





**Circuit-breaker, 3p, 320A, plug-in module**

**Part no.** NZMN3-S320-SVE  
**Catalog No.** 168490  
**Alternate Catalog No.** NZMN3-S320-SVE

Similar to illustration

## Delivery program

Description			Motor protection in conjunction with overload relay With short-circuit release Without overload release Ir IEC/EN 60947-4-1, IEC/EN 60947-2  The circuit-breaker fulfills all requirements for AC-3 switching category.
Rated current = rated uninterrupted current	$I_n = I_u$	A	320
<b>Switching capacity</b>			
400/415 V 50 Hz	$I_{cu}$	kA	50
<b>Setting range</b>			
Short-circuit releases			
			
Non-delayed	$I_j = I_n \times \dots$		8 - 14
			
<b>Motor rating AC-3 at 400 V 50/60 Hz</b>			
380 V 400 V	P	kW	160
<b>Rated operational current AC-3 at 400 V 50/60 Hz</b>			
400 V	$I_e$	A	279

## Technical data

### General

Ambient temperature			
Ambient temperature, storage		°C	- 40 - + 70
Operation		°C	-25 - +70

### Circuit-breakers

Rated current = rated uninterrupted current	$I_n = I_u$	A	320
<b>Switching capacity</b>			
Rated short-circuit breaking capacity $I_{cn}$	$I_{cn}$		
$I_{cu}$ to IEC/EN 60947 test cycle 0-t-CO	$I_{cu}$	kA	
400/415 V 50/60 Hz	$I_{cu}$	kA	50
500 V DC	$I_{cu}$	kA	30
750 V DC	$I_{cu}$	kA	30
$I_{cs}$ to IEC/EN 60947 test cycle 0-t-CO-t-CO	$I_{cs}$	kA	
500 V DC	$I_{cs}$	kA	30
750 V DC	$I_{cs}$	kA	30

## Design verification as per IEC/EN 61439

Technical data for design verification			
Equipment heat dissipation, current-dependent	$P_{vid}$	W	78.64
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 7.0

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	8 - 14
With thermal protection		No
Phase failure sensitive		No
Switch off technique		Magnetic
Rated operating voltage	V	690 - 690
Rated permanent current I <sub>u</sub>	A	320
Rated operation power at AC-3, 230 V	kW	90
Rated operation power at AC-3, 400 V	kW	160
Type of electrical connection of main circuit		Screw connection
Type of control element		Rocker lever
Device construction		Built-in device plug-in technique
With integrated auxiliary switch		No
With integrated under voltage release		No
Number of poles		3
Rated short-circuit breaking capacity I <sub>cu</sub> at 400 V, AC	kA	50
Degree of protection (IP)		IP20
Height	mm	215.2
Width	mm	140
Depth	mm	335

## Additional product information (links)

additional technical information for NZM power switch	<a href="https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf">https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf</a>
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