Specifications

Eaton 110198

Eaton Moeller® series P1 Main switch, P1, 32 A, flush mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring

General specifications	
PRODUCT NAME	Eaton Moeller® series P1 Main switch
CATALOG NUMBER	110198
MODEL CODE	P1-32/E/SVB
EAN	4015081097555
PRODUCT LENGTH/DEPTH	119 mm
PRODUCT HEIGHT	65 mm
PRODUCT WIDTH	65 mm
PRODUCT WEIGHT	0.17 kg
CERTIFICATIONS	IEC/EN 60947-3 UL CSA File No.: 012528 VDE 0660 IEC/EN 60947 CSA-C22.2 No. 94 UL Category Control No.: NLRV CE CSA Class No.: 3211-05 UL 60947-4-1 CSA-C22.2 No. 60947-4-1-14 UL File No.: E36332 CSA IEC/EN 60204
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second

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Product specifications

PRODUCT CATEGORY	Main switch
FEATURES	Version as maintenance-/service switch Version as emergency stop installation Version as main switch
ACTUATOR COLOR	Red
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	UV resistance only in connection with protective shield.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL	Does not apply, since the

IMPACT	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.
FITTED WITH:	Red rotary handle and yellow locking ring
OPERATING FREQUENCY	1200 Operations/h
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
RATED PERMANENT CURRENT AT AC-21, 400 V	32 A
RATED PERMANENT CURRENT AT AC-23, 400 V	32 A
RATED UNINTERRUPTED CURRENT (IU)	32 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W

SWITCHING POWER AT 400 V	15 kW
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
ACCESSORIES	Auxiliary contact or neutral conductor fitted by user.
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	18.5 kW
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	0.64 kA 640 A, Contacts, 1 second
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	As required
ACTUATOR TYPE	Door coupling rotary drive
AMBIENT OPERATING TEMPERATURE - MAX	50 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	1 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 1-PHASE	2 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	3 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	10 HP
ASSIGNED MOTOR	15 HP

POWER AT 575/600 V, 60 HZ, 3-PHASE	
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.8 W
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	80 kA
OVERVOLTAGE CATEGORY	III
CONTROL CIRCUIT RELIABILITY	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
DEGREE OF PROTECTION (FRONT SIDE)	IP65
NUMBER OF POLES	3
MOUNTING METHOD	Flush mounting
DEGREE OF PROTECTION	NEMA 12
SUITABLE FOR	Front mounting 4-hole Branch circuits, suitable as motor disconnect, (UL/CSA)
FUNCTIONS	Interlockable Emergency switching off function
NUMBER OF SWITCHES	1
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SCREW SIZE	M4, Terminal screw
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
LIFESPAN, MECHANICAL	300,000 Operations
LOAD RATING	2 x I_e (with intermittent operation class 12, 25 %

	duty factor) 1.6 x I_e (with intermittent operation class 12, 40 % duty factor) 1.3 x I_e (with intermittent operation class 12, 60 % duty factor)
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10A, IU, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600 (UL/CSA) P600 (UL/CSA)
TERMINAL CAPACITY	1 x (1.5 - 6) mm^2, solid or stranded 2 x (1.5 - 6) mm^2, solid or stranded 14 - 8 AWG, solid or flexible with ferrule 2 x (1 - 4) mm^2, flexible with ferrules to DIN 46228 1 x (1 - 4) mm^2, flexible with ferrules to DIN 46228
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	30 A, Rated uninterrupted current max. (UL/CSA)
SAFETY PARAMETER (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF CONTACTS IN SERIES AT DC-23A, 120 V	3
NUMBER OF CONTACTS IN SERIES AT DC-23A, 24 V	1
NUMBER OF CONTACTS IN SERIES AT DC-23A, 48 V	2
NUMBER OF CONTACTS IN SERIES AT DC-23A, 60 V	2
RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)	260 A
RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)	300 A
RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)	290 A
RATED BREAKING CAPACITY AT 660/690 V	250 A

(COS PHI TO IEC 60947-3)	
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	320 A
RATED OPERATING VOLTAGE (UE) - MAX	690 V
RATED OPERATING VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	110A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT)	10 kA, SCCR (UL/CSA) 50 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING	50 A gG/gL, Fuse, Contacts
RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V	32 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V	32 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V	32 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V	30 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V	19.8 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	26.4 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	26.4 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	23.4 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	14.7 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES	32 A

L/R = 1 MS	
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	12 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V	25 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 48 V	25 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	25 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	32 A
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	15 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	18.5 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	15 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	13 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	13 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	15 kW
TIGHTENING TORQUE	1.6 Nm, Screw terminals 14.1 lb-in, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current Iu is specified for max. cross-section.

Resources

BROCHURES	Brochure - T Rotary Cam switch and P Switch-disconnector
CATALOGS	P Switch-disconnectors and T Rotary cam switches catalogue CA042001EN
DECLARATIONS	DA-DC-00005059.pdf DA-DC-00005061.pdf

OF CONFORMITY	
DRAWINGS	eaton-rotary-switches-switching-p1-on-off-switch-dimensions.eps eaton-rotary-switches-t0-main-switch-symbol.eps eaton-general-rotary-switch-t0-step-switch-symbol-002.eps
ECAD MODEL	ETN.110198.edz
INSTALLATION INSTRUCTIONS	eaton-switch-disconnector-p1-flush-mounting-il03802003z.pdf
INSTALLATION VIDEOS	Eaton's P Switch-disconnectors used in a factory
MCAD MODEL	DA-CD-p1_zz04 DA-CS-p1_zz04
PRODUCT NOTIFICATIONS	MZ008005ZU_Orderform_Customized_Switch.pdf MZ008006ZU_Orderform_Customized_Switch.pdf
WIRING DIAGRAMS	eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram.eps

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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