

# Specifications



## Eaton 183416

Eaton Moeller series IZMX/INX - ACB.  
Breaker IZMX16, 4p, 1600 A, Icu ( $\leq 440V$  50/60 Hz): 66 kA, Ics ( $\leq 440V$  50/60 Hz): 50 kA, Ir 640 A - 1600 A, Withdrawable, P measurement

### General specifications

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| <b>PRODUCT NAME</b>         | Eaton Moeller series IZMX/INX circuit-breaker |
| <b>CATALOG NUMBER</b>       | 183416                                        |
| <b>MODEL CODE</b>           | IZMX16H4-P16W-1                               |
| <b>EAN</b>                  | 4015081791521                                 |
| <b>PRODUCT LENGTH/DEPTH</b> | 584 mm                                        |
| <b>PRODUCT HEIGHT</b>       | 597 mm                                        |
| <b>PRODUCT WIDTH</b>        | 521 mm                                        |
| <b>PRODUCT WEIGHT</b>       | 32.49 kg                                      |
| <b>COMPLIANCES</b>          | IEC<br>IEC/EN 60947<br>RoHS conform           |



Powering Business Worldwide

## Delivery program

### TYPE

- Air circuit breakers/switch-disconnector
- Open circuit breaker

|                 |                    |
|-----------------|--------------------|
| FRAME           | IZMX16             |
| NUMBER OF POLES | Four-pole          |
| AMPERAGE RATING | 1600 A             |
| RELEASE SYSTEM  | Electronic release |

## Technical data - electrical

|                                                                 |               |
|-----------------------------------------------------------------|---------------|
| VOLTAGE RATING AT AC                                            | 690 V AC      |
| RATED OPERATING VOLTAGE (UE) - MIN                              | 690 V         |
| RATED OPERATING VOLTAGE (UE) - MAX                              | 690 V         |
| RATED INSULATION VOLTAGE (UI)                                   | 1000 V        |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP)                          | 12 kV AC      |
| RATED UNINTERRUPTED CURRENT (IU)                                | 1600 A        |
| RATED UNINTERRUPTED CURRENT (IU) AT 50°C                        | 1500 A        |
| RATED UNINTERRUPTED CURRENT (IU) AT 60°C                        | 1400 A        |
| RATED UNINTERRUPTED CURRENT (IU) AT 70°C                        | 1350 A        |
| RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)                    | 42 kA         |
| OVERLOAD RELEASE CURRENT SETTING - MIN                          | 640 A         |
| OVERLOAD RELEASE CURRENT SETTING - MAX                          | 1600 A        |
| SHORT-CIRCUIT RELEASE DELAYED SETTING - MIN                     | 1200 A        |
| SHORT-CIRCUIT RELEASE DELAYED SETTING - MAX                     | 16000 A       |
| SHORT-CIRCUIT RELEASE NON-DELAYED SETTING                       | 1.5 - 10 x Ir |
| SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN                 | 0 A           |
| SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX                 | 24000 A       |
| ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MIN | 960 A         |
| ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MAX | 16000 A       |
| ADJUSTMENT RANGE UNDELAYED SHORT-                               | 3200 A        |

|                                                                            |                                                                                                                |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>CIRCUIT RELEASE - MIN</b>                                               |                                                                                                                |
| <b>ADJUSTMENT RANGE<br/>UNDELAYED SHORT-<br/>CIRCUIT RELEASE - MAX</b>     | 24000 A                                                                                                        |
| <b>RATED SHORT-CIRCUIT<br/>BREAKING CAPACITY AT<br/>400 V, 50 HZ</b>       | 65 kA                                                                                                          |
| <b>RATED SHORT-CIRCUIT<br/>MAKING CAPACITY UP TO<br/>440 V, 50/60 HZ</b>   | 145 kA                                                                                                         |
| <b>RATED SHORT-CIRCUIT<br/>MAKING CAPACITY UP TO<br/>690 V, 50/60 HZ</b>   | 88 kA                                                                                                          |
| <b>POWER OF<br/>WITHDRAWABLE SWITCH<br/>WITH CASSETTE</b>                  | 320 W                                                                                                          |
| <b>POWER LOSS</b>                                                          | 320 W                                                                                                          |
| <b>CLOSING DELAY VIA<br/>SPRING RELEASE</b>                                | 30 ms                                                                                                          |
| <b>ELECTRICAL<br/>CONNECTION TYPE OF<br/>MAIN CIRCUIT</b>                  | Rail connection                                                                                                |
| <b>NUMBER OF STANDARD<br/>MECHANICAL<br/>OPERATIONS PER HOUR -<br/>MAX</b> | 60                                                                                                             |
| <b>OPERATING SEQUENCE<br/>UP TO 690 V, 50/60 HZ<br/>(IEC/EN 60947)</b>     | 42 kA                                                                                                          |
| <b>UTILIZATION CATEGORY</b>                                                | B                                                                                                              |
| <b>OVERVOLTAGE<br/>CATEGORY</b>                                            | III                                                                                                            |
| <b>POLLUTION DEGREE</b>                                                    | 3                                                                                                              |
| <b>DIRECTION OF<br/>INCOMING SUPPLY</b>                                    | As required                                                                                                    |
| <b>LIFESPAN, ELECTRICAL</b>                                                | 10000 operations<br>(switching capacity)<br>20000 operations<br>(switching cycles ON/OFF,<br>with maintenance) |

