

Low voltage Air Circuit Breaker – IZMX

# Switch Disconnecter and Air Circuit Breaker

... with  
Power Xpert  
Releases  
PXR

Product Catalogue





# Energizing a world that demands more.

## We deliver:

- **Electrical solutions** that use less energy, improve power reliability and make the places we live and work safer and more comfortable
- **Hydraulic and electrical solutions** that enable machines to deliver more productivity without wasting power
- **Aerospace solutions** that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- **Vehicle drivetrain and powertrain solutions** that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

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We provide integrated solutions that help make energy, in all its forms, more practical and accessible.

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*Powering Business Worldwide*

# Eaton air circuit breakers - for cost-effective, optimized solutions.



The **IZMX16** is the smallest air circuit-breaker in his class worldwide:

With a volume of only 24 dm<sup>3</sup> and a front surface of only 0.092 m<sup>2</sup> it is just slightly bigger than the size of a DIN A4 sheet of paper! And all this without any loss in terms of performance.

Because of its compact size it allows the user to create innovative concepts, like to install **two circuit** breakers side by side in withdrawable design, **in a 600 mm wide section**. This fact provides for a more cost-effective setup of the section and, in addition, it helps to save operating space. And where remote switching is required, this volume can even accommodate a motor for pre-tightening the stored-energy spring mechanism and some magnetic coils for the on/off command.

More performance in less space is simply impossible.



The **IZMX40** is a circuit breaker for up to 4000 A in a volume of a 3200 A circuit breaker, without the need to install any additional "busbar extensions" in the connection area.

Tests to integrate it into Eaton switchgear systems, such as Modan, xEnergy, PowerXpert, Capitol 20 and Capitol 40 confirm its outstanding technical performance and optimal compatibility thanks to the flexible connection system.

The modular structure, integrated detail solutions as well as a complete range of accessories and additional functions make it easy to adapt the circuit breaker to any of the required applications. Optionally it can be adapted right at the factory – without any extra cost or additional installation work at the circuit breaker.



Horizontal Terminal



Vertical Terminal

# Safety - individual solutions combined with IZMX.

Adding individual solutions to IZMX circuit breakers provides both more protection for systems and more safety for personnel in case there is a failure. And it also reduces the risk of unintended interruptions of operation.

These solutions include:

- ARMS™
- ARCON®
- Zone selectivity
- Remote switching
- Testing and documenting with PXP



## ARMS™ (Arcflash Reduction Maintenance System)

Eaton's patented Arcflash Reduction Maintenance System (ARMS) technology provides maintenance staff improved safety of downstream maintenance locations using a simple and reliable method to reduce fault clearing times and energy in an arc flash event (radiation, sound, pressure, temperature).

Arcflash Reduction Maintenance System uses a separate analog trip circuit providing faster signal processing and interruption times than the standard (digital) "instantaneous" protection.

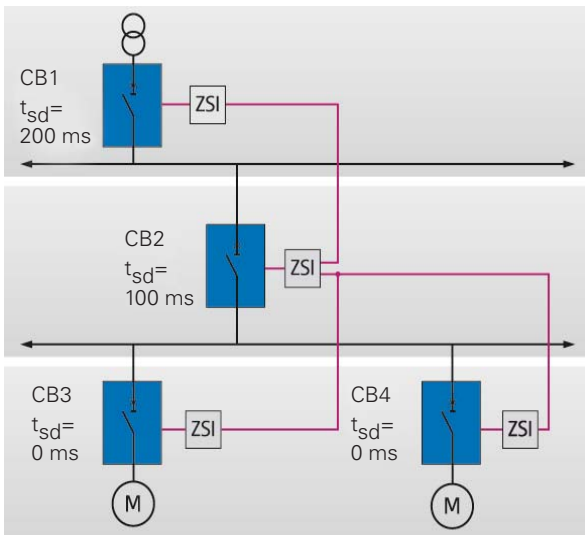
The Arcflash Reduction Maintenance System function is activated either directly on the circuit breaker through a local switch or remotely through communications or a contact input.

Arcflash Reduction Maintenance System is optional on both PXR20 and PXR25 trip units.



## ARCON®

IZMX breakers, combined with ARCON®, help users to avoid damage and to protect people against arc faults as they can effectively be brought under control within 2 ms. They also protect against arc flashes that – due to their impedance - would not even cause a protective device to react.



## Zone selectivity ZSI

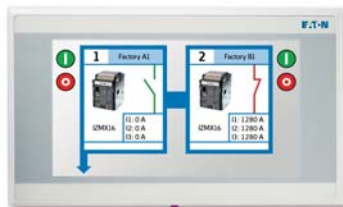
Now always on board an can be enabled.

Circuit breakers are directly connected to a signal line, without any additional modules. So, in case of short circuits, they ensure that only the circuit breaker immediately upstream the point of failure will break a short-circuit without delay.

The advantage of the zone selectivity feature – compared to ordinary time selectivity - is the significantly reduced delay time until tripping.

This reduces the thermal and dynamical load that protect the system in addition. In cases of a signal wire damage the back-up time selectivity ensures the selectivity of the system.

For additional safety of maintenance staff we recommend a combination with ARMS® to reduce the released amount of energy even further.



## Remote switching

Remote switching requires two magnetic coils (shunt trip and closing release).

These coils will activate the mechanism of the ON and OFF buttons. After two switching actions have been carried out, a stored-energy spring mechanism needs to be retightened manually. With an additional motor drive, the retightening action can be automated.

**Safety:** If the second switching action was an ON action, a third action for switch-off or tripping through the energy of the spring will be ensured.

**Safety:** OFF commands will always be given priority. A permanent command for the operating-current trip enables the user to lock the circuit breaker in the OFF position.

Thanks to the powerful stored-energy spring, the circuit breaker will carry out the switch command sent to the magnetic coil in less than 35 ms. So the IZMX series circuit breakers are suitable for synchronisation tasks.



Breaker rear side (Drawout breaker)

## Easy inspection and maintenance

Inspection and maintenance can be conveniently performed on the draw-out breaker as the primary finger clusters (blue) and levering mechanism are part of the breaker instead of the cassette.

Eaton also offers many field installable accessories and parts, extending the life of the breaker.

# The next generation trip unit platform: Power Xpert Release (PXR)

The higher resolution dot matrix display has been enhanced to be always active, constantly displaying the status of

zone selectivity (ZSI), battery condition and rated current In. All data can be transferred via Modbus, Profibus or Ethernet

communication function and for security, a password can be added to avoid unauthorised changes. In addition, a QR

code has been added for easier identification and to access additional information.

## Power Xpert Release (PXR) with multiple new features



- Modbus on board for PXR25 (optional for PXR20)
- Large LCD combined with cursor operation for more function and information
- Battery status, ZSI und In visible anytime
- ZSI – the better selective protection is always on board
- Password protection
- Rating plug programmable
- LSI protection can be changed to LI (without time selectivity  $T_{sd} = 0$ ) or LS (without Instantaneous  $I_i = 0 \underline{\Delta} 100\%$  selective)
- 3 free alarm contacts available
- USB port for testing and additional function setup via PC and software PXP

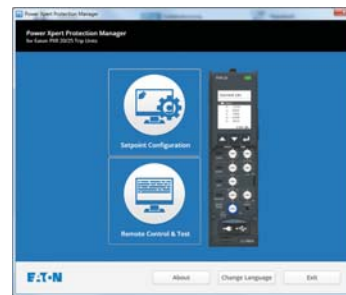


- QR code for easier identification and further information



- Improved Diagnostics with breaker health (graph), events and run time

## „Free download“ Software Power Xpert Protection Manager (PXP) for interaction with PXR



- Dis-/enable functions
- Reading/Changing settings (not basic protection settings)
- Waveform capture
- Multiple test procedures with final test protocol print including date/time stamp
- Print settings and curves

Using the software is easy and self explaining. The cursor above a select able function opens a window with its explanation. Depending on the selection next logical selection opens.

## Testers no longer require specialized test tools thanks to the much better software solution in combination with the integrated secondary injection test hardware. An this free of charge.



The Power Xpert Release trip unit platform enables engineers to configure and test circuit breakers from a PC via a USB port. As a result, it is easier for users to interact with the trip unit and store or print test data so they can improve their control and maintenance regimes.

USB Commercial cable



Load your settings and record them.

If any values are changed a “final setting adjustments” screen shows the original and revised settings, highlighting any that were modified. The sheet can be saved or printed.

| Final Setting Adjustments   |                  |                  |
|---|------------------|------------------|
| Below is a chart of the Parameters and settings. The 'As Found' settings that were captured before testing began are listed for your convenience. Please make any necessary changes to the settings. When the Next button is selected these settings will be captured. These settings will be located in the test report as the 'As Left' settings. |                  |                  |
| Parameter   | As Found         | As Left          |
| Rating (In)   | 2500 A           | 2500 A           |
| Maintenance Mode  | OFF              | OFF              |
| Maintenance Mode Remote Control   | Disable          | Disable          |
| Maintenance Mode Trip Level   | 2.5 x In         | 2.5 x In         |
| Line Frequency  | 60 Hz            | 60 Hz            |
| Reserve Feed Breaker  | Forward          | Forward          |
| Long Delay Thermal Memory   | OFF              | OFF              |
| Zone Selective Interlocking   | OFF              | OFF              |
| Long Delay Slope  | 1%               | 1%               |
| Long Delay Pickup (In)  | 1.00 x In        | 0.70 x In        |
| Long Delay Time   | 0.5 s            | 2 s              |
| High Load Alarm Level   | 0.5 In           | 0.5 In           |
| Short Delay Slope   | Flat             | Flat             |
| Short Delay Pickup Level  | 3.0 x In         | 3.0 x In         |
| Short Delay Time  | 0.25 s           | 0.25 s           |
| Instantaneous Pickup  | 5 x In           | 5 x In           |
| Ground Sensing Type   | Source/Zero Sens | Source/Zero Sens |
| Local Ground Fault Protection Type Setting  | Alarm            | Alarm            |
| Ground Fault Slope  | 1%               | 1%               |
| Ground Fault Pickup   | 1.0              | 1.0              |
| Ground Fault Trip Time  | 0.5 s            | 0.5 s            |
| Neutral Protection Ratio  | 100%             | 100%             |

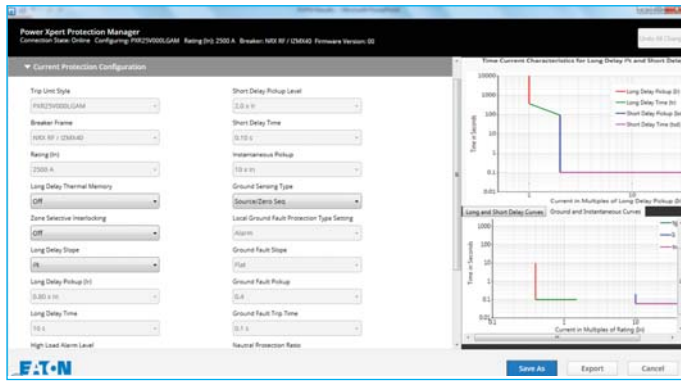
highlighted values indicate a difference between the 'As Found' setting and the setting 'As Left' setting.

High current circuit breakers, for example those used in high power distribution systems in industry, are configured and periodically tested by end users

to ensure they continue to work reliably in case of over-currents, and therefore prevent expensive downtime. This new unit allows technicians to simulate or

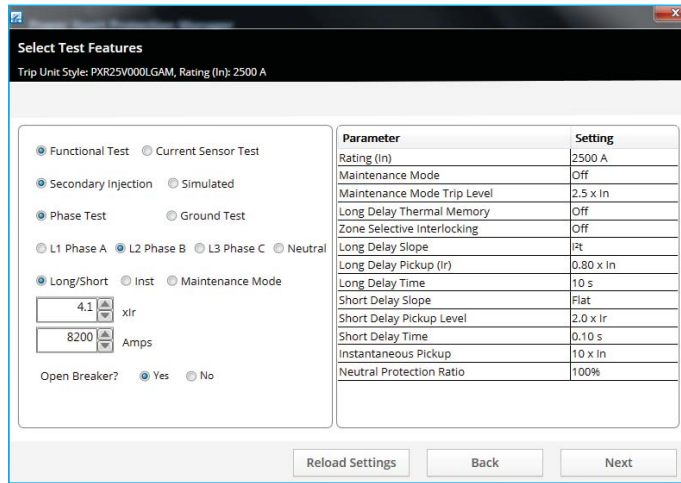
inject overloads, short circuits, ground faults, do internal current transformer test including its wiring, test with or without tripping and much more using

the Software Power Xpert Protection Manager (PXPM).



Dis-/Enable or change settings, enlarge tripping curves and print curves for documentation.

Utilizing the easy-to-use dashboard, Control Mode can be selected allowing diagnostic and meter data to be reset. In Test Mode individual phases can be tested against values entered as current value or as a multiplier of individual settings.

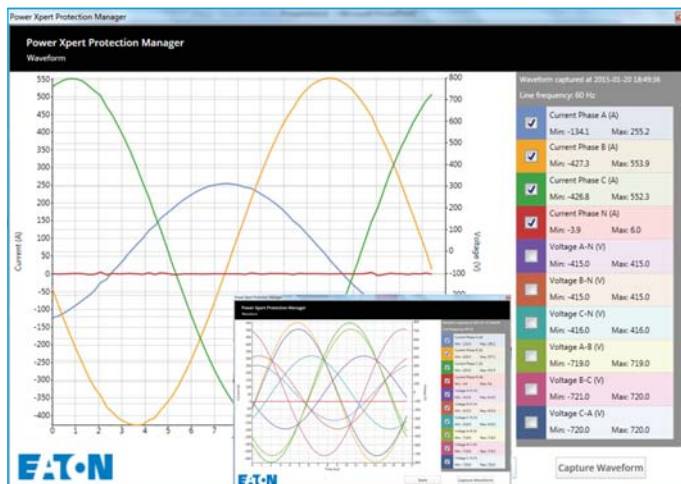


Select the function you want to test and choose the test current as value or multiplier of setting.

The unit has been developed in response to user demand for an easy-to-use system. Previously test data had to be written down, but with the upgraded software a three page professional test report with date/time stamp, customized information, individual settings/ tripping curves and secondary injection test result, can be generated and stored electronically in a pdf format. This enables technicians to significantly reduce the time it takes for testing, makes it much easier for them to carry out their maintenance, and receive a test report for documentation.

Prior to printing the test report, the customer name, location, environment and equipment condition can be entered.

**Report professional all your test results within one document after installation in your system or report your yearly inspection that might be requested in your company.**



Get additional information by capturing the waveform and select which curves shall be visible or be printed.

New features include the ability to capture current and optional voltage waveforms along with minimum and maximum values for the phase and neutral conductors. In addition, the waveform can give an indication of the overall quality caused by harmonics, and metering accuracy is now one per cent "of reading".



# IZMX circuit-breakers, INX switch-disconnectors, up to 4000 A<sup>\*)</sup>

Eaton's series IZMX is an innovative 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 series IZMX: The trip unit family PXR trip electronics. It covers a huge amount of applications. And in conjunction with an optional communication on board 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.

#### Series IZMX in standard offer up to 690 V

Rated operational current from 630 to 4000 A, switching capacity Icu = Ics from 42 to 105 kA/440 V AC, 3 or 4 pole, fixed mounted or withdrawable, electronic releases for multiple protection requirements and several additional options.

#### 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 and much more.

#### Brand new control unit family

The new PXR control unit is released in 2016. This new development is the answer on the latest market request of doing individual tests in the field and document it. Therefore Eaton provides an USB link in the trip unit front to be able to correspondent with PC in conjunction with a free download able Power Xpert Protection Manager software.

Further more the PXR control unit offers an extensive range of functions. Protection, measuring, analysis, diagnostics and event memory functions that can be shown on an LCD display or transferred remotely via an integrated communication system, displayed on a web page or sent worldwide by email. PXR can be integrated in different data networks together with Eaton's plug & play communication solution: 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 series IZMX, additional components of the ARCON™ arc fault protection system offer additional arc fault protection.

<sup>\*)</sup> Above 4000A please see IZM63

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

**System overview**

|   |   |
|---|---|
| IZMX16 Circuit Breakers and accessories | 2 |
| IZMX40 Circuit Breakers and accessories | 3 |
| Key to type references                  | 4 |

**Technical overview**

|                                  |   |
|----------------------------------|---|
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| Technical Data breaker Trip-unit | 6 |
| Zone selective interlocking      | 7 |

**Description**

|                              |    |
|------------------------------|----|
| System features              | 8  |
| Components for communication | 9  |
| Part no.e code               | 10 |

**Ordering**

|  |    |
|--|----|
| <b>Basic devices</b>                           |    |
| Circuit Breakers IZMX16, 3 and 4 pole          | 11 |
| Switch-disconnectors INX16, 3 and 4 pole       | 15 |
| Circuit Breakers IZMX40, 3 and 4 pole          | 16 |
| Switch-disconnectors INX40, 3 and 4 pole       | 20 |
| <b>Electronic Releases</b>                     |    |
| Trip units V, P                                | 22 |
| Communication modules                          | 24 |
| <b>Rating plugs</b>                            |    |
| Rating plugs (programmable)                    | 24 |
| Current sensor for neutral conductor           | 24 |
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| Main terminal sets                             | 27 |
| Control circuit terminal units, fixed mounting | 27 |
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| Motor operator                                 | 28 |
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| Undervoltage releases                          | 30 |
| Time delay modules                             | 30 |
| Closing releases, Latch check switches         | 31 |



**Ordering**

|  |    |
|--|----|
| <b>Electrical accessories</b>                |    |
| Overcurrent Trip switches                    | 23 |
| Interlocked Trip Indicators                  | 23 |
| Remote reset                                 | 23 |
| Auxiliary contacts                           | 30 |
| <b>Mechanical accessories</b>                |    |
| Operation counters                           | 32 |
| Locking ON/OFF buttons                       | 32 |
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**Engineering**

|  |    |
|--|----|
| Mechanical Interlock configurations              | 35 |
| Terminal assignment of control circuit terminals | 36 |
| Terminal assignment of communication wiring      | 37 |
| Tripping characteristics                         | 38 |
| Selectivity tables                               | 52 |

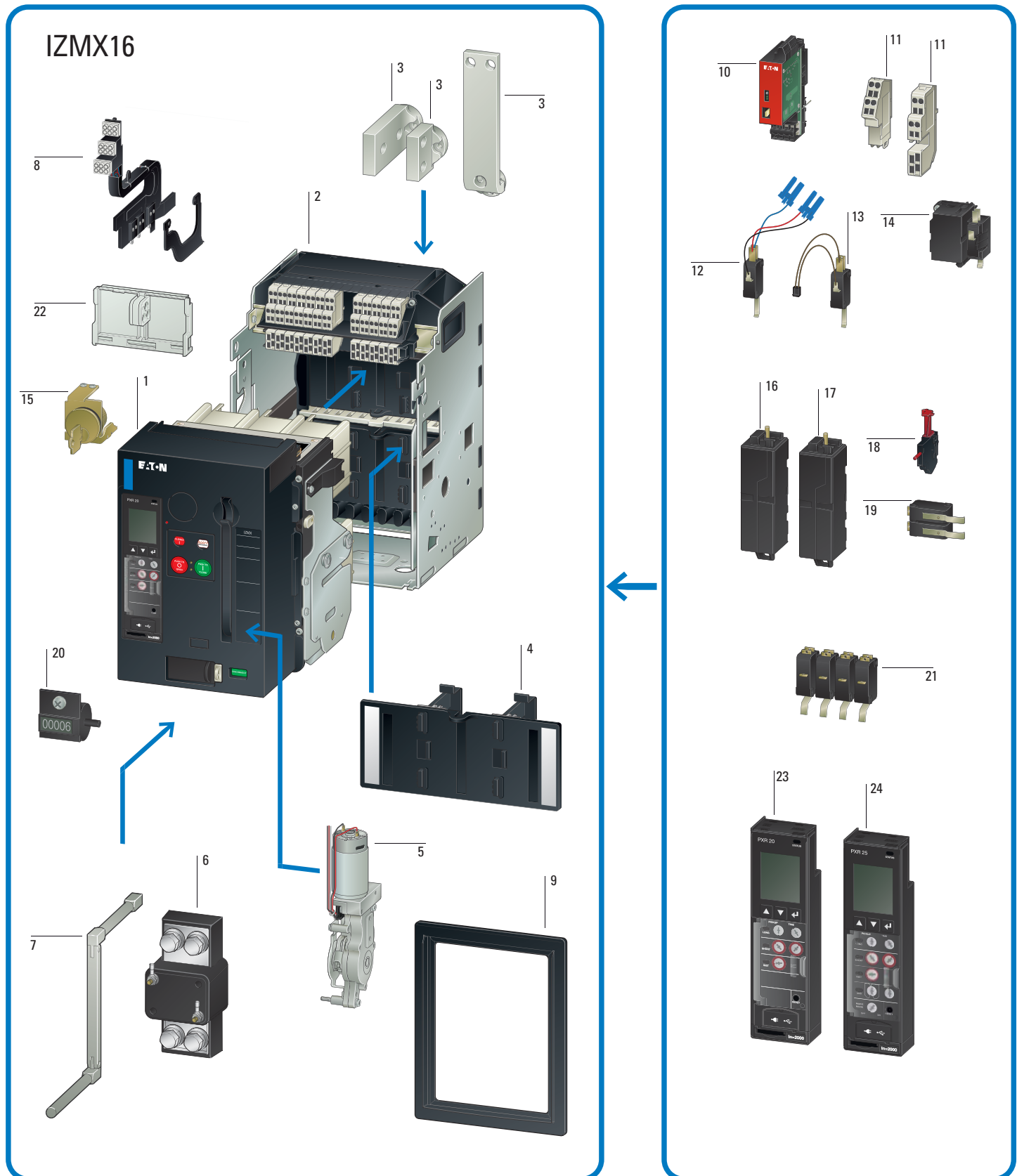
**Technical data**

|  |    |
|--|----|
| Circuit Breakers IZMX16                  | 54 |
| Switch-disconnectors INX16               | 56 |
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| Electrical accessories                   | 66 |
| Motor operators, altitude rating factors | 67 |
| Communication modules                    | 68 |

**Dimensions**

|  |    |
|--|----|
| <b>Circuit Breaker IZMX16, switch-disconnector INX16</b> |    |
| Fixed mounted  | 69 |
| Withdrawable units                                       | 73 |
| <b>Circuit Breaker IZMX40, switch-disconnector INX40</b> |    |
| Fixed mounted  | 77 |
| Withdrawable units                                       | 81 |
| Minimum clearances                                       | 86 |

## IZMX16, INX16, IZMX40, INX40



**1 IZMX Circuit-breaker**  
IZMX16: 630 - 1600 A  
IZMX40: 800 - 4000 A

**2 Cassette for withdrawable units**  
Shutters 3- and 4-pole  
With and without control circuit terminals

**3 Main terminal kits**  
Universal terminals, 3- and 4-pole  
horizontal/vertical/front

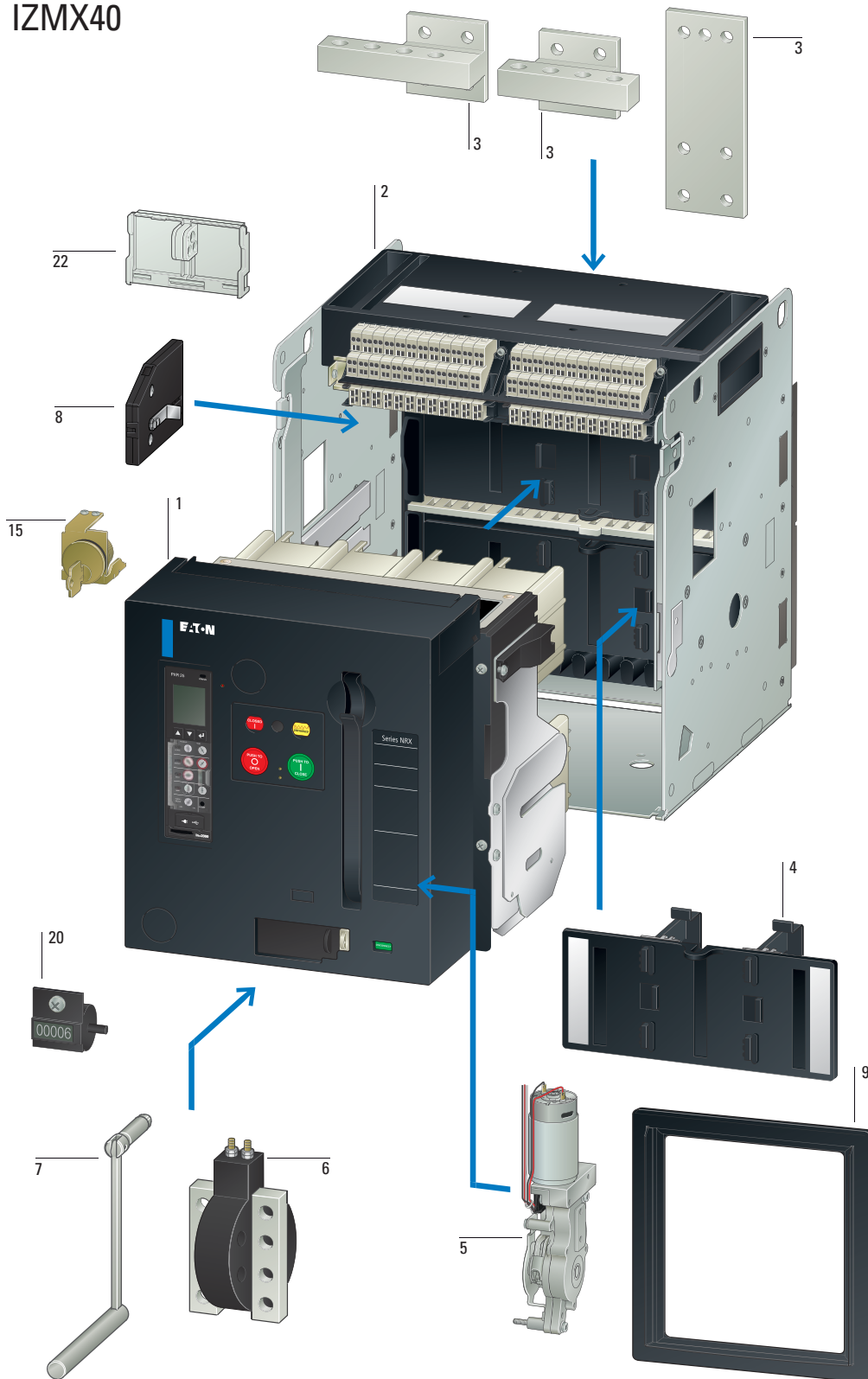
**4 Shutter**  
Shutter for 3- and 4-pole

**5 Motor operator**  
Automatic charging of the spring force storage for remote or local operations

**6 Current sensor for neutral conductor**  
Current sensor for sensing the neutral-conductor-current.

**7 Levering tool**  
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.

IZMX40



- 12 Latch check switch**  
For external application usage.

---

- 13 Latch check switch**  
For use with closing release.

---

- 14 Closing releases**  
Closes the breaker by an electrical signal.

---

- 15 Key locking**  
Locking of the breaker by a keylock.

---

- 16 Shunt releases**  
Opens the breaker by an electrical signal.

---

- 17 Undervoltage releases**  
Opens the breaker by a voltage-drop in the control-circuit.

---

- 18 Red-pop trip indicator**  
Red-pop trip indicator signals a trip by the trip unit.

---

- 19 Trip indicator switches**  
Overcurrent trip switch (OTS) signals a trip by the trip unit for remove signalisation.

---

- 20 Switching operations counters**  
Counts the number of operations.

---

- 21 Auxiliary contacts**  
Signalling switch ON-OFF

---

- 22 Locking facilities**  
Plastic or metal

---

- 23 Trip unit - V**  
PXR20 LI, LSI, (G)  
+ options

---

- 24 Trip unit - P**  
PXR25 LI, LSI, (G)  
Modbus onboard + options

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

**9 Door escutcheon**  
Closes the gap between Breaker and Switchgear-door. IP31. An IP55 protective cover is available as well

**10 Communication modules**  
Profibus DP, Modbus, Ethernet and Modbus onboard

**11 Control circuit terminal units**  
Either 2 or 12 units

## IZMX16, INX16, IZMX40, INX40

|  |   |  |    |   |    |
|--|---|--|----|---|----|
| <b>IZMX Circuit Breaker</b>  | 1 | <b>Communication modules</b>   | 10 | <b>Switching operations counters</b>                              | 20 |
| IZMX16: 630 – 1600 A   |   | Profibus DP, Ethernet  |    | Counts the number of operations.                                  |    |
| IZMX40: 800 – 4000 A   |   | → page 24  |    | → page 32   |    |
| → page 11  |   |  |    |   |    |
| <b>Cassette for withdrawable units</b>   | 2 | <b>Control circuit terminal units</b>                                  | 11 | <b>Auxiliary contacts</b>   | 21 |
| With and without control circuit terminals   |   | Either 2, 12 units   |    | Signalling switch ON-OFF  |    |
| → page 25  |   | → page 25, 27  |    | → page 30   |    |
|  |   |  |    |   |    |
| <b>Main terminal sets</b>  | 3 | <b>Latch check switch</b>  | 12 | <b>Locking facilities</b>   | 22 |
| Universal terminals, 3- and 4-pole horizontal/vertical   |   | For use with closing release.  |    | Padlockable plastic or metal front covers for ON-OFF pushbuttons. |    |
| → page 27  |   | → page 31  |    | → page 22   |    |
|  |   |  |    |   |    |
| <b>Cassette safety shutters</b>  | 4 | <b>Latch check switch</b>  | 13 | <b>Spare trip unit</b>  | 23 |
| Shutter for 3- and 4-pole  |   | For external application usage.  |    | PXR20, V-Type   |    |
| → page 26  |   | → page 31  |    | → page 22   |    |
|  |   |  |    |   |    |
| <b>Motor operator</b>  | 5 | <b>Closing releases</b>  | 14 | <b>Spare trip unit</b>  | 24 |
| Automatic charging of the spring force storage for remote or local operations                                  |   | Closes the breaker by an electrical signal.                            |    | PXR25, P-Type   |    |
| → page 28  |   | → page 31  |    | → page 22   |    |
|  |   |  |    |   |    |
| <b>Current sensor for neutral conductor</b>  | 6 | <b>Key locking</b>   | 15 |   |    |
| Current sensor for sensing the neutral-conductor-current.  |   | Locking of the breaker by a keylock                                    |    |   |    |
| → page 24  |   | → page 32  |    |   |    |
|  |   |  |    |   |    |
| <b>Levering tool</b>   | 7 | <b>Shunt releases</b>  | 16 |   |    |
| Convenient collapsible lev-in tool for lev-in and out operation of the Breaker in and out of the Cassette.     |   | Opens the breaker by an electrical signal.                             |    |   |    |
| The lev-in tool is stored inside the breaker.  |   | → page 29  |    |   |    |
| → page 26  |   |  |    |   |    |
|  |   |  |    |   |    |
| <b>Position cell switches</b>  | 8 | <b>Undervoltage releases</b>   | 17 |   |    |
| Cell switch signals the position of the breaker inside of the cassette. Connect, Test and Disconnect Position. |   | Opens the breaker by a voltage-drop in the control-circuit.            |    |   |    |
| → page 26  |   | → page 30  |    |   |    |
|  |   |  |    |   |    |
| <b>Door escutcheon</b>   | 9 | <b>Red-pop trip indicator</b>  | 18 |   |    |
| Closes the gap between Breaker and Switchgear-door. IP31.  |   | Red-pop trip indicator signals a trip of the breaker by the trip unit. |    |   |    |
| → page 33  |   | → page 23  |    |   |    |
|  |   |  |    |   |    |
|  |   | <b>Trip indicator switches</b>   | 19 |   |    |
|  |   | Overcurrent trip switch (OTS) signals a trip by the trip unit..        |    |   |    |
|  |   | → page 23  |    |   |    |

## IZMX16, IZMX40



IZMX16

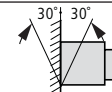


IZMX40

### General

|                     |                  |    |              |              |
|---------------------|------------------|----|--------------|--------------|
| Standards           |                  |    | IEC/EN 60947 | IEC/EN 60947 |
| Ambient temperature | Storage          | °C | -20 - +70    | -20 - +70    |
|                     | Operating (open) | °C | -20 - +70    | -20 - +70    |

Mounting position



|                              |   |  |             |             |
|------------------------------|---|--|-------------|-------------|
| Utilization category         |   |  | B           | B           |
| Protection type              | IP31, IP55 device with protective cover |  |             |             |
| Direction of incoming supply |   |  | as required | as required |

### Switching capacity

|  |  |       |       |  |       |       |
|--|--|-------|-------|--|-------|-------|
| Rated Current ( $I_n$ )                              | <b>630A, 800A, 1000A, 1250A, 1600A</b> |       |       | <b>800A, 1000A, 1250A, 1600A, 2000A, 2500A, 3200A, 4000A</b> |       |       |
| Type of circuit breaker                              | B                                      | N     | H     | B  | N     | H     |
| Rated impulse withstand voltage ( $U_{imp}$ , VAC)   | 12000                                  | 12000 | 12000 | 12000  | 12000 | 12000 |
| Rated insulation voltage ( $U_i$ , VAC)              | 1000                                   | 1000  | 1000  | 1000   | 1000  | 1000  |
| Rated operational voltage ( $U_e$ , VAC)             | 690                                    | 690   | 690   | 690  | 690   | 690   |
| Ultimate breaking capacity ( $I_{cu}$ , kA)          | 240V 50/60Hz                           | 42    | 85    | 85   | 66    | 85    |
|  | 440V 50/60Hz                           | 42    | 50    | 66   | 66    | 85    |
|  | 690V 50/60Hz                           | 42    | 42    | 42   | 66    | 75    |
| Rated service breaking capacity ( $I_{cs}$ , kA)     | 240V 50/60Hz                           | 42    | 50    | 66   | 66    | 85    |
|  | 440V 50/60Hz                           | 42    | 50    | 50   | 66    | 85    |
|  | 690V 50/60Hz                           | 42    | 42    | 42   | 66    | 75    |
| Rated short-time withstand current ( $I_{cw}$ , kA)  | 1s/3s                                  | 42/-  | 42/-  | 42/-   | 66/50 | 85/66 |
| Rated short-circuit making capacity ( $I_{cm}$ , kA) | 440V 50/60Hz                           | 88    | 105   | 145  | 145   | 187   |
|  | 690V 50/60Hz                           | 88    | 88    | 88   | 145   | 166   |
| Operating delays (ms)                                | Closing delay                          | 25    |       | 30   |       |       |
|  | Closing delay electrical (via SR)      | 30    |       | 35   |       |       |
|  | Opening delay electrical (via ST)      | 25    |       | 22   |       |       |
|  | Opening delay electrical (via UVR)     | 50    |       | 37   |       |       |
| Maximum operating frequency (Operations/h)           |  |       | 60    | 60   |       |       |

### Durability and installation characteristics

|                            |                                  |                   |                   |                 |                    |
|----------------------------|----------------------------------|-------------------|-------------------|-----------------|--------------------|
| Lifespan                   |                                  | <b>630A-1600A</b> | <b>800A-1600A</b> | <b>2000A</b>    | <b>2500A-4000A</b> |
|                            | Mechanical, w/o maintenance      | 10000             | 10000             | 10000           | 10000              |
|                            | Mechanical, w maintenance        | 20000             | 20000             | 20000           | 20000              |
|                            | Electrical 440V, w/o maintenance | 10000             | 10000             | 8000            | 5000               |
| Dimensions (H × W × D, mm) | Fixed 3P                         | 338 × 210 × 184   |                   | 398 × 376 × 298 |                    |
|                            | Fixed 4P                         | 338 × 279 × 184   |                   | 398 × 492 × 298 |                    |
|                            | Withdrawable 3P                  | 360 × 254 × 289   |                   | 456 × 426 × 393 |                    |
|                            | Withdrawable 4P                  | 360 × 324 × 289   |                   | 456 × 541 × 393 |                    |
| Weight (kg)                | Fixed 3P/4P                      | 15/20             |                   | 45/56           |                    |
|                            | Withdrawable 3P/4P               | 39/47             |                   | 69/86           |                    |
|                            | Cassette                         | 18/21             |                   | 29/35           |                    |

# 6 IZMX Circuit Breakers

Technical Data

## IZMX16, IZMX40

### Standard plus Selective Protection



**V Type (PXR20)**  
**IZMX-PXRV**  
**IZMX16/40...V...**

### Power/Energy Protection



**P Type (PXR25)**  
**IZMX-PXRP**  
**IZMX16/40...P...**

| Protection functions  | LI, LSI; LSIG/LSIA (Optional)                       | LI, LSI; LSIG/LSIA (Optional)                       |
|---|---|---|
| <b>Overload protection (L)</b>                                  |   |   |
| Slopes  | $I^{0.5}t, I_t, I^2t, I^4t$                         | $I^{0.5}t, I_t, I^2t, I^4t$                         |
| Overload trip ( $I_r$ ), $\times I_n$                           | 0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 0.98, 1.0 | 0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 0.98, 1.0 |
| Long delay time $t_r$ ( $6 \times I_r$ )                        | 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24 s               | 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24 s               |
| <b>Short-time delayed short-circuit protection (S)</b>          |   |   |
| Short delayed pickup ( $I_{sd}$ ), $\times I_r$                 | 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10                   | 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10                   |
| Short delay time, flat characteristic curve ( $t_{sd}$ )        | 0.0, 0.1, 0.2, 0.3, 0.4, 0.5 s <sup>1)</sup>        | 0.0, 0.1, 0.2, 0.3, 0.4, 0.5 s <sup>1)</sup>        |
| Short delay time at $8 \times I_r$ , $I^2t$ curve ( $t_{sd}$ )  | 0.1, 0.3, 0.4, 0.5 s                                | 0.1, 0.3, 0.4, 0.5 s                                |
| <b>Non-delayed short-circuit protection (I)</b>                 |   |   |
| Non-delayed pickup ( $I_l$ ), $\times I_n$                      | OFF, 2, 4, 5, 6, 7, 8, 10, 12, 15                   | OFF, 2, 4, 5, 6, 7, 8, 10, 12, 15                   |
| Optional ground fault protection (G)                            |   |   |
| Ground/Earth fault alarm (A), $\times I_n$                      | 0.2, 0.4, 0.6, 1.0                                  | 0.2, 0.4, 0.6, 1.0                                  |
| Ground/Earth pickup ( $I_g$ ), $\times I_n$                     | OFF, 0.2, 0.4, 0.6, 0.8, 1.0                        | OFF, 0.2, 0.4, 0.6, 0.8, 1.0                        |
| Short delay time, flat characteristic curve ( $t_g$ )           | 0.1, 0.2, 0.3, 0.4, 0.5 s                           | 0.1, 0.2, 0.3, 0.4, 0.5 s                           |
| Short delay time at $0.625 \times I_n$ , $I^2t$ curve ( $t_g$ ) | 0.1, 0.2, 0.3, 0.4, 0.5 s                           | 0.1, 0.2, 0.3, 0.4, 0.5 s                           |
| Over-temperature trip   | ●   | ●   |
| Thermal memory  | ●   | ●   |
| Zone selectivity ZSI (see next page)                            | ●   | ●   |
| Making current release (MCR)                                    | ●   | ●   |
| <b>Further functions</b>  |   |   |
| System diagnostic   |   |   |
| Status/Overload LED   | ●   | ●   |
| Cause of trip LEDs  | ●   | ●   |
| Current at trip point (display indication)                      | ●   | ●   |
| High load or ground fault alarm contact                         | ●   | ●   |
| System monitor  |   |   |
| LCD display   | ● <sup>2)</sup>                                     | ● <sup>2)</sup>                                     |
| Current metering accuracy $\pm 1\%$ of Reading                  | $\pm 1\%$ of Reading                                | $\pm 1\%$ of Reading                                |
| Voltage (%) L to L  | –   | $\pm 1\%$ of Reading <sup>3)</sup>                  |
| Power and energy (%)  | –   | $\pm 2\%$ of Reading <sup>3)</sup>                  |
| Apparent power kVA and demand                                   | –   | ● <sup>3)</sup>                                     |
| Reactive power kVAR   | –   | ● <sup>3)</sup>                                     |
| Power factor  | –   | ● <sup>3)</sup>                                     |
| Communications  |   |   |
| Onboard (ModBus)  | ○   | ●   |
| External (CAM Module)   | ○   | ○   |
| Power supply requirement  | +24 V DC, optional                                  | +24 V DC, optional                                  |
| Additional functions  |   |   |
| Test Capability   | Integral, PC+Power Xpert (free Download)            | Integral, PC+Power Xpert (free Download)            |
| Maintenance Mode ARMS (Arc Flash Reduction Maintenance System™) | ○   | ○   |
| Trip log  | ●   | ●   |
| Electronic operations counter                                   | ●   | ●   |
| Waveform capture  | ●   | ●   |
| Breaker health monitor  | ●   | ●   |

### Notes

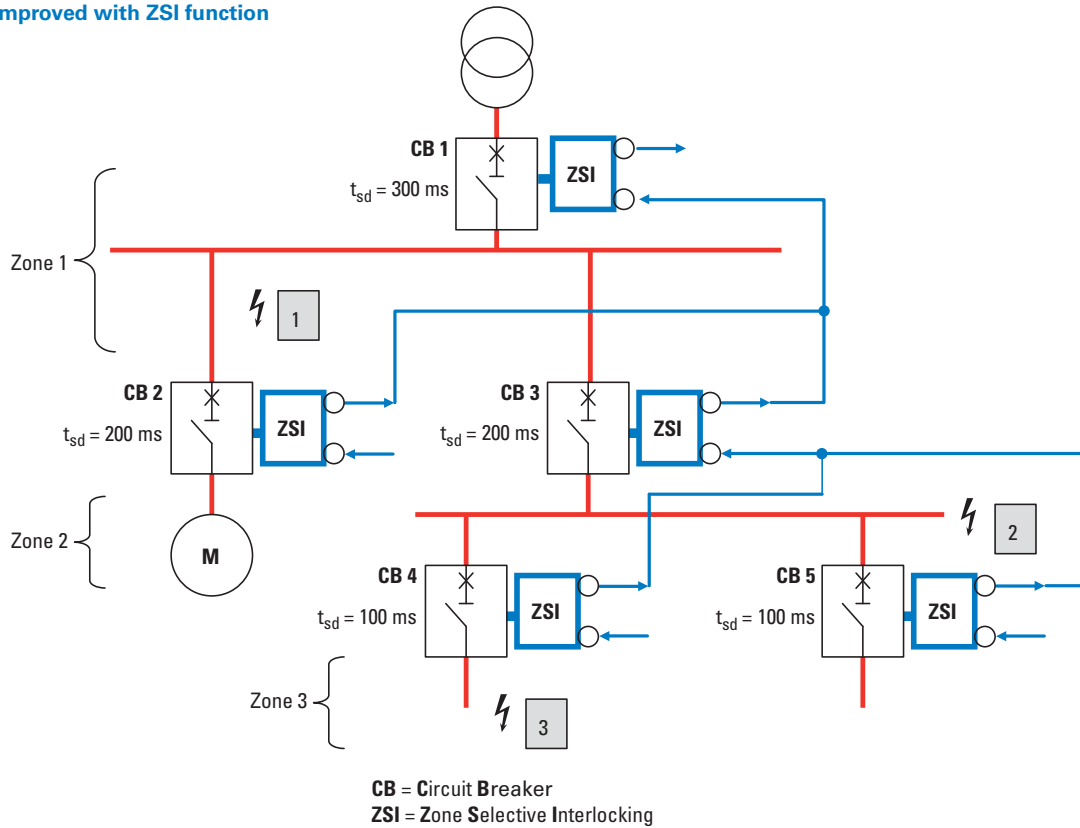
<sup>1)</sup> 0.1s: trip time is 0.06s to 0.1s; 0s: nominal clear time is 25 ms to 85 ms with or without auxiliary power

<sup>2)</sup> Requires external 24VDC control voltage supply when continuous current below 20% of  $I_n$

<sup>3)</sup> Requires external PT module (IZMX-PXR-PTM-1) for voltage sensing input to trip unit

● Standard      ○ Optional      – not available

## Selectivity-improved with ZSI function



### Zone Selective Interlocking (ZSI)

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

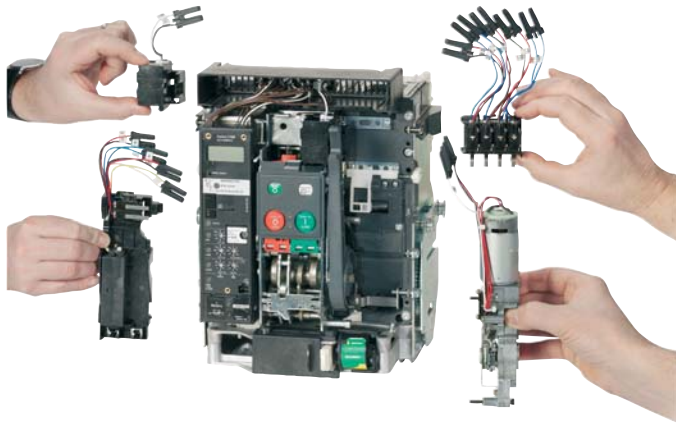
#### Example B – Short-circuit at position 2

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

#### Example C – Short-circuit at position 1

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

## Space-saving Circuit Breakers with useful accessories



Breaker rear side (withdrawable breaker)

**Eaton Introduces IZMX Series**

The IZMX 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. The new trip unit family PXR with LCD display and USB connector is ready for the future. A linked PC with the free download software Power Xpert allows a comfortable use in reading testing and printing for documentation purposes. The innovative concept of the **IZMX16** makes it possible to install two withdrawable circuitbreakers 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. **IZMX** is 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 IZMX are common to both the compact and standard frame sizes. All accessory kits are complete and ready for use.

**Standard scope of delivery**

- With the new IZMX 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 (operators view).
- The neutral conductor is equipped with internal current transformer and can be loaded 100% like the phase conductors.
- The Circuit Breakers are provided with a standard mechanical reclosing lock-out. After an overload trip, the fault is usually examined first. After the fault is identified and rectified, the mechanical reclosing lock-out 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.
- The door escutcheon is always included in the scope of delivery. With withdrawable designs this is supplied with the cassette (withdrawable unit).
- On withdrawable units the circuit breaker can be pulled out to inspect the arc chutes and the blue cluster condition (see above picture). 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 selective protection (PXR20), feature a LCD display, and all devices provided with power measurement protection PXR25 feature several additional functions.
- On each Circuit Breaker the integrated PXR 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 IZMX**

- 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 IZMX breaker and the cassette offer an integrated flange terminal to which the system busbars can be connected directly.
- For this reason, the main terminals are not part of the standard scope of delivery. Do not forget to order terminal adaptations 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.
- A coding mechanism between the basic device and the cassette prevents impermissible combinations ("Rejection Interlock").

**External 24 V supply**

- The standard protection functions of IZMX Series 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 selective PXR20(V) and power measurement release PXR25(P) 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**

Inserting the settings of all protective devices in the system into the free download software confirms the selectivity of the system. All tripping curves can be printed into one diagram for documentation purposes.

## ARMS™ ARC flash energy reduction technology optimize safety for maintenance personnel

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 IZMX Series trip units offer the patented ARMS system (Arcflash Reduction Maintenance System™), which offers a non-delayed immediate disconnection in the event of an arc fault. This disconnection is even faster than that of a non-delayed short-circuit release. This function can be activated directly on the Circuit Breaker or via an external switch, such as when maintenance personnel enter a hazardous area.

### Major Benefits of ARMS:

- Increased personnel safety – by limiting the available arc flash energy
- Simple to operate
- Enabled with circuit breaker door closed by a door mounted lockable switch
- Enabled only for the time required to perform the desired maintenance work
- Preserves overcurrent coordination under normal conditions
- Reduction in incident energy levels may permit reduced levels of Personal Protective Equipment (PPE), therefore improving worker comfort and mobility

Other components of the ARCON arc fault protection system, in conjunction with Series IZMX, enable an expansion of arc fault protection in stages.

## 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](http://www.eaton.com/seriesnrx).

## Communication Options for IZMX Series

With the respective communication module - PCAM, MCAM or ECAM (Profibus-DP / Modbus/ Ethernet Communications Adapter Module) - every circuit breaker of the NRX series is equipped for modern communication and is fit for the future. The databus not only allows to transmit information, but also to receive commands/settings. Onboard Modbus communication is standard on the PXR25 (P type) trip unit and optional on the PXR20(V type) trip unit upon order. Additional PCAM, MCAM or ECAM module can be installed externally for PXR25 to expand the communication capability. (No more than one external CAM module can be installed).

## 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 IZMX data into the control system.

## Modbus configuration

The new PXR has an on board Modbus RTU controller. The device 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 onboard Modbus, 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.

- 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.

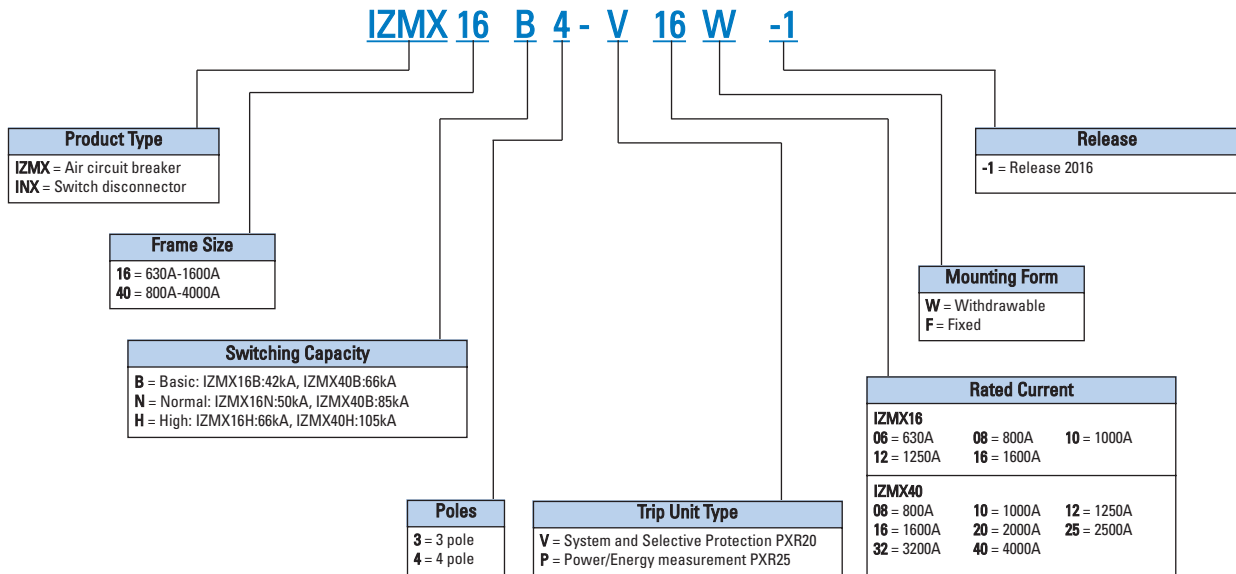
## Data access via Ethernet

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.

## Configuration



## IZMX Air Circuit Breakers Catalog Number



## Selection Examples

**IZMX40 fixed 230VAC electrically operated example (item 3-5 for remote operation):**

- ① IZMX40B3-V16F-1      Fixed breaker, including 2a2b Aux contact
- ② IZMX-THV403-3200-1      Main terminal adapter – horizontal/vertical (3200A and below)
- ③ +IZMX-M40-230AD-1      220-240 VAC/DC Charging motor
- ④ +IZMX-ST230AD-1      220-240 VAC/DC Shunt trip
- ⑤ +IZMX-SR230AD-1      220-240 VAC/DC Closing (spring) release
- ⑥ +IZMX-AS22-1      Additional 2a2b Aux contact (4a4b total)
- ⑦ +IZMX-OTS-1      Over current trip switch(OTS) 2CO

**IZMX40 withdrawable 230VAC electrically operated example (item 5-7 for remote operation):**

- ① IZMX40B3-V16W-1      Withdrawable breaker, including 2a2b Aux contact
- ② +IZMX-CAS403-2000-1      Cassette(2000A and below)
- ③ +IZMX-SH403-1      Safety shutters
- ④ IZMX-THV403-3200-1      Main terminal adapter – horizontal/vertical (3200A and below)
- ⑤ +IZMX-M40-230AD-1      220-240 VAC/DC Charging motor
- ⑥ +IZMX-ST230AD-1      220-240 VAC/DC Shunt trip
- ⑦ +IZMX-SR230AD-1      220-240 VAC/DC Closing (spring) release
- ⑧ +IZMX-AS22-1      Additional 2a2b Aux contact (4a4b total)
- ⑨ +IZMX-OTS-1      Over current trip switch(OTS) 2CO

**Notes**

All „+“ articles are factory installed accessories and ready for use.  
All accessory articles without „+“ are complete „field kits“.

**THE KITS CONTAIN ALL REQUIRED PARTS, INSTALLATION INSTRUCTION IL AND IN CASE OF ELECTRICAL ACCESSORY THE CONTROL TERMINALS.**

## IZMX16...V..., 3pole

| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases                 |   | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Std. pack |
|--|-----------------------------------|--|--|---|--------------------------------------|----------------------------|---|----------------------------|-----------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$ | Non-delayed<br>$I_i = I_n \times \dots$ |                                      |                            |   |                            |           |
|  |                                   |  |  |   |                                      |                            |   |                            |           |

### Circuit Breaker for system and selective protection



With flange terminals. Other termination see page 27.

#### 3 pole

| Switching capacity | Rated current | Setting range | Short-circuit releases | Fixed Part no. | Price                            | Withdrawable Part no.            | Price | Std. pack |
|--------------------|---------------|---------------|------------------------|----------------|----------------------------------|----------------------------------|-------|-----------|
| 42/42              | 630           | 252 - 630     | 1.5 - 10               | 2 - 15, OFF    | <b>IZMX16B3-V06F-1</b><br>183395 | <b>IZMX16B3-V06W-1</b><br>183341 |       | 1         |
|                    | 800           | 320 - 800     |                        |                | <b>IZMX16B3-V08F-1</b><br>183396 | <b>IZMX16B3-V08W-1</b><br>183342 |       | 1         |
|                    | 1000          | 400 - 1000    |                        |                | <b>IZMX16B3-V10F-1</b><br>183328 | <b>IZMX16B3-V10W-1</b><br>183343 |       | 1         |
|                    | 1250          | 500 - 1250    |                        |                | <b>IZMX16B3-V12F-1</b><br>183329 | <b>IZMX16B3-V12W-1</b><br>183344 |       | 1         |
|                    | 1600          | 640 - 1600    |                        |                | <b>IZMX16B3-V16F-1</b><br>183330 | <b>IZMX16B3-V16W-1</b><br>183345 |       | 1         |
| 50/50              | 630           | 252 - 630     |                        |                | <b>IZMX16N3-V06F-1</b><br>183331 | <b>IZMX16N3-V06W-1</b><br>183346 |       | 1         |
|                    | 800           | 320 - 800     |                        |                | <b>IZMX16N3-V08F-1</b><br>183332 | <b>IZMX16N3-V08W-1</b><br>183347 |       | 1         |
|                    | 1000          | 400 - 1000    |                        |                | <b>IZMX16N3-V10F-1</b><br>183333 | <b>IZMX16N3-V10W-1</b><br>183348 |       | 1         |
|                    | 1250          | 500 - 1250    |                        |                | <b>IZMX16N3-V12F-1</b><br>183334 | <b>IZMX16N3-V12W-1</b><br>183349 |       | 1         |
|                    | 1600          | 640 - 1600    |                        |                | <b>IZMX16N3-V16F-1</b><br>183335 | <b>IZMX16N3-V16W-1</b><br>183350 |       | 1         |
| 66/50              | 630           | 252 - 630     |                        |                | <b>IZMX16H3-V06F-1</b><br>183336 | <b>IZMX16H3-V06W-1</b><br>183351 |       | 1         |
|                    | 800           | 320 - 800     |                        |                | <b>IZMX16H3-V08F-1</b><br>183337 | <b>IZMX16H3-V08W-1</b><br>183352 |       | 1         |
|                    | 1000          | 400 - 1000    |                        |                | <b>IZMX16H3-V10F-1</b><br>183338 | <b>IZMX16H3-V10W-1</b><br>183353 |       | 1         |
|                    | 1250          | 500 - 1250    |                        |                | <b>IZMX16H3-V12F-1</b><br>183339 | <b>IZMX16H3-V12W-1</b><br>183354 |       | 1         |
|                    | 1600          | 640 - 1600    |                        |                | <b>IZMX16H3-V16F-1</b><br>183340 | <b>IZMX16H3-V16W-1</b><br>183355 |       | 1         |

Basic devices

**IZMX16...P..., 3pole**



| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA               | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases  |   | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Std. pack |
|--|-----------------------------------|--|---|---|--------------------------------------|----------------------------|---|----------------------------|-----------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$  | Non-delayed<br>$I_i = I_n \times \dots$   |                                      |                            |   |                            |           |
|  |                                   |  |  |  |                                      |                            |   |                            |           |
| <b>Circuit Breaker with power and energy metering.</b>       |                                   |  |   |   |                                      |                            |   |                            |           |
| Only one voltage transformer PTM for 1-16 breakers required. |                                   |  |   |   |                                      |                            |   |                            |           |
| With flange terminals. Other termination see page 27.        |                                   |  |   |   |                                      |                            |   |                            |           |
| <b>3 pole</b>  |                                   |  |   |   |                                      |                            |   |                            |           |
| 42/42  | 630                               | 252 - 630  | 1.5 - 10  | 2 - 15, OFF   | <b>IZMX16B3-P06F-1</b><br>183356     |                            | <b>IZMX16B3-P06W-1</b><br>183469  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16B3-P08F-1</b><br>183357     |                            | <b>IZMX16B3-P08W-1</b><br>183470  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16B3-P10F-1</b><br>183358     |                            | <b>IZMX16B3-P10W-1</b><br>183471  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16B3-P12F-1</b><br>183359     |                            | <b>IZMX16B3-P12W-1</b><br>183472  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16B3-P16F-1</b><br>183360     |                            | <b>IZMX16B3-P16W-1</b><br>183473  |                            | 1         |
| 50/50  | 630                               | 252 - 630  | 1.5 - 10  | 2 - 15, OFF   | <b>IZMX16N3-P06F-1</b><br>183361     |                            | <b>IZMX16N3-P06W-1</b><br>183474  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16N3-P08F-1</b><br>183362     |                            | <b>IZMX16N3-P08W-1</b><br>183475  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16N3-P10F-1</b><br>183363     |                            | <b>IZMX16N3-P10W-1</b><br>183476  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16N3-P12F-1</b><br>183364     |                            | <b>IZMX16N3-P12W-1</b><br>183477  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16N3-P16F-1</b><br>183463     |                            | <b>IZMX16N3-P16W-1</b><br>183478  |                            | 1         |
| 66/50  | 630                               | 252 - 630  | 1.5 - 10  | 2 - 15, OFF   | <b>IZMX16H3-P06F-1</b><br>183464     |                            | <b>IZMX16H3-P06W-1</b><br>183479  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16H3-P08F-1</b><br>183465     |                            | <b>IZMX16H3-P08W-1</b><br>183480  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16H3-P10F-1</b><br>183466     |                            | <b>IZMX16H3-P10W-1</b><br>183481  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16H3-P12F-1</b><br>183467     |                            | <b>IZMX16H3-P12W-1</b><br>183482  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16H3-P16F-1</b><br>183468     |                            | <b>IZMX16H3-P16W-1</b><br>183483  |                            | 1         |

## IZMX16...V..., 4pole

| Switching capacity  | Rated current    | Setting range<br>Overload releases | Short-circuit releases      |                          | Fixed                            |                                  | Withdrawable                     |                                  | Std. pack                        |   |
|---|------------------|------------------------------------|-----------------------------|--------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---|
|   |                  |                                    | Delayed                     | Non-delayed              | Part no.<br>Article no.          | Price<br>see price list          | Part no.<br>Article no.          | Price<br>see price list          |                                  |   |
| $I_{cu}=I_{cs}$<br>kA/kA  | $I_n = I_U$<br>A | $I_r$<br>A                         | $I_{sd} = I_r \times \dots$ | $I_i = I_n \times \dots$ |                                  |                                  |                                  |                                  |                                  |   |
|   |                  |                                    |                             |                          |                                  |                                  |                                  |                                  |                                  |   |
| <b>Circuit Breaker for system and selective protection</b><br>With flange terminals. Other termination see page 27. |                  |                                    |                             |                          |                                  |                                  |                                  |                                  |                                  |   |
| <b>4 pole</b>   |                  |                                    |                             |                          |                                  |                                  |                                  |                                  |                                  |   |
| 42/42   | 630              | 252 - 630                          | 1.5 - 10                    | 2 - 15, OFF              | <b>IZMX16B4-V06F-1</b><br>183544 | <b>IZMX16B4-V06W-1</b><br>183559 |                                  |                                  | 1                                |   |
|   | 800              | 320 - 800                          |                             |                          | <b>IZMX16B4-V08F-1</b><br>183545 | <b>IZMX16B4-V08W-1</b><br>183560 |                                  |                                  |                                  | 1 |
|   | 1000             | 400 - 1000                         |                             |                          | <b>IZMX16B4-V10F-1</b><br>183546 | <b>IZMX16B4-V10W-1</b><br>183561 |                                  |                                  |                                  | 1 |
|   | 1250             | 500 - 1250                         |                             |                          | <b>IZMX16B4-V12F-1</b><br>183547 | <b>IZMX16B4-V12W-1</b><br>183562 |                                  |                                  |                                  | 1 |
|   | 1600             | 640 - 1600                         |                             |                          | <b>IZMX16B4-V16F-1</b><br>183548 | <b>IZMX16B4-V16W-1</b><br>183563 |                                  |                                  |                                  | 1 |
|   | 50/50            | 630                                |                             |                          | 252 - 630                        |                                  |                                  | <b>IZMX16N4-V06F-1</b><br>183549 | <b>IZMX16N4-V06W-1</b><br>183564 |   |
| 800   |                  | 320 - 800                          |                             |                          | <b>IZMX16N4-V08F-1</b><br>183550 | <b>IZMX16N4-V08W-1</b><br>183565 |                                  |                                  | 1                                |   |
| 1000  |                  | 400 - 1000                         |                             |                          | <b>IZMX16N4-V10F-1</b><br>183551 | <b>IZMX16N4-V10W-1</b><br>183566 |                                  |                                  | 1                                |   |
| 1250  |                  | 500 - 1250                         |                             |                          | <b>IZMX16N4-V12F-1</b><br>183552 | <b>IZMX16N4-V12W-1</b><br>183567 |                                  |                                  | 1                                |   |
| 1600  |                  | 640 - 1600                         |                             |                          | <b>IZMX16N4-V16F-1</b><br>183553 | <b>IZMX16N4-V16W-1</b><br>183568 |                                  |                                  | 1                                |   |
| 66/50   |                  | 630                                | 252 - 630                   |                          |                                  | <b>IZMX16H4-V06F-1</b><br>183554 | <b>IZMX16H4-V06W-1</b><br>183569 |                                  |                                  | 1 |
|   | 800              | 320 - 800                          |                             |                          | <b>IZMX16H4-V08F-1</b><br>183555 | <b>IZMX16H4-V08W-1</b><br>183570 |                                  |                                  | 1                                |   |
|   | 1000             | 400 - 1000                         |                             |                          | <b>IZMX16H4-V10F-1</b><br>183556 | <b>IZMX16H4-V10W-1</b><br>183571 |                                  |                                  | 1                                |   |
|   | 1250             | 500 - 1250                         |                             |                          | <b>IZMX16H4-V12F-1</b><br>183557 | <b>IZMX16H4-V12W-1</b><br>183572 |                                  |                                  | 1                                |   |
|   | 1600             | 640 - 1600                         |                             |                          | <b>IZMX16H4-V16F-1</b><br>183558 | <b>IZMX16H4-V16W-1</b><br>183397 |                                  |                                  | 1                                |   |

Basic devices

**IZMX16...P..., 4pole**

| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA               | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases  |   | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Std. pack |
|--|-----------------------------------|--|---|---|--------------------------------------|----------------------------|---|----------------------------|-----------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$  | Non-delayed<br>$I_i = I_n \times \dots$   |                                      |                            |   |                            |           |
|  |                                   |  |  |  |                                      |                            |   |                            |           |
| <b>Circuit Breaker with power and energy metering.</b>       |                                   |  |   |   |                                      |                            |   |                            |           |
| Only one voltage transformer PTM for 1-16 breakers required. |                                   |  |   |   |                                      |                            |   |                            |           |
| With flange terminals. Other termination see page 27.        |                                   |  |   |   |                                      |                            |   |                            |           |
| <b>4 pole</b>  |                                   |  |   |   |                                      |                            |   |                            |           |
| 42/42  | 630                               | 252 - 630  | 1.5 - 10  | 2 - 15, OFF   | <b>IZMX16B4-P06F-1</b><br>183398     |                            | <b>IZMX16B4-P06W-1</b><br>183457  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16B4-P08F-1</b><br>183399     |                            | <b>IZMX16B4-P08W-1</b><br>183458  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16B4-P10F-1</b><br>183400     |                            | <b>IZMX16B4-P10W-1</b><br>183459  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16B4-P12F-1</b><br>183401     |                            | <b>IZMX16B4-P12W-1</b><br>183460  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16B4-P16F-1</b><br>183402     |                            | <b>IZMX16B4-P16W-1</b><br>183461  |                            | 1         |
| 50/50  | 630                               | 252 - 630  |   |   | <b>IZMX16N4-P06F-1</b><br>183403     |                            | <b>IZMX16N4-P06W-1</b><br>183462  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16N4-P08F-1</b><br>183404     |                            | <b>IZMX16N4-P08W-1</b><br>183408  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16N4-P10F-1</b><br>183405     |                            | <b>IZMX16N4-P10W-1</b><br>183409  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16N4-P12F-1</b><br>183406     |                            | <b>IZMX16N4-P12W-1</b><br>183410  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16N4-P16F-1</b><br>183407     |                            | <b>IZMX16N4-P16W-1</b><br>183411  |                            | 1         |
| 66/50  | 630                               | 252 - 630  |   |   | <b>IZMX16H4-P06F-1</b><br>183452     |                            | <b>IZMX16H4-P06W-1</b><br>183412  |                            | 1         |
|  | 800                               | 320 - 800  |   |   | <b>IZMX16H4-P08F-1</b><br>183453     |                            | <b>IZMX16H4-P08W-1</b><br>183413  |                            | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX16H4-P10F-1</b><br>183454     |                            | <b>IZMX16H4-P10W-1</b><br>183414  |                            | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX16H4-P12F-1</b><br>183455     |                            | <b>IZMX16H4-P12W-1</b><br>183415  |                            | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX16H4-P16F-1</b><br>183456     |                            | <b>IZMX16H4-P16W-1</b><br>183416  |                            | 1         |

## INX16..., 3/4pole

| Rated short-circuit making capacity up to 440 V 50/60 Hz<br>$I_{cm}$ | Rated current = rated uninterrupted current<br>$I_n = I_U$<br>A | Rated short time -withstand current 50/60 Hz<br>$t = 1$ s<br>$I_{cw}$ | Fixed                          |                            | Withdrawable<br>Cassettes need to be ordered separately. |                            | Std. pack |
|--|---|---|--------------------------------|----------------------------|--|----------------------------|-----------|
|  |   |   | Part no.<br>Article no.        | Price<br>see<br>price list | Part no.<br>Article no.                                  | Price<br>see<br>price list |           |
| kA   |   | kA  |                                |                            |  |                            |           |
| <b>Switch disconnectors INX16</b>                                    |   |   |                                |                            |  |                            |           |
| With flange terminals. Other termination see page 27.                |   |   |                                |                            |  |                            |           |
| <b>3 pole</b>  |   |   |                                |                            |  |                            |           |
| 88   | 630   | 42  | <b>INX16B3-06F-1</b><br>183447 |                            | <b>INX16B3-06W-1</b><br>183639                           |                            | 1         |
|  | 800   |   | <b>INX16B3-08F-1</b><br>183448 |                            | <b>INX16B3-08W-1</b><br>183640                           |                            | 1         |
|  | 1000  |   | <b>INX16B3-10F-1</b><br>183449 |                            | <b>INX16B3-10W-1</b><br>183641                           |                            | 1         |
|  | 1250  |   | <b>INX16B3-12F-1</b><br>183450 |                            | <b>INX16B3-12W-1</b><br>183642                           |                            | 1         |
|  | 1600  |   | <b>INX16B3-16F-1</b><br>183451 |                            | <b>INX16B3-16W-1</b><br>183643                           |                            | 1         |
| <b>4 pole</b>  |   |   |                                |                            |  |                            |           |
| 88   | 630   | 42  | <b>INX16B4-06F-1</b><br>183644 |                            | <b>INX16B4-06W-1</b><br>183649                           |                            | 1         |
|  | 800   |   | <b>INX16B4-08F-1</b><br>183645 |                            | <b>INX16B4-08W-1</b><br>183650                           |                            | 1         |
|  | 1000  |   | <b>INX16B4-10F-1</b><br>183646 |                            | <b>INX16B4-10W-1</b><br>183651                           |                            | 1         |
|  | 1250  |   | <b>INX16B4-12F-1</b><br>183647 |                            | <b>INX16B4-12W-1</b><br>183652                           |                            | 1         |
|  | 1600  |   | <b>INX16B4-16F-1</b><br>183648 |                            | <b>INX16B4-16W-1</b><br>183653                           |                            | 1         |

Basic devices

**IZMX40...V..., 3pole**




| Switching capacity   | Rated current    | Setting range<br>Overload releases | Short-circuit releases      |                          | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Std. pack |
|--|------------------|------------------------------------|-----------------------------|--------------------------|--------------------------------------|----------------------------|---|----------------------------|-----------|
|  |                  |                                    | Delayed                     | Non-delayed              |                                      |                            |   |                            |           |
| $I_{cu}=I_{cs}$<br>kA/kA                                   | $I_n = I_U$<br>A | $I_r$<br>A                         | $I_{sd} = I_r \times \dots$ | $I_i = I_n \times \dots$ |                                      |                            |   |                            |           |
|  |                  |                                    |                             |                          |                                      |                            |   |                            |           |
| <b>Circuit Breaker for system and selective protection</b> |                  |                                    |                             |                          |                                      |                            |   |                            |           |
| With flange terminals. Other termination see page 27.      |                  |                                    |                             |                          |                                      |                            |   |                            |           |
| <b>3 pole</b>  |                  |                                    |                             |                          |                                      |                            |   |                            |           |
| 66/66  | 800              | 320 - 800                          | 1.5 - 10                    | 2 - 15, OFF              | <b>IZMX40B3-V08F-1</b><br>183702     |                            | <b>IZMX40B3-V08W-1</b><br>183726  |                            | 1         |
|  | 1000             | 400 - 1000                         |                             |                          | <b>IZMX40B3-V10F-1</b><br>183703     |                            | <b>IZMX40B3-V10W-1</b><br>183727  |                            | 1         |
|  | 1250             | 500 - 1250                         |                             |                          | <b>IZMX40B3-V12F-1</b><br>183704     |                            | <b>IZMX40B3-V12W-1</b><br>183728  |                            | 1         |
|  | 1600             | 640 - 1600                         |                             |                          | <b>IZMX40B3-V16F-1</b><br>183705     |                            | <b>IZMX40B3-V16W-1</b><br>183729  |                            | 1         |
|  | 2000             | 800 - 2000                         |                             |                          | <b>IZMX40B3-V20F-1</b><br>183706     |                            | <b>IZMX40B3-V20W-1</b><br>183730  |                            | 1         |
|  | 2500             | 1000 - 2500                        |                             |                          | <b>IZMX40B3-V25F-1</b><br>183707     |                            | <b>IZMX40B3-V25W-1</b><br>183731  |                            | 1         |
|  | 3200             | 1280 - 3200                        |                             |                          | <b>IZMX40B3-V32F-1</b><br>183708     |                            | <b>IZMX40B3-V32W-1</b><br>183732  |                            | 1         |
|  | 4000             | 1600 - 4000                        |                             |                          | <b>IZMX40B3-V40F-1</b><br>183709     |                            | <b>IZMX40B3-V40W-1</b><br>183733  |                            | 1         |
| 85/85  | 800              | 320 - 800                          |                             |                          | <b>IZMX40N3-V08F-1</b><br>183710     |                            | <b>IZMX40N3-V08W-1</b><br>183734  |                            | 1         |
|  | 1000             | 400 - 1000                         |                             |                          | <b>IZMX40N3-V10F-1</b><br>183711     |                            | <b>IZMX40N3-V10W-1</b><br>183735  |                            | 1         |
|  | 1250             | 500 - 1250                         |                             |                          | <b>IZMX40N3-V12F-1</b><br>183712     |                            | <b>IZMX40N3-V12W-1</b><br>183736  |                            | 1         |
|  | 1600             | 640 - 1600                         |                             |                          | <b>IZMX40N3-V16F-1</b><br>183713     |                            | <b>IZMX40N3-V16W-1</b><br>183737  |                            | 1         |
|  | 2000             | 800 - 2000                         |                             |                          | <b>IZMX40N3-V20F-1</b><br>183714     |                            | <b>IZMX40N3-V20W-1</b><br>183738  |                            | 1         |
|  | 2500             | 1000 - 2500                        |                             |                          | <b>IZMX40N3-V25F-1</b><br>183715     |                            | <b>IZMX40N3-V25W-1</b><br>183739  |                            | 1         |
|  | 3200             | 1280 - 3200                        |                             |                          | <b>IZMX40N3-V32F-1</b><br>183716     |                            | <b>IZMX40N3-V32W-1</b><br>183740  |                            | 1         |
|  | 4000             | 1600 - 4000                        |                             |                          | <b>IZMX40N3-V40F-1</b><br>183717     |                            | <b>IZMX40N3-V40W-1</b><br>183741  |                            | 1         |
| 105/105  | 800              | 320 - 800                          |                             |                          | <b>IZMX40H3-V08F-1</b><br>183718     |                            | <b>IZMX40H3-V08W-1</b><br>183742  |                            | 1         |
|  | 1000             | 400 - 1000                         |                             |                          | <b>IZMX40H3-V10F-1</b><br>183719     |                            | <b>IZMX40H3-V10W-1</b><br>183743  |                            | 1         |
|  | 1250             | 500 - 1250                         |                             |                          | <b>IZMX40H3-V12F-1</b><br>183720     |                            | <b>IZMX40H3-V12W-1</b><br>183744  |                            | 1         |
|  | 1600             | 640 - 1600                         |                             |                          | <b>IZMX40H3-V16F-1</b><br>183721     |                            | <b>IZMX40H3-V16W-1</b><br>183745  |                            | 1         |
|  | 2000             | 800 - 2000                         |                             |                          | <b>IZMX40H3-V20F-1</b><br>183722     |                            | <b>IZMX40H3-V20W-1</b><br>183746  |                            | 1         |
|  | 2500             | 1000 - 2500                        |                             |                          | <b>IZMX40H3-V25F-1</b><br>183723     |                            | <b>IZMX40H3-V25W-1</b><br>183747  |                            | 1         |
|  | 3200             | 1280 - 3200                        |                             |                          | <b>IZMX40H3-V32F-1</b><br>183724     |                            | <b>IZMX40H3-V32W-1</b><br>183748  |                            | 1         |
|  | 4000             | 1600 - 4000                        |                             |                          | <b>IZMX40H3-V40F-1</b><br>183725     |                            | <b>IZMX40H3-V40W-1</b><br>183573  |                            | 1         |

## IZMX40...P..., 3pole

| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA               | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases                 |   | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered<br>separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list       | Std.<br>pack |
|--|-----------------------------------|--|--|---|--------------------------------------|----------------------------|--|----------------------------------|--------------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$ | Non-<br>delayed<br>$I_i = I_n \times \dots$ |                                      |                            |  |                                  |              |
|  |                                   |  |  |   |                                      |                            |  |                                  |              |
| <b>Circuit Breaker with power and energy metering.</b>       |                                   |  |  |   |                                      |                            |  |                                  |              |
| Only one voltage transformer PTM for 1-16 breakers required. |                                   |  |  |   |                                      |                            |  |                                  |              |
| With flange terminals. Other termination see page 27.        |                                   |  |  |   |                                      |                            |  |                                  |              |
| <b>3 pole</b>  |                                   |  |  |   |                                      |                            |  |                                  |              |
| 66/66  | 800                               | 320 - 800  | 1.5 - 10                               | 2 - 15, OFF                                 | <b>IZMX40B3-P08F-1</b><br>183574     |                            | <b>IZMX40B3-P08W-1</b><br>183587   |                                  | 1            |
|  | 1000                              | 400 - 1000                                       |  |   | <b>IZMX40B3-P10F-1</b><br>183575     |                            | <b>IZMX40B3-P10W-1</b><br>183588   |                                  | 1            |
|  | 1250                              | 500 - 1250                                       |  |   | <b>IZMX40B3-P12F-1</b><br>183576     |                            | <b>IZMX40B3-P12W-1</b><br>183589   |                                  | 1            |
|  | 1600                              | 640 - 1600                                       |  |   | <b>IZMX40B3-P16F-1</b><br>183577     |                            | <b>IZMX40B3-P16W-1</b><br>183590   |                                  | 1            |
|  | 2000                              | 800 - 2000                                       |  |   | <b>IZMX40B3-P20F-1</b><br>183578     |                            | <b>IZMX40B3-P20W-1</b><br>183591   |                                  | 1            |
|  | 2500                              | 1000 - 2500                                      |  |   | <b>IZMX40B3-P25F-1</b><br>183579     |                            | <b>IZMX40B3-P25W-1</b><br>183592   |                                  | 1            |
|  | 3200                              | 1280 - 3200                                      |  |   | <b>IZMX40B3-P32F-1</b><br>183580     |                            | <b>IZMX40B3-P32W-1</b><br>183593   |                                  | 1            |
|  | 4000                              | 1600 - 4000                                      |  |   | <b>IZMX40B3-P40F-1</b><br>183581     |                            | <b>IZMX40B3-P40W-1</b><br>183594   |                                  | 1            |
|  | 85/85                             | 800  |  |   | 320 - 800                            | 1.5 - 10                   | 2 - 15, OFF  | <b>IZMX40N3-P08F-1</b><br>183582 |              |
| 1000   |                                   | 400 - 1000                                       | <b>IZMX40N3-P10F-1</b><br>183583       |   | <b>IZMX40N3-P10W-1</b><br>183596     |                            |  |                                  | 1            |
| 1250   |                                   | 500 - 1250                                       | <b>IZMX40N3-P12F-1</b><br>183628       |   | <b>IZMX40N3-P12W-1</b><br>183597     |                            |  |                                  | 1            |
| 1600   |                                   | 640 - 1600                                       | <b>IZMX40N3-P16F-1</b><br>183629       |   | <b>IZMX40N3-P16W-1</b><br>183598     |                            |  |                                  | 1            |
| 2000   |                                   | 800 - 2000                                       | <b>IZMX40N3-P20F-1</b><br>183630       |   | <b>IZMX40N3-P20W-1</b><br>183599     |                            |  |                                  | 1            |
| 2500   |                                   | 1000 - 2500                                      | <b>IZMX40N3-P25F-1</b><br>183631       |   | <b>IZMX40N3-P25W-1</b><br>183600     |                            |  |                                  | 1            |
| 3200   |                                   | 1280 - 3200                                      | <b>IZMX40N3-P32F-1</b><br>183632       |   | <b>IZMX40N3-P32W-1</b><br>183601     |                            |  |                                  | 1            |
| 4000   |                                   | 1600 - 4000                                      | <b>IZMX40N3-P40F-1</b><br>183633       |   | <b>IZMX40N3-P40W-1</b><br>183602     |                            |  |                                  | 1            |
| 105/105  |                                   | 800  | 320 - 800                              | 1.5 - 10                                    | 2 - 15, OFF                          |                            |  | <b>IZMX40H3-P08F-1</b><br>183634 |              |
|  | 1000                              | 400 - 1000                                       | <b>IZMX40H3-P10F-1</b><br>183635       |   |                                      |                            | <b>IZMX40H3-P10W-1</b><br>183604   |                                  | 1            |
|  | 1250                              | 500 - 1250                                       | <b>IZMX40H3-P12F-1</b><br>183636       |   |                                      |                            | <b>IZMX40H3-P12W-1</b><br>183605   |                                  | 1            |
|  | 1600                              | 640 - 1600                                       | <b>IZMX40H3-P16F-1</b><br>183637       |   |                                      |                            | <b>IZMX40H3-P16W-1</b><br>183606   |                                  | 1            |
|  | 2000                              | 800 - 2000                                       | <b>IZMX40H3-P20F-1</b><br>183638       |   |                                      |                            | <b>IZMX40H3-P20W-1</b><br>183607   |                                  | 1            |
|  | 2500                              | 1000 - 2500                                      | <b>IZMX40H3-P25F-1</b><br>183584       |   |                                      |                            | <b>IZMX40H3-P25W-1</b><br>183608   |                                  | 1            |
|  | 3200                              | 1280 - 3200                                      | <b>IZMX40H3-P32F-1</b><br>183585       |   |                                      |                            | <b>IZMX40H3-P32W-1</b><br>183609   |                                  | 1            |
|  | 4000                              | 1600 - 4000                                      | <b>IZMX40H3-P40F-1</b><br>183586       |   |                                      |                            | <b>IZMX40H3-P40W-1</b><br>183610   |                                  | 1            |

Basic devices

**IZMX40...V..., 4pole**

| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA             | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases  |   | Fixed<br><br>Part no.<br>Article no.  | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list       | Std. pack |
|--|-----------------------------------|--|---|---|---|----------------------------|---|----------------------------------|-----------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$  | Non-delayed<br>$I_i = I_n \times \dots$   |   |                            |   |                                  |           |
|  |                                   |  |  |  |  |                            |   |                                  |           |
| <b>Circuit Breaker for system and selective protection</b> |                                   |  |   |   |   |                            |   |                                  |           |
| With flange terminals. Other termination see page 27.      |                                   |  |   |   |   |                            |   |                                  |           |
| <b>4 pole</b>  |                                   |  |   |   |   |                            |   |                                  |           |
| 66/66  | 800                               | 320 - 800  | 1.5 - 10  | 2 - 15, OFF   | <b>IZMX40B4-V08F-1</b><br>183894  |                            | <b>IZMX40B4-V08W-1</b><br>183918  |                                  | 1         |
|  | 1000                              | 400 - 1000                                       |   |   | <b>IZMX40B4-V10F-1</b><br>183895  |                            | <b>IZMX40B4-V10W-1</b><br>183919  |                                  | 1         |
|  | 1250                              | 500 - 1250                                       |   |   | <b>IZMX40B4-V12F-1</b><br>183896  |                            | <b>IZMX40B4-V12W-1</b><br>183920  |                                  | 1         |
|  | 1600                              | 640 - 1600                                       |   |   | <b>IZMX40B4-V16F-1</b><br>183897  |                            | <b>IZMX40B4-V16W-1</b><br>183921  |                                  | 1         |
|  | 2000                              | 800 - 2000                                       |   |   | <b>IZMX40B4-V20F-1</b><br>183898  |                            | <b>IZMX40B4-V20W-1</b><br>183922  |                                  | 1         |
|  | 2500                              | 1000 - 2500                                      |   |   | <b>IZMX40B4-V25F-1</b><br>183899  |                            | <b>IZMX40B4-V25W-1</b><br>183923  |                                  | 1         |
|  | 3200                              | 1280 - 3200                                      |   |   | <b>IZMX40B4-V32F-1</b><br>183900  |                            | <b>IZMX40B4-V32W-1</b><br>183924  |                                  | 1         |
|  | 4000                              | 1600 - 4000                                      |   |   | <b>IZMX40B4-V40F-1</b><br>183901  |                            | <b>IZMX40B4-V40W-1</b><br>183749  |                                  | 1         |
|  | 85/85                             | 800  |   |   | 320 - 800   | 1.5 - 10                   | 2 - 15, OFF   | <b>IZMX40N4-V08F-1</b><br>183902 |           |
| 1000   |                                   | 400 - 1000                                       | <b>IZMX40N4-V10F-1</b><br>183903  |   | <b>IZMX40N4-V10W-1</b><br>183751  |                            |   |                                  | 1         |
| 1250   |                                   | 500 - 1250                                       | <b>IZMX40N4-V12F-1</b><br>183904  |   | <b>IZMX40N4-V12W-1</b><br>183752  |                            |   |                                  | 1         |
| 1600   |                                   | 640 - 1600                                       | <b>IZMX40N4-V16F-1</b><br>183905  |   | <b>IZMX40N4-V16W-1</b><br>183753  |                            |   |                                  | 1         |
| 2000   |                                   | 800 - 2000                                       | <b>IZMX40N4-V20F-1</b><br>183906  |   | <b>IZMX40N4-V20W-1</b><br>183754  |                            |   |                                  | 1         |
| 2500   |                                   | 1000 - 2500                                      | <b>IZMX40N4-V25F-1</b><br>183907  |   | <b>IZMX40N4-V25W-1</b><br>183755  |                            |   |                                  | 1         |
| 3200   |                                   | 1280 - 3200                                      | <b>IZMX40N4-V32F-1</b><br>183908  |   | <b>IZMX40N4-V32W-1</b><br>183756  |                            |   |                                  | 1         |
| 4000   |                                   | 1600 - 4000                                      | <b>IZMX40N4-V40F-1</b><br>183909  |   | <b>IZMX40N4-V40W-1</b><br>183757  |                            |   |                                  | 1         |
| 105/105  |                                   | 800  | 320 - 800   | 1.5 - 10  | 2 - 15, OFF   |                            |   | <b>IZMX40H4-V08F-1</b><br>183910 |           |
|  | 1000                              | 400 - 1000                                       | <b>IZMX40H4-V10F-1</b><br>183911  |   |   |                            | <b>IZMX40H4-V10W-1</b><br>183759  |                                  | 1         |
|  | 1250                              | 500 - 1250                                       | <b>IZMX40H4-V12F-1</b><br>183912  |   |   |                            | <b>IZMX40H4-V12W-1</b><br>183804  |                                  | 1         |
|  | 1600                              | 640 - 1600                                       | <b>IZMX40H4-V16F-1</b><br>183913  |   |   |                            | <b>IZMX40H4-V16W-1</b><br>183805  |                                  | 1         |
|  | 2000                              | 800 - 2000                                       | <b>IZMX40H4-V20F-1</b><br>183914  |   |   |                            | <b>IZMX40H4-V20W-1</b><br>183806  |                                  | 1         |
|  | 2500                              | 1000 - 2500                                      | <b>IZMX40H4-V25F-1</b><br>183915  |   |   |                            | <b>IZMX40H4-V25W-1</b><br>183807  |                                  | 1         |
|  | 3200                              | 1280 - 3200                                      | <b>IZMX40H4-V32F-1</b><br>183916  |   |   |                            | <b>IZMX40H4-V32W-1</b><br>183808  |                                  | 1         |
|  | 4000                              | 1600 - 4000                                      | <b>IZMX40H4-V40F-1</b><br>183917  |   |   |                            | <b>IZMX40H4-V40W-1</b><br>183809  |                                  | 1         |

## IZMX40...P..., 4pole

| Switching capacity<br>$I_{cu}=I_{cs}$<br>kA/kA               | Rated current<br>$I_n = I_U$<br>A | Setting range<br>Overload releases<br>$I_r$<br>A | Short-circuit releases                 |   | Fixed<br><br>Part no.<br>Article no. | Price<br>see<br>price list | Withdrawable<br>Cassettes need to be ordered<br>separately.<br><br>Part no.<br>Article no. | Price<br>see<br>price list       | Std.<br>pack |
|--|-----------------------------------|--|--|---|--------------------------------------|----------------------------|--|----------------------------------|--------------|
|  |                                   |  | Delayed<br>$I_{sd} = I_r \times \dots$ | Non-delayed<br>$I_i = I_n \times \dots$ |                                      |                            |  |                                  |              |
|  |                                   |  |  |   |                                      |                            |  |                                  |              |
| <b>Circuit Breaker with power and energy metering.</b>       |                                   |  |  |   |                                      |                            |  |                                  |              |
| Only one voltage transformer PTM for 1-16 breakers required. |                                   |  |  |   |                                      |                            |  |                                  |              |
| With flange terminals. Other termination see page 27.        |                                   |  |  |   |                                      |                            |  |                                  |              |
| <b>4 pole</b>  |                                   |  |  |   |                                      |                            |  |                                  |              |
| 66/66  | 800                               | 320 - 800  | 1.5 - 10                               | 2 - 15, OFF                             | <b>IZMX40B4-P08F-1</b><br>183810     |                            | <b>IZMX40B4-P08W-1</b><br>183779   |                                  | 1            |
|  | 1000                              | 400 - 1000                                       |  |   | <b>IZMX40B4-P10F-1</b><br>183811     |                            | <b>IZMX40B4-P10W-1</b><br>183780   |                                  | 1            |
|  | 1250                              | 500 - 1250                                       |  |   | <b>IZMX40B4-P12F-1</b><br>183812     |                            | <b>IZMX40B4-P12W-1</b><br>183781   |                                  | 1            |
|  | 1600                              | 640 - 1600                                       |  |   | <b>IZMX40B4-P16F-1</b><br>183813     |                            | <b>IZMX40B4-P16W-1</b><br>183782   |                                  | 1            |
|  | 2000                              | 800 - 2000                                       |  |   | <b>IZMX40B4-P20F-1</b><br>183814     |                            | <b>IZMX40B4-P20W-1</b><br>183783   |                                  | 1            |
|  | 2500                              | 1000 - 2500                                      |  |   | <b>IZMX40B4-P25F-1</b><br>183760     |                            | <b>IZMX40B4-P25W-1</b><br>183784   |                                  | 1            |
|  | 3200                              | 1280 - 3200                                      |  |   | <b>IZMX40B4-P32F-1</b><br>183761     |                            | <b>IZMX40B4-P32W-1</b><br>183785   |                                  | 1            |
|  | 4000                              | 1600 - 4000                                      |  |   | <b>IZMX40B4-P40F-1</b><br>183762     |                            | <b>IZMX40B4-P40W-1</b><br>183786   |                                  | 1            |
|  | 85/85                             | 800  |  |   | 320 - 800                            | 1.5 - 10                   | 2 - 15, OFF  | <b>IZMX40N4-P08F-1</b><br>183763 |              |
| 1000   |                                   | 400 - 1000                                       | <b>IZMX40N4-P10F-1</b><br>183764       |   | <b>IZMX40N4-P10W-1</b><br>183788     |                            |  |                                  | 1            |
| 1250   |                                   | 500 - 1250                                       | <b>IZMX40N4-P12F-1</b><br>183765       |   | <b>IZMX40N4-P12W-1</b><br>183789     |                            |  |                                  | 1            |
| 1600   |                                   | 640 - 1600                                       | <b>IZMX40N4-P16F-1</b><br>183766       |   | <b>IZMX40N4-P16W-1</b><br>183790     |                            |  |                                  | 1            |
| 2000   |                                   | 800 - 2000                                       | <b>IZMX40N4-P20F-1</b><br>183767       |   | <b>IZMX40N4-P20W-1</b><br>183791     |                            |  |                                  | 1            |
| 2500   |                                   | 1000 - 2500                                      | <b>IZMX40N4-P25F-1</b><br>183768       |   | <b>IZMX40N4-P25W-1</b><br>183792     |                            |  |                                  | 1            |
| 3200   |                                   | 1280 - 3200                                      | <b>IZMX40N4-P32F-1</b><br>183769       |   | <b>IZMX40N4-P32W-1</b><br>183793     |                            |  |                                  | 1            |
| 4000   |                                   | 1600 - 4000                                      | <b>IZMX40N4-P40F-1</b><br>183770       |   | <b>IZMX40N4-P40W-1</b><br>183794     |                            |  |                                  | 1            |
| 105/105  |                                   | 800  | 320 - 800                              | 1.5 - 10                                | 2 - 15, OFF                          |                            |  | <b>IZMX40H4-P08F-1</b><br>183771 |              |
|  | 1000                              | 400 - 1000                                       | <b>IZMX40H4-P10F-1</b><br>183772       |   |                                      |                            | <b>IZMX40H4-P10W-1</b><br>183796   |                                  | 1            |
|  | 1250                              | 500 - 1250                                       | <b>IZMX40H4-P12F-1</b><br>183773       |   |                                      |                            | <b>IZMX40H4-P12W-1</b><br>183797   |                                  | 1            |
|  | 1600                              | 640 - 1600                                       | <b>IZMX40H4-P16F-1</b><br>183774       |   |                                      |                            | <b>IZMX40H4-P16W-1</b><br>183798   |                                  | 1            |
|  | 2000                              | 800 - 2000                                       | <b>IZMX40H4-P20F-1</b><br>183775       |   |                                      |                            | <b>IZMX40H4-P20W-1</b><br>183799   |                                  | 1            |
|  | 2500                              | 1000 - 2500                                      | <b>IZMX40H4-P25F-1</b><br>183776       |   |                                      |                            | <b>IZMX40H4-P25W-1</b><br>183800   |                                  | 1            |
|  | 3200                              | 1280 - 3200                                      | <b>IZMX40H4-P32F-1</b><br>183777       |   |                                      |                            | <b>IZMX40H4-P32W-1</b><br>183801   |                                  | 1            |
|  | 4000                              | 1600 - 4000                                      | <b>IZMX40H4-P40F-1</b><br>183778       |   |                                      |                            | <b>IZMX40H4-P40W-1</b><br>183802   |                                  | 1            |

