DATASHEET - PKE12/AK

Circuit-breaker, Basic device with AK lockable rotary handle, 12 A, Without overload releases, Screw terminals

Part no. **PKE12/AK**
158241

General specifications	
Product name	Eaton Moeller® series PKE Motor-protective circuit-breaker
Part no.	PKE12/AK
EAN	4015081548293
Product Length/Depth	101 millimetre
Product height	102.5 millimetre
Product width	45 millimetre
Product weight	0.33 kilogram
Certifications	CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 3211-05 UL 60947-4-1 CSA File No.: 165628 UL File No.: E36332 IEC/EN 60947 IEC/EN 60947-4-1 UL UL Category Control No.: NLRV VDE 0660 CSA CE
Product Tradename	PKE
Product Type	Motor-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:	AK lockable rotary handle
Functions	Motor protection Motor protection for heavy starting duty
Number of poles	Three-pole
General information	
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 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	-25 - 55 °C, Operating range -5 - 40 °C to IEC/EN 60947, VDE 0660
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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Terminal capacities

Terminal capacity (flexible with ferrule)	1 x (1 - 6) mm^2, ferrule to DIN 46228 2 x (1 - 6) mm^2, ferrule to DIN 46228
Terminal capacity (solid)	1 x (1 - 6) mm^2 2 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	0 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	0 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 release	Basic device fixed 15.5 x Iu, Trip Blocks ± 20% tolerance, Trip blocks

Switching capacity

Switching capacity	12 A, AC-3 up to 690 V

Communication

Connection	Screw terminals

Design verification

Equipment heat dissipation, current-dependent Pvid	2.7 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	0.9 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.
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	0 - 12
Adjustment range undelayed short-circuit release	A	0 - 0
With thermal overload protection		No
Phase failure sensitive		No
Switch off technique		Electronic
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	12
Rated operation power at AC-3, 230 V	kW	0
Rated operation power at AC-3, 400 V	kW	0
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 Icu at 400 V, AC	kA	0
Degree of protection (IP)		IP20
Height	mm	102.5
Width	mm	45
Depth	mm	101

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