




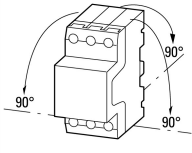
Motor-protective circuit-breaker, 9 kW, 16 - 20 A, Feed-side screw terminals/output-side push-in terminals, For use with motor starter combinations type MSC...

Part no. PKZM0-20-SPI32
Catalog No. 199201
Alternate Catalog No. XTPRSPI32020BC1NL
EL-Nummer (Norway) 4312261

Delivery program

Product range				PKZM0 motor protective circuit-breakers up to 32 A
Basic function				Motor protection
For use with				motor starter combinations type MSC...
				
Notes				Also suitable for motors with efficiency class IE3.
Connection technique				Feed-side screw terminals/output-side push-in terminals
Max. motor rating				
AC-3				
220 V 230 V 240 V	P	kW		5.5
380 V 400 V 415 V	P	kW		9
440 V	P	kW		11
500 V	P	kW		12.5
660 V 690 V	P	kW		15
Rated uninterrupted current	I_u	A		20
Setting range				
Overload releases	I_r	A		16 - 20
				
short-circuit release				
				
max.	I_{rm}	A		310
Phase-failure sensitivity				IEC/EN 60947-4-1, VDE 0660 Part 102

Technical data

General				
Standards				IEC/EN 60947, VDE 0660, UL, CSA
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				IP00
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
Push-in terminals		
Solid	mm ²	1 x (1 - 6) 2 x (1 - 6)
flexible	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
Specified tightening torque for terminal screws		
Main cable	Nm	1.7

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	50/60
Current heat loss (3 pole at operating temperature)		W	5.82
Impedance per pole		mΩ	5
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
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: 15.5 x I _u
Short-circuit release tolerance			± 20%
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

Rating data for approved types

Switching capacity			
Maximum motor rating			
Three-phase			
200 V 208 V	HP		5
575 V 600 V	HP		15
Single-phase			
230 V	HP		3

240 V			
Short Circuit Current Rating, type E		SCCR	
240 V		kA	18
480 Y / 277 V		kA	18
Accessories required			BK25/3-PKZ0-E
Short Circuit Current Rating, group protection		SCCR	
600 V High Fault			
SCCR (fuse)		kA	10
max. Fuse		A	150
SCCR (CB)		kA	10
max. CB		A	125
SCCR with CL (fuse)		A	18
max. Fuse (with CL)		A	600
SCCR with CL (CB)		kA	18
max. CB (with CL)		A	600

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 8.0

Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss10.0.1-27-37-04-01 [AGZ529016])			
Overload release current setting		A	20 - 20
Adjustment range undelayed short-circuit release		A	310 - 310
With thermal protection			No
Phase failure sensitive			Yes
Switch off technique			Thermomagnetic
Rated operating voltage		V	690 - 690
Rated permanent current I _u		A	20
Rated operation power at AC-3, 230 V		kW	5.5
Rated operation power at AC-3, 400 V		kW	9
Type of electrical connection of main circuit			Spring clamp connection
Type of control element			Turn button
Device construction			Built-in device fixed built-in technique
With integrated auxiliary switch			No
With integrated under voltage release			No
Number of poles			3
Rated short-circuit breaking capacity I _{cu} at 400 V, AC		kA	50
Degree of protection (IP)			IP20
Height		mm	101.6
Width		mm	45
Depth		mm	75.1

Approvals

Product Standards			IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
UL File No.			E36332
UL Category Control No.			NLRV
CSA File No.			165628
CSA Class No.			3211-05
North America Certification			UL listed, CSA certified
Specially designed for North America			No
Suitable for			Branch circuit: Manual type E if used with terminal, or suitable for group installations

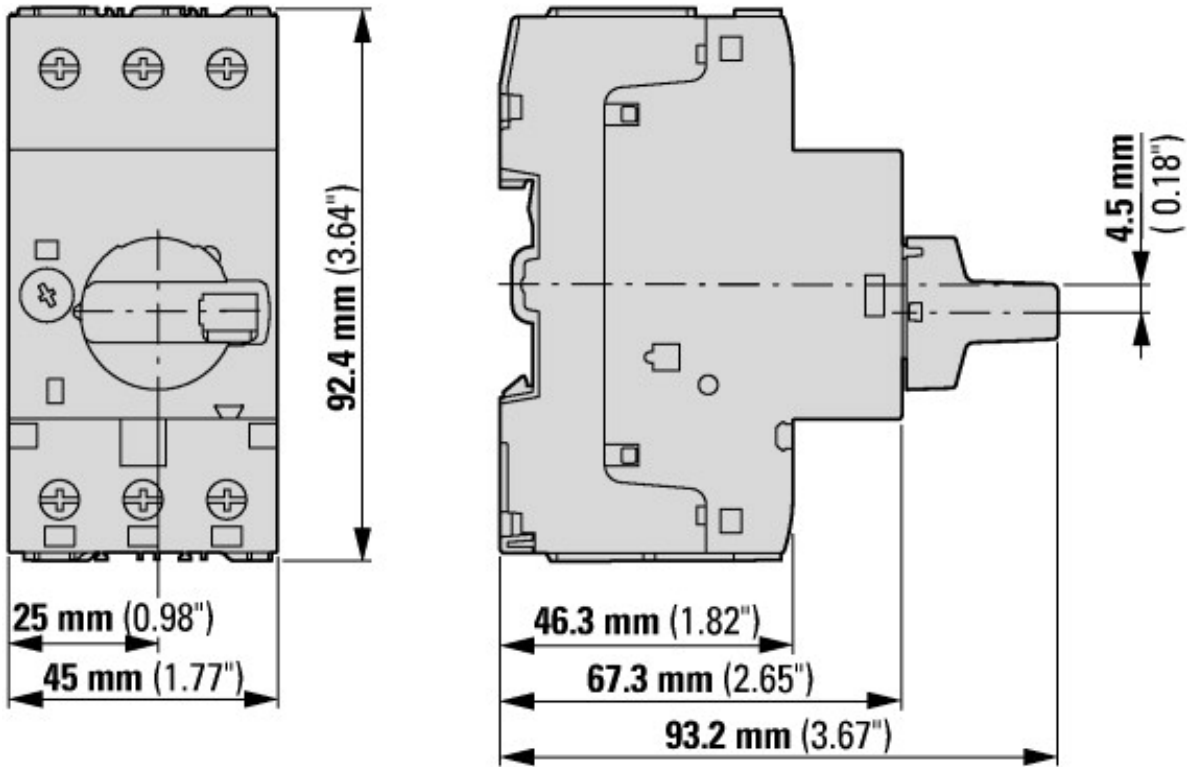
Dimensions

Motor-protective circuit-breaker with standard auxiliary contact

PKZM0-...(+NHI-E-...-PKZ0)

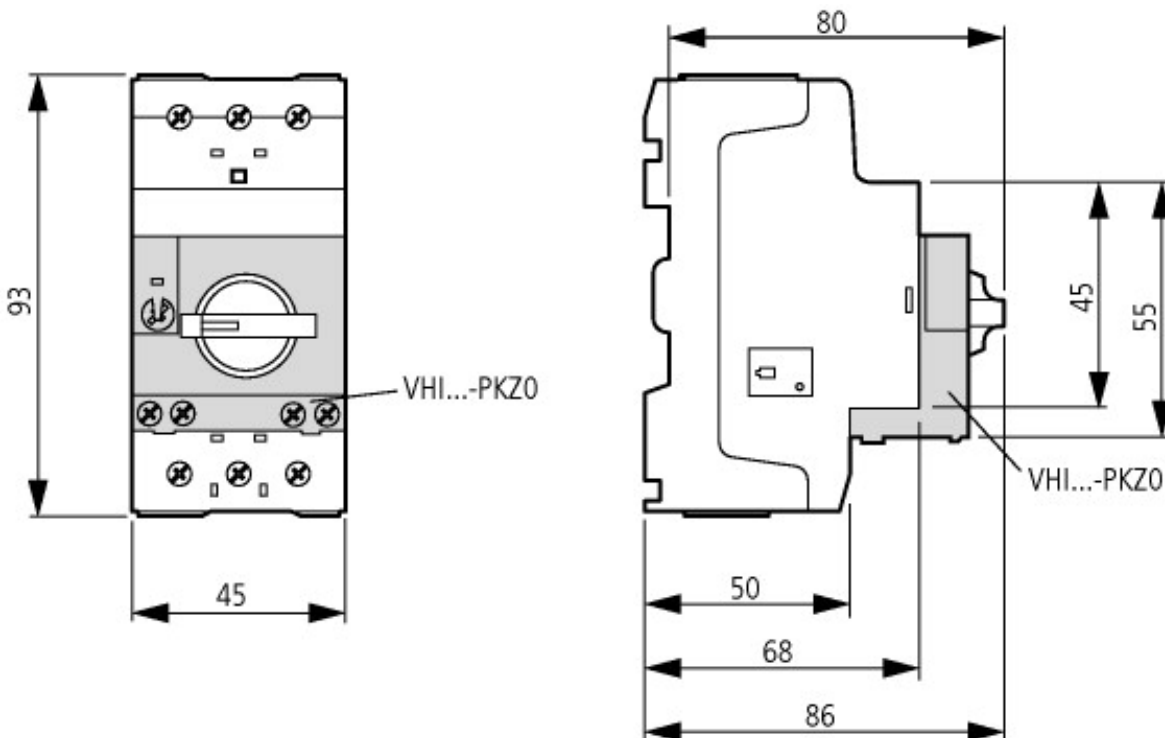
PKZM0-...-T(+NHI-E-...-PKZ0)

PKM0-...(+NHI-E-...-PKZ0)



Motor-protective circuit-breakers with lockable rotary handles

PKZM0-...+AK-PKZ0



Motor-protective circuit-breakers with early-make auxiliary contacts

PKZM0-...+VHI-...-PKZ0

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

