DATASHEET - NZMB2-4-A200



Circuit-breaker, 4p, 200A

Part no. NZMB2-4-A200 Catalog No. 265852



Similar to illustration

Delivery program			
Product range			Circuit-breaker
Protective function			System and cable protection
Standard/Approval			IEC
nstallation type			Fixed
Release system			Thermomagnetic release
Construction size			NZM2
Description			Set value in neutral conductor is synchronous with set value Ir of main pole.
Number of poles			4 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	$I_n = I_u$	Α	200
Neutral conductor	% of phase conductor	%	100
Setting range			
Overload trip			
4	l _r	A	160 - 200
Main pole	l _r	A	160 - 200
Short-circuit releases			
Non-delayed	I _i = I _n x		6 - 10
Short-circuit releases	I _{rm}	A	1200 - 2000

Technical data

General

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	°C	- 40 - + 70
Operation	c	°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

No intensing patients Provided and SIP of Information Provided and SIP of Information Provided and SIP of Information Provided and sincoming supply Dispose of protection Dispose	Weight		kg	3.5
With Microscope	•		ĸg	
Desired New York Controlled New York Controlled New York Controlled With Interpretating controls are NP20 libeatic diagree of pratection of the promising controls are NP20 libeatic diagree of pratection of the promising controlled and single parameter. PP20 libeatic diagree of pratection of the promising controls are not prefer parameter. PP20 libeatic diagree of pratection of the promising controls are not prefer parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the promising parameter. PP20 libeatic diagree of pratection of the pratection of	Mounting position			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
Desice Paris	Direction of incoming supply			as required
Transitions	Degree of protection			
Perminations	Device			In the operating controls area: IP20 (basic degree of protection)
Pase in place and strip terminal. IPIN0 Potential formation (and such (a	Enclosures			
Circuit-breakers Circuit-breakers Value Value <th< td=""><td>Terminations</td><td></td><td></td><td></td></th<>	Terminations			
Rated surverside invariability				Temperature dependency, Derating
Rated surge voltage invariability			٨	200
Main contacts	·		А	200
Number N	Rated surge voltage invariability	U _{imp}		
Rated operational voltage				
Overvoltage category/pollution degree Ui V 889 Rated insulation voltage Us V 440 Use in unearthed supply systems V v 440 Switching capacity V V 830 Rated short-circuit making capacity Icm KA 83 440 V 5090 Mz Icm KA 33 Rated short-circuit breaking capacity Icn Icm KA 33 Icu to IECEN 08947 test cycle O+CO Icu KA 30 240 V 5090 Hz Icu KA 25 400415 V 5090 Hz Icu KA 25 Icu to IECEN 08947 test cycle O+CO-LCO Icu KA 25 440 V 5090 Hz Icu KA 25 45 V 5090 Hz Icu KA 25 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Rated insulation voltage		Ue	V AC	
No in unearhed supply systems V 240 440 440 540 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440 440				
Switching capacity Rated short-circuit making capacity 240 V 400 415 V 400 10 M 400 15 V 400 V 50/60 Hz		Ui		
Reted short-circuit making capacity lem kA 63 240 V lem kA 63 400/415 V lem kA 53 Add V 50/60 Hz lem kB 53 Icu to IEC/EN 60947 test cycle O-cCO lem kB 30 240 V 50/60 Hz leu kB 30 400/415 V 50/60 Hz leu kB 25 400/415 V 50/60 Hz leu kB 25 400 V 50/60 Hz leu kB 25 400 V 50/60 Hz leu kB 25 400 V 50/60 Hz leu kB 30 400 V 50/60 Hz leu kB 32 400 V 50/60 Hz leu kB 32 400 V 50/60 Hz leu kB 32 Lifespan, nechanical for which max. 50 % trip by shunt/undervoltage release) Merations 200 AC-1 B 400 V 50/60 Hz			V	≦ 440
240 V 10		1		
			LΛ	62
Rated short-circuit breaking capacity cn lou lou kA				
Lou to IEC/EN 60947 test cycle 0-t-CO			KA	55
1				
400 / 415 V 50/60 Hz 440 V 50/60 Hz 1cs to IEC/EN 60947 test cycle 0-t-CO-t-CO 1cs kA 240 V 50/60 Hz 1cs kA 25 440 V 50/60 Hz 1cs kA 25 440 V 50/60 Hz 1cs kA 25 440 V 50/60 Hz 1cs kA 25 480 Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker. Utilization category to IEC/EN 60947-2 Lifespan, mechanicallof which max. 50 % trip by shunt/undervoltage release) AC-1 400 V 50/60 Hz 1cs kime at short-circuit 1cs v 50/60 Hz 1cs v 60/60 Hz 1cs v 7500 1cs v				20