Basic devices

## INX40..., 3pole

| Rated short making capacity up to 440 V 50/60 Hz<br>$I_{cm}$ | Rated current = rated uninterrupted current<br>$I_n = I_U$<br>A | Rated short-time withstand current 50/60 Hz<br>$t = 1$ s<br>$I_{cw}$ | Fixed                          |                            | Withdrawable<br>Cassettes need to be ordered separately. |                            | Std. pack                      |
|--|---|--|--------------------------------|----------------------------|--|----------------------------|--------------------------------|
|  |   |  | Part no.<br>Article no.        | Price<br>see<br>price list | Part no.<br>Article no.                                  | Price<br>see<br>price list |                                |
| kA   |   | kA   |                                |                            |  |                            |                                |
| <b>Switch disconnectors INX40</b>                            |   |  |                                |                            |  |                            |                                |
| With flange terminals. Other termination see page 27.        |   |  |                                |                            |  |                            |                                |
| <b>3 pole</b>  |   |  |                                |                            |  |                            |                                |
| 144  | 800   | 66   | <b>INX40B3-08F-1</b><br>184040 |                            | <b>INX40B3-08W-1</b><br>184056                           |                            | 1                              |
|  | 1000  |  | <b>INX40B3-10F-1</b><br>184041 |                            | <b>INX40B3-10W-1</b><br>184057                           |                            | 1                              |
|  | 1250  |  | <b>INX40B3-12F-1</b><br>184042 |                            | <b>INX40B3-12W-1</b><br>184058                           |                            | 1                              |
|  | 1600  |  | <b>INX40B3-16F-1</b><br>184043 |                            | <b>INX40B3-16W-1</b><br>184059                           |                            | 1                              |
|  | 2000  |  | <b>INX40B3-20F-1</b><br>184044 |                            | <b>INX40B3-20W-1</b><br>184060                           |                            | 1                              |
|  | 2500  |  | <b>INX40B3-25F-1</b><br>184045 |                            | <b>INX40B3-25W-1</b><br>184061                           |                            | 1                              |
|  | 3200  |  | <b>INX40B3-32F-1</b><br>184046 |                            | <b>INX40B3-32W-1</b><br>184062                           |                            | 1                              |
|  | 4000  |  | <b>INX40B3-40F-1</b><br>184047 |                            | <b>INX40B3-40W-1</b><br>184063                           |                            | 1                              |
|  | 166   |  | 800                            | 85                         | <b>INX40N3-08F-1</b><br>184048                           |                            | <b>INX40N3-08W-1</b><br>184064 |
| 1000   |   | <b>INX40N3-10F-1</b><br>184049                                       |                                |                            | <b>INX40N3-10W-1</b><br>184065                           |                            | 1                              |
| 1250   |   | <b>INX40N3-12F-1</b><br>184050                                       |                                |                            | <b>INX40N3-12W-1</b><br>184066                           |                            | 1                              |
| 1600   |   | <b>INX40N3-16F-1</b><br>184051                                       |                                |                            | <b>INX40N3-16W-1</b><br>184067                           |                            | 1                              |
| 2000   |   | <b>INX40N3-20F-1</b><br>184052                                       |                                |                            | <b>INX40N3-20W-1</b><br>184068                           |                            | 1                              |
| 2500   |   | <b>INX40N3-25F-1</b><br>184053                                       |                                |                            | <b>INX40N3-25W-1</b><br>184069                           |                            | 1                              |
| 3200   |   | <b>INX40N3-32F-1</b><br>184054                                       |                                |                            | <b>INX40N3-32W-1</b><br>184070                           |                            | 1                              |
| 4000   |   | <b>INX40N3-40F-1</b><br>184055                                       |                                |                            | <b>INX40N3-40W-1</b><br>184071                           |                            | 1                              |





Basic devices

## INX40..., 4pole

| Rated short making capacity up to 440 V 50/60 Hz<br>$I_{cm}$ | Rated current = rated uninterrupted current<br>$I_n = I_U$<br>A | Rated short-time withstand current 50/60 Hz<br>$t = 1$ s<br>$I_{cw}$ | Fixed                          |                            | Withdrawable<br>Cassettes need to be ordered separately. |                            | Std. pack |
|--|---|--|--------------------------------|----------------------------|--|----------------------------|-----------|
|  |   |  | Part no.<br>Article no.        | Price<br>see<br>price list | Part no.<br>Article no.                                  | Price<br>see<br>price list |           |
| kA   |   | kA   |                                |                            |  |                            |           |
| <b>Switch disconnectors INX40</b>                            |   |  |                                |                            |  |                            |           |
| With flange terminals. Other termination see page 27.        |   |  |                                |                            |  |                            |           |
| <b>4 pole</b>  |   |  |                                |                            |  |                            |           |
| 144  | 800   | 66   | <b>INX40B4-08F-1</b><br>184072 |                            | <b>INX40B4-08W-1</b><br>184088                           |                            | 1         |
|  | 1000  |  | <b>INX40B4-10F-1</b><br>184073 |                            | <b>INX40B4-10W-1</b><br>184089                           |                            | 1         |
|  | 1250  |  | <b>INX40B4-12F-1</b><br>184074 |                            | <b>INX40B4-12W-1</b><br>184090                           |                            | 1         |
|  | 1600  |  | <b>INX40B4-16F-1</b><br>184075 |                            | <b>INX40B4-16W-1</b><br>184091                           |                            | 1         |
|  | 2000  |  | <b>INX40B4-20F-1</b><br>184076 |                            | <b>INX40B4-20W-1</b><br>184092                           |                            | 1         |
|  | 2500  |  | <b>INX40B4-25F-1</b><br>184077 |                            | <b>INX40B4-25W-1</b><br>184093                           |                            | 1         |
|  | 3200  |  | <b>INX40B4-32F-1</b><br>184078 |                            | <b>INX40B4-32W-1</b><br>184094                           |                            | 1         |
|  | 4000  |  | <b>INX40B4-40F-1</b><br>184079 |                            | <b>INX40B4-40W-1</b><br>184095                           |                            | 1         |
| 166  | 800   | 85   | <b>INX40N4-08F-1</b><br>184080 |                            | <b>INX40N4-08W-1</b><br>184096                           |                            | 1         |
|  | 1000  |  | <b>INX40N4-10F-1</b><br>184081 |                            | <b>INX40N4-10W-1</b><br>184097                           |                            | 1         |
|  | 1250  |  | <b>INX40N4-12F-1</b><br>184082 |                            | <b>INX40N4-12W-1</b><br>184098                           |                            | 1         |
|  | 1600  |  | <b>INX40N4-16F-1</b><br>184083 |                            | <b>INX40N4-16W-1</b><br>184099                           |                            | 1         |
|  | 2000  |  | <b>INX40N4-20F-1</b><br>184084 |                            | <b>INX40N4-20W-1</b><br>184100                           |                            | 1         |
|  | 2500  |  | <b>INX40N4-25F-1</b><br>184085 |                            | <b>INX40N4-25W-1</b><br>184101                           |                            | 1         |
|  | 3200  |  | <b>INX40N4-32F-1</b><br>184086 |                            | <b>INX40N4-32W-1</b><br>184102                           |                            | 1         |
|  | 4000  |  | <b>INX40N4-40F-1</b><br>184087 |                            | <b>INX40N4-40W-1</b><br>183925                           |                            | 1         |

Electronic releases

## IZMX-PXRV..., IZMX-PXRP...

| Type   | For use with  | Ground Fault Protection <sup>1)</sup><br>(T) | ARMS<br>(A) | Onboard ModBUS Communication<br>(M) | Part no.<br>Article no. | Price<br>see price list           | Std. pack |
|--|---|--|-------------|-------------------------------------|-------------------------|-----------------------------------|-----------|
| <b>Additional function for Circuit Breaker with V trip unit<br/>(with LSI protection function, current metering and zone selective protection function ZSI)</b>                        |   |  |             |                                     |                         |                                   |           |
| Ground Fault Protection is programable and can be set to alarm or protection ZSI included.   |   |  |             |                                     |                         |                                   |           |
|   | Add ground-fault protection                             | IZMX...-V...                                 | ●           | –                                   | –                       | <b>+IZMX-PXRV-T-1</b><br>183926   | 1         |
|  | Add ARMS  | IZMX...-V...                                 | –           | ●                                   | –                       | <b>+IZMX-PXRV-A-1</b><br>184948   | 1         |
|  | Add onboard Modbus                                      | IZMX...-V...                                 | –           | –                                   | ●                       | <b>+IZMX-PXRV-M-1</b><br>183930   | 1         |
|  | Add ground-fault protection and ARMS                    | IZMX...-V...                                 | ●           | ●                                   | –                       | <b>+IZMX-PXRV-TA-1</b><br>183932  | 1         |
|  | Add ground-fault protection and onboard Modbus          | IZMX...-V...                                 | ●           | –                                   | ●                       | <b>+IZMX-PXRV-TM-1</b><br>183931  | 1         |
|  | Add ARMS and onboard Modbus                             | IZMX...-V...                                 | –           | ●                                   | ●                       | <b>+IZMX-PXRV-AM-1</b><br>184949  | 1         |
|  | Add ground-fault protection and ARMS and onboard Modbus | IZMX...-V...                                 | ●           | ●                                   | ●                       | <b>+IZMX-PXRV-TAM-1</b><br>183933 | 1         |
| <b>Additional function for Circuit Breaker with P trip unit<br/>(with LSI protection function, power metering<sup>2)</sup>, zone selective protection function and onboard Modbus)</b> |   |  |             |                                     |                         |                                   |           |
|    | Add ground-fault protection                             | IZMX...-P...                                 | ●           | –                                   | ●                       | <b>+IZMX-PXRP-T-1</b><br>183927   | 1         |
|  | Add ARMS  | IZMX...-P...                                 | –           | ●                                   | ●                       | <b>+IZMX-PXRP-A-1</b><br>183928   | 1         |
|  | Add ground-fault protection and ARMS                    | IZMX...-P...                                 | ●           | ●                                   | ●                       | <b>+IZMX-PXRP-TA-1</b><br>183929  | 1         |
| <b>Spare trip unit type V<br/>(with LSI protection function, zone selective protection function and onboard Modbus)</b>  |   |  |             |                                     |                         |                                   |           |
|   | –   | IZMX...-V...                                 | –           | –                                   | –                       | <b>IZMX-PXRV-1</b><br>183935      | 1         |
|  | Ground-fault protection                                 | IZMX...-V...                                 | ●           | –                                   | –                       | <b>IZMX-PXRV-T-1</b><br>183982    | 1         |
|  | ARMS  | IZMX...-V...                                 | –           | ●                                   | –                       | <b>IZMX-PXRV-A-1</b><br>184950    | 1         |
|  | Onboard Modbus  | IZMX...-V...                                 | –           | –                                   | ●                       | <b>IZMX-PXRV-M-1</b><br>183986    | 1         |
|  | Ground-fault protection and ARMS                        | IZMX...-V...                                 | ●           | ●                                   | –                       | <b>IZMX-PXRV-TA-1</b><br>183988   | 1         |
|  | Ground-fault protection and onboard Modbus              | IZMX...-V...                                 | ●           | –                                   | ●                       | <b>IZMX-PXRV-TM-1</b><br>183987   | 1         |
|  | ARMS and onboard Modbus                                 | IZMX...-V...                                 | –           | ●                                   | ●                       | <b>IZMX-PXRV-AM-1</b><br>184951   | 1         |
|  | Ground-fault protection and ARMS and onboard Modbus     | IZMX...-V...                                 | ●           | ●                                   | ●                       | <b>IZMX-PXRV-TAM-1</b><br>183989  | 1         |
| <b>Spare trip unit type P<br/>(with LSI protection function, power metering<sup>2)</sup>, zone selective protection function and onboard Modbus)</b>                                   |   |  |             |                                     |                         |                                   |           |
|   | –   | IZMX...-P...                                 | –           | –                                   | ●                       | <b>IZMX-PXRP-1</b><br>183936      | 1         |
|  | Ground-fault protection                                 | IZMX...-P...                                 | ●           | –                                   | ●                       | <b>IZMX-PXRP-T-1</b><br>183983    | 1         |
|  | ARMS  | IZMX...-P...                                 | –           | ●                                   | ●                       | <b>IZMX-PXRP-A-1</b><br>183984    | 1         |
|  | Ground-fault protection and ARMS                        | IZMX...-P...                                 | ●           | ●                                   | ●                       | <b>IZMX-PXRP-TA-1</b><br>183985   | 1         |

## Notes

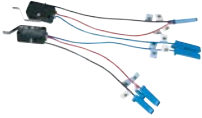



<sup>1)</sup> 3pole breaker need an external wired N-conductor current transformer.<sup>2)</sup> Power metering requires one external voltage transformer module ...PTM for 1-16 trip units.

General: Articles without „+“ are complete field kits for spare/upgrading purposes.

Articles with „+“ add further factory installed function into the configuration.

Accessories for electronic releases-trip switch, trip indicator

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

| Rated control-voltage<br>$U_s$<br>V  | For use with            | Part no.<br>Article no.       | Price<br>see<br>price list          | Std.<br>pack |
|--|-------------------------|-------------------------------|-------------------------------------|--------------|
| <b>Overcurrent trip switches</b>   |                         |                               |                                     |              |
| For signalling of all breaker trip to open commands occurred by the trip unit  |                         |                               |                                     |              |
|   | IZMX16...,<br>IZMX40... | <b>+IZMX-OTS-1</b><br>184116  |                                     | 1            |
|  | IZMX16...               | <b>IZMX-OTS16-1</b><br>184117 |                                     | 1            |
|  | IZMX40...               | <b>IZMX-OTS40-1</b><br>184118 |                                     | 1            |
| <b>Interlocked Trip Indicators (spare part)</b>  |                         |                               |                                     |              |
| Is supplied as a standard safety feature and interlocks the breaker in OPEN position after trip until it is pushed manually to reset |                         |                               |                                     |              |
|   | –                       | IZMX16...                     | <b>IZMX-TI16-1</b><br>184134        | 1            |
|  | –                       | IZMX40...                     | <b>IZMX-TI40-1</b><br>184135        | 1            |
| <b>Automatic reset of trip indicator</b>   |                         |                               |                                     |              |
| Cannot be combined with remote reset   |                         |                               |                                     |              |
|    | –                       | IZMX16...<br>IZMX40...        | <b>+IZMX-RA-1</b><br>184119         | 1            |
|  | –                       | IZMX16...                     | <b>IZMX-RA16-1</b><br>184120        | 1            |
|  | –                       | IZMX40...,                    | <b>IZMX-RA40-1</b><br>184121        | 1            |
| <b>Trip indicator remote reset</b>   |                         |                               |                                     |              |
| The remote reset allows resetting the trip indicator remotely by an electrical signal  |                         |                               |                                     |              |
|   | 24 V DC                 | IZMX40...                     | <b>+IZMX-RR24DC-40-1</b><br>184122  | 1            |
|  | 110 - 125 V AC/DC       | IZMX40...                     | <b>+IZMX-RR110AD-40-1</b><br>184123 | 1            |
|  | 220 - 240 V AC/DC       | IZMX40...                     | <b>+IZMX-RR230AD-40-1</b><br>184124 | 1            |
|  | 24 V DC                 | IZMX40...                     | <b>IZMX-RR24DC-40-1</b><br>184125   | 1            |
|  | 110 - 125 V AC/DC       | IZMX40...,                    | <b>IZMX-RR110AD-40-1</b><br>184126  | 1            |
|  | 220 - 240 V AC          | IZMX40...,                    | <b>IZMX-RR230AD-40-1</b><br>184127  | 1            |

|   | Description   | For use with-          | Part no.<br>Article no.         | Price<br>see<br>price list | Std.<br>pack |
|---|---|------------------------|---------------------------------|----------------------------|--------------|
| <b>Voltage transformer</b><br>   | Externally mounted voltage transformer to provide voltage sensing input to 1-16 P-Type trip units. Maximum distance = 75m.  | IZMX16...<br>IZMX40... | <b>IZMX-PXR-PTM-1</b><br>184142 |                            | 1            |
| <b>Power supply</b><br>  | Optional for the trip unit in case of breaker is not in operation and<br>- display information is requested or<br>- test simulation with trip   | IZMX16...<br>IZMX40... | <b>IZMX-DT-PS-1</b><br>183969   |                            | 1            |
| <b><math>I_n</math> rating programmable</b><br>  | If a protection setting $I_T$ below $0.4 \times I_n$ is required the $I_n$ needs to be re-programmed on an individual value lower than $I_n$ . The Operator needs to connect his computer with the trip units mini USB plug.. | IZMX16...<br>IZMX40... | <b>IZM-RP-PXR-1</b><br>183992   |                            | 1            |
| <b>Current sensor for neutral conductor on 3-pole Circuit Breakers with earth-/ground fault protection</b><br> | for IZMX16<br>Externally mounted neutral sensor for residual ground.  | IZMX16...              | <b>IZMX-CT16-N-1</b><br>183990  |                            | 1            |
|    | for IZMX40<br>Externally mounted neutral sensor for residual ground.  | IZMX40...              | <b>IZMX-CT40-N-1</b><br>183991  |                            | 1            |
| <b>Zero Sequence Sensor or Ground source</b><br>   | Zero sequence sensor for IZMX16 with cable termination<br><br>Ground Source - detecting currents of earthed star point. For IZMX16 and IZMX40   | IZMX16...<br>IZMX40... | <b>IZMX-CT-NGS-1</b><br>183937  |                            | 1            |
| <b>Communication adapter modules</b><br>External modules are equipped with wire harness.<br>                 | Profibus  |                        | <b>IZMX-PCAM-1</b><br>186875    |                            | 1            |
|   | Ethernet  |                        | <b>IZMX-ECAM-1</b><br>186874    |                            | 1            |
|   | Modbus  |                        | <b>IZMX-MCAM-1</b><br>186876    |                            | 1            |
|    | Spare wire harness  |                        | <b>IZMX-CAM-CAB-1</b><br>186877 |                            | 1            |





Withdrawable units

## IZMX-CAS..., 3/4pole






|  | For use with                                   | Part no.<br>Article no.                 | Price<br>see<br>price list         | Part no.<br>Article no.                 | Price<br>see<br>price list | Std.<br>pack |
|--|--|---|------------------------------------|---|----------------------------|--------------|
|  |  | 3pole                                   |                                    | 4pole                                   |                            |              |
| <b>Cassettes</b>   |  |   |                                    |   |                            |              |
| Equiped with arc hood  |  |   |                                    |   |                            |              |
| Cassette in combination with ordered breaker   |  |   |                                    |   |                            |              |
| <br> | INX16...W<br>IZMX16...W<br><b>up to 1600 A</b> | <b>+IZMX-CAS163-1600-1</b><br>183939    |                                    | <b>+IZMX-CAS164-1600-1</b><br>183954    |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>up to 2000 A</b> | <b>+IZMX-CAS403-2000-1</b><br>183942    |                                    | <b>+IZMX-CAS404-2000-1</b><br>183957    |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>2500 A</b>       | <b>+IZMX-CAS403-2500-1</b><br>183945    |                                    | <b>+IZMX-CAS404-2500-1</b><br>183960    |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>3200 A</b>       | <b>+IZMX-CAS403-3200-1</b><br>183948    |                                    | <b>+IZMX-CAS404-3200-1</b><br>183963    |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>4000 A</b>       | <b>+IZMX-CAS403-4000-1</b><br>183951    |                                    | <b>+IZMX-CAS404-4000-1</b><br>183966    |                            | 1            |
| <b>Separate Cassettes</b>  |  |   |                                    |   |                            |              |
| Equiped with secondary terminal blocks fully populated   |  |   |                                    |   |                            |              |
|   | INX16...W<br>IZMX16...W<br><b>up to 1600 A</b> | <b>IZMX-CAS163-1600-SEC-1</b><br>183941 |                                    | <b>IZMX-CAS164-1600-SEC-1</b><br>183956 |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>up to 2000 A</b> | <b>IZMX-CAS403-2000-SEC-1</b><br>183944 |                                    | <b>IZMX-CAS404-2000-SEC-1</b><br>183959 |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>2500 A</b>       | <b>IZMX-CAS403-2500-SEC-1</b><br>183947 |                                    | <b>IZMX-CAS404-2500-SEC-1</b><br>183962 |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>3200 A</b>       | <b>IZMX-CAS403-3200-SEC-1</b><br>183950 |                                    | <b>IZMX-CAS404-3200-SEC-1</b><br>183965 |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>4000 A</b>       | <b>IZMX-CAS403-4000-SEC-1</b><br>183953 |                                    | <b>IZMX-CAS404-4000-SEC-1</b><br>183968 |                            | 1            |
| <b>Separate cassettes without any secondary terminal block</b>   |  |   |                                    |   |                            |              |
| Select control terminal block demand according to wiring diagram page?   |  |   |                                    |   |                            |              |
|   | INX16...W<br>IZMX16...W<br><b>up to 1600 A</b> | <b>IZMX-CAS163-1600-1</b><br>183940     |                                    | <b>IZMX-CAS164-1600-1</b><br>183955     |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>up to 2000 A</b> | <b>IZMX-CAS403-2000-1</b><br>183943     |                                    | <b>IZMX-CAS404-2000-1</b><br>183958     |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>2500 A</b>       | <b>IZMX-CAS403-2500-1</b><br>183946     |                                    | <b>IZMX-CAS404-2500-1</b><br>183961     |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>3200 A</b>       | <b>IZMX-CAS403-3200-1</b><br>183949     |                                    | <b>IZMX-CAS404-3200-1</b><br>183964     |                            | 1            |
|  | INX40...W<br>IZMX40...W<br><b>4000 A</b>       | <b>IZMX-CAS403-4000-1</b><br>183952     |                                    | <b>IZMX-CAS404-4000-1</b><br>183967     |                            | 1            |
| <b>Secondary 4point terminal block kit</b>   |  |   |                                    |   |                            |              |
| Max. population on ...CAS16... = 14 units, ...CAS40... = 24 units  |  |   |                                    |   |                            |              |
|   | Secondary terminal<br>2 units                  | IZMX-CAS...                             | <b>IZMX-SEC-TB2-W-1</b><br>184242  |   |                            | 1            |
|  | Secondary terminal<br>12 units                 | IZMX-CAS...                             | <b>IZMX-SEC-TB12-W-1</b><br>184243 |   |                            | 1            |

Accessories for withdrawable units

## IZMX-SH..., IZMX-CS...

|   | Pole-  | For use with   | Part no.<br>Article no.                 | Price<br>see<br>price list | Std.<br>pack |  |  |
|---|--|--|---|----------------------------|--------------|--|--|
| <b>Cassette safety shutters</b>   |  |  |   |                            |              |  |  |
| <p>When the breaker is withdrawn from its connected position, the shutters automatically cover the cassette's live main terminals. With 2.5 mm holes for voltage test. IP20</p>  | <b>3pole</b>   | (+)IZMX<br>CAS163  | <b>+IZMX-SH163-1</b><br>184186          |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS163  | <b>IZMX-SH163-1</b><br>184187           |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS403  | <b>+IZMX-SH403-1</b><br>184188          |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS403  | <b>IZMX-SH403-1</b><br>184189           |                            | 1            |  |  |
|   | <b>4pole</b>   | (+)IZMX<br>CAS164  | <b>+IZMX-SH164-1</b><br>184190          |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS164  | <b>IZMX-SH164-1</b><br>184191           |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS404  | <b>+IZMX-SH404-1</b><br>184192          |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS404  | <b>IZMX-SH404-1</b><br>184193           |                            | 1            |  |  |
|   |  | <b>Cell switches</b>   |   |                            |              |  |  |
|   |  | One changeover contact for each position: Disconnected, Test, Connected. |   |                            |              |  |  |
|   | Installation on left side in the cassette                                      | (+)IZMX<br>CAS16...  | <b>+IZMX-CS16-1</b><br>184194           |                            | 1            |  |  |
|   |  | (+)IZMX<br>CAS16...  | <b>IZMX-CS16-1</b><br>108251            |                            | 1            |  |  |
|    | Installation on left side in the cassette                                      | (+)IZMX<br>CAS40...  | <b>+IZMX-CS40-1</b><br>184195           |                            | 1            |  |  |
|   | Installation on left and/or right side in the cassette                         | (+)IZMX<br>CAS40...  | <b>IZMX-CS40-1</b><br>184196            |                            | 1            |  |  |
| <b>Disconnected lock mechanism for cylinder locks</b>   |  |  |   |                            |              |  |  |
| Secures the breaker in the Disconnect position $\Delta$ „safe OFF“  |  |  |   |                            |              |  |  |
|    | Kit for Ronis lock   | (+)IZMX<br>CAS40...  | <b>IZMX-KLPC-RONIS-40-1</b><br>184200   |                            | 1            |  |  |
|   | Kit for CES lock   | (+)IZMX<br>CAS40...  | <b>IZMX-KLPC-CES-40-1</b><br>184198     |                            | 1            |  |  |
|   | Kit for Castell lock   | (+)IZMX<br>CAS40...  | <b>IZMX-KLPC-CASTELL-40-1</b><br>184201 |                            | 1            |  |  |
|   | Kit for Kirk lock  | (+)IZMX<br>CAS40...  | <b>IZMX-KLPC-KIRK-40-1</b><br>184199    |                            | 1            |  |  |
| <b>Replacement hand lever</b>   |  |  |   |                            |              |  |  |
|    | This is a spare part. The hand lever is supplied as standard with withdrawable | IZMX16...-...W<br>INX16...-...W  | <b>IZMX-LT16-1</b><br>184140            |                            | 1            |  |  |
|   |  | IZMX40...-...W<br>INX40...-...W  | <b>IZMX-LT40-1</b><br>184141            |                            | 1            |  |  |
| <b>Secondary terminal</b>   |  |  |   |                            |              |  |  |
| Replacement kit for cassettes before Sept. 2016 (see label without „-1“ ending)<br>Allows updating the cassette to receive new breaker with „-1“ ending.  |  |  |   |                            |              |  |  |
|   |  | (+) IZMX<br>CAS16... old   | <b>IZMX-SEC-KIT-W16-1</b><br>184241     |                            | 1            |  |  |
|   |  | (+) IZMX<br>CAS40... old   | <b>IZMX-SEC-KIT-W40-1</b><br>184244     |                            | 1            |  |  |
| <b>Notes</b>  |  |  |   |                            |              |  |  |
| Lock cylinder and key are required for installation.<br>Ronis lock: #1351-10B<br>CES lock: Cylinder #5256-LAG; Key #90134<br>Castell lock: Cylinder #CL1019, Modified to 90° + „letter“; Key #FKV4-NI, + „letter“<br>Kirk lock: #KC40                             |  |  |   |                            |              |  |  |

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

| Termination  | Rated current<br>$I_n$<br>A                     | Pole        | For use with  | Part no.<br>Article no.                        | Price<br>see<br>price list          | Std.<br>pack |
|--|---|-------------|---------------|--|-------------------------------------|--------------|
| <b>Main terminal adapter kit</b>   |   |             |               |  |                                     |              |
| Basic breakers and cassettes are delivered with flange terminals as standard. Following adapters are optional and for INX16, IZMX16 fixed version required. Each set contains the adapter for top and bottom. 3 pole = 6 off; 4 pole = 8 off |   |             |               |  |                                     |              |
|   | Universal adapter<br>horizontal, vertical       | 630 - 1600  | 3             | IZMX16... , IZMX-CAS163...<br>INX16...         | <b>IZMX-THV163-1</b><br>183970      | 1            |
|  |   | 630 - 1600  | 4             | IZMX16... , IZMX-CAS164..<br>INX16...          | <b>IZMX-THV164-1</b><br>183971      | 1            |
|   | Universal adapter<br>horizontal, vertical, long | 630 - 1600  | 3             | IZMX16... , IZMX-CAS163..<br>INX16...          | <b>IZMX-THVL163-1</b><br>183972     | 1            |
|  |   | 630 - 1600  | 4             | IZMX16... , IZMX-CAS164..<br>INX16...          | <b>IZMX-THVL164-1</b><br>183973     | 1            |
|   | Universal adapter<br>horizontal, vertical       | 800 - 3200  | 3             | IZMX40... , IZMX-CAS403..<br>INX40...          | <b>IZMX-THV403-1</b><br>183974      | 1            |
|  |   | 800 - 3200  | 4             | IZMX40... , IZMX-CAS404..<br>INX40...          | <b>IZMX-THV404-1</b><br>183975      | 1            |
|   | Adapter<br>horizontal                           | 4000        | 3             | IZMX40... , IZMX-CAS403..<br>INX40...          | <b>IZMX-TH403-4000-1</b><br>183976  | 1            |
|  |   | 4000        | 4             | IZMX40... , IZMX-CAS404..<br>INX40...          | <b>IZMX-TH404-4000-1</b><br>183977  | 1            |
|  | Adapter<br>vertical                             | 4000        | 3             | IZMX40... , IZMX-CAS403..<br>INX40...          | <b>IZMX-TV403-4000-1</b><br>183978  | 1            |
|  |   | 4000        | 4             | IZMX40... , IZMX-CAS404..<br>INX40...          | <b>IZMX-TV404-4000-1</b><br>183979  | 1            |
|   | Adapter front at fixed<br>breaker or cassette   | 630 - 1600  | 3             | IZMX16... , IZMX-CAS163<br>INX16...            | <b>IZMX-TF163-1600-1</b><br>183980  | 1            |
|  |   | 630 - 1600  | 4             | IZMX16... , IZMX-CAS164<br>INX16...            | <b>IZMX-TF164-1600-1</b><br>184173  | 1            |
|   | Adapter front at<br>fixed breaker               | 800 - 1600  | 3             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF403-1600F-1</b><br>184174 | 1            |
|  |   | 2000 - 2500 | 3             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF403-2500F-1</b><br>184175 | 1            |
|  |   | 3200        | 3             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF403-3200F-1</b><br>184176 | 1            |
|  |   | 800 - 1600  | 4             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF404-1600F-1</b><br>184180 | 1            |
|  |   | 2000 - 2500 | 4             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF404-2500F-1</b><br>184181 | 1            |
|  |   | 3200        | 4             | IZMX40...F<br>INX40...F                        | <b>IZMX-TF404-3200F-1</b><br>184182 | 1            |
|  | Adapter front at<br>cassette                    | 800 - 1600  | 3             | IZMX-CAS403..                                  | <b>IZMX-TF403-1600W-1</b><br>184177 | 1            |
|  |   | 2000 - 2500 | 3             | IZMX-CAS403..                                  | <b>IZMX-TF403-2500W-1</b><br>184178 | 1            |
|  |   | 3200        | 3             | IZMX-CAS403..                                  | <b>IZMX-TF403-3200W-1</b><br>184179 | 1            |
|  |   | 800 - 1600  | 4             | IZMX-CAS404..                                  | <b>IZMX-TF404-1600W-1</b><br>184183 | 1            |
|  | 2000 - 2500                                     | 4           | IZMX-CAS404.. | <b>IZMX-TF404-2500W-1</b><br>184184            | 1                                   |              |
|  | 3200  | 4           | IZMX-CAS404.. | <b>IZMX-TF404-3200W-1</b><br>184185            | 1                                   |              |
| <b>Spare secondary 4point terminal block kit for fixed breakers</b>  |   |             |               |  |                                     |              |
| Max. population on X16 = 14units, X40 = 24 units   |   |             |               |  |                                     |              |
|   | Control circuit terminals,<br>2 units           | -           | -             | IZMX16...F, INX16...F<br>IZMX40...F, INX40...F | <b>IZMX-SEC-TB2-F-1</b><br>184239   | 1            |
|  | Control circuit terminals,<br>12 units          | -           | -             | IZMX16...F, INX16...F<br>IZMX40...F, INX40...F | <b>IZMX-SEC-TB12-F-1</b><br>184240  | 1            |


Electrical accessories - Motor operator


## IZMX-M...

|  | Rated control voltage                     | For use with          | Part no.<br>Article no.            | Price<br>see<br>price list        | Std.<br>pack |
|--|---|-----------------------|------------------------------------|-----------------------------------|--------------|
|  | $U_s$<br>V                                |                       |                                    |                                   |              |
| <b>Motor operator</b>  |   |                       |                                    |                                   |              |
| The motor automatically tensions the spring force storage mechanism for remote or local quick open/close operation.<br>A signaling switch for the „Spring force storage charged” message is included as standard |   |                       |                                    |                                   |              |
| for IZMX16   | 24 V DC                                   | IZMX16...<br>INX16... | <b>+IZMX-M16-24DC-1</b><br>184245  |                                   | 1            |
|   | 24 V DC                                   | IZMX16...<br>INX16... | <b>IZMX-M16-24DC-1</b><br>184246   |                                   | 1            |
|  | 48 V DC                                   | IZMX16...<br>INX16... | <b>+IZMX-M16-48DC-1</b><br>184247  |                                   | 1            |
|  | 48 V DC                                   | IZMX16...<br>INX16... | <b>IZMX-M16-48DC-1</b><br>184248   |                                   | 1            |
|  | 60 V DC                                   | IZMX16...<br>INX16... | <b>+IZMX-M16-60DC-1</b><br>184249  |                                   | 1            |
|  | 60 V DC                                   | IZMX16...<br>INX16... | <b>IZMX-M16-60DC-1</b><br>184250   |                                   | 1            |
|  | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | IZMX16...<br>INX16... | <b>+IZMX-M16-110AD-1</b><br>184251 |                                   | 1            |
|  | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | IZMX16...<br>INX16... | <b>IZMX-M16-110AD-1</b><br>184252  |                                   | 1            |
|  | 220 - 240 V AC 50/60 Hz<br>110 - 125 V DC | IZMX16...<br>INX16... | <b>+IZMX-M16-230AD-1</b><br>184253 |                                   | 1            |
|  | 220 - 240 V AC 50/60 Hz<br>110 - 125 V DC | IZMX16...<br>INX16... | <b>IZMX-M16-230AD-1</b><br>184254  |                                   | 1            |
|  | for IZMX40                                | 24 V DC               | IZMX40...<br>INX40...              | <b>+IZMX-M40-24DC-1</b><br>184255 |              |
|   | 24 V DC                                   | IZMX40...<br>INX40... | <b>IZMX-M40-24DC-1</b><br>184256   |                                   | 1            |
|  | 48 V DC                                   | IZMX40...<br>INX40... | <b>+IZMX-M40-48DC-1</b><br>184257  |                                   | 1            |
|  | 48 V DC                                   | IZMX40...<br>INX40... | <b>IZMX-M40-48DC-1</b><br>184258   |                                   | 1            |
|  | 60 V DC                                   | IZMX40...<br>INX40... | <b>+IZMX-M40-60DC-1</b><br>184259  |                                   | 1            |
|  | 60 V DC                                   | INX40...<br>IZMX40... | <b>IZMX-M40-60DC-1</b><br>184260   |                                   |              |
|  | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | IZMX40...<br>INX40... | <b>+IZMX-M40-110AD-1</b><br>184261 |                                   | 1            |
|  | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | IZMX40...<br>INX40... | <b>IZMX-M40-110AD-1</b><br>184262  |                                   | 1            |
|  | 220 - 240 V AC 50/60 Hz<br>110 - 125 V DC | IZMX40...<br>INX40... | <b>+IZMX-M40-230AD-1</b><br>184263 |                                   | 1            |
|  | 220 - 240 V AC 50/60 Hz<br>110 - 125 V DC | IZMX40...<br>INX40... | <b>IZMX-M40-230AD-1</b><br>184264  |                                   | 1            |

Electrical accessories - Releases


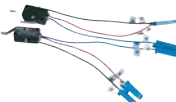
## IZMX-ST..., IZMX-STs...

| Rated control-voltage<br><br>$U_s$<br>V   | For use with      | Part no.<br>Article no.                    | Price<br>see<br>price list       | Std.<br>pack |
|---|-------------------|--|----------------------------------|--------------|
| <b>Shunt releases</b>   |                   |  |                                  |              |
| 100% duty<br>For remote OPEN or interlocking in OPEN<br>Can be combined with an undervoltage release or a second shunt release. |                   |  |                                  |              |
|    | 24 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-ST24DC-1</b><br>184265  | 1            |
|   | 24 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-ST24DC-1</b><br>184266   | 1            |
|   | 48 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-ST48DC-1</b><br>184267  | 1            |
|   | 48 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-ST48DC-1</b><br>184268   | 1            |
|   | 60 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-ST60DC-1</b><br>184269  | 1            |
|   | 60 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-ST60DC-1</b><br>184270   | 1            |
|   | 110 - 125 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-ST110AD-1</b><br>184271 | 1            |
|   | 110 - 125 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-ST110AD-1</b><br>184272  | 1            |
|   | 220 - 240 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-ST230AD-1</b><br>184273 | 1            |
|   | 220 - 240 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-ST230AD-1</b><br>184274  | 1            |


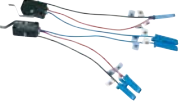

|  |                   |  |                                   |   |
|--|-------------------|--|-----------------------------------|---|
| <b>Second shunt release</b>  |                   |  |                                   |   |
| 100% duty<br>For remote OPEN or interlocking in OPEN<br>Cannot be combined with an undervoltage release. |                   |  |                                   |   |
|                       | 24 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-STs24DC-1</b><br>184275  | 1 |
|  | 48 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-STs48DC-1</b><br>184276  | 1 |
|  | 60 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-STs60DC-1</b><br>184277  | 1 |
|  | 110 - 125 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-STs110AD-1</b><br>184278 | 1 |
|  | 220 - 240 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-STs230AD-1</b><br>184279 | 1 |

Electrical accessories

## IZMX-UVR(-TD)..., IZMX-AS...





|   | Rated control-voltage<br><br>$U_s$<br>V | For use with                               | Part no.<br>Article no.             | Price<br>see<br>price list | Std.<br>pack |
|---|---|--|-------------------------------------|----------------------------|--------------|
| <b>Undervoltage releases</b>  |   |  |                                     |                            |              |
| 100% duty<br>For remote OPEN or interlocking in OPEN<br>Cannot be combined with a second shunt release (STS).   |   |  |                                     |                            |              |
|    | 24 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-UVR24DC-1</b><br>184107    |                            | 1            |
|   | 24 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-UVR24DC-1</b><br>184108     |                            | 1            |
|   | 48 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-UVR48DC-1</b><br>184109    |                            | 1            |
|   | 48 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-UVR48DC-1</b><br>184110     |                            | 1            |
|   | 60 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-UVR60DC-1</b><br>184111    |                            | 1            |
|   | 60 V DC                                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-UVR60DC-1</b><br>184112     |                            | 1            |
|   | 110 - 125 V AC/DC                       | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-UVR110AD-1</b><br>184113   |                            | 1            |
|   | 110 - 125 V AC/DC                       | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-UVR110AD-1</b><br>184114    |                            | 1            |
|   | 208 - 240 V AC<br>208 - 250 V DC        | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-UVR230AD-1</b><br>184161   |                            | 1            |
|   | 208 - 240 V AC<br>208 - 250 V DC        | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-UVR230AD-1</b><br>184162    |                            | 1            |
| <b>Time delay modules</b>   |   |  |                                     |                            |              |
| For combination with an undervoltage release.<br>Delay times: 0.1 s, 0.5 s, 1.0 s, 2.0 s.   |   |  |                                     |                            |              |
| Only in combination with undervoltage release<br>IZMX-UVR110AD.   | 120 V AC                                | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZM-UVR-TD-120AC-1</b><br>184165 |                            | 1            |
| Only in combination with undervoltage release<br>IZMX-UVR230AD.   | 230 V AC                                | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZM-UVR-TD-230AC-1</b><br>184166 |                            | 1            |
| <b>Auxiliary contacts</b>   |   |  |                                     |                            |              |
| Signals breaker open/close.<br>The basic device already contains two changeover contacts. AS22<br>IZMX16: Two additional changeover contacts possible.<br>IZMX40: up to 10 additional changeover contacts possible. |   |  |                                     |                            |              |
|    | Additionally 2 NO / NC contacts         | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-AS22-1</b><br>184167       |                            | 1            |
|   | Additionally 4 NO / NC contacts         | IZMX40...<br>INX40...                      | <b>+IZMX-AS44-1</b><br>184168       |                            | 1            |
|   | Additionally 6 NO / NC contacts         | IZMX40...<br>INX40...                      | <b>+IZMX-AS66-1</b><br>184169       |                            | 1            |
|   | Additionally 8 NO / NC contacts         | IZMX40...<br>INX40...                      | <b>+IZMX-AS88-1</b><br>184170       |                            | 1            |
|   | Additionally 10 NO / NC contacts        | IZMX40...<br>INX40...                      | <b>+IZMX-AS1010-1</b><br>184171     |                            | 1            |
|   | Kits 2 NO / NC contacts                 | IZMX16...<br>INX16...                      | <b>IZMX-AS22-16-1</b><br>184172     |                            | 1            |
|   | Kits 2 NO / NC contacts                 | IZMX40...<br>INX40...                      | <b>IZMX-AS22-40-1</b><br>184115     |                            | 1            |

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





| Rated control-voltage<br><br>$U_s$<br>V  | For use with      | Part no.<br>Article no.                    | Price<br>see<br>price list       | Std.<br>pack |
|--|-------------------|--|----------------------------------|--------------|
| <b>Closing releases</b>  |                   |  |                                  |              |
| 100% duty<br>For remote CLOSE  |                   |  |                                  |              |
|   | 24 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-SR24DC-1</b><br>184280  | 1            |
|  | 24 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-SR24DC-1</b><br>184281   | 1            |
|  | 48 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-SR48DC-1</b><br>184282  | 1            |
|  | 48 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-SR48DC-1</b><br>184283   | 1            |
|  | 60 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-SR60DC-1</b><br>184284  | 1            |
|  | 60 V DC           | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-SR60DC-1</b><br>184285   | 1            |
|  | 110 - 125 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-SR110AD-1</b><br>184286 | 1            |
|  | 110 - 125 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-SR110AD-1</b><br>184287  | 1            |
|  | 220 - 240 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-SR230AD-1</b><br>184288 | 1            |
|  | 220 - 240 V AC/DC | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-SR230AD-1</b><br>184289  | 1            |
| <b>Latch check switches</b>  |                   |  |                                  |              |
| 1 changeover ready to close contact<br>Only in combination with closing release<br>Wired to control terminals for external application |                   |  |                                  |              |
|   | —                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-LCS-1</b><br>184103     | 1            |
|  | —                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-LCS-1</b><br>184104      | 1            |
| Wired direct to the closing release for automatic breaker<br>closing after readiness for operation                                     |                   |  |                                  |              |
|   | —                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-LCS-SR-1</b><br>184105  | 1            |
|  | —                 | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-LCS-SR-1</b><br>184106   | 1            |

Mechanical accessories - counter, interlock

IZMX-OC..., IZMX-PLPC..., IZMX-KLP-SO...




|  | For use with  | Part no.<br>Article no.                    | Price<br>see<br>price list             | Std.<br>pack |
|--|---|--|--|--------------|
| <b>Operation counters</b>  |   |  |  |              |
| Counts the number of ON-OFF operations. Can be installed without motor operator.   |   |  |  |              |
|   | IZMX16..., IZMX40...<br>INX16..., INX40...  | <b>+IZMX-OC-1</b><br>184128                |  | 1            |
|  | IZMX16...<br>INX16...   | <b>IZMX-OC16-1</b><br>184129               |  | 1            |
|  | IZMX40...<br>INX40...   | <b>IZMX-OC40-1</b><br>184130               |  | 1            |
| <b>Locking ON/OFF buttons</b>  |   |  |  |              |
| Padlockable front cover for ON-OFF pushbutton.   |   |  |  |              |
|   | P = Insulated material  | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-PLPC-P-1</b><br>184222        | 1            |
|  |   | IZMX16...<br>INX16...                      | <b>IZMX-PLPC16-P-1</b><br>184223       | 1            |
|  |   | IZMX40...<br>INX40...                      | <b>IZMX-PLPC40-P-1</b><br>184224       | 1            |
|   | M = Metal   | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-PLPC-M-1</b><br>184225        | 1            |
|  |   | IZMX16...<br>INX16...                      | <b>IZMX-PLPC16-M-1</b><br>184226       | 1            |
|  |   | IZMX40...<br>INX40...                      | <b>IZMX-PLPC40-M-1</b><br>184227       | 1            |
|  | OFF = Safe OFF; then it is also impossible<br>to switch ON via the closing release  | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>+IZMX-PLPC-M-OFF-1</b><br>184228    | 1            |
|  | IZMX16...<br>INX16...   | <b>IZMX-PLPC16-M-OFF-1</b><br>184229       | 1                                      |              |
|  | IZMX40...<br>INX40...   | <b>IZMX-PLPC40-M-OFF-1</b><br>184230       | 1                                      |              |
| <b>Safe OFF lock mechanism for cylinder locks</b>  |   |  |  |              |
| The "Safe OFF" interlock prevents switching on.<br>Neither remote nor local switching on is possible.<br>Lockcylinder and key are required for installation. |   |  |  |              |
|   | Ronis installation kit without lock cylinder and key.   | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-KLP-SO-RONIS-1</b><br>184233   | 1            |
|  | CES installation kit without lock cylinder and key.   | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-KLP-SO-CES-1</b><br>184231     | 1            |
|  | Castell installation kit without lock cylinder and key.   | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-KLP-SO-CASTELL-1</b><br>184234 | 1            |
|  | Kirk installation kit without lock cylinder and key.  | IZMX16..., IZMX40...<br>INX16..., INX40... | <b>IZMX-KLP-SO-KIRK-1</b><br>184232    | 1            |
| <b>Notes</b>   | Lock cylinder and key are required for installation.<br>Ronis lock: #1351-10B<br>CES lock: Cylinder #5256-LAG; Key #90134<br>Castell lock: Cylinder #CL1019, Modified to 90° + „letter“; Key #FKV4-NI, + „letter“<br>Kirk lock: #KC40 |  |  |              |

## IZMX-DI..., IZMX-IB..., IZMX-DC..., IZMX-DEG...

| Connection  | For use with   | Part no.<br>Article no.               | Price<br>see<br>price list      | Std.<br>pack                    |   |
|---|--|---------------------------------------|---------------------------------|---------------------------------|---|
| <b>Door Interlock for breaker in cassette</b>   |  |                                       |                                 |                                 |   |
| Door is interlocked when breaker is closed<br>or<br>Breaker is interlocked in open when<br>door is open.<br>-R = door is interlocked on operators<br>right hand side                          | IZMX16...W<br>INX16...W  | <b>IZMX-DI160N-RW-1</b><br>184202     |                                 | 1                               |   |
|   | IZMX16...W<br>INX16...W  | <b>IZMX-DI160N-LW-1</b><br>185710     |                                 | 1                               |   |
|   | IZMX40...W<br>INX40...W  | <b>IZMX-DI400N-RW-1</b><br>184203     |                                 | 1                               |   |
|   | IZMX40...W<br>INX40...W  | <b>IZMX-DI400N-LW-1</b><br>185711     |                                 | 1                               |   |
|  Door is interlocked until breaker is in disconnect position   | IZMX-CAS40   | <b>IZMX-DI40-W-1</b><br>184205        |                                 | 1                               |   |
| <b>Rejection kit</b>  |  |                                       |                                 |                                 |   |
|  The user-defined coding ensures that a cassette can<br>only accommodate the Circuit Breaker assigned to it. | IZMX16...W<br>INX16...W<br>IZMX40...W<br>INX40...W                         | <b>IZMX-CRB-1</b><br>184197           |                                 | 1                               |   |
| <b>Door gasket (spare part)</b>   |  |                                       |                                 |                                 |   |
| Replacement door escutcheon with gasket IP31 in combination with INX... or IZMX...  |  |                                       |                                 |                                 |   |
|  Supplied with every breaker  | IZMX16...F<br>INX16...F  | <b>IZMX-DEG16-F-1</b><br>184136       |                                 | 1                               |   |
|   | IZMX40...F<br>INX40...F  | <b>IZMX-DEG40-F-1</b><br>184137       |                                 | 1                               |   |
|   | Supplied with every cassette   |                                       | IZMX-CAS16...                   | <b>IZMX-DEG16-W-1</b><br>184138 | 1 |
|   |  |                                       | IZMX-CAS40...                   | <b>IZMX-DEG40-W-1</b><br>184139 | 1 |
| <b>Door cover, IP55, transparent</b>  |  |                                       |                                 |                                 |   |
|  Assembling independent from door cover.<br>Center left or right   | IZMX16...F<br>INX16...F  | <b>IZMX-DC16-F-1</b><br>184235        |                                 | 1                               |   |
|   | IZMX40...F<br>INX40...F  | <b>IZMX-DC40-F-1</b><br>184236        |                                 | 1                               |   |
|   | IZMX-CAS16...  | <b>IZMX-DC16-W-1</b><br>184237        |                                 | 1                               |   |
|   | IZMX-CAS40...  | <b>IZMX-DC40-W-1</b><br>184238        |                                 | 1                               |   |
|   | <b>Phase barrier kit</b>   |                                       |                                 |                                 |   |
|  For installation between main terminals<br>for better insulation  | 3pole  | IZMX163...F, ...W<br>INX163...F, ...W | <b>IZMX-IB163-1</b><br>184131   | 1                               |   |
|   | 4pole  | IZMX164...F<br>INX164...F             | <b>IZMX-IB164-1</b><br>184952   | 1                               |   |
|   | 3pole  | IZMX403...F*)<br>INX403...F           | <b>IZMX-IB403-F-1</b><br>184953 | 1                               |   |
|   | 4pole  | IZMX404...F*)<br>INX404...F           | <b>IZMX-IB404-F-1</b><br>184954 | 1                               |   |
|   | 3pole  | IZMX403...W*)<br>INX403...W           | <b>IZMX-IB403-W-1</b><br>184132 | 1                               |   |
|   | 4pole  | IZMX404...W*)<br>INX404...W           | <b>IZMX-IB404-W-1</b><br>184955 | 1                               |   |
| <b>Notes</b>  | *) Not in combination with terminal adapter 4000A, horizontal IZMX-TH40... |                                       |                                 |                                 |   |

Mechanical accessories

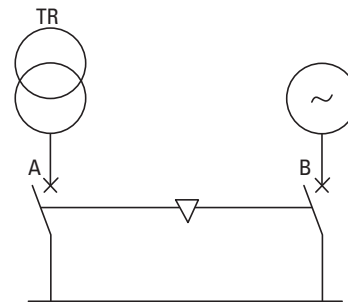
## IZMX-MIL..., IZMX-MIL-CAB...

|   | For use with  | Part no.<br>Article no.   | Price<br>see<br>price list           | Std.<br>pack                      |   |
|---|---|---|--------------------------------------|-----------------------------------|---|
| <b>Mechanical interlock</b>   |   |   |                                      |                                   |   |
| Mechanical interlock allows interlocking between identical or different frame size 16, 40, 63.<br>Select one kit per frame<br>Find further information on next page.  |   |   |                                      |                                   |   |
| <b>Mechanical interlock for fixed mounting breakers</b>   |   |   |                                      |                                   |   |
|    | Type 2, for 2 Circuit Breakers: A normal power supply (A) and an emergency network supply (B). 1 kit of cables also required in addition.   | IZMX16...,<br>INX16...  | <b>IZMX-MIL2C-F16-1</b><br>184206    | 1                                 |   |
|   |   | IZMX40...,<br>INX40...  | <b>IZMX-MIL2C-F40-1</b><br>184209    | 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 kits of cables required in addition. | IZMX16...,<br>INX16...  | <b>IZMX-MIL3133C-F16-1</b><br>184207 | 1                                 |   |
|   | or<br>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 kits of cables are required in addition.                 | IZMX40...,<br>INX40...  | <b>IZMX-MIL3133C-F40-1</b><br>184210 | 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 kits of cables are required in addition.  | IZMX16...,<br>INX16...  | <b>IZMX-MIL32C-F16-1</b><br>184208   | 1                                 |   |
|   |   | IZMX40...,<br>INX40...  | <b>IZMX-MIL32C-F40-1</b><br>184211   | 1                                 |   |
|   | <b>Mechanical interlock for breakers in cassette</b>  |   |                                      |                                   |   |
|   |   | Type 2, for 2 Circuit Breakers: A normal power supply (A) and an emergency network supply (B). 1 kit of cables also required in addition. | IZMX-CAS16...                        | <b>IZMX-MIL2C-W16-1</b><br>184212 | 1 |
|   |   | IZMX-CAS40...   | <b>IZMX-MIL2C-W40-1</b><br>184215    | 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 kits of cables required in addition. |   | IZMX-CAS16...   | <b>IZMX-MIL3133C-W16-1</b><br>184213 | 1                                 |   |
| or<br>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 kits of cables are required in addition.                 |   | IZMX-CAS40...   | <b>IZMX-MIL3133C-W40-1</b><br>184216 | 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 kits of cables are required in addition.  |   | IZMX-CAS16...   | <b>IZMX-MIL32C-W16-1</b><br>184214   | 1                                 |   |
|   |   | IZMX-CAS40...   | <b>IZMX-MIL32C-W40-1</b><br>184217   | 1                                 |   |
| <b>Cable kits for mechanical interlock</b>  |   |   |                                      |                                   |   |
| 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.<br>One set contains two cables.                        |   |   |                                      |                                   |   |
|    | 1520 mm   | IZMX-MIL...C-F...<br>IZMX-MIL...C-W...  | <b>IZMX-MIL-CAB1520-1</b><br>184218  | 1                                 |   |
|   | 1830 mm   | IZMX-MIL...C-F...<br>IZMX-MIL...C-W...  | <b>IZMX-MIL-CAB1830-1</b><br>184219  | 1                                 |   |
|   | 2440 mm   | IZMX-MIL...C-F...<br>IZMX-MIL...C-W...  | <b>IZMX-MIL-CAB2440-1</b><br>184220  | 1                                 |   |
|   | 3050 mm   | IZMX-MIL...C-F...<br>IZMX-MIL...C-W...  | <b>IZMX-MIL-CAB3050-1</b><br>184221  | 1                                 |   |

**Mechanical Interlock configurations**

**Type 2**

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



Interlock: A against B

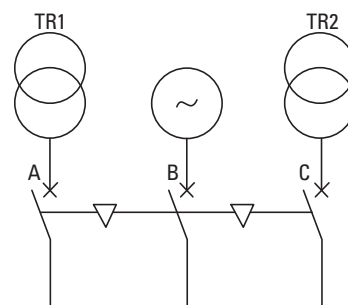
Circuit breaker A can only be closed if B is open and vice versa.,

**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.



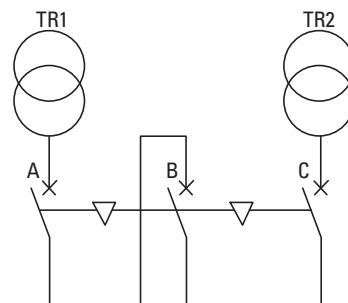
Interlock: A, C against B

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 (bustie closed) or by both at the same time (bus-tie open).



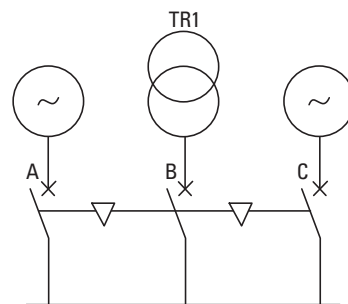
Interlock: 2 against 1 or max. 2 of 3

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 Control Circuit Terminal Assignment**

|     |     |      |       |       |    |      |      |    |      |        |      |      |      |      |      |       |       |       |       |     |     |    |    |    |    |    |    |  |
|-----|-----|------|-------|-------|----|------|------|----|------|--------|------|------|------|------|------|-------|-------|-------|-------|-----|-----|----|----|----|----|----|----|--|
| 1   | 3   | 5    | 7     | 9     | 11 | 13   | 15   | 17 | 19   | 21     | 23   | 25   | 27   | 29   | 31   | 33    | 35    | 37    | 39    | 41  | 43  | 45 | 47 | 49 | 51 | 53 | 55 |  |
| +   | +   |      |       |       |    |      |      |    |      |        |      |      |      |      |      |       |       |       |       |     |     |    |    |    |    |    |    |  |
| ST1 | UV1 | OT1C | OT1B  | ACCY2 | N1 | ALMC | ALM2 | G1 | +24V | ZIN    | ZCOM | CMM1 | CMM3 | PTVA | PTVC | MODBA | MODBG | ACCY5 | ACCY7 | E01 | SR1 | C1 | B1 | C2 | C3 | B3 | C4 |  |
| -   | -   |      |       |       |    |      |      |    |      |        |      |      |      |      |      |       |       |       |       |     |     |    |    |    |    |    |    |  |
| ST2 | UV2 | OT2M | ACCY1 | ACCY3 | N2 | ALM1 | ALM3 | G2 | AGND | ARMSIN | ZOUT | CMM2 | CMM4 | PTVB | PTVN | MODBB | ACCY4 | ACCY6 | SC    | E02 | SR2 | A1 | B2 | A2 | A3 | B4 | A4 |  |
| 2   | 4   | 6    | 8     | 10    | 12 | 14   | 16   | 18 | 20   | 22     | 24   | 26   | 28   | 30   | 32   | 34    | 36    | 38    | 40    | 42  | 44  | 46 | 48 | 50 | 52 | 54 | 56 |  |

- 1, 2 Shunt trip
- 3, 4 UVR/2nd shunt trip
- 5~7 Overload trip switch 1 (OTS) ( 5-COM, 6-N.O, 7-N.C.)
- 8~10 Overload trip switch 2 (OTS) / Remote reset (8-N.C., 9-COM, 10-N.O./9-RR1, 10-RR2)
- 11, 12 External neutral sensor
- 13~16 Alarm
- 17, 18 Ground fault source sensor
- 19, 20 Control voltage supply 24VDC
- 21, 23, 24 Zone selectivity ZSI
- 20, 22 ARMs
- 25-28 External CAM module
- 29~32 PT module
- 33~35 Onboard ModBus
- 36 ACCY4 (Reserved)
- 37~39 Latch check switch (37-COM, 38-N.O, 39-N.C.)
- 40 Message: Spring energy store tensioned
- 41, 42 Motor operator
- 43, 44 Spring closing release
- 45~56 Auxiliary contact On/off, C-COM, A-N.O., B-N.C.

**IZMX40 Control Circuit Terminal Assignment**

|     |     |      |      |      |    |      |      |    |      |        |      |      |      |      |      |       |       |       |        |        |     |    |    |  |
|-----|-----|------|------|------|----|------|------|----|------|--------|------|------|------|------|------|-------|-------|-------|--------|--------|-----|----|----|--|
| 1   | 3   | 5    | 7    | 9    | 11 | 13   | 15   | 17 | 19   | 21     | 23   | 25   | 27   | 29   | 31   | 33    | 35    | 37    | 39     | 41     | 43  | 45 | 47 |  |
| +   | +   |      |      |      |    |      |      |    |      |        |      |      |      |      |      |       |       |       |        |        |     |    |    |  |
| ST1 | UV1 | OT1C | OT1B | OT2C | N1 | ALMC | ALM2 | G1 | +24V | ZIN    | ZCOM | CMM1 | CMM3 | PTVA | PTVC | MODBA | MODBG | 2CMM3 | 2CMM1  | ARCON2 | RR1 |    |    |  |
| -   | -   |      |      |      |    |      |      |    |      |        |      |      |      |      |      |       |       |       |        |        |     |    |    |  |
| ST2 | UV2 | OT2M | OT2B | OT2M | N2 | ALM1 | ALM3 | G2 | AGND | ARMSIN | ZOUT | CMM2 | CMM4 | PTVB | PTVN | MODBB | 2CMM2 | 2CMM4 | ARCON1 | ARCON3 | RR2 |    |    |  |
| 2   | 4   | 6    | 8    | 10   | 12 | 14   | 16   | 18 | 20   | 22     | 24   | 26   | 28   | 30   | 32   | 34    | 36    | 38    | 40     | 42     | 44  | 46 | 48 |  |

- 1, 2 Shunt trip
- 3, 4 UVR/2nd shunt trip
- 5~7 Overload trip switch 1 (OTS) (5-COM, 6-N.O, 7-N.C.)
- 8~10 Overload trip switch 2 (OTS) (8-N.C., 9-COM, 10-N.O.)
- 11, 12 External neutral sensor
- 13~16 Alarm
- 17, 18 Ground fault source sensor
- 19, 20 Control voltage supply 24VDC
- 21, 23, 24 Zone selectivity ZSI
- 20, 22 ARMs
- 25-28 External CAM module
- 29~32 PT module
- 33~35 Onboard ModBus
- 36~39 External CAM module (future)
- 40~42 ARCON
- 43, 44 Remote reset
- 45~48 Reserved

|     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |    |    |
|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|----|----|
| 49  | 51  | 53  | 55  | 57 | 59 | 61 | 63 | 65 | 67 | 69 | 71 | 73 | 75 | 77 | 79 | 81 | 83  | 85  | 87  | 89  | 91  | 93 | 95 |
| LCC | LCB | E01 | SR1 | C1 | B1 | C2 | C3 | B3 | C4 | C5 | B5 | C6 | C7 | B7 | C8 | C9 | B9  | C10 | C11 | B11 | C12 |    |    |
| +   |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |    |    |
| LCM | SC  | E02 | SR2 | A1 | B2 | A2 | A3 | B4 | A4 | A5 | B6 | A6 | A7 | B8 | A8 | A9 | B10 | A10 | A11 | B12 | A12 |    |    |
| 50  | 52  | 54  | 56  | 58 | 60 | 62 | 64 | 66 | 68 | 70 | 72 | 74 | 76 | 78 | 80 | 82 | 84  | 86  | 88  | 90  | 92  | 94 | 96 |

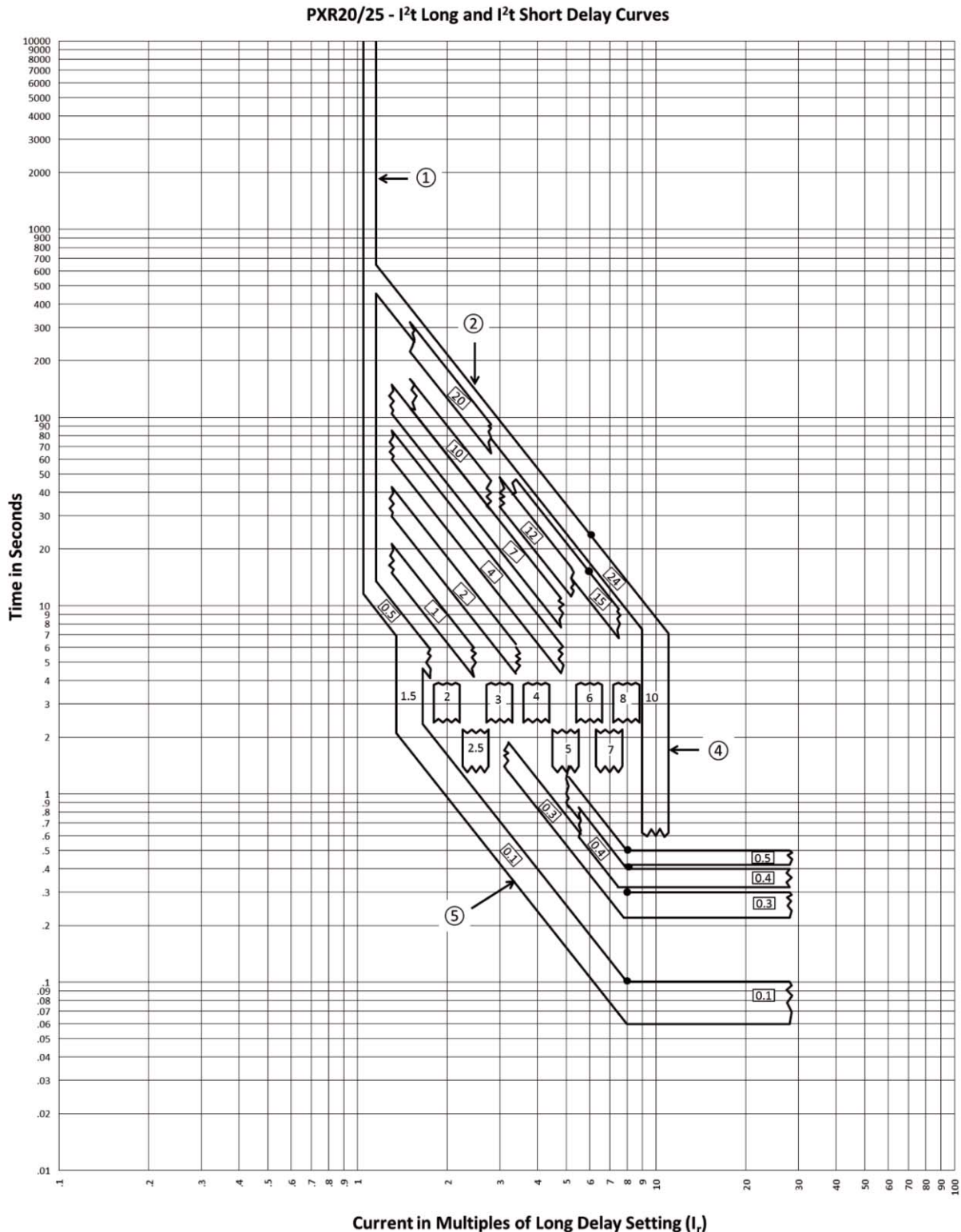
- 49~51 Latch check switch (49-COM, 50-N.O., 51-N.C.)
- 52 Message: Spring energy store tensioned
- 53, 54 Motor operator
- 55~56 Spring closing release
- 57~92 Auxiliary contact On/off, C-COM, A-N.O., B-N.C.

| Type of Conductor   | Tension Clamp Connection              | Recommended Length                         |
|---|---------------------------------------|--|
| Solid cross section (min - max)   | 0.5 - 4 mm <sup>2</sup>               | Strip length 10 - 12 mm (0.39 - .47 in.)   |
| Flexible cross section (min - max)  | 0.5 - 4 mm <sup>2</sup>               | Strip length 10 - 12 mm (0.39 - .47 in.)   |
| American wire gauge - AWG (min - max)   | 20 - 12 AWG                           | Strip length 10 - 12 mm (0.39 - .47 in.)   |
| Flexible cross-section with wire end ferrule without plastic sleeve - DIN 46228/1 (min - max) | 0.5 - 2.5 mm <sup>2</sup> (20-14 AWG) | Ferrule length 10 - 12 mm (0.39 - .47 in.) |
| Flexible cross-section with wire end ferrule with plastic sleeve - DIN 46228/4 (min - max)    | 0.5 - 1.5 mm <sup>2</sup> (24-16 AWG) | Ferrule length 16 - 18 mm (0.63 - .71 in.) |





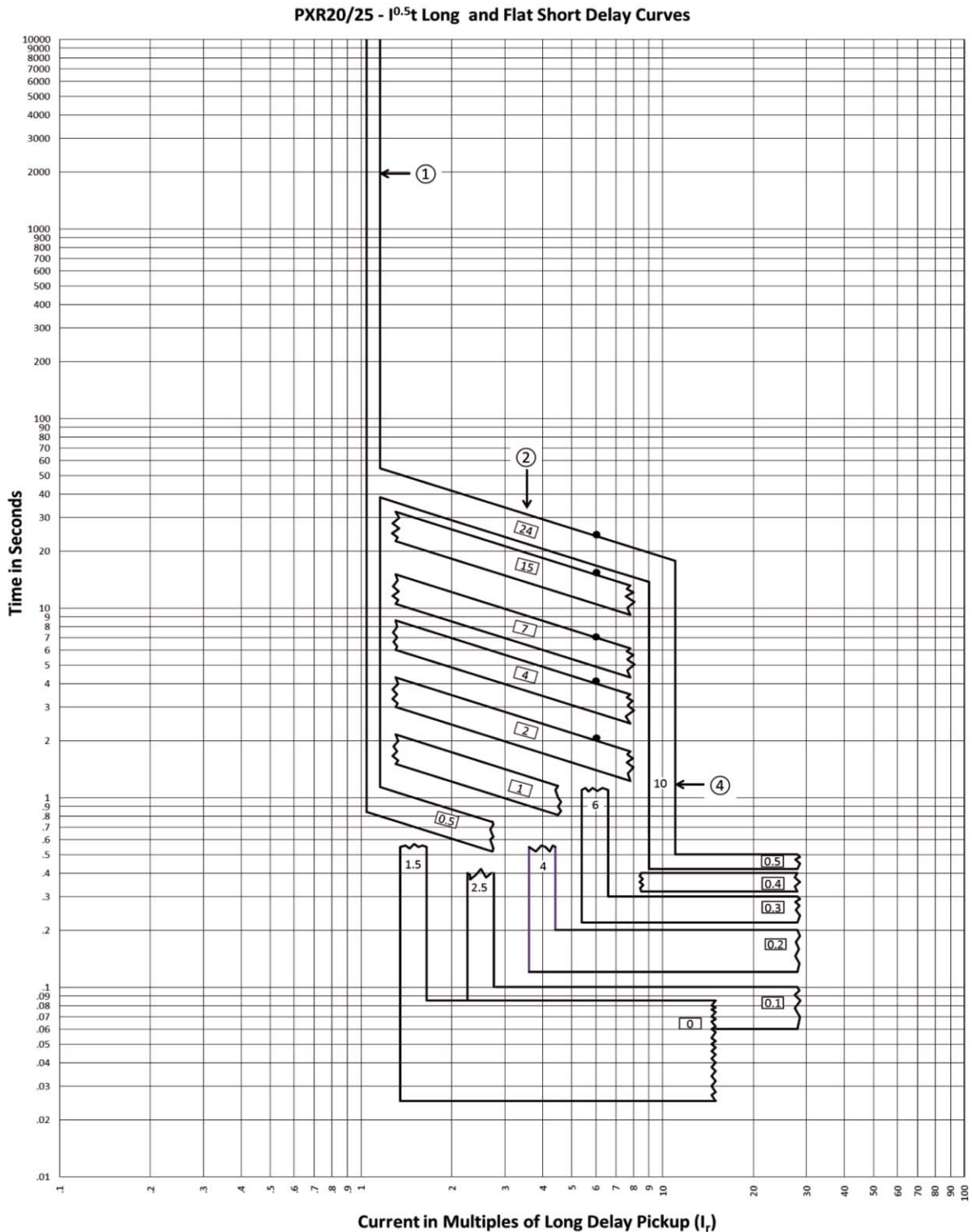
## IZMX16(40)...V(P)... PXR20/25 Long Delay(L) and Short Delay(S) Curves S-Protection with: I<sup>2</sup>t-Characteristic curve ON



**Notes**

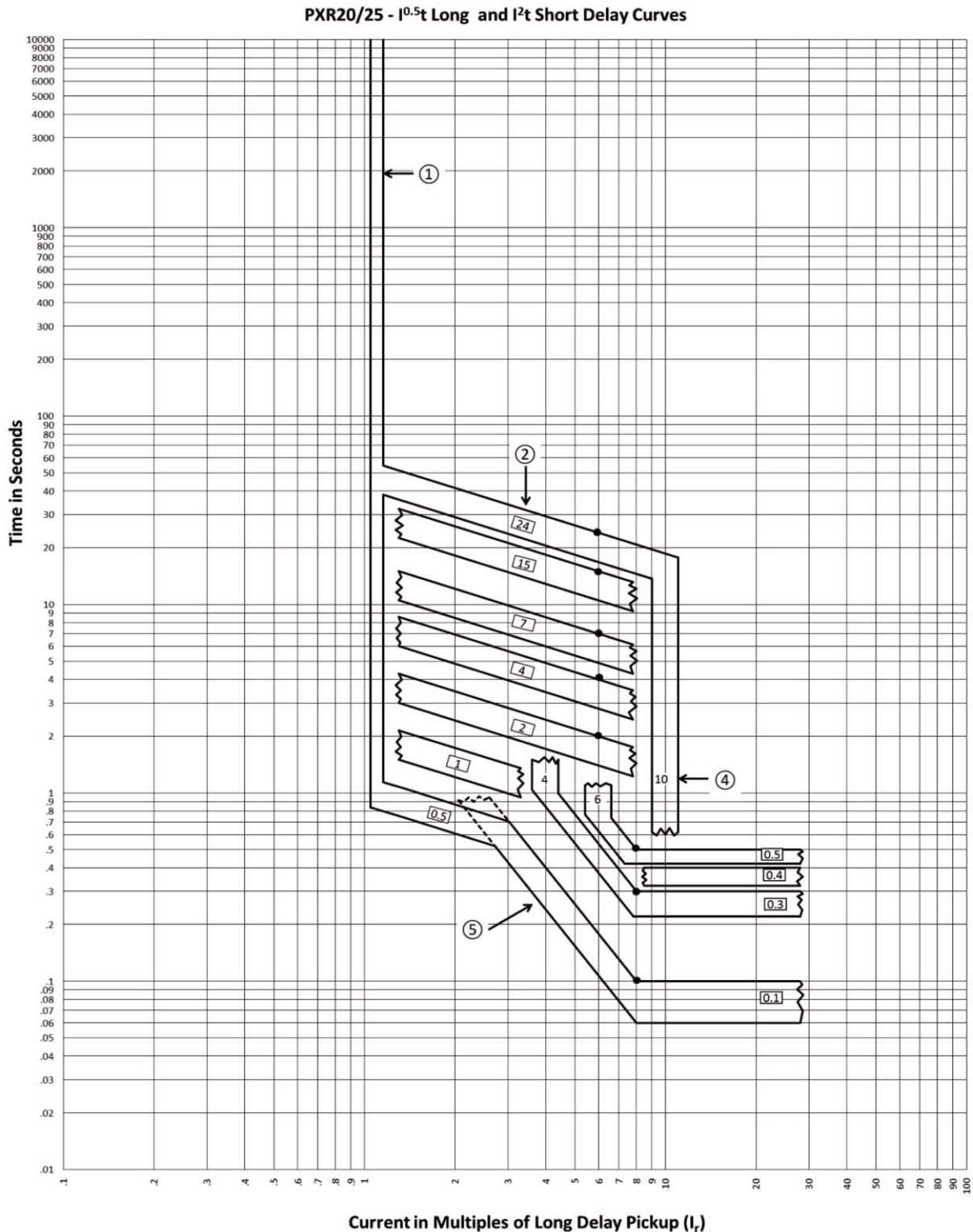
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ± 5% tolerance.
2. Long Delay Time Settings 0.5s to 24s have +0% /-30% tolerance.
3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
4. Short Delay pickup settings have ±10% tolerance.
5. Short Time delay (0.5, 0.4, 0.3) I<sup>2</sup>t slopes have a +0%/-30% tolerance, 0.1s slope has a +0%/-40% tolerance.
6. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
7. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz

**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: 10.5t-Characteristic curve; S-Protection: flat**



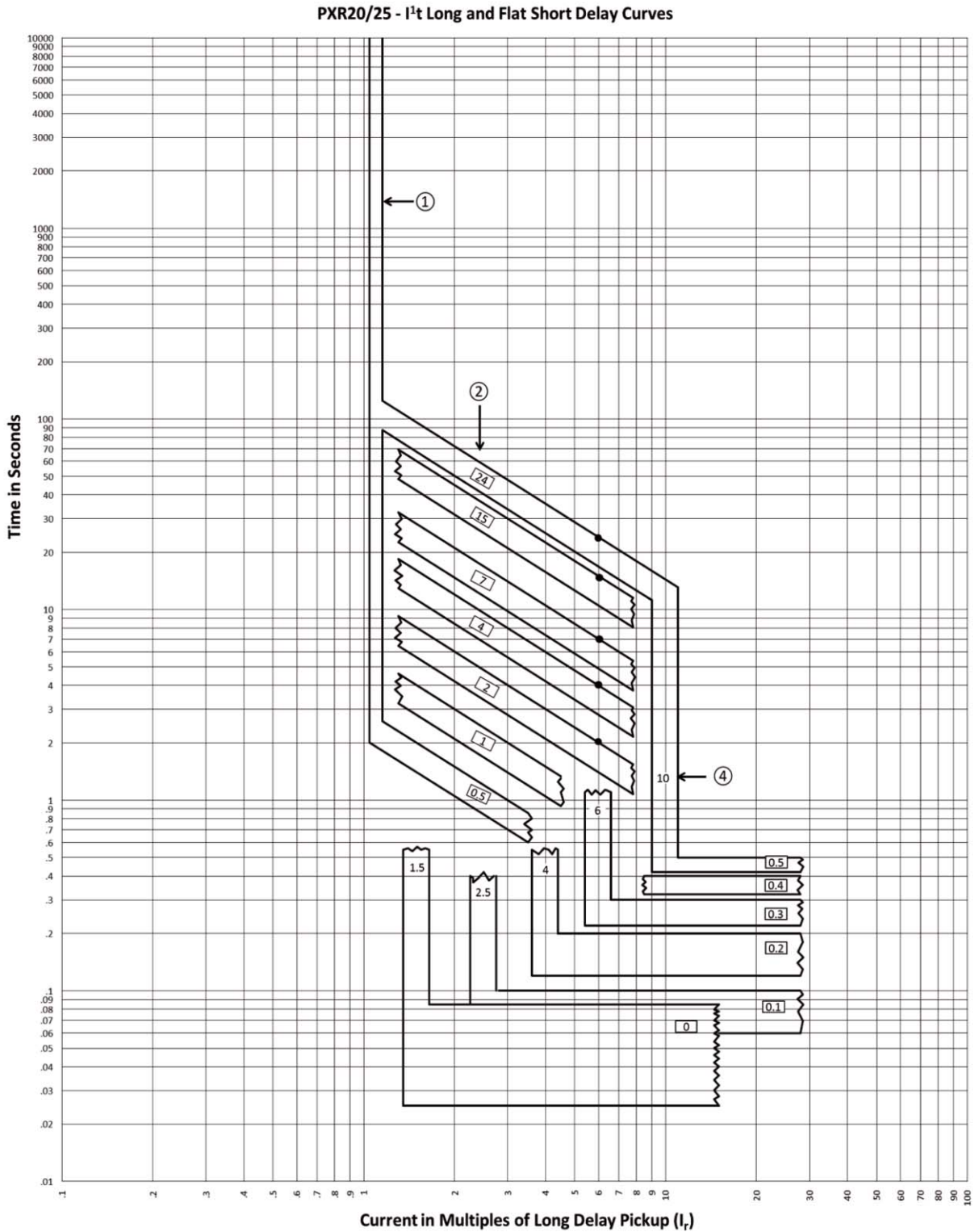
- Notes**
1. Long Delay pickup is 110% of the  $I_r$  setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with  $\pm 5\%$  tolerance.
  2. Long Delay Time Settings 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24s (not all shown) have  $+0\%/-30\%$  tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) have  $\pm 10\%$  tolerance.
  5. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  6. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: 10.5t-Characteristic curve; S-Protection: I<sup>2</sup>t**



- Notes**
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ± 5% tolerance.
  2. Long Delay Time Settings 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24s (not all shown) have +0%/-30% tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) have ±10% tolerance.
  5. Short Time delay (0.5, 0.4, 0.3) I<sup>2</sup>t slopes have a +0%/-30% tolerance, 0.1s slope has a +0%/-40% tolerance.
  6. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  7. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

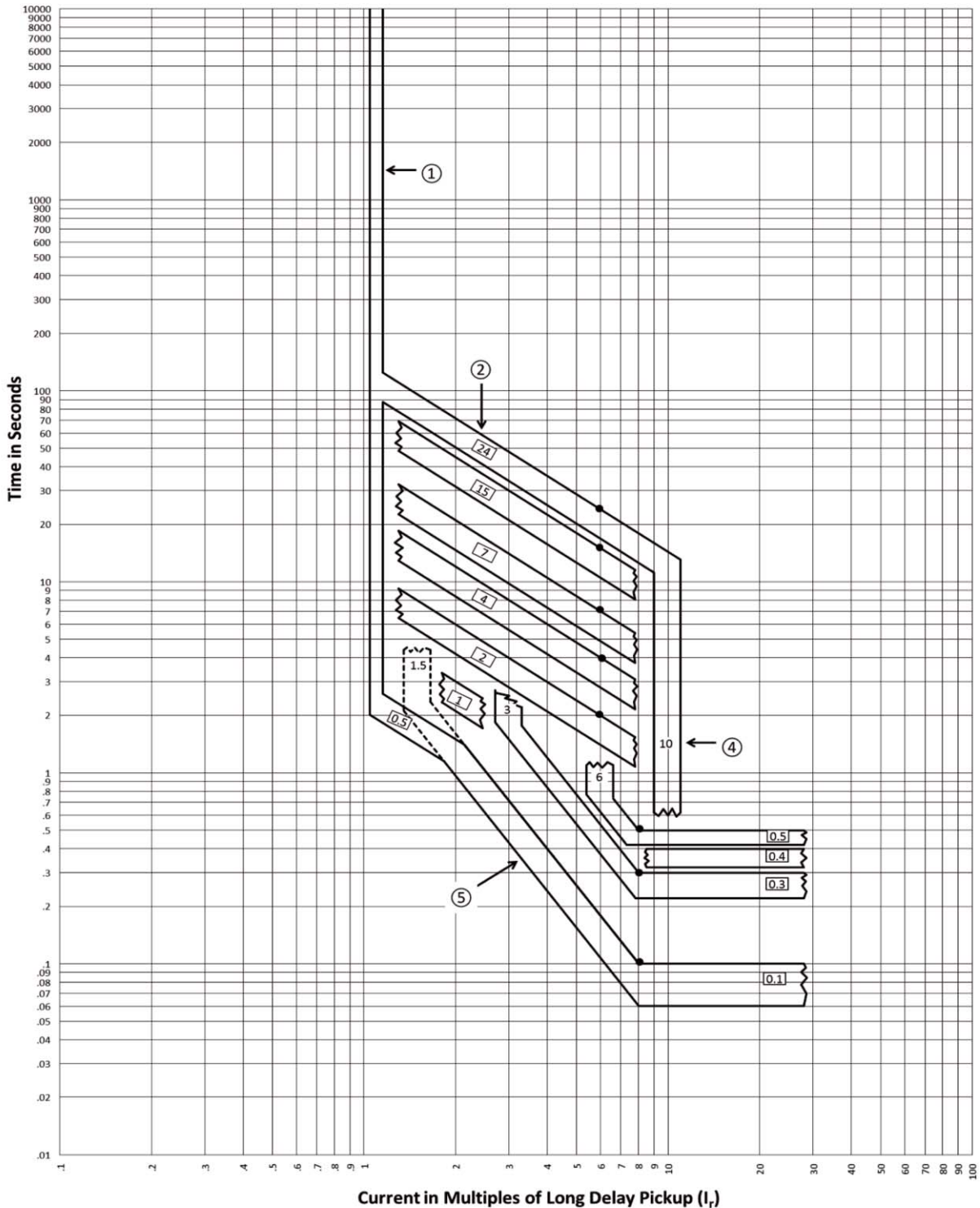
**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: I1t-Characteristic curve; S-Protection: flat**



- Notes**
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ±5% tolerance.
  2. Long Delay Time Settings 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24s (not all shown) have +0%/-30% tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings have of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) ±10% tolerance.
  5. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  6. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

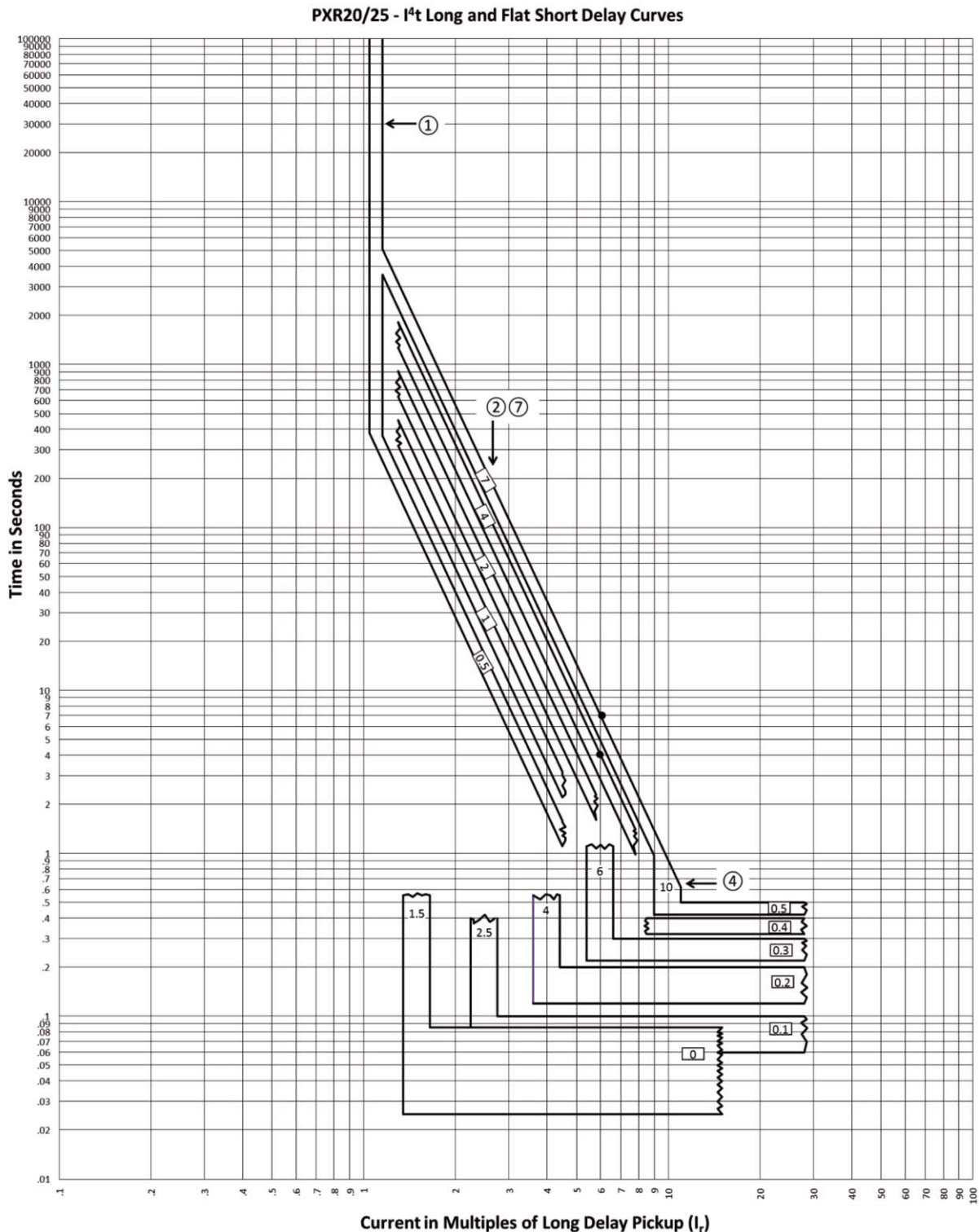
**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: I1t-Characteristic curve; S-Protection: I<sup>2</sup>t**

**PXR20/25 - I<sup>1</sup>t Long and I<sup>2</sup>t Short Delay Curves**



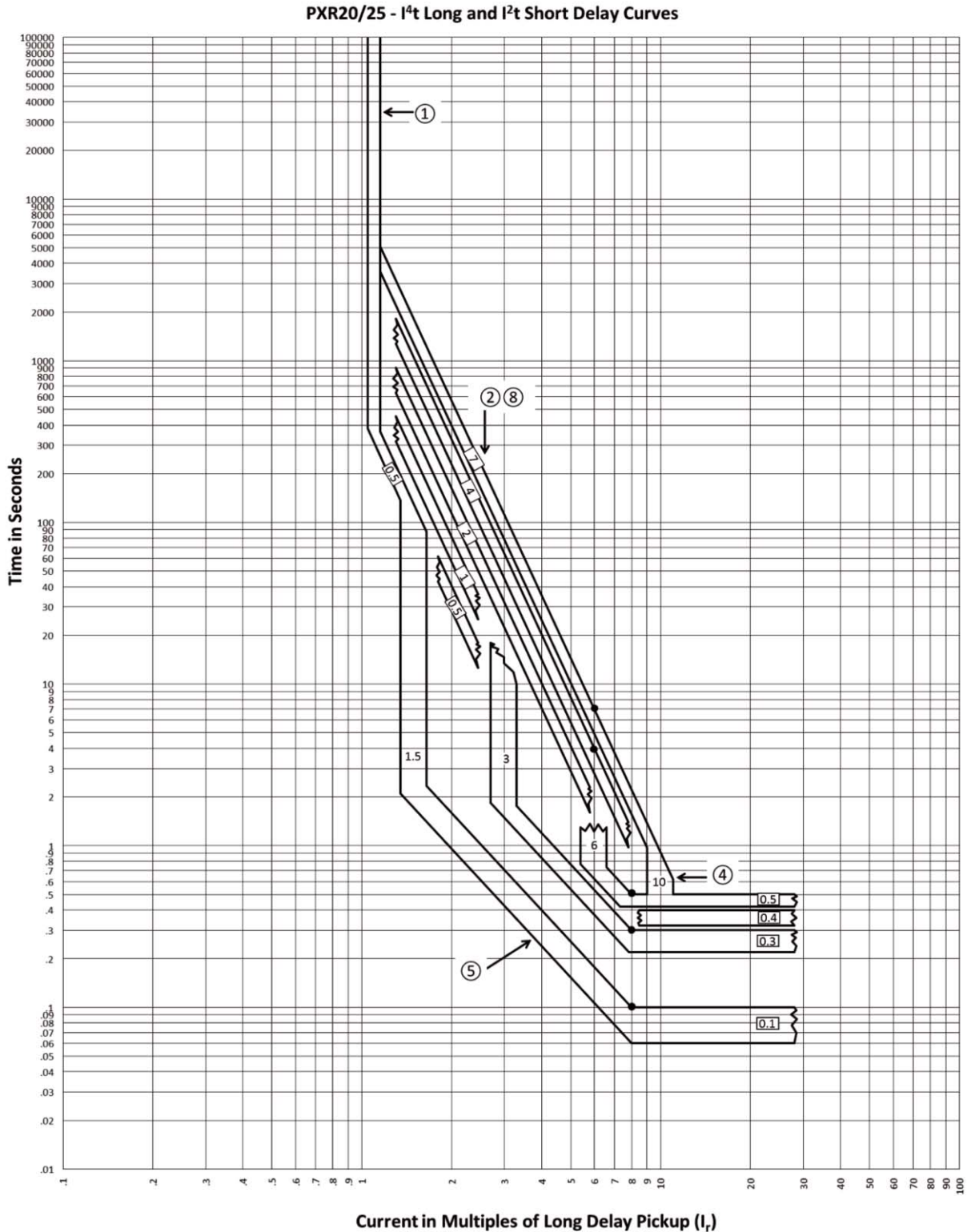
- Notes**
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ± 5% tolerance.
  2. Long Delay Time Settings 0.5, 1, 2, 4, 7, 10, 12, 15, 20, 24s (not all shown) have +0%/-30% tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) have ±10% tolerance.
  5. Short Time delay (0.5, 0.4, 0.3) I<sup>2</sup>t slopes have a +0%/-30% tolerance, 0.1s slope has a +0%/-40% tolerance.
  6. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  7. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: I4t-Characteristic curve; S-Protection: flat**



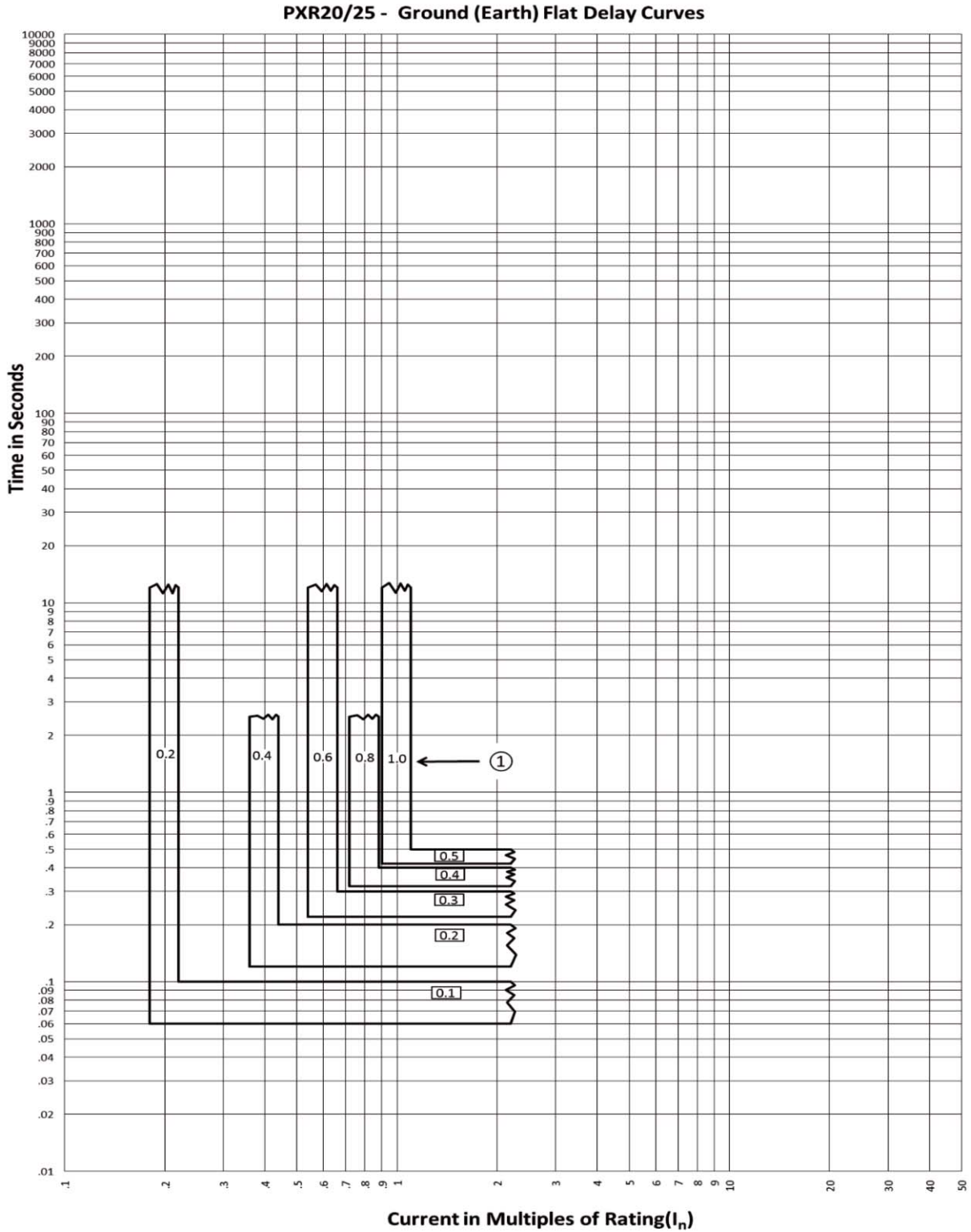
- Notes**
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ±5% tolerance.
  2. Long Delay Time Settings 0.5s to 7s have +0%/-30% tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) have ±10% tolerance.
  5. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  6. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.
  7. For the Long Time I<sup>4</sup>t slope only, all settings above 7 seconds will default to a maximum allowable 7 second time delay band.

