

Motor-protective circuit-breaker, 3p, Ir=10-16A, screw connection

Part no. PKZM0-16
Article no. 046938

Catalog No. XTPR016BC1NL

Delivery programme

Product range			PKZM0 motor protective circuit-breakers up to 32 A
Basic function			Motor protection
Connection technique			Screw terminals
Max. motor rating			
AC-3			
220 V 230 V 240 V	P	kW	4
380 V 400 V 415 V	P	kW	7.5
440 V	P	kW	9
500 V	P	kW	9
660 V 690 V	P	kW	12.5
Setting range			
Overload releases	I_r	A	10 - 16
Short-circuit releases			
max.	I_{rm}	A	224

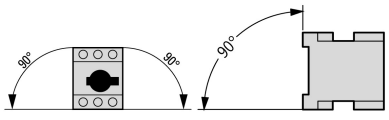
Notes
Phase failure sensitivity to IEC/EN 60947-4-1, VDE 0660 part 102.
can be snapped-on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height

PTB 10 ATEX 3013, observe Manual MN03402003Z-DE/EN

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

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	ϑ	°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^2	
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
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 10^6	0.1
Lifespan, electrical (AC-3 at 400 V)	Operations	x 10^6	0.1
Maximum operating frequency		Ops./ h	
Max. operating frequency		Ops/ h	40
Short-circuit rating			
DC			
Short-circuit rating		kA	60
Short-circuit rating			60 (up to PKZM0-16) 40 (PKZM0-20 to PKZM0-32)
Motor switching capacity		kA_{rms}	
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			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