440 V 50/60 Hz Ics to IEC/EN 60947 test cycle 0-t-C0-t-C0 1cs kA 240 V 50/60 Hz 400/415 V 50/60 Hz 440 V 50/60 Hz Lics kA 1cs kA 25 Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker. Utilization category to IEC/EN 60947-2 Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release) AC-1 400 V 50/60 Hz Operations AC-1 400 V 50/60 Hz Operations Operations Operations Operations Operations Toso Operations Toso Operations Toso Toso Toso Toso Toso Toso Toso Toso Toso Screw connection Optional accessories Screw connection Optional accessories				
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240 V 50/60 Hz 1cs				25
400/415 V 50/60 Hz 440 V 50/60 Hz 440 V 50/60 Hz Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release) Lifespan, electrical AC-1 400 V 50/60 Hz Operations Total break time at short-circuit Total break time at short-circuit Terminal capacity Standard equipment Optional accessories Optional accessories NAA 25 NAX DAX Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker. A A Operations Operations Operations Operations Ops/h 10000 Terminal capacity Standard equipment Optional accessories Screw connection Optional accessories Optional connection on rear		Ics		
440 V 50/60 Hz Cs				
Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker. Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release) Lifespan, electrical AC-1 400 V 50/60 Hz Operations Storew connection Optional accessories Optional accessories Operations O		I _{cs}		
Utilization category to IEC/EN 60947-2 Lifespan, mechanical(lof which max. 50 % trip by shunt/undervoltage release) Lifespan, electrical AC-1 400 V 50/60 Hz 400 V 50/60 Hz Operations Operations Operations 7500 Max. operating frequency Total break time at short-circuit Terminal capacity Standard equipment Optional accessories A A A A A A A A B Connection Derations A Connection Derations Terminal Tunnel terminal Connection on rear	440 V 50/60 Hz	I _{cs}	kA	Maximum back-up fuse, if the expected short-circuit currents at the installation
Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release) Lifespan, electrical AC-1 400 V 50/60 Hz 405 V 50/60 Hz Operations Operations Operations Operations 7500 Max. operating frequency Total break time at short-circuit Terminal capacity Standard equipment Optional accessories Screw connection Box terminal Tunnel terminal connection on rear	Utilization category to IEC/EN 60947-2			
Lifespan, electrical AC-1 400 V 50/60 Hz Operations Operations Toul break time at short-circuit Terminal capacity Standard equipment Optional accessories Screw connection Box terminal Tunnel terminal connection on rear		Operations		
400 V 50/60 Hz Operations Operations 7500 Max. operating frequency Ops/h 120 Total break time at short-circuit ms < 10 Terminal capacity Standard equipment Optional accessories Screw connection Optional connection on rear	Lifespan, electrical	- F 5 . 48.5110		
415 V 50/60 Hz Max. operating frequency Ops/h Total break time at short-circuit Terminal capacity Standard equipment Optional accessories Optional accessories Operations 7500 Total break time at short-circuit ms < 10 Screw connection Box terminal Tunnel terminal connection on rear		Operations		10000
Max. operating frequency Total break time at short-circuit Terminal capacity Standard equipment Optional accessories Screw connection Box terminal Tunnel terminal connection on rear				
Total break time at short-circuit ms < 10 Terminal capacity Standard equipment Screw connection Optional accessories Box terminal Tunnel terminal connection on rear	·	operadons	Ons/h	
Terminal capacity Standard equipment Screw connection Optional accessories Box terminal Tunnel terminal connection on rear				
Optional accessories Box terminal Tunnel terminal connection on rear	Terminal capacity			
				Box terminal Tunnel terminal
······································	Round copper conductor			

