DATASHEET - NZM1-4-XFI30U



Earth-fault release, 30mA, 4p, bottom

Part no. Catalog No. Alternate Catalog No.





Delivery program

Description	Earth-fault release to IEC/EN 60947-2 not UL/CSA approved Suitable for use in three- and single-phase systems Pulse-current sensitive type A according to core-balance principle For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors Supply voltage-dependent Ue = 200 – 415 V 50/60 Hz Control knobs, sealable. Bottom mounting up to 100 A		
Contact sequence	\sim		
For use with			
For use with	NZM1-4 N1-4		
Pole	4 pole		
Notes			
With $I_{\bigtriangleup n}$ = 0.03 A: delay time t_v always fixed setting at 10 ms.			
Alarm message > 30 % $I_{\bigtriangleup n}$ by yellow LED.			
Trip indication max. 2 auxiliary contacts (HIAFI) can be fitted by user: N/O = M22-K01, N/C = M	22-K10 are reset via the reset toggle lever.		
If the trip-indicating auxiliary contact in the fault current block is used, the N/C contacts operates as a N/O contact and the N/C contact operates as an N/O contact.			
Double contact not permissible.			
Not in combination with insulated enclosure or main switch assembly kit for side panel mount	ing with mounting bracket		
N7M1_XEL B can not be used in combination with lower cover N7M1-XUSA			

NZM1-XFI...R can not be used in combination with lower cover NZM1-XUSA.

NZM1-XFI...U not in combination with shunt or undervoltage release, early-make auxiliary contacts.

Rated ultimate short-circuit breaking capacity is determined by the fitted NZM1, NS1.

If a switch-disconnector N1 is applied by the back-up fuse to be used ightarrow Technical data.

Technical data Electrical

Sensitivity IEC/EN 60947-2 annex B Sensitivity Pulse-current sensitive as per core-balance principle (type A) Min. operating voltage Ue or detection of fault currents type A/AC No Subability for the application Ue No Rated operational voltage Ue VAC Solvational solvates) Rated operational voltage Ue VAC Solvational solvates) Number of poles I Ve Ve Rated fault currents Ino Solvational solvates) Solvational solvates) Detection range of the fault current Ino Solvational solvates) Solvational solvates) Rated dultimates short-circuit making capacity and rated ultimates short-circuit making capacity and rated short circuit making capacity and rated capacity	Electrical			
Min. operating voltage Ventor	Standards			
or detection of fault currents type A/AC Precedent Systems Solidability for the application Solidability for the applicat	Sensitivity			Pulse-current sensitive as per core-balance principle (type A)
Suitability for the application Suitability for the application Gate operational voltage Rated operational voltage U u U u U u U u U u U u U u U u U u U	Min. operating voltage	Ue	V	
Rated operational voltage Ue V AC VAC Rated operational voltage f Hz 50/60 Rated frequency f Hz 4-pole Number of poles In A 5100 Rated durrent range In A 0.03 Detection range of the fault current In Sofo Hz Rated ultimate short-circuit making capacity and rated ultimate short-circuit Jame A Mechanical shock resistance (IEC 60068-2-27) Deterations 20(half-sinusoidal shock 20 ms) Kitspan, mechanical (50% with fault current) Operations 2000 Mechanical front dimension Mm Sofon Munting Mm Sofon	or detection of fault currents type A/AC			80 V (dependent on mains voltage)
Rated frequency f Hz 50/60 Number of poles I 4-pole Rated current range I A 5100 Rated fault currents I A 0.3 Detection range of the fault current I Amage Amage Rated duitinate short-circuit making capacity and rated ultimate short-circuit I Amage Amage Mechanical shock resistance (IEC 60068-2-27) I Image Colonational shock 20 ms) Lifespan, mechanical (50 % with fault current) Operations Image South Mechanical Image Image South Standard front dimension Image Image South Munting Image Image South	Suitability for the application			in three-phase systems
Number of poles Image: Additional synthesis and the synthesynthesis and th	Rated operational voltage	U _e	V AC	200415 (3~)
Rated current range In A Im Im Imm	Rated frequency	f	Hz	50/60
Rated fault currents I An A 0.03 Detection range of the fault current I I 50/60 Hz Rated ultimate short-circuit making capacity and rated ultimate short-circuit breaking capacity I I Mechanical shock resistance (IEC 60068-2-27) I I I Mechanical (50 % with fault current) Operations I 20 (half-sinusoidal shock 20 ms) Mechanical (50 % with fault current) Operations I 20000 Mechanical front dimension mm 45 Mounting Mm Battom	Number of poles			4-pole
Detection range of the fault current 50/60 Hz Rated ultimate short-circuit making capacity and rated ultimate short-circuit breaking capacity Imm Ag = I_CU Mechanical shock resistance (IEC 60068-2-27) 0 20 (half-sinusoidal shock 20 ms) Lifespan, mechanical (50 % with fault current) Operations 20000 Mechanical 0 9 Standard front dimension mm 45 Mounting Battom 10	Rated current range	I _n	А	15100
Rated ultimate short-circuit making capacity and rated ultimate short-circuit Image: Amage: Amag	Rated fault currents	I _{Δn}	А	0.03
breaking capacity Image and a set of the set of	Detection range of the fault current			50/60 Hz
Lifespan, mechanical (50 % with fault current) Operations 20000 Mechanical Standard front dimension Mounting 45 Bottom	Rated ultimate short-circuit making capacity and rated ultimate short-circuit breaking capacity	$I_{\Delta m}$	Α	= I _{CU}
Mechanical mm 45 Standard front dimension Bottom Bottom	Mechanical shock resistance (IEC 60068-2-27)			20 (half-sinusoidal shock 20 ms)
Standard front dimension mm 45 Mounting Model Bottom	Lifespan, mechanical (50 % with fault current)	Operations		20000
Mounting Bottom	Mechanical			
-	Standard front dimension		mm	45
Mounting position Vertical and 90° in all directions	Mounting			Bottom
	Mounting position			Vertical and 90° in all directions

Supply		
		NZM1 from above
Degree of protection		IP20 in the operating component area
Ambient temperature		-5 - +40
Terminal capacity		
Flexible without ferrule	mm ²	wie NZM1 Standardklemme
flexible with ferrules	mm ²	such as NZM1 standard terminal

Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	-5
Operating ambient temperature max.	°C	40
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) / Residual current release for power circuit breaker (EC001021)				
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Fault current switch for circuit breakers (ecl@ss10.0.1-27-37-04-11 [AKF009013])				
Rated control supply voltage Us at AC 50HZ	V	200 - 415		
Rated control supply voltage Us at AC 60HZ	V	200 - 415		
Rated control supply voltage Us at DC	V	0 - 0		
Rated fault current	А	0.03 - 0.03		
Max. power on-delay time	ms	30		
Delay adjustable		No		
Max. rated operation voltage Ue	V	415		

