





Circuit-breaker, 3 pole, 3200A, 85 kA, P measurement, IEC, Fixed



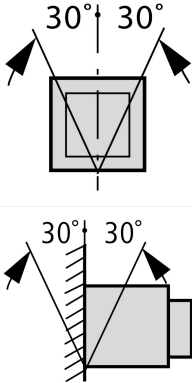
**Part no.** IZMX40N3-P32F-1  
**Catalog No.** 183632  
**EL-Nummer (Norway)** 4398169

**Delivery program**

|  |                             |    |   |
|--|-----------------------------|----|---|
| Product range  |                             |    | Air circuit-breakers/switch-disconnectors   |
| Product range  |                             |    | Open circuit-breakers   |
| Current Range  |                             |    | Up to 4000 A  |
| Protective function  |                             |    | P measurement   |
| Installation type  |                             |    | Fixed   |
| Construction size  |                             |    | IZMX40  |
| Release system   |                             |    | Electronic release  |
| Standard/Approval  |                             |    | IEC   |
| Number of poles  |                             |    | 3 pole  |
| Degree of Protection   |                             |    | IP31 with door seals, IP55 with protective cover  |
|  |                             |    | suitable for zone selectivity<br>suitable for communication<br>with integrated system monitor<br>with integrated test possibility<br>With graphic LCD display<br>optionally fittable by user with comprehensive accessories |
| Rated current = rated uninterrupted current  | $I_n = I_u$                 | A  | 3200  |
| up to 440 V 50/60 Hz   | $I_{cu}$                    | kA | 85  |
| up to 440 V 50/60 Hz   | $I_{cs}$                    | kA | 85  |
| Overload release, min.   | $I_r$                       | A  | 1280  |
| Overload release, max.   | $I_r$                       | A  | 3200  |
| Non-delayed  | $I_i = I_n \times \dots$    |    | 2 - 15, OFF   |
|  |                             |    |   |
| Delayed  | $I_{sd} = I_r \times \dots$ |    | 1,5 - 10  |
|  |                             |    |   |

**Technical data**

**General**

|                              |   |    |  |
|------------------------------|---|----|--|
| Standards                    |   |    | IEC/EN 60947   |
| Ambient temperature          |   |    |  |
| Storage                      | θ | °C | -20 - +70  |
| Ambient temperature          |   | °C | -20 - +70  |
| Mounting position            |   |    |  |
| Utilization category         |   |    | B  |
| Degree of Protection         |   |    | IP31 with door seals, IP55 with protective cover                                     |
| Direction of incoming supply |   |    | as required  |

## Main conducting paths

|   |             |      |       |
|---|-------------|------|-------|
| Rated current = rated uninterrupted current | $I_n = I_u$ | A    | 3200  |
| Rated uninterrupted current at 50 °C        | $I_u$       | A    | 3200  |
| Rated uninterrupted current at 60 °C        | $I_u$       | A    | 3200  |
| Rated uninterrupted current at 70 °C        | $I_u$       | A    | 3200  |
| Rated impulse withstand voltage             | $U_{imp}$   | V AC | 12000 |
| Rated operational voltage                   | $U_e$       | V AC | 690   |
| Use in IT electrical power networks up to   | U           | V    | 440   |
| Overvoltage category/pollution degree       |             |      | III/3 |
| Rated insulation voltage                    | $U_i$       | V    | 1000  |

## Switching capacity

|   |                           |    |       |
|---|---------------------------|----|-------|
| Rated short-circuit making capacity   | $I_{cm}$                  |    |       |
| up to 440 V 50/60 Hz  | $I_{cm}$                  | kA | 187   |
| up to 690 V 50/60 Hz  | $I_{cm}$                  | kA | 166   |
| Rated short-time withstand current 50/60 Hz   |                           |    |       |
| t = 1 s   | $I_{cw}$                  | kA | 85    |
| t = 3 s   | $I_{cw}$                  | kA | 66    |
| Rated short-circuit breaking capacity $I_{cn}$  | $I_{cn}$                  |    |       |
| IEC/EN 60947 operating sequence $I_{cu}$ O-t-CO   |                           |    |       |
| up to 240 V 50/60 Hz  | $I_{cu}$                  | kA | 85    |
| up to 440 V 50/60 Hz  | $I_{cu}$                  | kA | 85    |
| up to 690 V 50/60 Hz  | $I_{cu}$                  | kA | 75    |
| IEC/EN 60947 operating sequence $I_{cs}$ O-t-CO-t-CO                                    |                           |    |       |
| up to 240 V 50/60 Hz  | $I_{cs}$                  | kA | 85    |
| up to 440 V 50/60 Hz  | $I_{cs}$                  | kA | 85    |
| up to 690 V 50/60 Hz  | $I_{cs}$                  | kA | 75    |
| Operating times   |                           |    |       |
| Closing delay via spring release  |                           | ms | 35    |
| Total opening delay via shunt release   |                           | ms | 35    |
| Total opening delay via undervoltage release  |                           | ms | 40    |
| Total opening delay on non-delayed short-circuit release (up to complete arc quenching) |                           | ms | 52    |
| Lifespan  |                           | S  |       |
| Lifespan, mechanical  | Switching cycles (ON/OFF) |    | 10000 |
| Lifespan, mechanical with maintenance   | Switching cycles (ON/OFF) |    | 20000 |
| Lifespan, electrical  | Switching cycles (ON/OFF) |    | 5000  |
| Lifespan, electrical with maintenance   | Switching cycles (ON/OFF) |    | 10000 |
| Maximum operating frequency   | Operations/h              |    | 60    |
| Heat dissipation at rated current $I_n$   |                           |    |       |
| Fixed mounting  |                           | W  | 385   |

## Weight

|                |  |    |    |
|----------------|--|----|----|
| Fixed mounting |  |    |    |
| 3-pole         |  | kg | 45 |

## Terminal capacities

|                |  |    |  |
|----------------|--|----|--|
| Copper bar     |  |    |  |
| Fixed mounting |  |    |  |
| Black          |  | mm | 3 x 80 x 10  |
|                |  |    | 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.  |
|              |  | 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. |
| <b>Notes</b> |  | External IZMX-DTP-PTM-1 voltage measuring module required (1 module is suitable for 16 circuit-breakers)  |

## Design verification as per IEC/EN 61439

| Technical data for design verification   |           |    |  |
|--|-----------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$     | A  | 3200   |
| Equipment heat dissipation, current-dependent  | $P_{vid}$ | W  | 385  |
| Operating ambient temperature min.   |           | °C | -20  |
| Operating ambient temperature max.   |           | °C | 70   |
| IEC/EN 61439 design verification   |           |    |  |
| 10.2 Strength of materials and parts   |           |    |  |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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.   |
| 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 Insulation properties   |           |    |  |
| 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 7.0

| 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 (ec1@ss10.0.1-27-37-04-09 [AJZ716013]) |  |    |  |
| Rated permanent current $I_u$   |  | A  | 3200                                     |
| Rated voltage   |  | V  | 690 - 690                                |
| Rated short-circuit breaking capacity $I_{cu}$ at 400 V, 50 Hz  |  | kA | 85                                       |
| Overload release current setting  |  | A  | 1280 - 3200                              |
| Adjustment range short-term delayed short-circuit release   |  | A  | 1920 - 32000                             |
| Adjustment range undelayed short-circuit release  |  | A  | 6400 - 48000                             |
| Integrated earth fault protection   |  |    | No                                       |
| Type of electrical connection of main circuit   |  |    | Rail connection                          |
| Device construction   |  |    | Built-in device fixed built-in technique |
| 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 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        |

## Dimensions