**IZMX16(40)...V(P)... PXR20/25 Long Delay(L) Curves**  
**L-Protection: I<sup>4</sup>t-Characteristic curve; S-Protection: I<sup>2</sup>t**



- Notes**
1. Long Delay pickup is 110% of the I<sub>r</sub> setting (0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 0.95, 1.0) with ± 5% tolerance.
  2. Long Delay Time Settings 0.5s to 7s have +0%/-30% tolerance.
  3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
  4. Short Delay pickup settings of 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 (not all shown) have ±10% tolerance.
  5. Short Time delay (0.5, 0.4, 0.3) I<sup>2</sup>t slopes have a +0%/-30% tolerance, 0.1s slope has a +0%/-40% tolerance.
  6. If the Long Delay time is projected to be faster than the Short Delay time, the Long Delay trip time will go no faster than the Short Delay time value.
  7. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.
  8. For the Long Time I<sup>4</sup>t slope only, all settings above 7 seconds will default to a maximum allowable 7 second time delay band.

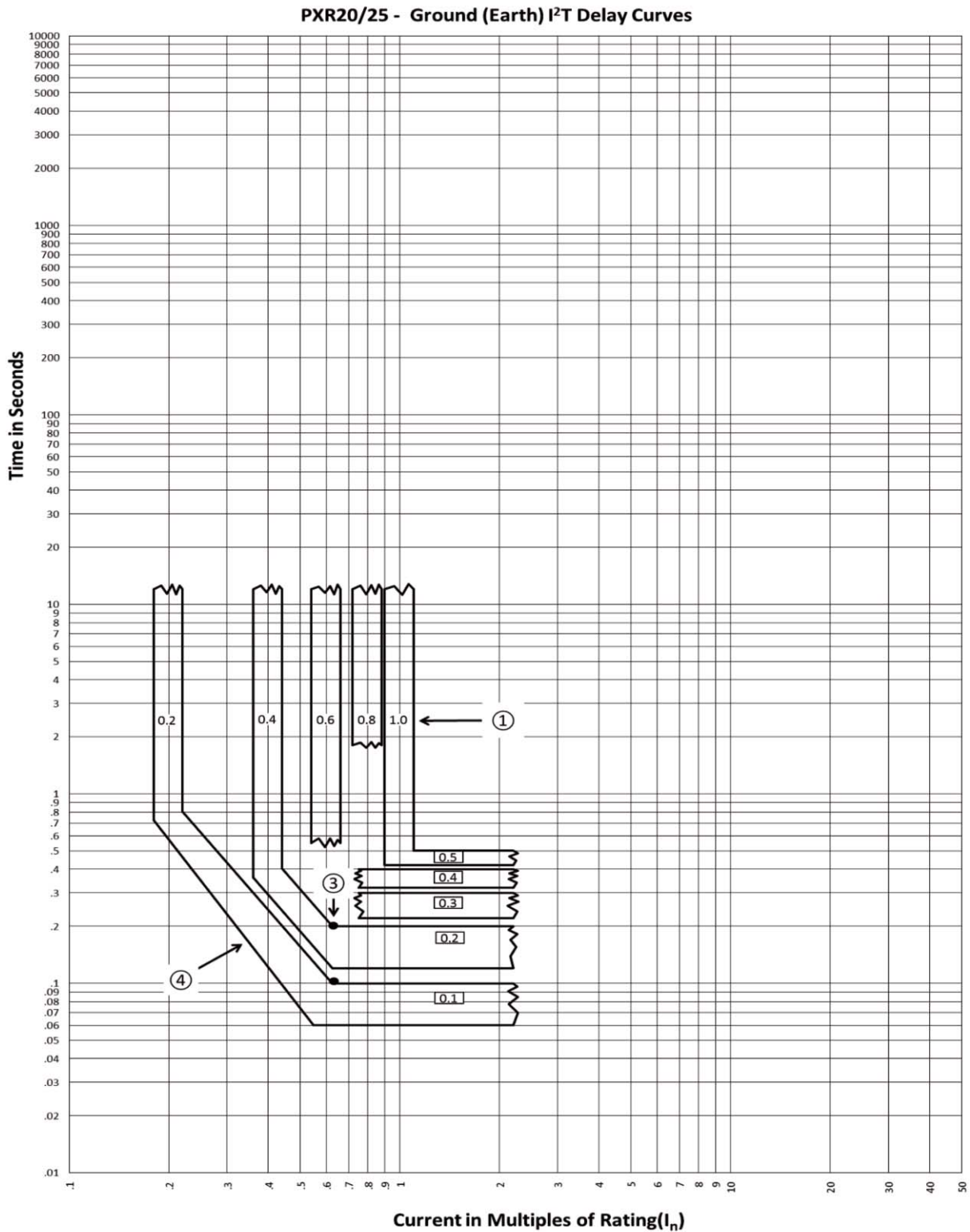
**IZMX16(40)...V(P)... PXR20/25 Ground(G) Curves**  
**G: Ground fault protection - Flat characteristic curve**



**Notes**

1. Ground Pickup settings shown are for Residual sensing with a tolerance of ± 10%.  
Pick up settings for Source Ground/Zero Sequence sensing have a tolerance of ± 15%.
2. Ground slope Flat, trip time tolerance is +0ms/-80ms for all settings except 0.1s setting is +0ms/-40ms
3. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
4. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

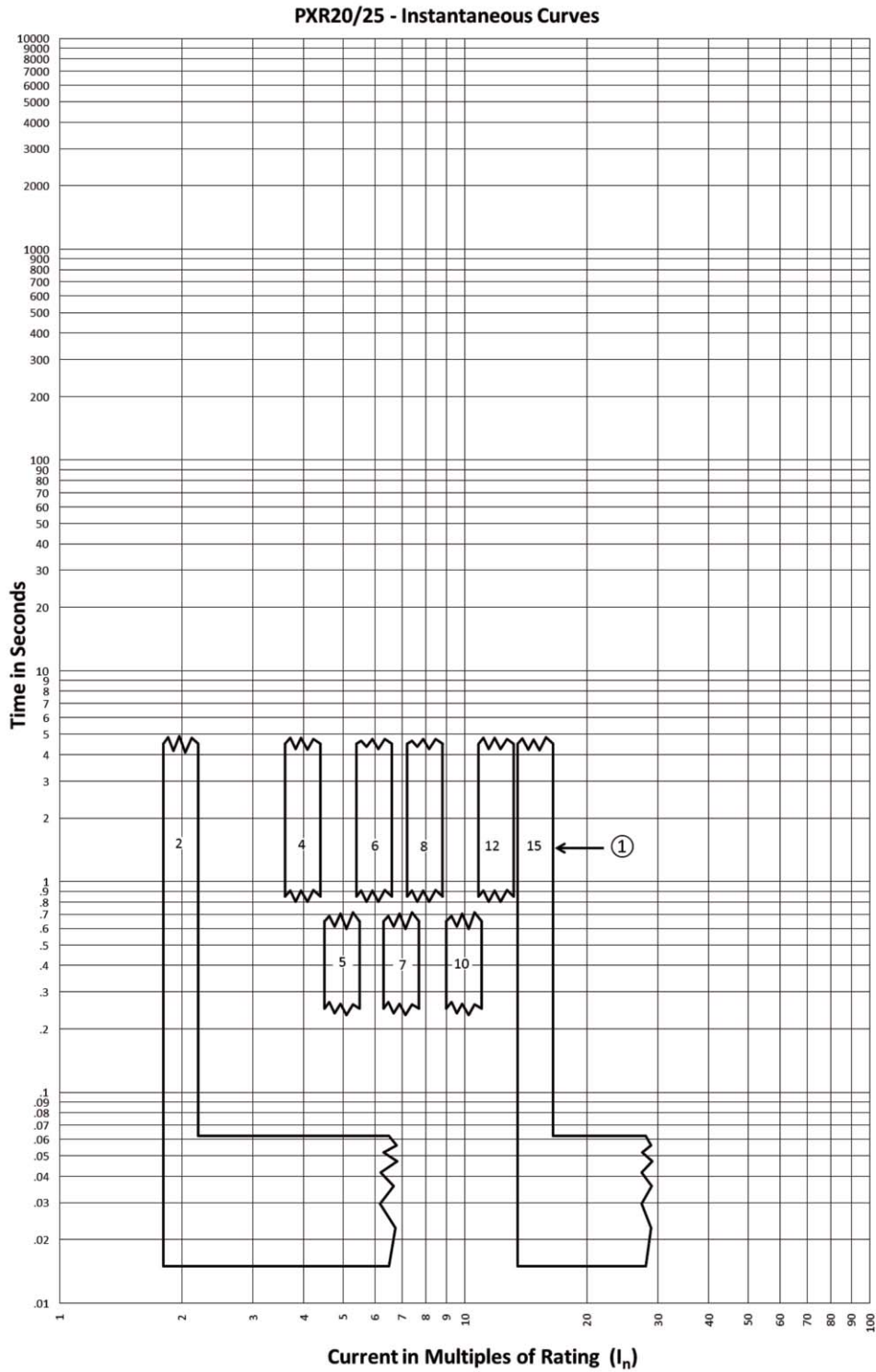
**IZMX16(40)...V(P)... PXR20/25 Ground(G) Curves**  
**G: Ground fault protection-I<sup>2</sup>t-Characteristic curve ON**



**Notes**

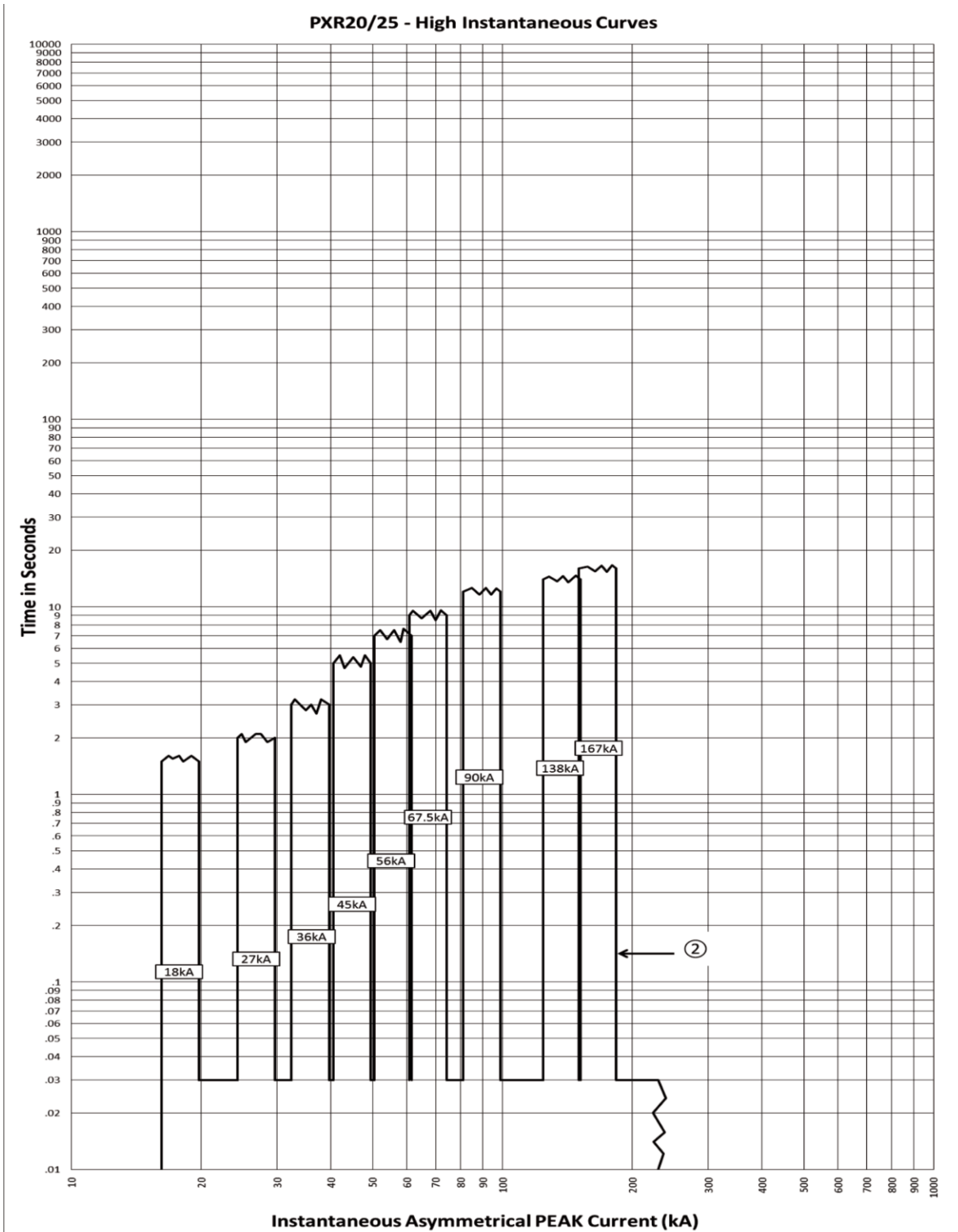
1. Ground Pickup settings shown are for Residual sensing with tolerance of ± 10%.  
Pick up settings for Source Ground/Zero Sequence sensing have a tolerance of ± 15%.
2. If Thermal Memory is enabled, trip times may be shorter than indicated in this curve.
3. Break point is at 0.625 x I<sub>n</sub> from I<sup>2</sup>t to flat.
4. Ground slope: I<sup>2</sup>t, tolerance is:  
0.1s, 0.2s : +0%/-40%  
0.3s, 0.4s, 0.5s : +0%/-30%
5. With ZSI enabled, tripping times for 3-phase faults, no aux. power will be a maximum of 75ms for 60Hz and 80ms for 50Hz.

## IZMX16(40)...V(P)... PXR20/25 Instantaneous(I) Curves I-Protection: Adjustable



**Notes** 1. The Instantaneous pickup settings have a  $\pm 10\%$  tolerance.

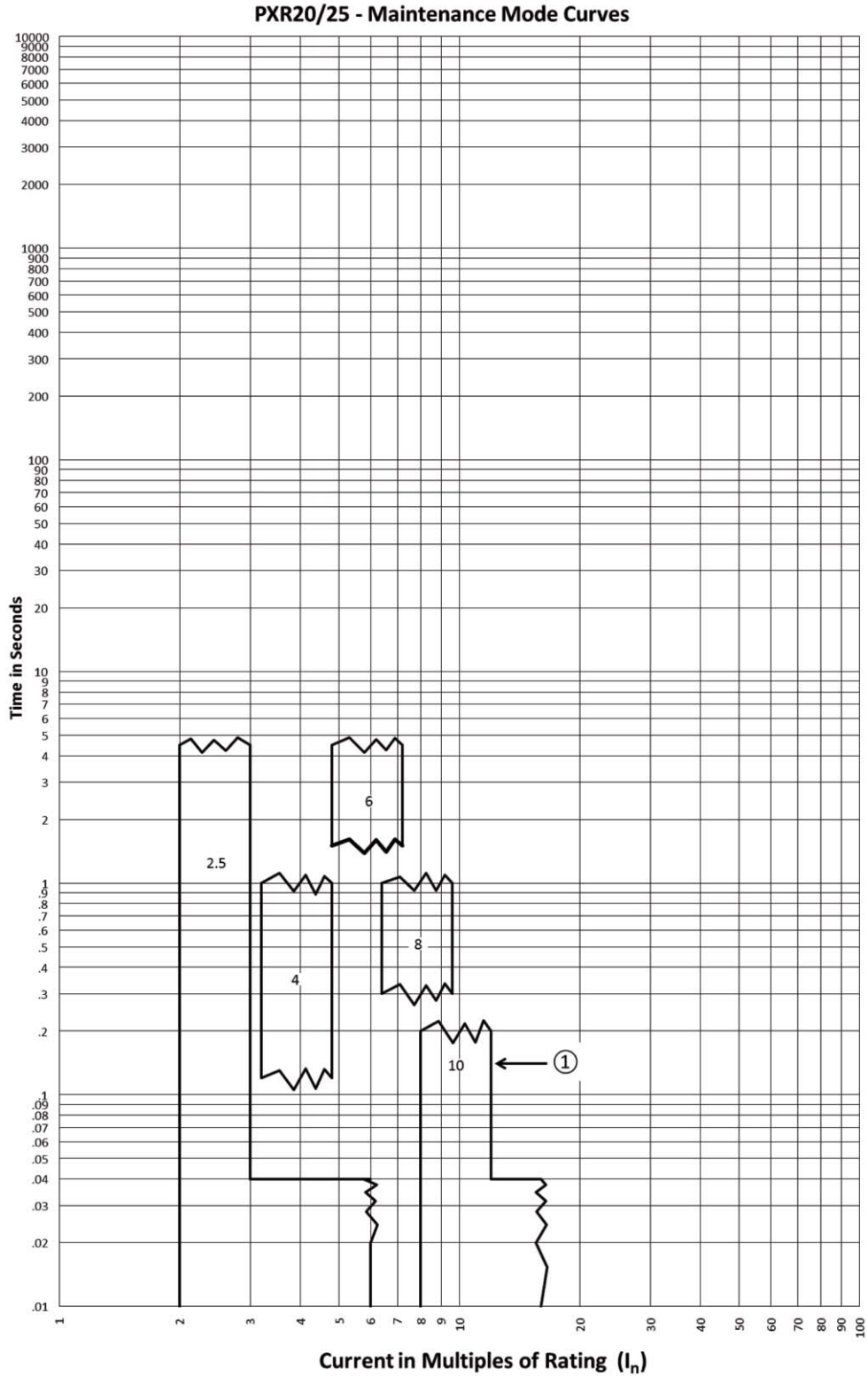
## IZMX16(40)...V(P)... PXR20/25 Instantaneous(I) Curves Instantaneous Trip at High Fault Currents



**Notes**

1. The 90kA peak curve applies to IEC and UL 489 Selective NF (IZMX16) frame Series NRX breakers.
2. The 167kA peak curve applies to RF (IZM40) frame Series NRX breakers with an (Icu) interrupting rating of 100kA and above.
3. The 138kA peak curve applies to UL 489 Selective Series NRX RF frame series with an (Icu) interrupting rating of 85kA and above.
4. The 18-67kA peak curves apply to UL 489 Switchboard Protective Series NRX breakers with the instantaneous asymmetrical peak value of 22.5 times the frame current rating.
5. The Instantaneous pickup settings have a  $\pm 10\%$  tolerance.
6. This protection is functional even when the Instantaneous is set to the OFF position.
7. The PXR trip unit will light the Instantaneous LED for a High Instantaneous trip.
8. The total High 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, such as: maximum rated voltages, single phase interruption, and minimum power factor. Faster clearing times are possible depending on the specific system conditions.

## IZMX16...V(P)... PXR20/25 Maintenance Mode Curve

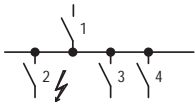


- Notes**
1. Reduction Pickup settings have a ±20% tolerance.
  2. The trip unit will light the Instantaneous LED for a Maintenance Mode protective trip.



Selectivity between incoming circuit breaker ACB, outgoing circuit breaker MCCB without using ZSI function

IZMX16...



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 ( $I_{cc\ eff}$ )  
 These details represent the limits of selectivity.  
 Both Circuit Breakers will switch off with higher short-circuit-currents.  
 On IZMX Circuit Breakers with V, 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). The  $I_j$  setting of IZMX breaker should be on OFF to allow on any short circuit level a time delayed tripping.

- $I_n$ : Rated operational current
- $I_U$ : Rated uninterrupted current
- $I_{cu}$ : Rated short-circuit breaking capacity
- $I_j$ : Set value non-delayed short-circuit releases

Incoming circuit breaker (1)

IZMX16...-V..., IZMX16...-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    |
| $I_j$ [A]max. | OFF | OFF | OFF | OFF | OFF | OFF | OFF   | OFF   | OFF   | OFF   | OFF   | OFF   | OFF   | OFF   | OFF   |

Outgoing Circuit Breaker (2)

|           |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $I_U$ [A] | $I_{cu}$ [kA] | B | N | H | B | N | H | B | N | H | B | N | H | B | N | H |
|-----------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

|                               |          | Selectivity - limit current $I_s$ (kA) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|----------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NZMB(C)(N)<br>(H)1-A(M)...    | 20       | 25 - 100                               | 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 |
|                               | 32       | 25 - 100                               | 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 |
|                               | 50       | 25 - 100                               | 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 |
|                               | 80       | 25 - 100                               | 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 |
| NZMB(C)(N)<br>(H)2-A(M)(V)... | 125      | 25 - 100                               | 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 |
|                               | 20       | 25 - 150                               | 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 |
|                               | 32       | 25 - 150                               | 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 |
|                               | 50       | 25 - 150                               | 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 |
|                               | 80       | 25 - 150                               | 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 |
|                               | 100      | 25 - 150                               | 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 |
| NZMC(N)(H)<br>3-A(M)(V)...    | 140      | 25 - 150                               | 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 |
|                               | 200      | 25 - 150                               | 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 |
|                               | 250      | 25 - 150                               | 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 |
|                               | 220      | 36 - 150                               | 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 |
|                               | 320      | 36 - 150                               | 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 |
| NZMN(H)<br>4-A(M)(V)...       | 400      | 36 - 150                               | 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 |
|                               | 500      | 36 - 150                               | 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 |
|                               | 550      | 50 - 100                               | 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 |
|                               | 800      | 50 - 100                               | - | - | - | - | - | - | T | T | T | T | T | T | T | T |
|                               | 875      | 50 - 100                               | - | - | - | - | - | - | - | T | T | T | T | T | T | T |
| 1000                          | 50 - 100 | -                                      | - | - | - | - | - | - | - | - | 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



## Technical data


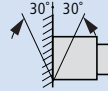
|  |   |              | IZMX16B...<br>06...                               | IZMX16B...<br>08... | IZMX16B...<br>10... | IZMX16B...<br>12... | IZMX16B...<br>16... |
|--|---|--------------|---|---------------------|---------------------|---------------------|---------------------|
| <b>General</b>                                       |   |              |   |                     |                     |                     |                     |
| Standards  |   |              | IEC/EN 60947                                      |                     |                     |                     |                     |
| Ambient temperature                                  | Storage   | °C           | -20 - +70   |                     |                     |                     |                     |
|  | Operating (open)  | °C           | -20 - +70   |                     |                     |                     |                     |
| Mounting position                                    |   |              |   |                     |                     |                     |                     |
| Utilization category                                 |   |              | B   | B                   | B                   | B                   | B                   |
| Protection type                                      |   |              | IP31 with door gasket, IP55 with protective cover |                     |                     |                     |                     |
| Direction of incoming supply                         |   |              | as required                                       | as required         | as required         | as required         | as required         |
| <b>Main conducting paths</b>                         |   |              |   |                     |                     |                     |                     |
| Rated current = rated uninterrupted current          | $I_n = I_U$   | A            | 630   | 800                 | 1000                | 1250                | 1600                |
| Rated uninterrupted current at 50 °C <sup>1)</sup>   | $I_U$   | A            | 630   | 800                 | 1000                | 1250                | 1500                |
| Rated uninterrupted current at 60 °C <sup>1)</sup>   | $I_U$   | A            | 630   | 800                 | 1000                | 1250                | 1400                |
| Rated uninterrupted current at 70 °C <sup>1)</sup>   | $I_U$   | A            | 630   | 800                 | 1000                | 1250                | 1350                |
| Rated impulse withstand voltage                      | $U_{imp}$   | V AC         | 12000   | 12000               | 12000               | 12000               | 12000               |
| Rated operational voltage, max.                      | $U_e$   | V AC         | 690   | 690                 | 690                 | 690                 | 690                 |
| Overvoltage category/pollution degree                |   |              | III/3   | III/3               | III/3               | III/3               | III/3               |
| Rated insulation voltage                             | $U_i$   | V            | 1000  | 1000                | 1000                | 1000                | 1000                |
| <b>Switching capacity</b>                            |   |              |   |                     |                     |                     |                     |
| Rated short-circuit making capacity                  | up to 240 V 50/60 Hz  | $I_{cm}$     | 88  | 88                  | 88                  | 88                  | 88                  |
|  | up to 440 V 50/60 Hz  | $I_{cm}$     | 88  | 88                  | 88                  | 88                  | 88                  |
|  | up to 690 V 50/60 Hz  | $I_{cm}$     | 88  | 88                  | 88                  | 88                  | 88                  |
| Rated short-time withstand current 50/60 Hz t = 1 s  | $I_{cw}$  | kA           | 42  | 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  | $I_{cu}$     | 42  | 42                  | 42                  | 42                  | 42                  |
|  | up to 440 V 50/60 Hz  | $I_{cu}$     | 42  | 42                  | 42                  | 42                  | 42                  |
|  | up to 690 V 50/60 Hz  | $I_{cu}$     | 42  | 42                  | 42                  | 42                  | 42                  |
| IEC/EN 60947 Operating sequence $I_{cs}$ O-t-CO-t-CO |   |              |   |                     |                     |                     |                     |
|  | up to 240 V 50/60 Hz  | $I_{cs}$     | 42  | 42                  | 42                  | 42                  | 42                  |
|  | up to 440 V 50/60 Hz  | $I_{cs}$     | 42  | 42                  | 42                  | 42                  | 42                  |
|  | up to 690 V 50/60 Hz  | $I_{cs}$     | 42  | 42                  | 42                  | 42                  | 42                  |
| Manual operating time ON or OFF                      |   | ms           | 30  | 30                  | 30                  | 30                  | 30                  |
| Electrical operating times                           |   |              |   |                     |                     |                     |                     |
|  | Closing time electrically (via closing release)   | ms           | 30  | 30                  | 30                  | 30                  | 30                  |
|  | Opening time electrically (via shunt release)   | ms           | 30  | 30                  | 30                  | 30                  | 30                  |
|  | Opening time electrically (via undervoltage release)  | ms           | 50  | 50                  | 50                  | 50                  | 50                  |
|  | Opening time via trip electronics (from short circuit to OA) (non-delayed short-circuit trip) |              | 27  | 27                  | 27                  | 27                  | 27                  |
| Lifespan   | mechanical, without maintenance   | Operations   | 10000   | 10000               | 10000               | 10000               | 10000               |
|  | mechanical, with maintenance  | Operations   | 20000   | 20000               | 20000               | 20000               | 20000               |
|  | electrical, without maintenance   | Operations   | 10000   | 10000               | 10000               | 10000               | 10000               |
|  | electrical, with maintenance  | Operations   | 20000   | 20000               | 20000               | 20000               | 20000               |
| Maximum operating frequency                          |   | Operations/h | 60  | 60                  | 60                  | 60                  | 60                  |
| Total heat dissipation at rated current $I_n$        | Fixed mounting  | W            | 36  | 59                  | 92                  | 132                 | 235                 |
|  | Withdrawable  | W            | 50  | 80                  | 125                 | 180                 | 320                 |
| <b>Weight</b>  |   |              |   |                     |                     |                     |                     |
| Fixed mounting                                       | 3 pole  | kg           | 16  | 16                  | 16                  | 16                  | 16                  |
|  | 4 pole  | kg           | 24  | 24                  | 24                  | 24                  | 24                  |
| Withdrawable (CB only)                               | 3 pole  | kg           | 23  | 23                  | 23                  | 23                  | 23                  |
|  | 4 pole  | kg           | 33  | 33                  | 33                  | 33                  | 33                  |
| Cassette   | 3 pole  | kg           | 18  | 18                  | 18                  | 18                  | 18                  |
|  | 4 pole  | kg           | 21  | 21                  | 21                  | 21                  | 21                  |

## Notes

<sup>1)</sup> 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.


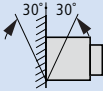
| IZMX16N...<br>06...                               | IZMX16N...<br>08... | IZMX16N...<br>10... | IZMX16N...<br>12... | IZMX16N...<br>16... | IZMX16H...<br>06... | IZMX16H...<br>08... | IZMX16H...<br>10... | IZMX16H...<br>12... | IZMX16H...<br>16... |  |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| IEC/EN 60947                                      |                     |                     |                     |                     |                     |                     |                     |                     |                     |  |
| -20 - +70   |                     |                     |                     |                     |                     |                     |                     |                     |                     |  |
| -20 - +70   |                     |                     |                     |                     |                     |                     |                     |                     |                     |  |
|   |                     |                     |                     |                     |                     |                     |                     |                     |                     |  |
| B   | B                   | B                   | B                   | B                   | B                   | B                   | B                   | B                   | B                   |  |
| IP31 with door gasket, IP55 with protective cover |                     |                     |                     |                     |                     |                     |                     |                     |                     |  |
| as required                                       | as required         | as required         | as required         | as required         | as required         | as required         | as required         | as required         | as required         |  |
| 630   | 800                 | 1000                | 1250                | 1600                | 630                 | 800                 | 1000                | 1250                | 1600                |  |
| 630   | 800                 | 1000                | 1250                | 1500                | 630                 | 800                 | 1000                | 1250                | 1500                |  |
| 630   | 800                 | 1000                | 1250                | 1400                | 630                 | 800                 | 1000                | 1250                | 1400                |  |
| 630   | 800                 | 1000                | 1250                | 1350                | 630                 | 800                 | 1000                | 1250                | 1350                |  |
| 12000   | 12000               | 12000               | 12000               | 12000               | 12000               | 12000               | 12000               | 12000               | 12000               |  |
| 690   | 690                 | 690                 | 690                 | 690                 | 690                 | 690                 | 690                 | 690                 | 690                 |  |
| III/3   | III/3               | III/3               | III/3               | III/3               | III/3               | III/3               | III/3               | III/3               | III/3               |  |
| 1000  | 1000                | 1000                | 1000                | 1000                | 1000                | 1000                | 1000                | 1000                | 1000                |  |
| 105   | 105                 | 105                 | 105                 | 105                 | 145                 | 145                 | 145                 | 145                 | 145                 |  |
| 105   | 105                 | 105                 | 105                 | 105                 | 145                 | 145                 | 145                 | 145                 | 145                 |  |
| 88  | 88                  | 88                  | 88                  | 88                  | 88                  | 88                  | 88                  | 88                  | 88                  |  |
| 42  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  |  |
| 85  | 85                  | 85                  | 85                  | 85                  | 85                  | 85                  | 85                  | 85                  | 85                  |  |
| 50  | 50                  | 50                  | 50                  | 50                  | 66                  | 66                  | 66                  | 66                  | 66                  |  |
| 42  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  |  |
| 50  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  |  |
| 50  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  |  |
| 42  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  | 42                  |  |
| 30  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  |  |
| 30  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  |  |
| 30  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  | 30                  |  |
| 50  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  | 50                  |  |
| 27  | 27                  | 27                  | 27                  | 27                  | 27                  | 27                  | 27                  | 27                  | 27                  |  |
| 10000   | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               |  |
| 20000   | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               |  |
| 10000   | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               | 10000               |  |
| 20000   | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               | 20000               |  |
| 60  | 60                  | 60                  | 60                  | 60                  | 60                  | 60                  | 60                  | 60                  | 60                  |  |
| 36  | 59                  | 92                  | 132                 | 235                 | 36                  | 59                  | 92                  | 132                 | 235                 |  |
| 50  | 80                  | 125                 | 180                 | 320                 | 50                  | 80                  | 125                 | 180                 | 320                 |  |
| 16  | 16                  | 16                  | 16                  | 16                  | 16                  | 16                  | 16                  | 16                  | 16                  |  |
| 24  | 24                  | 24                  | 24                  | 24                  | 24                  | 24                  | 24                  | 24                  | 24                  |  |
| 23  | 23                  | 23                  | 23                  | 23                  | 23                  | 23                  | 23                  | 23                  | 23                  |  |
| 33  | 33                  | 33                  | 33                  | 33                  | 33                  | 33                  | 33                  | 33                  | 33                  |  |
| 18  | 18                  | 18                  | 18                  | 18                  | 18                  | 18                  | 18                  | 18                  | 18                  |  |
| 21  | 21                  | 21                  | 21                  | 21                  | 21                  | 21                  | 21                  | 21                  | 21                  |  |

## Technical data

|   |                                 |              |            | INX16B...06...  | INX16B...08...  |
|---|---------------------------------|--------------|------------|---|---|
| <b>General</b>  |                                 |              |            |   |   |
| Standards   |                                 | IEC/EN 60947 |            |   |   |
| Ambient temperature   | Storage                         | °C           |            | -40 - +70   |   |
|   | Operating (open)                | °C           |            | -25 - +70   |   |
| Mounting position   |                                 |              |            |  |  |
| Utilization category  |                                 |              |            | B   | B   |
| Protection type   |                                 |              |            | IP31 with door gasket, IP55 with protective cover                                 |   |
| Direction of incoming supply  |                                 |              |            | as required   | as required   |
| <b>Main conducting paths</b>  |                                 |              |            |   |   |
| Rated current = rated uninterrupted current                                 |                                 | $I_n = I_u$  | A          | 630   | 800   |
| Rated uninterrupted current at 50 °C <sup>1)</sup>                          |                                 | $I_u$        | A          | 630   | 800   |
| Rated uninterrupted current at 60 °C <sup>1)</sup>                          |                                 | $I_u$        | A          | 630   | 800   |
| Rated uninterrupted current at 70 °C <sup>1)</sup>                          |                                 | $I_u$        | A          | 630   | 800   |
| Rated impulse withstand voltage   |                                 | $U_{imp}$    | V AC       | 12000   | 12000   |
| Rated operational voltage, max.   |                                 | $U_e$        | V AC       | 690   | 690   |
| Overvoltage category/pollution degree                                       |                                 |              |            | III/3   | III/3   |
| Rated insulation voltage  |                                 | $U_i$        | V          | 1000  | 1000  |
| <b>Switching capacity</b>   |                                 |              |            |   |   |
| Rated short-circuit making capacity   | up to 240 V 50/60 Hz            | $I_{cm}$     | kA         | 88  | 88  |
|   | 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  |
| Electrical operating times  |                                 |              |            |   |   |
| Closing time electrically (via closing release)                             |                                 |              |            | ms  | 30  |
| Opening time electrically (via shunt release)                               |                                 |              |            | ms  | 30  |
| Opening time electrically (via undervoltage release)                        |                                 |              |            | ms  | 50  |
| Lifespan  | mechanical, without maintenance |              | Operations | 10000   | 10000   |
|   | mechanical, with maintenance    |              | Operations | 20000   | 20000   |
|   | electrical, without maintenance |              | Operations | 10000   | 10000   |
|   | electrical, with maintenance    |              | Operations | 20000   | 20000   |
| Maximum operating frequency   |                                 |              |            | Operations/h  | 60  |
| Total heat dissipation at rated current $I_n$ with 3-phase symmetrical load | Fixed mounting                  |              | W          | 36  | 59  |
|   | Withdrawable                    |              | W          | 50  | 80  |
| <b>Weight</b>   |                                 |              |            |   |   |
| Fixed mounting  | 3 pole                          |              | kg         | 14  | 14  |
|   | 4 pole                          |              | kg         | 22  | 22  |
| Withdrawable (CB only)  | 3 pole                          |              | kg         | 21  | 21  |
|   | 4 pole                          |              | kg         | 31  | 31  |
| Cassette  | 3 pole                          |              | kg         | 18  | 18  |
|   | 4 pole                          |              | kg         | 21  | 21  |

## Notes

<sup>1)</sup> 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.

| INX16B...10...  | INX16B...12...  | INX16B...16... |  |
|---|---|----------------|--|
| IEC/EN 60947  |   |                |  |
| -40 - +70   |   |                |  |
| -25 - +70   |   |                |  |
|  |  |                |  |
| B   | B   | B              |  |
| IP31 with door gasket, IP55 with protective cover                                 |   |                |  |
| as required   | as required   | as required    |  |
| 1000  | 1250  | 1600           |  |
| 1000  | 1250  | 1500           |  |
| 1000  | 1250  | 1400           |  |
| 1000  | 1250  | 1350           |  |
| 12000   | 12000   | 12000          |  |
| 690   | 690   | 690            |  |
| III/3   | III/3   | III/3          |  |
| 1000  | 1000  | 1000           |  |
| 88  | 88  | 88             |  |
| 88  | 88  | 88             |  |
| 88  | 88  | 88             |  |
| 42  | 42  | 42             |  |
| 30  | 30  | 30             |  |
| 30  | 30  | 30             |  |
| 50  | 50  | 50             |  |
| 10000   | 10000   | 10000          |  |
| 20000   | 20000   | 20000          |  |
| 10000   | 10000   | 10000          |  |
| 20000   | 20000   | 20000          |  |
| 60  | 60  | 60             |  |
| 92  | 132   | 235            |  |
| 125   | 180   | 320            |  |
| 14  | 14  | 14             |  |
| 22  | 22  | 22             |  |
| 21  | 21  | 21             |  |
| 31  | 31  | 31             |  |
| 18  | 18  | 18             |  |
| 21  | 21  | 21             |  |

## Technical data

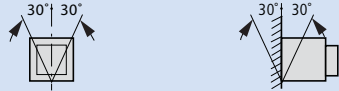
|   |                                      |             |              | IZMX40B...08...                                   | IZMX40B...10... | IZMX40B...12... |
|---|--------------------------------------|-------------|--------------|---|-----------------|-----------------|
| <b>General</b>  |                                      |             |              |   |                 |                 |
| Standards   |                                      |             |              | IEC/EN 60947                                      |                 |                 |
| Ambient temperature   | Storage                              | °C          | -20 - +70    |   |                 |                 |
|   | Operating (open)                     | °C          | -20 - +70    |   |                 |                 |
| Mounting position   |                                      |             |              |   |                 |                 |
| Utilization category  |                                      |             |              | B   | B               | B               |
| Protection type   |                                      |             |              | IP31 with door gasket, IP55 with protective cover |                 |                 |
| Direction of incoming supply  |                                      |             |              | as required                                       | as required     | as required     |
| <b>Main conducting paths</b>  |                                      |             |              |   |                 |                 |
| Rated current = rated uninterrupted current   |                                      | $I_n = I_u$ | A            | 800   | 1000            | 1250            |
| Rated uninterrupted current at 50 °C <sup>1)</sup>  |                                      | $I_u$       | A            | 800   | 1000            | 1250            |
| Rated uninterrupted current at 60 °C <sup>1)</sup>  |                                      | $I_u$       | A            | 800   | 1000            | 1250            |
| Rated uninterrupted current at 70 °C <sup>1)</sup>  |                                      | $I_u$       | A            | 800   | 1000            | 1250            |
| Rated impulse withstand voltage   |                                      | $U_{imp}$   | V AC         | 12000   | 12000           | 12000           |
| Rated operational voltage, max.   |                                      | $U_e$       | V AC         | 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            |
| <b>Switching capacity</b>   |                                      |             |              |   |                 |                 |
| Rated short-circuit making capacity   | up to 240 V 50/60 Hz                 | $I_{cm}$    | kA           | 145   | 145             | 145             |
|   | up to 440 V 50/60 Hz                 | $I_{cm}$    | kA           | 145   | 145             | 145             |
|   | up to 690 V 50/60 Hz                 | $I_{cm}$    | kA           | 145   | 145             | 145             |
| Rated short-time withstand current 50/60 Hz t = 1 s / 3 s                                     |                                      | $I_{cw}$    | kA           | 66/50   | 66/50           | 66/50           |
| Rated short-circuit breaking capacity $I_{cn}$  |                                      |             |              |   |                 |                 |
| IEC/EN 60947 Operating sequence $I_{cu}$ 0-t-CO   |                                      |             |              |   |                 |                 |
| up to 240 V 50/60 Hz  |                                      | $I_{cu}$    | kA           | 66  | 66              | 66              |
| up to 440 V 50/60 Hz  |                                      | $I_{cu}$    | kA           | 66  | 66              | 66              |
| up to 690 V 50/60 Hz  |                                      | $I_{cu}$    | kA           | 66  | 66              | 66              |
| IEC/EN 60947 Operating sequence $I_{cs}$ 0-t-CO-t-CO  |                                      |             |              |   |                 |                 |
| up to 240 V 50/60 Hz  |                                      | $I_{cs}$    | kA           | 66  | 66              | 66              |
| up to 440 V 50/60 Hz  |                                      | $I_{cs}$    | kA           | 66  | 66              | 66              |
| up to 690 V 50/60 Hz  |                                      | $I_{cs}$    | kA           | 66  | 66              | 66              |
| Operating times for closing (ON)  |                                      |             |              |   |                 |                 |
| Closing time electrically (via closing release)   |                                      |             | ms           | 35  | 35              | 35              |
| Operating times for opening (OFF)   |                                      |             |              |   |                 |                 |
| Opening time electrically (via shunt release)   |                                      |             | ms           | 35  | 35              | 35              |
| Opening time electrically (via undervoltage release)  |                                      |             | ms           | 40  | 40              | 40              |
| Opening time via trip electronics (from short-circuit to OA) (non-delayed short-circuit trip) |                                      |             | ms           | 35  | 35              | 35              |
| Lifespan  | mechanical, without maintenance      |             | Operations   | 10000   | 10000           | 10000           |
|   | mechanical, with maintenance         |             | Operations   | 20000   | 20000           | 20000           |
|   | electrical 440V, without maintenance |             | Operations   | 10000   | 10000           | 10000           |
|   | electrical 440V, with maintenance    |             | Operations   | 20000   | 20000           | 20000           |
| Maximum operating frequency   |                                      |             | Operations/h | 60  | 60              | 60              |
| Total heat dissipation at rated current $I_n$   | Fixed mounting                       |             | W            | 35  | 55              | 90              |
|   | Withdrawable                         |             | W            | 65  | 100             | 155             |
| <b>Weight</b>   |                                      |             |              |   |                 |                 |
| Fixed mounting  | 3 pole                               |             | kg           | 41  | 41              | 41              |
|   | 4 pole                               |             | kg           | 54  | 54              | 54              |
| Withdrawable (CB only)  | 3 pole                               |             | kg           | 66  | 66              | 66              |
|   | 4 pole                               |             | kg           | 83  | 83              | 83              |
| Cassette  | 3 pole                               |             | kg           | 29  | 29              | 29              |
|   | 4 pole                               |             | kg           | 35  | 35              | 35              |

**Instructions** <sup>1)</sup> 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.

<sup>2)</sup> 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.

| IZMX40B...16...                                   | IZMX40B...20... | IZMX40B...25... | IZMX40B...32... | IZMX40B...40...    | IZMX40N...08... | IZMX40N...10... | IZMX40N...12... | IZMX40N...16... |
|---|-----------------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|
| IEC/EN 60947                                      |                 |                 |                 |                    |                 |                 |                 |                 |
| -20 - +70   |                 |                 |                 |                    |                 |                 |                 |                 |
| -20 - +70   |                 |                 |                 |                    |                 |                 |                 |                 |
|   |                 |                 |                 |                    |                 |                 |                 |                 |
| B   | B               | B               | B               | B                  | B               | B               | B               | B               |
| IP31 with door gasket, IP55 with protective cover |                 |                 |                 |                    |                 |                 |                 |                 |
| 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 <sup>2)</sup> | 800             | 1000            | 1250            | 1600            |
| 1600  | 2000            | 2500            | 3200            | 3650 <sup>2)</sup> | 800             | 1000            | 1250            | 1600            |
| 1600  | 2000            | 2280            | 3200            | 3500 <sup>2)</sup> | 800             | 1000            | 1250            | 1600            |
| 12000   | 12000           | 12000           | 12000           | 12000              | 12000           | 12000           | 12000           | 12000           |
| 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            |
| 145   | 145             | 145             | 145             | 145                | 187             | 187             | 187             | 187             |
| 145   | 145             | 145             | 145             | 145                | 187             | 187             | 187             | 187             |
| 145   | 145             | 145             | 145             | 145                | 166             | 166             | 166             | 166             |
| 66/50   | 66/50           | 66/50           | 66/50           | 66/50              | 85/75           | 85/75           | 85/75           | 85/75           |
| 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              |
| 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              |
| 35  | 35              | 35              | 35              | 35                 | 35              | 35              | 35              | 35              |
| 35  | 35              | 35              | 35              | 35                 | 35              | 35              | 35              | 35              |
| 40  | 40              | 40              | 40              | 40                 | 40              | 40              | 40              | 40              |
| 35  | 35              | 35              | 35              | 35                 | 35              | 35              | 35              | 35              |
| 10000   | 10000           | 10000           | 10000           | 10000              | 10000           | 10000           | 10000           | 10000           |
| 20000   | 20000           | 20000           | 20000           | 20000              | 20000           | 20000           | 20000           | 20000           |
| 10000   | 8000            | 5000            | 5000            | 5000               | 10000           | 10000           | 10000           | 10000           |
| 20000   | 16000           | 10000           | 10000           | 10000              | 20000           | 20000           | 20000           | 20000           |
| 60  | 60              | 60              | 60              | 60                 | 60              | 60              | 60              | 60              |
| 140   | 220             | 345             | 385             | 600                | 25              | 40              | 60              | 100             |
| 255   | 395             | 620             | 560             | 880                | 35              | 55              | 90              | 140             |
| 41  | 41              | 41              | 41              | 41                 | 41              | 41              | 41              | 41              |
| 54  | 54              | 54              | 56              | 56                 | 56              | 56              | 56              | 56              |
| 66  | 66              | 66              | 69              | 69                 | 69              | 69              | 69              | 69              |
| 83  | 83              | 83              | 86              | 86                 | 86              | 86              | 86              | 86              |
| 29  | 29              | 29              | 29              | 29                 | 29              | 29              | 29              | 29              |
| 35  | 35              | 35              | 35              | 35                 | 35              | 35              | 35              | 35              |

## Technical data

|  |                                      |             |              | IZMX40N...20...  | IZMX40N...25... | IZMX40N...32... |
|--|--------------------------------------|-------------|--------------|--|-----------------|-----------------|
| <b>General</b>   |                                      |             |              |  |                 |                 |
| Standards  |                                      |             |              | IEC/EN 60947   |                 |                 |
| Ambient temperature  | Storage                              | °C          | -20 - +70    |  |                 |                 |
|  | Operating (open)                     | °C          | -20 - +70    |  |                 |                 |
| Mounting position  |                                      |             |              |  |                 |                 |
| Utilization category   |                                      |             |              | B  | B               | B               |
| Protection type  |                                      |             |              | IP31 with door gasket, IP55 with protective cover                                  |                 |                 |
| Direction of incoming supply   |                                      |             |              | as required  | as required     | as required     |
| <b>Main conducting paths</b>   |                                      |             |              |  |                 |                 |
| Rated current = rated uninterrupted current  |                                      | $I_n = I_U$ | A            | 2000   | 2500            | 3200            |
| Rated uninterrupted current at 50 °C <sup>1)</sup>   |                                      | $I_U$       | A            | 2000   | 2500            | 3200            |
| Rated uninterrupted current at 60 °C <sup>1)</sup>   |                                      | $I_U$       | A            | 2000   | 2500            | 3200            |
| Rated uninterrupted current at 70 °C <sup>1)</sup>   |                                      | $I_U$       | A            | 2000   | 2500            | 3200            |
| Rated impulse withstand voltage  |                                      | $U_{imp}$   | V AC         | 12000  | 12000           | 12000           |
| Rated operational voltage, max.  |                                      | $U_e$       | V AC         | 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            |
| <b>Switching capacity</b>  |                                      |             |              |  |                 |                 |
| Rated short-circuit making capacity  | up to 240 V 50/60 Hz                 | $I_{cm}$    | kA           | 187  | 187             | 187             |
|  | up to 440 V 50/60 Hz                 | $I_{cm}$    | kA           | 187  | 187             | 187             |
|  | up to 690 V 50/60 Hz                 | $I_{cm}$    | kA           | 166  | 166             | 166             |
| Rated short-time withstand current 50/60 Hz  | t = 1 s                              | $I_{cw}$    | kA           | 85/75  | 85/75           | 85/75           |
|  | t = 3 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           | 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              |
| 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              |
| Operating times for closing (ON)   |                                      |             |              |  |                 |                 |
| Closing time electrically (via closing release)  |                                      |             | ms           | 35   | 35              | 35              |
| Operating times for opening (OFF)  |                                      |             |              |  |                 |                 |
| Opening time electrically (via shunt release)  |                                      |             | ms           | 35   | 35              | 35              |
| Opening time electrically (via undervoltage release)   |                                      |             | ms           | 40   | 40              | 40              |
| Opening time via trip electronics (from short-circuit to O/A) (non-delayed short-circuit trip) |                                      |             | ms           | 35   | 35              | 35              |
| Lifespan   | mechanical, without maintenance      |             | Operations   | 10000  | 10000           | 10000           |
|  | mechanical, with maintenance         |             | Operations   | 20000  | 20000           | 20000           |
|  | electrical 440V, without maintenance |             | Operations   | 8000   | 5000            | 5000            |
|  | electrical 440V, with maintenance    |             | Operations   | 16000  | 10000           | 10000           |
| Maximum operating frequency  |                                      |             | Operations/h | 60   | 60              | 60              |
| Total heat dissipation at rated current $I_n$  | Fixed                                |             | W            | 150  | 235             | 385             |
|  | Withdrawable                         |             | W            | 220  | 350             | 560             |
| <b>Weight</b>  |                                      |             |              |  |                 |                 |
| Fixed mounting   | 3 pole                               |             | kg           | 41   | 41              | 41              |
|  | 4 pole                               |             | kg           | 56   | 56              | 56              |
| Withdrawable (CB only)   | 3 pole                               |             | kg           | 69   | 69              | 69              |
|  | 4 pole                               |             | kg           | 86   | 86              | 86              |
| Cassette   | 3 pole                               |             | kg           | 29   | 29              | 29              |
|  | 4 pole                               |             | kg           | 35   | 35              | 35              |

**Instructions** <sup>1)</sup> 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.


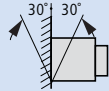
<sup>2)</sup> Rated continuous current stated applies only with 4 x 120 x 10 mm vertical terminal rails painted black. The values are reduced by 100 A each with 4 x 100 x 10 mm.

| IZMX40N...40...                                   | IZMX40H...08... | IZMX40H...10... | IZMX40H...12... | IZMX40H...16... | IZMX40H...20... | IZMX40H...25... | IZMX40H...32... | IZMX40H...40...    |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
| IEC/EN 60947                                      |                 |                 |                 |                 |                 |                 |                 |                    |
| -20 - +70   |                 |                 |                 |                 |                 |                 |                 |                    |
| -20 - +70   |                 |                 |                 |                 |                 |                 |                 |                    |
|   |                 |                 |                 |                 |                 |                 |                 |                    |
| B   | B               | B               | B               | B               | B               | B               | B               | B                  |
| IP31 with door gasket, IP55 with protective cover |                 |                 |                 |                 |                 |                 |                 |                    |
| 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 <sup>2)</sup>                                | 800             | 1000            | 1250            | 1600            | 2000            | 2500            | 3200            | 4000 <sup>2)</sup> |
| 3650 <sup>2)</sup>                                | 800             | 1000            | 1250            | 1600            | 2000            | 2500            | 3200            | 3650 <sup>2)</sup> |
| 3500 <sup>2)</sup>                                | 800             | 1000            | 1250            | 1600            | 2000            | 2500            | 3200            | 3500 <sup>2)</sup> |
| 12000   | 12000           | 12000           | 12000           | 12000           | 12000           | 12000           | 12000           | 12000              |
| 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               |
| 187   | 231             | 231             | 231             | 231             | 231             | 231             | 231             | 231                |
| 187   | 231             | 231             | 231             | 231             | 231             | 231             | 231             | 231                |
| 166   | 166             | 166             | 166             | 166             | 166             | 166             | 166             | 166                |
| 85  | 85              | 85              | 85              | 85              | 85              | 85              | 85              | 85                 |
| 66  | 66              | 66              | 66              | 66              | 66              | 66              | 66              | 66                 |
| 85  | 105             | 105             | 105             | 105             | 105             | 105             | 105             | 105                |
| 85  | 105             | 105             | 105             | 105             | 105             | 105             | 105             | 105                |
| 75  | 75              | 75              | 75              | 75              | 75              | 75              | 75              | 75                 |
| 85  | 105             | 105             | 105             | 105             | 105             | 105             | 105             | 105                |
| 85  | 105             | 105             | 105             | 105             | 105             | 105             | 105             | 105                |
| 75  | 75              | 75              | 75              | 75              | 75              | 75              | 75              | 75                 |
| 35  | 35              | 35              | 35              | 35              | 35              | 35              | 35              | 35                 |
| 35  | 35              | 35              | 35              | 35              | 35              | 35              | 35              | 35                 |
| 40  | 40              | 40              | 40              | 40              | 40              | 40              | 40              | 40                 |
| 35  | 35              | 35              | 35              | 35              | 35              | 35              | 35              | 35                 |
| 10000   | 10000           | 10000           | 10000           | 10000           | 10000           | 10000           | 10000           | 10000              |
| 20000   | 20000           | 20000           | 20000           | 20000           | 20000           | 20000           | 20000           | 20000              |
| 5000  | 10000           | 10000           | 10000           | 10000           | 8000            | 5000            | 5000            | 5000               |
| 10000   | 20000           | 20000           | 20000           | 20000           | 16000           | 10000           | 10000           | 10000              |
| 60  | 60              | 60              | 60              | 60              | 60              | 60              | 60              | 60                 |
| 600   | 25              | 40              | 60              | 100             | 150             | 235             | 385             | 600                |
| 880   | 35              | 55              | 90              | 140             | 220             | 350             | 560             | 880                |
| 41  | 41              | 41              | 41              | 41              | 41              | 41              | 41              | 41                 |
| 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                 |

Switch disconnectors INX

INX40...

## Technical data


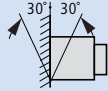
|  |  |              |              | INX40B...08...  | INX40B...10...  |
|--|--|--------------|--------------|---|---|
| <b>General</b>                                       |  |              |              |   |   |
| Standards  |  |              |              | IEC/EN 60947  |   |
| Ambient temperature                                  | Storage                                | °C           |              | -40 - +70   |   |
|  | Operating (open)                       | °C           |              | -25 - +70   |   |
| Mounting position                                    |  |              |              |  |  |
| Utilization category                                 |  |              |              | B   | B   |
| Protection type                                      |  |              |              | IP31 with door gasket, IP55 with protective cover                                 |   |
| Direction of incoming supply                         |  |              |              | as required   | as required   |
| <b>Main conducting paths</b>                         |  |              |              |   |   |
| Rated current = rated uninterrupted current          |  | $I_n = I_u$  | A            | 800   | 1000  |
| Rated uninterrupted current at 50 °C <sup>1)</sup>   |  | $I_u$        | A            | 800   | 1000  |
| Rated uninterrupted current at 60 °C <sup>1)</sup>   |  | $I_u$        | A            | 800   | 1000  |
| Rated uninterrupted current at 70 °C <sup>1)</sup>   |  | $I_u$        | A            | 800   | 1000  |
| Rated impulse withstand voltage                      |  | $U_{imp}$    | V AC         | 12000   | 12000   |
| Rated operational voltage, max.                      |  | $U_e$        | V AC         | 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  |
| <b>Switching capacity</b>                            |  |              |              |   |   |
| Rated short-circuit making capacity                  | up to 240 V 50/60 Hz                   | $I_{cm}$     | kA           | 145   | 145   |
|  | up to 440 V 50/60 Hz                   | $I_{cm}$     | kA           | 145   | 145   |
|  | up to 690 V 50/60 Hz                   | $I_{cm}$     | kA           | 145   | 145   |
| Rated short-time withstand current 50/60 Hz          | t = 1 s                                | $I_{cw}$     | kA           | 66  | 66  |
|  | t = 3 s                                | $I_{cw}$     | kA           | 53  | 53  |
| Operating times for opening (ON)                     |  |              |              |   |   |
| Closing time electrically (via closing release)      |  |              | ms           | 35  | 35  |
| Operating times for opening (OFF)                    |  |              |              |   |   |
| Opening time electrically (via shunt release)        |  |              | ms           | 35  | 35  |
| Opening time electrically (via undervoltage release) |  |              | ms           | 40  | 40  |
| Lifespan   | mechanical, without maintenance        |              | Operations   | 10000   | 10000   |
|  | mechanical, with maintenance           |              | Operations   | 20000   | 20000   |
|  | electrical 440V, without maintenance   |              | Operations   | 10000   | 10000   |
|  | electrical 440V, with maintenance      |              | Operations   | 20000   | 20000   |
| Maximum operation frequency                          |  |              | Operations/h | 60  | 60  |
| total heat dissipation at rated current $I_n$        | Fixed                                  |              | W            | 35  | 55  |
|  | bei 3-phasiger symmetrischer Belastung | Withdrawable | W            | 65  | 100   |
| <b>Weight</b>  |  |              |              |   |   |
| Fixed mounting                                       | 3 pole                                 |              | kg           | 39  | 39  |
|  | 4 pole                                 |              | kg           | 52  | 52  |
| Withdrawable (CB only)                               | 3 pole                                 |              | kg           | 60  | 60  |
|  | 4 pole                                 |              | kg           | 76  | 76  |
| Cassette   | 3 pole                                 |              | kg           | 29  | 29  |
|  | 4 pole                                 |              | kg           | 35  | 35  |

**Instructions** <sup>1)</sup> 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.

<sup>2)</sup> 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.

| INX40B...12...                                    | INX40B...16... | INX40B...20... | INX40B...25... | INX40B...32... | INX40B...40...     |
|---|----------------|----------------|----------------|----------------|--------------------|
| IEC/EN 60947                                      |                |                |                |                |                    |
| -40 - +70   |                |                |                |                |                    |
| -25 - +70   |                |                |                |                |                    |
|   |                |                |                |                |                    |
| B   | B              | B              | B              | B              | B                  |
| IP31 with door gasket, 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 <sup>2)</sup> |
| 1250  | 1600           | 2000           | 2500           | 3200           | 3650 <sup>2)</sup> |
| 1250  | 1600           | 2000           | 2500           | 3200           | 3500 <sup>2)</sup> |
| 12000   | 12000          | 12000          | 12000          | 12000          | 12000              |
| 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               |
| 145   | 145            | 145            | 145            | 145            | 145                |
| 145   | 145            | 145            | 145            | 145            | 145                |
| 145   | 145            | 145            | 145            | 145            | 145                |
| 66  | 66             | 66             | 66             | 66             | 66                 |
| 53  | 53             | 53             | 53             | 53             | 53                 |
| 35  | 35             | 35             | 35             | 35             | 35                 |
| 35  | 35             | 35             | 35             | 35             | 35                 |
| 40  | 40             | 40             | 40             | 40             | 40                 |
| 10000   | 10000          | 10000          | 10000          | 10000          | 10000              |
| 20000   | 20000          | 20000          | 20000          | 20000          | 20000              |
| 10000   | 10000          | 8000           | 5000           | 5000           | 5000               |
| 20000   | 20000          | 16000          | 10000          | 10000          | 10000              |
| 60  | 60             | 60             | 60             | 60             | 60                 |
| 190   | 140            | 220            | 345            | 385            | 600                |
| 155   | 255            | 395            | 620            | 560            | 880                |
| 39  | 39             | 39             | 39             | 39             | 39                 |
| 52  | 52             | 52             | 52             | 53             | 53                 |
| 60  | 60             | 60             | 60             | 66             | 66                 |
| 76  | 76             | 76             | 76             | 82             | 82                 |
| 29  | 29             | 29             | 29             | 29             | 29                 |
| 35  | 35             | 35             | 35             | 35             | 35                 |

## Technical data

|  |                                      |             |              | INX40N...08...  | INX40N...10...  |
|--|--------------------------------------|-------------|--------------|---|---|
| <b>General</b>   |                                      |             |              |   |   |
| Standards  |                                      |             |              | IEC/EN 60947  |   |
| Ambient temperature  | Storage                              | °C          | -40 - +70    |   |   |
|  | Operating (open)                     | °C          | -25 - +70    |   |   |
| Mounting position  |                                      |             |              |  |  |
| Utilization category   |                                      |             |              | B   | B   |
| Protection type  |                                      |             |              | IP31 with door gasket, IP55 with protective cover                                 |   |
| Direction of incoming supply   |                                      |             |              | as required   | as required   |
| <b>Main conducting paths</b>   |                                      |             |              |   |   |
| Rated current = rated uninterrupted current                              |                                      | $I_n = I_u$ | A            | 800   | 1000  |
| Rated uninterrupted current at 50 °C <sup>1)</sup>                       |                                      | $I_u$       | A            | 800   | 1000  |
| Rated uninterrupted current at 60 °C <sup>1)</sup>                       |                                      | $I_u$       | A            | 800   | 1000  |
| Rated uninterrupted current at 70 °C <sup>1)</sup>                       |                                      | $I_u$       | A            | 800   | 1000  |
| Rated impulse withstand voltage  |                                      | $U_{imp}$   | V AC         | 12000   | 12000   |
| Rated operational voltage, max.  |                                      | $U_e$       | V AC         | 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  |
| <b>Switching capacity</b>  |                                      |             |              |   |   |
| Rated short-circuit making capacity                                      | up to 240 V 50/60 Hz                 | $I_{cm}$    | kA           | 187   | 187   |
|  | up to 440 V 50/60 Hz                 | $I_{cm}$    | kA           | 187   | 187   |
|  | up to 690 V 50/60 Hz                 | $I_{cm}$    | kA           | 166   | 166   |
| Rated short-time withstand current 50/60 Hz                              | t = 1 s                              | $I_{cw}$    | kA           | 85  | 85  |
|  | t = 3 s                              | $I_{cw}$    | kA           | 66  | 66  |
| Operating times for closing (ON)   |                                      |             |              |   |   |
| Closing time eöelectrocaööy (via colsing release)                        |                                      |             | ms           | 35  | 35  |
| Operating times for opening (OFF)  |                                      |             |              |   |   |
| Opening time electrically (via shunt release)                            |                                      |             | ms           | 35  | 35  |
| Opening time electrically (via undervoltage release)                     |                                      |             | ms           | 40  | 40  |
| Lifespan   | mechanical, without maintenance      |             | Operations   | 10000   | 10000   |
|  | mechanical, with maintenance         |             | Operations   | 20000   | 20000   |
|  | electrical 440V, without maintenance |             | Operations   | 10000   | 10000   |
|  | electrical 440V, with maintenance    |             | Operations   | 20000   | 20000   |
| Maximum operating frequency  |                                      |             | Operations/h | 60  | 60  |
| Heat dissipation at rated current $I_n$<br>with 3-phase symmetrical load | Fixed mounting                       |             | W            | 25  | 40  |
|  | Withdrawable                         |             | W            | 35  | 55  |
| <b>Weight</b>  |                                      |             |              |   |   |
| Fixed mounting   | 3 pole                               |             | kg           | 39  | 39  |
|  | 4 pole                               |             | kg           | 53  | 53  |
| Withdrawable (CB only)   | 3 pole                               |             | kg           | 66  | 66  |
|  | 4 pole                               |             | kg           | 82  | 82  |
| Cassette   | 3 pole                               |             | kg           | 27  | 27  |
|  | 4 pole                               |             | kg           | 35  | 35  |

**Instructions** <sup>1)</sup> 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.

<sup>2)</sup> 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.

## INX40...

| INX40N...12...                                    | INX40N...16... | INX40N...20... | INX40N...25... | INX40N...32... | INX40N...40...     |
|---|----------------|----------------|----------------|----------------|--------------------|
| IEC/EN 60947                                      |                |                |                |                |                    |
| -40 - +70   |                |                |                |                |                    |
| -25 - +70   |                |                |                |                |                    |
|   |                |                |                |                |                    |
| B   | B              | B              | B              | B              | B                  |
| IP31 with door gasket, 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 <sup>2)</sup> |
| 1250  | 1600           | 2000           | 2500           | 3200           | 3650 <sup>2)</sup> |
| 1250  | 1600           | 2000           | 2500           | 3200           | 3500 <sup>2)</sup> |
| 12000   | 12000          | 12000          | 12000          | 12000          | 12000              |
| 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               |
| 187   | 187            | 187            | 187            | 187            | 187                |
| 187   | 187            | 187            | 187            | 187            | 187                |
| 166   | 166            | 166            | 166            | 166            | 166                |
| 85  | 85             | 85             | 85             | 85             | 85                 |
| 66  | 66             | 66             | 66             | 66             | 66                 |
| 35  | 35             | 35             | 35             | 35             | 35                 |
| 25  | 25             | 25             | 25             | 25             | 25                 |
| 40  | 40             | 40             | 40             | 40             | 40                 |
| 10000   | 10000          | 10000          | 10000          | 10000          | 10000              |
| 20000   | 20000          | 20000          | 20000          | 20000          | 20000              |
| 10000   | 10000          | 8000           | 5000           | 5000           | 5000               |
| 20000   | 20000          | 16000          | 10000          | 10000          | 10000              |
| 60  | 60             | 60             | 60             | 60             | 60                 |
| 60  | 100            | 150            | 235            | 385            | 600                |
| 90  | 140            | 220            | 350            | 560            | 880                |
| 39  | 39             | 39             | 39             | 39             | 39                 |
| 53  | 53             | 53             | 53             | 53             | 53                 |
| 66  | 66             | 66             | 66             | 66             | 66                 |
| 82  | 82             | 82             | 82             | 82             | 82                 |
| 29  | 29             | 29             | 29             | 29             | 29                 |
| 35  | 35             | 35             | 35             | 35             | 35                 |

## IZMX-AS22, IZMX-OTS, IZMX-S..., IZMX-U...

|                                |   | Signalling switch ON-OFF<br>IZMX-AS... | Tripped signalling contact<br>IZMX-OTS... | Latch Check Switch<br>IZMX-LCS...(SR) | Cell switch<br>IZMX-CS... |
|--------------------------------|---|--|---|---------------------------------------|---------------------------|
| <b>Rated breaking capacity</b> |   |  |   |                                       |                           |
| 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 (100% duty) |                |                |                 |                 | Closing releases (100% duty) |             |             |              |              |           |
|---|----------|----------------------------|----------------|----------------|-----------------|-----------------|------------------------------|-------------|-------------|--------------|--------------|-----------|
|   |          | 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 |           |
| <b>Rated control-voltage</b>                                    |          |                            |                |                |                 |                 |                              |             |             |              |              |           |
| 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    | 220 - 250 |
| <b>Power consumption</b>  |          |                            |                |                |                 |                 |                              |             |             |              |              |           |
| AC pickup 35ms  | VA       | –                          | –              | –              | 540             | 500             | –                            | –           | –           | 540          | 500          |           |
| continuous  |          | –                          | –              | –              | 10              | 9               | –                            | –           | –           | –            | –            |           |
| DC pickup 35ms  | W        | 500                        | 530            | 540            | 540             | 500             | 500                          | 530         | 540         | 540          | 500          |           |
| continuous  |          | 5                          | 5              | 5              | 10              | 9               | –                            | –           | –           | –            | –            |           |
| <b>Circuit Breaker total time switching at <math>U_s</math></b> |          |                            |                |                |                 |                 |                              |             |             |              |              |           |
| ...X16  | ms       | 30                         | 30             | 30             | 30              | 30              | 30                           | 30          | 30          | 30           | 30           |           |
| ...X40  | ms       | 35                         | 35             | 35             | 35              | 35              | 35                           | 35          | 35          | 35           | 35           |           |
| <b>Operating range</b>  |          |                            |                |                |                 |                 |                              |             |             |              |              |           |
| Drop-out voltage  |          |                            |                |                |                 |                 |                              |             |             |              |              |           |
| AC operated, 50/60 Hz, pick-up                                  | Drop-out | $x U_C$                    | –              | –              | –               | –               | –                            | –           | –           | –            | –            |           |
| Pick-up voltage   | pick-up  | $x U_C$                    | 0.7 - 1.1      | 0.7 - 1.1      | 0.7 - 1.1       | 0.7 - 1.1       | 0.7 - 1.1                    | 0.85 - 1.1  | 0.85 - 1.1  | 0.85 - 1.1   | 0.85 - 1.1   |           |

|   |          | Undervoltage releases (100% duty) |              |            | IZMX-UVR60DC | IZMX-UVR110AD | IZMX-UVR230AD |
|---|----------|-----------------------------------|--------------|------------|--------------|---------------|---------------|
|   |          | IZMX-UVR24DC                      | IZMX-UVR48DC |            |              |               |               |
| <b>Rated control-voltage</b>              |          |                                   |              |            |              |               |               |
| AC 50/60 Hz                               | $U_s$    | V                                 | –            | –          | –            | 110 - 127     | 208 - 240     |
| DC  | $U_s$    | V                                 | 24           | 48         | 60           | 110 - 125     | 208 - 250     |
| <b>Power consumption</b>                  |          |                                   |              |            |              |               |               |
| AC pickup 35ms                            | VA       | –                                 | –            | –          | –            | 890           | 910           |
| continuous                                |          | –                                 | –            | –          | –            | 5             | 5             |
| DC pickup 35ms                            | W        | 500                               | 850          | 890        | 890          | 890           | 910           |
| continuous                                |          | 5                                 | 5            | 5          | 5            | 5             | 5             |
| <b>Circuit Breaker total time opening</b> |          |                                   |              |            |              |               |               |
| ...X16                                    | ms       | 50                                | 50           | 50         | 50           | 50            | 50            |
| ...X40                                    | ms       | 40                                | 40           | 40         | 40           | 40            | 40            |
| <b>Operating range</b>                    |          |                                   |              |            |              |               |               |
| Drop-out voltage                          |          |                                   |              |            |              |               |               |
| AC operated, 50/60 Hz, pick-up            | Drop-out | $x U_C$                           | 0.35 - 0.7   | 0.35 - 0.7 | 0.35 - 0.7   | 0.35 - 0.7    | 0.35 - 0.7    |
| Pick-up voltage                           | pick-up  | $x U_C$                           | 0.85 - 1.1   | 0.85 - 1.1 | 0.85 - 1.1   | 0.85 - 1.1    | 0.85 - 1.1    |

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

|  |       |   | Motor operators |               |               |   |   |
|--|-------|---|-----------------|---------------|---------------|---|---|
|  |       |   | IZMX-M16-24DC   | IZMX-M16-48DC | IZMX-M16-60DC | IZMX-M16-110AD                            | IZMX-M16-230AD                            |
| <b>Rated control voltage</b>   | $U_s$ | V | 24 V DC         | 48 V DC       | 60 V DC       | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | 220 - 240 V AC 50/60 Hz<br>220 - 250 V DC |
| <b>Necessary time required for charging the spring-operated stored energy mechanism at <math>1 \times U_s</math></b> |       |   | 4 s             | 3 s           | 3 s           | 3 s AC 50/60 Hz<br>3 s DC                 | 4 s AC 50/60 Hz<br>4 s DC                 |
| <b>Rated operational current</b>   | $I_n$ | A | 6 A             | 3 A           | 3 A           | 2 A AC 50/60 Hz<br>1 A DC                 | 1 A AC 50/60 Hz<br>1 A DC                 |
| <b>Starting current</b>  |       | A | 20 A            | 15 A          | 15 A          | 6 A AC 50/60 Hz<br>5 A DC                 | 10 A AC 50/60 Hz<br>10 A DC               |
| <b>Power consumption</b>   |       |   | 160 W           | 150 W         | 150 W         | 280 VA AC 50/60 Hz<br>150 W DC            | 280 VA AC 50/60 Hz<br>280 W DC            |

|  |       |   | Motor operators |               |               |   |   |
|--|-------|---|-----------------|---------------|---------------|---|---|
|  |       |   | IZMX-M40-24DC   | IZMX-M40-48DC | IZMX-M40-60DC | IZMX-M40-110AD                            | IZMX-M40-230AD                            |
| <b>Rated control voltage</b>   | $U_s$ | V | 24 V DC         | 48 V DC       | 60 V DC       | 110 - 127 V AC 50/60 Hz<br>110 - 125 V DC | 220 - 240 V AC 50/60 Hz<br>220 - 250 V DC |
| <b>Necessary time required for charging the spring-operated stored energy mechanism at <math>1 \times U_{sDC}</math></b> |       |   | 6 s DC          | 6 s DC        | 6 s DC        | 6 s AC 50/60 Hz<br>6 s DC                 | 6 s AC 50/60 Hz<br>6 s DC                 |
| <b>Rated operational current</b>   | $I_n$ | A | 7 A DC          | 3 A DC        | 3 A DC        | 3 A AC 50/60 Hz<br>2 A DC                 | 1.5 A AC 50/60 Hz<br>1 A DC               |
| <b>Starting current</b>  |       | A | 25 A DC         | 14 A DC       | 12 A DC       | 9 A AC 50/60 Hz<br>7.5 A DC               | 4.5 A AC 50/60 Hz<br>4 A DC               |
| <b>Power consumption</b>   |       |   | 200 W DC        | 175 W DC      | 175 W DC      | 425 VA AC 50/60 Hz<br>275 W DC            | 400 VA AC 50/60 Hz<br>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** 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.

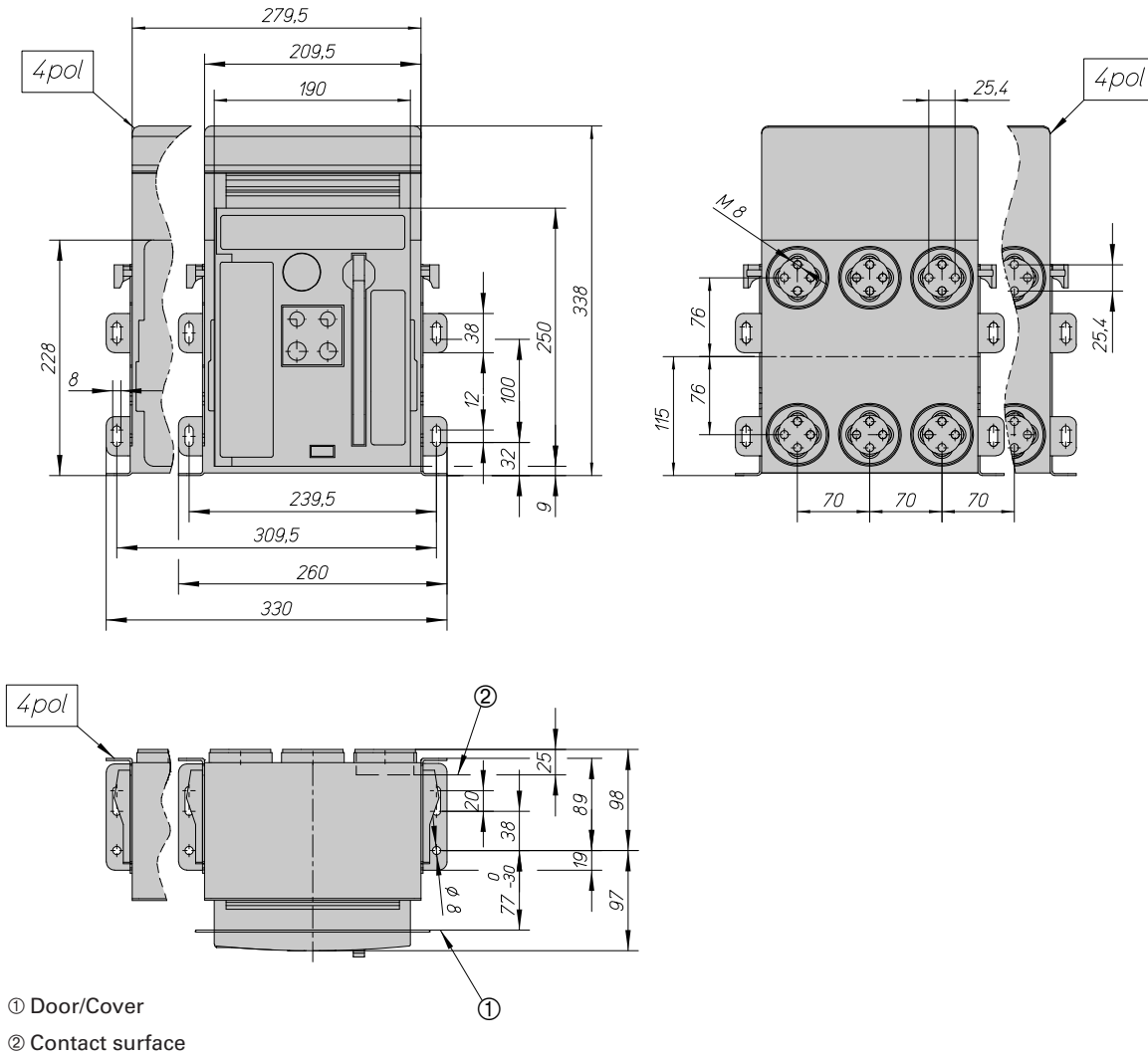
## Technical data

|                           |      | IZMX-PCAM                        | IZMX-MCAM  | IZMX-ECAM                         |
|---------------------------|------|----------------------------------|--|-----------------------------------|
| <b>General</b>            |      |                                  |  |                                   |
| Dimensions (W x H x D)    | mm   | 24 x 105 x 802                   | 4 x 105 x 802  | 4 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                           | Status   | Status                            |
|                           |      | SF                               | Transmit   |                                   |
|                           |      | BF                               | Receive  |                                   |
| <b>Network</b>            |      |                                  |  |                                   |
| 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 $\Omega$ 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:<br>03 = read register<br>04 = read word variables<br>08 = connection test<br>16 = write register | Webserver on board                |

## Dimensions

### Fixed mounted

IZMX16...F, INX16...F



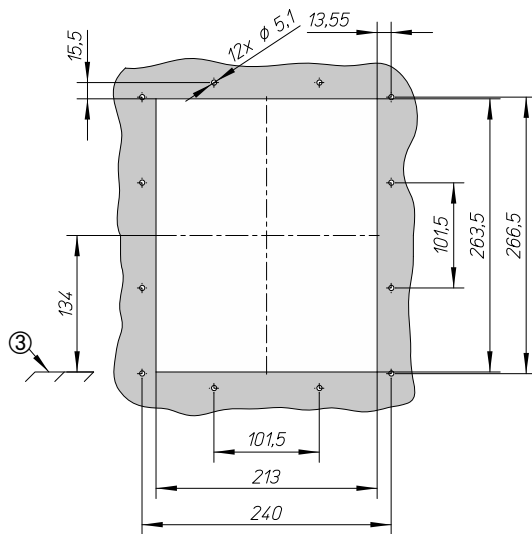
- ① Door/Cover
- ② Contact surface

## Dimensions

### Fixed mounted units

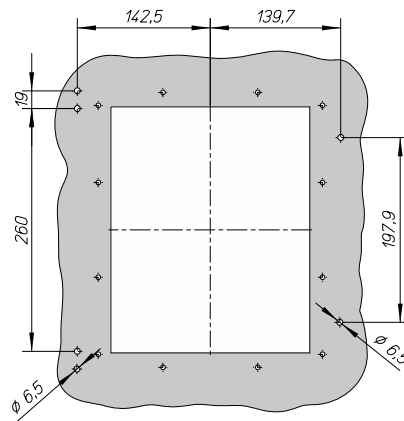
#### Door cut-out IZMX16

IZMX-DEG16-F



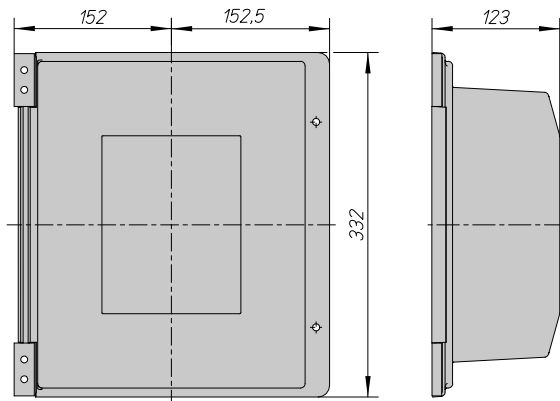
③ Top edge of mounting plate

IZMX-DC16-F



### Door cover

IZMX-DC16-F



Basic devices

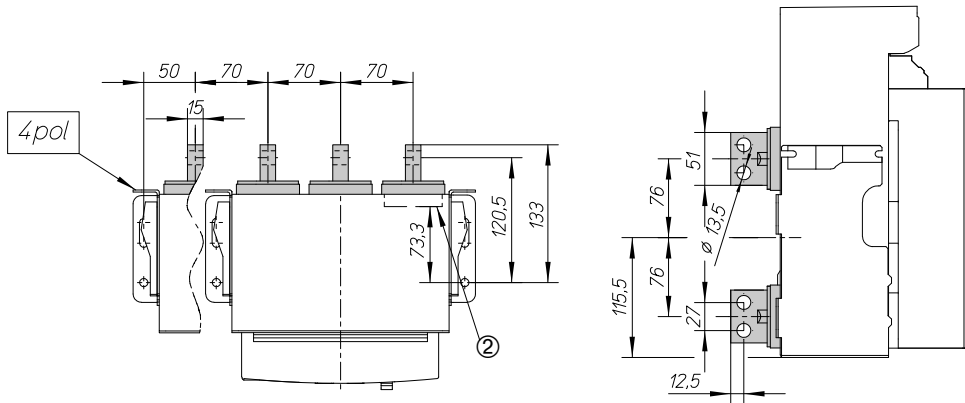
IZMX16..., INX16...

## Dimensions

### Fixed Units

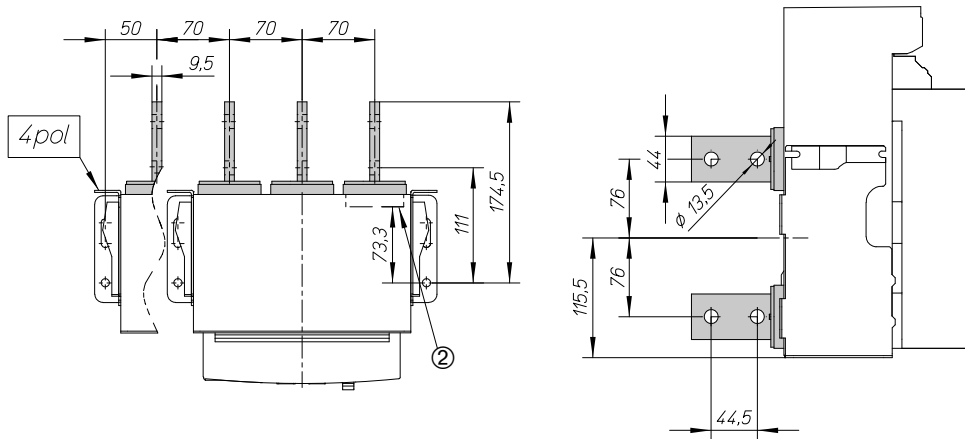
#### Terminal adapter horizontal/vertical - vertical mounted

IZMX-THV16...



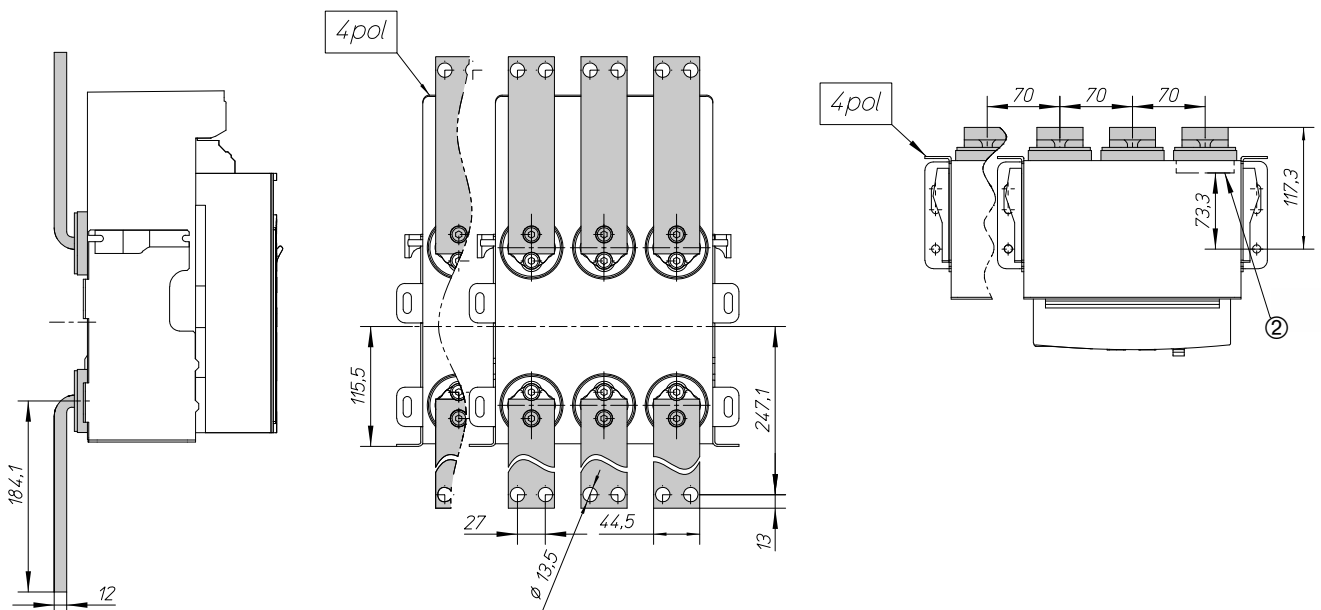
#### Terminal adapter horizontal/vertical long - vertical mounted

IZMX-THVL16...



#### Terminal adapter front

IZMX-TF16...



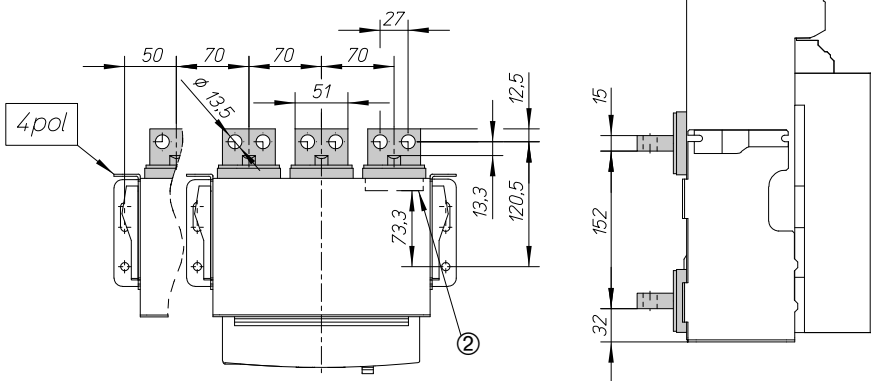
⊙ Contact surface

## Dimensions

### Fixed Units

#### Terminal adapter horizontal/vertical - horizontal mounted

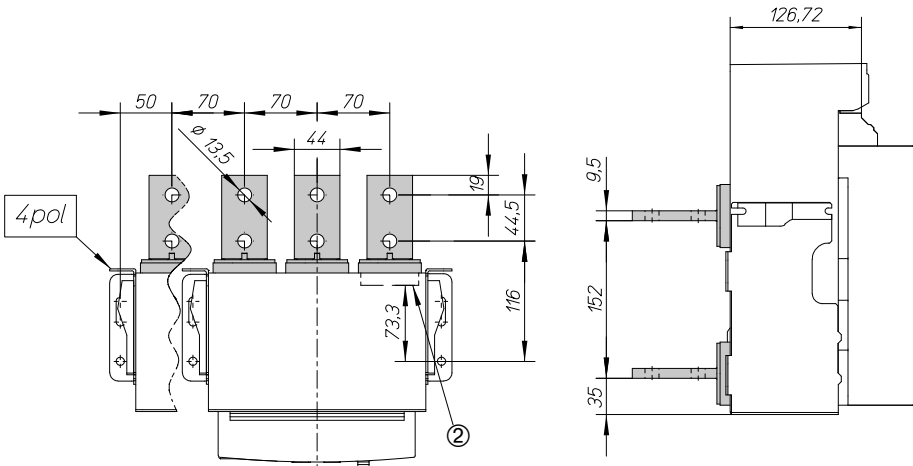
IZMX-THV16...



