## DATASHEET - NZMB2-AF250-NA

## Circuit-breaker, 3p, 250A

Part no.

NZMB2-AF250-NA 271100



Product name     Image: Sea Model rases K2M. Model Case Grout Beaker       Fart m.     MADDA 24250 MA       Ford m. C.     MADDA 24250 MA       Product Leghthogth     Material Manager       Product Leghthogth     Material Manager       Product Leghthogth     Material Manager       Product Wadth     Material Manager       Product Mader     Material Manager       Product Topics     Material Material Manager       Product Topics     Mat	General specifications	
EAA   010000     Preduct insightSight   0100000     Preduct insightSight   0100000     Certifications   010000000     Certifications   0100000000000000000000000000000000000	Product name	Eaton Moeller series NZM - Molded Case Circuit Breaker
Preduct Length Ough   Hamilinate     Preduct Hogin   Hamilinate     Preduct Keight   Hamilinate     Preduct Keight   Hamilinate     Compliances   Edit Notation     Preduct Tradenam   Maled Case Circuit Strater     Preduct Tradenam <td< td=""><td>Part no.</td><td>NZMB2-AF250-NA</td></td<>	Part no.	NZMB2-AF250-NA
Poduct wink   Bis millinere     Poduct wink   Skife Mo. 2088     Skife Mo. 2088   Skife Mo. 2088     Poduct Tope   Moded Case Droat Braker     Poduct Skife Mo. 2088   Skife Mo. 2088     Poduct Tope   Moded Case Droat Braker     Poduct Skife Mo. 2088   Skife Mo. 2088     Poduct Skife Mo. 2088   Skife Mo. 2088     Poduct Skife Mo. 2084   Skife Mo. 2084     Poduct Tope   Moded Case Droat Braker     Number of Dodat   Moded Case Droat Braker     Poduct Tope   Skife Mo. 2084     Poduct Tope   Skife Mo. 2084 <td>EAN</td> <td>4015082711009</td>	EAN	4015082711009
Product wordsh   100 millimete     Product wordsh   2454 klogram     Compliances   2454 klogram     Catifications   2454 klogram     Catifications   253 Firsh Mar 2000     Schulder Marken Ma	Product Length/Depth	149 millimetre
Preduct weight   243 Magram     Compliances   RelS conform     Certifications   RelS conform     Certifications   RelS conform     Certifications   RelS conform     Certifications   RelS conform     Support the second	Product height	195 millimetre
Compliances Bold Southorn   Compliances Southies Note 2000   Continue Note 2000 Southies Note 2000   Product Turdename NUM   Ration Amorale A	Product width	105 millimetre
Product Tadoname   AZM     Product Tadoname   NoIsed Case Circuit Broker     Application   Tabe Pole     Anaprope Riseing   Circuit broker     Release system   Release system     Features   Motor dive optimal releases	Product weight	2.434 kilogram
Product Tadoname   CSA (22 20)   United on provide the second se	Compliances	RoHS conform
Product Type   None     Product Sub Type   None     Delivery program   Image: Control Breaker     Application   Image: Control Breaker     Application   Image: Control Breaker     Type   Circuit breaker     Circuit breaker frame type   Circuit breaker     Number of poles   Tirce-pole     Amprorage Raing   Tirce-pole     Release system   Termomagnetic release     Pestures   Motion drive optional breator and pole     Special features   Motion drive optional breator accent the Breath Interstation on the sector accent the Breath Interstation on the Interstation on the sector accent the Breath Interstation on	Certifications	CSA-C22.2 No. 5-09 CSA (Class No. 1432-01) UL listed UL 489 IEC/EN 60947 UL/CSA IEC IEC 60947-2 UL (File No. E31593) CE marking Specially designed for North America UL (Category Control Number DIVΩ)
Product Sub Type     None       Product Sub Type     Branch circuits feeder circuits       Application     Branch circuits feeder circuits       Application     Branch circuits feeder circuits       Type     Circuit breaker frame type       Circuit breaker frame type     Number of poles       Ampreage Rating     Three-pole       Appleating     250 A       Release system     Thermomagnetic release       Features     Thermomagnetic release of the system at 440 V       Special features     Three-pole       Special features     Thermomagnetic release of the system at 440 V       Voltage rating     Thermomagnetic release of the system at 440 V       Release system     Thermomagnetic release of the system at 440 V       Release system     Thermomagnetic release of the system at 440 V       Release system     Thermomagnetic release of the system at 440 V       Voltage rating     Thermomagnetic release of the system at 440 V       Norther conformance values are contained on the rating plate.     Frequential at 440 V       Rated operating voltage (U)     Thermomagnetic releases the system at 440 V       Voltage rating     Kot Voltage (U)     Kot Voltage (U) <td>Product Tradename</td> <td>NZM</td>	Product Tradename	NZM
Delivery program     Provide and the supply systems at 40 V       Application     Branch circuits, feeder circuits       Type     Circuit breaker       Circuit breaker frame type     Circuit breaker       Number of poles     Three-pole       Amperage Rating     Three-pole       Release system     Motor drive optional       Potein features     Motor drive optional       Special features     Motor drive optional       Voltage rating     Maximum back-up fuse, if the expected short-circuit breaker flated short-circuit flated current = roted uninter	Product Type	Molded Case Circuit Breaker
Application   Branch circuits, feeder circuits     Type   Circuit breaker     Circuit breaker   Circuit breaker     Circuit breaker frame type   XM2     Number of poles   Three-pole     Amparage Rating   Three-pole     Release system   Features     Features   Maximum back-up luse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit current sat the [Dregulations.	Product Sub Type	None
Type   Circuit breaker     Type   Circuit breaker     Circuit breaker frame type   NZM2     Number of poles   NZM2     Amperage Rating   Three pole     Release system   Thermonagnetic release     Features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Voltage rating   Release system     Reted operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Voltage rating   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special features     Rated operating voltage Ue (UL) - max   Sov (Ass well as the IEC regulations. IEC switching special	Delivery program	
Creative states frame type   NZM2     Number of poles   Three-pole     Amperage Rating   250 A     Release system   Thermomagnetic release     Features   Modifier of the synchic state of the s	Application	
Number of poles     Inree-pole       Amperage Rating     250 A       Release system     Inree-pole       Features     Motor drive optional Protection unt       Special features     Motor drive optional Protection unt       Special features     Motor drive optional Protection unt       Voltage rating     Release system       Voltage rating     Release system       Rated operating voltage Ub (UL) - max     Release soltage option (Ump) at auxiliary contacts       Rated operating voltage (Uimp) at auxiliary contacts     6000 V       Rated operational current     5000 V       Rated impulse withstand voltage (Uimp) at auxiliary contacts     5000 V       Rated impulse withstand voltage (Uimp) at auxiliary contacts     5000 V       Rated impulse withstand voltage (Uimp) at main contacts     5000 V       Instantaneous current setting (Ii) - min     1500 A       Instantaneous current setting (Ii) - max     2500 A	Туре	Circuit breaker
Amperage Rating   250 A     Release system   Thermomagnetic release     Features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Voltage rating   Rated uninterrupted current: 250 A Switches conform to UU/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.     Voltage rating   440 V - 440 V     Rated operating voltage U(UL) - max   600 V/347 V, 480 V     Rated insulation voltage (Uin)   600 V AC     Rated operating voltage U(Ulp) at auxiliary contacts   600 V AC     Rated operating voltage (Uinp) at main contacts   600 V AC     Rated operating (I) - max   1500 A     Instantaneous current setting (Ii) - max   1500 A     Overload current setting (Ii) - max   250 A     Overload current setting (Iic) - max   250 A     Short delay current setting (Isd) - min   1500 A	Circuit breaker frame type	NZM2
