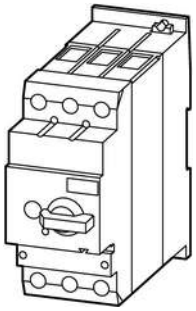


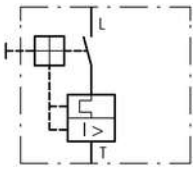
PKZM4 motor-protective circuit-breaker

Part no. PKZM4-40

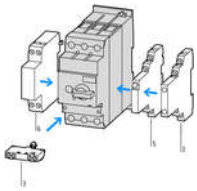
Article no. 222354

Program



Product range			PKZM4 motor protective circuit-breakers up to 65 A
Basic function			Motor protection
Connection technique			Screw terminals
Contact sequence			
220 - 240 V			
AC-3			
220 V 230 V 240 V	P	kW	11
380 V 400 V 415 V	P	kW	20
440 V	P	kW	22
500 V	P	kW	24
660 V 690 V	P	kW	30
Rated uninterrupted current	I_u	A	40
Setting range			
Overload releases	I_r	A	32 - 40
Short-circuit releases			
max.	I_{rm}	A	560

Notes



Accessories	**Page**
3 Standard auxiliary contact	→ 072896
5 Trip-indicating auxiliary contact	→ 072898
6 Shunt release, undervoltage release	→ 073187

Phase failure sensitivity to IEC/EN 60947-4-1, VDE 0660 part 102
Can be snap-fitted to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height → 266165

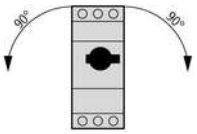
PTB 10 ATEX 3012, see manual

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			UL 508 (on request) CSA C 22.2 No. 14 (on request)
Climatic proofing			Damp heat, constant to IEC 60068-2-78 Damp heat, cyclic to IEC 60068-2-30
Ambient temperature		°C	
Storage		°C	-20 - +80
Open		°C	-20 - +55
Enclosed		°C	-20 - +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	15
Altitude		m	2000
Terminal capacities		mm^2	
Solid		mm^2	1 x (1 - 50) 2 x (1 - 35)
Flexible with ferrule		mm^2	1 x (1 - 35) 2 x (1 - 35)
Solid or stranded		AWG	14 - 2
Specified tightening torque for terminal screws			
Main cable		Nm	3.3
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	65 open 63 enclosed
Rated frequency	f	Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	22
Lifespan, mechanical	Operations	x 10^6	0.03
Lifespan, electrical	Operations		30000
Maximum operating frequency		Ops./ h	
Max. operating frequency		Ops/ h	40
Motor switching capacity		kA_{rms}	
AC--3		V	Max. 400, for higher voltages, please enquire
DC - 5		V	250/60 kA
DC-5 (up to 250 V)		A	63 (3 contacts in series)

Trip blocks

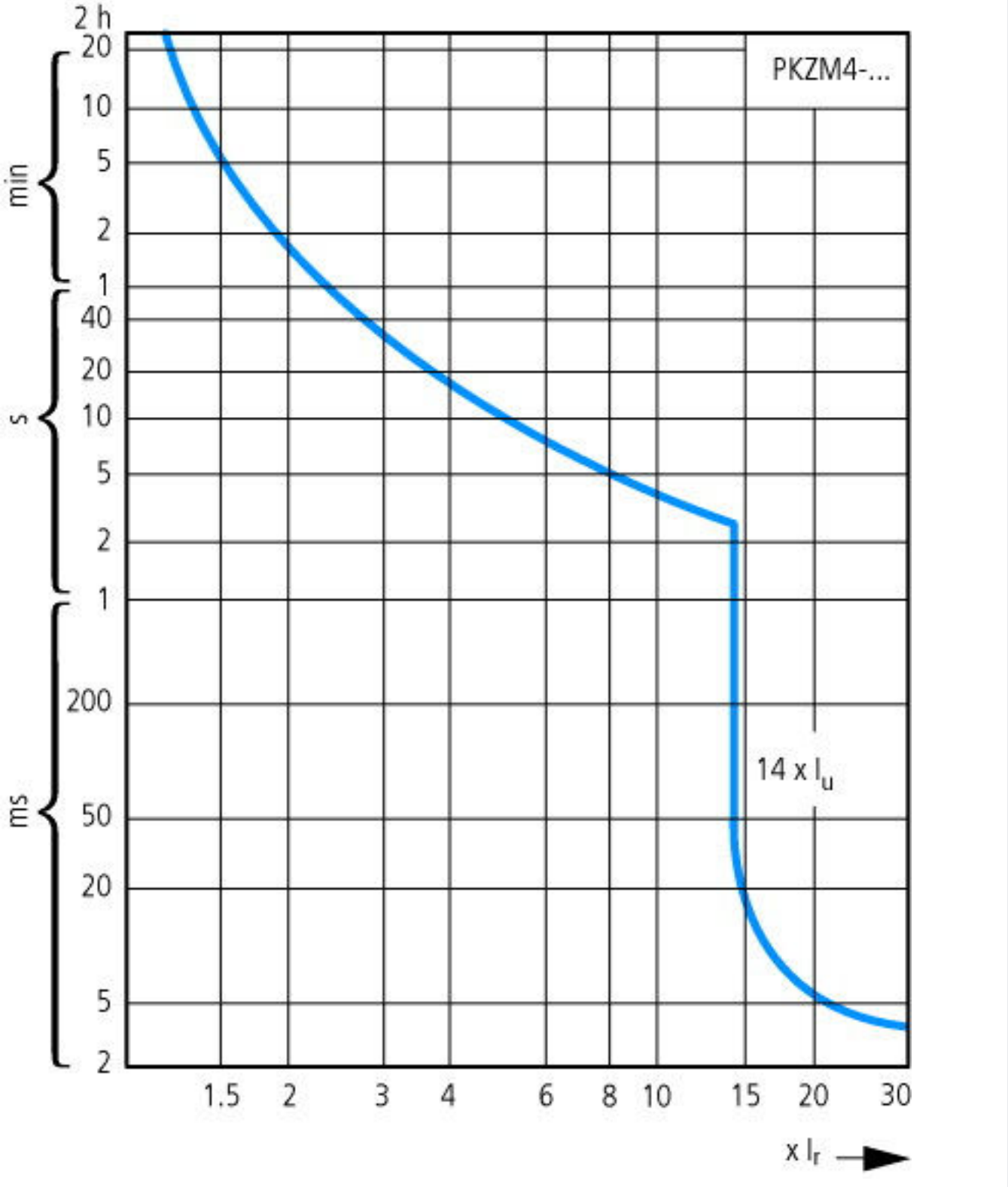
Temperature compensation		°C	-5 – 40 (to IEC/EN 60947, VDE 0660) -25 – 55 (operating range)

Temperature compensation residual error for T > 40°			0.25%/K
Setting range of overload releases			0.6 - 1 x I_u
Fixed short-circuit release			Basic device 14 x I_u
Short-circuit release tolerance			± 20%
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