② Contact surface

#### Terminal adapter horizontal/vertical long - horizontal mounted

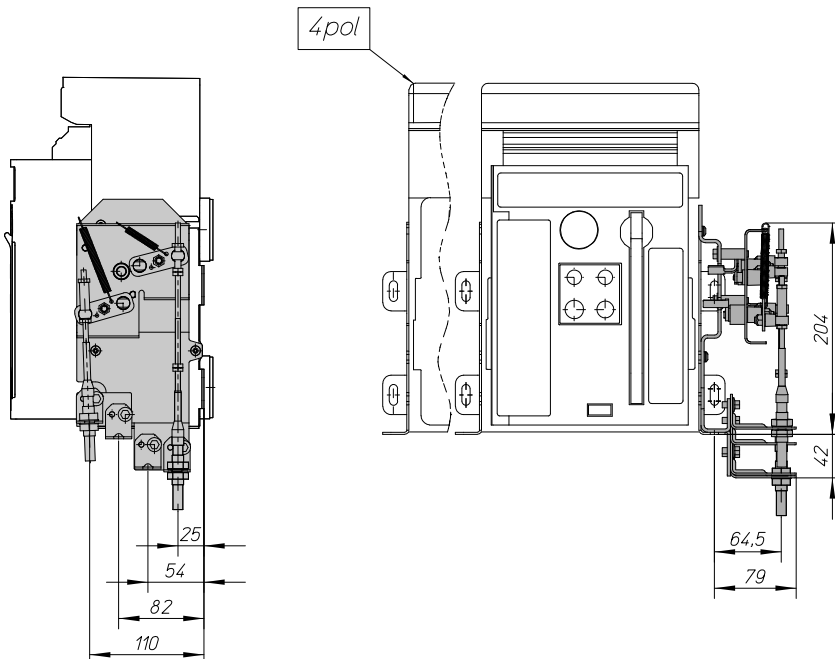
IZMX-THVL16...



② Contact surface

#### Mechanical interlock for fixed mounting units

IZMX-MIL...F16



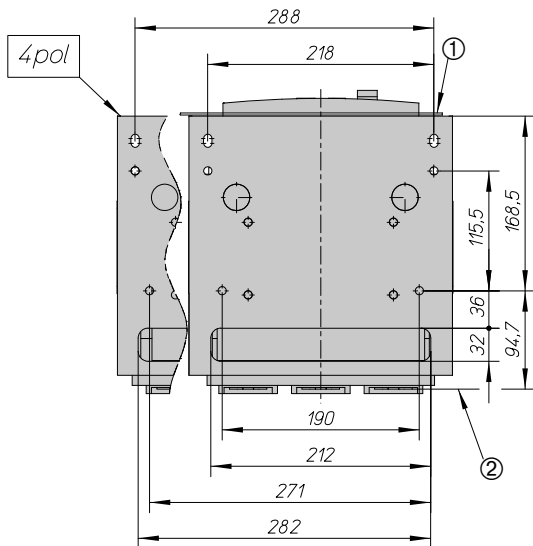
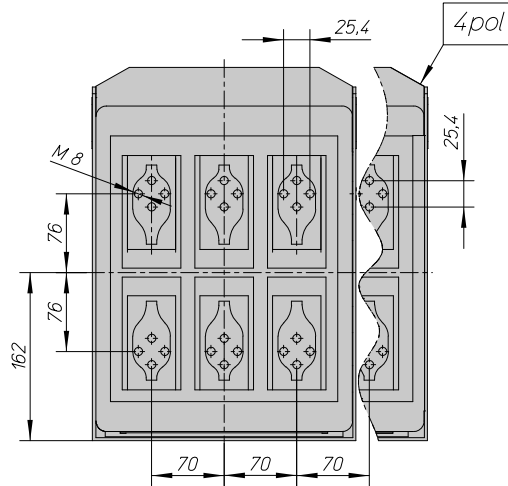
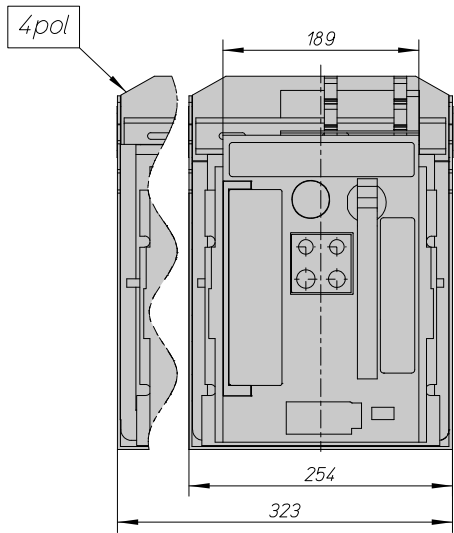
Basic devices

IZMX16..., INX16...

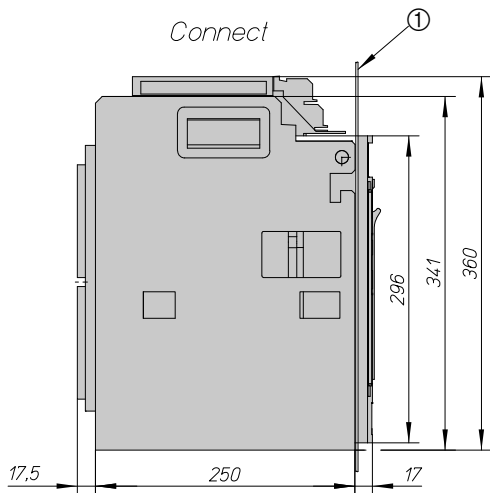
## Dimensions

### Withdrawable units

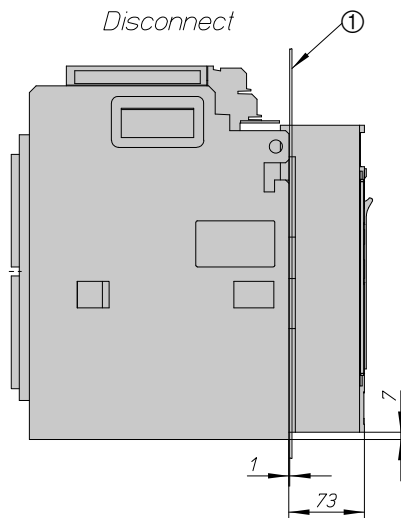
IZMX16...W, INX16...W



- ① Door/Cover
- ② Contact surface



① Door/Cover



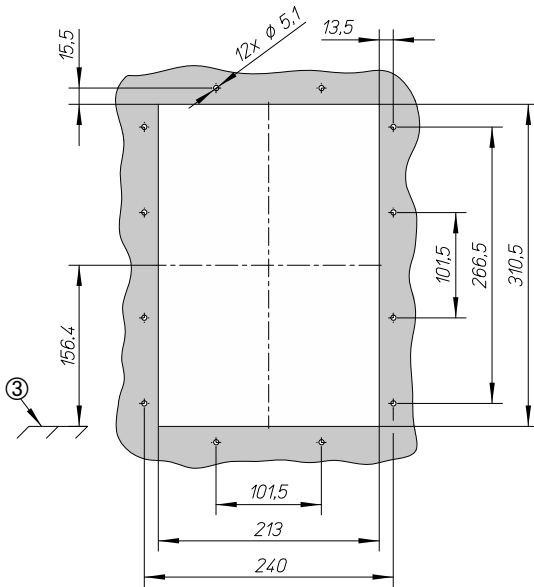
① Door/Cover

## Dimensions

### Withdrawable units

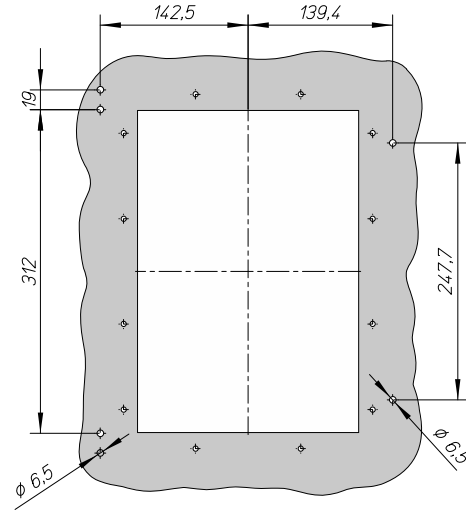
#### Door cut-out IZMX16

IZMX-DEG16-W



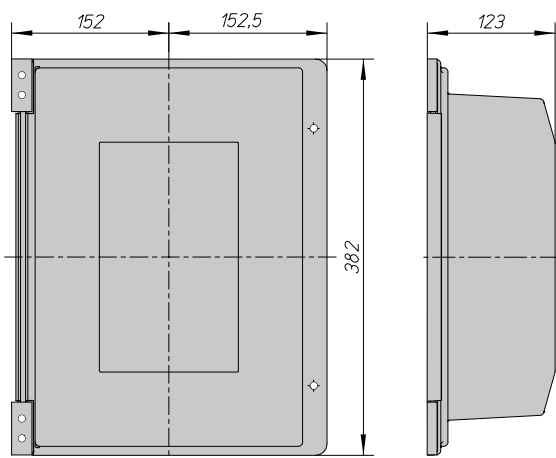
③ Top edge of mounting plate

IZMX-DC16-W



### Door cover

IZMX-DC16-W



Basic devices

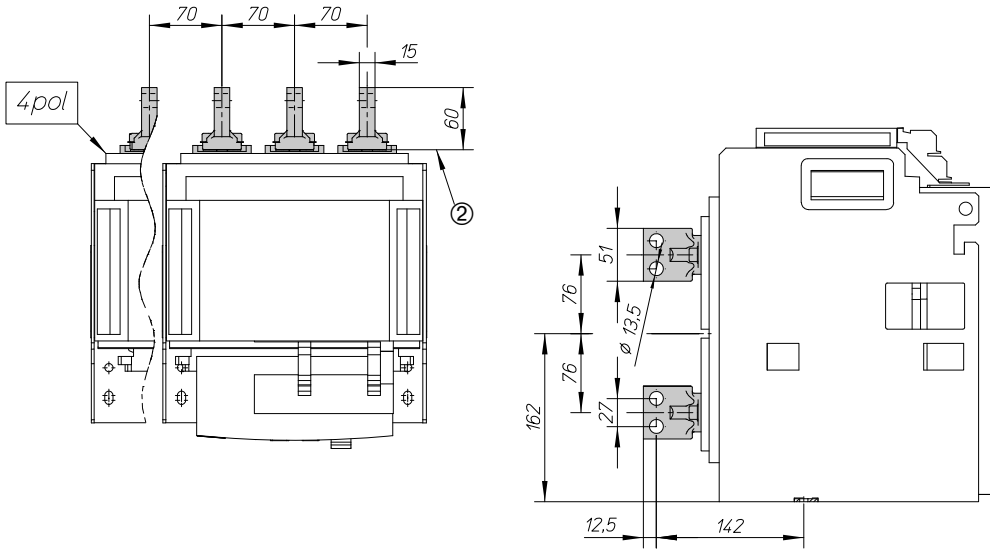
IZMX16..., INX16...

## Dimensions

### Withdrawable Units

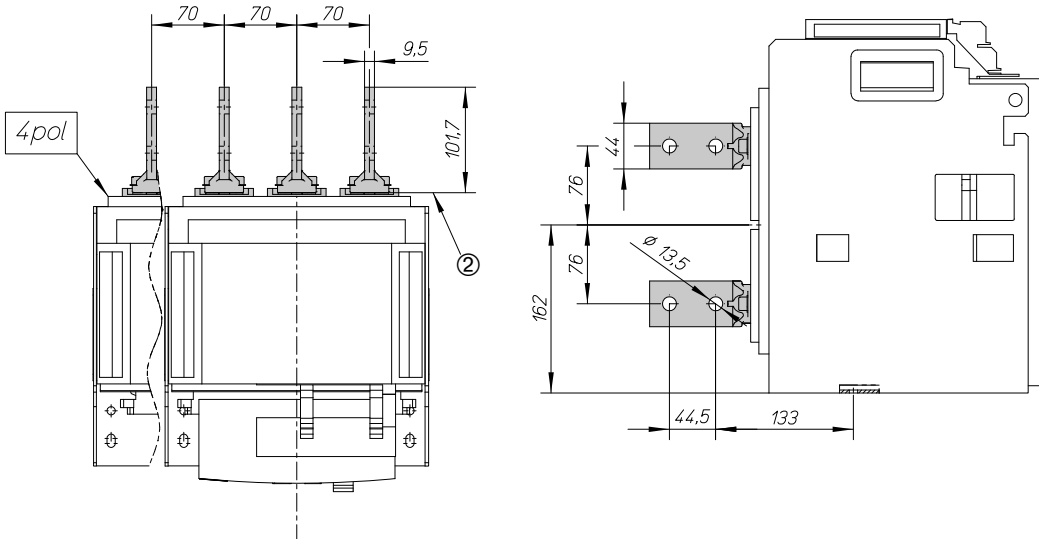
#### Terminal adapter horizontal/vertical - vertical mounted

IZMX-THV16...



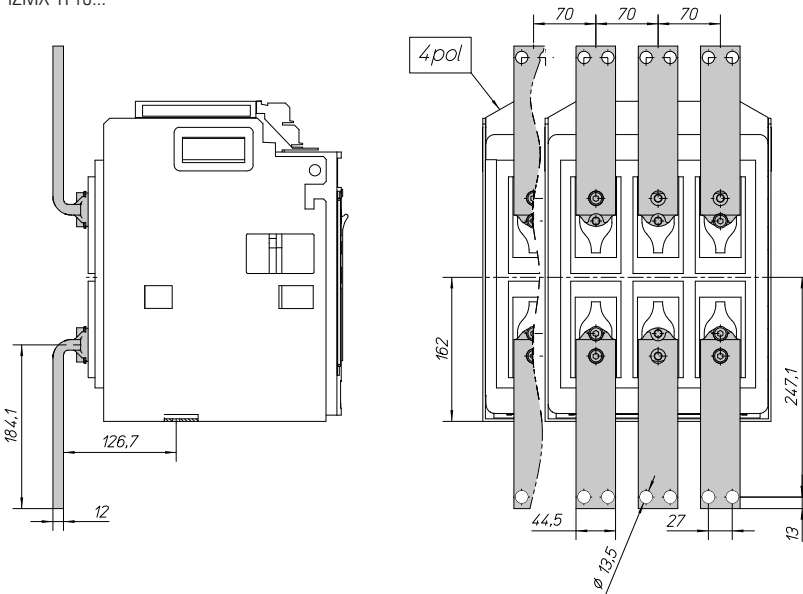
#### Terminal adapter horizontal/vertical long - vertical mounted

IZMX-THVL16...



#### Terminal adapter front

IZMX-TF16...

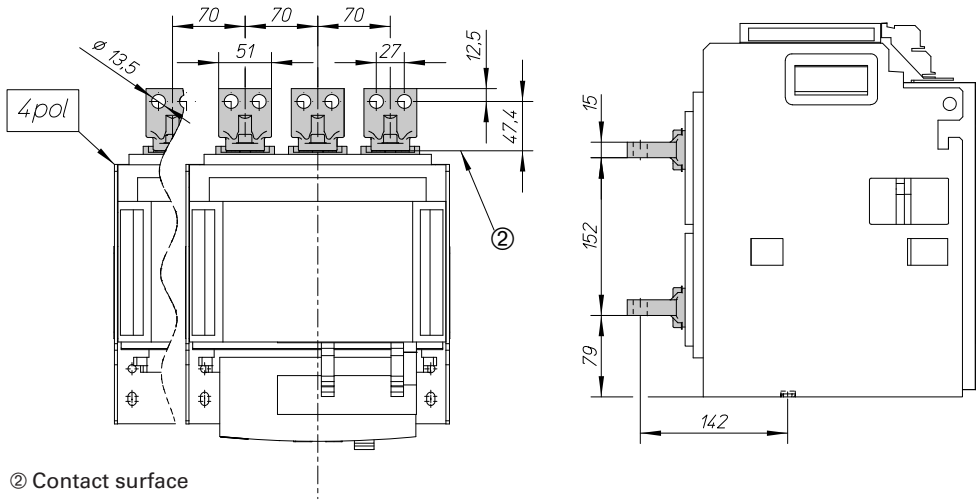


© Contact surface

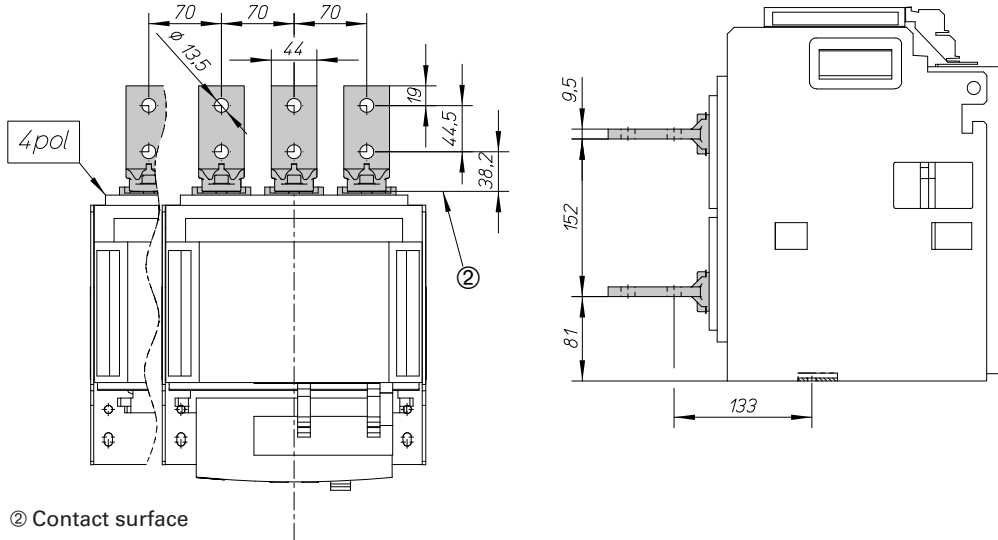
Dimensions

Withdrawable Units

Terminal adapter horizontal/vertical - horizontal mounted  
IZMX-THV16...

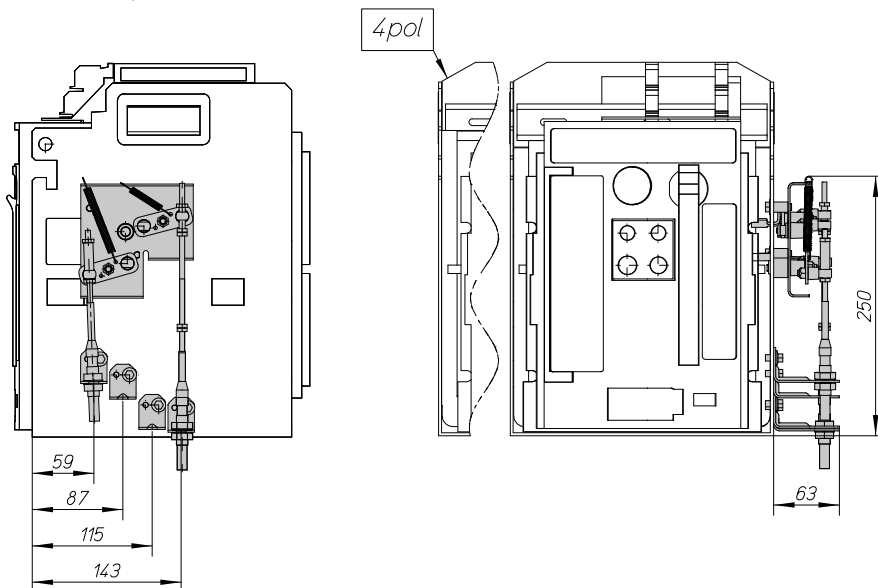


Terminal adapter horizontal/vertical long - horizontal mounted  
IZMX-THVL16...



Mechanical interlock for withdrawable units

IZMX-MIL...W16



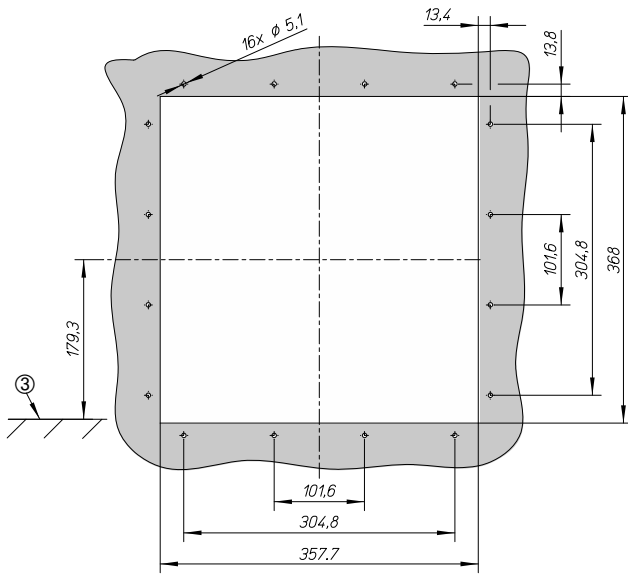


## Dimensions

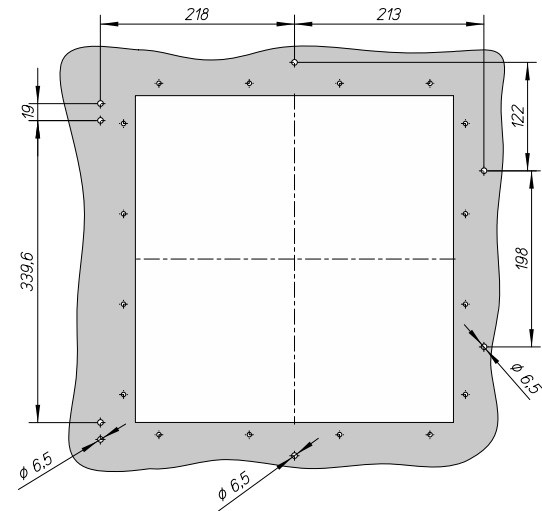
### Fixed mounted units

#### Door cut-out IZMX40

IZMX-DEG40-F



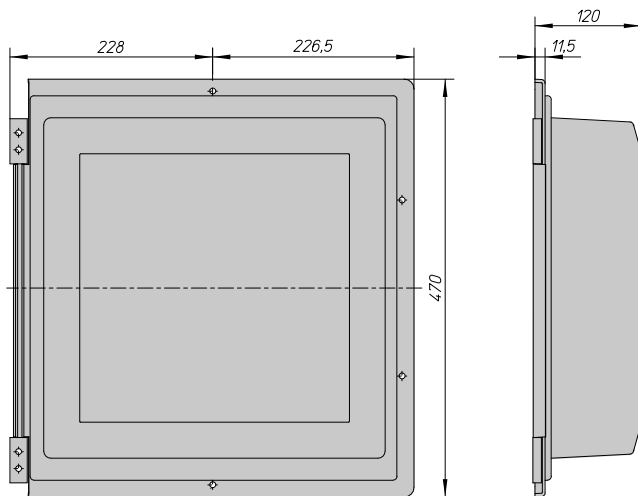
IZMX-DC40-F



③ Top edge of mounting plate

### Door cover

IZMX-DC40-F



Basic devices

IZMX40..., INX40...

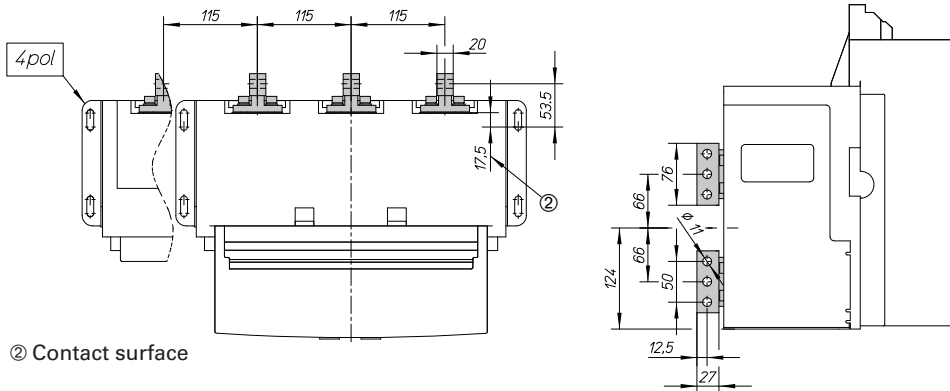
## Dimensions

### Fixed Units

#### Terminal adapter horizontal/vertical - vertical mounted

IZMX-THV40...

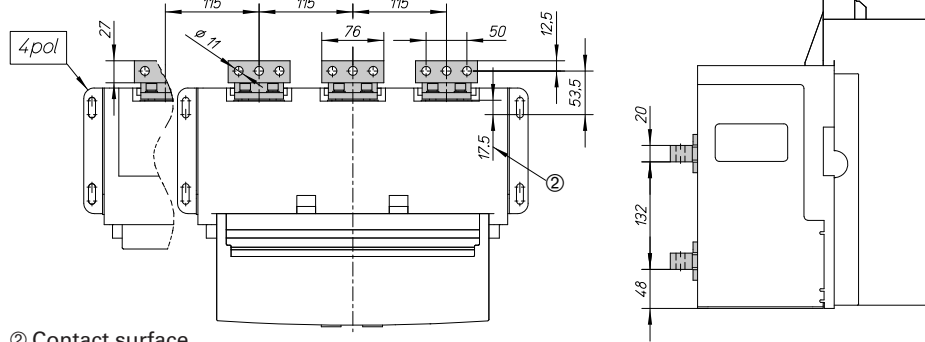
Terminals up to 3200 A



#### Terminal adapter horizontal/vertical - horizontal mounted

IZMX-THV40...

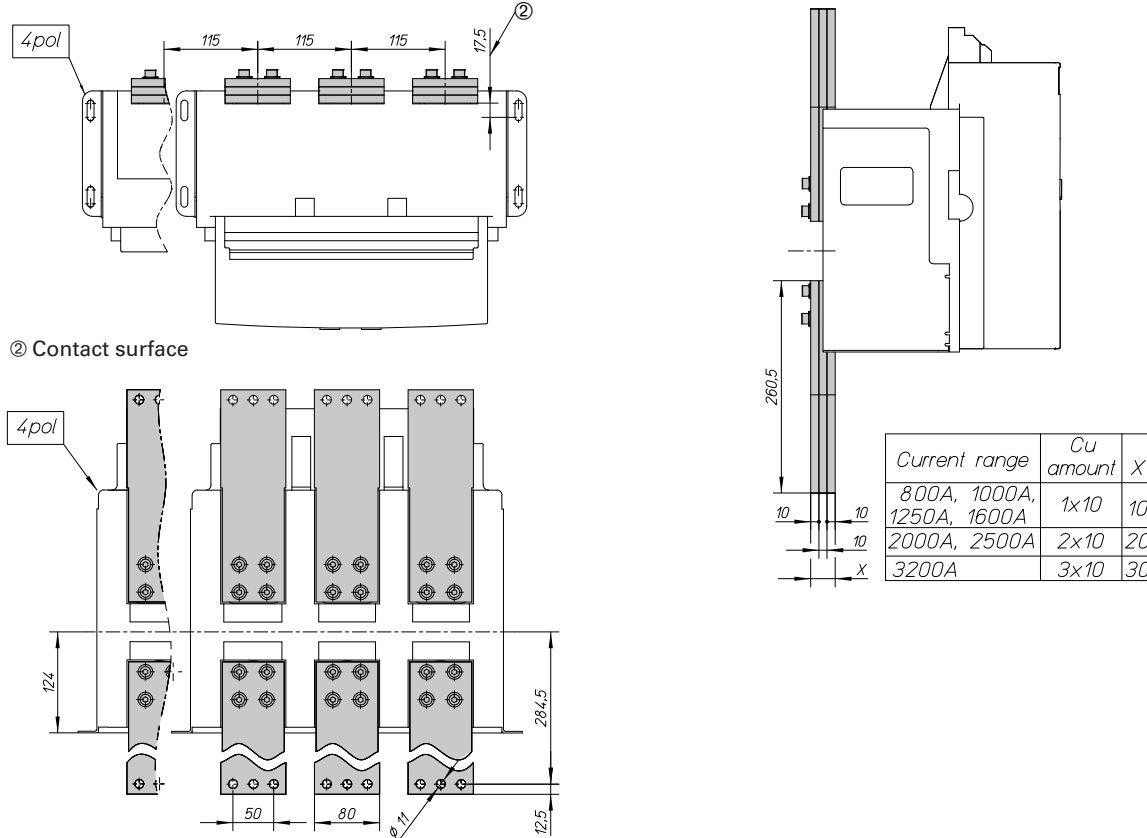
Terminals up to 3200 A



#### Terminal adapter front

IZMX-TF40...

Terminals up to 3200 A



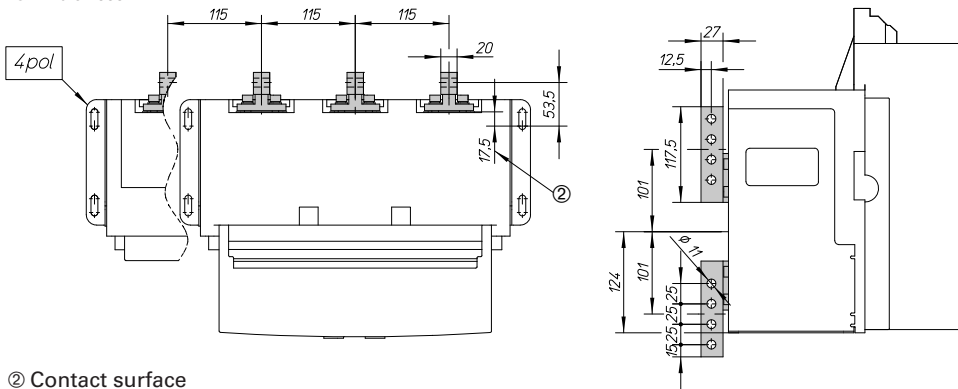
Dimensions

Fixed Units

Terminal adapter vertical 4000 A

IZMX-TV40...

Terminals 4000 A

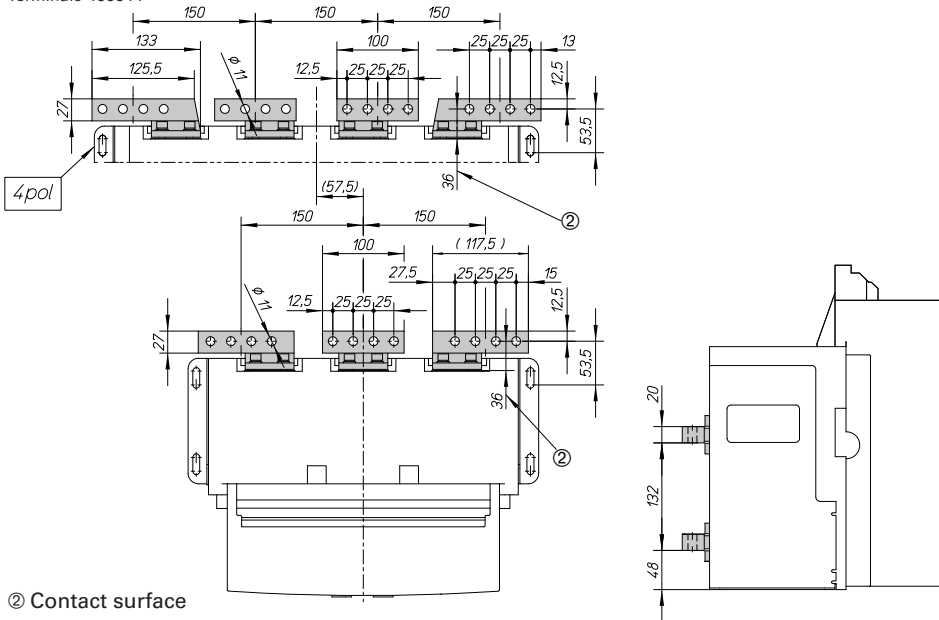


② Contact surface

Terminal adapter horizontal 4000 A

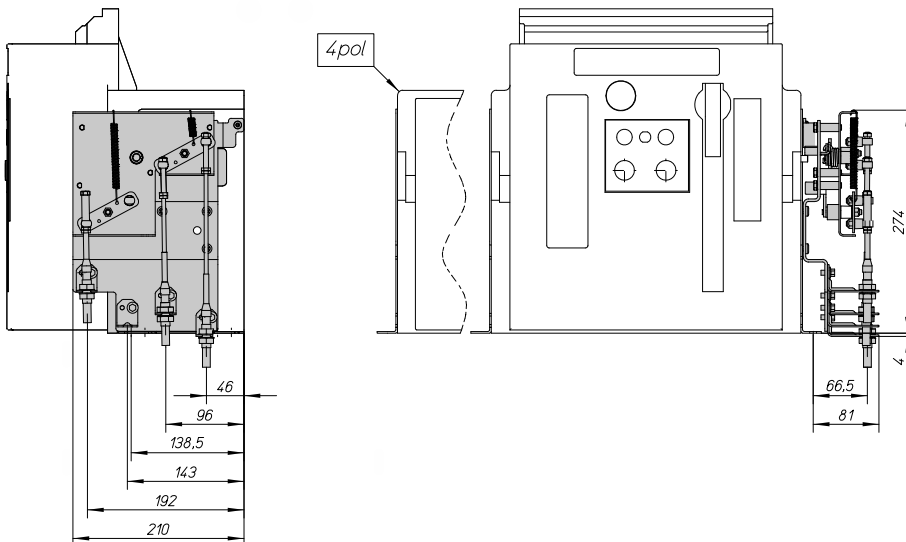
IZMX-TH40...

Terminals 4000 A



② Contact surface

IZMX-MIL-F40



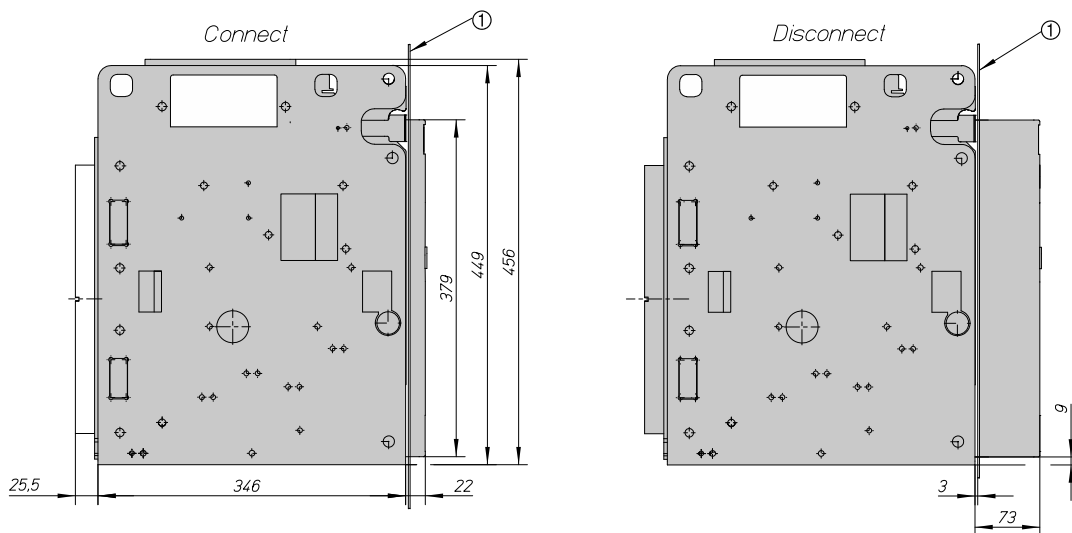
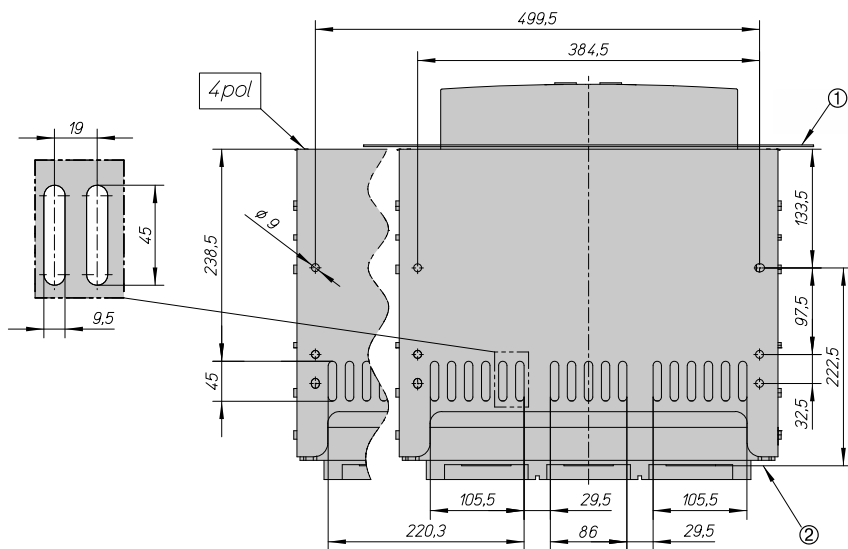
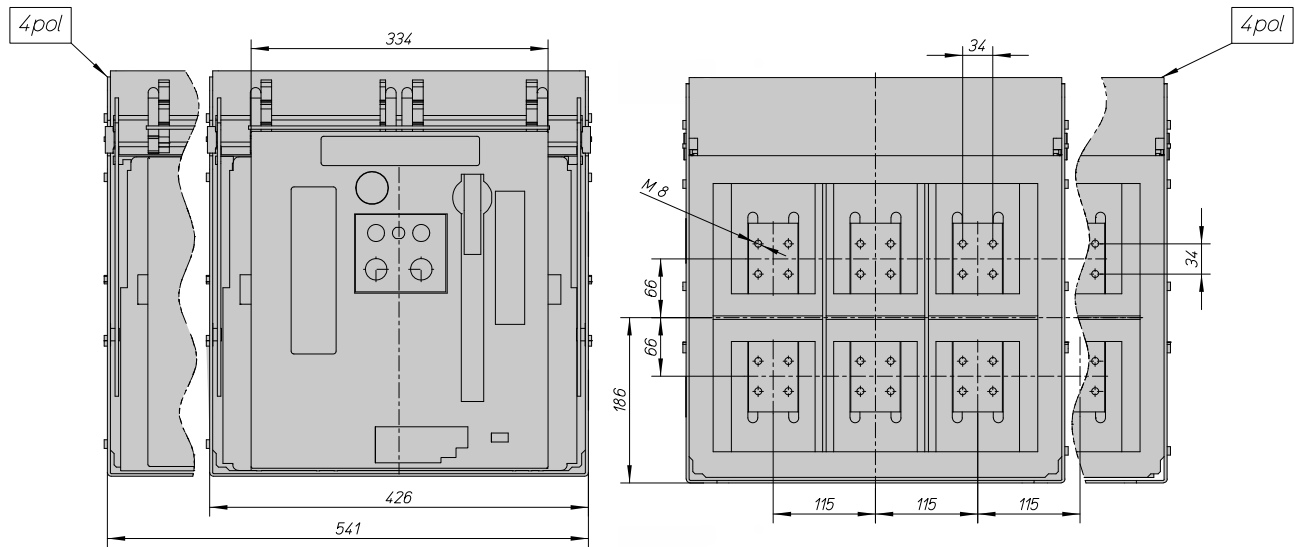
Basic devices

IZMX40..., INX40...

## Dimensions

### Withdrawable units

IZMX40...W, INX40...W



① Door/Cover

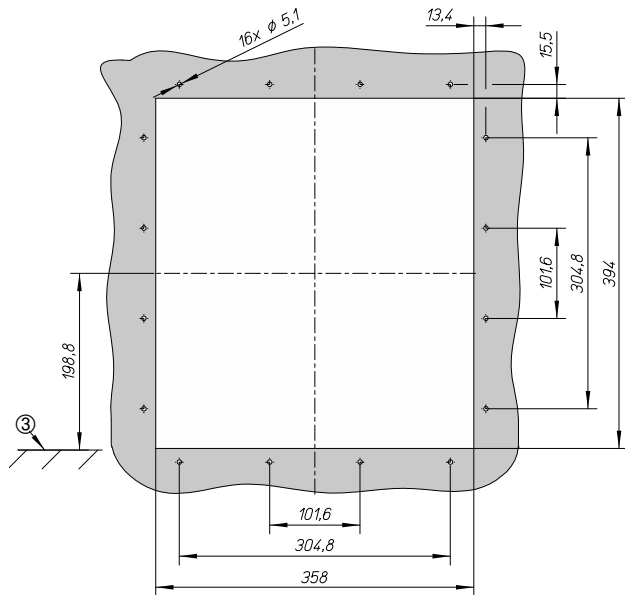
② Contact surface

## Dimensions

### Withdrawable units

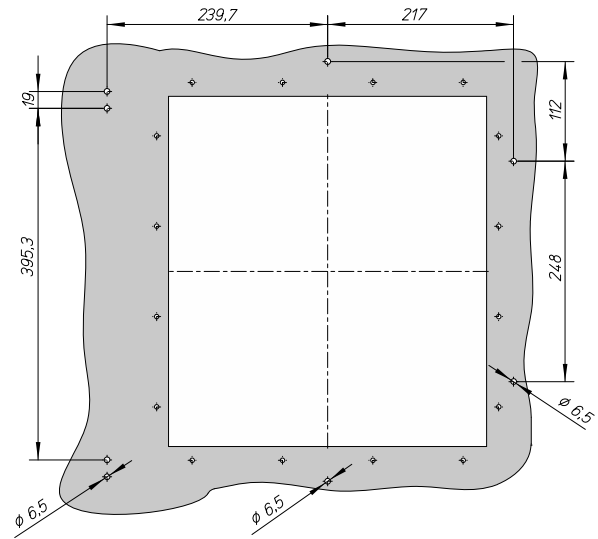
#### Door cut-out IZMX40

IZMX-DEG40-W



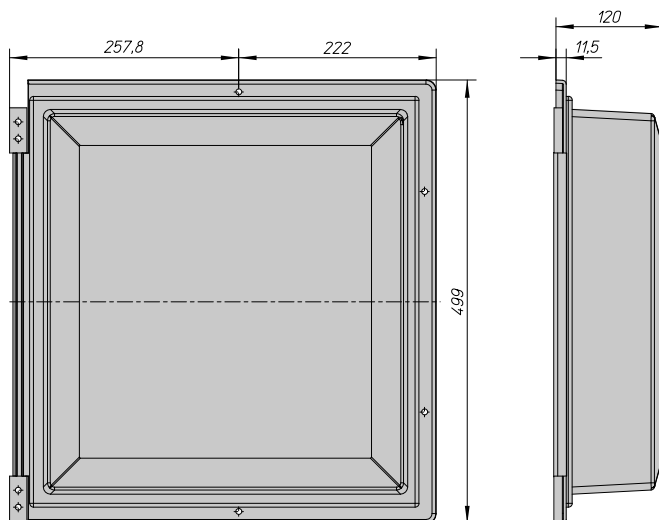
③ Top edge of mounting plate

IZMX-DC40-W



### Door cover

IZMX-DC40-W



Basic devices

IZMX40..., INX40...

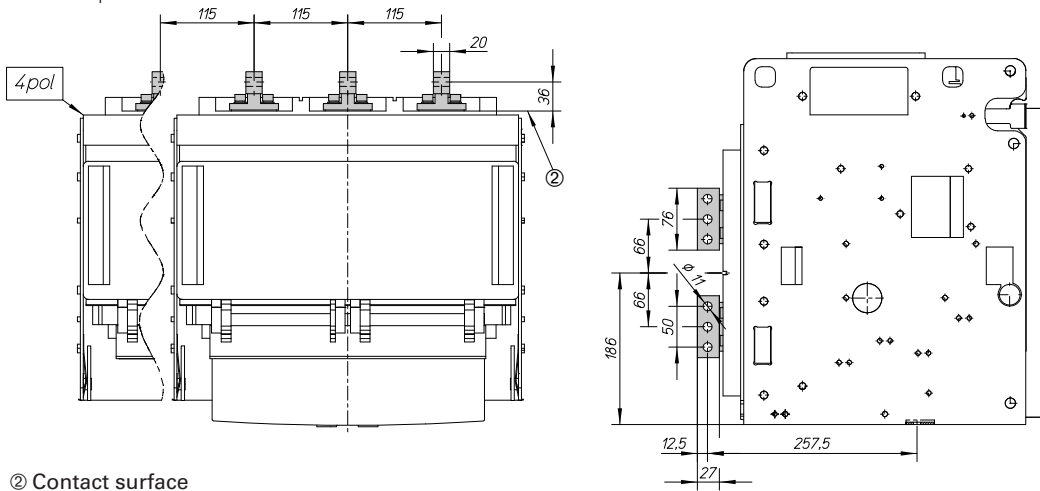
## Dimensions

### Withdrawable units

#### Terminal adapter horizontal/vertical - vertical mounted

IZMX-THV40...

Terminals up to 3200 A

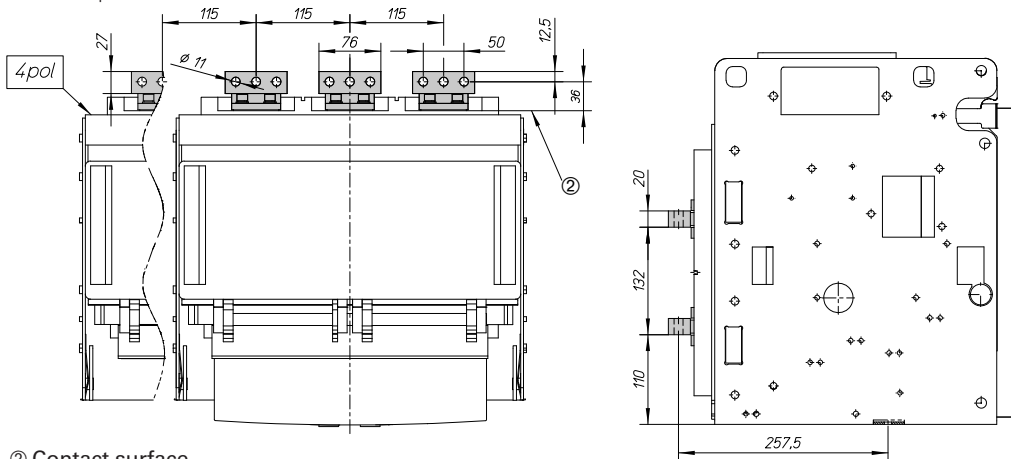


② Contact surface

#### Terminal adapter horizontal/vertical - horizontal mounted

IZMX-THV40...

