Circuit-breaker, 4 pole, 630A, 42 kA, Selective operation, IEC, Withdrawable



Part no. IZMX16B4-V06W-1

183559

**EL Number** 

4398113

| (Norway |
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| (Norway)                                     |   |
|--|---|
| General specifications                       |   |
| Product name                                 | Eaton Moeller series IZMX/INX circuit-breaker   |
| Part no.                                     | IZMX16B4-V06W-1   |
| EAN  | 4015081792955   |
| Product Length/Depth                         | 584 millimetre  |
| Product height                               | 597 millimetre  |
| Product width                                | 521 millimetre  |
| Product weight                               | 32.49 kilogram  |
| Compliances                                  | IEC<br>IEC/EN 60947<br>RoHS conform   |
| Product Tradename                            | IZMX/INX  |
| Product Type                                 | Circuit-breaker   |
| Product Sub Type                             | None  |
| Delivery program                             |   |
| Туре   | Air circuit breakers/switch-disconnector Open circuit breaker   |
| Number of poles                              | Four-pole   |
| Amperage Rating                              | 630 A   |
| Release system                               | Electronic release  |
| Features                                     | Complete device with protection unit<br>Motor drive optional  |
| Special features                             | Cassette must be separately ordered.  Main terminals must be separately ordered. suitable for zone selectivity 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 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  | IZMX16  |
| Fitted with:                                 | Switched-off indicator  |
| Used with                                    | Air circuit breakers/switch-disconnector Open circuit breaker   |
| 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)             | 630 A   |
| Rated uninterrupted current (Iu) at 50°C     | 630 A   |
| Rated uninterrupted current (Iu) at 60°C     | 630 A   |
| Rated uninterrupted current (Iu) at 70°C     | 630 A   |
| Rated short-time withstand current (t = 1 s) | 42 kA   |
| Overload release current setting - min       | 252 A   |
| Overload release current setting - max       | 630 A   |
| Short-circuit release delayed setting - min  | 472.5 A   |
| Short-circuit release delayed setting - max  | 6300 A  |
| Short-circuit release non-delayed setting    | 1.5 - 10 x lr   |

