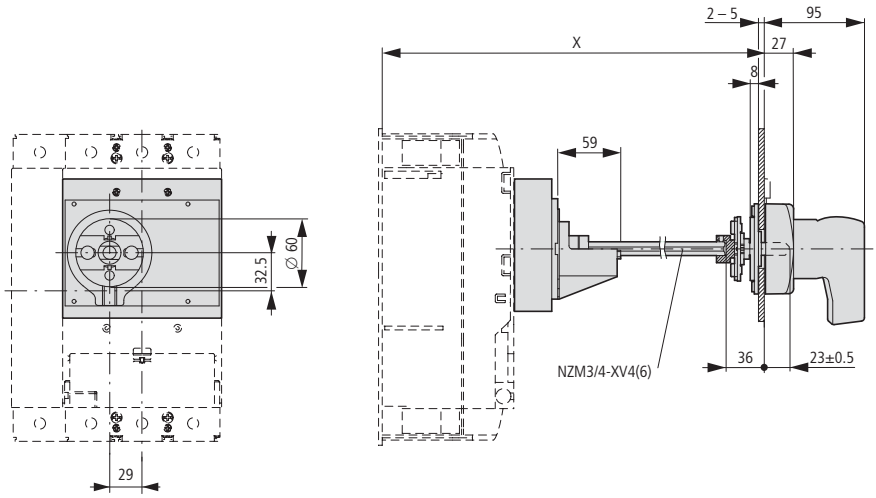




① Up to 3 padlocks

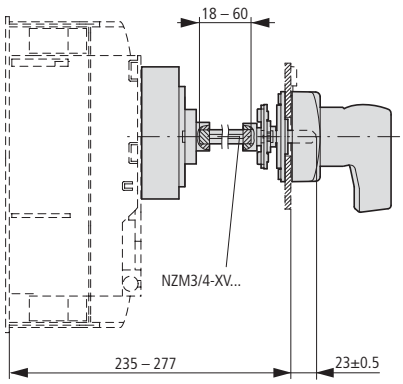
Door coupling rotary handle with extension shaft

NZM3-XTVDV(R)(-NA)
NZM3/4-XV4(6)

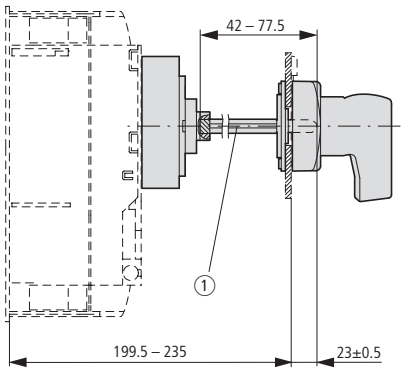


Part no.	x
NZM3/4-XV4	270 – 400
NZM3/4-XV6	400 – 600

NZM3-XTVDV(R)-60(-NA)

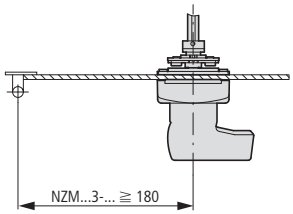


NZM3-XTVDV(R)-0(-NA)



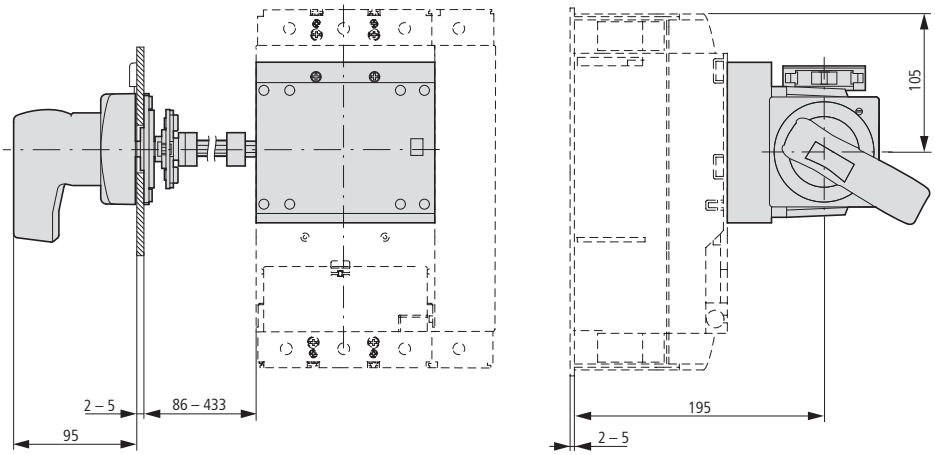
① Special tip

Minimum distance of door coupling rotary handle from door pivot point

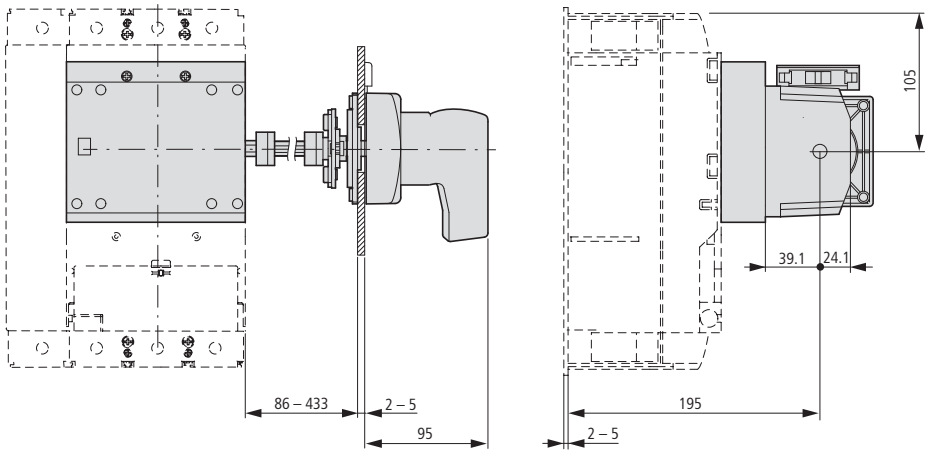


Main switch assembly kit for side wall installation

NZM3-XS(R)-L

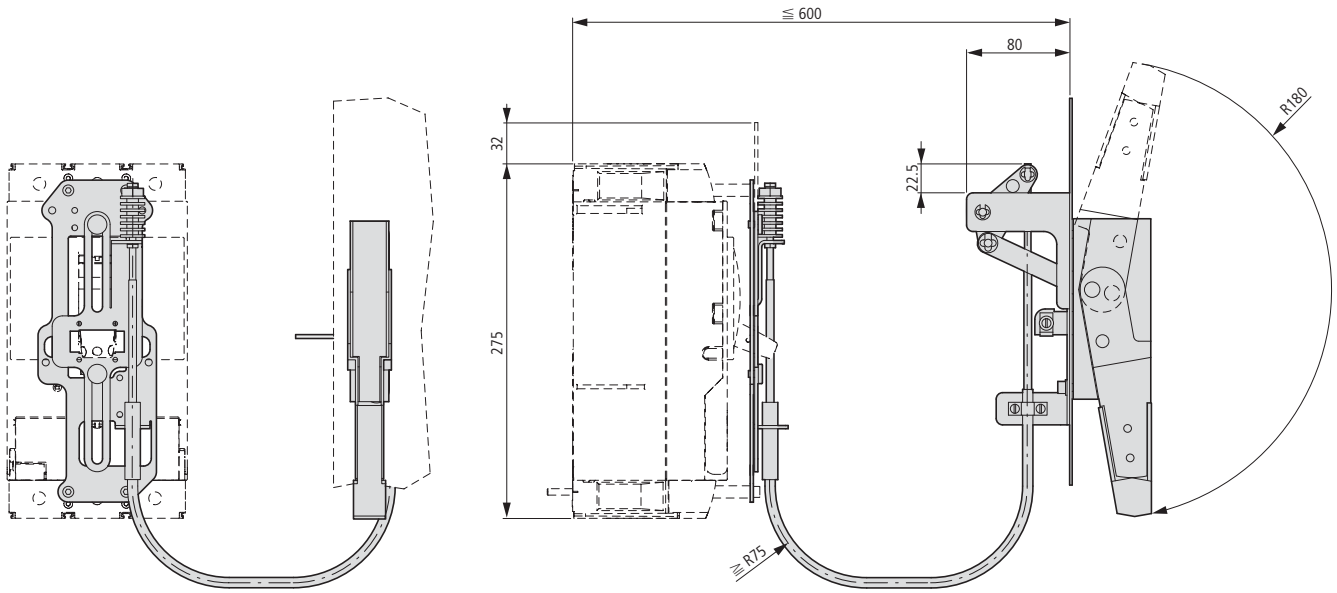


NZM3-XS(R)-R



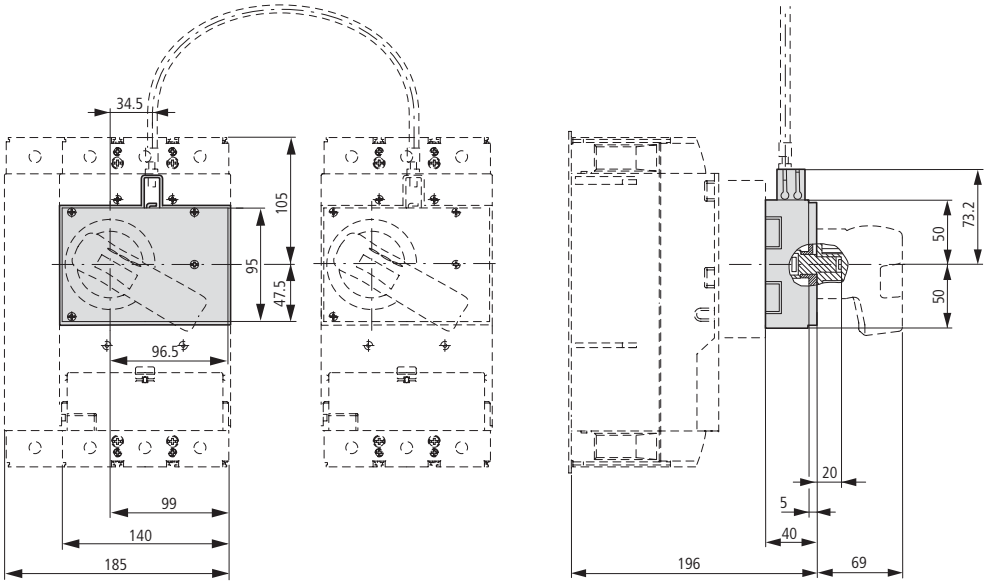
Side-mounted handle

NZM3... XSH...

