## **DATASHEET - PKE32/XTUCP-36**



System-protective circuit-breaker, Complete device with standard knob, 15 - 36 A, 36 A, With overload release



Part no. PKE32/XTUCP-36 Catalog No. 168972

Alternate Catalog XTPE036BDCSNL

No.

**EL-Nummer** 4315144

(Norway)

#### **Delivery program**

Product range			Circuit-breaker PKE up to 36 A
Basic function			System protection Line and cable protection
Single unit/Complete unit			Complete device with standard knob
Setting range of overload releases	l <sub>r</sub>	А	15 - 36
Function			With overload release
Rated uninterrupted current = rated operational current	$I_u = I_e$	Α	36
Instructions			For conductor cross-sections $\geqq$ 6 mm², use BK25/3-PKZ0 on the incoming side and BK25/3-PKZ0-U on the secondary side.

#### **Technical data**

#### 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		
Storage	°C	- 40 - 80
Open	°C	-25 - +55
Enclosed	°C	- 25 - 40
Mounting position		90°
Direction of incoming supply		as required
Degree of protection		
Device		IP20
Terminations		IP00
Protection against direct contact when actuated from front (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
Terminal capacity main cable		
Screw terminals		
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)
Stripping length	mm	10
Specified tightening torque for terminal screws		
Main cable	Nm	1.7
Control circuit cables	Nm	1
Main conducting paths		

Rated impulse withstand voltage	$U_{\text{imp}}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	V AC	690

Rated uninterrupted current = rated operational current	$I_u = I_e$	Α	36
Rated frequency	f	Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	14.4
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	0.05
Lifespan, electrical (AC-3 at 400 V)			
Lifespan, electrical	Operations	x 10 <sup>6</sup>	0.05
Max. operating frequency		Ops/h	60
AC-4 cycle operation			
Minimum current flow times		ms	500 (Class 5) 700 (Class 10) 900 (Class 15) 1000 (Class 20)
Minimum cut-out periods		ms	500
Note		ms	In AC-4 cycle operation, going below the minimum current flow time can cause overheating of the load (motor).  For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods.
Trip blocks			
Temperature compensation			
to IEC/EN 60947, VDE 0660		°C	-540
Operating range		°C	- 25 55
Setting range of overload releases		$x I_u$	0.42 - 1
short-circuit release			Basic device, fixed: 15.5 x $\rm I_u$ Trip block, adjustable: 5 - 8 x $\rm I_r$ delayed approx. 60 ms
Short-circuit release tolerance			± 20%
Phase-failure sensitivity			no (with PKE-XTU(A)CP)

## **Design verification as per IEC/EN 61439**

Design vernication as per IEG/EN 01455			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	$P_{vid}$	W	3.8
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	11.4
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	P <sub>diss</sub>	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.

