

**Motor-protective circuit-breaker, Complete device with standard knob,
Electronic, 3 - 12 A, With overload release**



Part no. PKE12/XTU-12

121733

EL Number

4355187

(Norway)

General specifications	
Product name	Eaton Moeller® series PKE System-protective circuit-breaker
Part no.	PKE12/XTU-12
EAN	4015081195435
Product Length/Depth	101 millimetre
Product height	102.5 millimetre
Product width	45 millimetre
Product weight	0.42 kilogram
Compliances	Contact Manufacturer
Certifications	UL UL Category Control No.: NLRV UL 60947-4-1 VDE 0660 IEC/EN 60947-4-1 CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 3211-05 IEC/EN 60947 CSA File No.: 165628 UL File No.: E36332 CSA CE
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.
Features & Functions	
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 Phase failure sensitive Overload release Motor protection for heavy starting duty
Number of poles	Three-pole
General information	
Current flow times - min	1000 (Class 20) AC-4 cycle operation, Main conducting paths 700 (Class 10) AC-4 cycle operation, Main conducting paths For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods. Note: Going below the minimum current flow time can cause overheating of the load (motor). 500 (Class 5) AC-4 cycle operation, Main conducting paths 900 (Class 15) 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	3 A
Overload release current setting - max	12 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	-5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range
Ambient conditions, mechanical	
Shock resistance	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
Climatic environmental conditions	
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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Terminal capacities	
Terminal capacity (flexible with ferrule)	2 x (1 - 6) mm ² , ferrule to DIN 46228 1 x (1 - 6) mm ² , ferrule to DIN 46228
Terminal capacity (solid)	2 x (1 - 6) mm ² 1 x (1 - 6) mm ²
Terminal capacity (solid/stranded AWG)	14 - 10
Stripping length (main cable)	10 mm
Tightening torque	1.7 Nm, Screw terminals, Main cable 1 Nm, Screw terminals, Control circuit cables
Electrical rating	
Rated frequency - min	50 Hz
Rated frequency - max	60 Hz
Rated operational current (Ie)	12 A
Rated operational power at AC-3, 220/230 V, 50 Hz	3 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 440 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 500 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 690 V, 50 Hz	7.5 kW
Rated operational voltage (Ue) - min	690 V
Rated operational voltage (Ue) - max	690 V
Rated uninterrupted current (Iu)	12 A
Short-circuit rating	
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	Basic device fixed 15.5 x Iu, Trip Blocks Delayed approx. 60 ms, Trip blocks ± 20% tolerance, Trip blocks Trip block fixed 15.5 x Ir
Switching capacity	
Switching capacity	12 A, General use UL/CSA 12 A, AC-3 up to 690 V
Motor rating	
Assigned motor power at 115/120 V, 60 Hz, 1-phase	1 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase	3 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	1.5 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	3 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	7.5 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	10 HP
Communication	
Connection	Screw terminals
Design verification	
Equipment heat dissipation, current-dependent Pvid	3.6 W

Heat dissipation capacity P _{diss}		0 W
Heat dissipation per pole, current-dependent P _{vid}		1.2 W
Rated operational current for specified heat dissipation (I _n)		12 A
Static heat dissipation, non-current-dependent P _{vs}		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	3 - 12
Adjustment range undelayed short-circuit release	A	186 - 186
With thermal overload protection		No
Phase failure sensitive		Yes
Switch off technique		Electronic
Rated operating voltage	V	690 - 690
Rated permanent current I _u	A	12
Rated operation power at AC-3, 230 V	kW	3
Rated operation power at AC-3, 400 V	kW	5.5
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 _{cu} at 400 V, AC	kA	100
Degree of protection (IP)		IP20
Height	mm	102.5
Width	mm	45
Depth	mm	101