

Eaton 031759

Eaton Moeller® series P3 On-Off switch, P3, 100 A, flush mounting, 3 pole + N, with black thumb grip and front plate

PRODUCT NAME	Eaton Moeller® series P3 On-off switch
CATALOG NUMBER	031759
PRODUCT LENGTH/DEPTH	100 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	90 mm
PRODUCT WEIGHT	0.4 kg
CERTIFICATIONS	VDE 0660 CSA Class No.: 3211-05 CSA-C22.2 No. 94 UL File No.: E36332 UL CSA-C22.2 No. 60947-4-1-14 UL Category Control No.: NLRV CSA File No.: 012528 IEC/EN 60947 CSA CE IEC/EN 60947-3 IEC/EN 60204 UL 60947-4-1
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second



Powering Business Worldwide

PRODUCT CATEGORY	On-Off switch
ACTUATOR COLOR	Black
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	Does not apply, since the

eaton-rotary-switches-on-off-switch-p3-main-switch-wiring-diagram-002.eps
eaton-rotary-switches-installation-p3-on-off-switch-dimensions.eps
eaton-rotary-switches-switching-p3-on-off-switch-dimensions.eps
eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-002.eps

PROTECTION OF ASSEMBLIES	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:	Black thumb grip and 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	100 A
RATED PERMANENT CURRENT AT AC-23, 400 V	100 A
RATED UNINTERRUPTED CURRENT (IU)	100 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
SWITCHING POWER AT 400 V	55 kW
VOLTAGE PER CONTACT PAIR IN SERIES	60 V

ACCESSORIES	Auxiliary contact fitted by user.
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	45 kW
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	2 kA
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	As required
ACTUATOR TYPE	Short thumb-grip
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	5 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 1-PHASE	10 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	20 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	15 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	25 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	60 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	75 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W

HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	7.5 W
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	4 kA (Load side) 80 kA (Supply side)
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	4
MOUNTING METHOD	Flush mounting
DEGREE OF PROTECTION	NEMA 12
SUITABLE FOR	Front mounting 4-hole Branch circuits, suitable as motor disconnect, (UL/CSA)
NUMBER OF SWITCHES	1
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SCREW SIZE	M5, Terminal screw
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
LIFESPAN, MECHANICAL	100,000 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	10A, IU, (UL/CSA)

(AUXILIARY CONTACTS, GENERAL USE)	
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600 (UL/CSA) P600 (UL/CSA)
TERMINAL CAPACITY	2 x (2.5 - 10) mm ² , solid or stranded 1 x (2.5 - 35) mm ² , solid or stranded 2 x (1.5 - 6) mm ² , flexible with ferrules to DIN 46228 1 x (1.5 - 25) mm ² , flexible with ferrules to DIN 46228 14 - 2 AWG, solid or flexible with ferrule
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	100 A, If used with neutral conductor IU = max. 90 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)	760 A
RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)	740 A
RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)	880 A
RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)	520 A
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	950 A
RATED OPERATING	690 V

VOLTAGE (UE) - MAX	
RATED OPERATING VOLTAGE (UE) - MIN	690 V
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	150A, max. Fuse, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING	100 A gG/gL, Fuse, Contacts
RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V	100 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V	100 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V	100 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V	96 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V	68 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	71 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	71 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	65 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	23.8 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	100 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	25 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V	50 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A,	50 A

48 V	
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	50 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	100 A
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	55 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	55 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	55 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	37 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	37 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	37 kW
TIGHTENING TORQUE	26.5 lb-in, Screw terminals 3 Nm, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current I _u is specified for max. cross-section.
HOUSING COLOR	Black
HOUSING MATERIAL	Plastic

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

:



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