

# Specifications



## Eaton 121733

Eaton Moeller® series PKE12 Motor-protective circuit-breaker, Complete device with standard knob, Electronic, 3 - 12 A, With overload release

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller® series PKE System-protective circuit-breaker
<b>CATALOG NUMBER</b>	121733
<b>EAN</b>	4015081195435
<b>PRODUCT LENGTH/DEPTH</b>	101 mm
<b>PRODUCT HEIGHT</b>	102.5 mm
<b>PRODUCT WIDTH</b>	45 mm
<b>PRODUCT WEIGHT</b>	0.42 kg
<b>CERTIFICATIONS</b>	IEC/EN 60947 UL CSA CSA Class No.: 3211-05 IEC/EN 60947-4-1 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 CE CSA File No.: 165628 VDE 0660 UL Category Control No.: NLRV UL File No.: E36332
<b>CATALOG NOTES</b>	This is a product for Environment A (Industrial). In environment B (household) this device may cause undesirable radio interference. In this case the user may be obliged to take appropriate measures.
<b>MODEL CODE</b>	PKE12/XTU-12



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## Features & Functions

<b>ACTUATOR TYPE</b>	Turn button
<b>FEATURES</b>	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
<b>FITTED WITH:</b>	Standard knob
<b>FUNCTIONS</b>	Motor protection Phase failure sensitive Overload release Motor protection for heavy starting duty
<b>NUMBER OF POLES</b>	Three-pole

## General

<b>CURRENT FLOW TIMES - MIN</b>	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
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<b>CUT-OUT PERIODS - MIN</b>	≤ 500 ms, main conducting paths, AC-4 cycle operation
<b>DEGREE OF PROTECTION</b>	Terminals: IP00 IP20
<b>LIFESPAN, ELECTRICAL</b>	50,000 operations (at 400V, AC-3)
<b>LIFESPAN, MECHANICAL</b>	50,000 Operations (Main conducting paths)
<b>OPERATING FREQUENCY</b>	60 Operations/h
<b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>	3 A
<b>OVERLOAD RELEASE CURRENT SETTING - MAX</b>	12 A
<b>OVERVOLTAGE CATEGORY</b>	III
<b>POLLUTION DEGREE</b>	3
<b>PRODUCT CATEGORY</b>	Motor protective circuit breaker
<b>PROTECTION</b>	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC

## Ambient conditions, mechanical

<b>SHOCK RESISTANCE</b>	25 g, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms
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## Terminal capacities

<b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	2 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228 1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228
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<b>TERMINAL CAPACITY (SOLID)</b>	2 x (1 - 6) mm <sup>2</sup> 1 x (1 - 6) mm <sup>2</sup>
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<b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>	14 - 10
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<b>STRIPPING LENGTH (MAIN CABLE)</b>	10 mm
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<b>TIGHTENING TORQUE</b>	1.7 Nm, Screw terminals, Main cable 1 Nm, Screw terminals, Control circuit cables
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<b>SUITABLE FOR</b>	Also motors with efficiency class IE3
<b>TEMPERATURE COMPENSATION</b>	-5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range

## Climatic environmental conditions

<b>ALTITUDE</b>	Max. 2000 m
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<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
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<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
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<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
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<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
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<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
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<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C
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<b>CLIMATIC PROOFING</b>	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
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## Electrical rating

<b>RATED FREQUENCY - MIN</b>	50 Hz
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<b>RATED FREQUENCY - MAX</b>	60 Hz
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<b>RATED OPERATIONAL CURRENT (IE)</b>	12 A
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<b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>	3 kW
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<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	5.5 kW
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<b>RATED OPERATIONAL VOLTAGE (UE) - MIN</b>	690 V
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<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	690 V
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<b>RATED UNINTERRUPTED CURRENT (IU)</b>	12 A
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## Short-circuit rating

<b>SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)</b>	100 A, Class J, 600 V High Fault, max. Fuse, SCCR (UL/CSA) 100 kA, 600 V High Fault, Fuse, SCCR (UL/CSA)
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<b>SHORT-CIRCUIT RELEASE</b>	Basic device fixed 15.5 x lu, Trip Blocks Delayed approx. 60 ms, Trip blocks ± 20% tolerance, Trip blocks Trip block fixed 15.5 x lr
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## Motor rating

<b>ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE</b>	1 HP
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<b>ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE</b>	3 HP
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<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE</b>	1.5 HP
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<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE</b>	3 HP
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<b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>	7.5 HP
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<b>ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE</b>	10 HP
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## Switching capacity

<b>SWITCHING CAPACITY</b>	12 A, General use UL/CSA 12 A, AC-3 up to 690 V
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## Communication

<b>CONNECTION</b>	Screw terminals
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## Design verification

**EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID** 3.6 W

**HEAT DISSIPATION CAPACITY PDISS** 0 W

**HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID** 1.2 W

**RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)** 12 A

**STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS** 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.

## Resources

### BROCHURES

[eaton-motor-protective-circuit-breaker-pke-and-communication-modul-pke-brochure-w12107613en-en-us.pdf](#)

[eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf](#)

### CATALOGUES

[Product Range Catalog Switching and protecting motors](#)

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

[eaton-manual-motor-starters-pke65-characteristic-curve.eps](#)

### CHARACTERISTIC CURVE

[eaton-manual-motor-starters-pke65-characteristic-curve-005.eps](#)

[eaton-manual-motor-starters-pke65-characteristic-curve-003.eps](#)

### DECLARATIONS OF CONFORMITY

[DA-DC-00004950.pdf](#)

[DA-DC-00004945.pdf](#)

[eaton-manual-motor-starters-dimensions-002.eps](#)

[eaton-manual-motor-starters-3d-drawing-002.eps](#)

### DRAWINGS

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

[eaton-manual-motor-starters-mounting-3d-drawing.eps](#)

### ECAD MODEL

[ETN.121733.edz](#)

[IL034003ZU](#)

### INSTALLATION INSTRUCTIONS

[eaton-motor-protective-circuit-breaker-pke-il03402019z.pdf](#)

<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

	<a href="#">eaton-trip-block-pke-xtu-for-pke12-pke32-il034011zu.pdf</a>
<b>INSTALLATION VIDEOS</b>	<a href="#">Video Motor Protective Circuit Breaker PKE</a> <a href="#">WIN-WIN with push-in technology</a>
<b>MANUALS AND USER GUIDES</b>	<a href="#">eaton-motor-protection-pke12-32-65-mn03402004z-de-de-en-us.pdf</a>
<b>MCAD MODEL</b>	<a href="#">DA-CD-pke12_xtu</a> <a href="#">DA-CS-pke12_xtu</a>
<b>SALES NOTES</b>	<a href="#">eaton-pke-modbus-rtu-modul-flyer-fl034008en-en-us.pdf</a>

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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