DATASHEET - M22-CKC10



Contact element, Cage Clamp, Base fixing, 1 N/O, 24 V 3 A, 220 V 230 V 240 V 6 A



Powering Business Worldwide

Part no. M22-CKC10
Catalog No. 216386
Alternate Catalog M22-CKC100

No.

EL-Nummer 4355769

(Norway)

(Norway)	
Delivery program	
Basic function accessories	Contact elements
Description	Cage Clamp is a registered trademark of Wago Kontakttechnik GmbH/Minden, Germany
Connection technique	Cage Clamp
Fixing	Base fixing
Degree of Protection	IP20
Connection to SmartWire-DT	no
Approval	ET 16107 Sicherheit geprüft tested safety
Contacts	
N/O = Normally open	1 N/0
	.4
Contact travel diagram, stroke in connection with front element	
Contact diagram	0 2.8 5.5
Configuration	2 3 1
Connection type	Single contact
Connection technique	Cage Clamp
Notes	
Up to 3 off per enclosure base	

Technical data General

General			
Standards			IEC 60947-5-1
Lifespan, mechanical	Operations	x 10 ⁶	>5
Operating frequency	Operations/h		≦ 3600
Actuating force		n	≦5
Degree of Protection			IP20
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +70
Mechanical shock resistance to IEC 60068-2-27 Shock duration 11 ms, half- sinusoidal		g	> 30
Terminal capacities		mm ²	
Solid		mm^2	0.75 - 2.5
Stranded		mm^2	0.5 - 2.5
Flexible with ferrule		mm^2	0.5 - 1.5
Contacts			
Rated impulse withstand voltage	U_{imp}	V AC	6000
Rated insulation voltage	Ui	V	500
Overvoltage category/pollution degree			III/3
Control circuit reliability			
at 24 V DC/5 mA	H _F	Fault probabili	< 10 ⁻⁷ (i.e. 1 failure to 10 ⁷ operations)
at 5 V DC/1 mA	H _F	Fault probabili	$< 5 \times 10^{-6}$ (i.e. 1 failure in 5×10^{6} operations) ty
Max. short-circuit protective device			
Fuseless		Type	PKZM0-10/FAZ-B6/1
Fuse	gG/gL	Α	10
Switching capacity			
Rated operational current	l _e	Α	
AC-15			
115 V	l _e	A	6
220 V 230 V 240 V	I _e	Α	6
380 V 400 V 415 V	l _e	Α	4
500 V	I _e	Α	2
DC-13			
24 V	le	Α	3
42 V	I _e	Α	1.7
60 V	l _e	Α	1.2
110 V	I _e	Α	0.8
220 V	I _e	Α	0.3
Lifespan, electrical			
AC-15			
230 V/0.5 A	Operations	x 10 ⁶	1.6
230 V/1.0 A	Operations	x 10 ⁶	1
230 V/3.0 A	Operations	x 10 ⁶	0.7
		X 10	

Design verification as per IEC/EN 61439

DV-13

12 V/2.8 A

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.11
Equipment heat dissipation, current-dependent	P _{vid}	W	0

Operations x 10⁶ 1.2

Heat dissipation capacity Operating ambient temperature min. Operating ambient temperature max. 10.2 Strength of materials and parts 10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Power-frequency electric strength V	
Operating ambient temperature max. IEC/EN 61439 design verification 10.2 Strength of materials and parts 10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.2 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties	
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 and fire due to internal electric effects 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 10.2.7 Inscriptions Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. In Internal electrical circuits and connections Is the panel builder's responsibility. 10.9 Insulation properties	
10.2 Strength of materials and parts 10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.2 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated. Soes not apply, since the entire switchgear needs to be evaluated.	
10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.2 Verification of resistance of insulating materials to normal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Insulation properties Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Insulation properties Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Insulation properties	
10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. In the panel builder's responsibility. Is the panel builder's responsibility.	
10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility.	
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility.	
and fire due to internal electric effects 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.	
10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility.	
10.2.6 Mechanical impact 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.	
10.2.7 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. Meets the product standard's requirements. Meets the product standard's requirements. 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.	
10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances Meets the product standard's requirements. 10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility.	
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.	
10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility.	
10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility.	
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	
10.8 Connections for external conductors Is the panel builder's responsibility. 10.9 Insulation properties	
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. Eato provide heat dissipation data for the devices.	ı will
10.11 Short-circuit rating Is the panel builder's responsibility. The specifications for the switchgear observed.	must be
10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear observed.	must be
10.13 Mechanical function The device meets the requirements, provided the information in the instruent leaflet (IL) is observed.	

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])

Number of contacts as change-over contact			0
Number of contacts as normally open contact			1
Number of contacts as normally closed contact			0
Number of fault-signal switches			0
Rated operation current le at AC-15, 230 V	,	A	6
Type of electric connection			Spring clamp connection
Model			Top mounting
Mounting method			Floor fastening
Lamp holder			None

Approvals

Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Degree of Protection	UL/CSA Type: -

Dimensions

Pushbutton with M22-(C)K... Pushbutton with M22-(C) LED... + M22-XLED...

Additional product information (links)

DGUV Test Mark Customer Information

 $http://www.dguv.de/medien/dguv-test-medien/_pdf_zip_doc_ppt/agb-und-pzo/dguv_test_zeichen_infoblatt_kunden.pdf$