Tel: 08700 545 333
Email: ukcommorders@eaton.com

MCCB NZM3 3pole 400A electronic EFP LSI withdrawable

Cat Number: NZMN3-VX400-T-AVE

Eaton Moeller series NZM - Molded Case Circuit Breaker. NZM3 PXR20 circuit breaker, 400A, 3p, earth-fault protection, withdrawable unit, N, 3

Technical Specifications:
Product Length/Depth | 346 mm
Product Height | 260 mm
Product Width | 185 mm
Product Weight | 11.214 kg
Compliances | RoHS conform
Certifications | IEC/EN 60947
IEC
Rated operational current for specified heat dissipation (In) | 400 A
10.11 Short-circuit rating | Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz | 5 kA
10.4 Clearances and creepage distances | Meets the product standard's requirements.
10.12 Electromagnetic compatibility | Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Mounting Method | Withdrawable
Built-in device slide-in technique (withdrawable)
Amperage Rating | 400 A
10.2.5 Lifting | Does not apply, since the entire switchgear needs to be evaluated.
Terminal capacity (copper strip) | Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm
Min. 6 segments of 16 mm x 0.8 mm at box terminal
Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side connection (punched)
Max. 8 segments of 24 mm x 1 mm (2x) at box terminal
10 segments of 50 mm x 1 mm (2x) at rear-side width extension
Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched)
Handle type | Rocker lever
10.2.3.1 Verification of thermal stability of enclosures | Meets the product standard's requirements.
Ambient storage temperature - min | 40 °C
Earth-fault current setting (Ig) - max | 400 x In
Protection against direct contact | Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
Terminal capacity (copper busbar) | Min. 20 mm x 5 mm direct at switch rear-side connection
M10 at rear-side screw connection
Max. 10 mm x 50 mm (2x) at rear-side width extension
Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection
10.8 Connections for external conductors | Is the panel builder's responsibility.
Special features | LSI overload protection and delayed and non-delayed short-circuit protective device
R.m.s. value measurement and “thermal memory”
USB interface for configuration and test function with Power Xpert Protection Manager software
Optionally communication-capable with interface module and internal Modbus RTU module or CAM
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: 400 A
Terminal capacity hint: Up to 240 mm² can be connected depending on the cable manufacturer.
Ambient operating temperature - max | 70 °C

Position of connection for main current circuit | Front side
Rated insulation voltage (Ui) | 690 V AC
Climatic proofing | Damp heat, cyclic, to IEC 60068-2-30
Damp heat, constant, to IEC 60068-2-78
Terminal capacity (copper stranded conductor/cable) | 25 mm² - 240 mm² (2x) direct at switch rear-side connection
16 mm² - 185 mm² (1x) at 1-hole tunnel terminal
25 mm² - 120 mm² (2x) at box terminal
25 mm² - 240 mm² (1x) direct at switch rear-side connection
35 mm² - 240 mm² (1x) at box terminal
Features | Motor drive optional
Protection unit
Lifespan, electrical | 5000 operations at 400 V AC-1
3000 operations at 690 V AC-1
5000 operations at 415 V AC-1
Electrical connection type of main circuit | Other
Short-circuit total breaktime | < 10 ms
Rated impulse withstand voltage (Uimp) at main contacts | 8000 V
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz | 50 kA
10.9.3 Impulse withstand voltage | Is the panel builder's responsibility.
Utilization category | A (IEC/EN 60947-2)
Number of poles | Three-pole
Ambient operating temperature - min | -25 °C
10.6 Incorporation of switching devices and components | Does not apply, since the entire switchgear needs to be evaluated.
10.5 Protection against electric shock | Does not apply, since the entire switchgear needs to be evaluated.
Terminal capacity (control cable) | 0.75 mm² - 2.5 mm² (1x)
0.75 mm² - 1.5 mm² (2x)
Equipment heat dissipation, current-dependent | 48 W
Instantaneous current setting (Ii) - min | 800 A
10.13 Mechanical function | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
10.2.6 Mechanical impact | Does not apply, since the entire switchgear needs to be evaluated.
10.9.4 Testing of enclosures made of insulating material | Is the panel builder's responsibility.

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Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz | 85 kA
Application | Use in unearthed supply systems at 690 V
10.3 Degree of protection of assemblies | Does not apply, since the entire switchgear needs to be evaluated.
Rated short-circuit making capacity Icm at 240 V, 50/60 Hz | 187 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz | 35 kA
Short-circuit release delayed setting - max | 4000 A
Degree of protection (IP), front side | IP40 (with insulating surround)
IP66 (with door coupling rotary handle)
Rated short-circuit making capacity Icm at 525 V, 50/60 Hz | 55 kA
Rated short-circuit making capacity Icm at 690 V, 50/60 Hz | 40 kA
Instantaneous current setting (Ii) - max | 4800 A
Overload current setting (Ir) - min | 160 A
Short delay current setting (Isd) - min | 2 A
Number of auxiliary contacts (normally closed contacts) | 0
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.
Lifespan, mechanical | 15000 operations
Overload current setting (Ir) - max | 400 A
Voltage rating | 690 V - 690 V
Terminal capacity (copper solid conductor/cable) | 16 mm² (2x) direct at switch rear-side connection
300 mm² (2x) at rear-side width extension
16 mm² (1x) at tunnel terminal
16 mm² (2x) at box terminal
16 mm² (1x) direct at switch rear-side connection
Degree of protection (terminations) | IP00 (terminations, phase isolator and strip terminal)
IP10 (tunnel terminal)
Short-circuit release delayed setting - min | 320 A
Terminal capacity (aluminum stranded conductor/cable) | 50 mm² - 240 mm² (2x) at 2-hole tunnel terminal
25 mm² - 185 mm² (1x) at tunnel terminal
50 mm² - 240 mm² (1x) at 2-hole tunnel terminal

10.9.2 Power-frequency electric strength | Is the panel builder's responsibility.
Short-circuit release non-delayed setting - min | 800 A
Degree of protection | IP20 (basic degree of protection, in the operating controls area)
IP20
Overvoltage category | III
Rated short-time withstand current (t = 1 s) | 3.3 kA
Short delay current setting (Isd) - max | 10 A
Rated impulse withstand voltage (Uimp) at auxiliary contacts | 6000 V
Earth-fault current setting (Ig) - min | 80 x In
Number of auxiliary contacts (change-over contacts) | 0
Rated short-time withstand current (t = 0.3 s) | 3.3 kA
Accessories required | NZM3-XAVS
Ambient storage temperature - max | 70 °C
Release system | Electronic release
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz | 13 kA
Optional terminals | Box terminal. Connection on rear. Tunnel terminal
Pollution degree | 3
10.7 Internal electrical circuits and connections | 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.
Functions | Integrated earth fault protection
Earth-fault protection
Systems, cable, selectivity and generator protection
Short-circuit release non-delayed setting - max | 4800 A
Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz | 110 kA
Standard terminals | Screw terminal
Type | Circuit breaker
10.2.2 Corrosion resistance | Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation | Meets the product standard's requirements.
10.2.7 Inscriptions | Meets the product standard's requirements.
Rated short-circuit making capacity Icm at 440 V, 50/60 Hz | 77 kA
Number of auxiliary contacts (normally open contacts) | 0
Isolation | 300 V AC (between the auxiliary contacts)
500 V AC (between auxiliary contacts and main contacts)
Number of operations per hour - max | 60

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Circuit breaker frame type | NZM3
Direction of incoming supply | As required
Shock resistance | 20 g (half-sinusoidal shock 20 ms)
Terminal capacity (aluminum solid conductor/cable) | 16 mm² (1x) at tunnel terminal