



Eaton 231940

Eaton Moeller® series T0 On-Off switch, T0, 20 A, service distribution board mounting, 3 contact unit(s), 3 pole + N, 1 N/O, 1 N/C, with black thumb grip and front plate

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PRODUCT NAME	Eaton Moeller® series T0 On-off switch
CATALOG NUMBER	231940
PRODUCT LENGTH/DEPTH	101 mm
PRODUCT HEIGHT	55 mm
PRODUCT WIDTH	54 mm
PRODUCT WEIGHT	0.155 kg
COMPLIANCES	CE Marked
CERTIFICATIONS	CSA Std. C22.2 No. 14-05 EN 60947-3 UL 508 IEC 60947 VDE CSA UL File No.: E36332 IEC/EN 60947-3 UL CSA Class No.: 3211-05 CSA File No.: 012528 CSA-C22.2 No. 94 IEC/EN 60204 VDE 0660 UL 60947-4-1 CSA-C22.2 No. 60947-4-1-14 UL Category Control No.: NLRV IEC/EN 60947 CE
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second



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PRODUCT CATEGORY	On-Off switch
ACTUATOR COLOR	Black
ACTUATOR FUNCTION	Maintained
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.
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.

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DECLARATIONS OF CONFORMITY	eaton-step-switch-declaration-of-conformity-uk251327en.pdf
□□□□□	IL03801006Z
□□□	eaton-rotary-switches-switch-t0-main-switch-wiring-diagram-004.eps
□□	eaton-rotary-switches-mounting-t0-step-switch-dimensions.eps
	eaton-rotary-switches-mounting-t0-step-switch-dimensions-004.eps
	eaton-rotary-switches-mounting-t0-changeover-switch-3d-drawing.eps
	eaton-general-rotary-switch-t0-step-switch-symbol-005.eps
	eaton-rotary-switches-front-plate-t0-on-off-switch-symbol-002.eps

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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
RATED OPERATIONAL POWER STAR-DELTA AT 500 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER STAR-DELTA AT 690 V, 50 HZ	5.5 kW
RATED PERMANENT CURRENT AT AC-21, 400 V	20 A
RATED PERMANENT CURRENT AT AC-23, 400 V	13.3 A
RATED UNINTERRUPTED CURRENT (IU)	20 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
SWITCHING ANGLE	90 °
SWITCHING POWER AT 400 V	5.5 kW

VOLTAGE PER CONTACT PAIR IN SERIES	60 V
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	5.5 kW
DEVICE CONSTRUCTION	Built-in device fixed built-in technique
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	320 A, Contacts, 1 second 0.32 kA
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
DESIGN	8901
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	0.5 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 1-PHASE	1 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	1.5 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	7.5 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0.6 W
HEAT DISSIPATION	0 W

CAPACITY PDISS	
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.6 W
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	1
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	6 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)	IP30
NUMBER OF POLES	4
MOUNTING METHOD	Service distribution board mounting
DEGREE OF PROTECTION	NEMA Other
SUITABLE FOR	Distribution board installation Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting
NUMBER OF SWITCHES	1
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SCREW SIZE	M3.5, Terminal screw
INSCRIPTION	0-1
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
LIFESPAN, MECHANICAL	400,000 Operations
LOAD RATING	1.3 × I _e (with intermittent operation class 12, 60 % duty factor) 2 × I _e (with intermittent operation class 12, 25 % duty factor) 1.6 × I _e (with intermittent operation class 12, 40 % duty factor)
SWITCHING CAPACITY	10A, IU, (UL/CSA)

(AUXILIARY CONTACTS, GENERAL USE)	
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600 (UL/CSA) P300 (UL/CSA)
TERMINAL CAPACITY	2 x (1 - 2.5) mm ² , solid or stranded 18 - 14 AWG, solid or flexible with ferrule 1 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 1 x (1 - 2.5) mm ² , solid or stranded 2 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	16 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)	1
NUMBER OF CONTACT UNITS	3
NUMBER OF CONTACTS IN SERIES AT DC-21A, 240 V	1
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, 240 V	5
NUMBER OF CONTACTS IN SERIES AT DC-23A, 48 V	2
NUMBER OF CONTACTS IN SERIES AT DC-23A, 60 V	3
RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)	100 A
RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)	110 A
RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)	80 A
RATED BREAKING CAPACITY AT 660/690 V	60 A

(COS PHI TO IEC 60947-3)	
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	130 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) 50A, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT)	10 kA, SCCR (UL/CSA) 20 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING	20 A gG/gL, Fuse, Contacts
RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V	20 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V	13.3 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V	13.3 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V	13.3 A
RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V	7.6 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	11.5 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	11.5 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	9 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	4.9 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	10 A
RATED OPERATIONAL	10 A

CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS	
RATED OPERATIONAL CURRENT (IE) AT DC-21, 240 V	1 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V	5 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 240 V	5 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 48 V	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V	10 A
RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 220/230 V	20 A
RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 380/400 V	20 A
RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 500 V	15.6 A
RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 690 V	8.5 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	20 A
RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50	5.5 kW

HZ	
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	
RATED OPERATIONAL POWER STAR-DELTA AT 220/230 V, 50 HZ	4 kW
RATED OPERATIONAL POWER STAR-DELTA AT 380/400 V, 50 HZ	5.5 kW
TIGHTENING TORQUE	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current Iu is specified for max. cross-section.
RATED SWITCHING CAPACITY	0.5 HP at 120 V AC, single- phase 1 HP at 200 V AC, single- phase 1.5 HP at 240 V AC, single- phase 3 HP at 200 V AC, three- phase 3 HP at 240 V AC, three- phase 7.5 HP at 480 V AC, three- phase 7.5 HP at 600 V AC, three- phase
HOUSING COLOR	Black
HOUSING MATERIAL	Plastic

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY: