DATASHEET - NZMB2-A200-SVE



Part no. Catalog No.

NZMB2-A200-SVE 113194

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

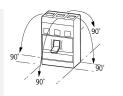


Similar to illustration

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	25
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	А	200
Setting range			
Overload trip			
с‡	I _r	A	160 - 200
Short-circuit releases			
Non-delayed	I _i = I _n x		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

bey channelbey channe				- NZM4, N4: vertical with remote operator: - NZM2, N(S)2, NZM3, N(S)3, NZM4, N(S)4: vertical and 90° in all directions
DeciIntersection of any series of a protection of a protection of any series of a protection of a pro	Direction of incoming supply			as required
EncloseMethodocologic group and Ma Methodocologic group and Ma 	Degree of protection			
Number of the solution	Device			In the operating controls area: IP20 (basic degree of protection)
imageimageimageimageimageimageimageBreadmannImage	Enclosures			With insulating surround: IP40 With door coupling rotary handle: IP66
Circuit-breakers Circuit-breakers Circuit-breakers Circuit-breakers Maid contracts No No No	Terminations			
Rate quinty equity invariablyInInRest quinty equity invariablyInRest quinty equity invariableInRest quint	Other technical data (sheet catalogue)			Temperature dependency, Derating
Rate drage whether invariabilityNumNumNumManiary contactsV800Audiary contactsV800Batel deposition degreeV800Batel deposition degree<				
Main contactsV00Auding contactsV00Raid querational votageV00Overontage category/pulsion degreeV00Raid markets supply systemV00Raid markets supply systemV00Braid markets supply systemV00Strichting capacityN00Strichting capacityN00Add Markets Markets supply systemN00Add Markets Markets Supply systemNNAdd Markets Markets Markets Supply systemNNAdd Markets Markets Markets Supply syst			A	200
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Rate operational voltage VAC 40 Ourworksge category/solkdon degree IG Rated mainloor voltage V 90 Rated mainloor voltage V 90 Rated mainloor voltage V 90 Read mainloor voltage V 90 Rated mainloor voltage V 90 Stricture of mainloor voltage V 90 Rated mainloor voltage V 90 Adv Styde hz Len 140 140 Adv Styde hz	Main contacts		V	8000
OutcodingImage	Auxiliary contacts		V	6000
Rated insulation valueUV80Use in our method supply systemsV60SW160-1000V6050Red short-circuit making capacityIcanX30Red short-circuit making capacity forIcanX30Adv VS000 HzIcanK3030Red short-circuit making capacity forIcanK30Red short-circuit making capacity forIcanK30Red short-circuit making capacity forIcanK30Ican to Exp (SN 0587) has capacity for (SN	Rated operational voltage	U _e	V AC	440
ل خل بعن علي العالية ال عالية العالية العا	Overvoltage category/pollution degree			III/3
Switching capacity Image of the spectral structure struc	Rated insulation voltage	Ui	V	690
Rate diversion withing capacityIndIndIndInd20 VIndIndIndIndInd400/15 V 5060 HzIndIndIndInd240 V 5060 HzIndIndIndInd240 V 5060 HzIndIndIndInd240 V 5060 HzIndIndIndInd400/15 V 5060 HzIndIndIndInd240 V 5060 HzInd <td>Use in unearthed supply systems</td> <td></td> <td>V</td> <td>≦ 440</td>	Use in unearthed supply systems		V	≦ 440
2qVInInKatStandard Standard Stan	Switching capacity			
normno	Rated short-circuit making capacity	I _{cm}		
More Mark More Mark <t< td=""><td>240 V</td><td>I_{cm}</td><td>kA</td><td>63</td></t<>	240 V	I _{cm}	kA	63
NoteNoteis in the initial state shore, is cycle 0-t-C0is initial shore, is cycl	400/415 V	I _{cm}	kA	53
ReteInInIn240 Yolko HatKuKuS400 Yolko HatKuKuSKatu HatKuK	440 V 50/60 Hz	I _{cm}	kA	53
Icu to IEC/EN 00947 test cycle 0-1-COIcu<	Rated short-circuit breaking capacity Ico			
240 Y0%0HzRuKuS400 Y0%0HzRuKuS440 Y0%0HzRuKuS240 Y0%0HzRuKuS240 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS400 Y0%0HzRuKuS1 = 1RuKuKu1 = 1RuKuKu1 = 1RuKuS1 = 1RuKuS1 = 1RuKuKu1 = 1RuKuS1 = 1RuRuS1 = 1RuRuS			kΔ	
400415 V 50/60 Hz Ica Ka 400 V50/60 Hz Ica Ka 400 V50/60 Hz Ica Ka 200 V50/60 Hz Ica Ka 400 V50/60 Hz Ica Ka Kata Ica Ica Kata Ic				30
$\frac{1}{40} + \frac{1}{50} $				
Ics to IEC/EN 60947 test cycle 0-t-CO-t-CO Ics KA 240 V 50/60 H2 Ics KA 400/415 V 50/60 H2 Ics KA 440 V 50/60 H2 Ics Maximum back-up fuse, if the expected short-circuit currents at the installation focation exceed the switching capacity of the circuit-breaker. Rated short-time withstand current Ics Maximum back-up fuse, if the expected short-circuit currents at the installation focation exceed the switching capacity of the circuit-breaker. till s in the installation exceed the switching capacity of the circuit-breaker. Maximum back-up fuse, if the expected short-circuit current stall the installation focation exceed the switching capacity of the circuit-breaker. till s in the install short for the installation focation exceed the switching capacity of the circuit-breaker. Maximum back-up fuse, if the expected short-circuit current stall short focation exceed the switching capacity of the circuit-breaker. till s in the install short for the install short focation exceed the switching capacity of the circuit-breaker. Maximum back-up fuse, if the expected short-circuit current stall short focation exceed the switching capacity of the circuit-breaker.				