Box terminal			
Solid		mm ²	1 x (10 - 16)
0000		mm	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)
Bolt terminal and rear-side connection			
Direct on the switch			
Solid		mm ²	1 x (10 - 16) 2 x (10 - 16)
Stranded		mm ²	1 x (25 - 50) 2 x (25 - 50)
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			. (277 27)
		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 Equipment heat dissipation, current-dependent Pvid W 48 Operating ambient temperature min. Operating ambient temperature max. Operating ambient temperature max. C TO IEC/EN 61439 design verification 10.2 Strength of materials and parts 10.2.2 Corrosion resistance Meets the product standard's requirements.	2001g.: 1011110uon u0 por 120,211 01 100			
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	Technical data for design verification			
Operating ambient temperature min. Operating ambient temperature max. Operating ambient temperature max. OC 70 IEC/EN 61439 design verification 10.2 Strength of materials and parts	Rated operational current for specified heat dissipation	In	Α	200
Operating ambient temperature max. °C 70 IEC/EN 61439 design verification 10.2 Strength of materials and parts	Equipment heat dissipation, current-dependent	P _{vid}	W	48
IEC/EN 61439 design verification 10.2 Strength of materials and parts	Operating ambient temperature min.		°C	-25
10.2 Strength of materials and parts	Operating ambient temperature max.		°C	70
	IEC/EN 61439 design verification			
10.2.2 Corrosion resistance Meets the product standard's requirements.	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.	10.2.3.1 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.	10.2.3.2 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.	· · · · · · · · · · · · · · · · · · ·			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation Meets the product standard's requirements.	10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.

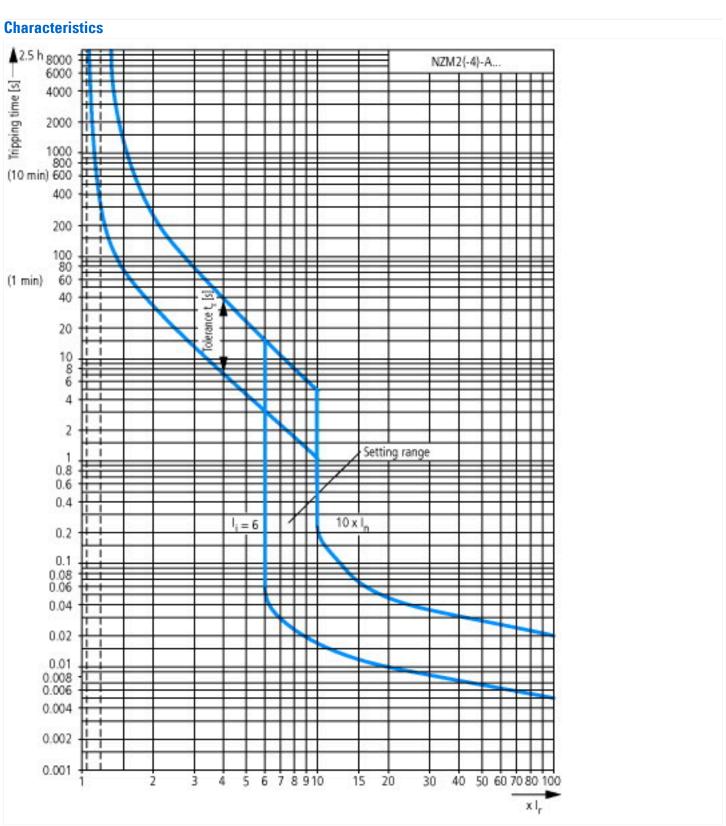
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the 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 observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

