## **DATASHEET - CLS4-C32/1N-MX**



## Miniature circuit breaker (MCB), 32A, 1pole+N, type C characteristic



Similar to illustration

CLS4-C32/1N-MX Part no. Catalog No. 263709

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	4.4
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity
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**

Circuit breakers and fuses	/ECONODON / Ministers	airquit brooker	(NACD) (ECOOOO42)
Circuit breakers and luses	(EUUUUUZU) / WIIIIlature	circuit breaker	(IVICD) (ECUUUU42)

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])			
Release characteristic	С		
Number of poles (total)	2		
Number of protected poles	1		

Rated voltage         V         230           Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         4.5           Rated short-circuit breaking capacity Icn EN 60898 at 400 V         kA         4.5           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         0           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         0           Voltage type         AC         AC           Frequency         Hz         50 - 60           Current limiting class         3         3           Suitable for flush-mounted installation         No           Concurrently switching N-neutral         No         No           Over voltage category         3         2           Pollution degree         2         2           Additional equipment possible         Yes           Width in number of modular spacings         2           Built-in depth         mm         70.5           Degree of protection (IP)         IP20           Ambient temperature during operating         "C         -25 - 55           Connectable conductor cr			
Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Rated short-circuit breaking capacity Icn EN 60989 at 230 V         kA         4.5           Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V         kA         0           Rated short-circuit breaking capacity Icu IEC 60947-2 at 2400 V         kA         0           Voltage type         AC         AC           Frequency         Hz         50 - 60           Current limiting class         3         3           Suitable for flush-mounted installation         No         No           Concurrently switching N-neutral         No         No           Over voltage category         3         2           Pollution degree         2         2           Additional equipment possible         Yes           Width in number of modular spacings         2         2           Built-in depth         mm         70.5           Degree of protection (IP)         IP20           Anbient temperature during operating         °C         -25 - 55           Connectable conductor cross section multi-wired         mm²         1-25	Rated current	Α	32
Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V Voltage type Rrequency Ruffer flush-mounted installation Ruffer flush-mounte	Rated voltage	V	230
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	Rated insulation voltage Ui	V	440
Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Received Re	Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type  Hz  50 - 60  Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral  Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings  Built-in depth Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  KA  0  AC  AC  AC  No  AC  PO  AC  PO  AC  AC  AC  AC  AC  AC  AC  AC  AC  A	Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	4.5
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V  Voltage type  AC  Frequency  Current limiting class  Suitable for flush-mounted installation  Concurrently switching N-neutral  Over voltage category  Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  kA  0  AC  AC  No  No  Voltage type  3  3  2  4  7  8  7  8  7  8  7  8  7  8  8  8  8	Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	4.5
Voltage type Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation No Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired AC  AC AC AC BL	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	0
Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Currently switching N-neutral No	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	0
Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired  3 No No No No 2 2 2 4 7 5 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Voltage type		AC
Suitable for flush-mounted installation  Concurrently switching N-neutral  Over voltage category  Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  No  No  No  No  2  And  70.5  Pegree of protection (IP)  IP20  And Degree of protection multi-wired  No  No  No  1 2  2 2  4 2  4 2  4 2  4 2  5 5 5 5 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7	Frequency	Hz	50 - 60
Concurrently switching N-neutral  Over voltage category  Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  No  Yes  2  Pollution degree  Possible  Yes  Yes  1  2  Possible  Possible  Possible  No  Yes  1  2  And in number of modular spacings  Possible  Possibl	Current limiting class		3
Over voltage category  Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  3  Yes  Yes  2  Built-in depth  mm  70.5  IP20  Arbient temperature during operating  C -25 - 55  Connectable conductor cross section multi-wired  mm²  1 - 25	Suitable for flush-mounted installation		No
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 2 Built-in depth mm 70.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 -55 Connectable conductor cross section multi-wired mm² 1 - 25	Concurrently switching N-neutral		No
Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  Yes  2  1  1  1  1  1  1  1  1  1  1  1  1	Over voltage category		3
Width in number of modular spacings 2  Built-in depth mm 70.5  Degree of protection (IP) IP20  Ambient temperature during operating °C -25 - 55  Connectable conductor cross section multi-wired mm² 1 - 25	Pollution degree		2
Built-in depth mm 70.5  Degree of protection (IP) IP20  Ambient temperature during operating °C -25 - 55  Connectable conductor cross section multi-wired mm² 1 - 25	Additional equipment possible		Yes
Degree of protection (IP)  Ambient temperature during operating  °C  -25 - 55  Connectable conductor cross section multi-wired  mm²  1 - 25	Width in number of modular spacings		2
Ambient temperature during operating  °C -25 - 55  Connectable conductor cross section multi-wired  mm² 1 - 25	Built-in depth	mm	70.5
Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Degree of protection (IP)		IP20
	Ambient temperature during operating	°C	-25 - 55
Connectable conductor cross section solid-core mm <sup>2</sup> 1 - 25	Connectable conductor cross section multi-wired	mm <sup>2</sup>	1 - 25
	Connectable conductor cross section solid-core	mm <sup>2</sup>	1 - 25