

# Eaton 278481

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 440 V: 1.1 kW, Ir = 1.6 - 2.5 A, IP20

<b>PRODUCT NAME</b>	Eaton Moeller® series PKZM01 Motor-protective circuit-breaker
<b>CATALOG NUMBER</b>	278481
<b>PRODUCT LENGTH/DEPTH</b>	93 mm
<b>PRODUCT HEIGHT</b>	90 mm
<b>PRODUCT WIDTH</b>	45 mm
<b>PRODUCT WEIGHT</b>	0.293 kg
<b>CERTIFICATIONS</b>	UL UL 60947-4-1 CSA File No.: 165628 VDE 0660 CSA Class No.: 3211-05 UL Category Control No.: NLRV CSA CSA-C22.2 No. 60947-4-1-14 UL File No.: E36332 IEC/EN 60947-4-1 IEC/EN 60947 CE

<b>FEATURES</b>	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.

<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-manual-motor-starters-characteristic-curve-008.eps</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">eaton-motor-protective-circuit-breaker-declaration-of-conformity-uk251175en.pdf</a>
	<a href="#">IL122012ZU</a>
	<a href="#">IL03407011Z.pdf</a>
	<a href="#">IL03402034Z</a>

<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>OPERATING FREQUENCY</b>	25 Operations/h
<b>POLLUTION DEGREE</b>	3
<b>CLIMATIC PROOFING</b>	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>ACTUATOR TYPE</b>	Push button
<b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX</b>	39 A
<b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN</b>	39 A
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C

<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE</b>	0.5 HP
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE</b>	0.17 HP
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE</b>	0.5 HP
<b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>	1 HP
<b>ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE</b>	1.5 HP
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	5.16 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	1.72 W
<b>INTERNAL RESISTANCE</b>	270 mΩ
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>ALTITUDE</b>	Max. 2000 m
<b>DEVICE CONSTRUCTION</b>	Built-in device fixed built-in technique
<b>CONNECTION</b>	Screw terminals
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>MOUNTING POSITION</b>	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
<b>LIFESPAN, MECHANICAL</b>	50,000 Operations (Main conducting paths)
<b>OVERVOLTAGE CATEGORY</b>	III
<b>DEGREE OF PROTECTION</b>	Terminals: IP00 IP20
<b>NUMBER OF POLES</b>	Three-pole
<b>LIFESPAN, ELECTRICAL</b>	50,000 operations (at 400V, AC-3)

<b>SHOCK RESISTANCE</b>	25 g, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms
<b>FUNCTIONS</b>	Motor protection Phase failure sensitive
<b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>	18 - 10
<b>SWITCHING CAPACITY</b>	2.5 A (3 contacts in series), DC-5 up to 250V 2.5 A, AC-3 up to 440 V
<b>OVERLOAD RELEASE CURRENT SETTING - MAX</b>	2.5 A
<b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>	1.6 A
<b>RATED FREQUENCY - MAX</b>	60 Hz
<b>RATED FREQUENCY - MIN</b>	50 Hz
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	440 V
<b>RATED OPERATIONAL VOLTAGE (UE) - MIN</b>	440 V
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	2.5 A
<b>RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ</b>	0.37 kW
<b>RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ</b>	0.75 kW
<b>RATED UNINTERRUPTED CURRENT (IU)</b>	2.5 A
<b>STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS</b>	0 W
<b>STRIPPING LENGTH (MAIN CABLE)</b>	10 mm
<b>PRODUCT CATEGORY</b>	Motor protective circuit breaker
<b>PROTECTION</b>	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
<b>RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ</b>	1.1 kW

<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC</b>	50 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC</b>	50 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC</b>	50 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC</b>	50 kA
<b>SUITABLE FOR</b>	Also motors with efficiency class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)
	Basic device fixed 15.5 x lu
<b>SHORT-CIRCUIT RELEASE</b>	± 20% tolerance 38.8 A, I <sub>rm</sub>
<b>TERMINAL CAPACITY (SOLID)</b>	1 x (1 - 6) mm <sup>2</sup> 2 x (1 - 6) mm <sup>2</sup>
<b>RATED OPERATIONAL CURRENT (IE)</b>	2.5 A
<b>TEMPERATURE COMPENSATION</b>	-25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660
<b>SHORT-CIRCUIT CURRENT</b>	60 kA DC, up to 250 V DC, Main conducting paths
<b>SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)</b>	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)
<b>TIGHTENING TORQUE</b>	1.7 Nm, Screw terminals, Main cable
<b>SWITCH OFF TECHNIQUE</b>	Thermomagnetic
<b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228 2 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228
<b>POWER LOSS</b>	5.16 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



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