# DATASHEET - INX40N4-20W-1

**Switch-disconnector, 4 pole, 2000A, without protection, IEC, Withdrawable**

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|---|---|
| **Part no.** | **INX40N4-20W-1** |
| | **184100** |
| **EL Number (Norway)** | **4398463** |

## General specifications

| | |
|---|---|
| Product name | Eaton Moeller series IZMX/INX switch-disconnector |
| Part no. | INX40N4-20W-1 |
| EAN | 4015081796397 |
| Product Length/Depth | 584 millimetre |
| Product height | 597 millimetre |
| Product width | 521 millimetre |
| Product weight | 86 kilogram |
| Compliances | IEC/EN 60947<br>IEC<br>RoHS conform |
| Product Tradename | IZMX/INX |
| Product Type | Switch-disconnector |
| Product Sub Type | None |

## Delivery program

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|---|---|
| Type | Air circuit breakers/switch-disconnector<br>Open switch-disconnector |
| Number of poles | Four-pole |
| Amperage Rating | 2000 A |
| Release system | Without releases |
| Features | Motor drive optional<br>Version as main switch<br>Version as maintenance-/service switch |
| Special features | Cassette must be separately ordered.<br>Optionally fittable by user with comprehensive accessories<br>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. |
| Frame | INX40 |
| Suitable for | Ground mounting<br>Distribution board installation<br>Intermediate mounting |
| Used with | Open switch-disconnector<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 operating voltage (Ue) at AC - 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 conditional short-circuit current (Iq) | 187 kA |
| Rated permanent current at AC-21, 400 V | 0 A |
| Rated permanent current at AC-23, 400 V | 2000 A |
| Rated short-time withstand current (Icw) | 85 kA |

| | |
|---|---|
| Rated short-time withstand current (t = 1 s) | 85 kA |
| Rated short-time withstand current at 50/60 Hz (t = 3 s) | 66 kA |
| Rated short-circuit making capacity up to 440 V, 50/60 Hz | 187 kA |
| Rated short-circuit making capacity up to 690 V, 50/60 Hz | 166 kA |
| Power of withdrawable switch with cassette | 220 W |
| Rated operating power at AC-3, 400 V | 0 kW |
| Rated operating power at AC-23, 400 V | 0 kW |
| Switching power at 400 V | 0 kW |
| Closing delay via spring release | 35 ms |
| Electrical connection type of main circuit | Rail connection |
| Number of standard mechanical operations per hour - max | 60 |
| 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 slide-in technique (withdrawable) |
| Mounting Method | Withdrawable |
| Degree of protection | IP55 with protective cover<br>IP31 with door seals |
| Degree of protection (front side) | IP31 |
| Protection | None |
| Number of auxiliary contacts (change-over contacts) | 2 |
| Number of auxiliary contacts (normally closed contacts) | 0 |
| Number of auxiliary contacts (normally open contacts) | 0 |
| Number of switches | 1 |
| Position of connection for main current circuit | Back side |
| Weight of cassette version (4-pole) | 35 kg |
| Weight of fixed withdrawable version (4-pole) | 82 kg |
| Actuator color | Green |
| Lifespan, mechanical | 10000 switching cycles (ON/OFF)<br>20000 operations (switching capacity, with maintenance) |

## Technical Data - Mechanical - Terminals

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|---|---|
| Terminal capacity (copper bar) | 80 mm x 10 mm (2x) for withdrawable units (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 | 220 W |
| Ambient operating temperature details | -20 °C - 70 °C |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 70 °C |
| Ambient storage temperature - min | -40 °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. |
| 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. |

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|---|---|---|---|
| 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. |

## Additional information

| | | | |
|---|---|---|---|
| Functions | | | Interlockable<br>Voltage release optional |

# Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Switch disconnector (low voltage) (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

| | | | |
|---|---|---|---|
| Version as main switch | | | Yes |
| Version as maintenance-/service switch | | | Yes |
| Version as safety switch | | | No |
| Version as emergency stop installation | | | No |
| Version as reversing switch | | | No |
| Number of switches | | | 1 |
| Max. rated operation voltage Ue AC | | V | 690 |
| Rated operating voltage | | V | 690 - 690 |
| Rated permanent current Iu | | A | 2000 |
| Rated permanent current at AC-23, 400 V | | A | 2000 |
| Rated permanent current at AC-21, 400 V | | A | 0 |
| Rated operation power at AC-3, 400 V | | kW | 0 |
| Rated short-time withstand current Icw | | kA | 85 |
| Rated operation power at AC-23, 400 V | | kW | 0 |
| Switching power at 400 V | | kW | 0 |
| Conditioned rated short-circuit current Iq | | kA | 187 |
| Number of poles | | | 4 |
| 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 |
| Motor drive optional | | | Yes |
| Motor drive integrated | | | No |
| Voltage release optional | | | Yes |
| Device construction | | | Built-in device slide-in technique (withdrawable) |
| Suitable for floor mounting | | | Yes |
| Suitable for front mounting 4-hole | | | No |
| Suitable for front mounting centre | | | No |
| Suitable for distribution board installation | | | Yes |
| Suitable for intermediate mounting | | | Yes |
| Colour control element | | | Green |
| Type of control element | | | Push button |
| Interlockable | | | Yes |
| Type of electrical connection of main circuit | | | Rail connection |
| With pre-assembled cabling | | | No |

| | | | |
|---|---|---|---|
| Degree of protection (IP), front side | | | IP31 |
| Degree of protection (NEMA) | | | |
| Width | | mm | 521 |
| Height | | mm | 597 |
| Depth | | mm | 584 |
| Width in number of modular spacings | | | 30 |


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