DATASHEET - NZMN2-A200-SVE



Circuit-breaker, 3p, 200A, plug-in module

Part no. NZMN2-A200-SVE Catalog No. 113245

EL-Nummer (Norway)

0004357014

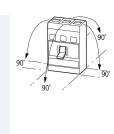


Similar to illustration

Delivery program			
Product range			Circuit-breaker
Protective function			System and cable protection
Standard/Approval			IEC
Installation type			Plug-in units
Release system			Thermomagnetic release
Construction size			NZM2
Number of poles			3 pole
Standard equipment			Screw connection
Switching capacity			
400/415 V 50 Hz	I _{cu}	kA	50
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	200
Setting range			
Overload trip			
中	I _r	A	160 - 200
Short-circuit releases			
Non-delayed	$I_i = I_n \times \dots$		6 - 10

Technical data

General		
Standards		IEC/EN 60947
Protection against direct contact		Finger and back of hand proof to VDE 0106 Part 100
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		
Ambient temperature, storage	°C	- 40 - + 70
Operation	°C	-25 - +70
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27	g	20 (half-sinusoidal shock 20 ms)
Safe isolation to EN 61140		
Between auxiliary contacts and main contacts	V AC	500
between the auxiliary contacts	V AC	300
Weight	kg	2.345
Mounting position		Vertical and 90° in all directions



With XFI earth-fault release:
- NZM1, N1, NZM2, N2: vertical and 90° in all directions with plug-in unit
- NZM1, N1, NZM2, N2: vertical, 90° right/left with withdrawable unit:
- NZM3, N3: vertical, 90° right/left
- NZM4, N4: vertical with remote operator:
- NZM2, N(S)2, NZM3, N(S)3, NZM4, N(S)4: vertical and 90° in all directions

Direction of incoming supply	as required
Degree of protection	
Device	In the operating controls area: IP20 (basic degree of protection)
Enclosures	With insulating surround: IP40 With door coupling rotary handle: IP66
Terminations	Tunnel terminal: IP10 Phase isolator and strip terminal: IP00
Other technical data (sheet catalogue)	Temperature dependency, Derating

Circuit-breakers

400 V 50/60 Hz

Rated current = rated uninterrupted current	$I_n = I_u$	Α	200
Rated surge voltage invariability	U_{imp}		
Main contacts		V	8000
Auxiliary contacts		V	6000
Rated operational voltage	U _e	V AC	690
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V	1000
Use in unearthed supply systems		V	≦ 690

Switching capacity			
Rated short-circuit making capacity	I _{cm}		
240 V	I _{cm}	kA	187
400/415 V	I _{cm}	kA	105
440 V 50/60 Hz	I _{cm}	kA	74
525 V 50/60 Hz	I _{cm}	kA	53
690 V 50/60 H	Ic	kA	40
Rated short-circuit breaking capacity I_{cn}	I _{cn}		
Icu to IEC/EN 60947 test cycle 0-t-C0	lcu	kA	
240 V 50/60 Hz	I _{cu}	kA	85
400/415 V 50/60 Hz	I _{cu}	kA	50
440 V 50/60 Hz	I _{cu}	kA	35
525 V 50/60 Hz	I _{cu}	kA	25
690 V 50/60 Hz	I _{cu}	kA	20
Ics to IEC/EN 60947 test cycle 0-t-C0-t-C0	lcs	kA	
240 V 50/60 Hz	I _{cs}	kA	85
400/415 V 50/60 Hz	I _{cs}	kA	50
440 V 50/60 Hz	I _{cs}	kA	35
525 V 50/60 Hz	I _{cs}	kA	25
690 V 50/60 Hz	I _{cs}	kA	5
			Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker.
Rated short-time withstand current			
t = 0.3 s	I _{cw}	kA	1.9
t = 1 s	I _{cw}	kA	85
Utilization category to IEC/EN 60947-2			A
Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release)	Operations		20000
Lifespan, electrical			
AC-1			

