Circuit-breaker 4 pole, 50A

Part no. NZMS1-4-A50 Catalog No. 109952



Similar to illustration

Delivery program			
Switching capacity			
400/415 V 50 Hz	I _{cu}	kA	70
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	50
Neutral conductor	% of phase conductor	%	100
Setting range			
Overload trip			
4	l _r	А	40 - 50
Main pole	I _r	A	40 - 50
Short-circuit releases			
Non-delayed	$I_i = I_n x \dots$		6 - 10

Technical data

General

Ambient temperature			
Ambient temperature, storage		°C	- 40 - + 70
Operation		°C	-25 - +70
Circuit-breakers			
Rated current = rated uninterrupted current	$I_n = I_u$	Α	50
Switching capacity			
Rated short-circuit breaking capacity I _{cn}	I _{cn}		
Icu to IEC/EN 60947 test cycle O-t-CO	lcu	kA	
400/415 V 50/60 Hz	Icu	kA	70

Design verification as per IEC/EN 61439

Technical data for design verification			
Equipment heat dissipation, current-dependent	P _{vid}	W	13.2
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) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])

Rated voltage Rated voltage Rated short-circuit breaking capacity lou at 400 V, 50 Hz Avious delease current setting Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release Adjustme			
Rated short-circuit breaking capacity lou at 400 V, 50 Hz Overload release current setting Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release A 6 - 10 No Overload release Built-in device fixed built-in technique Adjustment range undelayed short-circuit Prame clamp Frame clamp Built-in device fixed built-in technique Available for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Ves Ves No Number of auxiliary contacts as normally closed contact Availary contacts as normally open contact Availary contacts as change-over contact Availary contacts as normally open contact Availary contacts as normally closed contact Availary contacts as normally	Rated permanent current lu	Α	50
Overload release current setting A 40 - 50 Adjustment range short-term delayed short-circuit release A 0 - 0 Adjustment range undelayed short-circuit release A 6 - 10 Integrated earth fault protection No Frame clamp Type of electrical connection of main circuit Frame clamp Built-in device fixed built-in technique Device construction No Yes DIN rail (top hat rail) mounting optional Yes 0 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as change-over contact 0 0 With switched-off indicator No No With under voltage release No No Number of poles 4 A Position of connection for main current circuit Yes Front side Type of control element Rocker lever Rocker lever Complete device with protection unit Yes No Motor drive integrated No No	Rated voltage	V	690 - 690
Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release Adjustment range undelayed short-circuit release Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional BUN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact With switched-off indicator With under voltage release Number of poles A 0 Oe Oe Number of poles Oe Number of poles Oe Number of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive integrated Motor drive optional	Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	70
Adjustment range undelayed short-circuit release Integrated earth fault protection Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional No DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact With switched-off indicator With under voltage release Number of poles Position of connection for main current circuit Type of electrical connection for main current circuit Complete device with protection unit Motor drive integrated Motor drive integrated Motor drive optional	Overload release current setting	Α	40 - 50
Integrated earth fault protection Type of electrical connection of main circuit Evice construction Evice construction Evitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting optional Evitable for DIN rail (top hat rail) mounting Evitable for DIN rail (top hat ra	Adjustment range short-term delayed short-circuit release	Α	0 - 0
Type of electrical connection of main circuit Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact No No With under voltage release No No No No No No No Connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated No No No No No No No No No N	Adjustment range undelayed short-circuit release	Α	6 - 10
Device construction Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional 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 poss Number of poss Number of poles No	Integrated earth fault protection		No
Suitable for DIN rail (top hat rail) mounting optional No DIN rail (top hat rail) mounting optional 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 auxiliary contacts as change-over contact No With switched-off indicator With switched-off indicator No	Type of electrical connection of main circuit		Frame clamp
DIN rail (top hat rail) mounting optional 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 With switched-off indicator With under voltage release No Number of poles Auxiliary contacts as change-over contact No No No No No No No No No N	Device construction		Built-in device fixed built-in technique
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 No With switched-off indicator With under voltage release No Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional O O O O No No No No No No No	Suitable for DIN rail (top hat rail) mounting		No
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact With switched-off indicator With under voltage release No No Number of poles Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional O O O O O O O O O O O O O	DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as change-over contact With switched-off indicator No With under voltage release No Number of poles A Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive integrated Motor drive optional O No No No No No No No No No	Number of auxiliary contacts as normally closed contact		0
With switched-off indicator With under voltage release No Number of poles Number of connection for main current circuit Type of control element Complete device with protection unit Motor drive optional No No No No No No No No No N	Number of auxiliary contacts as normally open contact		0
With under voltage release No Number of poles 4 Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive optional No	Number of auxiliary contacts as change-over contact		0
Number of poles A position of connection for main current circuit Type of control element Complete device with protection unit Motor drive optional A font side Rocker lever Rocker lever No No No	With switched-off indicator		No
Position of connection for main current circuit Type of control element Complete device with protection unit Motor drive optional Front side Rocker lever Yes No No No	With under voltage release		No
Type of control element Complete device with protection unit Motor drive optional Rocker lever Yes No No	Number of poles		4
Complete device with protection unit Yes Motor drive integrated No Motor drive optional No	Position of connection for main current circuit		Front side
Motor drive integrated No	Type of control element		Rocker lever
Motor drive optional No	Complete device with protection unit		Yes
	Motor drive integrated		No
Degree of protection (IP)	Motor drive optional		No
g	Degree of protection (IP)		IP20

Additional product information (links)

additional technical information for NZM power switch

 $https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf$