

Circuit-breaker – Series NRX, IZMX16, IZMX40

Small, flexible, efficient.

Catalogue 2011

Circuit-breaker – Series NRX IZMX16, IZMX40



EATON

Powering Business Worldwide



IZMX circuit-breakers, INX switch-disconnectors, from the NRX series up to 4000 A

Eaton's NRX series is a new line of circuit-breakers up to 4000 A. Engineering and mounting requirements are reduced thanks to only two compact sizes, the modular design and standard accessories. The highlight of the NRX series: The Digitrip 1150 P trip electronics. It covers all possible applications. And in conjunction with a communication module ensures that operation can be monitored from all round the globe. The innovative IZMX16 enables two circuit-breakers with a width of only 600 mm to be mounted in a switch cabinet.

NRX Series

Rated operational current from 630 to 4000 A, switching capacity 440 V AC, $I_{cu} = I_{cs}$ from 42 to 105 kA, 3 or 4 pole, fixed mounted or withdrawable, electronic releases for system protection, selective, universal protection, professional protection.

Extensive mounting accessories for fixed mounting and withdrawable units

Motor operator IZMX...M... +++ Shunt release IZMX...ST... +++ Closing release IZMX...-SR...
+++ Undervoltage release IZMX...-UV... +++ Auxiliary contact ON-OFF IZMX...-AS... +++
Latch check switch IZMX...LCS... +++ Overload trip switch IZMX...-OTS +++ Mechanical interlocks.

Extensive range of control units and communication

The Digitrip™ control unit offers the most extensive range of functions in its class. It covers all requirements: from simple system protection to professional protection with additional parameter, protection, measuring, analysis, diagnostics and event memory functions that can be shown on an LCD color display or transferred remotely via a communication module, displayed on a web page or sent worldwide by email. Unique in this range: the LCD color display. Digitrip can be integrated in different data networks together with Eaton's plug & play communication modules: MODBUS, PROFIBUS or Ethernet. Circuit-breakers can then be monitored directly via the Internet.

Worldwide novelty ARMS™ – greater safety for maintenance personnel

In the event of an arc fault the patented ARMS™ (Arcflash Reduction Maintenance System) trips faster than a short-circuit release. In conjunction with the NRX (IZMX) series, additional components of the ARCON™ arc fault protection system offer additional arc fault protection.

Circuit-breakers IZMX16, switch-disconnectors INX16 Circuit-breakers IZMX40, switch-disconnectors INX40 up to 4000 A

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System overview

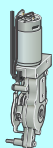
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Fixed mounted	91
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Aerospace



Truck



Powering Business Worldwide

Discover Eaton – a leader in the power management field

Since 1911, when our company began trading as a small truck parts supplier, Eaton® Corporation has come a long way. Today, as a diversified power management company, Eaton has sales of \$13.7 billion USD (FY 2010), employs 70,000 people and has customers in more than 150 countries. Everyday, we help companies across the world to manage power, and do more, while consuming less energy.

Eaton's innovative products, solutions and technologies are designed to help customers to manage power and conserve resources while working more productively, safely and sustainably. Our integrated and diversified business strategy ensures that we remain at the forefront of our industry, decade after decade.

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A leading global supplier to commercial and military aviation and aerospace industries. An extensive technology portfolio includes hydraulic systems, fuel systems, motion control systems, propulsion sub-systems, cockpit controls and displays and fluid health monitoring systems. Our products improve fuel economy, aircraft performance, reliability and safety.

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A leader in the design, manufacture and marketing of complete line of drivetrain systems and components for medium- and heavy-duty commercial vehicles. Under the "Roadranger" brand, Eaton also markets lubricants, safety products and service tools. Eaton's hybrid power systems have earned the company recognition as a global leader in alternative power for commercial vehicles.

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Powering electrical systems worldwide

Buildings

- Residential
- Healthcare
- Education
- Commercial offices
- Retail
- Public sector
- Airports

- Electrical distribution solutions for safe and efficient power delivery
- Power quality systems for uptime and reliability
- Power metering and monitoring to add intelligence and save costs
- Industrial control products for HVAC applications

Information Technology

- Data centers
- Telecommunication
- Networks
- Computer rooms

- World's most efficient line of UPSs to reduce footprint and save energy
- Reliable power systems with inherent redundancy to improve availability
- Power metering and monitoring to diagnose problems and lower costs
- Local service and support for quick response

Eaton Catalogs in the App Store – all catalogues close at hand!

In order to meet the needs of increasingly mobile customers and employees, Eaton is offering a mobile solution for communication and product information from June 2011.

Clearly designed shelf view

The Eaton Catalogs app offers an outstandingly clear user interface and several fully developed functions. In the form of a shelf view, the user is provided with a clear overview of Eaton's latest product catalogues. These can be leafed through on the fly or downloaded to the device – for situations when there is no Internet access. Choose for yourself which catalogues are of interest and keep up-to-date using the Update function.

Intuitive browsing, searching and finding

Users can simply browse through the catalogues with intuitive navigation ensured. A linked table of contents, thumbnail views and a rapid search function are also provided for finding information quickly and conveniently.

Linked data sheets

It is often the case that product information is required which is not available in the product catalogues. The "Eaton Catalogs" contain article numbers and type designations that are linked to the Online Catalogue. This enables the user to access highly detailed production information in the form of a technical data sheet. From here other documents such as installation instructions and technical publications can be called up.

Whether on the building site, at the customer, on the train or at home – "Eaton Catalogs" make sure that all product information is close to hand.



Scan the QR code with your iPhone or iPad and you will immediately access "Eaton Catalogs".



In the App Store from
June 2011

The Eaton online catalogue

THE PRODUCT GROUP TREE

- > Information
- > Control circuit devices
- > (Safety) position switches/sensors
- > Pressure switches
- > Cam switches, switch-disconnectors up to 315 A
- > Timing and measuring relays
- > Safety relays, safety control relays
- > Control relays, multi-function-display
- > Touch panel, PLC, I/O expansion
- > Contactors
- > Overload relays
- > Motor-protective circuit-breakers
- > Motor-starter combinations
- > Soft starters
- > frequency inverters
- > distributed drives engineering
- > Compact circuit-breakers up to 1600 A
- > Compact switch-disconnectors up to 1600 A
- > Circuit breakers up to 6300 A
- > Switch-disconnectors up to 6300 A
- > Miniature circuit-breakers
- > Transformers

The product group tree: Clear layout of the Eaton products in product groups.

The one-dimensional product structure ensures the user can easily locate the product with a few clicks.

SELECTION AIDS



THE SEARCH

- Contactor
- adapter for contactor
- amplifier module for contactor
- auxiliary contactor
- auxiliary contactor relay
- bridge for contactor
- cable terminal block for contactor
- capacitor contactor
- coil for contactor
- connector for contactor
- contactor
- contactor accessories
- contactor amplifier module
- contactor coil
- contactor



Search/result list: high performance search with suggestion list by "Entry".

A suggestion list brings the search an above-average success rate, because nothing makes less sense than a 0-hit result.

The selection tools: 3 clicks to product

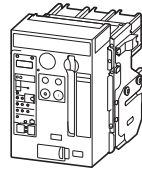
Selection-relevant features allow users to locate their products easily, without problems. From general to specific to product – 3 clicks!

The catalogue portal is the entry page to the Online Catalogue. Important elements include the powerful search function and the graphical navigation. The clearly designed user interface makes the application particularly easy to use.

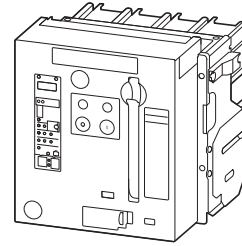
Continuous updating ensures that you will always find the latest product data and news.
<http://ecat.moeller.net>



IZMX16, INX16



IZMX40, INX40



I_{cu}/I_{cs} at $U_e = 440/690$ V AC I_{cu} : Rated ultimate short-circuit breaking capacity at rated operational voltage U_e I_{cs} : Rated service short-circuit breaking capacity at rated operational voltage U_e		Basic switching capacity (B)		Normal switching capacity (N)		High switching capacity (H)	
		440 V AC	690 V AC	440 V AC	690 V AC	440 V AC	690 V AC
Circuit-breaker Series NRX	Rated operational current I_n A	I_{cu} / I_{cs} kA/kA	I_{cu} / I_{cs} kA/kA	I_{cu} / I_{cs} kA/kA	I_{cu} / I_{cs} kA/kA	I_{cu} / I_{cs} kA/kA	I_{cu} / I_{cs} kA/kA
IZMX16							
NF-Frame	630 - 1600	42/42	42/42	50/50	42/42	65/50	42/42
IZMX40							
RF-Frame	800 - 4000	66/66	66/66	85/85	75/75	105/105	85/85

I_{cw} at $U_e = 440/690$ V AC I_{cw} at $t = 1$ s I_{cw} : Rated short-time withstand current		Basic switching capacity (B)		Normal switching capacity (N)		High switching capacity (H)	
		440/690 V AC	440/690 V AC	440/690 V AC	440/690 V AC		
Circuit-breaker, switch-disconnector	Rated operational current I_n A	I_{cw} kA	I_{cw} kA	I_{cw} kA	I_{cw} kA		
IZMX16							
NF-Frame	630 - 1600	42	42	42	42		
IZMX40							
RF-Frame	800 - 4000	66	75	85	85		

I_{cm} at $U_e = 440/690$ V AC I_{cm} : Rated short-circuit making capacity (Peak value) at rated operational voltage U_e		Basic switching capacity (B)		Normal switching capacity (N)		High switching capacity (H)	
		440/690 V AC	440/690 V AC	440/690 V AC	440/690 V AC		
Switch-disconnectors Series NRX	Rated operational current I_n A	I_{cm} kA	I_{cm} kA	I_{cm} kA	I_{cm} kA		
INX 16							
NF-Frame	630 - 1600	88	—	—	—		
INX 40							
RF-Frame	800 - 4000	144	165	—	—		

Type code for Eaton IEC-ACB for EMEA (Europe, Middle-East, Africa)

IZMX16, INX16, IZMX40, INX40

IZMX	16	B	3	-	A	06	W
INX	40	N	4		V	08	F
		H			U	10	
					P	12	
						16	
						20	
						25	
						32	
						40	

IZMX = IEC circuit-breaker

INX = IEC switch-disconnectors

Frame size

16: IZMX16, INX16, 630-1600 A

40: IZMX40, INX40, 800-4000 A

Switching capacity

B = Basic

N = Normal

H = High

Number of poles

3: 3 pole

4: 4 pole

Characteristic

A = System protection

Digitrip 520 LI

V = Selective protection

Digitrip 520 LSI

U = Universal protection

Digitrip 520M LSI

P = U + Power Measurement

Digitrip 1150i LSI

Rated current

06: 630 A

08: 800 A

10: 1000 A

12: 1250 A

16: 1600 A

20: 2000 A

25: 2500 A

32: 3200 A

40: 4000 A

Model

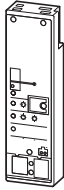
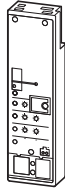
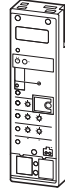
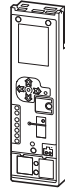
W = Withdrawable

F = Fixed

Pos: Type Code Example:	Position 1-8 Basic Device Selection								Position 9-11 Overcurrent Protection			Position 12-20 Options & Accessories									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	R	E	S	8	4	0	3	W	5	2	G	A	B	A	N	4	X	N	D	X	
	Basic Device Selection Position 1-8								Overcurrent Protection, Rating Plug Selection Position 9, 10											Electronic Trip Unit Selection Position	
																				Protection ZSI ARMS	
	Position 1 - Breaker Frame Size								No Protection - Switch Disconnecter												
	N Type NF 630 to 1600 A								SW											None	
	R Type RF 800 to 4000 A																				
	Position 2 - Industry Standard								Digitrip 520 - System Protection												
	E IEC 60947-2								22											LI protection only LI	
	Position 3, 4 - Switching Capacity at 440 V AC (IEC)								Digitrip 520 - Selective Protection												
	S4 42 kA								52											LSI (G) LSI -	
	S5 65 kA								53											- ZSI Optional LSI ZSI	
	S6 65/66 kA								5G											LSIG -	
	S8 85 kA								5H											LSIG ZSI	
	SC 105 kA																				
	Position 5, 6 - Rated Operational Current								Digitrip 520M - Universal Protection												
	07 630 A Frame								M2											LSI - -	
	08 800 A Frame								M3											LSI(G/A) LSI ZSI -	
	10 1000 A Frame								MA											- Metering LSIA LSIA - -	
	13 1250 A Frame								MB											- Communications Ready LSIA ZSI -	
	16 1600 A Frame								MG											- Ext. Power Ready 24V DC LSIG - -	
	20 2000 A Frame								MH											- ZSI Optional LSIG ZSI -	
	25 2500 A Frame								R2											- ARMS Optional LSI - ARMS	
	32 3200 A Frame								R3											LSI ZSI ARMS	
	40 4000 A Frame								RA											LSIA - ARMS	
									RB											LSIA ZSI ARMS	
									RG											LSIG - ARMS	
									RH											LSIG ZSI ARMS	
	Position 7 - Poles & Phasing								Digitrip 1150i - Power Measurement												
	3 3-Pole ABC								12											520M Protection + LCD Color LSI - -	
	4 4-Pole NABC								13											Display LSI ZSI -	
									14											Advanced metering & LSIGA - -	
									15											protective features LSIGA ZSI -	
									16											LSI - ARMS	
									17											LSI ZSI ARMS	
									18											LSIGA - ARMS	
									19											LSIGA ZSI ARMS	
									Position 11 Rating Plug [A]												
									0											Non-Auto Switch	
									1											200	
									2											250	
									3											300	
									4											400	
									5											500	
									7											630	
									8											800	
									A											1000	
									C											1250	
									D											1600	
									M											2000	
									N											2500	
									Q											3200	
									R											4000	

Pos:	Position 1-8 Basic Device Selection								Position 9-11 Overcurrent Protection			Position 12-20 Options & Accessories									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Type Code	R	E	S	8	4	0	3	W	5	2	G	A	B	A	N	4	X	N	D	X	
Example:																					

Options & Accessories Position 9-20			Position 17 Trip Indicator		Bell Alarm/OTS	Secondary Terminal Blocks	Remote Reset	
Position 12 - Shunt Trip			N	None	None	Per Breaker Options	-	
N	No Shunt Trip		X	Trip Indicator	None	Per Breaker Options	-	
A	110-127 V AC/DC		Z	Trip Indicator	2 Form C	Per Breaker Options	-	
R	208-240 V AC/DC		M	Interlock Trip Indicator	None	Per Breaker Options	-	
L	24 V DC		A	Interlock Trip Indicator	None	Per Breaker Options	24 V AC	
H	48 V DC		B	Interlock Trip Indicator	None	Per Breaker Options	120 V AC	
S	60 V DC		C	Interlock Trip Indicator	None	Per Breaker Options	240 V AC	
Position 13 - Motor Operator			Y	Interlock Trip Indicator	2 Form C	Per Breaker Options	-	
M	Manually Operated		D	Interlock Trip Indicator	2 Form C	Per Breaker Options	24 V RR	
B	110-125 V AC/DC		E	Interlock Trip Indicator	2 Form C	Per Breaker Options	120 V RR	
T	208-250 V AC/DC		F	Interlock Trip Indicator	2 Form C	Per Breaker Options	240 V RR	
L	24 V DC		1	None	None	Full-Compliment	-	
H	48 V DC		2	Trip Indicator	None	Full-Compliment	-	
S	60 V DC		3	Trip Indicator	2 Form C	Full-Compliment	-	
Position 14 Spring Release Latch Check Switch			4	Interlock Trip Indicator	No OTS	Full-Compliment	-	
N	No Spring Release	No LCS	J	Interlock Trip Indicator	No OTS	Full-Compliment	24 V RR	
A	110-127 V AC/DC	No LCS	K	Interlock Trip Indicator	No OTS	Full-Compliment	120 V RR	
B	110-127 V AC/DC	Spring Release LCS	L	Interlock Trip Indicator	No OTS	Full-Compliment	240 V RR	
C	110-127 V AC/DC	LCS Wired External	S	Interlock Trip Indicator	2 Form C	Full-Compliment	-	
R	208-240 V AC/DC	No LCS	R	Interlock Trip Indicator	2 Form C	Full-Compliment	24 V RR	
S	208-240 V AC/DC	Spring Release LCS	S	Interlock Trip Indicator	2 Form C	Full-Compliment	120 V RR	
T	208-240 V AC/DC	LCS Wired External	T	Interlock Trip Indicator	2 Form C	Full-Compliment	240 V RR	
L	24 V DC	No LCS	Position 18 - PadLocking, Operations Counter					
P	24 V DC	Spring Release LCS	N	No PB Covers		No Counter		
Q	24 V DC	LCS Wired External	A	No PB Covers		Counter Provided		
H	48 V DC	No LCS	B	PB Covers (plastic/plastic)		No Counter		
J	48 V DC	Spring Release LCS	J	PB Covers (plastic/plastic)		Counter Provided		
K	48 V DC	LCS Wired External	K	PB Covers (metal/metal)		No Counter		
1	60 V DC	No LCS	L	PB Covers (metal/metal)		Counter Provided		
2	60 V DC	Spring Release LCS	5	PB Covers (metal/metal), Safe-Off		No Counter		
3	60 V DC	LCS Wired External	6	PB Covers (metal/metal), Safe-Off		Counter Provided		
Position 15 - UVR / Second Shunt Trip			Position 19 - Drawout Breaker Options					
N	None		D	Breaker configuration		Shutters	Terminal Adapters	
A	110-125 V AC/DC UVR		C	Drawout Breaker Shipping Alone		n/a	None	
R	220-250 V AC/DC UVR		1	Drawout Breaker in Cassette		None	No Terminals	
L	24 V DC UVR		2	Drawout Breaker in Cassette		None	Vertical	
H	48 V DC UVR		8	Drawout Breaker in Cassette		None	Horizontal	
S	60 V DC UVR						Front Connect	
1	110-127 V AC/DC Second Shunt Trip		9	Drawout Breaker in Cassette		Shutters	No Terminals	
2	208-240 V AC/DC Second Shunt Trip		4	Drawout Breaker in Cassette		Shutters	Vertical	
4	24 V DC Second Shunt Trip		5	Drawout Breaker in Cassette		Shutters	Horizontal	
8	48 V DC Second Shunt Trip		7	Drawout Breaker in Cassette		Shutters	Front Connect	
9	60 V DC Second Shunt Trip		Position 19 - Fixed-Mount - Terminal Adapter Options					
Position 16 - Auxiliary Switches			K	None (Terminals recommended for 4000A frame)				
N	No Aux Switches		F	Vertical				
2	2 Form C		H	Horizontal				
4	4 Form C		B	Front Connect				
6	6 Form C		Position 20					
8	8 Form C		X	Future				
A	10 Form C							
W	12 Form C							

		Standard protection	Standard plus selectivity	Universal protection	Professional protection
					
Type Coding		Digitrip 520 LI IZMX-DTA	Digitrip 520 LSI IZMX-DTV	Digitrip 520M LSI IZMX-DTU	Digitrip 1150i LSI IZMX-DTP
Current Range		200 - 4000 A	200 - 4000 A	200 - 4000 A	200 - 4000 A
RMS Value Monitoring		●	●	●	●
Protective functions					
General					
Ordering options		LI	LSI; LSIG	LSI; LSIG; LSIA	LSI; LSIG
Rating plug (I_n)		●	●	●	●
Overtemperature trip		●	●	●	●
Overload protection L					
Overload trip	I_r	$(0.5 - 1.0) \times I_n$	$(0.5 - 1.0) \times I_n$	$(0.5 - 1.0) \times I_n$	$(0.5 - 1.0) \times I_n$
Long delay time at $6 \times I_r$ (I^2t Curve)	t_r	2 - 24 s	2 - 24 s	2 - 24 s	2 - 24 s
Long delay time at $6 \times I_r$ (I^1t Curve)	t_r	–	–	–	1 - 5 s
IEC Type A, B, C curves	–	–	–	–	●
High load alarm	–	–	–	● ²⁾	Off, $0.5 - 1.0 \times I_r$
Thermal memory (enable / disable)	–	●	●	●	●
Short-time delayed short-circuit protection S					
Short delayed pickup short-circuit protection	I_{SD}	–	$(2 - 10) \times I_r$	$(2 - 10) \times I_r$	$(2 - 10) \times I_r$
Short delay time at $8 \times I_r$ (I^2t Curve)	t_{SD}	–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Short delay time, flat characteristic curve	t_{SD}	–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Zone selectivity ZSI	–	–	○	○	○
Non-delayed short-circuit protection I					
Non-delayed short-circuit protection		$(2 - 12) \times I_n$	$(2 - 12) \times I_n$	$(2 - 12) \times I_n$	$(2 - 12) \times I_n$
Switch-off function		–	●	●	●
Closing releases MCR		●	●	●	●
Optional ground fault protection G					
Ground/Earth fault alarm	– A	–	○	○ ¹⁾	○ ¹⁾
Ground/Earth fault protection release	I_g	–	$(0.25 - 1.0) \times I_n^{3)}$	$(0.25 - 1.0) \times I_n^{3)}$	$(0.24 - 1.0) \times I_n$
Short delay time at $0.625 \times I_n$ (I^2t curve)	t_g	–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Short delay time, flat characteristic curve	t_g	–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Zone selectivity ZSI	–	–	○	○	○
Thermal memory	–	–	●	●	●
Disable ground fault protection	–	–	–	–	●
Neutral protection N					
		●	●	●	●

Notes

I_n = rating plug (rate current module) = rated operational current transformer

I_r = Set value overload trip (= rated operational current of system)

¹⁾ Requires external 24 V DC control voltage supply.

²⁾ High load alarm available only on LSI styles, active at 85% of I_r

³⁾ Limited to 1200 A

⁴⁾ Hand-held kits available for basic verification or advanced testing

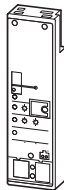
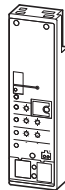
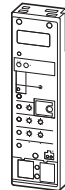
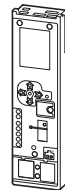
⁵⁾ Captures fault current of latest event when control power is supplied

● Standard

○ Optional

– not available

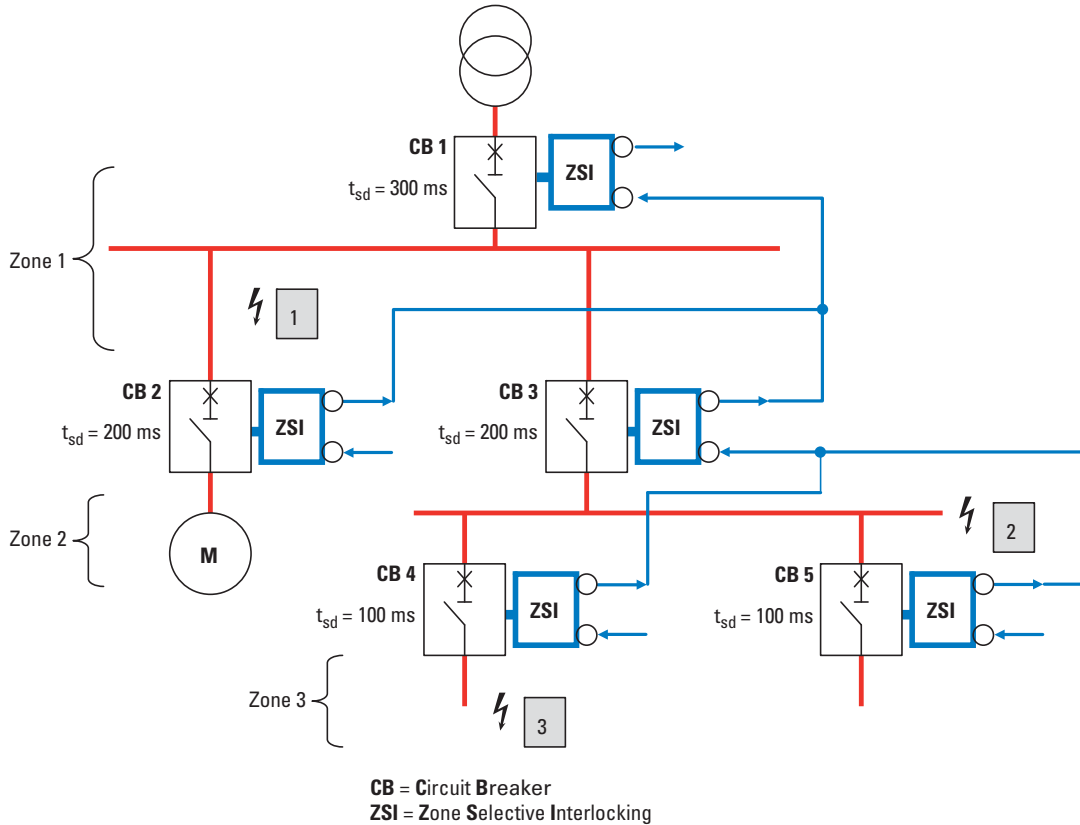
IZMX16, INX16, IZMX40, INX40

	Standard protection	Standard plus selectivity	Universal protection	Professional protection
				
Type Coding	Digitrip 520 LI IZMX-DTA	Digitrip 520 LSI IZMX-DTV	Digitrip 520M LSI IZMX-DTU	Digitrip 1150i LSI IZMX-DTP
Current Range	200 - 4000 A	200 - 4000 A	200 - 4000 A	200 - 4000 A
RMS Value Monitoring	●	●	●	●
Protective functions				
System diagnostic				
Status/Overload LED	●	●	●	●
Cause of trip LEDs	●	●	●	●
Current at trip point (display indication)	–	–	● ¹⁾	● ¹⁾
Ground fault release/alarm remote signaling (relay contact)	–	–	● ¹⁾	● ¹⁾
Overload alarm monitoring	–	–	● ¹⁾	● ¹⁾
Programmable contacts	–	–	–	●
System monitor				
Digital display	–	–	4-digit LCD	LCD Color Graphic
Metering Accuracy	–	–	● +/- 2%, full scale ⁶⁾	● +/- 1% of reading
Voltage (%) L to L	–	–	–	● +/- 1% of reading
Power and energy (%)	–	–	–	● +/- 2% of reading
Apparent power kVA and demand	–	–	–	●
Reactive power kVAR	–	–	–	●
Power factor	–	–	–	●
Crest factor	–	–	–	●
Power quality - harmonics	–	–	–	●
% THD	–	–	–	●
Communications				
Field Bus Type	–	–	Optional: Profibus, Modbus, INCOM, Ethernet	Optional: Profibus, Modbus, INCOM, Ethernet
Power supply requirement	+24 V DC, optional	+24 V DC, optional	+24 V DC	+24 V DC
Additional functions				
Test Capability ⁴⁾	–	Hand-Held Test Kit	Hand-Held Test Kit	Integral, Hand-Held Test Kit
Maintenance Mode ARMS (Arc Flash Reduction Maintenance System™)	–	–	○ ¹⁾	○ ¹⁾
Trip log	–	–	● ⁵⁾	●
Electronic operations counter	–	–	–	●
Waveform capture	–	–	–	●
Breaker health monitor	–	–	–	●
Protective relay functions	–	–	–	●

Notes

- I_n = rating plug (rate current module) = rated operational current transformer
- I_r = Set value overload trip (= rated operational current of system)
- 1) Requires external 24 V DC control voltage supply.
- 2) High load alarm available only on LSI styles, active at 85% of I_r
- 3) Limited to 1200 A
- 4) Hand-held kits available for basic verification or advanced testing
- 5) Captures fault current of latest event when control power is supplied
- 6) IZMX16 (NF-Frame) Full Scale = 1600 A
IZMX40 (RF-Frame) Full Scale = 4000 A
- Standard
- Optional
- not available

Zone Selective Interlocking



Zone Selective Interlocking

- Zone Selective Interlocking (ZSI) is described in the soon to be published standard IEC 61912-2 Low voltage switchgear and controlgear.
- The term zone selective interlocking is used to describe a method of controlling circuit breakers to provide selectivity with very short interruption times for the breaker closest to the fault.
- There are different levels (zones) of protection that isolate the fault in the distribution system.
- ZSI may be applied for faults between phases or earth-faults or both.
- ZSI is applied to the short time faults where time selectivity can be achieved with the breakers between the zones.
- Because ZSI does not require auxiliary power or additional modules to operate set up time is minimal and application is easy.

Zone Selective Interlocking Example

Example A – Short-circuit at position 3

- Circuit-breakers CB1, CB3, CB4 all see the short circuit current and register a short delay pick-up.
- Circuit breaker CB4 sends a ZSI output blocking signal to CB3 ZSI input. CB3 sends a ZSI output blocking signal to CB1 ZSI input. CB1 sends a ZSI output signal that is not wired. This signal could be wired to a MV relay on the other side of the transformer with a compatible ZSI circuitry.
- CB1 registers the ZSI input signal and starts its timer for 300ms. CB3 registers the ZSI input signal and starts its timer for 200ms. CB4 gets no input from any lower zone circuit breaker. This breaker will then trip immediately without any time delay. CB4 interrupts the fault and CB1 and CB3 stop short delay timing because the fault current is gone.
- If for some reason CB4 does not open and interrupt the fault then at the end of its short delay time CB3 will open and interrupt the fault.

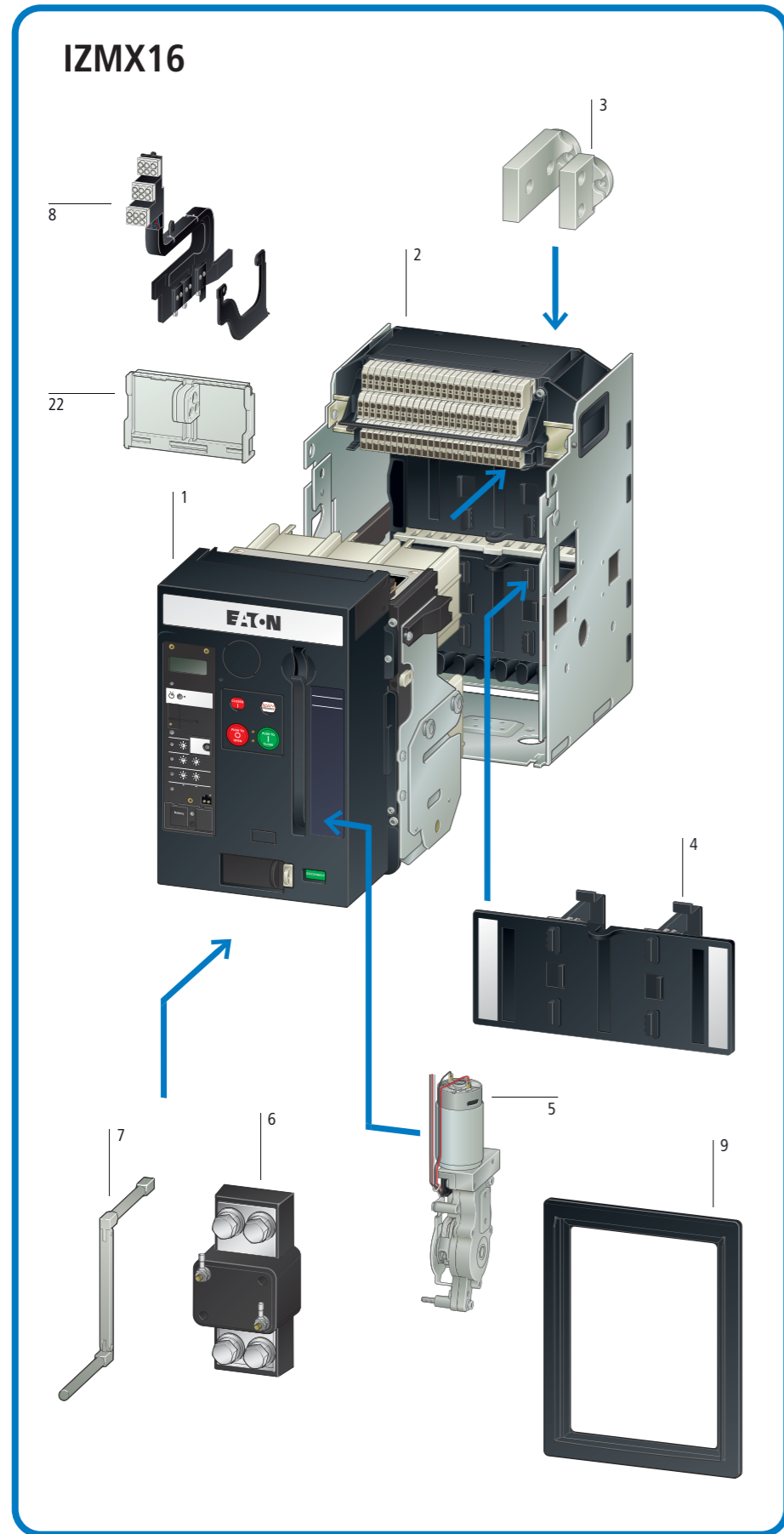
Example B – Short-circuit at position 2

- Circuit-breakers CB1, CB3, see the short circuit current and register a short delay pick-up. CB4 and CB5 do not see the fault current and do not send a ZSI output.
- Circuit breaker CB3 sends a ZSI output blocking signal to CB1 ZSI input. CB1 sends a ZSI output signal. In this example that signal is not wired.
- CB1 registers the ZSI input signal and starts a timer for 300ms. CB3 gets no input from any lower zone circuit breaker. This breaker will then trip immediately without any time delay. CB3 interrupts the fault and CB1 stops short delay timing because the fault current is gone. The clearance time is reduced by approximately 150ms.

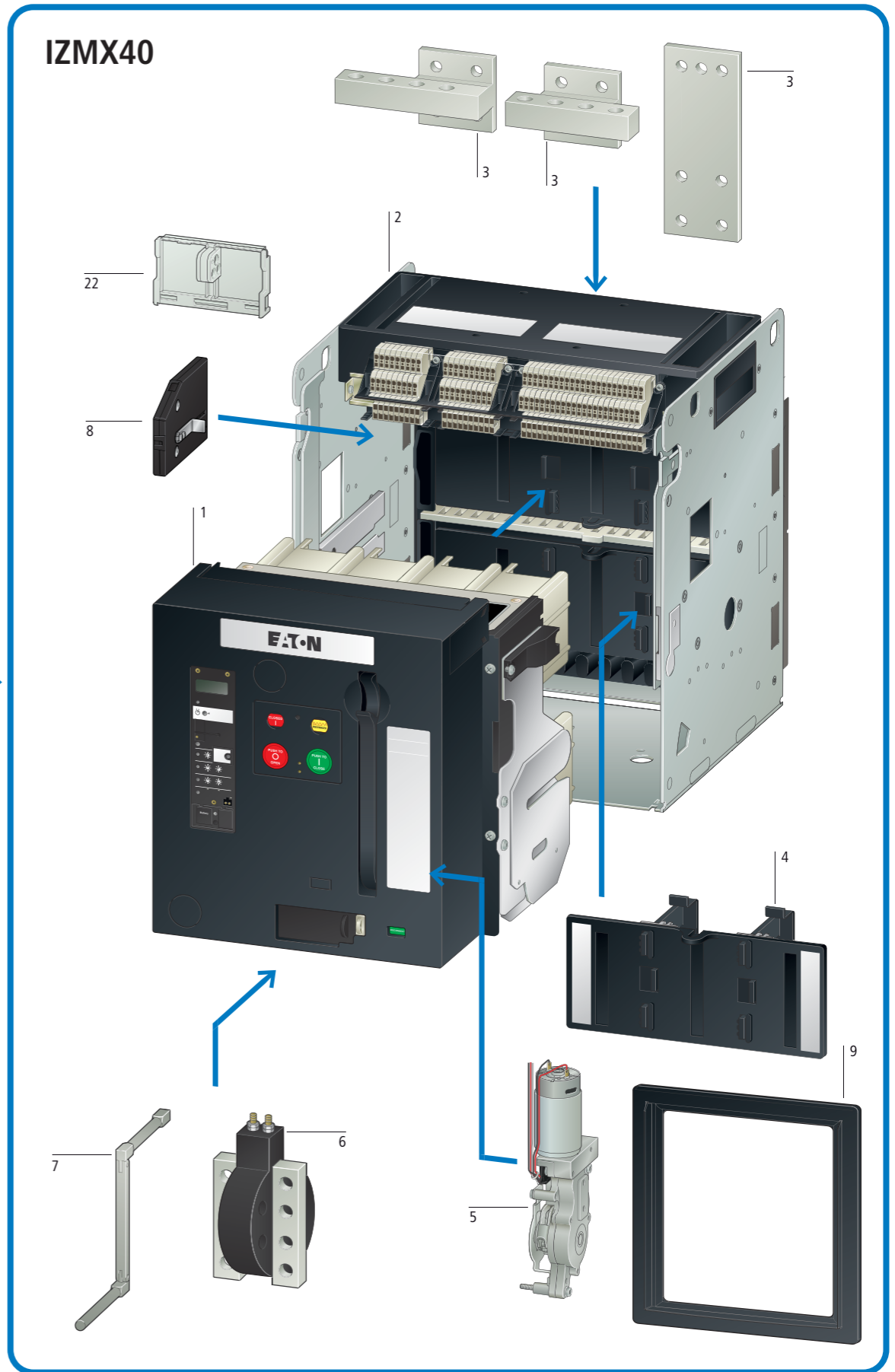
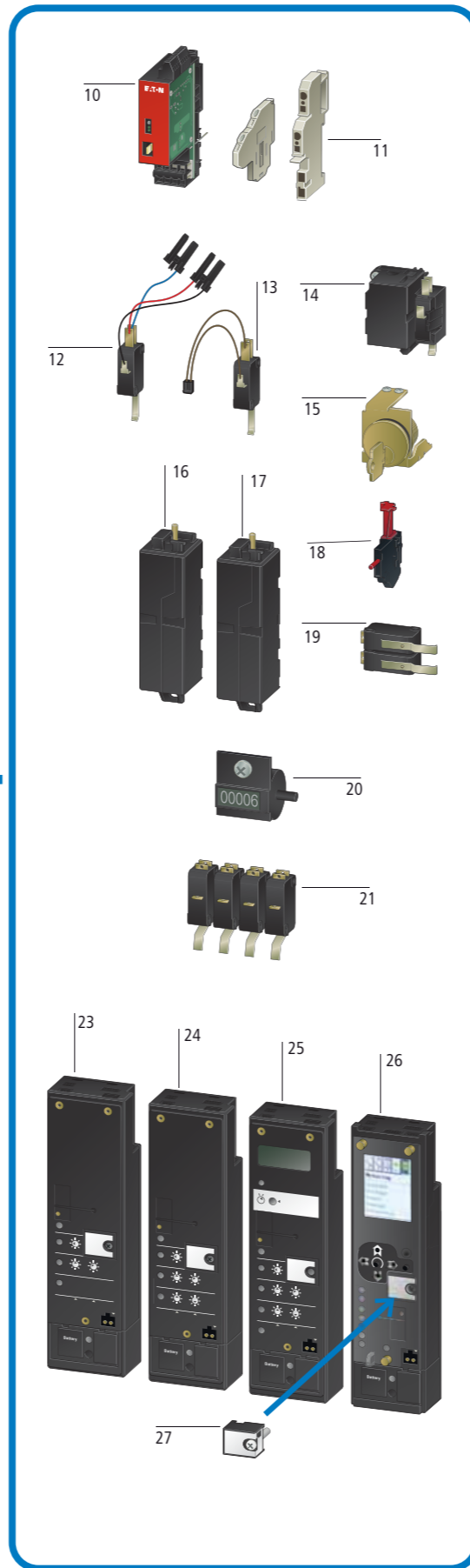
Example C – Short-circuit at position 1

- Only Circuit breaker CB1 sees the short circuit current and registers a short delay pick-up. CB2, CB3, CB4 and CB5 do not see the fault current and do not send ZSI outputs.
- CB1 sends a ZSI output signal. In this example that signal is not wired.
- CB1 gets no input from any lower zone circuit breaker. This breaker will then trip immediately without any time delay. CB1 interrupts the fault and the clearance time is reduced by approximately 250ms.

