# DATASHEET - PKZM0-0,16-SC

**Motor-protective circuit-breaker, 0.1 - 0.16 A, Screw terminals on feed side/spring-cage terminals on output side**

Powering Business Worldwide™

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| **Part no.** | **PKZM0-0,16-SC** |
| | **229828** |
| **EL Number (Norway)** | **4315180** |

## General specifications

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|---|---|
| Product name | Eaton Moeller® series PKZM0 Motor-protective circuit-breaker |
| Part no. | PKZM0-0,16-SC |
| EAN | 4015082298289 |
| Product Length/Depth | 76 millimetre |
| Product height | 93 millimetre |
| Product width | 45 millimetre |
| Product weight | 0.242 kilogram |
| Compliances | CE Marked |
| Certifications | IEC 60947-4-1<br>UL 508<br>CSA Std. C22.2 No. 14<br>VDE<br>CSA File No.: 165628<br>CSA<br>UL<br>IEC/EN 60947<br>UL 60947-4-1<br>CSA Class No.: 3211-05<br>CSA-C22.2 No. 60947-4-1-14<br>UL File No.: E36332<br>IEC/EN 60947-4-1<br>VDE 0660<br>UL Category Control No.: NLRV<br>CE |
| Product Tradename | PKZM0 |
| Product Type | Motor-protective circuit-breaker |
| Product Sub Type | None |
| Catalog Notes | This item can only be ordered until December 31, 2023 with a maximum delivery date of May 31, 2024. |

## Features & Functions

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| Actuator type | Turn button |
| Features | Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102) |
| Functions | Motor protection<br>Phase failure sensitive |
| Number of poles | Three-pole |

## General information

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| Connection | Screw terminals on feed side<br>Spring-cage terminals on output side |
| Degree of protection | Terminals: IP00<br>IP20 |
| Explosion safety category for dust | ATEX dust-ex-protection, PTB 10, ATEX 3013, Ex II(2) GD |
| Lifespan, electrical | 100,000 operations (at 400V, AC-3) |
| Lifespan, mechanical | 100,000 Operations (Main conducting paths) |
| Mounting position | Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height. |
| Operating frequency | 40 Operations/h |
| Overvoltage category | III |
| Pollution degree | 3 |
| Product category | Motor protective circuit breaker |
| Protection | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| Rated impulse withstand voltage (Uimp) | 6000 V AC |
| Shock resistance | 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |
| Suitable for | Also motors with efficiency class IE3<br>Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) |

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| Temperature compensation | ≤ 0.25 %/K, residual error for T > 40°<br>-25 - 55 °C, Operating range<br>-5 - 40 °C to IEC/EN 60947, VDE 0660 |
| **Climatic environmental conditions** | |
| Altitude | Max. 2000 m |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 55 °C |
| Ambient operating temperature (enclosed) - min | 25 °C |
| Ambient operating temperature (enclosed) - max | 40 °C |
| Ambient storage temperature - min | 40 °C |
| Ambient storage temperature - max | 80 °C |
| Climatic proofing | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| **Terminal capacities** | |
| Terminal capacity (flexible with ferrule) | 2 x (1 - 6) $mm^2$, ferrule to DIN 46228, Screw terminals<br>1 x (1 - 6) $mm^2$, ferrule to DIN 46228, Screw terminals |
| Terminal capacity (flexible) | 1 x (0.75 - 2.5) $mm^2$, ferrule to DIN 46228, Spring-loaded terminals<br>2 x (0.75 - 2.5) $mm^2$, ferrule to DIN 46228, Spring-loaded terminals |
| Terminal capacity (solid) | 2 x (0.75 - 2.5) $mm^2$, Spring-loaded terminals<br>1 x (0.75 - 2.5) $mm^2$, Spring-loaded terminals |
| Terminal capacity (solid/stranded AWG) | 18 - 14 |
| Stripping length (main cable) | 10 mm |
| Tightening torque | 1.7 Nm, Screw terminals, Main cable<br>1 Nm, Screw terminals, Control circuit cables |
| **Electrical rating** | |
| Rated frequency - min | 50 Hz |
| Rated frequency - max | 60 Hz |
| Rated operational current (Ie) | 0.16 A |
| Rated operational power at AC-3, 220/230 V, 50 Hz | 0 kW |
| Rated operational power at AC-3, 380/400 V, 50 Hz | 0 kW |
| Rated operational power at AC-3, 690 V, 50 Hz | 0.06 kW |
| Rated operational voltage (Ue) - min | 690 V |
| Rated operational voltage (Ue) - max | 690 V |
| Rated uninterrupted current (Iu) | 0.16 A |
| **Short-circuit rating** | |
| Rated short-circuit breaking capacity Icu at 400 V AC | 150 kA |
| Short-circuit current | 60 kA DC, up to 250 V DC, Main conducting paths |
| Short-circuit current rating (group protection) | 600 A, 600 V High Fault, max. CB, SCCR (UL/CSA)<br>50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA)<br>600 A, 600 V High Fault, max. Fuse, SCCR (UL/CSA)<br>50 kA, 600 V High Fault, CB, SCCR (UL/CSA) |
| Short-circuit current rating (type E) | 65 kA, 240 V, SCCR (UL/CSA)<br>Accessories required BK25/3-PKZ0-E<br>65 kA, 480 Y/277 V, SCCR (UL/CSA)<br>50 kA, 600 Y/347 V, SCCR (UL/CSA) |
| Short-circuit release | 2.5 A, Irm, Setting range max.<br>Basic device fixed 15.5 x Iu, Trip Blocks<br>± 20% tolerance, Trip blocks |
| **Switching capacity** | |
| Switching capacity | 0.16 A, AC-3 up to 690 V<br>0.16 A (3 contacts in series), DC-5 up to 250V |
| **Trip blocks** | |
| Overload release current setting - min | 0.1 A |
| Overload release current setting - max | 0.16 A |
| Tripping characteristic | Overload trigger: tripping class 10 A |
| **Design verification** | |
| Equipment heat dissipation, current-dependent Pvid | 5.39 W |
| Heat dissipation capacity Pdiss | 0 W |
| Heat dissipation per pole, current-dependent Pvid | 1.8 W |
| Rated operational current for specified heat dissipation (In) | 0.16 A |
| Static heat dissipation, non-current-dependent Pvs | 0 W |

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| 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. |
| 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

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| Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074) | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss13-27-37-04-01 [AGZ529021]) | | |
| Overload release current setting | A | 0.1 - 0.16 |
| Adjustment range undelayed short-circuit release | A | 2.5 - 2.5 |
| With thermal overload protection | | No |
| Phase failure sensitive | | Yes |
| Switch off technique | | Thermomagnetic |
| Rated operating voltage | V | 690 - 690 |
| Rated permanent current Iu | A | 0.16 |
| Rated operation power at AC-3, 230 V | kW | 0 |
| Rated operation power at AC-3, 400 V | kW | 0 |
| Power loss | W | 5.39 |
| Type of electrical connection of main circuit | | Screw connection |
| Type of control element | | Turn button |
| Device construction | | Built-in device fixed built-in technique |
| With integrated auxiliary switch | | No |
| With integrated under voltage release | | No |
| Number of poles | | 3 |
| Rated short-circuit breaking capacity Icu at 400 V, AC | kA | 150 |
| Degree of protection (IP) | | IP20 |
| Height | mm | 93 |
| Width | mm | 45 |
| Depth | mm | 76 |