






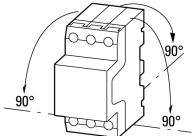
## Motor-protective circuit-breaker with NHI-E-10

Part no. **PKZM0-1-C/NHI-E-10-C-GVP**  
 Article no. **172418**  
 Catalog No. **XTPRC001BC1NLFA10BP**

### Delivery program

Product range				PKZM0 motor protective circuit-breakers up to 32 A
Basic function				Motor protection
				
Notes				Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Connection technique				Spring-loaded terminals
<b>Max. motor rating</b>				
AC-3				
220 V 230 V 240 V	P	kW		0.12
380 V 400 V 415 V	P	kW		0.25
440 V	P	kW		0.25
500 V	P	kW		0.37
660 V 690 V	P	kW		0.55
<b>Setting range</b>				
Overload releases		$I_r$	A	0.63 - 1
Short-circuit releases				
max.		$I_{rm}$	A	15.5

### Technical data

<b>General</b>				
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	$\theta$	°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
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27		g		25
Altitude		m		2000
Terminal capacity springloaded terminals				
Solid		mm <sup>2</sup>		1 x (0.75...2.5) 2 x (0.75...2.5)
Flexible with ferrule to DIN 46228		mm <sup>2</sup>		1 x (0.75...2.5) 2 x (0.75...2.5)

Solid or stranded		AWG	18...14
<b>Main conducting paths</b>			
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overtoltage category/pollution degree			III/3
Rated operational voltage	$U_e$	V AC	690
Rated uninterrupted current = rated operational current	$I_u = I_e$	A	32 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	$\times 10^6$	0.1
Lifespan, electrical (AC-3 at 400 V)	Operations	$\times 10^6$	0.1
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	40
<b>Short-circuit rating</b>			
DC			
Short-circuit rating		kA	60
Short-circuit rating			60 (up to PKZM0-16) 40 (PKZM0-20 to PKZM0-32)
<b>Motor switching capacity</b>			
		$kA_{rms}$	
AC-3 (up to 690 V)		A	32
DC-5 (up to 250 V)		A	25 (3 contacts in series)

### Trip blocks

<b>Temperature compensation</b>			
to IEC/EN 60947, VDE 0660		°C	- 5 ... 40
Operating range		°C	- 25 ... 65
Temperature compensation residual error for $T > 40$ °C			$\pm 0.25$ %/K
Setting range of overload releases		$\times I_u$	0.6 - 1
Short-circuit release fixed		$\times I_u$	15.5
short-circuit release			Basic device, fixed: $15.5 \times I_u$
Short-circuit release tolerance			$\pm 20$ %
Phase-failure sensitivity			IEC/EN 60947-1-1, VDE 0660 Part 102

### Design verification as per IEC/EN 61439

<b>Technical data for design verification</b>			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55

### Technical data ETIM 6.0

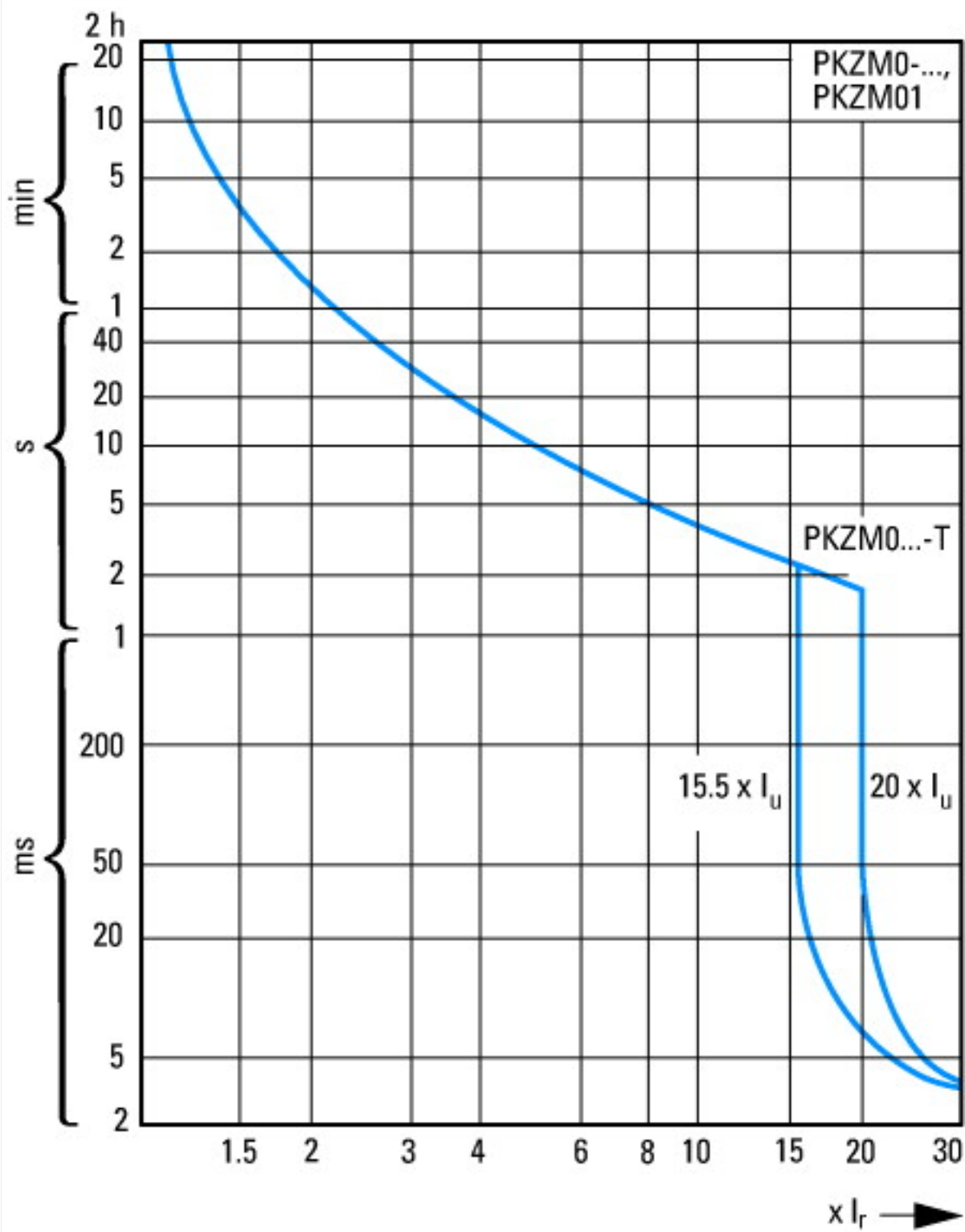
Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss8.1-27-37-04-01 [AGZ529013])			
Overload release current setting		A	0.63 - 1
Adjustment range undelayed short-circuit release		A	15.5 - 15.5
Thermal protection			No
Phase failure sensitive			Yes
Switch off technique			Thermomagnetic
Rated operating voltage		V	690 - 690
Rated permanent current $I_u$		A	1
Rated operation power at AC-3, 230 V		kW	0.12
Rated operation power at AC-3, 400 V		kW	0.25
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			Yes
With integrated under voltage release			No

Number of poles		3
Rated short-circuit breaking capacity Icu at 400 V, AC	kA	150
Degree of protection (IP)		IP20
Height	mm	93
Width	mm	45
Depth	mm	76

## Approvals

Product Standards		UL 508; CSA-C22.2 No. 14; IEC60947-4-1; 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

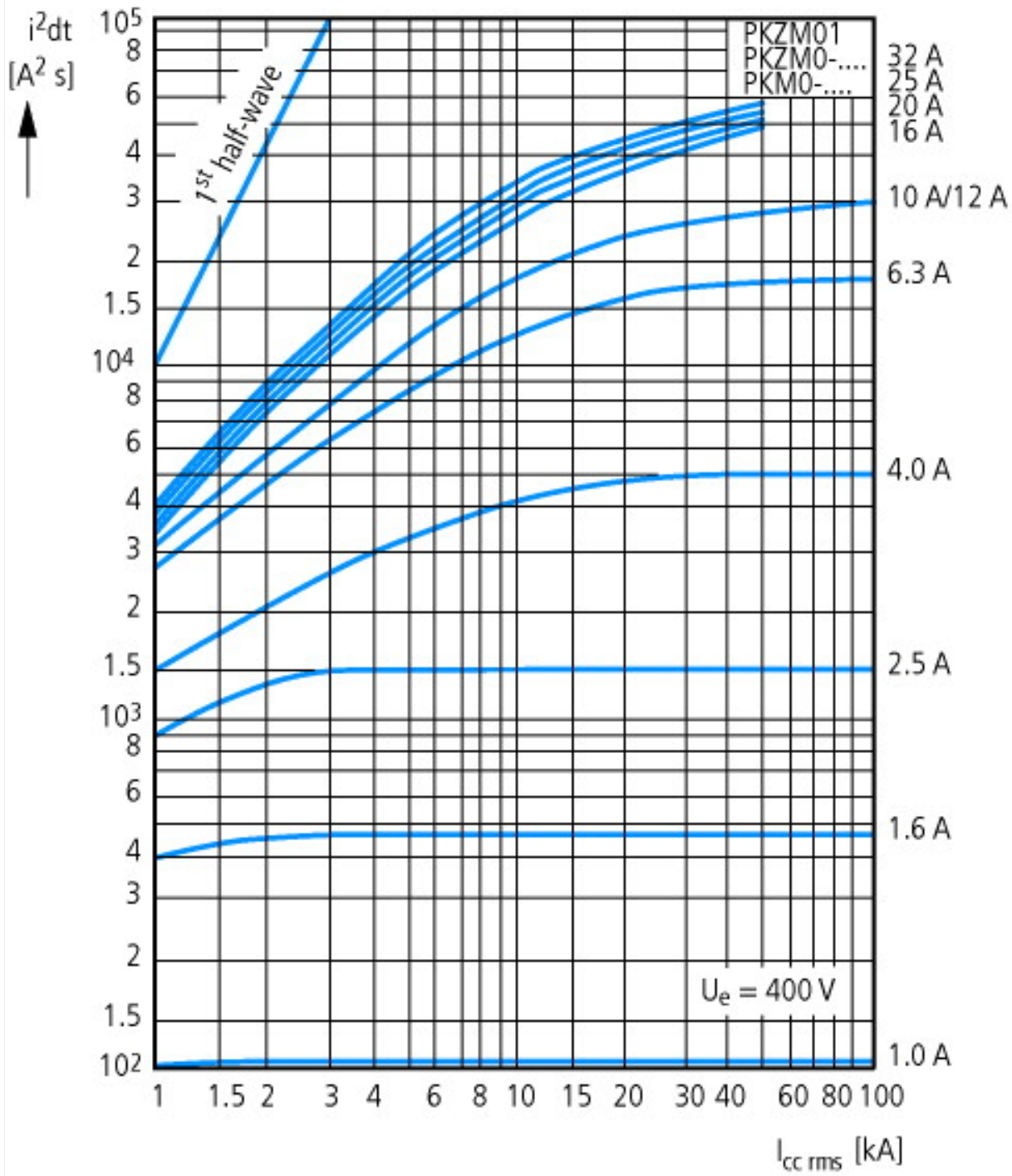
## Characteristics



Motor-protective circuit-breaker tripping characteristic (high-capacity) compact starter, PKZM0...-T (not for PKM0-...), PKZM01

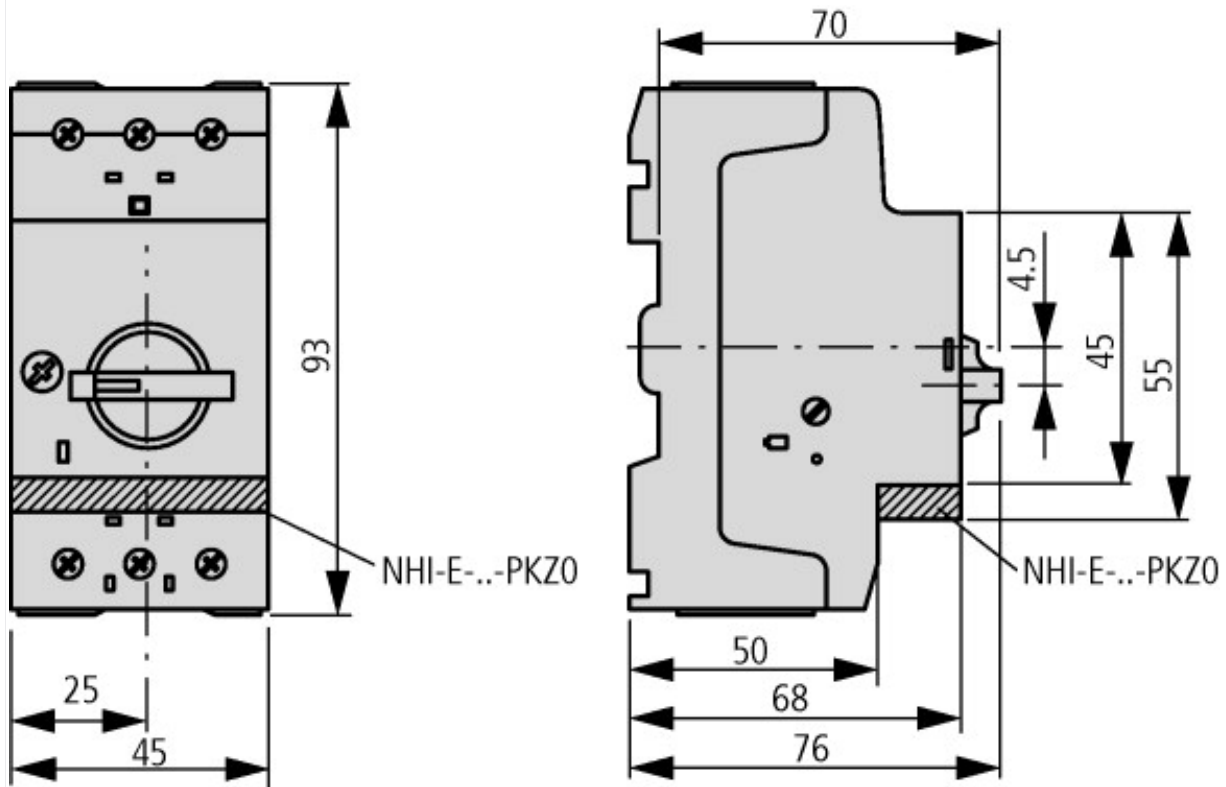


Let-through current

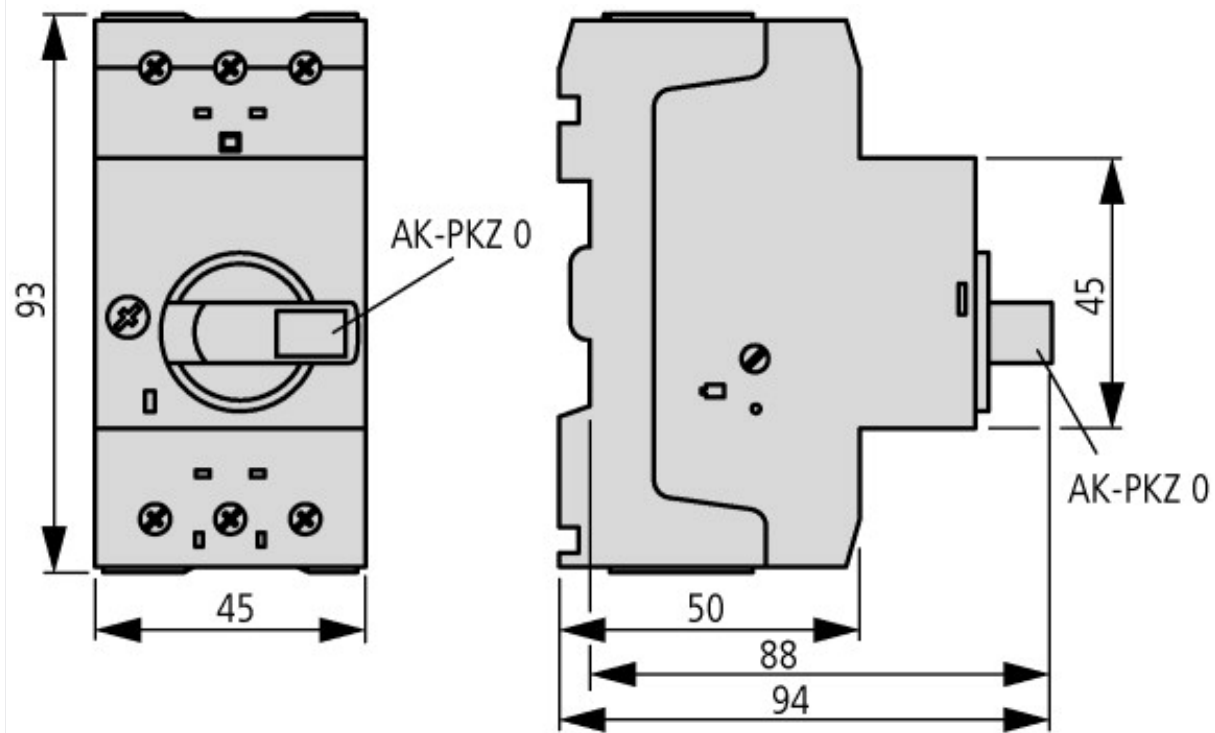


Let-through energy

## 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)

### IL03407010Z (AWA1210-2138) Motor-protective circuit-breakers

IL03407010Z (AWA1210-2138) Motor-protective circuit-breakers [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407010Z2014\\_02.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407010Z2014_02.pdf)

### IL03407011Z (AWA1210-1925) Motor-protective circuit-breakers

IL03407011Z (AWA1210-1925) Motor-protective circuit-breakers [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407011Z2014\\_02.pdf](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/DOCUMENTATION/AWB\\_MANUALS/MN03402003Z\\_DE\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/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](http://www.moeller.net/binary/ver_techpapers/ver953en.pdf)

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