DATASHEET - NZMH2-S200-CNA

Circuit-breaker, 3p, 200A

Part no. **NZMH2-S200-CNA**
269274

Powering Business Worldwide™

Product name	Eaton Moeller series NZM molded case circuit breaker magnetic
Part no.	NZMH2-S200-CNA
EAN	4015082692742
Product Length/Depth	149 millimetre
Product height	195 millimetre
Product width	105 millimetre
Product weight	2.345 kilogram
Compliances	RoHS conform
Certifications	UL (Category Control Number DKPU2) UL listed Specially designed for North America IEC/EN 60947 UL 489 UL/CSA CE marking IEC 60947-2 IEC CSA certified UL (File No. E31593) CSA (Class No. 1432-01) CSA-C22.2 No. 5-09 CSA (File No. 22086)
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Magnetic
Application	Branch circuits, feeder circuits Use in unearthed supply systems at 690 V
Type	Circuit breaker
Number of poles	Three-pole
Amperage Rating	200 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: 200 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Motor protection in conjunction with contactor and overload relay With short-circuit release Without overload release Ir
Voltage rating	690 V - 690 V
Rated operating voltage Ue (UL) - max	600 Y / 347 V, 480 V
Rated insulation voltage (Ui)	1000 V
Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Rated impulse withstand voltage (Uimp) at main contacts	8000 V
Rated operational current	300 A (400 V AC-1, making and breaking capacity) 200 A (690 V AC-1, making and breaking capacity) 300 A (415 V AC-1, making and breaking capacity) 200 A (660-690 V AC-3, making and breaking capacity)
Rated short-time withstand current (t = 0.3 s)	1.9 kA
Rated short-time withstand current (t = 1 s)	1.9 kA
Instantaneous current setting (Ii) - min	1600 A
Instantaneous current setting (Ii) - max	2000 A
Overload current setting (Ir) - min	0 A
Overload current setting (Ir) - max	0 A
Short-circuit release non-delayed setting - min	1600 A
Short-circuit release non-delayed setting - max	2600 A
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz	150 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz	130 kA

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	130 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz	37.5 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	330 kA
Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz	330 kA
Rated short-circuit making capacity Icm at 440 V, 50/60 Hz	286 kA
Rated short-circuit making capacity Icm at 525 V, 50/60 Hz	105 kA
Rated short-circuit making capacity Icm at 690 V, 50/60 Hz	40 kA
Rated operating power at AC-3, 230 V	55 kW
Rated operating power at AC-3, 400 V	110 kW
Short-circuit total breaktime	< 10 ms
Low-voltage HBC fuse - max	355 A gG/gL
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	120
Handle type	Rocker lever
Utilization category	A (IEC/EN 60947-2)
Overvoltage category	III
Pollution degree	3
Lifespan, electrical	5000 operations at 690 V AC-3 6500 operations at 400 V AC-3 7500 operations at 690 V AC-1 10000 operations at 400 V AC-1 6500 operations at 415 V AC-3
Direction of incoming supply	As required
Mounting Method	Built-in device fixed built-in technique Fixed
Degree of protection	IP20 IP20 (basic degree of protection, in the operating controls area)
Degree of protection (IP), front side	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
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	Magnetic
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) Rated current = rated uninterrupted current: 200 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Motor protection in conjunction with contactor and overload relay With short-circuit release Without overload release Ir
Lifespan, mechanical	20000 operations
Standard terminals	Screw terminal
Terminal capacity (control cable)	14 mm^2 - 18 mm^2 (1x) 16 mm^2 - 18 mm^2 (2x)
Terminal capacity (aluminum solid conductor/cable)	16 mm^2 (1x) at tunnel terminal
Terminal capacity (copper busbar)	Min. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection Max. 20 mm x 5 mm direct at switch rear-side connection
Terminal capacity (copper solid conductor/cable)	6 mm^2 - 11 mm^2 (1x) direct at switch rear-side connection 6 mm^2 - 12 mm^2 (1x) at box terminal 6 mm^2 (1x) at tunnel terminal
Terminal capacity (copper stranded conductor/cable)	4 mm^2 - 350 mm^2 (1x) at box terminal 4 mm^2 - 3/0 mm^2 (1x) direct at switch rear-side connection 4 mm^2 - 350 mm^2 (1x) at tunnel terminal
Terminal capacity (copper strip)	Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched) Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 10 segments 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

Rated operational current for specified heat dissipation (In)		200 A
Equipment heat dissipation, current-dependent		38.04 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
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.
Functions		Short-circuit protection

Technical data ETIM 8.0

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@ss10.0.1-27-37-04-01 [AGZ529016])

Overload release current setting	A	0 - 0
Adjustment range undelayed short-circuit release	A	1,600 - 2,000
With thermal protection		No
Phase failure sensitive		No
Switch off technique		Magnetic
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	200
Rated operation power at AC-3, 230 V	kW	55
Rated operation power at AC-3, 400 V	kW	110
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	130
Degree of protection (IP)		IP20
Height	mm	195

Width		mm	105
Depth		mm	149