240 V 50/60 Hz Ics KA 3 400/415 V 50/60 Hz Ics KA 5 440 V 50/60 Hz Ics KA 8.5 440 V 50/60 Hz Ics KA 8.5 440 V 50/60 Hz Ics Maximum back-up fuse, if the expected short-circuit currents at the installation incorrect the switching capacity of the circuit-breaker. Ics Rated short-time withstand current Ics KA 5 t = 1 s Ics KA 5 Utilization category to IEC/EN 60947-2 Ics A Lifespan, mechanical(of which max. 50% trip by shunt/undervoltage release) Operations C AC-1 Operations Ics 1000 ADV 50/60 Hz Operations 1000 1000 Max. operating frequency Operations Ics 1000 Max. operating frequency Ins 1000 1000 Total break time stabet-circuit				25
400/415 V 50/60 Hz Ics Ka 2 440 V 50/60 Hz Ics Ka 18.5 440 V 50/60 Hz Ics Ka 18.5 Reted short-time withstand current Ics Ka 5 t = 1 s Ics Ka 5 Utilization category to IEC/EN 60947-2 Ics Ka 5 Lifespan, nechanical(of which max. 50 % trip by shunt/undervoltage release) Operations Ya A00000 AC-1 Ics Operations 100000 1000000000000000000000000000000000000				
440 V 50/60 Hz Ics Ka 8.5 440 V 50/60 Hz Ics Ka Maximum back-up fuse, if the expected short-circuit currents at the installation cation exceed the switching capacity of the circuit-breaker. Rated short-time withstand current Icw Ka 5.6 t=1s Icw Ka 5.6 Utilization category to IEC/EN 60947-2 Icw Ka 6.0 Lifespan, mechanical(of which max. 50% trip by shunt/undervoltage release) Operations Co 2000 AC-1 Icw Ka 5.0 1.0 400 V 50/60 Hz Operations Co 5.00 1.0 ADU Sol/60 Hz Operations Co 5.00 1.0	240 V 50/60 Hz	I _{cs}	kA	30
Action	400/415 V 50/60 Hz	I _{cs}	kA	25
Reted short-time withstand current Image: Reted short-time withstand current Image: Reted short-time withstand current t = 1 s Image: Reted short-time withstand current Image: Reted short-time withstand current Source short-time withstand current Lifespan, mechanical(of which max. 50% trip by shunt/undervoltage release) Image: Reter short-time withstand current Image: Reter short-time withstand current Source short-time withstand current AC-1 Image: Reter short-time withstand current Image: Reter short-time withstand current Image: Reter short-time withstand current Source short-time withstand current Max. operating frequency Image: Reter short-time withstand current Image: Reter short-time withstand current Source short-time withstand current Eret image: Reter short-time with	440 V 50/60 Hz	I _{cs}	kA	18.5
t = 1 s I s I s I s I s I s I s I s I s I s				
Vitization category to IEC/EN 60947-2 	Rated short-time withstand current			
Lifespan, mechanicallof which max. 50 % trip by shunt/undervoltage release) Lifespan, electrical AC-1 AC-1 AC-1 AC-1 AC-1 AC-1 AC-2 AC-2 AC-2 AC-2 AC-2 AC-2 AC-2 AC-2	t = 1 s	I _{cw}	kA	85
Lifespan, electrical Image: standard equipment Image: stan	Utilization category to IEC/EN 60947-2			A
AC-1Image: Constraint of the second seco	Lifespan, mechanical(of which max. 50 $\%$ trip by shunt/undervoltage release)	Operations		20000
400 V 50/60 Hz Operations 1000 415 V 50/60 Hz Operations 7500 Max. operating frequency Operations 0ps/m 120 Total break time at short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit Terminal capacity Image: Comparition of the short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit Standard equipment Image: Comparition of the short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit Accessories required Image: Comparition of the short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit Optional accessories Image: Comparition of the short-circuit Image: Comparition of the short-circuit Image: Comparition of the short-circuit	Lifespan, electrical			
415 V 50/60 Hz Operations Food Max. operating frequency 0ps/h 120 Total break time at short-circuit ms <10	AC-1			
Max. operating frequency Ops/h 120 Total break time at short-circuit ms <10	400 V 50/60 Hz	Operations		10000
Total break time at short-circuit ms < 10 Terminal capacity Strew connection Standard equipment Image: Strew connection Accessories required Image: Strew connection Optional accessories Image: Strew connection	415 V 50/60 Hz	Operations		7500
Terminal capacity Standard equipment Screw connection Accessories required MZM2-XSVS Optional accessories Box terminal	Max. operating frequency		Ops/h	120
Standard equipment Screw connection Accessories required NZM2-XSVS Optional accessories Box terminal	Total break time at short-circuit		ms	< 10
Accessories required NZM2-XSVS Optional accessories Box terminal	Terminal capacity			
Optional accessories Box terminal	Standard equipment			Screw connection
	Accessories required			NZM2-XSVS
	Optional accessories			

