## Transformer-protective circuit-breaker, 3p, Ir=0.16-0.25A, screw connection



Part no. PKZM0-0,25-T

088908

**EL Number** 

4315152

(Norway)

(Norway)	
General specifications	
Product name	Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker
Part no.	PKZM0-0,25-T
EAN	4015080889083
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.246 kilogram
Certifications	IEC/EN 60947 VDE 0660
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
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	-5 - 40 °C to IEC/EN 60947, VDE 0660 ≤ 0.25 %/K, residual error for T > 40° -25 - 55 °C, Operating range
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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Terminal capacities	
Terminal capacity (flexible with ferrule)	$1 \times (1 - 6)$ mm <sup>2</sup> , ferrule to DIN 46228 $2 \times (1 - 6)$ 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
Electrical rating	
Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated operational current (le)	0.25 A
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	0.25 A
Short-circuit rating	
Rated short-circuit breaking capacity Icu at 400 V AC	150 kA
Rated short-circuit breaking capacity Ics at 400 V AC	150 kA
Rated short-circuit breaking capacity Icu at 440 V AC	150 kA
Rated short-circuit breaking capacity Ics at 440 V AC	150 kA
Rated short-circuit breaking capacity Icu at 500 V AC	150 kA
Rated short-circuit breaking capacity Ics at 500 V AC	150 kA
Rated short-circuit breaking capacity Icu at 690 V AC	150 kA
Rated short-circuit breaking capacity Ics at 690 V AC	150 kA
Short-circuit current	60 kA DC, up to 250 V DC, Main conducting paths
Short-circuit release	± 20% tolerance, Trip blocks Basic device, fixed 20 x lu, Trip Blocks 4.25 A, Irm, Setting range max.
Switching capacity	
Switching capacity	0.25 A (3 contacts in series), DC-5 up to 250V 0.25 A, AC-3 up to 690 V
Contacts	5.00 / 7.10 5 Sp to 500 1
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Trip blocks	U
·	
Overload release current setting - min	0.16 A
Overload release current setting - max	0.25 A
Design verification	
Equipment heat dissipation, current-dependent Pvid	4.59 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	1.53 W
Rated operational current for specified heat dissipation (In)	0.25 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])

Asted voltage  Rated short-circuit breaking capacity lou at 400 V, 50 Hz  Rated short-circuit breaking capacity lou at 400 V, 50 Hz  Adjustment range short-term delayed short-circuit release  Adjustment range undelayed short-circuit release  Adju	protection (ecl@ss13-27-37-04-09 [AJZ716018])		
As the dishort-circuit breaking capacity Icu at 400 V, 50 Hz  Avorefoad release current setting Adjustment range short-term delayed short-circuit release Adjustment range undelayed sho	Rated permanent current lu	Α	0.25
A 0.16 - 0.25 Adjustment range short-term delayed short-circuit release A 0 - 0 Adjustment range undelayed short-circuit release A 2 25 - 4.25 Adjustment range undelayed short-circuit release A 4 4.25 - 4.25 A 2.50 Device construction B 2 3 4 4.59 Device construction B 2 4 4 59 Device construction B 2 4 5 5	Rated voltage	V	690 - 690
Adjustment range short-term delayed short-circuit release Adjustment range undelayed short-circuit release Adjustment range left should interest fixed built-intechnique Built-in device fixed built-in technique Adjustment short interest fixed built-in technique Adjustment short interest fixed built-in technique Adjustment short in	Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	150
Adjustment range undelayed short-circuit release A 4.25 - 4.25 Power loss Device construction Built-in device fixed built-in technique No Power loss Device construction No Screw connection Surable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact No	Overload release current setting	Α	0.16 - 0.25
Power loss  W 4.59  Device construction  Built-in device fixed built-in technique  No  Screw connection  Suitable for DIN rail (top hat rail) mounting  DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  No  No  No  Yes  O  No  No  No  No  No  No  No  No  No	Adjustment range short-term delayed short-circuit release	Α	0 - 0
Device construction Built-in device fixed built-in technique No No No Screw connection Suitable for DIN rail (top hat rail) mounting Suitable for DIN rail (top hat rail) mounting optional Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact No	Adjustment range undelayed short-circuit release	Α	4.25 - 4.25
Integrated earth fault protection  Fype of electrical connection of main circuit  Suitable for DIN rail (top hat rail) mounting  DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as normally open contact  Noth switched-off indicator  Noth switched-off indicator  Noth integrated under voltage release  Noth integrated under voltage release  Noth of connection for main current circuit  Nother of control element  Complete device with protection unit  Noth of drive integrated  Noth of control relevance  Noth of control relation to the	Power loss	W	4.59
Surtable for DIN rail (top hat rail) mounting Suitable for DIN rail	Device construction		Built-in device fixed built-in technique
Suitable for DIN rail (top hat rail) mounting DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Nith switched-off indicator  Nith integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Nother  Turn button  Complete device with protection unit  Notor drive integrated  No  No  No  No  No  No  No  No  No  N	Integrated earth fault protection		No
DIN rail (top hat rail) mounting optional  Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Nith switched-off indicator  With integrated under voltage release  No  Number of poles  Position of connection for main current circuit  Complete device with protection unit  Notor drive integrated  Motor drive optional  Yes  Yes  No  Other  Turn button  Yes  No  No  No  No  No  No  No  No  No  N	Type of electrical connection of main circuit		Screw connection
Number of auxiliary contacts as normally closed contact  Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Number of auxiliary contacts as change-over contact  Nith switched-off indicator  Nith integrated under voltage release  No  Number of poles  Sesition of connection for main current circuit  Complete device with protection unit  Notor drive integrated  Motor drive optional  O  O  O  O  O  O  O  O  O  O  O  O  O	Suitable for DIN rail (top hat rail) mounting		Yes
Number of auxiliary contacts as normally open contact  Number of auxiliary contacts as change-over contact  Nith switched-off indicator  With integrated under voltage release  No  Number of poles  Societion of connection for main current circuit  Turn button  Complete device with protection unit  Ves  Motor drive integrated  No  No  No  No  No  No  No  No  No  N	DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as change-over contact  With switched-off indicator  With integrated under voltage release  With integrated under voltage release  No  Number of poles  Socition of connection for main current circuit  Turn button  Complete device with protection unit  Wotor drive integrated  No  No  Notor drive optional	Number of auxiliary contacts as normally closed contact		0
With switched-off indicator  With switched-off indicator  With integrated under voltage release  No  Number of poles  Societion of connection for main current circuit  Type of control element  Complete device with protection unit  Wotor drive integrated  No  No  Notor drive optional	Number of auxiliary contacts as normally open contact		0
Noth integrated under voltage release  No Number of poles  Position of connection for main current circuit  Type of control element  Complete device with protection unit  Ves  Votor drive optional  No No  No  No  No  No  No  No  No  No	Number of auxiliary contacts as change-over contact		0
Number of poles  2 Other  Turn button  Complete device with protection unit  Motor drive optional  3 Other  Turn button  No  No	With switched-off indicator		Yes
Position of connection for main current circuit  Type of control element  Complete device with protection unit  Ves  Motor drive optional  Other  Turn button  Yes  No  No	With integrated under voltage release		No
Turn button Complete device with protection unit Ves Motor drive optional  Turn button Yes No No	Number of poles		3
Complete device with protection unit Yes Motor drive integrated No Notor drive optional No	Position of connection for main current circuit		Other
Motor drive integrated No No	Type of control element		Turn button
Motor drive optional No	Complete device with protection unit		Yes
·	Motor drive integrated		No
Degree of protection (IP)	Motor drive optional		No
	Degree of protection (IP)		IP20