| Short-circuit release non-delayed setting - min   | 0 A  |
|---|--|
| Short-circuit release non-delayed setting - max   | 9450 A   |
| Adjustment range short-term delayed short-circuit release - min   | 378 A  |
| Adjustment range short-term delayed short-circuit release - max   | 6300 A   |
| Adjustment range undelayed short-circuit release - min  | 1260 A   |
| Adjustment range undelayed short-circuit release - max  | 9450 A   |
| Rated short-circuit breaking capacity at 400 V, 50 Hz   | 42 kA  |
| Rated short-circuit breaking capacity up to 440 V, 50/60 Hz   | 88 kA  |
| Rated short-circuit making capacity up to 690 V, 50/60 Hz   | 88 kA  |
| Power of withdrawable switch with cassette  | 50 W   |
| Closing delay via spring release  | 30 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)   | 42 kA  |
| Actuator type   | Push button  |
| Utilization category  | B  |
|   |  |
| Overvoltage category  Pollution degree  | 3  |
| Lifespan, electrical  |  |
| Liicopail, electrical   | 10000 operations (switching capacity) 20000 operations (switching cycles ON/OFF, with maintenance)                                     |
| 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   |
|   | IP31<br>IP31 with door seals   |
| Protection  | Selective operation  |
| 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 cassette version (4-pole)   | 21 kg  |
| Weight of fixed withdrawable version (4-pole)   | 33 kg  |
| Lifespan, mechanical  | 25000 operations (switching capacity, with maintenance) 12500 switching cycles (ON/OFF)  |
| Technical Data - Mechanical - Terminals   |  |
| Terminal capacity (copper bar)  | 5 mm x 50 mm (2x) for withdrawable units (black)   |
| Design verification as per IEC/EN 61439 - technical data  |  |
| Rated operational current for specified heat dissipation (In)   | 630 A  |
| Equipment heat dissipation, current-dependent   | 50 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 diefinal stability of enclosures  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.   |
| 10.2.5 Litting  10.2.6 Mechanical impact  | Does not apply, since the entire switchgear needs to be evaluated.  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.   |
| 10.9.2 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 promanent current lu         A         630           Rated voltage         V         690-690           Rated short-circuit breaking capacity lcu at 400 V,50 Hz         KA         42           Overload release current setting         A         252-630           Adjustment range short-term delayed short-circuit release         A         378-6300           Adjustment range undelayed short-circuit release         A         1280-9450           Power loss         Built-in device slide-in technique (withdrawable)         W           Power loss         No         Seil connection           Power loss         No         No           Power loss         No         No           Power loss         Rail connection         No           Power loss         No         No           Power loss         No         No           Power loss         No         No           Power loss         No         No           Suitable for DIN rail (top hat rail) mounting optional         No         No           Number of auxiliary contacts as normally open contact         Yo         No           Number of auxiliary contacts as change-over contact         Yo         No           With switched-off indicator         Yo         N  |   |    |   |
|--|---|----|---|
| Rated short-circuit breaking capacity Icu at 400 V, 50 Hz         kA         42           Overload release current setting         A         252 - 630           Adjustment range short-term delayed short-circuit release         A         378 - 6300           Adjustment range undelayed short-circuit release         A         1260 - 9450           Power loss         B         Y         50           Device construction         Built-in device slide-in technique (withdrawable)         No           Integrated earth fault protection         No         No           Type of electrical connection of main circuit         No         No           Suitable for DIN rail (top hat rail) mounting optional         No         No           Number of auxiliary contacts as normally closed contact         No         No           Number of auxiliary contacts as normally open contact         No         2           With switched-off indicator         Yes         Yes           With integrated under voltage release         No         No           Number of poles         Yes         No           Position of connection for main current circuit         Yes         No           Virb integrated under voltage release         Yes         No           Nome of ontrol element         Yes         Yes     <  | Rated permanent current lu                                | Α  | 630   |
| Overload release current setting         A         252 - 630           Adjustment range short-term delayed short-circuit release         A         378 - 6300           Adjustment range undelayed short-circuit release         A         1260 - 9450           Power loss         W         50           Device construction         Built-in device slide-in technique (withdrawable)           Integrated earth fault protection         No           Suitable for DIN rail (top hat rail) mounting         M         No           DIN rail (top hat rail) mounting optional         No         No           Number of auxiliary contacts as normally closed contact         No         No           Number of auxiliary contacts as change-over contact         Yes         2           With switched-off indicator         Yes         Yes           With integrated under voltage release         No         No           Number of poles         Yes         A           Position of connection for main current circuit         Yes         Back side           Type of control element         Yes         Yes           Complete device with protection unit         Yes         Yes           Motor drive integrated         Yes         Yes           Motor drive integrated         Yes         Yes  | Rated voltage   | V  | 690 - 690   |
| Adjustment range short-term delayed short-circuit release         A         378 -6300           Adjustment range undelayed short-circuit release         A         1260 -9450           Power loss         W         50           Device construction         Built-in device slide-in technique (withdrawable)           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 open contact         O           Number of auxiliary contacts as change-over contact         Yes           With switched-off indicator         Yes           With integrated under voltage release         No           Number of poles         4           Position of connection for main current circuit         Yes           Type of control element         Push button           Complete device with protection unit         Yes           Motor drive integrated         No           Motor drive optional         Yes  | Rated short-circuit breaking capacity Icu at 400 V, 50 Hz | kA | 42  |
| Adjustment range undelayed short-circuit release Power loss  Device construction Integrated earth fault protection Type of electrical connection of main circuit Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact  With switched-off indicator  With switched-off indicator  With integrated under voltage release Number of poles Number of poles Number of poles Number of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Notor drive integrated Notor drive optional  | Overload release current setting                          | Α  | 252 - 630   |
| Power loss Device construction Integrated earth fault protection Integrated earth fault protection Type of electrical connection of main circuit Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact With switched-off indicator With switched-off indicator With integrated under voltage release Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive integrated Motor drive optional   | Adjustment range short-term delayed short-circuit release | Α  | 378 - 6300  |
| Device construction Integrated earth fault protection Type of electrical connection of main circuit Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Virth switched-off indicator Virth integrated under voltage release Number of poles Number of connection for main current circuit Position of connection for main current circuit Complete device with protection unit Motor drive integrated Motor drive optional  Built-in device slide-in technique (withdrawable) No Rail connection Rail co | Adjustment range undelayed short-circuit release          | Α  | 1260 - 9450                                       |
| Integrated earth fault protection Type of electrical connection of main circuit Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Outline of auxiliary contacts as normally open contact Outline of auxiliary contacts as change-over contact Vith switched-off indicator Vith integrated under voltage release Vith integrated under voltage release Vith integrated under voltage release Vith of connection for main current circuit Specific of connection for main current circuit Vith element Complete device with protection unit Vitor drive integrated Motor drive optional View of control element Vitor of connection for main current circuit Vit | Power loss  | W  | 50  |
| Type of electrical connection of main circuit  Suitable for DIN rail (top hat rail) mounting  DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Vith switched-off indicator  Vith integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional   | Device construction                                       |    | Built-in device slide-in technique (withdrawable) |
| Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Vith switched-off indicator Vith integrated under voltage release With integrated under voltage release No Number of connection for main current circuit Vity of control element Complete device with protection unit Motor drive integrated Motor drive optional No   | Integrated earth fault protection                         |    | No  |
| DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Vith switched-off indicator  With integrated under voltage release  With poles  No  Number of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  No  No  No  No  No  No  No  No  No  N  | Type of electrical connection of main circuit             |    | Rail connection                                   |
| Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Vith switched-off indicator  With switched-off indicator  With integrated under voltage release  No  Number of poles  4  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  O  O  O  Number of auxiliary contacts as normally closed contact  Ves  No  No  Yes  Motor drive optional  | Suitable for DIN rail (top hat rail) mounting             |    | No  |
| Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  With switched-off indicator  With integrated under voltage release  With integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  O  O  O  O  O  O  O  O  O  O  O  O  O  | DIN rail (top hat rail) mounting optional                 |    | No  |
| Number of auxiliary contacts as change-over contact  With switched-off indicator  With integrated under voltage release  With integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  2  Yes  According to the protection of the protection unit of the protecti | Number of auxiliary contacts as normally closed contact   |    | 0   |
| With switched-off indicator  With integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive integrated  Motor drive optional  Yes  Yes  Yes  Yes  No  Yes  Yes  | Number of auxiliary contacts as normally open contact     |    | 0   |
| With integrated under voltage release  No  Number of poles  4  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive optional  No  No  No  No  No  No  No  No  No  Meter drive optional  | Number of auxiliary contacts as change-over contact       |    | 2   |
| Number of poles 4 Position of connection for main current circuit Back side Type of control element Complete device with protection unit Motor drive optional  4 Push button Yes Motor drive optional  4  No  Yes  | With switched-off indicator                               |    | Yes   |
| Position of connection for main current circuit  Type of control element  Complete device with protection unit  Motor drive optional  Back side  Push button  Yes  No  Yes   | With integrated under voltage release                     |    | No  |
| Type of control element  Complete device with protection unit  Motor drive optional  Push button  Yes  No  Yes   | Number of poles   |    | 4   |
| Complete device with protection unit  Yes  Motor drive integrated  No  Motor drive optional  Yes   | Position of connection for main current circuit           |    | Back side   |
| Motor drive integrated No Motor drive optional Yes   | Type of control element                                   |    | Push button                                       |
| Motor drive optional Yes   | Complete device with protection unit                      |    | Yes   |
| ·  | Motor drive integrated                                    |    | No  |
| Degree of protection (IP) IP31   | Motor drive optional                                      |    | Yes   |
|  | Degree of protection (IP)                                 |    | IP31  |