Specifications

Eaton 199170

Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker, 2.5 - 4 A, Push in terminals

General specifications	
PRODUCT NAME	Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
CATALOG NUMBER	199170
MODEL CODE	PKZM0-4-T-PI
EAN	4015081972548
PRODUCT LENGTH/DEPTH	75 mm
PRODUCT HEIGHT	109 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.337 kg
CERTIFICATIONS	IEC/EN 60947 VDE 0660 CE UL CSA IEC/EN 60947-4-1 CSA Class No.: 3211-05 CSA File No.: 165628 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 UL Category Control No.: NLRV UL File No.: E36332
GLOBAL CATALOG	199170
PRODUCT TYPE	Transformer-protective circuit-breaker

Product specifications

FEATURES	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
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.
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	Does not apply, since the entire switchgear needs to

Resources

BROCHURES	eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf
CATALOGS	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf Product Range Catalog Switching and protecting motors
DECLARATIONS OF CONFORMITY	eaton-transformer-protective-circuit-breaker-declaration-of-conformity-uk251172en.pdf eaton-transformer-protective-circuit-breaker-declaration-of-conformity-eu250689en.pdf
DRAWINGS	eaton-manual-motor-starters-pkzm-pkzm0-dimensions.eps
ECAD MODEL	ETN.199170.edz
INSTALLATION INSTRUCTIONS	IL122024ZU
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	eaton-motor-protective-circuit-breakers-mcad-3d-models-pkzm0-pi.stp motorschutzschalter_bis_32a_pi.dwg
SALES NOTES	eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf

ASSEMBLIES	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.
OPERATING FREQUENCY	40 Operations/h
POLLUTION DEGREE	3
LIFESPAN, MECHANICAL	100,000 Operations
MOUNTING METHOD	DIN rail (top hat rail) mounting optional
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
ACTUATOR TYPE	Turn button
TRIPPING CHARACTERISTIC	Overload trigger: tripping class 10 A
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MAX	0 A
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MIN	0 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX	84 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN	84 A
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING	-25 °C

TEMPERATURE - MIN	
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	0.125 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	0.75 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	0.33 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	0.75 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	2 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	3 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	5.33 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.8 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
ALTITUDE	Max. 2000 m
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
CONNECTION	Push in terminals
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Spring clamp connection
MOUNTING POSITION	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
OVERVOLTAGE	III

CATEGORY	
DEGREE OF PROTECTION	IP20
NUMBER OF POLES	Three-pole
LIFESPAN, ELECTRICAL	100,000 operations
SHOCK RESISTANCE	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
FUNCTIONS	For the protection of transformers with a high inrush current Transformer protection
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 8
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Other
SWITCHING CAPACITY	4 A, AC-3 up to 690 V
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
OVERLOAD RELEASE CURRENT SETTING - MAX	4 A
OVERLOAD RELEASE CURRENT SETTING - MIN	2.5 A
RATED FREQUENCY - MAX	60 Hz
RATED FREQUENCY - MIN	50 Hz
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
RATED OPERATIONAL VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	4 A
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	0.75 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	1.5 kW
RATED UNINTERRUPTED CURRENT (IU)	4 A
STATIC HEAT DISSIPATION, NON-	0 W

CURRENT-DEPENDENT PVS	
STRIPPING LENGTH (MAIN CABLE)	12 mm
PRODUCT CATEGORY	Transformer protective circuit breaker
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ	1.5 kW
RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 HZ	2.2 kW
RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 HZ	3 kW
TERMINAL CAPACITY (FLEXIBLE WITH UNISOLATED FERRULE)	1 x (1 - 6) mm² 2 x (1 - 6) mm²
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
TERMINAL CAPACITY (FLEXIBLE WITH ULTRASONIC WELDED CABLE END)	1 x (1 - 10) mm² 2 x (1 - 6) mm²
SUITABLE FOR	Also motors with efficiency class IE3

SHORT-CIRCUIT RELEASE	Basic device, fixed 20 x Iu ± 20% tolerance 84 A, Irm
TERMINAL CAPACITY (SOLID)	1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 1 x (1 - 6) mm² 2 x (1 - 6) mm²
RATED OPERATIONAL CURRENT (IE)	4 A
TEMPERATURE COMPENSATION	≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range
SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)	50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA)
SWITCH OFF TECHNIQUE	Thermomagnetic
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (1 - 6) mm², Push-in terminals, ferrule to DIN 46228-1 2 x (1 - 6) mm², Push-in terminals, ferrule to DIN 46228-1 1 x (1 - 6) mm², Push-in terminals, ferrule to DIN 46228-4 2 x (1 - 4) mm², Push-in terminals, ferrule to DIN 46228-4
TERMINAL CAPACITY (FLEXIBLE)	1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 1 x (1 - 6) mm² 2 x (1 - 6) mm²
POWER LOSS	4.88 W

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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