NZM circuit breakers up to 1600 A – Four sizes and various versions are available

For the latest catalog, please visit Eaton.com/digitalnzm

Our NZM series of circuit breakers covers rated currents from 20 A to 1600 A – with only four sizes. The wide range of applications covers all industrial requirements, from power distribution and system protection to main switches for machinery.

Our new digital NZM, an electronic circuit breaker from the PXR family, stands out in particular:

- Thanks to the use of proven technology and extended protection functions, these new circuit breakers achieve a significantly higher level of machine safety during operation and maintenance.
- The remaining service life indicator and the associated prevention of unplanned shutdowns significantly improve machine availability.
- Highly accurate class 1 measurements can be used to verify the energy efficiency of the system.

The NZM accessories can also be used for the PXR family, as they have the same dimensions and are 100 % compatible.

Get more information

Power Xpert Release – our next generation electronic overcurrent release is now also available for the NZM

The Power Xpert Release – PXR for short – is our new trip unit platform. We have already successfully introduced this technology in our IZMX series of air circuit breakers. Achieving time savings for users and covering the broadest possible range of applications – these were the goals we had in mind when developing the Power Xpert Release platform.

1. The uniform design and user-friendly navigation menu of the PXR will simplify your everyday work. With the PXR, communication is also as simple as can be: Modules for various bus systems are available, offering high-performance connections in line with the respective system requirements. And the integrated Modbus RTU connection also saves space during installation.
2. Relays integrated in the voltage release enable the control of associated components and the indication of operating states, for example through alarm notifications, alongside the control of remote operators and motor-starter combinations – and much more.
3. The USB interface allows for easy connection to a PC to change the settings, conduct analyses or activate one of the extensive test functions, including continuity tests of current transformers and testing of the entire measurement and protection protocols and all connected components. This also simplifies access to the information generated by the switchgear, which can also be saved and printed, making it the fastest and most convenient way to continuously improve your control and maintenance systems. All sensitive data are password-protected to prevent unauthorized access.

The Rogowski coil transformer supports ISO 50001 energy management with class 1 accuracy in accordance with IEC 60557-12.

4. The high-resolution display facilitates the retrieval of information, enables intuitive operation and allows for quick configuration of the PXR25. You can enter the required settings via the display, with the option of choosing between protection settings and soft (additional) settings. The settings of PXR switches can also be easily adjusted using the Power Xpert Protection Manager (PXPM)* software for PC. With the PXR20 version, you can adjust the protection settings via the rotary heads on the circuit breaker itself, while the soft settings can be adjusted using the PXPM software.

* Software available for download at www.eaton.com/PXPM

Improved life-cycle management thanks to digital circuit protection

What is life-cycle management and what are the benefits for users? Our white paper explains the different Eaton solutions as well as their benefits and advantages.

Download your free copy at **www.eaton.com**

Zone selectivity and ARMS maintenance mode
Precise disconnection of upstream faults and protection against arc faults

Zone-selective interlocking

Zone selectivity is the next stage in the evolution of time selectivity. In contrast to time selectivity, any faults will be switched off instantaneously and at any point in the network. This ensures that the energy being generated (I^2t) – and thus the thermal and dynamic system load – is kept to a minimum. For this purpose, the circuit breakers are connected to a signal cable. In the event of a fault, the signal cable ensures that only the circuit breaker located directly upstream of the fault (i.e. the circuit breaker feeding into the short circuit) will switch off immediately. Any parts of the system that are not malfunctioning will remain operational, to minimize downtime as much as possible.

ARMS = Arcflash Reduction Maintenance System

Our circuit breakers can be optionally equipped with our new, patented Arcflash Reduction Maintenance System. In the event of an arc fault, this system ensures an immediate and accelerated shutdown, at a speed that beats even that of a non-delayed short-circuit release.

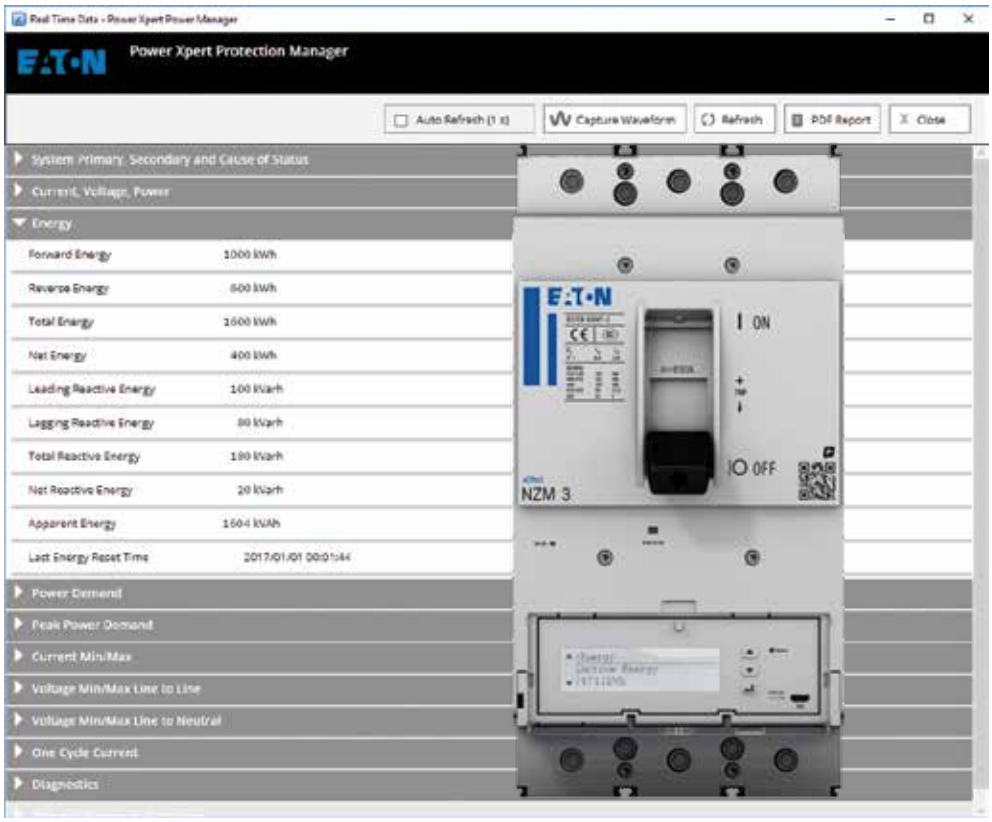
This feature can either be activated directly on the circuit breaker or via an external switch, for example once maintenance workers are about to enter a hazardous area. No special wiring is required.

Greater safety for work on live equipment

For us at Eaton, safety is a top priority, which is why we offer additional safety functions that go well beyond those required by the applicable standards. Our white paper explains the benefits for you.

