## Switch-disconnector 4p 800A 1000VDC

Part no. N4-4-800-S1-DC

119890

**EL Number** 4356076

(Norway)



(Norway)	
General specifications	
Product name	Eaton Moeller series NZM switch-disconnector
Part no.	N4-4-800-S1-DC
EAN	4015081177387
Product Length/Depth	401 millimetre
Product height	207 millimetre
Product width	280 millimetre
Product weight	22.723 kilogram
Compliances	RoHS conform
Certifications	IEC
Product Tradename	NZM
Product Type	Switch-disconnector Switch-disconnector
Product Sub Type	None
Delivery program	
Application	Open areas Utility buildings
Туре	DC switch-disconnector Switch-disconnector
Circuit breaker frame type	N4
Number of poles	Four-pole
Amperage Rating	800 A
Features	Motor drive optional
Teatures	Version as main switch Version as emergency stop installation Remote operation with shunt releases / remote operator Version as maintenance-/service switch
Special features	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 be combined with NZMXU, NZMXA shunt releases and auxiliary contacts as well as with NZM XR remote operator. For DC switching, all 4 contacts must be connected in seri 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 that a double ground fault will be impossible. Switch can not be combined with plug-in/withdrawable units and/or connection on rear. N4-4S15-DC feeder unit and outgoer from the bottom only. Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release Rated curren = rated uninterrupted current: 800 A Values for rated uninterrupted current at 65 include jumpers.
Technical Data - Electrical	
Voltage rating	1000 V - 1000 V
Rated operating voltage (Ue) at AC - max	0 V
Rated insulation voltage (Ui)	1250 V
Current rating (Iu) at 40°C with terminal jumpers	800 A
Current rating (Iu) at 65°C with terminal jumpers	800 A
Rated conditional short-circuit current (Iq)	0 kA
Rated operational current	1400 CSA (DC-21B) 800 A (DC 22-A)
Rated permanent current at AC-21, 400 V	0 A
Rated permanent current at AC-23, 400 V	0 A
Rated short-time withstand current (Icw)	34 kA
Rated short-time withstand current (t = 0.1 s)	34 kA
Rated operating power at AC-3, 400 V	0 kW
Rated operating power at AC-23, 400 V	0 kW
Switching power at 400 V	0 kW
Electrical connection type of main circuit	Screw connection
Number of operations per hour - max	60

Handle type	Rocker lever
Utilization category	DC-22 A
Overvoltage category	III
Pollution degree	3
Technical Data - Mechanical	
Mounting Method  Degree of protection	Built-in device fixed built-in technique Fixed Distribution board installation Ground mounting Intermediate mounting
Degree of protection (IP), front side	IP20
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Number of switches	1
Handle color	Black
Switch positions	I, +, 0
Special features	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 be combined with NZMXU, NZMXA shunt releases and auxiliary contacts as well as with NZM XR 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 that a double ground fault will be impossible. Switch can not be combined with plug-in/withdrawable units and/or connection on rear. N4-4S15-DC feeder unit and outgoer from the bottom only. Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release Rated current = rated uninterrupted current: 800 A Values for rated uninterrupted current at 65 °C include jumpers.
Lifespan, mechanical	10000 operations
Technical Data - Mechanical - Terminals	
Standard terminals	Screw terminal
Terminal capacity (aluminum stranded conductor/cable)	25 mm <sup>2</sup> - 240 mm <sup>2</sup> (4x) at 4-hole tunnel terminal
Terminal capacity (copper busbar)	Min. 25 mm x 5 mm direct at switch rear-side connection Min. 60 mm x 10 mm at rear-side width extension Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate M10 at rear-side screw connection Max. 50 mm x 10 mm (2x) direct at switch rear-side connection 50 mm x 10 mm (2x) at rear-side 2-hole module plate Max. 80 mm x 10 mm (2x) direct at switch rear-side connection Max. 10 mm x 80 mm (2x) at rear-side width extension Min. 25 mm x 5 mm at rear-side 1-hole module plate
Terminal capacity (copper solid conductor/cable)	$300~\text{mm}^2$ (4x) at rear-side width extension $35~\text{mm}^2$ - $185~\text{mm}^2$ (4x) at rear-side 2-hole module plate $95~\text{mm}^2$ - $300~\text{mm}^2$ (2x) at rear-side 1-hole module plate $95~\text{mm}^2$ - $240~\text{mm}^2$ (6x) at rear-side width extension $95~\text{mm}^2$ - $185~\text{mm}^2$ (2x) at rear-side 2-hole module plate $50~\text{mm}^2$ - $240~\text{mm}^2$ (4x) at 4-hole tunnel terminal $120~\text{mm}^2$ - $300~\text{mm}^2$ (1x) at rear-side 1-hole module plate
Terminal capacity (copper stranded conductor/cable)	$50~mm^2$ - $185~mm^2$ (4x) direct at switch rear-side connection $120~mm^2$ - $185~mm^2$ (1x) direct at switch rear-side connection $50~mm^2$ - $240~mm^2$ (1x) at 2-hole tunnel terminal $50~mm^2$ - $240~mm^2$ (2x) at 2-hole tunnel terminal
Terminal capacity (copper strip)	Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal 10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) 10 segments of 80 mm x 1 mm (2x) at rear-side width extension
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	800 A
Equipment heat dissipation, current-dependent	95 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	70 °C
Ambient storage temperature - min	40 °C
Ambient storage temperature - max	70 °C
Design verification as per IEC/EN 61439	
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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.
Additional information	
Functions	Interlockable Voltage release optional Disconnectors/main switches Photovoltaic applications