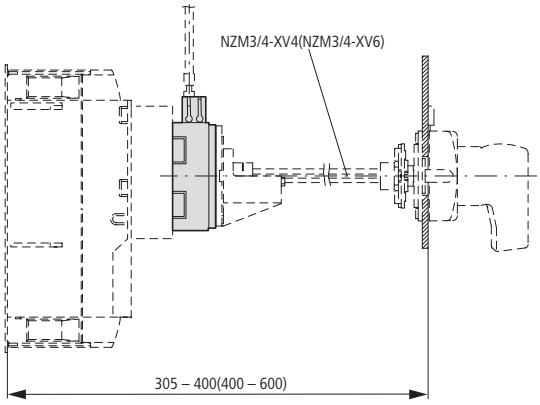


Mechanical interlock

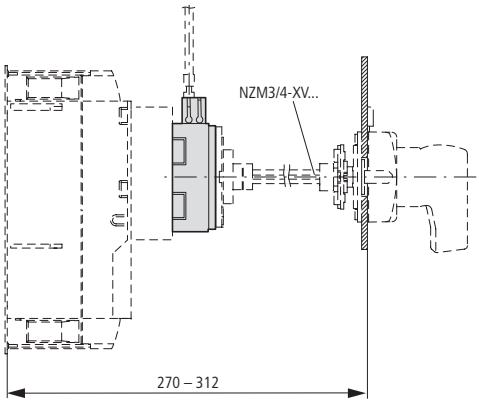
NZM3-XMV + NZM3-XDV(R)



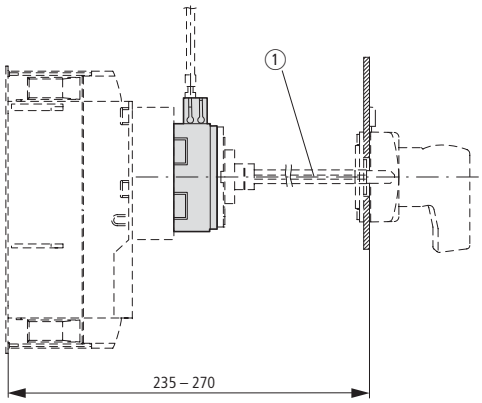
NZM3-XMV + NZM3-XTVD(V)(R)