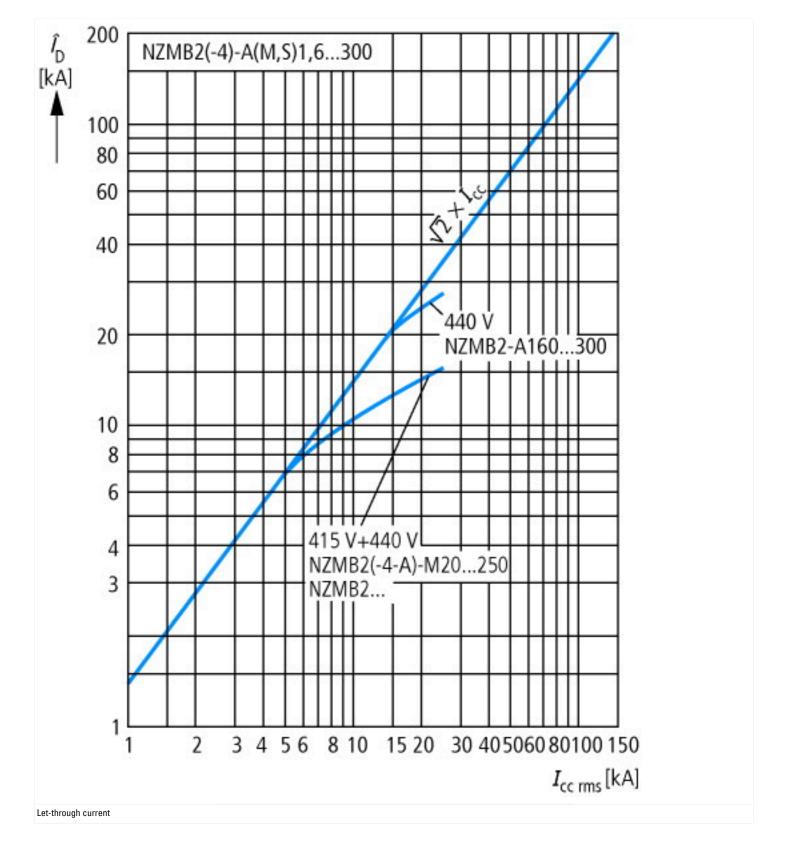
Technical data ETIM 7.0

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

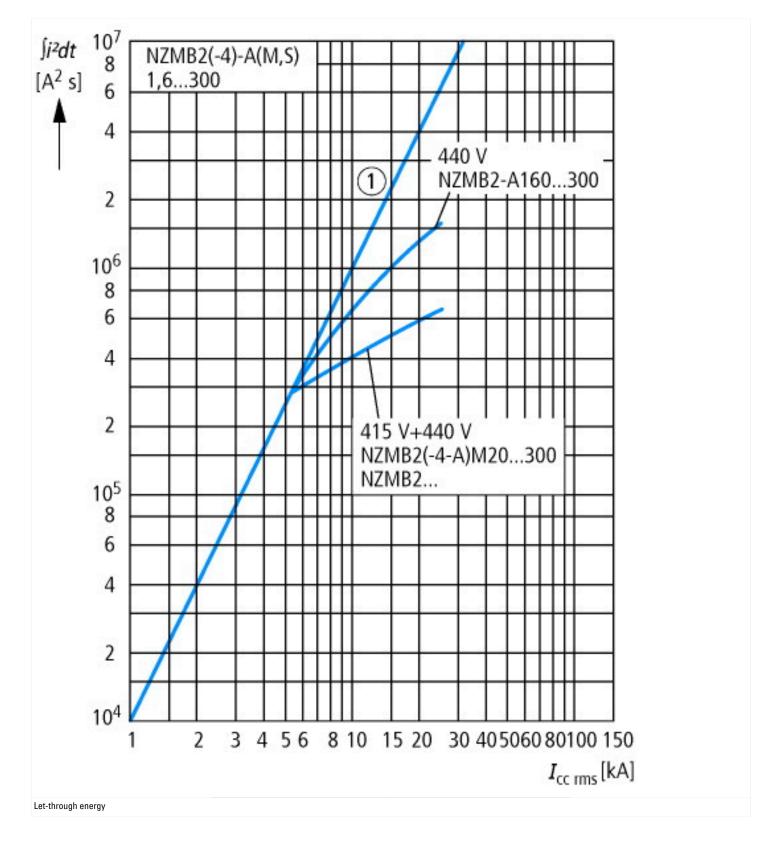
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])

processor (consequence)		
Rated permanent current lu	Α	200
Rated voltage	V	440 - 440
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	25
Overload release current setting	А	160 - 200
Adjustment range short-term delayed short-circuit release	Α	0 - 0
Adjustment range undelayed short-circuit release	Α	6 - 10
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		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		4
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