Release system   Thermomagnetic release     Features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Special features   Motor drive optional Protection unit     Technical Data - Electrical   Motor drive optional Protection unit     Voltage rating   440 V - 440 V     Rated operating voltage Ue (UL) - max   6007/347 V, 400 V     Rated operating voltage (Uimp) at auxiliary contacts   6000 V     Rated operational current   5000 V     Rated operational current   3000 V     Rated operational current   3000 V     Instantaneous current setting (Ii) - max   3000 V     Instantaneous current setting (Ii) - max   2500 A     Overload current setting (Ii) - max   2500 A     Overload current setting (Ii) - max   2500 A     Short delay current setting (Ii) - max   2500 A     Short delay current setting (Ii) - max   2500 A     Short delay current setting (Ii) - max   2500 A     Short delay current setting (Ii) - max   2500 A	Number of poles	Three-pole
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 lon) Rated current - rated uninterrupted current: 250 A Switches conform to U/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.     Technical Data - Electrical   40 V - 440 V     Votage rating   600 V/347 V,480 V     Rated operating voltage (Uinp) at auxiliary contacts   600 V/347 V,480 V     Rated inpulse withstand voltage (Uinp) at auxiliary contacts   600 V     Rated operational current   300 A (415 V AC-1, making and breaking capacity)     Instantaneous current setting (if) - min   1500 A     Instantaneous current setting (if) - max   2500 A     Overload current setting (if) - max   2500 A     Overload current setting (if) - max   2500 A     Short delay current setting (is) - min   2500 A     Short delay current setting (is) - min   2500 A     Short delay current setting (is) - min   2500 A     Short delay current setting (is) - min   2500 A     Short delay current setting (is) - min   2500 A	Amperage Rating	250 A
Special features   Protection unit     Special features   Maximum back-up fuse, if the expected short-circuit urrents at the installation location exceed the switching capacity of the circuit breaker (flated short-circuit breaker) experimence values are contained on the rating plate.     Technical Data - Electrical   Maximum back-up fuse, if the expected short-circuit breaker (flated short-circuit breaker) experimence values are contained on the rating plate.     Voltage rating   Maximum back-up fuse, if the expected short-circuit breaker (flated short-circuit breaker) experimence values are contained on the rating plate.     Notage rating   Maximum back-up fuse, if the expected short-circuit breaker (flated short-circuit breaker) experimence values are contained on the rating plate.     Rated operating voltage U(U) - max   Maximum back - up fuse, if the expected short-circuit breaker (flated short-circuit breaker)     Rated inpulse withstand voltage (Uinp) at auxiliary contacts   Maximum back - up fuse, if the expected short-circuit breaker (flated short-circuit breaker)     Rated inpulse withstand voltage (Uinp) at auxiliary contacts   Maximum back - up fuse, if the expected short-circuit breaker (flated short-circuit breaker (flated short-circuit breaker) <td>Release system</td> <td>Thermomagnetic release</td>	Release system	Thermomagnetic release
Instantaneous current setting (i) - min     Instantaneous current setting (i) - min     Instantaneous current setting (i) - min     Instantaneous current setting (i) - max     Instantaneous current settin	Features	
Voltage rating   440 V - 440 V     Rated operating voltage Ue (UL) - max   600V/347 V, 480 V     Rated insulation voltage (Uin)   600 V AC     Rated inpulse withstand voltage (Uimp) at auxiliary contacts   6000 V     Rated operational current   8000 V     Instantaneous current setting (li) - min   500 A (415 V AC-1, making and breaking capacity) 300 A (4380/400 V AC-1, making and breaking capacity)     Instantaneous current setting (li) - max   500 A     Overload current setting (lr) - max   500 A     Overload current setting (lr) - max   500 A     Short delay current setting (lsd) - min   500 A	Special features	location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn) Rated current = rated uninterrupted current: 250 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.
Rated operating voltage Ue (UL) - max   600 Y/347 V, 480 V     Rated insulation voltage (Uimp) at auxiliary contacts   600 V AC     Rated impulse withstand voltage (Uimp) at auxiliary contacts   600 V     Rated operational current   600 V     Rated operational current   600 V     Instantaneous current setting (Ii) - min   600 V     Overload current setting (Ir) - min   600 V     Overload current setting (Ir) - max   600 V     Overload current setting (Ir) - max   600 V     Short delay current setting (Isd) - min   600 V	Technical Data - Electrical	
Rated insulation voltage (Uin)   600 V AC     Rated impulse withstand voltage (Uimp) at auxiliary contacts   600 V     Rated impulse withstand voltage (Uimp) at main contacts   800 V     Rated operational current   900 V AC-1, making and breaking capacity) soon A (415 V AC-1, making and breaking capacity) soon A (380/400 V AC-1, making and breaking capacity)     Instantaneous current setting (li) - min   500 A     Instantaneous current setting (li) - max   500 A     Overload current setting (lr) - min   500 A     Overload current setting (lr) - max   500 A     Overload current setting (li) - max   500 A     Overload cur	Voltage rating	440 V - 440 V
Rated impulse withstand voltage (Uimp) at auxiliary contacts   6000 V     Rated impulse withstand voltage (Uimp) at main contacts   8000 V     Rated operational current   5000 A (415 V AC-1, making and breaking capacity) 300 A (380/400 V AC-1, making and breaking capacity)     Instantaneous current setting (li) - min   1500 A     Instantaneous current setting (li) - max   2500 A     Overload current setting (lr) - max   250 A     Overload current setting (ls) - min   250 A     Overload current setting (ls) - min   250 A	Rated operating voltage Ue (UL) - max	600Y/347 V, 480 V
Rated impulse withstand voltage (Uimp) at main contacts   8000 V     Rated operational current   300 A (415 V AC-1, making and breaking capacity) 300 A (380/400 V AC-1, making and breaking capacity)     Instantaneous current setting (Ii) - min   1500 A     Instantaneous current setting (Ii) - max   2500 A     Overload current setting (Ir) - max   250 A     Overload current setting (Ir) - max   250 A     Short delay current setting (Isd) - min   0A	Rated insulation voltage (Ui)	690 V AC
Rated operational currentSoo A (415 V AC-1, making and breaking capacity) Soo A (380/400 V AC-1, making and breaking capacity) Soo A (380/400 V AC-1, making and breaking capacity)Instantaneous current setting (li) - min1500 AInstantaneous current setting (li) - min2500 AOverload current setting (lr) - min250 AOverload current setting (lr) - max250 AShort delay current setting (lsd) - minMake and an	Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Instantaneous current setting (li) - min300 A (380/400 V AC-1, making and breaking capacity)Instantaneous current setting (li) - max1500 AOverload current setting (lr) - min250 AOverload current setting (lr) - max250 AShort delay current setting (lsd) - min100 e	Rated impulse withstand voltage (Uimp) at main contacts	8000 V
Instantaneous current setting (li) - max 2500 A   Overload current setting (lr) - min 250 A   Overload current setting (lr) - max 250 A   Short delay current setting (lsd) - min 0 A	Rated operational current	
Overload current setting (lr) - min 250 A   Overload current setting (lr) - max 250 A   Short delay current setting (lsd) - min A	Instantaneous current setting (li) - min	1500 A
Overload current setting (Ir) - max 250 A   Short delay current setting (Isd) - min 0 A	Instantaneous current setting (li) - max	2500 A
Short delay current setting (Isd) - min	Overload current setting (Ir) - min	250 A
	Overload current setting (Ir) - max	250 A
Short delay current setting (Isd) - max 0 A	Short delay current setting (Isd) - min	0 A
	Short delay current setting (Isd) - max	0 A