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



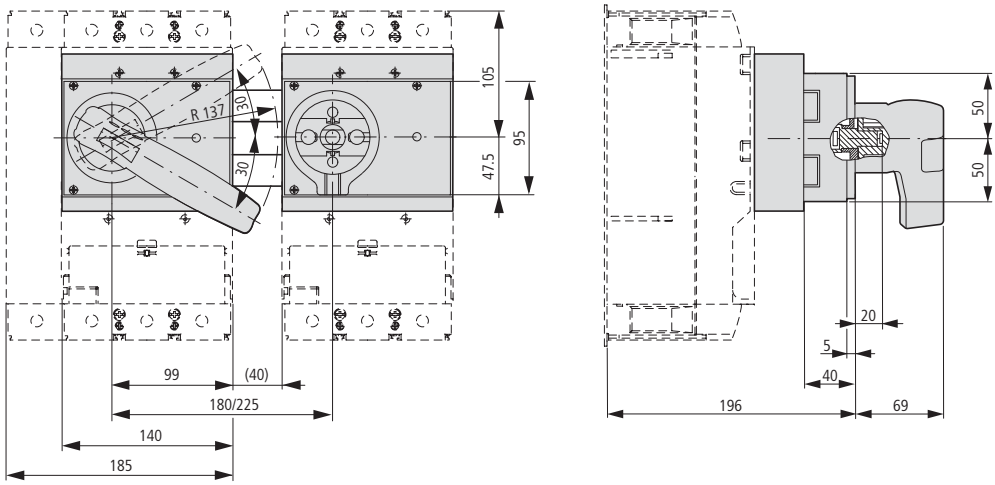
NZM3-XMV + NZM3-XTVD(V)(R)-0



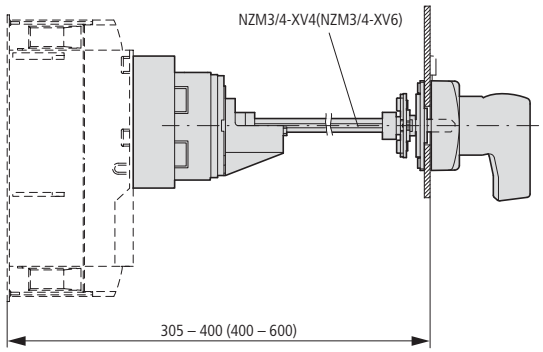
① Special tip

Paralleling mechanism

PN3-XPA

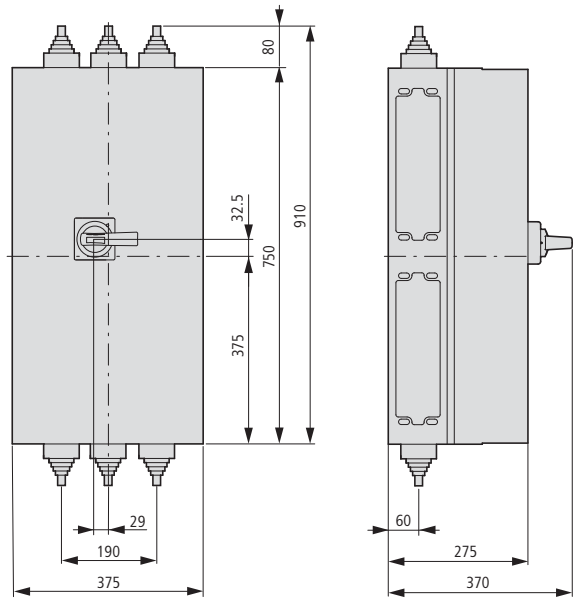


PN3-XPA



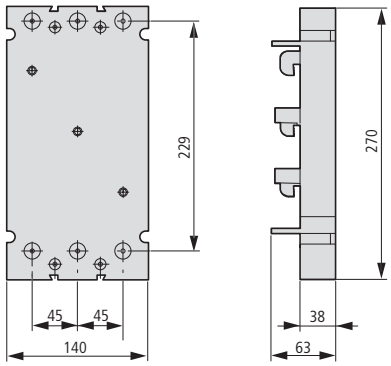
Insulated enclosures

NZM3-XCI48-TD



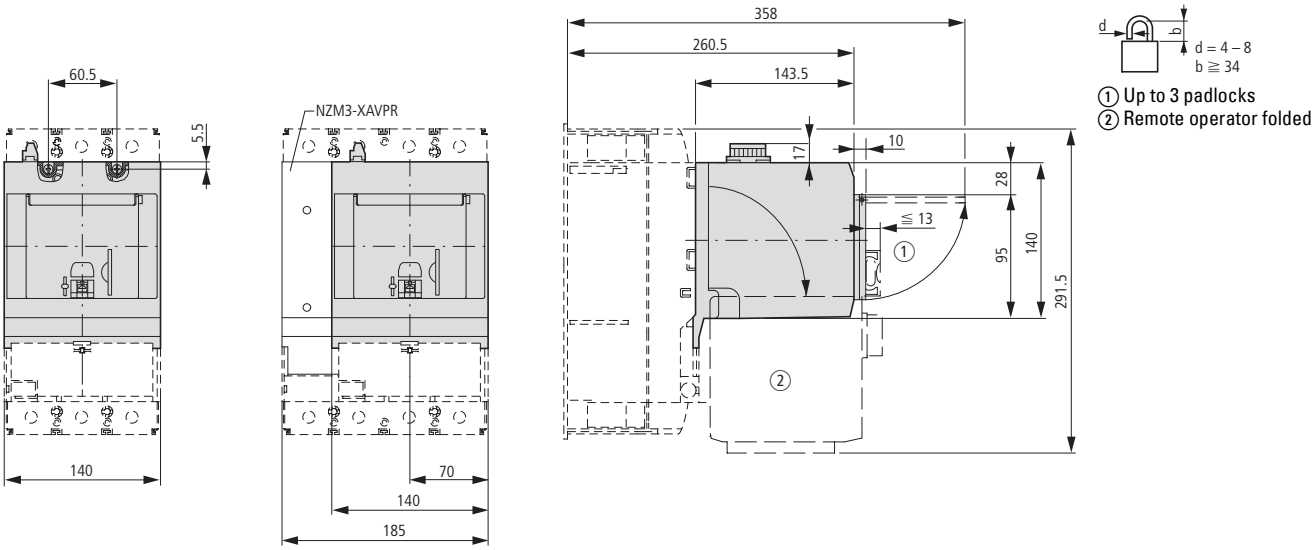
Component adapter

NZM3-XAD550



Remote operators

NZM3-XR…

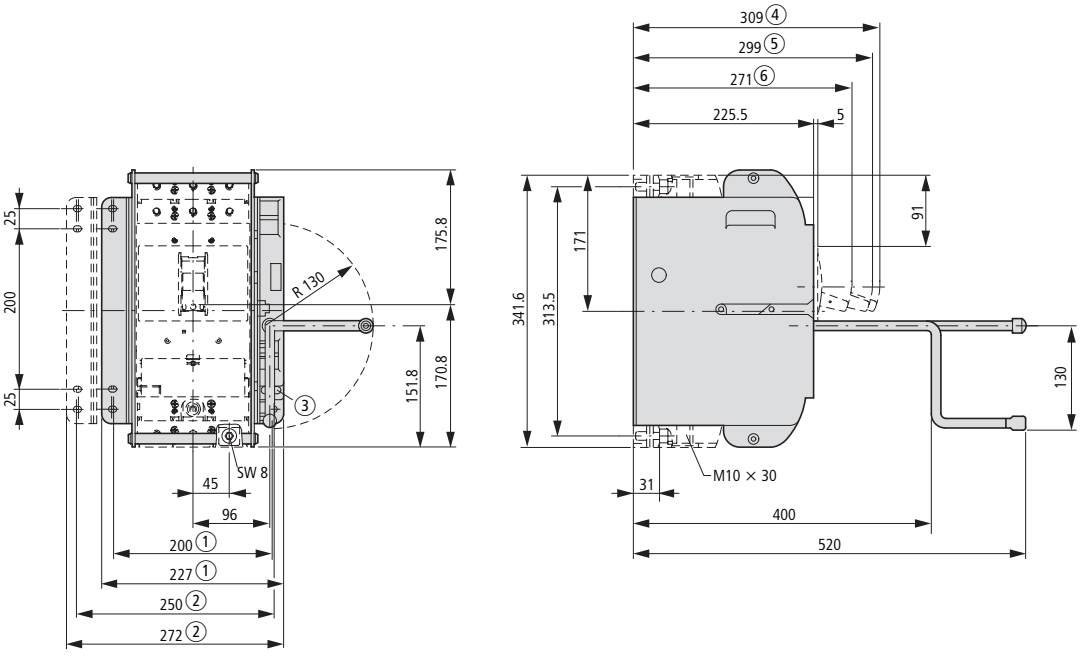


Withdrawable unit with auxiliary plug-in adapter

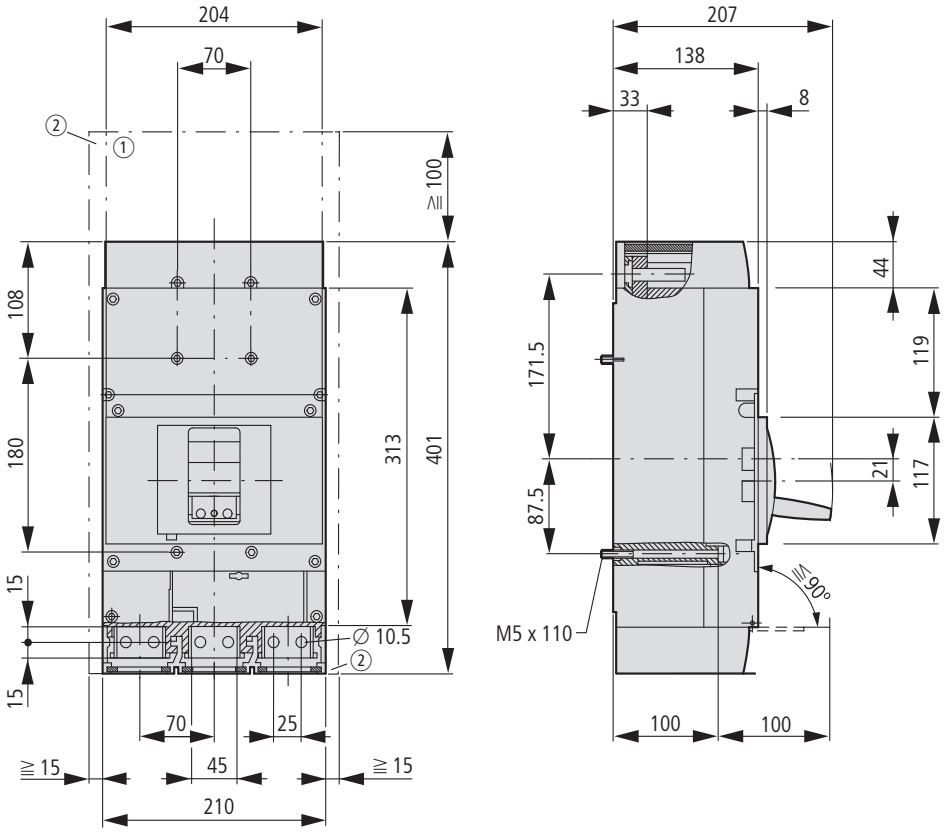
NZM3-...-SVE

N3...-SVE

NZM3-XSVS

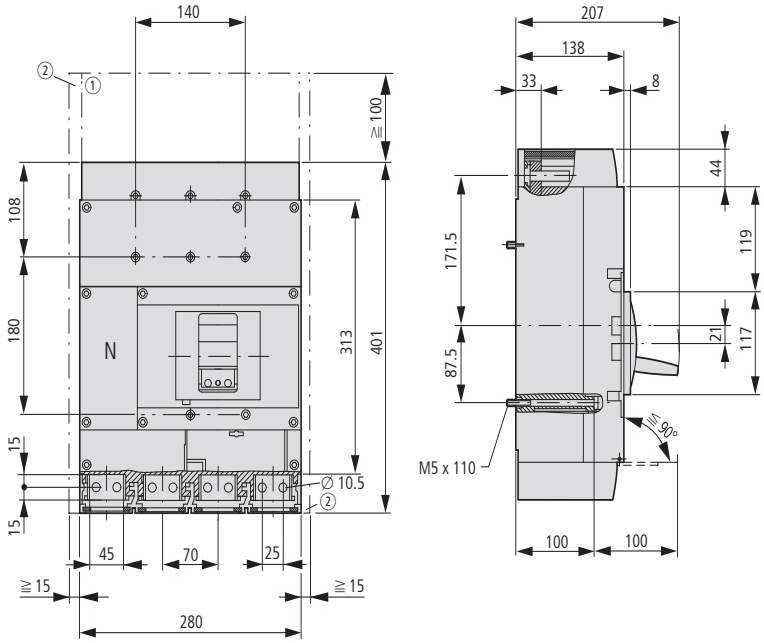


Circuit-breakers
Switch-disconnectors
3 pole
NZMN4
NZMH4
N4
NS4



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

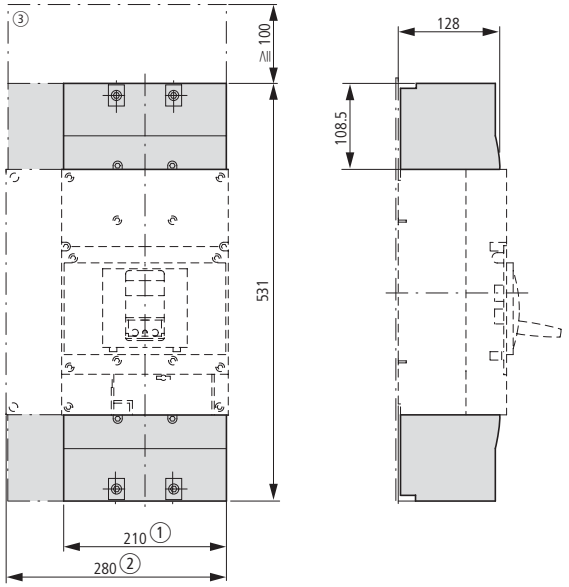
4 pole
NZMN4-4
NZMH4-4
N4-4



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

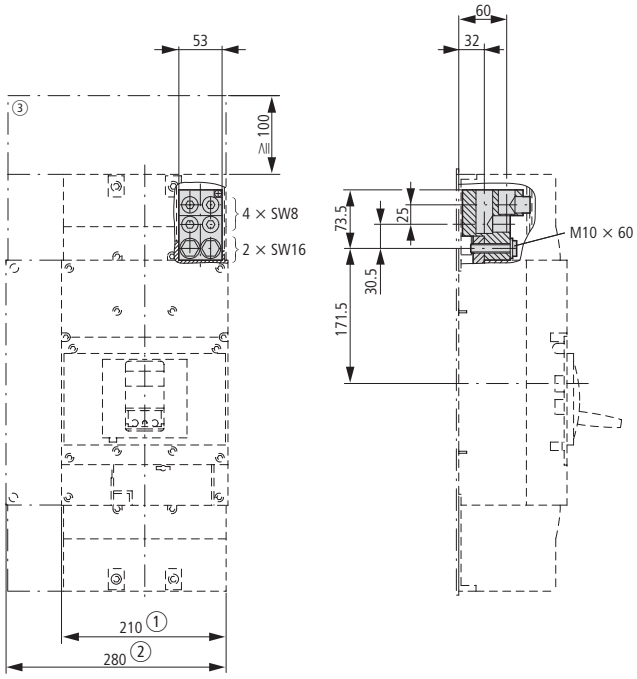
Covers

NZM4(-4)-XKSA



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 terminals

Module plate

1-hole

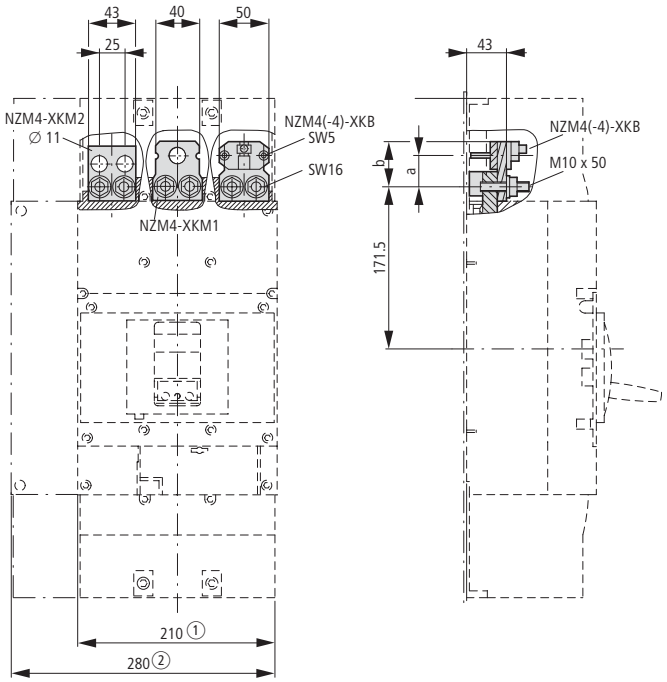
NZM4(-4)-XKM1

2-hole

NZM4(-4)-XKM2

Flat cable terminal

NZM4(-4)-XKB

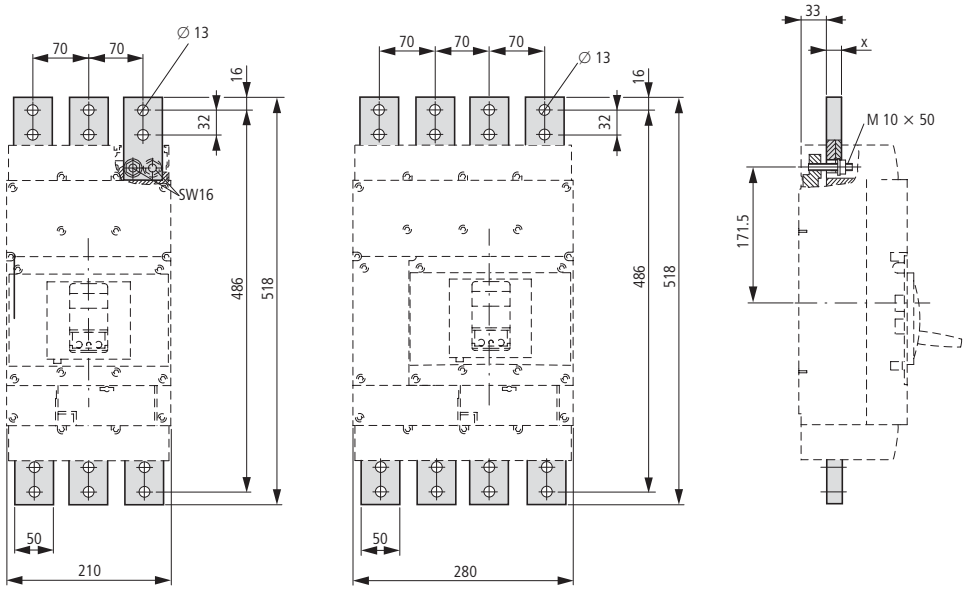


Part no.	a	b
NZM4(-4)-XKM1	36	47
NZM4(-4)-XKM2	32	40
NZM4(-4)-XKB	–	47

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

Module plate
2 hole, vertical

NZM4(-4)-XKM2S...