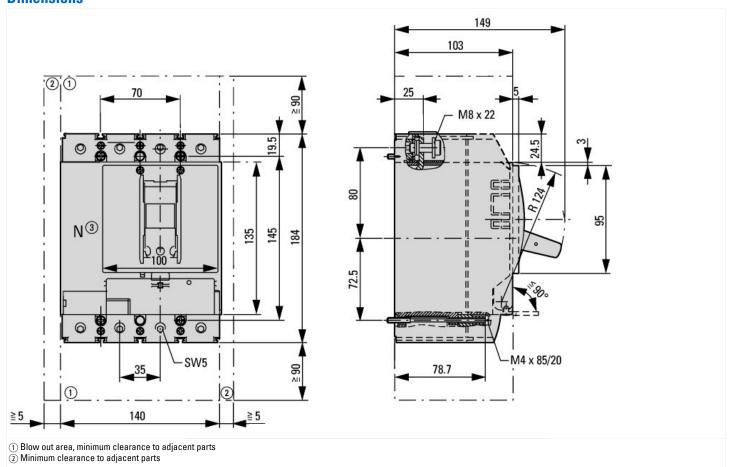


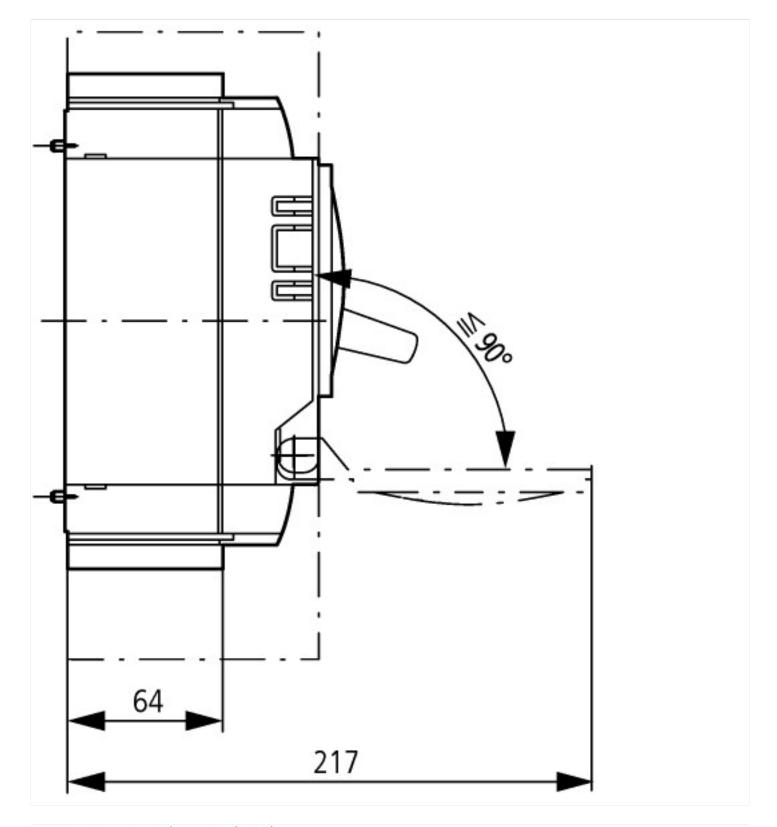


02/18/2021



Dimensions





Additional product information (links)

IL01206006Z (AWA1230-1916) Circuit-Breaker, basic unit				
IL01206006Z (AWA1230-1916) Circuit-Breaker, basic unit	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL01206006Z2015_11.pdf			
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			