Circuit-breaker – **Series NRX, IZMX16, IZMX40**

Small, flexible, efficient.

Circuit-breaker – Series NRX IZMX16, IZMX40

EATON
Powering Business Worldwide

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

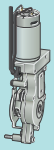
Eaton's NRX series is a new line of circuit-breakers up to 4000 A. Engineering and mounting requirements are reduced thanks to only two compact sizes, the modular design and standard accessories. The highlight of the NRX series: The Digitrip 1150 P trip electronics. It covers all possible applications. 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.

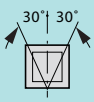
NRX Series
Rated operational current from 630 to 4000 A, switching capacity 440 V AC, $I_{cu} = I_{cs}$ from 42 to 105 kA, 3 or 4 pole, fixed mounted or withdrawable, electronic releases for system protection, selective, universal protection, professional protection.

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


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.

Aerospace

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.

Truck

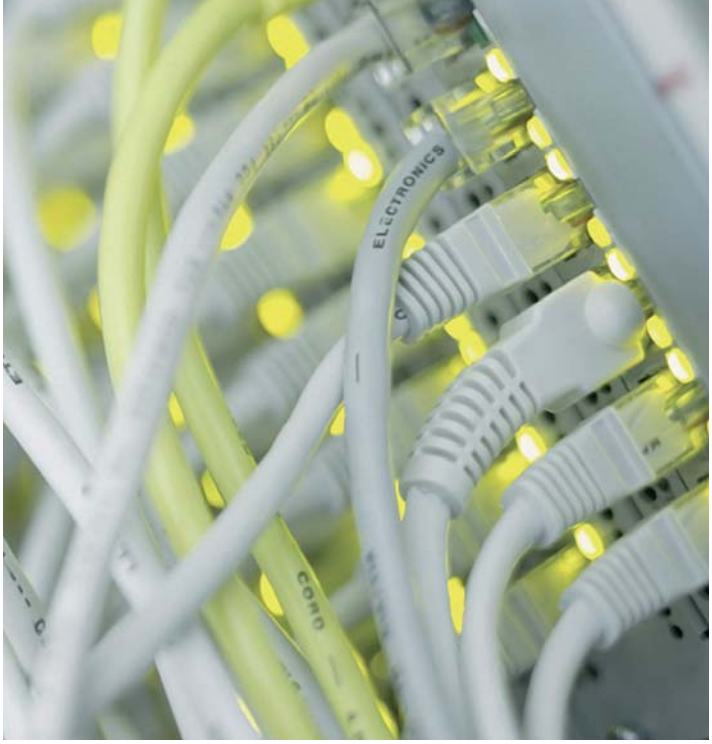
A leader in the design, manufacture and marketing of complete line of drivetrain systems and components for medium- and heavy-duty commercial vehicles. Under the "Roadranger" brand, Eaton also markets lubricants, safety products and service tools. Eaton's hybrid power systems have earned the company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

Electrical

A global leader in electrical control, power distribution, uninterruptible power supply and industrial automation products and services. Our products provide customer-driven PowerChain Management® solutions to serve the power system needs of the industrial, institutional, government, utility, commercial, residential, IT, mission critical and OEM markets worldwide.

EATON

Powering Business Worldwide



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.

In the App Store from
June 2011

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

The Eaton online catalogue

THE PRODUCT GROUP TREE

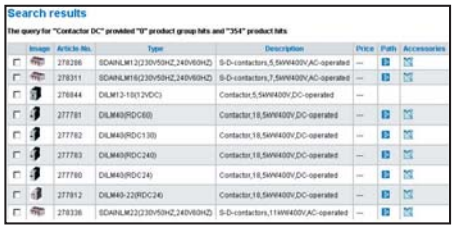
- Information
- Control circuit devices
- (Safety) position switches/sensors
- Pressure switches
- Cam switches, switch-disconnectors up to 315 A
- Timing and measuring relays
- Safety relays, safety control relays
- Control relays, multi-function-display
- Touch panel, PLC, I/O expansion
- Contactors
- 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.

THE SEARCH

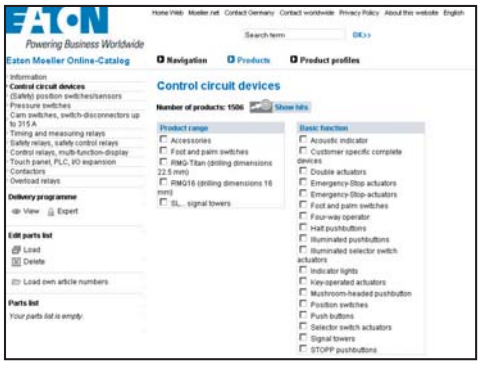
Contactor
- adapter for contactor
- amplifier module for contactor
- auxiliary contactor
- auxiliary contactor relay
- bridge for contactor
- cable terminal block for contactor
- capacitor contactor
- coil for contactor
- connector for contactor
- contactor
- contactor accessories
- contactor amplifier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

SELECTION AIDS



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!

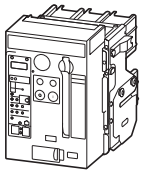
The catalogue portal is the entry page to the Online Catalogue. Important elements include the powerful search function and the graphical navigation. The clearly designed user interface makes the application particularly easy to use.

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

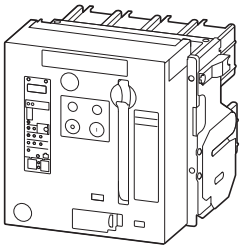
Switching capacity

IZMX16, INX16, IZMX40, INX40

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
Circuit-breaker, switch-disconnector	Rated operational current I_n A	I_{cw} kA	I_{cw} kA	I_{cw} kA
IZMX16				
NF-Frame	630 - 1600	42	42	42
IZMX40				
RF-Frame	800 - 4000	66	75	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
Switch-disconnectors Series NRX	Rated operational current I_n A	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

Type Code for Eaton IEC-ACB global (non-EMEA)

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

Basic Device Selection
Postion 1-8

	Position 1 - Breaker Frame Size
N	Type NF 630 to 1600 A
R	Type RF 800 to 4000 A

	Position 2 - Industry Standard
E	IEC 60947-2

	Position 3, 4 - Switching Capacity at 440 V AC (IEC)
S4	42 kA
S5	65 kA
S6	65/66 kA
S8	85 kA
SC	105 kA

	Position 5, 6 - Rated Operational Current
07	630 A Frame
08	800 A Frame
10	1000 A Frame
13	1250 A Frame
16	1600 A Frame
20	2000 A Frame
25	2500 A Frame
32	3200 A Frame
40	4000 A Frame

	Position 7 - Poles & Phasing
3	3-Pole ABC
4	4-Pole NABC

	Position 8 - Mounting Configuration
B	Fixed
W	Withdrawable

Overcurrent Protection, Rating Plug Selection

	Position 9, 10	**Electronic Trip Unit Selection Position** Protection	ZSI	ARMS
	No Protection - Switch Disconnector			
SW		None		
	Digitrip 520 - System Protection			
22	LI protection only	LI		
	Digitrip 520 - Selective Protection			
52	LSI (G)	LSI	–	
53	- ZSI Optional	LSI	ZSI	
5G		LSIG	–	
5H		LSIG	ZSI	
	Digitrip 520M - Universal Protection			
M2		LSI	–	–
M3	LSI(G/A)	LSI	ZSI	–
MA	- Metering LSIA	LSIA	–	–
MB	- Communications Ready - Ext. Power Ready 24V DC	LSIA	ZSI	–
MG	- ZSI Optional	LSIG	–	–
MH	- ARMS Optional	LSIG	ZSI	–
R2		LSI	–	ARMS
R3		LSI	ZSI	ARMS
RA		LSIA	–	ARMS
RB		LSIA	ZSI	ARMS
RG		LSIG	–	ARMS
RH		LSIG	ZSI	ARMS
	Digitrip 1150i - Power Measurement			
12	520M Protection + LCD Color Display Advanced metering & protective features	LSI	–	–
13		LSI	ZSI	–
14		LSIGA	–	–
15		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

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

Options & Accessories
Postion 9-20

	Position 12 - Shunt Trip
N	No Shunt Trip
A	110-127 V AC/DC
R	208-240 V AC/DC
L	24 V DC
H	48 V DC
S	60 V DC

	Position 13 - Motor Operator
M	Manually Operated
B	110-125 V AC/DC
T	208-250 V AC/DC
L	24 V DC
H	48 V DC
S	60 V DC

	Position 14 Spring Release	Latch Check Switch
N	No Spring Release	No LCS
A	110-127 V AC/DC	No LCS
B	110-127 V AC/DC	Spring Release LCS
C	110-127 V AC/DC	LCS Wired External
R	208-240 V AC/DC	No LCS
S	208-240 V AC/DC	Spring Release LCS
T	208-240 V AC/DC	LCS Wired External
L	24 V DC	No LCS
P	24 V DC	Spring Release LCS
Q	24 V DC	LCS Wired External
H	48 V DC	No LCS
J	48 V DC	Spring Release LCS
K	48 V DC	LCS Wired External
1	60 V DC	No LCS
2	60 V DC	Spring Release LCS
3	60 V DC	LCS Wired External

	Position 15 - UVR / Second Shunt Trip
N	None
A	110-125 V AC/DC UVR
R	220-250 V AC/DC UVR
L	24 V DC UVR
H	48 V DC UVR
S	60 V DC UVR
1	110-127 V AC/DC Second Shunt Trip
2	208-240 V AC/DC Second Shunt Trip
4	24 V DC Second Shunt Trip
8	48 V DC Second Shunt Trip
9	60 V DC Second Shunt Trip

	Position 16 - Auxiliary Switches
N	No Aux Switches
2	2 Form C
4	4 Form C
6	6 Form C
8	8 Form C
A	10 Form C
W	12 Form C

Position 17

	Trip Indicator	Bell Alarm/OTS	Secondary Terminal Blocks	Remote Reset
N	None	None	Per Breaker Options	–
X	Trip Indicator	None	Per Breaker Options	–
Z	Trip Indicator	2 Form C	Per Breaker Options	–
M	Interlock Trip Indicator	None	Per Breaker Options	–
A	Interlock Trip Indicator	None	Per Breaker Options	24 V AC
B	Interlock Trip Indicator	None	Per Breaker Options	120 V AC
C	Interlock Trip Indicator	None	Per Breaker Options	240 V AC
Y	Interlock Trip Indicator	2 Form C	Per Breaker Options	–
D	Interlock Trip Indicator	2 Form C	Per Breaker Options	24 V RR
E	Interlock Trip Indicator	2 Form C	Per Breaker Options	120 V RR
F	Interlock Trip Indicator	2 Form C	Per Breaker Options	240 V RR
1	None	None	Full-Compliment	–
2	Trip Indicator	None	Full-Compliment	–
3	Trip Indicator	2 Form C	Full-Compliment	–
4	Interlock Trip Indicator	No OTS	Full-Compliment	–
J	Interlock Trip Indicator	No OTS	Full-Compliment	24 V RR
K	Interlock Trip Indicator	No OTS	Full-Compliment	120 V RR
L	Interlock Trip Indicator	No OTS	Full-Compliment	240 V RR
S	Interlock Trip Indicator	2 Form C	Full-Compliment	–
R	Interlock Trip Indicator	2 Form C	Full-Compliment	24 V RR
S	Interlock Trip Indicator	2 Form C	Full-Compliment	120 V RR
T	Interlock Trip Indicator	2 Form C	Full-Compliment	240 V RR

	Position 18 - PadLocking, Operations Counter	
N	No PB Covers	No Counter
A	No PB Covers	Counter Provided
B	PB Covers (plastic/plastic)	No Counter
J	PB Covers (plastic/plastic)	Counter Provided
K	PB Covers (metal/metal)	No Counter
L	PB Covers (metal/metal)	Counter Provided
5	PB Covers (metal/metal), Safe-Off	No Counter
6	PB Covers (metal/metal), Safe-Off	Counter Provided

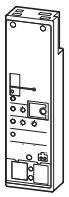
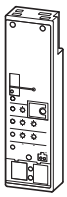
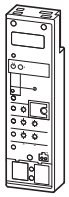
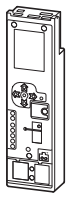
	Position 19 - Drawout Breaker Options Breaker configuration	Shutters	Terminal Adapters
D	Drawout Breaker Shipping Alone	n/a	None
C	Drawout Breaker in Cassette	None	No Terminals
1	Drawout Breaker in Cassette	None	Vertical
2	Drawout Breaker in Cassette	None	Horizontal
8	Drawout Breaker in Cassette	None	Front Connect
9	Drawout Breaker in Cassette	Shutters	No Terminals
4	Drawout Breaker in Cassette	Shutters	Vertical
5	Drawout Breaker in Cassette	Shutters	Horizontal
7	Drawout Breaker in Cassette	Shutters	Front Connect

	Position 19 - Fixed-Mount - Terminal Adapater Options
K	None (Terminals recomended for 4000A frame)
F	Vertical
H	Horizontal
B	Front Connect

	Position 20
X	Future

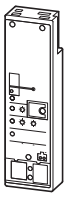
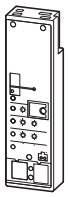
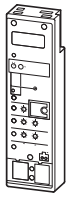
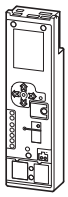
Electronic releases

IZMX16, INX16, IZMX40, INX40

			Standard protection	Standard plus selectivity	Universal protection	Professional protection
						
Type Coding			Digitrip 520 LI IZMX-DT**A**	Digitrip 520 LSI IZMX-DT**V**	Digitrip 520M LSI IZMX-DT**U**	Digitrip 1150i LSI IZMX-DT**P**
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) x I_n	(0.5 - 1.0) x I_n	(0.5 - 1.0) x I_n	(0.5 - 1.0) x I_n
Long delay time at 6 x I_r (I^2t Curve)	t_r		2 - 24 s	2 - 24 s	2 - 24 s	2 - 24 s
Long delay time at 6 x I_r (I^4t Curve)	t_r		–	–	–	1 - 5 s
IEC Type A, B, C curves	–		–	–	–	●
High load alarm	–		–	–	●[2]	Off, 0.5 - 1.0 x I_r
Thermal memory (enable / disable)	–		●	●	●	●
Short-time delayed Short-circuit protection		**S**				
Short delayed pickup short-circuit protection	I_{SD}		–	(2 - 10) x I_r	(2 - 10) x I_r	(2 - 10) x I_r
Short delay time at 8 x 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) x I_n	(2 - 12) x I_n	(2 - 12) x I_n	(2 - 12) x 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	Ig		–	(0.25 - 1.0) x I_n[3]	(0.25 - 1.0) x I_n[3]	(0.24 - 1.0) x I_n
Short delay time at 0.625 x I_n (I^2t curve)	tg		–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Short delay time, flat characteristic curve	tg		–	100 - 500 ms	100 - 500 ms	100 - 500 ms
Zone selectivity ZSI	–		–	○	○	○
Thermal memory	–		–	●	●	●
Disable ground fault protection	–		–	–	–	●
Neutral protection		**N**	●	●	●	●

Notes

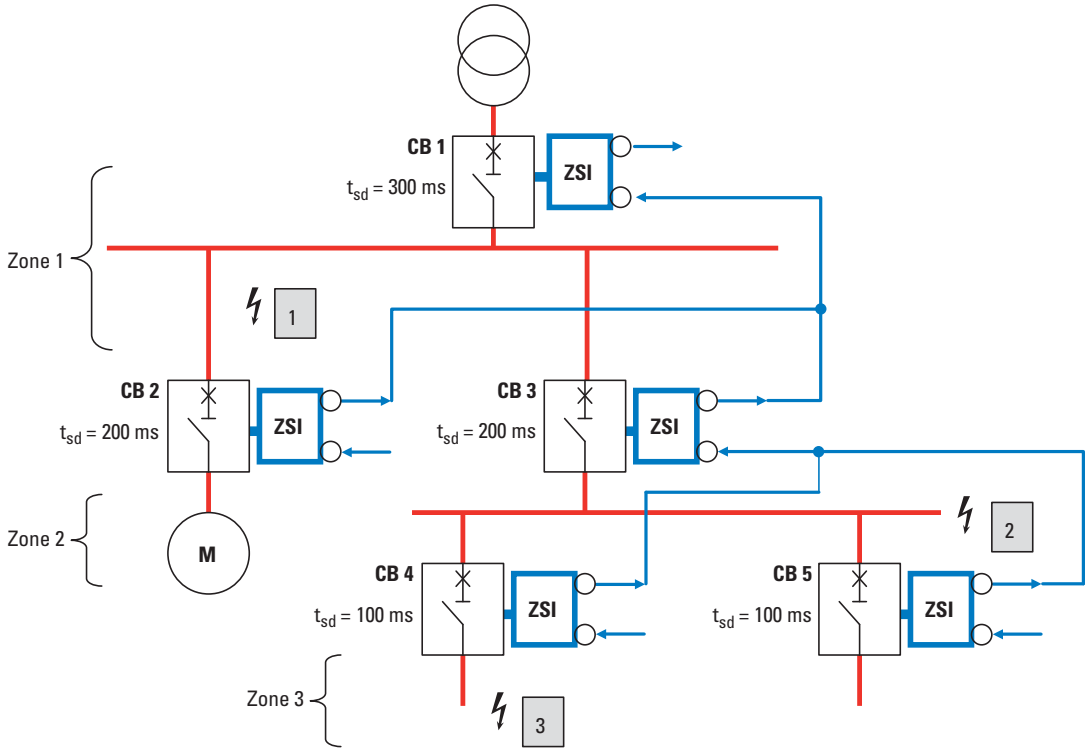
I_n = rating plug (rate current module) = rated operational current transformer
I_r = Set value overload trip (= rated operational current of system)
[1] Requires external 24 V DC control voltage supply.
[2] High load alarm available only on LSI styles, active at 85% of I_r
[3] Limited to 1200 A
[4] 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

	Standard protection	Standard plus selectivity	Universal protection	Professional protection
				
Type Coding	Digitrip 520 LI IZMX-DT**A**	Digitrip 520 LSI IZMX-DT**V**	Digitrip 520M LSI IZMX-DT**U**	Digitrip 1150i LSI IZMX-DT**P**
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	–	–	–	●
Reative 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 funtions				
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



CB = **C**ircuit **B**reaker
ZSI = **Z**one **S**elective **I**nterlocking

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 the its short delay time CB3 will open and interrupt the fault.

