DATASHEET - NZMN1-A40-NA

Circuit-breaker, 3p, 40A

Part no.

NZMN1-A40-NA 274237



Application Branch circuits, feeder circuits Use in unearthed supply systems at 690 V Type Circuit breaker Circuit breaker frame type NZM1 Number of poles Three-pole Amperage Rating 40 A Release system Thermomagnetic release Features Protection unit Special features Maximum back-up fuse, if the expected short-circuit breaker (Rated short-circuit breaker (Rated short-circuit breaking capacity lon) Rated current = rated uninterrupted current: 40 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching pafer. Adjustable overload releases Ir	General specifications	
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Product kinglußpade Immeria Product kingluß Immeria Product ki	Part no.	NZMN1-A40-NA
Product heightImage in Ba5 millinereProduct verditeD millinereProduc	EAN	4015082742379
Product wight 0 <	Product Length/Depth	88 millimetre
Poduct waigit IAT7 Magram Condinence RotS carlorm Condinence RotS carlorm Condinence RotS carlorm Condinence RotS carlorm Condinence Seccility designed for York America Conding designed for York America Conditacore designed f	Product height	165.5 millimetre
Compliances CA Rest Conform Carbications CA (Cass No. 128 201) Second Cass No. 128 201) Case (Cass No. 128 201) Second Case No. 128 201) Case (Cass No. 128 201) Second Case No. 128 2011 Case (Cass No. 128 201) Product Todenam Case (Cass No. 128 201) Product Todenam Case (Cass No. 128 201) Product Todenam Case (Case No. 128 201) Product Tope Case (Case No. 128	Product width	90 millimetre
Cartifications SAN Grass As, 122-21) Cartifications San Grass As, 122-21) Cartifications San Grass As, 122-21) Product Trademan In Cartifications Product Trademan NEW Second New Second NEW Second Product Trademan NEW Second New Second NEW Second Reserver New Sec	Product weight	1.077 kilogram
Product Fundemanne Product F	Compliances	RoHS conform
Product Type Molded case circuit breaker Product Sub Type Intermo-magnetic Delivery program Intermo-magnetic Application Intermo-magnetic Type Circuit breaker frame type Circuit breaker Release system Circuit breaker frame type Circuit breaker Amperage Ration Molded case circuit breaker Circuit breaker Release system Molded case circuit breaker Circuit breaker Release system Monded case circuit breaker Circuit breaker Release system Moremomagnetic release Moremomagnetic release Features Protection unit Numinum back-up race of the circuit breaker (Rated short-circuit currents at the installation location contexed the switching capacity of the circuit breaker (Rated short-circuit currents at the installation location are are contained or the rating plate. Voltage rating Switches conform to UKSA as well as the IEC sequications. IEC switching performance values are contained or the rating plate. Rated insulation voltage (UII) - max Switches conform to UKSA as well as the IEC sequications. IEC switching capacity (Intermote and the rating plate. Rated insulation voltage (UII) - max Switches conform to UKSA as well as the IEC switching capacity) Rated insulation voltage (UII) - max Switches confor	Certifications	Specially designed for North America CE marking UL (File No. E31593) IEC 60947-2 UL/CSA CSA certified UL (Category Control Number DIVQ) UL 489 UL listed IEC IEC IEC/EN 60947 CSA (File No. 22086)
Product Sub Type Thermo-magnetic Delivery program See 1 Application Sea nuch circuits, feeder circuit, feeder circit, feeder circuit, feeder circuit, feeder circuit, f	Product Tradename	NZM
Delivery program Image: Control State	Product Type	Molded case circuit breaker
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 Thermomagnetic release Features Foreit to init Special features Thermomagnetic release Construct to the system in t	Product Sub Type	Thermo-magnetic
Image: Section of Section Sectin Section Section Section Section Section Section Sectio	Delivery program	
Circuit breaker frame type NZM1 Number of poles Three-pole Amperage Rating 40 A Release system Thermomagnetic release Features Protection unit Special features Protection unit Special features Maximum back-up fuse, if the expected short-circuit urrents at the installation incacion exceed the switching capacity of the circuit breaker (Rated short-circuit breaker (Rated s	Application	
Number of poles Three-pole Amperage Rating 0 A Release system 0 A Features Protection unit Special features Protection unit Special features Protection unit Voltage rating Switches contrained on the rating plate. Voltage rating 600 V-600	Туре	Circuit breaker
Amperage Rating 0A Release system Fortures Features Protection unit Special features Maximum back-up fuss, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaker) (Rated short-circuit short (Uinp) at main contacts	Circuit breaker frame type	NZM1
Release system Thermomagnetic release Features 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 break	Number of poles	Three-pole
Features 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 breaker, Capacity of the circuit breaker, Capacity, Capac	Amperage Rating	40 A
Special features Maximum back-up fuse, if the expected short-circuit urrents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit	Release system	Thermomagnetic release
Instantaneous current setting (i) - max Instantaneous current settin	Features	Protection unit
Rated operating voltage Ue (UL) - max 480 Y / 277 V Rated insulation voltage (Uin) 690 V AC Rated inpulse withstand voltage (Uimp) at auxiliary contacts 6000 V Rated operational current 6000 V Rated operational current 000 V Instantaneous current setting (Ii) - min 040 (660-690 V AC-1, making and breaking capacity) stor A (380/400 V AC-1, making and	Special features Technical Data - Electrical	location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity Icn) Rated current = rated uninterrupted current: 40 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 480 Y / 277 V Rated insulation voltage (Uin) 690 V AC Rated inpulse withstand voltage (Uimp) at auxiliary contacts 6000 V Rated operational current 6000 V Rated operational current 000 V Instantaneous current setting (Ii) - min 040 (660-690 V AC-1, making and breaking capacity) stor A (380/400 V AC-1, making and	Voltage rating	690 V - 690 V
Rated impulse withstand voltage (Uimp) at auxiliary contacts 6000 V Rated impulse withstand voltage (Uimp) at main contacts 6000 V Rated operational current 40 A (690 V AC-1, making and breaking capacity) 155 A (415 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity) 160 A (380/400 V AC-3, making and breaking capacity) 160 A		480 Y / 277 V
Rated impulse withstand voltage (Uimp) at auxiliary contacts 6000 V Rated impulse withstand voltage (Uimp) at main contacts 6000 V Rated operational current 40 A (690 V AC-1, making and breaking capacity) 155 A (415 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity) 160 A (380/400 V AC-3, making and breaking capacity) 160 A		690 V AC
Rated impulse withstand voltage (Uimp) at main contacts 6000 V Rated operational current 40 A (690 V AC-1, making and breaking capacity) 125 A (415 V AC-1, making and breaking capacity) 125 A (415 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity) 40 A (660-690 V AC-3, making and breaking capacity) Instantaneous current setting (li) - min 200 A Overload current setting (lr) - min 200 A Overload current setting (lr) - max 200 A Overload current setting (ls) - min 0A	Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Istantaneous current setting (li) - minIstantaneous current setting (li) - maxIstantaneousIs	Rated impulse withstand voltage (Uimp) at main contacts	6000 V
Instantaneous current setting (li) - max 400 A Overload current setting (lr) - min 32 A Overload current setting (lr) - max 40 A Short delay current setting (lsd) - min 6	Rated operational current	125 A (415 V AC-1, making and breaking capacity) 160 A (380/400 V AC-1, making and breaking capacity)
Overload current setting (Ir) - min32 AOverload current setting (Ir) - max40 AShort delay current setting (Isd) - min0 A	Instantaneous current setting (li) - min	320 A
Overload current setting (Ir) - max 40 A Short delay current setting (Isd) - min 0 A	Instantaneous current setting (li) - max	400 A
Short delay current setting (Isd) - min 0 A	Overload current setting (Ir) - min	32 A
	Overload current setting (Ir) - max	40 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	320 A
Short-circuit release non-delayed setting - max	400 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 200 v, 50/60 Hz	50 kA
	35 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 525 V, 50/60 Hz	10 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 690 V, 50/60 Hz	7.5 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	40 kA
Rated short-circuit making capacity Icm at 690 V, 50/60 Hz	17 kA
Short-circuit total breaktime	< 10 ms
Low-voltage HBC fuse - max	200 A gG/gL
Electrical connection type of main circuit	Frame clamp
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	10000 operations at 400 V AC-1 7500 operations at 690 V AC-1
Direction of incoming supply	As required
Technical Data - Mechanical	
Mounting Method	DIN rail (top hat rail) mounting optional 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) Rated current = rated uninterrupted current: 40 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Adjustable overload releases Ir
Lifespan, mechanical	20000 operations
Technical Data - Mechanical - Terminals	
Standard terminals	Box terminal
Terminal capacity (control cable)	14 mm² - 18 mm² (1x) 16 mm² - 18 mm² (2x)
Terminal capacity (aluminum solid conductor/cable)	16 mm² (1x) at tunnel terminal
Terminal capacity (copper busbar)	Min. 12 mm x 5 mm direct at switch rear-side connection Max. 16 mm x 5 mm direct at switch rear-side connection M8 at rear-side screw connection
Terminal capacity (copper solid conductor/cable)	6 mm ² - 9 mm ² (2x) direct at switch rear-side connection 16 mm ² - 95 mm ² (1x) at tunnel terminal 6 mm ² - 12 mm ² (1x) direct at switch rear-side connection 6 mm ² - 12 mm ² (1x) at box terminal

Terminal capacity (copper stranded conductor/cable)	25 mm² - 70 mm² (1x) at box terminal 4 mm² - 3/0 mm² (1x) at tunnel terminal 25 mm² (2x) at box terminal 4 mm² - 2/0 mm² (1x) direct at switch rear-side connection
Terminal capacity (copper strip)	Max. 9 segments of 9 mm x 0.8 mm at box terminal Min. 2 segments of 9 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)	40 A
Equipment heat dissipation, current-dependent	10.66 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	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	40
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	50
Overload release current setting	А	32 - 40
Adjustment range short-term delayed short-circuit release	А	0 - 0
Adjustment range undelayed short-circuit release	А	320 - 400
Power loss	W	10.7
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Frame clamp
Suitable for DIN rail (top hat rail) mounting		No
DIN rail (top hat rail) mounting optional		Yes

Motor drive integrated	No
Type of control element Complete device with protection unit	Rocker lever Yes
Position of connection for main current circuit	Front side
Number of poles	3
With integrated under voltage release	No
With switched-off indicator	No
Number of auxiliary contacts as change-over contact	0
Number of auxiliary contacts as normally open contact	0
Number of auxiliary contacts as normally closed contact	0