Download your free copy at **www.eaton.com**

The NZM digital circuit breaker offers class 1 energy measurement accuracy according to IEC 61557-12



Greater efficiency thanks to ISO 50001

The international EN ISO 50001 standard was developed to facilitate the implementation of in-house energy management systems. The standard is aimed at reducing energy costs, energy consumption and CO2 emissions through appropriate measures. Implementing a proper energy management system not only saves resources, but also ensures cost transparency and savings, for both large corporations and small and medium-sized companies alike. In Germany, energy-intensive companies whose consumption exceeds 10 GWh or whose electricity costs account for more than 14 % of value added can benefit from enormous cost reductions in the form of lower energy taxes under the Renewable Energy Sources Act.

The importance of accurate metrics and analytics

Prerequisites for introducing an energy management system in accordance with ISO 50001 are accurate energy metrics, the identification of the main energy consumers and a full analysis of the company's energy costs, based on which specific measures for greater energy efficiency can then be derived.

Power Xpert Protection Manager

With the new PXPM software, we have developed a universal program that allows you to easily manage all Eaton PXR devices. Manual identification is no longer necessary, as the program automatically adapts to the connected devices. Guided and drop-down menus simplify the configuration process, while all data readings are clearly displayed via a single screen. The PXPM software speaks your language: We provide you with a wide range of language packs, and the system can either recognize the language of your computer automatically, or you can set it manually. A comprehensive selection of additional options allows you to adapt the settings to your application:

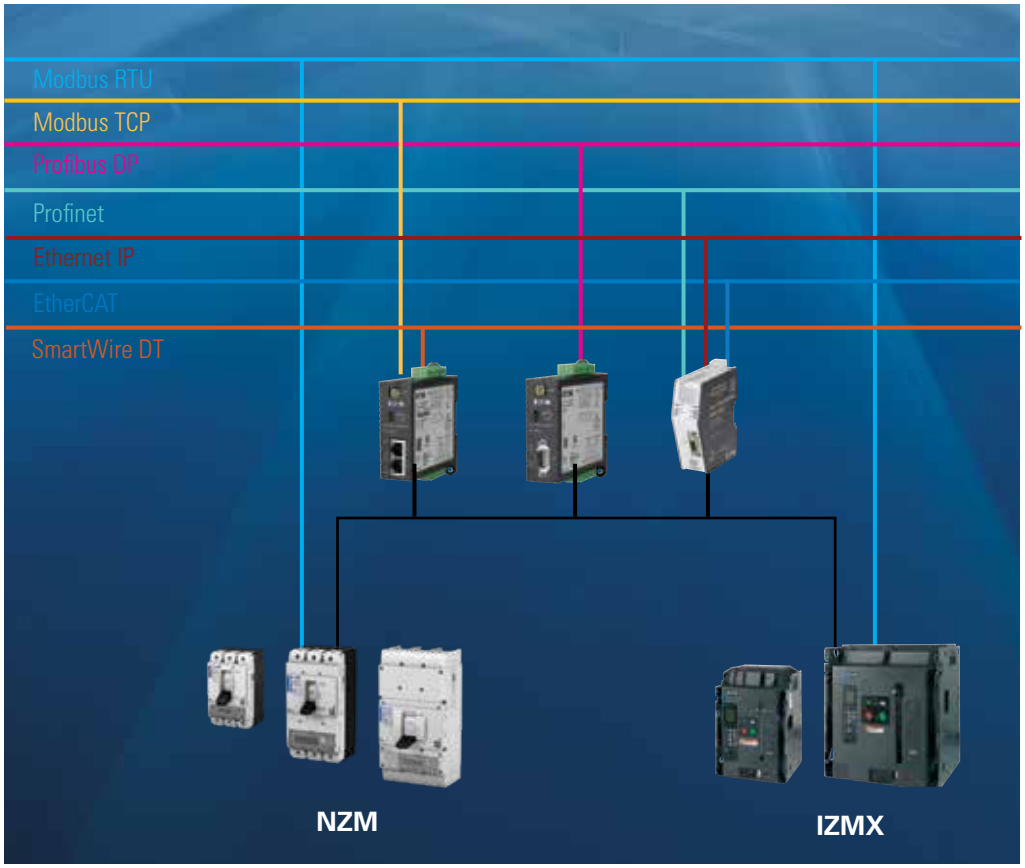
- The protection function and the tripping characteristics can be viewed, adjusted and controlled via the display
- The comprehensive test function allows you to check all measuring and tripping functions of your device
- The trip actuator can be checked by optionally tripping the device during testing
- The transformer coil can be tested via continuity measurement

These are just a few examples of the software's capabilities.

xSpider

xSpider is our new planning and calculation software for low-voltage networks, supporting you in the selection and optimal configuration of your switchgear and protective devices. The option to select circuit breakers based on the network diagram, and to examine the tripping characteristics directly, allows for a quick assessment of the selectivity and the required back-up fuse. The integrated ArcRisk module, which is currently unique on the market, enables a quick and clear assessment of the arc-fault risk in low-voltage switchgear assemblies.

www.eaton.com

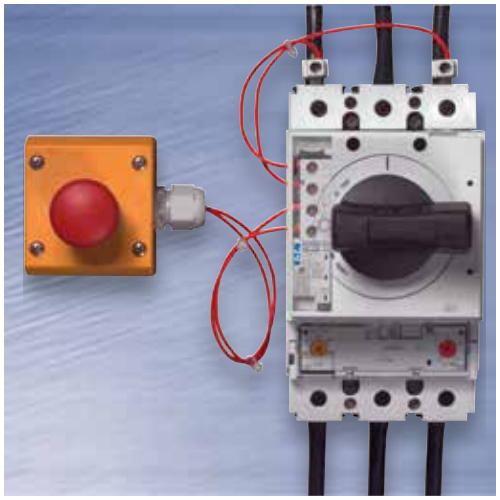


Integrated communication

Our PXR circuit breakers and measurement and communication modules enable reliable and efficient data collection. We offer a wide range of communication options to provide users with measurements in the required form and data format. The data can then be transferred to other communication platforms via various interfaces and gateways, as required.

Flexible integration into machinery

The complete range of NZM accessories can also be used with our new PXR circuit breakers.

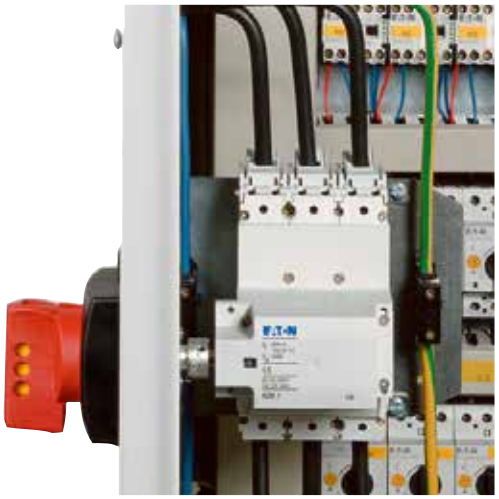


Rear actuator

In applications up to a rated current of 300 A where space is limited, the rear actuator can be used to quickly implement a compact main switch operated by means of a rugged rotary handle. All NZM1 and NZM2 circuit breakers and switch-disconnectors can be combined with a rear actuator.

