DATASHEET - PKZM0-32

Motor-protective circuit-breaker, 3p, Ir=25-32A

Part no.	**PKZM0-32**
	278489
EL Number (Norway)	**4365084**

Powering Business Worldwide™

General specifications

Product name	Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
Part no.	PKZM0-32
EAN	4015082784898
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.288 kilogram
Certifications	UL Category Control No.: NLRV VDE 0660 CSA Class No.: 3211-05 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947-4-1 IEC/EN 60947 UL File No.: E36332 CE CSA File No.: 165628 CSA UL UL 60947-4-1
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.

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	Terminals: IP00 IP20
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 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: Suitable for group installations, (UL/CSA)
Temperature compensation	-25 - 55 °C, Operating range -5 - 40 °C to IEC/EN 60947, VDE 0660 ≤ 0.25 %/K, residual error for T > 40°

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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

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)	32 A
Rated operational power at AC-3, 220/230 V, 50 Hz	7.5 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	15 kW
Rated operational power at AC-3, 440 V, 50 Hz	15 kW
Rated operational power at AC-3, 500 V, 50 Hz	22 kW
Rated operational power at AC-3, 690 V, 50 Hz	30 kW
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	32 A

Short-circuit rating

Rated short-circuit breaking capacity Icu at 400 V AC	40 kA
Rated short-circuit breaking capacity Ics at 400 V AC	10 kA
Rated short-circuit breaking capacity Icu at 440 V AC	10 kA
Rated short-circuit breaking capacity Ics at 440 V AC	3 kA
Rated short-circuit breaking capacity Icu at 500 V AC	3 kA
Rated short-circuit breaking capacity Ics at 500 V AC	3 kA
Rated short-circuit breaking capacity Icu at 690 V AC	3 kA
Rated short-circuit breaking capacity Ics at 690 V AC	1 kA
Short-circuit current	40 kA DC, up to 250 V DC, Main conducting paths
Short-circuit current rating (group protection)	10 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 150 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 10 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 125 A, 600 V High Fault, CB, SCCR (UL/CSA) 18 kA, 600 V High Fault, CB with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB with CL, SCCR (UL/CSA) 18 kA, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) 18 kA, 480 V High Fault, CB, SCCR (UL/CSA) with 600 A, 480 V High Fault, CB, SCCR (UL/CSA) 18 kA, 480 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 480 V High Fault, Fuse, SCCR (UL/CSA)
Short-circuit release	± 20% tolerance, Trip blocks Basic device fixed 15.5 x Iu, Trip Blocks 496 A, Irm, Setting range max.

Switching capacity

Switching capacity	25 A (3 contacts in series), DC-5 up to 250V 32 A, AC-3 up to 690 V

Motor rating

Assigned motor power at 200/208 V, 60 Hz, 3-phase	7.5 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	5 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	10 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	20 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	25 HP

Trip blocks

Overload release current setting - min		25 A
Overload release current setting - max		32 A
Tripping characteristic		Overload trigger: tripping class 10 A

Design verification

Equipment heat dissipation, current-dependent Pvid		9.56 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		3.19 W
Rated operational current for specified heat dissipation (In)		32 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	25 - 32
Adjustment range undelayed short-circuit release	A	496 - 496
With thermal overload protection		No
Phase failure sensitive		Yes
Switch off technique		Thermomagnetic
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	32
Rated operation power at AC-3, 230 V	kW	7.5
Rated operation power at AC-3, 400 V	kW	15
Power loss	W	9.56
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	40
Degree of protection (IP)		IP20

Height		mm	93
Width		mm	45
Depth		mm	76