# DATASHEET - IZMX40H3-P20F-1

**Circuit-breaker, 3 pole, 2000A, 105 kA, P measurement, IEC, Fixed**

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| **Part no.** | **IZMX40H3-P20F-1** |
| | **183638** |
| **EL Number (Norway)** | **4398175** |

## General specifications

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|---|---|
| Product name | Eaton Moeller series IZMX/INX circuit-breaker |
| Part no. | IZMX40H3-P20F-1 |
| EAN | 4015081793747 |
| Product Length/Depth | 584 millimetre |
| Product height | 597 millimetre |
| Product width | 521 millimetre |
| Product weight | 45 kilogram |
| Compliances | RoHS conform<br>IEC/EN 60947<br>IEC |
| Product Tradename | IZMX/INX |
| Product Type | Circuit-breaker |
| Product Sub Type | None |

## Delivery program

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| Type | Open circuit breaker<br>Air circuit breakers/switch-disconnector |
| Number of poles | Three-pole |
| Amperage Rating | 2000 A |
| Release system | Electronic release |
| Features | Motor drive optional<br>Complete device with protection unit |
| Special features | 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 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.<br>optionally fittable by user with comprehensive accessories<br>With graphic LCD display<br>with integrated test possibility<br>with integrated system monitor<br>suitable for communication<br>suitable for zone selectivity<br>External IZMX-DTP-PTM-1 voltage measuring module required (1 module is suitable for 16 circuit breakers) |
| Frame | IZMX40 |
| Fitted with: | Switched-off indicator |
| Used with | Open circuit breaker<br>Air circuit breakers/switch-disconnector |

## Technical Data - Electrical

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|---|---|
| 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) | 2000 A |
| Rated uninterrupted current (Iu) at 50°C | 2000 A |
| Rated uninterrupted current (Iu) at 60°C | 2000 A |
| Rated uninterrupted current (Iu) at 70°C | 2000 A |
| Rated short-time withstand current (t = 1 s) | 85 kA |
| Rated short-time withstand current at 50/60 Hz (t = 3 s) | 66 kA |
| Overload release current setting - min | 800 A |
| Overload release current setting - max | 2000 A |

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| Short-circuit release delayed setting - min | 1500 A |
| Short-circuit release delayed setting - max | 20000 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 | 30000 A |
| Adjustment range short-term delayed short-circuit release - min | 1200 A |
| Adjustment range short-term delayed short-circuit release - max | 20000 A |
| Adjustment range undelayed short-circuit release - min | 4000 A |
| Adjustment range undelayed short-circuit release - max | 30000 A |
| Rated short-circuit breaking capacity at 400 V, 50 Hz | 105 kA |
| Rated short-circuit making capacity up to 440 V, 50/60 Hz | 231 kA |
| Rated short-circuit making capacity up to 690 V, 50/60 Hz | 166 kA |
| Closing delay via spring release | 35 ms |
| Electrical connection type of main circuit | Rail connection |
| Number of standard mechanical operations per hour - max | 60 |
| Operating sequence up to 690 V, 50/60 Hz (IEC/EN 60947) | 85 kA |
| Actuator type | Push button |
| Utilization category | B |
| Overvoltage category | III |
| Pollution degree | 3 |
| Lifespan, electrical | 16000 operations (switching cycles ON/OFF, with maintenance)<br>8000 operations (switching capacity) |
| Direction of incoming supply | As required |
| **Technical Data - Mechanical** | |
| Device construction | Built-in device fixed built-in technique |
| Mounting Method | Fixed |
| Degree of protection | IP31<br>IP55 with protective cover<br>IP31 with door seals |
| Protection | P measurement |
| Number of auxiliary contacts (change-over contacts) | 2 |
| Number of auxiliary contacts (normally closed contacts) | 0 |
| Number of auxiliary contacts (normally open contacts) | 0 |
| Position of connection for main current circuit | Back side |
| Weight of fixed mounting version (3-pole) | 43 kg |
| Lifespan, mechanical | 10000 switching cycles (ON/OFF)<br>20000 operations (switching capacity, with maintenance) |
| **Technical Data - Mechanical - Terminals** | |
| Terminal capacity (copper bar) | 80 mm x 10 mm (2x) for fixed mounting (black) |
| **Design verification as per IEC/EN 61439 - technical data** | |
| Rated operational current for specified heat dissipation (In) | 2000 A |
| Equipment heat dissipation, current-dependent | 150 W |
| Heat dissipation at rated current with fixed mounting | 150 W |
| Ambient operating temperature details | -20 °C - 70 °C |
| Ambient operating temperature - min | -20 °C |
| Ambient operating temperature - max | 70 °C |
| Ambient storage temperature - min | -20 °C |
| Ambient storage temperature - max | 70 °C |
| **Design verification as per IEC/EN 61439** | |
| 10.2.2 Corrosion resistance | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | Meets the product standard's requirements. |
| 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | Meets the product standard's requirements. |
| 10.2.5 Lifting | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | Does not apply, since the entire switchgear needs to be evaluated. |

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| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of assemblies | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 10.9.2 Power-frequency electric strength | | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | | Is the panel builder's responsibility. |
| 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. |

## Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss13-27-37-04-09 [AJZ716018])

| | | | |
|---|---|---|---|
| Rated permanent current Iu | | A | 2000 |
| Rated voltage | | V | 690 - 690 |
| Rated short-circuit breaking capacity Icu at 400 V, 50 Hz | | kA | 105 |
| Overload release current setting | | A | 800 - 2000 |
| Adjustment range short-term delayed short-circuit release | | A | 1200 - 20000 |
| Adjustment range undelayed short-circuit release | | A | 4000 - 30000 |
| Power loss | | W | 150 |
| Device construction | | | Built-in device fixed built-in technique |
| Integrated earth fault protection | | | No |
| Type of electrical connection of main circuit | | | Rail connection |
| Suitable for DIN rail (top hat rail) mounting | | | No |
| DIN rail (top hat rail) mounting optional | | | No |
| Number of auxiliary contacts as normally closed contact | | | 0 |
| Number of auxiliary contacts as normally open contact | | | 0 |
| Number of auxiliary contacts as change-over contact | | | 2 |
| With switched-off indicator | | | Yes |
| With integrated under voltage release | | | No |
| Number of poles | | | 3 |
| Position of connection for main current circuit | | | Back side |
| Type of control element | | | Push button |
| Complete device with protection unit | | | Yes |
| Motor drive integrated | | | No |
| Motor drive optional | | | Yes |
| Degree of protection (IP) | | | IP31 |


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