DATASHEET - PKZM0-4-T



Transformer-protective circuit-breaker, 3p, Ir=2.5-4A, screw connection

Part no.	**PKZM0-4-T**
	088914
EL Number (Norway)	**4315157**

General specifications

Product name	Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
Part no.	PKZM0-4-T
EAN	4015080889144
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.284 kilogram
Certifications	IEC/EN 60947 VDE 0660
Product Tradename	PKZM0
Product Type	Transformer-protective circuit-breaker
Product Sub Type	None

Features & Functions

Actuator type	Turn button
Features	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
Fitted with:	Switched-off indicator
Functions	For the protection of transformers with a high inrush current Transformer protection
Number of poles	Three-pole

General information

Connection	Screw terminals
Degree of protection	Terminals: IP00 IP20
Lifespan, electrical	100,000 operations
Lifespan, mechanical	100,000 Operations
Mounting position	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
Operating frequency	40 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	Transformer protective circuit breaker
Protection	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
Rated impulse withstand voltage (Uimp)	6000 V AC
Shock resistance	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
Suitable for	DIN rail (top hat rail) mounting Also motors with efficiency class IE3
Temperature compensation	-25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660

Climatic environmental conditions

Altitude	Max. 2000 m
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	55 °C
Ambient operating temperature (enclosed) - min	-25 °C
Ambient operating temperature (enclosed) - max	40 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	80 °C
Climatic proofing	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78

Terminal capacities

Terminal capacity (flexible with ferrule)	1 x (1 - 6) mm^2, ferrule to DIN 46228 2 x (1 - 6) mm^2, ferrule to DIN 46228
Terminal capacity (solid)	1 x (1 - 6) mm^2 2 x (1 - 6) mm^2
Terminal capacity (solid/stranded AWG)	18 - 10
Stripping length (main cable)	10 mm
Tightening torque	1 Nm, Screw terminals, Control circuit cables 1.7 Nm, Screw terminals, Main cable

Electrical rating

Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated operational current (Ie)	4 A
Rated operational power at AC-3, 220/230 V, 50 Hz	0.75 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	1.5 kW
Rated operational power at AC-3, 440 V, 50 Hz	1.5 kW
Rated operational power at AC-3, 500 V, 50 Hz	2.2 kW
Rated operational power at AC-3, 690 V, 50 Hz	3 kW
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	4 A

Short-circuit rating

Rated short-circuit breaking capacity Icu at 400 V AC	150 kA
Rated short-circuit breaking capacity Ics at 400 V AC	150 kA
Rated short-circuit breaking capacity Icu at 440 V AC	150 kA
Rated short-circuit breaking capacity Ics at 440 V AC	150 kA
Rated short-circuit breaking capacity Icu at 500 V AC	150 kA
Rated short-circuit breaking capacity Ics at 500 V AC	150 kA
Rated short-circuit breaking capacity Icu at 690 V AC	3 kA
Rated short-circuit breaking capacity Ics at 690 V AC	3 kA
Short-circuit current	60 kA DC, up to 250 V DC, Main conducting paths
Short-circuit current rating (group protection)	50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA)
Short-circuit release	84 A, Irm, Setting range max. ± 20% tolerance, Trip blocks Basic device, fixed 20 x Iu, Trip Blocks

Switching capacity

Switching capacity	4 A, AC-3 up to 690 V 4 A (3 contacts in series), DC-5 up to 250V

Contacts

Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0

Trip blocks

Overload release current setting - min	2.5 A
Overload release current setting - max	4 A

Design verification

Equipment heat dissipation, current-dependent Pvid	4.88 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	1.63 W
Rated operational current for specified heat dissipation (In)	4 A
Static heat dissipation, non-current-dependent Pvs	0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

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@ss13-27-37-04-09 [AJZ716018])		
Rated permanent current Iu	A	4
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	150
Overload release current setting	A	2.5 - 4
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	84 - 84
Power loss	W	4.88
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Suitable for DIN rail (top hat rail) mounting		Yes
DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
With switched-off indicator		Yes
With integrated under voltage release		No
Number of poles		3
Position of connection for main current circuit		Other
Type of control element		Turn button
Complete device with protection unit		No
Motor drive integrated		No
Motor drive optional		No
Degree of protection (IP)		IP20

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