DATASHEET - PKZM0-2,5

Motor-protective circuit-breaker, 0.75 kW, 1.6 - 2.5 A, Screw terminals

Part no. PKZM0-2,5
072736

EL Number (Norway) 4355127

General specifications	
Product name	Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
Part no.	PKZM0-2,5
EAN	4015080727361
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.287 kilogram
Certifications	CSA Class No.: 3211-05 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947 UL 60947-4-1 UL CE UL Category Control No.: NLRV UL File No.: E36332 IEC/EN 60947-4-1 VDE 0660 CSA File No.: 165628 CSA
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	Phase failure sensitive Motor protection
Number of poles	Three-pole
General information	
Connection	Screw terminals
Degree of protection	IP20 Terminals: IP00
Explosion safety category for dust	ATEX dust-ex-protection, PTB 10, ATEX 3013, Ex II(2) GD
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	1.7 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 current (Ie)	2.5 A
Rated operational power at AC-3, 220/230 V, 50 Hz	0.37 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	0.75 kW
Rated operational power at AC-3, 440 V, 50 Hz	1.1 kW
Rated operational power at AC-3, 500 V, 50 Hz	1.1 kW
Rated operational power at AC-3, 690 V, 50 Hz	1.5 kW
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	2.5 A

Short-circuit rating

Rated short-circuit breaking capacity Icu at 400 V AC	150 kA
Rated short-circuit breaking capacity Ics at 400 V AC	150 kA
Rated short-circuit breaking capacity Icu at 440 V AC	150 kA
Rated short-circuit breaking capacity Ics at 440 V AC	150 kA
Rated short-circuit breaking capacity Icu at 500 V AC	150 kA
Rated short-circuit breaking capacity Ics at 500 V AC	150 kA
Rated short-circuit breaking capacity Icu at 690 V AC	5 kA
Rated short-circuit breaking capacity Ics at 690 V AC	5 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, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA)
Short-circuit current rating (type E)	50 kA, 600 Y/347 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) Accessories required BK25/3-PKZ0-E
Short-circuit release	± 20% tolerance, Trip blocks 38.8 A, Irm, Setting range max. Basic device fixed 15.5 x Iu, Trip Blocks

Switching capacity

Switching capacity	2.5 A (3 contacts in series), DC-5 up to 250V 2.5 A, AC-3 up to 690 V

Motor rating

Assigned motor power at 200/208 V, 60 Hz, 3-phase	0.5 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	0.17 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	0.5 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	1 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	1.5 HP

Trip blocks

Overload release current setting - min	1.6 A
Overload release current setting - max	2.5 A

Tripping characteristic		Overload trigger: tripping class 10 A

Design verification

Equipment heat dissipation, current-dependent Pvid		5.16 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		1.72 W
Rated operational current for specified heat dissipation (In)		2.5 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	1.6 - 2.5
Adjustment range undelayed short-circuit release	A	39 - 39
With thermal overload protection		No
Phase failure sensitive		Yes
Switch off technique		Thermomagnetic
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	2.5
Rated operation power at AC-3, 230 V	kW	0.37
Rated operation power at AC-3, 400 V	kW	0.75
Power loss	W	5.16
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	150
Degree of protection (IP)		IP20
Height	mm	93
Width	mm	45

Depth		mm	76

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