DATASHEET - PKE12/AK

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



Part no. PKE12/AK 158241

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Ait Product tanipht/spin Product tanipht/spin Product tanipht/spin Product tanipht/spin 45 Failingtre Product tanipht/spin 5 Continuerse Product tanipht/spin 5 Continuerse <	Product name	Eaton Moeller® series PKE Motor-protective circuit-breaker
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Product weight CB D33 Miogram Cristications CB CB Product Trademame PPC PPC Product Trademame PPC PPC </td <td>Product height</td> <td>102.5 millimetre</td>	Product height	102.5 millimetre
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Product Type None Product Sub Type None Catalog Notes E3raady devices are identified by the logo on their packaging. Features & Functions Image: Strandy devices are identified by the logo on their packaging. Actuator type Image: Strandy devices are identified by the logo on their packaging. Features & Functions Phase-failure sensitivity laccording to IEUEN 00874-11, VDE 0080 Part 102) Fitted with: Phase-failure sensitivity laccording to IEUEN 00874-1, VDE 0080 Part 102) Fitted with: Phase-failure sensitivity laccording to IEUEN 00874-1, VDE 0080 Part 102) Number of poles Three-pole General information PP20 Dagree of protection 1P20 Lifespan, nechanical S0,000 operations (Main conducting paths) Operating frequency Operations (Main conducting paths) Oberhoad release current setting - max III Outroda release current setting - max III Product category IIII Product category IIII Product category IIII Product category IIII Product category Also moters with efficiency class IE3 Stotaresistance Sonoor resistance<		CSA VDE 0660 UL Category Control No.: NLRV UL IEC/EN 60947-4-1 IEC/EN 60947 UL File No.: E36332 CSA File No.: 165628 UL 60947-4-1 CSA Class No.: 3211-05 CSA-C22.2 No. 60947-4-1-14
Product Sub Type Image: Second Se	Product Tradename	
Catalog Notes IE3-ready devices are identified by the log on their packaging. Features & Functions Iurn button Actuator type Iurn button Features Fabures Features Actuator type Features Phase failure sensitivity (according to IEDEN 60947-4-1, VDE 0660 Part 102) Fitted with: Actuator type Functions Actuator protection for heavy starting duty Number of poles PP20 General information IP20 Degree of protection S0,000 operations (at 400V, AC-3) Lifespan, mechanical S0,000 operations (Main conducting paths) Operating frequency OA Overload release current setting - min OA Overload release current setting - min OA Overload release current setting - max III Poluzion degree III Product catagory Motor protective circuit breaker Product catagory III Product catagory Motor protective circuit breaker Product catagory Motor protective circuit breaker Protection Southable for Temperature compensation Southable for <	Product Type	Motor-protective circuit-breaker
Features & Functions Image: Section of the served sensitivity (according to EC/EN 60947-41, VDE 0660 Part 102) Actuator type Phase-failure sensitivity (according to EC/EN 60947-41, VDE 0660 Part 102) Fitted with: Ak tockable rotary handle Functions Ak tockable rotary handle Functions Motor protection Number of poles Prese-failure sensitivity (according to EC/EN 60947-41, VDE 0660 Part 102) General information Prese-pole Degree of protection Three-pole Lifespan, electrical S0,000 operations (at 4007, AC-3) Lifespan, electrical S0,000 operations (Main conducting paths) Operating frequency S0,000 Operations (Main conducting paths) Overolada release current setting - min O A Overolada release current setting - max O A Overolada release current setting - max II Pollution degree II Pollution degree S0000 VAC Protection S0000 VAC Suitable for Akso motors with efficiency class IE3 Temperature compensation -5.40 °C to IEC/EN 60947, VDE 0660 Abitude S00 Match according to IEC/EN 60094-2-27, Half-sinusoidal shock ID mas	Product Sub Type	None
Actuator type Im hutton Features Phase-failure sensitivity (according to IEC/EN 60947-4.1, VDE 0660 Part 102) Fittad with: Actuator type Functions Motor protection Number of poles Three-pole General information Three-pole Degree of protaction 1920 Lifespan, electrical 50,000 operations (Main conducting paths) Lifespan, mechanical 50,000 operations (Main conducting paths) Operating frequency 00 operations (Main conducting paths) Overolage category 10 A Pollution degree 11 A Protection 11 A Protection 11 A Pollution degree 3 Protection 11 A Protection 10 A Suitable for 10 A Suitable for 3 Temperature compensation 5-5 + 0° C to IEC/EN 6008-2-27, Half-sinusoidal shock 10 ms Suitable for 25 g. Mechanical, according to IEC/EN 6008-2-27, Half-sinusoidal shock 10 ms Shock resistance 25 g. Mechanical, according to IEC/EN 6008-2-27, Half-sinusoidal shock 10 ms Abitude Atitude Atitude <td>Catalog Notes</td> <td>IE3-ready devices are identified by the logo on their packaging.</td>	Catalog Notes	IE3-ready devices are identified by the logo on their packaging.
Features Phase-failure sensitivity (according to IEC/EN 60947.41, VDE 0660 Pert 102) Fitted with: AK lockable rotary handle Functions Motor protection for heavy starting duty Number of poles Motor protection for heavy starting duty General information P120 Degree of protection P20 Lifespan, nechanical P20 Operating frequency 50.000 Operations (Main conducting paths) Overload release current setting - min 0.4 Pollutic ndegree 12.A Product category 0.4 Pollutic ndegree 10.4 Protection 5000 V AC Suitable for 4.5 Temperature compansation 5000 V AC Suitable for 4.5 4.5 Temperature	Features & Functions	
Fitted with: AK lockable rotary handle Functions Motor protection for heavy starting duty Number of poles Fitted with: Ceneral information Fitted with: Degree of protection Fitted with: Uifespan, electrical General information: Operating frequency 5000 Operations (Hain conducting paths) Overload release current setting - min OA Overload release current setting - max Fitted Matter protective circuit breaker Product category III Pollution degree General protective circuit breaker Protection Fitteg Matter protective circuit breaker Rated impulse withstand voltage (Uimp) General protective circuit breaker Suitable for Abient conditions, mechanical	Actuator type	Turn button
Functions Motor protection for heavy starting duty Number of poles Intree-pole General information Intree-pole Degree of protection IP20 Lifespan, electrical Intee-pole Lifespan, nechanical Intee-pole Operating frequency Intee-pole Overload release current setting - min Intee-pole Product category Inte-pole Product category Inter-pole Product category Motor protective circuit breaker Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 59274) Suitable for Also motors with efficiency class IE3 Temperature compensation So 40 °C to IEC/EN 60947, VDE 6660 -25 - 55 °C, Operating range 25 g. Me	Features	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
Number of poles Motor protection General information Three-pole Degree of protection P0 Lifespan, electrical 50,000 operations (at 400V, AC-3) Lifespan, electrical 50,000 operations (at 400V, AC-3) Operating frequency 50,000 operations (Main conducting paths) Overload release current setting - min 04 Overload release current setting - max 04 Overload release current setting - max 04 Product category 04 Product category 04 Product category 04 Product category 04 Rated impulse withstand voltage (Uimp) 6000 V AC Suitable for 6000 V AC Suitable for 6000 V AC Ambient conditions, mechanical 51, 40 "Cit DE/CEK RD947, VDE 0660 Suitable for 25, 9, Mechanical, according to IEC/EN 60068-2:27, Half-sinusoidal shock 10 ms Shock resistance 25, 55 "C, Operating range	Fitted with:	AK lockable rotary handle
General information Image: protection IP20 Degree of protection IP20 Lifespan, electrical 50,000 operations (at 400V, AC-3) Difference 50,000 Operations (Main conducting paths) Operating frequency 0A Overload release current setting - min 0A Overload release current setting - max 0A Product category 1II Pollution degree 3 Product category 6000 V AC Rated impulse withstand voltage (Uimp) 6000 V AC Suitable for 6000 V AC Suitable for -5.40 °C to IEC/EN 60947, VDE 0660 Temperature compensation -5.40 °C to IEC/EN 60947, VDE 06600 Shock resistance 25 g, Mechanical, according to IEC/EN 60082-2:7, Half-sinusoidal shock 10 ms Antitude Max. 2000 m	Functions	
Pegree of protection P20 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 0.4 Overload release current setting - max 0.4 Overload release current setting - max 0.4 Overload release current setting - max 0.4 Pollution degree 3 Product category III Protection Motor protective circuit breaker Protection Finger and back-of-hand proof, Protection against direct contact when actuated from from (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 60068-2-27, Half-sinusoidal shock 10 ms Shock resistance 25 g. Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Abtitude Max. 200 m	Number of poles	Three-pole
Lifespan, electrical 50,000 operations (at 400V, AC-3) Lifespan, mechanical 50,000 operations (Main conducting paths) Operating frequency 60 Operations (Main conducting paths) Overload release current setting - min 0 A Overload release current setting - max 0 A Pollution degree III Pollution degree Motor protective circuit breaker Frodection 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 -5 - 40 °C to 1EC/EN 60947, VDE 06600 <td>General information</td> <td></td>	General information	
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 from (EN S0274) Rated impulse withstand voltage (Uimp) 6000 V AC Suitable for 455 et 00°C to IEC/EN 60947, VDE 0660 Temperature compensation 5- 40°C to IEC/EN 60947, VDE 0660 Shock resistance 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Ambient conditions, mechanical 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Attitude Max. 2000 m	Degree of protection	
Operating frequency 60 Operations/h Overload release current setting - min 0 A Overload release current setting - max 0 A Overvoltage category 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 Shock resistance 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Altitude Max. 2000 m	Lifespan, electrical	50,000 operations (at 400V, AC-3)
Overload release current setting - minDAOverload release current setting - max12 AOverload release current setting - max12 AOverload release current setting - max12 AOverload release current setting - max11Pollution degree3Product categoryMotor protective circuit breakerProtectionFinger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)Rated impulse withstand voltage (Uimp)6000 V ACSuitable for6000 V ACSuitable for-5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating rangeAmbient conditions, mechanical Shock resistance-5 - 40 °C to IEC/EN 60068-2-27, Half-sinusoidal shock 10 msClimatic environmental conditions6000 WAltitudeMax. 2000 m	Lifespan, mechanical	50,000 Operations (Main conducting paths)
Overload release current setting - max II 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 -5 - 40 °C to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Shock resistance Exercise Xmechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Altitude Max. 2000 m Max. 2000 m	Operating frequency	60 Operations/h
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 Shock resistance 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Altitude Max. 2000 m	Overload release current setting - min	0 A
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 Shock resistance 5- 40 °C to IEC/EN 60947, VDE 0660 Climatic environmental conditions Enter Since Altitude Motor protection gainst direct contact when actuated from from tell conditions	Overload release current setting - max	12 A
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 Shock resistance 5-40 °C to IEC/EN 60947, VDE 0660 Climatic environmental conditions 5-40 °C to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Altitude Mate 2000 m	Overvoltage category	
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 Ambient conditions, mechanical -5 - 55 °C, Operating range Shock resistance -25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Climatic environmental conditions Attitude	Pollution degree	3
Rated impulse withstand voltage (Uimp) Image: Comparison of the comparison	Product category	Motor protective circuit breaker
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 -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Shock resistance -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Climatic environmental conditions -5 - 40 °C to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Altitude	Protection	
Temperature compensation -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Ambient conditions, mechanical -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Shock resistance -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Climatic environmental conditions -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range Altitude Max. 2000 m	Rated impulse withstand voltage (Uimp)	6000 V AC
Ambient conditions, mechanical 25 - 55 °C, Operating range Shock resistance 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Climatic environmental conditions 4100 m	Suitable for	Also motors with efficiency class IE3
Shock resistance 25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms Climatic environmental conditions Max. 2000 m	Temperature compensation	
Climatic environmental conditions Max. 2000 m	Ambient conditions, mechanical	
Altitude Max. 2000 m	Shock resistance	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
	Climatic environmental conditions	
Ambient operating temperature - min -25 °C	Altitude	Max. 2000 m
	Ambient operating temperature - min	-25 °C

Ambient exception to menoture amou	EE 90
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
	$1 \times (1 - 6) \text{ mm}^2$
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 (le)	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	± 20% tolerance, Trip blocks Basic device fixed 15.5 x lu, 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.
10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.

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 swite AGZ529021])	ch technology / Circı	uit brea	ıker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss13-27-37-04-01
Overload release current setting	А		0 - 12
Adjustment range undelayed short-circuit release	А		0 - 0
Nith thermal overload protection			No
Phase failure sensitive			No
Switch off technique			Electronic
Rated operating voltage	V		690 - 690
Rated permanent current lu	А		12
Rated operation power at AC-3, 230 V	kW	v	0
Rated operation power at AC-3, 400 V	kW	v	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
Nith integrated auxiliary switch			No
Nith 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	mn	m	102.5
Nidth	mn	m	45
Depth	mn	m	101