Specifications

Photo is representative

Eaton 278480

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 440 V: 0.55 kW, Ir = 1 - 1.6 A, IP20

General specifications	
PRODUCT NAME	Eaton Moeller® series PKZM01 Motor-protective circuit-breaker
CATALOG NUMBER	278480
EAN	4015082784805
PRODUCT LENGTH/DEPTH	93 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.292 kg
CERTIFICATIONS	CE CSA Class No.: 3211-05 UL Category Control No.: NLRV VDE 0660 UL UL 60947-4-1 CSA-C22.2 No. 60947-4-1-14 UL File No.: E36332 CSA File No.: 165628 IEC/EN 60947-4-1 IEC/EN 60947 CSA
MODEL CODE	PKZM01-1,6

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Features & Functions

ACTUATOR TYPE	Push 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 information

CONNECTION	Screw terminals
LIFESPAN, ELECTRICAL	50,000 operations (at 400V, AC-3)
LIFESPAN, MECHANICAL	50,000 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	25 Operations/h
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Motor protective circuit breaker
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	Also motors with efficiency class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)
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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Terminal capacities

TERMINAL CAPACITY (SOLID)	1 x (1 - 6) mm² 2 x (1 - 6) mm²
STRIPPING LENGTH (MAIN CABLE)	10 mm

Electrical rating

RATED FREQUENCY - MIN	50 Hz
RATED FREQUENCY - MAX	60 Hz
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	0.25 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	0.55 kW
RATED OPERATIONAL VOLTAGE (UE) - MIN	440 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	440 V
RATED UNINTERRUPTED CURRENT (IU)	1.6 A

Short-circuit rating

RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC	50 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, 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)
SHORT-CIRCUIT RELEASE	Basic device fixed 15.5 x Iu ± 20% tolerance 24.8 A, Irm

Switching capacity

SWITCHING CAPACITY	1.6 A (3 contacts in series), DC-5 up to 250V 1.6 A, AC-3 up to 440 V

Motor rating

ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	0.1 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	0.75 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	0.75 HP

Trip blocks

OVERLOAD RELEASE CURRENT SETTING - MIN	1 A
OVERLOAD RELEASE CURRENT SETTING - MAX	1.6 A
TRIPPING CHARACTERISTIC	Overload trigger: tripping class 10 A

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	5.36 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.79 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	1.6 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.

Resources	
BROCHURES	eaton-push-in-technology-product-overview-brochure-br034012-en-us.pdf eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf
CATALOGUES	Product Range Catalog Switching and protecting motors eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-manual-motor-starters-characteristic-characteristic-curve-009.eps eaton-manual-motor-starters-characteristic-characteristic-curve-006.eps eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps
DECLARATIONS OF CONFORMITY	eaton-motor-protective-circuit-breaker-declaration-of-conformity-uk251175en.pdf eaton-motor-protective-circuit-breaker-declaration-of-conformity-eu250692en.pdf
DRAWINGS	eaton-manual-motor-starters-circuit-breaker-pkzm01-dimensions.eps eaton-general-ie-ready-dilm-contactor-standards.eps eaton-manual-motor-starters-mounting-3d-drawing-002.eps eaton-manual-motor-starters-circuit-breaker-pkzm01-3d-drawing-002.eps
ECAD MODEL	ETN.278480.edz
INSTALLATION INSTRUCTIONS	IL03407011Z.pdf IL122012ZU IL03402034Z

INSTALLATION VIDEOS	WIN-WIN with push-in technology
MANUALS AND USER GUIDES	IL122023ZU
MCAD MODEL	DA-CS-pkzm01 DA-CD-pkzm01
SALES NOTES	eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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