Specifications

Eaton 121731

Eaton Moeller® series PKE12 Motor-protective circuit-breaker, Complete device with standard knob, Electronic, 0.3 - 1.2 A, 1.2 A, With overload release, Screw terminals

General specifications	
PRODUCT NAME	Eaton Moeller® series PKE System-protective circuit-breaker
CATALOG NUMBER	121731
EAN	4015081195411
PRODUCT LENGTH/DEPTH	101 mm
PRODUCT HEIGHT	102.5 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.42 kg
CERTIFICATIONS	CSA-C22.2 No. 60947-4-1-14 UL Category Control No.: NLRV UL File No.: E36332 CE UL IEC/EN 60947 UL 60947-4-1 CSA File No.: 165628 IEC/EN 60947-4-1 VDE 0660 CSA CSA Class No.: 3211-05
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.
MODEL CODE	PKE12/XTU-1,2

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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 for heavy starting duty Motor protection Phase failure sensitive Overload release
NUMBER OF POLES	Three-pole

General

CURRENT FLOW TIMES - MIN	900 (Class 15) AC-4 cycle operation, Main conducting paths 500 (Class 5) AC-4 cycle operation, Main conducting paths 700 (Class 10) AC-4 cycle operation, Main conducting paths 1000 (Class 20) 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).
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	0.3 A
OVERLOAD RELEASE CURRENT SETTING - MAX	1.2 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
RESISTANCE PER POLE	121 mΩ

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) mm², ferrule to DIN 46228 1 x (1 - 6) mm², ferrule to DIN 46228
TERMINAL CAPACITY (SOLID)	1 x (1 - 6) mm² 2 x (1 - 6) mm²
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

Electrical rating

RATED FREQUENCY - MIN	50 Hz
RATED FREQUENCY - MAX	60 Hz
RATED OPERATIONAL CURRENT (IE)	1.2 A
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	0.12 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	0.25 kW
RATED OPERATIONAL VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	1.2 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 ± 20% tolerance, Trip blocks Trip block fixed 15.5 x Ir Delayed approx. 60 ms, Trip blocks

Switching capacity

SWITCHING CAPACITY	1.2 A, AC-3 up to 690 V

Motor rating

ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	0.5 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	0.5 HP

Communication

CONNECTION	Screw terminals

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0.3 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.1 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	1.2 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.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	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
CHARACTERISTIC CURVE	eaton-manual-motor-starters-pke65-characteristic-curve.eps eaton-manual-motor-starters-pke65-characteristic-curve-005.eps eaton-manual-motor-starters-pke65-characteristic-curve-003.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.121731.edz
INSTALLATION INSTRUCTIONS	IL034003ZU

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.

	eaton-motor-protective-circuit-breaker-pke-il03402019z.pdf eaton-trip-block-pke-xtu-for-pke12-pke32-il034011zu.pdf
INSTALLATION VIDEOS	Video Motor Protective Circuit Breaker PKE WIN-WIN with push-in technology
MANUALS AND USER GUIDES	eaton-motor-protection-pke12-32-65-mn03402004z-de-de-en-us.pdf
MCAD MODEL	DA-CS-pke12_xtu DA-CD-pke12_xtu
SALES NOTES	eaton-pke-modbus-rtu-modul-flyer-fl034008en-en-us.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

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