DATASHEET - PKZM01-1

Motor-protective circuit-breaker, 440 V: 0.55 kW, Ir= 0.63 - 1 A, IP20



	Part no.	PKZM01-1	Powering Business Worldwide
		278479	C C
	EL Number (Norway)	4365014	
General specifications			
Product name			Eaton Moeller® series PKZM01 Motor-protective circuit-breaker
Part no.			PKZM01-1
EAN			4015082784799
Product Length/Depth			93 millimetre
Product height			90 millimetre
Product width			45 millimetre
Product weight			0.261 kilogram
Certifications			UL CSA Class No.: 3211-05 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947-4-1 UL 60947-4-1 CSA CE UL Category Control No.: NLRV UL File No.: E36332 VDE 0660 CSA File No.: 165628 IEC/EN 60947-4-1
Product Tradename			PKZM01
Product Type			Motor-protective circuit-breaker
Product Sub Type			None
Catalog Notes			Calculate assigned motor power according to rated current (NEC Table 430-150) IE3-ready devices are identified by the logo on their packaging.
Features & Functions			
Actuator type			Push 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			Terminals: IP00 IP20
Lifespan, electrical			50,000 operations (at 400V, AC-3)
Lifespan, mechanical			50,000 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			25 Operations/h
Overvoltage category			II
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 volta	age (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			≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range
Climatic environmental c	onditions		
Altitude			Max. 2000 m
Ambient operating temperatu	re - min		-25 °C

Ambient operating temperature may	55 °C
Ambient operating temperature - max	
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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities	
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
Terminal capacity (solid)	1 x (1 - 6) mm ² 2 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
Electrical rating	
-	
Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated operational current (le)	1A
Rated operational power at AC-3, 220/230 V, 50 Hz	0.12 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	0.25 kW
Rated operational power at AC-3, 440 V, 50 Hz	0.25 kW
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	1 A
Short-circuit rating	
Rated short-circuit breaking capacity Icu at 400 V AC	50 kA
Short-circuit current	60 kA DC, up to 250 V DC, Main conducting paths
Short-circuit current rating (group protection)	600 A, 600 V High Fault, max. Fuse, SCCR (UL/CSA) 600 A, 600 V High Fault, max. CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA)
Short-circuit release	± 20% tolerance, Trip blocks Basic device fixed 15.5 x lu, Trip Blocks 15.5 A, Irm, Setting range max.
Switching capacity	
Switching capacity	1 A (3 contacts in series), DC-5 up to 250V 1 A, AC-3 up to 440 V
Trip blocks	
Overload release current setting - min	0.63 A
Overload release current setting - max	1 A
Tripping characteristic	Overload trigger: tripping class 10 A
Design verification	
Equipment heat dissipation, current-dependent Pvid	5.33 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation explority rules Heat dissipation per pole, current-dependent Pvid	1.78 W
Rated operational current for specified heat dissipation (In)	1A
Static heat dissipation, non-current-dependent Pvs	
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 8.0

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@ss10.0.1-27-37-04-01 [AGZ529016])

Overload release current setting	А	0.63 - 1
Adjustment range undelayed short-circuit release	А	15.5 - 15.5
With thermal protection		No
Phase failure sensitive		Yes
Switch off technique		Thermomagnetic
Rated operating voltage	V	690 - 690
Rated permanent current lu	А	1
Rated operation power at AC-3, 230 V	kW	0.12
Rated operation power at AC-3, 400 V	kW	0.25
Type of electrical connection of main circuit		Screw connection
Type of control element		Push 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	90
Width	mm	45
Depth	mm	93