DATASHEET - PXF-40/2/003-A

Residual current circuit-breaker, 40A, 2pole, 30mA, type A

Part no.	PXF-40/2/003-A
Catalog No.	236748



Delivery program

Basic function			Residual current circuit-breakers
Number of poles			2 pole
Application			Switchgear for residential and commercial applications
Rated current	l _n	Α	40
Rated short-circuit strength	I _{cn}	kA	10
Rated fault current	$I_{\Delta N}$	А	0.03
Туре			Туре А
Tripping		s	non-delayed
Product range			PXF
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A

Technical data

Electrical			
Types conform to			IEC/EN 61008
Standards			IEC/EN 61008
Rated operational voltage	U _e	V	
	U _e	V AC	
Rated operating voltage	U _e	V AC	230
Rated frequency	f	Hz	50
Limit values of the operating voltage			
Test circuit		V AC	184 - 250
Sensitivity			Pulse-current sensitive
Rated insulation voltage	Ui	V	440
Rated impulse withstand voltage	U _{imp}	kV	4
Rated short-circuit strength	I _{cn}	kA	10
Max. admissible back-up fuse			
Short-circuit	gG/gL	А	63
Overload	gG/gL	А	25
Rated making and breaking capacity / Rated residual making and breaking capacity	I _m / I _{Δm}	A	500
Max. back-up fuse		A gL/gG	25
Maximum max. as short-circuit protective device		A gL	
Back-up fuse		A gL	63
lifespan			
Electrical	Operations		≧ 4000
Mechanical	Operations		≧ 20000
References			
Auxiliary switch for subsequent installation			Z-HK 248432
Tripping signal contact for subsequent installation			Z-NHK 248434
Remote control and automatic switching device			Z-FW/LP 248296
Compact enclosure			KLV-TC-2 276240
Switching interlock			IS/SPE-1TE 101911
Sealing cover set			Z-RC/AK-2MU 285385
Mechanical			
Standard front dimension		mm	45
Device height		mm	80

Built-in width	mm	35 (2TE)
Mounting		Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715
Degree of Protection		IP20, IP40 with suitable enclosure
Terminals top and bottom		Open mouthed/lift terminals
Terminal protection		finger and hand touch safe, DGUV VS3, EN 50274
Terminal cross-section		
Solid	mm ²	1.5 - 35
Stranded	mm ²	2 x 16
Thickness of busbar material	mm	0.8 - 2
Permissible storage and transport temperatures	°C	-35 - +60
Climatic proofing		25-55°C/90-95% relative humidity according to IEC 60068-2

Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	l _n	А	40
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	5.8
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
			Starting at 40 °C, the max. permissible continuous current decreases by 2.5% for every 1 °C
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 8.0

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

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Monting method IV all Leakage current type A Selective protection No Short-time delayed tripping No Short-circuit breaking capacity (low) KA 0 Surge current capacity KA 025 Voltage type So So Voltage type KA 025 Voltage type So So Voltage type So So <	Rated insulation voltage Ui	V	440
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Selective protection No Solective protection No Short-tire delayed tripping No Short-circuit breaking capacity (low) KA Surge current capacity KA Vitage type Sole Vitage type Sol	Mounting method		DIN rail
Short-dire delayed tripping Non-time delayed tripping Non-time delayed tripping Short-circuit breaking capacity (low) KA 0 Surge current capacity (low) KA 0 Votage type KA 0 Votage type KA 0 With interlocking device KA 0 Frequency KA 0 Additional equipment possible KA 0 Degree of protection (IP) KA 10 With interderstare during operating Mm 0 Aubient temperature during operating Mm 10 Pollution degree mm 15 Connectable conductor cross section multi-wired mm ² 15	Leakage current type		A
Short-circuit breaking capacity (Icw) KA I Surge current capacity KA 0.5 Voltage type KA AC Voltage type KA Source current capacity With interlocking device Frequency Source current capacity Additional equipment possible Source current curr	Selective protection		No
Surge current capacity kA 0.5 Surge current capacity KA 0.5 Voltage type KA KA KA Voltage type KA KA KA Vich interlocking device Frequency Surge current capacity Surge current curr	Short-time delayed tripping		No
Voltage typeACVoltage typeACWith interlocking deviceFequencyFrequencySoltaAdditional equipment possibleFequencyDegree of protection (IP)IP20With in number of modular spacingsImmBuilt-in depthImmAnbient temperature during operatingImmPollution degreeImmConnectable conductor cross section multi-wiredImm²Imm²IsaGaleImm²IsaGaleImm²IsaGaleImm²IsaGaleImm²IsaGaleImm²IsaGaleImm²IsaGaleImm²IsaGale	Short-circuit breaking capacity (Icw)	kA	10
With interlocking deviceYesFrequency50 HzAdditional equipment possible50 HzDegree of protection (IP)700With in number of modular spacings600 mmBuilt-in depthmmAnbient temperature during operating600 °CPollution degree25 600Connectable conductor cross section solid-coremm²Solid conductor cross section solid coremm²Solid conductor cross section solid coremm²Solid conductor coremm²Solid conductor coremm²Solid conductor coremm²Solid conductor coremm²Solid conductor coremm²Solid	Surge current capacity	kA	0.25
FrequencyFrequencyMathematical and a pain possibleMathematical and a pain po	Voltage type		AC
Additional equipment possibleMeditional equip	With interlocking device		Yes
Degree of protection (IP)PointPointWithin number of modular spacingsPoint2Built-in depthmm0.5Ambient temperature during operatingPoint25 e 00Pollution degreeMm2Connectable conductor cross section multi-wiredmm15 - 16Rome temperature during space of temperaturemm15 - 35	Frequency		50 Hz
Width in number of modular spacingsMakeMake2Built-in depthmm0.5Ambient temperature during operatingC°CPollution degreeMm2Connectable conductor cross section multi-wiredmm15.16Connectable conductor cross section solid-coremm15.35	Additional equipment possible		Yes
Built-in depthmm7.5Ambient temperature during operatingC°C°CPollution degreeC°C°CConnectable conductor cross section multi-wiredMm²15.16Connectable conductor cross section solid-coremm²15.35	Degree of protection (IP)		IP20
Ambient temperature during operating Pollution degree <th< td=""><td>Width in number of modular spacings</td><td></td><td>2</td></th<>	Width in number of modular spacings		2
Pollution degree 2 Connectable conductor cross section solid-core mm ² 1.5 - 35	Built-in depth	mm	70.5
Connectable conductor cross section solid-core mm ² 1.5 - 16 Mm ² 1.5 - 35	Ambient temperature during operating	°C	-25 - 60
Connectable conductor cross section solid-core mm ² 1.5 - 35	Pollution degree		2
	Connectable conductor cross section multi-wired	mm²	1.5 - 16
Explosion-proof No	Connectable conductor cross section solid-core	mm²	1.5 - 35
	Explosion-proof		No