DATASHEET - PKN6-10/1N/B/003-A-MW

Part no.

Catalog No.



RCD/MCB combination, 10 A, 30 mA, MCB trip characteristic: B, 1p+N, RCD trip characteristic: A

PKN6-10/1N/B/003-A-MW

236500



Similar to illustration

Delivery program

Basic function			Combined RCD/MCB devices
Number of poles			1 pole+N
Tripping characteristic			В
Application			Switchgear for residential and commercial applications
Rated current	In	А	10
Rated switching capacity according to IEC/EN 61009		kA	6
Rated fault current	$I_{\Delta N}$	А	0.03
Туре			Туре А
Tripping		s	non-delayed
Product range			PKN6
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A

Technical data

Electrical

Sensitivity	Pulse-current sensitive

Design verification as per IEC/EN 61439

Rated operational current for specified heat dissipation In A 10 Heat dissipation per pole, current-dependent Pvid V 0 Equipment heat dissipation, current-dependent Pvid V 2.5 Static heat dissipation, non-current-dependent Pvis V 0 Heat dissipation capacity Pdiss V 0 Operating ambient temperature min. °C 25 Operating ambient temperature max. Im °C 26 Operating ambient temperature max. Im °C 26 Operating ambient temperature max. Im Im 0	Design vernication as per icc/civ 01459			
Heat dissipation per pole, current-dependentPaidWeidOEquipment heat dissipation, current-dependentPaidWei2.5Static heat dissipation, on-current-dependentPaidWei0Operating ambient temperature min.PaidsWei0Operating ambient temperature min.°C4040Operating ambient temperature max.°C4040ECVEN 61439 design verification*********************************	Technical data for design verification			
Equipment heat dissignation, current-dependent Pvid Wa 25 Static heat dissignation, current-dependent Pvid Wa 0 Heat dissignation capacity Pdiss Wa 0 Operating ambient temperature min. °C 25 Operating ambient temperature max. °C 40 Operating ambient temperature max. °C 40 Deperating ambient temperature max.	Rated operational current for specified heat dissipation	In	А	10
Static heat dissipation, non-current-dependent Pues We Beta dissipation capacity Pdiss We 0 Operating ambient temperature min. °C 40 -25 Operating ambient temperature max. °C 40 - ID2 Strength of materials and parts °C 40 - - 102.25 corrosion resistance Mest the product standard's requirements. - <td>Heat dissipation per pole, current-dependent</td> <td>P_{vid}</td> <td>W</td> <td>0</td>	Heat dissipation per pole, current-dependent	P _{vid}	W	0
Heat dissipation capacityPdissWOperating ambient temperature min.°C25Operating ambient temperature max.°C40ID2 Strength of materials and parts°C40ID2.2 Strength of materials and partsMMID2.2 Corrosion resistanceMMID2.3 I Verification of thermal stability of enclosuresMeets the product standard's requirements.ID2.3.1 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.ID2.3.2 Verification of resistance of insulating materials to abnormal heatMeets the product standard's requirements.ID2.3.3 Verification of resistance of insulating materials to abnormal heatMeets the product standard's requirements.ID2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.ID2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.ID3.Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.ID4.4 Clearances and creepage distancesDoes not apply, since the entire switchgear needs to be evaluated.ID3.Degree of protection of ASSEMBLIESDees not apply, since the entire switchgear needs to be evaluated.ID4.6 Incorporation of switching devices and componentsDees not apply, since the entire switchgear needs to be evaluated.ID5.Protection against electric shockDees not apply, since the entire switchgear needs to be evaluated.ID4.6 Incorporation of switching devices and componentsDees not apply, since the entire switchgear needs to be evaluated.ID5.P	Equipment heat dissipation, current-dependent	P _{vid}	W	2.5
Operating ambient temperature min. C <thc< th=""> C <thc< th=""> <</thc<></thc<>	Static heat dissipation, non-current-dependent	P _{vs}	W	0
Operating ambient temperature max.	Heat dissipation capacity	P _{diss}	W	0
Provide a registration 0 10.2 Strength of materials and parts 0 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 Meets the product standard's requirements. 10.2.3.4 Verification of resistance of insulating materials to abnormal heat 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. 10.2.7 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 Does not apply, since the entire switchgear needs to be evaluated. 10.5 Protection against electric shock Does not apply, since the entire switchgear needs to be evaluated. 10.5 Protection of switching devices and components Does not apply, since the entire switchgear needs to be evaluated. 10.5 Protection against electric shock Does no	Operating ambient temperature min.		°C	-25
EC/EN 61439 design verification PP PP PP 10.2 Strength of materials and parts Meets the product standard's requirements. 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 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. 10.2.7 Inscriptions Does not apply, since the entire switchgear needs to be evaluated. 10.3 Degree of protection of ASSEMBLIES Does not apply, since the entire switchgear needs to be evaluated. 10.4 Clearances and creepage distances Does not apply, since the entire switchgear needs to be evaluated. 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. 10.6 Incorporation of switching	Operating ambient temperature max.		°C	40