## **Technical data ETIM 9.0**

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

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

Version as maintenance/service switch Version as safety switch Version as emergency stop installation Version as emergency stop installation Version as reversing switch Version as emergency stop installation Version as emergency switch Version as emergency stop installation Version as emergency stop in the second stop in the			
Version as safety switch         Yes           Version as emergency stop installation         Yes           Version as reversing switch         No           Number of switches         1           Max. rated operation voltage Ue AC         V         0           Rated operating voltage         V         1000-1000           Rated permanent current Iu         A         0           Rated permanent current at AC-23, 400 V         A         0           Rated permanent current at AC-21, 400 V         A         0           Rated short-time withstand current Iew         KW         0           Rated permanent current at AC-23, 400 V         KW         0           Rated short-time withstand current Iew         KW         0           Rated short-time withstand current Iew         KW         0           Conditioned rated short-circuit current Iq         KW         0           Conditioned rated short-circuit current Iq         KW         0           Number of poles         P         4           Number of poles         P         4           Number of auxiliary contacts as normally open contact         P         0           Wumber of auxiliary contacts as change-over contact         P         0           Motor drive opti	Version as main switch		Yes
Version as emergency stop installation  Version as reversing switch  Number of switches  Max. rated operation voltage Ue AC  Nated 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-31, 400 V  Rated operation power at AC-31, 400 V  Rated short-time withstand current lu  Rated short-time withstand current lu  Rated operation power at AC-30, 400 V  Rated operation power at AC-30, 400 V  Rated short-time virthstand current lcw  Rated operation power at AC-30, 400 V  Rated operation power at AC-30, 400 V  Routed operation power at AC-30, 400 V  Routed operation power at AC-30, 400 V  Routed operation power at AC-30, 400 V  Number of poles  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  Noto the service optional  Notor drive integrated  Notor drive optional	Version as maintenance-/service switch		Yes
Version as reversing switch         Mo           Number of switches         1           Max. rated operation voltage Ue AC         V         0           Rated operating voltage         V         1000-1000           Rated permanent current Iu         A         V           Rated permanent current at AC-23, 400 V         A         0           Rated operation power at AC-3, 400 V         K         0           Rated short-time withstand current lew         KA         34           Rated operation power at AC-23, 400 V         KW         0           Rated short-time withstand current lew         KA         34           Rated short-time withstand current lew         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         KA         0           Number of auxiliary contacts as normally closed contact         K         4           Number of auxiliary contacts as change-over contact         K         6           Motor drive optional         K         6           Motor drive integrated         K         6	Version as safety switch		No
Number of switches         I         1           Max. rated operation voltage Ue AC         V         0           Rated operating voltage         V         1000 - 1000           Rated permanent current Iu         A         I           Rated permanent current at AC-23, 400 V         A         0           Rated permanent current at AC-3, 400 V         A         0           Rated short-time withstand current lcw         kW         0           Rated short-time withstand current lcw         kW         0           Switching power at AC-23, 400 V         kW         0           Switching power at 400 V         kW         0           Conditioned rated short-circuit current Iq         kA         0           Number of poles         KA         0           Number of auxiliary contacts as normally closed contact         KA         0           Number of auxiliary contacts as change-over contact         C         Ves           Motor drive optional         K         Ves           Motor drive integrated         K         Ves           Motor drive integrated         K         Ves	Version as emergency stop installation		Yes
Max. rated operation voltage Ue AC         V         0           Rated operating voltage         V         1000 - 1000           Rated permanent current Iu         A         1000 - 1000           Rated permanent current at AC-23, 400 V         A         0           Rated peration power at AC-2, 400 V         kM         34           Rated operation power at AC-23, 400 V         kM         34           Rated operation power at 400 V         kW         0           Switching power at 400 V         kW         0           Conditioned rated short-circuit current Iq         kA         0           Number of poles         4         4           Number of auxiliary contacts as normally closed contact         9         0           Number of auxiliary contacts as normally open contact         9         0           Motor drive optional         9         9           Motor drive integrated         9         9           Motor drive integrated         9         9           Voltage release optional         9         9	Version as reversing switch		No
Rated operating voltage Rated permanent current lu Rated permanent current at AC-23, 400 V Rated permanent current at AC-21, 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 short-time withstand current lcw Rated operation power at AC-23, 400 V Rowtching power at 400 V Switching power at 400 V Conditioned rated short-circuit current lq Rowtching power at 400 V Rowtching power	Number of switches		1
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 operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rw Rated operation power at AC-23, 400 V Rw Switching power at 400 V Conditioned rated short-circuit current lq Rw Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Motor drive optional Notor drive integrated Voltage release optional	Max. rated operation voltage Ue AC	V	0
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-3, 400 V Rated short-time withstand current Icw Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V Rotel operation power at AC-2	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 operation power at AC-23, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Row by thing power at 4	Rated permanent current lu	Α	
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 Rww Routed operation power at 400 V Rww Rww Rww Rww Rww Rww Rww Rww Rww Rw	Rated permanent current at AC-23, 400 V	Α	0
Rated short-time withstand current Icw Rated operation power at AC-23, 400 V  Switching power at 400 V  Conditioned rated short-circuit current Iq  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  Voltage release optional	Rated permanent current at AC-21, 400 V	Α	0
Rated operation power at AC-23, 400 V  Switching power at 400 V  Conditioned rated short-circuit current Iq  kA  0  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  Voltage release optional  kW  0  Conditioned rated Short-circuit current Iq  kA  0  0  Conditioned rated Short-circuit current Iq  kA  0  Conditioned rated Short-circuit current Iq  kA  0  Ves	Rated operation power at AC-3, 400 V	kW	0
Switching power at 400 V  Conditioned rated short-circuit current Iq  kA  0  Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Number of included the contact of the c	Rated short-time withstand current lcw	kA	34
Conditioned rated short-circuit current Iq kA 0  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  Number of auxiliary contacts as change-over contact 0  Motor drive optional 0  Voltage release opti	Rated operation power at AC-23, 400 V	kW	0
Number of poles  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Notor drive optional  Notor drive integrated  Notor drive integrated  Notor drive optional  Notor drive optional  Notor drive optional  Notor drive integrated	Switching power at 400 V	kW	0
Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Notor drive optional  Notor drive integrated  Notor drive integrated  Notor drive optional  Yes	Conditioned rated short-circuit current Iq	kA	0
Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Notor drive optional  Voltage release optional  O  Yes  Voltage release optional  O  Ves	Number of poles		4
Number of auxiliary contacts as change-over contact  Motor drive optional  Motor drive integrated  Voltage release optional  O  Yes  Yes	Number of auxiliary contacts as normally closed contact		0
Motor drive optional  Motor drive integrated  Voltage release optional  Yes  Yes  Yes	Number of auxiliary contacts as normally open contact		0
Motor drive integrated No Voltage release optional Yes	Number of auxiliary contacts as change-over contact		0
Voltage release optional Yes	Motor drive optional		Yes
	Motor drive integrated		No
Device construction  Built-in device fixed built-in technique	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			Screw connection
With pre-assembled cabling			No
Degree of protection (IP), front side			IP20
Degree of protection (NEMA)			Other
Width	r	mm	280
Height	ı	mm	207
Depth	ı	mm	401
Width in number of modular spacings			