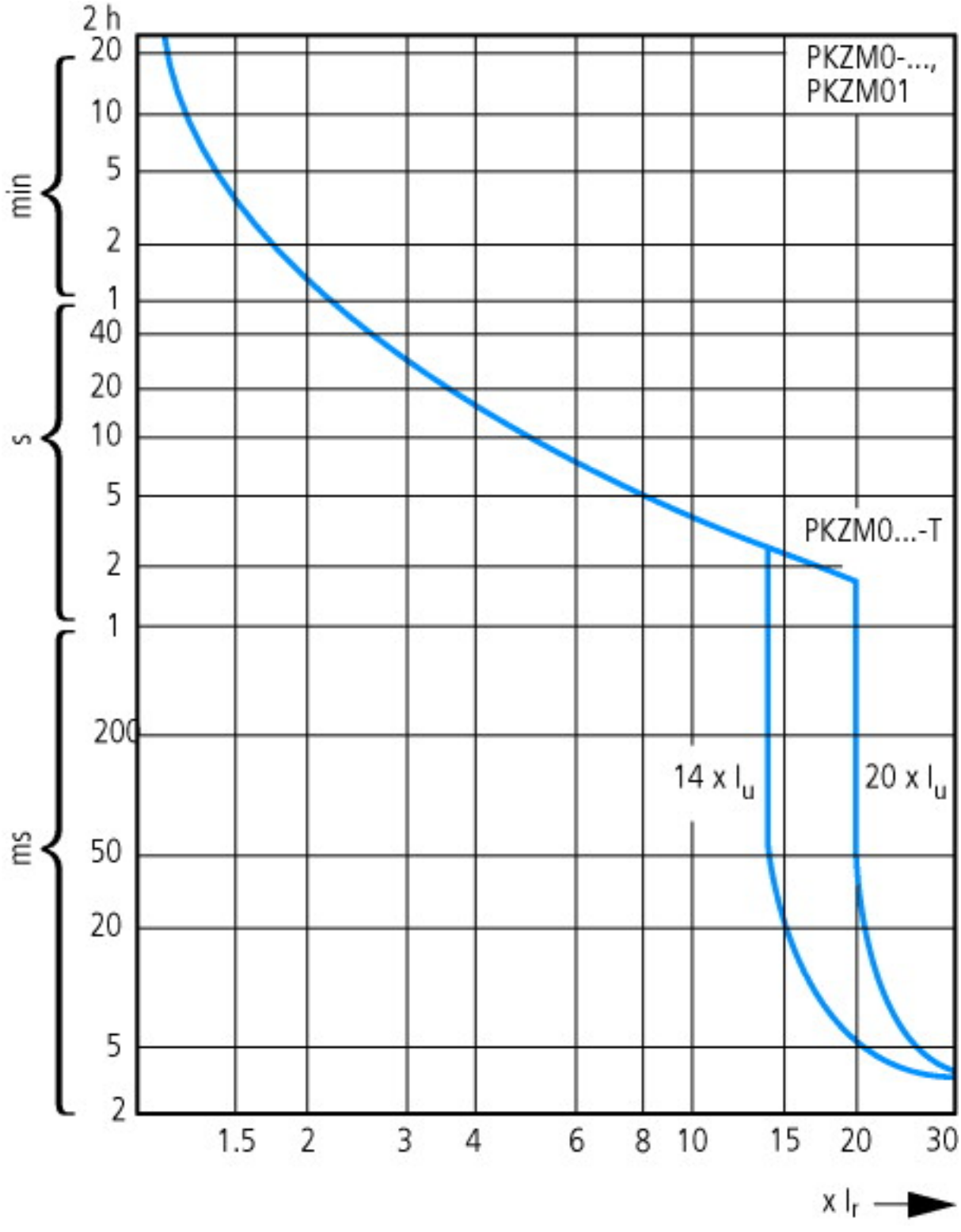
Technical data ETIM 5.0

Low-voltage industrial components (EG000017) / Motor protective circuit-breaker (EC000074)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker motor protection (ecl@ss8-27-37-04-01 [AGZ529012])			
Setting range overload protector		A	10 - 16
Adjustment range undelayed short-circuit release		A	224 - 224
Phase failure sensitive			Yes
Switch off technique			Electronic
Rated operating voltage		V	690 - 690

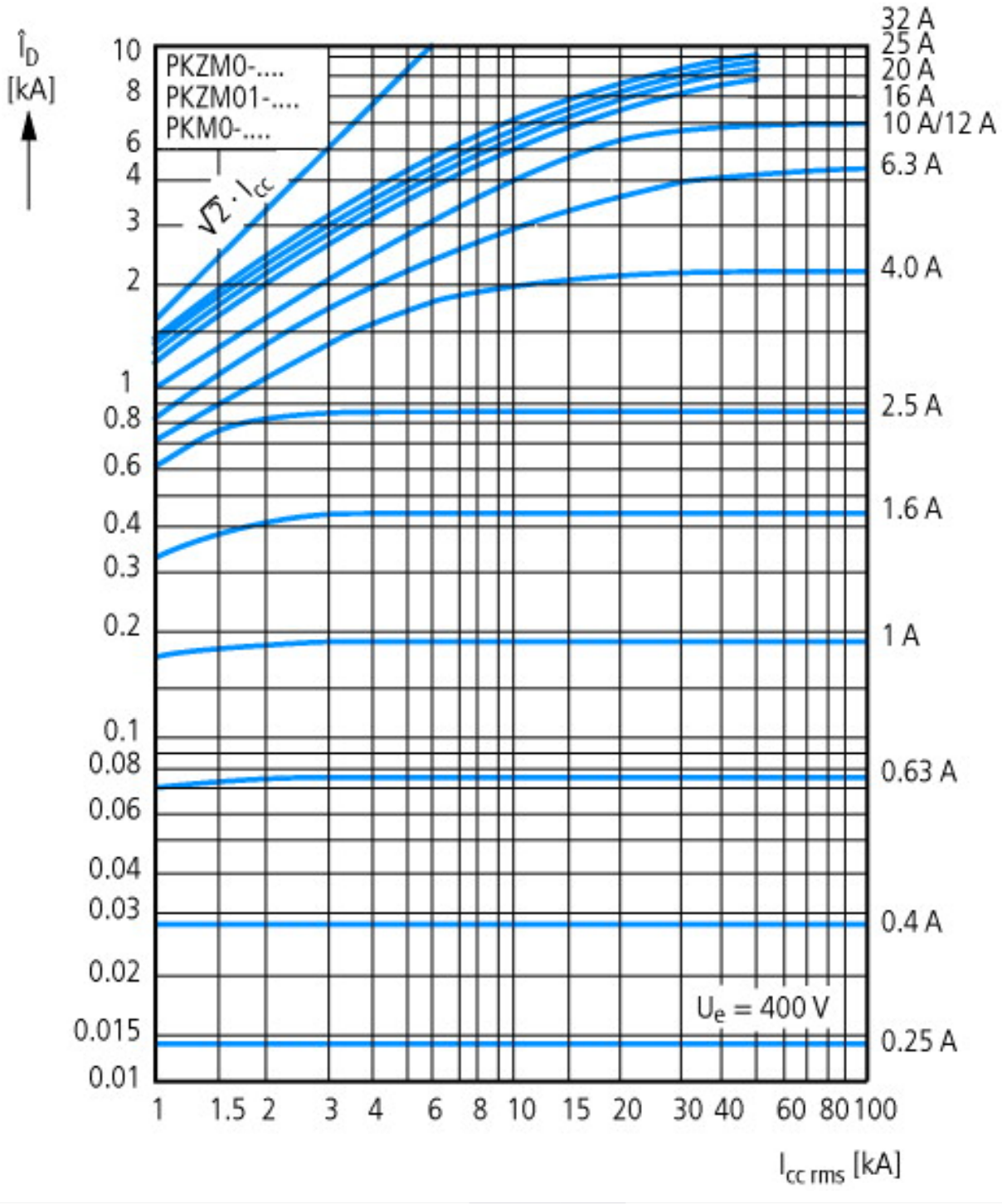
Rated permanent current Iu		A	16
Rated operation power at AC-3, 230 V		kW	4
Rated operation power at AC-3, 400 V		kW	7.5
Connection type main current circuit			Screw connection
Device construction			Built-in device fixed built-in technique
With integrated auxiliary switch			No
With integrated under voltage release			No
Number of poles			3
Rated short-circuit breaking capacity Icu at 400 V, AC		kA	50
Degree of protection (IP)			IP20

