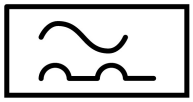
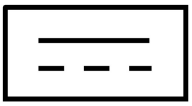
DATASHEET - NZM2-4-XFIA30

Earth-fault release 30mA, AC/DC sensitive, 4p

Part no. NZM2-4-XFIA30
Catalog No. 292345

Powering Business Worldwide™

Delivery program

Description			Core-balance principle with AC/DC sensitivity (in range 0 - 100 kHz) For 4 pole NZM2-4 circuit-breakers and N2-4 switch-disconnectors Internal power supply Us = 50 - 400 V
Contact sequence			
Contact sequence			
For use with			
For use with			NZM2-4 N2-4
Pole			4 pole

Notes

Observe response threshold dependence on frequency!

See “Frequency response” characteristic curve

Auxiliary contacts (1 N/O, 1N/C integrated) are reset via the reset button.

Not in combination with plug-in units, insulated enclosure or main switch assembly kit for side panel mounting with mounting bracket.

Rated ultimate short-circuit breaking capacity is determined by the fitted NZM2.

If a switch-disconnector N2 is applied by the back-up fuse to be used → Technical data.

Technical data

Electrical

Standards			IEC/EN 60947-2 IEC/EN 60947-2 annex B
Sensitivity			Sensitive to AC/DC (type B)
Min. operating voltage	U_e	V	
or detection of fault currents type A/AC			0 V independent of mains voltage
or detection of fault currents type B			50 V (dependent on mains power)
Suitability for the application			In three- and single-phase systems
Rated operational voltage	U_e	V AC	50…400 (3~)
Rated frequency	f	Hz	50
Number of poles			4-pole
Rated current range	I_n	A	15…250
Rated fault currents	$I_{\Delta n}$	A	0.03
Detection range of the fault current			with AC voltage: 0 - 100 kHz with pulsed DC voltage: 50 Hz
Rated ultimate short-circuit making capacity and rated ultimate short-circuit breaking capacity	$I_{\Delta m}$	A	= I_{CU}
Mechanical shock resistance (IEC 60068-2-27)			20 (half-sinusoidal shock 20 ms)
Lifespan, mechanical (50 % with fault current)	Operations		≧ 2 000

Mechanical

Standard front dimension		mm	96
Mounting			Bottom
Mounting position			Vertical and 90° in all directions
Supply			
			Bottom
Degree of protection			IP20 in the operating component area
Ambient temperature			-25 - +70

Terminal capacity		
Flexible without ferrule	mm^2	wie NZM2 Standardanschluss
flexible with ferrules	mm^2	With NZM2 standard connection