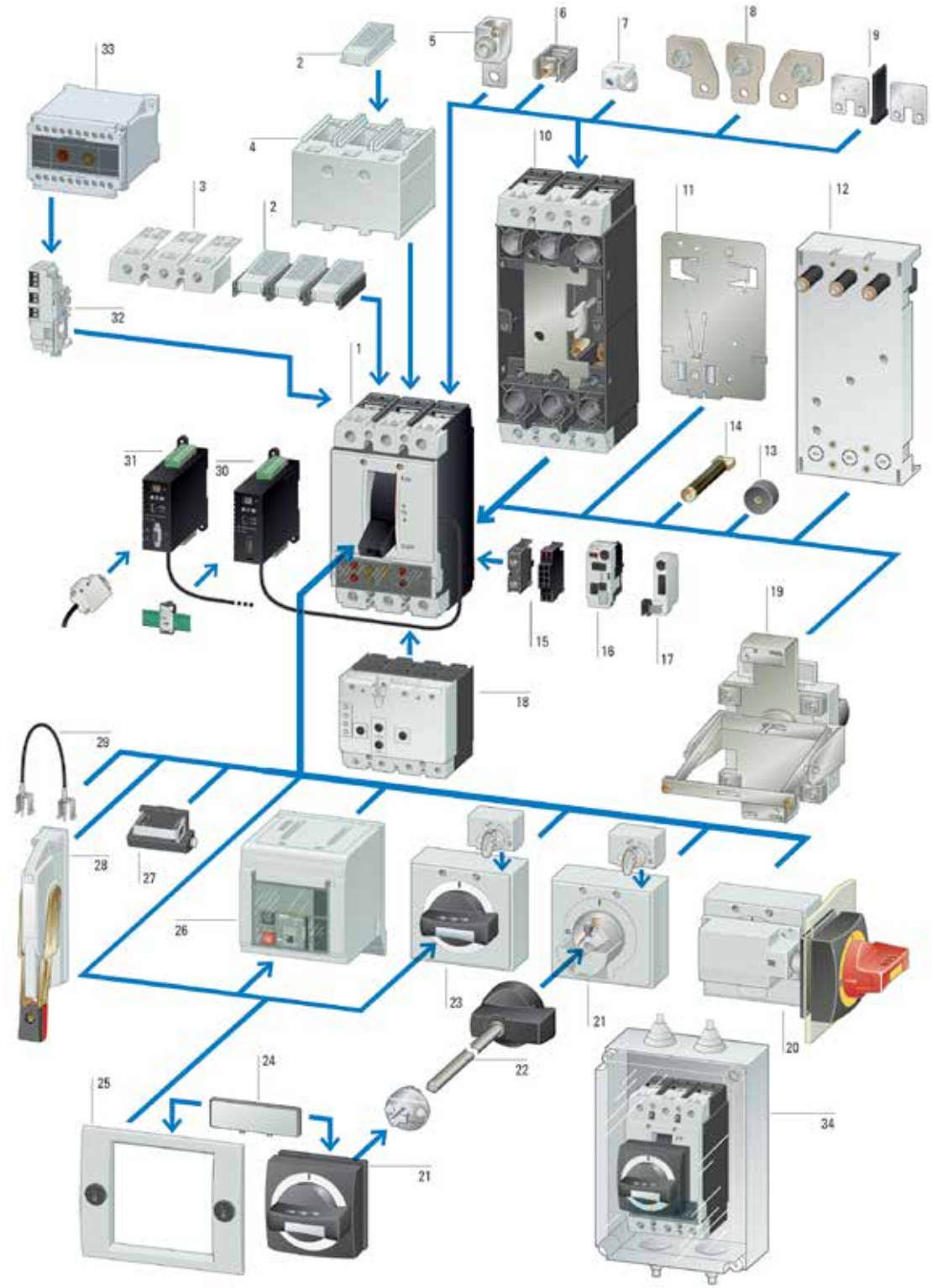
Use as a main switch

If an undervoltage release with two integrated early-make auxiliary contacts is used, all main and auxiliary circuits are de-energized when the breaker is switched off. This enables the easy and cost-effective implementation of main switch applications with emergency-stop function up to 1600 A in accordance with IEC 60204-1 and VDE 0113 Part 1.



Sidewall actuator

For applications up to 1600 A, the sidewall actuator can be used to operate the breaker from either the left- or right-hand side. With the optional addition of a mounting bracket, the space inside the control panel can be optimally used. This means that the mounting plate in the machine control system can be used for other control elements.



1 NZM base unit
2 IP2X finger guard
3 Removable terminal cover
4 Terminal cover
5 Tunnel terminals
6 Box terminals
7 Control circuit terminal
8 Connection expansion
9 Link set
10 Plug-in and withdrawable unit
11 Adapter plate
12 Busbar adapter
13 Spacer
14 Connection at rear
15 Auxiliary contacts
16 BSM interface module
17 Integrated Modbus RTU communication module
18 Residual-current release
19 Rear actuator
20 Main-switch rotary handle for side-wall mounting
21 Door-coupling rotary handle
22 Shaft extension
23 Rotary handle
24 External warning plate/ marking plate
25 Bezel
26 Remote operator
27 Toggle-lever interlock device
28 Side-lever handle
29 Mechanical interlock
30 SmartWire-DT communication module
31 Profibus DP communication module
32 Communication module for Ethernet-based protocols
33 Voltage release, early-make auxiliary contact, relay module
34 Delay unit, capacitor unit
35 Ci insulated enclosures