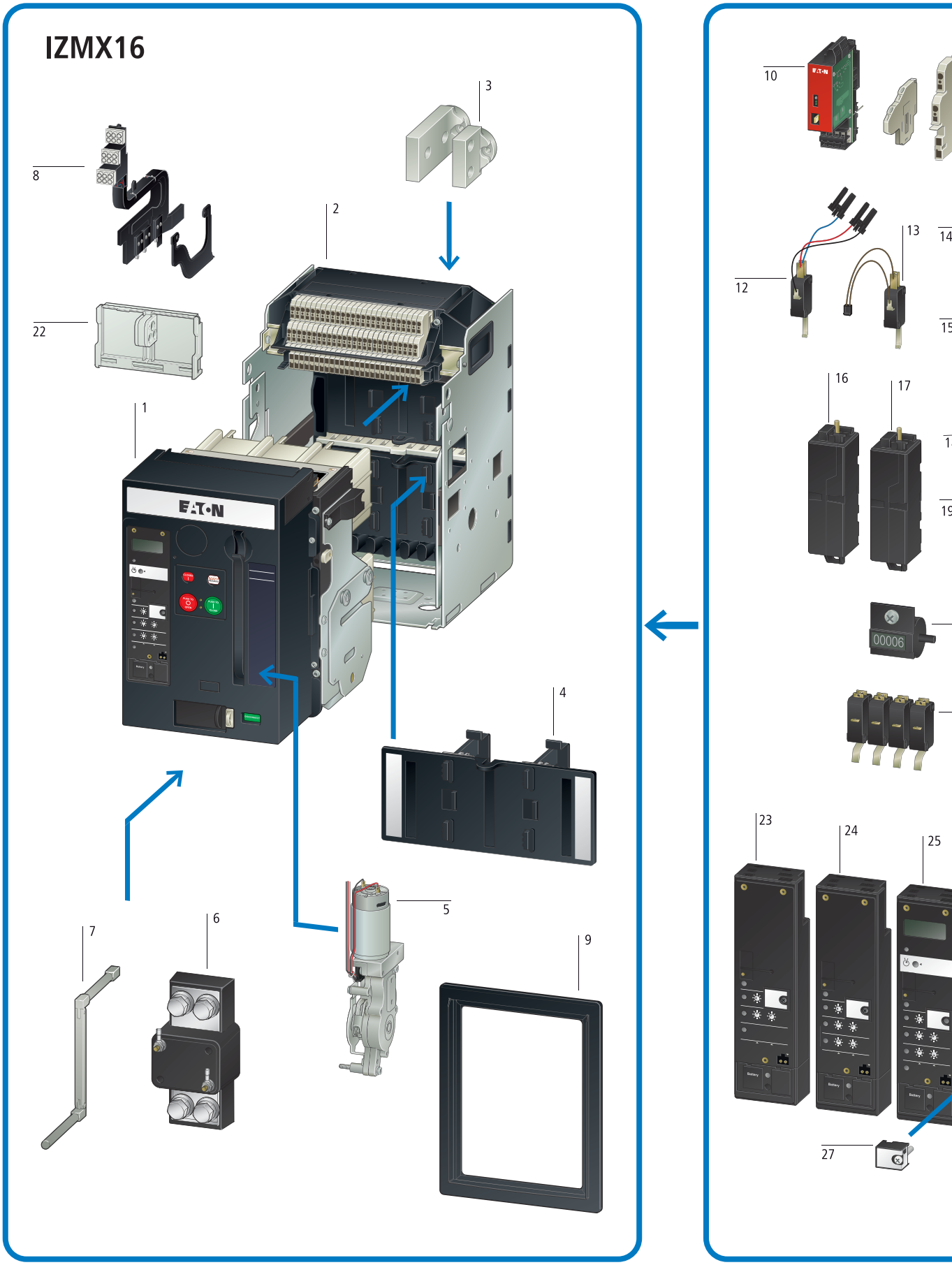
Example B – Short-circuit at position 2

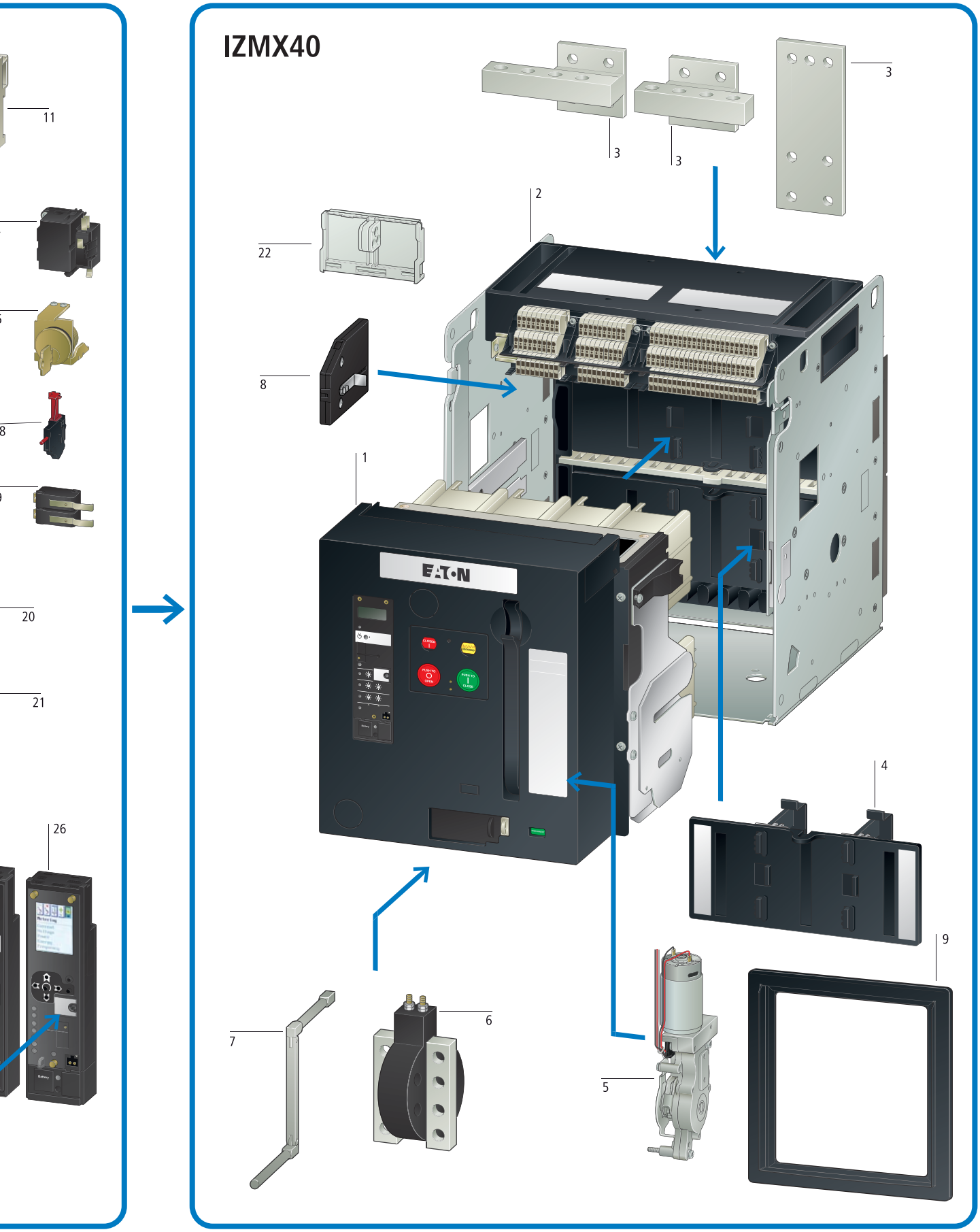
- Circuit-breakers CB1, CB3, see the short circuit current and register a short delay pick-up. CB4 and CB5 do not see the fault current and do not send a ZSI output.
- Circuit breaker CB3 sends a ZSI output blocking signal to CB1 ZSI input. CB1 sends a ZSI output signal. In this example that signal is 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 CB1sees 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




IZMX40
11
26
20
21
3
3
3
2
22
8
1
4
9
7
6
5

IZMX16, INX16, IZMX40, INX40

IZMX Circuit-breaker 1
IZMX16: 630 - 1600 A
IZMX40: 2000 - 4000 A
→ page 15

Cassette for withdrawable units 2
With and without control circuit terminals
→ page 35

Main terminal sets 3
Universal terminals, 3- and 4-pole
horizontal/vertical
→ page 52

Cassette safety shutters 4
Shutter for 3- and 4-pole
→ page 36

Motor operator 5
Automatic charging of the spring force storage for remote or local operations
→ page 45

Current sensor for neutral conductor 6
Current sensor for sensing the neutral-conductor-current.
→ page 44

Levering tool 7
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 53

Position cell switches 8
Cell switch signals the position of the breaker inside of the cassette. Connect, Test and Disconnect Position.
→ page 36

Door escutcheon 9
Closes the gap between Breaker and Switchgear-door. IP41.
→ page 51

Communication modules 10
Profibus DP, Modbus, Ethernet
→ page 41

Control circuit terminal units 11
Either 8, 20 or 30 units
→ page 52

Latch check switch 12
For use with closing release.
→ page 47

Latch check switch 13
For external application usage.
→ page 47

Closing releases 14
Closes the breaker by an electrical signal.
→ page 47

Key locking 15
Locking of the breaker by a keylock.
→ page 50

Shunt releases 16
Opens the breaker by an electrical signal.
→ page 46

Undervoltage releases 17
Opens the breaker by a voltage-drop in the control-circuit.
→ page 48

Red-pop trip indicator 18
Red-pop trip indicator signals a trip of the breaker by the trip unit.
→ page 49

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

Auxiliary contacts 21
Signalling switch ON-OFF
→ page 48

Locking facilities 22
Padlockable plastic or metal front covers for ON-OFF pushbuttons.
→ page 50

Spare trip unit 23
Digitrip 520; A-type
→ page 38

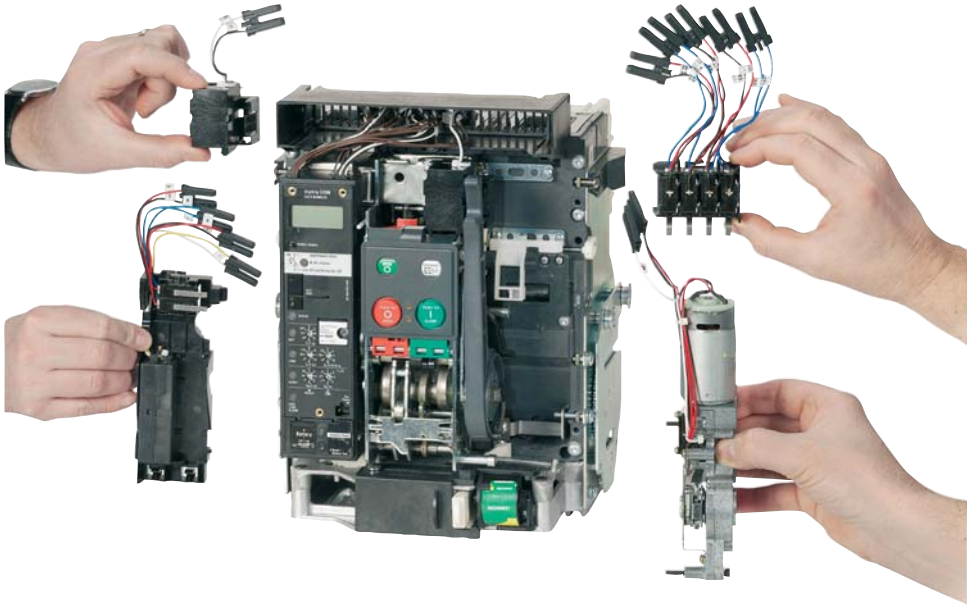
Spare trip unit 24
Digitrip 520LSI; V-type
→ page 38

Spare trip unit 25
Digitrip 520M; U-type
→ page 39

Spare trip unit 26
Digitrip 1150i; P-type
→ page 40

Rating plug 27
Reduces the Rated Current of the breaker.
→ page 42

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 fitted 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 (withrawable 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.

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 is 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.

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

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.

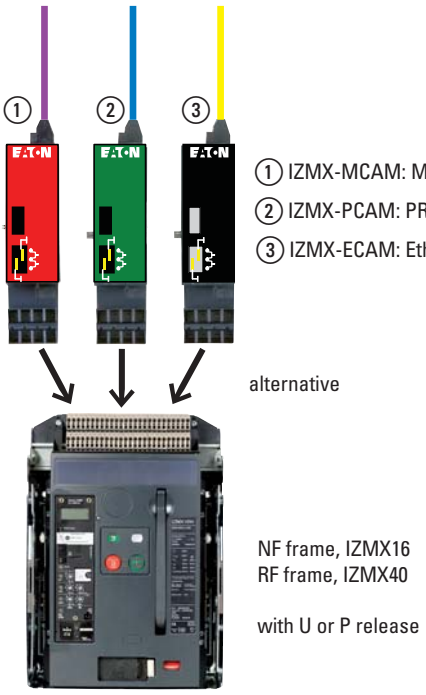
Communication Options for Series NRX

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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
			Delayed	Non-delayed	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
I_{cu}/I_{cs}	$I_n = I_u$	I_r							
kA/kA	A	A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
									
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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r			Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
kA/kA	A	A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
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			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			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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
kA/kA	A	A							

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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r			Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
kA/kA	A	A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
kA/kA	A	A							

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			NES5073BM27NMNN2MNKX **IZMX16N3-U06F** 123376		NES5073WM27NMNN2MNDX **IZMX16N3-U06W** 123109		1
	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			NES6073BM27NMNN2MNKX **IZMX16H3-U06F** 123411		NES6073WM27NMNN2MNDX **IZMX16H3-U06W** 123151		1
	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	Rated current	Setting range			Fixed		Withdrawable Cassettes need to be ordered separately.		
		Overload releases	Short-circuit releases						
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
kA/kA	A	A							
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	Rated current	**Setting range** Overload releases	Short-circuit releases		**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		
			Delayed	Non-delayed					
I_{cu}/I_{cs}	$I_n = I_u$	I_r	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
kA/kA	A	A							
			I>	I>					
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** 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
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	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
			I>	I>					
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			RES6203B22MNMNN2MNKX **IZMX40B3-A20F** 149425		RES6203W22MNMNN2MNDX **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			RES8203B22MNMNN2MNKX **IZMX40N3-A20F** 149697		RES8203W22MNMNN2MNDX **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			RESC203B22MNMNN2MNKX **IZMX40H3-A20F** 149729		RESC203W22MNMNN2MNDX **IZMX40H3-A20W** 149825		1

Switching capacity	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**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
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
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			RESC323B22QNMNN2MNKX **IZMX40H3-A32F** 149731		RESC323W22QNMNN2MNDX **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			RES6204B22MNMNN2MNKX **IZMX40B4-A20F** 149857		RES6204W22MNMNN2MNDX **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			RES8204B22MNMNN2MNKX **IZMX40N4-A20F** 149889		RES8204W22MNMNN2MNDX **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

Switching capacity	Rated current	Setting range: Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	Fixed: Cat. No. / Part no. / Article no.	Fixed: Price see price list	Withdrawable (Cassettes need to be ordered separately.): Cat. No. / Part no. / Article no.	Withdrawable: Price see price list	Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
Circuit-breaker for system protection									
Main Terminals are not included, need to be selected separately.									
4 pole									
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
Circuit-breaker for selective operation									
Main Terminals are not included, need to be selected separately.									
3 pole									
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	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
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			RES8253B52NNMNN2MNKX **IZMX40N3-V25F** 149706		RES8253W52NNMNN2MNDX **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			RESC253B52NNMNN2MNKX **IZMX40H3-V25F** 149738		RESC253W52NNMNN2MNDX **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			RES6254B52NNMNN2MNKX **IZMX40B4-V25F** 149866		RES6254W52NNMNN2MNDX **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

Switching capacity	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**	**Price** see price list	**Withdrawable** Cassettes need to be ordered separately.	**Price** see price list	Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.		Cat. No. **Part no.** Article no.		
			I>	I>					
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** 149989		1
	1000	500 - 1000			RES8104B52ANMNN2MNKX **IZMX40N4-V10F** 149894		RES8104W52ANMNN2MNDX **IZMX40N4-V10W** 149990		1
	1250	625 - 1250			RES8134B52CNMNN2MNKX **IZMX40N4-V12F** 149895		RES8134W52CNMNN2MNDX **IZMX40N4-V12W** 149991		1
	1600	800 - 1600			RES8164B52DNMNN2MNKX **IZMX40N4-V16F** 149896		RES8164W52DNMNN2MNDX **IZMX40N4-V16W** 149992		1
	2000	1000 - 2000			RES8204B52MNMNN2MNKX **IZMX40N4-V20F** 149897		RES8204W52MNMNN2MNDX **IZMX40N4-V20W** 149993		1
	2500	1250 - 2500			RES8254B52NNMNN2MNKX **IZMX40N4-V25F** 149898		RES8254W52NNMNN2MNDX **IZMX40N4-V25W** 149994		1
	3200	1600 - 3200			RES8324B52QNMNN2MNKX **IZMX40N4-V32F** 149899		RES8324W52QNMNN2MNDX **IZMX40N4-V32W** 149995		1
	4000	2000 - 4000			RES8404B52RNMNN2MNKX **IZMX40N4-V40F** 149900		RES8404W52RNMNN2MNDX **IZMX40N4-V40W** 149996		1
105/105	800	400 - 800			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	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
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	Rated current	Setting range: Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	Fixed: Cat. No. / Part no. / Article no.	Fixed: Price see price list	Withdrawable (Cassettes need to be ordered separately.): Cat. No. / Part no. / Article no.	Withdrawable: Price see price list	Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …					
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			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			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	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
Circuit-breaker for universal protection									
Main Terminals are not included, need to be selected separately.									
4 pole									
105/105	2500	1250 - 2500	2 - 10	2 - 12, OFF	RESC254BM2NNMNN2MNKX **IZMX40H4-U25F** 149938		RESC254WM2NNMNN2MNDX **IZMX40H4-U25W** 150034		1
	3200	1600 - 3200			RESC324BM2QNMNN2MNKX **IZMX40H4-U32F** 149939		RESC324WM2QNMNN2MNDX **IZMX40H4-U32W** 150035		1
	4000	2000 - 4000			RESC404BM2RNMNN2MNKX **IZMX40H4-U40F** 149940		RESC404WM2RNMNN2MNDX **IZMX40H4-U40W** 150036		1
Circuit-breaker for professional protection with power measurement									
Main Terminals are not included, need to be selected separately.									
3 pole									
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			RES6203B12MNMNN2MNKX **IZMX40B3-P20F** 149689		RES6203W12MNMNN2MNDX **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			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			RES8203B12MNMNN2MNKX **IZMX40N3-P20F** 149721		RES8203W12MNMNN2MNDX **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	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
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			RESC203B12MNMNN2MNKX **IZMX40H3-P20F** 149753		RESC203W12MNMNN2MNDX **IZMX40H3-P20W** 149849		1
	2500	1250 - 2500			RESC253B12NNMNN2MNKX **IZMX40H3-P25F** 149754		RESC253W12NNMNN2MNDX **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			RES6204B12MNMNN2MNKX **IZMX40B4-P20F** 149881		RES6204W12MNMNN2MNDX **IZMX40B4-P20W** 149977		1
	2500	1250 - 2500			RES6254B12NNMNN2MNKX **IZMX40B4-P25F** 149882		RES6254W12NNMNN2MNDX **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

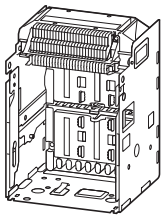
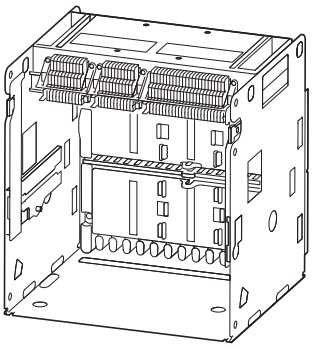
Switching capacity	Rated current	**Setting range** Overload releases	Short-circuit releases: Delayed	Short-circuit releases: Non-delayed	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
I_{cu}/I_{cs} kA/kA	$I_n = I_u$ A	I_r A	$I_{sd} = I_r$ x …	$I_i = I_n$ x …	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
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	RES8204B12MNMNN2MNKX **IZMX40N4-P20F** 149913		RES8204W12MNMNN2MNDX **IZMX40N4-P20W** 150009		1
	2500	1250 - 2500			RES8254B12NNMNN2MNKX **IZMX40N4-P25F** 149914		RES8254W12NNMNN2MNDX **IZMX40N4-P25W** 150010		1
	3200	1600 - 3200			RES8324B12QNMNN2MNKX **IZMX40N4-P32F** 149915		RES8324W12QNMNN2MNDX **IZMX40N4-P32W** 150011		1
	4000	2000 - 4000			RES8404B12RNMNN2MNKX **IZMX40N4-P40F** 149916		RES8404W12RNMNN2MNDX **IZMX40N4-P40W** 150012		1
105/105	800	400 - 800			RESC084B128NMNN2MNKX **IZMX40H4-P08F** 149941		RESC084W128NMNN2MNDX **IZMX40H4-P08W** 150037		1
	1000	500 - 1000			RESC104B12ANMNN2MNKX **IZMX40H4-P10F** 149942		RESC104W12ANMNN2MNDX **IZMX40H4-P10W** 150038		1
	1250	625 - 1250			RESC134B12CNMNN2MNKX **IZMX40H4-P12F** 149943		RESC134W12CNMNN2MNDX **IZMX40H4-P12W** 150039		1
	1600	800 - 1600			RESC164B12DNMNN2MNKX **IZMX40H4-P16F** 149944		RESC164W12DNMNN2MNDX **IZMX40H4-P16W** 150040		1
	2000	1000 - 2000			RESC204B12MNMNN2MNKX **IZMX40H4-P20F** 149945		RESC204W12MNMNN2MNDX **IZMX40H4-P20W** 150041		1
	2500	1250 - 2500			RESC254B12NNMNN2MNKX **IZMX40H4-P25F** 149946		RESC254W12NNMNN2MNDX **IZMX40H4-P25W** 150042		1
	3200	1600 - 3200			RESC324B12QNMNN2MNKX **IZMX40H4-P32F** 149947		RESC324W12QNMNN2MNDX **IZMX40H4-P32W** 150043		1
	4000	2000 - 4000			RESC404B12RNMNN2MNKX **IZMX40H4-P40F** 149948		RESC404W12RNMNN2MNDX **IZMX40H4-P40W** 150044		1

