



Motor-protective circuit-breaker, 0.12 kW, 0.4 - 0.63 A, Screw terminals



Part no. PKZM0-0,63  
072733  
EL Number 4355124  
(Norway)

|                                        |  |                                                                                                                                                                                                                         |
|----------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General specifications                 |  |                                                                                                                                                                                                                         |
| Product name                           |  | Eaton Moeller® series PKZM0 Motor-protective circuit-breaker                                                                                                                                                            |
| Part no.                               |  | PKZM0-0,63                                                                                                                                                                                                              |
| EAN                                    |  | 4015080727330                                                                                                                                                                                                           |
| Product Length/Depth                   |  | 76 millimetre                                                                                                                                                                                                           |
| Product height                         |  | 93 millimetre                                                                                                                                                                                                           |
| Product width                          |  | 45 millimetre                                                                                                                                                                                                           |
| Product weight                         |  | 0.246 kilogram                                                                                                                                                                                                          |
| Certifications                         |  | CSA<br>UL File No.: E36332<br>CSA-C22.2 No. 60947-4-1-14<br>CSA File No.: 165628<br>VDE 0660<br>UL 60947-4-1<br>IEC/EN 60947-4-1<br>IEC/EN 60947<br>CSA Class No.: 3211-05<br>CE<br>UL Category Control No.: NLRV<br>UL |
| Product Tradename                      |  | PKZM0                                                                                                                                                                                                                   |
| Product Type                           |  | Motor-protective circuit-breaker                                                                                                                                                                                        |
| Product Sub Type                       |  | None                                                                                                                                                                                                                    |
| Catalog Notes                          |  | Calculate assigned motor power according to rated current (NEC Table 430-150)<br>IE3-ready devices are identified by the logo on their packaging.                                                                       |
| Features & Functions                   |  |                                                                                                                                                                                                                         |
| 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                    |  |                                                                                                                                                                                                                         |
| Connection                             |  | Screw terminals                                                                                                                                                                                                         |
| Degree of protection                   |  | IP20<br>Terminals: IP00                                                                                                                                                                                                 |
| Explosion safety category for dust     |  | ATEX dust-ex-protection, PTB 10, ATEX 3013, Ex II(2) GD                                                                                                                                                                 |
| Lifespan, electrical                   |  | 100,000 operations                                                                                                                                                                                                      |
| Lifespan, mechanical                   |  | 100,000 Operations                                                                                                                                                                                                      |
| 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                           |  | Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)<br>Also motors with efficiency class IE3                                                                             |
| Temperature compensation               |  | -25 - 55 °C, Operating range<br>-5 - 40 °C to IEC/EN 60947, VDE 0660<br>≤ 0.25 %/K, residual error for T > 40°                                                                                                          |
| 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                                                                                                               |
| <b>Terminal capacities</b>                            |  |                                                                                                                                                                                              |
| Terminal capacity (flexible with ferrule)             |  | 1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228<br>2 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228                                                                                     |
| Terminal capacity (solid)                             |  | 1 x (1 - 6) mm <sup>2</sup><br>2 x (1 - 6) mm <sup>2</sup>                                                                                                                                   |
| Terminal capacity (solid/stranded AWG)                |  | 18 - 10                                                                                                                                                                                      |
| Stripping length (main cable)                         |  | 10 mm                                                                                                                                                                                        |
| Tightening torque                                     |  | 1.7 Nm, Screw terminals, Main cable<br>1 Nm, Screw terminals, Control circuit cables                                                                                                         |
| <b>Electrical rating</b>                              |  |                                                                                                                                                                                              |
| Rated frequency - min                                 |  | 50 Hz                                                                                                                                                                                        |
| Rated frequency - max                                 |  | 60 Hz                                                                                                                                                                                        |
| Rated operational current (Ie)                        |  | 0.63 A                                                                                                                                                                                       |
| Rated operational power at AC-3, 220/230 V, 50 Hz     |  | 0.09 kW                                                                                                                                                                                      |
| Rated operational power at AC-3, 380/400 V, 50 Hz     |  | 0.12 kW                                                                                                                                                                                      |
| Rated operational power at AC-3, 440 V, 50 Hz         |  | 0.18 kW                                                                                                                                                                                      |
| Rated operational power at AC-3, 500 V, 50 Hz         |  | 0.25 kW                                                                                                                                                                                      |
| Rated operational power at AC-3, 690 V, 50 Hz         |  | 0.25 kW                                                                                                                                                                                      |
| Rated operational voltage (Ue) - min                  |  | 690 V                                                                                                                                                                                        |
| Rated operational voltage (Ue) - max                  |  | 690 V                                                                                                                                                                                        |
| Rated uninterrupted current (Iu)                      |  | 0.63 A                                                                                                                                                                                       |
| <b>Short-circuit rating</b>                           |  |                                                                                                                                                                                              |
| 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 |  | 150 kA                                                                                                                                                                                       |
| Rated short-circuit breaking capacity Ics at 690 V AC |  | 150 kA                                                                                                                                                                                       |
| 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) |
| Short-circuit current rating (type E)                 |  | 50 kA, 600 Y/347 V, SCCR (UL/CSA)<br>Accessories required BK25/3-PKZ0-E<br>65 kA, 480 Y/277 V, SCCR (UL/CSA)<br>65 kA, 240 V, SCCR (UL/CSA)                                                  |
| Short-circuit release                                 |  | ± 20% tolerance, Trip blocks<br>Basic device fixed 15.5 x Iu, Trip Blocks<br>9.8 A, Irm, Setting range max.                                                                                  |
| <b>Switching capacity</b>                             |  |                                                                                                                                                                                              |
| Switching capacity                                    |  | 0.63 A, AC-3 up to 690 V<br>0.63 A (3 contacts in series), DC-5 up to 250V                                                                                                                   |
| <b>Trip blocks</b>                                    |  |                                                                                                                                                                                              |
| Overload release current setting - min                |  | 0.4 A                                                                                                                                                                                        |
| Overload release current setting - max                |  | 0.63 A                                                                                                                                                                                       |
| Tripping characteristic                               |  | Overload trigger: tripping class 10 A                                                                                                                                                        |
| <b>Design verification</b>                            |  |                                                                                                                                                                                              |
| Equipment heat dissipation, current-dependent Pvid    |  | 5.16 W                                                                                                                                                                                       |
| Heat dissipation capacity Pdis                        |  | 0 W                                                                                                                                                                                          |

