

Specifications

Eaton 255887

Eaton Moeller® series P1 On-Off switch, P1, 25 A, surface mounting, 3 pole, Emergency switching off function, with red thumb grip and yellow front plate, UL/CSA

General Specifications

PRODUCT NAME	Eaton Moeller® series P1 On-off switch
CATALOG NUMBER	255887
EAN	4015082558871
PRODUCT LENGTH/DEPTH	107 mm
PRODUCT HEIGHT	180 mm
PRODUCT WIDTH	100 mm
PRODUCT WEIGHT	0.43 kg
CERTIFICATIONS	UL 60947-4-1 UL Category Control No.: NLRV CE IEC/EN 60947-3 UL File No.: E36332 VDE 0660 CSA Class No.: 3211-05 CSA File No.: 012528 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947 UL CSA-C22.2 No. 94 IEC/EN 60204 CSA
MODEL CODE	P1-25/I2-RT-NA

Product specifications

PRODUCT CATEGORY	On-Off switch
FEATURES	Version as emergency stop installation
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 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	Does not apply, since the entire switchgear needs to

ASSEMBLIES	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 thumb grip and yellow front plate
OPERATING FREQUENCY	1200 Operations/h
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
RATED PERMANENT CURRENT AT AC-21, 400 V	25 A
RATED PERMANENT CURRENT AT AC-23, 400 V	25 A
RATED UNINTERRUPTED CURRENT (IU)	25 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
SWITCHING POWER AT 400 V	13 kW
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
ACCESSORIES	Auxiliary contact or neutral conductor fitted by user.
RATED OPERATIONAL	7.5 kW

POWER AT AC-3, 500 V, 50 HZ

DEVICE CONSTRUCTION	Complete device in housing
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RATED SHORT-TIME WITHSTAND CURRENT (ICW)	0.64 kA 640 A, Contacts, 1 second
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ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
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MOUNTING POSITION	As required
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ACTUATOR TYPE	Short thumb-grip
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AMBIENT OPERATING TEMPERATURE - MAX	40 °C
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AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
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AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
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AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
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ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	1 HP
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ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 1-PHASE	2 HP
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ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	3 HP
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ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	3 HP
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ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	5 HP
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ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	10 HP
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ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	15 HP
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EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	1.1 W
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HEAT DISSIPATION CAPACITY PDISS	0 W
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HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.1 W
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NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	50 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	Three-pole
MOUNTING METHOD	Surface mounting
DEGREE OF PROTECTION	NEMA 12
SUITABLE FOR	Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting
FUNCTIONS	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) 1.3 x I _e (with intermittent operation class 12, 60 % duty factor) 1.6 x I _e (with intermittent operation class 12, 40 % duty factor)
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10A, IU, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P600 (UL/CSA) A600 (UL/CSA)
TERMINAL CAPACITY	1 x (1 - 4) mm ² , flexible

	with ferrules to DIN 46228 1 x (1.5 - 6) mm ² , solid or stranded 2 x (1 - 4) mm ² , flexible with ferrules to DIN 46228 14 - 8 AWG, solid or flexible with ferrule 2 x (1.5 - 6) mm ² , solid or stranded
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	20 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)	190 A
RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)	150 A
RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)	170 A
RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)	150 A
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	240 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)	5 kA, SCCR (UL/CSA) 110A, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT	10 kA, SCCR (UL/CSA)

RATING (HIGH FAULT)	50 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING	25 A gG/gL, Fuse, Contacts
RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V	17.4 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V	12.6 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	19.6 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	15.2 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	12.1 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	8.8 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	25 A
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)	25 A
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	5.5 kW

RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	13 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	11 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	11 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	7.5 kW
TIGHTENING TORQUE	14.1 lb-in, Screw terminals 1.6 Nm, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current I _u is specified for max. cross-section.
RATED SWITCHING CAPACITY	1 HP at 120 V AC, single- phase 10 HP at 480 V AC, three- phase 15 HP at 600 V AC, three- phase 2 HP at 200 V AC, single- phase 3 HP at 200 V AC, three- phase 3 HP at 240 V AC, single- phase 5 HP at 240 V AC, three- phase
HOUSING COLOR	Gray
HOUSING MATERIAL	Plastic

Resources

BROCHURES	Brochure - T Rotary Cam switch and P Switch-disconnector
CATALOGUES	P Switch-disconnectors and T Rotary cam switches catalogue CA042001EN
DECLARATIONS OF CONFORMITY	eaton-main-switch-declaration-of-conformity-eu250807en.pdf eaton-main-switch-declaration-of-conformity-uk251290en.pdf
DRAWINGS	eaton-rotary-switches-t0-on-off-switch-dimensions.eps

	eaton-general-totally-insulated-t0-main-switch-symbol.eps eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-003.eps eaton-general-rotary-switch-t0-step-switch-symbol.eps
ECAD MODEL	ETN.255887.edz
INSTALLATION INSTRUCTIONS	eaton-switch-discon-p1-insulated-enclosure-il03802001z.pdf
INSTALLATION VIDEOS	Eaton's P Switch-disconnectors used in a factory
MCAD MODEL	DA-CS-bauform6 DA-CD-bauform6
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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