

Eaton 199169

Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker, 1.6 - 2.5 A, Push in terminals

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| PRODUCT NAME | Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker |
| CATALOG NUMBER | 199169 |
| PRODUCT LENGTH/DEPTH | 75 mm |
| PRODUCT HEIGHT | 109 mm |
| PRODUCT WIDTH | 45 mm |
| PRODUCT WEIGHT | 0.335 kg |
| CERTIFICATIONS | IEC/EN 60947 VDE 0660 CE UL CSA IEC/EN 60947-4-1 CSA Class No.: 3211-05 CSA File No.: 165628 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 UL Category Control No.: NLRV UL File No.: E36332 |

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| FEATURES | Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102) |
| 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. |
| 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. |

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| MCAD MODEL | eaton-motor-protective-circuit-breakers-mcad-3d-models-pkzm0-pi.stp |
| | motorschutzschalter_bis_32a_pi.dwg |
| | IL122024ZU |
| | eaton-manual-motor-starters-pkzm-pkzm0-dimensions.eps |

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| 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. |
| OPERATING FREQUENCY | 40 Operations/h |
| POLLUTION DEGREE | 3 |
| MOUNTING METHOD | DIN rail (top hat rail) mounting optional |
| CLIMATIC PROOFING | Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| ACTUATOR TYPE | Turn button |
| TRIPPING CHARACTERISTIC | Overload trigger: tripping class 10 A |
| ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MAX | 0 A |
| ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MIN | 0 A |
| ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX | 50 A |
| ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN | 50 A |

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| AMBIENT OPERATING TEMPERATURE - MAX | 55 °C |
| AMBIENT OPERATING TEMPERATURE - MIN | -25 °C |
| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX | 40 °C |
| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN | -25 °C |
| AMBIENT STORAGE TEMPERATURE - MAX | 80 °C |
| AMBIENT STORAGE TEMPERATURE - MIN | -40 °C |
| ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE | 0.5 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE | 0.17 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE | 0.5 HP |
| ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE | 1 HP |
| ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE | 1.5 HP |
| EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID | 5.16 W |
| HEAT DISSIPATION CAPACITY PDISS | 0 W |
| HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID | 1.7 W |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) | 6000 V AC |
| ALTITUDE | Max. 2000 m |
| DEVICE CONSTRUCTION | Built-in device fixed built-in technique |
| CONNECTION | Push in terminals |
| ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT | Spring clamp connection |
| MOUNTING POSITION | Can be snapped on to IEC/EN 60715 top-hat rail |

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| | with 7.5 or 15 mm height. |
| LIFESPAN, MECHANICAL | 100,000 Operations |
| OVERVOLTAGE CATEGORY | III |
| DEGREE OF PROTECTION | IP20 |
| NUMBER OF POLES | Three-pole |
| LIFESPAN, ELECTRICAL | 100,000 operations |
| SHOCK RESISTANCE | 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |
| FUNCTIONS | For the protection of transformers with a high inrush current Transformer protection |
| TERMINAL CAPACITY (SOLID/STRANDED AWG) | 18 - 8 |
| POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT | Other |
| SWITCHING CAPACITY | 2.5 A, AC-3 up to 690 V |
| NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS) | 0 |
| NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS) | 0 |
| NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS) | 0 |
| OVERLOAD RELEASE CURRENT SETTING - MAX | 2.5 A |
| OVERLOAD RELEASE CURRENT SETTING - MIN | 1.6 A |
| RATED FREQUENCY - MAX | 60 Hz |
| RATED FREQUENCY - MIN | 50 Hz |
| RATED OPERATIONAL VOLTAGE (UE) - MAX | 690 V |
| RATED OPERATIONAL VOLTAGE (UE) - MIN | 690 V |
| RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) | 2.5 A |
| RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ | 0.37 kW |
| RATED OPERATIONAL | 0.75 kW |

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| POWER AT AC-3E, 380/400 V, 50 HZ | |
| RATED UNINTERRUPTED CURRENT (IU) | 2.5 A |
| STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS | 0 W |
| STRIPPING LENGTH (MAIN CABLE) | 12 mm |
| PRODUCT CATEGORY | Transformer protective circuit breaker |
| PROTECTION | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ | 1.1 kW |
| RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 HZ | 1.1 kW |
| RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 HZ | 1.5 kW |
| TERMINAL CAPACITY (FLEXIBLE WITH UNISOLATED FERRULE) | 1 x (1 - 6) mm ² 2 x (1 - 6) mm ² |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 500 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 500 V AC | 150 kA |
| RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 690 V AC | 5 kA |

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| RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 690 V AC | 5 kA |
| TERMINAL CAPACITY (FLEXIBLE WITH ULTRASONIC WELDED CABLE END) | 1 x (1 - 10) mm ² 2 x (1 - 6) mm ² |
| SUITABLE FOR | Also motors with efficiency class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) |
| SHORT-CIRCUIT RELEASE | Basic device, fixed 20 x I _u ± 20% tolerance 50 A, I _{rm} |
| TERMINAL CAPACITY (SOLID) | 1 x (1 - 6) mm ² , Push-in terminals 2 x (1 - 6) mm ² , Push-in terminals 1 x (1 - 6) mm ² 2 x (1 - 6) mm ² |
| RATED OPERATIONAL CURRENT (IE) | 2.5 A |
| TEMPERATURE COMPENSATION | -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660 |
| SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION) | 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) |
| SWITCH OFF TECHNIQUE | Thermomagnetic |
| TERMINAL CAPACITY (FLEXIBLE WITH FERRULE) | 1 x (1 - 6) mm ² , Push-in terminals, ferrule to DIN 46228-1 2 x (1 - 6) mm ² , Push-in terminals, ferrule to DIN 46228-1 1 x (1 - 6) mm ² , Push-in terminals, ferrule to DIN 46228-4 2 x (1 - 4) mm ² , Push-in terminals, ferrule to DIN 46228-4 |
| TERMINAL CAPACITY | 1 x (1 - 6) mm ² , Push-in |

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| (FLEXIBLE) | terminals |
| | 2 x (1 - 6) mm ² , Push-in |
| | terminals |
| | 1 x (1 - 6) mm ² |
| | 2 x (1 - 6) mm ² |
| POWER LOSS | 4.71 W |

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

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