10.2 Strength of materials and parts Image: Controsion 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 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 Dees not apply, since the entire switchgear needs to be evaluated. 10.2.7 Inscriptions Dees not apply, since the entire switchgear needs to be evaluated. 10.3 Degree of protection of ASSEMBLIES Dees 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 Dees not apply, since the entire switchgear needs to be evaluated. 10.5 Incorporation of switching devices and components Dees not apply, since the entire switchgear needs to be evaluated. 10.5 Internal electric al circuits and connections Meets the product standard's requirements. 10.5 Internal electric shock Dees not apply, since the entire switchgear needs to be evaluated. 10.6 Incorporation of switching devices and components Dees not apply, since the entire switchgear needs to be evaluated. 10.7				0
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 Meets the product standard's requirements. 10.2.3.3 Verification of resistance of insulating materials to abnormal heat 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. 10.3 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. 10.5 Incorporation of switching devices and components Does not apply, since the entire switchgear needs to be evaluated. 10.5 Incorporation of switching devices and components Does not apply, since the entire switchgear needs to be evaluated. 10.5 Incorporation of switching devices and	IEC/EN 61439 design verification			
10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heat and fire due to internal electric effectsMeets the product standard's requirements.10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesDoes not apply, since the entire switchgear needs to be evaluated.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electric and connectionsInternal electric shock10.7 Internal electric and connectionsInternal electric shock10.8 Incorporation of switc	10.2 Strength of materials and parts			
10.2.3.2 Verification of resistance of insulating materials to normal heat and fire due to internal electric effectsMeets the product standard's requirements.10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electric al circuits and connectionsInternal electric strepsonsibility.	10.2.2 Corrosion resistance			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 effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.3.7 InscriptionsMeets the product standard's requirements.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsEvaluated.	10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
and fire due to internal electric effectsA fire due to internal electric effects10.2.4 Resistance to ultra-violet (UV) radiationMeets the product standard's requirements.10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.2.7 InscriptionsMeets the product standard's requirements.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsMeets the product standard's requirements.10.7 Internal electrical circuits and connectionsMeets the panel builder's responsibility.	10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.2.7 InscriptionsMeets the product standard's requirements.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsImage: Step Step Step Step Step Step Step Step				Meets the product standard's requirements.
10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.2.7 InscriptionsDoes not apply, since the entire switchgear needs to be evaluated.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsImage: Component of the panel builder's responsibility.	10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.7 InscriptionsMeets the product standard's requirements.10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsImage: State and	10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.3 Degree of protection of ASSEMBLIESDoes not apply, since the entire switchgear needs to be evaluated.10.4 Clearances and creepage distancesMeets the product standard's requirements.10.5 Protection against electric shockDoes not apply, since the entire switchgear needs to be evaluated.10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsImage: Component of the panel builder's responsibility.	10.2.6 Mechanical impact			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 Ite panel builder's responsibility.	10.2.7 Inscriptions			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 Image: Connection of switching devices and components	10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and componentsDoes not apply, since the entire switchgear needs to be evaluated.10.7 Internal electrical circuits and connectionsIs the panel builder's responsibility.	10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.7 Internal electrical circuits and connections Is the panel builder's responsibility.	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.
10.8 Connections for external conductors 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	
10.9.2 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 (EG000020) / Earth leakage circuit breaker (EC000905)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss10.0.1-27-14-22-07 [AFZ810015])

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	I	kV	4
Rated current		A	10
Rated fault current		A	0.03
Leakage current type			A
Current limiting class			3
Rated short-circuit breaking capacity acc. EN 61009	I	kA	6
Rated short-circuit breaking capacity IEC 60947-2	I	kA	0
Rated short-circuit breaking capacity Icn acc. EN 61009-1	I	kA	6
Disconnection characteristic			
Surge current capacity	I	kA	0.25
Voltage type			AC
Frequency			50 Hz
Release characteristic			В
Concurrently switching N-neutral			Yes
With interlocking device			No
Over voltage category			3
Pollution degree			2
Ambient temperature during operating	•	°C	-25 - 40
Width in number of modular spacings			2
Built-in depth	1	mm	69.5
Suitable for flush-mounted installation			No
Anti-nuisance tripping version			No
Degree of protection (IP)			IP20
Connectable conductor cross section solid-core	1	mm²	1 - 25
Connectable conductor cross section multi-wired		mm²	1 - 25