	Rated current = rated uninterrupted current	Settings range			Switching capacity: 400/415 V 50/60 Hz		Switching capacity: 400/415 V 50/60 Hz	
		Overload release	Short-circuit release		Type	Article no.	Part no.	Article no.
			Instantaneous	Delayed				
	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …				
	A	A						
System and line protection: thermo-magnetic release								
Fixed installation, box terminal					**Basic switching capacity: 25 kA**		**Normal switching capacity: 50 kA**	
	20	15 - 20	350 A fixed	-	**NZMB1-A20**	280987	**NZMN1-A20**	281231
	25	20 - 25	350 A fixed	-	**NZMB1-A25**	280988	**NZMN1-A25**	281232
	32	25 - 32	350 A fixed	-	**NZMB1-A32**	280989	**NZMN1-A32**	281233
	40	32 - 40	8 - 10	-	**NZMB1-A40**	259075	**NZMN1-A40**	259081
	50	40 - 50	6 - 10	-	**NZMB1-A50**	259076	**NZMN1-A50**	259082
	63	50 - 63	6 - 10	-	**NZMB1-A63**	259077	**NZMN1-A63**	259083
	80	63 - 80	6 - 10	-	**NZMB1-A80**	259078	**NZMN1-A80**	259084
	100	80 - 100	6 - 10	-	**NZMB1-A100**	259079	**NZMN1-A100**	259085
	125	100 - 125	6 - 10	-	**NZMB1-A125**	259080	**NZMN1-A125**	259086
	160	125 - 160	1280 A fixed	-	**NZMB1-A160**	281230	**NZMN1-A160**	281234
Fixed installation, screw connection								
	160	125 - 160	6 - 10	-	**NZMB2-A160**	259088	**NZMN2-A160**	259092
	200	160 - 200	6 - 10	-	**NZMB2-A200**	259089	**NZMN2-A200**	259093
	250	200 - 250	6 - 10	-	**NZMB2-A250**	259090	**NZMN2-A250**	259094
	300	240 - 300	5 - 8.3	-	**NZMB2-A300**	107518	**NZMN2-A300**	107580
	320	250 - 320	6 - 10	-	-		**NZMN3-A320**	109669
	400	320 - 400	6 - 10	-	-		**NZMN3-A400**	109670
	500	400 - 500	6 - 10	-	-		**NZMN3-A500**	109671
System, line, selective and generator protection: electronic release								
Fixed installation, screw connection					**Normal switching capacity: 50 kA**		**High breaking capacity: 150 kA**	
	100	40 - 100	2 - 18	2 - 10	**NZMN2-VX100**	191628	**NZMH2-VX100**	191678
	160	64 - 160	2 - 18	2 - 10	**NZMN2-VX160**	191629	**NZMH2-VX160**	191679
	250	100 - 250	2 - 12	2 - 10	**NZMN2-VX250**	191630	**NZMH2-VX250**	191680
	250	100 - 250	2 - 18	2 - 10	**NZMN3-VX250**	191602	**NZMH3-VX250**	191349
	400	160 - 400	2 - 12	2 - 10	**NZMN3-VX400**	191603	**NZMH3-VX400**	191350
	630	252 - 630	2 - 8	1.5 - 7	**NZMN3-VX630**	191604	**NZMH3-VX630**	191351
System, line, selective and generator protection: electronic release with class 1 energy measurement according to IEC 61557-12								
Fixed installation, screw connection					**Normal switching capacity: 50 kA**		**High breaking capacity: 150 kA**	
	100	40 - 100	2 - 18	2 - 10	**NZMN2-PX100**	192239	**NZMH2-PX100**	192041
	160	64 - 160	2 - 18	2 - 10	**NZMN2-PX160**	192240	**NZMH2-PX160**	192042
	250	100 - 250	2 - 12	2 - 10	**NZMN2-PX250**	192241	**NZMH2-PX250**	192043
	250	100 - 250	2 - 18	2 - 10	**NZMN3-PX250**	192354	**NZMH3-PX250**	192360
	400	160 - 400	2 - 12	2 - 10	**NZMN3-PX400**	192355	**NZMH3-PX400**	192361
	630	252 - 630	2 - 8	1.5 - 7	**NZMN3-PX630**	192356	**NZMH3-PX630**	192362

	Rated current = rated uninterrupted current	Settings range		Motor rating AC-3 50/60 Hz	Rated operational-current: AC-3 50/60 Hz	Switching capacity: 400/415 V 50/60 Hz		Switching capacity: 400/415 V 50/60 Hz	
		Overload release	Short-circuit release Instantaneous			Part no.	Article no.	Part no.	Article no.
	$I_n = I_u$	I_r	$I_i = I_n$ x …	P	I_e				
	A	A		380 V 400 V kW	400 V A				
Motor protection: thermo-magnetic release									
Trip class 10 A									
Fixed installation, box terminal with phase-failure sensitivity						**Basic switching capacity: 25 kA**		**Normal switching capacity: 50 kA**	
	40	32 - 40	8 - 14	18.5	36	**NZMB1-M40**	265710	**NZMN1-M40**	265718
	50	40 - 50	8 - 14	22	41	**NZMB1-M50**	265711	**NZMN1-M50**	265719
	63	50 - 63	8 - 14	30	55	**NZMB1-M63**	265712	**NZMN1-M63**	265720
	80	63 - 80	8 - 14	37	68	**NZMB1-M80**	265713	**NZMN1-M80**	265721
	100	80 - 100	8 - 12.5	45	81	**NZMB1-M100**	265714	**NZMN1-M100**	265722
Motor protection: electronic release									
Fixed installation, screw connection With phase-failure sensitivity, adjustable trip class						**Normal switching capacity: 50 kA**		**High switching capacity: 150 kA**	
	90	36 - 90	2 - 18	45	81	**NZMN2-MX90**	191631	**NZMH2-MX90**	191681
	140	56 - 140	2 - 18	75	134	**NZMN2-MX140**	191632	**NZMH2-MX140**	191682
	220	88 - 220	2 - 14	100	196	**NZMN2-MX220**	191633	**NZMH2-MX220**	191683
	220	88 - 220	2 - 18	110	196	**NZMN3-MX220**	191605	**NZMH3-MX220**	191352
	350	140 - 350	2 - 15	200	349	**NZMN3-MX350**	191606	**NZMH3-MX350**	191367
	450	180 - 450	2 - 12	250	437	**NZMN3-MX450**	191607	**NZMH3-MX450**	191368
Motor protection: electronic release with class 1 energy measurement according to IEC 61557-12									
Fixed installation, screw connection With phase-failure sensitivity, adjustable trip class						**Normal switching capacity: 50 kA**		**High switching capacity: 150 kA**	
	250	100 - 250	2 - 18	110	196	**NZMN3-PMX250**	192322	**NZMH3-PMX250**	192325
	350	140 - 350	2 - 15	200	349	**NZMN3-PMX350**	192323	**NZMH3-PMX350**	192326
	450	180 - 450	2 - 12	250	437	**NZMN3-PMX450**	192324	**NZMH3-PMX450**	192327

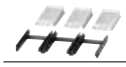
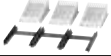
	Rated current = rated uninterrupted current	Max. fuse rating of the short-circuit protection: gG/gL	Part no.	Article no.
	$I_n = I_u$			
	A	A gL		
Switch-disconnector				
3 switch settings: I, +, 0 Can be remotely operated with XU/XA voltage release, XR remote operator Can be equipped with M22-K… trip-indicating auxiliary switch				
Fixed installation, box terminal				
	63	125	**N1-63**	259143
	100	125	**N1-100**	259144
	125	125	**N1-125**	259145
	160	160	**N1-160**	281236
Fixed installation, screw connection				
	160	250	**N2-160**	266008
	200	250	**N2-200**	266009
	250	250	**N2-250**	266010
	400	630	**N3-400**	266019
	630	630	**N3-630**	266020