IZMX16, INX16, IZMX40, INX40



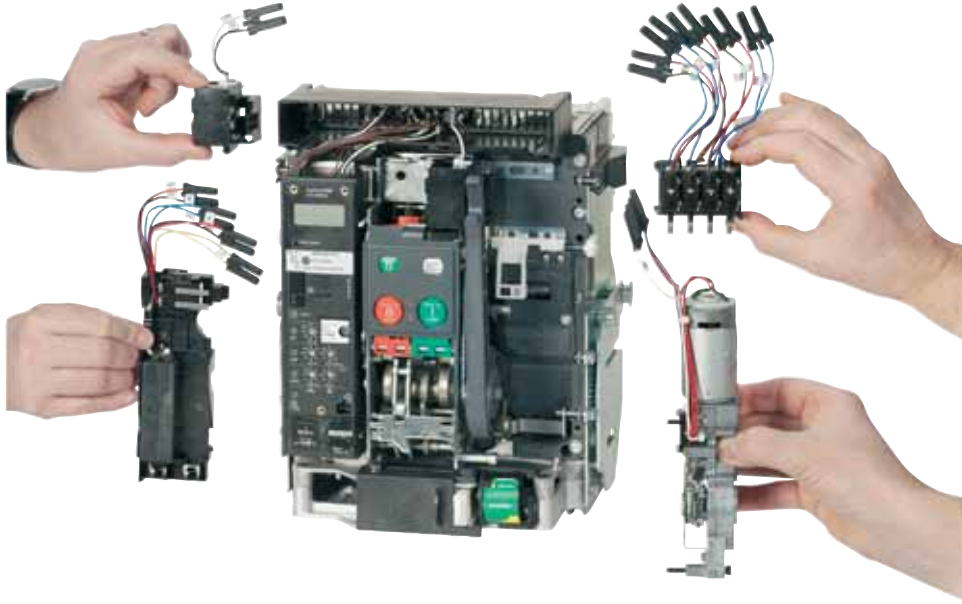
IZMX16, INX16, IZMX40, INX40



IZMX16, INX16, IZMX40, INX40

IZMX Circuit-breaker	1	Communication modules	10	Auxiliary contacts	21
IZMX16: 630 - 1600 A		Profibus DP, Modbus, Ethernet		Signalling switch ON-OFF	
IZMX40: 2000 - 4000 A		→ page 41		→ page 48	
→ page 15		Control circuit terminal units	11	Locking facilities	22
Cassette for withdrawable units	2	Either 8, 20 or 30 units		Padlockable plastic or metal front covers for ON-OFF pushbuttons.	
With and without control circuit terminals		→ page 52		→ page 50	
→ page 35		Latch check switch	12	Spare trip unit	23
Main terminal sets	3	For use with closing release.		Digitrip 520; A-type	
Universal terminals, 3- and 4-pole horizontal/vertical		→ page 47		→ page 38	
→ page 52		Latch check switch	13	Spare trip unit	24
Cassette safety shutters	4	For external application usage.		Digitrip 520LSI; V-type	
Shutter for 3- and 4-pole		→ page 47		→ page 38	
→ page 36		Closing releases	14	Spare trip unit	25
Motor operator	5	Closes the breaker by an electrical signal.		Digitrip 520M; U-type	
Automatic charging of the spring force storage for remote or local operations		→ page 47		→ page 39	
→ page 45		Key locking	15	Spare trip unit	26
Current sensor for neutral conductor	6	Locking of the breaker by a keylock.		Digitrip 1150i; P-type	
Current sensor for sensing the neutral-conductor-current.		→ page 50		→ page 40	
→ page 44		Shunt releases	16	Rating plug	27
Levering tool	7	Opens the breaker by an electrical signal.		Reduces the Rated Current of the breaker.	
Convenient collapsible lev-in tool for lev-in and out operation of the Breaker in and out of the Cassette. The lev-in tool is stored inside the breaker.		→ page 46		→ page 42	
→ page 53		Undervoltage releases	17		
Position cell switches	8	Opens the breaker by a voltage-drop in the control-circuit.			
Cell switch signals the position of the breaker inside of the cassette. Connect, Test and Disconnect Position.		→ page 48			
→ page 36		Red-pop trip indicator	18		
Door escutcheon	9	Red-pop trip indicator signals a trip of the breaker by the trip unit.			
Closes the gap between Breaker and Switchgear-door. IP41.		→ page 49			
→ page 51		Trip indicator switches	19		
		Overcurrent trip switch (OTS) signals a trip by the trip unit.			
		→ page 49			
		Switching operations counters	20		
		Counts the number of operations.			
		→ page 50			

Space-saving circuit-breakers with useful accessories



Eaton Introduces Series NRX!

The new NRX series from Eaton is a new series of air circuit-breakers with an extensive range of accessories. The new range provides users with two compact frame sizes up to 4000A, modular design, common accessories, easy to integrate communications and a full range of trip units including the new powerful high end 1150 Digitrip trip unit with a full color LCD display. The innovative concept of the **IZMX16** makes it possible to install two withdrawable circuit-breakers in a 600 mm wide section. This enables more economical section design and also saves operating space. The compact modular design of the **IZMX40** offers customers a full range of high performance ratings in a single frame size simplifying the integration process into panel boards and switch boards. **Series NRX**, a new generation and new standard in circuit protection.

Applications

The circuit breakers can be used in four main application areas depending on the type of equipment to be protected:

- System protection
- Motor protection
- Transformer protection
- Generator protection

These key applications make different demands on the switches, which are met with a range of control units.

Switches with closing release

They are particularly suitable for synchronization tasks.

Coupler switches

In addition to the circuit-breakers, switch-disconnectors are also available. These are used, for example, as coupler switches between different power supplies. The switch-disconnectors are used as coupler switches for different sections of a network in conjunction with our automatic network switching device.

Modular Design, Common Accessories

The retrofitting of accessories is made considerably easy thanks to the efficient "plug & work" technology. Accessory drawers and snap-fit mechanisms make it possible to fit the latest accessories with virtually no tools. This flexibility allows you to respond easily to changing requirements within your system. Most accessories for Series NRX are common to both the compact and standard frame sizes.

Standard scope of delivery

- With the new **Series NRX** range, you select a basic device that is already fitted with an electronic release.
- The standard mounting for both frames is on a horizontal mounting plate or on horizontal traverses in the switching cabinet. The **IZMX16** can also be fastened to vertical mounting plates.
- With four-pole devices, the neutral conductor is arranged on the left (front view).
- The neutral conductor can be loaded 100% like the phase conductors.
- The circuit-breakers are provided with a standard mechanical reclosing lockout. After an overload trip, the fault is usually examined first. After the fault is identified and rectified, the mechanical reclosing lockout is reset by pressing the red mechanical trip indicator on the front of the circuit-breaker.
- A "remote-reset" feature and an "automatic reset" are offered as additional ordering options. The remote reset enables resetting the breaker after an over current trip via a control voltage. The automatic reset option enables the circuit breaker to be restored to normal operation immediately after an over current trip (i.e. there is no mechanical reclosing lockout). In these applications compulsory fault analysis is intentionally avoided.
- The number of secondary control cable terminals depends on the accessories fitted.
- If a cassette is ordered without the basic device, this can be already fit-

ted with the maximum number of control cable terminals. For greater economy in large plants, the cassette is also offered without control circuit terminals so that fitting can be carried out later at the installation or when accessories are required at a later time..

- The withdrawable basic device includes the primary finger clusters and levering-in mechanism. NOTE: Some manufacturers mount the primary finger clusters inside the cassette cell, which requiring shutdown of the panel board for inspection and maintenance.
- 2 changeover contacts are provided as standard for ON/OFF status indication.
- A coding mechanism between the basic device and the cassette prevents impermissible combinations ("Rejection Interlock").
- The door escutcheon is always included in the scope of delivery. With withdrawable designs this is supplied with the cassette (withdrawable unit).
- On withdrawable units the circuit breaker can be pulled out to inspect the arc chutes. With fixed units, it is recommended that sufficient space is provided above the circuit breaker to enable inspection. An additional cover is not required.
- All basic devices that are provided with universal protection (Digitrip 520M), feature a 4-digit LCD display, and all devices provided with power measurement protection feature a full color LCD display.
- On each circuit-breaker the integrated Digitrip electronic release is factory fitted with a sealable protective cover.
- If a motor operator is ordered, the "Spring-operated stored energy mechanism tensioned" indicator switch is automatically provided.

Additional benefits Series NRX

- The "universal" design of the main terminal offers maximum flexibility. The horizontal terminal can be rotated simply at the installation so that it can also be used as a vertical connection. With withdrawable units, additional terminal pieces can even be dispensed with. Both the **Series NRX** breaker and the cassette offer an integrated flange terminal to which the system busbars can be connected directly. For this reason, the main terminal pieces for **Series NRX** are not part of the standard scope of delivery. Don't forget to order additionally required terminal pieces if required.
- Thanks to the separate mounting position, a switching operations counter can now be used also independently of a motor operator.
- Withdrawable unit operation: The unit is actuated with a hand crank supplied as a standard feature and has a secure position in the basic device.

External 24 V supply

- The standard protection functions of **Series NRX** operate independently of an external control voltage supply. The power supply of the electronics unit, for example for overload and short-circuit protection, is implemented via the current transformers integrated in the circuit-breaker.
- The universal and power measurement release units with display can be fed with a 24 V DC supply so that the display function can be used without a load. An external 24 V DC power supply is needed if communication functions are required

CurveSelect characteristics program

Display characteristic curves according to specific settings and assess their interaction effectively:
www.moeller.net/de/support

Communication capability

The communication-capability of **Series NRX** circuit-breakers open up new possibilities in power distribution. The trip unit provides all important operation information and passes this on via one of the various communication adapter modules. This increases system transparency and shortens the response times to states such as overcurrent, phase asymmetry and overvoltage. A rapid intervention in a process can, for example, prevent downtimes and help to schedule maintenance activities and therefore boost plant availability. **Series NRX** offers interface modules to support protocols such as Modbus RTU, Profibus, and INCOM. In addition Eaton also offers a direct connect Ethernet Communications module that provides web enabled monitoring and control of the trip unit metering, logging, alarms, and control functions using a standard web browser.

IL Reference Listing

Description	Frame	Publication Number
Description	Frame	Number
IL for rating plug	NF and RF	70C1592
IL for drawout circuit breaker cassette rejection interlocks	NF and RF	IL01301006E
IL for auxiliary switch in right accessory tray	NF	IL01301007E
IL for UVR/ST/OTS in left accessory tray	NF and RF	IL01301008E
IL for spring release, latch check switch and motor operator	NF and RF	IL01301010E
IL for operation counter	NF	IL01301011E
IL for door escutcheon and gasket kit	NF and RF	IL01301012E
IL for drawout cassette IP20 safety shutters	NF	IL01301013E
IL for fixed breaker arc hood	NF	IL01301014E
IL for fixed breaker primary adapters	NF	IL01301015E
IL for drawout breaker primary adapters	NF	IL01301016E
IL for drawout levering (racking) mechanism	NF and RF	IL01301018E
IL for mechanical pop-out indicator and interlocked indicator	NF	IL01301019E
IL for breaker and cassette interphase barriers	NF	IL01301019E
IL for cassette extension rails	NF	IL01301025E
IL for mounting feet	NF	IL01301030E
IL for source ground/zero sequence ground sensor	NF and RF	IL01301031E
IL for neutral current sensor	NF	IL01301032E
IL for INCOM communications adapter module	NF and RF	IL01301033E
IL for Modbus communications adapter module	NF and RF	IL01301034E
IL for PROFIBUS communications adapter module	NF and RF	IL01301035E
IL for surface mount	NF	IL01301036E
IL for fixed and drawout breaker secondary terminal blocks	NF and RF	IL01301037E
IL for IP55 cover	NF and RF	IL01301038E
IL for Kirk key lock	NF	IL01301039E
IL for ronis key lock	NF	IL01301040E
IL for pushbutton cover kit	NF	IL01301041E
IL for cassette cell switch	NF	IL01301043E
IL for drawout cassette IP20 safety shutters	RF	IL01301044E
IL for neutral current sensor	RF	IL01301046E

Greater safety for maintenance personnel with ARMS™

Personnel safety is of paramount importance in today's work environment. Of recent concern is the potential for serious injury due to exposure to electrical arcs. Eaton's Series NRX trip units offer the patented ARMS system (Arcflash Reduction Maintenance System™), which offers a non-delayed immediate disconnection in the event of an arc fault. This disconnection is even faster than that of a non-delayed short-circuit release. This function can be activated directly on the circuit-breaker or via an external switch, such as when maintenance personnel enter a hazardous area.

Major Benefits of ARMS:

- Increased personnel safety – by limiting the available arc flash energy
- Simple to operate
- Enabled with circuit breaker door closed by a door mounted lockable switch
- Enabled only for the time required to perform the desired maintenance work

- Preserves overcurrent coordination under normal conditions
 - Reduction in incident energy levels may permit reduced levels of Personal Protective Equipment (PPE), therefore improving worker comfort and mobility
- Other components of the ARCON arc fault protection system, in conjunction with **Series NRX**, enable an expansion of arc fault protection in stages. ARCON on the Internet: www.moeller.net/arcon

Selection criteria for circuit-breakers

Fundamental criteria for the selection of circuit-breakers:

- **Max short-circuit current I_k max** at the circuit-breaker' point of installation: this value determines the short-circuit breaking capacity or the short-circuit current carrying capacity of the circuit-breaker. It is compared with the I_{cu} , I_{cs} and I_{cw} values of the switch and essentially determines its size (see technical data).
- **Rated operational current I_n** which

should flow through the respective branch circuit: This value must not be greater than the maximum switch rated operational current of the circuit-breaker. The rated operational current can be adjusted down using additional rated operational current modules.

- **Ambient temperature of the circuit breaker:** This is generally the internal temperature in the control panel. Observe the derating values with increased ambient temperature (see Technical data).
- **Circuit-breaker type:** fixed mounted or withdrawable units, 3 or 4 pole.
- **Minimum short-circuit current,** which flows through the switching device: The release must recognize this value as a short-circuit and may react with a trip.
- **Protection functions of the circuit breaker:** This is determined by the selection of the respective overcurrent release.

For additional resources and tools for selecting Eaton Air Circuit Breakers please visit us as www.eaton.com/seriesnrx.

Description	Frame	Publication Number
Description	Frame	Number
IL for cassette extension rails	RF	IL01301047E
IL for breaker and cassette interphase barriers	RF	IL01301048E
IL for CES key lock	NF	IL01301049E
IL for Castell key lock	NF	IL01301050E
IL for Digitrip 520 and 520M	NF and RF	IL01301051E
IL for Ethernet communications adapter module	NF and RF	IL01301052E
IL for rear primary adapters	RF	IL01301053E
IL for cassette cell switch	RF	IL01301054E
IL for operation counter	RF	IL01301055E
IL for front primary adapters	RF	IL01301056E
IL for auxiliary switch in right accessory tray	RF	IL01301057E
IL for mechanical pop-out indicator and interlocked indicator	NF and RF	IL01301058E
IL for CES key lock	RF	IL01301059E
IL for Ronis key lock	RF	IL01301060E
IL for Castell key lock	RF	IL01301061E
IL for Kirk Key Lock	RF	IL01301062E
IL for 1150 trip unit	NF and RF	IL01301064E
IL for pushbutton cover kit	RF	IL01301065E
IL for handheld test kit	NF and RF	IL01301067E
IL for drawout circuit breaker 2-way cable interlock kit	NF	IL01301069E
IL for drawout circuit breaker 3-way cable interlock kit	NF	IL01301070E
IL for fixed circuit breaker 2-way cable interlock kit	NF	IL01301071E
IL for fixed circuit breaker 3-way cable interlock kit	NF	IL01301072E
IL for cassette door interlock	NF	IL01301073E
IL for handheld test kit	NF and RF	IL5721B13
IL for time delay undervoltage module	NF and RF	IL5721B33
Series NRX low voltage power (air) circuit breakers	NF	MN01301001E
Series NRX low voltage power (air) circuit breakers	RF	MN01301003E
IL for Lev-In key locks (Kirk, CES, Ronis, Castell)	RF	IL01301063E
IL for remote reset	RF	IL01301068E

Note

For more information on Series NRX, please visit www.eaton.com/seriesnrx.

Communication Options for Series NRX

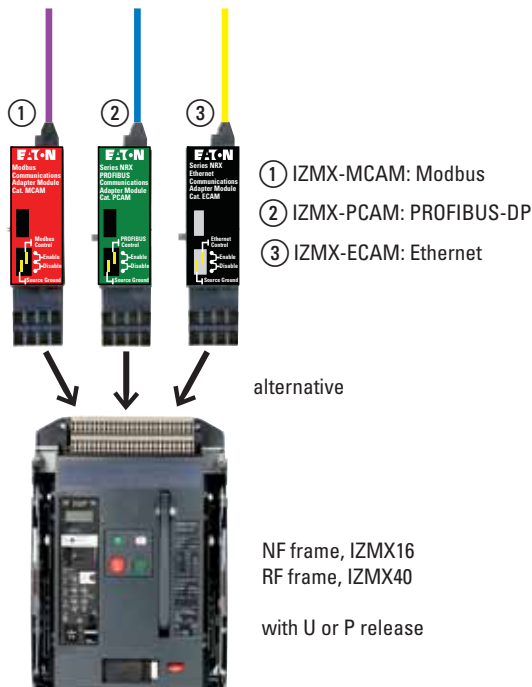
For the Series NRX range, PROFIBUS-DP or Modbus RTU communication protocols are supported by optional fieldbus connection accessories. Communication adapter modules are compact units for direct mounting in the auxiliary terminal strip. When retrofitting, four auxiliary terminals are replaced with one communication module. The terminals provide all data available in the trip unit to the fieldbus, including switching state, current, voltage, power, energy, and diagnostic information such as overcurrent, phase asymmetry and overvoltage as measured by trip unit. Through the communication module the trip unit maintenance mode can be enabled and the breaker can also be opened and closed via the Spring Release and Shunt Trip when wired accordingly. In addition to PROFIBUS-DP and Modbus RTU, Series NRX also offers an additional communication module for direct Ethernet connection to the circuit breaker. The Ethernet adapter module supports web enabled browsing direct from the module and supports Simple Network Mail Protocol (SNMP) for alarm or event notifications.

Requirements

The communication adapter modules can be used in combination in both NF and RF Frame breakers (IZMX16/40) and in combination with Digitrip trip units with Metering and Power Measurement capability:

- Digitrip 520M (...-U Types)
- Digitrip 1150i (...-P Types)

Configuration



PROFIBUS-DP configuration

Communications module IZMX-PCAM has a 9-pin D-Sub socket for connection to PROFIBUS. The module works as a slave on PROFIBUS-DP; the data is defined through a standardized device master data file, which permits smooth integration of IZMX in a DP line.

- On the PROFIBUS-DP side the module supports automatic baud rate detection; the PROFIBUS-DP bus address is set through the trip unit's display. The maximum cable length is 2.4 km.
- To operate the IZMX-PCAM, a supply voltage of 24 V DC is required.
- The data connection to the circuit-breaker is implemented internally through a serial highspeed data connection.

Data access via PROFIBUS-DP

The data on PROFIBUS-DP are offered according to the profile for low-voltage switchgear (LVSG) of PROFIBUS International (PROFIBUS and PROFINET User Group). Five different data structures with varying numbers of parameters are available through the device master data file. This allows a data filter to be easily implemented, which simplifies integration of the Series NRX data into the control system.

Modbus configuration

Communications module IZMX-MCAM has a plug-in screw terminal for connection to Modbus. The module operates as a Modbus slave.

- Baud rate, data format and address (max. 247) for Modbus are set with the input keys of the trip unit. The maximum cable length is 1.2 km.
- The Modbus must be terminated with a 120 Ω terminating resistor.
- To operate the IZMX-MCAM, a supply voltage of 24 V DC is required.
- The data connection to the circuit-breaker is implemented internally through a serial highspeed data connection.

Data access via Modbus

The data is contained in comprehensive data tables. Each data point is available as floating-point (IEEE) or fixed-point value. This variance allows the integration of the IZMX to be adapted to the Modbus architecture. This enables a simple means of implementing a data filter, which facilitates the integration of IZMX data in the control system.

Ethernet configuration

Communications module IZMX-ECAM has standard RJ45 socket for connection to Ethernet. This module has a configured web server on board and supports Simple Network Mail Protocol (SNMP) for alarm or event notifications.

- IP address and related parameters are set through the trip unit's display.
- The data connection to the circuit-breaker is implemented internally through a serial high speed data connection.
- To operate the IZMX-ECAM, a supply voltage of 24 V DC is required.



Data access via Ethernet



The data is contained in different web pages structured according to the topics „Data View“, „Alarms“, „Logs“ and „Configuration“. This variance allows the integration of the IZMX to be adapted to all Ethernet networks supporting http protocol. An „around the world access“ to the breaker becomes reality and using the SNMP protocol alarm messages can be transported everywhere.



Documentation



All instruction leaflets can be found online at www.eaton.com/seriesnrx/
 Installation and general usage instruction leaflet for
 IZMX-MCAM: IL01301034E (deutsch/english)
 IZMX-PCAM: IL01301035E (deutsch/english)
 IZMX-ECAM: IL01301052E (deutsch/english)



Ordering



Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for system protection									
Main Terminals are not included, need to be selected separately.									
3 pole									
42/42	630	315 - 630	-	2 - 12	NES4073B227NMNN2MNKX IZMX16B3-A06F 123341		NES4073W227NMNN2MNDX IZMX16B3-A06W 122818		1
	800	400 - 800			NES4083B228NMNN2MNKX IZMX16B3-A08F 123342		NES4083W228NMNN2MNDX IZMX16B3-A08W 122819		1
	1000	500 - 1000			NES4103B22ANMNN2MNKX IZMX16B3-A10F 123343		NES4103W22ANMNN2MNDX IZMX16B3-A10W 122820		1
	1250	625 - 1250			NES4133B22CNMNN2MNKX IZMX16B3-A12F 123344		NES4133W22CNMNN2MNDX IZMX16B3-A12W 122849		1
	1600	800 - 1600			NES4163B22DNMNN2MNKX IZMX16B3-A16F 123345		NES4163W22DNMNN2MNDX IZMX16B3-A16W 122850		1
50/50	630	315 - 630			NES5073B227NMNN2MNKX IZMX16N3-A06F 123366		NES5073W227NMNN2MNDX IZMX16N3-A06W 123085		1
	800	400 - 800			NES5083B228NMNN2MNKX IZMX16N3-A08F 123367		NES5083W228NMNN2MNDX IZMX16N3-A08W 123087		1
	1000	500 - 1000			NES5103B22ANMNN2MNKX IZMX16N3-A10F 123368		NES5103W22ANMNN2MNDX IZMX16N3-A10W 123090		1
	1250	625 - 1250			NES5133B22CNMNN2MNKX IZMX16N3-A12F 123369		NES5133W22CNMNN2MNDX IZMX16N3-A12W 123092		1
	1600	800 - 1600			NES5163B22DNMNN2MNKX IZMX16N3-A16F 123370		NES5163W22DNMNN2MNDX IZMX16N3-A16W 123094		1
65/50	630	315 - 630			NES6073B227NMNN2MNKX IZMX16H3-A06F 123391		NES6073W227NMNN2MNDX IZMX16H3-A06W 123141		1
	800	400 - 800			NES6083B228NMNN2MNKX IZMX16H3-A08F 123392		NES6083W228NMNN2MNDX IZMX16H3-A08W 123142		1
	1000	500 - 1000			NES6103B22ANMNN2MNKX IZMX16H3-A10F 123393		NES6103W22ANMNN2MNDX IZMX16H3-A10W 123143		1
	1250	625 - 1250			NES6133B22CNMNN2MNKX IZMX16H3-A12F 123394		NES6133W22CNMNN2MNDX IZMX16H3-A12W 123144		1
	1600	800 - 1600			NES6163B22DNMNN2MNKX IZMX16H3-A16F 123395		NES6163W22DNMNN2MNDX IZMX16H3-A16W 123145		1



Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for system protection									
Main Terminals are not included, need to be selected separately.									
4 pole									
42/42	630	315 - 630	-	2 - 12	NES4074B227NMNN2MNKX IZMX16B4-A06F 123466		NES4074W227NMNN2MNDX IZMX16B4-A06W 123201		1
	800	400 - 800			NES4084B228NMNN2MNKX IZMX16B4-A08F 123467		NES4084W228NMNN2MNDX IZMX16B4-A08W 123207		1
	1000	500 - 1000			NES4104B22ANMNN2MNKX IZMX16B4-A10F 123468		NES4104W22ANMNN2MNDX IZMX16B4-A10W 123213		1
	1250	625 - 1250			NES4134B22CNMNN2MNKX IZMX16B4-A12F 123469		NES4134W22CNMNN2MNDX IZMX16B4-A12W 123219		1
	1600	800 - 1600			NES4164B22DNMNN2MNKX IZMX16B4-A16F 123470		NES4164W22DNMNN2MNDX IZMX16B4-A16W 123220		1
50/50	630	315 - 630	-	2 - 12	NES5074B227NMNN2MNKX IZMX16N4-A06F 123491		NES5074W227NMNN2MNDX IZMX16N4-A06W 123241		1
	800	400 - 800			NES5084B228NMNN2MNKX IZMX16N4-A08F 123492		NES5084W228NMNN2MNDX IZMX16N4-A08W 123242		1
	1000	500 - 1000			NES5104B22ANMNN2MNKX IZMX16N4-A10F 123493		NES5104W22ANMNN2MNDX IZMX16N4-A10W 123243		1
	1250	625 - 1250			NES5134B22CNMNN2MNKX IZMX16N4-A12F 123494		NES5134W22CNMNN2MNDX IZMX16N4-A12W 123244		1
	1600	800 - 1600			NES5164B22DNMNN2MNKX IZMX16N4-A16F 123495		NES5164W22DNMNN2MNDX IZMX16N4-A16W 123245		1
65/50	630	315 - 630	-	2 - 12	NES6074B227NMNN2MNKX IZMX16H4-A06F 123516		NES6074W227NMNN2MNDX IZMX16H4-A06W 123266		1
	800	400 - 800			NES6084B228NMNN2MNKX IZMX16H4-A08F 123517		NES6084W228NMNN2MNDX IZMX16H4-A08W 123267		1
	1000	500 - 1000			NES6104B22ANMNN2MNKX IZMX16H4-A10F 123518		NES6104W22ANMNN2MNDX IZMX16H4-A10W 123268		1
	1250	625 - 1250			NES6134B22CNMNN2MNKX IZMX16H4-A12F 123519		NES6134W22CNMNN2MNDX IZMX16H4-A12W 123269		1
	1600	800 - 1600			NES6164B22DNMNN2MNKX IZMX16H4-A16F 123525		NES6164W22DNMNN2MNDX IZMX16H4-A16W 123270		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for selective operation									
Main Terminals are not included, need to be selected separately.									
3 pole									
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4073B527NMNN2MNKX IZMX16B3-V06F 123346		NES4073W527NMNN2MNDX IZMX16B3-V06W 122851		1
	800	400 - 800			NES4083B528NMNN2MNKX IZMX16B3-V08F 123347		NES4083W528NMNN2MNDX IZMX16B3-V08W 122918		1
	1000	500 - 1000			NES4103B52ANMNN2MNKX IZMX16B3-V10F 123348		NES4103W52ANMNN2MNDX IZMX16B3-V10W 122920		1
	1250	625 - 1250			NES4133B52CNMNN2MNKX IZMX16B3-V12F 123349		NES4133W52CNMNN2MNDX IZMX16B3-V12W 122922		1
	1600	800 - 1600			NES4163B52DNMNN2MNKX IZMX16B3-V16F 123350		NES4163W52DNMNN2MNDX IZMX16B3-V16W 122924		1
50/50	630	315 - 630			NES5073B527NMNN2MNKX IZMX16N3-V06F 123371		NES5073W527NMNN2MNDX IZMX16N3-V06W 123097		1
	800	400 - 800			NES5083B528NMNN2MNKX IZMX16N3-V08F 123372		NES5083W528NMNN2MNDX IZMX16N3-V08W 123099		1
	1000	500 - 1000			NES5103B52ANMNN2MNKX IZMX16N3-V10F 123373		NES5103W52ANMNN2MNDX IZMX16N3-V10W 123101		1
	1250	625 - 1250			NES5133B52CNMNN2MNKX IZMX16N3-V12F 123374		NES5133W52CNMNN2MNDX IZMX16N3-V12W 123103		1
	1600	800 - 1600			NES5163B52DNMNN2MNKX IZMX16N3-V16F 123375		NES5163W52DNMNN2MNDX IZMX16N3-V16W 123106		1
65/50	630	315 - 630			NES6073B527NMNN2MNKX IZMX16H3-V06F 123396		NES6073W527NMNN2MNDX IZMX16H3-V06W 123146		1
	800	400 - 800			NES6083B528NMNN2MNKX IZMX16H3-V08F 123397		NES6083W528NMNN2MNDX IZMX16H3-V08W 123147		1
	1000	500 - 1000			NES6103B52ANMNN2MNKX IZMX16H3-V10F 123398		NES6103W52ANMNN2MNDX IZMX16H3-V10W 123148		1
	1250	625 - 1250			NES6133B52CNMNN2MNKX IZMX16H3-V12F 123399		NES6133W52CNMNN2MNDX IZMX16H3-V12W 123149		1
	1600	800 - 1600			NES6163B52DNMNN2MNKX IZMX16H3-V16F 123405		NES6163W52DNMNN2MNDX IZMX16H3-V16W 123150		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for selective operation									
Main Terminals are not included, need to be selected separately.									
4 pole									
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4074B527NMNN2MNKX IZMX16B4-V06F 123471		NES4074W527NMNN2MNDX IZMX16B4-V06W 123221		1
	800	400 - 800			NES4084B528NMNN2MNKX IZMX16B4-V08F 123472		NES4084W528NMNN2MNDX IZMX16B4-V08W 123222		1
	1000	500 - 1000			NES4104B52ANMNN2MNKX IZMX16B4-V10F 123473		NES4104W52ANMNN2MNDX IZMX16B4-V10W 123223		1
	1250	625 - 1250			NES4134B52CNMNN2MNKX IZMX16B4-V12F 123474		NES4134W52CNMNN2MNDX IZMX16B4-V12W 123224		1
	1600	800 - 1600			NES4164B52DNMNN2MNKX IZMX16B4-V16F 123475		NES4164W52DNMNN2MNDX IZMX16B4-V16W 123225		1
50/50	630	315 - 630			NES5074B527NMNN2MNKX IZMX16N4-V06F 123496		NES5074W527NMNN2MNDX IZMX16N4-V06W 123246		1
	800	400 - 800			NES5084B528NMNN2MNKX IZMX16N4-V08F 123497		NES5084W528NMNN2MNDX IZMX16N4-V08W 123247		1
	1000	500 - 1000			NES5104B52ANMNN2MNKX IZMX16N4-V10F 123498		NES5104W52ANMNN2MNDX IZMX16N4-V10W 123248		1
	1250	625 - 1250			NES5134B52CNMNN2MNKX IZMX16N4-V12F 123499		NES5134W52CNMNN2MNDX IZMX16N4-V12W 123249		1
	1600	800 - 1600			NES5164B52DNMNN2MNKX IZMX16N4-V16F 123500		NES5164W52DNMNN2MNDX IZMX16N4-V16W 123250		1
65/50	630	315 - 630			NES6074B527NMNN2MNKX IZMX16H4-V06F 123531		NES6074W527NMNN2MNDX IZMX16H4-V06W 123271		1
	800	400 - 800			NES6084B528NMNN2MNKX IZMX16H4-V08F 123537		NES6084W528NMNN2MNDX IZMX16H4-V08W 123272		1
	1000	500 - 1000			NES6104B52ANMNN2MNKX IZMX16H4-V10F 123543		NES6104W52ANMNN2MNDX IZMX16H4-V10W 123273		1
	1250	625 - 1250			NES6134B52CNMNN2MNKX IZMX16H4-V12F 123549		NES6134W52CNMNN2MNDX IZMX16H4-V12W 123274		1
	1600	800 - 1600			NES6164B52DNMNN2MNKX IZMX16H4-V16F 123555		NES6164W52DNMNN2MNDX IZMX16H4-V16W 123275		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for universal protection									
Main Terminals are not included, need to be selected separately.									
3 pole									
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4073BM27NMNN2MNKX IZMX16B3-U06F 123351		NES4073WM27NMNN2MNDX IZMX16B3-U06W 122940		1
	800	400 - 800			NES4083BM28NMNN2MNKX IZMX16B3-U08F 123352		NES4083WM28NMNN2MNDX IZMX16B3-U08W 122941		1
	1000	500 - 1000			NES4103BM2ANMNN2MNKX IZMX16B3-U10F 123353		NES4103WM2ANMNN2MNDX IZMX16B3-U10W 122979		1
	1250	625 - 1250			NES4133BM2CNMNN2MNKX IZMX16B3-U12F 123354		NES4133WM2CNMNN2MNDX IZMX16B3-U12W 122984		1
	1600	800 - 1600			NES4163BM2DNMNN2MNKX IZMX16B3-U16F 123355		NES4163WM2DNMNN2MNDX IZMX16B3-U16W 123020		1
	50/50	630			315 - 630	2 - 10	2 - 12, OFF	NES5073BM27NMNN2MNKX IZMX16N3-U06F 123376	
800		400 - 800	NES5083BM28NMNN2MNKX IZMX16N3-U08F 123377		NES5083WM28NMNN2MNDX IZMX16N3-U08W 123111				1
1000		500 - 1000	NES5103BM2ANMNN2MNKX IZMX16N3-U10F 123378		NES5103WM2ANMNN2MNDX IZMX16N3-U10W 123114				1
1250		625 - 1250	NES5133BM2CNMNN2MNKX IZMX16N3-U12F 123379		NES5133WM2CNMNN2MNDX IZMX16N3-U12W 123129				1
1600		800 - 1600	NES5163BM2DNMNN2MNKX IZMX16N3-U16F 123380		NES5163WM2DNMNN2MNDX IZMX16N3-U16W 123130				1
65/50		630	315 - 630	2 - 10	2 - 12, OFF			NES6073BM27NMNN2MNKX IZMX16H3-U06F 123411	
	800	400 - 800	NES6083BM28NMNN2MNKX IZMX16H3-U08F 123417				NES6083WM28NMNN2MNDX IZMX16H3-U08W 123152		1
	1000	500 - 1000	NES6103BM2ANMNN2MNKX IZMX16H3-U10F 123423				NES6103WM2ANMNN2MNDX IZMX16H3-U10W 123153		1
	1250	625 - 1250	NES6133BM2CNMNN2MNKX IZMX16H3-U12F 123429				NES6133WM2CNMNN2MNDX IZMX16H3-U12W 123154		1
	1600	800 - 1600	NES6163BM2DNMNN2MNKX IZMX16H3-U16F 123435				NES6163WM2DNMNN2MNDX IZMX16H3-U16W 123155		1
	4 pole								
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4074BM27NMNN2MNKX IZMX16B4-U06F 123476		NES4074WM27NMNN2MNDX IZMX16B4-U06W 123226		1
	800	400 - 800			NES4084BM28NMNN2MNKX IZMX16B4-U08F 123477		NES4084WM28NMNN2MNDX IZMX16B4-U08W 123227		1
	1000	500 - 1000			NES4104BM2ANMNN2MNKX IZMX16B4-U10F 123478		NES4104WM2ANMNN2MNDX IZMX16B4-U10W 123228		1
	1250	625 - 1250			NES4134BM2CNMNN2MNKX IZMX16B4-U12F 123479		NES4134WM2CNMNN2MNDX IZMX16B4-U12W 123229		1
	1600	800 - 1600			NES4164BM2DNMNN2MNKX IZMX16B4-U16F 123480		NES4164WM2DNMNN2MNDX IZMX16B4-U16W 123230		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack			
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 								
4 pole												
50/50	630	315 - 630	2 - 10	2 - 12, OFF	NES5074BM27NMNN2MNKX IZMX16N4-U06F 123501		NES5074WM27NMNN2MNDX IZMX16N4-U06W 123251		1			
	800	400 - 800			NES5084BM28NMNN2MNKX IZMX16N4-U08F 123502		NES5084WM28NMNN2MNDX IZMX16N4-U08W 123252		1			
	1000	500 - 1000			NES5104BM2ANMNN2MNKX IZMX16N4-U10F 123503		NES5104WM2ANMNN2MNDX IZMX16N4-U10W 123253		1			
	1250	625 - 1250			NES5134BM2CNMNN2MNKX IZMX16N4-U12F 123504		NES5134WM2CNMNN2MNDX IZMX16N4-U12W 123254		1			
	1600	800 - 1600			NES5164BM2DNMNN2MNKX IZMX16N4-U16F 123505		NES5164WM2DNMNN2MNDX IZMX16N4-U16W 123255		1			
	65/50	630			315 - 630	NES6074BM27NMNN2MNKX IZMX16H4-U06F 123561		NES6074WM27NMNN2MNDX IZMX16H4-U06W 123276		1		
		800			400 - 800	NES6084BM28NMNN2MNKX IZMX16H4-U08F 123567		NES6084WM28NMNN2MNDX IZMX16H4-U08W 123277		1		
		1000			500 - 1000	NES6104BM2ANMNN2MNKX IZMX16H4-U10F 123573		NES6104WM2ANMNN2MNDX IZMX16H4-U10W 123278		1		
		1250			625 - 1250	NES6134BM2CNMNN2MNKX IZMX16H4-U12F 123579		NES6134WM2CNMNN2MNDX IZMX16H4-U12W 123279		1		
		1600			800 - 1600	NES6164BM2DNMNN2MNKX IZMX16H4-U16F 123580		NES6164WM2DNMNN2MNDX IZMX16H4-U16W 123285		1		
		Circuit-breaker for professional protection with power measurement										
	Main Terminals are not included, need to be selected separately.											
3 pole												
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4073B127NMNN2MNKX IZMX16B3-P06F 123356		NES4073W127NMNN2MNDX IZMX16B3-P06W 123021		1			
	800	400 - 800			NES4083B128NMNN2MNKX IZMX16B3-P08F 123357		NES4083W128NMNN2MNDX IZMX16B3-P08W 123022		1			
	1000	500 - 1000			NES4103B12ANMNN2MNKX IZMX16B3-P10F 123358		NES4103W12ANMNN2MNDX IZMX16B3-P10W 123051		1			
	1250	625 - 1250			NES4133B12CNMNN2MNKX IZMX16B3-P12F 123359		NES4133W12CNMNN2MNDX IZMX16B3-P12W 123052		1			
	1600	800 - 1600			NES4163B12DNMNN2MNKX IZMX16B3-P16F 123360		NES4163W12DNMNN2MNDX IZMX16B3-P16W 123053		1			
	50/50	630			315 - 630	NES5073B127NMNN2MNKX IZMX16N3-P06F 123381		NES5073W127NMNN2MNDX IZMX16N3-P06W 123131		1		
		800			400 - 800	NES5083B128NMNN2MNKX IZMX16N3-P08F 123382		NES5083W128NMNN2MNDX IZMX16N3-P08W 123132		1		
		1000			500 - 1000	NES5103B12ANMNN2MNKX IZMX16N3-P10F 123383		NES5103W12ANMNN2MNDX IZMX16N3-P10W 123133		1		
		1250			625 - 1250	NES5133B12CNMNN2MNKX IZMX16N3-P12F 123384		NES5133W12CNMNN2MNDX IZMX16N3-P12W 123134		1		
		1600			800 - 1600	NES5163B12DNMNN2MNKX IZMX16N3-P16F 123385		NES5163W12DNMNN2MNDX IZMX16N3-P16W 123135		1		

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$ 	Non-delayed $I_i = I_n \times \dots$ 					
Circuit-breaker for professional protection with power measurement									
Main Terminals are not included, need to be selected separately.									
3 pole									
65/50	630	315 - 630	2 - 10	2 - 12, OFF	NES6073B127NMNN2MNKX IZMX16H3-P06F 123441		NES6073W127NMNN2MNDX IZMX16H3-P06W 123156		1
	800	400 - 800			NES6083B128NMNN2MNKX IZMX16H3-P08F 123447		NES6083W128NMNN2MNDX IZMX16H3-P08W 123157		1
	1000	500 - 1000			NES6103B12ANMNN2MNKX IZMX16H3-P10F 123453		NES6103W12ANMNN2MNDX IZMX16H3-P10W 123158		1
	1250	625 - 1250			NES6133B12CNMNN2MNKX IZMX16H3-P12F 123459		NES6133W12CNMNN2MNDX IZMX16H3-P12W 123159		1
	1600	800 - 1600			NES6163B12DNMNN2MNKX IZMX16H3-P16F 123460		NES6163W12DNMNN2MNDX IZMX16H3-P16W 123165		1
4 pole									
42/42	630	315 - 630	2 - 10	2 - 12, OFF	NES4074B127NMNN2MNKX IZMX16B4-P06F 123481		NES4074W127NMNN2MNDX IZMX16B4-P06W 123231		1
	800	400 - 800			NES4084B128NMNN2MNKX IZMX16B4-P08F 123482		NES4084W128NMNN2MNDX IZMX16B4-P08W 123232		1
	1000	500 - 1000			NES4104B12ANMNN2MNKX IZMX16B4-P10F 123483		NES4104W12ANMNN2MNDX IZMX16B4-P10W 123233		1
	1250	625 - 1250			NES4134B12CNMNN2MNKX IZMX16B4-P12F 123484		NES4134W12CNMNN2MNDX IZMX16B4-P12W 123234		1
	1600	800 - 1600			NES4164B12DNMNN2MNKX IZMX16B4-P16F 123485		NES4164W12DNMNN2MNDX IZMX16B4-P16W 123235		1
50/50	630	315 - 630			NES5074B127NMNN2MNKX IZMX16N4-P06F 123506		NES5074W127NMNN2MNDX IZMX16N4-P06W 123256		1
	800	400 - 800			NES5084B128NMNN2MNKX IZMX16N4-P08F 123507		NES5084W128NMNN2MNDX IZMX16N4-P08W 123257		1
	1000	500 - 1000			NES5104B12ANMNN2MNKX IZMX16N4-P10F 123508		NES5104W12ANMNN2MNDX IZMX16N4-P10W 123258		1
	1250	625 - 1250			NES5134B12CNMNN2MNKX IZMX16N4-P12F 123509		NES5134W12CNMNN2MNDX IZMX16N4-P12W 123259		1
	1600	800 - 1600			NES5164B12DNMNN2MNKX IZMX16N4-P16F 123510		NES5164W12DNMNN2MNDX IZMX16N4-P16W 123260		1
65/50	630	315 - 630			NES6074B127NMNN2MNKX IZMX16H4-P06F 123581		NES6074W127NMNN2MNDX IZMX16H4-P06W 123291		1
	800	400 - 800			NES6084B128NMNN2MNKX IZMX16H4-P08F 123582		NES6084W128NMNN2MNDX IZMX16H4-P08W 123297		1
	1000	500 - 1000			NES6104B12ANMNN2MNKX IZMX16H4-P10F 123583		NES6104W12ANMNN2MNDX IZMX16H4-P10W 123303		1
	1250	625 - 1250			NES6134B12CNMNN2MNKX IZMX16H4-P12F 123584		NES6134W12CNMNN2MNDX IZMX16H4-P12W 123309		1
	1600	800 - 1600			NES6164B12DNMNN2MNKX IZMX16H4-P16F 123585		NES6164W12DNMNN2MNDX IZMX16H4-P16W 123315		1

Rated short-circuit making capacity up to 440 V 50/60 Hz I_{cm} kA	Rated current = rated uninterrupted current $I_n = I_u$ A	Rated short-time withstand current 50/60 Hz $t = 1$ s I_{cw} kA	Fixed		Withdrawable		Std. pack
			Cat. No. Part no. Article no.	Price see price list	Cat. No. Part no. Article no.	Price see price list	
Switch disconnectors INX16							
Main Terminals are not included, need to be selected separately.							
3 pole							
88	630	42	NES4073BSW0NMNN2NNKX INX16B3-06F 123361		NES4073WSW0NMNN2NNDX INX16B3-06W 123073		1
	800		NES4083BSW0NMNN2NNKX INX16B3-08F 123362		NES4083WSW0NMNN2NNDX INX16B3-08W 123076		1
	1000		NES4103BSW0NMNN2NNKX INX16B3-10F 123363		NES4103WSW0NMNN2NNDX INX16B3-10W 123078		1
	1250		NES4133BSW0NMNN2NNKX INX16B3-12F 123364		NES4133WSW0NMNN2NNDX INX16B3-12W 123080		1
	1600		NES4163BSW0NMNN2NNKX INX16B3-16F 123365		NES4163WSW0NMNN2NNDX INX16B3-16W 123083		1
4 pole							
88	630	42	NES4074BSW0NMNN2NNKX INX16B4-06F 123486		NES4074WSW0NMNN2NNDX INX16B4-06W 123236		1
	800		NES4084BSW0NMNN2NNKX INX16B4-08F 123487		NES4084WSW0NMNN2NNDX INX16B4-08W 123237		1
	1000		NES4104BSW0NMNN2NNKX INX16B4-10F 123488		NES4104WSW0NMNN2NNDX INX16B4-10W 123238		1
	1250		NES4134BSW0NMNN2NNKX INX16B4-12F 123489		NES4134WSW0NMNN2NNDX INX16B4-12W 123239		1
	1600		NES4164BSW0NMNN2NNKX INX16B4-16F 123490		NES4164WSW0NMNN2NNDX INX16B4-16W 123240		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range		Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately.		Std. pack
		Overload releases I_r A		Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$			Cat. No. Part no. Article no.	Price see price list	
Circuit-breaker for system protection										
Main Terminals are not included, need to be selected separately.										
3 pole										
66/66	800	400 - 800	-	2 - 12	RES6083B228NMNN2MNKX IZMX40B3-A08F 149421	RES6083W228NMNN2MNDX IZMX40B3-A08W 149757			1	
	1000	500 - 1000			RES6103B22ANMNN2MNKX IZMX40B3-A10F 149422	RES6103W22ANMNN2MNDX IZMX40B3-A10W 149758			1	
	1250	625 - 1250			RES6133B22CNMNN2MNKX IZMX40B3-A12F 149423	RES6133W22CNMNN2MNDX IZMX40B3-A12W 149759			1	
	1600	800 - 1600			RES6163B22DNMNN2MNKX IZMX40B3-A16F 149424	RES6163W22DNMNN2MNDX IZMX40B3-A16W 149760			1	
	2000	1000 - 2000			RES6203B22NMNN2MNKX IZMX40B3-A20F 149425	RES6203W22NMNN2MNDX IZMX40B3-A20W 149761			1	
	2500	1250 - 2500			RES6253B22NNMNN2MNKX IZMX40B3-A25F 149426	RES6253W22NNMNN2MNDX IZMX40B3-A25W 149762			1	
	3200	1600 - 3200			RES6323B22QNMNN2MNKX IZMX40B3-A32F 149427	RES6323W22QNMNN2MNDX IZMX40B3-A32W 149763			1	
	4000	2000 - 4000			RES6403B22RNMNN2MNKX IZMX40B3-A40F 149428	RES6403W22RNMNN2MNDX IZMX40B3-A40W 149764			1	
85/85	800	400 - 800			RES8083B228NMNN2MNKX IZMX40N3-A08F 149693	RES8083W228NMNN2MNDX IZMX40N3-A08W 149789			1	
	1000	500 - 1000			RES8103B22ANMNN2MNKX IZMX40N3-A10F 149694	RES8103W22ANMNN2MNDX IZMX40N3-A10W 149790			1	
	1250	625 - 1250			RES8133B22CNMNN2MNKX IZMX40N3-A12F 149695	RES8133W22CNMNN2MNDX IZMX40N3-A12W 149791			1	
	1600	800 - 1600			RES8163B22DNMNN2MNKX IZMX40N3-A16F 149696	RES8163W22DNMNN2MNDX IZMX40N3-A16W 149792			1	
	2000	1000 - 2000			RES8203B22NMNN2MNKX IZMX40N3-A20F 149697	RES8203W22NMNN2MNDX IZMX40N3-A20W 149793			1	
	2500	1250 - 2500			RES8253B22NNMNN2MNKX IZMX40N3-A25F 149698	RES8253W22NNMNN2MNDX IZMX40N3-A25W 149794			1	
	3200	1600 - 3200			RES8323B22QNMNN2MNKX IZMX40N3-A32F 149699	RES8323W22QNMNN2MNDX IZMX40N3-A32W 149795			1	
	4000	2000 - 4000			RES8403B22RNMNN2MNKX IZMX40N3-A40F 149700	RES8403W22RNMNN2MNDX IZMX40N3-A40W 149796			1	
105/105	800	400 - 800			RESC083B228NMNN2MNKX IZMX40H3-A08F 149725	RESC083W228NMNN2MNDX IZMX40H3-A08W 149821			1	
	1000	500 - 1000			RESC103B22ANMNN2MNKX IZMX40H3-A10F 149726	RESC103W22ANMNN2MNDX IZMX40H3-A10W 149822			1	
	1250	625 - 1250			RESC133B22CNMNN2MNKX IZMX40H3-A12F 149727	RESC133W22CNMNN2MNDX IZMX40H3-A12W 149823			1	
	1600	800 - 1600			RESC163B22DNMNN2MNKX IZMX40H3-A16F 149728	RESC163W22DNMNN2MNDX IZMX40H3-A16W 149824			1	
	2000	1000 - 2000			RESC203B22NMNN2MNKX IZMX40H3-A20F 149729	RESC203W22NMNN2MNDX IZMX40H3-A20W 149825			1	

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$					
Circuit-breaker for system protection									
Main Terminals are not included, need to be selected separately.									
3 pole									
105/105	2500	1250 - 2500	-	2 - 12	RESC253B22NNMNN2MNKX IZMX40H3-A25F 149730		RESC253W22NNMNN2MNDX IZMX40H3-A25W 149826		1
	3200	1600 - 3200			RESC323B22QNMMNN2MNKX IZMX40H3-A32F 149731		RESC323W22QNMMNN2MNDX IZMX40H3-A32W 149827		1
	4000	2000 - 4000			RESC403B22RNMNN2MNKX IZMX40H3-A40F 149732		RESC403W22RNMNN2MNDX IZMX40H3-A40W 149828		1
4 pole									
66/66	800	400 - 800	-	2 - 12	RES6084B228NMNN2MNKX IZMX40B4-A08F 149853		RES6084W228NMNN2MNDX IZMX40B4-A08W 149949		1
	1000	500 - 1000			RES6104B22ANMNN2MNKX IZMX40B4-A10F 149854		RES6104W22ANMNN2MNDX IZMX40B4-A10W 149950		1
	1250	625 - 1250			RES6134B22CNMNN2MNKX IZMX40B4-A12F 149855		RES6134W22CNMNN2MNDX IZMX40B4-A12W 149951		1
	1600	800 - 1600			RES6164B22DNMNN2MNKX IZMX40B4-A16F 149856		RES6164W22DNMNN2MNDX IZMX40B4-A16W 149952		1
	2000	1000 - 2000			RES6204B22MMNN2MNKX IZMX40B4-A20F 149857		RES6204W22MMNN2MNDX IZMX40B4-A20W 149953		1
	2500	1250 - 2500			RES6254B22NNMNN2MNKX IZMX40B4-A25F 149858		RES6254W22NNMNN2MNDX IZMX40B4-A25W 149954		1
	3200	1600 - 3200			RES6324B22QNMNN2MNKX IZMX40B4-A32F 149859		RES6324W22QNMNN2MNDX IZMX40B4-A32W 149955		1
	4000	2000 - 4000			RES6404B22RNMNN2MNKX IZMX40B4-A40F 149860		RES6404W22RNMNN2MNDX IZMX40B4-A40W 149956		1
85/85	800	400 - 800			RES8084B228NMNN2MNKX IZMX40N4-A08F 149885		RES8084W228NMNN2MNDX IZMX40N4-A08W 149981		1
	1000	500 - 1000			RES8104B22ANMNN2MNKX IZMX40N4-A10F 149886		RES8104W22ANMNN2MNDX IZMX40N4-A10W 149982		1
	1250	625 - 1250			RES8134B22CNMNN2MNKX IZMX40N4-A12F 149887		RES8134W22CNMNN2MNDX IZMX40N4-A12W 149983		1
	1600	800 - 1600			RES8164B22DNMNN2MNKX IZMX40N4-A16F 149888		RES8164W22DNMNN2MNDX IZMX40N4-A16W 149984		1
	2000	1000 - 2000			RES8204B22MMNN2MNKX IZMX40N4-A20F 149889		RES8204W22MMNN2MNDX IZMX40N4-A20W 149985		1
	2500	1250 - 2500			RES8254B22NNMNN2MNKX IZMX40N4-A25F 149890		RES8254W22NNMNN2MNDX IZMX40N4-A25W 149986		1
	3200	1600 - 3200			RES8324B22QNMNN2MNKX IZMX40N4-A32F 149891		RES8324W22QNMNN2MNDX IZMX40N4-A32W 149987		1
	4000	2000 - 4000			RES8404B22RNMNN2MNKX IZMX40N4-A40F 149892		RES8404W22RNMNN2MNDX IZMX40N4-A40W 149988		1

IZMX40...A..., IZMX40...V...

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$					
<p>Circuit-breaker for system protection</p> <p>Main Terminals are not included, need to be selected separately.</p> <p>4 pole</p>									
105/105	800	400 - 800	—	2 - 12	RESC084B228NMNN2MNKX IZMX40H4-A08F 149917		RESC084W228NMNN2MNDX IZMX40H4-A08W 150013		1
	1000	500 - 1000			RESC104B22ANMNN2MNKX IZMX40H4-A10F 149918		RESC104W22ANMNN2MNDX IZMX40H4-A10W 150014		1
	1250	625 - 1250			RESC134B22CNMNN2MNKX IZMX40H4-A12F 149919		RESC134W22CNMNN2MNDX IZMX40H4-A12W 150015		1
	1600	800 - 1600			RESC164B22DNMNN2MNKX IZMX40H4-A16F 149920		RESC164W22DNMNN2MNDX IZMX40H4-A16W 150016		1
	2000	1000 - 2000			RESC204B22MNMNN2MNKX IZMX40H4-A20F 149921		RESC204W22MNMNN2MNDX IZMX40H4-A20W 150017		1
	2500	1250 - 2500			RESC254B22NNMNN2MNKX IZMX40H4-A25F 149922		RESC254W22NNMNN2MNDX IZMX40H4-A25W 150018		1
	3200	1600 - 3200			RESC324B22QNMNN2MNKX IZMX40H4-A32F 149923		RESC324W22QNMNN2MNDX IZMX40H4-A32W 150019		1
	4000	2000 - 4000			RESC404B22RNMNN2MNKX IZMX40H4-A40F 149924		RESC404W22RNMNN2MNDX IZMX40H4-A40W 150020		1
<p>Circuit-breaker for selective operation</p> <p>Main Terminals are not included, need to be selected separately.</p> <p>3 pole</p>									
66/66	800	400 - 800	2 - 10	2 - 12, OFF	RES6083B528NMNN2MNKX IZMX40B3-V08F 149429		RES6083W528NMNN2MNDX IZMX40B3-V08W 149765		1
	1000	500 - 1000			RES6103B52ANMNN2MNKX IZMX40B3-V10F 149670		RES6103W52ANMNN2MNDX IZMX40B3-V10W 149766		1
	1250	625 - 1250			RES6133B52CNMNN2MNKX IZMX40B3-V12F 149671		RES6133W52CNMNN2MNDX IZMX40B3-V12W 149767		1
	1600	800 - 1600			RES6163B52DNMNN2MNKX IZMX40B3-V16F 149672		RES6163W52DNMNN2MNDX IZMX40B3-V16W 149768		1
	2000	1000 - 2000			RES6203B52MNMNN2MNKX IZMX40B3-V20F 149673		RES6203W52MNMNN2MNDX IZMX40B3-V20W 149769		1
	2500	1250 - 2500			RES6253B52NNMNN2MNKX IZMX40B3-V25F 149674		RES6253W52NNMNN2MNDX IZMX40B3-V25W 149770		1
	3200	1600 - 3200			RES6323B52QNMNN2MNKX IZMX40B3-V32F 149675		RES6323W52QNMNN2MNDX IZMX40B3-V32W 149771		1
	4000	2000 - 4000			RES6403B52RNMNN2MNKX IZMX40B3-V40F 149676		RES6403W52RNMNN2MNDX IZMX40B3-V40W 149772		1
85/85	800	400 - 800			RES8083B528NMNN2MNKX IZMX40N3-V08F 149701		RES8083W528NMNN2MNDX IZMX40N3-V08W 149797		1
	1000	500 - 1000			RES8103B52ANMNN2MNKX IZMX40N3-V10F 149702		RES8103W52ANMNN2MNDX IZMX40N3-V10W 149798		1
	1250	625 - 1250			RES8133B52CNMNN2MNKX IZMX40N3-V12F 149703		RES8133W52CNMNN2MNDX IZMX40N3-V12W 149799		1
	1600	800 - 1600			RES8163B52DNMNN2MNKX IZMX40N3-V16F 149704		RES8163W52DNMNN2MNDX IZMX40N3-V16W 149800		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack	
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$						
Circuit-breaker for selective operation										
Main Terminals are not included, need to be selected separately.										
3 pole										
85/85	2000	1000 - 2000	2 - 10	2 - 12, OFF	RES8203B52MNMNN2MNKX IZMX40N3-V20F 149705		RES8203W52MNMNN2MNDX IZMX40N3-V20W 149801		1	
	2500	1250 - 2500			RES8253B52NMNN2MNKX IZMX40N3-V25F 149706		RES8253W52NMNN2MNDX IZMX40N3-V25W 149802		1	
3200	1600 - 3200				RES8323B52QNMNN2MNKX IZMX40N3-V32F 149707		RES8323W52QNMNN2MNDX IZMX40N3-V32W 149803		1	
	4000	2000 - 4000			RES8403B52RNMNN2MNKX IZMX40N3-V40F 149708		RES8403W52RNMNN2MNDX IZMX40N3-V40W 149804		1	
105/105	800	400 - 800			RESC083B528NMNN2MNKX IZMX40H3-V08F 149733		RESC083W528NMNN2MNDX IZMX40H3-V08W 149829		1	
	1000	500 - 1000			RESC103B52ANMNN2MNKX IZMX40H3-V10F 149734		RESC103W52ANMNN2MNDX IZMX40H3-V10W 149830		1	
	1250	625 - 1250			RESC133B52CNMNN2MNKX IZMX40H3-V12F 149735		RESC133W52CNMNN2MNDX IZMX40H3-V12W 149831		1	
	1600	800 - 1600			RESC163B52DNMNN2MNKX IZMX40H3-V16F 149736		RESC163W52DNMNN2MNDX IZMX40H3-V16W 149832		1	
	2000	1000 - 2000			RESC203B52MNMNN2MNKX IZMX40H3-V20F 149737		RESC203W52MNMNN2MNDX IZMX40H3-V20W 149833		1	
	2500	1250 - 2500			RESC253B52NMNN2MNKX IZMX40H3-V25F 149738		RESC253W52NMNN2MNDX IZMX40H3-V25W 149834		1	
	3200	1600 - 3200			RESC323B52QNMNN2MNKX IZMX40H3-V32F 149739		RESC323W52QNMNN2MNDX IZMX40H3-V32W 149835		1	
	4000	2000 - 4000			RESC403B52RNMNN2MNKX IZMX40H3-V40F 149740		RESC403W52RNMNN2MNDX IZMX40H3-V40W 149836		1	
	4 pole									
	66/66	800	400 - 800	2 - 10	2 - 12, OFF	RES6084B528NMNN2MNKX IZMX40B4-V08F 149861		RES6084W528NMNN2MNDX IZMX40B4-V08W 149957		1
1000		500 - 1000	RES6104B52ANMNN2MNKX IZMX40B4-V10F 149862				RES6104W52ANMNN2MNDX IZMX40B4-V10W 149958		1	
1250		625 - 1250	RES6134B52CNMNN2MNKX IZMX40B4-V12F 149863				RES6134W52CNMNN2MNDX IZMX40B4-V12W 149959		1	
1600		800 - 1600	RES6164B52DNMNN2MNKX IZMX40B4-V16F 149864				RES6164W52DNMNN2MNDX IZMX40B4-V16W 149960		1	
2000		1000 - 2000	RES6204B52MNMNN2MNKX IZMX40B4-V20F 149865				RES6204W52MNMNN2MNDX IZMX40B4-V20W 149961		1	
2500		1250 - 2500	RES6254B52NMNN2MNKX IZMX40B4-V25F 149866				RES6254W52NMNN2MNDX IZMX40B4-V25W 149962		1	
3200		1600 - 3200	RES6324B52QNMNN2MNKX IZMX40B4-V32F 149867				RES6324W52QNMNN2MNDX IZMX40B4-V32W 149963		1	
4000		2000 - 4000	RES6404B52RNMNN2MNKX IZMX40B4-V40F 149868				RES6404W52RNMNN2MNDX IZMX40B4-V40W 149964		1	

IZMX40...V..., IZMX40...U...




Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack			
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$								
Circuit-breaker for selective operation												
Main Terminals are not included, need to be selected separately.												
4 pole												
85/85	800	400 - 800	2 - 10	2 - 12, OFF	RES8084B528NMNN2MNKX IZMX40N4-V08F 149893		RES8084W528NMNN2MNDX IZMX40N4-V08W 149899		1			
	1000	500 - 1000			RES8104B52ANMNN2MNKX IZMX40N4-V10F 149894		RES8104W52ANMNN2MNDX IZMX40N4-V10W 149890		1			
	1250	625 - 1250			RES8134B52CNMNN2MNKX IZMX40N4-V12F 149895		RES8134W52CNMNN2MNDX IZMX40N4-V12W 149891		1			
	1600	800 - 1600			RES8164B52DNMNN2MNKX IZMX40N4-V16F 149896		RES8164W52DNMNN2MNDX IZMX40N4-V16W 149892		1			
	2000	1000 - 2000			RES8204B52MNMNN2MNKX IZMX40N4-V20F 149897		RES8204W52MNMNN2MNDX IZMX40N4-V20W 149893		1			
	2500	1250 - 2500			RES8254B52NNMNN2MNKX IZMX40N4-V25F 149898		RES8254W52NNMNN2MNDX IZMX40N4-V25W 149894		1			
	3200	1600 - 3200			RES8324B52QNMNN2MNKX IZMX40N4-V32F 149899		RES8324W52QNMNN2MNDX IZMX40N4-V32W 149895		1			
	4000	2000 - 4000			RES8404B52RNMNN2MNKX IZMX40N4-V40F 149900		RES8404W52RNMNN2MNDX IZMX40N4-V40W 149896		1			
	105/105	800			400 - 800	2 - 10	2 - 12, OFF	RESC084B528NMNN2MNKX IZMX40H4-V08F 149925		RESC084W528NMNN2MNDX IZMX40H4-V08W 150021		1
		1000			500 - 1000			RESC104B52ANMNN2MNKX IZMX40H4-V10F 149926		RESC104W52ANMNN2MNDX IZMX40H4-V10W 150022		1
		1250			625 - 1250			RESC134B52CNMNN2MNKX IZMX40H4-V12F 149927		RESC134W52CNMNN2MNDX IZMX40H4-V12W 150023		1
		1600			800 - 1600			RESC164B52DNMNN2MNKX IZMX40H4-V16F 149928		RESC164W52DNMNN2MNDX IZMX40H4-V16W 150024		1
		2000			1000 - 2000			RESC204B52MNMNN2MNKX IZMX40H4-V20F 149929		RESC204W52MNMNN2MNDX IZMX40H4-V20W 150025		1
		2500			1250 - 2500			RESC254B52NNMNN2MNKX IZMX40H4-V25F 149930		RESC254W52NNMNN2MNDX IZMX40H4-V25W 150026		1
3200		1600 - 3200	RESC324B52QNMNN2MNKX IZMX40H4-V32F 149931		RESC324W52QNMNN2MNDX IZMX40H4-V32W 150027				1			
4000		2000 - 4000	RESC404B52RNMNN2MNKX IZMX40H4-V40F 149932		RESC404W52RNMNN2MNDX IZMX40H4-V40W 150028				1			
Circuit-breaker for universal protection												
Main Terminals are not included, need to be selected separately.												
3 pole												
66/66		800	400 - 800	2 - 10	2 - 12, OFF			RES6083BM28NMNN2MNKX IZMX40B3-U08F 149677		RES6083WM28NMNN2MNDX IZMX40B3-U08W 149773		1
		1000	500 - 1000					RES6103BM2ANMNN2MNKX IZMX40B3-U10F 149678		RES6103WM2ANMNN2MNDX IZMX40B3-U10W 149774		1
		1250	625 - 1250					RES6133BM2CNMNN2MNKX IZMX40B3-U12F 149679		RES6133WM2CNMNN2MNDX IZMX40B3-U12W 149775		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack			
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$								
Circuit-breaker for universal protection												
Main Terminals are not included, need to be selected separately.												
3 pole												
66/66	1600	800 - 1600	2 - 10	2 - 12, OFF	RES6163BM2DNMNN2MNKX IZMX40B3-U16F 149680		RES6163WM2DNMNN2MNDX IZMX40B3-U16W 149776		1			
	2000	1000 - 2000			RES6203BM2MNMNN2MNKX IZMX40B3-U20F 149681		RES6203WM2MNMNN2MNDX IZMX40B3-U20W 149777		1			
	2500	1250 - 2500			RES6253BM2NNMNN2MNKX IZMX40B3-U25F 149682		RES6253WM2NNMNN2MNDX IZMX40B3-U25W 149778		1			
	3200	1600 - 3200			RES6323BM2QNMNN2MNKX IZMX40B3-U32F 149683		RES6323WM2QNMNN2MNDX IZMX40B3-U32W 149779		1			
	4000	2000 - 4000			RES6403BM2RNMNN2MNKX IZMX40B3-U40F 149684		RES6403WM2RNMNN2MNDX IZMX40B3-U40W 149780		1			
85/85	800	400 - 800			RES8083BM28NMNN2MNKX IZMX40N3-U08F 149709		RES8083WM28NMNN2MNDX IZMX40N3-U08W 149805		1			
	1000	500 - 1000			RES8103BM2ANMNN2MNKX IZMX40N3-U10F 149710		RES8103WM2ANMNN2MNDX IZMX40N3-U10W 149806		1			
	1250	625 - 1250			RES8133BM2CNMNN2MNKX IZMX40N3-U12F 149711		RES8133WM2CNMNN2MNDX IZMX40N3-U12W 149807		1			
	1600	800 - 1600			RES8163BM2DNMNN2MNKX IZMX40N3-U16F 149712		RES8163WM2DNMNN2MNDX IZMX40N3-U16W 149808		1			
	2000	1000 - 2000			RES8203BM2MNMNN2MNKX IZMX40N3-U20F 149713		RES8203WM2MNMNN2MNDX IZMX40N3-U20W 149809		1			
	2500	1250 - 2500			RES8253BM2NNMNN2MNKX IZMX40N3-U25F 149714		RES8253WM2NNMNN2MNDX IZMX40N3-U25W 149810		1			
	3200	1600 - 3200			RES8323BM2QNMNN2MNKX IZMX40N3-U32F 149715		RES8323WM2QNMNN2MNDX IZMX40N3-U32W 149811		1			
	4000	2000 - 4000			RES8403BM2RNMNN2MNKX IZMX40N3-U40F 149716		RES8403WM2RNMNN2MNDX IZMX40N3-U40W 149812		1			
	105/105	800			400 - 800			RESC083BM28NMNN2MNKX IZMX40H3-U08F 149741		RESC083WM28NMNN2MNDX IZMX40H3-U08W 149837		1
		1000			500 - 1000			RESC103BM2ANMNN2MNKX IZMX40H3-U10F 149742		RESC103WM2ANMNN2MNDX IZMX40H3-U10W 149838		1
1250		625 - 1250	RESC133BM2CNMNN2MNKX IZMX40H3-U12F 149743		RESC133WM2CNMNN2MNDX IZMX40H3-U12W 149839				1			
1600		800 - 1600	RESC163BM2DNMNN2MNKX IZMX40H3-U16F 149744		RESC163WM2DNMNN2MNDX IZMX40H3-U16W 149840				1			
2000		1000 - 2000	RESC203BM2MNMNN2MNKX IZMX40H3-U20F 149745		RESC203WM2MNMNN2MNDX IZMX40H3-U20W 149841				1			
2500		1250 - 2500	RESC253BM2NNMNN2MNKX IZMX40H3-U25F 149746		RESC253WM2NNMNN2MNDX IZMX40H3-U25W 149842				1			
3200		1600 - 3200	RESC323BM2QNMNN2MNKX IZMX40H3-U32F 149747		RESC323WM2QNMNN2MNDX IZMX40H3-U32W 149843				1			
4000		2000 - 4000	RESC403BM2RNMNN2MNKX IZMX40H3-U40F 149748		RESC403WM2RNMNN2MNDX IZMX40H3-U40W 149844				1			

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$					
Circuit-breaker for universal protection									
Main Terminals are not included, need to be selected separately.									
4 pole									
66/66	800	400 - 800	2 - 10	2 - 12, OFF	RES6084BM28NMNN2MNKX IZMX40B4-U08F 149869		RES6084WM28NMNN2MNDX IZMX40B4-U08W 149965		1
	1000	500 - 1000			RES6104BM2ANMNN2MNKX IZMX40B4-U10F 149870		RES6104WM2ANMNN2MNDX IZMX40B4-U10W 149966		1
	1250	625 - 1250			RES6134BM2CNMNN2MNKX IZMX40B4-U12F 149871		RES6134WM2CNMNN2MNDX IZMX40B4-U12W 149967		1
	1600	800 - 1600			RES6164BM2DNMNN2MNKX IZMX40B4-U16F 149872		RES6164WM2DNMNN2MNDX IZMX40B4-U16W 149968		1
	2000	1000 - 2000			RES6204BM2MNMNN2MNKX IZMX40B4-U20F 149873		RES6204WM2MNMNN2MNDX IZMX40B4-U20W 149969		1
	2500	1250 - 2500			RES6254BM2NNMNN2MNKX IZMX40B4-U25F 149874		RES6254WM2NNMNN2MNDX IZMX40B4-U25W 149970		1
	3200	1600 - 3200			RES6324BM2QNMNN2MNKX IZMX40B4-U32F 149875		RES6324WM2QNMNN2MNDX IZMX40B4-U32W 149971		1
	4000	2000 - 4000			RES6404BM2RNMNN2MNKX IZMX40B4-U40F 149876		RES6404WM2RNMNN2MNDX IZMX40B4-U40W 149972		1
85/85	800	400 - 800	2 - 10	2 - 12, OFF	RES8084BM28NMNN2MNKX IZMX40N4-U08F 149901		RES8084WM28NMNN2MNDX IZMX40N4-U08W 149997		1
	1000	500 - 1000			RES8104BM2ANMNN2MNKX IZMX40N4-U10F 149902		RES8104WM2ANMNN2MNDX IZMX40N4-U10W 149998		1
	1250	625 - 1250			RES8134BM2CNMNN2MNKX IZMX40N4-U12F 149903		RES8134WM2CNMNN2MNDX IZMX40N4-U12W 149999		1
	1600	800 - 1600			RES8164BM2DNMNN2MNKX IZMX40N4-U16F 149904		RES8164WM2DNMNN2MNDX IZMX40N4-U16W 150000		1
	2000	1000 - 2000			RES8204BM2MNMNN2MNKX IZMX40N4-U20F 149905		RES8204WM2MNMNN2MNDX IZMX40N4-U20W 150001		1
	2500	1250 - 2500			RES8254BM2NNMNN2MNKX IZMX40N4-U25F 149906		RES8254WM2NNMNN2MNDX IZMX40N4-U25W 150002		1
	3200	1600 - 3200			RES8324BM2QNMNN2MNKX IZMX40N4-U32F 149907		RES8324WM2QNMNN2MNDX IZMX40N4-U32W 150003		1
	4000	2000 - 4000			RES8404BM2RNMNN2MNKX IZMX40N4-U40F 149908		RES8404WM2RNMNN2MNDX IZMX40N4-U40W 150004		1
105/105	800	400 - 800	2 - 10	2 - 12, OFF	RESC084BM28NMNN2MNKX IZMX40H4-U08F 149933		RESC084WM28NMNN2MNDX IZMX40H4-U08W 150029		1
	1000	500 - 1000			RESC104BM2ANMNN2MNKX IZMX40H4-U10F 149934		RESC104WM2ANMNN2MNDX IZMX40H4-U10W 150030		1
	1250	625 - 1250			RESC134BM2CNMNN2MNKX IZMX40H4-U12F 149935		RESC134WM2CNMNN2MNDX IZMX40H4-U12W 150031		1
	1600	800 - 1600			RESC164BM2DNMNN2MNKX IZMX40H4-U16F 149936		RESC164WM2DNMNN2MNDX IZMX40H4-U16W 150032		1
	2000	1000 - 2000			RESC204BM2MNMNN2MNKX IZMX40H4-U20F 149937		RESC204WM2MNMNN2MNDX IZMX40H4-U20W 150033		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack			
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$								
<p>Circuit-breaker for universal protection</p> <p>Main Terminals are not included, need to be selected separately.</p> <p>4 pole</p>												
105/105	2500	1250 - 2500	2 - 10	2 - 12, OFF	RES6083B128NMNN2MNKX IZMX40H4-U25F 149938		RES6083W128NMNN2MNDX IZMX40H4-U25W 150034		1			
	3200	1600 - 3200			RES6323B12QNMMNN2MNKX IZMX40H4-U32F 149939		RES6323W12QNMMNN2MNDX IZMX40H4-U32W 150035		1			
	4000	2000 - 4000			RES8403B12RNMNN2MNKX IZMX40H4-U40F 149940		RES8403W12RNMNN2MNDX IZMX40H4-U40W 150036		1			
<p>Circuit-breaker for professional protection with power measurement</p> <p>Main Terminals are not included, need to be selected separately.</p> <p>3 pole</p>												
66/66	800	400 - 800	2 - 10	2 - 12, OFF	RES6083B128NMNN2MNKX IZMX40B3-P08F 149685		RES6083W128NMNN2MNDX IZMX40B3-P08W 149781		1			
	1000	500 - 1000			RES6103B12ANMNN2MNKX IZMX40B3-P10F 149686		RES6103W12ANMNN2MNDX IZMX40B3-P10W 149782		1			
	1250	625 - 1250			RES6133B12CNMNN2MNKX IZMX40B3-P12F 149687		RES6133W12CNMNN2MNDX IZMX40B3-P12W 149783		1			
	1600	800 - 1600			RES6163B12DNMNN2MNKX IZMX40B3-P16F 149688		RES6163W12DNMNN2MNDX IZMX40B3-P16W 149784		1			
	2000	1000 - 2000			RES6203B12MNMMNN2MNKX IZMX40B3-P20F 149689		RES6203W12MNMMNN2MNDX IZMX40B3-P20W 149785		1			
	2500	1250 - 2500			RES6253B12NNMNN2MNKX IZMX40B3-P25F 149690		RES6253W12NNMNN2MNDX IZMX40B3-P25W 149786		1			
	3200	1600 - 3200			RES6323B12QNMNN2MNKX IZMX40B3-P32F 149691		RES6323W12QNMNN2MNDX IZMX40B3-P32W 149787		1			
	4000	2000 - 4000			RES6403B12RNMNN2MNKX IZMX40B3-P40F 149692		RES6403W12RNMNN2MNDX IZMX40B3-P40W 149788		1			
	85/85	800			400 - 800	2 - 10	2 - 12, OFF	RES8083B128NMNN2MNKX IZMX40N3-P08F 149717		RES8083W128NMNN2MNDX IZMX40N3-P08W 149813		1
		1000			500 - 1000			RES8103B12ANMNN2MNKX IZMX40N3-P10F 149718		RES8103W12ANMNN2MNDX IZMX40N3-P10W 149814		1
1250		625 - 1250	RES8133B12CNMNN2MNKX IZMX40N3-P12F 149719		RES8133W12CNMNN2MNDX IZMX40N3-P12W 149815				1			
1600		800 - 1600	RES8163B12DNMNN2MNKX IZMX40N3-P16F 149720		RES8163W12DNMNN2MNDX IZMX40N3-P16W 149816				1			
2000		1000 - 2000	RES8203B12MNMMNN2MNKX IZMX40N3-P20F 149721		RES8203W12MNMMNN2MNDX IZMX40N3-P20W 149817				1			
2500		1250 - 2500	RES8253B12NNMNN2MNKX IZMX40N3-P25F 149722		RES8253W12NNMNN2MNDX IZMX40N3-P25W 149818				1			
3200		1600 - 3200	RES8323B12QNMNN2MNKX IZMX40N3-P32F 149723		RES8323W12QNMNN2MNDX IZMX40N3-P32W 149819				1			
4000		2000 - 4000	RES8403B12RNMNN2MNKX IZMX40N3-P40F 149724		RES8403W12RNMNN2MNDX IZMX40N3-P40W 149820				1			

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$					
Circuit-breaker for professional protection with power measurement									
Main Terminals are not included, need to be selected separately.									
3 pole									
105/105	800	400 - 800	2 - 10	2 - 12, OFF	RESC083B128NMNN2MNKX IZMX40H3-P08F 149749		RESC083W128NMNN2MNDX IZMX40H3-P08W 149845		1
	1000	500 - 1000			RESC103B12ANMNN2MNKX IZMX40H3-P10F 149750		RESC103W12ANMNN2MNDX IZMX40H3-P10W 149846		1
	1250	625 - 1250			RESC133B12CNMNN2MNKX IZMX40H3-P12F 149751		RESC133W12CNMNN2MNDX IZMX40H3-P12W 149847		1
	1600	800 - 1600			RESC163B12DNMNN2MNKX IZMX40H3-P16F 149752		RESC163W12DNMNN2MNDX IZMX40H3-P16W 149848		1
	2000	1000 - 2000			RESC203B12MMN2MNKX IZMX40H3-P20F 149753		RESC203W12MMN2MNDX IZMX40H3-P20W 149849		1
	2500	1250 - 2500			RESC253B12NMNN2MNKX IZMX40H3-P25F 149754		RESC253W12NMNN2MNDX IZMX40H3-P25W 149850		1
	3200	1600 - 3200			RESC323B12QNMNN2MNKX IZMX40H3-P32F 149755		RESC323W12QNMNN2MNDX IZMX40H3-P32W 149851		1
	4000	2000 - 4000			RESC403B12RNMNN2MNKX IZMX40H3-P40F 149756		RESC403W12RNMNN2MNDX IZMX40H3-P40W 149852		1
4 pole									
66/66	800	400 - 800	2 - 10	2 - 12, OFF	RES6084B128NMNN2MNKX IZMX40B4-P08F 149877		RES6084W128NMNN2MNDX IZMX40B4-P08W 149973		1
	1000	500 - 1000			RES6104B12ANMNN2MNKX IZMX40B4-P10F 149878		RES6104W12ANMNN2MNDX IZMX40B4-P10W 149974		1
	1250	625 - 1250			RES6134B12CNMNN2MNKX IZMX40B4-P12F 149879		RES6134W12CNMNN2MNDX IZMX40B4-P12W 149975		1
	1600	800 - 1600			RES6164B12DNMNN2MNKX IZMX40B4-P16F 149880		RES6164W12DNMNN2MNDX IZMX40B4-P16W 149976		1
	2000	1000 - 2000			RES6204B12MMN2MNKX IZMX40B4-P20F 149881		RES6204W12MMN2MNDX IZMX40B4-P20W 149977		1
	2500	1250 - 2500			RES6254B12NMNN2MNKX IZMX40B4-P25F 149882		RES6254W12NMNN2MNDX IZMX40B4-P25W 149978		1
	3200	1600 - 3200			RES6324B12QNMNN2MNKX IZMX40B4-P32F 149883		RES6324W12QNMNN2MNDX IZMX40B4-P32W 149979		1
	4000	2000 - 4000			RES6404B12RNMNN2MNKX IZMX40B4-P40F 149884		RES6404W12RNMNN2MNDX IZMX40B4-P40W 149980		1
85/85	800	400 - 800			RES8084B128NMNN2MNKX IZMX40N4-P08F 149909		RES8084W128NMNN2MNDX IZMX40N4-P08W 150005		1
	1000	500 - 1000			RES8104B12ANMNN2MNKX IZMX40N4-P10F 149910		RES8104W12ANMNN2MNDX IZMX40N4-P10W 150006		1
	1250	625 - 1250			RES8134B12CNMNN2MNKX IZMX40N4-P12F 149911		RES8134W12CNMNN2MNDX IZMX40N4-P12W 150007		1
	1600	800 - 1600			RES8164B12DNMNN2MNKX IZMX40N4-P16F 149912		RES8164W12DNMNN2MNDX IZMX40N4-P16W 150008		1

Switching capacity I_{cu}/I_{cs} kA/kA	Rated current $I_n = I_u$ A	Setting range Overload releases I_r A	Short-circuit releases		Fixed Cat. No. Part no. Article no.	Price see price list	Withdrawable Cassettes need to be ordered separately. Cat. No. Part no. Article no.	Price see price list	Std. pack
			Delayed $I_{sd} = I_r \times \dots$	Non-delayed $I_i = I_n \times \dots$					
									
Circuit-breaker for professional protection with power measurement									
Main Terminals are not included, need to be selected separately.									
4 pole									
85/85	2000	1000 - 2000	2 - 10	2 - 12, OFF	RES8204B12MNMNN2MNX IZMX40N4-P20F 149913		RES8204W12MNMNN2MNDX IZMX40N4-P20W 150009		1
	2500	1250 - 2500			RES8254B12NNMNN2MNX IZMX40N4-P25F 149914		RES8254W12NNMNN2MNDX IZMX40N4-P25W 150010		1
	3200	1600 - 3200			RES8324B12QNMNN2MNX IZMX40N4-P32F 149915		RES8324W12QNMNN2MNDX IZMX40N4-P32W 150011		1
	4000	2000 - 4000			RES8404B12RNMNN2MNX IZMX40N4-P40F 149916		RES8404W12RNMNN2MNDX IZMX40N4-P40W 150012		1
105/105	800	400 - 800			RESC084B128NMNN2MNX IZMX40H4-P08F 149941		RESC084W128NMNN2MNDX IZMX40H4-P08W 150037		1
	1000	500 - 1000			RESC104B12ANMNN2MNX IZMX40H4-P10F 149942		RESC104W12ANMNN2MNDX IZMX40H4-P10W 150038		1
	1250	625 - 1250			RESC134B12CNMNN2MNX IZMX40H4-P12F 149943		RESC134W12CNMNN2MNDX IZMX40H4-P12W 150039		1
	1600	800 - 1600			RESC164B12DNMNN2MNX IZMX40H4-P16F 149944		RESC164W12DNMNN2MNDX IZMX40H4-P16W 150040		1
	2000	1000 - 2000			RESC204B12MNMNN2MNX IZMX40H4-P20F 149945		RESC204W12MNMNN2MNDX IZMX40H4-P20W 150041		1
	2500	1250 - 2500			RESC254B12NNMNN2MNX IZMX40H4-P25F 149946		RESC254W12NNMNN2MNDX IZMX40H4-P25W 150042		1
	3200	1600 - 3200			RESC324B12QNMNN2MNX IZMX40H4-P32F 149947		RESC324W12QNMNN2MNDX IZMX40H4-P32W 150043		1
	4000	2000 - 4000			RESC404B12RNMNN2MNX IZMX40H4-P40F 149948		RESC404W12RNMNN2MNDX IZMX40H4-P40W 150044		1

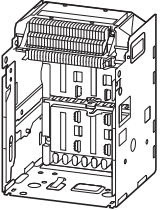
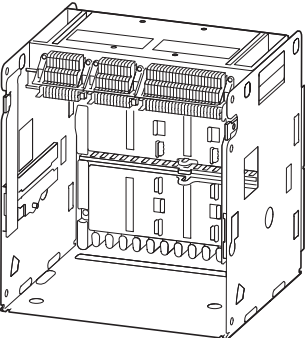
Rated short-circuit making capacity	Rated current = rated uninterrupted current	Rated short-time withstand current 50/60 Hz	Fixed	Price	Withdrawable	Price	Std. pack
up to 440 V 50/60 Hz	$I_n = I_u$	$t = 1\text{ s}$	Cat. No.	see price list	Cassettes need to be ordered separately.	see price list	
I_{cm} kA	A	I_{cw} kA	Part no. Article no.				
					Cat. No. Part no. Article no.		
Switch disconnectors INX40							
Main Terminals are not included, need to be selected separately.							
3 pole							
144	800	66	RES6083BSW0NMNN2NNKX INX40B3-08F 150045		RES6083WSW0NMNN2NNDX INX40B3-08W 150069		1
	1000		RES6103BSW0NMNN2NNKX INX40B3-10F 150046		RES6103WSW0NMNN2NNDX INX40B3-10W 150070		1
	1250		RES6133BSW0NMNN2NNKX INX40B3-12F 150047		RES6133WSW0NMNN2NNDX INX40B3-12W 150071		1
	1600		RES6163BSW0NMNN2NNKX INX40B3-16F 150048		RES6163WSW0NMNN2NNDX INX40B3-16W 150072		1
	2000		RES6203BSW0NMNN2MNKX INX40B3-20F 150049		RES6203WSW0NMNN2MNDX INX40B3-20W 150073		1
	2500		RES6253BSW0NMNN2MNKX INX40B3-25F 150050		RES6253WSW0NMNN2MNDX INX40B3-25W 150074		1
	3200		RES6323BSW0NMNN2MNKX INX40B3-32F 150051		RES6323WSW0NMNN2MNDX INX40B3-32W 150075		1
	4000		RES6403BSW0RMNN2MNKX INX40B3-40F 150052		RES6403WSW0RMNN2MNDX INX40B3-40W 150076		1
185	800	85	RES8083BSW0NMNN2MN1X INX40N3-08F 150053		RES8083WSW0NMNN2MNDX INX40N3-08W 150077		1
	1000		RES8103BSW0NMNN2MN1X INX40N3-10F 150054		RES8103WSW0NMNN2MNDX INX40N3-10W 150078		1
	1250		RES8133BSW0NMNN2MN1X INX40N3-12F 150055		RES8133WSW0NMNN2MNDX INX40N3-12W 150079		1
	1600		RES8163BSW0NMNN2MN1X INX40N3-16F 150056		RES8163WSW0NMNN2MNDX INX40N3-16W 150080		1
	2000		RES8203BSW0NMNN2MN1X INX40N3-20F 150057		RES8203WSW0NMNN2MNDX INX40N3-20W 150081		1
	2500		RES8253BSW0NMNN2MN1X INX40N3-25F 150058		RES8253WSW0NMNN2MNDX INX40N3-25W 150082		1
	3200		RES8323BSW0NMNN2MN1X INX40N3-32F 150059		RES8323WSW0NMNN2MNDX INX40N3-32W 150083		1
	4000		RES8403BSW0NMNN2MN1X INX40N3-40F 150060		RES8403WSW0NMNN2MNDX INX40N3-40W 150084		1

Basic devices

INX...40

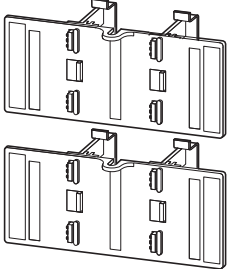


Rated short-circuit making capacity	Rated current = rated uninterrupted current	Rated short-time withstand current 50/60 Hz	Fixed	Price see price list	Withdrawable Cassettes need to be ordered separately.	Price see price list	Std. pack
up to 440 V 50/60 Hz	$I_n = I_u$	$t = 1 \text{ s}$	Cat. No. Part no. Article no.		Cat. No. Part no. Article no.		
I_{cm} kA	A	I_{cw} kA					
Switch disconnectors INX40							
Main Terminals are not included, need to be selected separately.							
4 pole							
144	800	66	RES6084BSW0NMNN2NNKX INX40B4-08F 150093		RES6084WSW0NMNN2NNDX INX40B4-08W 150117		1
	1000		RES6104BSW0NMNN2NNKX INX40B4-10F 150094		RES6104WSW0NMNN2NNDX INX40B4-10W 150118		1
	1250		RES6134BSW0NMNN2NNKX INX40B4-12F 150095		RES6134WSW0NMNN2NNDX INX40B4-12W 150119		1
	1600		RES6164BSW0NMNN2NNKX INX40B4-16F 150096		RES6164WSW0NMNN2NNDX INX40B4-16W 150120		1
	2000		RES6204BSWMMN2MNX INX40B4-20F 150097		RES6204WSWMMN2MNDX INX40B4-20W 150121		1
	2500		RES6254BSWNNM2MNX INX40B4-25F 150098		RES6254WSWNNM2MNDX INX40B4-25W 150122		1
	3200		RES6324BSWQNM2MNX INX40B4-32F 150099		RES6324WSWQNM2MNDX INX40B4-32W 150123		1
	4000		RES6404BSWRNM2MNX INX40B4-40F 150100		RES6404WSWRNM2MNDX INX40B4-40W 150124		1
185	800	85	RES8084BSW0NMNN2MN1X INX40N4-08F 150101		RES8084WSW0NMNN2MNDX INX40N4-08W 150125		1
	1000		RES8104BSW0NMNN2MN1X INX40N4-10F 150102		RES8104WSW0NMNN2MNDX INX40N4-10W 150126		1
	1250		RES8134BSW0NMNN2MN1X INX40N4-12F 150103		RES8134WSW0NMNN2MNDX INX40N4-12W 150127		1
	1600		RES8164BSW0NMNN2MN1X INX40N4-16F 150104		RES8164WSW0NMNN2MNDX INX40N4-16W 150128		1
	2000		RES8204BSW0NMNN2MN1X INX40N4-20F 150105		RES8204WSW0NMNN2MNDX INX40N4-20W 150129		1
	2500		RES8254BSW0NMNN2MN1X INX40N4-25F 150106		RES8254WSW0NMNN2MNDX INX40N4-25W 150130		1
	3200		RES8324BSW0NMNN2MN1X INX40N4-32F 150107		RES8324WSW0NMNN2MNDX INX40N4-32W 150131		1
	4000		RES8404BSW0NMNN2MN1X INX40N4-40F 150108		RES8404WSW0NMNN2MNDX INX40N4-40W 150132		1

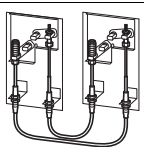

IZMX-CAS...

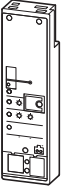
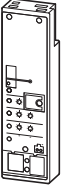
	Pole	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
Cassettes						
Equipment supplied: arcing chamber cover, Safety coding for basic device						
	3	IZMX16...3-...W INX16...3-...W	+IZMX-CAS163-1600 101536		1	With control circuit terminals according to ordered options.
	3	IZMX16...3-...W INX16...3-...W	IZMX-CAS163-1600-SEC 123986		1	With control conductor terminals fully fitted.
	4	IZMX16...4-...W INX16...4-...W	+IZMX-CAS164-1600 101538		1	With control circuit terminals according to ordered options.
	4	IZMX16...4-...W INX16...4-...W	IZMX-CAS164-1600-SEC 124175		1	Fully equipped with control circuit terminals
	3	IZMX40...3-...W INX40...3-...W	+IZMX-CAS403-2000 150067		1	With control circuit terminals according to ordered options.
	3	IZMX40...3-...W INX40...3-...W	IZMX-CAS403-2000-SEC 150085		1	With control conductor terminals fully fitted.
	4	IZMX40...4-...W INX40...4-...W	+IZMX-CAS404-2000 150086		1	With control circuit terminals according to ordered options.
	4	IZMX40...4-...W INX40...4-...W	IZMX-CAS404-2000-SEC 150088		1	With control conductor terminals fully fitted.
	3	IZMX40...3-...W INX40...3-...W	+IZMX-CAS403-2500 122787		1	With control circuit terminals according to ordered options.
	3	IZMX40...3-...W INX40...3-...W	IZMX-CAS403-2500-SEC 122884		1	With control conductor terminals fully fitted.
	4	IZMX40...4-...W INX40...4-...W	+IZMX-CAS404-2500 122890		1	With control circuit terminals according to ordered options.
	4	IZMX40...4-...W INX40...4-...W	IZMX-CAS404-2500-SEC 122898		1	With control conductor terminals fully fitted.
	3	IZMX40...3-...W INX40...3-...W	+IZMX-CAS403-3200 150061		1	With control circuit terminals according to ordered options.
	3	IZMX40...3-...W INX40...3-...W	IZMX-CAS403-3200-SEC 150063		1	With control conductor terminals fully fitted.
	4	IZMX40...4-...W INX40...4-...W	+IZMX-CAS404-3200 150064		1	With control circuit terminals according to ordered options.
	4	IZMX40...4-...W INX40...4-...W	IZMX-CAS404-3200-SEC 150066		1	With control conductor terminals fully fitted.
	3	IZMX40...3-...W INX40...3-...W	+IZMX-CAS403-4000 122886		1	With control circuit terminals according to ordered options.
	3	IZMX40...3-...W INX40...3-...W	IZMX-CAS403-4000-SEC 122888		1	With control conductor terminals fully fitted.
	4	IZMX40...4-...W INX40...4-...W	+IZMX-CAS404-4000 122900		1	With control circuit terminals according to ordered options.
	4	IZMX40...4-...W INX40...4-...W	IZMX-CAS404-4000-SEC 122904		1	With control conductor terminals fully fitted.

Withdrawable units

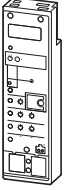
IZMX-SH..., IZMX-CS..., IZMX-SEC-TB...

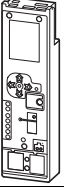
	Pole	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
Cassette safety shutters						
<p>When the breaker is withdrawn from its connected position, the shutters automatically cover the cassette's live main terminals.</p> 	3	IZMX-CAS163...	IZMX-SH163 101542		1	--
	3	IZMX-CAS163...	+IZMX-SH163 101541		1	--
	4	IZMX-CAS164...	IZMX-SH164 101544		1	--
	4	IZMX-CAS164...	+IZMX-SH164 101543		1	--
	3	IZMX-CAS403...	IZMX-SH403 122907		1	--
	3	IZMX-CAS403...	+IZMX-SH403 122905		1	--
	4	IZMX-CAS404...	IZMX-SH404 122909		1	--
	4	IZMX-CAS404...	+IZMX-SH404 122908		1	--
	Cell switches					
One changeover contact for position Disconnected, Test, Connected.						
	Installation on left in the cassette	IZMX-CAS16...	IZMX-CS16-1 108251		1	--
	Installation on left in the cassette	IZMX-CAS40...	IZMX-CS40-L 124285		1	--
	Installation on right in the cassette	IZMX-CAS40...	IZMX-CS40-R 124287		1	--
Secondary terminal block kit						
One changeover contact each switches in the position Disconnected, Test, Connected						
Control circuit terminals, 8 units		IZMX-CAS...	IZMX-SEC-TB8-W 156590		1	--
Control circuit terminals, 20 units		IZMX-CAS...	IZMX-SEC-TB20-W 156591		1	--
Control circuit terminals, 30 units		IZMX-CAS...	IZMX-SEC-TB30-W 156592		1	--

	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	
Mechanical interlock, drawout mounting					
Cable kit for mechanical interlock → 51					
	Type 2, for 2 circuit-breakers: A normal power supply (A) and an emergency network supply (B). 1 set of cables also required in addition.	IZMX16... IMX16...	IZMX-MIL2C-W16 153585	1	
		IZMX40... IMX40...	IZMX-MIL2C-W40 153593	1	
	Type 31, for 3 circuit-breakers: Two normal power supplies(A, C) and an emergency network supply (B). When B in Off, A and C can be switched on. B can be switched on only when A and C are in Off. Two sets of cables required in addition.	IZMX16... IMX16...	IZMX-MIL31C-W16 153586	1	
		IZMX40... IMX40...	IZMX-MIL31C-W40 153594	1	
	Type 32, for 3 circuit-breakers: Two normal incoming units (A, C) and one coupling (B). Any one or two circuit-breakers can be closed at the same time. Three sets of cables are required in addition.	IZMX16... IMX16...	IZMX-MIL32C-W16 153587	1	
		IZMX40... IMX40...	IZMX-MIL32C-W40 153595	1	
	Type 33, for 3 circuit-breakers: Three incoming units (A, B, C), normal or emergency network. Only one of the three circuit-breakers can be switched on at any one time. Three sets of cables are required in addition.	IZMX16... IMX16...	IZMX-MIL33C-W16 153588	1	
		IZMX40... IMX40...	IZMX-MIL33C-W40 153596	1	
	Replacement hand lever				
		This is a spare part. The hand lever is supplied as standard with withdrawable switches.	IZMX16...-...W INX16...-...W	IZMX-LT16 124174	1
IZMX40...-...W INX40...-...W			IZMX-LT40 156667	1	
Drawout Door Interlocks					
Door keylock	IZMX16...W INX16...W	IZMX-DI16-W 156671	1		
	IZMX40...W INX40...W	IZMX-DI40-W 156672	1		
Door gasket, IP41					
Replacement door escutcheon with gasket IP41	IZMX16...W INX16...W	IZMX-DEG16-W 124390	1		
	IZMX40...W INX40...W	IZMX-DEG40-W 156666	1		
Door cover, IP55					
The protective cover allows a higher protection type. IP55	IZMX16...W INX16...W	IZMX-DC16-W 124288	1		
	IZMX40...W INX40...W	IZMX-DC40-W 156663	1		

Type	For use with	Ground Earth-Fault Alarm (A)	Ground Earth-Fault Protection (G)	ARMS (M)	Zone Selective Interlocking (ZSI) (Z)	Cat. No. Part no. Article no.	Price see price list	Std. pack
Spare trip unit for system protection Type A (Digitrip 520 LI)								
 520LI	-	-	-	-	-	IZMX-DTA 124012		1
Spare trip unit for selective protection Type V (Digitrip 520 LSI)								
 520LSI	-	-	-	-	-	IZMX-DTV 124013		1
Add-on functions for selective protection Type V (Digitrip 520 LSI) External power supply is not required for all listed functions. No alarm contacts available								
520 LSI G	Ground Earth-Fault Protection	IZMX-DTV	-	●	-	IZMX-DTV-G 156651		1
520 LSI G		IZMX-DTV	-	●	-	+IZMX-DTV-G 126421		1
520 LSI Z	ZSI	IZMX-DTV	-	-	●	+IZMX-DTV-Z 126422		1
520 LSI GZ		IZMX-DTV	-	●	●	+IZMX-DTV-GZ 126423		1



IZMX-DTU...

Type	For use with	Ground Earth-Fault Alarm (A)	Ground Earth-Fault Protection (G)	ARMS (M)	Zone Selective Interlocking (ZSI) (Z)	Cat. No. Part no. Article no.	Price see price list	Std. pack
Spare trip unit for universal protection Type U (Digitrip 520M LSI)								
 520M LSI	-	-	-	-	-	IZMX-DTU 124014		1
Further functions for universal protection Type U (Digitrip 520M) Communication capability High Load Alarm with contact External power supply is not required for all listed functions.								
520M LSI	ZSI	IZMX-DTU	-	-	-	●	+IZMX-DTU-Z 155563	1
520M LSIA	Ground Earth-Fault Alarm	IZMX-DTU	●	-	-	-	IZMX-DTU-A 156652	1
520M LSIA		IZMX-DTU	●	-	-	-	+IZMX-DTU-A 155560	1
520M LSIA	Ground Earth-Fault Alarm and ZSI	IZMX-DTU	●	-	-	●	+IZMX-DTU-AZ 155565	1
520M LSIG	Ground Earth-Fault Protection	IZMX-DTU	-	●	-	-	IZMX-DTU-G 156653	1
520M LSIG		IZMX-DTU	-	●	-	-	+IZMX-DTU-G 155561	1
520M LSI	ARMS	IZMX-DTU	-	-	●	-	IZMX-DTU-M 156654	1
520M LSI		IZMX-DTU	-	-	●	-	+IZMX-DTU-M 155562	1
520M LSI	ARMS and ZSI	IZMX-DTU	-	-	●	●	+IZMX-DTU-MZ 155568	1
520M LSIA	Ground Earth-Fault Alarm and ARMS	IZMX-DTU	●	-	●	-	IZMX-DTU-AM 156655	1
520M LSIA		IZMX-DTU	●	-	●	-	+IZMX-DTU-AM 155564	1
520M LSIA	Ground Earth-Fault Alarm, ARMS and ZSI	IZMX-DTU	●	-	●	●	+IZMX-DTU-AMZ 155569	1
520M LSIG	Ground Earth-Fault Protection and ARMS	IZMX-DTU	-	●	●	-	IZMX-DTU-GM 156656	1
520M LSIG		IZMX-DTU	-	●	●	-	+IZMX-DTU-GM 155566	1
520M LSIG	Ground Earth-Fault Protection and ZSI	IZMX-DTU	-	●	-	●	+IZMX-DTU-GZ 155567	1
520M LSIG	Ground Earth-Fault Protection, ARMS and ZSI	IZMX-DTU	-	●	●	●	+IZMX-DTU-GMZ 155570	1

Type	For use with	Ground Earth-Fault Alarm (A)	Ground Earth-Fault Protection (G)	ARMS (M)	Zone Selective Interlocking (ZSI) (Z)	Cat. No. Part no. Article no.	Price see price list	Std. pack
Spare trip unit for professional protection Type P (Digitrip 1150i LSI)¹⁾								
 1150i LSI	-	-	-	-	-	IZMX-DTP 124015		1
Further functions for professional protection Type P (Digitrip 1150i LSI) External power supply is not required for the stated functions Display using large LCD graphic color display Extended parameter, protection, measuring, analysis, diagnostics and event memory functions Communication-enabled with communication module								
1150i LSI	ZSI	IZMX-DTP	-	-	-	●	+IZMX-DTP-Z 155571	1
1150i LSIG	Ground Earth-Fault Protection is programmable and can be set to alarm or protection)	IZMX-DTP	-	●	-	-	IZMX-DTP-G 156657	1
1150i LSIG		IZMX-DTP	-	●	-	-	+IZMX-DTP-G 155572	1
1150i LSIG	Ground Earth-Fault Protection is programmable and can be set to alarm or protection. ZSI included.	IZMX-DTP	-	●	-	●	+IZMX-DTP-GZ 155573	1
1150i LSI	ARMS	IZMX-DTP	-	-	●	-	IZMX-DTP-M 156658	1
1150i LSI		IZMX-DTP	-	-	●	-	+IZMX-DTP-M 155574	1
1150i LSI	ARMS and ZSI	IZMX-DTP	-	-	●	●	+IZMX-DTP-MZ 155575	1
1150i LSIG	Ground Earth-Fault Protection is programmable and can be set to alarm or protection.	IZMX-DTP	-	●	●	-	IZMX-DTP-GM 156659	1
1150i LSIG		IZMX-DTP	-	●	●	-	+IZMX-DTP-GM 155576	1
1150i LSIG		IZMX-DTP	-	●	●	●	+IZMX-DTP-GMZ 155577	1

Notes

¹⁾ If it is used for an upgrade from A, V, U (520... trip unit and external voltage measurement modul type has to be ordered separately. One module can supply voltage for up to 20 breakers.

Description	For use with	Rated control voltage	Cat. No. Part no. Article no.	Price see price list	Std. pack
		U _s V			
Power supply					
Required for the control unit depending on the additional function	–	IZMX16... IZMX40...	24 V DC	IZMX-DT-PS 156662	1
Externally mounted voltage transformer to provide voltage sensing input to P-Type trip unit.	–	IZMX16...-P... IZMX40...-P...	–	IZMX-DTP-PTM 113923	1
Test devices					
Hand-held tester	Portable device to test basic trip unit functionality	IZMX16... IZMX40...	100 - 240 V AC	IZM-TEST-KIT 124161	1
Communication modules					
Communication module Ethernet	–	–	–	IZMX-ECAM 124164	1
Communication module MODBus	–	–	–	IZMX-MCAM 122892	1
Communication module PROFIBUS	–	–	–	IZMX-PCAM 122913	1
PROFIBUS-DP bus connector plug					
	Metallized insulated housing Maximum transfer rate 12 MBit/s Integrated switch (accessible from the outside) for the bus terminating resistors Terminal block for two cable entries, with straight or 90° angled cable entry, as required	EASY204-DP IZMX-PCAM	–	ZB4-209-DS3 217820	1
	Twisted Without plug 2-wire 2 x 0.64 mm ² (only suitable for fixed wiring)	EASY204-DP PS416-NET... IZMX-PCAM	–	ZB4-900-KB1 206983	100 m

Notes

Trip unit options and accessories

Communication: The communication interface is integrated in the secondary place.


Combination of Earth-Fault Protection and ARMS: In the case both options are used in combination the Earth-Fault Protection is limited to 1200 A.

The TM ARMS arc fault reduction system for maintenance reduces the time required for rectifying faults in a simple and reliable way, thus increasing safety. The ARMS module is provided with an isolated tripping circuit that responds faster than the non-delayed trip used for standard protection. During maintenance work in areas downstream of the circuit-breaker, the energy (radiation, temperature and pressure) released in the event of an accident is considerably reduced by the ARMS function.


If LED or other signaling informations are required while the breaker is in OFF, an external power supply 24 V DC is necessary.

Rating plugs

IZMX-RP...


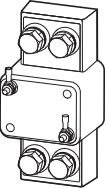
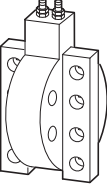
	Rated current	Reduction range	Cat. No. Part no. Article no.	Price see price list	Std. pack
	I_n A				
Rating plugs (Rate current modules), 3 pole, 4 pole. → page 71					
The rated current can be reduced by changing the rating plug, for example, in order to adapt to changed conditions in the application.					
The rating plug's nominal value must be less than or equal to the basic device's rated current.					
The rating plug can be replaced on site without replacing the transformer.					
200 A, 250 A and 300 A rating plugs cannot be combined with P-trip units.					
					
for IZMX16					
	200	$I_u \leq 800$ A	IZMX-RP16A-200 124027		1
	200	$I_u \leq 800$ A	+IZMX-RP16-200 124026		1
	250	$I_u \leq 800$ A	IZMX-RP16A-250 124029		1
	250	$I_u \leq 800$ A	+IZMX-RP16-250 124028		1
	300	$I_u \leq 800$ A	IZMX-RP16A-300 124031		1
	300	$I_u \leq 800$ A	+IZMX-RP16-300 124030		1
	400	$I_u \leq 800$ A	IZMX-RP16A-400 124033		1
	400	$1000 \text{ A} \leq I_u \leq 1250$ A	IZMX-RP16B-400 124034		1
	400	$I_u \leq 1250$ A	+IZMX-RP16-400 124032		1
	500	$I_u \leq 800$ A	IZMX-RP16A-500 124036		1
	500	$1000 \text{ A} \leq I_u \leq 1250$ A	IZMX-RP16B-500 124037		1
	500	$I_u \leq 1250$ A	+IZMX-RP16-500 124035		1
	630	$I_u \leq 800$ A	IZMX-RP16A-630 124039		1
	630	$1000 \text{ A} \leq I_u \leq 1250$ A	IZMX-RP16B-630 124040		1
	630	$800 \text{ A} \leq I_u \leq 1250$ A	+IZMX-RP16-630 124038		1
	800	$I_u \leq 800$ A	IZMX-RP16A-800 124042		1
	800	$1000 \text{ A} \leq I_u \leq 1250$ A	IZMX-RP16B-800 124043		1
	800	$I_u = 1600$ A	IZMX-RP16C-800 124051		1
	800	$1000 \text{ A} \leq I_u \leq 1600$ A	+IZMX-RP16-800 124041		1
	1000	$1000 \text{ A} \leq I_u \leq 1250$ A	IZMX-RP16B-1000 124131		1

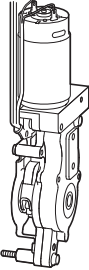
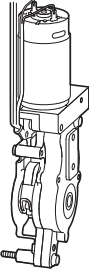
Rating plugs
IZMX-RP...

	Rated current I_n A	Reduction range	Cat. No. Part no. Article no.	Price see price list	Std. pack
<p>Rating plugs (Rate current modules), 3 pole, 4 pole. → page 71 The rated current can be reduced by changing the rating plug, for example, in order to adapt to changed conditions in the application. The rating plug's nominal value must be less than or equal to the basic device's rated current. The rating plug can be replaced on site without replacing the transformer. 200 A, 250 A and 300 A rating plugs cannot be combined with P-trip units.</p>					
					
for IZMX16	1000	$I_u = 1600 \text{ A}$	IZMX-RP16C-1000 124156		1
	1000	$1250 \text{ A} \leq I_u \leq 1600 \text{ A}$	+IZMX-RP16-1000 124091		1
	1250	$I_u \leq 1250 \text{ A}$	IZMX-RP16B-1250 124158		1
	1250	$I_u = 1600 \text{ A}$	IZMX-RP16C-1250 124159		1
	1250	$I_u = 1600 \text{ A}$	+IZMX-RP16-1250 124157		1
	1600	$I_u = 1600 \text{ A}$	IZMX-RP16C-1600 124160		1
for IZMX40	800	$800 \text{ A} \leq I_u \leq 1000 \text{ A}$	IZMX-RP40D-800 156630		1
	800	$1250 \text{ A} \leq I_u \leq 1600 \text{ A}$	IZMX-RP40E-800 156632		1
	800	$1000 \text{ A} \leq I_u \leq 1250 \text{ A}$	+IZMX-RP40-800 155591		1
	1000	$I_u = 1000 \text{ A}$	IZMX-RP40D-1000 156631		1
	1000	$1250 \text{ A} \leq I_u \leq 1600 \text{ A}$	IZMX-RP40E-1000 156633		1
	1000	$I_u = 1250 \text{ A}$	+IZMX-RP40-1000 155592		1
	1250	$1250 \text{ A} \leq I_u \leq 1600 \text{ A}$	IZMX-RP40E-1250 124402		1
	1250	$2000 \text{ A} \leq I_u \leq 2500 \text{ A}$	IZMX-RP40F-1250 124406		1
	1250	$3200 \text{ A} \leq I_u \leq 4000 \text{ A}$	IZMX-RP40G-1250 126410		1
	1250	$1600 \text{ A} \leq I_u \leq 4000 \text{ A}$	+IZMX-RP40-1250 126416		1
	1600	$I_u = 1600 \text{ A}$	IZMX-RP40E-1600 124403		1
	1600	$2000 \text{ A} \leq I_u \leq 2500 \text{ A}$	IZMX-RP40F-1600 124407		1
	1600	$3200 \text{ A} \leq I_u \leq 4000 \text{ A}$	IZMX-RP40G-1600 126411		1
	1600	$2000 \text{ A} \leq I_u \leq 4000 \text{ A}$	+IZMX-RP40-1600 126417		1

Rating plugs, current sensors

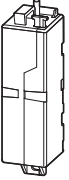
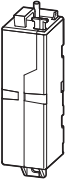
IZMX-RP..., IZMX-CT...

	Rated current	Reduction range	Cat. No. Part no. Article no.	Price see price list	Std. pack
	I_n A				
Rating plugs (Rate current modules), 3 pole, 4 pole. → page 71					
The rated current can be reduced by changing the rating plug, for example, in order to adapt to changed conditions in the application.					
The rating plug's nominal value must be less than or equal to the basic device's rated current.					
					
for IZMX40					
	2000	2000 A ≤ I_u ≤ 2500 A	IZMX-RP40F-2000 124408		1
	2000	3200 A ≤ I_u ≤ 4000 A	IZMX-RP40G-2000 126412		1
	2000	2500 A ≤ I_u ≤ 4000 A	+IZMX-RP40-2000 126418		1
	2500	$I_u = 2500$ A	IZMX-RP40F-2500 126408		1
	2500	3200 A ≤ I_u ≤ 4000 A	IZMX-RP40G-2500 126413		1
	2500	3200 A ≤ I_u ≤ 4000 A	+IZMX-RP40-2500 126419		1
	3200	3200 A ≤ I_u ≤ 4000 A	IZMX-RP40G-3200 126414		1
	3200	$I_u = 4000$ A	+IZMX-RP40-3200 126420		1
	4000	$I_u = 4000$ A	IZMX-RP40G-4000 126415		1
Current sensor for neutral conductor on 3-pole circuit-breakers					
	Externally mounted neutral sensor for residual ground.	–	–	IZMX-CT16-N 124188	1
	Externally mounted neutral sensor for residual ground.	–	–	IZMX-CT40-N 156660	1
Ground Source/Zero Sequence Sensor					
	Ground source sensor/Zero sequence sensor. Ground source only for RF/IZMX40 size.	–	–	IZMX-CT-NGS 156661	1

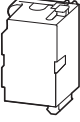
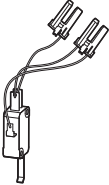
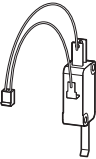
	Rated control voltage U _c V	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
Motor operators						
The motor automatically tensions the spring force storage mechanism for remote or local actuation. A signaling switch for the „Spring force storage charged” message is included as standard.						
for IZMX16	24 V DC	IZMX16... INX16...	IZMX-M16-24DC 123594		1	For retrofitting, two additional control circuit terminal units are required. → page 36, 52
	24 V DC	IZMX16... INX16...	+IZMX-M16-24DC 123593		1	
	48 V DC	IZMX16... INX16...	IZMX-M16-48DC 123596		1	
	48 V DC	IZMX16... INX16...	+IZMX-M16-48DC 123595		1	
	60 V DC	IZMX16... INX16...	IZMX-M16-60DC 123994		1	
	60 V DC	IZMX16... INX16...	+IZMX-M16-60DC 123978		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16... INX16...	IZMX-M16-110AD 124247		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16... INX16...	+IZMX-M16-110AD 124265		1	
	220 - 240 V AC 50/60 Hz 220 - 250 V DC	IZMX16... INX16...	IZMX-M16-230AD 124266		1	
	220 - 240 V AC 50/60 Hz 220 - 250 V DC	IZMX16... INX16...	+IZMX-M16-230AD 124267		1	
for IZMX40	24 V DC	IZMX40... INX40...	IZMX-M40-24DC 124291		1	
	24 V DC	IZMX40... INX40...	+IZMX-M40-24DC 124290		1	
	48 V DC	IZMX40... INX40...	IZMX-M40-48DC 124293		1	
	48 V DC	IZMX40... INX40...	+IZMX-M40-48DC 124292		1	
	60 V DC	IZMX40... INX40...	IZMX-M40-60DC 124295		1	
	60 V DC	IZMX40... INX40...	+IZMX-M40-60DC 124294		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX40... INX40...	IZMX-M40-110AD 124297		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX40... INX40...	+IZMX-M40-110AD 124296		1	
	220 - 240 V AC 50/60 Hz 220 - 250 V DC	IZMX40... INX40...	IZMX-M40-230AD 156648		-	
	220 - 240 V AC 50/60 Hz 220 - 250 V DC	IZMX40... INX40...	+IZMX-M40-230AD 156647		-	


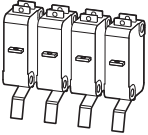
Releases

IZMX-ST..., IZMX-ST...

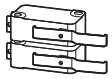
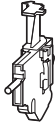
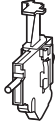
	Rated control voltage	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
	U _c V					
Shunt releases						
Can be combined with an undervoltage release or a second shunt release.						
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-ST24DC 123608		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST24DC 123607		1	
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-ST48DC 123656		1	
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST48DC 123616		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-ST60DC 124010		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST60DC 124002		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-ST110AD 123728		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST110AD 123696		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-ST230AD 123730		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST230AD 123729		1	
Second shunt release						
Cannot be combined with an undervoltage release.						
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST24DC 123731		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST48DC 123732		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST60DC 124059		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST110AD 123733		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-ST230AD 123734		1	

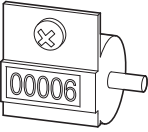
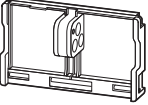

IZMX-SR..., IZMX-LCS...

	Rated control voltage U _s V	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions	
Closing releases							
Without latch check switch.							
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-SR24DC 123736		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52	
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-SR24DC 123735		1		
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-SR48DC 123738		1		
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-SR48DC 123737		1		
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-SR60DC 124075		1		
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-SR60DC 124067		1		
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-SR110AD 123740		1		
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-SR110AD 123739		1		
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-SR230AD 123742		1		
208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-SR230AD 123741		1			
Latch check switches							
1 changeover contact Only in combination with closing release							
	-	IZMX16... INX16...	IZMX-LCS16 123885		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52 For external application	
	-	IZMX40... INX40...	IZMX-LCS40 124348		1		
	-	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-LCS 124347		1		
Automatic closing after readiness for operation. Only in combination with closing release.							
	-	IZMX16... INX16...	IZMX-LCS16-SR 123887		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52 for use with closing release IZMX16-SR...	
	-	IZMX40... INX40...	IZMX-LCS40-SR 124350		1		for use with closing release IZMX40-SR...
	-	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-LCS-SR 124349		1		for use with closing release IZMX16(40)-SR...

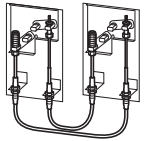
	Rated control voltage	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
	U _c V					
Undervoltage releases						
Cannot be combined with a second shunt release.						
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR24DC 123744		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52
	24 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-UVR24DC 123743		1	
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR48DC 123748		1	
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-UVR48DC 123747		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR60DC 124099		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-UVR60DC 124083		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR110AD 123801		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-UVR110AD 123761		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR220AD 123873		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-UVR220AD 123841		1	
Time delay modules						
For combination with an undervoltage release. Delay times: 0.1 s, 0.5 s, 1.0 s, 2.0 s.						
	120 V AC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR-TD-120AC 122956		1	Only in combination with undervoltage release IZMX-UVR110AD.
	230 V AC	IZMX16..., IZMX40... INX16..., INX40...	IZMX-UVR-TD-230AC 122957		1	Only in combination with undervoltage release IZMX-UVR220AD.
Auxiliary contacts						
Standard auxiliary switch for On-Off signaling. The basic device already contains two changeover contacts. IZMX16 (NF): Two additional changeover contacts possible. IZMX40 (RF): up to 10 additional changeover contacts possible.						
	Additionally 2 NO / NC contacts	IZMX16... INX16...	IZMX-AS22-16 156598		1	–
	Additionally 2 NO / NC contacts	IZMX40... INX40...	IZMX-AS22-40 156599		1	–
	Additionally 2 NO / NC contacts	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-AS22 123880		1	–
	Additionally 4 NO / NC contacts	IZMX40... INX40...	+IZMX-AS44 123882		1	–
	Additionally 6 NO / NC contacts	IZMX40... INX40...	+IZMX-AS66 124344		1	–
	Additionally 8 NO / NC contacts	IZMX40... INX40...	+IZMX-AS88 124345		1	–
	Additionally 10 NO / NC contacts	IZMX40... INX40...	+IZMX-AS1010 124346		1	–

IZMX-OTS..., IZMX-TI..., IZMX-RA..., IZMX-RR...

