



## MOTOR PROTECTION, START.PKZM0

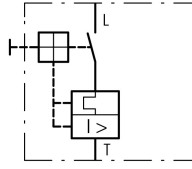



Powering Business Worldwide™

Part no. **PKZM0-20**

Article no. **046988**

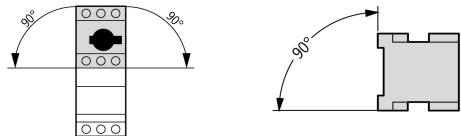
### Delivery programme

Product range				PKZM0 motor protective circuit-breakers up to 32 A
Basic function				Motor protection
Connection technique				Screw terminals
Contact sequence				
220 - 240 V				
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	
<b>Setting range</b>				
Overload releases	$I_r$	A	16 - 20	
Short-circuit releases				
max.	$I_{rm}$	A	280	
<b>Notes</b>				
Phase failure sensitivity to IEC/EN 60947-4-1, VDE 0660 part 102.				
Can be snap-fit to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height				
				
PTB 10 ATEX 3013, see manual				

### Approbationen

UL approval	Yes
CSA approval	Yes
Product Standards	UL 508; CSA-C22.2 No. 14; IEC60947-4-1; CE marking
UL File No.	E36332
UL CCN	NLRV
CSA File No.	12528
CSA Class No.	3211-05
NA Certification	UL listed, CSA certified
Specially designed for NA	No
Suitable for	Branch circuit: Manual type E if used with terminal, or suitable for group installations

### 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		°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			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 <sup>2</sup>	
Solid		mm <sup>2</sup>	1 x (1 - 6) 2 x (1 - 6)
Flexible with ferrule to DIN 46228		mm <sup>2</sup>	1 x (1 - 6) 2 x (1 - 6)
Solid or stranded		AWG	18 - 10
Terminal capacity springloaded terminals			
Solid		mm <sup>2</sup>	1 x (1...2.5) 2 x (1...2.5)
Flexible with ferrule to DIN 46228		mm <sup>2</sup>	1 x (1...2.5) 2 x (1...2.5)
Solid or stranded		AWG	18...14
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	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	x 10 <sup>6</sup>	0.1
Lifespan, electrical (AC-3 at 400 V)	Operations	x 10 <sup>6</sup>	0.1
Maximum operating frequency		Ops./ h	
Max. operating frequency		Ops/ h	40
Short-circuit rating			
AC			
			→ Engineering
DC			
Short-circuit rating		kA	40
Short-circuit rating			60 (up to PKZM0-16) 40 (PKZM0-20 to PKZM0-32)
Motor switching capacity		kA <sub>rms</sub>	
AC-3 (up to 690 V)		A	32
DC-5 (up to 250 V)		A	25 (3 contacts in series)

