



Transformer-protective circuit-breaker, 3p, Ir=16-20A, screw connection

Part no. PKZM0-20-T
088918
EL Number 4315161
(Norway)

General specifications		
Product name		Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
Part no.		PKZM0-20-T
EAN		4015080889182
Product Length/Depth		76 millimetre
Product height		93 millimetre
Product width		45 millimetre
Product weight		0.294 kilogram
Certifications		IEC/EN 60947 VDE 0660
Product Tradename		PKZM0
Product Type		Transformer-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)
Fitted with:		Switched-off indicator
Functions		Transformer protection For the protection of transformers with a high inrush current
Number of poles		Three-pole
General information		
Connection		Screw terminals
Degree of protection		IP20 Terminals: IP00
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		Transformer 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 DIN rail (top hat rail) mounting
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)		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 1 Nm, Screw terminals, Control circuit cables
Electrical rating		
Rated frequency - min		50 Hz
Rated frequency - max		60 Hz
Rated operational current (Ie)		20 A
Rated operational power at AC-3, 220/230 V, 50 Hz		5.5 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		9 kW
Rated operational power at AC-3, 440 V, 50 Hz		11 kW
Rated operational power at AC-3, 500 V, 50 Hz		12.5 kW
Rated operational power at AC-3, 690 V, 50 Hz		15 kW
Rated operational voltage (Ue) - min		690 V
Rated operational voltage (Ue) - max		690 V
Rated uninterrupted current (Iu)		20 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		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)		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) 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) 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 release		Basic device, fixed 20 x Iu, Trip Blocks ± 20% tolerance, Trip blocks 350 A, Irm, Setting range max.
Switching capacity		
Switching capacity		20 A (3 contacts in series), DC-5 up to 250V 20 A, AC-3 up to 690 V
Contacts		
Number of auxiliary contacts (change-over contacts)		0
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		0
Trip blocks		
Overload release current setting - min		16 A
Overload release current setting - max		20 A
Design verification		
Equipment heat dissipation, current-dependent Pvid		5.68 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		1.89 W
Rated operational current for specified heat dissipation (In)		20 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) / Power circuit-breaker for trafo/generator/installation protection (EC000228)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecI@ss13-27-37-04-09 [AJZ716018])			
Rated permanent current Iu	A		20
Rated voltage	V		690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA		50
Overload release current setting	A		16 - 20
Adjustment range short-term delayed short-circuit release	A		0 - 0
Adjustment range undelayed short-circuit release	A		380 - 380
Power loss	W		5.68
Device construction			Built-in device fixed built-in technique
Integrated earth fault protection			No
Type of electrical connection of main circuit			Screw connection
Suitable for DIN rail (top hat rail) mounting			Yes
DIN rail (top hat rail) mounting optional			Yes
Number of auxiliary contacts as normally closed contact			0
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as change-over contact			0
With switched-off indicator			Yes
With integrated under voltage release			No
Number of poles			3
Position of connection for main current circuit			Other
Type of control element			Turn button
Complete device with protection unit			No
Motor drive integrated			No
Motor drive optional			No
Degree of protection (IP)			IP20