Power management

	Rated current = rated uninterrupted current	Settings range			Switching capacity: 480 V 60 Hz		Switching capacity: 480 V 60 Hz	
		Overload release	Short-circuit release		Part no.	Article no.	Part no.	Article no.
			Instantaneous	Delayed				
	$I_n = I_u$	I_r	$I_i = I_n$ x …	$I_{sd} = I_r$ x …				
	A	A						
System and line protection: thermo-magnetic release								
Adjustable overload releases I_r								
Fixed installation, box terminal					**Normal switching capacity: 35 kA**			
	20	15 - 20	350 A fixed		**NZMN1-A20-NA**	281570	-	
	25	20 - 25	350 A fixed		**NZMN1-A25-NA**	281571	-	
	32	25 - 32	350 A fixed		**NZMN1-A32-NA**	281572	-	
	40	32 - 40	8 - 10		**NZMN1-A40-NA**	274237	-	
	50	40 - 50	6 - 10		**NZMN1-A50-NA**	274239	-	
	63	50 - 63	6 - 10		**NZMN1-A63-NA**	274240	-	
	80	63 - 80	6 - 10		**NZMN1-A80-NA**	274241	-	
	100	80 - 100	6 - 10		**NZMN1-A100-NA**	274242	-	
	125	100 - 125	6 - 10		**NZMN1-A125-NA**	281573	-	
System and line protection: electronic release								
Adjustable overload releases I_r R.m.s. value measurement and thermal memory								
Fixed installation, screw connection					**Normal switching capacity: 42 kA**		**High breaking capacity: 100 kA**	
	100	40-100	2-12		**NZMN2-AX100-NA**	195225	**NZMH2-AX100-NA**	195229
	160	64-160	2-12		**NZMN2-AX160-NA**	195226	**NZMH2-AX160-NA**	195230
	250	100-250	2-12		**NZMN2-AX250-NA**	195227	**NZMH2-AX250-NA**	195231
	250	100 - 250	2 - 11		**NZMN3-AX250-NA**	192484	**NZMH3-AX250-NA**	192496
	400	160 - 400	2 - 11		**NZMN3-AX400-NA**	192485	**NZMH3-AX400-NA**	192497
	600	240 - 600	2 - 8		**NZMN3-AX600-NA**	192486	**NZMH3-AX600-NA**	192498
System, line, selective and generator protection: electronic release with class 1 energy measurement according to IEC 61557-12								
Adjustable overload releases I_r R.m.s. value measurement and thermal memory								
Fixed installation, screw connection								
	100	40-100	2-18	2 - 10	**NZMN2-PX100-NA**	192573	**NZMH2-PX100-NA**	192577
	160	64-160	2-18	2 - 10	**NZMN2-PX160-NA**	192574	**NZMH2-PX160-NA**	192578
	250	100-250	2-12	2 - 10	**NZMN2-PX250-NA**	192575	**NZMH2-PX250-NA**	192579
	250	100 - 250	2 - 18	2 - 10	**NZMN3-PX250-NA**	192586	**NZMH3-PX250-NA**	192589
	400	160 - 400	2 - 12	2 - 10	**NZMN3-PX400-NA**	192587	**NZMH3-PX400-NA**	192590
	600	240-600	2 - 8	1.5 - 7	**NZMN3-PX600-NA**	192588	**NZMH3-PX600-NA**	192591
Molded-case switches for use in North America								
Fixed short-circuit release (self-protection) Three switch settings: I, +, 0 Can be remotely operated with XU/XA voltage release, XR remote operator Can be equipped with M22-K… trip-indicating auxiliary switch								
Fixed installation, box terminal					**High breaking capacity: 35 kA**			
	63	-	1250 A fixed		**NS1-63-NA**	102681	-	
	100	-	1250 A fixed		**NS1-100-NA**	102682	-	
	125	-	1250 A fixed		**NS1-125-NA**	102683	-	
Fixed installation, screw connection					**High breaking capacity: 100 kA**			
	160	-	2500 A fixed		**NS2-160-NA**	102684	-	
	200	-	2500 A fixed		**NS2-200-NA**	102685	-	
	250	-	2500 A fixed		**NS2-250-NA**	102686	-	
	400	-	6600 A fixed		**NS3-400-NA**	102687	-	
	600	-	6600 A fixed		**NS3-600-NA**	102688	-	

	For use with	Terminal capacity Terminal type	Terminalc-apacities mm²	Part. no. suffix	Article no. if ordered together with base unit	Part no.	Article no. if ordered separately
NZM1 terminal types							
Control-circuit terminal							
	NZM1, PN1, N(S)1	Box terminal	1 x 0.75 - 2.5 2 x 0.75 - 1.5	-	-	**NZM-XSTK**	266739
Multi-tunnel terminal							
	NZM1, N(S)1 ≦ 160 A	Cu cable	6 x 2.5 - 16	-	-	**NZM1-XKAM**	144112
Terminal cover, with knockout, not UL/CSA approved For box terminals							
	NZM1, N1	-	-	-	-	**NZM1-XKSFA**	100780
Cover							
	NZM1, N(S)1	-	-	-	-	**NZM1-XKSA**	260021
IP2X finger protection							
For box terminals							
	NZM1, N1	-	-	-	-	**NZM1-XIPK**	266744
For covers NZM1-XKSA, NZM1, NZM1...(C)NA or N(S)1...NA							
	NZM1, N(S)1	-	-	-	-	**NZM1-XIPA**	266748
Phase isolator							
	NZM1, N(S)1	-	-	-	-	**NZM1-XKP**	119862
NZM2 terminal types							
Box terminal							
	NZM2, N(S)2 ≦ 160 A	Cu cable	1 x 10 - 185 2 x 4 - 70	**+NZM2-160-XKCO**	262218	**NZM2-160-XKC**	262240
				+NZM2-160-XKCU	262223	-	-
	NZM2, N(S)2 > 160 A			**+NZM2-250-XKCO**	262242	**NZM2-250-XKC**	262244
				+NZM2-250-XKCU	262243	-	-
Multi-tunnel terminal							
	NZM2, N(S)2 ≦ 250 A	Cu cable	6 x 2.5 - 35	-	-	**NZM2-XKAM**	144113
Control-circuit terminal							
	NZM2, PN2, N(S)2	Screw connection	1 x 0.75 - 2.5 2 x 0.75 - 1.5	-	-	**NZM2-XSTS**	260156
	NZM2, PN2, N(S)2	Box terminal	1 x 0.75 - 2.5 2 x 0.75 - 1.5	-	-	**NZM-XSTK**	266739
Cable-lug cover							
	NZM2, N(S)2	Cu cable lug Al cable lug	1 x 10 - 185 2 x 4 - 70 1 x 10 - 50 2 x 10 - 50	-	-	**NZM2-XKSAE**	119868

