DATASHEET - LN1-4-125-I



Switch-disconnector, 4 p, 125A, frame size 1

LN1-4-125-I Part no. Catalog No. 112000



Similar to illustration

Delivery program			
Product range			Switch-disconnectors
Protective function			Disconnectors/main switches
Standard/Approval			IEC
Installation type			Fixed
Construction size			LN1
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			4 pole
Standard equipment			Box terminal
Switch positions			l, +, 0
Rated current = rated uninterrupted current	$I_n = I_u$	Α	125
Short-circuit protection max. fuse gL-characteristic		A gL	125

Max. operating frequency

Technical data			
Switch-disconnectors			
Rated surge voltage invariability	U _{imp}		
Main contacts		V	6000
Auxiliary contacts		V	6000
Rated operational voltage	Ue	V AC	690
Rated operating frequency	f	Hz	50/60
Rated current = rated uninterrupted current	$I_n = I_u$	Α	125
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V	690
Use in unearthed supply systems	0 1	V	≦ 690
Rated short-circuit making capacity		V	= 050
690 V 50/60 H	Ic	kA	2.8
Rated short-time withstand current			
t = 0.3 s	I _{cw}	kA	2
t = 1 s	I _{cw}	kA	2
Rated conditional short-circuit current			
With back-up fuse		A gG/gL	PN1(N1)-63125: 125 PN1(N1)-160: 160
400 415 V		kA	100
690 V		kA	80
With downstream fuse		A gG/gL	PN1(N1)-63125: 125 PN1(N1)-160: 160
400 415 V		kA	100
690 V		kA	10
Rated making and breaking capacity			
Rated operational current	l _e	Α	
415 V	l _e	Α	160
690 V	l _e	Α	160
415 V	le	Α	160
690 V	l _e	Α	160
000 V			

Ops/h

120

Lifespan, electrical

Stranded

Al conductors, Cu cable
Tunnel terminal
Solid

Stranded

Box terminal

Control cables

Stranded

Copper busbar (width x thickness)

Screw connection

Direct on the switch

Bolt terminal and rear-side connection

Cu strip (number of segments x width x segment thickness)

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
Total break time at short-circuit		ms	<10
Terminal capacity			
Standard equipment			Box terminal
Round copper conductor			
Box terminal			
Solid		mm^2	1 x (10 - 16) 2 x (6 - 16)
Stranded		mm ²	1 x (25 - 70) Up to 95 mm^2 can be connected depending on the cable manufacturer. 2 x 25
Tunnel terminal			
Solid		mm^2	1 x 16
Stranded			
Stranded		mm^2	1 x (25 - 95)
Bolt terminal and rear-side connection			
Direct on the switch			
Solid		mm ²	1 x (10 - 16) 2 x (6 - 16)

1 x (25 - 70)

1 x 16

1 x (25 - 95)

2 x 9 x 0.8

9 x 9 x 0.8

M6

12 x 5

16 x 5

1 x (0.75 - 2.5) 2 x (0.75 - 1.5)

 mm^2

 mm^2

 mm^2

mm

mm

mm

 $\,\mathrm{mm}^2$

min.

max.

mm

min.

max.

Design verification as per IEC/EN 61439

200-g., 101-1104-101-100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	125
Equipment heat dissipation, current-dependent	P _{vid}	W	17.8125
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.
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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 7.0

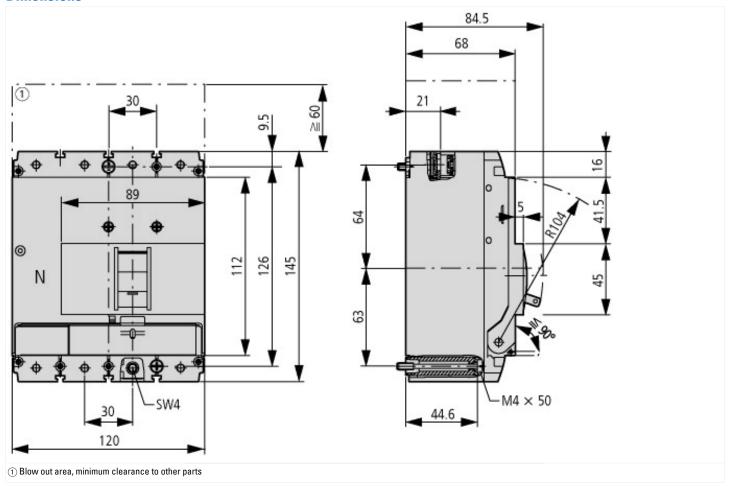
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

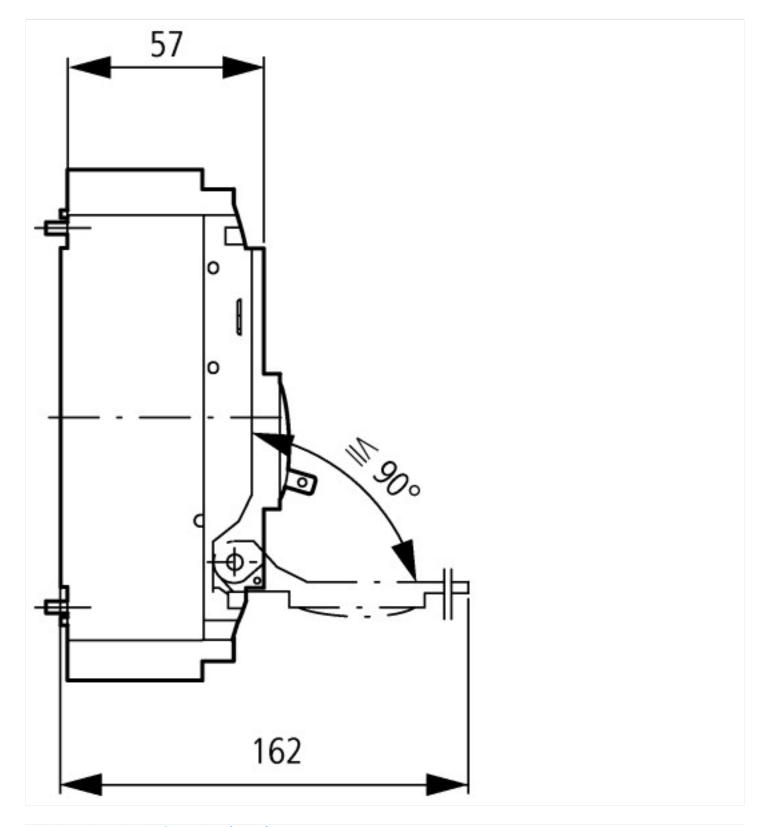
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

Version as main switch Version as maintenance-/service switch Version as safety switch Version as emergency stop installation Version as reversing switch No Number of switches Max. rated operation voltage Ue AC Rated operating voltage Rated permanent current lu Rated permanent current at AC-23, 400 V Rated operation power at AC-3, 400 V Rated operation power at AC-23, 400 V Rough Sinch Sin
Version as safety switch Version as emergency stop installation Version as reversing switch Version as reversing switch Number of switches Max. rated operation voltage Ue AC Rated operating voltage V 690 - 690 Rated permanent current lu A 125 Rated permanent current at AC-23, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rote operation power at AC-23, 400 V Rote operation power at AC-23, 400 V Rote operation power at AC-30 V
Version as emergency stop installation Version as reversing switch No Number of switches Max. rated operation voltage Ue AC Rated operating voltage V 690 - 690 Rated permanent current lu A 125 Rated permanent current at AC-23, 400 V Rated operation power at AC-3, 400 V Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V Rated operation power at AC-3, 400 V
Version as reversing switch No Number of switches Max. rated operation voltage Ue AC Rated operating voltage Rated permanent current lu Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V
Number of switches Max. rated operation voltage Ue AC Rated operating voltage V 690 - 690 Rated permanent current lu A 125 Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated operation power at AC-23, 400 V
Max. rated operation voltage Ue AC Rated operating voltage V 690 - 690 Rated permanent current Iu A 125 Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current Icw kA 2 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 0
Rated operating voltage Rated permanent current lu A 125 Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V Rough Short-time withstand current lcw Rated operation power at AC-23, 400 V Rough Short-time withstand current lcw Rough Short-time with short-time with short-time with short-time with short-time with short-time with short-t
Rated permanent current lu Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rough Special Speci
Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rough Service S
Rated permanent current at AC-21, 400 V Rated operation power at AC-3, 400 V Rated short-time withstand current lcw kA 2 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 0
Rated operation power at AC-3, 400 V
Rated short-time withstand current lcw kA 2 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 0
Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 0
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 centre 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	Frame clamp
Degree of protection (IP), front side	IP20
Degree of protection (NEMA)	

Dimensions





Additional product information (links)

IL01203007Z circuit-breaker LZM.1(-4), switch-disconnector LN1

IL01203007Z circuit-breaker LZM.1(-4), switch-disconnector LN1 ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01203007Z2017_05.pdf