### Trip blocks

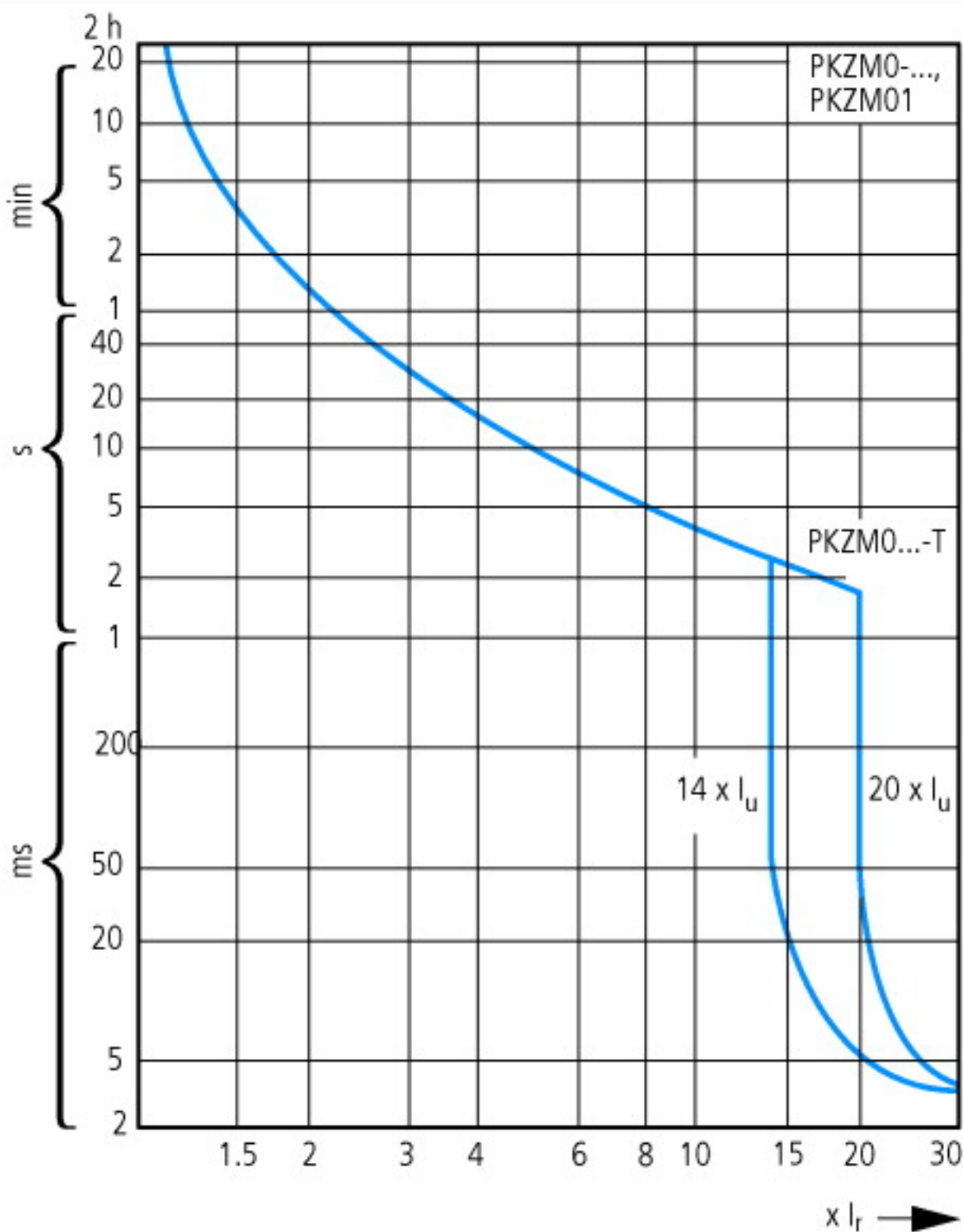
Temperature compensation			
to IEC/EN 60947, VDE 0660		°C	- 5 ... 40
Operating range		°C	- 25 ... 55
Temperature compensation residual error for T > 40 °C			$\leq$ 0.25%/K
Setting range of overload releases		x $I_u$	0.6 - 1
Short-circuit release fixed		x $I_u$	14
Fixed short-circuit release			Basic device 14 x $I_u$

Short-circuit release tolerance		± 20%
Phase-failure sensitivity		IEC/EN 60947-1-1, VDE 0660 Part 102

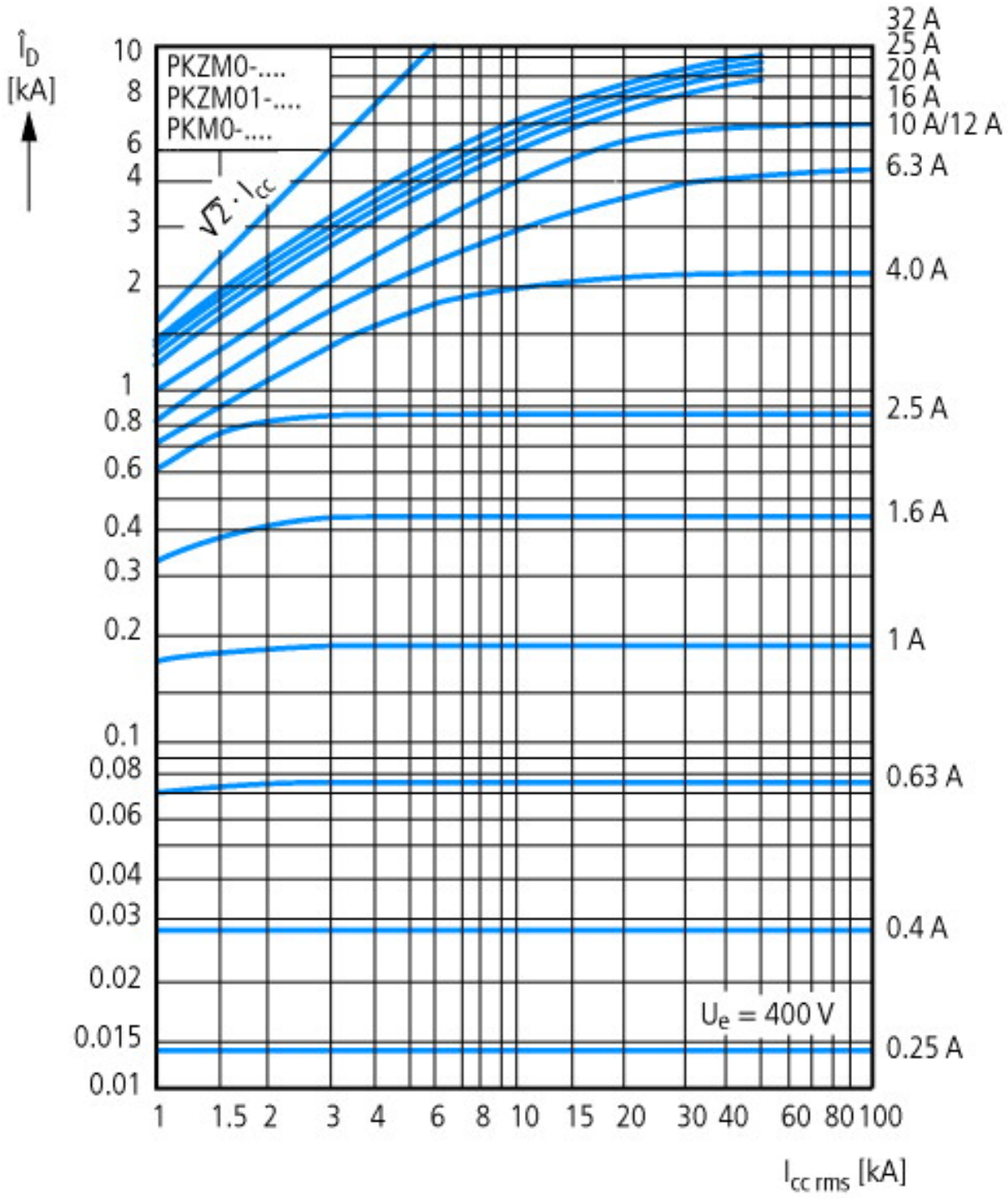
### Technical data ETIM 4.0

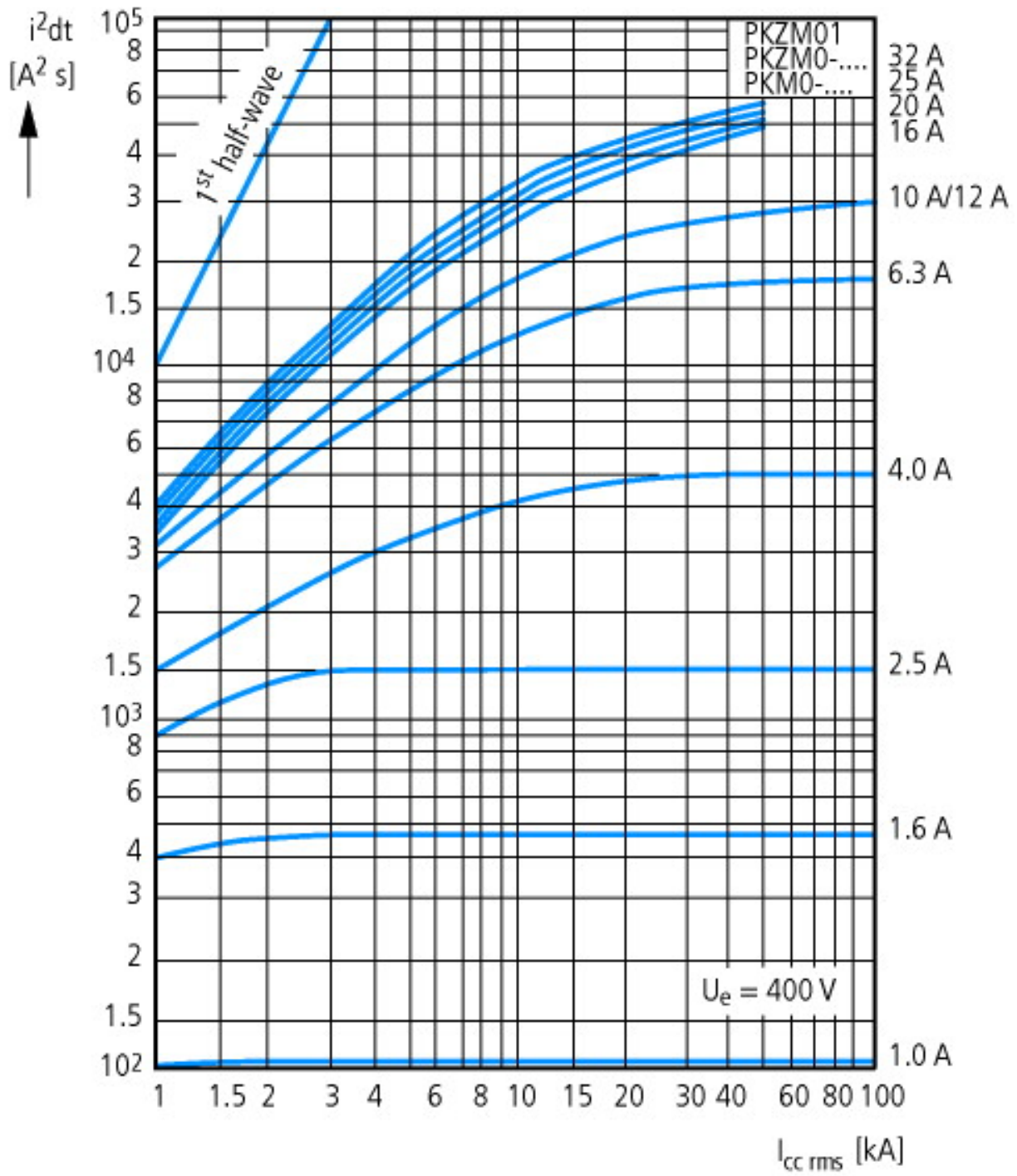
Rated operation power at AC-3, 400 V		kWh	9
With integrated auxiliary switch			No
Rated permanent current $I_u$		A	20
With integrated under voltage release			No
Number of poles			3
Degree of protection (IP)			IP20
Connection type main current circuit			Screw connection

### Characteristics



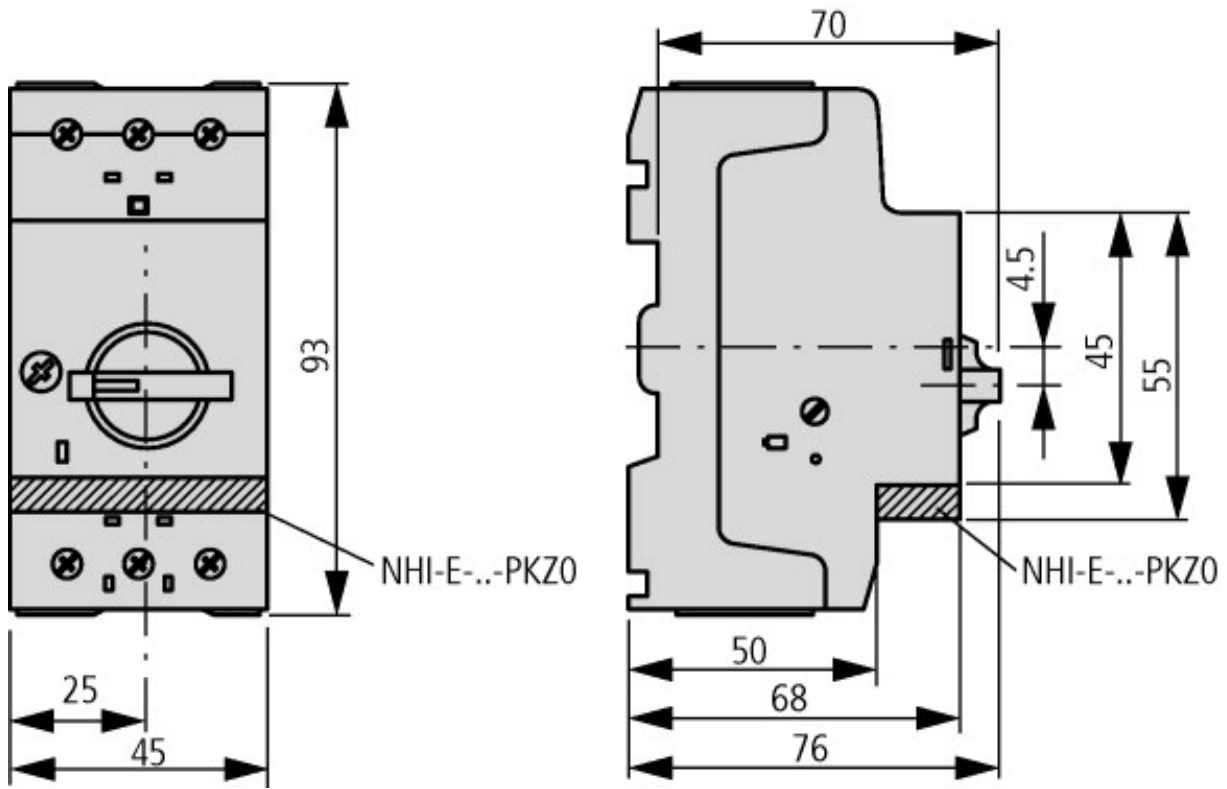
Motor-protective circuit-breaker tripping characteristic (high-capacity) compact starter, PKZM0-...T (not for PKM0-...), PKZM01



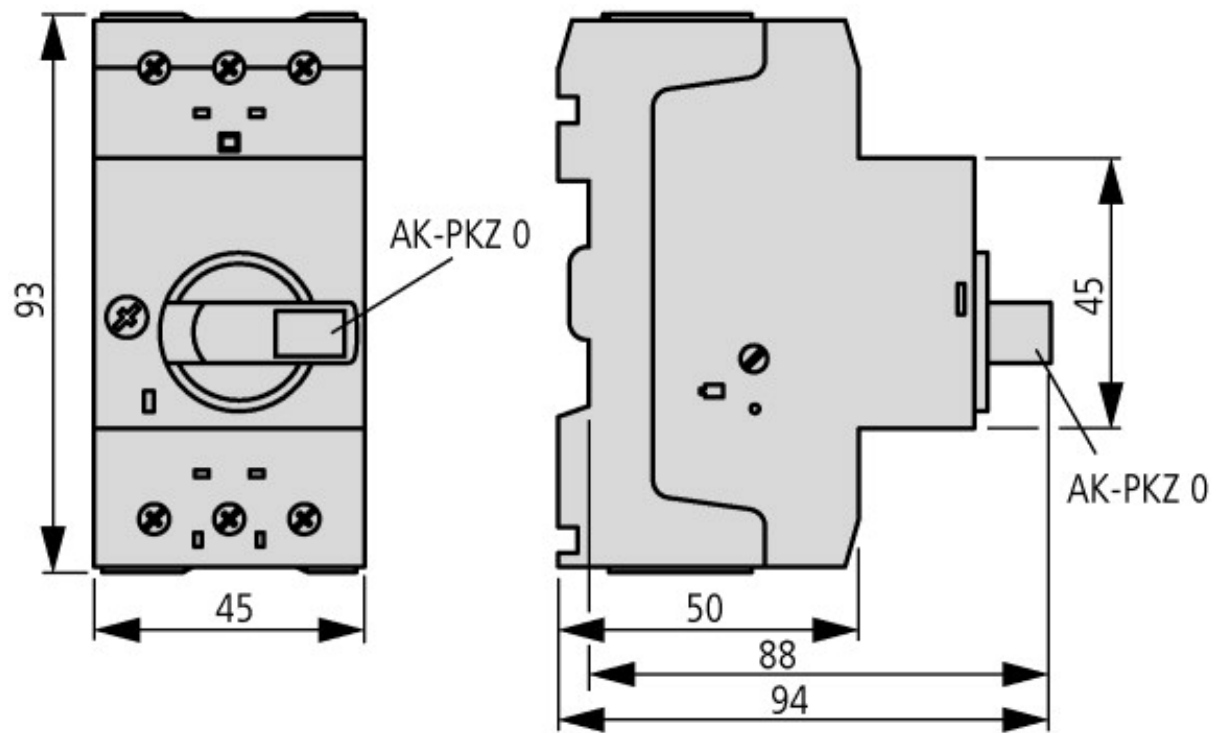


Let-through characteristics

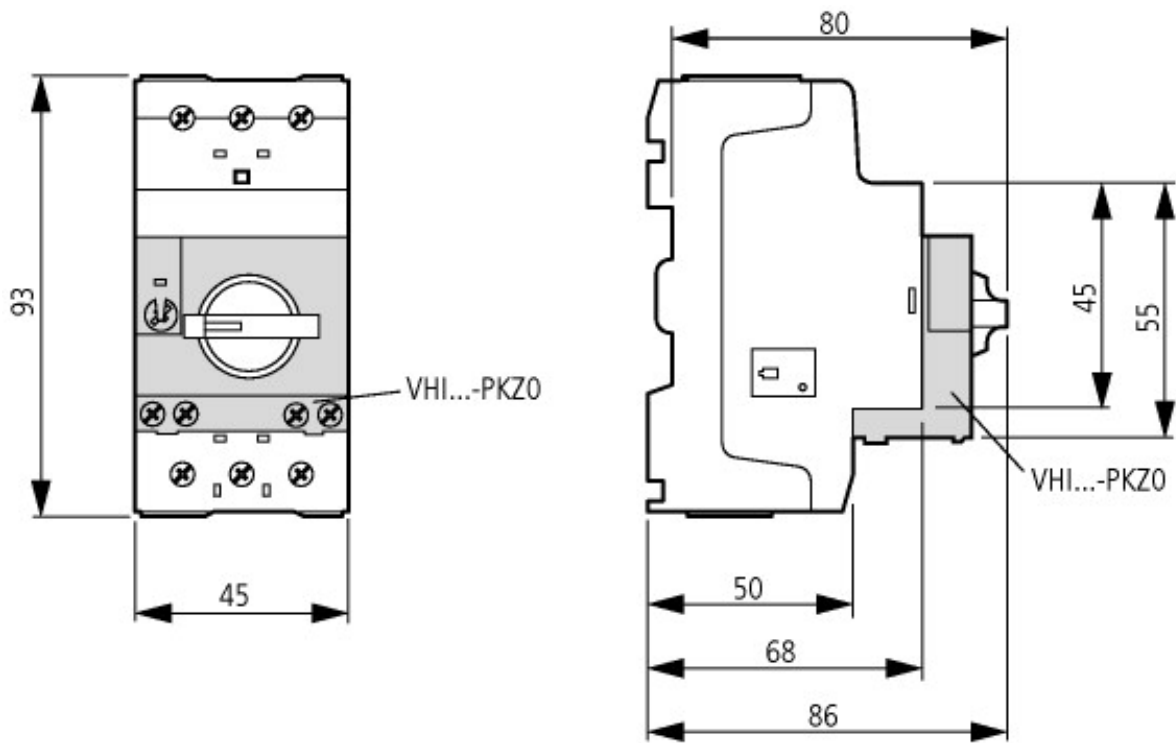
## Dimensions



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-breaker

IL03407010Z (AWA1210-2138) Motor-protective circuit-breaker

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407010Z2010\\_08.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407010Z2010_08.pdf)

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

IL03407011Z (AWA1210-1925) Motor-protective circuit-breaker

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407011Z2010\\_08.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407011Z2010_08.pdf)

#### MN03402003Z-DE/EN (AWB1210-1458) motor-protective circuit-breakers PKZM0, overload monitoring of Ex e motors

MN03402003Z-DE/EN (AWB1210-1458) motor-protective circuit-breakers PKZM0, 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

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Busbar Component Adapters for modern Industrial control panels

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