Short-circuit release non-delayed setting - min	1500 A
Short-circuit release non-delayed setting - max	2500 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	25 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
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	7500 operations at 400 V AC-1 6500 operations at 415 V AC-3
Direction of incoming supply	As required
Technical Data - Mechanical	
Mounting Method	Fixed DIN rail (top hat rail) mounting optional 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 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, 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: 250 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Fixed overload releases Ir
Lifespan, mechanical	20000 operations
Technical Data - Mechanical - Terminals	
Standard terminals	Screw terminal
Terminal capacity (control cable)	16 mm² - 18 mm² (2x) 14 mm² - 18 mm² (1x)
Terminal capacity (aluminum solid conductor/cable)	16 mm² (1x) at tunnel terminal
Terminal capacity (copper busbar)	Max. 20 mm x 5 mm direct at switch rear-side connection Min. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection
Terminal capacity (copper solid conductor/cable)	16 mm² (1x) at tunnel terminal 6 mm² - 12 mm² (1x) at box terminal 6 mm² - 11 mm² (1x) direct at switch rear-side connection
Terminal capacity (copper stranded conductor/cable)	4 mm² - 350 mm² (1x) at tunnel terminal 4 mm² - 350 mm² (1x) at box terminal 4 mm² - 3/0 mm² (1x) direct at switch rear-side connection
Terminal capacity (copper strip)	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 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 box terminal