Rated control voltage	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
U _s V					
Overcurrent trip switches					
Overcurrent trip switch (OTS) with two changeover contacts.					
	–	IZMX16... INX16...	IZMX-OTS16 156601	1	–
	–	IZMX40... INX40...	IZMX-OTS40 156603	1	–
	–	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-OTS 123888	1	–
Interlocked Trip Indicators					
Can be used in combination with Overcurrent Trip Switches and Remote Reset function.					
	–	IZMX16... INX16...	IZMX-TI16 156634	1	Standard delivery.
	–	IZMX40... INX40...	IZMX-TI40 156600	1	Standard delivery.
Non-Interlocked Trip Indicators					
The switch does contain the mechanical trip-indicator (red pin). Does not interlock with mechanism, allowing for automatic reset of breaker. Can be used in combination with Overcurrent Trip Switches. Cannot be combined with remote reset.					
	–	IZMX16... INX16...	IZMX-RA16 155590	1	Instead of standard delivery.
	–	IZMX40... INX40...	IZMX-RA40 156602	1	
	–	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-RA 123897	1	
Remote reset					
The breaker can be switched on after a trip as far the trip indicator is resetted manually. The remote reset allows resetting remotely by an electrical signal.					
220 - 250 V DC	IZMX40... INX40...	IZMX-RR24DC-16 124298		1	–
220 - 250 V DC	IZMX40... INX40...	IZMX-RR24DC-40 124300		1	–
24 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-RR24DC 123890		1	–
110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16... INX16...	IZMX-RR110AD-16 124301		1	–
110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX40... INX40...	IZMX-RR110AD-40 124302		1	–
110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-RR110AD 123892		1	–
208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16... INX16...	IZMX-RR230AD-16 124339		1	–
208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX40... INX40...	IZMX-RR230AD-40 124340		1	–
208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-RR230AD 123895		1	–

	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack
Operation counters				
Counts the number of ON-OFF operations. Can also be installed without motor operator.				
	IZMX16... INX16...	IZMX-OC16 123606		1
	IZMX40... INX40...	IZMX-OC40 124342		1
	IZMX16..., IZMX40... INX16..., INX40...	+IZMX-OC 124341		1
Locking ON/OFF buttons				
Padlockable front cover for ON-OFF pushbutton.				
	P = Insulated material	IZMX16... INX16...	IZMX-PLPC16-P 156649	1
		IZMX40... INX40...	IZMX-PLPC40-P 124375	1
		IZMX16..., IZMX40... INX16..., INX40...	+IZMX-PLPC-P 124357	1
	M = Metal	IZMX16... INX16...	IZMX-PLPC16-M 156650	1
		IZMX40... INX40...	IZMX-PLPC40-M 124353	1
		IZMX16..., IZMX40... INX16..., INX40...	+IZMX-PLPC-M 124352	1
	OFF = Safe OFF; then it is also impossible to switch on via the closing release	IZMX40... INX40...	IZMX-PLPC40-M-OFF 124356	
	IZMX40... INX40...	+IZMX-PLPC-M-OFF 124355		1
Safe OFF lock mechanism for cylinder locks				
The "Safe OFF" interlock prevents switching on. Neither remote nor local switching on is possible. For corresponding typ of lock cylinder see installation instructions. Lock cylinder and key are required for installation.				
	CES installation kit without lock cylinder and key.	IZMX16..., IZMX40... INX16..., INX40...	IZMX-KLP-SO-CES 124376	1
	Kirk installation kit without lock cylinder and key.	IZMX16..., IZMX40... INX16..., INX40...	IZMX-KLP-SO-KIRK 124377	1
	Ronis installation kit without lock cylinder and key.	IZMX16..., IZMX40... INX16..., INX40...	IZMX-KLP-SO-RONIS 124394	1
	Castell installation kit without lock cylinder and key.	IZMX16..., IZMX40... INX16..., INX40...	IZMX-KLP-SO-CASTELL 124395	1

IZMX-MIL...-F..., IZMX-MIL-CAB..., IZMX-DC..., IZMX-DEG...

	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack
Mechanical interlock, fixed mounting				
	Type 2, for 2 circuit-breakers: A normal power supply (A) and an emergency network supply (B). 1 set of cables also required in addition.	IZMX16..., INX16...	IZMX-MIL2C-F16 153581	1
		IZMX40..., INX40...	IZMX-MIL2C-F40 153589	1
	Type 31, for 3 circuit-breakers: Two normal power supplies(A, C) and an emergency network supply (B). When B in Off, A and C can be switched on. B can be switched on only when A and C are in Off. Two sets of cables required in addition.	IZMX16..., INX16...	IZMX-MIL31C-F16 153582	1
		IZMX40..., INX40...	IZMX-MIL31C-F40 153590	1
	Type 32, for 3 circuit-breakers: Two normal incoming units (A, C) and one coupling (B). Any one or two circuit-breakers can be closed at the same time. Three sets of cables are required in addition.	IZMX16..., INX16...	IZMX-MIL32C-F16 153583	1
		IZMX40..., INX40...	IZMX-MIL32C-F40 153591	1
	Type 33, for 3 circuit-breakers: Three incoming units (A, B, C), normal or emergency network. Only one of the three circuit-breakers can be switched on at any one time. Three sets of cables are required in addition.	IZMX16..., INX16...	IZMX-MIL33C-F16 153584	1
		IZMX40..., INX40...	IZMX-MIL33C-F40 153592	1

Cable kits for mechanical interlock

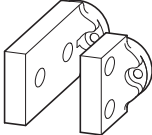
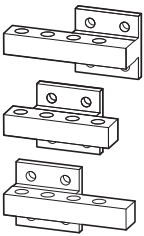
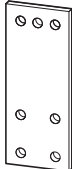
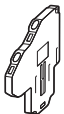
Depending on the type of interlock, a particular number of cable connectors is required. With the flexible cable connectors, various different switch arrangements can be implemented. One set contains two cables.

1520 mm long	IZMX-MIL...C-F... IZMX-MIL...C-W...	IZMX-MIL-CAB1520 153597	1
1830 mm long	IZMX-MIL...C-F... IZMX-MIL...C-W...	IZMX-MIL-CAB1830 153598	1
2440 mm long	IZMX-MIL...C-F... IZMX-MIL...C-W...	IZMX-MIL-CAB2440 153599	1
3050 mm long	IZMX-MIL...C-F... IZMX-MIL...C-W...	IZMX-MIL-CAB3050 153600	1

	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack	Instructions
Door gasket, IP41					
Replacement door escutcheon with gasket IP41	IZMX16...F INX16...F	IZMX-DEG16-F 124335		1	Spare part; supplied as standard with every breaker.
	IZMX40...F INX40...F	IZMX-DEG40-F 156665		1	
Door cover, IP55					
The protective cover allows a higher protection type. IP55	IZMX16...F INX16...F	IZMX-DC16-F 124289		1	-
	IZMX40...F INX40...F	IZMX-DC40-F 156664		1	-

Terminals

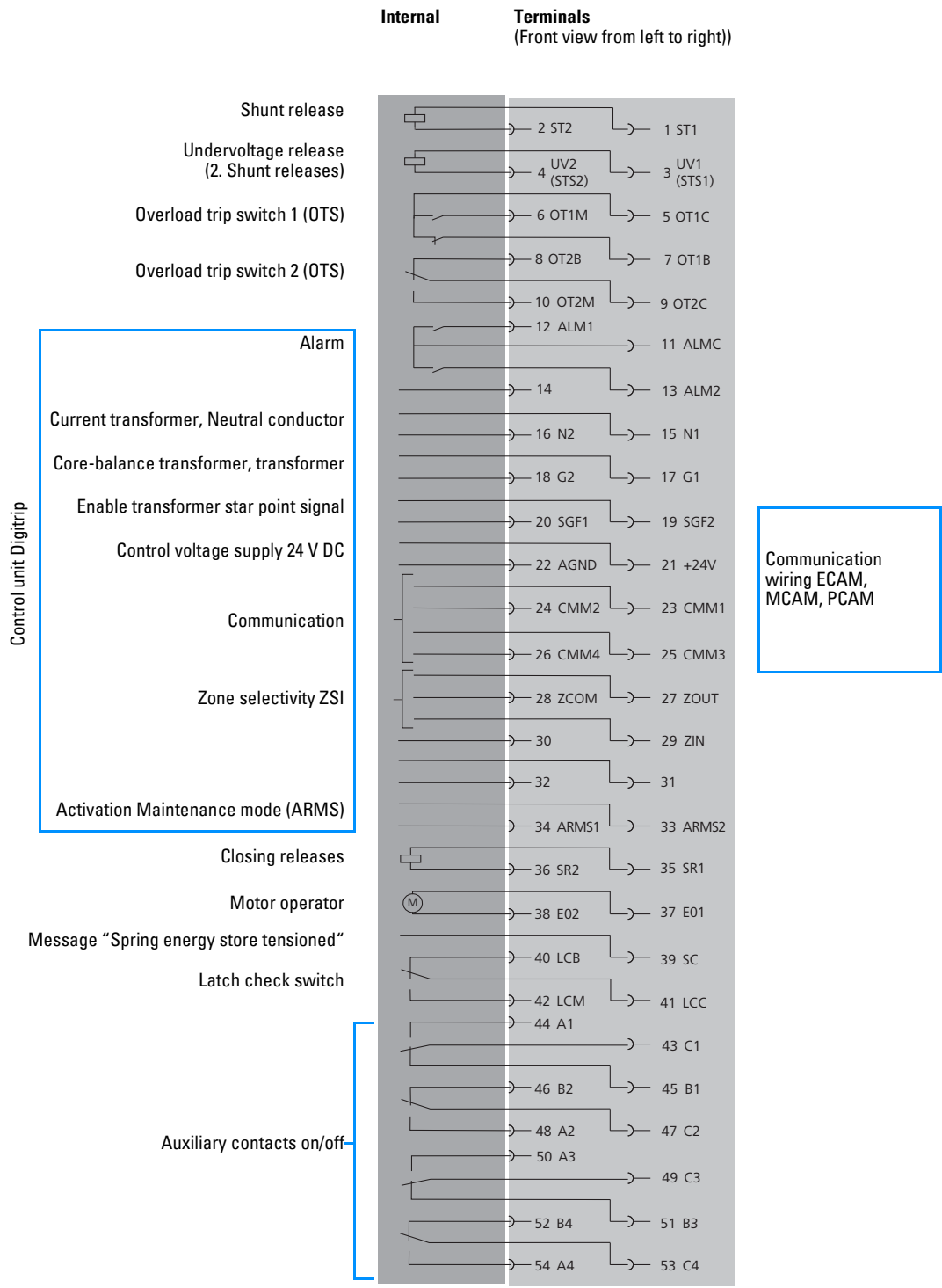
IZMX-T(H)(F)(V)..., IZMX-SEC...

Connection	Rated current I_n A	Pole	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack
Main terminal component adapter						
Basic cassettes are delivered with flange terminals as standard. Following adapters are optional and for INX16, IZMX16 fixed version requested. Each set contains the connections for top and bottom. 3 pole = 6 off; 4 pole = 8 off						
	Universal connection horizontal, vertical	800 - 1600	3	IZMX16... INX16...	IZMX-THV163 124181	1
	Universal connection horizontal, vertical	800 - 1600	4	IZMX16... INX16...	IZMX-THV164 124177	1
	Universal connection horizontal, vertical, long	800 - 1600	3	IZMX16... INX16...	IZMX-THVL163 124233	1
	Universal connection horizontal, vertical, long	800 - 1600	4	IZMX16... INX16...	IZMX-THVL164 124234	1
	Universal connection horizontal, vertical	800 - 3200	3	IZMX40... INX40...	IZMX-THV403-3200 122911	1
	Connection horizontal	4000	3	IZMX40... INX40...	IZMX-TH403 122917	1
	Connection vertical	4000	3	IZMX40... INX40...	IZMX-TV403 122919	1
	Universal connection horizontal, vertical	800 - 3200	4	IZMX40... INX40...	IZMX-THV404-3200 122921	1
	Connection horizontal	4000	4	IZMX40... INX40...	IZMX-TH404 122923	1
	Connection vertical	4000	4	IZMX40... INX40...	IZMX-TV404 123591	1
	Connection front	800 - 3200	3	IZMX40... INX40...	IZMX-TF403-3200 156635	1
	Connection front	800 - 3200	4	IZMX40... INX40...	IZMX-TF404-3200 156636	1
Control circuit terminal units for fixed mounting						
	Control circuit terminals, 8 units	–	–	IZMX16..., INX16... IZMX40..., INX40...	IZMX-SEC-TB8-F 156593	1
	Control circuit terminals, 20 units	–	–	IZMX16..., INX16... IZMX40..., INX40...	IZMX-SEC-TB20-F 156594	1
	Control circuit terminals, 30 units	–	–	IZMX16..., INX16... IZMX40..., INX40...	IZMX-SEC-TB30-F 156595	1

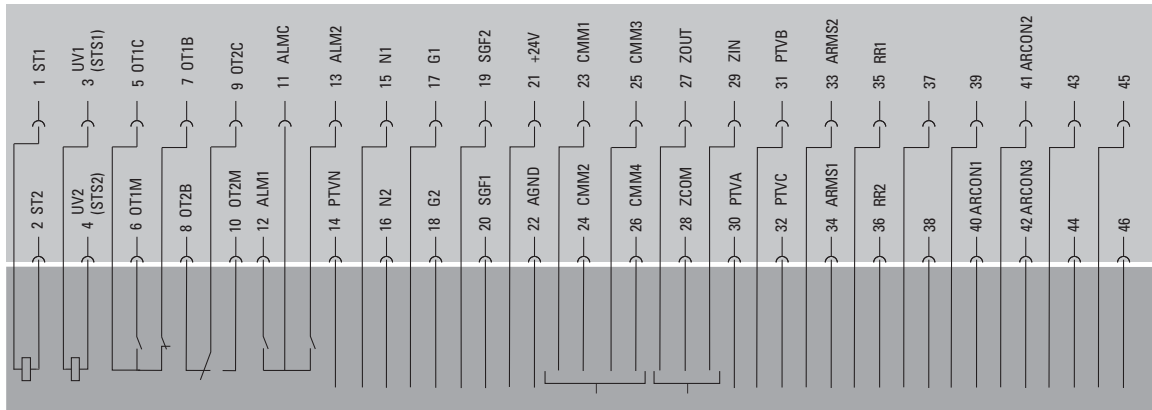
IZMX-CRB..., IZMX-IB..., IZMX-LH...,

Connection	For use with	Cat. No. Part no. Article no.	Price see price list	Std. pack
Replacement coding, basic device to cassette				
This is a spare part. The coding is supplied as standard with withdrawable switches. The user-defined coding ensures that a cassette can only accommodate the circuit-breaker assigned to it.	IZMX16...W INX16...W IZMX40...W INX40...W	IZMX-CRB 156670		1
Phase barrier				
This is a spare part.	IZMX40... INX40...	IZMX-IB40 156668		1
Lifting yoke for fitting				
Consists of two specially shaped steel hooks that engage in the molded lifting handles in the basic unit of the switch closure.	IZMX40... INX40...	IZMX-LH40 156669		1

Engineering



Internal
Terminals
(Front view from left to right)

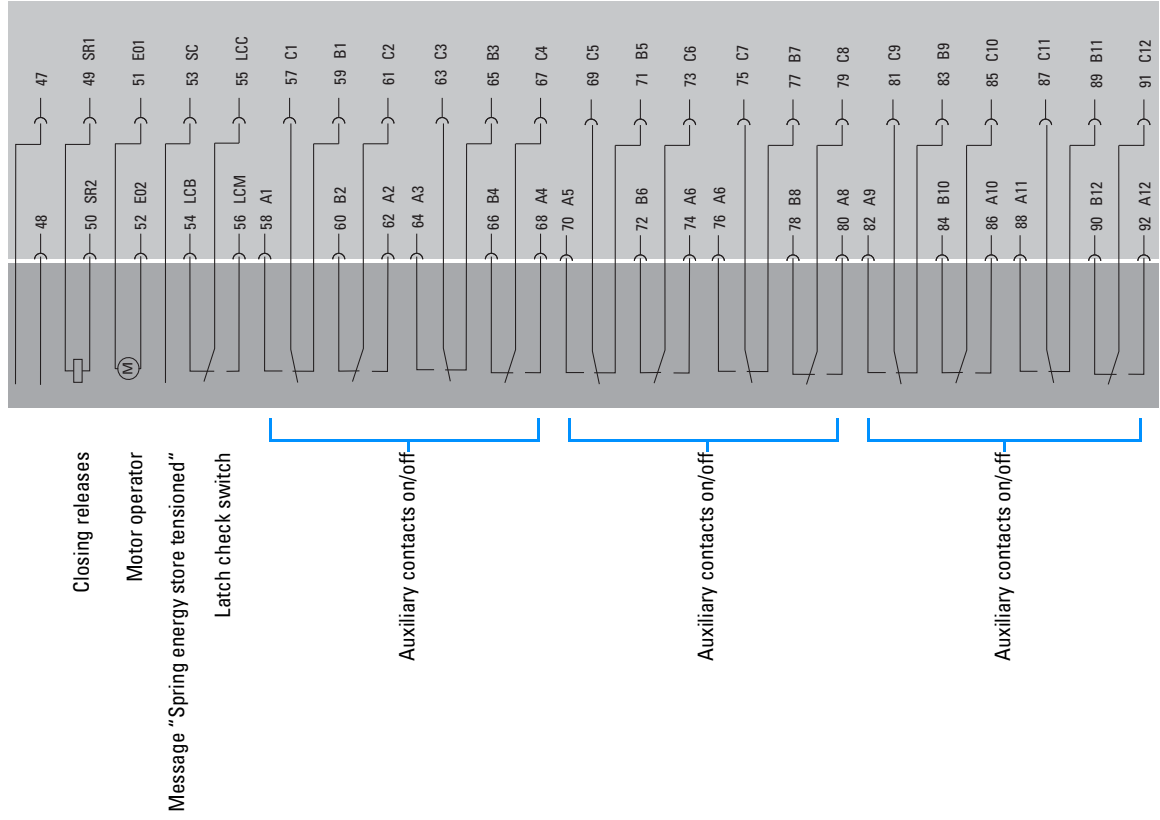


- Shunt releases
- Undervoltage release (Shunt releases 2)
- Overload trip switch 1 (OTS)
- Overload trip switch 2 (OTS)

- Alarm
- Current transformer, Neutral conductor
- Core-balance transformer, transformer star point
- Enable transformer star point signal
- Control voltage supply 24 V DC
- Communication
- Zone selectivity ZSI
- Activation Maintenance mode

Control unit Digitrip

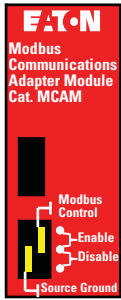
Communication wiring ECAM, MCAM, PCAM



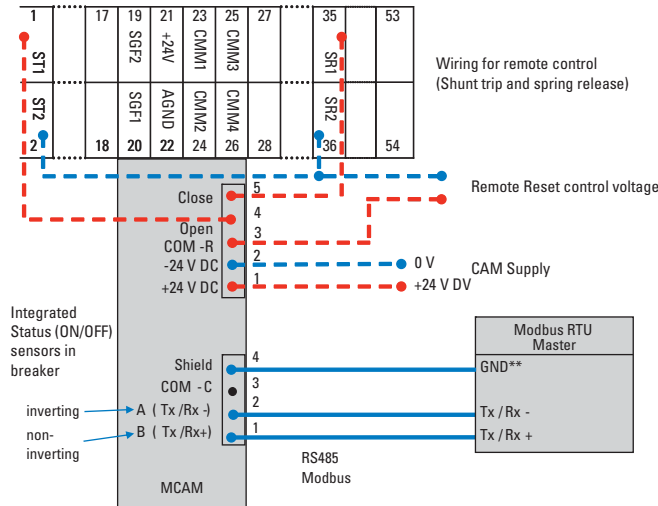
- Closing releases
- Motor operator
- Message "Spring energy store tensioned"
- Latch check switch
- Auxiliary contacts on/off
- Auxiliary contacts on/off
- Auxiliary contacts on/off

IZMX16, IZMX40

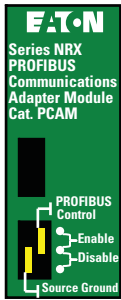
Front View of MCAM



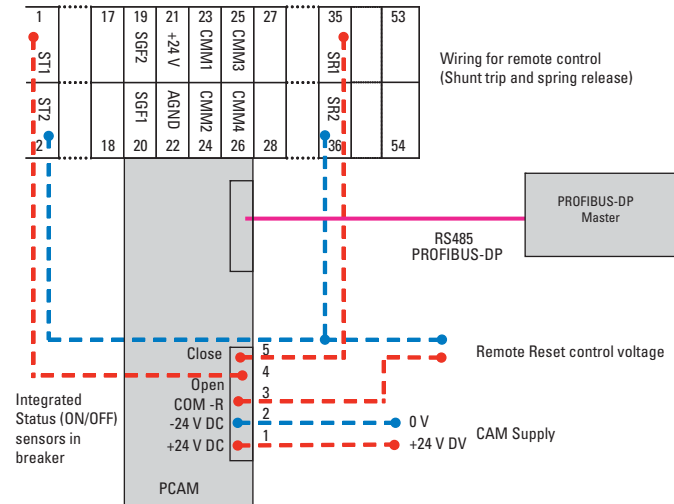
Top View of a mounted MCAM on IZMX



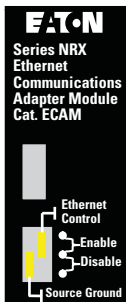
Front View of PCAM



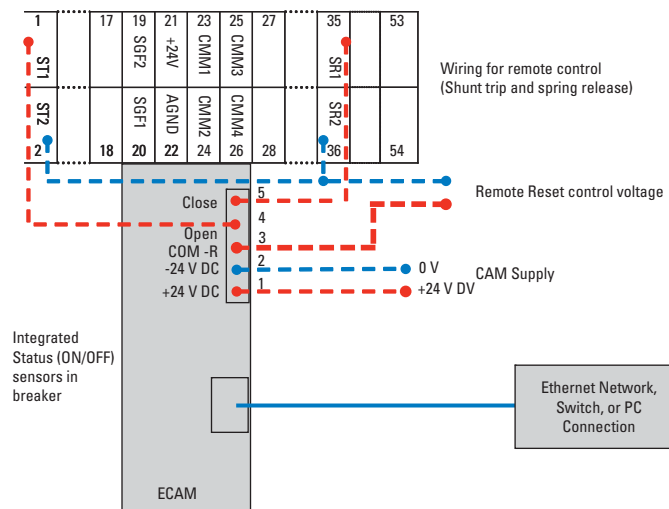
Top View of a mounted PCAM on IZMX



Front View of ECAM



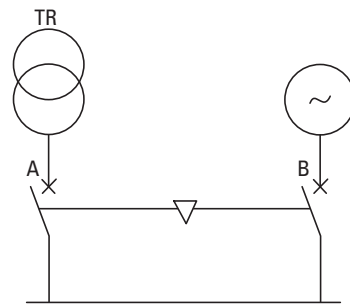
Top View of a mounted ECAM on IZMX



Mechanical Interlock configurations

Type 2

Across Two Circuit Breakers
One normal power supply and one emergency power supply.



Interlock: A against B

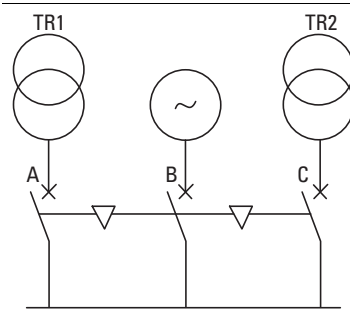
Circuit breaker A can only be closed if B is open and vice versa.

A = Normal power supply.
B = Emergency power supply.

A	B
0	0
1	0
0	1

Type 31

Across Three Circuit Breakers
Two normal power supplies and one emergency power supply.



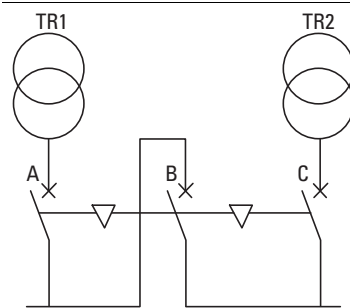
Interlock: A, C against B

Circuit breaker A and C can only be closed if B is open. B can only be closed when A and C are open.

A	B	C
0	0	0
1	0	0
0	1	0
0	0	1
1	0	1

Type 32

Across Three Circuit Breakers
The two half-bus bars can be powered by a single transformer (bus-tie closed) or by both at the same time (bus-tie open).



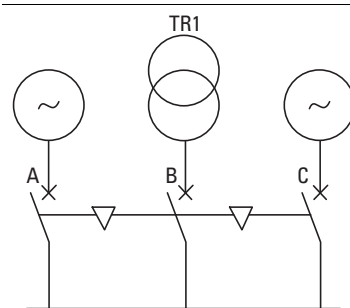
Interlock: 2 against 1 or max. 2 of 3

One of two circuit breakers out of three can be closed at the same time.

A	B	C
0	0	0
1	0	0
0	1	0
0	0	1
1	1	0
0	1	1
1	0	1

Type 33

Across Three Circuit Breakers
Three power supplies (generators or transformers) on the same bus bar, making operation in parallel impossible.



Interlock: 1 against 2 or max. 1 of 3

Only one of three circuit breakers can be closed.

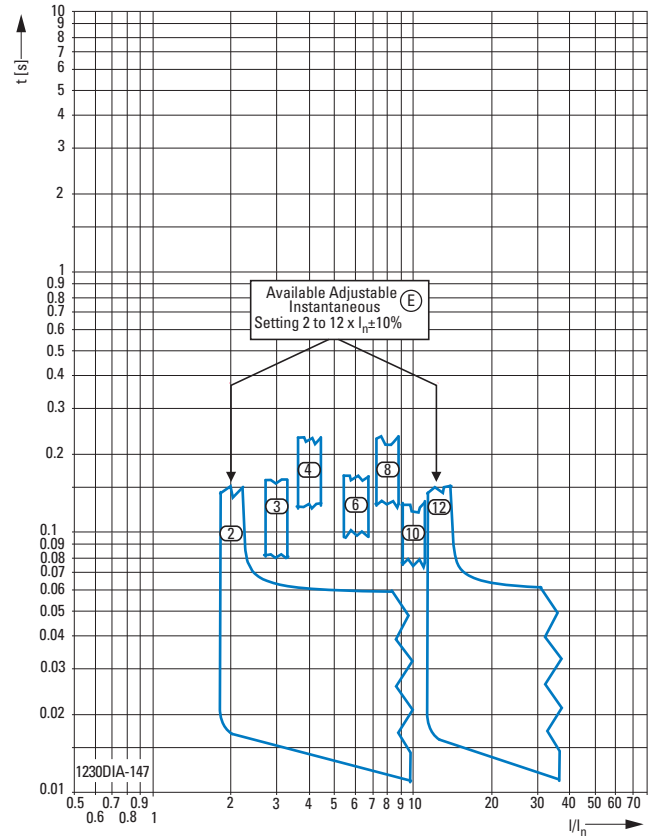
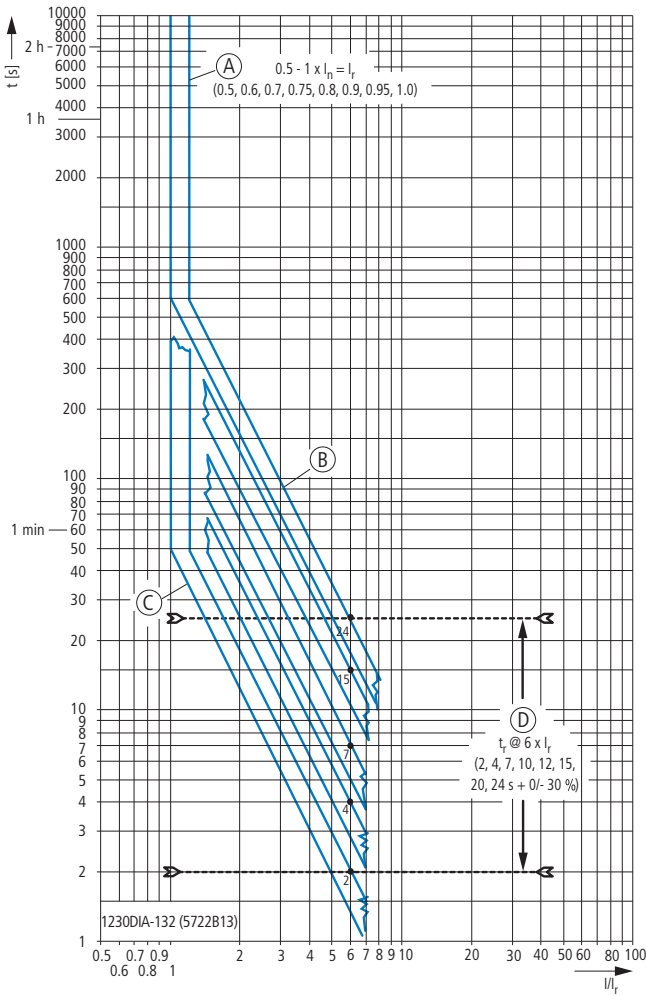
A	B	C
0	0	0
1	0	0
0	1	0
0	0	1

IZMX16(40)...A... Tripping characteristics for standard protection

Overload protection (L) and non-delayed short-circuit protection (I)

L-protection: Adjustable
See Notes 1, 2, 3 → page 62.

I-protection: Adjustable
See Notes 2, 6, 7, 8 → page 62.

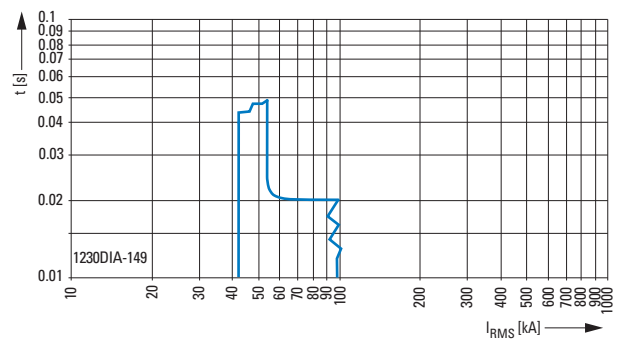
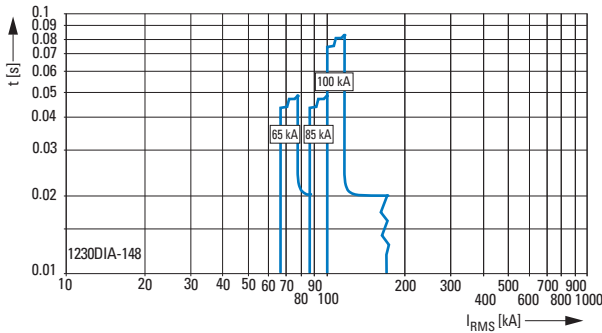


E Set values for non-delayed short-circuit protection

- A Set values for overload protection
- B Maximum total opening delay
- C Minimum total opening delay
- D Set values for long delay

I-protection: For high short-circuit protection for IZMX40 only
See Notes 2, 6, 11 → page 62.

I-protection: For high short-circuit protection for IZMX16 only
See Notes 2, 6, 10, 11 → page 62.



IZMX16(40)...V(U)... Tripping characteristics for selectivity protection and universal protection

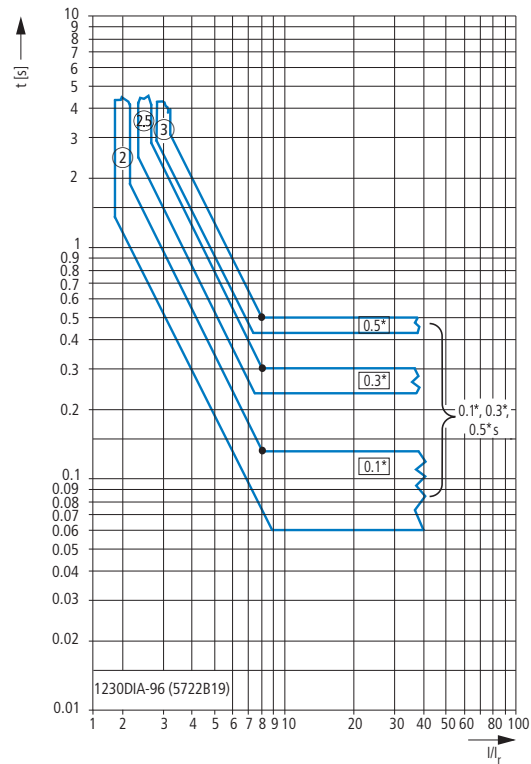
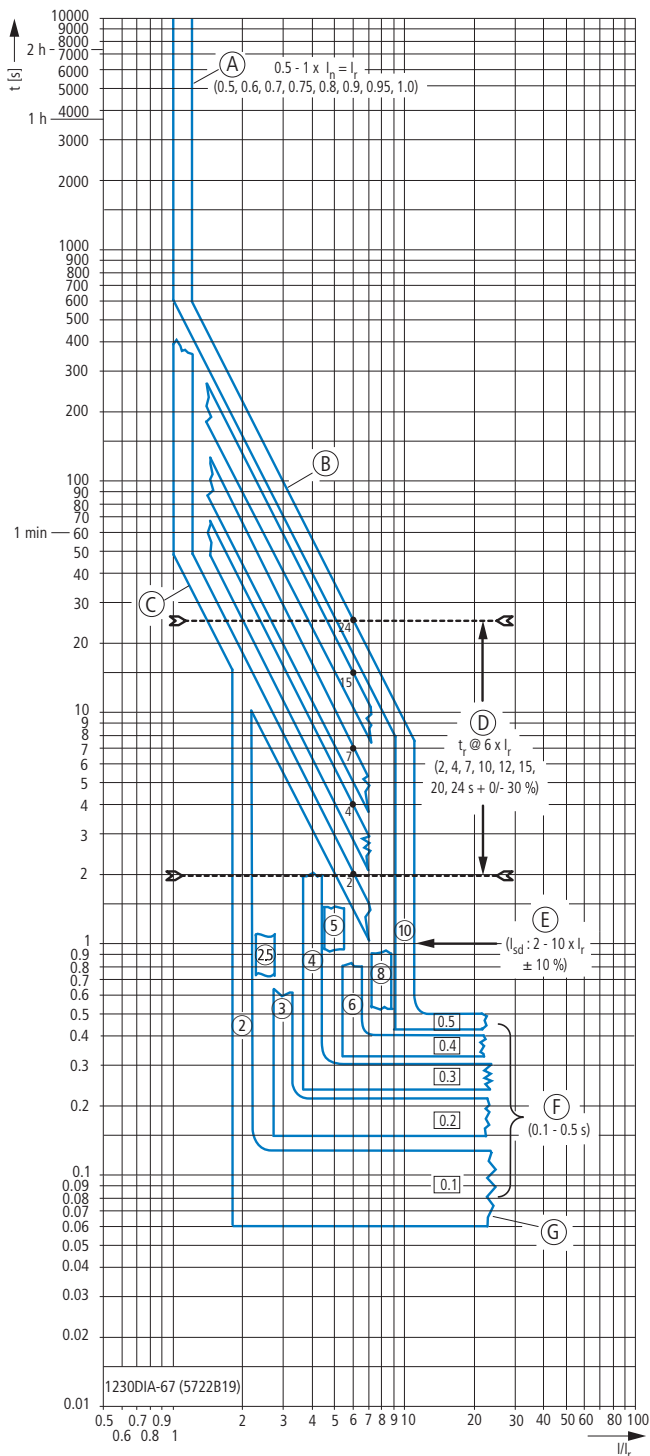
Overload protection (L) and short-time delayed short-circuit protection (S)

L-Protection: I^2t -Characteristic curve and S-Protection: flat characteristic curve

See Notes 1, 2, 3, 4, 6, 7 → page 62.

S-Protection with: I^2t -Characteristic curve ON

See Notes 1 to 7 → page 62.



- A Set values for overload protection
- B Maximum total opening delay
- C Minimum total opening delay
- D Set values for long delay
- E Set value for delayed short-circuit protection I_{SD}
- F Set values for short-time delayed short-circuit protection
- G The end of the characteristic curve is determined by the type of application and the switching capacity of the selected switch.

IZMX16(40)...V(U)... Tripping characteristics for selectivity protection and universal protection

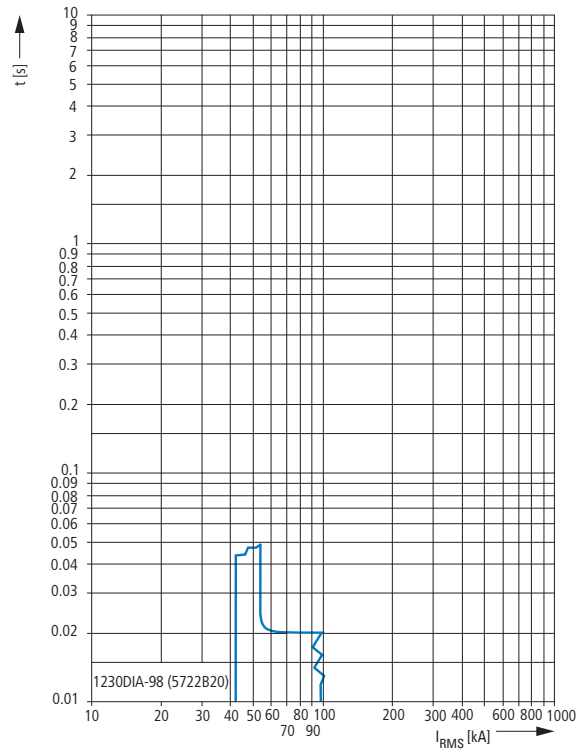
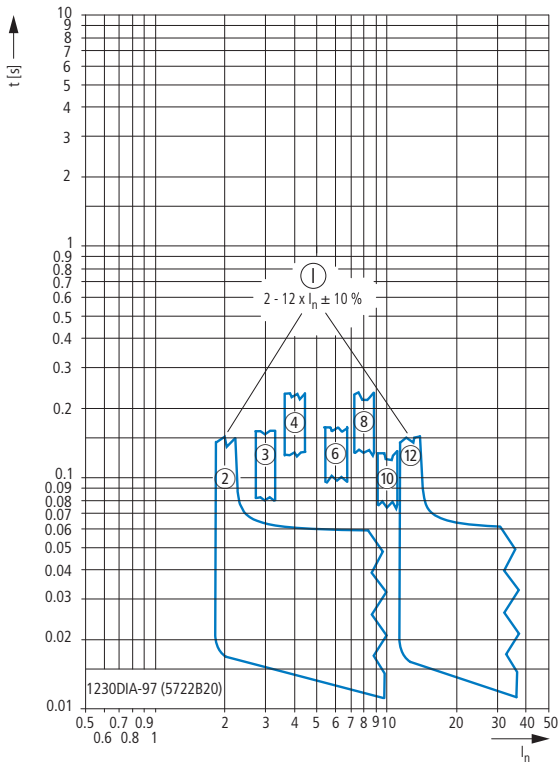
Non-delayed short-circuit protection (I)

I-protection: Adjustable

See Notes 2, 6, 8, 9, 11 → page 62.

I-protection: For high short-circuit protection for IZMX16 only

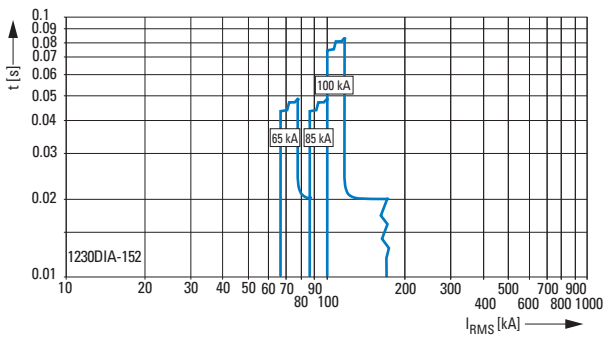
See Notes 2, 6, 10, 11 → page 62.