## Technical data - mechanical

|                                                                |                                                                                            |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>DEVICE CONSTRUCTION</b>                                     | Built-in device slide-in technique (withdrawable)                                          |
| <b>MOUNTING METHOD</b>                                         | Withdrawable                                                                               |
| <b>DEGREE OF PROTECTION</b>                                    | IP31<br>IP31 with door seals<br>IP55 with protective cover                                 |
| <b>PROTECTION</b>                                              | P measurement                                                                              |
| <b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>     | 2                                                                                          |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b> | 0                                                                                          |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>   | 0                                                                                          |
| <b>POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT</b>         | Back side                                                                                  |
| <b>WEIGHT OF CASSETTE VERSION (4-POLE)</b>                     | 21 kg                                                                                      |
| <b>WEIGHT OF FIXED WITHDRAWABLE VERSION (4-POLE)</b>           | 33 kg                                                                                      |
| <b>ACTUATOR TYPE</b>                                           | Push button                                                                                |
| <b>TERMINAL CAPACITY (COPPER BAR)</b>                          | 5 mm x 100 mm (2x) for withdrawable units (black)                                          |
| <b>LIFESPAN, MECHANICAL</b>                                    | 12500 switching cycles (ON/OFF)<br>25000 operations (switching capacity, with maintenance) |

## Design verification as per IEC/EN 61439 - technical data

|                                                                      |                |
|----------------------------------------------------------------------|----------------|
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 1600 A         |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>                 | 320 W          |
| <b>AMBIENT OPERATING TEMPERATURE DETAILS</b>                         | -20 °C - 70 °C |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                           | -20 °C         |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                           | 70 °C          |
| <b>AMBIENT STORAGE TEMPERATURE - MIN</b>                             | -20 °C         |
| <b>AMBIENT STORAGE TEMPERATURE - MAX</b>                             | 70 °C          |

## Design verification as per IEC/EN 61439

|                                                                                         |                                                                    |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                         |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                         |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                         |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                         |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | Meets the product standard's requirements.                         |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product standard's requirements.                         |
| <b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>                                          | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                                           | Meets the product standard's requirements.                         |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                                           | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>                           | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>                                | Is the panel builder's responsibility.                             |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                                         | Is the panel builder's responsibility.                             |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                                         | Is the panel builder's responsibility.                             |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                                                 | Is the panel builder's responsibility.                             |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF</b>                                             | Is the panel builder's responsibility.                             |

## Additional information

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| <b>FEATURES</b>     | Complete device with protection unit<br>Motor drive optional |
| <b>FITTED WITH:</b> | Switched-off indicator                                       |

## SPECIAL FEATURES

- Cassette must be separately ordered.
- External IZMX-DTP-PTM-1 voltage measuring module required (1 module is suitable for 16 circuit breakers)
- IZMX-DTP-PTM external voltage measuring module required
- suitable for zone selectivity
- suitable for communication
- with integrated system monitor
- with integrated test possibility
- With graphic LCD display
- optionally fittable by user with comprehensive accessories
- Terminal capacity hint: These are values used in separate switchgear. The actual values will depend on the temperature around the circuit breaker, which is influenced by the ambient temperature, the degree of protection (IP), the mounting height, the partitions, and any external ventilation. Depending on the specific switchgear design, this may

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## INSULATING MATERIAL

### 10.10 TEMPERATURE RISE

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

### 10.11 SHORT-CIRCUIT RATING

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

### 10.12 ELECTROMAGNETIC COMPATIBILITY

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

### 10.13 MECHANICAL FUNCTION

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

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result in derating, which can then be compensated for by increasing the cross-sectional area. Temperature rise tests in the specific switchgear can provide specific and detailed information.

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## Resources

### CATALOGUES

[eaton-acb-izm63-catalog-ca0135003en-en-us.pdf](#)

### DECLARATIONS OF CONFORMITY

[DA-DC-03\\_IZMX16\\_111017](#)

[DA-DC-03\\_IZMX16](#)

### DRAWINGS

[eaton-circuit-breaker-mounting-izm-x-inx-mccb-dimensions.eps](#)

[eaton-circuit-breaker-izm-x-inx-mccb-dimensions-012.eps](#)

[eaton-circuit-breaker-mounting-izm-x-inx-mccb-dimensions-002.eps](#)

### ECAD MODEL

[DA-CE-ETN.IZMX16H4-P16W-1](#)

### INSTALLATION VIDEOS

[Air Circuit Breakers Series IZMX](#)

### MANUALS AND USER GUIDES

[MN013001\\_EN](#)

### MCAD MODEL

[DA-CD-izm-x16\\_4pol\\_w](#)

[DA-CS-izm-x16\\_4pol\\_w](#)

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|-----------------|
| PROJECT NAME:   |
| PROJECT NUMBER: |
| PREPARED BY:    |
| DATE:           |



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