

## Circuit-breaker, 4p, 125A

Part no. **NZMB2-4-A125**  
Catalog No. **265847**

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## Delivery program

Installation type		Fixed	
Description		Set value in neutral conductor is synchronous with set value $I_r$ of main pole.	
Standard equipment		Screw connection	
<b>Switching capacity</b>			
400/415 V 50 Hz	$I_{cu}$	kA	25
<b>Rated current = rated uninterrupted current</b>			
Rated current = rated uninterrupted current	$I_n = I_u$	A	125
Neutral conductor	% of phase conductor	%	100
<b>Setting range</b>			
Overload trip			
	$I_r$	A	100 - 125
Main pole			
	$I_r$	A	100 - 125
Short-circuit releases			
Non-delayed	$I_i = I_n \times \dots$		6 - 10
Short-circuit releases	$I_{rm}$	A	750 - 1250

## Technical data

<b>General</b>			
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	
Safe isolation to EN 61140			
Between auxiliary contacts and main contacts	V AC	500	
between the auxiliary contacts	V AC	300	

## Circuit-breakers

Rated current = rated uninterrupted current	$I_n = I_u$	A	125
Use in unearthed supply systems		V	≤ 440

## Switching capacity

Rated short-circuit breaking capacity $I_{cn}$	$I_{cn}$		
Icu to IEC/EN 60947 test cycle 0-t-C0	$I_{cu}$	kA	
400/415 V 50/60 Hz	$I_{cu}$	kA	25

## Terminal capacity

Standard equipment			Screw connection
Round copper conductor			
Box terminal			
Solid	mm <sup>2</sup>	1 x (4 - 16) 2 x (4 - 16)	
Stranded	mm <sup>2</sup>	1 x (25 - 185) 2 x (25 - 70)	
Tunnel terminal			
Solid	mm <sup>2</sup>	1 x 16	
Stranded			
1-hole	mm <sup>2</sup>	1 x (25 - 185)	
Bolt terminal and rear-side connection			
Direct on the switch			
Solid	mm <sup>2</sup>	1 x (4 - 16) 2 x (4 - 16)	
Stranded	mm <sup>2</sup>	1 x (25 - 185) 2 x (25 - 70)	
Al circular conductor			
Tunnel terminal			
Solid	mm <sup>2</sup>	1 x 16	
Stranded			
Stranded	mm <sup>2</sup>	1 x (25 - 185)	
Bolt terminal and rear-side connection			
Direct on the switch			
Solid	mm <sup>2</sup>	1 x (10 - 16) 2 x (10 - 16)	
Stranded	mm <sup>2</sup>	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
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 16 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	20 x 5
Control cables			
	mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)	

## Design verification as per IEC/EN 61439

Technical data for design verification			
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	27.61
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 $I_{\text{p}}$	A	125
Rated voltage	V	440 - 440
Rated short-circuit breaking capacity $I_{\text{cu}}$ at 400 V, 50 Hz	kA	25
Overload release current setting	A	100 - 125
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	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 integrated 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