I Available set values for non-delayed short-circuit protection I_{sd}

I-protection: For high short-circuit protection for IZMX40 only

See notes 2, 6, 10, 11 → page 62.



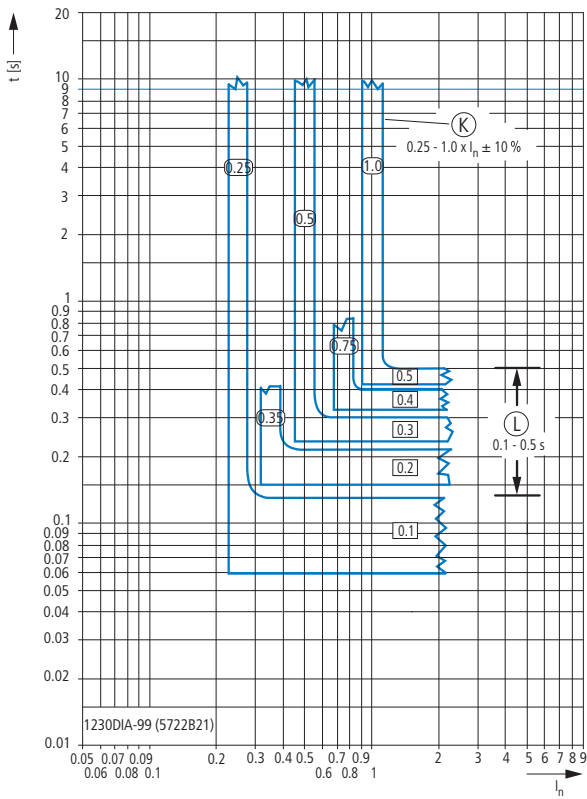
IZMX16(40)...V(U)... Option Ground fault protection +IZMX-DTV(U)-G

G: Ground fault protection

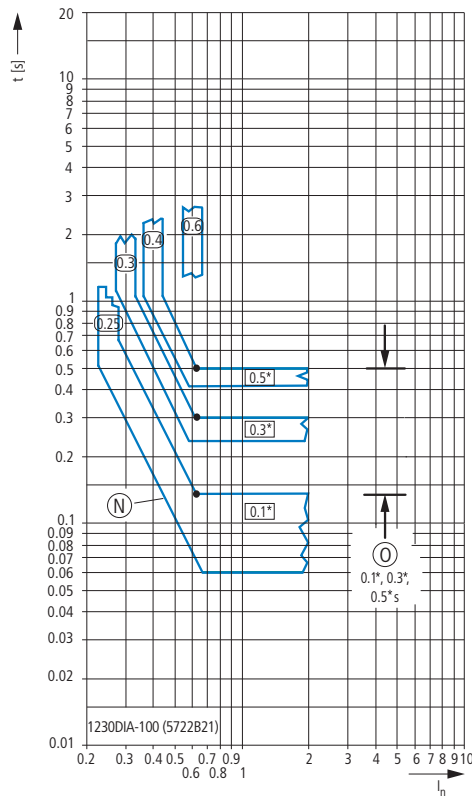
See Notes 2, 6, 12, 13, 14, 15, 16 → page 62.

G: Ground fault protection, I²t-Characteristic curve

See Notes 2, 6, 12, 13, 14, 15, 16 → page 62.



- K Set values for ground-fault protection
- L Set values for ground-fault protection delay at flat Characteristic curve

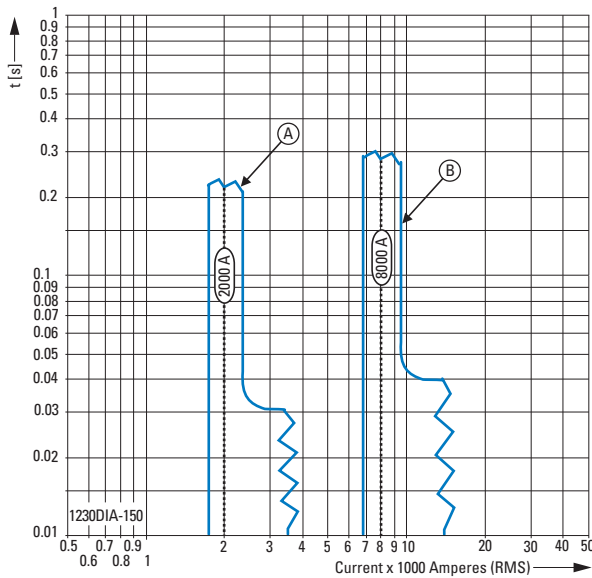


- N I²t characteristic curve for the delay time and ground fault protection
- O Set values for I²t characteristic for ground-fault protection delay time

IZMX16(40)...U... Option Maintenance mode option +IZMX-DTU-M

ARMS-maintenance mode, characteristic curve

See Notes 2, 6, 11, 17, 18, 19, 20 → page 62.



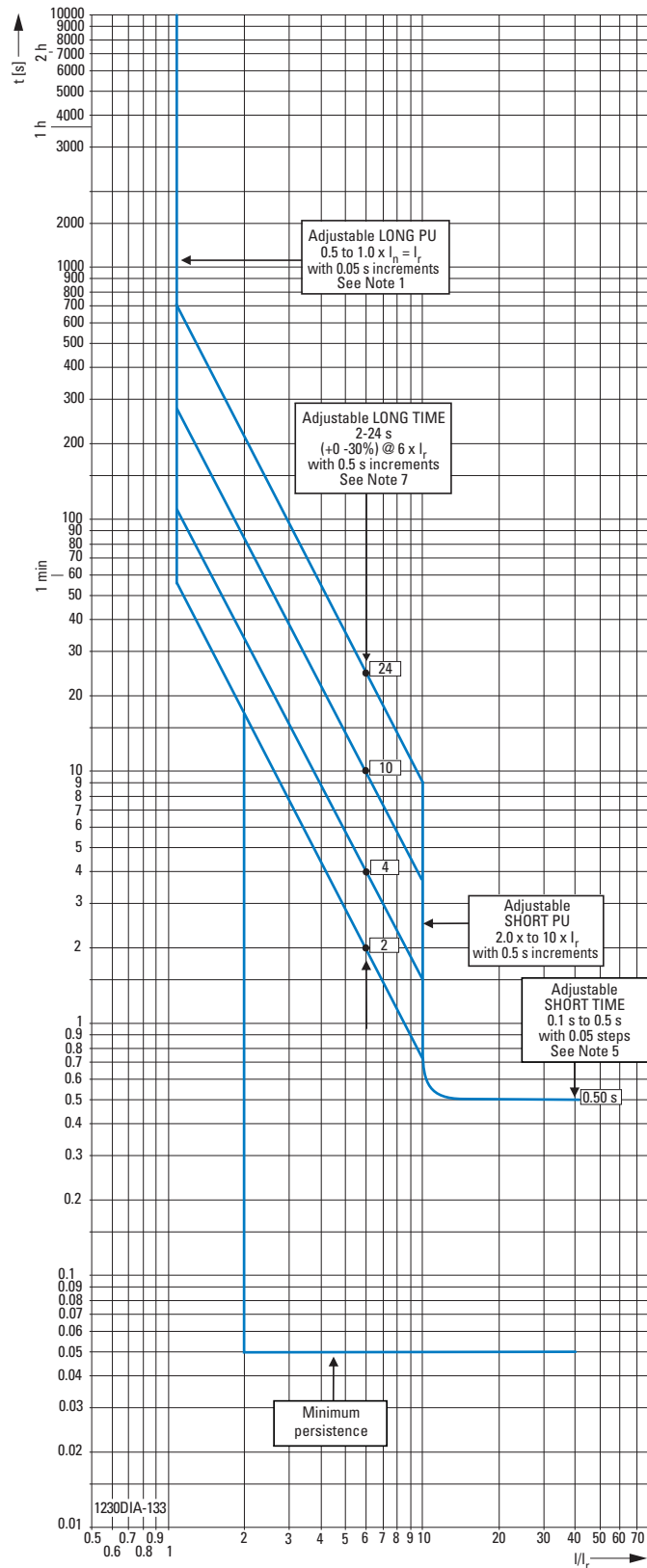
- A Maintenance mode trip IZMX16
B Maintenance mode trip IZMX40

Notes:

- The trip unit has a thermal memory, which can shorten the value in the overload range. This function plays a role whenever a current is higher than the overload release's value and which is then isolated by a downstream circuit-breaker or the circuit-breaker itself. On a subsequent overload current the circuit-breaker will trip more quickly than normal. The reduced value is inversely proportional to the time expired since the last overload. After about five minutes the thermal memory is reset.
- The end of the characteristic curve is determined by the type of application and the switching capacity of the selected switch.
- The overload release trips at 110 % I_r with a tolerance of ± 10 % (indicated by the "Status" LED). The short-time delayed short-circuit release I_{sd} is activated at a pick-up time of conventionally 100 % with a tolerance of ± 10 %.
- When zone selectivity (ZSI) is activated in the short-time delayed short-circuit release and no blocking signal is applied, the minimum time value (0.10 s) applies irrespective of the short-time delay settings.
- The upper lines of the I^2t characteristic curves are horizontal from a value of $8 \times I_r$ (indicated by the points).
- The listed overall switch-off times include the response times of the trip unit, the opening times of the switch and the time required to switch off the current.
- The characteristic curves apply to applications in a temperature range from -20 °C to $+55$ °C. Temperatures over $+85$ °C cause automatic tripping, indicated by an orange-colored LED. The circuit-breaker must be selected according to the temperature-dependent derating values from the table in the technical data.
- The non-delayed short-circuit release is activated at a response value of conventionally 100 % with a tolerance of ± 10 %.
- The non-delayed short-circuit release can be disabled by the user with an additional OFF position. This ensures that short-circuit currents are disconnected exclusively by the short-time delayed short-circuit release. Total selectivity-> Seite 72.
- All trip units feature an additional, permanently set non-delayed short-circuit release, which becomes active at a peak value of 90 kA. Tripping by this short-circuit release is indicated by a flashing INST LED. This protective function remains active when non-delayed tripping is set to Off.
- The listed overall switch-off times are conservative and take into account the trip unit's maximum response times, the circuit-breaker's maximum opening delays and the longest current interruption times with regard to factors that contribute to worst-case conditions, such as maximum rated operational voltage, single-phase interruptions and minimum power factor. Fast breaking times are possible but depend on the system conditions and the circuit-breaker model.
- The ground-fault release is activated at a response value of conventionally 100 % with a tolerance of ± 10 %.
- Unless otherwise specified, the current value tolerances are ± 10 % of the values shown in the diagram.
- In combination with ARMS function, ground-fault protection is limited to 1200 A.
- When zone selectivity (ZSI) is activated in ground-fault protection and no blocking signal is applied, the minimum time value (flat characteristic curve) applies irrespective of the settings.
- The upper lines of the I^2t characteristic curves are horizontal from a value of $0.625 \times I_r$ (indicated by the points).
- The maintenance mode function (ARMS) must be activated with a switch or through the communications terminals for these characteristic curves to apply. A blue LED indicates that the maintenance mode settings are active.
- The shown switch-off times apply for connection to an additional auxiliary power supply.
- Tripping by the ARMS Maintenance Mode Trip is indicated by the non-delayed short-circuit protection LED.
- The tolerance is ± 15 %.

IZMX16(40)...P... Tripping characteristics for professional protection

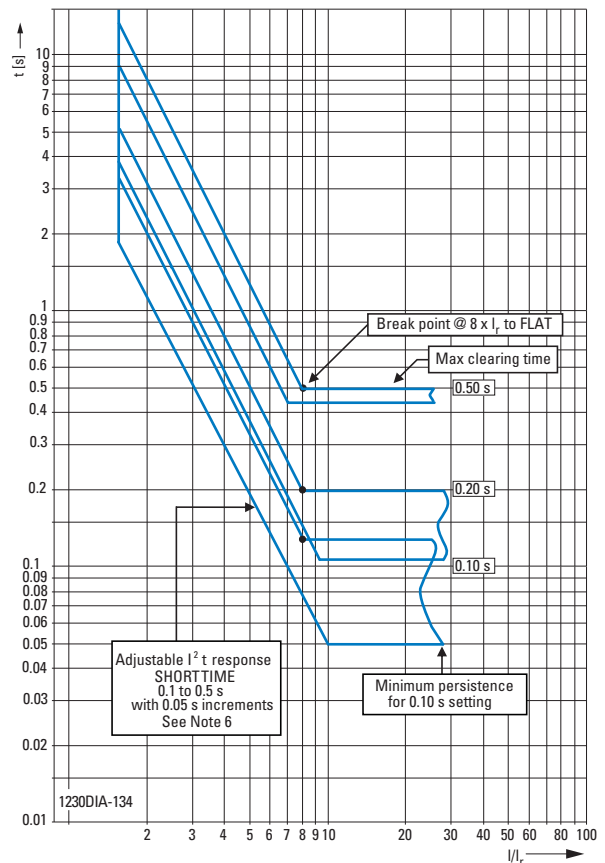
Digitrip 1150/1150i - L, S and S with I²t Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) circuit-breakers.
Long Delay (I²t) & Short Delay Trip (FLAT & I²t)
 This curve is for 50 Hz or 60 Hz applications.

Notes:

1. This curve shown as a multiple of the LONG PU Setting (I_r). The actual pickup point (indicated by rapid flashing of Unit Status LED on the product) occurs at 110 % of the I_r current, with a ± 10 % tolerance. The SHORT TIME function and the LONGTIME function act independently and the entire set of LONGTIME curves continue to be active even after the curves intersect.
2. If Long Delay Memory is enabled, trip times may be shorter than indicated on this chart.
3. With zone interlocking on Short Delay utilized and no restraining signal, the minimum SHORT TIME band (0.10 s) applies regardless of the SHORT TIME setting.
4. The SHORT PU points have 100 % ± 10 % tolerance.
5. SHORT SLOPE: FLAT
Tolerance is +0 / -90 ms for all settings except
0.10 s setting is 0.05 to 0.13
0.15 s setting is 0.09 to 0.17
6. SHORT SLOPE: I²t
I²t slope flattens out at 8 x I_r for top of band with FLAT time minimum value prevailing for bottom of band.
The tolerance is
+0 / -40 % for settings 0.1 to 0.25
+0 / -30 % for settings 0.3 to 0.50
7. The end of the curve is determined by the interrupting rating of the circuit breaker.
8. Curve applies from -20 °C to +55 °C ambient. Temperatures above +85 °C of the Trip Unit cause automatic trip.

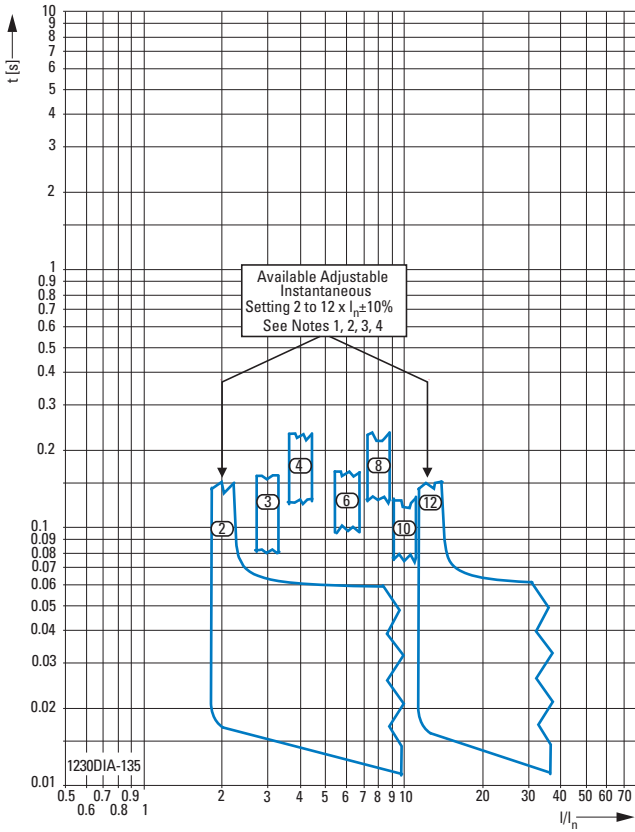


Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16...P... Tripping characteristics for professional protection

Digitrip 1150/1150i - I-Instantaneous Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) circuit-breakers.

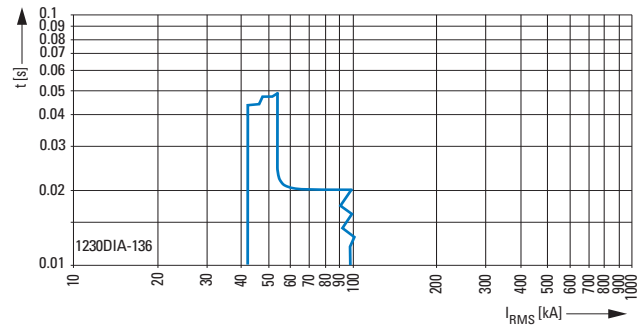
Instantaneous Trip

This curve is for 50 Hz and 60 Hz applications.

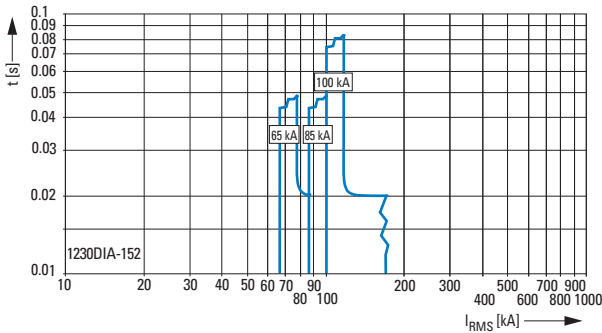
Notes:

1. The end of the curve is determined by the interrupting rating of the circuit breaker.
2. This curve is shown as a multiple of the Rating Plug (I_n).
3. The Instantaneous settings have conventional 100 % ±10 % as the pickup points.
4. Total clearing times shown include the response times of the trip unit, the breaker opening and the interruption of the current.
5. An additional, fixed High Instantaneous Trip function is provided in the circuit breaker set to pickup at 90 kA Instantaneous peak current level. This protection is functional even when the Instantaneous is set to the OFF position.

I-protection: For high short-circuit-protection for IZMX16 only
See Notes 5 → Page 62.



I-protection: For high short-circuit-protection for IZMX40 only
See Notes 5 → Page 62.

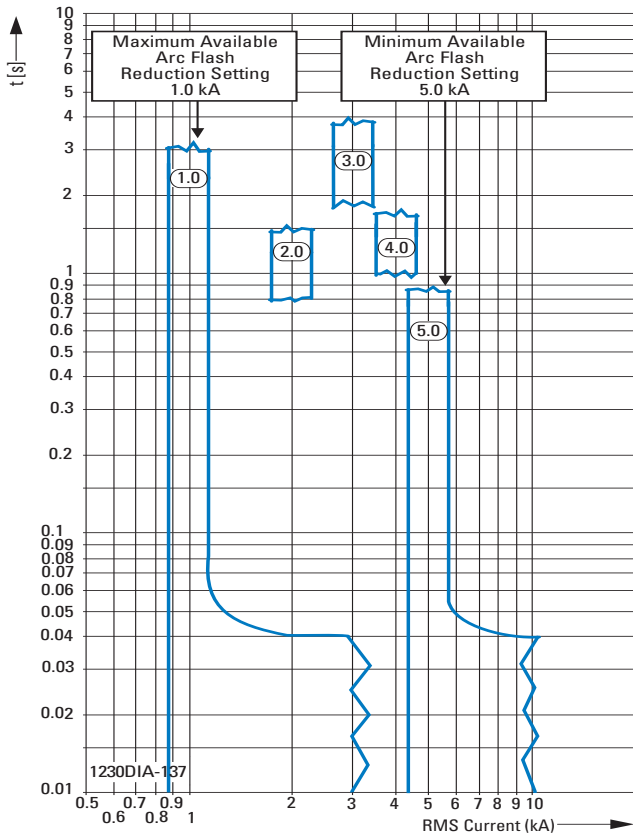


Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

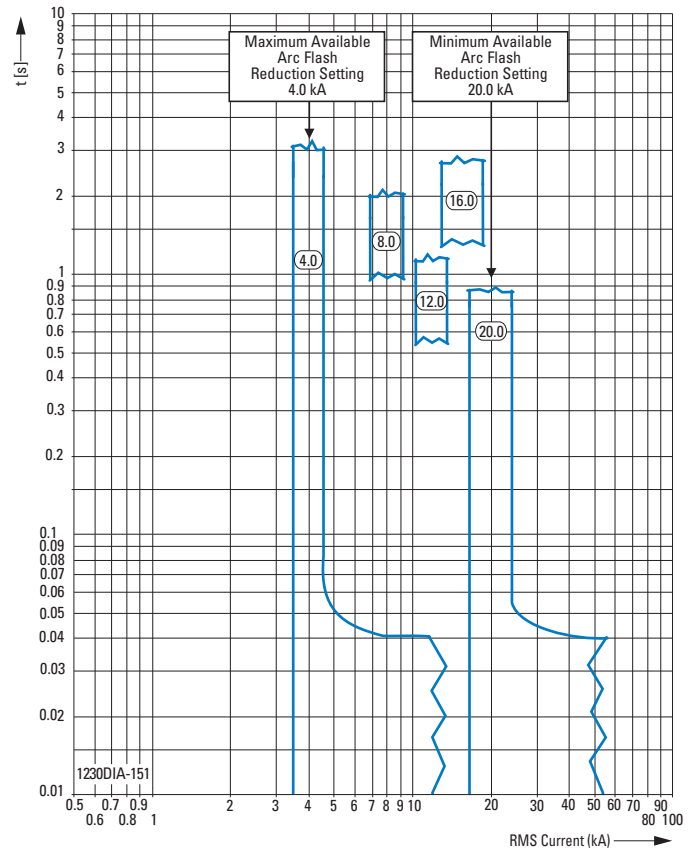
IZMX16...P... Tripping characteristics for professional protection

Digitrip 1150/1150i - Maintenance Mode Curves (ARMS)



IZMX40...P... Tripping characteristic for professional protection

Digitrip 1150/1150i - Maintenance Mode Curves (ARMS)

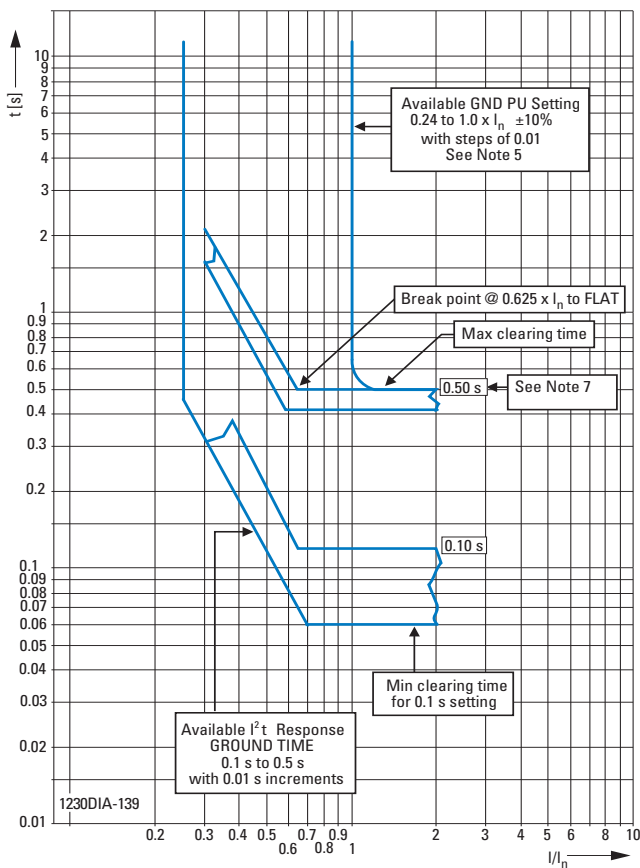


Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16(40)...P... Tripping characteristics for professional protection

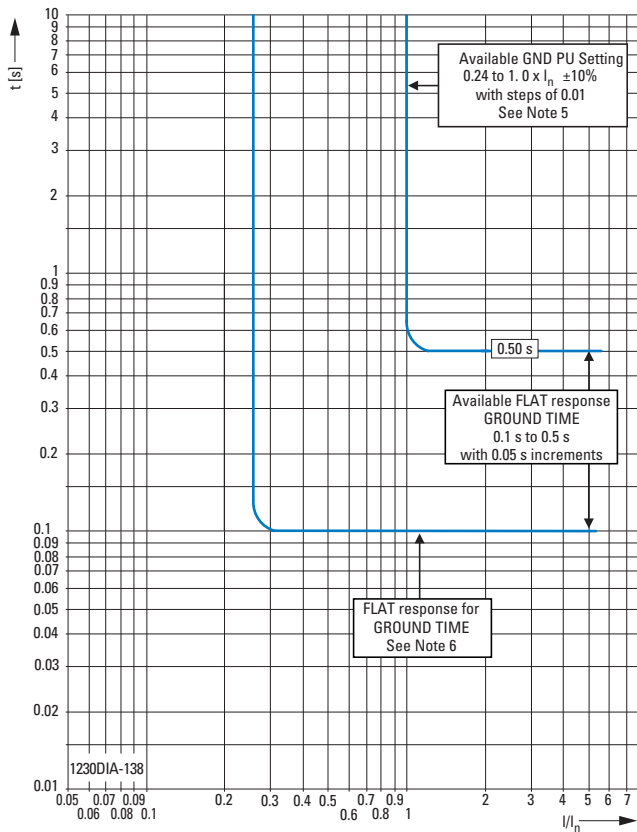
Digitrip 1150/1150i - G-Ground (Earth) Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers. This curve is for 50 Hz or 60 Hz applications.

Notes:

1. The end of the curve is determined by the interrupting rating of the circuit breaker.
2. The curve is shown as a multiple of the Rating Plug (I_n).
3. The Ground Fault settings have conventional 100 % ± 10 % as their pick up points.
4. Except as noted, tolerances on current levels are ± 10 % of values shown in chart.
5. The Ground Fault Pickup is limited to 1200 A setting for the Digitrip 1150 unit. The Digitrip 1150i unit only has a minimum Earth Pickup setting starting at 0.1 x I_n .
6. Ground Slope: FLAT
Tolerance is +0 / -80 ms except
0.10 s setting band is 0.05 to 0.13
0.15 s setting band is 0.09 to 0.17
7. Ground Slope: I^2T
 I^2t slope flattens out at $0.625 \times I_n$ for top of band with FLAT time minimum value n prevailing for bottom of band.
The tolerance is +0 / -30 % for all settings except
0.10 s is +30 % -25%
0.15 s is +20 % -25%
0.20 s is +10 % -25%

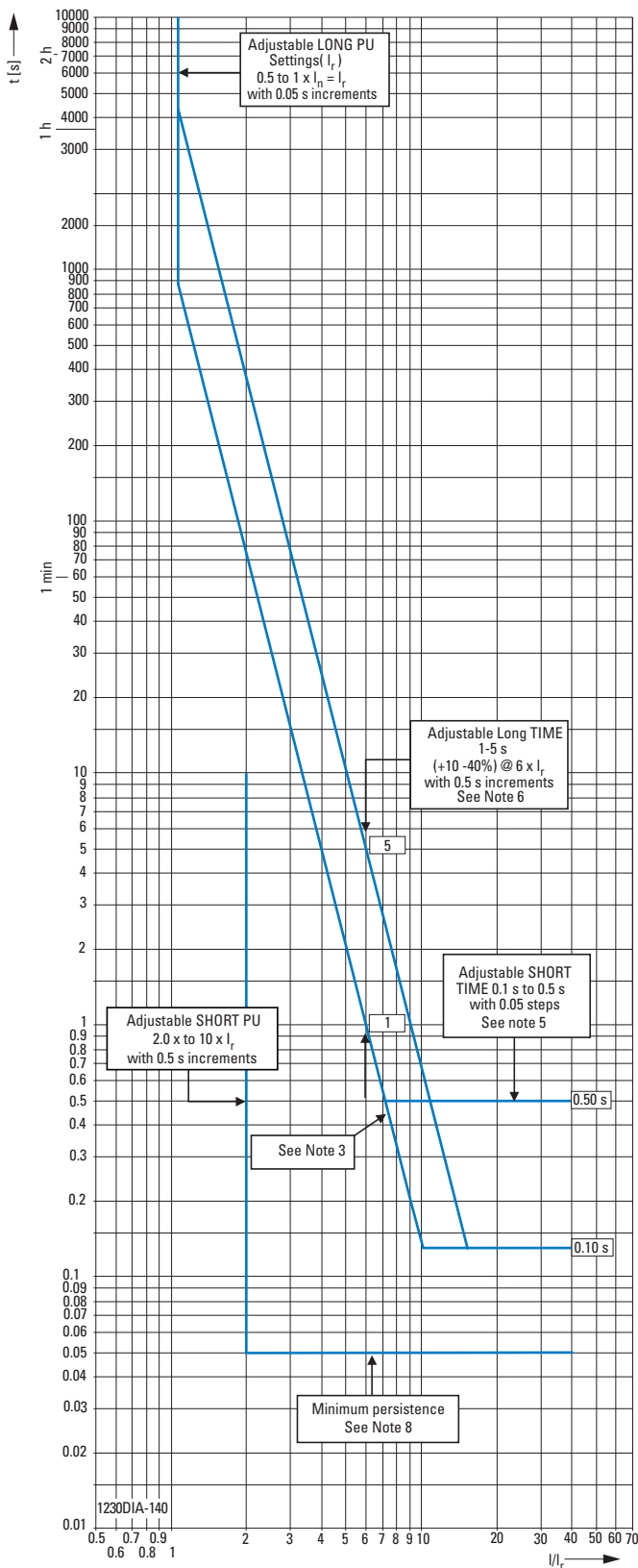


Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16(40)...P... Tripping characteristics for professional protection

Digitrip 1150/1150i - I²t Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers.

Long Delay (I²t) & Short Delay Trip

This curve is for 50 Hz or 60 Hz applications.

Notes:

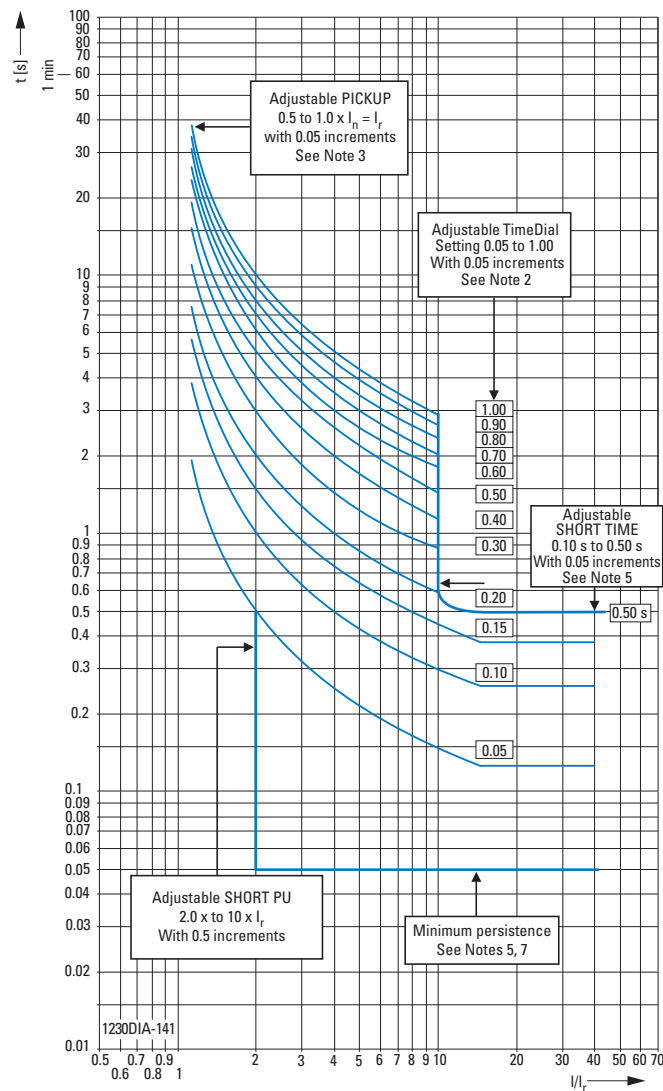
1. This curve is shown as a multiple of LONG PU Setting (I_r). The actual Pickup point occurs at 110 % of I_r , with a ± 10 % tolerance.
2. If Long Delay Memory is enabled, trip times may be shorter than indicated on this chart.
3. In this time region ≤ 0.5 seconds the I²T LONGTIME function will flatten out and be no faster than the Short TIME setting. This is to avoid a notch in graph.
4. The SHORT PU points have conventional 100 % ± 10 % tolerance.
5. SHORT TIME: FLAT only - setting 0.1 s through 0.5 s in .05 s increments. Tolerance is +0 / -80 ms of setting except
0.10 s setting is 0.05 to 0.13
0.15 s setting is 0.09 to 0.17
6. The end of the curve is determined by the interrupting rating of the circuit breaker.
7. Curve applies from -20 °C to +55 °C ambient. Temperatures above +85 °C cause automatic trip.
8. Minimum persistence refers to the time at which the breaker will not trip for a given setting.

Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16(40)...P... Tripping characteristics for professional protection

Digitrip 1150i - IEC-A Curves (Normal Inverse)



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers.

Normal Inverse & Short Delay Trip

This curve is for 50 Hz or 60 Hz applications.

Notes:

1. This curve is shown as a multiple of the PICKUP setting (I_r). The TimeDial setting combined with SHORT PU and SHORT TIME setting (shown in heavy lines) depict the IEC-A response. The Instantaneous, shown as a separate response, can be set to OFF.

2. For current $> 1.2 \times I_r$ tolerance is ($\pm 15\%$) or (-15% , $+90\text{ ms}$), whichever is larger. TimeDial curve goes to flat response at $14 \times I_r$ with a shorter time of TimeDial function or SHORT TIME function prevailing if curves overlap. The ShortTime function and the TimeDial function act independently and the entire TimeDial curves continue to be active even after the curves intersect.

3. The actual pick up point occurs at 110% of I_r current, with a $\pm 10\%$ tolerance. The actual pick up point is indicated by rapid flashing of Unit Status LED on the product.

The SHORT PU settings have conventional $100\% \pm 10\%$ at their pick up point.

4. The end of the curve is determined by the interrupting rating of the circuit breaker.

5. SHORT TIME: FLAT only
Tolerance is $+0 / -80\text{ ms}$ of setting except
0.10 s setting is 0.06 to 0.13
0.15 s setting is 0.10 to 0.17

6. Curve applies from -20°C to $+55^\circ\text{C}$ ambient. Temperatures above 85°C cause automatic trip.

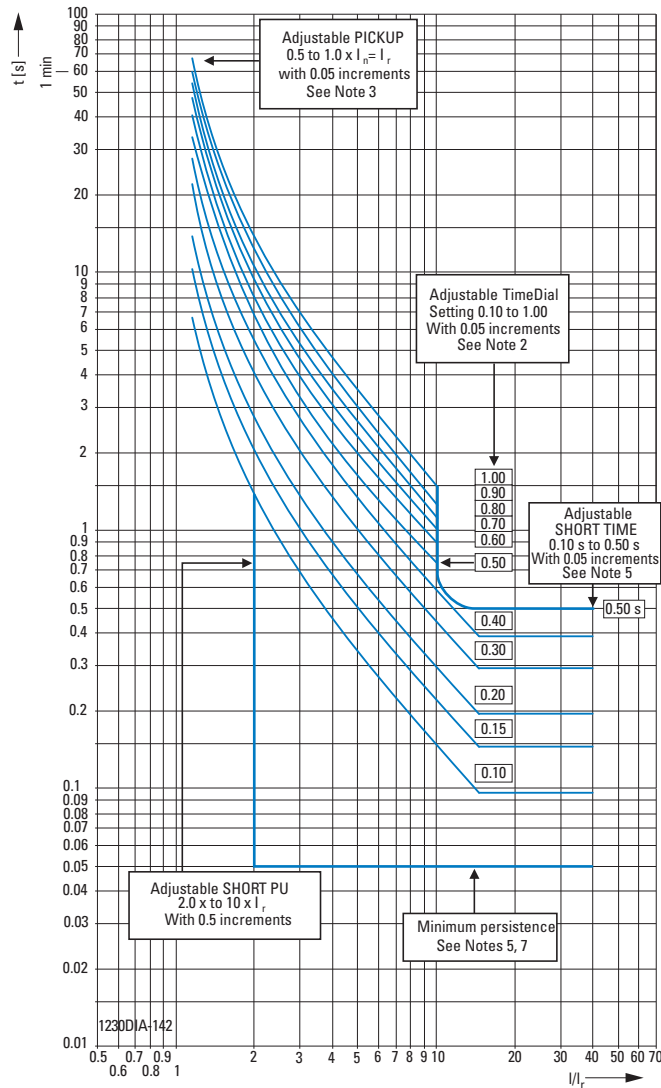
7. Minimum persistence refers to the time at which the breaker will not trip for a given setting.

Notes

These curves are comprehensive for IZMX40 = Series NRX - Type NF frame circuit breakers, including all frame sizes, ratings, and constructions. The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16(40)...P... Tripping characteristics for professional protection

Digitrip 1150i - IEC-B Curves (Very Inverse)



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers.

Very Inverse & Short Delay Trip

This curve is for 50 Hz or 60 Hz applications.

Notes:

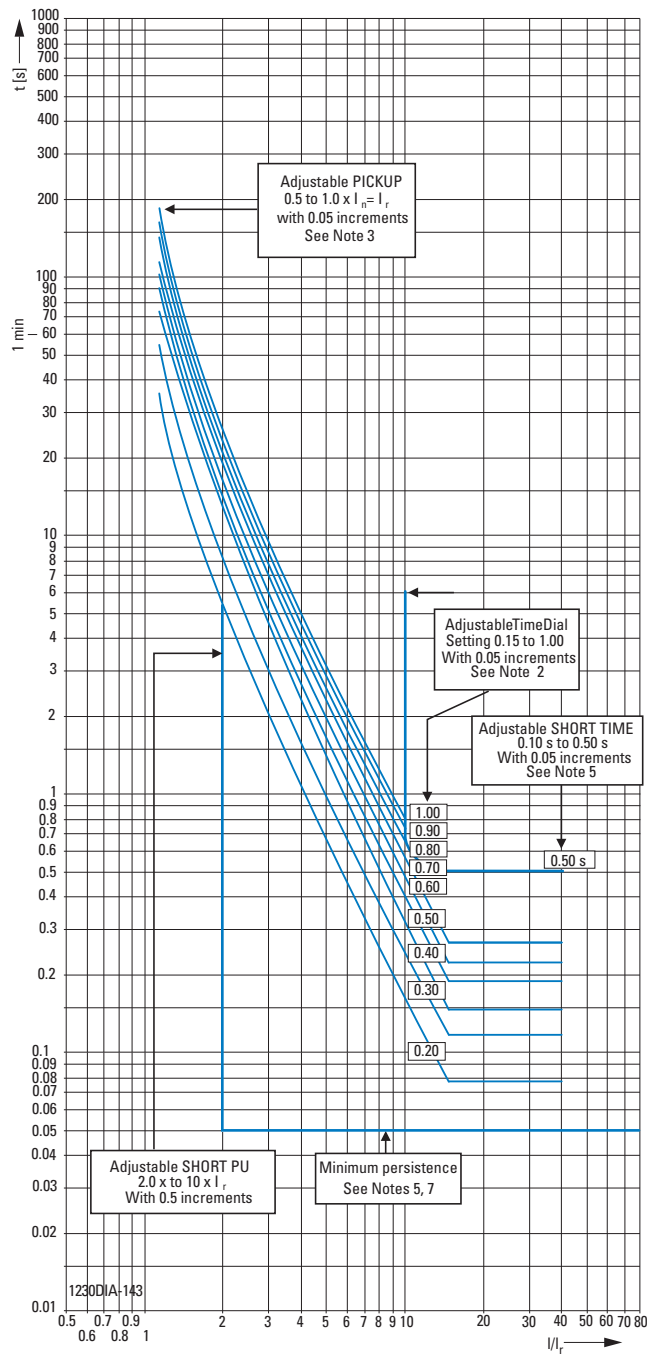
1. This curve is shown as a multiple of the PICKUP setting (I_r). The TimeDial setting combined with SHORT PU and SHORT TIME setting (shown in heavy lines) depict the IEC-B response. The Instantaneous, shown as a separate response, can be set to OFF.
2. For current $> 1.2 \times I_r$ tolerance is ($\pm 15\%$) or (-15% , $+90$ ms), whichever is larger. TimeDial curve goes to flat response at $14 \times I_r$ with a shorter time of TimeDial function or SHORT TIME function prevailing if curves overlap. The ShortTime function and the TimeDial function act independently and the entire TimeDial curves continue to be active even after the curves intersect.
3. The actual pick up point (indicated by rapid flashing of Unit Status LED on the product) occurs at 110% of the I_r current, with a $\pm 10\%$ tolerance. The SHORT PU settings have conventional $100\% \pm 10\%$ at their pick up point.
4. The end of the curve is determined by the interrupting rating of the circuit breaker.
5. SHORT TIME: FLAT only
Tolerance is $+0 / -80$ ms of setting except
0.10 s setting is 0.06 to 0.13
0.15 s setting is 0.10 to 0.17
6. Curve applies from $-20\text{ }^\circ\text{C}$ to $+55\text{ }^\circ\text{C}$ ambient. Temperatures above $+85\text{ }^\circ\text{C}$ cause automatic trip.
7. Minimum persistence refers to the time at which the breaker will not trip for a given setting

Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16(40)...P... Tripping characteristics for professional protection

Digitrip 1150i - IEC-C Curves (Extremely Inverse)



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers.

Extremely Inverse & Short Delay Trip

This curve is for 50 Hz or 60 Hz applications.

Notes:

1. This curve is shown as a multiple of the PICKUP setting (I_r). The TimeDial setting combined with SHORT PU and SHORT TIME setting (shown in heavy lines) depict the IEC-C response. The Instantaneous, shown as a separate response, can be set to OFF.
2. For current $> 1.2 \times I_r$ tolerance is ($\pm 15\%$) or (-15% , $+90\text{ ms}$), whichever is larger. TimeDial curve goes to flat response at $14 \times I_r$, with a shorter time of TimeDial function or SHORT TIME function prevailing if curves overlap. The Short-Time function and the TimeDial function act independently and the entire TimeDial curves continue to be active even after the curves intersect.
3. The actual pick up point (indicated by rapid flashing of Unit Status LED on the product) occurs at 110% of I_r current, with a $\pm 10\%$ tolerance. The SHORT PU settings have conventional $100\% \pm 10\%$ as their pick up point.
4. The end of the curve is determined by the interrupting rating of the breaker.
5. SHORT TIME: FLAT only
Tolerance is $+0 / -80\text{ ms}$ of setting except
 0.10 s setting is 0.06 to 0.13
 0.15 s setting is 0.10 to 0.17
6. Curve applies from $-20\text{ }^\circ\text{C}$ to $+55\text{ }^\circ\text{C}$ ambient; temperatures above $85\text{ }^\circ\text{C}$ cause automatic trip.
7. Minimum persistence refers to the time at which the breaker will not trip for a given setting.

Notes

The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions, the type of circuit breaker applied, and if any arc reduction settings are employed.

IZMX16, IZMX40

IZMX16, Rating plugs (plus types)

I_n [A]	I_u [A] 630	800	1000	1250	1600
200		+IZMX-RP16-200			
250		+IZMX-RP16-250			
300		+IZMX-RP16-300			
400			+IZMX-RP16-400		
500			+IZMX-RP16-500		
630	Standard		+IZMX-RP16-630		
800		Standard		+IZMX-RP16-800	
1000			Standard	+IZMX-RP16-1000	
1250				Standard	+IZMX-RP16-1250
1600					Standard

IZMX16, Rating plugs (single types)

I_n [A]	I_u [A] 630	800	1000	1250	1600
200		IZMX-RP16A-200			
250		IZMX-RP16A-250			
300		IZMX-RP16A-300			
400		IZMX-RP16A-400		IZMX-RP16B-400	
500		IZMX-RP16A-500		IZMX-RP16B-500	
630		IZMX-RP16A-630		IZMX-RP16B-630	
800		IZMX-RP16A-800		IZMX-RP16B-800	IZMX-RP16C-800
1000				IZMX-RP16B-1000	IZMX-RP16C-1000
1250				IZMX-RP16B-1250	IZMX-RP16C-1250
1600					IZMX-RP16C-1600

IZMX40, Rating plugs (plus types)

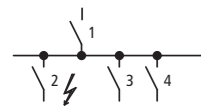
I_n [A]	I_u [A] 800	1000	1250	1600	2000	2500	3200	4000
800	Standard	+IZMX-RP40-800 155591						
1000		Standard	+IZMX-RP40-1000 155592					
1250			Standard			+IZMX-RP40-1250 126416		
1600				Standard		+IZMX-RP40-1600 126417		
2000					Standard	+IZMX-RP40-2000 126418		
2500						Standard	+IZMX-RP40-2500 126419	
3200							Standard	+IZMX-RP40-3200 126420
4000								Standard

IZMX40, Rating plugs (single types)

I_n [A]	I_u [A] 800	1000	1250	1600	2000	2500	3200	4000
800		IZMX-RP40D-800 156630	IZMX-RP40E-800 156632					
1000		IZMX-RP40D-1000 156631	IZMX-RP40E-1000 156633					
1250			IZMX-RP40E-1250 124402		IZMX-RP40F-1250 124406		IZMX-RP40G-1250 125410	
1600			IZMX-RP40E-1600 124403		IZMX-RP40F-1600 124407		IZMX-RP40G-1600 125411	
2000					IZMX-RP40F-2000 124408		IZMX-RP40G-2000 125412	
2500					IZMX-RP40F-2500 126408		IZMX-RP40G-2500 125413	
3200						IZMX-RP40F-3200 126409	IZMX-RP40G-3200 125414	
4000								IZMX-RP40G-4000 125415

Selectivity: incoming circuit-breaker, outgoing circuit-breaker

IZMX16...



In: Rated operational current
Iu: Rated uninterrupted current
Icu: Rated short-circuit breaking capacity
Ii: Set value non-delayed short-circuit releases

Selectivity 415 V AC

Selectivity 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 remain operational.

Selection:

Provided that the short-circuit current does not exceed those values specified (Icc rms).

These details represent the limits of selectivity.

Both circuit-breakers will switch off with higher short-circuit currents.

On IZM circuit-breakers with V, U, P releases, the delay time tsd must be at least 100 ms longer than the delay time of the next downstream levels (2, 3, 4).

Table with columns for Incoming circuit-breaker (1) and Outgoing circuit-breaker (2) ratings, and a large grid of Prospective short-circuit current (Icc rms in kA) for various breaker types and ratings.

Notes B = Basic switching capacity, N = Normal switching capacity, H = High switching capacity, T = Total selectivity

Selectivity: incoming circuit-breaker, outgoing circuit-breaker

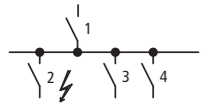
IZMX40...

IZMX40...-A...

Table with columns for incoming and outgoing breaker ratings, and a large grid of Prospective short-circuit current (Icc rms in kA) for various breaker types and ratings.

Selectivity: incoming circuit-breaker, outgoing circuit-breaker

IZMX16...



I_n: Rated operational current
I_u: Rated uninterrupted current
I_{icu}: Rated short-circuit breaking capacity
I_i: Set value non-delayed short-circuit releases

Selectivity 415 V AC

Selectivity 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 remain operational.

Selection:

Provided that the short-circuit current does not exceed those values specified (I_{cc rms}). These details represent the limits of selectivity. Both circuit-breakers will switch off with higher short-circuit currents. On IZM circuit-breakers with V, U, P releases, the delay time t_{sd} must be at least 100 ms longer than the delay time of the next downstream levels (2, 3, 4).

Table with columns for Incoming circuit-breaker (1) (I_n, I_{cu}, I_i) and Outgoing circuit-breaker (2) (I_u, I_{cu2(415V)}). Rows include various breaker models like NZMB(C)(N)(H)1-A(M)... and NZMC(N)(H)3-A(M)(V)... with their respective I_{cc rms} values.

Notes B = Basic switching capacity, N = Normal switching capacity, H = High switching capacity, T = Total selectivity

Selectivity: incoming circuit-breaker, outgoing circuit-breaker

IZMX40...

IZMX40...-V...(-U...)(-P...)

Large table with columns for incoming breaker ratings (I_n, I_{cu}, I_i) and outgoing breaker ratings (I_u, I_{cu2(415V)}). Rows include various breaker models like NZMB(C)(N)(H)2-A(M)(V)... and NZMC(N)(H)3-A(M)(V)... with their respective I_{cc rms} values.

Technical data

		NES407... IZMX16B...06...	NES408... IZMX16B...08...	NES410... IZMX16B...10...	NES413... IZMX16B...12...		
General							
Standards		IEC/EN 60947					
Ambient temperature	Storage	-40 - +70 (device with LCD-display -20 - +70)					
	Operating (open)	-25 - +70 (device with LCD-display -20 - +70)					
Mounting position							
Utilization category		B	B	B	B		
Protection type		IP20, IP55 with protective cover, IP41 with door sealing frame					
Direction of incoming supply		As required	As required	As required	As required		
Main conducting paths							
Rated current = rated uninterrupted current	$I_n = I_u$	A	630	800	1000	1250	
Rated uninterrupted current at 50 °C ¹⁾	I_u	A	630	800	1000	1250	
Rated uninterrupted current at 60 °C ¹⁾	I_u	A	630	800	1000	1250	
Rated uninterrupted current at 70 °C ¹⁾	I_u	A	630	800	1000	1250	
Rated impulse withstand voltage	U_{imp}	V AC	8000	8000	8000	8000	
Rated operational voltage, max.	U_e	V DC	690	690	690	690	
Use in IT electrical power networks up to U = 440 V	I_{IT}	kA	21	21	21	21	
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	
Rated insulation voltage		U_i	V	1000	1000	1000	
Switching capacity							
Rated short-circuit making capacity	up to 440 V 50/60 Hz	I_{cm}	kA	88	88	88	88
	up to 690 V 50/60 Hz	I_{cm}	kA	88	88	88	88
Rated short-time withstand current 50/60 Hz t = 1 s		I_{cw}	kA	42	42	42	42
Rated short-circuit breaking capacity I_{cn}							
IEC/EN 60947 operating sequence I_{cu} 0-t-CO							
	up to 240 V 50/60 Hz	I_{cu}	kA	42	42	42	42
	up to 440 V 50/60 Hz	I_{cu}	kA	42	42	42	42
	up to 690 V 50/60 Hz	I_{cu}	kA	42	42	42	42
	up to 1100 V 50/60 Hz	I_{cu}	kA	-	-	-	-
IEC/EN 60947 operating sequence I_{cs} 0-t-CO-t-CO							
	up to 240 V 50/60 Hz	I_{cs}	kA	42	42	42	42
	up to 440 V 50/60 Hz	I_{cs}	kA	42	42	42	42
	up to 690 V 50/60 Hz	I_{cs}	kA	42	42	42	42
	up to 1100 V 50/60 Hz	I_{cs}	kA	-	-	-	-
Operating delays	Total opening delay		ms	20	20	20	20
	Closing delay		ms	25	25	25	25
	Closing delay electrical (via closing release)		ms	30	30	30	30
	Opening delay electrical (via shunt release)		ms	25	25	25	25
	Opening delay electrical (via undervoltage release)		ms	50	50	50	50
	Opening delay via trip electronics (non-delayed short-circuit release)			ms	25	25	25
Lifespan	mechanical, without maintenance	Operations		12500	12500	12500	12500
	mechanical, with maintenance	Operations		20000	20000	20000	20000
	electrical, without maintenance	Operations		10000	10000	10000	10000
	electrical, with maintenance	Operations		10000	10000	10000	10000
Maximum operating frequency			Operations/h	60	60	60	60
Heat dissipation at rated current I_n	Fixed mounting		W	36	59	92	132
	Withdrawable units		W	50	80	125	180
Weight							
Fixed mounting	3-pole		kg	15	15	15	15
	4-pole		kg	20	20	20	20
Withdrawable (CB only)	3-pole		kg	39	39	39	39
	4-pole		kg	47	47	47	47
Cassette	3 pole		kg	18	18	18	18
	4 pole		kg	21	21	21	21

Notes ¹⁾ Permissible continuous current for circuit-breakers used at increased temperatures within a switchgear assembly. The expected internal temperatures can be estimated according to the applicable IEC standards.


NES416... IZMX16B... 16...	NES507... IZMX16N... 06...	NES508... IZMX16N... 08...	NES510... IZMX16N... 10...	NES513... IZMX16N... 12...	NES516... IZMX16N... 16...	NES607... IZMX16H... 06...	NES608... IZMX16H... 08...	NES610... IZMX16H... 10...	NES613... IZMX16H... 12...	NES616... IZMX16H... 16...
IEC/EN 60947										
-40 - +70 (device with LCD-display -20 - +70)										
-25 - +70 (device with LCD-display -20 - +70)										
B	B	B	B	B	B	B	B	B	B	B
IP20, IP55 with protective cover, IP41 with door sealing frame										
As required	As required	As required	As required	As required	As required	As required	As required	As required	As required	As required
1600	630	800	1000	1250	1600	630	800	1000	1250	1600
1500	630	800	1000	1250	1500	630	800	1000	1250	1500
1400	630	800	1000	1250	1400	630	800	1000	1250	1400
1350	630	800	1000	1250	1350	630	800	1000	1250	1350
8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
690	690	690	690	690	690	690	690	690	690	690
21	21	21	21	21	21	21	21	21	21	21
III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
88	105	105	105	105	105	137	137	137	137	137
88	88	88	88	88	88	88	88	88	88	88
42	42	42	42	42	42	42	42	42	42	42
42	50	50	50	50	50	85	85	85	85	85
42	50	50	50	50	50	65	65	65	65	65
42	42	42	42	42	42	42	42	42	42	42
-	-	-	-	-	-	-	-	-	-	-
42	50	50	50	50	50	65	65	65	65	65
42	50	50	50	50	50	50	50	50	50	50
42	42	42	42	42	42	42	42	42	42	42
-	-	-	-	-	-	-	-	-	-	-
20	20	20	20	20	20	20	20	20	20	20
25	25	25	25	25	25	25	25	25	25	25
30	30	30	30	30	30	30	30	30	30	30
25	25	25	25	25	25	25	25	25	25	25
50	50	50	50	50	50	50	50	50	50	50
25	25	25	25	25	25	25	25	25	25	25
12500	12500	12500	12500	12500	12500	12500	12500	12500	12500	12500
20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
60	60	60	60	60	60	60	60	60	60	60
235	36	59	92	132	235	36	59	92	132	235
320	50	80	125	180	320	50	80	125	180	320
15	15	15	15	15	15	15	15	15	15	15
20	20	20	20	20	20	20	20	20	20	20
39	39	39	39	39	39	39	39	39	39	39
47	47	47	47	47	47	47	47	47	47	47
18	18	18	18	18	18	18	18	18	18	18
21	21	21	21	21	21	21	21	21	21	21

				NES607...SW... INX16B...06...	NES608...SW... INX16B...08...
General					
Standards				IEC/EN 60947	
Ambient temperature	Storage	°C	-40 - +70		
	Operating (open)	°C	-25 - +70 (device with LCD-display -20 - +70)		
Mounting position					
Utilization category				B	
Protection type				IP20, IP55 with protective cover, IP41 with door sealing frame	
Direction of incoming supply				As required	
Main conducting paths					
Rated current = rated uninterrupted current	$I_n = I_u$	A	630	800	
Rated uninterrupted current at 50 °C ¹⁾	I_u	A	630	800	
Rated uninterrupted current at 60 °C ¹⁾	I_u	A	630	800	
Rated uninterrupted current at 70 °C ¹⁾	I_u	A	630	800	
Rated impulse withstand voltage	U_{imp}	V AC	8000	8000	
Rated operational voltage, max.	U_e	V DC	690	690	
Use in IT electrical power networks up to $U = 440$ V	I_{IT}	kA	21	21	
Overvoltage category/pollution degree			III/3	III/3	
Rated insulation voltage	U_i	V	1000	1000	
Switching capacity					
Rated short-circuit making capacity	up to 440 V 50/60 Hz	I_{cm}	kA	88	88
	up to 690 V 50/60 Hz	I_{cm}	kA	88	88
Rated short-time withstand current 50/60 Hz	$t = 1$ s	I_{cw}	kA	42	42
Operating delays	Total opening delay		ms	20	20
	Closing delay		ms	25	25
	Closing delay electrical (via closing release)		ms	30	30
	Opening delay electrical (via shunt release)		ms	25	25
	Opening delay electrical (via undervoltage release)		ms	50	50
Lifespan	mechanical, without maintenance		Operations	12500	12500
	mechanical, with maintenance		Operations	20000	20000
	electrical, without maintenance		Operations	10000	10000
	electrical, with maintenance		Operations	10000	10000
Maximum operating frequency			Operations/h	60	60
Heat dissipation at rated current I_n with 3-phase symmetrical load	Fixed mounting		W	36	59
	Withdrawable units		W	50	80
Weight					
Fixed mounting	3-pole		kg	15	15
	4-pole		kg	20	20
Withdrawable (CB only)	3-pole		kg	39	39
	4-pole		kg	47	47
Cassette	3 pole		kg	18	18
	4 pole		kg	21	21

Notes


¹⁾ Permissible continuous current for circuit-breakers used at increased temperatures within a switchgear assembly. The expected internal temperatures can be estimated according to the applicable IEC standards.

			NES610...SW... INX16B...10...	NES613...SW... INX16B...12...	NES616...SW... INX16B...16...
Standards			IEC/EN 60947		
Ambient temperature	Storage	°C	-40 - +70		
	Operating (open)	°C	-25 - +70 (device with LCD-display -20 - +70)		
Mounting position					
Utilization category			B		
Protection type			IP20, IP55 with protective cover, IP41 with door sealing frame		
Direction of incoming supply			As required		
Rated current = rated uninterrupted current			1000	1250	1600
Rated uninterrupted current at 50 °C ¹⁾			1000	1250	1500
Rated uninterrupted current at 60 °C ¹⁾			1000	1250	1400
Rated uninterrupted current at 70 °C ¹⁾			1000	1250	1350
Rated impulse withstand voltage			8000	8000	8000
Rated operational voltage, max.			690	690	690
Use in IT electrical power networks up to $U = 440$ V			21	21	21
Overvoltage category/pollution degree			III/3	III/3	III/3
Rated insulation voltage			1000	1000	1000
Rated short-circuit making capacity			88	88	88
Rated short-time withstand current 50/60 Hz			42	42	42
Total opening delay			20	20	20
Closing delay			25	25	25
Closing delay electrical (via closing release)			30	30	30
Opening delay electrical (via shunt release)			25	25	25
Opening delay electrical (via undervoltage release)			50	50	50
Lifespan			12500	12500	12500
mechanical, without maintenance			20000	20000	20000
mechanical, with maintenance			10000	10000	10000
electrical, without maintenance			10000	10000	10000
electrical, with maintenance			10000	10000	10000
Maximum operating frequency			60	60	60
Heat dissipation at rated current I_n with 3-phase symmetrical load			92	132	235
Fixed mounting			125	180	320
Withdrawable units			15	15	15
3-pole			20	20	20
4-pole			39	39	39
3-pole			47	47	47
4-pole			18	18	18
3 pole			21	21	21
4 pole					

			RES608... IZMX40B...08...	RES610... IZMX40B...10...	RES613... IZMX40B...12...		
General							
Standards			IEC/EN 60947				
Ambient temperature	Storage	°C	-25 - +70 (device with LCD-display -20 - +70)				
	Operating (open)	°C	-25 - +70 (device with LCD-display -20 - +70)				
Mounting position							
Utilization category			B	B	B		
Protection type			IP20, IP55 with protective cover, IP41 with door sealing frame				
Direction of incoming supply			as required	as required	as required		
Main conducting paths							
Rated current = rated uninterrupted current	$I_n = I_u$	A	800	1000	1250		
Rated uninterrupted current at 50 °C ¹⁾	I_u	A	800	1000	1250		
Rated uninterrupted current at 60 °C ¹⁾	I_u	A	800	1000	1250		
Rated uninterrupted current at 70 °C ¹⁾	I_u	A	800	1000	1250		
Rated impulse withstand voltage	U_{imp}	V AC	8000	8000	8000		
Rated operational voltage, max.	U_e	V DC	690	690	690		
Use in IT electrical power networks up to U = 440 V	I_{IT}	kA	50	50	50		
Overvoltage category/pollution degree			III/3	III/3	III/3		
Rated insulation voltage	U_i	V	1000	1000	1000		
Switching capacity							
Rated short-circuit making capacity							
up to 440 V 50/60 Hz		I_{cm}	kA	144	144	144	
Rated short-time withstand current 50/60 Hz							
t = 1 s		I_{cw}	kA	66	66	66	
Rated short-circuit breaking capacity I_{cn}							
IEC/EN 60947 operating sequence I_{cu} 0-t-CO	up to 240 V 50/60 Hz	I_{cu}	kA	66	66	66	
	up to 440 V 50/60 Hz	I_{cu}	kA	66	66	66	
	up to 690 V 50/60 Hz	I_{cu}	kA	66	66	66	
	up to 1100 V 50/60 Hz	I_{cu}	kA	—	—	—	
	IEC/EN 60947 operating sequence I_{cs} 0-t-CO-t-CO	up to 240 V 50/60 Hz	I_{cs}	kA	66	66	66
	up to 440 V 50/60 Hz	I_{cs}	kA	66	66	66	
up to 690 V 50/60 Hz	I_{cs}	kA	66	66	66		
up to 1100 V 50/60 Hz	I_{cs}	kA	—	—	—		
Operating times for ON							
Total closing time		ms	30	30	30		
Operating times for OFF							
Total opening time with shunt releases		ms	22	22	22		
Total opening time with undervoltage releases		ms	37	37	37		
Total tripping time (until fault is fully cleared)		ms	45	45	45		
Maximum operating frequency			Operations/h				
Fixed mounting		W	90	90	135		
Withdrawable units		W	135	120	180		
Weight							
Fixed mounting	3-pole	kg	45	45	45		
	4-pole	kg	56	56	56		
Withdrawable (CB only)	3-pole	kg	69	69	69		
	4-pole	kg	86	86	86		
Cassette	3 pole	kg	29	29	29		
	4 pole	kg	35	35	35		

Notes

- Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.
- Rated continuous current stated applies only with 4 x 120 x 10 mm vertical terminal rails painted black. The values are reduced by 100 A each with 4 x 100 x 10 mm.


RES616... IZMX40B...16...	RES620... IZMX40B...20...	RES625... IZMX40B...25...	RES632... IZMX40B...32...	RES640... IZMX40B...40...	RES808... IZMX40N...08...	RES810... IZMX40N...10...	RES813... IZMX40N...12...	RES816... IZMX40N...16...
IEC/EN 60947								
-25 - +70 (device with LCD-display -20 - +70)								
								
B	B	B	B	B	B	B	B	B
IP20, IP55 with protective cover, IP41 with door sealing frame								
as required	as required	as required	as required	as required	as required	as required	as required	as required
1600	2000	2500	3200	4000	800	1000	1250	1600
1600	2000	2500	3200	4000 ²⁾	800	1000	1250	1600
1600	2000	2500	3200	3650 ²⁾	800	1000	1250	1600
1600	2000	2500	3200	3500 ²⁾	800	1000	1250	1600
8000	8000	8000	8000	8000	8000	8000	8000	8000
690	690	690	690	690	690	690	690	690
50	50	50	50	50	50	50	50	50
III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated short-circuit making capacity								
144	144	144	144	144	166	166	166	166
Rated short-time withstand current 50/60 Hz								
66	66	66	66	85	85	85	85	85
Rated short-circuit breaking capacity I_{cn}								
66	66	66	66	66	85	85	85	85
66	66	66	66	66	85	85	85	85
66	66	66	66	66	75	75	75	75
—	—	—	—	—	—	—	—	—
66	66	66	66	66	85	85	85	85
66	66	66	66	66	85	85	85	85
66	66	66	66	66	75	75	75	75
—	—	—	—	—	—	—	—	—
30	30	30	30	30	30	30	30	30
35	35	35	35	35	35	35	35	35
Operating times for OFF								
22	22	22	22	22	22	22	22	22
37	37	37	37	37	37	37	37	37
45	45	45	45	45	45	45	45	45
60	60	60	60	60	60	60	60	60
Heat dissipation at rated current I_n								
225	285	300	480	750	90	90	135	225
300	345	450	720	1120	135	120	180	300
Weight								
45	45	45	45	45	45	45	45	45
56	56	56	56	56	56	56	56	56
69	69	69	69	69	69	69	69	69
86	86	86	86	86	86	86	86	86
29	29	29	29	29	29	29	29	29
35	35	35	35	35	35	35	35	35

			RES820... IZMX40N...20...	RES825... IZMX40N...25...	RES832... IZMX40N...32...	
General						
Standards			IEC/EN 60947			
Ambient temperature	Storage	°C	-25 - +70 (device with LCD-display -20 - +70)			
	Operating (open)	°C	-25 - +70 (device with LCD-display -20 - +70)			
Mounting position						
Utilization category			B	B	B	
Protection type			IP20, IP55 with protective cover, IP41 with door sealing frame			
Direction of incoming supply			as required	as required	as required	
Main conducting paths						
Rated current = rated uninterrupted current	$I_n = I_u$	A	2000	2500	3200	
Rated uninterrupted current at 50 °C ¹⁾	I_u	A	2000	2500	3200	
Rated uninterrupted current at 60 °C ¹⁾	I_u	A	2000	2500	3200	
Rated uninterrupted current at 70 °C ¹⁾	I_u	A	2000	2280	3200	
Rated impulse withstand voltage	U_{imp}	V AC	8000	8000	8000	
Rated operational voltage, max.	U_e	V DC	690	690	690	
Use in IT electrical power networks up to U = 440 V	I_{IT}	kA	50	50	50	
Overvoltage category/pollution degree			III/3	III/3	III/3	
Rated insulation voltage	U_i	V	1000	1000	1000	
Switching capacity						
Rated short-circuit making capacity						
up to 440 V 50/60 Hz		I_{cm}	kA	166	166	166
Rated short-time withstand current 50/60 Hz						
t = 1 s		I_{cw}	kA	85	85	85
Rated short-circuit breaking capacity I_{cn}						
IEC/EN 60947 operating sequence I_{cu} 0-t-CO	up to 240 V 50/60 Hz	I_{cu}	kA	85	85	85
	up to 440 V 50/60 Hz	I_{cu}	kA	85	85	85
	up to 690 V 50/60 Hz	I_{cu}	kA	75	75	75
	up to 1100 V 50/60 Hz	I_{cu}	kA	-	-	-
IEC/EN 60947 operating sequence I_{cs} 0-t-CO-t-CO	up to 240 V 50/60 Hz	I_{cs}	kA	85	85	85
	up to 440 V 50/60 Hz	I_{cs}	kA	85	85	85
	up to 690 V 50/60 Hz	I_{cs}	kA	75	75	75
	up to 1100 V 50/60 Hz	I_{cs}	kA	-	-	-
Operating times for ON						
Total closing time			ms	30	30	30
Total closing time			ms	35	35	35
Operating times for OFF						
Total opening time with shunt releases			ms	22	22	22
Total opening time with undervoltage releases			ms	37	37	37
Total tripping time (until fault is fully cleared)			ms	45	45	45
Maximum operating frequency			Operations/h			
				60	60	60
Heat dissipation at rated current I_n						
Fixed mounting			W	285	300	480
Withdrawable units			W	345	450	720
Weight						
Fixed mounting	3-pole		kg	45	45	45
	4-pole		kg	56	56	56
Withdrawable (CB only)	3-pole		kg	69	69	69
	4-pole		kg	86	86	86
Cassette	3 pole		kg	29	29	29
	4 pole		kg	35	35	35

Notes


- ¹⁾ Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.
- ²⁾ Rated continuous current stated applies only with 4 x 120 x 10 mm vertical terminal rails painted black. The values are reduced by 100 A each with 4 x 100 x 10 mm.


RES840... IZMX40N...40...	RESC08... IZMX40H...08...	RESC10... IZMX40H...10...	RESC13... IZMX40H...12...	RESC16... IZMX40H...16...	RESC20... IZMX40H...20...	RESC25... IZMX40H...25...	RESC32... IZMX40H...32...	RESC40... IZMX40H...40...
IEC/EN 60947								
-25 - +70 (device with LCD-display -20 - +70)								
-25 - +70 (device with LCD-display -20 - +70)								
B	B	B	B	B	B	B	B	B
IP20, IP55 with protective cover, IP41 with door sealing frame								
as required	as required	as required	as required	as required	as required	as required	as required	as required
4000	800	1000	1250	1600	2000	2500	3200	4000
4000 ²⁾	800	1000	1250	1600	2000	2500	3200	4000 ²⁾
3650 ²⁾	800	1000	1250	1600	2000	2500	3200	3650 ²⁾
3500 ²⁾	800	1000	1250	1600	2000	2500	3200	3500 ²⁾
8000	8000	8000	8000	8000	8000	8000	8000	8000
690	690	690	690	690	690	690	690	690
50	50	50	50	50	50	50	50	50
III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated short-circuit making capacity								
166	231	231	231	231	231	231	231	231
Rated short-time withstand current 50/60 Hz								
85	85	85	85	85	85	85	85	85
Rated short-circuit breaking capacity I_{cn}								
85	-	-	-	-	-	-	-	-
85	105	105	105	105	105	105	105	105
75	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-
85	105	105	105	105	105	105	105	105
75	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
30	30	30	30	30	30	30	30	30
35	35	35	35	35	35	35	35	35
Operating times for OFF								
22	22	22	22	22	22	22	22	22
37	37	37	37	37	37	37	37	37
45	45	45	45	45	45	45	45	45
60	60	60	60	60	60	60	60	60
Heat dissipation at rated current I_n								
750	90	90	135	225	285	300	480	750
1120	135	120	180	300	345	450	720	1120
Weight								
45	45	45	45	45	45	45	45	45
56	56	56	56	56	56	56	56	56
69	69	69	69	69	69	69	69	69
86	86	86	86	86	86	86	86	86
29	29	29	29	29	29	29	29	29
35	35	35	35	35	35	35	35	35

			RES608...SW... INX40B...08...	RES610...SW... INX40B...10...
General				
Standards			IEC/EN 60947	
Ambient temperature	Storage	°C	-40 - +70	
	Operating (open)	°C	-25 - +70	
Mounting position				
Utilization category			B	B
Protection type			IP20, IP55 with protective cover, IP41 with door sealing frame	
Direction of incoming supply			As required	As required
Main conducting paths				
Rated current = rated uninterrupted current		$I_n = I_u$	A	800
Rated uninterrupted current at 50 °C ¹⁾		I_u	A	800
Rated uninterrupted current at 60 °C ¹⁾		I_u	A	800
Rated uninterrupted current at 70 °C ¹⁾		I_u	A	800
Rated impulse withstand voltage		U_{imp}	V AC	8000
Rated operational voltage, max.		U_e	V DC	690
Use in IT electrical power networks up to U = 440 V		I_{IT}	kA	50
Overvoltage category/pollution degree				III/3
Rated insulation voltage		U_i	V	1000
Switching capacity				
Rated short-circuit making capacity				
up to 440 V 50/60 Hz		I_{cm}	kA	144
Rated short-time withstand current 50/60 Hz				
t = 1 s		I_{cw}	kA	66
Operating times				
Total closing time			ms	30
Total opening time with shunt releases			ms	35
Total opening time with undervoltage releases			ms	22
			ms	37
Maximum operating frequency			Operations/h	60
Heat dissipation at rated current I_n with 3-phase symmetrical load				
Fixed mounting			W	90
Withdrawable units			W	135
Weight				
Fixed mounting	3-pole		kg	45
	4-pole		kg	56
Withdrawable (CB only)	3-pole		kg	69
	4-pole		kg	86
Cassette	3 pole		kg	29
	4 pole		kg	35

Notes

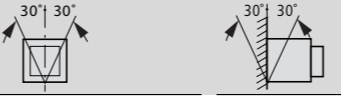
- ¹⁾ Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.
- ²⁾ Rated continuous current stated applies only with 4 x 120 x 10 mm vertical terminal rails painted black. The values are reduced by 100 A each with 4 x 100 x 10 mm.

RES613...SW... INX40B...12...	RES616...SW... INX40B...16...	RES620...SW... INX40B...20...	RES625...SW... INX40B...25...	RES632...SW... INX40B...32...	RES640...SW... INX40B...40...
IEC/EN 60947					
-40 - +70					
-25 - +70					
					
B	B	B	B	B	B
IP20, IP55 with protective cover, IP41 with door sealing frame					
As required	As required	As required	As required	As required	As required
1250	1600	2000	2500	3200	4000
1250	1600	2000	2500	3200	4000 ²⁾
1250	1600	2000	2500	3200	3650 ²⁾
1250	1600	2000	2500	3200	3500 ²⁾
8000	8000	8000	8000	8000	8000
690	690	690	690	690	690
50	50	50	50	50	50
III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000
Switching capacity					
Rated short-circuit making capacity					
144	144	144	144	144	144
Rated short-time withstand current 50/60 Hz					
66	66	66	66	66	66
30	30	30	30	30	30
35	35	35	35	35	35
22	22	22	22	22	22
37	37	37	37	37	37
60	60	60	60	60	60
135	225	285	300	480	750
180	300	345	450	720	1120
45	45	45	45	45	45
56	56	56	56	56	56
69	69	69	69	69	69
86	86	86	86	86	86
29	29	29	29	29	29
35	35	35	35	35	35

			RES808...SW... INX40N...08...	RES810...SW... INX40N...10...
General				
Standards			IEC/EN 60947	
Ambient temperature	Storage	°C	-40 - +70	
	Operating (open)	°C	-25 - +70	
Mounting position				
Utilization category			B	B
Protection type			IP20, IP55 with protective cover	
Direction of incoming supply			As required	As required
Main conducting paths				
Rated current = rated uninterrupted current	$I_n = I_u$	A	800	1000
Rated uninterrupted current at 50 °C ¹⁾	I_u	A	800	1000
Rated uninterrupted current at 60 °C ¹⁾	I_u	A	800	1000
Rated uninterrupted current at 70 °C ¹⁾	I_u	A	800	1000
Rated impulse withstand voltage	U_{imp}	V AC	8000	8000
Rated operational voltage, max.	U_e	V DC	690	690
Use in IT electrical power networks up to U = 440 V	I_{IT}	kA	50	50
Overvoltage category/pollution degree			III/3	III/3
Rated insulation voltage	U_i	V	1000	1000
Switching capacity				
Rated short-circuit making capacity up to 440 V 50/60 Hz	I_{cm}	kA	185	185
Rated short-time withstand current 50/60 Hz t = 1 s	I_{cw}	kA	85	85
Operating times		ms	30	30
	Total closing time	ms	35	35
	Total opening time with shunt releases	ms	22	22
	Total opening time with undervoltage releases	ms	37	37
Maximum operating frequency		Operations/h	60	60
Heat dissipation at rated current I_n with 3-phase symmetrical load	Fixed mounting	W	90	90
	Withdrawable units	W	135	120
Weight				
Fixed mounting	3-pole	kg	45	45
	4-pole	kg	56	56
Withdrawable (CB only)	3-pole	kg	69	69
	4-pole	kg	86	86
Cassette	3 pole	kg	29	29
	4 pole	kg	35	35

Notes

- ¹⁾ Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.
- ²⁾ Rated continuous current stated applies only with 4 x 120 x 10 mm vertical terminal rails painted black. The values are reduced by 100 A each with 4 x 100 x 10 mm.

RES813...SW... INX40N...12...	RES816...SW... INX40N...16...	RES820...SW... INX40N...20...	RES825...SW... INX40N...25...	RES832...SW... INX40N...32...	RES840...SW... INX40N...40...
IEC/EN 60947					
-40 - +70					
-25 - +70					
					
B	B	B	B	B	B
IP20, IP55 with protective cover					
As required	As required	As required	As required	As required	As required
1250	1600	2000	2500	3200	4000
1250	1600	2000	2500	3200	4000 ²⁾
1250	1600	2000	2500	3200	3650 ²⁾
1250	1600	2000	2500	3200	3500 ²⁾
8000	8000	8000	8000	8000	8000
690	690	690	690	690	690
50	50	50	50	50	50
III/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000
185	185	185	185	185	185
85	85	85	85	85	85
30	30	30	30	30	30
35	35	35	35	35	35
22	22	22	22	22	22
37	37	37	37	37	37
60	60	60	60	60	60
135	225	285	300	480	750
180	300	345	450	720	1120
45	45	45	45	45	45
56	56	56	56	56	56
69	69	69	69	69	69
86	86	86	86	86	86
29	29	29	29	29	29
35	35	35	35	35	35

			Signalling switch ON-OFF IZMX-AS...	Tripped signalling contact IZMX-OTS...	Latch Check Switch IZMX-LCS...(SR)	Cell switch IZMX-CS...
Rated breaking capacity						
Inductive load						
250 V AC		A	10	10	10	10
125 V DC		A	0.5	0.5	0.5	0.5
250 V DC		A	0.25	0.25	0.25	0.25

			Shunt releases					Closing releases				
			IZMX-ST(S)24DC	IZMX-ST(S)48DC	IZMX-ST(S)60DC	IZMX-ST(S)110AD	IZMX-ST(S)230AD	IZMX-SR24DC	IZMX-SR48DC	IZMX-SR60DC	IZMX-SR110AD	IZMX-SR230AD
			–	–	–	–	–	Remote reset				
			–	–	–	–	–	IZMX-RR24DC	–	–	IZMX-RR110AD	IZMX-RR230AD
Rated control voltage												
AC 50/60 Hz	U_s	V	–	–	–	110 - 127	208 - 240	–	–	–	110 - 127	208 - 240
DC	U_s	V	24	48	60	110 - 125	208 - 250	24	48	60	110 - 125	208 - 250
Power consumption												
AC		VA	–	–	–	(pick-up 450)	(pick-up 450)	–	–	–	(pick-up 450)	(pick-up 450)
DC		W	(pick-up 250)	(pick-up 250)	(pick-up 250)	(pick-up 450)	(pick-up 450)	(pick-up 250)	(pick-up 250)	(pick-up 250)	(pick-up 450)	(pick-up 450)
Circuit-breaker response time at U_s			ms	22	22	22	22	22	35	35	35	35
Operating range												
Drop-out voltage												
AC operated, 50/60 Hz, pick-up	Drop-out	$x U_c$	–	–	–	–	–	–	–	–	–	–
Pick-up voltage	Pick-up	$x U_c$	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1

			Undervoltage releases				
			IZMX-UVR24DC	IZMX-UVR48DC	IZMX-UVR60DC	IZMX-UVR110AD	IZMX-UVR220AD
Rated control voltage							
AC 50/60 Hz	U_s	V	–	–	–	110 - 127	208 - 240
DC	U_s	V	24	48	60	110 - 125	208 - 250
Power consumption							
AC		VA	–	–	–	5 (pick-up 890)	5 (pick-up 910)
DC		W	5 (pick-up 500)	5 (pick-up 850)	5 (pick-up 850)	5 (pick-up 890)	5 (pick-up 910)
Circuit-breaker response time at U_s			ms	37	37	37	37
Operating range							
Drop-out voltage							
AC operated, 50/60 Hz, pick-up	Drop-out	$x U_c$	0.35 - 0.7	0.35 - 0.7	0.35 - 0.7	0.35 - 0.7	0.35 - 0.7
Pick-up voltage	Pick-up	$x U_c$	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1

IZMX-M16..., IZMX-M40...

			Motor operators				
			IZMX-M16-24DC	IZMX-M16-48DC	IZMX-M16-60DC	IZMX-M16-110AD	IZMX-M16-230AD
Rated control voltage	U_s	V	24 V DC	48 V DC	60 V DC	110 - 127 V AC 50/60 Hz 110 - 125 V DC	220 - 240 V AC 50/60 Hz 220 - 250 V DC
Necessary time required for charging the spring-operated stored energy mechanism at $1 \times U_s$			3 s	3 s	3 s	3 s AC 50/60 Hz 3 s DC	4 s AC 50/60 Hz 4 s DC
Rated operational current	I_n	A	5 A	3 A	3 A	2 A AC 50/60 Hz 1 A DC	1 A AC 50/60 Hz 1 A DC
Starting current		A	25 A	15 A	15 A	6 A AC 50/60 Hz 5 A DC	10 A AC 50/60 Hz 10 A DC
Power consumption			150 W	150 W	150 W	280 VA AC 50/60 Hz 150 W DC	280 VA AC 50/60 Hz 280 W DC

			Motor operators				
			IZMX-M40-24DC	IZMX-M40-48DC	IZMX-M40-60DC	IZMX-M40-110AD	IZMX-M40-230AD
Rated control voltage	U_s	V	24 V DC	48 V DC	60 V DC	110 - 127 V AC 50/60 Hz 110 - 125 V DC	220 - 240 V AC 50/60 Hz 220 - 250 V DC
Necessary time required for charging the spring-operated stored energy mechanism at $1 \times U_s$			3 s DC	3 s DC	3 s DC	3 s AC 50/60 Hz 3 s DC	4 s AC 50/60 Hz 4 s DC
Rated operational current	I_n	A	7 A DC	3 A DC	3 A DC	3 A AC 50/60 Hz 2 A DC	3 A AC 50/60 Hz 1 A DC
Starting current		A	14 A DC	12 A DC	12 A DC	6 A AC 50/60 Hz 8 A DC	30 A AC 50/60 Hz 5 A DC
Power consumption			200 W DC	175 W DC	175 W DC	450 VA AC 50/60 Hz 200 W DC	750 VA AC 50/60 Hz 250 W DC

Altitude Rating Factors	Altitude [m]	Voltage Correction	Current Correction
	2000	1.000	1.000
	2150	0.989	0.998
	2300	0.976	0.995
	2450	0.963	0.993
	2600	0.950	0.990
	2750	0.933	0.987
	2900	0.917	0.983
	3050	0.900	0.980
	3200	0.883	0.977
	3350	0.867	0.973
	3500	0.850	0.970
	3650	0.833	0.967
	3800	0.817	0.963
	3950	0.800	0.960
	5000	0.700	0.940

Notes Series NRX (IZMX) circuit breakers can be applied at their full voltage and current ratings up to a maximum altitude of 2000 meters above sea level. When installed at higher altitudes, the ratings are subject to correction factors. Short circuit current is not affected as long as the voltage is rated in accordance with the table.

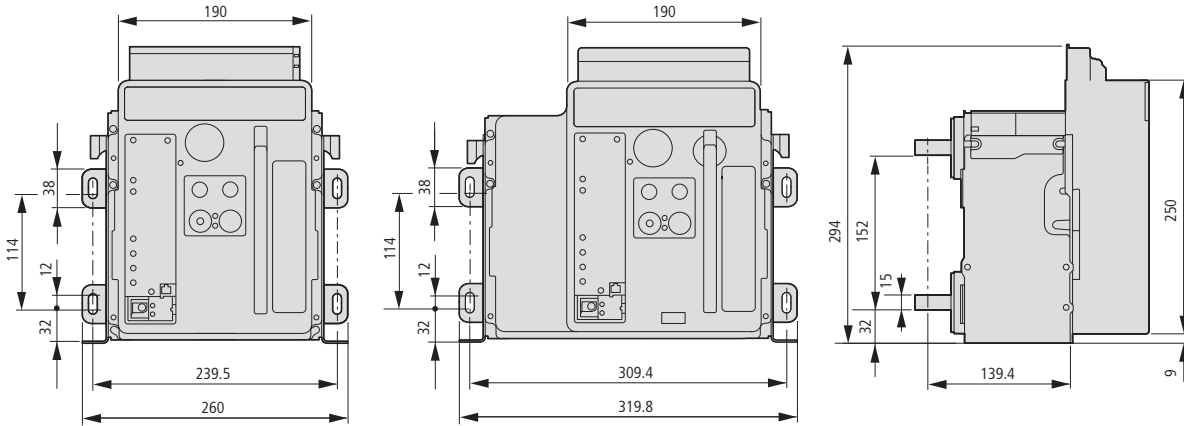
IZMX-PCAM, IZMX-MCAM, IZMX-ECAM

		IZMX-PCAM	IZMX-MCAM	IZMX-ECAM
General				
Dimensions (W x H x D)	mm	24 x 105 x 80	24 x 105 x 80	24 x 105 x 80
Mounting		Auxiliary terminals	Auxiliary terminals	Auxiliary terminals
Protection type		IP20	IP20	IP20
Power supply	V DC	24 V DC	24 V DC	24 V DC
LED display		Status SF BF	Status Transmit Receive	Status
Network				
Ethernet		–	–	RJ45, socket
PROFIBUS		SUB-D 9 pole, socket	–	–
Modbus		–	Plug-in screw terminals	–
Function		Slave	Slave	TCP/IP user
Interfaces		RS485	RS485	Ethernet
Protocol		PROFIBUS-DP	Modbus-RTU	Modbus TCP, http(s), SMTP
Baud Rates		automatic search up to 12 MBit/s	1200/4800/9600/19200 Bit/s, adjustable via Digitrip	automatic search up to 100 MBit/s
Bus terminating resistors		In plug as required	120 Ω, external	–
Bus addresses		1 - 127, can be set via Digitrip	1 - 247, can be set via Digitrip	IP, can be set via Digitrip
Maximum distance		2.4 km	1.2 km	100 m
Supported functions		Cyclical data transfer	Function: 03 = read register 04 = read word variables 08 = connection test 16 = write register	Webserver on board

Dimensions

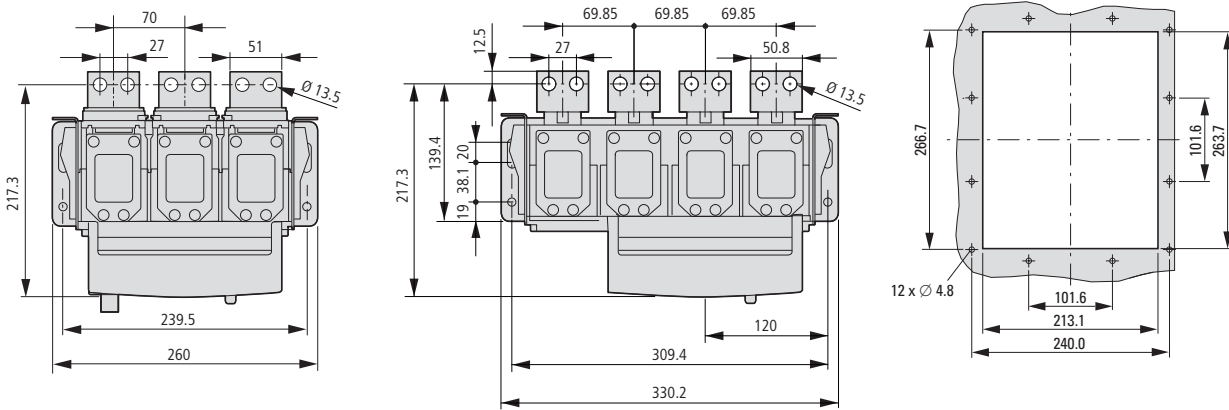
Fixed mounted

IZMX16...F, INX16...F



IZMX16...F, INX16...F

Door cut-out IZMX16 Fixed mounted units

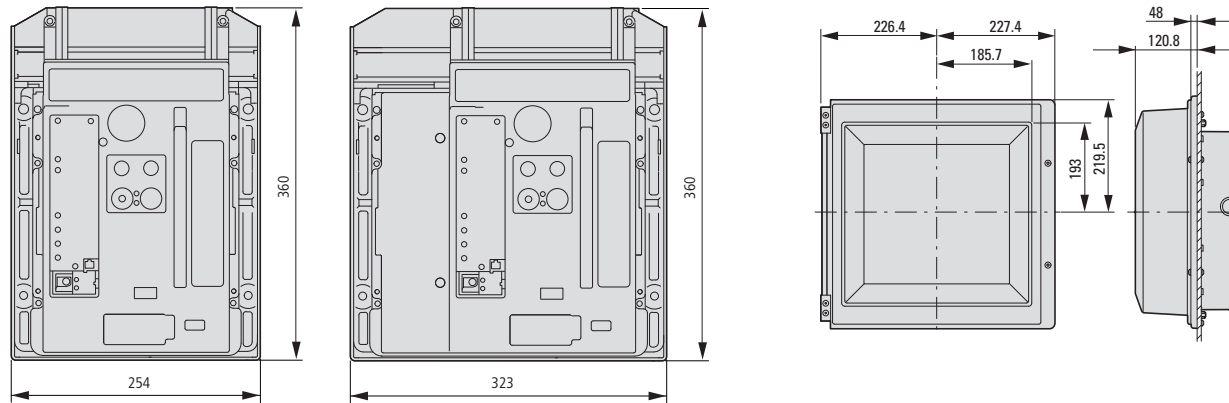


Withdrawable units

IZMX16...W, INX16...W

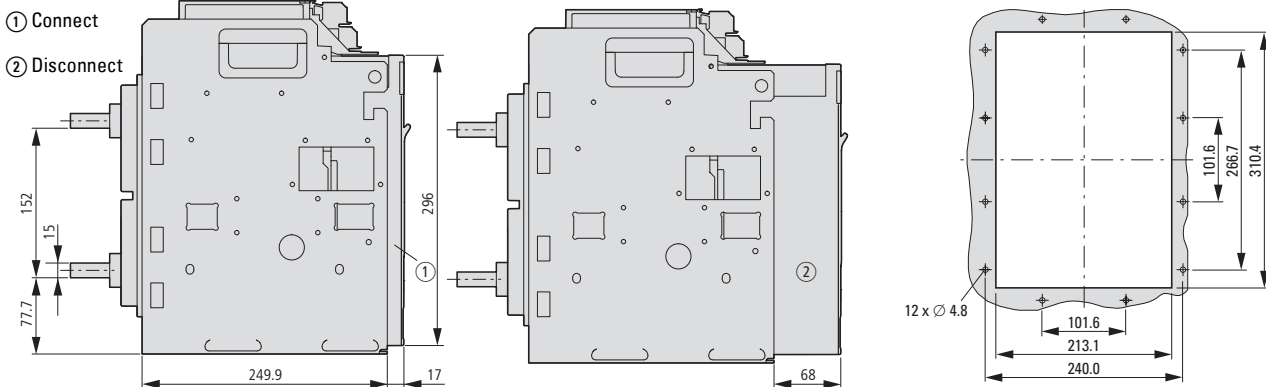
Protective cover

IZMX-DC16...(Door cut-out → next page)



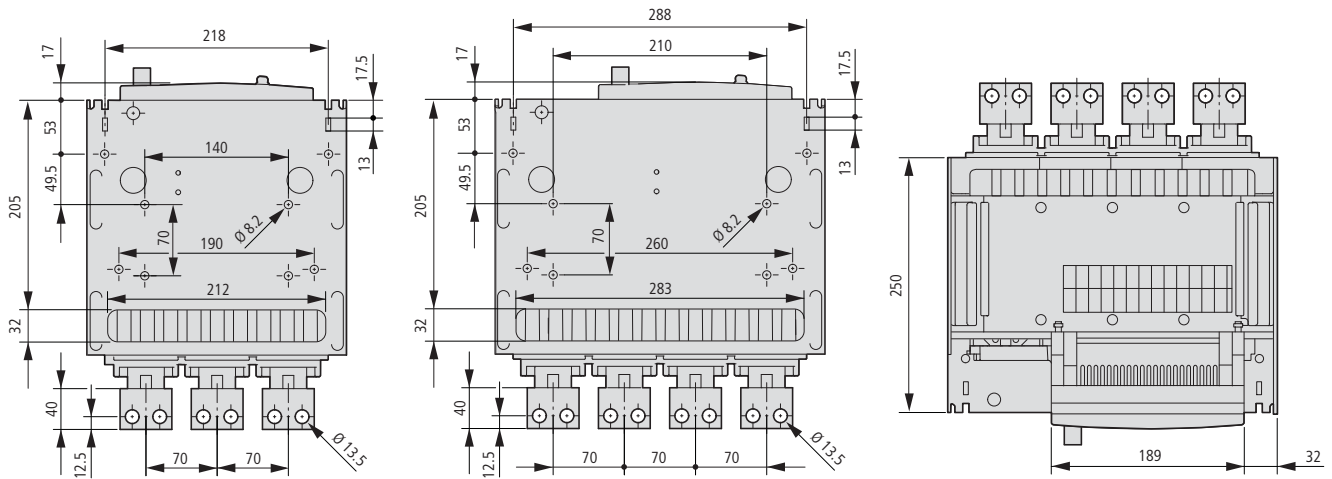
IZMX16...W, INX16...W

Door cut-out IZMX16 Withdrawable units



Withdrawable units

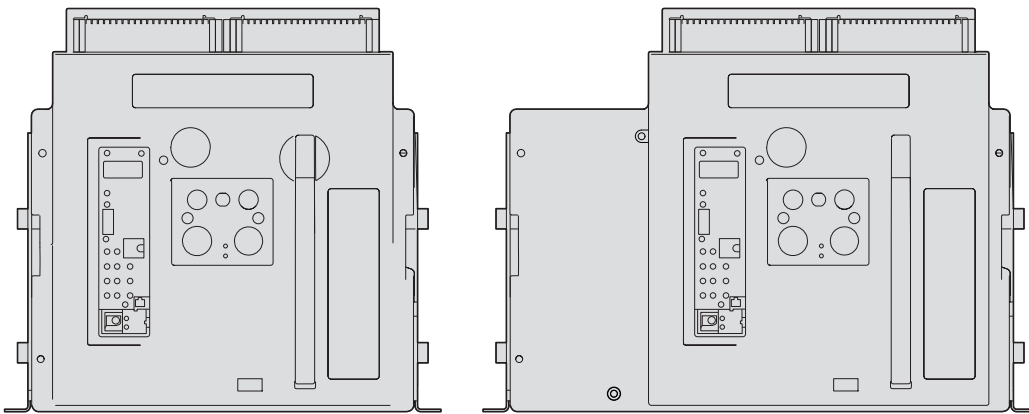
IZMX16...W, INX16...W



Further dimension drawings are available under following link:
http://ftp.moeller.net/CIRCUIT_BREAKER/

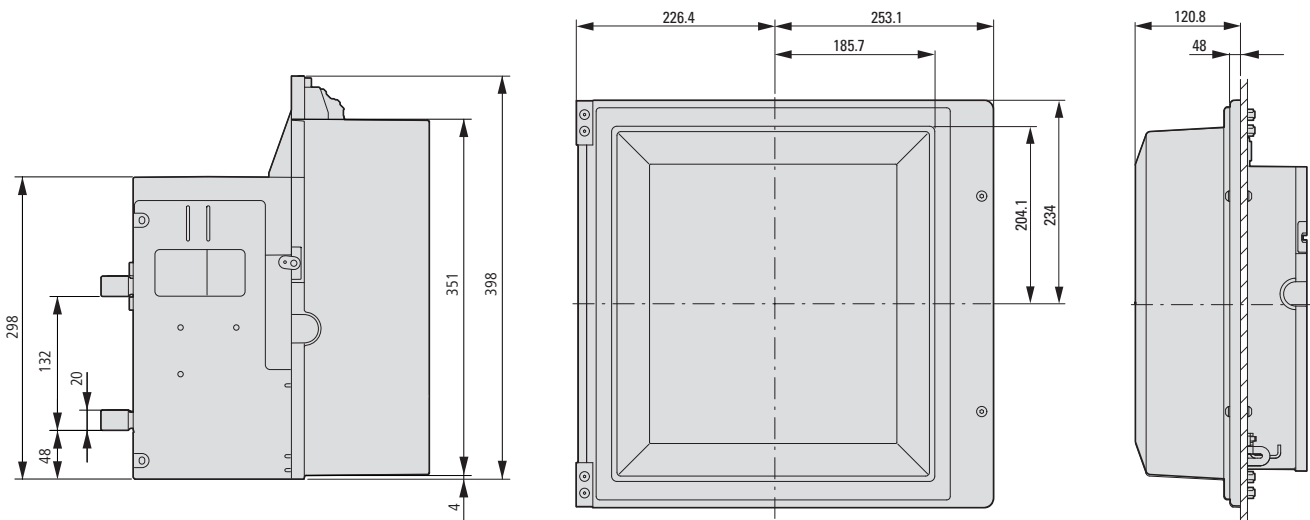
Fixed mounted

IZMX40...F, INX40...F



IZMX40...F, INX40...F

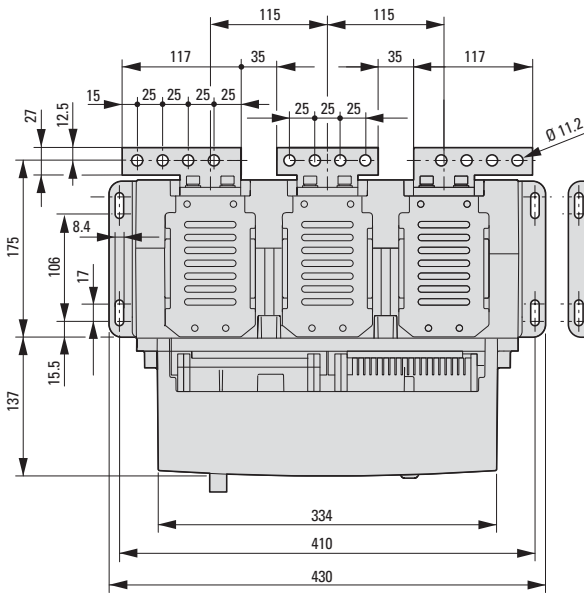
Protective cover IZMX-DC40...



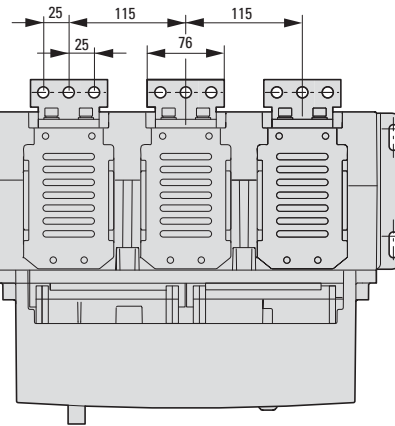
Fixed mounted

IZMX40...F, INX40...F

Terminals 4000 A

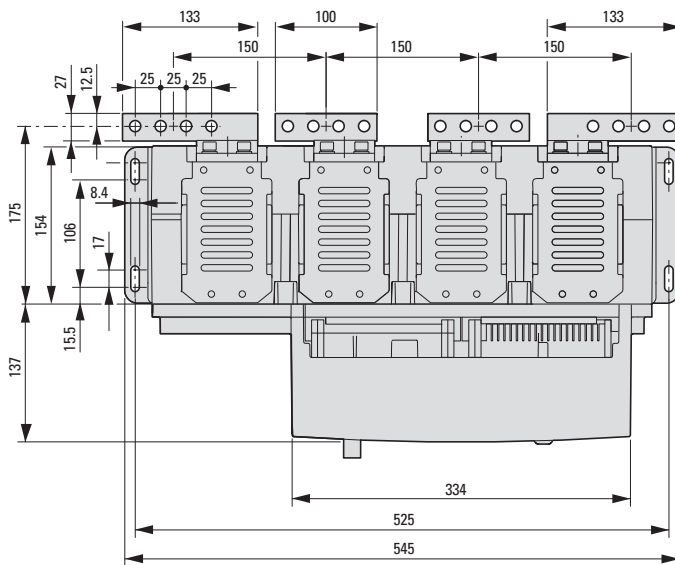


Terminals 3200 A

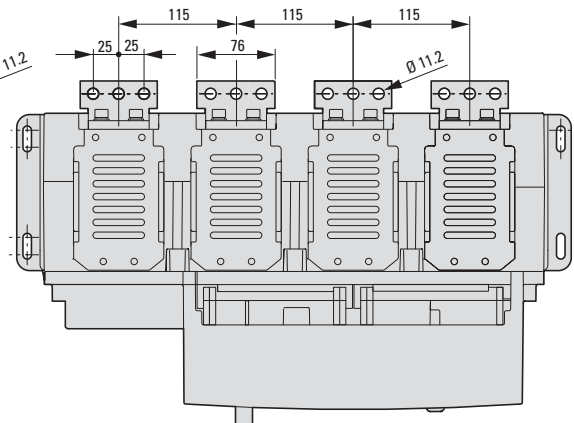


IZMX40...F, INX40...F

Terminals 4000 A

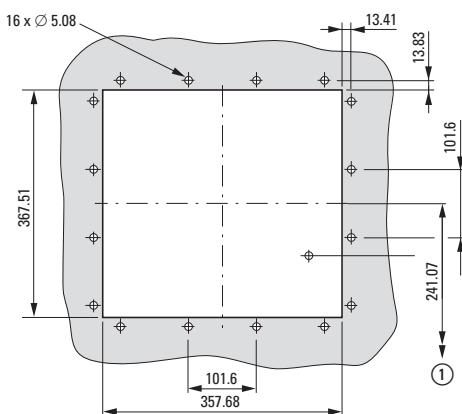


Terminals 3200 A

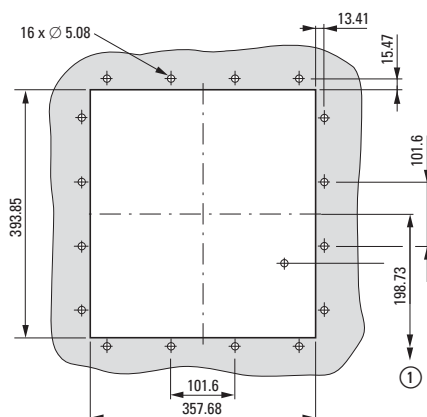


Door cut-out IZMX40

Fixed mounted units



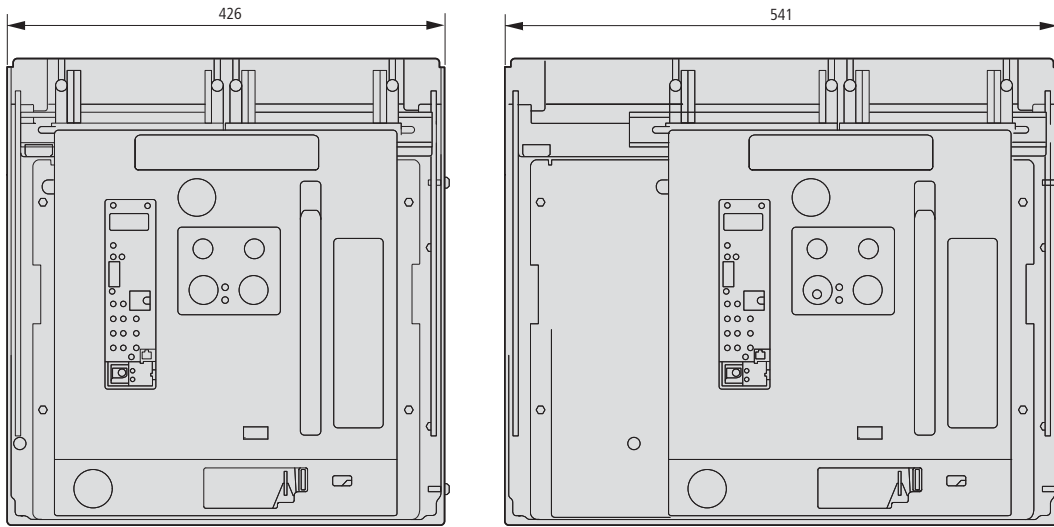
Withdrawable units



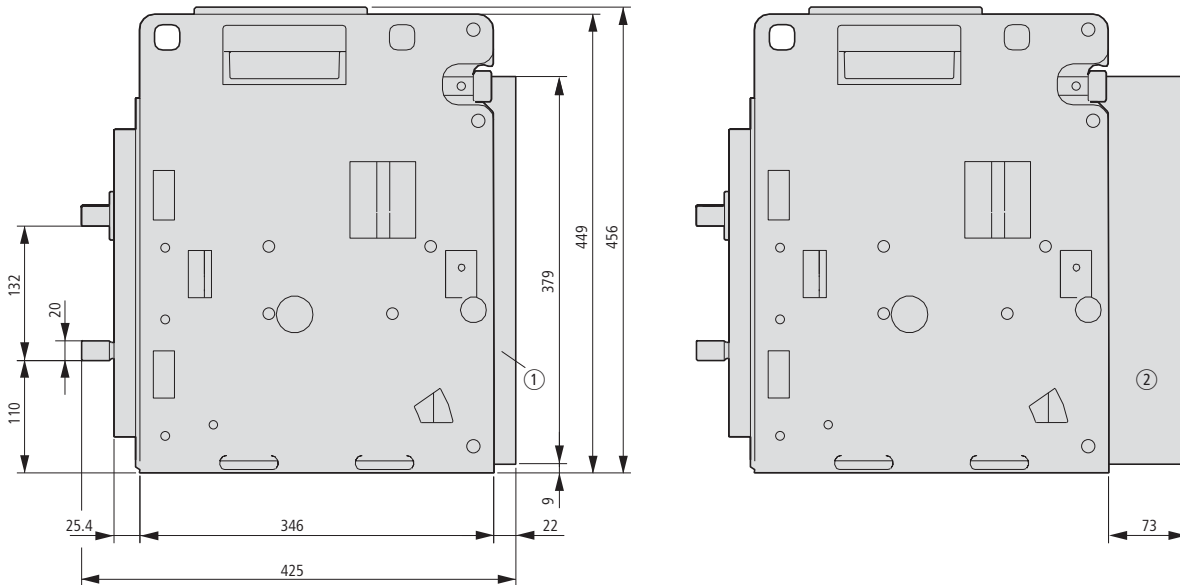
① Top edge of mounting plate

Withdrawable units

IZMX40...W, INX40...W

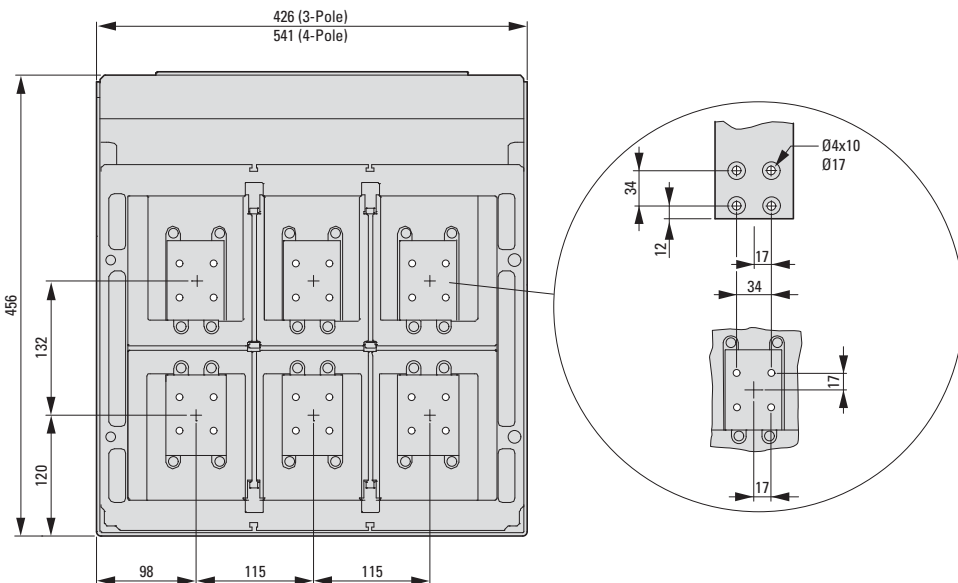


IZMX40...W, INX40...W



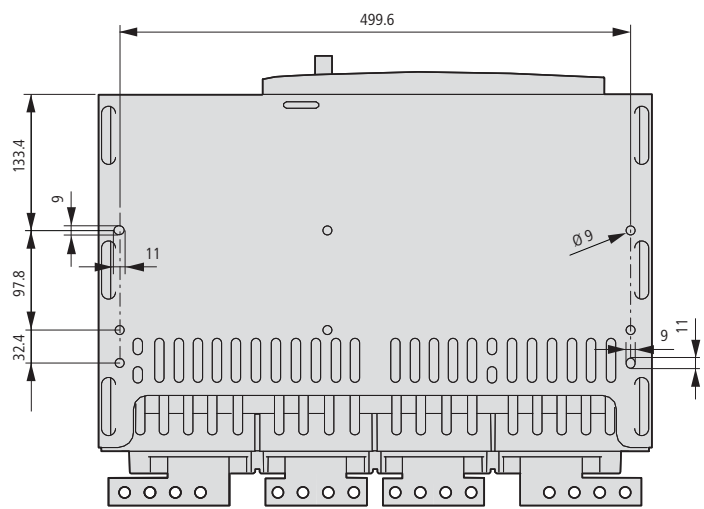
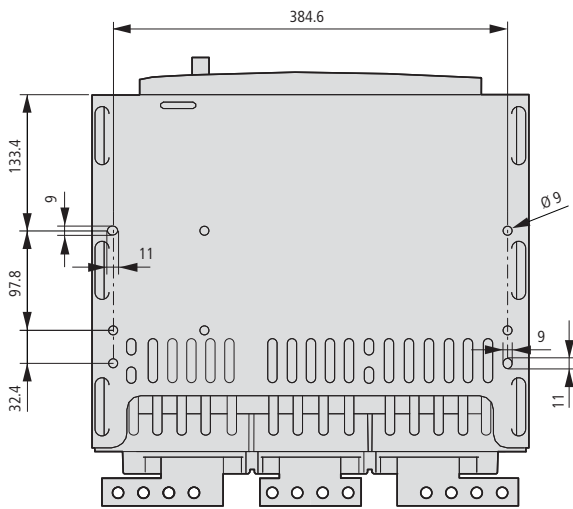
① Connect

② Disconnect



Withdrawable units

IZMX40...W, INX40...W
Mounting

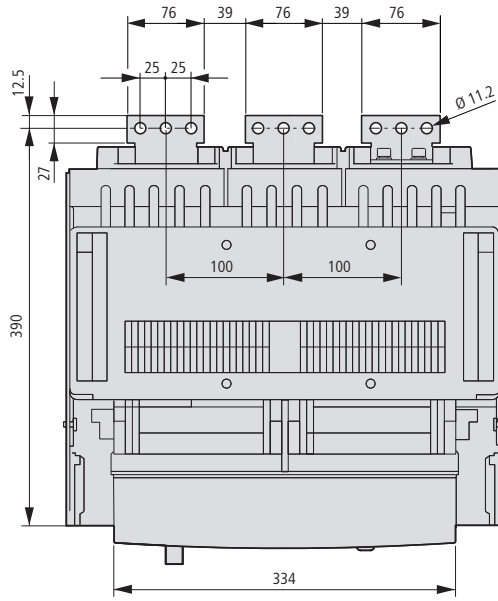
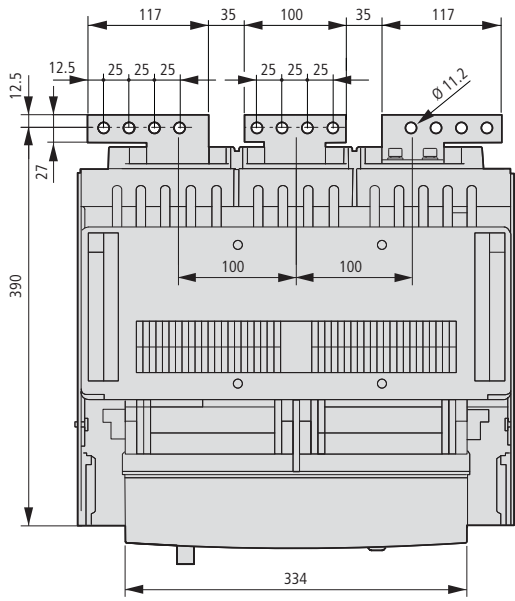


Withdrawable units

IZMX40...W, INX40...W

Terminals 4000 A

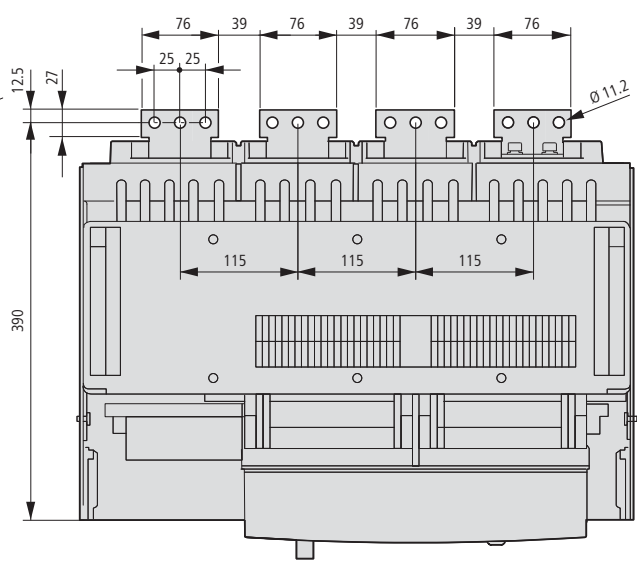
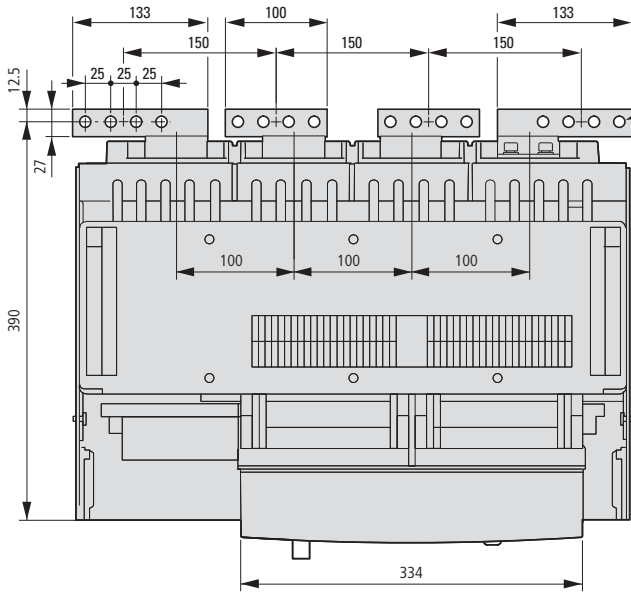
Terminals 3200 A



IZMX40...W, INX40...W

Terminals 4000 A

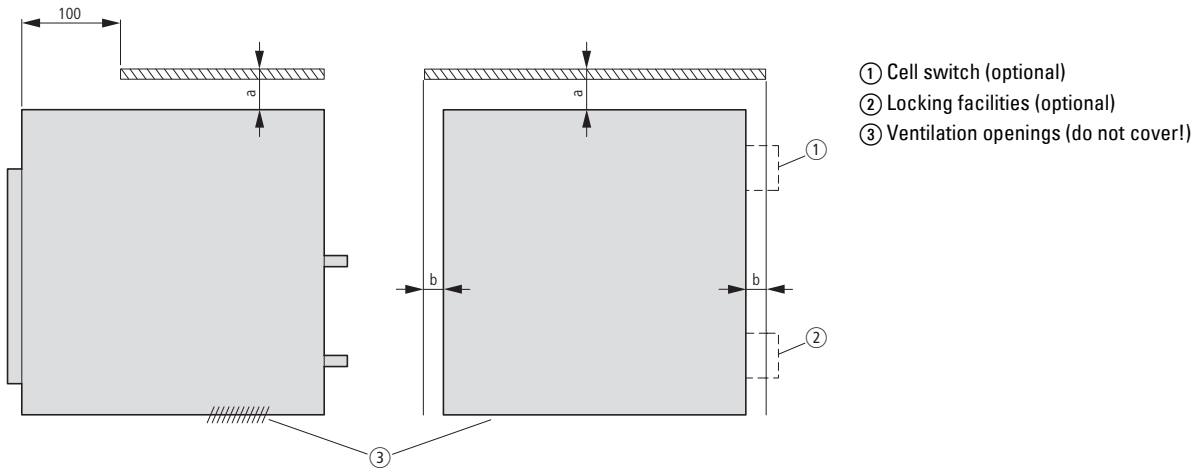
Terminals 3200 A



Further dimension drawings are available under following link:
ftp://ftp.moeller.net/CIRCUIT_BREAKER/

Recommended safety clearances

The following information about safety distances is intended to provide a guideline for the installation of circuit-breakers in an enclosure.



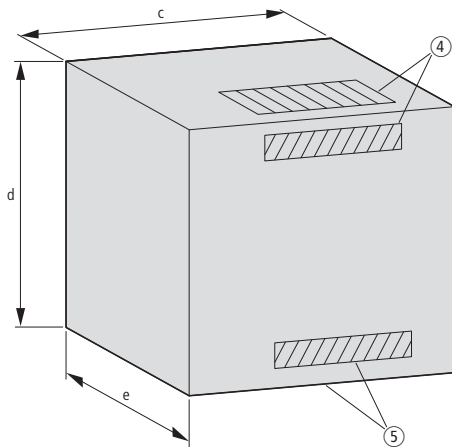
Enclosure clearance		To insulated surface	To grounded metal surface	With cell switch or locking facilities
		mm	mm	mm
Withdrawable units	a	0	0	0
	b	25	25	25/75
Fixed mounted	a	150	250	–
	b	30	70	–

Recommended enclosure clearance and ventilation

The illustration shows a typical enclosure.

The table below lists the associated minimum distances between enclosures and ventilation openings.

This information is intended as a guideline for constructing a suitable circuit-breaker enclosure. Ensure the integration complies with IEC 61439.

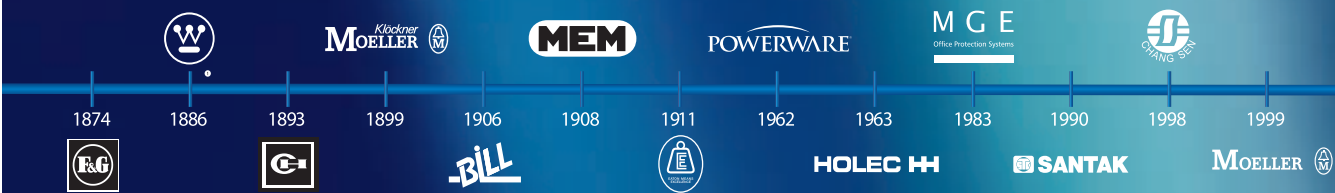


Width c	Width of cassette + 75 mm
Height d	550 mm
Depth e	450 mm (front control panel bay)
Ventilation holes	160 cm ² (800 - 3200 A) } Top and bottom 320 cm ² (4000 A)

- ④ Top or rear vent
- ⑤ Rear or lower vent

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