|                                                                                  |  |  |                                                                                                                                  |
|----------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------|
| Heat dissipation per pole, current-dependent Pvid                                |  |  | 1.72 W                                                                                                                           |
| Rated operational current for specified heat dissipation (In)                    |  |  | 0.63 A                                                                                                                           |
| Static heat dissipation, non-current-dependent Pvs                               |  |  | 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.                                                               |
| 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) / 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  | 0.4 - 0.63                               |
| Adjustment range undelayed short-circuit release                                                                                                                                                  |  | A  | 9.8 - 9.8                                |
| With thermal overload protection                                                                                                                                                                  |  |    | No                                       |
| Phase failure sensitive                                                                                                                                                                           |  |    | Yes                                      |
| Switch off technique                                                                                                                                                                              |  |    | Thermomagnetic                           |
| Rated operating voltage                                                                                                                                                                           |  | V  | 690 - 690                                |
| Rated permanent current Iu                                                                                                                                                                        |  | A  | 0.63                                     |
| Rated operation power at AC-3, 230 V                                                                                                                                                              |  | kW | 0.09                                     |
| Rated operation power at AC-3, 400 V                                                                                                                                                              |  | kW | 0.12                                     |
| Power loss                                                                                                                                                                                        |  | W  | 5.16                                     |
| 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                                       |