

Switch-disconnector, 4 p, 200A, frame size 2

Part no. **LN2-4-200-I**
 Catalog No. **112006**



Similar to illustration

Delivery program

Product range		Switch-disconnectors
Protective function		Disconnectors/main switches
Standard/Approval		IEC
Installation type		Fixed
Construction size		LN2
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.
Standard equipment		Screw connection
Switch positions		I, +, 0
Rated current = rated uninterrupted current	I _n = I _u	A 200
Short-circuit protection max. fuse gL-characteristic		A gL 250

Technical data

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	200
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U _i	V	690
Use in unearthing supply systems		V	≤ 690

Rated short-circuit making capacity

690 V 50/60 H	I _c	kA	5.5
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Rated short-time withstand current

t = 0.3 s	I _{cw}	kA	3.5
t = 1 s	I _{cw}	kA	3.5

Rated conditional short-circuit current

With back-up fuse	A gG/gL	PN2(N2)-160...250: 250
400 ... 415 V	kA	100
690 V	kA	80
With downstream fuse	A gG/gL	PN2(N2)-160...250: 250
400 ... 415 V	kA	100
690 V	kA	80

Rated making and breaking capacity

Rated operational current	I _e	A	
415 V	I _e	A	250
690 V	I _e	A	250
415 V	I _e	A	250
690 V	I _e	A	250
Lifespan, mechanical	Operations		20000
Max. operating frequency		Ops/h	120
Lifespan, electrical			
400 V 50/60 Hz	Operations		7500

415 V 50/60 Hz	Operations	7500
690 V 50/60 Hz	Operations	5000
400 V 50/60 Hz	Operations	6000
415 V 50/60 Hz	Operations	6000
690 V 50/60 Hz	Operations	4000
Total break time at short-circuit	ms	< 10

Terminal capacity

Standard equipment			Screw connection
Round copper conductor			
Box terminal			
Solid	mm ²	1 x (4 - 16) 2 x (4 - 16)	
Stranded	mm ²	1 x (25 - 185) 2 x (25 - 70)	
Tunnel terminal			
Solid	mm ²	1 x (16 - 185)	
Stranded	mm ²	1 x (25 - 185)	
Bolt terminal and rear-side connection			
Direct on the switch			
Solid	mm ²	1 x (4 - 16) 2 x (4 - 16)	
Stranded	mm ²	1 x (25 - 185) 2 x (25 - 70)	
Al conductors, Cu cable			
Tunnel terminal			
Solid	mm ²	1 x 16	
Stranded	mm ²	1 x (25 - 185)	
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
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 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	I _n	A	200
Equipment heat dissipation, current-dependent	P _{vid}	W	30.72
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 6.0

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@ss8.1-27-37-14-03 [AKF060010])		
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	
Max. rated operation voltage Ue AC	V	400
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	200
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	3.5
Rated operation power at AC-23, 400 V	kW	110
Switching power at 400 V	kW	0
Conditioned rated short-circuit current Iq	kA	100
Number of poles		4
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 ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting center		No
Suitable for distribution board installation		Yes
Suitable for intermediate mounting		Yes
Colour control element		Grey

Type of control element		Rocker lever
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP20