





Circuit-breaker 3p 63A

Part no. NS1-63-NA
Article no. 102681

Similar to illustration

Delivery programme

Product range			Switch-disconnectors
Protective function			Disconnectors/main switches
Standard/Approval			UL/CSA, IEC
Installation type			Fixed
Construction size			N1
Description			IEC/EN 60947-2: Circuit-breakers without overcurrent (CBI-X) with main switch characteristics and isolating characteristics to IEC/EN 60204.
Number of poles			3 pole
Standard equipment			Box terminal
Switch positions			I, +, 0
Rated current = rated uninterrupted current	$I_n = I_u$	A	63
Rated current = rated uninterrupted current	$I_n = I_u$	A	63
Switching capacity			
SCCR 480Y/277 V 60 Hz	I_{cu}	kA	35
Short-circuit releases			
 Non-delayed	$I_i = I_n \times \dots$		1250 A fixed
			

Technical data

Switch-disconnectors

Rated surge voltage invariability	U_{imp}		
Main contacts		V	6000
Auxiliary contacts		V	6000
Rated operational voltage	U_e	V AC	690
Rated current = rated uninterrupted current	$I_n = I_u$	A	63
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Rated uninterrupted current	I_u	A	
IEC/EN 61131-3	I_u	A	125
UL 489, CSA 22.2 No. 5.1	I_u	A	125
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U_i	V	690
Other technical data (sheet catalogue)			Weight Temperature dependency, Derating Effective power loss

Switching capacity (UL489, CSA 22.2 No. 5.1)

SCCR 240 V 60 Hz	I_{cu}	kA	85
SCCR 480Y/277 V 60 Hz	I_{cu}	kA	35

Rated short-circuit making capacity

240 V 50/60 Hz	I_{cm}	kA	187
400/415 V 50/60 Hz	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	I _c	kA	17
Rated short-circuit breaking capacity I_{cn}			
I _{cu} to IEC/EN 60947 test cycle O-t-CO	I _{cu}	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	20
690 V 50/60 Hz	I _{cu}	kA	10
I _{cs} to IEC/EN 60947 test cycle O-t-CO-t-CO	I _{cs}	kA	
230 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	10
690 V 50/60 Hz	I _{cs}	kA	7.5
Lifespan, mechanical	Operations		20000
Max. operating frequency		Ops/h	120

Lifespan, electrical

400 V 50/60 Hz	Operations		10000
415 V 50/60 Hz	Operations		10000
690 V 50/60 Hz	Operations		7500
400 V 50/60 Hz	Operations		7500
415 V 50/60 Hz	Operations		7500
690 V 50/60 Hz	Operations		5000
Current heat losses per pole at I _u are based on the maximum rated operational current of the frame size.		W	8.7
			For current heat loss per pole the specification refers to the maximum rated operational current of the frame size.
Total downtime in a short-circuit		ms	< 10

Terminal capacity

Standard equipment			Box terminal																																			
Overview			<p>Basic equipment</p> <table border="0"> <tr> <td>Box terminal</td> <td>●</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Screw connection</td> <td>-</td> <td>●</td> <td>●</td> <td>●</td> </tr> </table> <p>Accessories</p> <table border="0"> <tr> <td>Box terminal</td> <td>-</td> <td>●</td> <td>●</td> <td>-</td> </tr> <tr> <td>Screw connection</td> <td>●</td> <td>-</td> <td>-</td> <td>●</td> </tr> <tr> <td>Tunnel terminal</td> <td>●</td> <td>●</td> <td>●</td> <td>●</td> </tr> <tr> <td>Connection on rear</td> <td>●</td> <td>●</td> <td>●</td> <td>●</td> </tr> <tr> <td>Flat conductor terminal</td> <td>-</td> <td>-</td> <td>-</td> <td>●</td> </tr> </table>	Box terminal	●	-	-	-	Screw connection	-	●	●	●	Box terminal	-	●	●	-	Screw connection	●	-	-	●	Tunnel terminal	●	●	●	●	Connection on rear	●	●	●	●	Flat conductor terminal	-	-	-	●
Box terminal	●	-	-	-																																		
Screw connection	-	●	●	●																																		
Box terminal	-	●	●	-																																		
Screw connection	●	-	-	●																																		
Tunnel terminal	●	●	●	●																																		
Connection on rear	●	●	●	●																																		
Flat conductor terminal	-	-	-	●																																		
Round copper conductor																																						
Box terminal																																						
Solid		mm ²	1 x (12 ... 6)																																			
Stranded		mm ²	1 x (4 ... 2/0)																																			
Tunnel terminal																																						
Solid		mm ²	1 x 6																																			
Stranded		mm ²																																				
Stranded		mm ²	1 x (4 ... 3/0)																																			
Bolt terminal and rear-side connection																																						
Direct on the switch																																						
Solid		mm ²	1 x (12 ... 6) 2 x (9 ... 6)																																			
Stranded		mm ²	1 x (4 ... 2/0)																																			
Cu strip (number of segments x width x segment thickness)																																						

Box terminal			
	min.	mm ²	2 x 9 x 0.8
	max.	mm ²	9 x 9 x 0.8
Copper busbar (width x thickness)	mm		
Bolt terminal and rear-side connection			
Screw connection			M6
Direct on the switch			
	min.	mm ²	12 x 5
	max.	mm ²	16 x 5
Control cables			
		mm ²	1 x (18 ... 14) 2 x (18 ... 16)

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	63
Equipment heat dissipation, current-dependent	P _{vid}	W	6.69
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 5.0

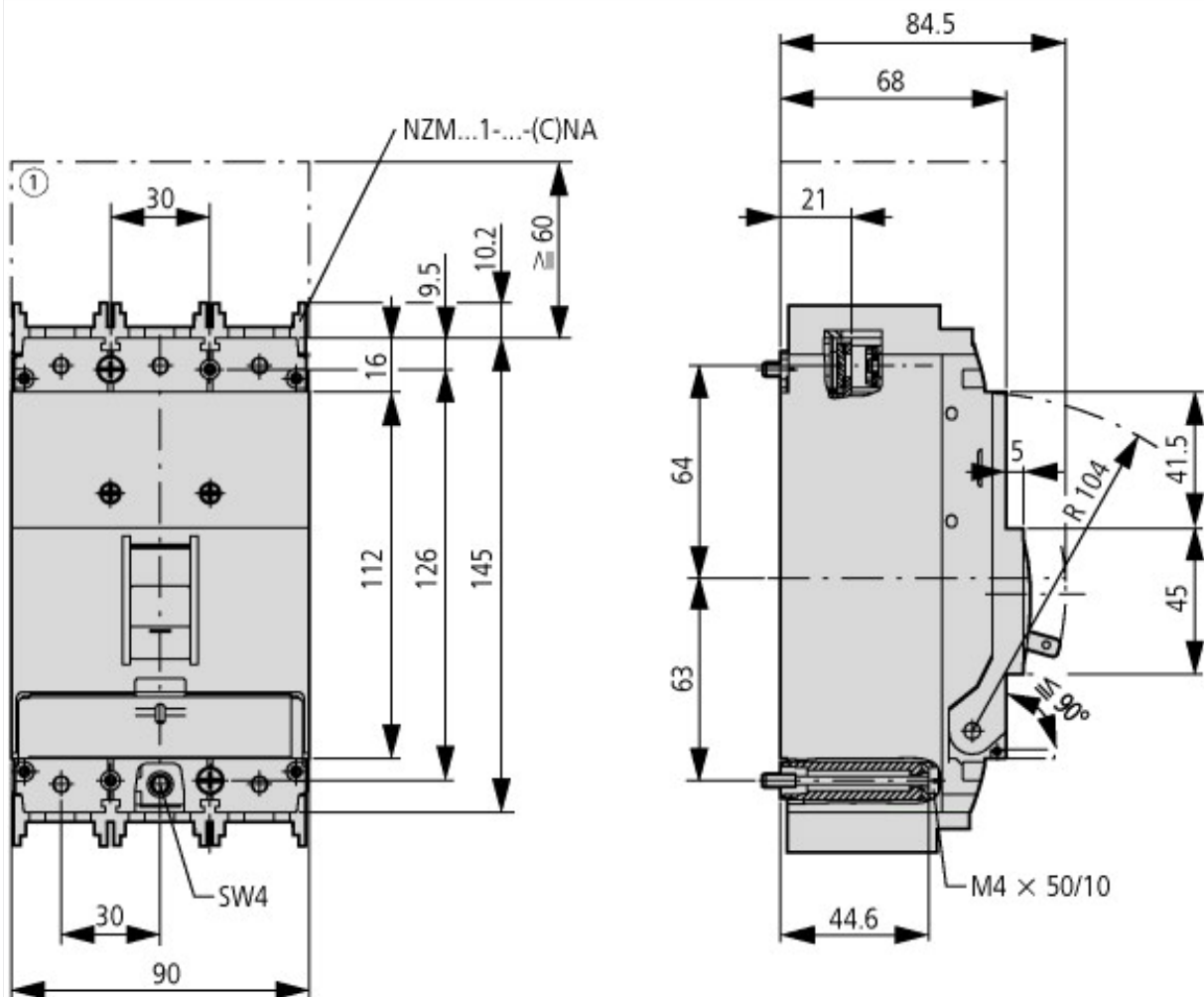
Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation prot. (EC000228)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss8-27-37-04-09 [AJZ716009])			
Rated permanent current I _u		A	63
Rated short-circuit breaking capacity I _{cu} at 400 V, 50 Hz		kA	50
Setting range overload protector		A	0 - 0
Adjustment range short-term delayed short-circuit release		A	0 - 0
Adjustment range undelayed short-circuit release		A	1250 - 1250
Integrated earth fault protection			No

