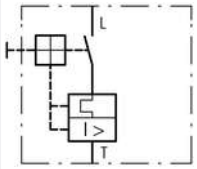
DATASHEET - PKZM0-20-T-PI

Transformer-protective circuit-breaker, 16 - 20 A, Push in terminals

Part no.	**PKZM0-20-T-PI**
Catalog No.	**199175**
Alternate Catalog No.	**XTPTPI020BC1NL**

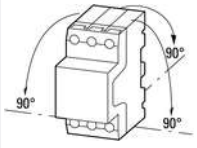
Delivery program

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			Push in terminals
Contact sequence			
Rated uninterrupted current	I_u	A	20
Setting range			
Overload releases 	I_r	A	16 - 20
short-circuit release 			
max.	I_{rm}	A	350
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
Mounting position			
Direction of incoming supply			as required
Degree of protection			
Device			IP20
Terminations			IP20
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			
Push-in terminals			

Solid		mm^2	1 x (1 - 6) 2 x (1 - 6)
flexible with ferrules		mm^2	1 x (1 - 6) 2 x (1 - 4)
flexible with ultrasonic welded busbar end		mm^2	1 x (1 - 10) 2 x (1 - 6)
flexible with uninsulated wire end ferrule		mm^2	1 x (1 - 10) 2 x (1 - 6)
Solid or stranded		AWG	18 - 8
Stripping length		mm	12
Standard screwdriver			3.0 x 0.5

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	20
Rated frequency	f	Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	5.68
Lifespan, mechanical	Operations	$x\ 10^6$	0.1
Lifespan, electrical (AC-3 at 400 V)			
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	20

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			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55

Technical data ETIM 7.0

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 Iu		A	20
Rated voltage		V	690 - 690
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz		kA	50
Overload release current setting		A	20 - 20
Adjustment range short-term delayed short-circuit release		A	0 - 0
Adjustment range undelayed short-circuit release		A	380 - 380
Integrated earth fault protection			No
Type of electrical connection of main circuit			Spring clamp connection
Device construction			Other
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 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

Dimensions

Additional product information (links)

Schaltvermögen	https://de.ecat.eaton.com/flip-cat/?edition=MOTCONT1_DE#page_3/44
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf

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