Design verification as per IEC/EN 61439 - technical data		
Rated operational current for specified heat dissipation (In)	250 A	
Equipment heat dissipation, current-dependent	58.13 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 ne	eeds to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear ne	eeds 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 ne	eeds 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 ne	eeds to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear ne	eeds 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 tempe provide heat dissipation data for the devices.	rature rise calculation. Eaton will
10.11 Short-circuit rating	Is the panel builder's responsibility. The speci observed.	fications for the switchgear must be
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The speci observed.	fications for the switchgear must be
10.13 Mechanical function	The device meets the requirements, provided leaflet (IL) is observed.	the information in the instruction
Additional information		
Functions	System and cable protection Current limiting circuit breaker	

## **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])

Rated permanent current lu	А	250
Rated voltage	V	440 - 440
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	25
Overload release current setting	А	250 - 250
Adjustment range short-term delayed short-circuit release	А	0 - 0
Adjustment range undelayed short-circuit release	А	1500 - 2500
Power loss	W	58.1
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Suitable for DIN rail (top hat rail) mounting		No
DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
With switched-off indicator		No

With integrated under voltage release	No
Number of poles	3
Position of connection for main current circuit	Front side
Type of control element	Rocker lever
Complete device with protection unit	Yes
Motor drive integrated	No
Motor drive optional	Yes
Degree of protection (IP)	IP20