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

Connection width extension

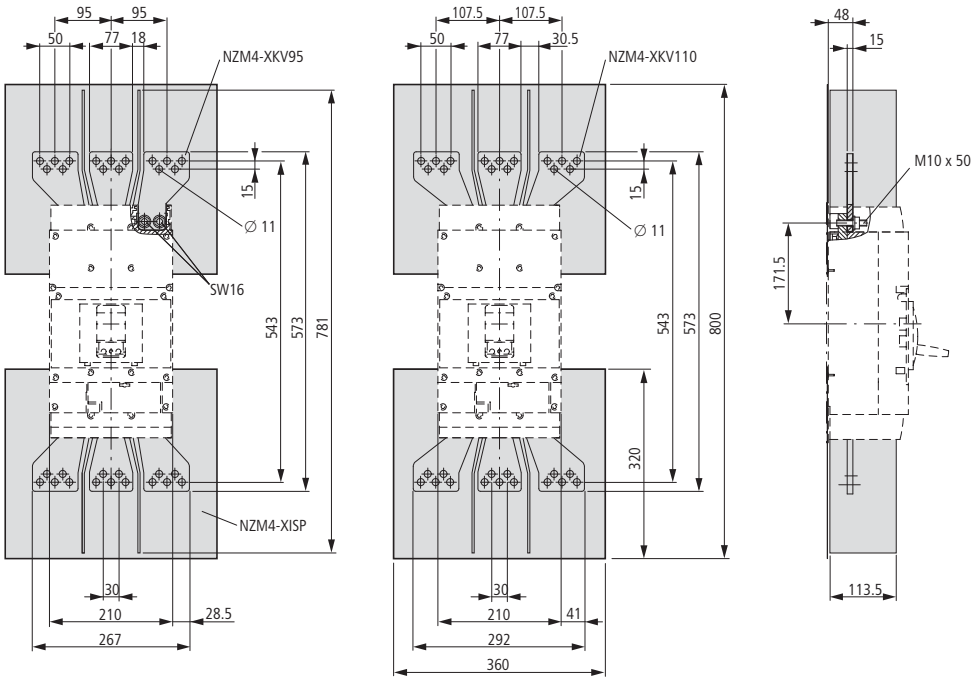
NZM4-XKV95
NZM4-XKV110

Insulation plate

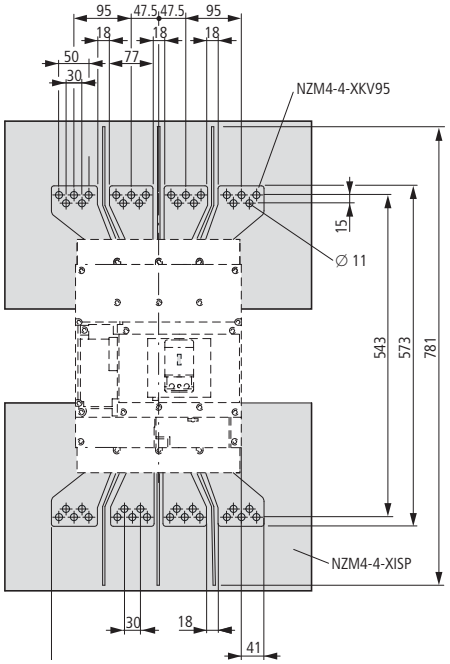
NZM4-XISP

Phase isolators

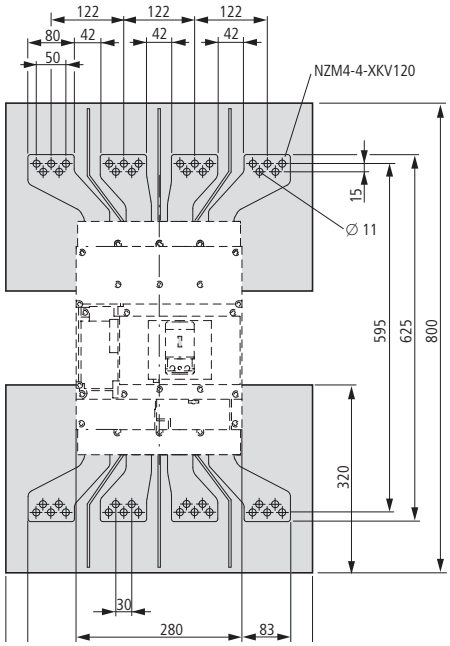
NZM4-XKP



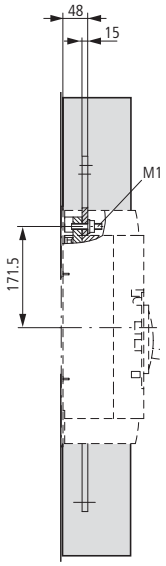
NZM4-4-XKV95



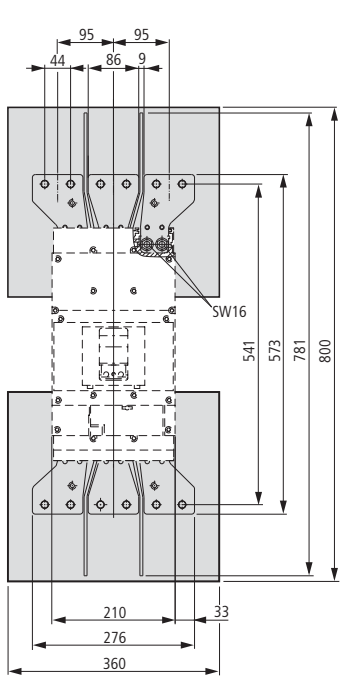
NZM4-4-XKV120

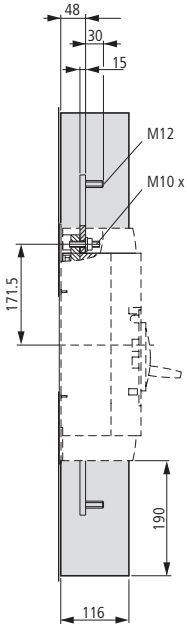


NZM4-4-XISP
NZM4-4-XKP

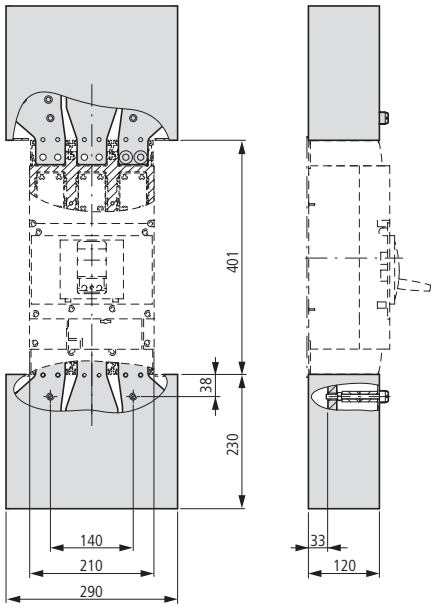


Connection width extension
NZM4-XKV95-2KB



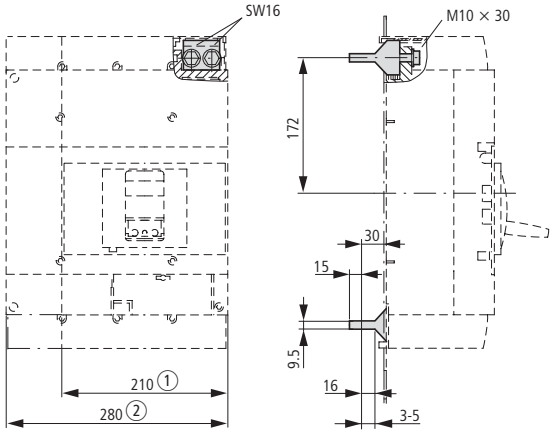


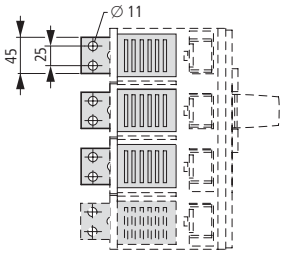
Cover, large
NZM4-XKSAV



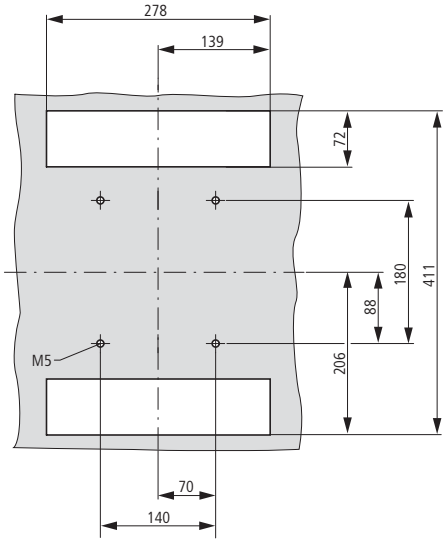
Rear terminal bolts

NZM4(-4)-XKR

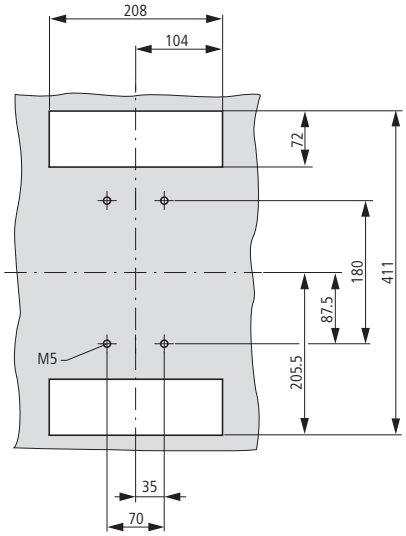




Fitting on mounting plate

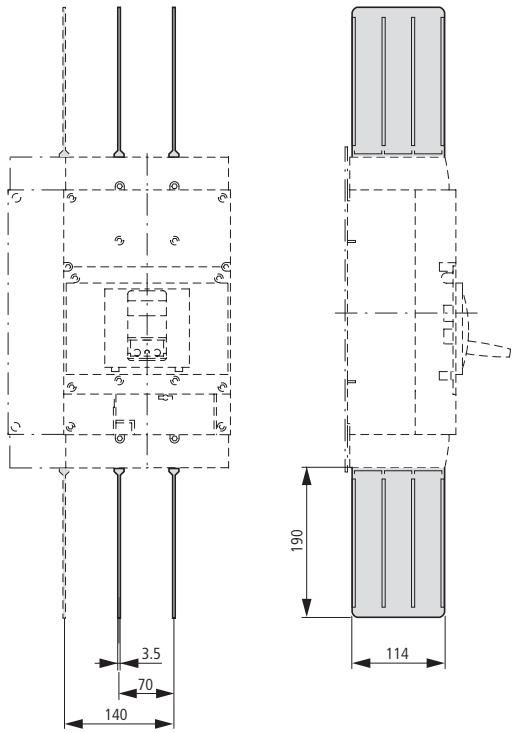


Rear connection possible also rotated by 90°.
① 3 pole
② 4 pole



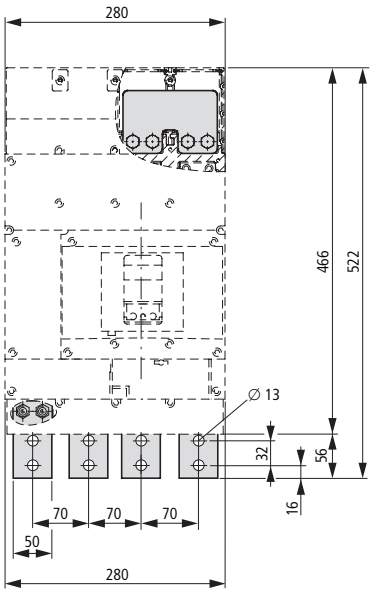
Phase isolators

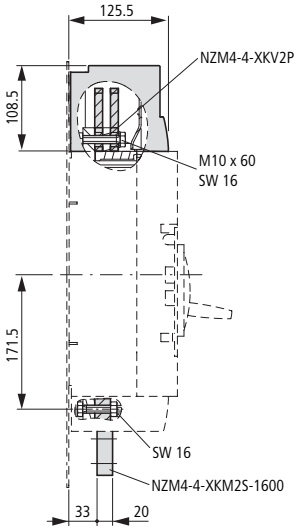
NZM4(-4)-XKP



Jumper kit

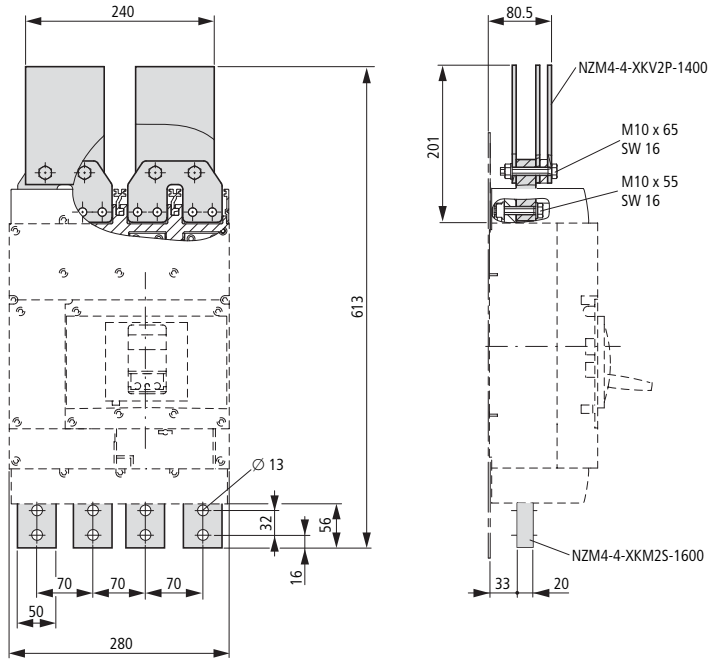
NZM4-4-XKV2P





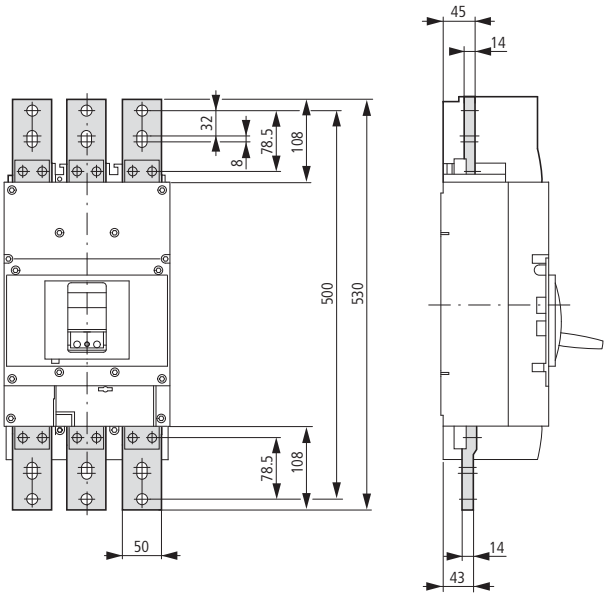
Jumper kit

NZM4-4-XKV2P-1400

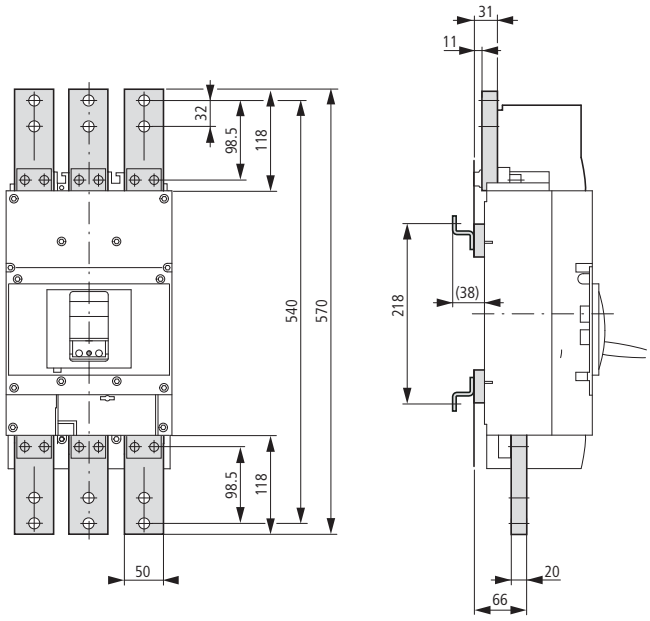


Adapter kit

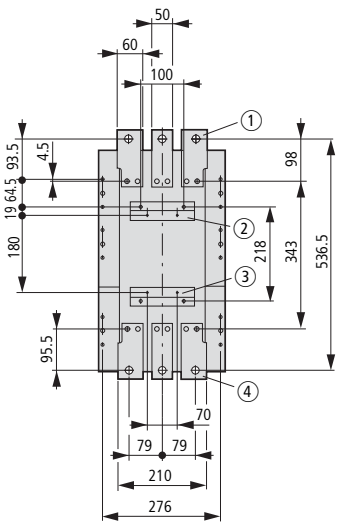
NZM4-XAS14-1250



NZM4-XAS14-1600



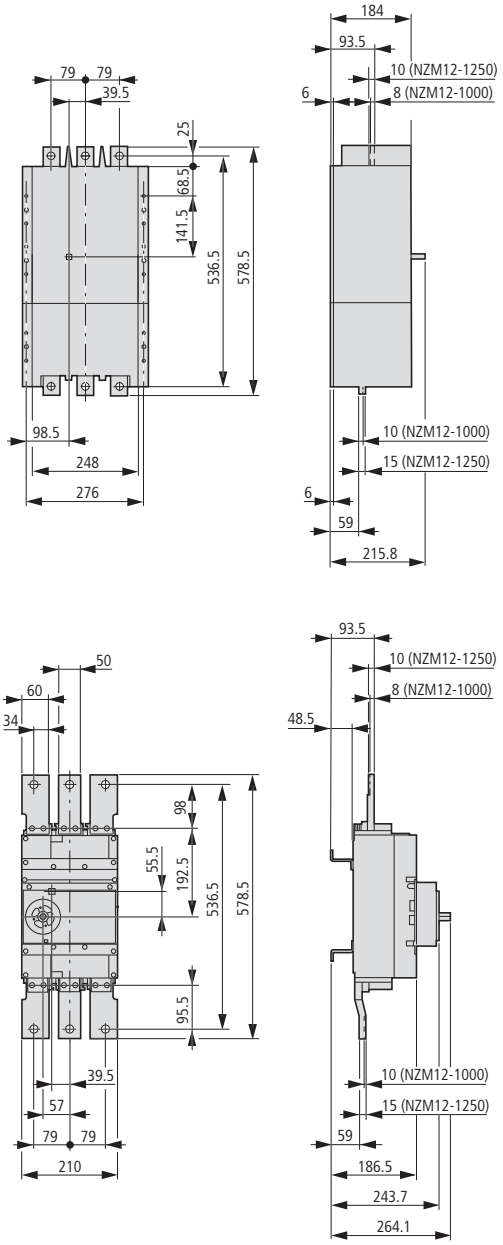
Drilling template NZM12-1000 (1250) conversion to NZM4