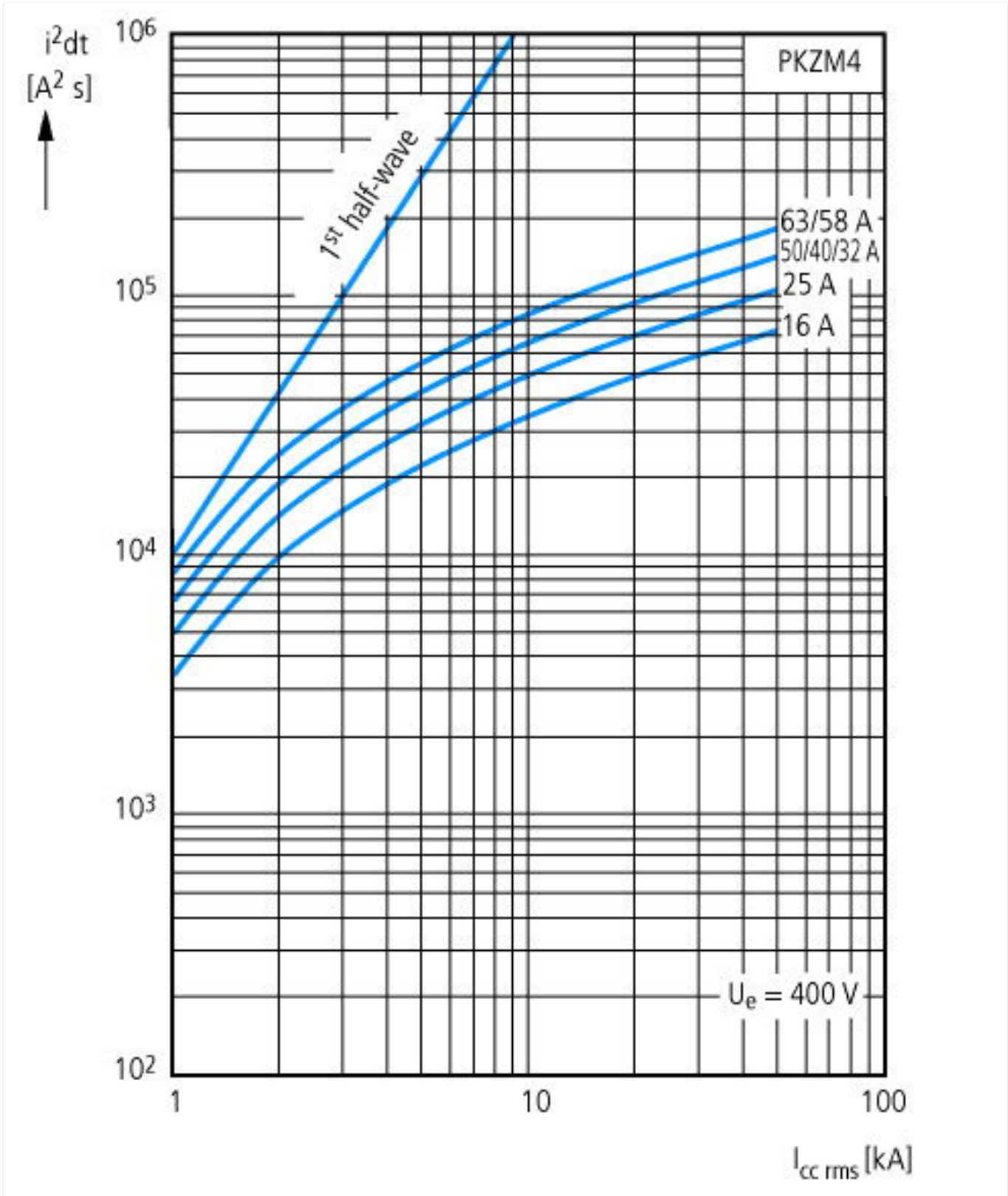
Technical data according to ETIM 4.0

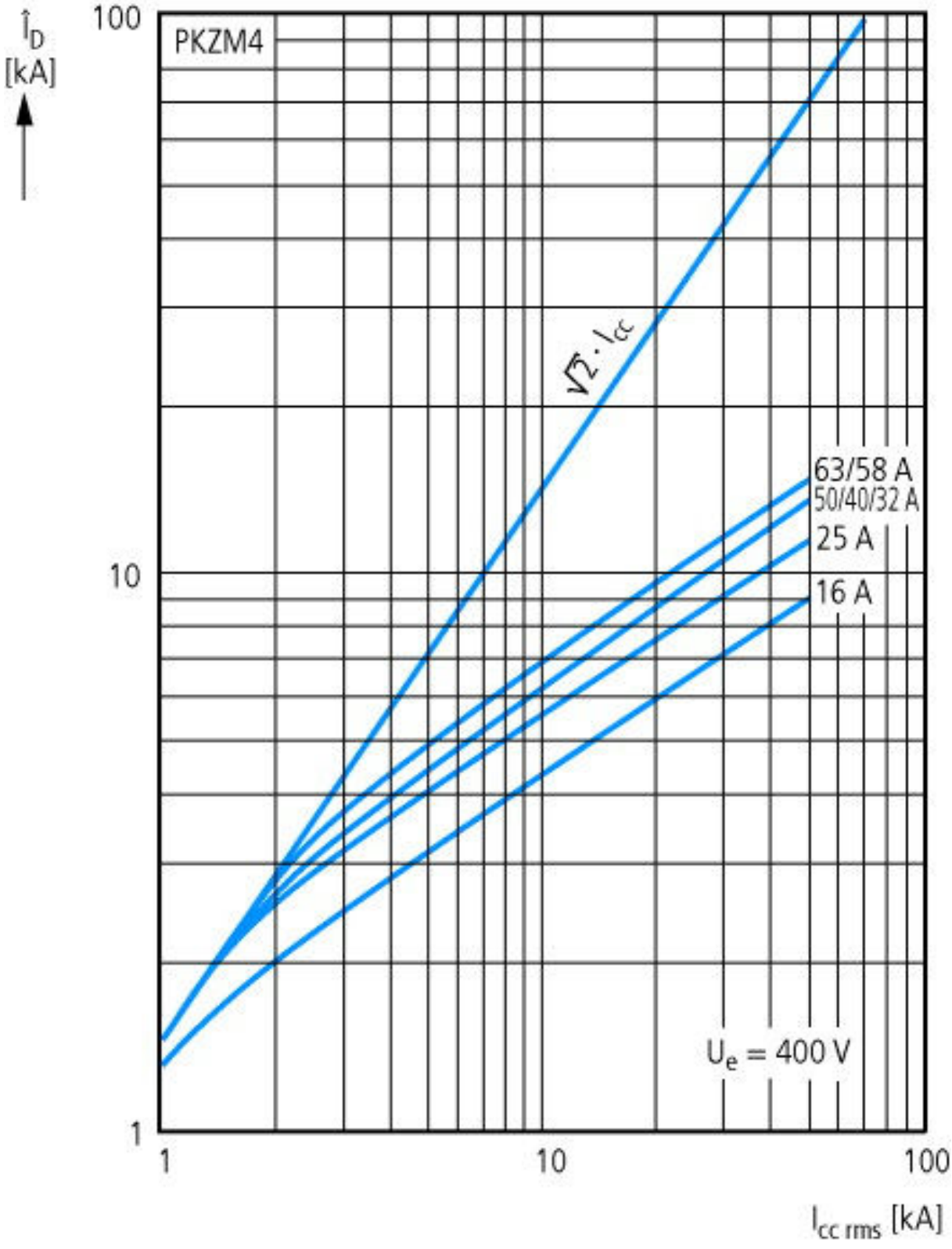
Rated operation power at AC-3, 400 V		kWh	20
With integrated auxiliary switch			No
Rated permanent current Iu		A	40
With integrated under voltage release			No
Number of poles			3
Degree of protection (IP)			IP20
Connection type main current circuit			Screw connection

