

Motor-protective circuit-breaker, 440 V: 0.18 kW, Ir= 0.25 - 0.4 A, IP20

Part no. **PKZM01-0,4**
278477
 EL Number **4365012**
 (Norway)

| General specifications | |
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| Product name | Eaton Moeller® series PKZM01 Motor-protective circuit-breaker |
| Part no. | PKZM01-0,4 |
| EAN | 4015082784775 |
| Product Length/Depth | 93 millimetre |
| Product height | 90 millimetre |
| Product width | 45 millimetre |
| Product weight | 0.259 kilogram |
| Certifications | CE VDE 0660 CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 3211-05 CSA UL 60947-4-1 CSA File No.: 165628 UL UL File No.: E36332 IEC/EN 60947-4-1 IEC/EN 60947 UL Category Control No.: NLRV CSA UL |
| Product Tradename | PKZM01 |
| Product Type | Motor-protective circuit-breaker |
| Product Sub Type | None |
| Catalog Notes | Calculate assigned motor power according to rated current (NEC Table 430-150) IE3-ready devices are identified by the logo on their packaging. |
| Features & Functions | |
| Actuator type | Push button |
| Features | Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102) |
| Functions | Motor protection Phase failure sensitive |
| Number of poles | Three-pole |
| General information | |
| Connection | Screw terminals |
| Degree of protection | IP20 Terminals: IP00 |
| Lifespan, electrical | 50,000 operations (at 400V, AC-3) |
| Lifespan, mechanical | 50,000 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 | 25 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 | Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) Also motors with efficiency class IE3 |
| Temperature compensation | -5 - 40 °C to IEC/EN 60947, VDE 0660 ≤ 0.25 %/K, residual error for T > 40° -25 - 55 °C, Operating range |
| Climatic environmental conditions | |
| Altitude | Max. 2000 m |

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| 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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| Terminal capacities | | |
| Terminal capacity (flexible with ferrule) | | 2 x (1 - 6) mm ² , ferrule to DIN 46228 1 x (1 - 6) mm ² , ferrule to DIN 46228 |
| Terminal capacity (solid) | | 2 x (1 - 6) mm ² 1 x (1 - 6) mm ² |
| Terminal capacity (solid/stranded AWG) | | 18 - 10 |
| Stripping length (main cable) | | 10 mm |
| Tightening torque | | 1.7 Nm, Screw terminals, Main cable |
| Electrical rating | | |
| Rated frequency - min | | 50 Hz |
| Rated frequency - max | | 60 Hz |
| Rated operational current (Ie) | | 0.4 A |
| Rated operational power at AC-3, 220/230 V, 50 Hz | | 0.06 kW |
| Rated operational power at AC-3, 380/400 V, 50 Hz | | 0.09 kW |
| Rated operational power at AC-3, 440 V, 50 Hz | | 0.12 kW |
| Rated operational voltage (Ue) - min | | 690 V |
| Rated operational voltage (Ue) - max | | 690 V |
| Rated uninterrupted current (Iu) | | 0.4 A |
| Short-circuit rating | | |
| Rated short-circuit breaking capacity Icu at 400 V AC | | 50 kA |
| Short-circuit current | | 60 kA DC, up to 250 V DC, Main conducting paths |
| Short-circuit release | | ± 20% tolerance, Trip blocks 6.2 A, I _{rm} , Setting range max. Basic device fixed 15.5 x I _u , Trip Blocks |
| Switching capacity | | |
| Switching capacity | | 0.4 A (3 contacts in series), DC-5 up to 250V 0.4 A, AC-3 up to 440 V |
| Trip blocks | | |
| Overload release current setting - min | | 0.25 A |
| Overload release current setting - max | | 0.4 A |
| Tripping characteristic | | Overload trigger: tripping class 10 A |
| Design verification | | |
| Equipment heat dissipation, current-dependent P _{vid} | | 5.22 W |
| Heat dissipation capacity P _{diss} | | 0 W |
| Heat dissipation per pole, current-dependent P _{vid} | | 1.74 W |
| Rated operational current for specified heat dissipation (I _n) | | 0.4 A |
| Static heat dissipation, non-current-dependent P _{vs} | | 0 W |
| 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. |

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| 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 | 0.25 - 0.4 |
| Adjustment range undelayed short-circuit release | A | 6.2 - 6.2 |
| With thermal overload protection | | No |
| Phase failure sensitive | | Yes |
| Switch off technique | | Thermomagnetic |
| Rated operating voltage | V | 690 - 690 |
| Rated permanent current I _u | A | 0.4 |
| Rated operation power at AC-3, 230 V | kW | 0.06 |
| Rated operation power at AC-3, 400 V | kW | 0.09 |
| Power loss | W | 5.22 |
| Type of electrical connection of main circuit | | Screw connection |
| Type of control element | | Push 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 I _{cu} at 400 V, AC | kA | 50 |
| Degree of protection (IP) | | IP20 |
| Height | mm | 90 |
| Width | mm | 45 |
| Depth | mm | 93 |