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

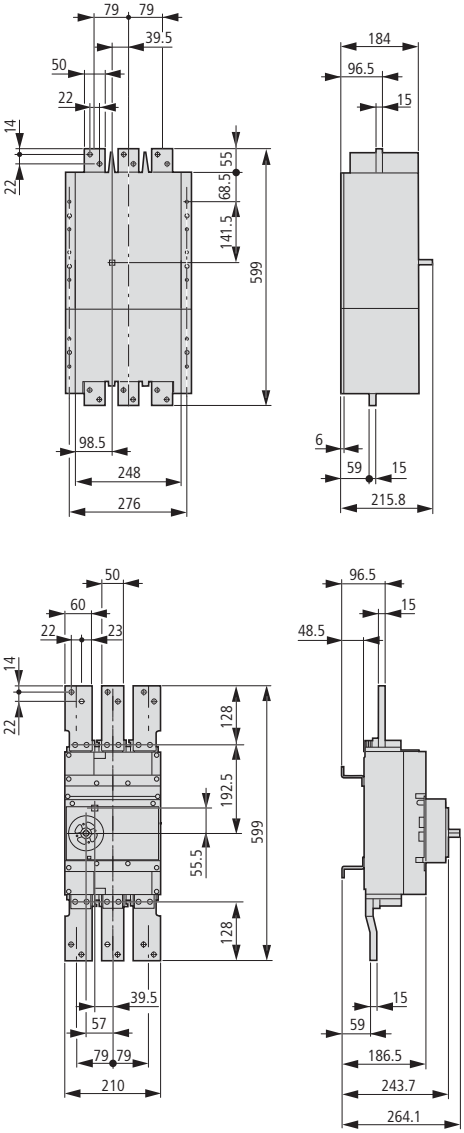
Replacement of NZM12-1000(1250) with NZM4 with module plate, fixed mounting on mounting plate

NZM4-XAS12-1000(1250)



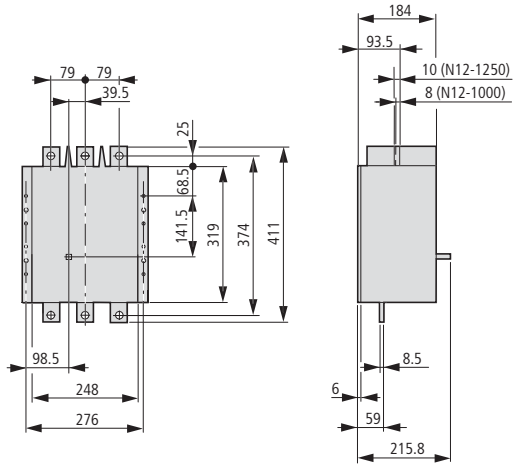
Replacement of NZM12-1600 with NZM4 with module plate, fixed mounting on mounting plate

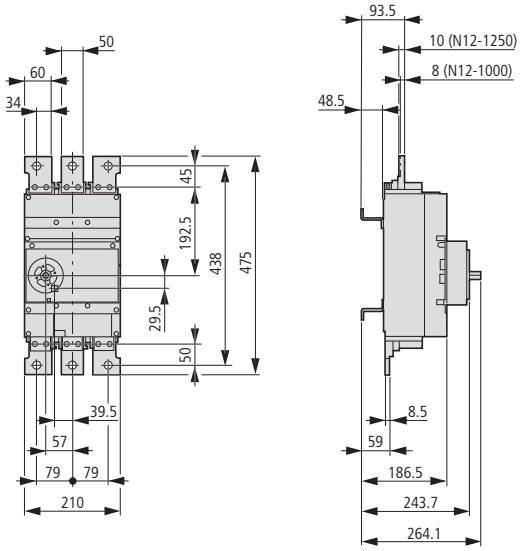
NZM4-XAS12-1600



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

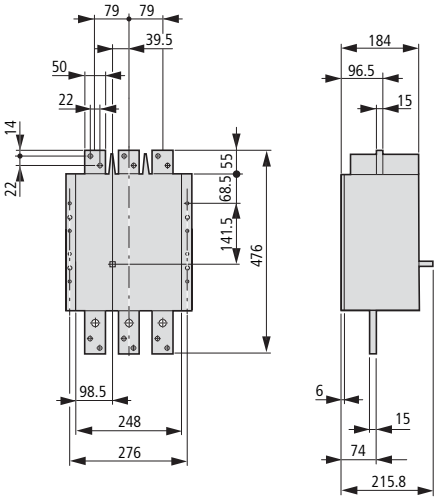
N4-XAS12-1000(1250)

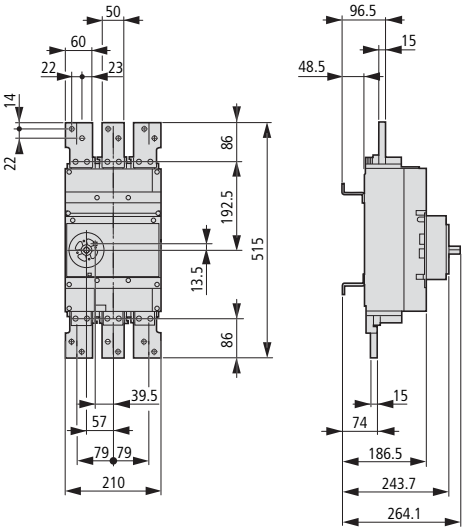




Replacement of N12-1600 with N4 with module plate, fixed mounting on mounting plate

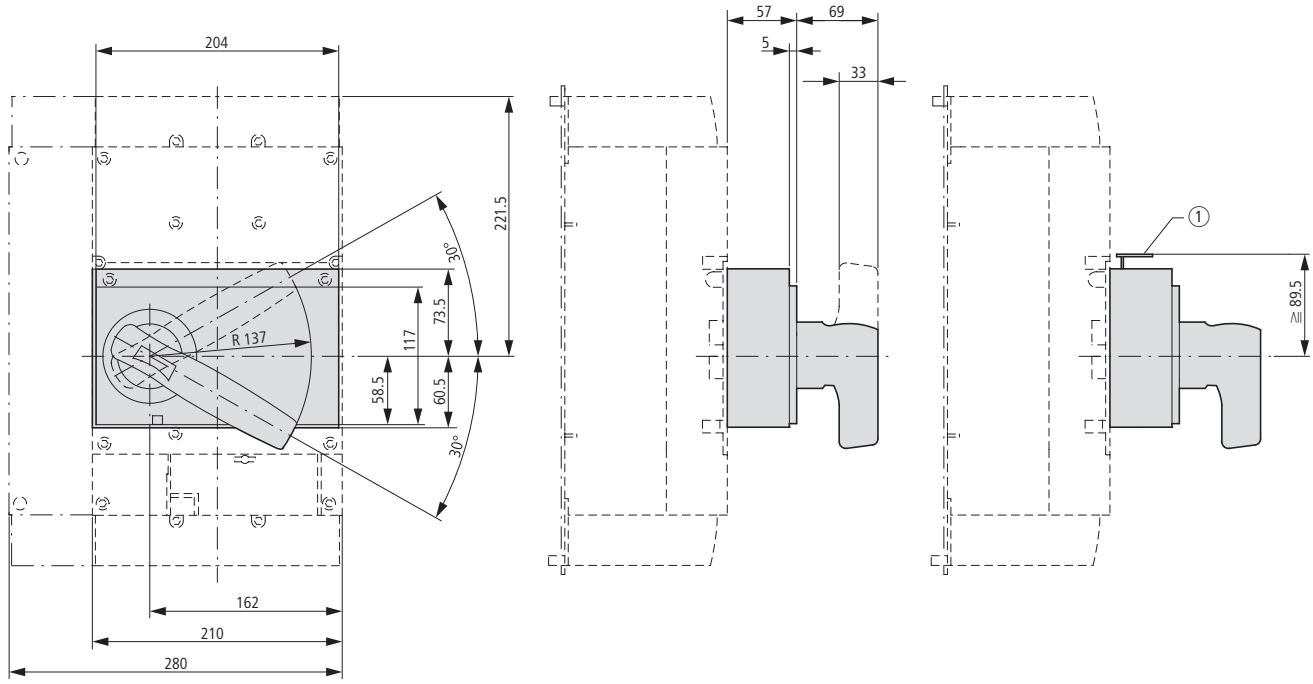
N4-XAS12-1600

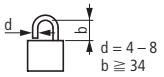




Rotary handle on circuit-breaker

NZM4-XDV(R)

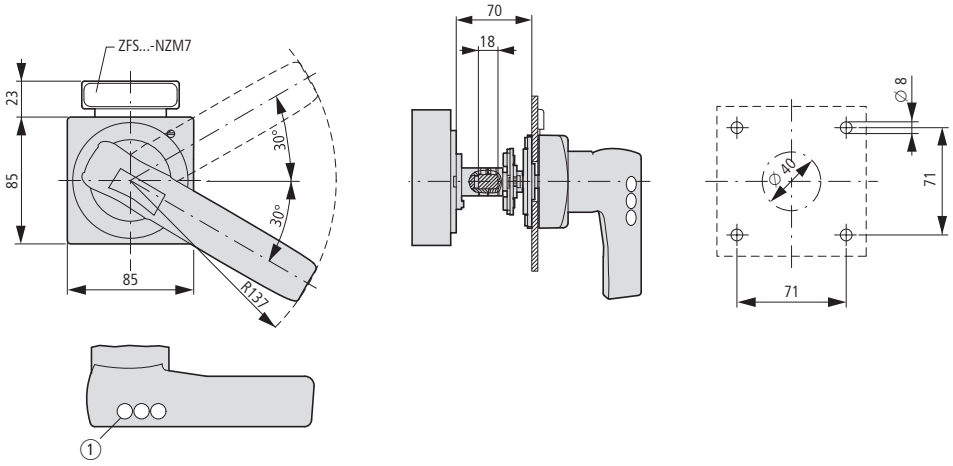


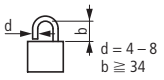


① Up to 3 padlocks

Door coupling rotary handles

NZM4-XTVD(V)(R)...

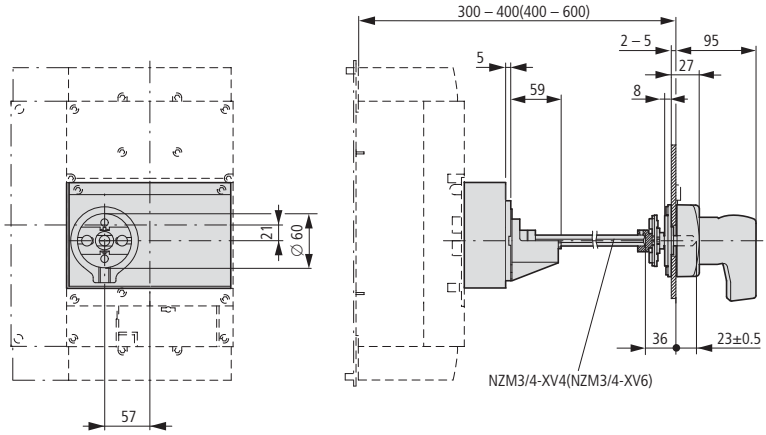




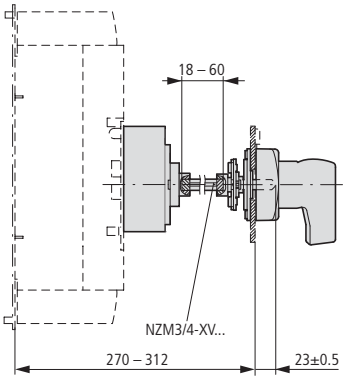
① Up to 3 padlocks

Door coupling rotary handle with extension shaft

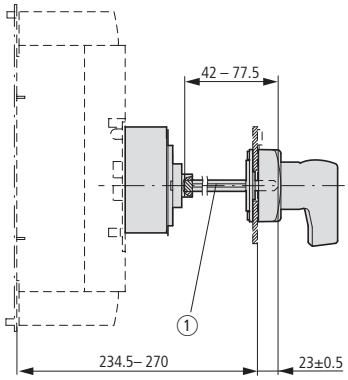
NZM4-XTVD(V)(R)(-NA)
NZM3/4-XV4(6)



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

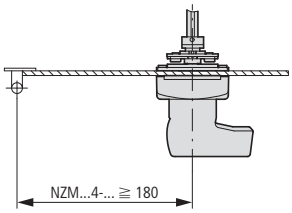


NZM4-XTVD(V)(R)-0(-NA)



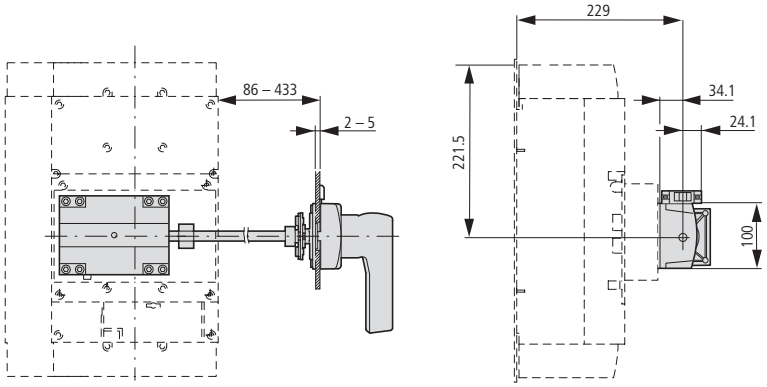
① Special tip

Minimum distance of door coupling rotary handle from door pivot point



Main switch assembly kit for side wall installation

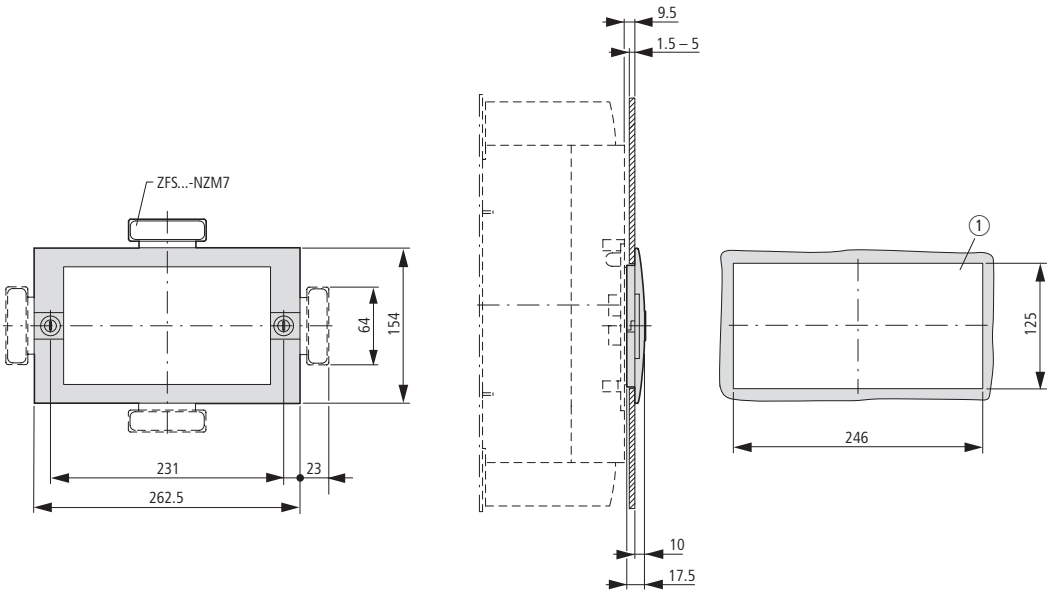
NZM4-XS(R)-L
NZM4-XS(R)-R



Insulating surround

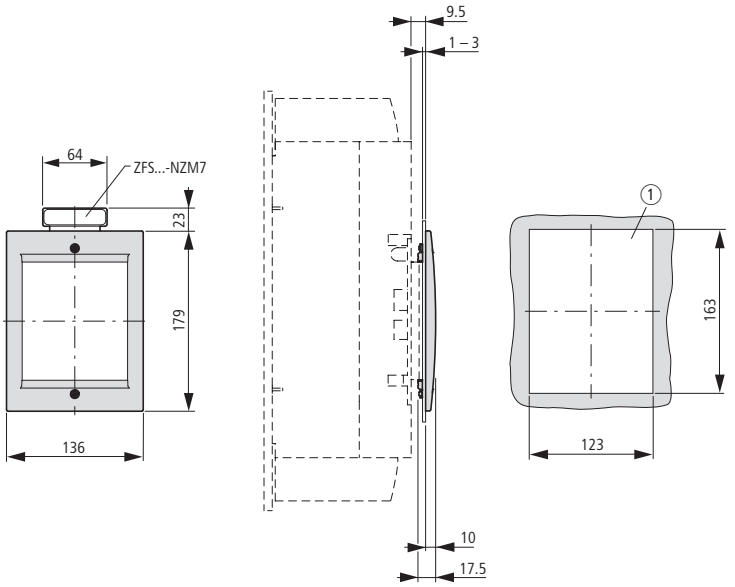
NZM4-XBR

① Mounting aperture



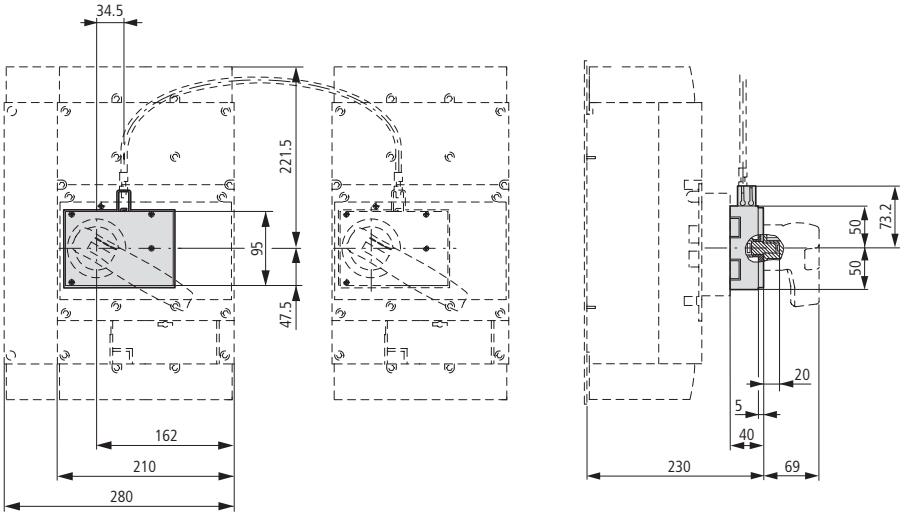
NZM4-XBRS

① Mounting aperture



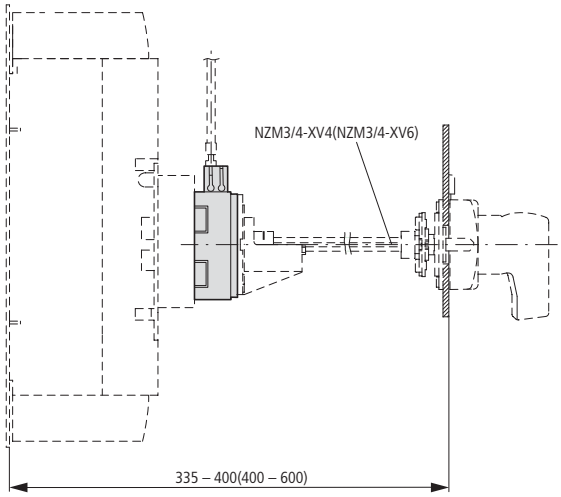
Mechanical interlock

NZM4-XMV + NZM4-XDV(R)

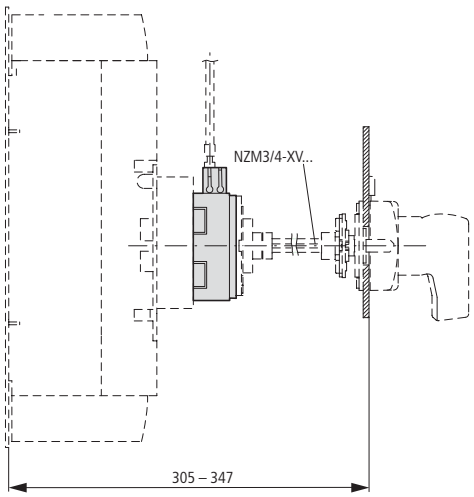


Mechanical interlock

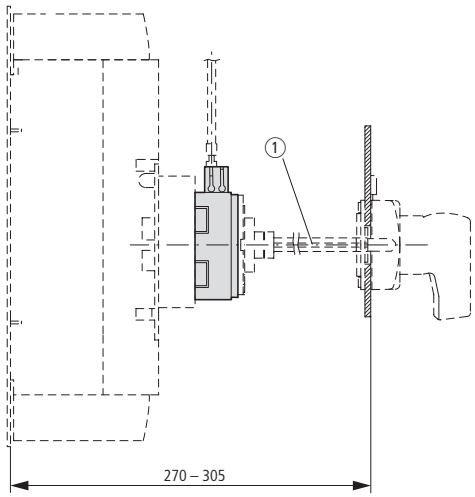
NZM4-XMV + NZM4-XTVD(V)(R)