Power management

	For use with	Terminal capacity Terminal type	Terminalcapa-cities mm²	Part. no. suffix	Article no. if ordered to-gether with base unit	Part no.	Article no. if ordered separately
Phase isolator							
	NZM2, N(S)2	-	-	-	-	**NZM2-XKP**	119864
IP2X finger protection							
For box terminals							
	NZM2, PN2, N2	-	-	-	-	**NZM2-XIPK**	266773
For covers NZM2-XKSA, NZM2, NZM2...(C)NA or N(S)2...NA							
	NZM2, PN2, N(S)2	-	-	-	-	**NZM2-XIPA**	266777
Cu cable lug Not UL/CSA approved If used without cover NZM2(-4)-XKSA, the cable lug must be insulated.							
	NZM2, N2	-	95	-	-	**KS95-NZM7**	059775
		-	120	-	-	**KS120-NZM7**	059776
		-	150	-	-	**KS150-NZM7**	059777
		-	185	-	-	**NZM2-XKS185**	260032
NZM3 terminal types							
Box terminal							
	NZM3, N(S)3	Cu cable	1 x 35 - 240 2 x 16 - 120	**+NZM3-XKCO**	262246	**NZM3-XKC**	260042
				+NZM3-XKCU	262245	-	-
Control-circuit terminal							
	NZM3, PN3, N(S)3	Screw connection	1 x 0.75 - 2.5 2 x 0.75 - 1.5	-	-	**NZM3/4-XSTS**	266797
		Box terminal	1 x 0.75 - 2.5 2 x 0.75 - 1.5	-	-	**NZM-XSTK**	266739
Cable-lug cover							
	NZM3, N(S)3	Cu cable lug Al cable lug	1 x 16 - 240 2 x 16 - 240 1 x 10 - 120 2 x 10 - 120	-	-	**NZM3-XKSAE**	119869
Phase isolator							
	NZM3, N(S)3	-	-	-	-	**NZM3-XKP**	100512
IP2X finger protection							
For box terminals							
	NZM3, N3	-	-	-	-	**NZM3-XIPK**	266804
For covers NZM3-XKSA, NZM3, NZM3...(C)NA or N(S)3...NA							
	NZM3, N(S)3	-	-	-	-	**NZM3-XIPA**	266808
Cu cable lug Not UL/CSA approved. If used without cover NZM3(-4)-XKSA, the cable lug must be insulated.							
	NZM3, N3	-	185	-	-	**NZM3-XKS185**	260040
		-	240	-	-	**NZM3-XKS240**	260041
		-	300	-	-	**NZM3-XKS300**	153186

		For use with	Contacts ⊖ = Safety function implemented with positive opening according to IEC/EN 60947-5-1 N/O = normally open	N/C = normally closed	Part no.	Article no.
Auxiliary contact with screw terminal/spring-loaded terminal						
Standard auxiliary contact (HIN) Switches using the main contacts. Used for signaling and interlocking tasks.						
	Single contact	NZM1, 2, 3 N(S)1, 2, 3	1 N/O	-	**M22-K10**	216376
			-	1 N/C ⊖	**M22-K01**	216378
Early-make auxiliary contacts For interlocking and load shedding circuits as well as early-make connection of the undervoltage release in main switch/ emergency-stop applications.						
	With terminal block on the left-hand side of the switch	NZM1 N(S)1	2 N/O	-	**NZM1-XHIV**	259426
	With screw connection	NZM2, 3 N(S)2, 3	2 N/O	-	**NZM2/3-XHIV**	259430
	With Push-in terminals	NZM2(3)-VX(MX)(PX) (PMX)…	1 N/O	-	**NZM2/3-XHIV-PI**	189748
Trip-indicating auxiliary switch (HIA) General trip indication "+" if tripped by a voltage release, overload release, short-circuit release and due to residual current if a residual-current release is used.						
	Single contact	NZM1, 2, 3 N(S)1, 2, 3	1 N/O	-	**M22-K10**	216376
			-	1 N/C ⊖	**M22-K01**	216378

		For use with	Contacts N/O = normally open	N/C = normally closed	Part no.	Article no.
Relay module with undervoltage release						
For use with emergency-stop devices (in combination with an emergency-stop button). Two relays per unit, for signaling commands or different circuit-breaker states. The tripping criteria can be configured in the trip unit. Tripping of the undervoltage release will safely prevent unintentional contact with the main contacts when the circuit breaker switches on. Can only be used in combination with circuit breakers with electronic releases. The undervoltage release relay modules cannot be used together with the NZM...-XHIV early-make auxiliary contacts, the NZM...-XU.... undervoltage releases or the NZM...-XA.... shunt releases. Relay contacts for control wiring. Control wiring on Push-in terminals.						
		PXR20(25) NZM2(-4)-…X… PXR20(25) NZM3(-4)-…X…	2	-	**NZM2/3-XU2A24DC**	189725
			2	-	**NZM2/3-XU2A208-240AC**	189727
Relay module with undervoltage release and early-make auxiliary contact						
For interlocking and load-shedding circuits as well as for early-break interruption of the undervoltage release in main switch applications. NZM circuit breakers will trip instantaneously if the control voltage drops below 35 - 70% Us. For use with emergency-stop devices (in combination with an emergency-stop button). Two relays per unit, for signaling commands or different circuit-breaker states. The tripping criteria can be configured in the trip unit. Tripping of the undervoltage release will safely prevent unintentional contact with the main contacts when the circuit breaker switches on. Can only be used in combination with circuit breakers with electronic releases. Cannot be used in combination with the NZM…-XR… remote operator. The undervoltage release relay modules cannot be used together with the NZM...-XHIV early-make auxiliary contacts, the NZM...-XU.... undervoltage releases or the NZM...-XA.... shunt releases. Control wiring on Push-in terminals.						
		PXR20(25) NZM2(-4)-…X… PXR20(25) NZM3(-4)-…X…	2 (for relays) 1 (for HIV)	-	**NZM2/3-XUHIV2A24DC**	189733
			2 (for relays) 1 (for HIV)	-	**NZM2/3-XUHIV2A208-240AC**	189735