Characteristics

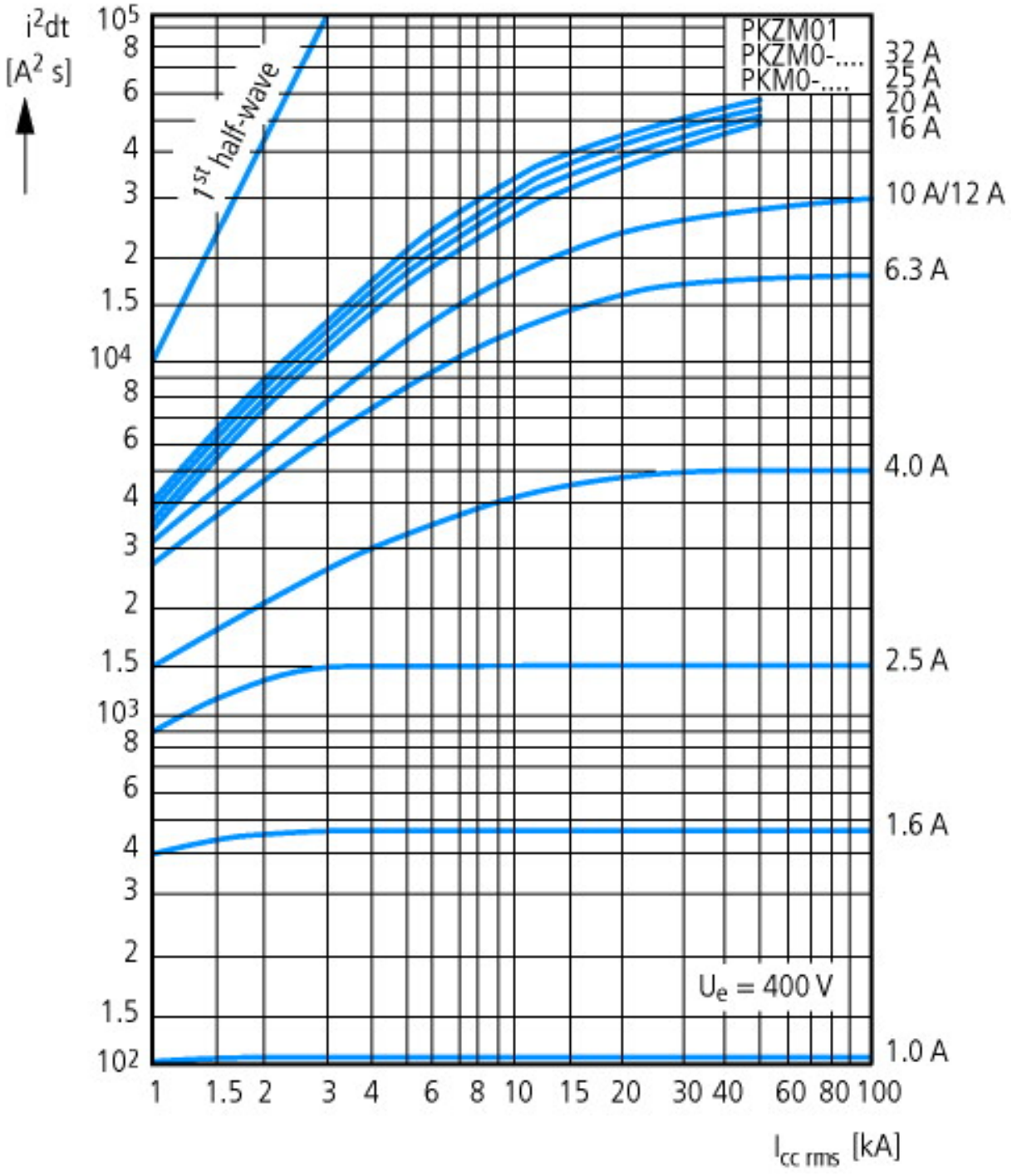
Characteristic curves



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

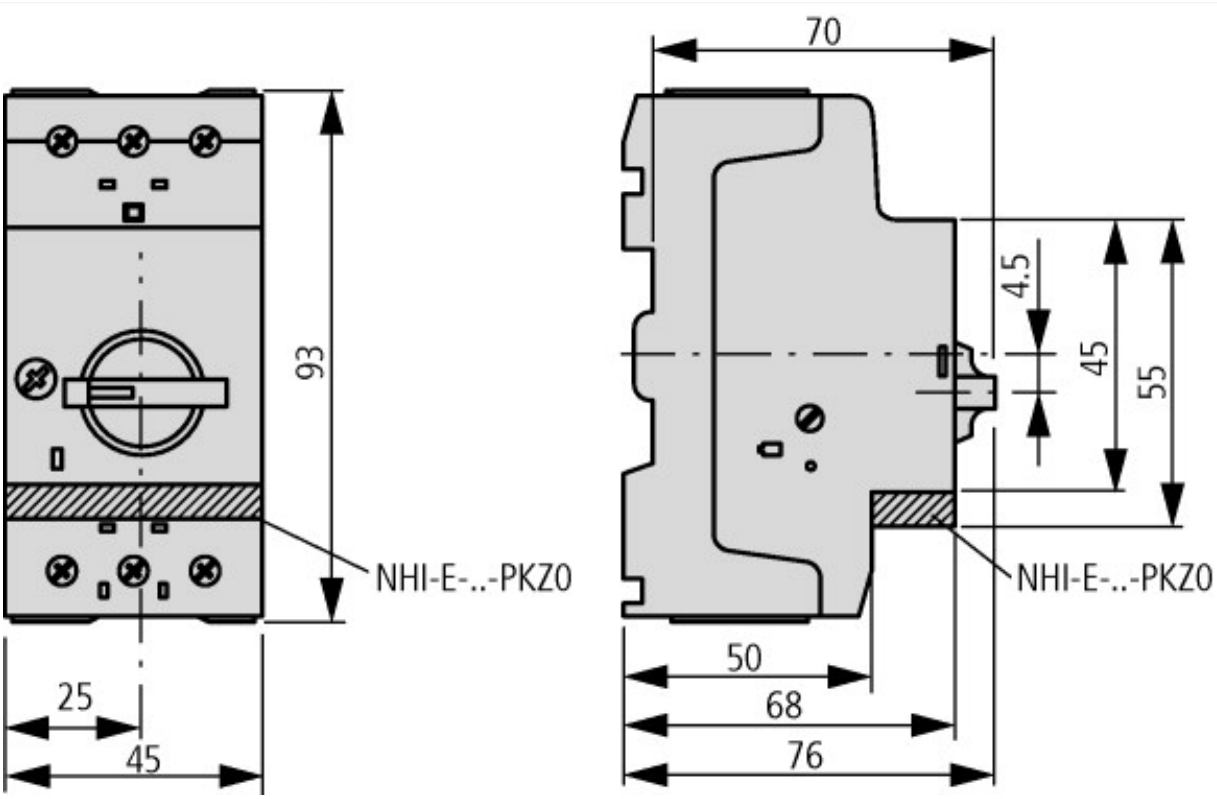


Let-through current

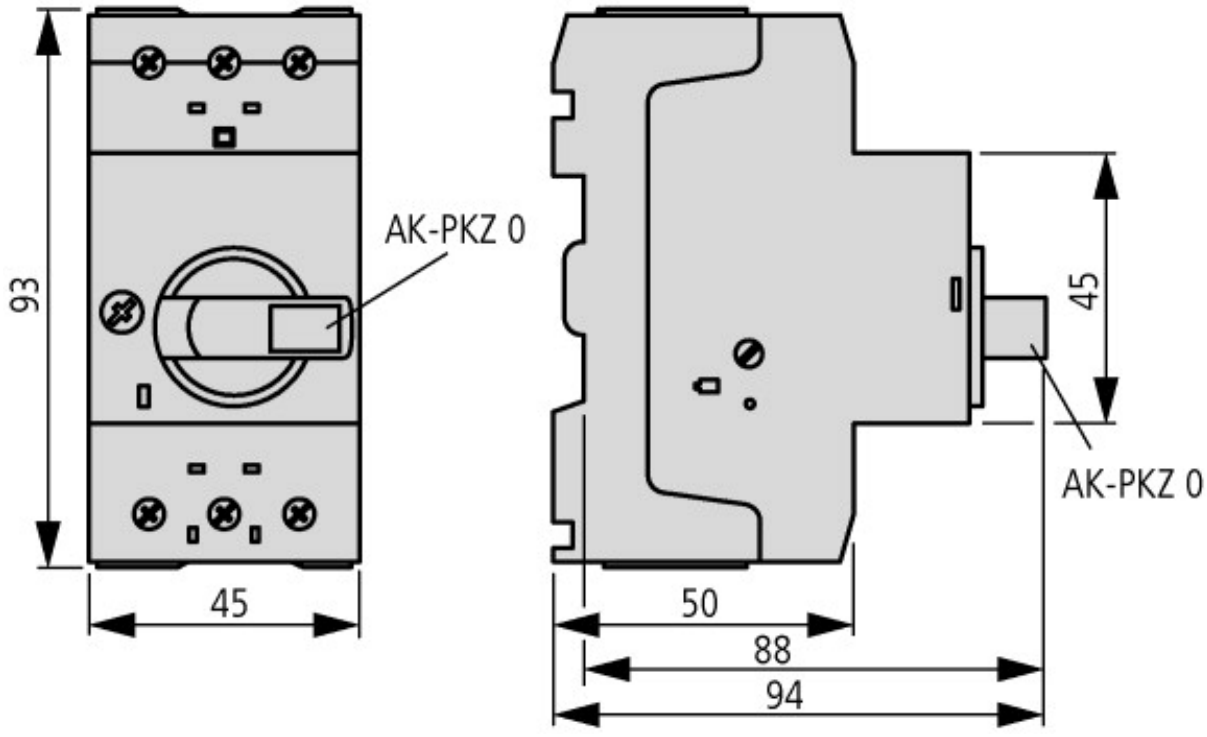


Let-through energy