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



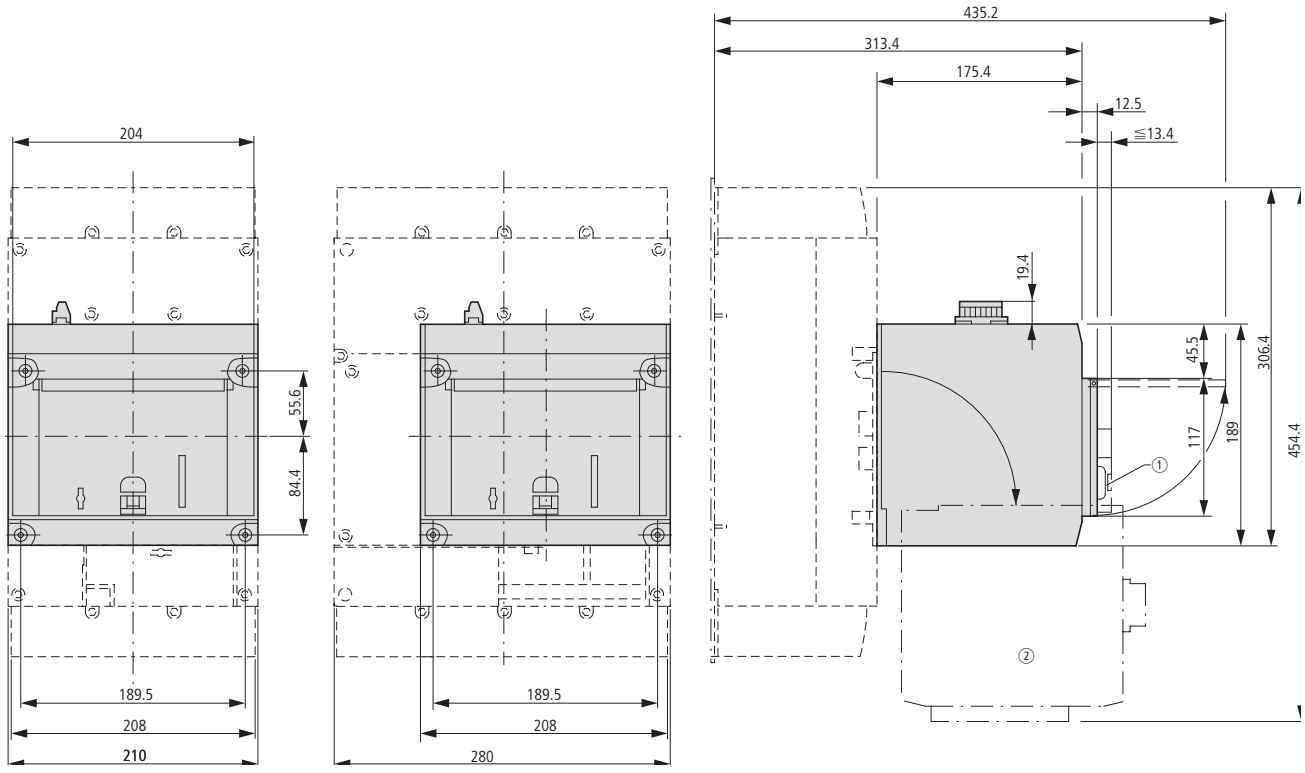
NZM4-XMV + NZM4-XTVD(V)(R)-0



① Special tip

Remote operators

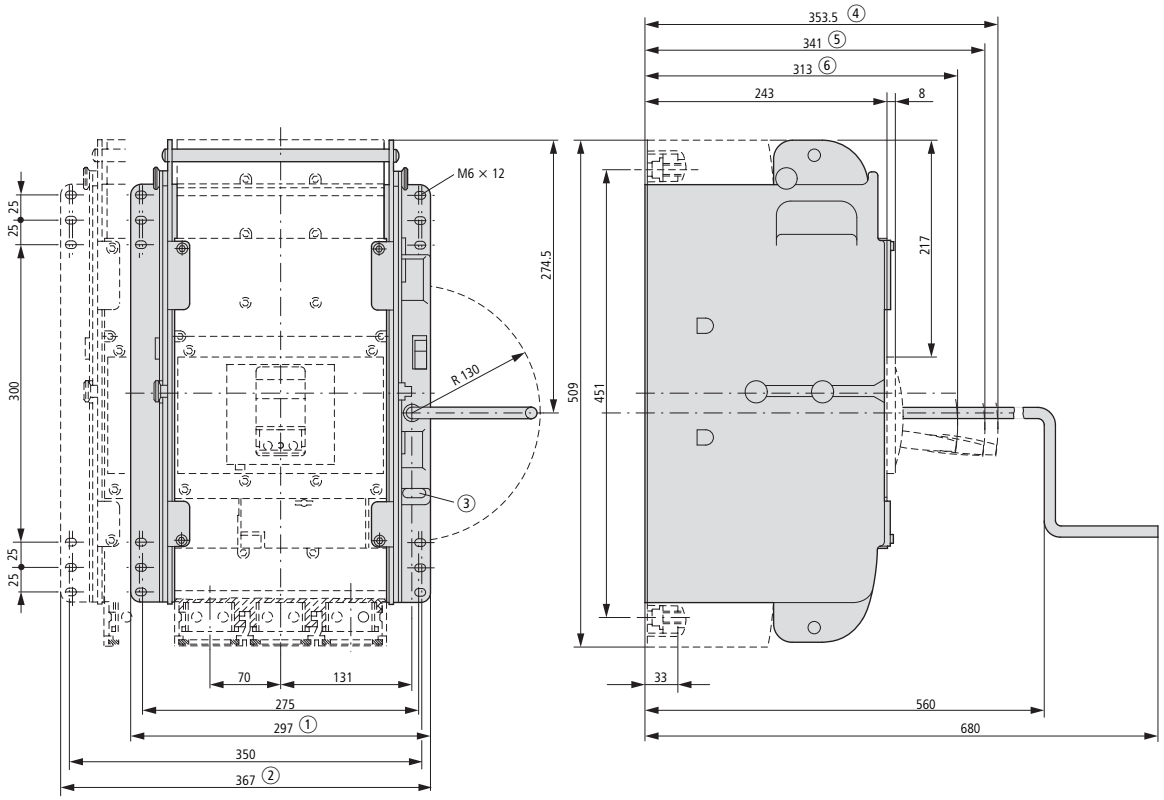
NZM4-XR…



① Up to 3 padlocks
② Remote operator folded

Withdrawable unit

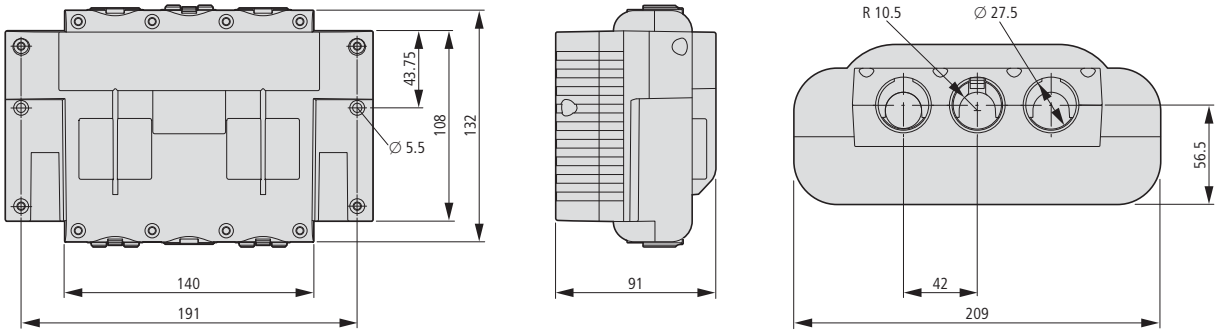
+NZM4-4-XAV



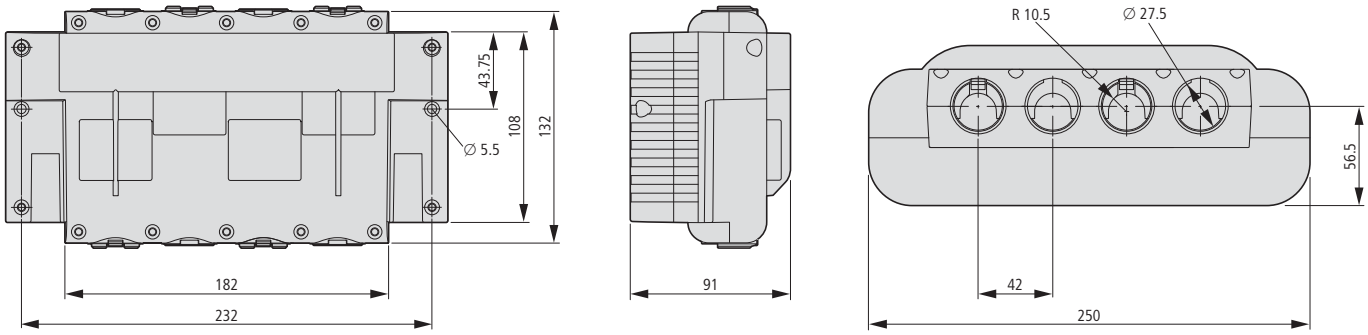
① 3 pole
② 4 pole
③ Up to 3 padlocks
④ Disconnected
⑤ Test
⑥ Connected

Measuring and communication module

NZM2 (3)...XMC-SO(MB)



NZM2 (3)(-4)...XMC-SO(MB)



Communication interface for SmartWire-Darwin

NZM-XSWD-704