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## Eaton 278479

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 440 V: 0.25 kW, I<sub>r</sub> = 0.63 - 1 A, IP20

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| <b>PRODUCT NAME</b>         | Eaton Moeller® series PKZM01 Motor-protective circuit-breaker                                                                                                                                                           |
| <b>CATALOG NUMBER</b>       | 278479                                                                                                                                                                                                                  |
| <b>PRODUCT LENGTH/DEPTH</b> | 93 mm                                                                                                                                                                                                                   |
| <b>PRODUCT HEIGHT</b>       | 90 mm                                                                                                                                                                                                                   |
| <b>PRODUCT WIDTH</b>        | 45 mm                                                                                                                                                                                                                   |
| <b>PRODUCT WEIGHT</b>       | 0.261 kg                                                                                                                                                                                                                |
| <b>CERTIFICATIONS</b>       | UL<br>UL File No.: E36332<br>CE<br>CSA Class No.: 3211-05<br>VDE 0660<br>CSA File No.: 165628<br>IEC/EN 60947<br>UL Category Control No.: NLRV<br>CSA<br>UL 60947-4-1<br>IEC/EN 60947-4-1<br>CSA-C22.2 No. 60947-4-1-14 |

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| <b>FEATURES</b>                                                                         | Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)                                                     |
| <b>10.10 TEMPERATURE RISE</b>                                                           | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| <b>10.11 SHORT-CIRCUIT RATING</b>                                                       | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>                                              | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.13 MECHANICAL FUNCTION</b>                                                        | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                                                                                       |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | Meets the product standard's requirements.                                                                                       |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product standard's requirements.                                                                                       |
| <b>10.3 DEGREE OF PROTECTION OF</b>                                                     | Does not apply, since the entire switchgear needs to                                                                             |

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| <b>CHARACTERISTIC CURVE</b>       | <a href="#">eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps</a><br><a href="#">eaton-manual-motor-starters-characteristic-characteristic-curve-005.eps</a> |
| <b>DECLARATIONS OF CONFORMITY</b> | <a href="#">eaton-motor-protective-circuit-breaker-declaration-of-conformity-uk251175en.pdf</a>                                                                                    |
|                                   | <a href="#">IL03402034Z</a>                                                                                                                                                        |
| □□□□□                             | <a href="#">IL03407011Z.pdf</a><br><a href="#">IL122012ZU</a>                                                                                                                      |

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| <b>ASSEMBLIES</b>                                               | be evaluated.                                                                  |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                   | Meets the product standard's requirements.                                     |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>        | Is the panel builder's responsibility.                                         |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                         | Is the panel builder's responsibility.                                         |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b> | Is the panel builder's responsibility.                                         |
| <b>OPERATING FREQUENCY</b>                                      | 25 Operations/h                                                                |
| <b>POLLUTION DEGREE</b>                                         | 3                                                                              |
| <b>LIFESPAN, MECHANICAL</b>                                     | 50,000 Operations (Main conducting paths)                                      |
| <b>CLIMATIC PROOFING</b>                                        | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| <b>ACTUATOR TYPE</b>                                            | Push button                                                                    |
| <b>TRIPPING CHARACTERISTIC</b>                                  | Overload trigger: tripping class 10 A                                          |
| <b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX</b>   | 15.5 A                                                                         |
| <b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN</b>   | 15.5 A                                                                         |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 55 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                      | -25 °C                                                                         |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>           | 40 °C                                                                          |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>           | -25 °C                                                                         |
| <b>AMBIENT STORAGE TEMPERATURE - MAX</b>                        | 80 °C                                                                          |

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| <b>AMBIENT STORAGE TEMPERATURE - MIN</b>                  | -40 °C                                                                        |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b> | 5.33 W                                                                        |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                    | 0 W                                                                           |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>  | 1.78 W                                                                        |
| <b>INTERNAL RESISTANCE</b>                                | 1700 mΩ                                                                       |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>             | 6000 V AC                                                                     |
| <b>ALTITUDE</b>                                           | Max. 2000 m                                                                   |
| <b>DEVICE CONSTRUCTION</b>                                | Built-in device fixed built-in technique                                      |
| <b>CONNECTION</b>                                         | Screw terminals                                                               |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>         | Screw connection                                                              |
| <b>MOUNTING POSITION</b>                                  | Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.      |
| <b>OVERVOLTAGE CATEGORY</b>                               | III                                                                           |
| <b>DEGREE OF PROTECTION</b>                               | Terminals: IP00<br>IP20                                                       |
| <b>NUMBER OF POLES</b>                                    | Three-pole                                                                    |
| <b>LIFESPAN, ELECTRICAL</b>                               | 50,000 operations (at 400V, AC-3)                                             |
| <b>SHOCK RESISTANCE</b>                                   | 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms |
| <b>FUNCTIONS</b>                                          | Phase failure sensitive<br>Motor protection                                   |
| <b>SWITCHING CAPACITY</b>                                 | 1 A (3 contacts in series),<br>DC-5 up to 250V<br>1 A, AC-3 up to 440 V       |
| <b>OVERLOAD RELEASE CURRENT SETTING - MAX</b>             | 1 A                                                                           |
| <b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>             | 0.63 A                                                                        |
| <b>RATED FREQUENCY - MAX</b>                              | 60 Hz                                                                         |
| <b>RATED FREQUENCY - MIN</b>                              | 50 Hz                                                                         |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>               | 440 V                                                                         |
| <b>RATED OPERATIONAL</b>                                  | 440 V                                                                         |

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| <b>VOLTAGE (UE) - MIN</b>                                            |                                                                                                                                             |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 1 A                                                                                                                                         |
| <b>RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ</b>            | 0.12 kW                                                                                                                                     |
| <b>RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ</b>            | 0.25 kW                                                                                                                                     |
| <b>RATED UNINTERRUPTED CURRENT (IU)</b>                              | 1 A                                                                                                                                         |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>            | 0 W                                                                                                                                         |
| <b>STRIPPING LENGTH (MAIN CABLE)</b>                                 | 10 mm                                                                                                                                       |
| <b>PRODUCT CATEGORY</b>                                              | Motor protective circuit breaker                                                                                                            |
| <b>PROTECTION</b>                                                    | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)                                        |
| <b>RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ</b>                | 0.25 kW                                                                                                                                     |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC</b>         | 50 kA                                                                                                                                       |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC</b>         | 50 kA                                                                                                                                       |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC</b>         | 50 kA                                                                                                                                       |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC</b>         | 50 kA                                                                                                                                       |
| <b>SUITABLE FOR</b>                                                  | Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)<br>Also motors with efficiency class IE3 |
| <b>SHORT-CIRCUIT RELEASE</b>                                         | Basic device fixed 15.5 x Iu<br>± 20% tolerance<br>15.5 A, I <sub>rm</sub>                                                                  |
| <b>TERMINAL CAPACITY (SOLID)</b>                                     | 1 x (1 - 6) mm <sup>2</sup><br>2 x (1 - 6) mm <sup>2</sup>                                                                                  |

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| RATED OPERATIONAL CURRENT (IE)                  | 1 A                                                                                                                                                                                          |
| TEMPERATURE COMPENSATION                        | ≤ 0.25 %/K, residual error for T > 40°<br>-5 - 40 °C to IEC/EN 60947, VDE 0660<br>-25 - 55 °C, Operating range                                                                               |
| SHORT-CIRCUIT CURRENT                           | 60 kA DC, up to 250 V DC, Main conducting paths                                                                                                                                              |
| 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)<br>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                                                                                                                                                                               |
| POWER LOSS                                      | 5.33 W                                                                                                                                                                                       |

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