Power management

		For use with	Contacts N/O = normally open	Contacts N/C = normally closed	Part no.	Article no.
Relay module with shunt release						
The breakers will trip in the event of a voltage pulse or if a no-break current is applied. Two relays per unit, for signaling commands or different circuit-breaker states. The activation criteria can be configured in the trip unit. If the shunt release is energized, contact with the main contacts of the circuit breaker will be prevented when the latter is switched on. Can only be used in combination with circuit breakers with electronic releases. Shunt release relay modules cannot be used together with the NZM...-XHIV early-make auxiliary contacts, the NZM...-XU.... undervoltage releases or the NZM...-XA.... shunt releases. Control wiring on Push-in terminals.						
		PXR20(25) NZM2(-4)-...X... PXR20(25) NZM3(-4)-...X...	2	-	**NZM2/3-XA2A24AC/DC**	189740
			2	-	**NZM2/3-XA2A208-240AC**	189743
Relay module						
Two relays per unit, for signaling commands or different circuit-breaker states. The activation criteria can be configured in the trip unit. Can only be used in combination with circuit breakers with electronic releases. Relay modules cannot be used together with the NZM...-XHIV early-make auxiliary contacts, the NZM...-XU.... undervoltage releases or the NZM...-XA.... shunt releases. Relay contacts for control wiring. Control wiring on Push-in terminals.						
		PXR20(25) NZM2(-4)-...X... PXR20(25) NZM3(-4)-...X...	2	-	**NZM2/3-X2A**	189722

		For use with	Rated control voltage U_s V	Part no.	Article no.
Undervoltage releases					
Without auxiliary contact NZM circuit breakers and N switch-disconnectors will trip instantaneously if the control voltage drops below 35 - 70% U_S. For use with emergency-stop devices (in combination with an emergency-stop button).					
	With terminal block on the left-hand side of the switch	NZM1 N(S)1	208 - 240 V 50/60 Hz	**NZM1-XU208-240AC**	259442
			380 - 440 V 50/60 Hz	**NZM1-XU380-440AC**	259444
			24 V DC	**NZM1-XU24DC**	259452
	With screw connection	NZM2, 3 N(S)2, 3	208 - 240 V 50/60 Hz	**NZM2/3-XU208-240AC**	259499
			380 - 440 V 50/60 Hz	**NZM2/3-XU380-440AC**	259501
	With Push-in terminals		208 - 240 V 50/660 HZ	**NZM2/3-XU208-240AC-PI**	189754
			24 V DC	**NZM2/3-XU24DC-PI**	189757
Shunt releases					
Without auxiliary contact The circuit breakers will trip in the event of a voltage pulse or if a continuous voltage is applied.					
	With terminal block on the left-hand side of the switch	NZM1 N(S)1	24 V AC/DC	**NZM1-XA24AC/DC**	259708
			208 - 250 V AC/DC	**NZM1-XA208-250AC/DC**	259726
	With screw connection	NZM2, 3 N(S)2, 3	208 - 250 V AC/DC	**NZM2/3-XA208-250AC/DC**	259763
	With Push-in terminals		208 - 250 V AC/DC	**NZM2/3-XA208-250AC/DC-PI**	189803
			24 V AC/DC	**NZM2/3-XA24AC/DC-PI**	189799

		For use with	Part no.	Article no.	Notes
Door-coupling rotary handles					
Complete handles including rotary drive and coupling parts Requires an additional extension shaft IP66 degree of protection, UL/CSA Type 4X, Type 12					
Standard, black/grey					
	Lockable in the 0 position on the handle with max. three padlocks With door interlock	NZM1, N(S)1	**NZM1-XTVD**	260166	Door interlock • Cannot be overridden if ON or OFF is locked • Can be modified if ON is not locked • Can be overridden from the outside using a screwdriver • Door can be opened in OFF • External warning plate/designation label can be clipped on
		NZM2, N(S)2	**NZM2-XTVD**	260168	
		NZM3, N(S)3	**NZM3-XTVD**	260170	
	Lockable on the handle and the switch with up to three padlocks each Can also be modified on the handle in the I position With door interlock	NZM1, N(S)1	**NZM1-XTVDV**	260172	
		NZM2, N(S)2	**NZM2-XTVDV**	260174	
		NZM3, N(S)3	**NZM3-XTVDV**	260176	
Red-yellow for emergency-stop					
	Lockable on the handle and the switch with up to three padlocks each With door interlock	NZM1, N(S)1	**NZM1-XTVDVR**	260178	Door interlock • Cannot be overridden if OFF is locked • Can be modified if ON is not locked • Can be overridden from the outside using a screwdriver • Door can be opened in OFF • External warning plate/designation label can be clipped on
		NZM2, N(S)2	**NZM2-XTVDVR**	260180	
		NZM3, N(S)3	**NZM3-XTVDVR**	260182	
Door-coupling rotary handles for use in North America					
Complete handles including rotary drive and coupling parts Requires an additional extension shaft IP66 degree of protection, UL/CSA Type 4X, Type 12					
Standard, black/grey					
	Lockable in the 0 position on the handle with up to three padlocks With door interlock	NZM1, N1	**NZM1-XTVD-NA**	271445	Door interlock • Cannot be overridden if OFF is locked • Door can only be opened after active rotation beyond the 0 position • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on
		NZM2, N2	**NZM2-XTVD-NA**	271446	
		NZM3, N3	**NZM3-XTVD-NA**	271447	
Red-yellow for emergency-stop					
	Lockable on the handle and the switch with up to three padlocks each With door interlock	NZM1, N(S)1	**NZM1-XTVDVR-NA**	271449	Door interlock • Cannot be overridden if OFF is locked • Door can only be opened after active rotation beyond the 0 position • Cannot be combined with mechanical interlock • External warning plate/designation label can be clipped on
		NZM2, N(S)2	**NZM2-XTVDVR-NA**	271450	
		NZM3, N(S)3	**NZM3-XTVDVR-NA**	271451	
Extension shaft					
	Mounting depth: max. 400 mm	NZM1, N(S)1 NZM2, N(S)2	**NZM1/2-XV4**	261232	Length: 290 mm, can be cut to the desired length
		NZM3, N(S)3	**NZM3/4-XV4**	261234	
	Mounting depth: max. 600 mm	NZM1, N(S)1 NZM2, N(S)2	**NZM1/2-XV6**	260191	Length: 425 mm, can be cut to the desired length
		NZM3, N(S)3	**NZM3/4-XV6**	260193	

