

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
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)		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 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 (Ie)		25 A
Rated operational voltage (Ue) - min		690 V
Rated operational voltage (Ue) - max		690 V
Rated uninterrupted current (Iu)		25 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 release		± 20% tolerance, Trip blocks Basic device, fixed 20 x Iu, Trip Blocks 437 A, Irm, Setting range max.
Switching capacity		
Switching capacity		25 A, AC-3 up to 690 V 25 A (3 contacts in series), DC-5 up to 250V
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		20 A
Overload release current setting - max		25 A
Design verification		
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 _u	A	25	
Rated voltage	V	690 - 690	
Rated short-circuit breaking capacity I _{cu} 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	