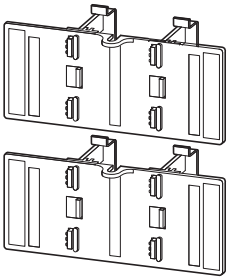
Rated short-circuit making capacity	Rated current = rated uninterrupted current	Rated short-time withstand current 50/60 Hz	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
up to 440 V 50/60 Hz	$I_n = I_u$	t = 1 s	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
I_{cm} kA	A	I_{cw} kA					
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		RES6203BSWMNMNN2MNKX **INX40B3-20F** 150049		RES6203WSWMNMNN2MNDX **INX40B3-20W** 150073		1
	2500		RES6253BSWNNMNN2MNKX **INX40B3-25F** 150050		RES6253WSWNNMNN2MNDX **INX40B3-25W** 150074		1
	3200		RES6323BSWQNMNN2MNKX **INX40B3-32F** 150051		RES6323WSWQNMNN2MNDX **INX40B3-32W** 150075		1
	4000		RES6403BSWRNMNN2MNKX **INX40B3-40F** 150052		RES6403WSWRNMNN2MNDX **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

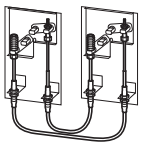
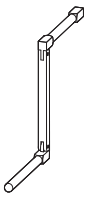
Rated short-circuit making capacity	Rated current = rated uninterrupted current	Rated short-time withstand current 50/60 Hz	**Fixed**		**Withdrawable** Cassettes need to be ordered separately.		Std. pack
up to 440 V 50/60 Hz	$I_n = I_u$	t = 1 s	Cat. No. **Part no.** Article no.	**Price** see price list	Cat. No. **Part no.** Article no.	**Price** see price list	
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		RES6204BSWMNMNN2MNKX **INX40B4-20F** 150097		RES6204WSWMNMNN2MNDX **INX40B4-20W** 150121		1
	2500		RES6254BSWNNMNN2MNKX **INX40B4-25F** 150098		RES6254WSWNNMNN2MNDX **INX40B4-25W** 150122		1
	3200		RES6324BSWQNMNN2MNKX **INX40B4-32F** 150099		RES6324WSWQNMNN2MNDX **INX40B4-32W** 150123		1
	4000		RES6404BSWRNMNN2MNKX **INX40B4-40F** 150100		RES6404WSWRNMNN2MNDX **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

Cassettes

Equipment supplied: arcing chamber cover, Safety coding for basic device

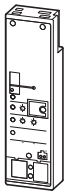
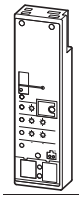
	Pole	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
	3	IZMX16…3-…W INX16…3-…W	**+IZMX-CAS163-1600** 101536		1	With control circuit terminals according to ordered options.
	3	IZMX16…3-…W INX16…3-…W	**IZMX-CAS163-1600-SEC** 123986		1	With control conductor 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.

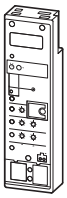
	Pole	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
Cassette safety shutters						
When the breaker is withdrawn from its connected position, the shutters automatically cover the cassette's live main terminals.	3	IZMX-CAS163…	**IZMX-SH163** 101542		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	–

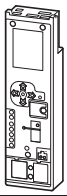
		For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
Mechanical interlock, drawout mounting					
Cable kit for mechanical interlock → 51					
	Type 2, for 2 circuit-breakers: A normal power supply (A) and an emergency network supply (B). 1 set of cables also required in addition.	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

Electronic releases

IZMX-DTA…, IZMX-DTV…

	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 LSIG	Ground Earth-Fault Protection	IZMX-DTV	–	●	–	–	**IZMX-DTV-G** 156651		1
	520 LSIG		IZMX-DTV	–	●	–	–	**+IZMX-DTV-G** 126421		1
	520 LSI	ZSI	IZMX-DTV	–	–	–	●	**+IZMX-DTV-Z** 126422		1
	520 LSIG		IZMX-DTV	–	●	–	●	**+IZMX-DTV-GZ** 126423		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 universal protection Type U (Digitrip 520M LSI)										
	520M LSI		–	–	–	–	–	**IZMX-DTU** 124014		1
Further functions for universal protection Type U (Digitrip 520M) Communikation 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 programable 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 programable 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 programable 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	Ground Earth-Fault Protection is programable and can be set to alarm or protection. ZSI included.	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 U_s V	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
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 mm² (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…

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.

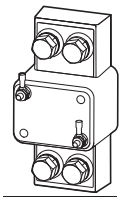
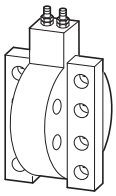
for IZMX16

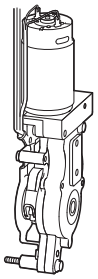
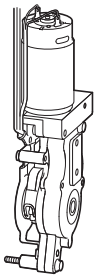
Rated current I_n A	Reduction range	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
200	$I_u \leqq 800$ A	**IZMX-RP16A-200** 124027		1
200	$I_u \leqq 800$ A	**+IZMX-RP16-200** 124026		1
250	$I_u \leqq 800$ A	**IZMX-RP16A-250** 124029		1
250	$I_u \leqq 800$ A	**+IZMX-RP16-250** 124028		1
300	$I_u \leqq 800$ A	**IZMX-RP16A-300** 124031		1
300	$I_u \leqq 800$ A	**+IZMX-RP16-300** 124030		1
400	$I_u \leqq 800$ A	**IZMX-RP16A-400** 124033		1
400	1000 A $\leqq I_u \leqq$ 1250 A	**IZMX-RP16B-400** 124034		1
400	$I_u \leqq 1250$ A	**+IZMX-RP16-400** 124032		1
500	$I_u \leqq 800$ A	**IZMX-RP16A-500** 124036		1
500	1000 A $\leqq I_u \leqq$ 1250 A	**IZMX-RP16B-500** 124037		1
500	$I_u \leqq 1250$ A	**+IZMX-RP16-500** 124035		1
630	$I_u \leqq 800$ A	**IZMX-RP16A-630** 124039		1
630	1000 A $\leqq I_u \leqq$ 1250 A	**IZMX-RP16B-630** 124040		1
630	800 A $\leq I_u \leq$ 1250 A	**+IZMX-RP16-630** 124038		1
800	$I_u \leqq 800$ A	**IZMX-RP16A-800** 124042		1
800	1000 A $\leqq I_u \leqq$ 1250 A	**IZMX-RP16B-800** 124043		1
800	$I_u = 1600$ A	**IZMX-RP16C-800** 124051		1
800	1000 A $\leqq I_u \leqq$ 1600 A	**+IZMX-RP16-800** 124041		1
1000	1000 A $\leqq I_u \leqq$ 1250 A	**IZMX-RP16B-1000** 124131		1

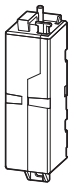
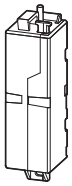
Rating plugs (Rate current modules), 3 pole, 4 pole. → page 71

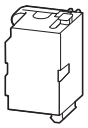
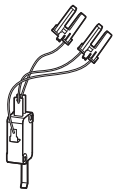
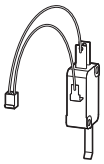
The rated current can be reduced by changing the rating plug, for example, in order to adapt to changed conditions in the application.
The rating plug's nominal value must be less than or equal to the basic device's rated current.
The rating plug can be replaced on site without replacing the transformer.
200 A, 250 A and 300 A rating plugs cannot be combined with P-trip units.

	Rated current I_n A	Reduction range	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
for IZMX16					
	1000	I_u = 1600 A	**IZMX-RP16C-1000** 124156		1
	1000	1250 A ≦ I_u ≦ 1600 A	**+IZMX-RP16-1000** 124091		1
	1250	I_u ≦ 1250 A	**IZMX-RP16B-1250** 124158		1
	1250	I_u = 1600 A	**IZMX-RP16C-1250** 124159		1
	1250	I_u = 1600 A	**+IZMX-RP16-1250** 124157		1
	1600	I_u = 1600 A	**IZMX-RP16C-1600** 124160		1
for IZMX40					
	800	800 A ≤ I_u ≤ 1000 A	**IZMX-RP40D-800** 156630		1
	800	1250 A ≤ I_u ≤ 1600 A	**IZMX-RP40E-800** 156632		1
	800	1000 A ≤ I_u ≤ 1250 A	**+IZMX-RP40-800** 155591		1
	1000	I_u= 1000 A	**IZMX-RP40D-1000** 156631		1
	1000	1250 A ≤ I_u ≤ 1600 A	**IZMX-RP40E-1000** 156633		1
	1000	I_u = 1250 A	**+IZMX-RP40-1000** 155592		1
	1250	1250 A ≤ I_u ≤ 1600 A	**IZMX-RP40E-1250** 124402		1
	1250	2000 A ≤ I_u ≤ 2500 A	**IZMX-RP40F-1250** 124406		1
	1250	3200 A ≤ I_u ≤ 4000 A	**IZMX-RP40G-1250** 126410		1
	1250	1600 A ≤ I_u ≤ 4000 A	**+IZMX-RP40-1250** 126416		1
	1600	I_u = 1600 A	**IZMX-RP40E-1600** 124403		1
	1600	2000 A ≤ I_u ≤ 2500 A	**IZMX-RP40F-1600** 124407		1
	1600	3200 A ≤ I_u ≤ 4000 A	**IZMX-RP40G-1600** 126411		1
	1600	2000 A ≤ I_u ≤ 4000 A	**+IZMX-RP40-1600** 126417		1

	Rated current I_n A	Reduction range	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
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

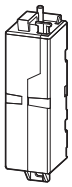
	Rated control voltage U_s V	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
Motor operators						
The motor automatically tensions the spring force storage mechanism for remote or local actuation. A signaling switch for the „Spring force storage charged" 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		–	

	Rated control voltage U_s V	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
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-STS24DC** 123731		1	An additional control circuit terminal block is required for retrofitting. → page 36, 52
	48 V DC	IZMX16..., IZMX40... INX16..., INX40...	**+IZMX-STS48DC** 123732		1	
	60 V DC	IZMX16..., IZMX40... INX16..., INX40...	**+IZMX-STS60DC** 124059		1	
	110 - 127 V AC 50/60 Hz 110 - 125 V DC	IZMX16..., IZMX40... INX16..., INX40...	**+IZMX-STS110AD** 123733		1	
	208 - 240 V AC 50/60 Hz 208 - 250 V DC	IZMX16..., IZMX40... INX16..., INX40...	**+IZMX-STS230AD** 123734		1	

	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…

Undervoltage releases

Cannot be combined with a second shunt release.



Rated control voltage U_s V	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
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	

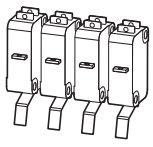
Time delay modules

For combination with an undervoltage release.
Delay times: 0.1 s, 0.5 s, 1.0 s, 2.0 s.

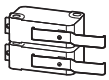
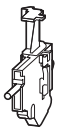
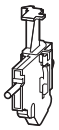
120 V AC	IZMX16..., IZMX40... INX16..., INX40...	**IZM-UVR-TD-120AC** 122956		1	Only in combination with undervoltage release IZMX-UVR110AD.
230 V AC	IZMX16..., IZMX40... INX16..., INX40...	**IZM-UVR-TD-230AC** 122957		1	Only in combination with undervoltage release IZMX-UVR220AD.

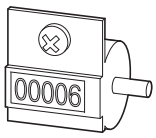
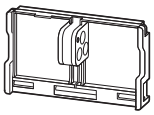
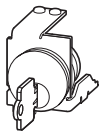
Auxiliary contacts

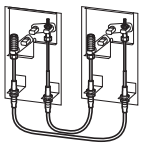
Standard auxiliary switch for On-Off signaling.
The basic device already contains two changeover contacts.
IZMX16 (NF): Two additional changeover contacts possible.
IZMX40 (RF): up to 10 additional changeover contacts possible.



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	–

	Rated control voltage U_s V	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack	**Instructions**
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	–

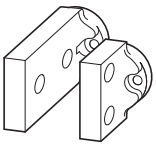
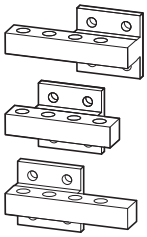
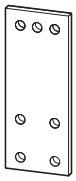
		For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
Operation counters					
Counts the number of ON-OFF operations. Can also be installed without motor operator.					
		IZMX16… INX16…	**IZMX-OC16** 123606		1
		IZMX40… INX40…	**IZMX-OC40** 124342		1
		IZMX16…, IZMX40… INX16…, 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		1
		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

		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…

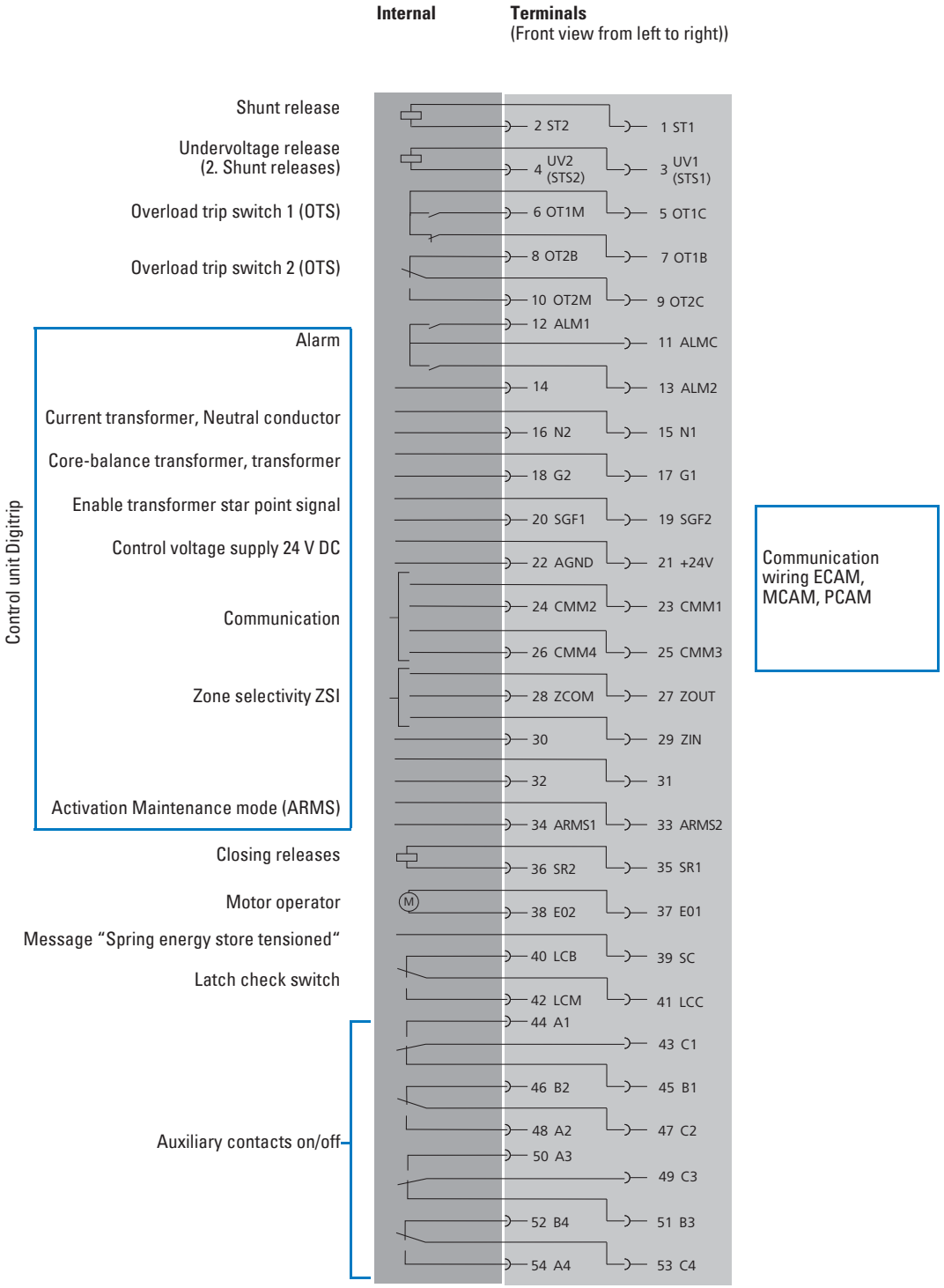
	Connection	Rated current I_n A	Pole	For use with	Cat. No. **Part no.** Article no.	**Price** see price list	Std. pack
Main terminal component adapter							
Basic cassettes are delivered with flange terminals as standard. Following adapters are optional and for INX16, IZMX16 fixed version requested. 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

