

Part no. PKZM0-10-T
Catalog No. 088916
Alternate Catalog No. XTPT010BC1NL
EL-Nummer 4315159
(Norway)

Delivery program

Product range	PKZM0...T transformer-protective circuit-breakers up to 25 A		
Basic function	Transformer protection		
Notes	Also suitable for motors with efficiency class IE3.		
Connection technique	Screw terminals		
Rated uninterrupted current	I _u	A	10
Setting range			
Overload releases	I _r	A	6.3 - 10
			
short-circuit release			
			
max.	I _{rm}	A	224
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

Notes For the protection of transformers with a high inrush current.
Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.

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			
Storage	°C	- 40 - 80	
Open	°C	-25 - +55	
Enclosed	°C	- 25 - 40	
Direction of incoming supply		as required	
Degree of protection		IP20	
Device		IP00	
Terminations			
Protection against direct contact when actuated from front (EN 50274)		Finger and back-of-hand proof	
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27	g	25	
Altitude	m	Max. 2000	
Terminal capacity main cable			
Screw terminals			
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	
Stripping length	mm	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	A	10
Rated frequency	f	Hz	50/60
Current heat loss (3 pole at operating temperature)		W	6.29
Lifespan, mechanical	Operations	x 10 ⁶	0.1
Lifespan, electrical (AC-3 at 400 V)	Operations	x 10 ⁶	0.1
Lifespan, electrical	Operations	x 10 ⁶	0.1
Max. operating frequency		Ops/h	40
Short-circuit rating			
DC			
Short-circuit rating		kA	60
Motor switching capacity			
AC-3 (up to 690V)		A	10
DC-5 (up to 250V)		A	10 (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 °C			≤ 0.25 %/K
Setting range of overload releases		x I _u	0.6 - 1
short-circuit release			Basic device, fixed: 20 x I _u
Short-circuit release tolerance			± 20%
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	10
Heat dissipation per pole, current-dependent	P _{vid}	W	2.1
Equipment heat dissipation, current-dependent	P _{vid}	W	6.29
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/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.
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 8.0

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@ss10.0.1-27-37-04-09 [AJZ716013])		
Rated permanent current I_p	A	10
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity I_{cu} at 400 V, 50 Hz	kA	150
Overload release current setting	A	6.3 - 10
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	224 - 224
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Device construction		Built-in device fixed built-in technique
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