Circuit-breaker, 3p, 400A

Part no. NZMN3-VE400

259132

EL Number (Norway) 4358790



(Norway)	
General specifications	
Product name	Eaton Moeller series NZM molded case circuit breaker electronic
Part no.	NZMN3-VE400
EAN	4015082591328
Product Length/Depth	166 millimetre
Product height	275 millimetre
Product width	140 millimetre
Product weight	6.989 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947 IEC
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Electronic
Delivery program	
Application	Use in unearthed supply systems at 690 V
Туре	Circuit breaker
Circuit breaker frame type	NZM3
Number of poles	Three-pole
Amperage Rating	400 A
Release system	Electronic release
Features	Motor drive optional Protection unit
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) R.m.s. value measurement and "thermal memory" Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases) Adjustable delay time tsd i't constant function: switchable Rated current = rated uninterrupted current: 400 A Terminal capacity hint: Up to 240 mm² can be connected depending on the cable manufacturer.
Technical Data - Electrical	
Voltage rating	690 V - 690 V
Rated insulation voltage (Ui)	1000 V AC
Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Rated impulse withstand voltage (Uimp) at main contacts	8000 V
Rated short-time withstand current (t = 0.3 s)	3.3 kA
Rated short-time withstand current (t = 1 s)	3.3 kA
Instantaneous current setting (Ii) - min	800 A
Instantaneous current setting (Ii) - max	4400 A
Overload current setting (Ir) - min	200 A
Overload current setting (Ir) - max	400 A
Short delay current setting (Isd) - min	400 A
Short delay current setting (Isd) - max	4000 A
Short-circuit release delayed setting - min	400 A
Short-circuit release delayed setting - max	4000 A
Short-circuit release non-delayed setting - min	800 A
Short-circuit release non-delayed setting - max	4400 A
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz	85 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz	50 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	35 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz	13 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz	5 kA
Rated short-circuit making capacity Icm at 240 V, 50/60 Hz	187 kA
Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz	105 kA
Rated short-circuit making capacity Icm at 440 V, 50/60 Hz	74 kA
Rated short-circuit making capacity Icm at 525 V, 50/60 Hz	53 kA
Rated short-circuit making capacity Icm at 690 V, 50/60 Hz	40 kA
Short-circuit total breaktime	< 10 ms
Electrical connection type of main circuit	Screw connection
Isolation	300 V AC (between the auxiliary contacts) 500 V AC (between auxiliary contacts and main contacts)
Number of operations per hour - max	60
Handle type	Rocker lever
Utilization category	A (IEC/EN 60947-2)
Overvoltage category	III
Pollution degree	3
Lifespan, electrical	2000 operations at 400 V AC-3
Encopali, diocatical	2000 operations at 415 V AC-3 3000 operations at 690 V AC-1 5000 operations at 400 V AC-1 2000 operations at 690 V AC-3 5000 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	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
Degree of protection (terminations)	IP00 (terminations, phase isolator and strip terminal) IP10 (tunnel terminal)
Protection against direct contact	Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
Shock resistance	20 g (half-sinusoidal shock 20 ms)
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Position of connection for main current circuit	Front side
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
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) R.m.s. value measurement and "thermal memory" Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases) Adjustable delay time tsd i²t constant function: switchable Rated current = rated uninterrupted current: 400 A Terminal capacity hint: Up to 240 mm² can be connected depending on the cable manufacturer.
Lifespan, mechanical	15000 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 - 1.5 mm ² (2x) 0.75 mm ² - 2.5 mm ² (1x)
Terminal capacity (aluminum solid conductor/cable)	16 mm² (1x) at tunnel terminal 10 mm² - 16 mm² (2x) direct at switch rear-side connection 16 mm² (1x) direct at switch rear-side connection
Terminal capacity (aluminum stranded conductor/cable)	25 mm² - 120 mm² (2x) direct at switch rear-side connection 25 mm² - 185 mm² (1x) at tunnel terminal 50 mm² - 240 mm² (2x) at 2-hole tunnel terminal 25 mm² - 120 mm² (1x) direct at switch rear-side connection 50 mm² - 240 mm² (1x) at 2-hole tunnel terminal
Terminal capacity (copper busbar)	Min. 20 mm x 5 mm direct at switch rear-side connection Max. 10 mm x 50 mm (2x) at rear-side width extension M10 at rear-side screw connection Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection
Terminal capacity (copper solid conductor/cable)	16 mm² (1x) at tunnel terminal 16 mm² (2x) direct at switch rear-side connection 16 mm² (1x) direct at switch rear-side connection 16 mm² (2x) at box terminal

