

Trip block, 1-4A, standard, motor protection

Part no. PKE-XTU-4
Article no. 121724
Catalog No. XTPEXT004B

Delivery program

Product range				Accessories
Accessories				Trip blocks
Basic function				Motor protection Motor protection for heavy starting duty
Notes				Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Setting range				
Overload releases				
Setting range of overload releases	I_r	A		1 - 4
Overload release, min.	I_r	A		1
Overload release, max.	I_r	A		4
Function				With overload release
Rated uninterrupted current = rated operational current	$I_u = I_e$	A		4
Motor rating				
AC-3				
220 V 230 V	P	kW		0.75
380 V 400 V	P	kW		1.5
440 V	P	kW		1.5
500 V	P	kW		2.2
660 V 690 V	P	kW		3
For use with				PKE12 basic device PKE32 basic device
Connection to SmartWire-DT				No
Motor output/rated motor current				
Motor rating	Rated motor current			
	AC-3			
	220 V	380 V	440 V	500 V
	230 V	400 V		660 V
	240 V	415 V		690 V
P	I	I	I	I
kW	A	A	A	A
0.18	1.04	-	-	-
0.25	1.4	-	-	-
0.37	2	1.1	1.02	-
0.55	2.7	1.5	1.39	1.2
0.75	3.2	1.9	1.68	1.5
1.1	-	2.6	2.41	2.1
1.5	-	3.6	3.28	2.9
2.2	-	-	-	4
3	-	-	-	-
				3.8

Technical data

General				
Standards				IEC/EN 60947, VDE 0660, UL 508, CSA C 22.2 No. 14
Climatic proofing				Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature				
Storage	9	°C		-40 - +80

Open	°C	-20 - +55
Enclosed	°C	-20 - +40
Direction of incoming supply		as required
Degree of protection		
Device		IP20
Terminations		IP00
Busbar tag shroud to EN 50274		Finger- and back-of-hand proof
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27	g	25
Altitude	m	Max. 2000

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	4
Rated frequency	f	Hz	40 - 60
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	60
Motor switching capacity		kA_{rms}	
AC-3 (up to 690 V)	A		4

Trip blocks

Temperature compensation	°C	-5 - +40 (to IEC/EN 60947, VDE 0660) -25 - +55 (operating range)
Temperature compensation residual error for $T > 40$ °C		±55 (Arbeitsbereich)
Setting range of overload releases		$0.25 - 1 \times I_u$
short-circuit release		Trip block, fixed: $15.5 \times I_r$ delayed approx. 60 ms
Short-circuit release tolerance		± 20%
Phase-failure sensitivity		yes

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	4
Heat dissipation per pole, current-dependent	P_{vid}	W	0.2
Equipment heat dissipation, current-dependent	P_{vid}	W	0.6
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.

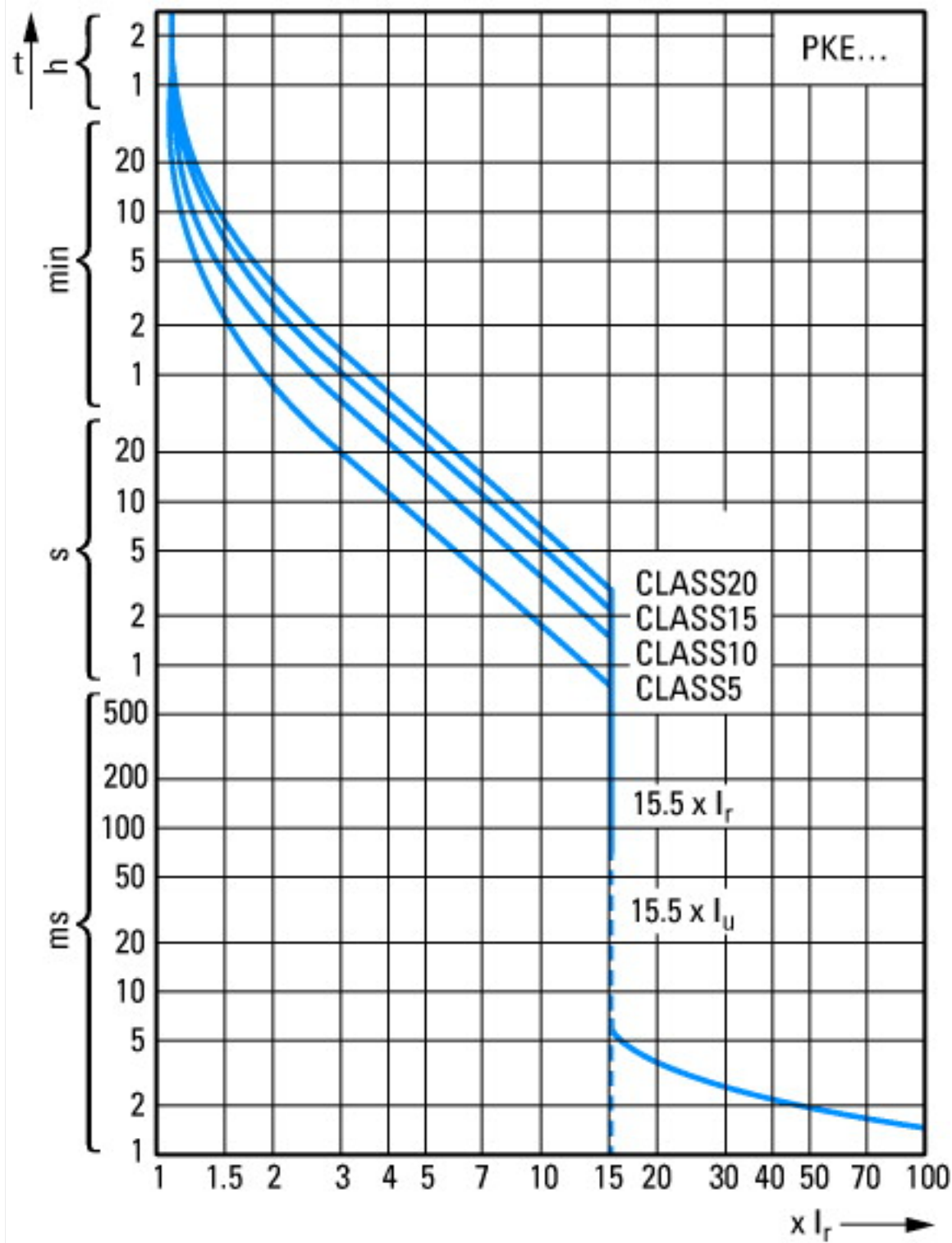
Technical data ETIM 6.0

Low-voltage industrial components (EG000017) / Tripping bloc for power circuit-breaker (EC000617)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Releasing block for circuit breakers (ec1@ss8.1-27-37-04-10 [AKF008010])			
Overload release current setting		A	1 - 4
Initial value of the undelayed short-circuit release - setting range		A	15.5
End value adjustment range undelayed short-circuit release		A	62
Rated permanent current I _u		A	4
Number of poles			3
Short-circuit release function			Delayed

Approvals

Product Standards			UL 508; CSA-C22.2 No. 14-10; 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

Characteristics



Tripping characteristics

Additional product information (links)

MN03402004Z PKE12, PKE32 and PKE65 motor-protective circuit-breakers; overload monitoring of Ex e motors

MN03402004Z PKE12, PKE32 and PKE65 motor-protective circuit-breakers; overload monitoring of Ex e motors - Deutsch / English

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03402004Z_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