DATASHEET - N4-4-800-S1-DC



Switch-disconnector 4p 800A 1000VDC

Part no. N4-4-800-S1-DC Catalog No. 119890

EL-Nummer (Norway)

4356076

Similar to illustration



Delivery program			
Product range			Switch-disconnectors
Protective function			Disconnectors/main switches Photovoltaic applications
Product range			DC switch-disconnectors
Application field			Utility buildings Open areas
Part no.			NDC
Standard/Approval			IEC
Rated operational voltage			1000
Installation type			Fixed
Construction size			N4
Description			IEC/EN 60947-3 CCC China Compulsory Certificate Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113 Isolating characteristics to IEC/EN 60947-3 and VDE 0660. N switch-disconnectors can, in addition, be combined with NZMXU, NZMXA shunt releases and auxiliary contacts as well as with NZMXR remote operator For DC switching, all 4 contacts must be connected in series. Refer to the information on jumper kit accessories. Supplied as standard: Screw connection; box terminal optional. When working with ungrounded systems (e.g., IT), the installation must ensure tha a double ground fault will be impossible. Switch can not be combined with plug-in/withdrawable units and/or connection or rear. N4-4S15-DC feeder unit and outgoer from the bottom only.
Connection options			
Number of poles			4-pole basic device, usable in a 1-pole or 2-pole configuration depending on the type of connection
Standard equipment			Screw connection
Switch positions			l, +, 0
Rated current = rated uninterrupted current	$I_n = I_u$	Α	800

Flat conductor terminal			
The conductor terminal	min.	mm	6 x 16 x 0.8
		mm	
	max.	mm	(2x) 10 x 32 x 1.0
Module plate			
Single hole		mm	$(2x) 10 \times 50 \times 1,0$
Bolt terminal and rear-side connection			
Flat copper strip, with holes	min.	mm	(2x) 10 x 50 x 1.0
Flat copper strip, with holes	max.	mm	(2x) 10 x 50 x 1.0
Connection width extension		mm	(2x) 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) 2 x (80 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 (10 x 80)

Design verification as per IEC/EN 61439

Design vernication as per iec/en 01439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	800
Equipment heat dissipation, current-dependent	P _{vid}	W	95
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.

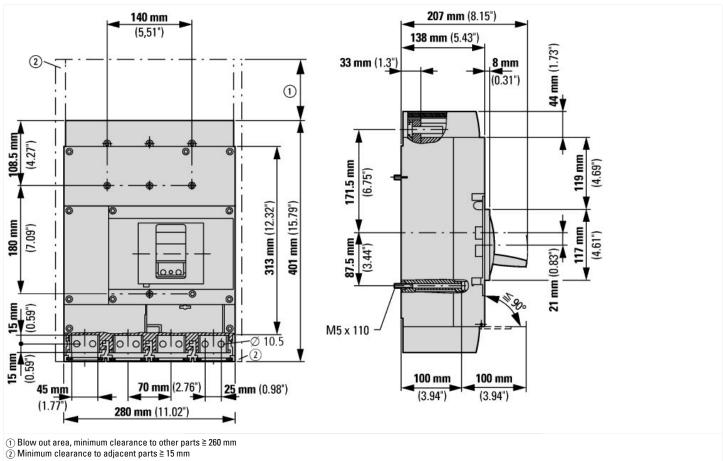
Technical data ETIM 7.0

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 mainteaunce/service switch Yes Version as sainteaunce/service switch No Version as mergency stop installation Yes Version as mergency stop installation Yes Version as reversing switch Yes Max. rated operation voltage Us AC Yes Max. rated operation voltage Us AC Yes Read operation voltage Us AC Ae Read operation voltage Us AC Ae Read operation power at AC-23,400 V Ae Read operation power at AC-23,400 V Ae Read operation power at AC-23,400 V Ae Vestiching opwar at AC-23,400 V Ae Number of auxiliary contacts as normally closed contact Ae Number of auxiliary contacts as normally closed contact Ae Number of auxiliary contacts as normally open contact Ae Motor drive optional <	[AKF060013])		
Version as safety switch Key Yes Version as emergency stop installation Yes No Version as reversing switch 1 No Mex. rated operation voltage Us AC V 1000-1000 Risted operation voltage Us AC V 1000-1000 Risted operation voltage A 80 Risted permanent current at AC-23, 400 V A 0 Risted permanent current at AC-23, 400 V A 0 Risted short-time withstand current at AC-23, 400 V Key 0 Risted operation power at AC-23, 400 V Key 0 Risted short-time withstand current tow Key 0 Risted operation power at AC-23, 400 V Key 0 Risted short-time withstand current tow Key 0 Risted operation power at AC-23, 400 V Key 0 Number of power at AC-23, 400 V Key 0 Number of power at AC-23, 400 V Key 0 Number of power at AC-23, 400 V Key 0 Number of power at AC-23, 400 V Key 0 Numb	Version as main switch		Yes
Version as emergency stop installation Pa Yes Version as rowering switch Pa No Number of switches Pa 1 Max rated operation voltage UeAC Pa 100-1000 Rated operation voltage UeAC Pa 200-1000 Rated permanent current un Pa 30 Rated permanent current at AC-23,400 V Pa 30 Rated operation power at AC-3,400 V Pa 30 Rated short-time withstand current tow Pa 30 Rated operation power at AC-3,400 V Pa 30 Workthing power at AC-3,400 V Pa 40 Workthing power at AC-3,400 V	Version as maintenance-/service switch		Yes
Version as reversing switch In the switches In the switches <t< td=""><td>Version as safety switch</td><td></td><td>No</td></t<>	Version as safety switch		No
Number of switches Image: Comment current swit	Version as emergency stop installation		Yes
Max. rated operation voltage Us AC V 000 - 1000 Rated operating voltage V 1000 - 1000 Rated permanent current us A 800 Rated permanent current at AC-23,400 V A 0 Rated operation power at AC-3,400 V KW 0 Rated operation power at AC-3,400 V KW 3 Rated short-time withstand current lcw KW 0 Rated short-time until short-time time time time time time time time	Version as reversing switch		No
Rated operating voltage V 1000 - 1000 Rated permanent current vu A 800 Rated permanent current at AC-23, 400 V A 0 Rated operation power at AC-3, 400 V A 0 Rated short-ine withstand current at AC-21, 400 V A 34 Rated short-ine withstand current low A 34 Rated short-ine withstand current at AC-23, 400 V KW 0 Rated short-circuit current low KW 0 Rated short-circuit current lq KW 0 Number of poles KW 0 Number of poles W 4 Number of auxiliary contacts as normally open contact W 0 Number of auxiliary contacts as change-over contact W Yes Motor drive optional W Yes Motor drive optional W Yes Motor of row optional W Yes Suitable for fornt mounting 4-bole Yes Yes Suitable for front mounting 4-bole Yes Yes Suitable for front mounting centre Yes<	Number of switches		1
Rated permanent current lu A 800 Rated permanent current at AC-23, 400 V A 0 Rated permanent current at AC-21, 400 V A 0 Rated permanent current at AC-23, 400 V W 0 Rated operation power at AC-3, 400 V KA 34 Rated operation power at AC-23, 400 V W 0 Switching power at 400 V WW 0 Conditioned rated short-circuit current lq KA 0 Number of poles A 4 Number of auxiliary contacts as normally open contact W 0 Number of auxiliary contacts as normally open contact W 0 Number of auxiliary contacts as change-over contact W 0 Motor drive optional W 0 0 Motor drive integrated W 0 0 Voltage release optional W 0 0 Device construction W 0 0 Suitable for front mounting 4-tole W 0 0 Suitable for front mounting centre W 0 </td <td>Max. rated operation voltage Ue AC</td> <td>V</td> <td>0</td>	Max. rated operation voltage Ue AC	V	0
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 low KA 34 Rated operation power at AC-23, 400 V KW 0 Switching power at A00 V KW 0 Conditioned rated short-circuit current Iq KW 0 Number of poles L 4 Number of auxiliary contacts as normally closed contact L 0 Number of auxiliary contacts as change-over contact Ve Ve Motor drive optional L Yes Motor drive integrated Ve Yes Voltage release optional L Yes Suitable for ground mounting L Yes Suitable for front mounting 4-hole L Yes Suitable for front mounting 4-hole L Yes Suitable for front mounting 4-hole L Yes Suitable for front mounting active Yes Yes Suitable for front mounting active	Rated operating voltage	V	1000 - 1000
Rated permanent current at AC-21,400 V Rated operation power at AC-3,400 V Rated short-time withstand current lcw Rated short-time withstand current lcw Rated short-time withstand current lcw Rated operation power at AC-23,400 V Rate	Rated permanent current lu	Α	800
Rated operation power at AC-3,400 V kW 0 Rated short-time withstand current lcw kA 34 Rated operation power at AC-23,400 V kW 0 Switching power at 400 V kW 0 Conditioned rated short-circuit current lq kA 0 Number of poles 4 0 Number of auxiliary contacts as normally closed contact 4 0 Number of auxiliary contacts as change-over contact 9 0 Motor drive optional 9 9 Motor drive optional 9 9 Motor drive integrated 9 9 Voltage release optional 9 9 Device construction 9 9 Suitable for ground mounting 9 9 Suitable for front mounting 4-hole 9 9 Suitable for front mounting centre 9 9 Suitable for front mounting centre 9 9 Suitable for intermediate mounting 9 9 Suitable for intermediate mounting 9 9	Rated permanent current at AC-23, 400 V	Α	0
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Rated operation power at AC-23, 400 V Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as schange-over contact Motor drive integrated Motor drive integrated Notor drive integrated Notor drive integrated Notor drive integrated Notice construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for front mounting cente Suitable for intermediate mounting Suitable for intermediate mounting Suitable for intermediate mounting Colour control element Type of control element Type of control element Neger of protection (IP), front side Degree of protection (IP), front side	Rated operation power at AC-3, 400 V	kW	0
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Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as normally open cont	Switching power at 400 V	kW	0
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Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for front mounting centre Suitable for fortn mounting centre Suitable for intermediate mounting Suitable for intermediate mounting Type of control element Type of control element Type of control element Type of electrical connection of main circuit Degree of protection (IP), front side	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Motor drive integrated Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for intermediate mounting Suitable for front mounting centre No No No Suitable for fortention board installation Suitable for fortention for mounting centre No No No Suitable for fortention for mounting centre No No No Suitable for fortention for mounting centre No No No Suitable for fortention for mounting centre No No No Suitable for fortention for mounting centre No No No Suitable for fortention for mounting centre No No No Suitable for fortention for mounting for fortention for fortention for mounting for fortention for fortention for fortention for fortention	Number of auxiliary contacts as normally open contact		0
Motor drive integratedNoVoltage release optionalYesDevice constructionBuilt-in device fixed built-in techniqueSuitable for ground mountingYesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationYesSuitable for intermediate mountingYesColour control elementBlackType of control elementRocker leverInterlockableYesType of electrical connection of main circuitScrew connectionDegree of protection (IP), front sideIP20	Number of auxiliary contacts as change-over contact		0
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 firont 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 Screw connection Degree of protection (IP), front side IP20	Motor drive optional		Yes
Device construction Built-in device fixed built-in technique Yes Suitable for ground mounting 4-hole Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Built-in device fixed built-in technique Yes No No Rocker lever Black Rocker lever Yes Screw connection IP20	Motor drive integrated		No
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation Suitable for intermediate mounting Colour control element Supe of control element Supe of control element Suitable Su	Voltage release optional		Yes
Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation Yes Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No No No No Yes Yes Yes Yes Screw connection IP20	Device construction		Built-in device fixed built-in technique
Suitable for front mounting centre Suitable for distribution board installation Yes Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side No Yes No Yes Yes Rocker lever Screw connection IP20	Suitable for ground mounting		Yes
Suitable for distribution board installation Yes Suitable for intermediate mounting Yes Colour control element Black Type of control element Rocker lever Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Yes Interlockable IP20	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Yes Colour control element Black Type of control element Rocker lever Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Yes IP20	Suitable for front mounting centre		No
Colour control element Type of control element Rocker lever Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Black Rocker lever Yes Screw connection IP20	Suitable for distribution board installation		Yes
Type of control element Interlockable Type of electrical connection of main circuit Degree of protection (IP), front side Rocker lever Yes Screw connection IP20	Suitable for intermediate mounting		Yes
Interlockable Yes Type of electrical connection of main circuit Screw connection Degree of protection (IP), front side IP20	Colour control element		Black
Type of electrical connection of main circuit Degree of protection (IP), front side Screw connection IP20	Type of control element		Rocker lever
Degree of protection (IP), front side	Interlockable		Yes
	Type of electrical connection of main circuit		
Degree of protection (NEMA)	Degree of protection (IP), front side		IP20
	Degree of protection (NEMA)		

Dimensions



Additional product information (links)

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CurveSelect characteristics program	http://www.eaton.eu/DE/Europe/Electrical/CustomerSupport/ConfigurationTools/CharacteristicsProgram/index.htm
Eaton configurator	http://www.eaton.eu/DE/Europe/Electrical/CustomerSupport/ConfigurationTools/ConfiguratorCircuitBreaker/index.htm
Additional technical data: Photovoltaics catalog (starting on page 35)	http://www.moeller.net/binary/pdf_kat/br01601001z_en.pdf