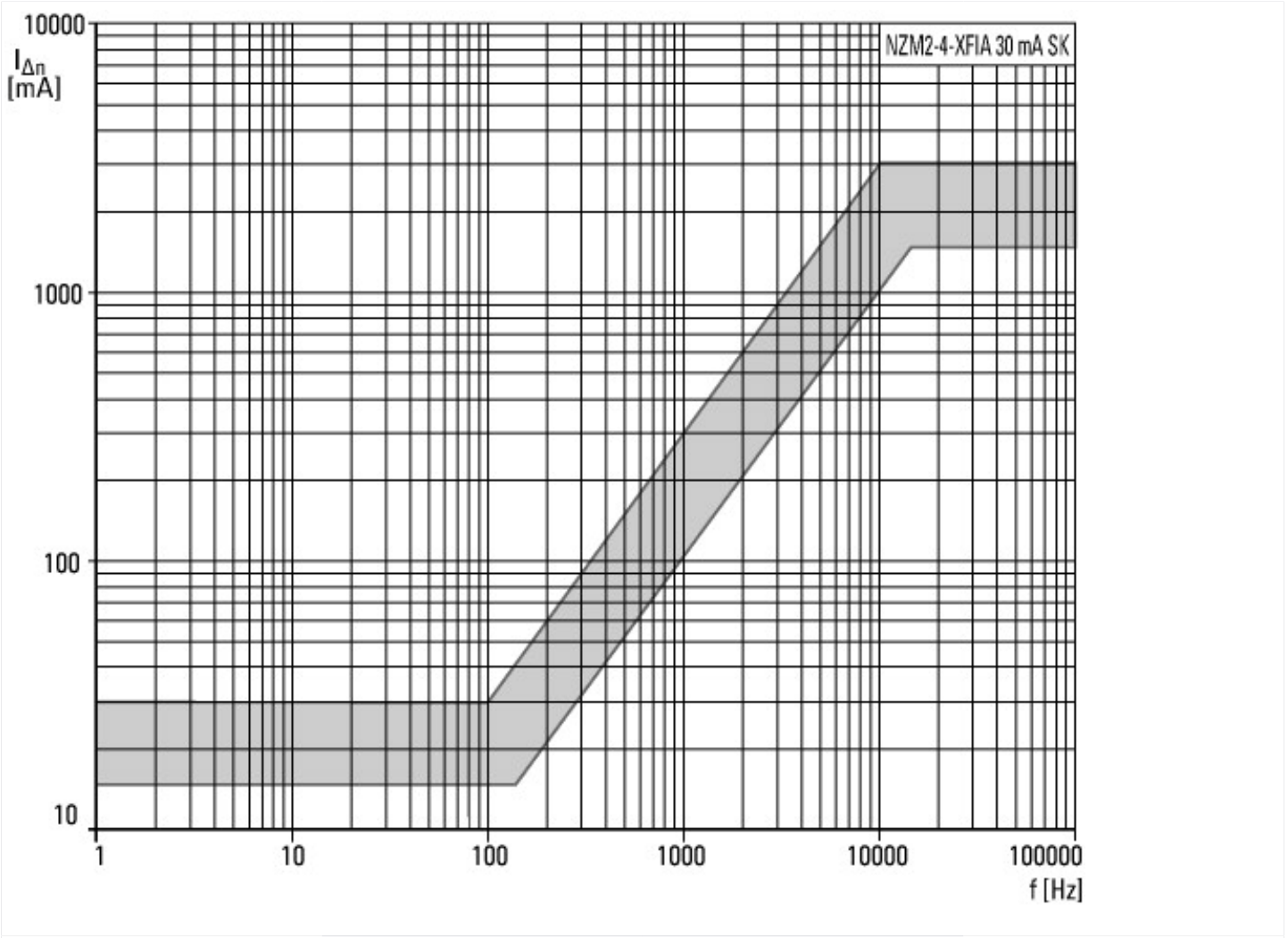
Design verification as per IEC/EN 61439

Technical data for design verification		
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

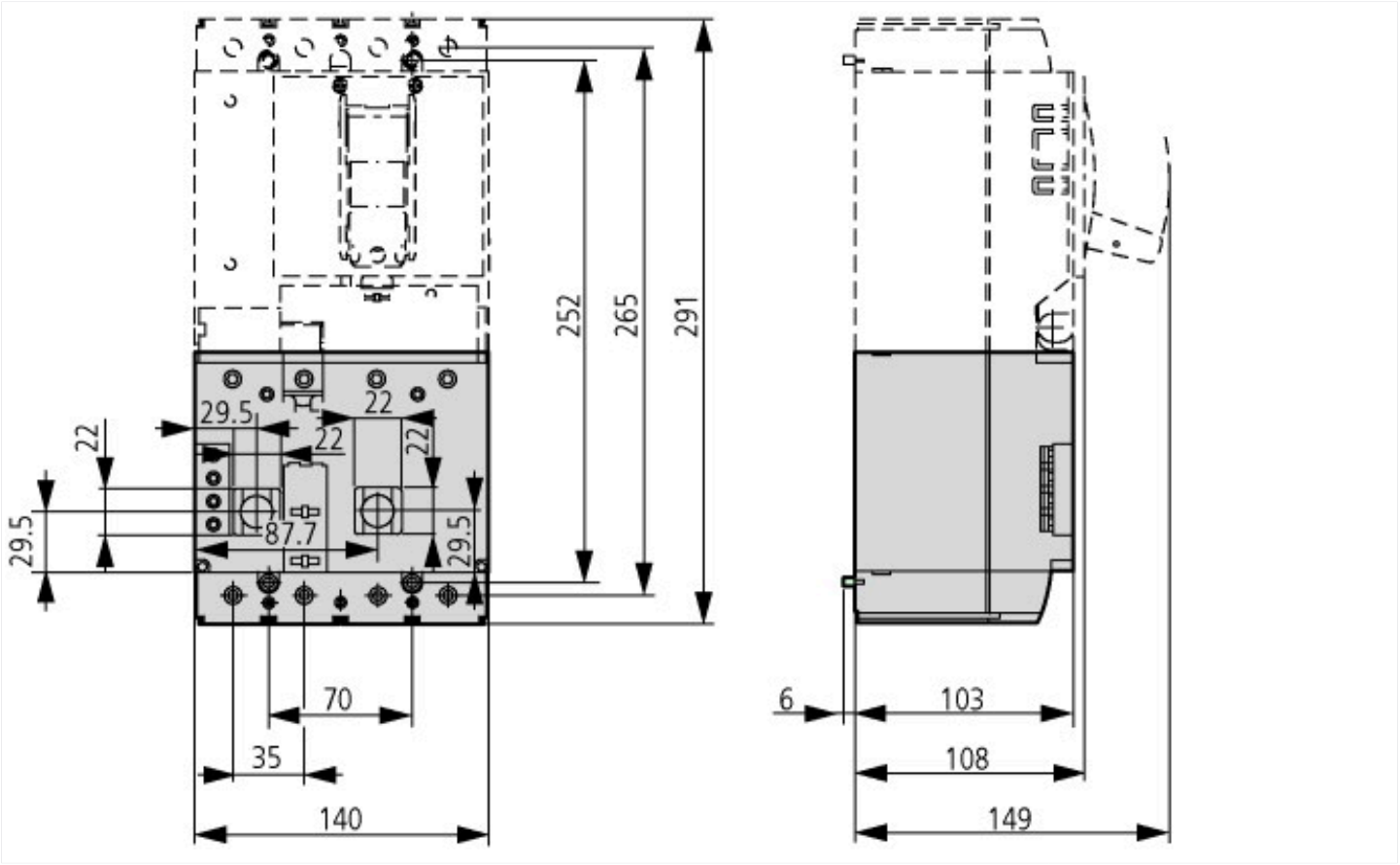
Low-voltage industrial components (EG000017) / Residual current release for power circuit breaker (EC001021)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Fault current switch for circuit breakers (ecl@ss10.0.1-27-37-04-11 [AKF009013])		
Rated control supply voltage Us at AC 50HZ	V	50 - 400
Rated control supply voltage Us at AC 60HZ	V	50 - 400
Rated control supply voltage Us at DC	V	0 - 0
Rated fault current	A	0.03 - 0.03
Max. power on-delay time	ms	30
Delay adjustable		No
Max. rated operation voltage Ue	V	400

Characteristics



Tripping current frequency response
30 mA
SK part no.

Dimensions



Additional product information (links)

IL01210008Z (AWA1230-2100) Residual-current protection module	
IL01210008Z (AWA1230-2100) Residual-current protection module	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01210008Z2017_03.pdf