	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

Terminal assignment of control circuit terminals

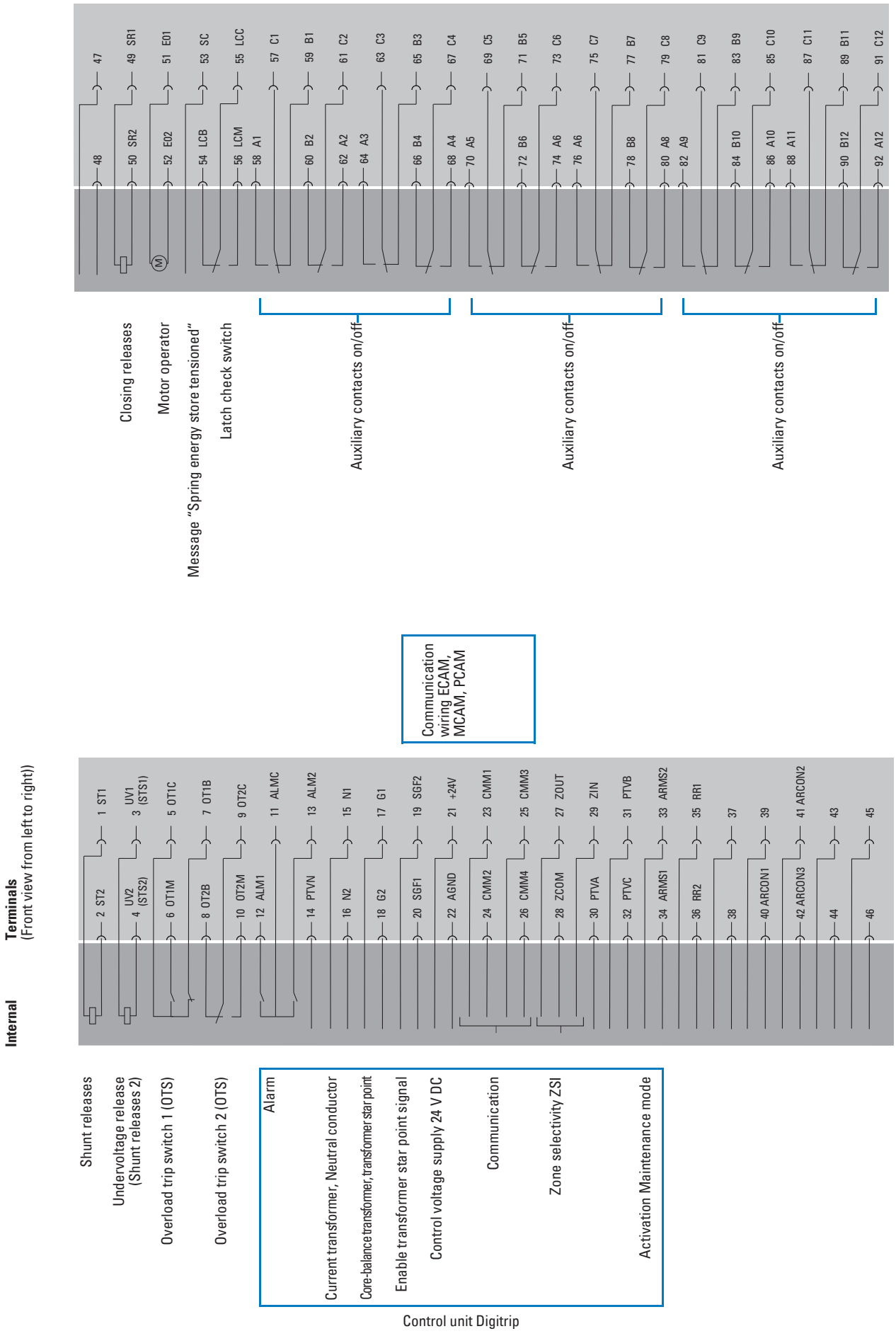
IZMX16

Engineering



Terminal assignment of control circuit terminals

IZMX40

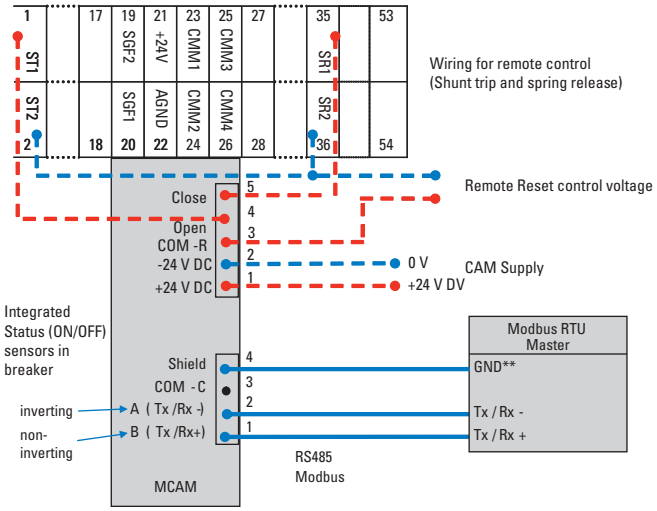


Terminal assignment of control circuit terminals

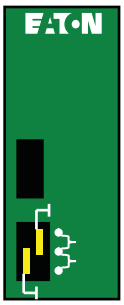
IZMX16, IZMX40

Front View of MCAM

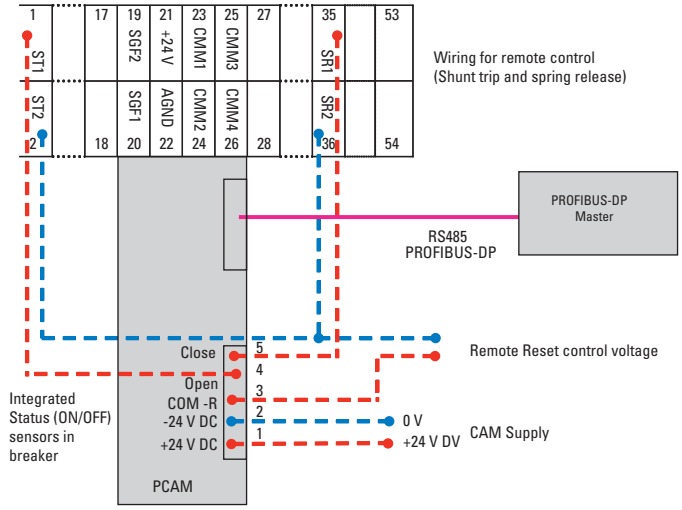
Top View of a mounted MCAM on IZMX



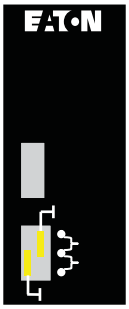
Front View of PCAM



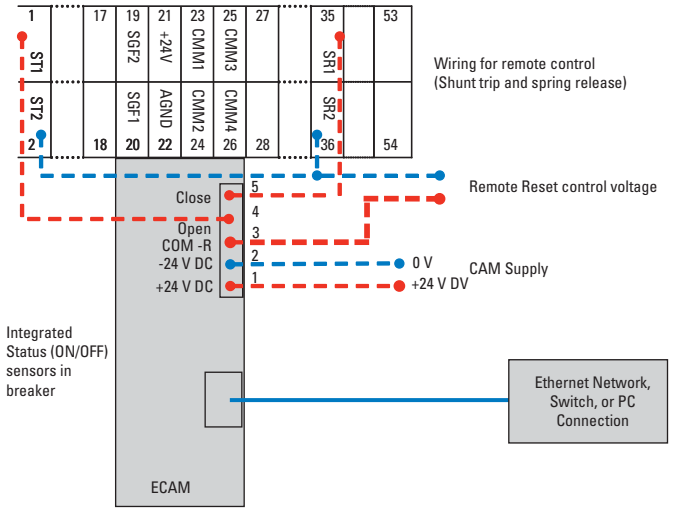
Top View of a mounted PCAM on IZMX

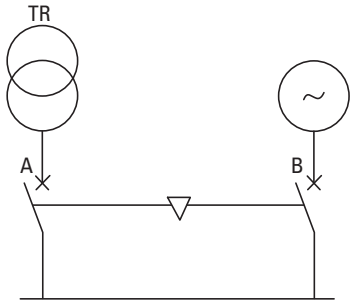
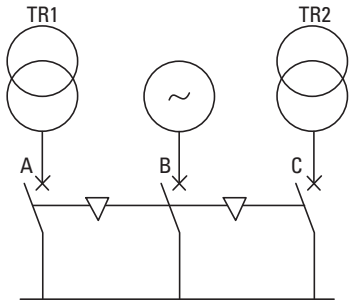
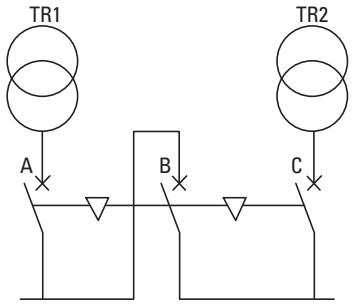
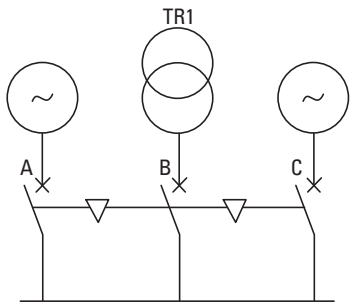


Front View of ECAM



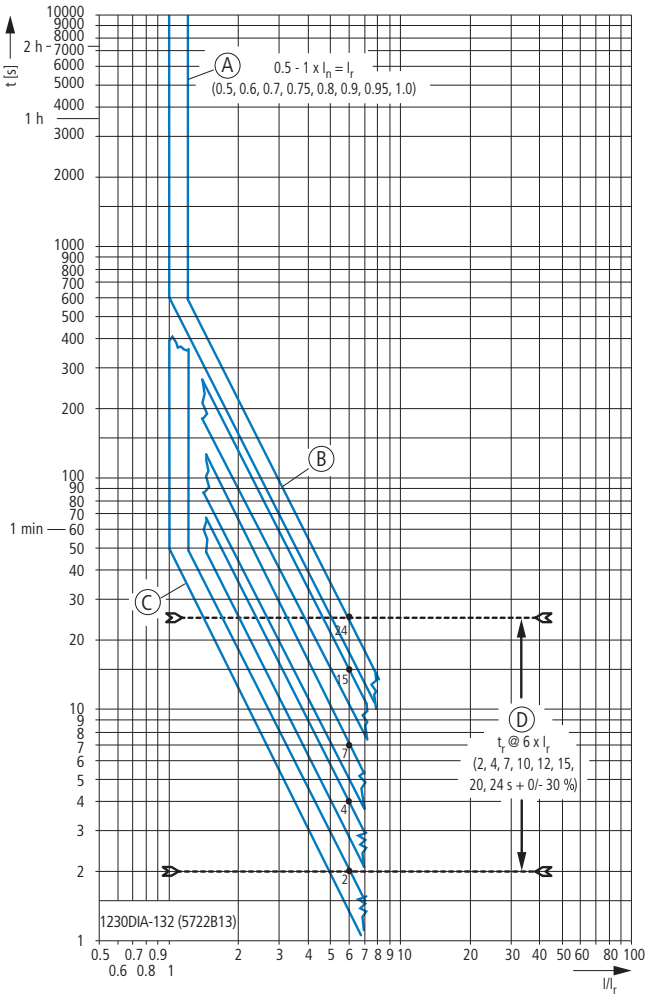
Top View of a mounted ECAM on IZMX



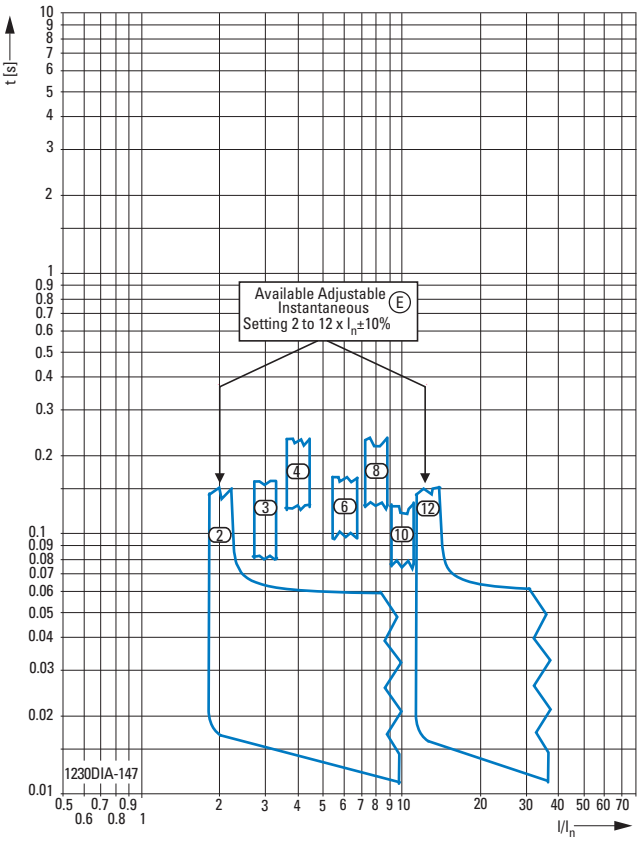
	Type of interlock	Typical circuit	Interlocks possible
Mechanical Interlock configurations			
Type 2	**Across Two Circuit Breakers** One normal power supply and one emergency power supply.	 Interlock: A against B	Circuit breaker A can only be closed if B is open and vice versa. **A** = Normal power supply. **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.



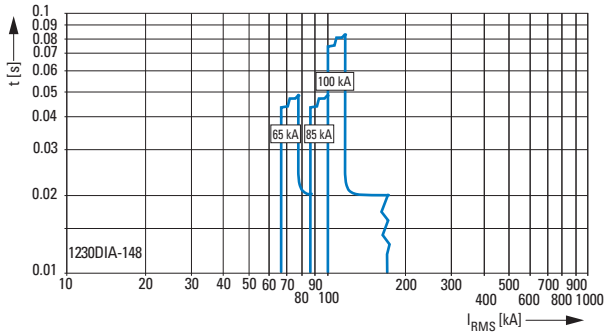
I-protection: Adjustable
See Notes 2, 6, 7, 8 → page 62.



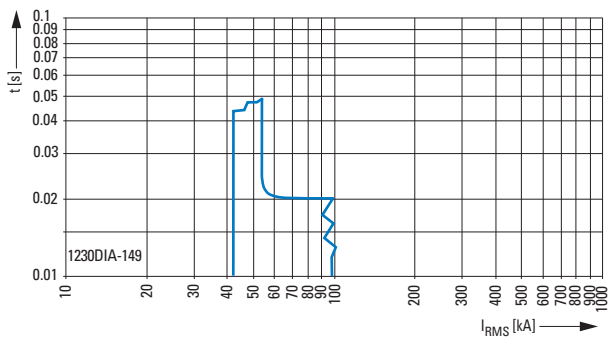
A Set values for overload protection
B Maximum total opening delay
C Minimum total opening delay
D Set values for long delay

E Set values for non-delayed short-circuit protection

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



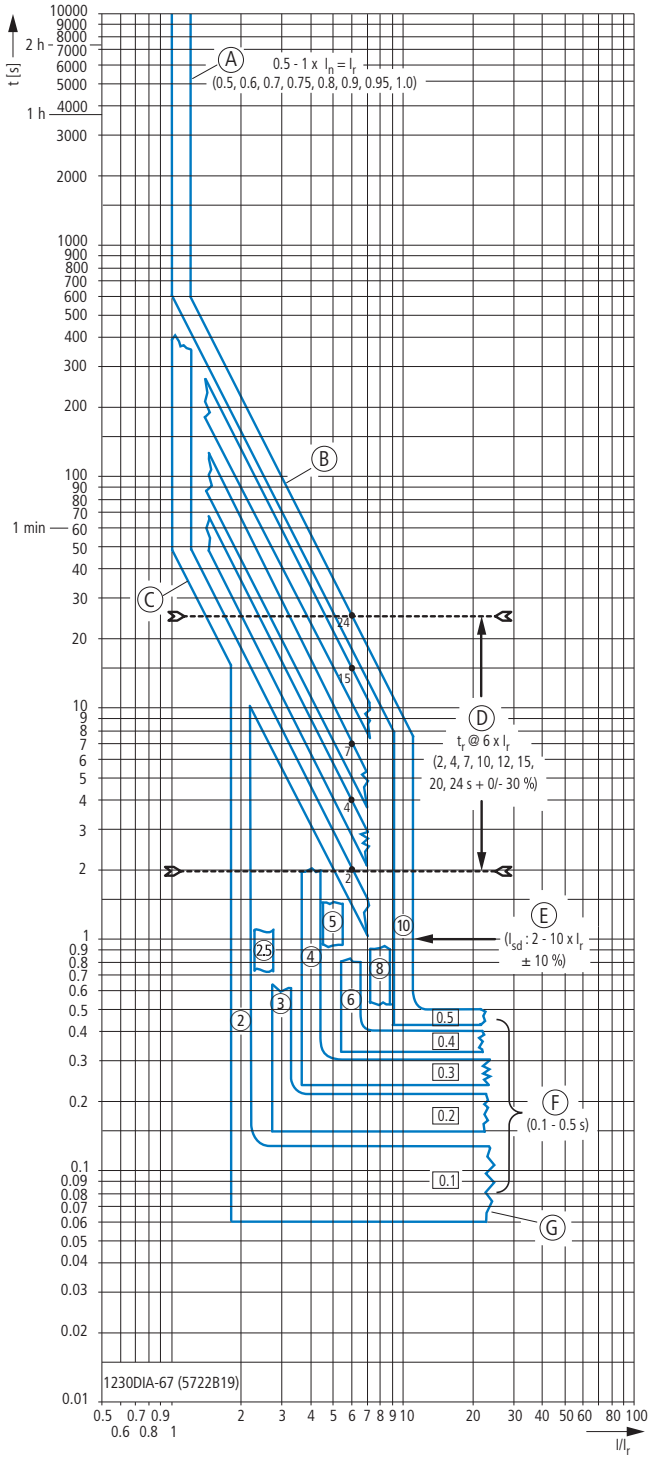
I-protection: For high short-circuit protection for IZMX16 only
See Notes 2, 6, 10, 11 → page 62.



IZMX16(40)…V(U)… Tripping characteristics for selectivity protection and universal protection
Overload protection (L) and short-time delayed short-circuit protection (S)

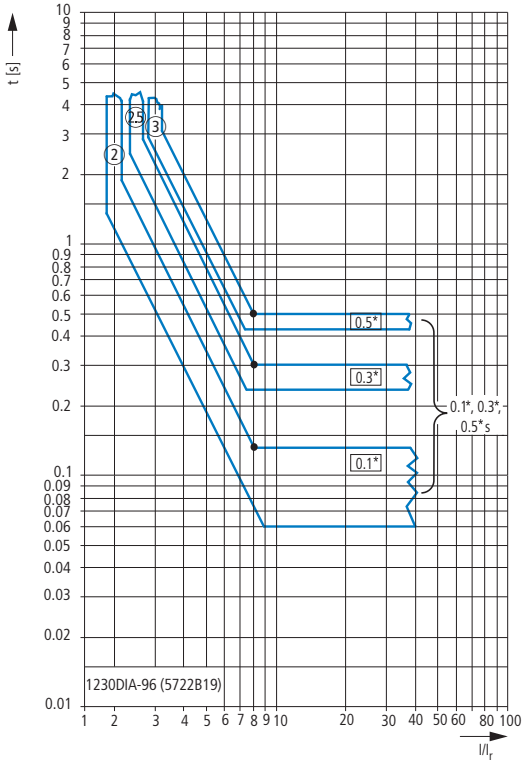
L-Protection: I^2t-Characteristic curve and S-Protection: flat characteristic curve

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.

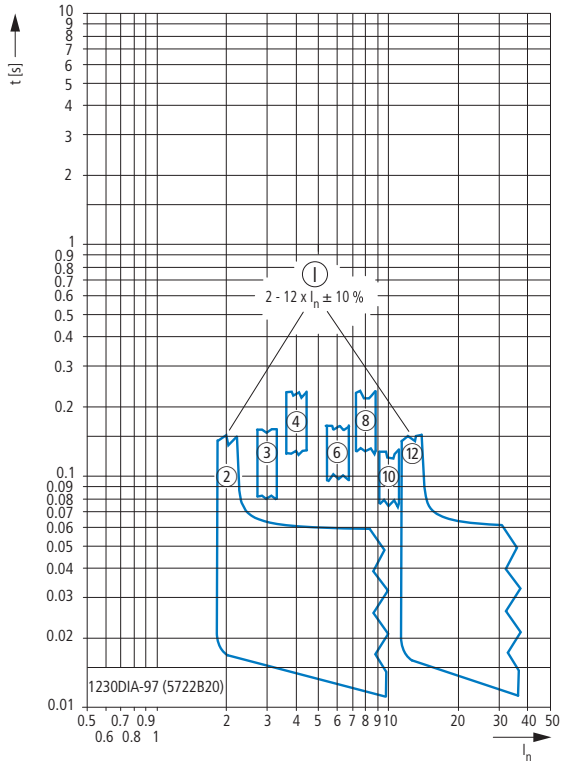


A Set values for overload protection
B Maximum total opening delay
C Minimum total opening delay
D Set values for long delay
E Set value for delayed short-circuit protection I_{SD}
F Set values for short-time delayed short-circuit protection
G The end of the characteristic curve is determined by the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

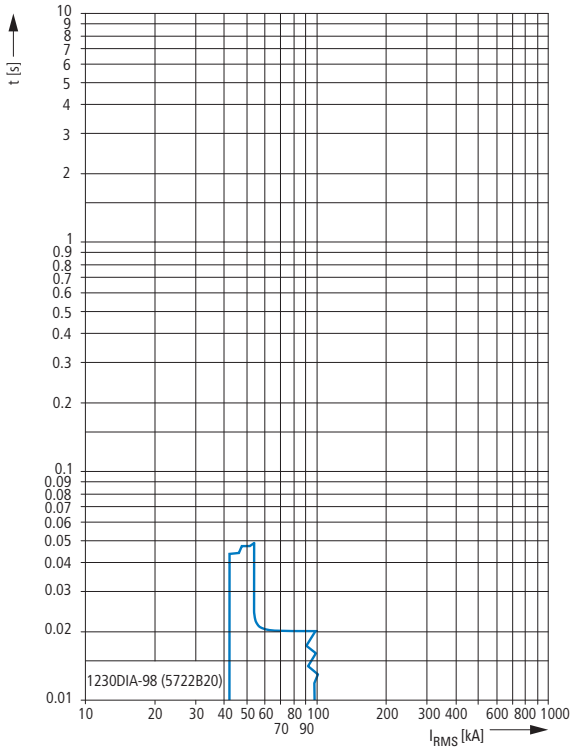
I-protection: Adjustable

See Notes 2, 6, 8, 9, 11 → page 62.