			connection on rear
Round copper conductor			
Box terminal			
Solid		mm ²	1 x (10 - 16) 2 x (6 - 16)
Stranded		mm ²	1 x (25 - 185) 2 x (25 - 70)
Tunnel terminal			
Solid		mm ²	1 x 16
Stranded			
1-hole		mm ²	1 x (25 - 185)
Bolt terminal and rear-side connection			
Direct on the switch			
Solid		mm ²	1 x (10 - 16) 2 x (6 - 16)
Stranded		mm ²	1 x (25 - 185) 2 x (25 - 70)
Al circular conductor			
Tunnel terminal			
Solid		mm ²	1 x 16
Stranded			
Stranded		mm ²	1 x (25 - 185)
Cu strip (number of segments x width x segment thickness)			
Box terminal			
	min.	mm	2 x 9 x 0.8
	max.	mm	10 x 16 x 0.8 (2x) 8 x 15.5 x 0,8
Bolt terminal and rear-side connection			
Flat copper strip, with holes	min.	mm	2 x 16 x 0.8
Flat copper strip, with holes	max.	mm	10 x 24 x 0.8
Copper busbar (width x thickness)	mm		
Bolt terminal and rear-side connection			
Screw connection			M8
Direct on the switch			
	min.	mm	16 x 5
	max.	mm	24 x 8
Control cables			
		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	200
Equipment heat dissipation, current-dependent	P _{vid}	W	48
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.

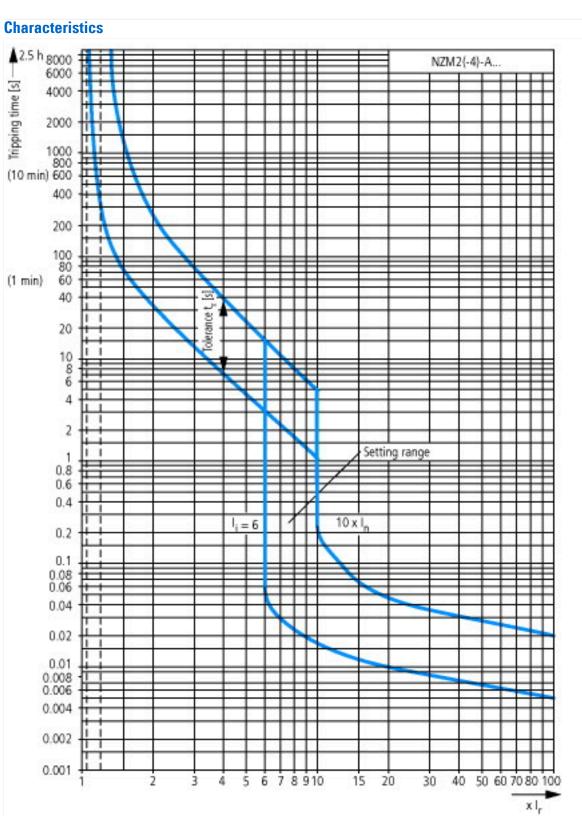
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation 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.

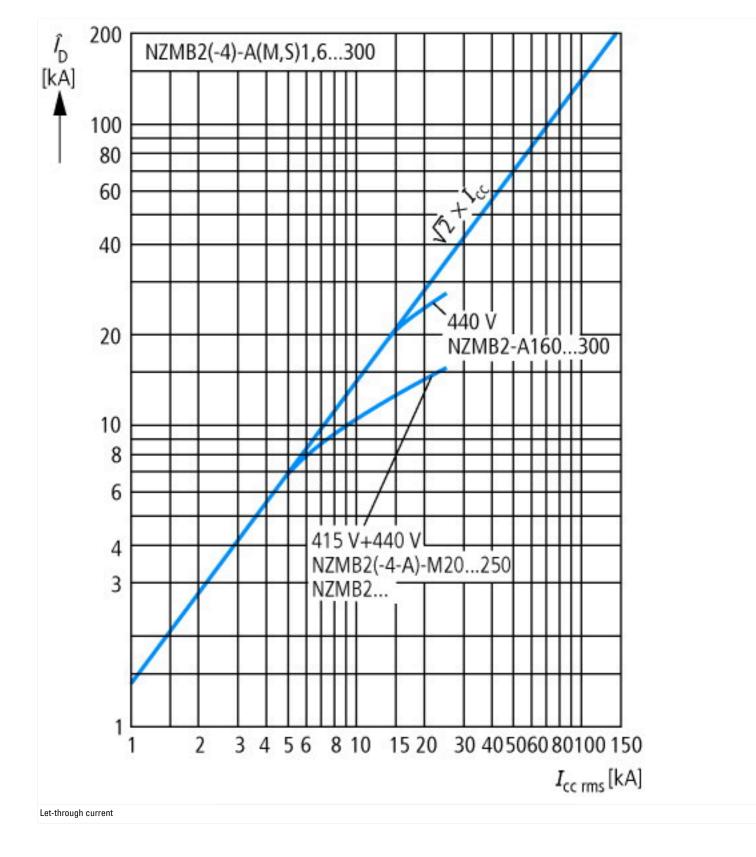
Technical data ETIM 7.0

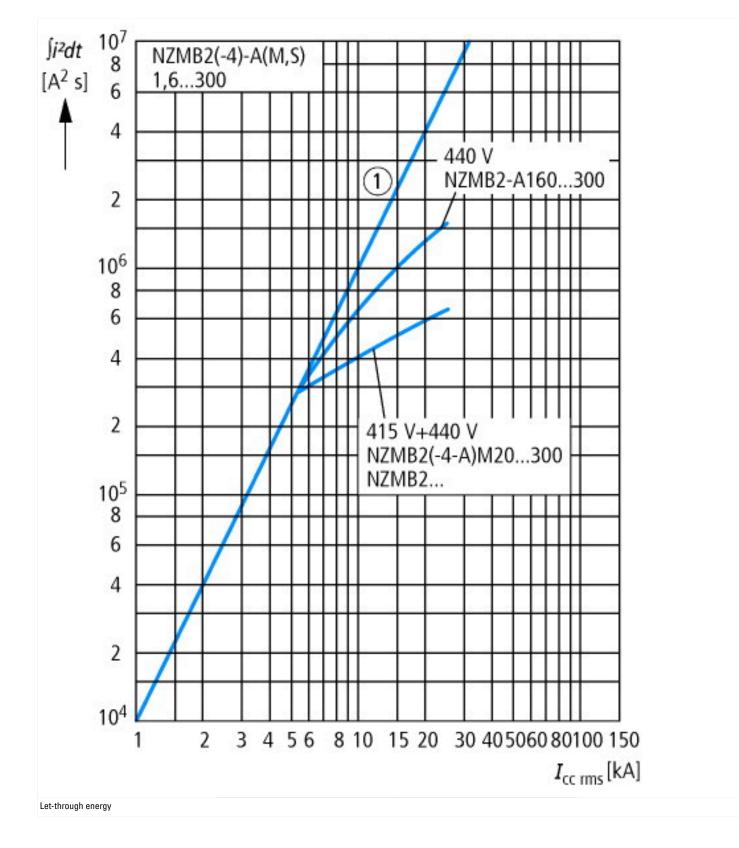
Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

