

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

PRODUCT NAME	Eaton Moeller® series PKE System-protective circuit-breaker
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CATALOG NUMBER	121733
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MODEL CODE	PKE12/XTU-12
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EAN	4015081195435
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PRODUCT LENGTH/DEPTH	101 mm
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PRODUCT HEIGHT	102.5 mm
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PRODUCT WIDTH	45 mm
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PRODUCT WEIGHT	0.42 kg
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CERTIFICATIONS	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
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CATALOG NOTES	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.
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Ambient conditions, mechanical

SHOCK RESISTANCE	25 g, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms
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Communication

CONNECTION	Screw terminals
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Climatic environmental conditions

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

Design verification

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.
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	Meets the product standard's requirements.

TO NORMAL HEAT	
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.
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
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Electrical rating	
RATED FREQUENCY - MAX	60 Hz
RATED FREQUENCY - MIN	50 Hz
RATED OPERATIONAL CURRENT (IE)	12 A
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 HZ	7.5 kW
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
RATED OPERATIONAL VOLTAGE (UE) - MIN	690 V
RATED UNINTERRUPTED CURRENT (IU)	12 A

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 - MAX

12 A

OVERLOAD RELEASE CURRENT SETTING - MIN

3 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

RESISTANCE PER POLE

7.7 mΩ

SUITABLE FOR

Also motors with efficiency

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

	class IE3
TEMPERATURE COMPENSATION	-5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range

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 lu, Trip Blocks Delayed approx. 60 ms, Trip blocks ± 20% tolerance, Trip blocks Trip block fixed 15.5 x lr

Terminal capacities

STRIPPING LENGTH (MAIN CABLE)	10 mm
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
TIGHTENING TORQUE	1.7 Nm, Screw terminals, Main cable 1 Nm, Screw terminals, Control circuit cables

Switching capacity

SWITCHING CAPACITY	12 A, General use UL/CSA 12 A, AC-3 up to 690 V
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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	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-manual-motor-starters-pke65-characteristic-curve-003.eps eaton-manual-motor-starters-pke65-characteristic-curve-005.eps
DECLARATIONS OF CONFORMITY	eaton-system-protective-circuit-breaker-declaration-of-conformity-uk251177en.pdf eaton-system-protective-circuit-breaker-declaration-of-conformity-eu250694en.pdf

DRAWINGS	eaton-manual-motor-starters-dimensions-002.eps
	eaton-general-ie-ready-dilm-contactor-standards.eps
	eaton-manual-motor-starters-3d-drawing-002.eps
	eaton-manual-motor-starters-mounting-3d-drawing.eps
ECAD MODEL	ETN.121733.edz
INSTALLATION INSTRUCTIONS	eaton-motor-protective-circuit-breaker-pke-il03402019z.pdf
	eaton-trip-block-pke-xtu-for-pke12-pke32-il034011zu.pdf
	IL034003ZU
INSTALLATION VIDEOS	WIN-WIN with push-in technology
	Video Motor Protective Circuit Breaker PKE
MANUALS AND USER GUIDES	eaton-motor-protection-pke12-32-65-mn03402004z-de-de-en-us.pdf
MCAD MODEL	eaton-breakers-mcad-drawings-pke12-xtu.dwg
	DA-CS-pke12_xtu
SALES NOTES	eaton-pke-modbus-rtu-modul-flyer-fl034008en-en-us.pdf

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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