Operations

10000

690 V 50/60 Hz Opera AC3 400 V 50/60 Hz Opera 415 V 50/60 Hz Opera	m	7 6 6 6 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6	10000 7500 6500 6500 5000 120 < 10 Screw connection NZM2-XSVS Box terminal Tunnel terminal
AC3 400 V 50/60 Hz Opera 415 V 50/60 Hz Opera 690 V 50/60 Hz Max. operating frequency Total break time at short-circuit Terminal capacity Standard equipment Accessories required Optional accessories Round copper conductor Box terminal Solid Stranded	ations ations or	6 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6500 6500 5000 120 < 10 Screw connection NZM2-XSVS Box terminal Tunnel terminal
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Terminal capacity Standard equipment Accessories required Optional accessories Round copper conductor Box terminal Solid Stranded		\$ M E	Screw connection NZM2-XSVS Box terminal Tunnel terminal
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Optional accessories Round copper conductor Box terminal Solid Stranded	mi	E 1	Box terminal Tunnel terminal
Round copper conductor Box terminal Solid Stranded	mı	1	Tunnel terminal
Box terminal Solid Stranded	mı		connection on rear
Solid Stranded	mı		
Stranded	mı		
			1 x (10 - 16) 2 x (6 - 16)
Tunnel terminal	mı		1 x (25 - 185) 2 x (25 - 70)
Tullilet terminal			
Solid	mı	nm ² 1	1 x 16
Stranded			
1-hole	mı	nm ² 1	1 x (25 - 185)
Bolt terminal and rear-side connection			
Direct on the switch			
Solid	mı		1 x (10 - 16) 2 x (6 - 16)
Stranded	mı	nm ² 1	1 x (25 - 185) 2 x (25 - 70)
Al circular conductor			
Tunnel terminal			
Solid	mı	nm ² 1	1 x 16
Stranded			
Stranded	mı	nm ² 1	1 x (25 - 185)
Cu strip (number of segments x width x segment thickness)	""		
Box terminal			
min.	mı	nm 2	2×9×0.8
max.			10 x 16 x 0.8
III.			(2x) 8 x 15.5 x 0,8
Bolt terminal and rear-side connection			
Flat copper strip, with holes min.	mı	nm 2	2 x 16 x 0.8
Flat copper strip, with holes max.	mı	nm 1	10 x 24 x 0.8
Copper busbar (width x thickness) mm			
Bolt terminal and rear-side connection			
Screw connection		N	M8
Direct on the switch			
min.	mı	nm 1	16 x 5
max.	mı	nm 2	24 x 8
Control cables			
		nm ² 1	1 x (0.75 - 2.5)

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	200
Equipment heat dissipation, current-dependent	P _{vid}	W	48
Operating ambient temperature min.		°C	-25

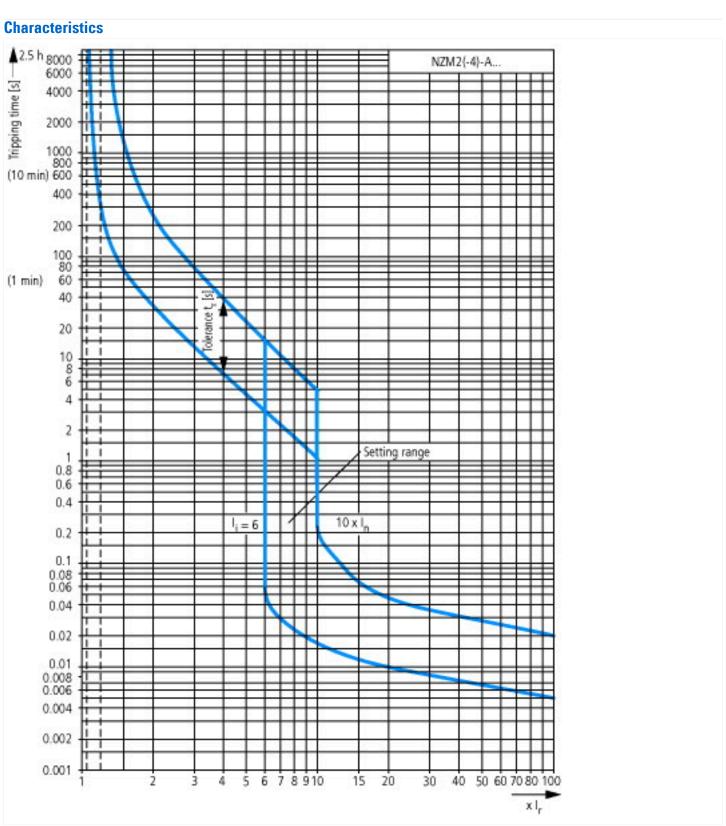
°C	70
	Meets the product standard's requirements.
	Does not apply, since the entire switchgear needs to be evaluated.
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	Does not apply, since the entire switchgear needs to be evaluated.
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	Is the panel builder's responsibility.
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	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
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	The device meets the requirements, provided the information in the instruction
	°C