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

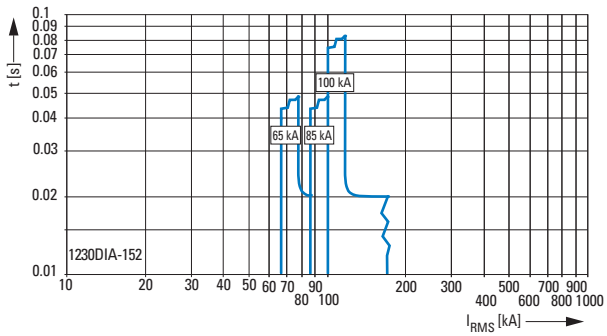
See Notes 2, 6, 10, 11 → page 62.



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

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

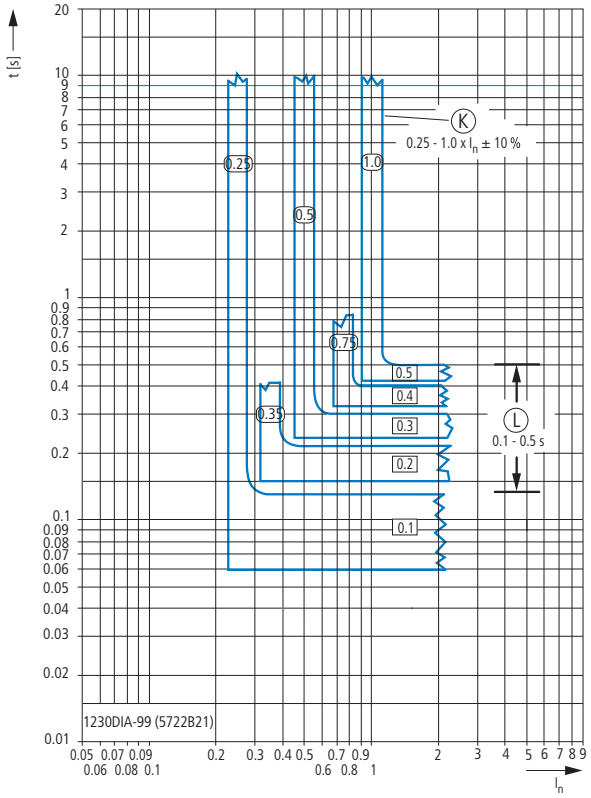
See notes 2, 6, 10, 11 → page 62.



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.

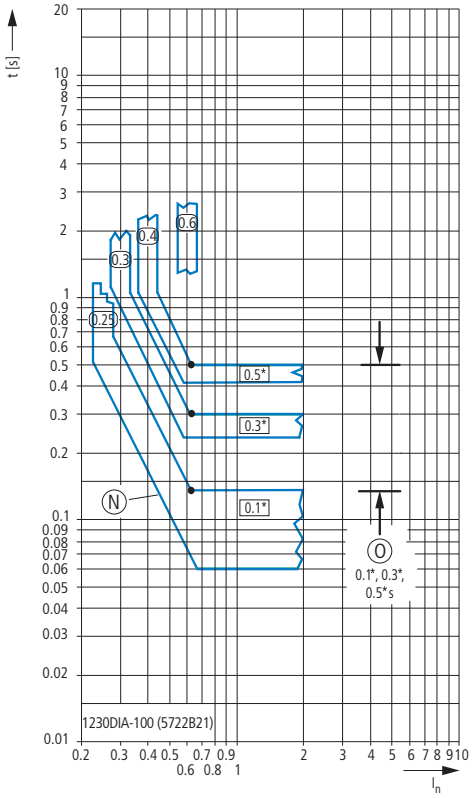


K Set values for ground-fault protection

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

G: Ground fault protection, I^2t-Characteristic curve

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



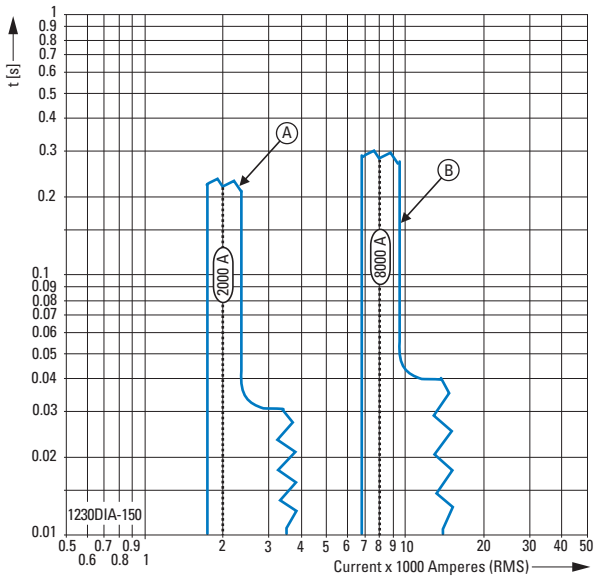
N I^2t characteristic curve for the delay time and ground fault protection

O Set values for I^2t 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:

1 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.

2 The end of the characteristic curve is determined by the type of -application and the switching capacity of the selected switch.

3 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 %.

4 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.

5 The upper lines of the I^2t characteristic curves are horizontal from a value of 8 × I_r (indicated by the points).

6 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.

7 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.

8 The non-delayed short-circuit release is activated at a response value of conventionally 100 % with a tolerance of ±10 %.

9 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.

10 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.

11 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.

12 The ground-fault release is activated at a response value of -conventionally 100 % with a tolerance of ±10 %.

13 Unless otherwise specified, the current value tolerances are ±10 % of the values shown in the diagram.

14 In combination with ARMS function, ground-fault protection is limited to 1200 A.

15 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.

16 The upper lines of the I^2t characteristic curves are horizontal from a value of 0.625 × I_r (indicated by the points).

17 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.

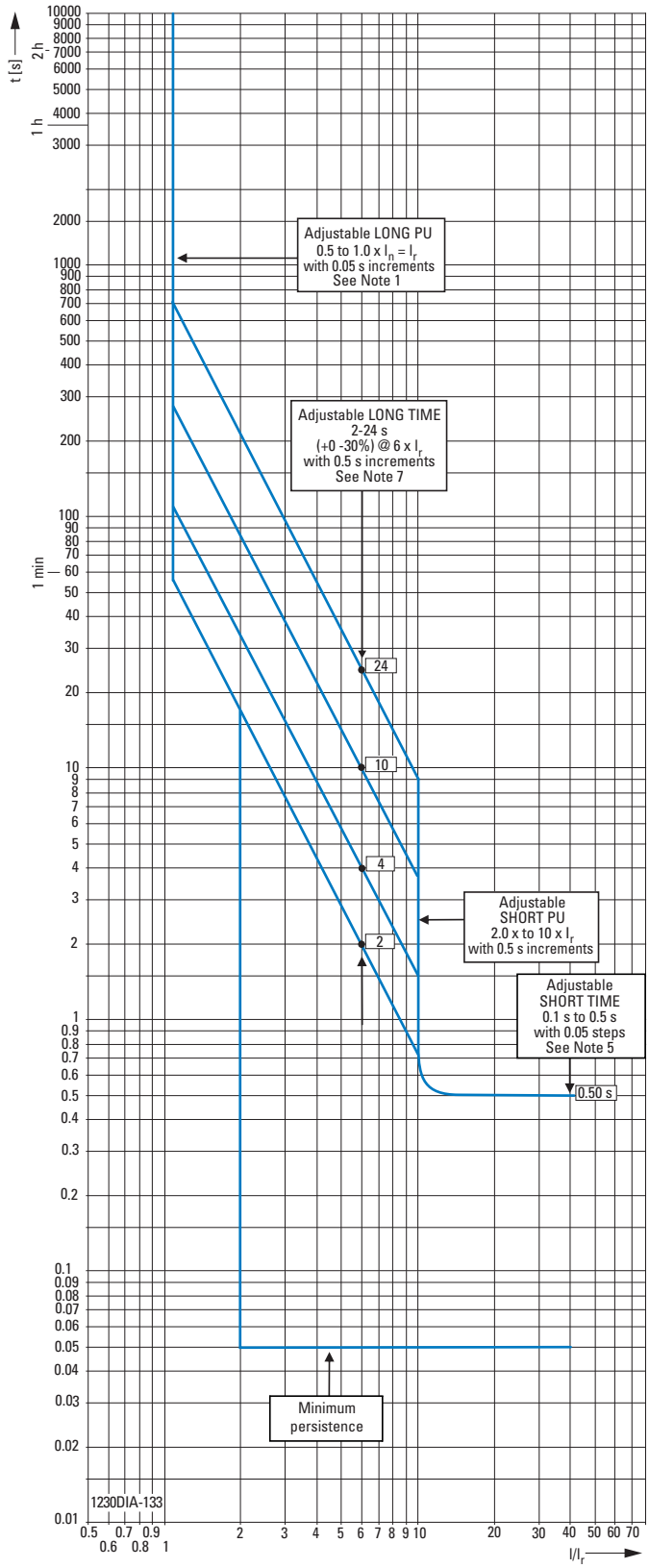
18 The shown switch-off times apply for connection to an additional auxiliary power supply.

19 Tripping by the ARMS Maintenance Mode Trip is indicated by the non-delayed short-circuit protection LED.

20 The tolerance is ±15 %.

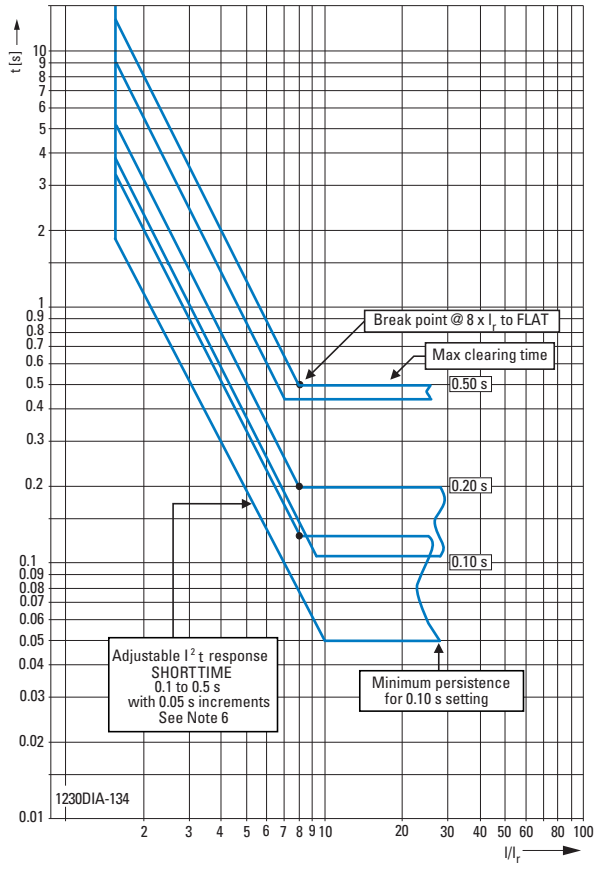
IZMX16(40)…P… Tripping characteristics for professional protection

Digitrip 1150/1150i - L, S and S with I^2t Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) circuit-breakers.
Long Delay (I^2t) & Short Delay Trip (FLAT & I^2t)
This curve is for 50 Hz or 60 Hz applications.

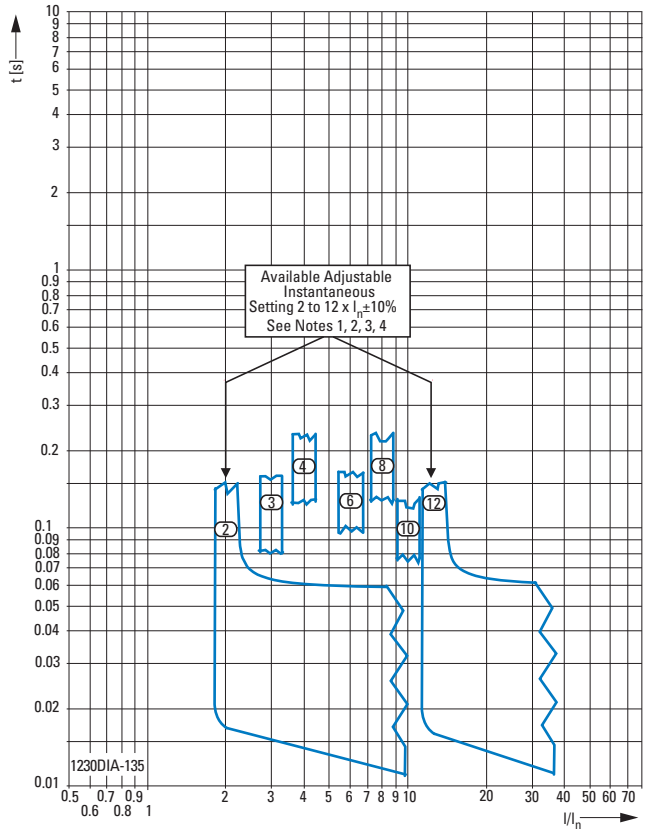
Notes:
1. This curve shown as a multiple of the LONG PU Setting (I_r). The actual pickup point (indicated by rapid flashing of Unit Status LED on the product) occurs at 110 % of the Ir, current, with a ±10 % tolerance.
The SHORT TIME function and the LONGTIME function act independently and the entire 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: I^2t
I^2t 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.

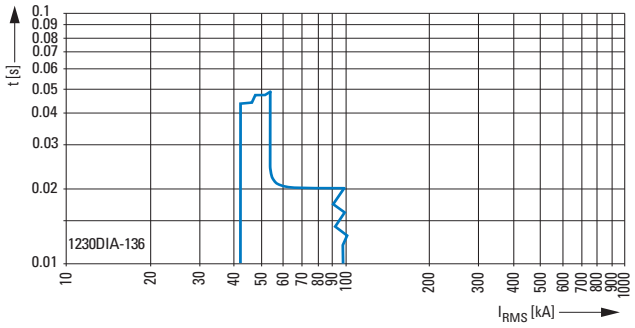
2. This curve is shown as a multiple of the Rating Plug (I_n).

3. The Instantaneous settings have conventional 100 % ±10 % as the pickup points.

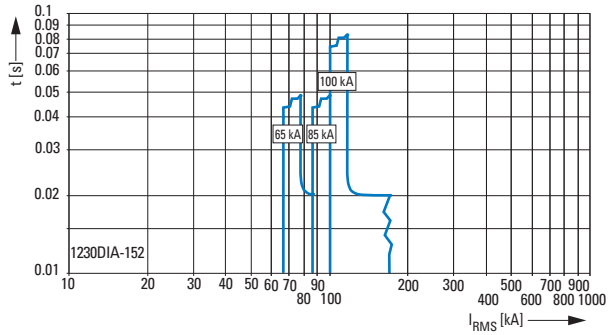
4. Total clearing times shown include the response times of the trip unit, the breaker opening and the interruption of the current.

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.



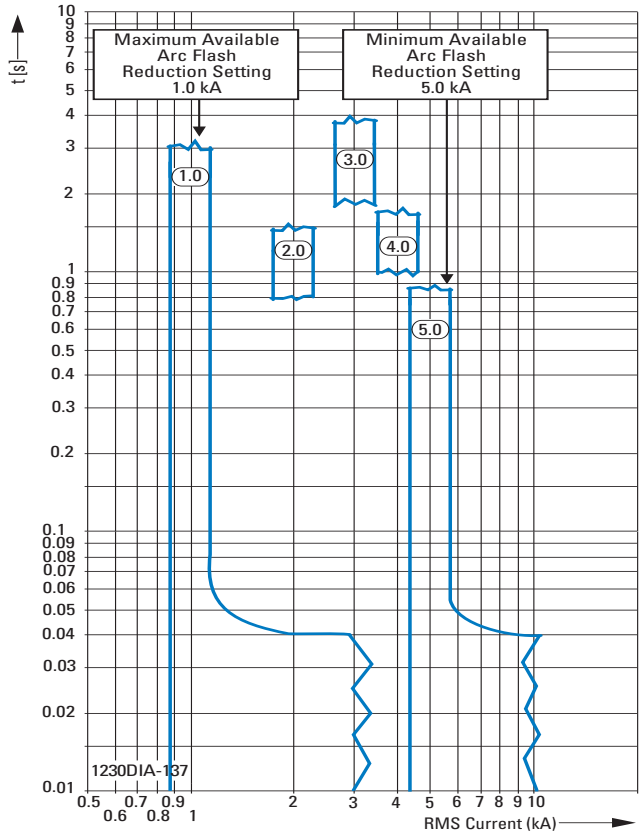
I-protection: For high short-circuit-protection for IZMX40 only
See Notes 5 → Page 62.



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.

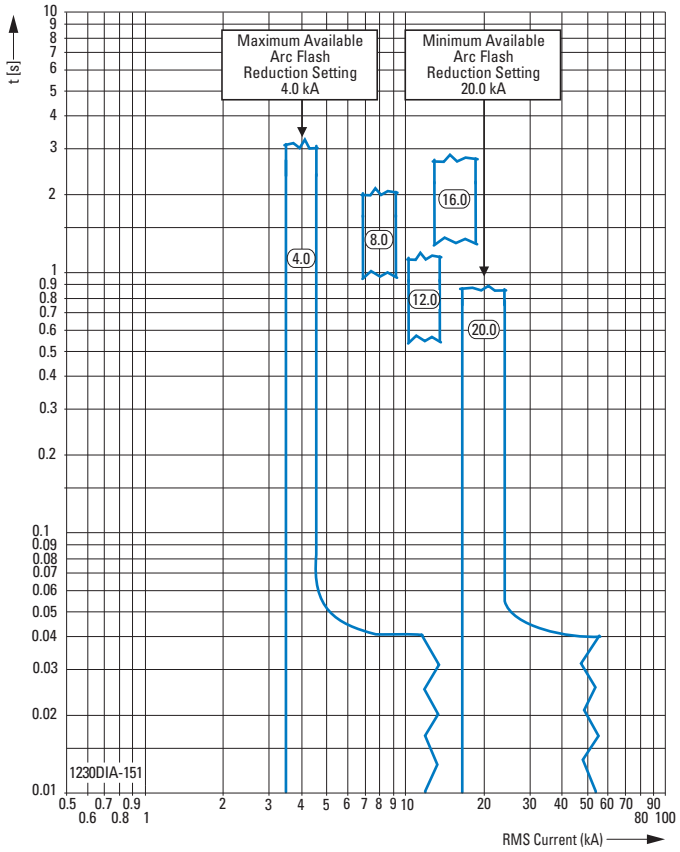
IZMX16…P… Tripping characteristics for professional protection

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



IZMX40…P… Tripping characteristic for professional protection

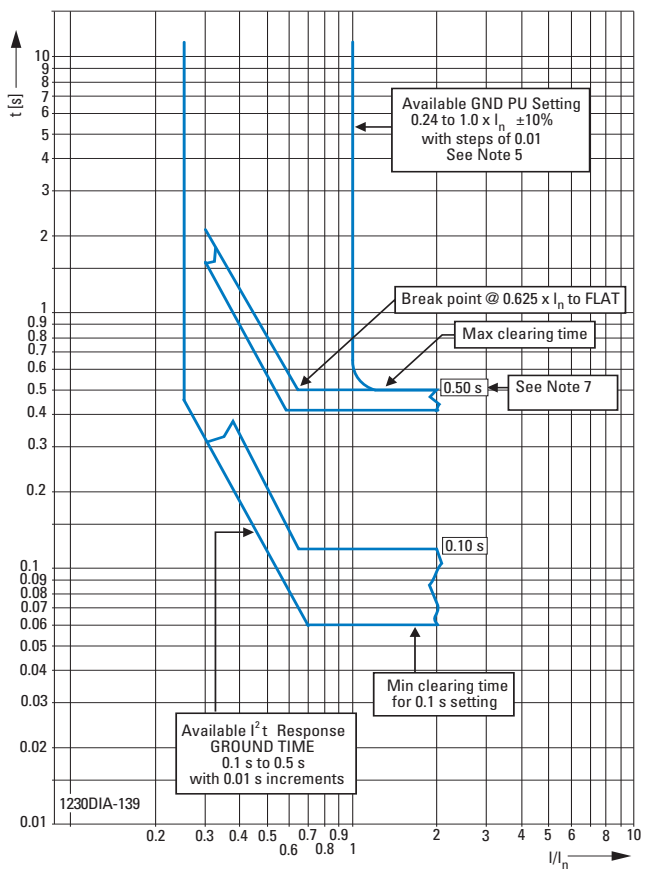
Digitrip 1150/1150i - Maintenance Mode Curves (ARMS)

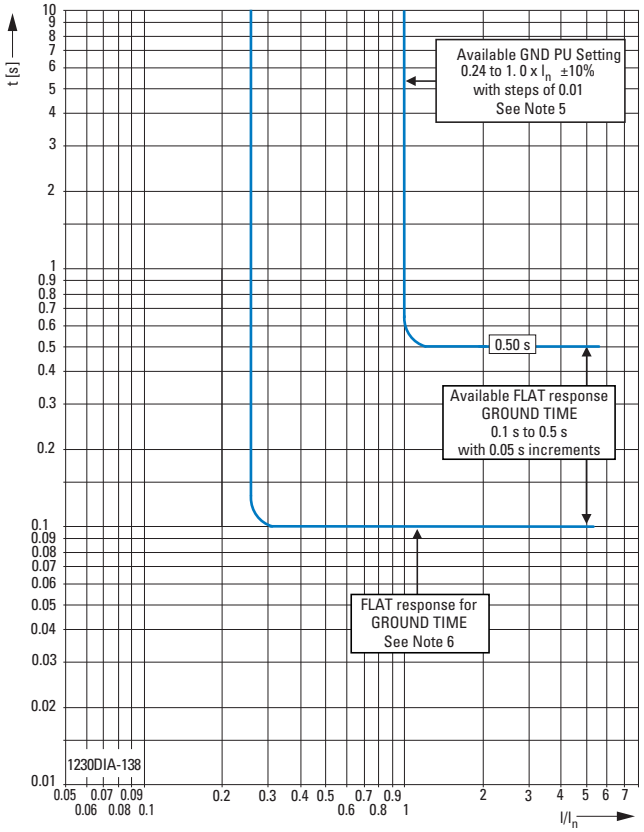


Notes The total Instantaneous clearing times shown are conservative and consider the maximum response times of the trip unit, the circuit breaker opening, and the interruption of the current under factors that contribute to worst case conditions, like: maximum rated voltages, single phase interruption, 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.

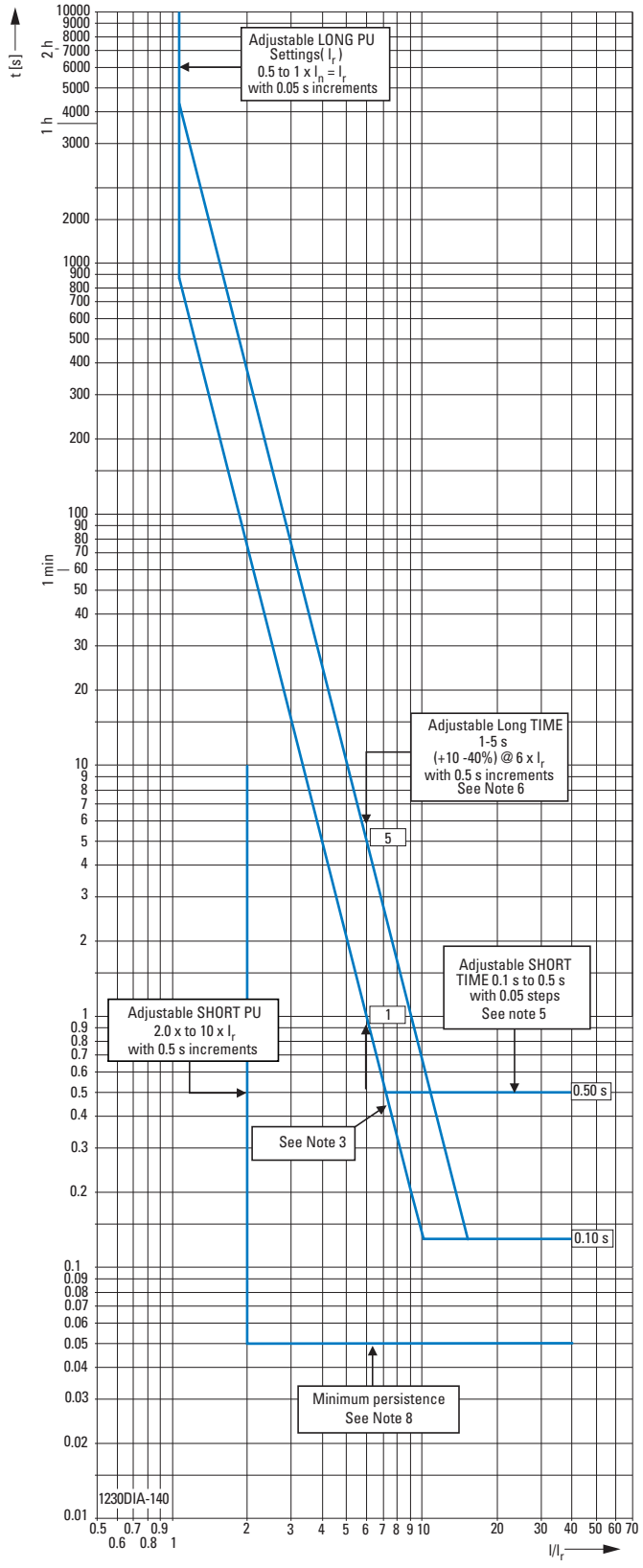
6. Ground Slope: FLAT
Tolerance is +0 / -80 ms except
0.10 s setting band is 0.05 to 0.13
0.15 s setting band is 0.09 to 0.17

7. Ground Slope: I^2T
I^2t slope flattens out at 0.625 x 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 - I^4t Curves



Apply to Series NRX Type IZMX16 (NF) and IZMX40 (RF) Circuit Breakers.
Long Delay (I^4t) & 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 I^4T 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.

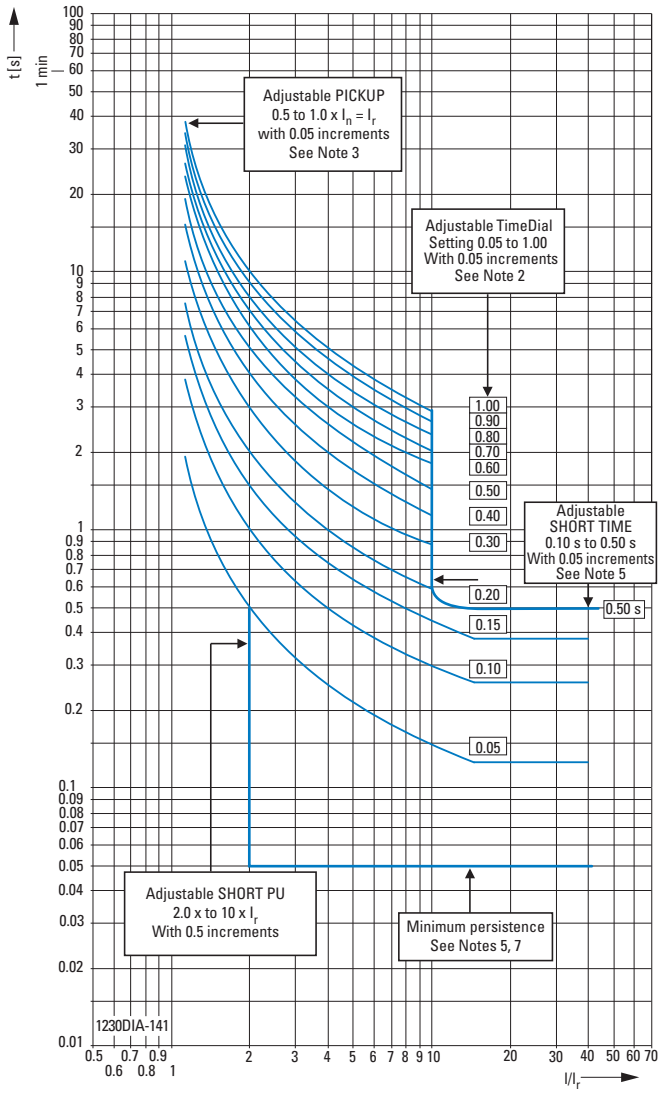
7. Curve applies from -20 °C to +55 °C ambient. Temperatures above +85 °C cause automatic trip.

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 x I_r tolerance is (±15 %) or (-15 %, +90 ms), whichever is larger. TimeDial curve goes to flat response at 14 x 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 ±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 % ± 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

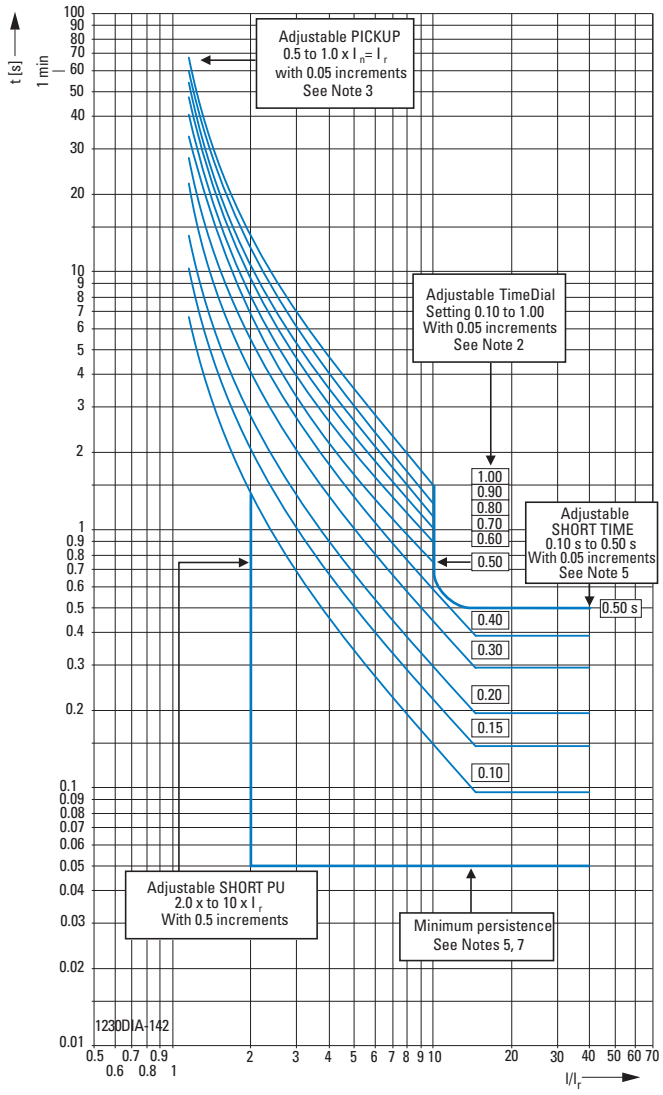
6. Curve applies from -20 °C to +55 °C ambient. Temperatures above 85 °C cause automatic trip.

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 x I_r tolerance is (±15%) or (-15%, +90 ms), whichever is larger. TimeDial curve goes to flat response at 14 x 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 ±10 % tolerance. The SHORT PU settings have conventional 100 % ± 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

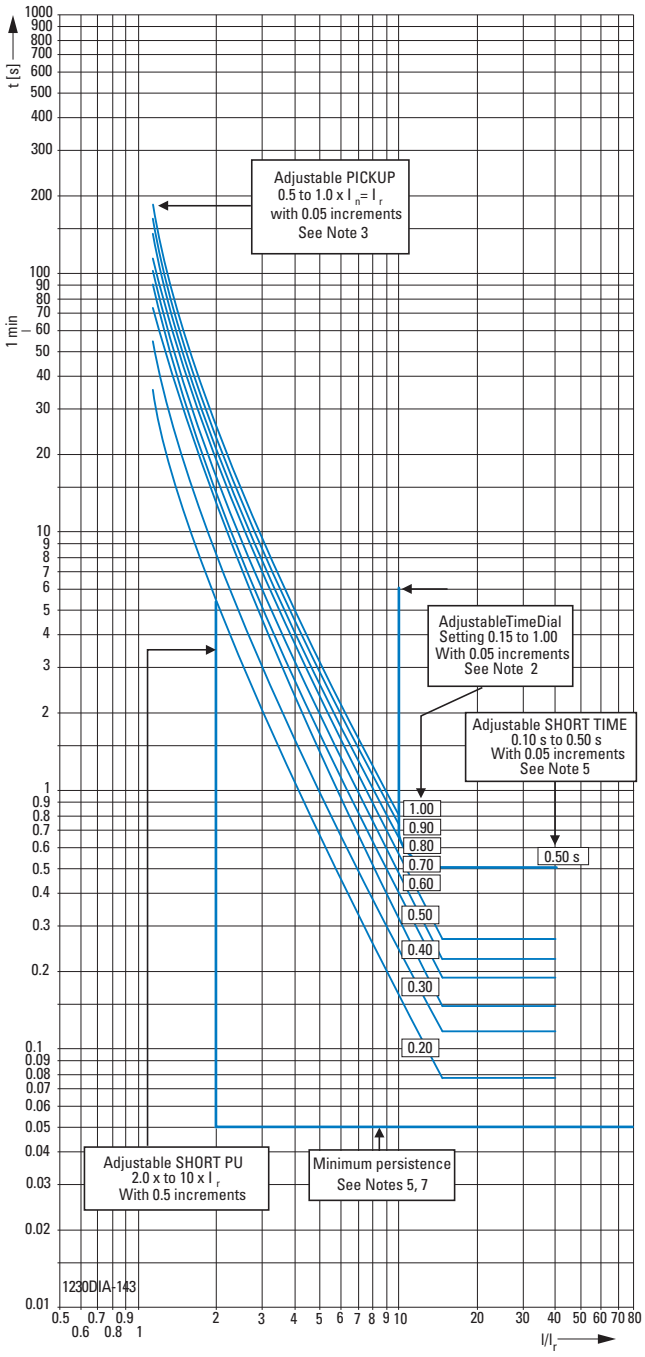
6. Curve applies from -20 °C to +55 °C ambient. Temperatures above +85 °C cause automatic trip.

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

Notes 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 x I_r tolerance is (±15 %) or (-15 %, +90 ms), whichever is larger. TimeDial curve goes to flat response at 14 x 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 I_r current, with a ±10 % tolerance. The SHORT PU settings have conventional 100 % ± 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 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 °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 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, Rating plugs (plus types)

I_u [A] / I_n [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_u [A] / I_n [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)

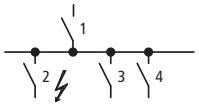
I_u [A] / I_n [A]	800	1000	1250	1600	2000	2500	3200	4000
800	Standard	+IZMX-RP40-800 155591						
1000		Standard	+IZMX-RP40-1000 155592					
1250			Standard	+IZMX-RP40-1250 126416				
1600				Standard	+IZMX-RP40-1600 126417			
2000					Standard	+IZMX-RP40-2000 126418		
2500						Standard	+IZMX-RP40-2500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

IZMX40, Rating plugs (single types)

I_u [A] / I_n [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...



I_n: Rated operational current
I_u: Rated uninterrupted current
I_{cu} : 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).

	Incoming circuit-breaker (1)		**IZMX16...-A...**														
		I_n [A]	630	630	630	800	800	800	1.000	1.000	1.000	1.250	1.250	1.250	1.600	1.600	1.600
		I_{cu} [kA]	42	50	65	42	50	65	42	50	65	42	50	65	42	50	65
		I_i [A]	6.300	6.300	6.300	8.000	8.000	8.000	10.000	10.000	10.000	12.500	12.500	12.500	16.000	16.000	16.000
Outgoing circuit-breaker (2)	I_u [A]	$I_{cu2(415V)}$ [kA]	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H
			Prospective short-circuit current ($I_{cc\ rms}$ in kA)														
NZMB(C)(N)(H)1-A(M)...	20	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	25	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	32	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	40	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	50	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	63	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	80	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	100	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	125	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
	160	25 - 100	6	6	6	9	9	9	15	15	15	T(25)	T(25)	T(25)	T	T	T(50)
NZMB(C)(N)(H)2-A(M)(V)...	20	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	25	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	32	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	40	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	50	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	63	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	80	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	90	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	100	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	125	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	140	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	160	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	200	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	220	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	250	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
	300	25 - 150	8	8	8	10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T
NZMC(N)(H)3-A(M)(V)...	220	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	250	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	320	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	350	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	400	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	450	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	500	36 - 150	6	6	6	7	7	7	9	9	9	12	12	12	18	18	18
	630	36 - 150	–	–	–	7	7	7	9	9	9	12	12	12	18	18	18
NZMN(H)4-A(M)(V)...	550	50 - 100	6	6	6	7	7	7	9	9	9	12	12	12	15	15	15
	630	50 - 100	–	–	–	7	7	7	9	9	9	12	12	12	15	15	15
	800	50 - 100	–	–	–	–	–	–	9	9	9	12	12	12	15	15	15
	875	50 - 100	–	–	–	–	–	–	9	9	9	12	12	12	15	15	15
	1000	50 - 100	–	–	–	–	–	–	–	–	–	12	12	12	15	15	15
	1250	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	15	15	15
	1400	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	15	15	15
	1600	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

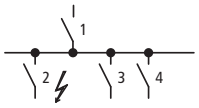
Notes B = Basic switching capacity, N = Normal switching capacity, H = High switching capacity, T = Total selectivity

IZMX40...-A...

800	800	800	1.000	1.000	1.000	1.250	1.250	1.250	1.600	1.600	1.600	2.000	2.000	2.000	2.500	2.500	2.500	3.200	3.200	3.200	4.000	4.000	4.000
66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105
8000	8000	8000	10000	10000	10000	12500	12500	12500	16000	16000	16000	20000	20000	20000	25000	25000	25000	32000	32000	32000	40000	40000	40000
B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H
Prospective short-circuit current ($I_{cc\ rms}$ in kA)																							
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
9	9	9	15	15	15	T(25)	T(25)	T(25)	T(50)	T(50)	T(50)	T	T	T(85)	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
10	10	10	18	18	18	T(30)	T(30)	T(30)	T	T	T(85)	T	T	T	T	T	T	T	T	T	T	T	T
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	18	18	18	20	20	20	T(40)	T(40)	T(40)	T(60)	T(60)	T(60)	T(60)	T(60)	T(60)
7	7	7	9	9	9	12	12	12	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
7	7	7	9	9	9	12	12	12	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	9	9	9	12	12	12	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	9	9	9	12	12	12	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	–	–	–	12	12	12	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	–	–	–	–	–	–	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	–	–	–	–	–	–	15	15	15	18	18	18	22	22	22	29	29	29	36	36	36
–	–	–	–	–	–	–	–	–	–	–	–	18	18	18	22	22	22	29	29	29	36	36	36

Selectivity: incoming circuit-breaker, outgoing circuit-breaker

IZMX16...



I_n: Rated operational current
I_u: Rated uninterrupted current
I_{cu} : 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).

	Incoming circuit-breaker (1)		**IZMX16...-V...(-U...)(-P...)**														
		I_n [A]	630	630	630	800	800	800	1.000	1.000	1.000	1.250	1.250	1.250	1.600	1.600	1.600
		I_{cu} [kA]	42	50	65	42	50	65	42	50	65	42	50	65	42	50	65
		I_i [A]	7.560	7.560	7.560	9.600	9.600	9.600	12.000	12.000	12.000	15.000	15.000	15.000	19.200	19.200	19.200
Outgoing circuit-breaker (2)	I_u [A]	$I_{cu2(415V)}$ [kA]	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H
			Prospective short-circuit current ($I_{cc\ rms}$ in kA)														
NZMB(C)(N)(H)1-A(M)...	20	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	40	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	50	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	63	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	80	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	100	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	125	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	160	25 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
NZMB(C)(N)(H)2-A(M)(V)...	20	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	40	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	50	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	63	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	80	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	90	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	100	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	125	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	140	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	160	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	200	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	220	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	250	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	300	25 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
NZMC(N)(H)3-A(M)(V)...	220	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	250	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	320	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	350	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	400	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	450	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	500	36 - 150	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	630	36 - 150	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T
NZMN(H)4-A(M)(V)...	550	50 - 100	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	630	50 - 100	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T
	800	50 - 100	–	–	–	–	–	–	T	T	T	T	T	T	T	T	T
	875	50 - 100	–	–	–	–	–	–	T	T	T	T	T	T	T	T	T
	1000	50 - 100	–	–	–	–	–	–	–	–	–	T	T	T	T	T	T
	1250	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	T	T	T
	1400	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	T	T	T
	1600	50 - 100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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

IZMX40...–V...(-U...)(-P...)

800	800	800	1.000	1.000	1.000	1.250	1.250	1.250	1.600	1.600	1.600	2.000	2.000	2.000	2.500	2.500	2.500	3.200	3.200	3.200	4.000	4.000	4.000
66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105	66	85	105
11200	11200	11200	14000	14000	14000	17500	17500	17500	19200	19200	19200	24000	24000	24000	30000	30000	30000	32000	32000	32000	40000	40000	40000
B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H	B	N	H
Prospective short-circuit current ($I_{cc\ rms}$ in kA)																							
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
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T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
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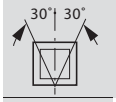
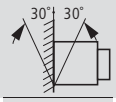
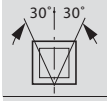
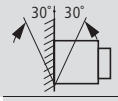
–	–	–	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
–	–	–	–	–	–	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
–	–	–	–	–	–	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
–	–	–	–	–	–	–	–	–	–	–	–	T	T	T	T	T	T	T	T	T	T	T	T

Technical data

					NES407... IZMX16B…06…	NES408... IZMX16B…08…	NES410... IZMX16B…10…	NES413... IZMX16B…12…
General								
Standards					IEC/EN 60947			
Ambient temperature	Storage			°C	-40 - +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	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.			Ue	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	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} O-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} O-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)				25	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	3-pole			kg	39	39	39	39
(CB only)	4-pole			kg	47	47	47	47
Cassette	3 pole			kg	18	18	18	18
	4 pole			kg	21	21	21	21

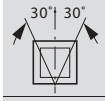
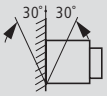
Notes [1)] Permissible continuous current for circuit-breakers used at increased temperatures within a switchgear assembly. The expected internal temperatures can be estimated according to the applicable IEC standards.

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

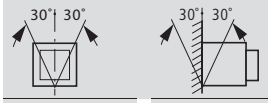
				NES607...SW... INX16B…06…	**NES608...SW... INX16B…08…**
General					
Standards				IEC/EN 60947	
Ambient temperature	Storage		°C	-40 - +70	
	Operating (open)		°C	-25 - +70 (device with LCD-display -20 - +70)	
Mounting position					
Utilization category				B	B
Protection type				IP20, IP55 with protective 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.		Ue	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…**
IEC/EN 60947		
-40 - +70		
-25 - +70 (device with LCD-display -20 - +70)		
		
B	B	B
IP20, IP55 with protective cover, IP41 with door sealing frame		
As required		
1000	1250	1600
1000	1250	1500
1000	1250	1400
1000	1250	1350
8000	8000	8000
690	690	690
21	21	21
III/3	III/3	III/3
1000	1000	1000
88	88	88
88	88	88
42	42	42
20	20	20
25	25	25
30	30	30
25	25	25
50	50	50
12500	12500	12500
20000	20000	20000
10000	10000	10000
10000	10000	10000
60	60	60
92	132	235
125	180	320
15	15	15
20	20	20
39	39	39
47	47	47
18	18	18
21	21	21

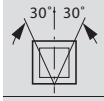
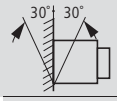
IZMX40…

					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.			Ue	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} O-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} O-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				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 trippinig 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	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	3-pole			kg	69	69	69
(CB only)	4-pole			kg	86	86	86
Cassette	3 pole			kg	29	29	29
	4 pole			kg	35	35	35

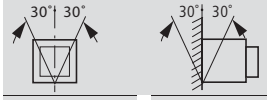
Notes

[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.

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	IEC/EN 60947	IEC/EN 60947	IEC/EN 60947	IEC/EN 60947	IEC/EN 60947	IEC/EN 60947	IEC/EN 60947	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
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
144	144	144	144	144	166	166	166	166
66	66	66	66	85	85	85	85	85
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
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
225	285	300	480	750	90	90	135	225
300	345	450	720	1120	135	120	180	300
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

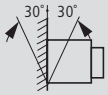
IZMX40…

					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.			Ue	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} O-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} O-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				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 trippinig 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	3-pole			kg	69	69	69
(CB only)	4-pole			kg	86	86	86
Cassette	3 pole			kg	29	29	29
	4 pole			kg	35	35	35

Notes

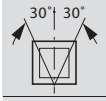
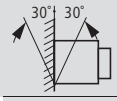
[1] Permissible continuous current for circuit-breakers operating in switchboards at various internal ambient temperatures. The switchboard's internal ambient temperature should be estimated using the calculation methods of IEC regulation.

[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
166	231	231	231	231	231	231	231	231
85	85	85	85	85	85	85	85	85
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
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
750	90	90	135	225	285	300	480	750
1120	135	120	180	300	345	450	720	1120
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

INX switch-disconnectors

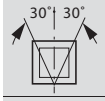
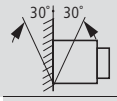
INX40...

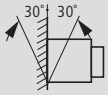
				RES608...SW... INX40B...08...	RES610...SW... INX40B...10...
General					
Standards				IEC/EN 60947	
Ambient temperature	Storage		°C	-40 - +70	
	Operating (open)		°C	-25 - +70	
Mounting position					
Utilization category				B	B
Protection type				IP20, IP55 with protective cover, IP41 with door sealing frame	
Direction of incoming supply				As required	As required
Main conducting paths					
Rated current = rated uninterrupted current		$I_n = I_u$	A	800	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.		Ue	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	144	144
Rated short-time withstand current 50/60 Hz					
	t = 1 s	I_{cw}	kA	66	66
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	3-pole		kg	69	69
(CB only)	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.

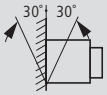
RES613...SW... INX40B...12...	**RES616...SW... INX40B...16...**	**RES620...SW... INX40B...20...**	**RES625...SW... INX40B...25...**	**RES632...SW... INX40B...32...**	**RES640...SW... INX40B...40...**
IEC/EN 60947					
-40 - +70					
-25 - +70					
					
B	B	B	B	B	B
IP20, IP55 with protective cover, IP41 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
144	144	144	144	144	144
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.		Ue	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	3-pole		kg	69	69
(CB only)	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	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	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

			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 x 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 x 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.

Communication modules

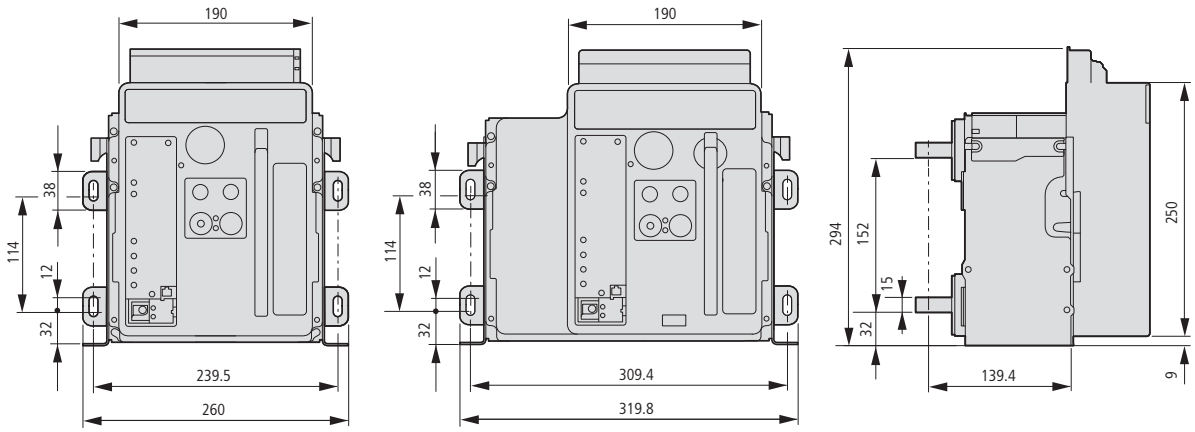
IZMX-PCAM, IZMX-MCAM, IZMX-ECAM

		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

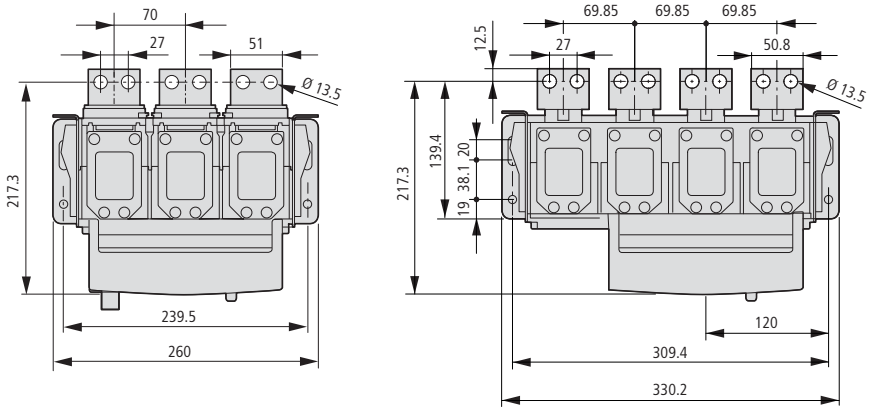
Dimensions

Fixed mounted

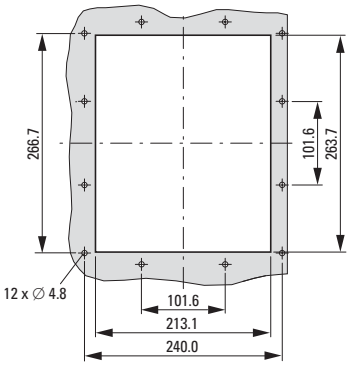
IZMX16…F, INX16…F



IZMX16…F, INX16…F

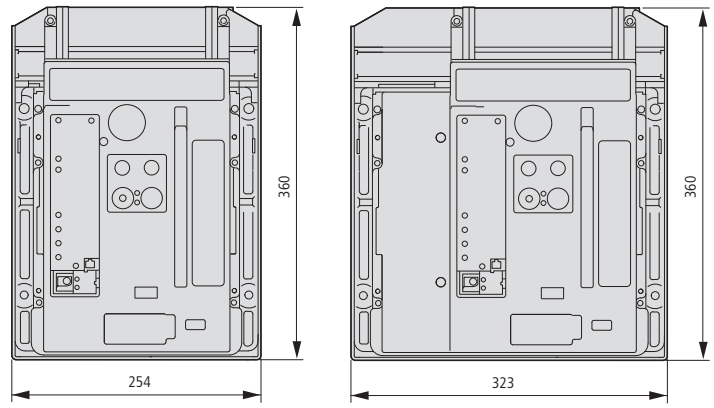


Door cut-out IZMX16 Fixed mounted units

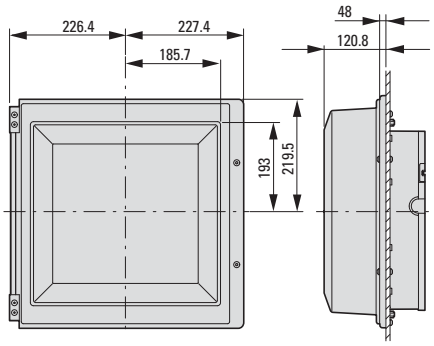


Withdrawable units

IZMX16…W, INX16…W

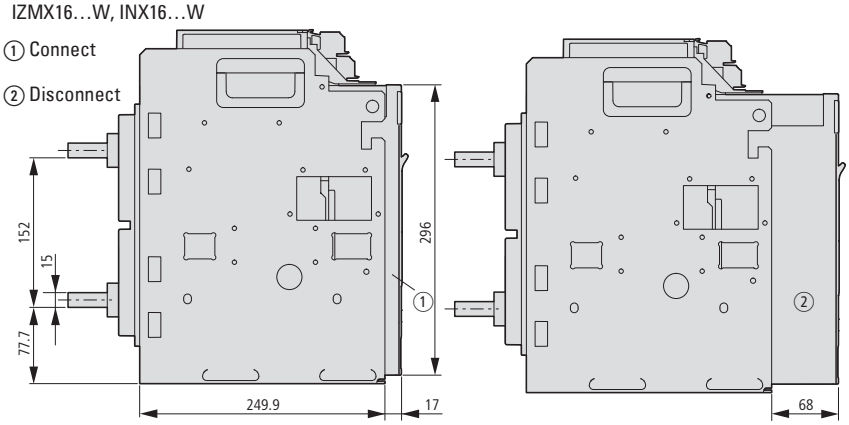


Protective cover
IZMX-DC16...(Door cut-out → next page)

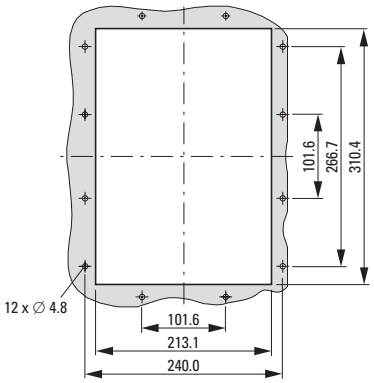


IZMX16…W, INX16…W

① Connect
② Disconnect

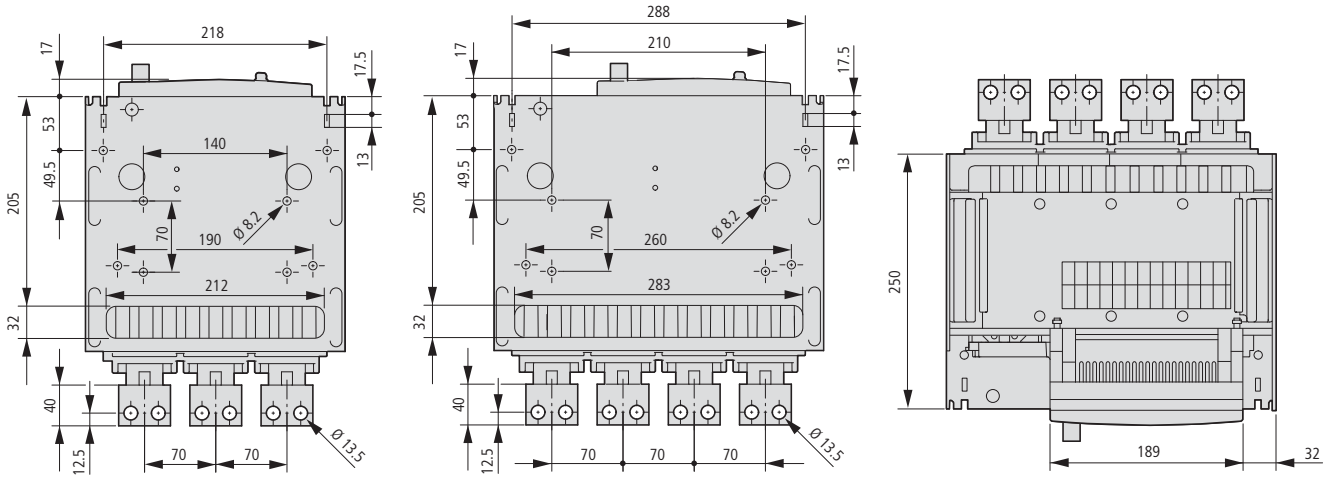


Door cut-out IZMX16 Withdrawable units



Withdrawable units

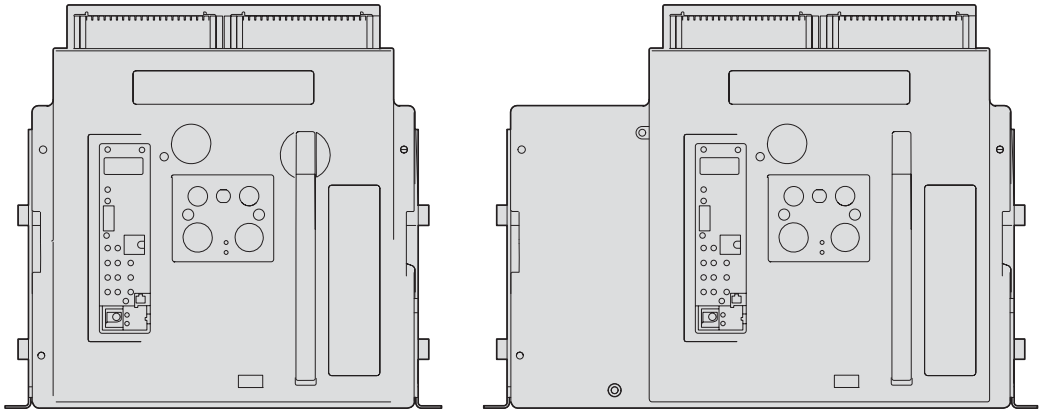
IZMX16…W, INX16…W



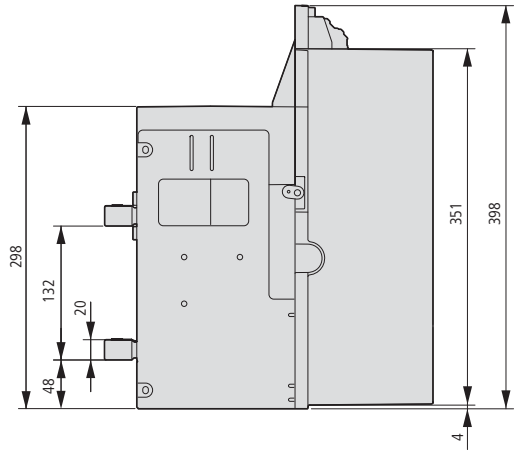
Further dimension drawings are available under following link:
ftp://ftp.moeller.net/CIRCUIT_BREAKER/

Fixed mounted

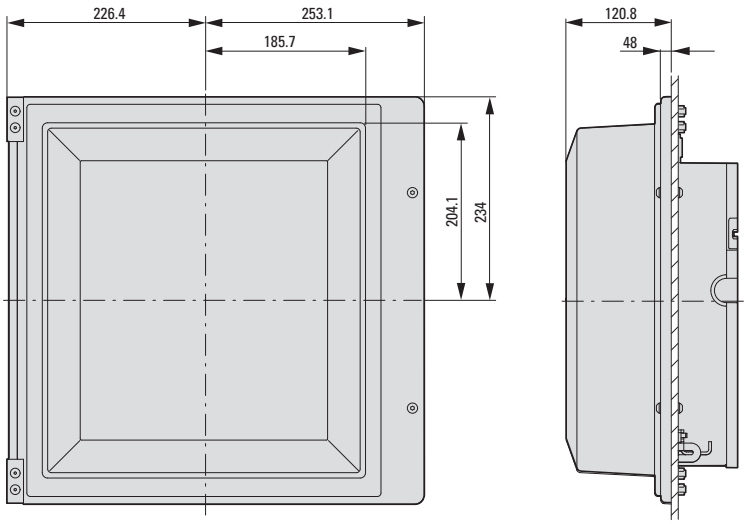
IZMX40…F, INX40…F



IZMX40…F, INX40…F



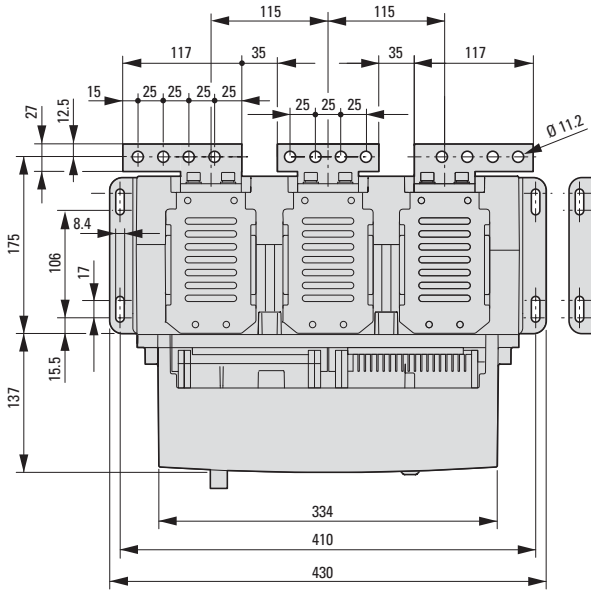
Protective cover IZMX-DC40...



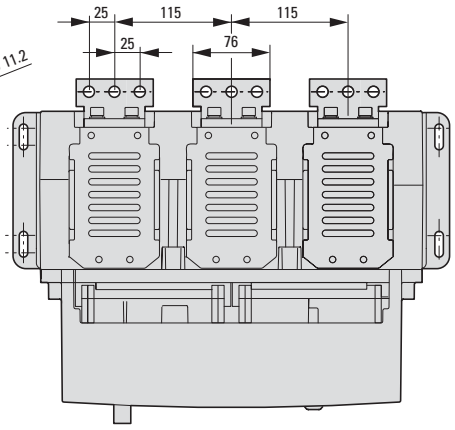
Fixed mounted

IZMX40…F, INX40…F

Terminals 4000 A

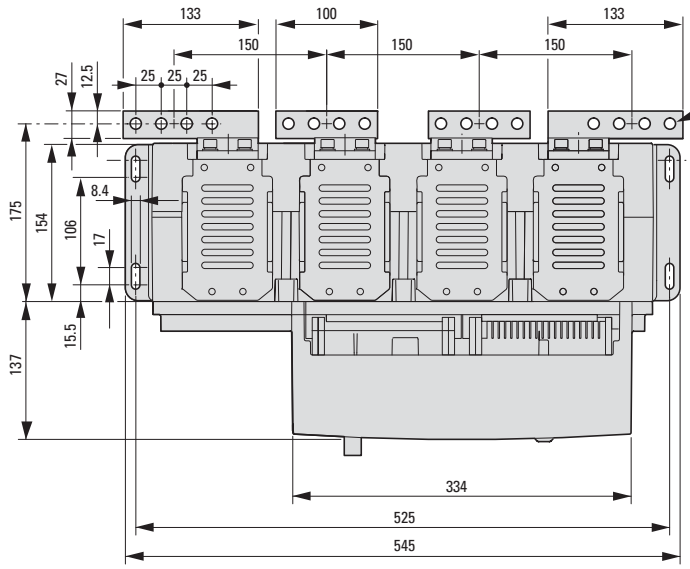


Terminals 3200 A

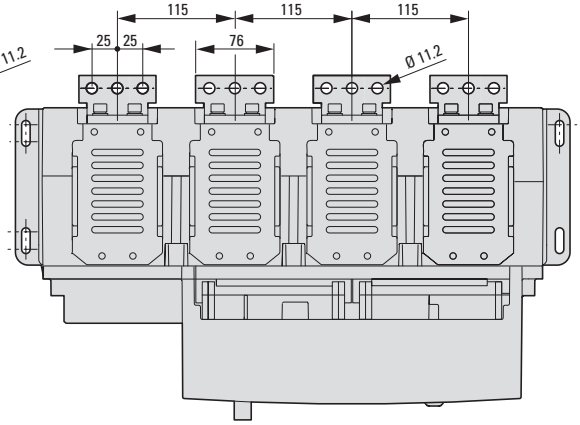


IZMX40…F, INX40…F

Terminals 4000 A

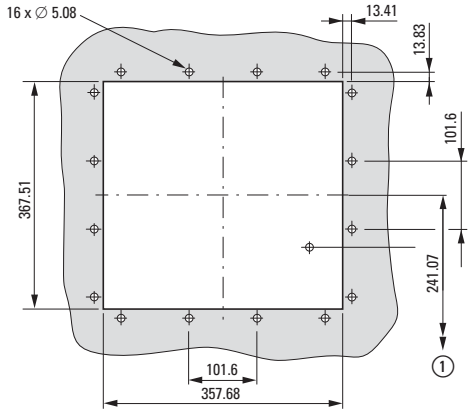


Terminals 3200 A

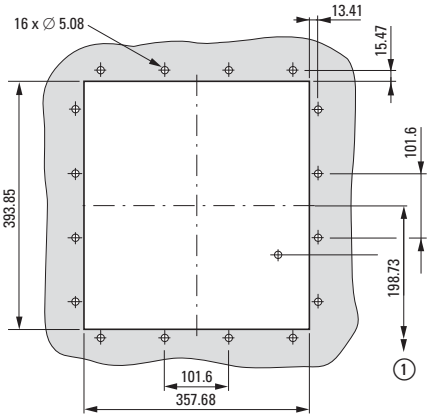


Door cut-out IZMX40

Fixed mounted units



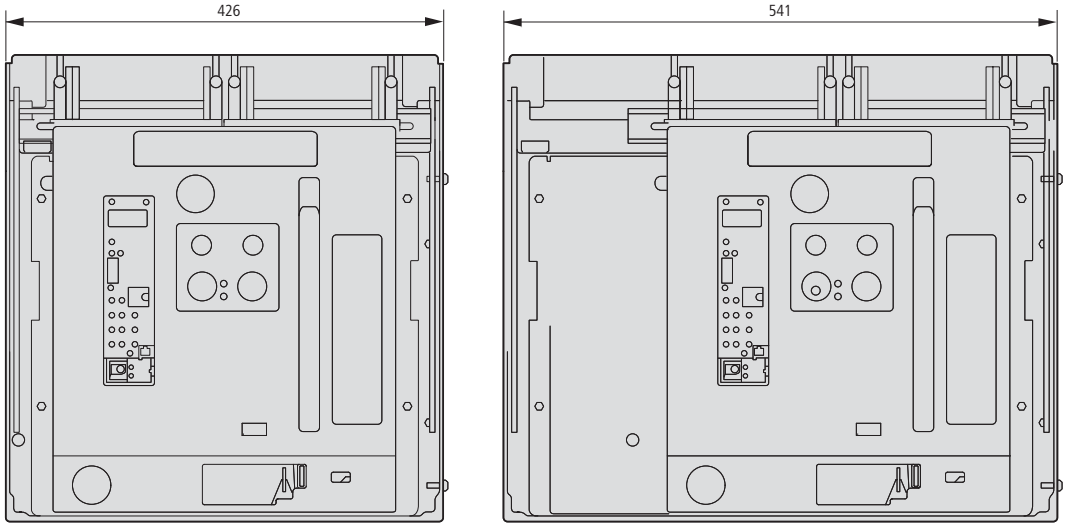
Withdrawable units



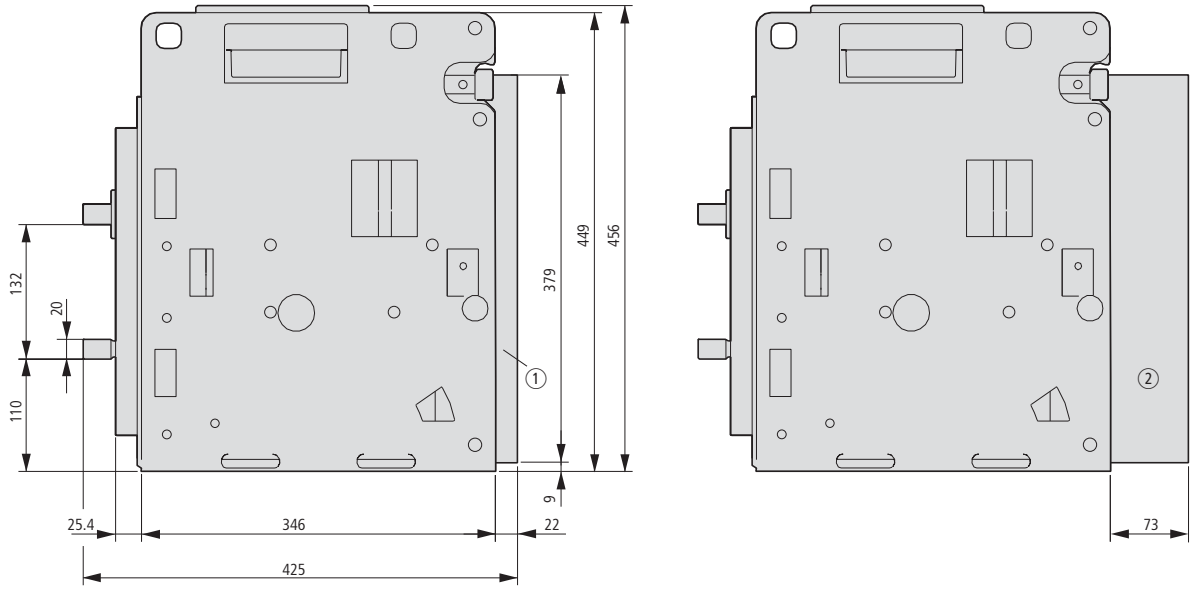
① Top edge of mounting plate

Withdrawable units

IZMX40…W, INX40…W

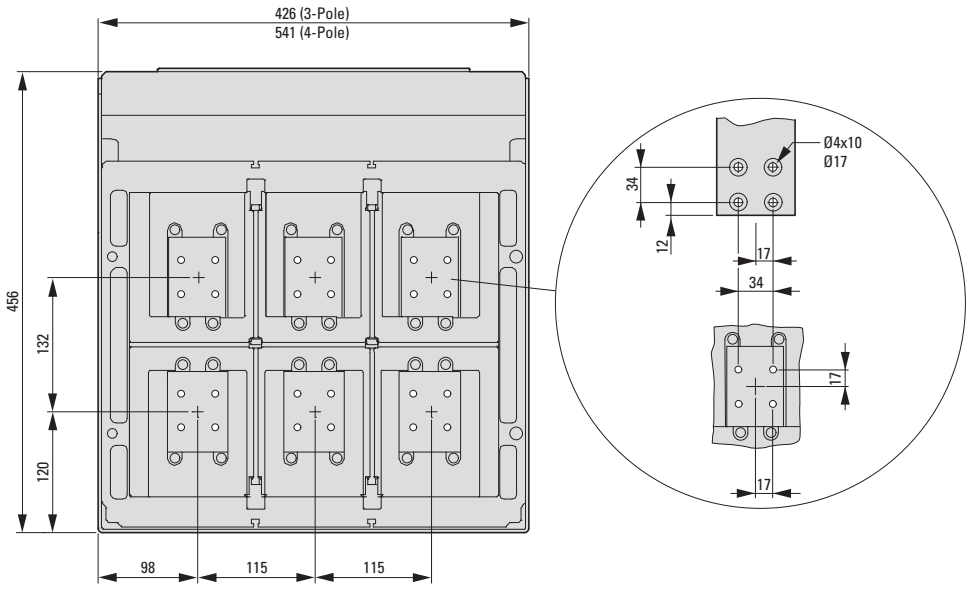


IZMX40…W, INX40…W



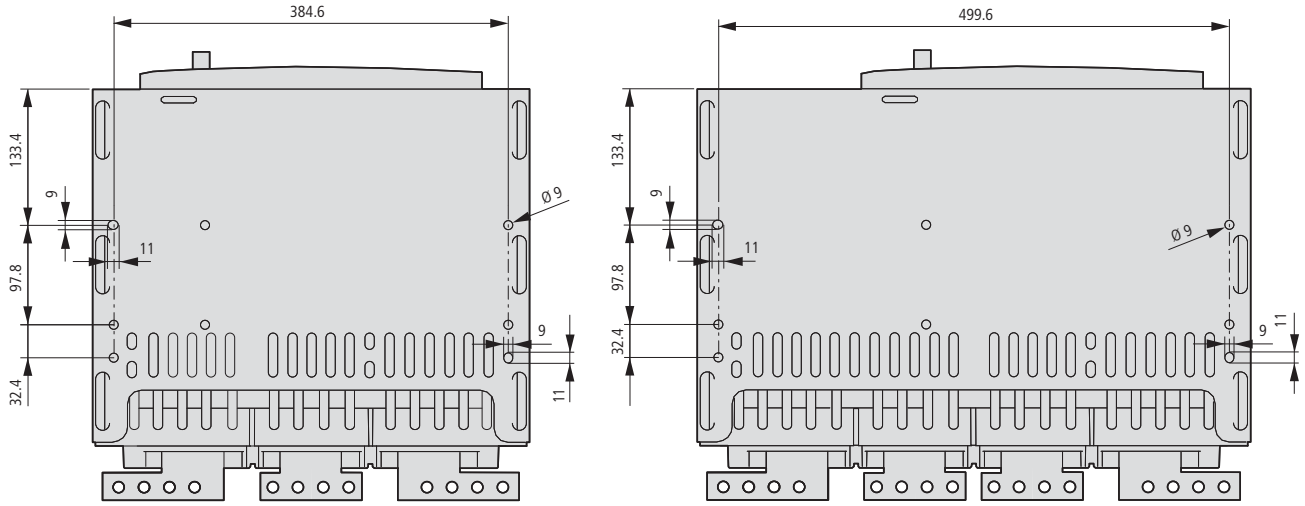
① Connect

② Disconnect



Withdrawable units

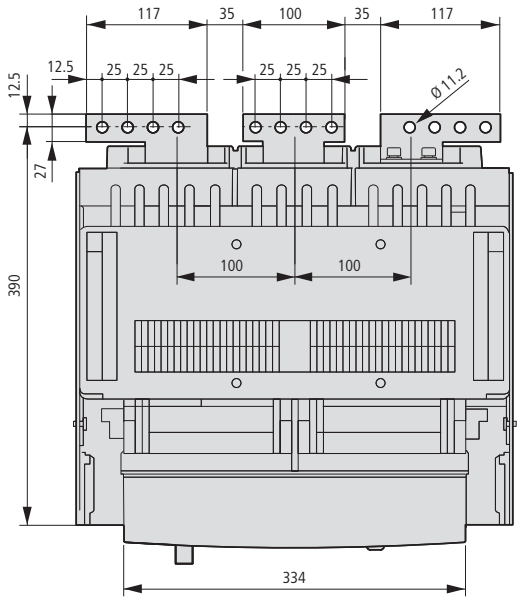
IZMX40…W, INX40…W
Mounting



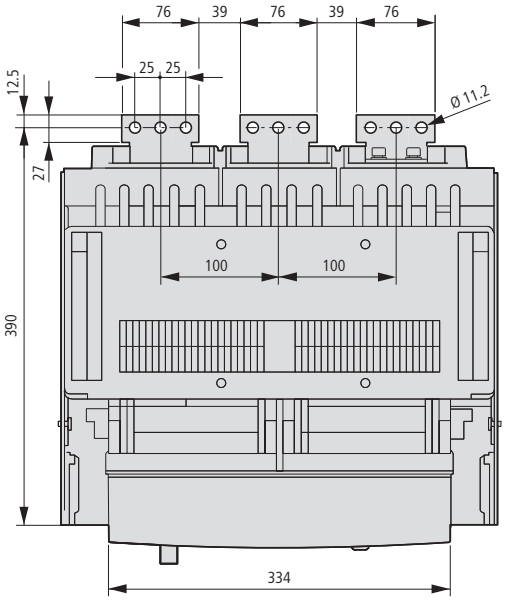
Withdrawable units

IZMX40…W, INX40…W

Terminals 4000 A

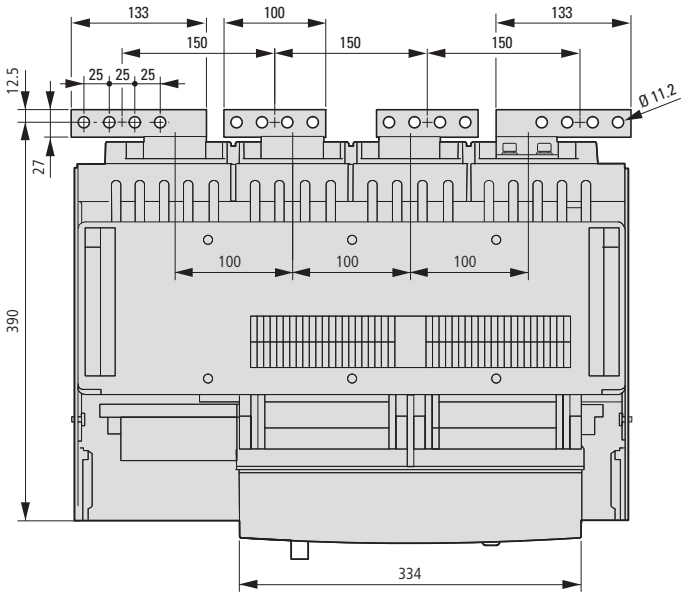


Terminals 3200 A

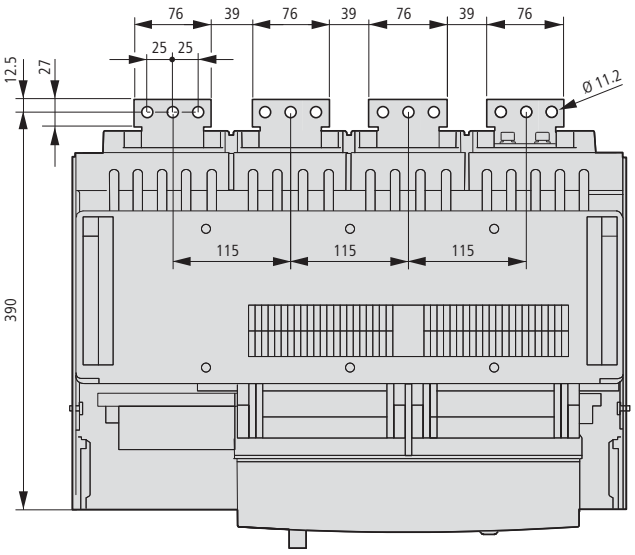


IZMX40…W, INX40…W

Terminals 4000 A



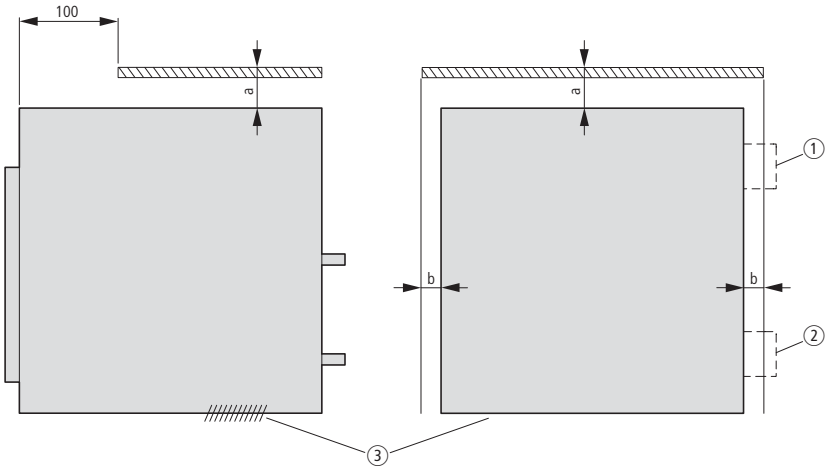
Terminals 3200 A



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.

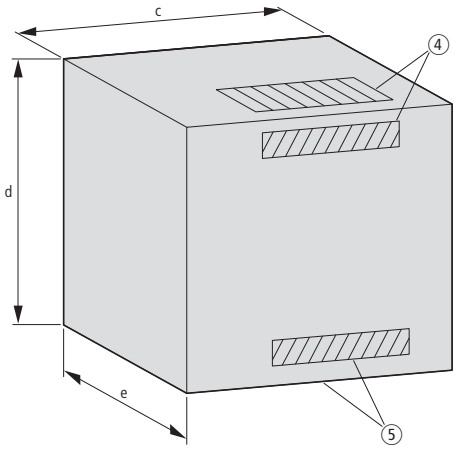


① Cell switch (optional)
② Locking facilities (optional)
③ Ventilation openings (do not cover!)

	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 cm² (800 - 3200 A) 320 cm² (4000 A)	Top and bottom

④ Top or rear vent
⑤ Rear or lower vent

Notes

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