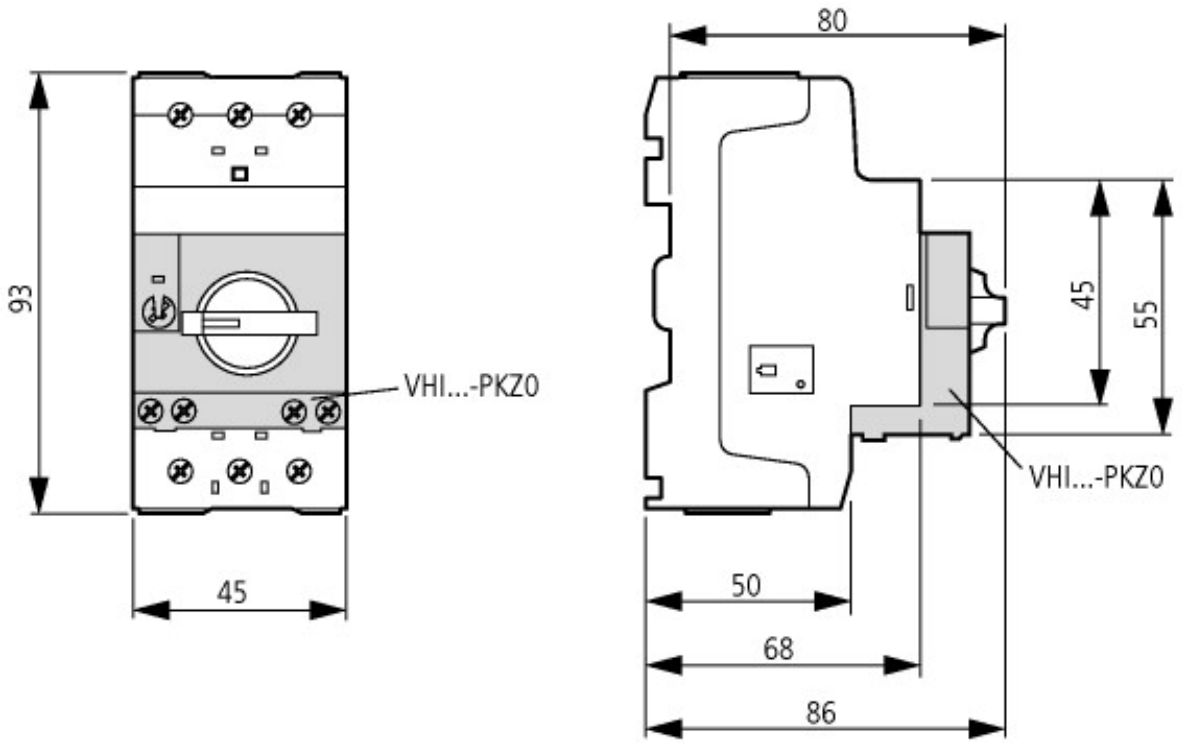
Dimensions



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-breaker	
IL03407010Z (AWA1210-2138) Motor-protective circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407010Z2014_02.pdf
IL03407011Z (AWA1210-1925) Motor-protective circuit-breaker	
IL03407011Z (AWA1210-1925) Motor-protective circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407011Z2014_02.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
Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf

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