Terminals up to 3200 A

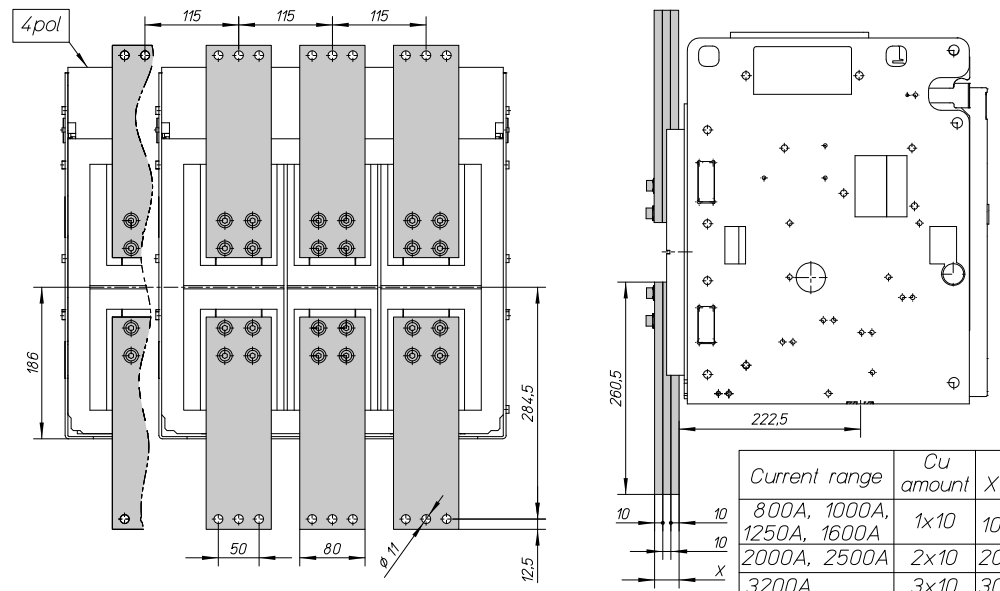


② Contact surface

#### Terminal adapter front

IZMX-TF40...

Terminals up to 3200 A



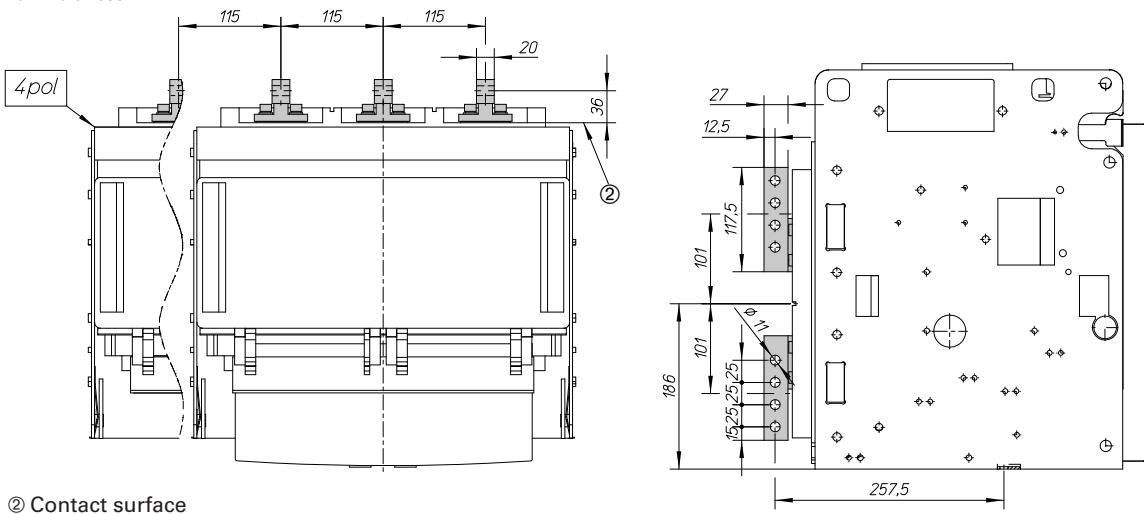
Dimensions

Withdrawable units

Terminal adapter vertical 4000 A

IZMX-TV40...

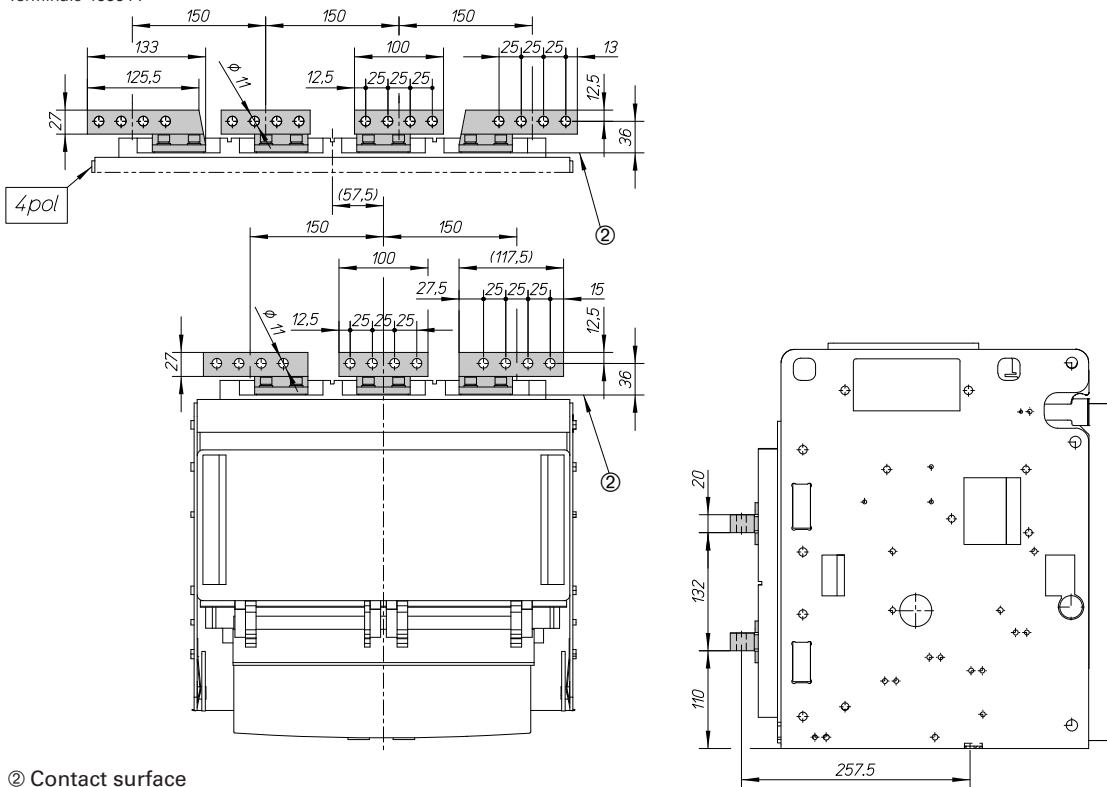
Terminals 4000 A



Terminal adapter horizontal 4000 A

IZMX-TH40...

Terminals 4000 A



Basic devices

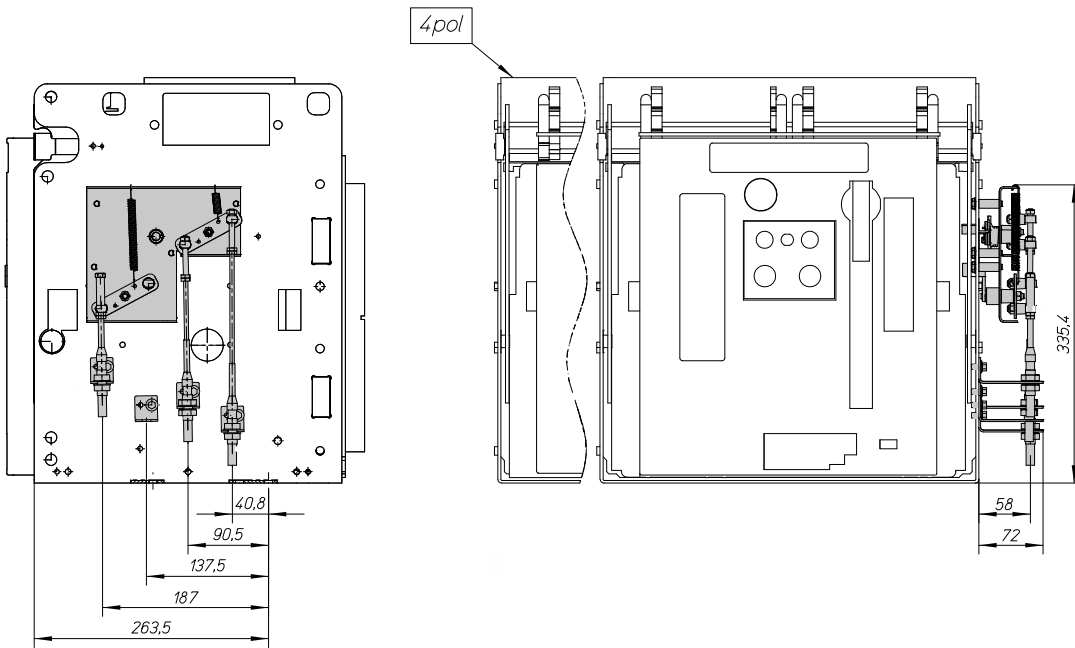
IZMX40..., INX40...

## Dimensions

### Withdrawable units

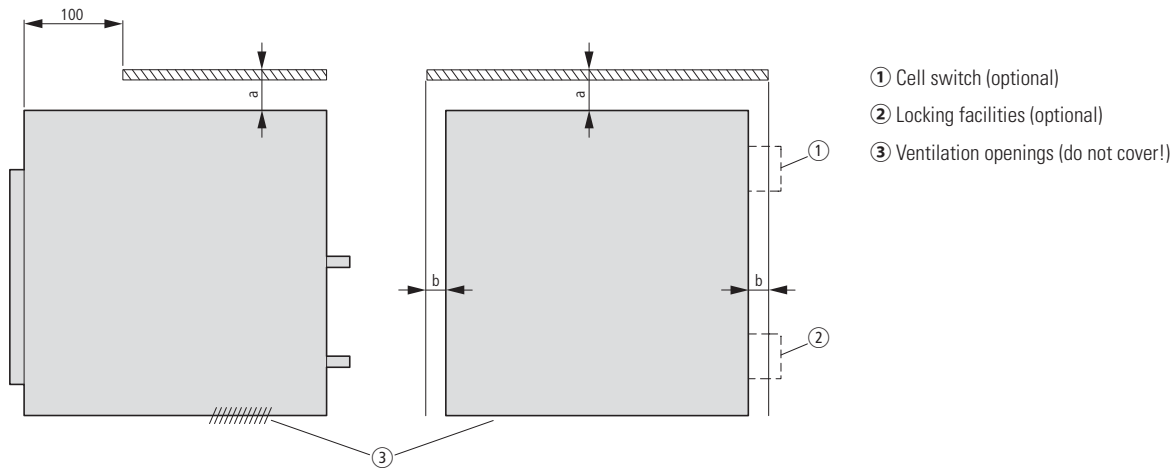
#### Mechanical interlock for withdrawable units

IZMX-MIL-W40



**Recommended safety clearances**

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



|              | Enclosure clearance | To insulated surface | To grounded metal surface | With cell switch or locking facilities |
|--------------|---------------------|----------------------|---------------------------|--|
|              |                     | mm                   | mm                        | mm                                     |
| Withdrawable | a                   | 25                   | 25                        | 25                                     |
|              | b                   | 25                   | 25                        | 25/75                                  |
| Fixed        | a                   | 25                   | 25                        | –                                      |
|              | b                   | 30                   | 70                        | –                                      |

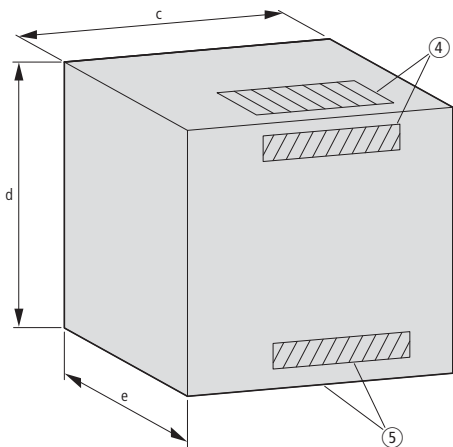
a Δ distance from highest point of breaker or cassette.

**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.



|                   |   |
|-------------------|---|
| c                 | Width of cassette + 75 mm   |
| d                 | 550 mm  |
| e                 | 4450 mm (front control panel bay)   |
| Ventilation holes | 160 cm <sup>2</sup> (800 - 3200 A) } Top and bottom<br>320 cm <sup>2</sup> (4000 A) |

④ Top or rear vent

⑤ Rear or lower vent

| Catalog '16 Page                         | Art.-No.                                | Art.                   | discription                                   | Instruction Leaflet IL... |
|--|---|------------------------|---|---------------------------|
| <b>Main breaker including cassettes:</b> |   |                        |   |                           |
| 11 - 15                                  | <b>IZMX16, INX16 including cassette</b> |                        |   | MN013001EN                |
| 16 - 21                                  | <b>IZMX40, INX40 including cassette</b> |                        |   | MN013002EN                |
| <b>Accessories:</b>                      |   |                        |   |                           |
| 22                                       | <b>PXR trip units</b>                   |                        |   | MN013003EN                |
| 23                                       | 184116                                  | +IZMX-OTS-1            | Overcurrent trip switch (OTS/HIA), 2CO        | IL0131087EN               |
| 23                                       | 184117                                  | IZMX-OTS16-1           | Overcurrent trip switch (OTS/HIA), 2CO        | IL0131087EN               |
| 23                                       | 184118                                  | IZMX-OTS40-1           | Overcurrent trip switch (OTS/HIA), 2CO        | IL0131087EN               |
| 23                                       | 184134                                  | IZMX-TI16-1            | Mechanical Trip Indicator, interlocked        | IL0131126EN               |
| 23                                       | 184135                                  | IZMX-TI40-1            | Mechanical Trip Indicator, interlocked        | IL0131126EN               |
| 23                                       | 184119                                  | +IZMX-RA-1             | Reset, Automatic                              | IL0131126EN               |
| 23                                       | 184120                                  | IZMX-RA16-1            | Reset, Automatic                              | IL0131126EN               |
| 23                                       | 184121                                  | IZMX-RA40-1            | Reset, Automatic                              | IL0131126EN               |
| 24                                       | 184142                                  | IZMX-PXR-PTM-1         | External Voltage Module for PXR               | IL0131074EN               |
| 24                                       | 183990                                  | IZMX-CT16-N-1          | Current transformer N, IZMX16                 | IL0131090EN               |
| 24                                       | 183991                                  | IZMX-CT40-N-1          | Current transformer N, IZMX40                 | IL0131094EN               |
| 24                                       | 183937                                  | IZMX-CTNGS-1           | Ground Source/Zero Sequence Sensor            | IL0131089EN               |
| 24                                       | 186875                                  | IZMX-PCAM-1            | Communication module Profibus                 | IL0131092EN               |
| 24                                       | 186874                                  | IZMX-ECAM-1            | Communication module Ethernet                 | IL0131125EN               |
| 24                                       | 186876                                  | IZMX-MCAM-1            | Communication module ModBus                   | IL0131091EN               |
| 24                                       | 186877                                  | IZMX-CAM-CAB-1         | Communication wire harness                    | IL019001EN                |
| 25                                       | 184242                                  | IZMX-SEC-TB2-W-1       | Secondary Terminal 4point Block Kit-2, d/o    | IL0131093EN               |
| 25                                       | 184243                                  | IZMX-SEC-TB12-W-1      | Secondary Terminal 4point Block Kit-12, d/o   | IL0131093EN               |
| 26                                       | 184186                                  | +IZMX-SH163-1          | Shutter for cassette IZMX163                  | IL01301013E               |
| 26                                       | 184187                                  | IZMX-SH163-1           | Shutter for cassette IZMX163                  | IL01301013E               |
| 26                                       | 184188                                  | +IZMX-SH403-1          | Shutter for cassette IZMX403                  | IL01301044E               |
| 26                                       | 184189                                  | IZMX-SH403-1           | Shutter for cassette IZMX403                  | IL01301044E               |
| 26                                       | 184190                                  | +IZMX-SH164-1          | Shutter for cassette IZMX164                  | IL01301013E               |
| 26                                       | 184191                                  | IZMX-SH164-1           | Shutter for cassette IZMX164                  | IL01301013E               |
| 26                                       | 184192                                  | +IZMX-SH404-1          | Shutter for cassette IZMX404                  | IL01301044E               |
| 26                                       | 184193                                  | IZMX-SH404-1           | Shutter for cassette IZMX404                  | IL01301044E               |
| 26                                       | 184194                                  | +IZMX-CS16-1           | Cell switch contacts (d/o-pos.) 1CO           | IL0131097EN               |
| 26                                       | 108251                                  | IZMX-CS16-1            | Cell switch contacts (d/o-pos.) 1CO           | IL0131097EN               |
| 26                                       | 184195                                  | +IZMX-CS40-1           | Cell switch cont.(d/o),1 CO,left/right        | IL0131095EN               |
| 26                                       | 184196                                  | IZMX-CS40-1            | Cell switch cont.(d/o),1 CO,left/right        | IL0131095EN               |
| 26                                       | 184200                                  | IZMX-KLPC-RONIS-40-1   | Keylock Safe-OFF,-Cass.RONIS provision        | IL01301063E               |
| 26                                       | 184198                                  | IZMX-KLPC-CES-40-1     | Keylock Safe-OFF,-Cass.CES provision          | IL01301063E               |
| 26                                       | 184201                                  | IZMX-KLPC-CASTELL-40-1 | Keylock Safe-OFF,-Cass.CASTELL provision      | IL01301063E               |
| 26                                       | 184199                                  | IZMX-KLPC-KIRK-40-1    | Keylock Safe-OFF,-Cass.KIRK provision         | IL01301063E               |
| 27                                       | 183970                                  | IZMX-THV163-1          | Rear Connect 3p, horiz./vertical              | IL0131123EN               |
| 27                                       | 183971                                  | IZMX-THV164-1          | Rear Connect 4p, horiz./vertical              | IL0131123EN               |
| 27                                       | 183972                                  | IZMX-THVL163-1         | Rear Connect 3p, horiz./vertical, long        | IL0131123EN               |
| 27                                       | 183973                                  | IZMX-THVL164-1         | Rear Connect 4p, horiz./vertical, long        | IL0131123EN               |
| 27                                       | 183974                                  | IZMX-THV403-1          | Rear Connect 3p, horiz./vertical, 3200A       | IL01301053E               |
| 27                                       | 183975                                  | IZMX-THV404-1          | Rear Connect 4p, horiz./vertical, 3200A       | IL01301053E               |
| 27                                       | 183976                                  | IZMX-TH403-4000-1      | Rear Connect 3p, horizontal                   | IL01301053E               |
| 27                                       | 183977                                  | IZMX-TH404-4000-1      | Rear Connect 4p, horizontal                   | IL01301053E               |
| 27                                       | 183978                                  | IZMX-TV403-4000-1      | Rear Connect 3p, vertical                     | IL01301053E               |
| 27                                       | 183979                                  | IZMX-TV404-4000-1      | Rear Connect 4p, vertical                     | IL01301053E               |
| 27                                       | 183980                                  | IZMX-TF163-1600-1      | Con.front 1600A,IZMX16, 3p                    | IL0131123EN               |
| 27                                       | 184173                                  | IZMX-TF164-1600-1      | Con.front 1600A,IZMX16,4p                     | IL0131123EN               |
| 27                                       | 184174                                  | IZMX-TF403-1600F-1     | Con.front 1600A,IZMX40, 3p.Fixed mounted      | IL01301056E               |
| 27                                       | 184175                                  | IZMX-TF403-2500F-1     | Con.front 2500A,IZMX40, 3p.Fixed mounted      | IL01301056E               |
| 27                                       | 184176                                  | IZMX-TF403-3200F-1     | Con.front 3200A,IZMX40, 3p.Fixed mounted      | IL01301056E               |
| 27                                       | 184180                                  | IZMX-TF404-1600F-1     | Con.front 1600A,IZMX40, 4p.Fixed mounted      | IL01301056E               |
| 27                                       | 184181                                  | IZMX-TF404-2500F-1     | Con.front 2500A,IZMX40, 4p.Fixed mounted      | IL01301056E               |
| 27                                       | 184182                                  | IZMX-TF404-3200F-1     | Con.front 3200A,IZMX40, 4p.Fixed mounted      | IL01301056E               |
| 27                                       | 184177                                  | IZMX-TF403-1600W-1     | Con.front 1600A,IZMX40,3p.Withdraw.units      | IL01301056E               |
| 27                                       | 184178                                  | IZMX-TF403-2500W-1     | Con.front 2500A,IZMX40,3p.Withdraw.units      | IL01301056E               |
| 27                                       | 184179                                  | IZMX-TF403-3200W-1     | Con.front 3200A,IZMX40,3p.Withdraw.units      | IL01301056E               |
| 27                                       | 184183                                  | IZMX-TF404-1600W-1     | Con.front 1600A,IZMX40,4p.Withdraw.units      | IL01301056E               |
| 27                                       | 184184                                  | IZMX-TF404-2500W-1     | Con.front 2500A,IZMX40,4p.Withdraw.units      | IL01301056E               |
| 27                                       | 184185                                  | IZMX-TF404-3200W-1     | Con.front 3200A,IZMX40,4p.Withdraw.units      | IL01301056E               |
| 27                                       | 184239                                  | IZMX-SEC-TB2-F-1       | Secondary Terminal 4point Block Kit-2, fixed  | IL0131093EN               |
| 27                                       | 184240                                  | IZMX-SEC-TB12-F-1      | Secondary Terminal 4point Block Kit-12, fixed | IL0131093EN               |
| 28                                       | 184245                                  | +IZMX-M16-24DC-1       | Motor operator 24 VDC                         | IL0131088EN               |
| 28                                       | 184246                                  | IZMX-M16-24DC-1        | Motor operator 24 VDC                         | IL0131088EN               |
| 28                                       | 184247                                  | +IZMX-M16-48DC-1       | Motor operator 48 VDC                         | IL0131088EN               |
| 28                                       | 184248                                  | IZMX-M16-48DC-1        | Motor operator 48 VDC                         | IL0131088EN               |
| 28                                       | 184249                                  | +IZMX-M16-60DC-1       | Motor operator 60 VDC                         | IL0131088EN               |
| 28                                       | 184250                                  | IZMX-M16-60DC-1        | Motor operator 60 VDC                         | IL0131088EN               |
| 28                                       | 184251                                  | +IZMX-M16-110AD-1      | Motor operator 110-125 VAC/DC                 | IL0131088EN               |
| 28                                       | 184252                                  | IZMX-M16-110AD-1       | Motor operator 110-125 VAC/DC                 | IL0131088EN               |
| 28                                       | 184253                                  | +IZMX-M16-230AD-1      | Motor operator 208-240 VAC/DC                 | IL0131088EN               |
| 28                                       | 184254                                  | IZMX-M16-230AD-1       | Motor operator 208-240 VAC/DC                 | IL0131088EN               |
| 28                                       | 184255                                  | +IZMX-M40-24DC-1       | Motor operator 24 VDC                         | IL0131088EN               |
| 28                                       | 184256                                  | IZMX-M40-24DC-1        | Motor operator 24 VDC                         | IL0131088EN               |
| 28                                       | 184257                                  | +IZMX-M40-48DC-1       | Motor operator 48 VDC                         | IL0131088EN               |
| 28                                       | 184258                                  | IZMX-M40-48DC-1        | Motor operator 48 VDC                         | IL0131088EN               |
| 28                                       | 184259                                  | +IZMX-M40-60DC-1       | Motor operator 60 VDC                         | IL0131088EN               |
| 28                                       | 184260                                  | IZMX-M40-60DC-1        | Motor operator 60 VDC                         | IL0131088EN               |
| 28                                       | 184261                                  | +IZMX-M40-110AD-1      | Motor operator 110-125 VAC/DC                 | IL0131088EN               |
| 28                                       | 184262                                  | IZMX-M40-110AD-1       | Motor operator 110-125 VAC/DC                 | IL0131088EN               |
| 28                                       | 184263                                  | +IZMX-M40-230AD-1      | Motor operator 208-240 VAC/DC                 | IL0131088EN               |
| 28                                       | 184264                                  | IZMX-M40-230AD-1       | Motor operator 208-240 VAC/DC                 | IL0131088EN               |
| 29                                       | 184265                                  | +IZMX-ST24DC-1         | Shunt trip 24 VDC                             | IL0131087EN               |
| 29                                       | 184266                                  | IZMX-ST24DC-1          | Shunt trip 24 VDC                             | IL0131087EN               |

|    |        |                       |  |                          |
|----|--------|-----------------------|--|--------------------------|
| 29 | 184267 | +IZMX-ST48DC-1        | Shunt trip 48 VDC                            | IL0131087EN              |
| 29 | 184268 | IZMX-ST48DC-1         | Shunt trip 48 VDC                            | IL0131087EN              |
| 29 | 184269 | +IZMX-ST60DC-1        | Shunt trip 60 VDC                            | IL0131087EN              |
| 29 | 184270 | IZMX-ST60DC-1         | Shunt trip 60 VDC                            | IL0131087EN              |
| 29 | 184271 | +IZMX-ST110AD-1       | Shunt trip 110-125 VAC/DC                    | IL0131087EN              |
| 29 | 184272 | IZMX-ST110AD-1        | Shunt trip 110-125 VAC/DC                    | IL0131087EN              |
| 29 | 184273 | +IZMX-ST230AD-1       | Shunt trip 220-240 VAC/DC                    | IL0131087EN              |
| 29 | 184274 | IZMX-ST230AD-1        | Shunt trip 220-240 VAC/DC                    | IL0131087EN              |
| 29 | 184275 | +IZMX-ST24DC-1        | Shunt trip (2) 24 VDC                        | IL0131087EN              |
| 29 | 184276 | +IZMX-ST54DC-1        | Shunt trip (2) 48 VDC                        | IL0131087EN              |
| 29 | 184277 | +IZMX-ST60DC-1        | Shunt trip (2) 60 VDC                        | IL0131087EN              |
| 29 | 184278 | +IZMX-ST5110AD-1      | Shunt trip (2) 110-125 VAC/DC                | IL0131087EN              |
| 29 | 184279 | +IZMX-ST5230AD-1      | Shunt trip (2) 220-240 VAC/DC                | IL0131087EN              |
| 30 | 184107 | +IZMX-UVR24DC-1       | Undervoltage release 24 VDC                  | IL0131087EN              |
| 30 | 184108 | IZMX-UVR24DC-1        | Undervoltage release 24 VDC                  | IL0131087EN              |
| 30 | 184109 | +IZMX-UVR48DC-1       | Undervoltage release 48 VDC                  | IL0131087EN              |
| 30 | 184110 | IZMX-UVR48DC-1        | Undervoltage release 48 VDC                  | IL0131087EN              |
| 30 | 184111 | +IZMX-UVR60DC-1       | Undervoltage release 60 VDC                  | IL0131087EN              |
| 30 | 184112 | IZMX-UVR60DC-1        | Undervoltage release 60 VDC                  | IL0131087EN              |
| 30 | 184113 | +IZMX-UVR110AD-1      | Undervoltage release 110-125 VAC/DC          | IL0131087EN              |
| 30 | 184114 | IZMX-UVR110AD-1       | Undervoltage release 110-125 VAC/DC          | IL0131087EN              |
| 30 | 184161 | +IZMX-UVR230AD-1      | Undervoltage release 220-240 VAC/DC          | IL0131087EN              |
| 30 | 184162 | IZMX-UVR230AD-1       | Undervoltage release 220-240 VAC/DC          | IL0131087EN              |
| 30 | 184165 | IZMX-UVR-TD-120AC-1   | UVR time delay module 120 VAC                | 5721B33                  |
| 30 | 184166 | IZMX-UVR-TD-230AC-1   | UVR time delay module 230 VAC                | 5721B33                  |
| 30 | 184167 | +IZMX-AS22-1          | ON-OFF Auxiliary switch, 2a/2b               | IL0131096EN              |
| 30 | 184168 | +IZMX-AS44-1          | ON-OFF Auxiliary switch, 4a/4b               | IL0131096EN              |
| 30 | 184169 | +IZMX-AS66-1          | ON-OFF Auxiliary switch, 6a/6b               | IL0131096EN              |
| 30 | 184170 | +IZMX-AS88-1          | ON-OFF Auxiliary switch, 8a/8b               | IL0131096EN              |
| 30 | 184171 | +IZMX-AS1010-1        | ON-OFF Auxiliary switch, 10a/10b             | IL0131096EN              |
| 30 | 184172 | IZMX-AS22-16-1        | ON-OFF Auxiliary switch, 2a/2b               | IL0131096EN              |
| 30 | 184115 | IZMX-AS22-40-1        | ON-OFF Auxiliary switch, 2a/2b               | IL0131096EN              |
| 31 | 184280 | +IZMX-SR24DC-1        | Spring release 24 VDC                        | IL0131088EN              |
| 31 | 184281 | IZMX-SR24DC-1         | Spring release 24 VDC                        | IL0131088EN              |
| 31 | 184282 | +IZMX-SR48DC-1        | Spring release 48 VDC                        | IL0131088EN              |
| 31 | 184283 | IZMX-SR48DC-1         | Spring release 48 VDC                        | IL0131088EN              |
| 31 | 184284 | +IZMX-SR60DC-1        | Spring release 60 VDC                        | IL0131088EN              |
| 31 | 184285 | IZMX-SR60DC-1         | Spring release 60 VDC                        | IL0131088EN              |
| 31 | 184286 | +IZMX-SR110AD-1       | Spring release 110-125 VAC/DC                | IL0131088EN              |
| 31 | 184287 | IZMX-SR110AD-1        | Spring release 110-125 VAC/DC                | IL0131088EN              |
| 31 | 184288 | +IZMX-SR230AD-1       | Spring release 220-240 VAC/DC                | IL0131088EN              |
| 31 | 184289 | IZMX-SR230AD-1        | Spring release 220-240 VAC/DC                | IL0131088EN              |
| 31 | 184103 | +IZMX-LCS-1           | Latch check switch (LCS/HIB), 1CO            | IL0131088EN              |
| 31 | 184104 | IZMX-LCS-1            | Latch check switch (LCS/HIB), 1CO            | IL0131088EN              |
| 31 | 184105 | +IZMX-LCS-SR-1        | Latch check switch, wired to SR, 1CO         | IL0131088EN              |
| 31 | 184106 | IZMX-LCS-SR-1         | Latch check switch, wired to SR, 1CO         | IL0131088EN              |
| 32 | 184128 | +IZMX-OC-1            | Operations counter                           | IL01301011E, IL01301055E |
| 32 | 184129 | IZMX-OC16-1           | Operations counter                           | IL01301011E              |
| 32 | 184130 | IZMX-OC40-1           | Operations counter                           | IL01301055E              |
| 32 | 184222 | +IZMX-PLPC-P-1        | Padlockable pushbutton cover                 | IL01301065E              |
| 32 | 184223 | IZMX-PLPC16-P-1       | Padlockable pushbutton cover, plastic        | IL01301041E              |
| 32 | 184224 | IZMX-PLPC40-P-1       | Padlockable pushbutton cover                 | IL01301065E              |
| 32 | 184225 | +IZMX-PLPC-M-1        | Padlockable pushbutton cover                 | IL01301065E              |
| 32 | 184226 | IZMX-PLPC16-M-1       | Padlockable pushbutton cover, metal          | IL01301041E              |
| 32 | 184227 | IZMX-PLPC40-M-1       | Padlockable pushbutton cover                 | IL01301065E              |
| 32 | 184228 | +IZMX-PLPC-M-OFF-1    | Padlockable pushbutton cover, OFF            | IL01301041E, IL01301065E |
| 32 | 184229 | IZMX-PLPC16-M-OFF-1   | Padlockable pushbutton cover, OFF            | IL01301041E              |
| 32 | 184230 | IZMX-PLPC40-M-OFF-1   | Padlockable pushbutton cover, OFF            | IL01301065E              |
| 32 | 184233 | IZMX-KLP-SO-RONIS-1   | Keylock Safe-OFF, RONIS provision            | IL01301040E              |
| 32 | 184231 | IZMX-KLP-SO-CES-1     | Keylock Safe-OFF, CES provision              | IL01301049E              |
| 32 | 184234 | IZMX-KLP-SO-CASTELL-1 | Keylock Safe-OFF, CASTELL provision          | IL01301050E              |
| 32 | 184232 | IZMX-KLP-SO-KIRK-1    | Keylock Safe-OFF, KIRK provision             | IL01301039E              |
| 33 | 184205 | IZMX-DI40-W-1         | Locked door unless breaker is in disconnect  | IL01301066E              |
| 33 | 184197 | IZMX-CRB-1            | Cell rejection bracket kit for cassette      | IL01301006E              |
| 33 | 184136 | IZMX-DEG16-F-1        | Door escutcheon with gasket IP41, fixed      | IL01301012E              |
| 33 | 184137 | IZMX-DEG40-F-1        | Door escutcheon with gasket IP41, fixed      | IL01301012E              |
| 33 | 184138 | IZMX-DEG16-W-1        | Door escutcheon with gasket IP41, w/o        | IL01301012E              |
| 33 | 184139 | IZMX-DEG40-W-1        | Door escutcheon with gasket IP41, d/o        | IL01301012E              |
| 33 | 184235 | IZMX-DC16-F-1         | Door cover IP55, fixed                       | IL01301038E              |
| 33 | 184236 | IZMX-DC40-F-1         | Door cover IP55, fixed                       | IL01301038E              |
| 33 | 184237 | IZMX-DC16-W-1         | Door cover IP55, d/o                         | IL01301038E              |
| 33 | 184238 | IZMX-DC40-W-1         | Door cover IP55, d/o                         | IL01301038E              |
| 33 | 184131 | IZMX-IB163-1          | Phase barrier IZMX16                         | IL01301021E              |
| 33 | 184952 | IZMX-IB164-1          | Phase barrier IZMX16                         | IL01301021E              |
| 33 | 184953 | IZMX-IB403-F-1        | Phase barrier IZMX403 fix                    | IL01301048E              |
| 33 | 184954 | IZMX-IB404-F-1        | Phase barrier IZMX404 fix                    | IL01301048E              |
| 33 | 184132 | IZMX-IB403-W-1        | Phase barrier IZMX403 d/o                    | IL01301048E              |
| 33 | 184955 | IZMX-IB404-W-1        | Phase barrier IZMX404 d/o                    | IL01301048E              |
| 34 | 184206 | IZMX-MIL2C-F16-1      | Mechan. interlock type 2 cable, fixed        | IL0131077EN              |
| 34 | 184209 | IZMX-MIL2C-F40-1      | Mechan. interlock type 2 cable, fixed        | IL0131071EN              |
| 34 | 184207 | IZMX-MIL3133C-F16-1   | Mechan. interlock type 31, 33 cable, fixed   | IL0131079EN              |
| 34 | 184210 | IZMX-MIL3133C-F40-1   | Mechan. interlock type 31, 33 cable, fixed   | IL0131073EN              |
| 34 | 184208 | IZMX-MIL32C-F16-1     | Mechan. interlock type 32 cable, fixed       | IL0131081EN              |
| 34 | 184211 | IZMX-MIL32C-F40-1     | Mechan. interlock type 32 cable, fixed       | IL0131075EN              |
| 34 | 184212 | IZMX-MIL2C-W16-1      | Mechan. interlock type 2 cable, drawout      | IL0131076EN              |
| 34 | 184215 | IZMX-MIL2C-W40-1      | Mechan. interlock type 2 cable, drawout      | IL0131070EN              |
| 34 | 184213 | IZMX-MIL3133C-W16-1   | Mechan. interlock type 31, 33 cable, drawout | IL0131078EN              |
| 34 | 184216 | IZMX-MIL3133C-W40-1   | Mechan. interlock type 31, 33 cable, drawout | IL0131072EN              |
| 34 | 184214 | IZMX-MIL32C-W16-1     | Mechan. interlock type 32 cable, drawout     | IL0131080EN              |
| 34 | 184217 | IZMX-MIL32C-W40-1     | Mechan. interlock type 32 cable, drawout     | IL0131074EN              |

# Convenience for planning, selection and documentation

## Eaton Configurator for Circuit Breakers

**The intuition-based software tool makes it easy to select and configure circuit breakers and load disconnectors with their respective accessories from a database of several thousand articles.**

It does not require any special knowledge of the system. With just a few clicks you can select any switchgear configuration and transfer it to the parts or ordering list. All combination possibilities are saved in the software logic, which ensures correct ordering. In a logical step-by-step order, the software

will guide you through the switchgear offer and the suitable accessories. The selection process starts with choosing the appropriate standard, i.e. IEC or UL/CSA, the rated operating voltage and the rated frequency.

In the following steps you will need to:

- Determine the number of poles
- Choose a circuit breaker or load disconnector
- Choose the protection task (e.g. motor protection, cable/line protection)
- Decide on either fixed or withdrawable design

Download from: [www.moeller.net/de/products\\_solutions/index.jsp](http://www.moeller.net/de/products_solutions/index.jsp)



## CurveSelect

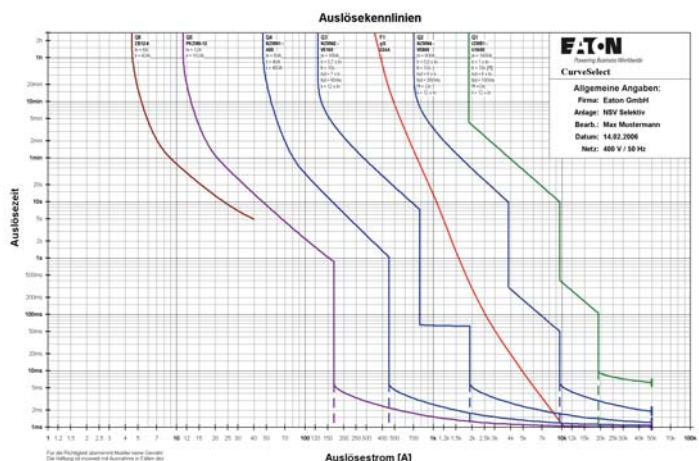
**CurveSelect allows the user to simultaneously display setup-specific tripping curves of several protective devices – both in terms of time and electric current values.**

This tool makes it easy for the user to analyze the interaction of NZM and IZM circuit breakers, PKZ motor-protectors, motor-protective relays, MCBs and h.b.c. fuses.

Freely defined curves (Free-StyleCurves = FSC) enable the user to directly compare the

- selected motor protector and motor starter characteristics,
- incoming supply switches and up-stream medium-voltage protection
- intended expansions and existing protective equipment

Download from: [www.moeller.net/de/products\\_solutions/index.jsp](http://www.moeller.net/de/products_solutions/index.jsp)



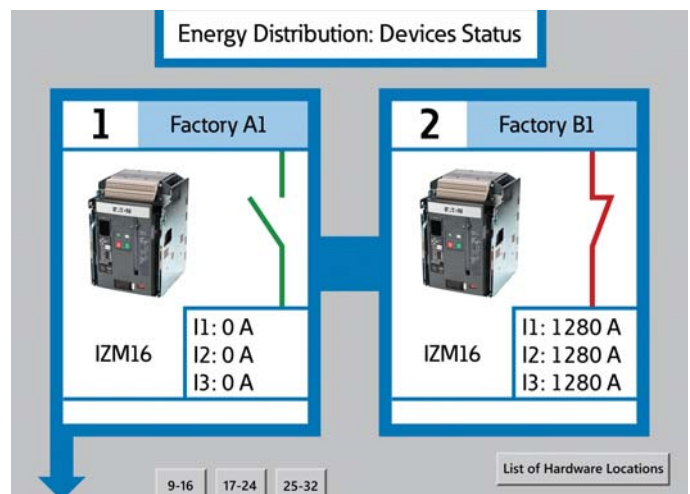
## BreakerVisu

**BreakerVisu allows the user to monitor several ACBs and MCCBs and helps him to quickly detect and clearly visualize the status of circuit breakers, such as currents, switching statuses or load warnings, and to dynamically visualize them on an http page.**

In addition, all events will automatically be recorded in a log file.

This information is necessary to correctly evaluate warnings and malfunctions and to take the appropriate steps. Keeping a log file will also enable you to carry out an additional error analysis. BreakerVisu is composed of ready-made hard and software components. So no special software needs to be installed on the PC. All you need is an Internet browser and Microsoft Excel!

Download from: [www.moeller.net/de/products\\_solutions/index.jsp](http://www.moeller.net/de/products_solutions/index.jsp)



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

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

## Clearly designed shelf view

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

## Intuitive browsing, searching and finding

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

## Linked data sheets

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

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

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

In the App Store from **June 2011**

# The Eaton online catalogue

## THE PRODUCT GROUP TREE

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

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

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

## 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 results

The query for "contactor DC" provided "1" product group hits and "354" product hits

| Image | Article No. | Type                     | Description                           | Price | Push | Accessories |
|-------|-------------|--------------------------|---------------------------------------|-------|------|-------------|
|       | 278298      | SDANLMI220V50HZ,240V60HZ | S-D-contactors,5,500V400V/AC-operated | ---   | 10   | 10          |
|       | 278311      | SDANLMI620V50HZ,240V60HZ | S-D-contactors,7,500V400V/AC-operated | ---   | 10   | 10          |
|       | 276844      | DILM12-101-2VDC          | Contactors,5,500V400V/DC-operated     | ---   | 10   | 10          |
|       | 277781      | DILM49RDC60              | Contactors,18,500V400V/DC-operated    | ---   | 10   | 10          |
|       | 277782      | DILM49RDC130             | Contactors,18,500V400V/DC-operated    | ---   | 10   | 10          |
|       | 277783      | DILM49RDC240             | Contactors,18,500V400V/DC-operated    | ---   | 10   | 10          |
|       | 277780      | DILM49RDC24              | Contactors,18,500V400V/DC-operated    | ---   | 10   | 10          |
|       | 277812      | DILM49-22RDC24           | Contactors,18,500V400V/DC-operated    | ---   | 10   | 10          |
|       | 278298      | SDANLMI220V50HZ,240V60HZ | S-D-contactors,5,500V400V/AC-operated | ---   | 10   | 10          |

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

Number of products: 1206

**Product range**

- Accessories
- Fast and palm switches
- IP60-Titan (posting dimensions 22.5 mm)
- IP60-Titan (posting dimensions 16 mm)
- SL, signal towers

**Basic function**

- Acoustic indicator
- Customer specific complete devices
- Double actuators
- Emergency-stop actuators
- Foot and palm switches
- Four-way operator
- Hall pushbuttons
- Illuminated pushbuttons
- Illuminated selector switch actuators
- Indicator lights
- Key-operated actuators
- Mushroom-headed pushbutton
- Position switches
- Push buttons
- Selector switch actuators
- Signal towers
- STOP pushbuttons

**Color**

- Without-
- Black
- Blue
- Green
- Green, red, green
- Red
- Red, green
- Red, white, green
- White
- Yellow

**Housing**

- inside the enclosure
- without enclosure

Number of products: 94

**Product range**

- IP60-Titan (posting dimensions 22.5 mm)
- IP60-Titan (posting dimensions 16 mm)

**Function**

- Spring return
- Stay-put

**Front ring**

- Front ring: black
- Front ring: stainless

**Design**

- Enclosure
- Embedded
- Flat
- With guard ring

**Basic function**

- Acoustic indicator
- Customer specific complete devices
- Double actuators
- Emergency-stop actuators
- Emergency-stop actuators
- Four-way operator
- Hall pushbuttons
- Illuminated pushbuttons
- Illuminated selector switch actuators
- Indicator lights
- Key-operated actuators
- Mushroom-headed pushbutton
- Position switches
- Push buttons
- Selector switch actuators
- STOP pushbuttons

**Color**

- Without-
- Black
- Blue
- Green
- Green, red, green
- Red
- Red, green
- Red, white, green
- White
- Yellow

**Housing**

- inside the enclosure
- without enclosure

| Part no. | Article no. | Start text                     | Accessories | Function      | Front ring           | Protection type | Color      | Design |
|----------|-------------|--------------------------------|-------------|---------------|----------------------|-----------------|------------|--------|
| M22-D-B  | 216580      | Push-button,Push,black         |             | Spring-return | Front ring:Stainless | IP67, IP65K     | Black      | Flat   |
| M22-D-W  | 216582      | Push-button,Push,white         |             | Spring-return | Front ring:Stainless | IP67, IP65K     | White      | Flat   |
| M22-D-R  | 216584      | Push-button,Push,red           |             | Spring-return | Front ring:Stainless | IP67, IP65K     | Red        | Flat   |
| M22-D-G  | 216586      | Push-button,Push,green         |             | Spring-return | Front ring:Stainless | IP67, IP65K     | Green      | Flat   |
| M22-D-Y  | 216588      | Push-button,Push,yellow        |             | Spring-return | Front ring:Stainless | IP67, IP65K     | Yellow     | Flat   |
| M22-D-B  | 218000      | Push-button,Push,blue          |             | Spring-return | Front ring:Stainless | IP67, IP65K     | Blue       | Flat   |
| M22-D-X  | 216602      | Push-button,Push,without label |             | Spring-return | Front ring:Stainless | IP67, IP65K     | - Without- | Flat   |

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>

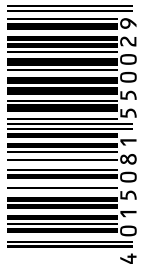


Eaton is a power management company with 2015 sales of \$20.9 billion. Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably.

Eaton has approximately 97,000 employees and sells products to customers in more than 175 countries.

For more information, visit [www.eaton.eu](http://www.eaton.eu).

Article number 158422



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or local distributor/agent, please visit  
[www.eaton.eu/electrical/customersupport](http://www.eaton.eu/electrical/customersupport)