## DATASHEET - PKZM0-16/AK

## Motor-protective circuit-breaker, 3p, Ir=10-16A, thumb grip lockable



Part no.
----------

PKZM0-16/AK 265342

General specifications	
Product name	Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
Part no.	PKZM0-16/AK
EAN	4015082653422
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.299 kilogram
Certifications	CSA Class No.: 3211-05 CSA UL File No.: E36332 CSA File No.: 165628 UL CSA-C22.2 No. 60947-4-1-14 VDE 0660 IEC/EN 60947-4-1 UL 60947-4-1 UL Category Control No.: NLRV CE IEC/EN 60947 UL CSA
Product Tradename	PKZM0
Product Type	Motor-protective circuit-breaker
Product Sub Type	None
Catalog Notes	IE3-ready devices are identified by the logo on their packaging.
eatures & 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
eneral information	
Connection	Screw terminals
Degree of protection	Terminals: IP00 IP20
Explosion safety category for dust	ATEX dust-ex-protection, PTB 10, ATEX 3013, Ex II(2) GD
Lifespan, electrical	100,000 operations (at 400V, AC-3)
Lifespan, mechanical	100,000 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	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 actuate 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	Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) Also motors with efficiency class IE3
Temperature compensation	-5 - 40 °C to IEC/EN 60947, VDE 0660 $\leq$ 0.25 %/K, residual error for T > 40° -25 - 55 °C, Operating range

01/22/2024

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)	1 x (1 - 6) mm², ferrule to DIN 46228 2 x (1 - 6) mm², ferrule to DIN 46228
Terminal capacity (solid)	2 x (1 - 6) mm <sup>2</sup> 1 x (1 - 6) mm <sup>2</sup>
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 (le)	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 (lu)	16 A
Short-circuit rating	
Rated short-circuit breaking capacity Icu at 400 V AC	50 kA
Rated short-circuit breaking capacity los 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 (type E)	65 kA, 240 V, SCCR (UL/CSA) with contactor DILM17 65 kA, 480 Y/277 V, SCCR (UL/CSA) with contactor DILM17
Short-circuit release	Basic device fixed 15.5 x lu, Trip Blocks 186 A, Irm, Setting range max. ± 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

Design verification	
Equipment heat dissipation, current-dependent Pvid	6.09 W
Heat dissipation capacity Pdiss	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])

Adjustment range undelayed brokericuit release A <th></th> <th></th> <th></th>			
With thermal overload protection     Mode       Phase failure sensitive     Sea     Sea       Switch off technique     Formomagnetic     Formomagnetic       Rated operating voltage     V     Seo - 690       Rated operating voltage     A     Incrnomagnetic       Rated operating power at AC-3, 230 V     KW     Seo - 690       Rated operating power at AC-3, 400 V     KW     Second Condition       Power loss     V     Second Condition       Type of electrical connection of main circuit     V     Second Condition       Power loss     V     Second Condition       With integrated auxiliary switch     Y     Second Condition       With integrated under voltage release     Y     Second Condition       Number of poles     Y     Second Condition       Rated short-circuit breaking capacity locu at 400 V, AC     Y     Second Condition       Bated short-circuit Dreaking capacity locu at 400 V, AC     Y     Second Condition       Bated short-circuit Dreaking capacity locu at 400 V, AC     Y     Second Condition       Bated short-circuit Dreaking capacity locu at 400 V, AC     Y     Second Condition	Overload release current setting	А	10 - 16
Phase failure sensitive     Feed     Yes       Switch off technique     Thermomagnetic       Switch off technique     V     590 - 690       Rated operating voltage     A     6       Rated operating nower at AC-3, 230 V     KW     4       Rated operation power at AC-3, 230 V     KW     7.5       Power loss     V     6.43       Power loss     V     6.43       Power loss     V     6.43       Power loss     V     6.43       Vintegrated auxiliary switch     V     6.43       With integrated under voltage release     V     No       Number of poles     V     No       Rated short-circuit Dreaking capacity (cu at 400 V, AC     KA     9       Rated short-circuit Dreaking capacity (cu at 400 V, AC     KA     9       Rated short-circuit Dreaking capacity (cu at 400 V, AC     KA     9       Rated short-circuit Dreaking capacity (cu at 400 V, AC     KA     9       Rated short-circuit Dreaking capacity (cu at 400 V, AC     KA     9       Rated short-circuit Dreaking Capacity (cu at 400 V, AC     KA	Adjustment range undelayed short-circuit release	А	248 - 248
Switch off technique     Immongenetic       Rated operating voltage     V     690 - 690       Rated operating voltage     A     6       Rated operating nower at AC-3, 230 V     KW     4       Rated operation power at AC-3, 400 V     KW     5.       Power loss     KW     6.43       Type of electrical connection of main circuit     KW     6.43       Device construction     KW     Fore connection of main circuit       Type of control element     KW     Muth integrated auxiliary switch       Wuth integrated auxiliary switch     KW     Muth integrated auxiliary switch       Rated sper-circuit breaking capacity locu at 400 V, AC     KM     Molecond       Rated short-circuit loreaking capacity locu at 400 V, AC     KM     Molecond       Rated short-circuit loreaking capacity locu at 400 V, AC     Molecond     Molecond       Rated short-circuit loreaking capacity locu at 400 V, AC     Molecond     Molecond       Rated short-circuit loreaking capacity locu at 400 V, AC     Molecond     Molecond       Rated short-circuit loreaking capacity locu at 400 V, AC     Molecond     Molecond       Rated short-circuit loreakinge capacity locu	With thermal overload protection		No
Rated operating voltage   V   600 - 600     Rated operation power at AC-3, 230 V   A   16     Rated operation power at AC-3, 230 V   V   60     Rated operation power at AC-3, 230 V   V   60     Power loss   V   63     Type of electrical connection of main circuit   V   643     Type of control element   V   810- indevice fixed built-in technique     Device construction   V   810- indevice fixed built-in technique     With integrated auxiliary switch   V   No     Number of poles   V   No     Rated short-circuit breaking capacity lcu at 400 V, AC   V   No     Degree of protection (IP)   V   P20     Height   Mm   31     With The Conception (IP)   M   M     Height   Mm   Since Conception (IP)	Phase failure sensitive		Yes
And permanent current lu A A   Bated operation power at AC-3, 230 V KW 4   Rated operation power at AC-3, 400 V KW 5   Power loss KW 643   Type of electrical connection of main circuit KW 6   Type of control element KW Fore connection   Device construction KM Fore connection   With integrated auxiliary switch KM Fore construction   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of poles KA Sult-in device fixed built-in technique   Number of pole Ma	Switch off technique		Thermomagnetic
Aread operation power at AC-3, 230 V     KM	Rated operating voltage	V	690 - 690
Rated operation power at AC-3, 400 V   KW   5.     Power loss   W   6.43     Type of electrical connection of main circuit   Image: Section Connection of main circuit   Secw connection     Type of control element   Image: Section Connection of main circuit   Secw connection     Device construction   Image: Section Connection of main circuit   Secw connection     With integrated auxiliary switch   Image: Section Connection connection of main circuit   Section Connection connection connection connection connection connection connection connection     With integrated under voltage release   Image: Section Connection	Rated permanent current lu	А	16
Power loss   64     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   Mo     With integrated under voltage release   Mo     Number of poles   Mo     Rated short-circuit breaking capacity lcu at 400 V, AC   Mo     Degree of protection (IP)   Imm     Height   Mo     Mith   Mith     Mith   Mith     Mith   Mith     Mith   Mith     Mith   Mith     Mumber of poles   Mith     Mith   Mith     Mith   Mith     Mumber of poles   Mith	Rated operation power at AC-3, 230 V	kW	4
Type of electrical connection of main circuit   Mathematical connection of main circuit   Mathematical connection   Screw connection     Type of control element   Import to the tot to the tot tot tot tot tot tot tot tot tot to	Rated operation power at AC-3, 400 V	kW	7.5
Type of control element   Import a lement     Device construction   Built- in device fixed built-in technique     With integrated auxiliary switch   No     With integrated under voltage release   Mo     Number of poles   No     Rated short-circuit breaking capacity lou at 400 V, AC   KA     Degree of protection (IP)   Import a lement     Height   mm     With integrated   Sa     Mith integrated under voltage release   Mo     Built- in device fixed built-in technique   Import a lement     Mumber of poles   No     Rated short-circuit breaking capacity lou at 400 V, AC   KA     Degree of protection (IP)   mm     Height   mm     With integrate   Mo	Power loss	W	6.43
Provise construction Built-in device fixed built-in technique   With integrated auxiliary switch No   With integrated under voltage release Image: State Sta	Type of electrical connection of main circuit		Screw connection
With integrated auxiliary switch   Mo     With integrated under voltage release   No     Number of poles   So     Rated short-circuit breaking capacity lou at 400 V, AC   A     Degree of protection (IP)   Imm     Height   So     With integrated   So     With integrated under voltage release   Imm	Type of control element		Turn button
With integrated under voltage release No   Number of poles 3   Rated short-circuit breaking capacity Icu at 400 V, AC KA   Degree of protection (IP) Imm   Height mm   93	Device construction		Built-in device fixed built-in technique
Number of poles 3   Rated short-circuit breaking capacity lcu at 400 V, AC KA 50   Degree of protection (IP) IP20   Height mm 93   Width mm 45	With integrated auxiliary switch		No
Rated short-circuit breaking capacity Icu at 400 V, AC kA 50   Degree of protection (IP) IP20   Height mm 33   Width mm 45	With integrated under voltage release		No
Degree of protection (IP) IP20   Height mm 93   Width mm 45	Number of poles		3
Height mm 93   Width mm 45	Rated short-circuit breaking capacity Icu at 400 V, AC	kA	50
Width M M 45	Degree of protection (IP)		IP20
	Height	mm	93
Depth mm 76	Width	mm	45
	Depth	mm	76