

Eaton 278484

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 440 V: 4 kW, I_r = 6.3 - 10 A, IP20

PRODUCT NAME	Eaton Moeller® series PKZM01 Motor-protective circuit-breaker
CATALOG NUMBER	278484
UPC	782116361052
PRODUCT LENGTH/DEPTH	93 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.304 kg
CERTIFICATIONS	CE CSA File No.: 165628 IEC/EN 60947 UL Category Control No.: NLRV UL File No.: E36332 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 VDE 0660 CSA Class No.: 3211-05 UL IEC/EN 60947-4-1 CSA

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.

CHARACTERISTIC CURVE	eaton-manual-motor-starters-characteristic-curve-012.eps
	eaton-manual-motor-starters-characteristic-curve-008.eps
IL03407011Z.pdf	
IL03402034Z IL122012ZU	

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.
OPERATING FREQUENCY	25 Operations/h
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
ACTUATOR TYPE	Push button
TRIPPING CHARACTERISTIC	Overload trigger: tripping class 10 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX	155 A
ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN	155 A
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
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	0.5 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	1.5 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
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6.48 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.16 W
INTERNAL RESISTANCE	21 mΩ
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.
LIFESPAN, MECHANICAL	50,000 Operations (Main conducting paths)
OVERVOLTAGE CATEGORY	III

DEGREE OF PROTECTION	Terminals: IP00 IP20
NUMBER OF POLES	Three-pole
LIFESPAN, ELECTRICAL	50,000 operations (at 400V, AC-3)
SHOCK RESISTANCE	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
FUNCTIONS	Phase failure sensitive Motor protection
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 10
SWITCHING CAPACITY	10 A (3 contacts in series), DC-5 up to 250V 10 A, AC-3 up to 440 V
OVERLOAD RELEASE CURRENT SETTING - MAX	10 A
OVERLOAD RELEASE CURRENT SETTING - MIN	6.3 A
RATED FREQUENCY - MAX	60 Hz
RATED FREQUENCY - MIN	50 Hz
RATED OPERATIONAL VOLTAGE (UE) - MAX	440 V
RATED OPERATIONAL VOLTAGE (UE) - MIN	440 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	10 A
RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ	2.2 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	4 kW
RATED UNINTERRUPTED CURRENT (IU)	10 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
STRIPPING LENGTH (MAIN CABLE)	10 mm
PRODUCT CATEGORY	Motor 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-3, 440 V, 50 HZ	4 kW
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	42 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC	10 kA
SUITABLE FOR	Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) Also motors with efficiency class IE3
SHORT-CIRCUIT RELEASE	Basic device fixed 15.5 x lu ± 20% tolerance 155 A, I _{rm}
TERMINAL CAPACITY (SOLID)	1 x (1 - 6) mm ² 2 x (1 - 6) mm ²
RATED OPERATIONAL CURRENT (IE)	10 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	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 150 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 30 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 30 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault,

	CB, SCCR (UL/CSA)
TIGHTENING TORQUE	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	6.48 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



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