Eaton 199192

Eaton Moeller® series PKZM0 Motorprotective circuit-breaker, 0.12 kW, 0.4 - 0.63 A, Feed-side screw terminals/output-side push-in terminals, MSC

PRODUCT NAME	Eaton Moeller® series PKZM0 Motor-protective circuit-breaker
CATALOG NUMBER	199192
PRODUCT LENGTH/DEPTH	75 mm
PRODUCT HEIGHT	102 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.273 kg
CERTIFICATIONS	IEC/EN 60947 VDE 0660 UL File No.: E36332 IEC/EN 60947-4-1 CSA File No.: 165628 UL Category Control No.: NLRV UL CSA-C22.2 No. 60947-4-1- 14 CSA Class No.: 3211-05 CSA UL 60947-4-1 CE



USED WITH	Motor starter combinations type MSC
FEATURES	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
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 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.

MCAD MODEL	pkzm0 s32 pi.stp
	pkzm0_s32_pi.dwg
	<u>IL122024ZU</u>
	eaton-manual-motor- starters-pkzm-pkzm0- dimensions-003.eps

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	ls the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	ls the panel builder's responsibility.
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
OPERATING FREQUENCY	40 Operations/h
POLLUTION DEGREE	3
MOUNTING METHOD	DIN rail (top hat rail) mounting optional
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
ACTUATOR TYPE	Turn button
TRIPPING CHARACTERISTIC	Overload trigger: tripping class 10 A
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MAX	0 A
ADJUSTMENT RANGE SHORT-TERM DELAYED SHORT-CIRCUIT RELEASE - MIN	0 A
ADJUSTMENT RANGE UNDELAYED SHORT- CIRCUIT RELEASE - MAX	9.8 A
ADJUSTMENT RANGE	9.8 A

UNDELAYED SHORT- CIRCUIT RELEASE - MIN	
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	5.16 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID	1.7 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
WITHSTAND VOLTAGE	6000 V AC Max. 2000 m
WITHSTAND VOLTAGE (UIMP)	
WITHSTAND VOLTAGE (UIMP) ALTITUDE	Max. 2000 m Built-in device fixed built-
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION	Max. 2000 m Built-in device fixed built- in technique Push-in terminals on output side Screw terminals on feed
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF	Max. 2000 m Built-in device fixed built- in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Max. 2000 m Built-in device fixed built- in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp connection Can be snapped on to IEC/EN 60715 top-hat rail
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT MOUNTING POSITION	Max. 2000 m Built-in device fixed built-in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp connection Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT MOUNTING POSITION LIFESPAN, MECHANICAL OVERVOLTAGE	Max. 2000 m Built-in device fixed built-in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp connection Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height. 100,000 Operations
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT MOUNTING POSITION LIFESPAN, MECHANICAL OVERVOLTAGE CATEGORY	Max. 2000 m Built-in device fixed built-in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp connection Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height. 100,000 Operations III Terminals: IP00
WITHSTAND VOLTAGE (UIMP) ALTITUDE DEVICE CONSTRUCTION CONNECTION ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT MOUNTING POSITION LIFESPAN, MECHANICAL OVERVOLTAGE CATEGORY DEGREE OF PROTECTION	Max. 2000 m Built-in device fixed built-in technique Push-in terminals on output side Screw terminals on feed side Screw-/spring clamp connection Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height. 100,000 Operations III Terminals: IP00 IP20

	according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms
FUNCTIONS	Phase failure sensitive Motor protection
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 10, screw terminals 18 - 8, Push-in terminals
SWITCHING CAPACITY	0.63 A, AC-3 up to 690 V
NUMBER OF AUXILIARY CONTACTS (CHANGE- OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
OVERLOAD RELEASE CURRENT SETTING - MAX	0.63 A
OVERLOAD RELEASE CURRENT SETTING - MIN	0.4 A
RATED FREQUENCY - MAX	60 Hz
RATED FREQUENCY - MIN	50 Hz
RATED OPERATIONAL VOLTAGE (UE) - MAX	690 V
RATED OPERATIONAL VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0.63 A
RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 HZ	0.09 kW
RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 HZ	0.12 kW
RATED UNINTERRUPTED CURRENT (IU)	0.63 A
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	0 W
STRIPPING LENGTH (MAIN CABLE)	12 mm
PRODUCT CATEGORY	Motor protective circuit breaker
PROTECTION	Finger and back-of-hand

	proof, Protection against direct contact when actuated from front (EN 50274)
RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 HZ	0.18 kW
RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 HZ	0.25 kW
RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 HZ	0.25 kW
TERMINAL CAPACITY (FLEXIBLE WITH UNISOLATED FERRULE)	1 x (1 - 6) mm ² , Screw terminals 2 x (1 - 6) mm ² , Screw terminals 1 x (1 - 6) mm ² , Push-in terminals 2 x (1 - 6) mm ² , Push-in terminals
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 440 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 440 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 500 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 500 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 690 V AC	150 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 690 V AC	150 kA
TERMINAL CAPACITY (FLEXIBLE WITH ULTRASONIC WELDED CABLE END)	1 x (1 - 10) mm ² 2 x (1 - 6) mm ² 1 x (1 - 6) mm ² , Screw terminals 2 x (1 - 6) mm ² , Screw terminals

terminal, or suitable for group installations, (UL/CSA) Basic device fixed 15.5 x lu ± 20% tolerance 9.8 A, Irm 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 3 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 65 kA, 480 V/347 V, SCCR (UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) 61 KA, 240 V, SCCR (UL/CSA) 62 KA, 480 Y/277 V, SCCR (UL/CSA) 63 KA, 480 Y/277 V, SCCR (UL/CSA) 64 KA, 480 Y/277 V, SCCR (UL/CSA) 65 KA, 480 Y/277 V, SCCR (UL/CSA) 67 KA STING TORQUE 10 Thermomagnetic 1 x (1 - 6) mm², Screw terminals, Main cable WITCH OFF TECHNIQUE Thermomagnetic 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals		
class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA) Basic device fixed 15.5 x lu ± 20% tolerance 9.8 A, Irm 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Push-in terminals 3 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) ms², Push-in terminals 5 x (1 - 6) ms², SccR (UL/CSA) 5 x (1 x (1 - 6) ms², SccR (UL/CSA)		terminals 2 x (1 - 6) mm², Push-in
#HORT-CIRCUIT RELEASE ± 20% tolerance 9.8 A, Irm 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals 1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 60 kA, 600 V High Fault, CB, SCCR (UL/CSA) 60 kA, 600 Y/347 V, SCCR (UL/CSA) 65 kA, 480 Y/347 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) 61 GHTENING TORQUE #IGHTENING TORQUE #IGHTENING TORQUE #ITCH OFF TECHNIQUE Thermomagnetic 1 x (1 - 6) mm², Screw terminals, Main cable WITCH OFF TECHNIQUE Thermomagnetic 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals 3 x (1 - 6) mm², Screw terminals 4 x (1 - 6) mm², Screw terminals 5 x (1 - 6) mm², Screw terminals 5 x (1 - 6) mm², Screw terminals 6 x (1 - 6) mm², Screw terminals	SUITABLE FOR	class IE3 Branch circuit: Manual type E if used with terminal, or suitable for group installations,
terminals 2 x (1 - 6) mm², Screw terminals 1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 3 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 4 x (1 - 6) mm², Push-in terminals 5 x (1 - 6) mm², Push-in terminals 5 x (1 - 6) mm², Push-in terminals 5 x (1 - 6) mm², Screw terminals 6 x (1 - 6) mm², Screw terminals 1 x (1 - 6) mm², Screw terminals 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals	SHORT-CIRCUIT RELEASE	± 20% tolerance
URRENT (IE) -5 - 40 °C to IEC/EN 60947, VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° SO KA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) SO KA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) SO KA, 600 V High F	TERMINAL CAPACITY (SOLID)	terminals 2 x (1 - 6) mm², Screw terminals 1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in
VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error for T > 40° SO KA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) WITCH CIRCUIT CURRENT EATING (TYPE E) SO KA, 600 Y/347 V, SCCR (UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) FIGHTENING TORQUE Thermomagnetic 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals ERRULE)	RATED OPERATIONAL CURRENT (IE)	0.63 A
Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) 65 kA, 600 V/347 V, SCCR (UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) 65 kA, 600 Y High Fault, 600 kA, 600 V High Fault, 600 kA	TEMPERATURE COMPENSATION	VDE 0660 -25 - 55 °C, Operating range ≤ 0.25 %/K, residual error
(UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR (UL/CSA) FIGHTENING TORQUE 1.7 Nm, Screw terminals, Main cable WITCH OFF TECHNIQUE Thermomagnetic 1 x (1 - 6) mm², Screw TERMINAL CAPACITY FLEXIBLE WITH 2 x (1 - 6) mm², Screw TERRULE)	SHORT-CIRCUIT CURRENT RATING (GROUP PROTECTION)	Fuse, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse, SCCR (UL/CSA) 50 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 600 A, 600 V High Fault,
Main cable WITCH OFF TECHNIQUE Thermomagnetic 1 x (1 - 6) mm², Screw TERMINAL CAPACITY terminals FLEXIBLE WITH 2 x (1 - 6) mm², Screw TERRULE) terminals	SHORT-CIRCUIT CURRENT RATING (TYPE E)	(UL/CSA) 65 kA, 240 V, SCCR (UL/CSA) 65 kA, 480 Y/277 V, SCCR
1 x (1 - 6) mm², Screw TERMINAL CAPACITY terminals FLEXIBLE WITH 2 x (1 - 6) mm², Screw TERRULE) terminals	TIGHTENING TORQUE	
FERMINAL CAPACITYterminalsFLEXIBLE WITH2 x (1 - 6) mm², ScrewFERRULE)terminals	SWITCH OFF TECHNIQUE	Thermomagnetic
	TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	terminals 2 x (1 - 6) mm², Screw terminals

	terminals, ferrule to DIN 46228-1 2 x (1 - 6) mm², Push-in terminals, ferrule to DIN 46228-1 1 x (1 - 6) mm², Push-in terminals, ferrule to DIN 46228-4 2 x (1 - 4) mm², Push-in terminals, ferrule to DIN 46228-4
TERMINAL CAPACITY (FLEXIBLE)	1 x (1 - 6) mm², Push-in terminals 2 x (1 - 6) mm², Push-in terminals 1 x (1 - 6) mm², Screw terminals 2 x (1 - 6) mm², Screw terminals
POWER LOSS	5.16 W

PROJECT NAME: PROJECT NUMBER:

PREPARED BY:



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