Specifications

Eaton 255897

Eaton Moeller® series P3 Main switch, P3, 63 A, surface mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, UL/CSA

General specifications		
PRODUCT NAME	Eaton Moeller® series P3 Main switch	
CATALOG NUMBER	255897	
EAN	4015082558970	
PRODUCT LENGTH/DEPTH	139 mm	
PRODUCT HEIGHT	240 mm	
PRODUCT WIDTH	160 mm	
PRODUCT WEIGHT	1.065 kg	
CERTIFICATIONS	CE IEC/EN 60204 CSA-C22.2 No. 60947-4-1- 14 IEC/EN 60947 UL UL Category Control No.: NLRV CSA-C22.2 No. 94 VDE 0660 CSA File No.: 012528 IEC/EN 60947-3 CSA Class No.: 3211-05 UL File No.: E36332 CSA UL 60947-4-1	
MODEL CODE	P3-63/I4/SVB-NA	



Features & Functions

FEATURES	Version as emergency stop installation Version as main switch Version as maintenance- /service switch
FITTED WITH:	Red rotary handle and yellow locking ring
FUNCTIONS	Interlockable Emergency switching off function
NUMBER OF POLES	3

General	
ACCESSORIES	Auxiliary contact or neutral conductor fitted by user.
DEGREE OF PROTECTION	NEMA 12
DEGREE OF PROTECTION (FRONT SIDE)	IP65
LIFESPAN, MECHANICAL	100,000 Operations
MOUNTING METHOD	Surface mounting
MOUNTING POSITION	As required
OPERATING FREQUENCY	1200 Operations/h
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Main switch
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SAFETY PARAMETER (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half- sinusoidal shock 20 ms
SUITABLE FOR	Ground mounting Branch circuits, suitable as motor disconnect, (UL/CSA)

Climatic environmer	ntal conditions	Terminal capacities	
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C	TERMINAL CAPACITY	1 x (1.5 - 25) mm ² , flexible with ferrules to DIN 46228 2 x (2.5 - 10) mm ² , solid or stranded 1 x (2.5 - 35) mm ² , solid or stranded 14 - 2 AWG, solid or flexible with ferrule
AMBIENT OPERATING TEMPERATURE - MAX	40 °C		
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C		
AMBIENT OPERATING TEMPERATURE	40 °C		2 x (1.5 - 6) mm ² , flexible with ferrules to DIN 46228
(ENCLOSED) - MAX	SCREW SIZE	M5, Terminal screw	
Damp heat, constant, to IEC 60068-2-78	TIGHTENING TORQUE	3 Nm, Screw terminals 26.5 lb-in, Screw terminals	
	Damp heat, cyclic, to IEC 60068-2-30		

Electrical rating

RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)	640 A
RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)	600 A
RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)	590 A
RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)	340 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	51 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	55 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	44 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	22.1 A
RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V	63 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V	63 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V	63 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V	63 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V	63 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	63 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V	50 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 48 V	50 A

Short-circuit rating

RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	4 kA (Load side) 100 kA (Supply side)
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	1.26 kA
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	150A, max. Fuse, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING	80 A gG/gL, Fuse, Contacts

RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	50 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	25 A
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	18.5 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	45 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	55 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	63 A
UNINTERRUPTED CURRENT	Rated uninterrupted current lu is specified for max. cross-section.

Switching capacity

LOAD RATING	 1.6 x l_e (with intermittent operation class 12, 40 % duty factor) 1.3 x l_e (with intermittent operation class 12, 60 % duty factor) 2 x l_e (with intermittent operation class 12, 25 % duty factor)
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
NUMBER OF CONTACTS IN SERIES AT DC-23A, 120 V	3
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	60 A, Rated uninterrupted current max. (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10A, IU, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600 (UL/CSA) P600 (UL/CSA)
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	800 A
VOLTAGE PER CONTACT PAIR IN SERIES	60 V

Motor rating

ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	3 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 1-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	15 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	10 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	15 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	40 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	50 HP

Contacts

CONTROL CIRCUIT RELIABILITY	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
NUMBER OF AUXILIARY CONTACTS (CHANGE- OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0

Actuator	
ACTUATOR COLOR	Red
ACTUATOR TYPE	Door coupling rotary drive

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	4.5 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID	4.5 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	63 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	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 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	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.
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.

Resources	
BROCHURES	Brochure - T Rotary Cam switch and P Switch- disconnector
CATALOGUES	<u>P Switch-disconnectors and T Rotary cam</u> switches catalogue CA042001EN
DECLARATIONS OF CONFORMITY	DA-DC-00004924.pdf DA-DC-00004896.pdf
DRAWINGS	<u>eaton-rotary-switches-p3-main-switch-</u> <u>dimensions-009.eps</u>

	<u>eaton-rotary-switches-padlock-t0-main-switch-</u> <u>dimensions.eps</u>
	eaton-general-switch-t0-main-switch-symbol.eps
	<u>eaton-rotary-switches-t0-main-switch-</u> <u>symbol.eps</u>
	<u>eaton-general-totally-insulated-t0-main-switch-</u> <u>symbol.eps</u>
ECAD MODEL	ETN.P3-63 14 SVB-NA
INSTALLATION INSTRUCTIONS	<u>eaton-rotary-switches-p3-63-p3-80-p3-100-cam-</u> <u>switch-disconnector-p3-instruction-leaflet-</u> <u>il03801010z.pdf</u>
INSTALLATION VIDEOS	Eaton's P Switch-disconnectors used in a factory
MCAD MODEL	DA-CS-bauform11 DA-CD-bauform11
PRODUCT	MZ008006ZU Orderform Customized Switch.pdf
NOTIFICATIONS	MZ008005ZU_Orderform_Customized_Switch.pdf
WIRING DIAGRAMS	<u>eaton-rotary-switches-on-off-switch-p3-main-</u> switch-wiring-diagram.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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