

Motor-protective circuit-breaker, 3p, Ir=20-25A



Part no. PKZM0-25-T  
278493  
EL Number 4315198  
(Norway)

General specifications		
Product name		Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
Part no.		PKZM0-25-T
EAN		4015082784935
Product Length/Depth		76 millimetre
Product height		93 millimetre
Product width		45 millimetre
Product weight		0.291 kilogram
Certifications		VDE 0660 IEC/EN 60947
Product Tradename		PKZM0
Product Type		Transformer-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		Complete device with protection unit Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
Fitted with:		Switched-off indicator
Functions		For the protection of transformers with a high inrush current Transformer protection
Number of poles		Three-pole
General information		
Connection		Screw terminals
Degree of protection		IP20 Terminals: IP00
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		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 ≤ 0.25 %/K, residual error for T > 40° -5 - 40 °C to IEC/EN 60947, VDE 0660
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
<b>Terminal capacities</b>			
Terminal capacity (flexible with ferrule)			1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228 2 x (1 - 6) mm <sup>2</sup> , 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
<b>Electrical rating</b>			
Rated frequency - min			50 Hz
Rated frequency - max			60 Hz
Rated operational current (Ie)			25 A
Rated operational voltage (Ue) - min			690 V
Rated operational voltage (Ue) - max			690 V
Rated uninterrupted current (Iu)			25 A
<b>Short-circuit rating</b>			
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 release			± 20% tolerance, Trip blocks Basic device, fixed 20 x Iu, Trip Blocks 437 A, Irm, Setting range max.
<b>Switching capacity</b>			
Switching capacity			25 A, AC-3 up to 690 V 25 A (3 contacts in series), DC-5 up to 250V
<b>Contacts</b>			
Number of auxiliary contacts (change-over contacts)			0
Number of auxiliary contacts (normally closed contacts)			0
Number of auxiliary contacts (normally open contacts)			0
<b>Trip blocks</b>			
Overload release current setting - min			20 A
Overload release current setting - max			25 A
<b>Design verification</b>			
Equipment heat dissipation, current-dependent Pvid			6.83 W
Heat dissipation capacity Pdis			0 W
Heat dissipation per pole, current-dependent Pvid			2.28 W
Rated operational current for specified heat dissipation (In)			25 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 (ecl@ss13-27-37-04-09 [AJZ716018])		
Rated permanent current I <sub>u</sub>	A	25
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity I <sub>cu</sub> at 400 V, 50 Hz	kA	50
Overload release current setting	A	20 - 25
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	420 - 420
Power loss	W	6.83
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		Yes
Motor drive integrated		No
Motor drive optional		No
Degree of protection (IP)		IP20