



Motor-protective circuit-breaker, 7.5 kW, 10 - 16 A, Screw terminals

Part no. PKZM0-16
046938
EL Number 4355147
(Norway)

General specifications		
Product name		Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
Part no.		PKZM0-16
EAN		4015080469384
Product Length/Depth		76 millimetre
Product height		93 millimetre
Product width		45 millimetre
Product weight		0.292 kilogram
Certifications		IEC/EN 60947 UL CSA VDE 0660 UL Category Control No.: NLRV CSA Class No.: 3211-05 CE IEC/EN 60947-4-1 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 UL File No.: E36332 CSA File No.: 165628
Product Tradename		PKZM0
Product Type		Motor-protective circuit-breaker
Product Sub Type		None
Features & Functions		
Actuator type		Turn button
Features		Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
Functions		Motor protection Phase failure sensitive
Number of poles		Three-pole
General information		
Connection		Screw terminals
Degree of protection		IP20 Terminals: IP00
Explosion safety category for dust		Ex II (2) D [Ex tb Db] [Ex pxb Db] Ex II (2) G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb] PTB 10, ATEX 3013
Lifespan, electrical		100,000 operations
Lifespan, mechanical		100,000 Operations
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		Also motors with efficiency class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)
Temperature compensation		≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range
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 (flexible with ferrule)		2 x (1 - 6) mm ² , ferrule to DIN 46228 1 x (1 - 6) mm ² , ferrule to DIN 46228
Terminal capacity (solid)		2 x (1 - 6) mm ² 1 x (1 - 6) mm ²
Terminal capacity (solid/stranded AWG)		18 - 10
Stripping length (main cable)		10 mm
Tightening torque		1 Nm, Screw terminals, Control circuit cables 1.7 Nm, Screw terminals, Main cable
Electrical rating		
Rated frequency - min		50 Hz
Rated frequency - max		60 Hz
Rated operational current (Ie)		16 A
Rated operational power at AC-3, 220/230 V, 50 Hz		4 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		7.5 kW
Rated operational power at AC-3, 440 V, 50 Hz		9 kW
Rated operational power at AC-3, 500 V, 50 Hz		9 kW
Rated operational power at AC-3, 690 V, 50 Hz		12.5 kW
Rated operational voltage (Ue) - min		690 V
Rated operational voltage (Ue) - max		690 V
Rated uninterrupted current (Iu)		16 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		38 kA
Rated short-circuit breaking capacity Icu at 440 V AC		15 kA
Rated short-circuit breaking capacity Ics at 440 V AC		12 kA
Rated short-circuit breaking capacity Icu at 500 V AC		15 kA
Rated short-circuit breaking capacity Ics at 500 V AC		4 kA
Rated short-circuit breaking capacity Icu at 690 V AC		3 kA
Rated short-circuit breaking capacity Ics at 690 V AC		2 kA
Short-circuit current		60 kA DC, up to 250 V DC, Main conducting paths
Short-circuit current rating (group protection)		18 kA, 480 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 480 V High Fault, Fuse, SCCR (UL/CSA) 18 kA, 480 V High Fault, CB, SCCR (UL/CSA) with 600 A, 480 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB with CL, SCCR (UL/CSA) 10 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 125 A, 600 V High Fault, CB, SCCR (UL/CSA) 10 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 150 A, 600 V High Fault, Fuse, SCCR (UL/CSA)
Short-circuit current rating (type E)		42 kA, 480 Y/277 V, SCCR (UL/CSA) 42 kA, 240 V, SCCR (UL/CSA) Accessories required BK25/3-PKZ0-E
Short-circuit release		248 A, Irm, Setting range max. Basic device fixed 15.5 x Iu, Trip Blocks ± 20% tolerance, Trip blocks
Switching capacity		
Switching capacity		16 A, AC-3 up to 690 V 16 A (3 contacts in series), DC-5 up to 250V
Motor rating		
Assigned motor power at 115/120 V, 60 Hz, 1-phase		1 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		5 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase		10 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase		10 HP
Trip blocks		
Overload release current setting - min		10 A
Overload release current setting - max		16 A
Tripping characteristic		Overload trigger: tripping class 10 A
Design verification		
Equipment heat dissipation, current-dependent Pvid		6.43 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		2.14 W
Rated operational current for specified heat dissipation (In)		16 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.

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss13-27-37-04-01 [AGZ529021])		
Overload release current setting	A	10 - 16
Adjustment range undelayed short-circuit release	A	248 - 248
With thermal overload protection		No
Phase failure sensitive		Yes
Switch off technique		Thermomagnetic
Rated operating voltage	V	690 - 690
Rated permanent current lu	A	16
Rated operation power at AC-3, 230 V	kW	4
Rated operation power at AC-3, 400 V	kW	7.5
Power loss	W	6.43
Type of electrical connection of main circuit		Screw connection
Type of control element		Turn button
Device construction		Built-in device fixed built-in technique
With integrated auxiliary switch		No

With integrated under voltage release			No
Number of poles			3
Rated short-circuit breaking capacity Icu at 400 V, AC		kA	50
Degree of protection (IP)			IP20
Height		mm	93
Width		mm	45
Depth		mm	76