Characteristics



Tripping characteristics


i²dt
[A² s]
10⁶
10⁵
10⁴
10³
10²
PKZM4
1st half-wave
63/58 A
50/40/32 A
25 A
16 A
Ue = 400 V
1
10
100
Icc rms [kA]

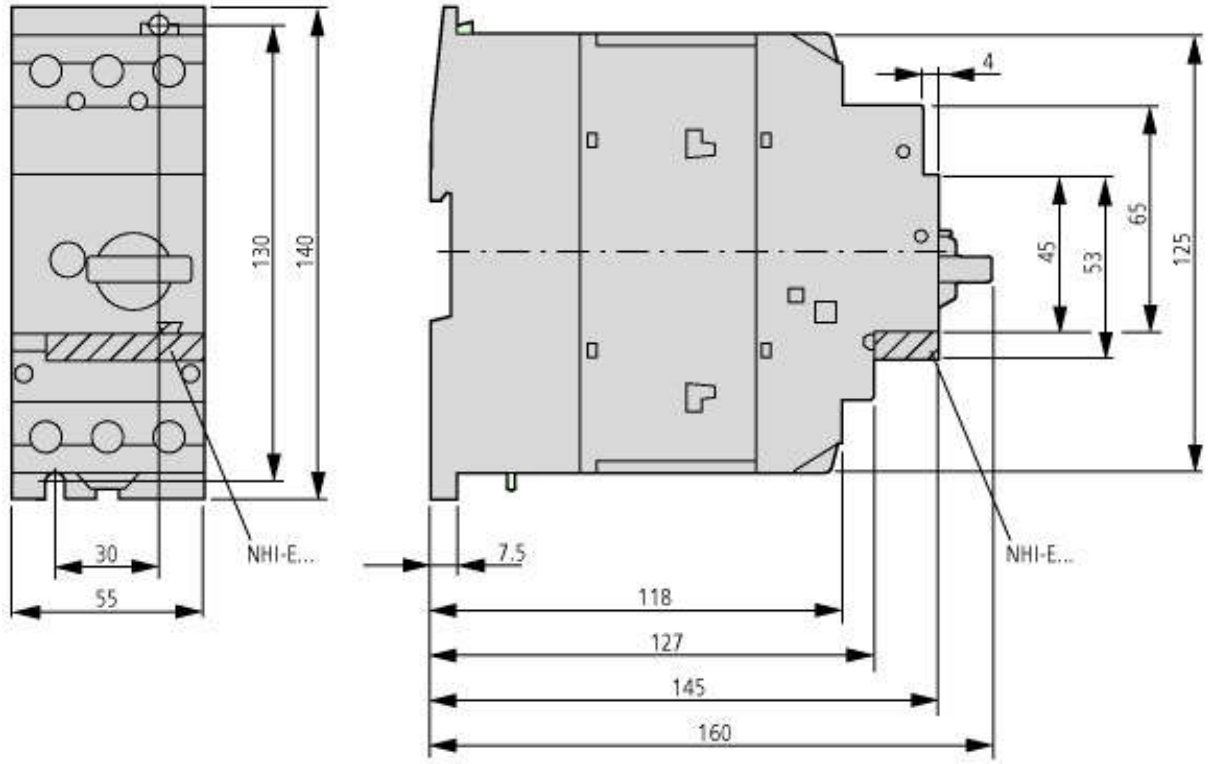


Let-through characteristics

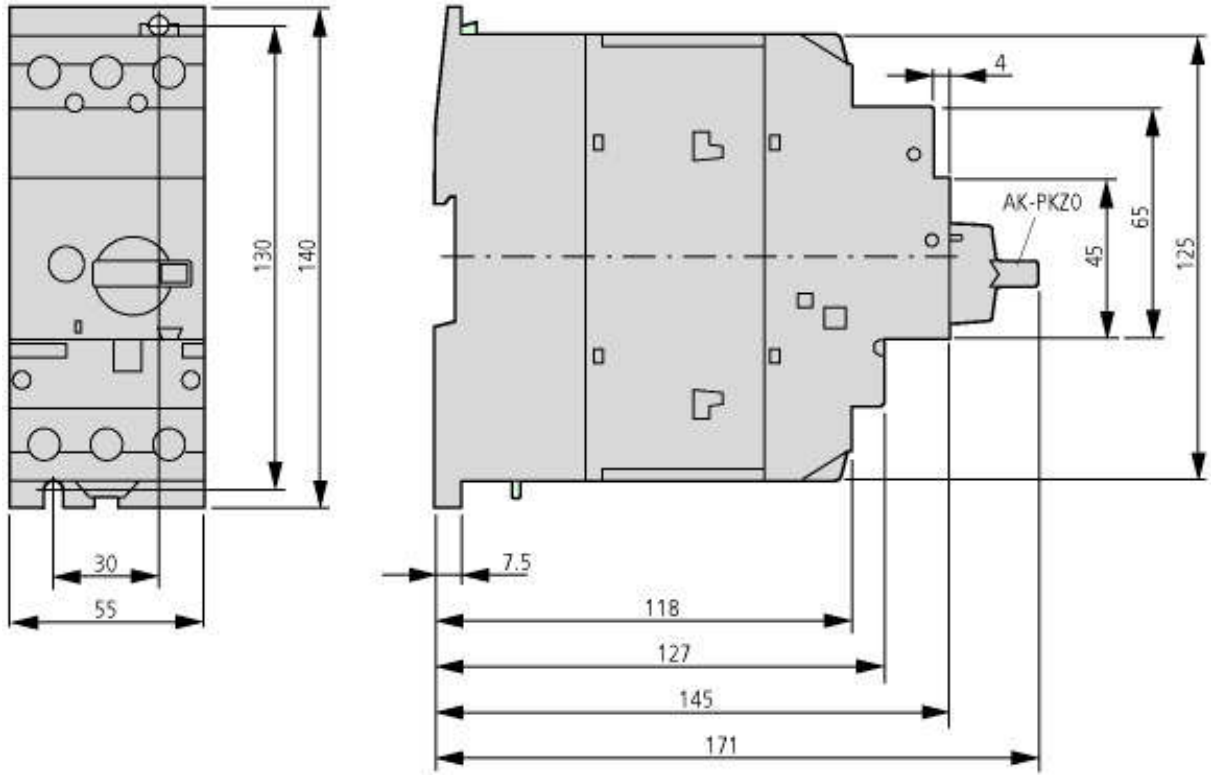
CAD-Data

Product standards CAD data: http://eaton-moeller.partcommunity.com

Dimensions



Motor-protective circuit-breakers with lockable cover



PKZM4-… +AK-PKZ0

Additional product information (links)

IL03407012Z (IL03407012Z) Motor-protective circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407012Z2010_08.pdf
MN03402002Z-DE/EN (AWB1210-1457) PKZM4 motor-protective circuit-breakers, overload monitoring of Ex e motors - Deutsch / English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03402002Z_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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