Rated operational current for specified heat dissipation (In) Equipment heat dissipation, current-dependent Ambient operating temperature - min Ambient operating temperature - max 70 °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 termilar stability of enclosures Meets the product standard's requirements. 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.3 Resistance to ultra-violet (IV) radiation 10.2.5.1 Utting Does not apply, since the entire switchgear needs to be evaluated. 10.2.5 Inscriptions 10.2.6 Mechanical impact 10.2.7 Inscriptions Meets the product standard's requirements. 10.2.8 Mechanical function of assemblies Does not apply, since the entire switchgear needs to be evaluated. 10.2.1 Proscriptions 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 Degree of protection of assemblies 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. 10.6 Incorporation of switching devices and components Does not apply, since the entire switchgear needs to be evaluated. 10.8 Commections for external conductors Is the panel builder's responsibility. 10.9.2 Power-frequency electric strength 10.9.2 Power-frequency electric strength 10.9.2 Power-frequency electric strength 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise The panel builder's responsibility. 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 11.15 Incorporation of external conductors 10.15 Incorporation of external conductors 10.16 The devices meets the requirements,		300 mm² (2x) at rear-side width extension
Max. 18 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm + 1 rear-side connection (punched) Max. 18 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm As segments of 16 mm x 8.8 mm at box terminal Rated operational current for specified heat dissipation (h) Equipment heat dissipation, current-dependent Ambient operating temperature - min Ambient operating temperature - min Ambient operating temperature - mix Ambient storage temperature - mix Ambient sto	Terminal capacity (copper stranded conductor/cable)	16 mm² - 185 mm² (1x) at 1-hole tunnel terminal 25 mm² - 240 mm² (2x) direct at switch rear-side connection 50 mm² - 240 mm² (2x) at 2-hole tunnel terminal 35 mm² - 240 mm² (1x) at box terminal
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10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. The panel builder is responsibility. The panel builder is responsibility. Is the panel builder's responsibility. The panel builder's responsibility. The specifications for the switchgear must be observed. In the panel builder's responsibility. The specifications for the switchgear must be observed. Additional information	10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated.
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10.10 Temperature rise The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. Is the panel builder's responsibility. The specifications for the switchgear must be observed. Is the panel builder's responsibility. The specifications for the switchgear must be observed. Is the panel builder's responsibility. The specifications for the switchgear must be observed. The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. Additional information	10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
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Additional information leaflet (IL) is observed.	10.12 Electromagnetic compatibility	
	10.13 Mechanical function	· · · · · · · · · · · · · · · · · · ·
Functions Systems, cable, selectivity and generator protection	Additional information	
	Functions	Systems, cable, selectivity and generator protection

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss13-27-37-04-09 [AJZ716018])

protection (651-65016 27 67 61 66 (162716616))		
Rated permanent current lu	Α	400
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	50
Overload release current setting	Α	200 - 400
Adjustment range short-term delayed short-circuit release	A	400 - 4000
Adjustment range undelayed short-circuit release	А	800 - 4400
Power loss	W	

Built-in device fixed built-in technique
· ·
No
Screw connection
No
No
0
0
0
No
No
3
Front side
Rocker lever
Yes
No
Yes
IP20