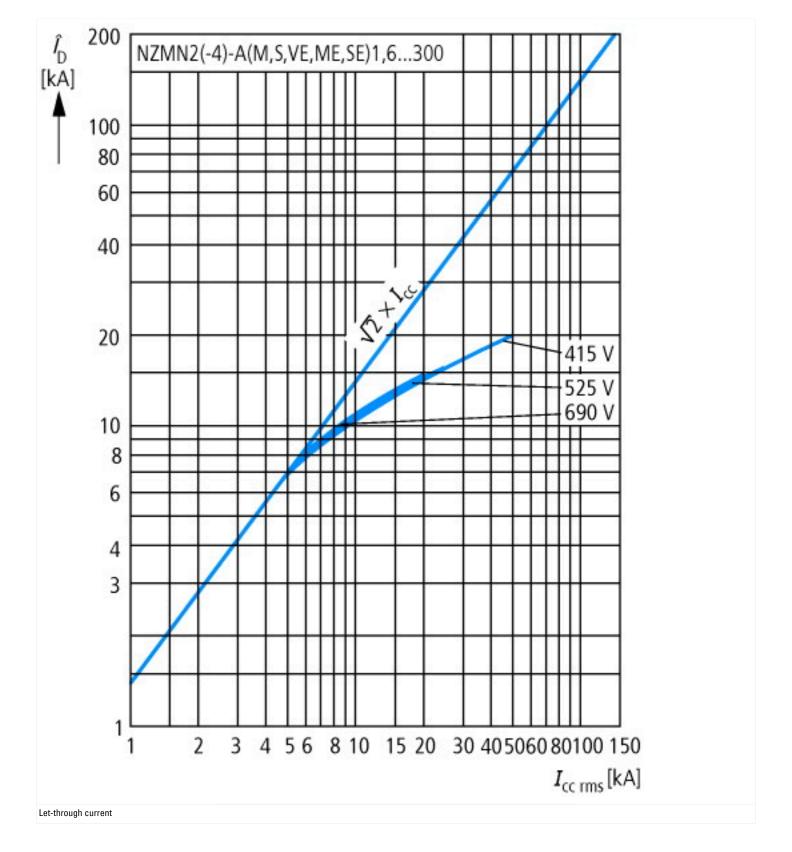
Technical data ETIM 7.0

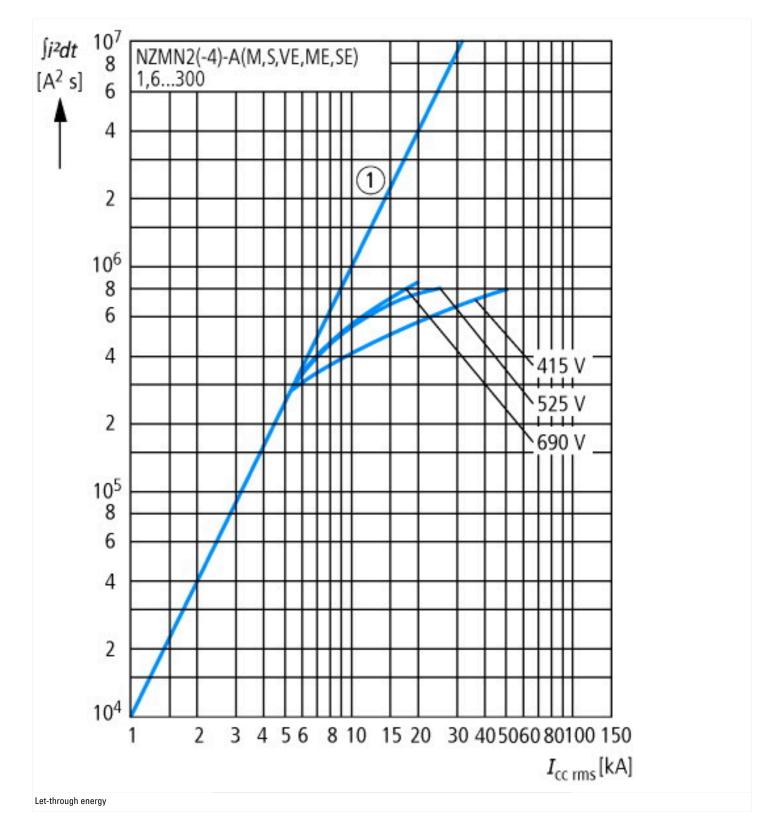
 $Low-voltage\ industrial\ components\ (EG000017)\ /\ Power\ circuit-breaker\ for\ trafo/generator/installation\ protection\ (EC000228)$