		For use with	Rated control voltage U_s V	**Part no.** Article no.
Main switch assembly kit for IEC, UL/CSA				
Includes: • Door-coupling rotary handle with rotary drive • NZM…-XV4 shaft extension • External warning plate in German/English • Black-and-yellow lightning symbol IP66 degree of protection, UL/CSA Type 4X, Type 12				
With black door-coupling rotary handle				
	Door can be locked in OFF position with up to three padlocks Can also be modified in the I position After the door interlock is activated it cannot be opened in the ON or TRIP position. Door can only be opened in the OFF position Can be overridden from the outside using a screwdriver Cannot be overridden if OFF is locked Can only be switched on if the door is closed	NZM1, N(S)1	-	**NZM1-XHB** 266626
		NZM2, N(S)2	-	**NZM2-XHB** 266627
		NZM3, N(S)3	-	**NZM3-XHB** 266628
With red door-coupling rotary handle for use as an emergency-stop device in accordance with IEC/EN 60204-1, VDE 0113 Part 1				
	Door can be locked in the OFF position with up to three padlocks After the door interlock is activated it cannot be opened in the ON or TRIP position. Door can only be opened in the OFF position Can be overridden from the outside using a screwdriver Cannot be overridden if OFF is locked Can only be switched on if the door is closed	NZM1, N(S)1	-	**NZM1-XHBR** 266632
		NZM2, N(S)2	-	**NZM2-XHBR** 266633
		NZM3, N(S)3	-	**NZM3-XHBR** 266634
Main switch assembly kit with additional rotary handle for IEC, UL/CSA				
Includes: • Door-coupling rotary handle with rotary drive • Additional rotary handle on the switch with “Deliberate Action” operating mode according to NFPA79 and UL508A Part 2 • NZM1/2-XV4 shaft extension for mounting depth of 400 mm • External warning plate in German/English • Black-and-yellow lightning symbol IP66 degree of protection, UL/CSA Type 4X, Type 12				
With black door-coupling rotary handle				
	Door can be locked in the OFF position with up to three padlocks With activated door interlock Cannot be opened in the ON, OFF or TRIP position Can only be opened in the RESET position Can be overridden from the outside using a screwdriver Cannot be overridden if OFF is locked	NZM1, N(S)1	-	**NZM1-XHB-DA-NA** 125958
		NZM2, N(S)2	-	**NZM2-XHB-DA-NA** 116897
		NZM3, N(S)3	-	**NZM3-XHB-DA-NA** 119000
With red door-coupling rotary handle for use as an emergency-stop device				
	Door can be locked in the OFF position with up to three padlocks With activated door interlock Cannot be opened in the ON, OFF or TRIP position Can only be opened in the RESET position Can be overridden from the outside using a screwdriver Cannot be overridden if OFF is locked	NZM1, N(S)1	-	**NZM1-XHB-DAR-NA** 125959
		NZM2, N(S)2	-	**NZM2-XHB-DAR-NA** 116898
		NZM3, N(S)3	-	**NZM3-XHB-DAR-NA** 119001
Remote operator				
For remote switching of circuit breakers and switch-disconnectors ON, OFF and reset by means of two-wire or three-wire control Can be manually switched on site Lockable in the 0 position of the remote operator with up to three padlocks (hasp thickness: 4 – 8 mm)				
Closing delay 110 - 170 ms, break time 110 - 170 ms				
	Sliding switch for “Auto” or “Manual” Max. number of auxiliary contacts: two standard auxiliary contacts, one trip-indicating auxiliary switch	NZM2, N(S)2	208 - 240 V 50/60 Hz	**NZM2-XRD208-240AC** 115391
	-	NZM2, N(S)2	24 - 30 V DC	**NZM2-XRD24-30DC** 115393
Closing delay 60 - 100 ms, break time 300 - 3000 ms Synchronized				
	-	NZM3, N(S)3	208 - 240 V 50/60 Hz	**NZM3-XR208-240AC** 259850
		NZM3, N(S)3	24 - 30 V DC	**NZM3-XR24-30DC** 259854

	Description	For use with	Part no. Article no.
Interface module for NZM2 PXR20 and communication interfaces			
	For universal connection of optional circuit breaker functions. Required for connectivity. The connection types depend on the design of the interface module. Circuit-breaker status detection (I, +, 0) of the electronic release. The switch status can be communicated. 24 V DC auxiliary power connection. Connection for communications adapter module (CAM). Optional CAM available for various fieldbus communication systems (Profibus DP, SmartWire-DT, Ethernet-based fieldbuses). Connection to optional internal Modbus RTU module. Mechanical pass-through of the switch's status (I, O) for use by the remote operator.	NZM2(-4)-VX(MX)…	**NZM2-XBSM** 189825
		NZM3(-4)-VX(MX)…	**NZM3-XBSM** 189826
Integrated communication module, RS485, Modbus RTU, for use with NZM			
	For fieldbus connections. For installation in the right-hand accessory pocket of the circuit breaker. For connection to Modbus RTU. RS485 interface. Cannot be used with the PXR10 NZM-AX electronic release.	NZM2(3)(4)(-4)-VX(MX)(PX)(PMX)	**PXR-RCAM-MRTU-I** 189836
External communication modules, for use with NZM and IZMX	For fieldbus connections. For external installation in the vicinity of the circuit breaker. Cannot be used with the PXR10 NZM-AX electronic trip.		
	For connection to Profinet Connection via PXR-RCAM-MRTU-I	NZM2(3)(4)(-4)-VX(MX)(PX)(PMX)	**PXR-ECAM-PNET** 302050
	For connection to Ethernet/IP Connection via PXR-RCAM-MRTU-I		**PXR-ECAM-IP** 302051
	For connection to Ethercat Connection via PXR-RCAM-MRTU-I		**PXR-ECAM-ECT** 302052

	No. of poles	Rated current = rated uninterrupted current	Settings range Overload release	 Short-circuit release	High switching capacity of 150 kA Part no.	 Article no.
		$I_n = I_u$	I_r	I_i		
		A	A	A	Screw connection	
				I >		
Circuit breaker with residual-current release For equipment with power electronics, such as inverters or variable frequency drives. Not UL/CSA approved. Suitable for use in three-phase systems. 3-pole Rated fault current $I_{\triangle n}$ = 0.03 A Internal power supply U_e = 50 - 400 V (...-500 AC: 500 V) AC/DC sensitive in the 0-100 kHz residual-current frequency range according to the core-balance principle Pre-assembled combination of current-limiting circuit breaker and residual-current protection module Adjustable and sealable buttons.						
	Rated operating voltage: 400 V 50/60 Hz	100	80 - 100	600 - 1000	**NZMH2-A100-FIA30**	158530
		125	100 - 125	750 - 1250	**NZMH2-A125-FIA30**	129710
		160	125 - 160	960 - 1600	**NZMH2-A160-FIA30**	112627
		200	160 - 200	1200 - 2000	**NZMH2-A200-FIA30**	112628
		250	200 - 250	1500 - 2500	**NZMH2-A250-FIA30**	112629
	Rated operating voltage: 500 V 50/60 Hz	100	80 - 100	600 - 1000	**NZMH2-A100-FIA30-500AC**	184959
		125	100 - 125	750 - 1250	**NZMH2-A125-FIA30-500AC**	184960
		160	125 - 160	960 - 1600	**NZMH2-A160-FIA30-500AC**	184961
		200	160 - 200	1200 - 2000	**NZMH2-A200-FIA30-500AC**	184962
		250	200 - 250	1500 - 2500	**NZMH2-A250-FIA30-500AC**	184963