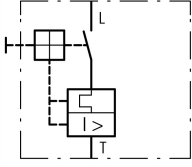






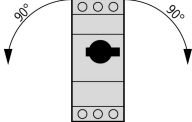
Circuit-breaker, 3p, I_r=16-25A, NA type

Part no. **PKZM4-25-CB**
 Article no. **132592**
 Catalog No. **XTPR025DCBNL**

Delivery program

Product range			PKZM4 motor protective circuit-breakers up to 65 A PKZM4 circuit-breakers up to 32 A according to 489
Basic function			Line and cable protection
Function			For protection of cables and conductors
Connection technique			Screw terminals
Contact sequence			
Setting range			
Overload releases	I _r	A	16 - 25
			
Short-circuit releases			
			
max.	I _{rm}	A	350
Notes			Not usable as a main switch

Technical data

General			
Standards			IEC/EN 60947-4-1, VDE 0660, UL 489, CSA C 22.2 No. 5-09
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Storage	θ	°C	-40 - +80
Open		°C	-20 - +55
Enclosed		°C	-20 - +40
Mounting position			
Direction of incoming supply			as required
Degree of protection			
Device			IP20
Terminations			IP2X
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 (0.75 - 16) 2 x (0.75 - 16)
Flexible with ferrule		mm ²	1 x (0.75 - 16) 2 x (0.75 - 16)
Solid or stranded		AWG	14 - 6

Flexible with ferrules		AWG	14 – 8
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 uninterrupted current = rated operational current	$I_u = I_e$	A	25
Rated frequency	f	Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	6
Lifespan, mechanical	Operations	$\times 10^6$	0.03
Lifespan, electrical	Operations		30000
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	40
Switching capacity (UL489, CSA 22.2 No. 5.09)			
SCCR 480Y/277 V 60 Hz	I_{cu}	kA	65
SCCR 600Y/347 V 60 Hz	I_{cu}	kA	22
Motor switching capacity		kA_{rms}	
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 $T > 40^\circ$			$\leq 0.25\%/K$
Setting range of overload releases			$0.6 - 1 \times I_u$
short-circuit release			Basic device, fixed: $14 \times I_u$
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

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	25
Heat dissipation per pole, current-dependent	P_{vid}	W	4.9
Equipment heat dissipation, current-dependent	P_{vid}	W	14.7
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			
			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			
			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			
			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			
			Meets the product standard's requirements.
10.2.5 Lifting			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			
			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			
			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			
			Meets the product standard's requirements.
10.5 Protection against electric shock			
			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			
			Does not apply, since the entire switchgear needs to be evaluated.

10.7 Internal electrical circuits and connections		Is the panel builder's responsibility.
10.8 Connections for external conductors		Is the panel builder's responsibility.
10.9 Insulation properties		
10.9.2 Power-frequency electric strength		Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage		Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material		Is the panel builder's responsibility.
10.10 Temperature rise		The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

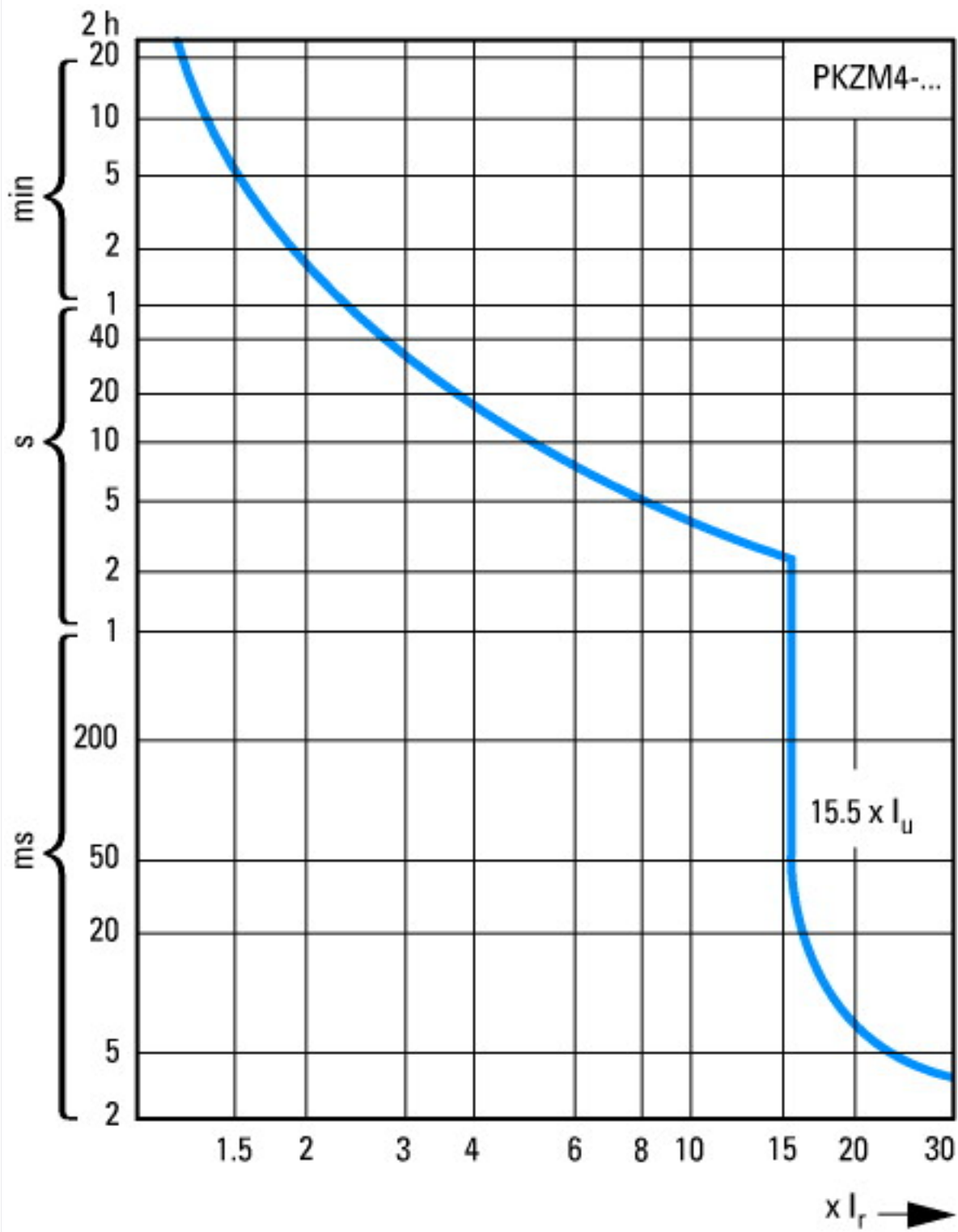
Technical data ETIM 6.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation prot. (EC000228)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss8.1-27-37-04-09 [AJZ716010])		
Rated permanent current I _u	A	25
Rated voltage	V	600 - 600
Rated short-circuit breaking capacity I _{cu} at 400 V, 50 Hz	kA	65
Overload release current setting	A	0 - 25
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	0 - 350
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Device construction		Built-in device fixed built-in technique
Suitable for DIN rail (top hat rail) mounting		Yes
DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
Switched-off indicator available		No
With under voltage release		No
Number of poles		3
Position of connection for main current circuit		-
Type of control element		Turn button
Complete device with protection unit		Yes
Motor drive integrated		No
Motor drive optional		No
Degree of protection (IP)		IP20

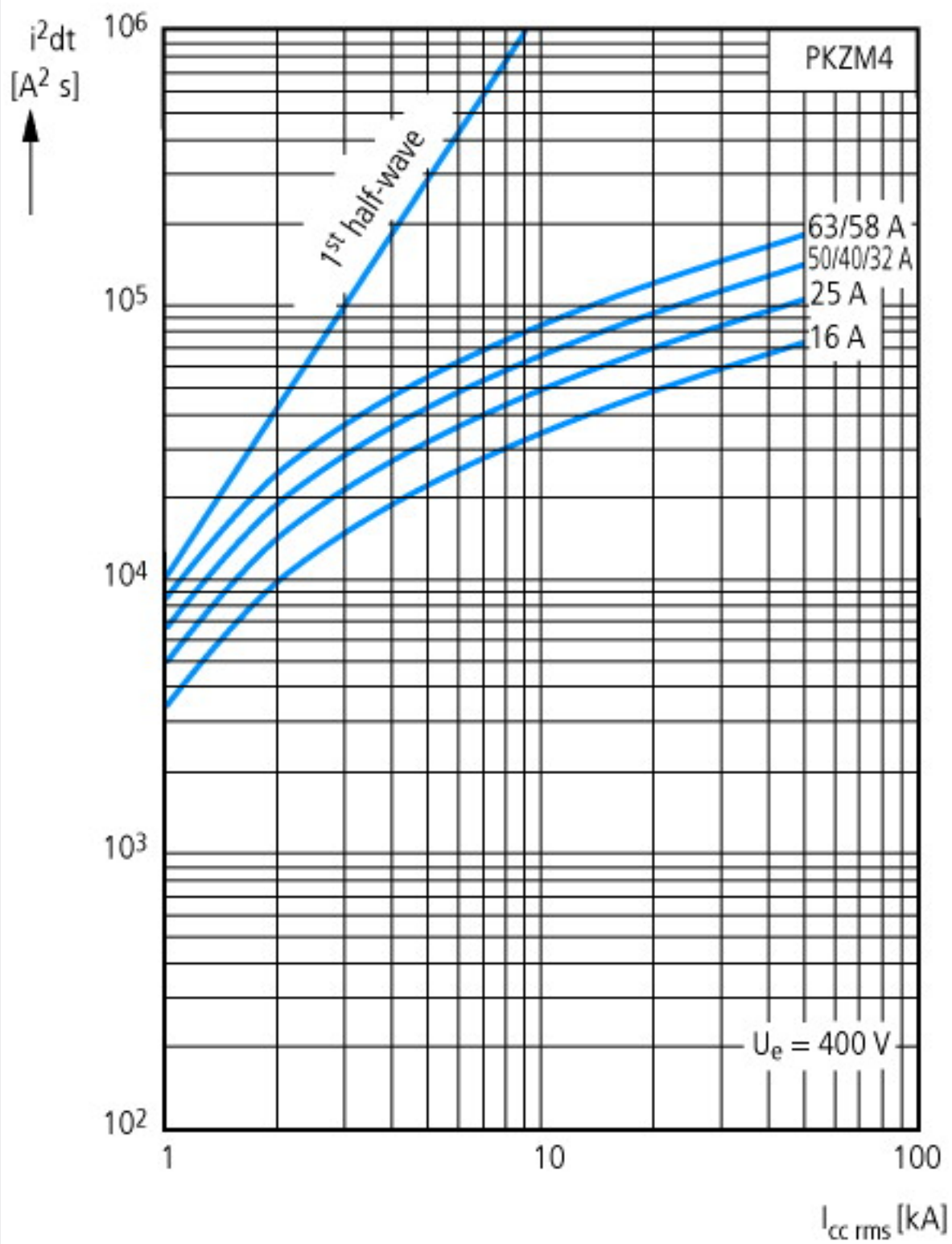
Approvals

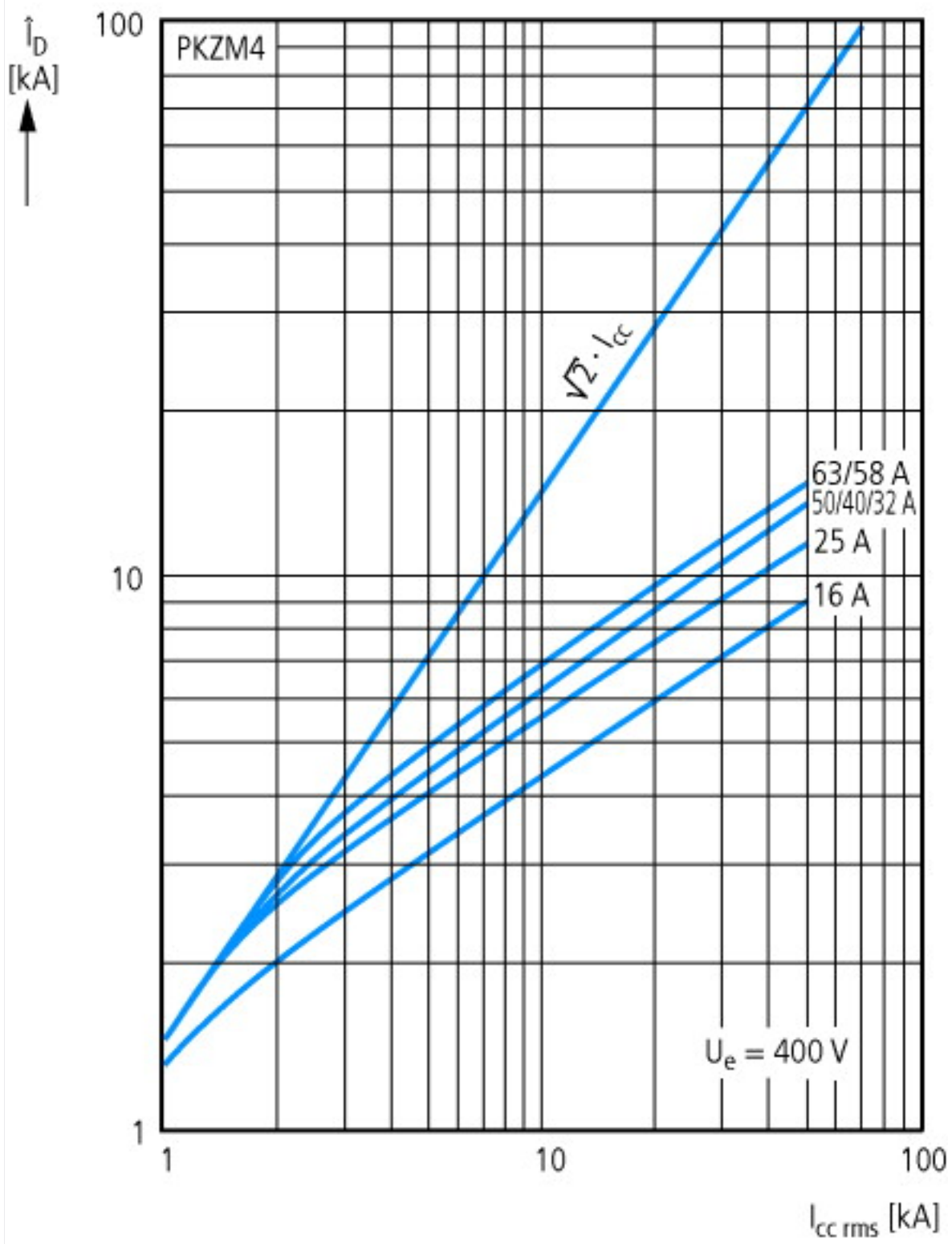
Product Standards		UL 489; CSA-C22.2 no. 5-09; IEC60947-4-1; CE marking
North America Certification		UL listed, CSA certified
Specially designed for North America		Yes
Suitable for		Feeder and branch circuit as BCPD

Characteristics



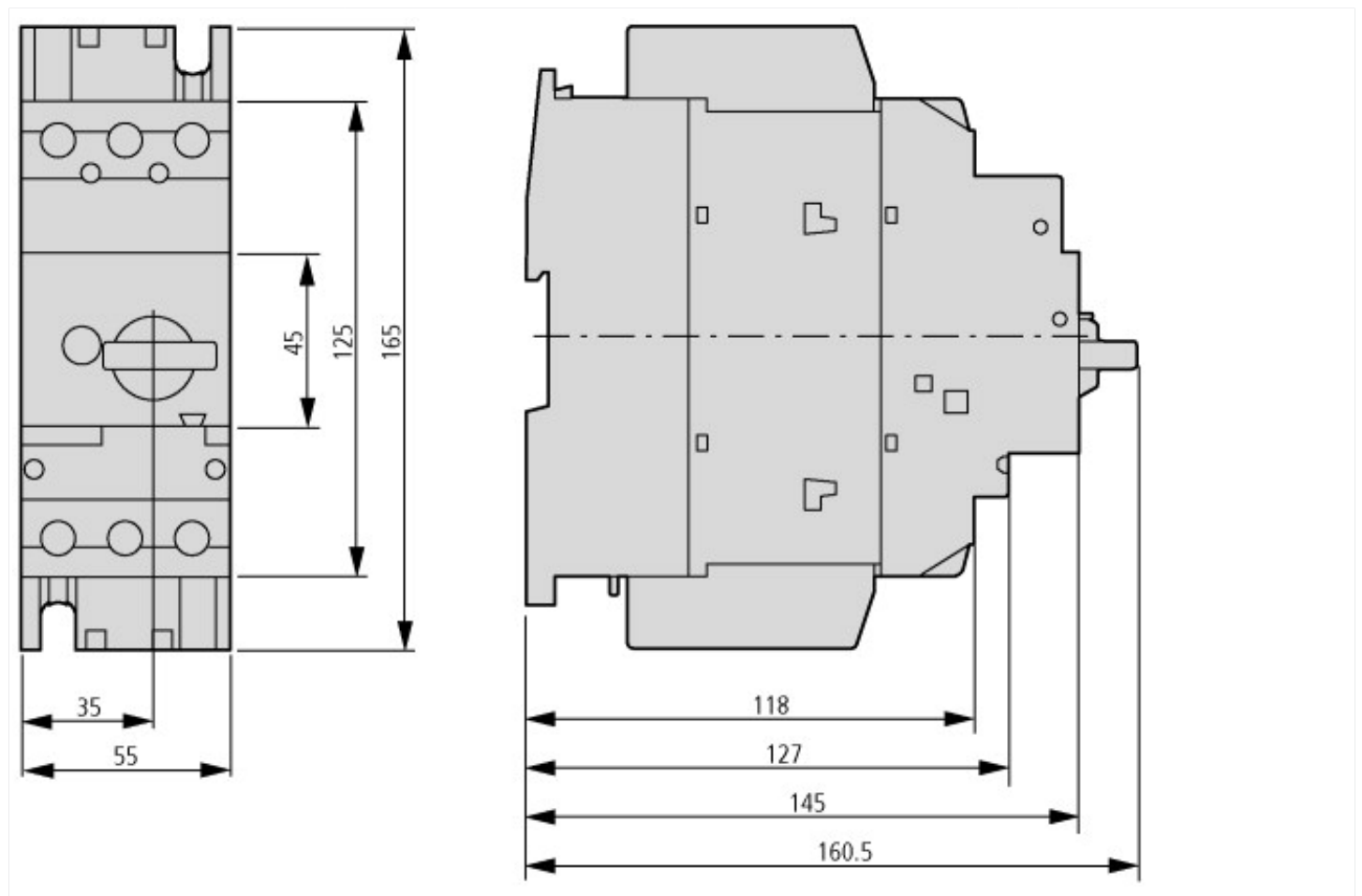
Tripping characteristics





Let-through characteristics

Dimensions



Additional product information (links)

IL03407012Z (AWA1210-1859) Motor-protective circuit-breaker

IL03407012Z (AWA1210-1859) Motor-protective circuit-breaker ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407012Z2014_02.pdf

MN03402002Z (AWB1210-1457) PKZM4 motor-protective circuit-breakers, overload monitoring of Ex e motors

MN03402002Z (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