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 lu	A	A 200
Rated voltage	V	V 440 - 440
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	k/	kA 25
Overload release current setting	A	A 160 - 200
Adjustment range short-term delayed short-circuit release	A	A 0-0
Adjustment range undelayed short-circuit release	A	A 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

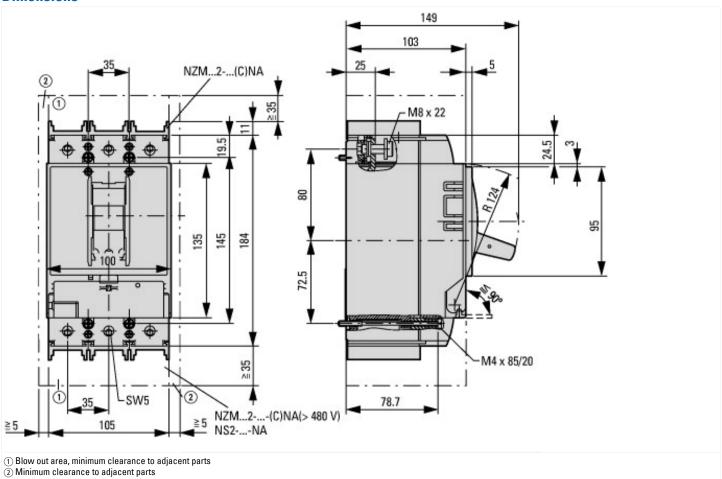


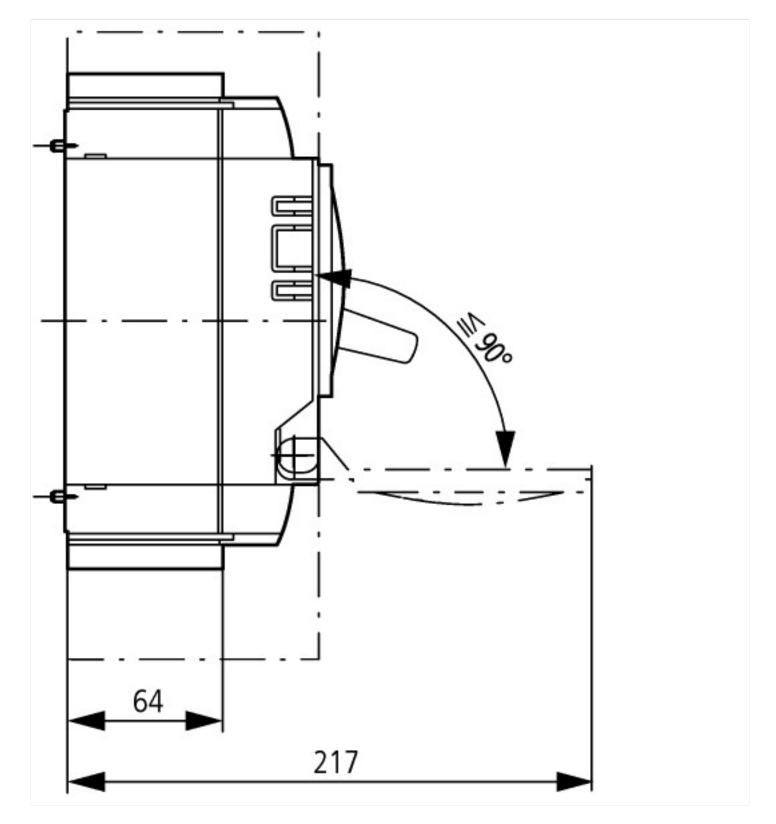




02/17/2021

Dimensions





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