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])

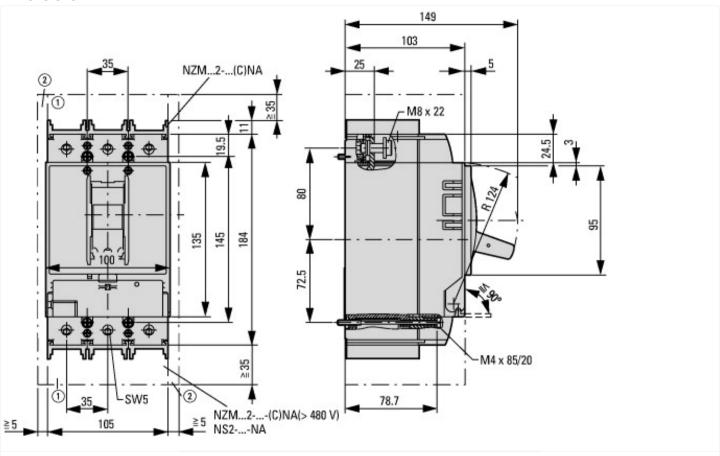
protection (eci@ss10.0.1-21-31-04-09 [AJZ/16013])		
Rated permanent current lu	А	200
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	50
Overload release current setting	Α	160 - 200
Adjustment range short-term delayed short-circuit release	А	0 - 0
Adjustment range undelayed short-circuit release	А	1200 - 2000
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Device construction		Built-in device plug-in technique
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 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



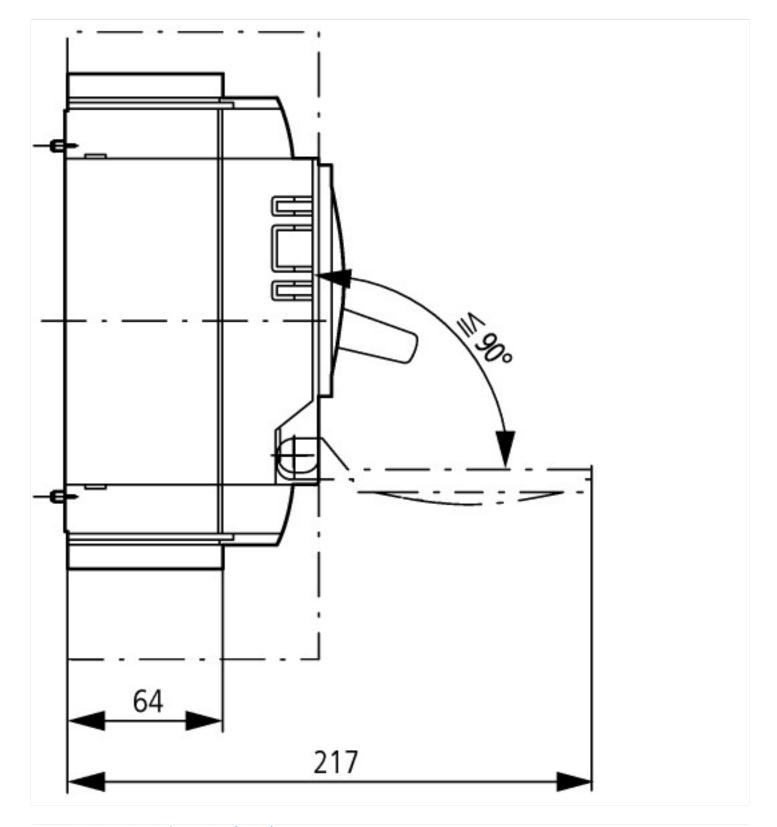




Dimensions



Blow out area, minimum clearance to adjacent parts
 Minimum clearance to adjacent parts



Additional product information (links)

Temperature dependency, Derating	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.172
CurveSelect characteristics program	http://www.eaton.eu/DE/Europe/Electrical/CustomerSupport/ConfigurationTools/CharacteristicsProgram/index.htm
additional technical information for NZM power switch	https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf