

Switch-disconnector 3p 1000A BG4



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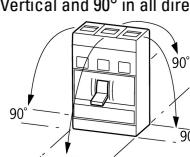
Part no.	N4-1000
Catalog No.	266026
EL-Nummer (Norway)	4358921

Similar to illustration

Delivery program

Product range	Switch-disconnectors		
Protective function	Disconnectors/main switches		
Standard/Approval	IEC		
Installation type	Fixed		
Construction size	N4		
Description	Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. Busbar tag shroud to VDE 0160 Part 100.		
Number of poles	3 pole		
Standard equipment	Screw connection		
Switch positions	I, +, 0		
Rated current = rated uninterrupted current	I _n = I _u	A	1000
Short-circuit protection max. fuse gL-characteristic		A gL	1600

Technical data

General			
Standards	IEC/EN 60947		
Protection against direct contact	Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 263		
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature	Ambient temperature, storage: -40 - +70 °C Operation: -25 - +70 °C		
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27	g 15 (half-sinusoidal shock 11 ms)		
Safe isolation to EN 61140	Between auxiliary contacts and main contacts: 500 V AC between the auxiliary contacts: 300 V AC		
Mounting position	Mounting position: Vertical and 90° in all directions  With residual-current release XFI: - NZM1, N1, NZM2, N2: vertical and 90° in all directions with plug-in adapter elements - NZM1, N1, NZM2, N2: vertical, 90° right/left with withdrawable unit: - NZM3, N3: vertical, 90° 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 area of the HMI devices: IP20 (basic protection type) Enclosures: With insulating surround: IP40 With door coupling rotary handle: IP66		
Terminations	Tunnel terminal: IP10 Phase isolator and band terminal: IP00		
Switch-disconnectors			
Rated surge voltage invariability	U _{imp}		

Main contacts		V	8000
Auxiliary contacts		V	6000
Rated operational voltage	U _e	V AC	690
Rated operating frequency	f	Hz	50/60
Rated current = rated uninterrupted current	I _n = I _u	A	1000
Oversupply voltage category/pollution degree			III/3
Rated insulation voltage	U _i	V	1000
Use in unearthed supply systems		V	≤ 525
Other technical data (sheet catalogue)			Weight Temperature dependency, Derating Effective power loss

Rated short-circuit making capacity

690 V 50/60 Hz	I _c	kA	53
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Rated short-time withstand current

t = 0.3 s	I _{cw}	kA	25
t = 1 s	I _{cw}	kA	25

Rated conditional short-circuit current

With back-up fuse	A gG/gL	N4-630...1600: 2 x 800
400 ... 415 V	kA	100
690 V	kA	80
With downstream fuse	A gG/gL	N4-630...1600: 2 x 800
400 ... 415 V	kA	100
690 V	kA	80

Rated making and breaking capacity

Rated operational current	I _e	A	
AC-22/23A			
415 V	I _e	A	1000
690 V	I _e	A	1000
Lifespan, mechanical	Operations		10000
Max. operating frequency		Ops/h	60

Lifespan, electrical

AC-1			
400 V 50/60 Hz	Operations		3000
415 V 50/60 Hz	Operations		3000
690 V 50/60 Hz	Operations		2000
AC-3			
400 V 50/60 Hz	Operations		2000
415 V 50/60 Hz	Operations		2000
690 V 50/60 Hz	Operations		1000

Terminal capacity

Standard equipment			Screw connection
Optional accessories			Tunnel terminal connection on rear Strip terminal
Copper conductors and cables			
Tunnel terminal			
Stranded			
4-hole		mm ²	4 x (50 - 240)
Bolt terminal and rear-side connection			
Direct on the switch			
Stranded		mm ²	1 x (120 - 185) 4 x (50 - 185)
Module plate			
Single hole	min.	mm ²	1 x (185 - 240)
Single hole	max.	mm ²	2 x (70 - 185)
Module plate			
Double hole	min.	mm ²	4 x 50

Double hole	max.	mm ²	4 x (35 - 185)
Connection width extension		mm ²	
Connection width extension		mm ²	4 x 300 6 x (95 - 240)
Al conductors, Al cable			
Tunnel terminal			
Stranded			
4-hole		mm ²	4 x (50 - 240)
Bolt terminal and rear-side connection			
Direct on the switch			
Stranded		mm ²	1 x (120 - 185) 4 x (50 - 185)
Module plate			
Single hole	min.	mm ²	1 x (185 - 240)
Single hole	max.	mm ²	2 x (70 - 185)
Module plate			
Double hole	min.	mm ²	4 x 50
Double hole	max.	mm ²	4 x (35 - 185)
Connection width extension		mm ²	
Connection width extension		mm ²	2 x 240 6 x (70 - 240)
Cu strip (number of segments x width x segment thickness)			
Flat conductor terminal		mm	6 x 16 x 0.8
	min.	mm	
	max.	mm	(2 x) 10 x 32 x 1.0
Module plate			
Single hole		mm	(2 x) 10 x 50 x 1.0
Bolt terminal and rear-side connection			
Flat copper strip, with holes	min.	mm	(2 x) 10 x 50 x 1.0
Flat copper strip, with holes	max.	mm	(2 x) 10 x 50 x 1.0
Connection width extension		mm	(2 x) 10 x 80 x 1.0
Copper busbar (width x thickness)	mm		
Bolt terminal and rear-side connection			
Screw connection			M10
Direct on the switch			
	min.	mm	25 x 5
	max.	mm	2 x (50 x 10)
Module plate			
Single hole	min.	mm	25 x 5
Single hole	max.	mm	2 x (50 x 10)
Module plate			
Double hole		mm	2 x (50 x 10)
Connection width extension		mm	
Connection width extension	min.	mm	60 x 10
Connection width extension	max.	mm	2 x (80 x 10)

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _h	A	1000
Equipment heat dissipation, current-dependent	P _{vid}	W	123
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) / Switch disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		Yes
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	
Rated permanent current at AC-23, 400 V	A	0
Rated permanent current at AC-21, 400 V	A	0
Rated operation power at AC-3, 400 V	kW	0
Rated short-time withstand current Icw	kA	25
Rated operation power at AC-23, 400 V	kW	560
Switching power at 400 V	kW	0
Conditioned rated short-circuit current Iq	kA	0
Number of poles		3
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
Motor drive optional		Yes
Motor drive integrated		No
Voltage release optional		Yes
Device construction		Built-in device fixed built-in technique
Suitable for floor mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No

Suitable for distribution board installation		Yes
Suitable for intermediate mounting		Yes
Colour control element		Black
Type of control element		Rocker lever
Interlockable		Yes
Type of electrical connection of main circuit		Bolt connection
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		