DATASHEET - NZMN3-VX250-NA

NZM3 PXR20 circuit breaker, 250A, 3p, Screw terminal, UL/CSA

Part no. NZMN3-VX250-NA
Catalog No. 192502

Powering Business Worldwide™

Delivery program

Product range			Circuit-breaker
Protective function			Systems, cable, selectivity and generator protection
Standard/Approval			UL/CSA, IEC
Release system			Electronic release
Installation type			Fixed
Description			Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.
Frame size			NZM3
Number of poles			3 pole
Standard equipment			Screw connection
Switching capacity			
SCCR 480Y/277 V 60 Hz	I_{cu}	kA	42
SCCR 480 V 60 Hz	I_{cu}	kA	42
SCCR 600Y/347 V 60 Hz	I_{cu}	kA	35
SCCR 600 V 60 Hz	I_{cu}	kA	35
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	A	250
Setting range			
Overload trip			
	I_r	A	100 - 250
Short-circuit releases 			
Non-delayed 	$I_i = I_n$ x …		2 – 18
Delayed 	$I_{sd} = I_r$ x …		2 – 10

Technical data

General

Protection against direct contact			Finger and back of hand proof to VDE 0106 Part 100
Ambient temperature			
Ambient temperature, storage		°C	- 40 - + 70
Operation		°C	-25 - +70

Circuit-breakers

Rated insulation voltage	U_i	V	690

Switching capacity

Technical data that diverge from products for the IEC market Switching capacity of NA switches (UL489, CSA 22.2 No. 5.1) Short-circuit current rating SCCR			
SCCR 240 V 60 Hz	I_{cu}	kA	85
SCCR 480Y/277 V 60 Hz	I_{cu}	kA	42
SCCR 480 V 60 Hz	I_{cu}	kA	42

SCCR 600Y/347 V 60 Hz	I_{cu}	kA	35
SCCR 600 V 60 Hz	I_{cu}	kA	35

Terminal capacity

Standard equipment			Screw connection

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	250
Equipment heat dissipation, current-dependent	P_{vid}	W	18.75
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

Technical data ETIM 8.0

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@ss10.0.1-27-37-04-09 [AJZ716013])

Rated permanent current Iu		A	250
Rated voltage		V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz		kA	50
Overload release current setting		A	100 - 250
Adjustment range short-term delayed short-circuit release		A	500 - 2500
Adjustment range undelayed short-circuit release		A	2 - 18
Integrated earth fault protection			No
Type of electrical connection of main circuit			Screw connection
Device construction			Built-in device fixed built-in technique
Suitable for DIN rail (top hat rail) mounting			No
DIN rail (top hat rail) mounting optional			No
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

Approvals

Product Standards	UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.	E31593
UL Category Control No.	DIVQ
CSA File No.	022086
CSA Class No.	1432-01
North America Certification	UL listed, CSA certified
Specially designed for North America	Yes
Suitable for	Feeder circuits, branch circuits
Current Limiting Circuit-Breaker	Yes
Max. Voltage Rating	600 V
Degree of Protection	IEC: IP20; UL/CSA Type: -

Additional product information (links)

additional technical information for NZM power switch	https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf

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