

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



Part no. PKZM0-0,25-T Article no. 088908 Catalog No. XTPTP25BC1NL

Delivery programme

Product range			PKZM0T transformer-protective circuit-breakers up to 25 A
Basic function			Transformer protection
			IE3
Notes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Connection technique			Screw terminals
Contact sequence			F+
Setting range			
Overload releases	I _r	A	0.16 - 0.25
Notes For the protection of transformers with a high inrush current			

For the protection of transformers with a high inrush current can be snap-fitted to IEC/EN 60715 top-hat rail with 7.,5 or 15 mm height Phase failure sensitivity to IEC/EN 60947-4-1, VDE 0660 part 102.

Technical data

General			
Standards			IEC/EN 60947, VDE 0660
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		°C	
Storage	9	°C	-40 - +80
Open		°C	-25 - +55
Enclosed		°C	- 25 - 40
Mounting position			90°
Direction of incoming supply			as required
Degree of protection			
Device			IP20
Terminations			IP00
Protection against direct contact			Finger and back-of-hand proof
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27		g	25
Altitude		m	2000
Terminal capacity screw terminals		mm ²	
Solid		mm ²	1 x (1 - 6) 2 x (1 - 6)
Flexible with ferrule to DIN 46228		mm ²	1 x (1 - 6) 2 x (1 - 6)
Solid or stranded		AWG	18 - 10
Specified tightening torque for terminal screws			

Main cable		Nm	1.7
Control circuit cables		Nm	1
Main conducting paths			
Rated impulse withstand voltage	U _{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current = rated operational current	$I_u = I_e$	Α	25 or current setting of the overcurrent release
Rated frequency	f	Hz	40 - 60
Rated frequency		Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	6
Lifespan, mechanical	Operations	x 10 ⁶	0.1
Lifespan, electrical (AC-3 at 400 V)	Operations	x 10 ⁶	0.1
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	40
Short-circuit rating			
DC			
Short-circuit rating		kA	60
Short-circuit rating			60 (up to PKZM0-16) 40 (PKZM0-20 to PKZM0-32)
Motor switching capacity		kA_{rms}	
AC-3 (up to 690 V)		Α	25
DC-5 (up to 250 V)		Α	25 (3 contacts in series)
Trip blocks			
Temperature compensation			
to IEC/EN 60947, VDE 0660		°C	- 5 40
Operating range		°C	- 25 55
Temperature compensation residual error for T > 40 $^{\circ}$ C			≦ _{0.25 %/K}
Setting range of overload releases		x I _u	0.6 - 1
Short-circuit release fixed		x I _u	20
Fixed short-circuit release			Basic device 20 x I _u

Design verification as per IEC/EN 61439

Short-circuit release tolerance

Phase-failure sensitivity

besign verification as per 120/214 01703			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0.25
Equipment heat dissipation, current-dependent	P _{vid}	W	4.59
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
EC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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.

± 20%

IEC/EN 60947-1-1, VDE 0660 Part 102

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 Insulation properties	
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 5.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation prot. (EC000228)

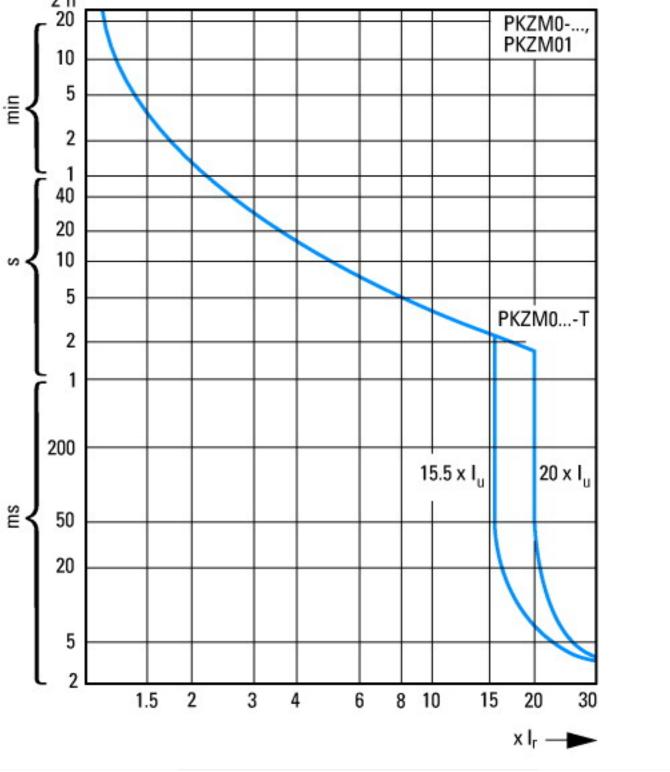
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss8-27-37-04-09 [AJZ716009])

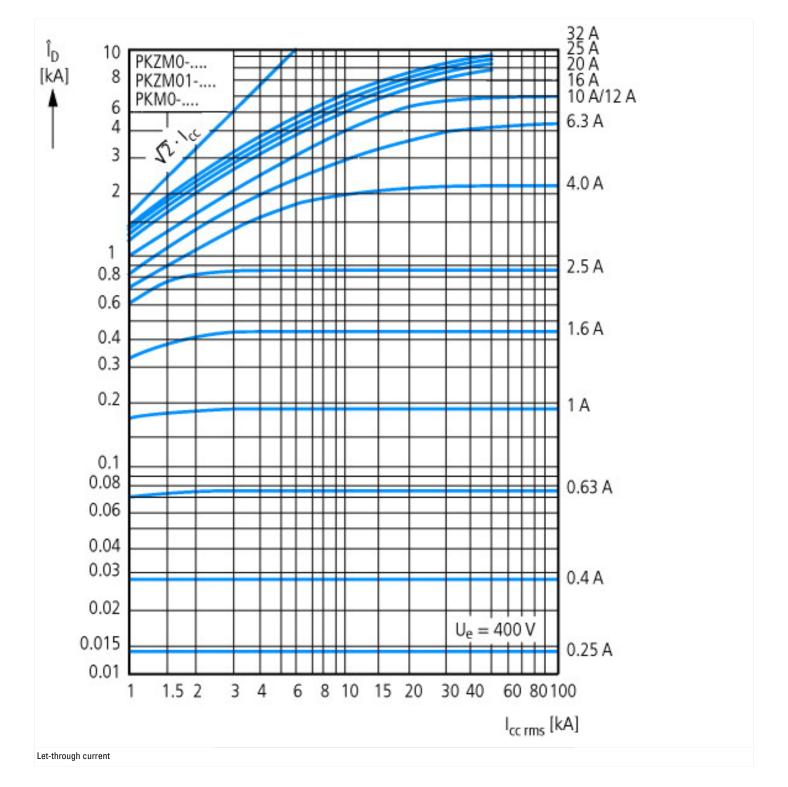
protection (ect @330-27-07-04-03 [A02710003])		
Rated permanent current lu	А	0.25
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	150
Setting range overload protector	А	0.16 - 0.25
Adjustment range short-term delayed short-circuit release	А	0 - 0
Adjustment range undelayed short-circuit release	А	4.25 - 4.25
Integrated earth fault protection		No
Connection type main current circuit		Screw connection
Device construction		
Suitable for DIN rail (top hat rail) mounting		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
Switched-off indicator available		Yes
With under voltage release		No
Number of poles		3
Position of connection for main current circuit		Front connection
Type of control element		Turn button (knob)
Motor drive optional		No
Motor drive integrated		Yes
Degree of protection (IP)		IP20

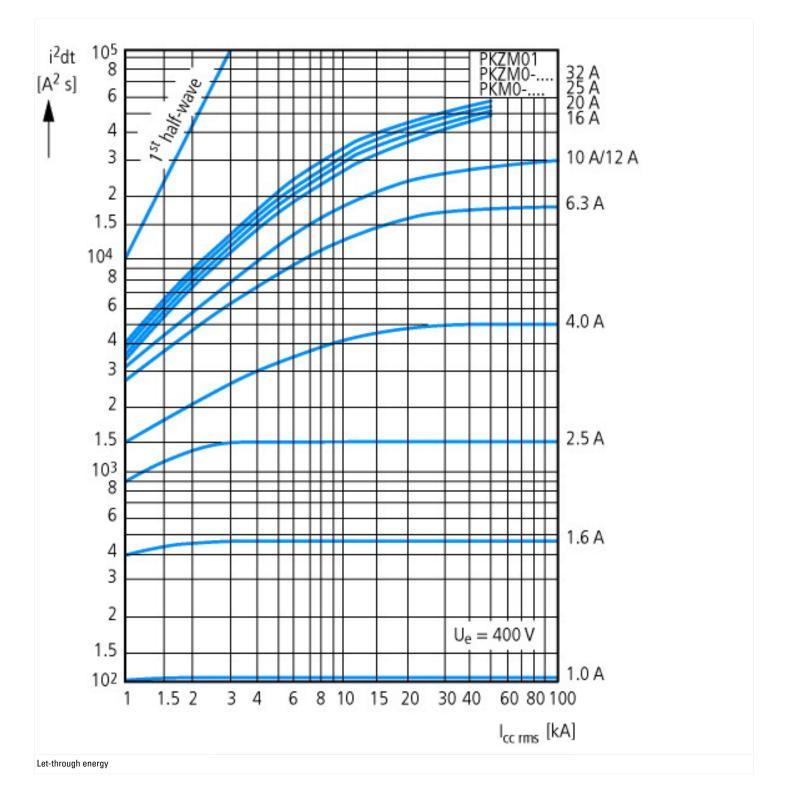
Approvals

	Specially designed for North America		No			

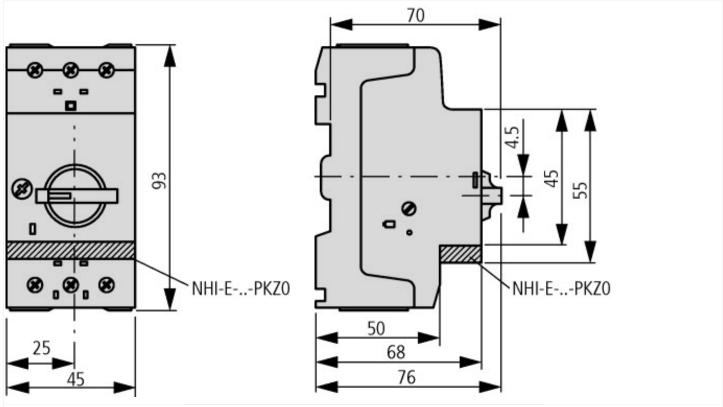
Characteristics 2 h 20 PKZM0-..., PKZM01 10



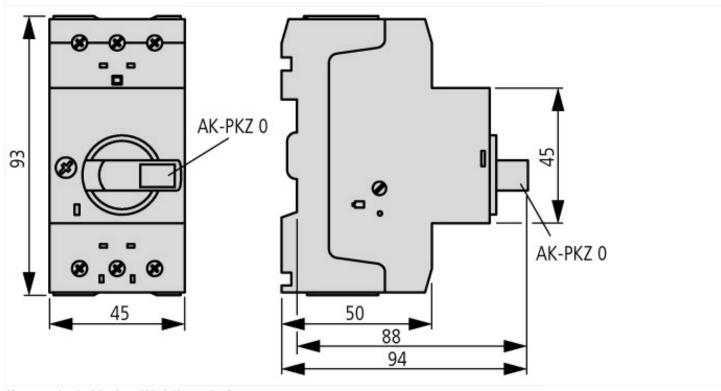




Dimensions

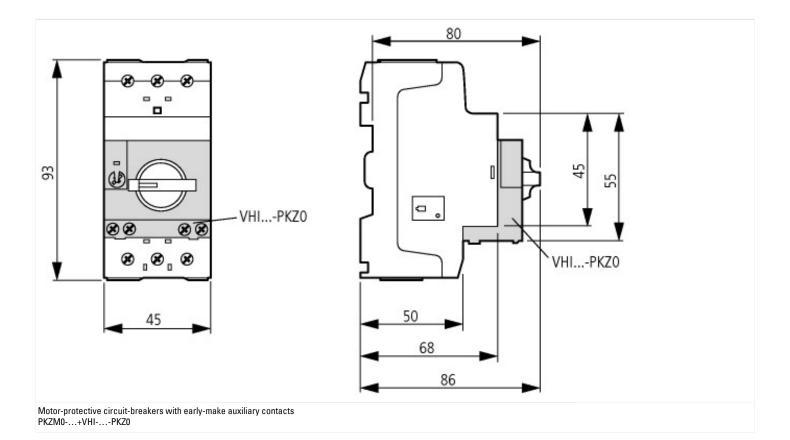


Motor-protective circuit-breaker with standard auxiliary contact PKZM0-...(+NHI-E-...-PKZ0) PKZM0-...-T(+NHI-E-...-PKZ0) PKM0-...(+NHI-E-...-PKZ0)



Motor-protective circuit-breakers with lockable rotary handles

PKZM0-...+AK-PKZ0



Additional product information (links)

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IL03407010Z (AWA1210-2138) Motor-protective	circuit-breaker			
IL03407010Z (AWA1210-2138) Motor-protective circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407010Z2014_02.pdf			
IL03407011Z (AWA1210-1925) Motor-protective	circuit-breaker			
IL03407011Z (AWA1210-1925) Motor-protective circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407011Z2014_02.pdf			
MN03402003Z (AWB1210-1458) PKZM0 motor-protective circuit-breakers, overload monitoring of Ex e motors				
MN03402003Z (AWB1210-1458) PKZM0 motor-protective circuit-breakers, overload monitoring of Ex e motors - Deutsch / English	ftp://ftp.moeller.net/D0CUMENTATION/AWB_MANUALS/MN03402003Z_DE_EN.pdf			
Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.pdf			
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf			