Circuit-breaker, 3p, 125A

Part no. NZMB2-M125

265715

EL Number 4315564

(Norway)



| (NOI Way) | |
|---|---|
| General specifications | |
| Product name | Eaton Moeller series NZM molded case circuit breaker thermo-magnetic |
| Part no. | NZMB2-M125 |
| EAN | 4015082657154 |
| Product Length/Depth | 149 millimetre |
| Product height Product height | 184 millimetre |
| Product width | 105 millimetre |
| Product weight Product weight | 2.35 kilogram |
| Compliances | RoHS conform |
| Certifications | IEC IEC/EN 60947 |
| Product Tradename | NZM |
| Product Type | Molded case circuit breaker |
| Product Sub Type | Thermo-magnetic |
| Delivery program | |
| Application | Use in unearthed supply systems at 440 V |
| Туре | Circuit breaker |
| Circuit breaker frame type | NZM2 |
| Number of poles | Three-pole |
| Amperage Rating | 125 A |
| Release system | Thermomagnetic release |
| Special features | Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn) Rated current = rated uninterrupted current: 125 A Tripping class 10 A IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breaker fulfills all requirements for AC-3 switching category. |
| Fitted with: | Thermal protection |
| Technical Data - Electrical | |
| Voltage rating | 440 V - 440 V |
| Rated insulation voltage (Ui) | 690 V |
| Rated impulse withstand voltage (Uimp) at auxiliary contacts | 6000 V |
| Rated impulse withstand voltage (Uimp) at main contacts | 8000 V |
| Rated operational current | 99 A (400 V AC-3) |
| Instantaneous current setting (Ii) - min | 1000 A |
| Instantaneous current setting (Ii) - max | 1750 A |
| Overload current setting (Ir) - min | 100 A |
| Overload current setting (Ir) - max | 125 A |
| Short-circuit release non-delayed setting - min | 1000 A |
| Short-circuit release non-delayed setting - max | 1750 A |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz | 30 kA |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz | 18.5 kA |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz | 18.5 kA |
| Rated short-circuit making capacity Icm at 240 V, 50/60 Hz | 63 kA |
| Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz | 53 kA |
| Rated short-circuit making capacity Icm at 440 V, 50/60 Hz | 53 kA |
| Rated operating power at AC-3, 230 V | 37 kW |
| Rated operating power at AC-3, 400 V | 55 kW |
| Short-circuit total breaktime | < 10 ms |

| Electrical connection type of main circuit | Screw connection |
|---|---|
| Isolation | 500 V AC (between auxiliary contacts and main contacts) |
| | 300 V AC (between the auxiliary contacts) |
| Number of operations per hour - max | 120 |
| Handle type | Rocker lever |
| Utilization category | A (IEC/EN 60947-2) |
| Overvoltage category | III |
| Pollution degree | 3 |
| Lifespan, electrical | 10000 operations at 400 V AC-1 7500 operations at 415 V AC-1 |
| Direction of incoming supply | As required |
| Technical Data - Mechanical | |
| Mounting Method | Fixed Built-in device fixed built-in technique |
| Degree of protection | IP20 (basic degree of protection, in the operating controls area) IP20 |
| Degree of protection (IP), front side | IP40 (with insulating surround) IP66 (with door coupling rotary handle) |
| Degree of protection (terminations) | IP10 (tunnel terminal) IP00 (terminations, phase isolator and strip terminal) |
| Protection against direct contact | Finger and back-of-hand proof to VDE 0106 part 100 |
| Shock resistance | 20 g (half-sinusoidal shock 20 ms) |
| Switch off technique | Thermomagnetic |
| Climatic proofing | Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| Special features | Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn) Rated current = rated uninterrupted current: 125 A Tripping class 10 A IEC/EN 60947-4-1, IEC/EN 60947-2 The circuit-breaker fulfills all requirements for AC-3 switching category. |
| Lifespan, mechanical | 20000 operations |
| Technical Data - Mechanical - Terminals | |
| Standard terminals | Screw terminal |
| Optional terminals | Box terminal. Connection on rear. Tunnel terminal |
| Terminal capacity (control cable) | 0.75 mm ² - 2.5 mm ² (1x) |
| | 0.75 mm² - 1.5 mm² (2x) |
| Terminal capacity (aluminum solid conductor/cable) | 16 mm² (1x) at tunnel terminal 10 mm² - 16 mm² (2x) direct at switch rear-side connection 10 mm² - 16 mm² (1x) direct at switch rear-side connection |
| Terminal capacity (aluminum stranded conductor/cable) | 25 mm 2 - 50 mm 2 (1x) direct at switch rear-side connection 25 mm 2 - 185 mm 2 (1x) at tunnel terminal 25 mm 2 - 50 mm 2 (2x) direct at switch rear-side connection |
| Terminal capacity (copper busbar) | Min. 16 mm x 5 mm direct at switch rear-side connection Max. 24 mm x 8 mm direct at switch rear-side connection M8 at rear-side screw connection |
| Terminal capacity (copper solid conductor/cable) | 10 mm ² - 16 mm ² (1x) at box terminal 16 mm ² (1x) at tunnel terminal 6 mm ² - 16 mm ² (2x) at box terminal 10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 6 mm ² - 16 mm ² (2x) direct at switch rear-side connection |
| Terminal capacity (copper stranded conductor/cable) | 25 mm² - 185 mm² (1x) at box terminal 25 mm² - 185 mm² (1x) at 1-hole tunnel terminal 25 mm² - 70 mm² (2x) at box terminal 25 mm² - 70 mm² (2x) direct at switch rear-side connection 25 mm² - 185 mm² (1x) direct at switch rear-side connection |
| Terminal capacity (copper strip) | Max. 10 segments of 24 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 8 segments of 24 mm x 1 mm (2x) at box terminal Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 16 mm x 0.8 mm at box terminal |
| Design verification as per IEC/EN 61439 - technical data | |
| Rated operational current for specified heat dissipation (In) | 125 A |
| Equipment heat dissipation, current-dependent | 27.61 W |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 70 °C |
| , , , | |
| Ambient storage temperature - min | 40 °C |