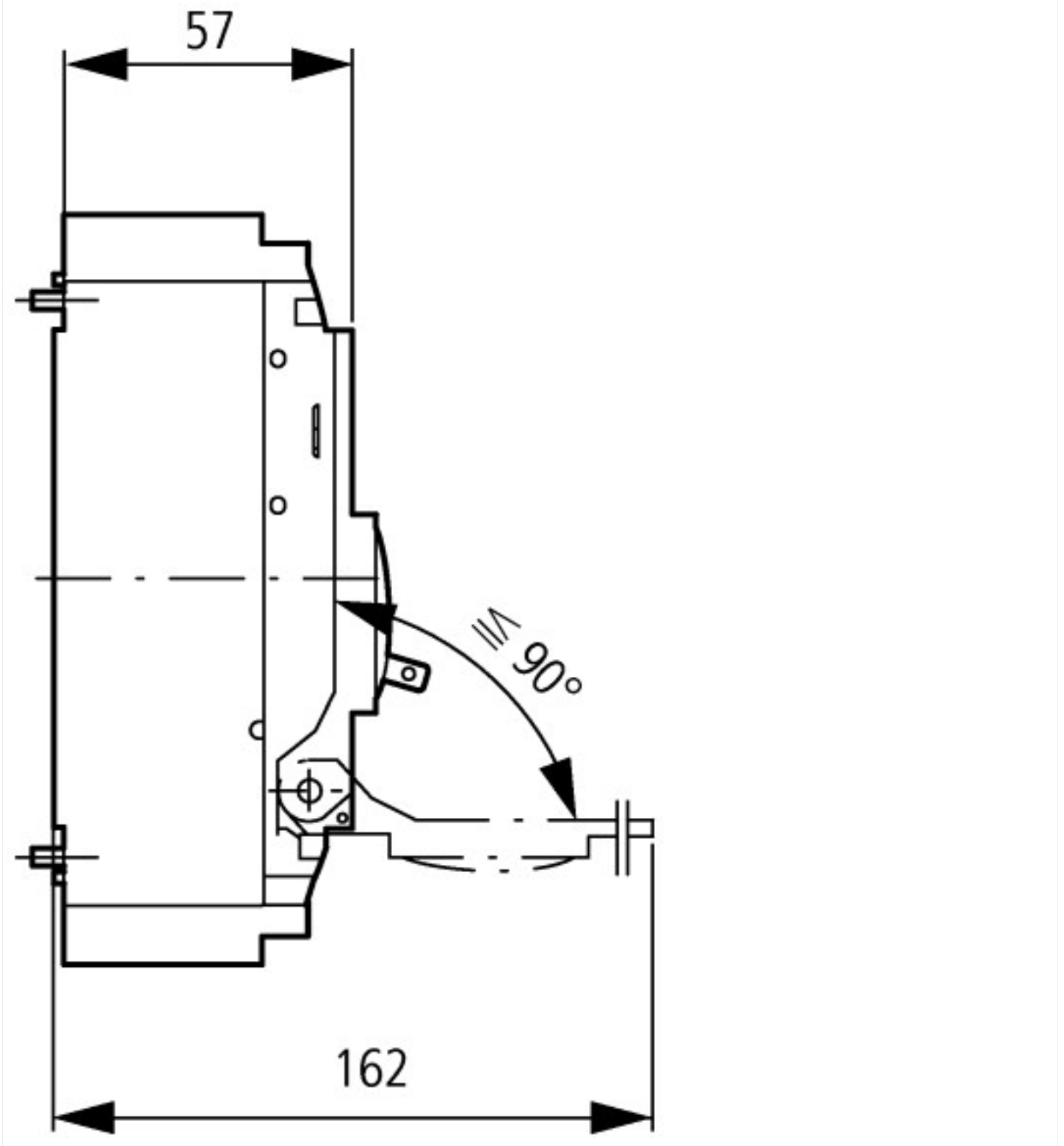
Connection type main current circuit			Frame clamp
Device construction			Built-in device fixed built-in technique
Suitable for DIN rail (top hat rail) mounting			No
Number of auxiliary contacts as normally closed contact			0
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as change-over contact			0
Switched-off indicator available			No
With under voltage release			No
Number of poles			3
Position of connection for main current circuit			Front connection
Type of control element			Rocker lever
Motor drive optional			No
Motor drive integrated			No
Degree of protection (IP)			IP20

Approvals

Product Standards			UL 489; CSA-C22.2 No. 5-09; IEC 60947-2; CE marking
UL File No.			E148671
UL Category Control No.			WJAZ
CSA File No.			022086
CSA Class No.			4652-06
North America Certification			UL listed, CSA certified
Specially designed for North America			Yes
Suitable for			Feeder circuits, branch circuits
Current Limiting Circuit-Breaker			No
Max. Voltage Rating			480Y/277 V
Degree of Protection			IEC: IP20; UL/CSA Type: -

Dimensions





Additional product information (links)

IL01203004Z (AWA1230-1913) Circuit-breaker, Switch-Disconnecter

IL01203004Z (AWA1230-1913) Circuit-breaker, Switch-Disconnecter ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01203004Z2014_07.pdf

Weight <http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.171>

Temperature dependency, Derating <http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.172>

Effective power loss <http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.174>