



Eaton 278493

Eaton Moeller® series PKZM0 Motor-protective circuit-breaker, 3p, Ir=20-25A

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PRODUCT NAME	Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
CATALOG NUMBER	278493
PRODUCT LENGTH/DEPTH	76 mm
PRODUCT HEIGHT	93 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.291 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

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

CHARACTERISTIC CURVE	eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps
DECLARATIONS OF CONFORMITY	eaton-transformer-protective-circuit-breaker-declaration-of-conformity-uk251172en.pdf
□□□□□	IL03407011Z.pdf IL03402034Z
□□□	eaton-manual-motor-starters-transformer-pkzm0-wiring-diagram.eps
□□	eaton-manual-motor-starters-pkzm0-dimensions-003.eps eaton-manual-motor-starters-pkzm0-3d-drawing-004.eps eaton-manual-motor-starters-pkzm0-3d-drawing-008.eps

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.
FITTED WITH:	Switched-off indicator
OPERATING FREQUENCY	40 Operations/h
POLLUTION DEGREE	3
LIFESPAN, MECHANICAL	100,000 Operations (Main conducting paths)
MOUNTING METHOD	DIN rail (top hat rail) mounting optional
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
ACTUATOR TYPE	Turn button
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	420 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN	420 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
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6.83 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.28 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
ALTITUDE	Max. 2000 m
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
CONNECTION	Screw terminals
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
OVERVOLTAGE CATEGORY	III
DEGREE OF PROTECTION	IP20 Terminals: IP00
NUMBER OF POLES	Three-pole
LIFESPAN, ELECTRICAL	100,000 operations (at 400V, AC-3)
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 - 10
POSITION OF CONNECTION FOR MAIN	Other

CURRENT CIRCUIT	
SWITCHING CAPACITY	25 A, AC-3 up to 690 V 25 A (3 contacts in series), DC-5 up to 250V
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	25 A
OVERLOAD RELEASE CURRENT SETTING - MIN	20 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)	25 A
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	12.5 kW
RATED UNINTERRUPTED CURRENT (IU)	25 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
STRIPPING LENGTH (MAIN CABLE)	10 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	12.5 kW

RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 HZ	15 kW
RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 HZ	22 kW
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC	38 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC	3 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 500 V AC	3 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 500 V AC	3 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 690 V AC	3 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 690 V AC	1 kA
SUITABLE FOR	Also motors with efficiency class IE3 DIN rail (top hat rail) mounting
SHORT-CIRCUIT RELEASE	Basic device, fixed 20 x I _u ± 20% tolerance 437 A, I _{rm}
TERMINAL CAPACITY (SOLID)	2 x (1 - 6) mm ² 1 x (1 - 6) mm ²
RATED OPERATIONAL CURRENT (IE)	25 A
TEMPERATURE COMPENSATION	-25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660
SHORT-CIRCUIT CURRENT	40 kA DC, up to 250 V DC, Main conducting paths
SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)	10 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 150 A, 600 V High Fault, Fuse, SCCR (UL/CSA)

	10 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 125 A, 600 V High Fault, CB, SCCR (UL/CSA) 18 kA, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) 18 kA, 600 V High Fault, CB with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB with CL, SCCR (UL/CSA) 18 kA, 480 V High Fault, CB, SCCR (UL/CSA) with 600 A, 480 V High Fault, CB, SCCR (UL/CSA) 18 kA, 480 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 480 V High Fault, Fuse, SCCR (UL/CSA)
TIGHTENING TORQUE	1 Nm, Screw terminals, Control circuit cables 1.7 Nm, Screw terminals, Main cable
SWITCH OFF TECHNIQUE	Thermomagnetic
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
POWER LOSS	6.83 W

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