| Ambient storage temperature - max | 70 °C |
|--|--|
| Design verification as per IEC/EN 61439 | |
| 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. |
| Additional information | |
| Functions | Motor protection |

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 100-125 Adjustment range undelayed short-circuit release P 1000-1750 With thermal overload protection Yes Yes Phase failure sensitive No Thermomagnetic Switch off technique Yes 40-440 Rated perating voltage Yes 40-440 Rated perating power at AC-3, 230 V Au 37-3 Rated operating power at AC-3, 400 V WW 57-6 Power loss Yes 5-crew connection Type of electrical connection of main circuit Yes 8-crew connection Type of control element Yes 8-crew connection Device construction Yes 8-crew connection With integrated under voltage release Yes 8-crew connection With integrated under voltage release Yes 9-crew connection With integrated under voltage release Yes 9-crew connection With integrated under voltage release Yes 9-crew connection Read short-circuit breaking capacity leu at 400 V, AC Yes 9-crew connection Begree of protection (IP) Yes 9-crew connection Begree of protection (IP) Yes 9-crew connection Begree of protection (IP) Yes 9-cr | [AGZ529021]) | cimology / on calc bro | taker (LV < 1 kV)/ Motor procedure circuit breaker (coresisto 27 07 04 01 |
|--|--|------------------------|---|
| With thermal overload protection Yes Phase failure sensitive No Switch off technique Thermomagnetic Rated operating voltage V 440 - 440 Rated permanent current lu A 125 Rated operation power at AC-3, 230 V kW 37 Rated operation power at AC-3, 400 V kW 55 Power loss W 27.5 Type of electrical connection of main circuit Every connection Type of control element Rocker lever 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 lcu at 400 V, AC KA Begree of protection (IP) KA Height mm 1920 Height mm 194 With the Market mm 194 No 1920 Rocker lever 1920 Rocker lever 1920 Rocker le | Overload release current setting | Α | 100 - 125 |
| Phase failure sensitive Switch off technique Rated operating voltage Rated operating voltage Rated operating nower at AC-3, 230 V Rated operation power at AC-3, 400 V Power loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated dunder voltage release Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Begin and some anamediate and some and some and some and some and some and some an | Adjustment range undelayed short-circuit release | Α | 1000 - 1750 |
| Switch off technique Rated operating voltage Rated operating voltage Rated operating voltage Rated operation power at AC-3, 230 V Rated operation power at AC-3, 230 V Rated operation power at AC-3, 400 V Roter loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release Number of poles Rated short-circuit breaking capacity lcu at 400 V, AC Degree of protection (IP) Height With the protection (IP) Rote Power loss Rated short-circuit breaking capacity lcu at 400 V, AC Rote Roter lever Rote Power loss Rote Roter lever | With thermal overload protection | | Yes |
| Rated operating voltage Rated permanent current lu Rated permanent current lu Rated operation power at AC-3,230 V Rated operation power at AC-3,400 V Roter loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release Number of poles Rated short-circuit breaking capacity lcu at 400 V, AC Degree of protection (IP) Height With the state of the | Phase failure sensitive | | No |
| Rated permanent current Iu A 125 Rated operation power at AC-3, 230 V kW 37 Rated operation power at AC-3, 400 V kW 55 Power loss W 27.6 Type of electrical connection of main circuit Screw connection Type of control element Rocker lever 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 Degree of protection (IP) IP20 Height mm 184 Width 184 | Switch off technique | | Thermomagnetic |
| Rated operation power at AC-3, 230 V Rated operation power at AC-3, 230 V Rated operation power at AC-3, 400 V Rower loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height With Material AC-3, 230 V RATE AC-4, 240 V | Rated operating voltage | V | 440 - 440 |
| Rated operation power at AC-3, 400 V Power loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height With the service of service of poles Rated short-circuit breaking capacity Icu at 400 V, AC Height With the service of poles Rated short-circuit breaking capacity Icu at 400 V, AC Height With the service of protection (IP) Height Mith the service of poles Rated short-circuit breaking capacity Icu at 400 V, AC In the service of protection (IP) Mith the service of protection of main circuit Mith the service of protection (IP) Mith the service of protection (IP) Mith the service of protection of main circuit Mith the service of protection of main circuit Mith the service of protection (IP) Mith the service of protection of main circuit Mith the service of protection of m | Rated permanent current lu | Α | 125 |
| Power loss Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height Width Width Width Width Width Width Width Wight | Rated operation power at AC-3, 230 V | kW | 37 |
| Type of electrical connection of main circuit Type of control element Device construction With integrated auxiliary switch With integrated under voltage release No Number of poles Rated short-circuit breaking capacity lcu at 400 V, AC Degree of protection (IP) Height Width Midth Midth Midth Midth Midth Midth Midth Screw connection Screw connection Rocker lever Built-in device fixed built-in technique No No No A 8 1 8 8 8 8 8 8 8 8 8 8 8 | Rated operation power at AC-3, 400 V | kW | 55 |
| Type of control element Device construction With integrated auxiliary switch With integrated under voltage release No Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height Width Rocker lever No No No No 184 Width Mm 184 Width | Power loss | W | 27.6 |
| Device construction With integrated auxiliary switch With integrated under voltage release With integrated under voltage release No Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height Width Width Width Width Width Width Width Wintegrated auxiliary switch No No Roccation No No Rated Short-circuit breaking capacity Icu at 400 V, AC KA WA WA WA WA WA WA WA WA WA | Type of electrical connection of main circuit | | Screw connection |
| With integrated auxiliary switch With integrated under voltage release No Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Begree of protection (IP) Height Width Width | Type of control element | | Rocker lever |
| With integrated under voltage release With integrated under voltage release No Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC Degree of protection (IP) Height Width Width No No Rated short-circuit breaking capacity Icu at 400 V, AC IP20 IP20 IP3 IP4 IP5 IP5 IP5 IP5 IP5 IP5 IP5 | Device construction | | Built-in device fixed built-in technique |
| Number of poles Rated short-circuit breaking capacity Icu at 400 V, AC begree of protection (IP) Height Width Midth Salaa 18.5 P20 Heapth Midth 184 Width Midth Midt | With integrated auxiliary switch | | No |
| Rated short-circuit breaking capacity Icu at 400 V, AC | With integrated under voltage release | | No |
| Degree of protection (IP) Height mm 184 Width 105 | Number of poles | | 3 |
| Height mm 184 Width mm 105 | Rated short-circuit breaking capacity Icu at 400 V, AC | kA | 18.5 |
| Width mm 105 | Degree of protection (IP) | | IP20 |
| | Height | mm | 184 |
| Depth mm 149 | Width | mm | 105 |
| | Depth | mm | 149 |