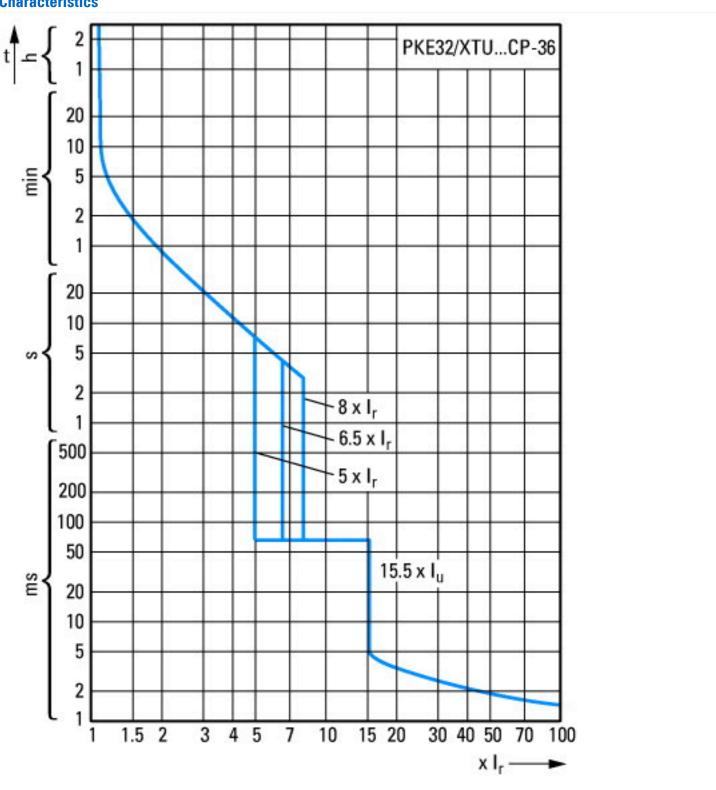
## **Technical data ETIM 7.0**

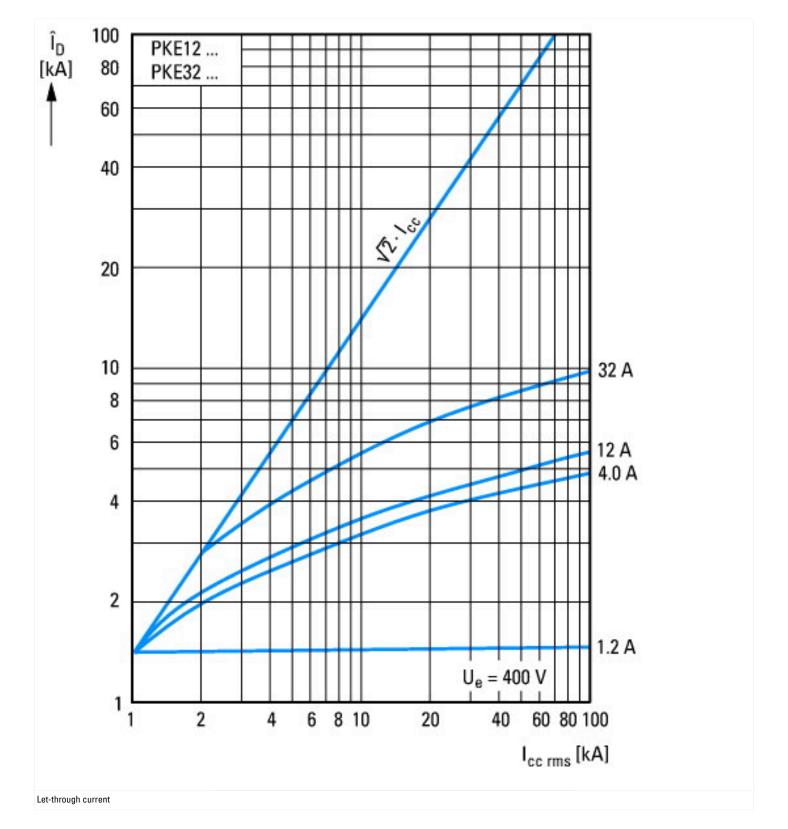
Low-voltage industrial components (E	G000017) / Power circuit-breaker for t	trafo/generator/installation prot	tection (FC000228)

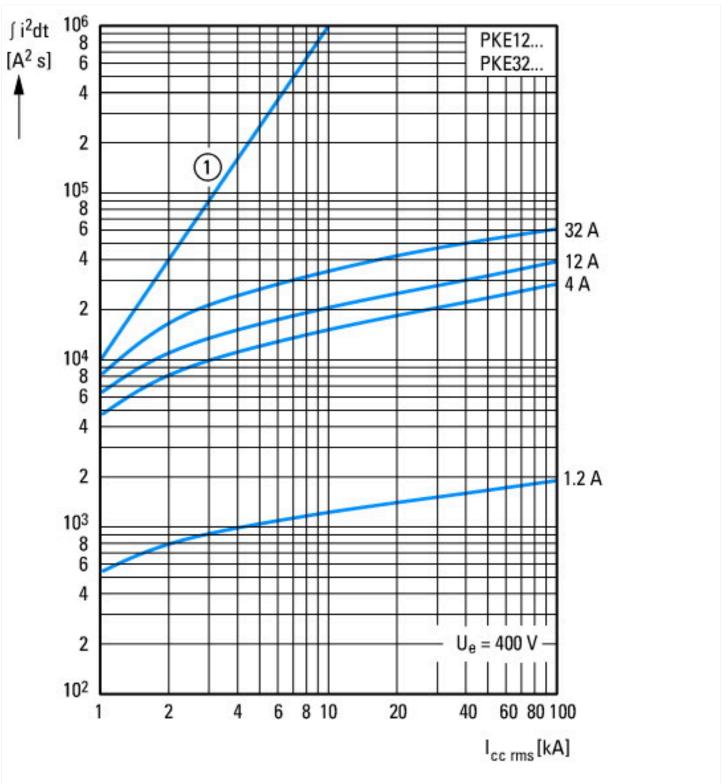
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (pc)@ss10.01-27-37-04-09 [A.17716013])

rotection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])		, , , , , , , , , , , , , , , , , , ,
ated permanent current lu	Α	36
ated voltage	V	690 - 690
ated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	50
verload release current setting	Α	15 - 36
djustment range short-term delayed short-circuit release	Α	75 - 288
djustment range undelayed short-circuit release	Α	496 - 496
ntegrated earth fault protection		No
ype of electrical connection of main circuit		Screw connection
evice construction		Other
uitable for DIN rail (top hat rail) mounting		Yes
IN rail (top hat rail) mounting optional		Yes
umber of auxiliary contacts as normally closed contact		0
umber of auxiliary contacts as normally open contact		0
umber of auxiliary contacts as change-over contact		0
/ith switched-off indicator		No
/ith under voltage release		No
umber of poles		3
osition of connection for main current circuit		Other
ype of control element		Turn button
omplete device with protection unit		Yes
lotor drive integrated		No
lotor drive optional		No
egree of protection (IP)		IP20

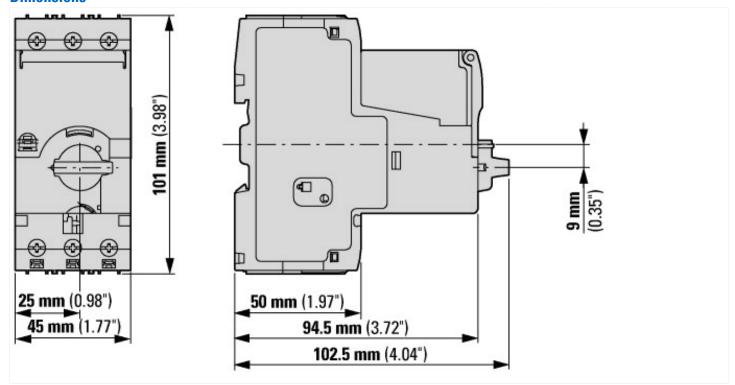
# **Characteristics**







#### **Dimensions**



## **Additional product information (links)**

11 02/020107	/A\A/A1210 2/00\ DV	E matar protoativa	airauit braakar	with wide renes	overload protection
11034020192	(AVVA121U-249U) PK	c motor-protective	circuit-preaker	with wide-rande	overioad protection

IL03402019Z (AWA1210-2490) PKE motorprotective circuit-breaker with wide-range overload protection  $ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL03402019Z2018\_03.pdf$ 

#### 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

monitoring of Ex e motors - Deutsch / Engl Schaltvermögen

http://de.ecat.eaton.com/flip-cat/?edition=HPLTEv1&startpage=

Motor starters and "Special Purpose Ratings" for the North American market

 $http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct\_3258146.pdf$ 

Busbar Component Adapters for modern Industrial control panels

 $http://www.moeller.net/binary/ver\_techpapers/ver960en.pdf\\$