

Short-circuit protective breaker, Iu 20 A, Irm 310 A, Screw terminals, Also suitable for motors with efficiency class IE3.



Powering Business Worldwide™

Part no. **PKM0-20**
203594

General specifications	
Product name	Eaton Moeller® series PKM0 Short-circuit protective breaker
Part no.	PKM0-20
EAN	4015082035945
Product Length/Depth	76 millimetre
Product height	93 millimetre
Product width	45 millimetre
Product weight	0.294 kilogram
Compliances	VDE
Certifications	IEC 60947 EN 60947 VDE VDE 0660 IEC/EN 60947
Product Tradename	PKM0
Product Type	Short-circuit protective breaker
Product Sub Type	None
Catalog Notes	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
Features & Functions	
Actuator type	Turn button
Number of poles	Three-pole
General information	
Connection	Screw terminals
Degree of protection	Terminals: IP00 IP20
Lifespan, electrical	100,000 operations (at 400V, AC-3)
Lifespan, mechanical	100,000 Operations (Main conducting paths)
Mounting position	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
Operating frequency	40 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
Shock resistance	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
Suitable for	Also motors with efficiency class IE3
Temperature compensation	-25 - 55 °C, Operating range -5 - 40 °C to IEC/EN 60947, VDE 0660 ≤ 0.25 %/K, residual error for T > 40°
Type	Short-circuit protective device only
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)		1 x (1 - 6) mm ² , ferrule to DIN 46228 2 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)		18 - 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)		20 A
Rated operational power at AC-3, 220/230 V, 50 Hz		5.5 kW
Rated operational power at AC-3, 380/400 V, 50 Hz		9 kW
Rated operational power at AC-3, 440 V, 50 Hz		11 kW
Rated operational power at AC-3, 500 V, 50 Hz		12.5 kW
Rated operational power at AC-3, 690 V, 50 Hz		15 kW
Rated operational voltage (Ue) - min		690 V
Rated operational voltage (Ue) - max		690 V
Rated uninterrupted current (Iu)		20 A
Short-circuit rating		
Rated short-circuit breaking capacity Icu at 400 V AC		50 kA
Short-circuit release		± 20% tolerance, Trip blocks 310 A, I _{rm} , Setting range max. Basic device fixed 15.5 x I _u , Trip Blocks
Switching capacity		
Switching capacity		20 A (3 contacts in series), DC-5 up to 250V 20 A, AC-3 up to 690 V
Trip blocks		
Overload release current setting - min		0 A
Overload release current setting - max		0 A
Design verification		
Equipment heat dissipation, current-dependent P _{vid}		5.82 W
Heat dissipation capacity P _{diss}		0 W
Heat dissipation per pole, current-dependent P _{vid}		1.94 W
Rated operational current for specified heat dissipation (I _n)		20 A
Static heat dissipation, non-current-dependent P _{vs}		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 - 0
Adjustment range undelayed short-circuit release	A	310 - 310
With thermal overload protection		No
Phase failure sensitive		No
Switch off technique		Magnetic
Rated operating voltage	V	690 - 690
Rated permanent current I _u	A	20
Rated operation power at AC-3, 230 V	kW	5.5
Rated operation power at AC-3, 400 V	kW	9
Power loss	W	5.82
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 I _{cu} at 400 V, AC	kA	50
Degree of protection (IP)		IP20
Height	mm	93
Width	mm	45
Depth	mm	76