Specifications

Photo is representative

Eaton 278486

Eaton Moeller® series PKZM0 Motor-protective circuit-breaker, 3p, Ir=8-12A PKZM0-12

General specifications	
PRODUCT NAME	Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
CATALOG NUMBER	278486
EAN	4015082784867
PRODUCT LENGTH/DEPTH	76 mm
PRODUCT HEIGHT	93 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.295 kg
CERTIFICATIONS	UL 60947-4-1 CSA Class No.: 3211-05 UL File No.: E36332 IEC/EN 60947-4-1 UL UL Category Control No.: NLRV VDE 0660 CSA File No.: 165628 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947 CE CSA
MODEL CODE	PKZM0-12

Features & Functions

ACTUATOR TYPE	Turn button
FEATURES	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
FUNCTIONS	Phase failure sensitive Motor protection
NUMBER OF POLES	Three-pole

General

EXPLOSION SAFETY CATEGORY FOR DUST	PTB 10, ATEX 3013 Ex II (2) G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb] Ex II (2) D [Ex tb Db] [Ex pxb Db]
LIFESPAN, ELECTRICAL	100,000 operations (at 400V, AC-3)
LIFESPAN, MECHANICAL	100,000 Operations (Main conducting paths)
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	Motor 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	Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) Also motors with efficiency class IE3
TEMPERATURE COMPENSATION	-5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40°

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 (SOLID/STRANDED AWG)	18 - 10
STRIPPING LENGTH (MAIN CABLE)	10 mm
TIGHTENING TORQUE	1.7 Nm, Screw terminals, Main cable 1 Nm, Screw terminals, Control circuit cables

Electrical rating

RATED FREQUENCY - MIN	50 Hz
RATED FREQUENCY - MAX	60 Hz
RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	5.5 kW
RATED OPERATIONAL VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	12 A

Short-circuit rating

SHORT-CIRCUIT CURRENT	60 kA DC, up to 250 V DC, Main conducting paths
SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)	18 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 18 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 65 kA, 480 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 480 V High Fault, Fuse, SCCR (UL/CSA) 65 kA, 480 V High Fault, CB, SCCR (UL/CSA) with 600 A, 480 V High Fault, CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (TYPE E)	65 kA, 240 V, SCCR (UL/CSA) 18 kA, 600 Y/347 V, SCCR (UL/CSA) Accessories required BK25/3-PKZ0-E 65 kA, 480 Y/277 V, SCCR (UL/CSA)
SHORT-CIRCUIT RELEASE	Basic device fixed 15.5 x Iu

	± 20% tolerance 186 A, Irm

Motor rating

ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	0.5 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	2 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	10 HP

Communication

CONNECTION	Screw terminals

Trip blocks

OVERLOAD RELEASE CURRENT SETTING - MIN	8 A
OVERLOAD RELEASE CURRENT SETTING - MAX	12 A
TRIPPING CHARACTERISTIC	Overload trigger: tripping class 10 A

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6.64 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.21 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	12 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	Meets the product standard's requirements.

TO NORMAL HEAT	
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.

Resources

BROCHURES	eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf
CATALOGUES	Product Range Catalog Switching and protecting motors eaton-switching-and-protecting-motors-product-range-catalog-ca034001en-en-us.pdf eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-motorstarters-tripping-characteristic-pkzm0-characteristic-curve.eps eaton-manual-motor-starters-characteristic-characteristic-curve-009.eps eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps
DECLARATIONS OF CONFORMITY	DA-DC-00005040.pdf DA-DC-00005041.pdf
DRAWINGS	eaton-manual-motor-starters-pkz-dimensions.eps eaton-manual-motor-starters-pkzm0-dimensions-003.eps eaton-manual-motor-starters-pkz-dimensions-002.eps eaton-manual-motor-starters-pkzm0-3d-drawing-008.eps eaton-manual-motor-starters-mounting-3d-drawing-002.eps eaton-general-ie-ready-dilm-contactor-standards.eps

	eaton-manual-motor-starters-pkzm0-3d-drawing-004.eps
ECAD MODEL	ETN.278486.edz
INSTALLATION INSTRUCTIONS	IL03407011Z.pdf IL03402034Z
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MANUALS AND USER GUIDES	eaton-motor-protection-pkzm0-mn03402003z-de-de-en-us.pdf IL122023ZU
MCAD MODEL	DA-CD-pkzm0 DA-CS-pkzm0
SALES NOTES	eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf
WIRING DIAGRAMS	eaton-manual-motor-starters-transformer-pkzm0-wiring-diagram.eps eaton-manual-motor-starters-starter-nzm-mccb-wiring-diagram.eps

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

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