

**Motor-protective circuit-breaker, Complete device with standard knob,  
Electronic, 1 - 4 A, With overload release**



**Part no.** PKE12/XTU-4

**121732**

**EL Number**

**4355181**

**(Norway)**

<b>General specifications</b>	
Product name	Eaton Moeller® series PKE System-protective circuit-breaker
Part no.	PKE12/XTU-4
EAN	4015081195428
Product Length/Depth	101 millimetre
Product height	102.5 millimetre
Product width	45 millimetre
Product weight	0.42 kilogram
Compliances	CE Marked
Certifications	IEC 60947-4-1 CSA Std. C22.2 No. 14-10 EN 60947-4-1 UL 508 VDE UL IEC/EN 60947-4-1 CSA File No.: 165628 CE UL 60947-4-1 VDE 0660 CSA CSA-C22.2 No. 60947-4-1-14 UL Category Control No.: NLRV IEC/EN 60947 CSA Class No.: 3211-05 UL File No.: E36332
Product Tradename	PKE
Product Type	System-protective circuit-breaker
Product Sub Type	None
Catalog Notes	IE3-ready devices are identified by the logo on their packaging.
<b>Features &amp; Functions</b>	
Actuator type	Turn button
Features	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
Fitted with:	Standard knob
Functions	Motor protection for heavy starting duty Phase failure sensitive Overload release Motor protection
Number of poles	Three-pole
<b>General information</b>	
Current flow times - min	500 (Class 5) AC-4 cycle operation, Main conducting paths Note: 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. 900 (Class 15) AC-4 cycle operation, Main conducting paths 1000 (Class 20) AC-4 cycle operation, Main conducting paths 700 (Class 10) AC-4 cycle operation, Main conducting paths
Cut-out periods - min	≤ 500 ms, main conducting paths, AC-4 cycle operation
Degree of protection	Terminals: IP00 IP20
Lifespan, electrical	50,000 operations (at 400V, AC-3)
Lifespan, mechanical	50,000 Operations (Main conducting paths)
Operating frequency	60 Operations/h
Overload release current setting - min	1 A
Overload release current setting - max	4 A
Overvoltage category	III
Pollution degree	3

Product category		Motor protective circuit breaker
Protection		Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
Rated impulse withstand voltage (Uimp)		6000 V AC
Suitable for		Also motors with efficiency class IE3
Temperature compensation		-25 - 55 °C, Operating range -5 - 40 °C to IEC/EN 60947, VDE 0660
<b>Ambient conditions, mechanical</b>		
Shock resistance		25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
<b>Climatic environmental conditions</b>		
Altitude		Max. 2000 m
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		55 °C
Ambient operating temperature (enclosed) - min		-25 °C
Ambient operating temperature (enclosed) - max		40 °C
Ambient storage temperature - min		-40 °C
Ambient storage temperature - max		80 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>Terminal capacities</b>		
Terminal capacity (flexible with ferrule)		1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228 2 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228
Terminal capacity (solid)		1 x (1 - 6) mm <sup>2</sup> 2 x (1 - 6) mm <sup>2</sup>
Terminal capacity (solid/stranded AWG)		14 - 10
Stripping length (main cable)		10 mm
Tightening torque		1 Nm, Screw terminals, Control circuit cables 1.7 Nm, Screw terminals, Main cable
<b>Electrical rating</b>		
Rated frequency - min		50 Hz
Rated frequency - max		60 Hz
Rated operational current (Ie)		4 A
Rated operational power at AC-3, 220/230 V, 50 Hz		0.75 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		1.5 kW
Rated operational power at AC-3, 440 V, 50 Hz		1.5 kW
Rated operational power at AC-3, 500 V, 50 Hz		2.2 kW
Rated operational power at AC-3, 690 V, 50 Hz		3 kW
Rated operational voltage (Ue) - min		690 V
Rated operational voltage (Ue) - max		690 V
Rated uninterrupted current (Iu)		4 A
<b>Short-circuit rating</b>		
Short-circuit current rating (group protection)		100 A, Class J, 600 V High Fault, max. Fuse, SCCR (UL/CSA) 100 kA, 600 V High Fault, Fuse, SCCR (UL/CSA)
Short-circuit release		± 20% tolerance, Trip blocks Trip block fixed 15.5 x I <sub>r</sub> Delayed approx. 60 ms, Trip blocks Basic device fixed 15.5 x I <sub>u</sub> , Trip Blocks
<b>Switching capacity</b>		
Switching capacity		4 A, AC-3 up to 690 V
<b>Motor rating</b>		
Assigned motor power at 115/120 V, 60 Hz, 1-phase		0.125 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase		0.75 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase		0.33 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase		0.75 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase		2 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase		3 HP
<b>Communication</b>		
Connection		Screw terminals

Design verification		
Equipment heat dissipation, current-dependent P <sub>vid</sub>		0.9 W
Heat dissipation capacity P <sub>diss</sub>		0 W
Heat dissipation per pole, current-dependent P <sub>vid</sub>		0.3 W
Rated operational current for specified heat dissipation (I <sub>n</sub> )		4 A
Static heat dissipation, non-current-dependent P <sub>vs</sub>		0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss13-27-37-04-01 [AGZ529021])		
Overload release current setting	A	1 - 4
Adjustment range undelayed short-circuit release	A	62 - 62
With thermal overload protection		No
Phase failure sensitive		Yes
Switch off technique		Electronic
Rated operating voltage	V	690 - 690
Rated permanent current I <sub>u</sub>	A	4
Rated operation power at AC-3, 230 V	kW	0.75
Rated operation power at AC-3, 400 V	kW	1.5
Power loss	W	
Type of electrical connection of main circuit		Screw connection
Type of control element		Turn button
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 I <sub>cu</sub> at 400 V, AC	kA	100
Degree of protection (IP)		IP20
Height	mm	102.5
Width	mm	45
Depth	mm	101

