



Eaton 022249

Eaton Moeller® series T0 Spring-return switch, T0, 20 A, service distribution board mounting, 2 contact unit(s), Contacts: 4, Spring-return in START position, 45 °, momentary/maintained, START>1-0-2<START, Design number 8177

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PRODUCT NAME	Eaton Moeller® series T0 Spring-return switch
CATALOG NUMBER	022249
PRODUCT LENGTH/DEPTH	92 mm
PRODUCT HEIGHT	55 mm
PRODUCT WIDTH	54 mm
PRODUCT WEIGHT	0.12 kg
CERTIFICATIONS	CSA File No.: 012528 IEC/EN 60947 UL IEC/EN 60204 IEC/EN 60947-3 CSA CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 3211-05 CSA-C22.2 No. 94 UL Category Control No.: NLRV UL 60947-4-1 UL File No.: E36332 CE VDE 0660
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second

TYPE	Spring-return switch
ACTUATOR FUNCTION	Maintained/momentary Spring-return from both directions Spring-return in START position With 0 (Off) position
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

DECLARATIONS OF CONFORMITY	eaton-step-switch-declaration-of-conformity-uk251327en.pdf
00000	IL03801006Z
000	eaton-rotary-switches-switch-t0-main-switch-wiring-diagram-008.eps
00	eaton-rotary-switches-mounting-t0-step-switch-dimensions-003.eps eaton-rotary-switches-mounting-t0-step-switch-dimensions.eps eaton-rotary-switches-mounting-t0-changeover-switch-3d-drawing.eps eaton-rotary-switches-front-plate-t0-main-switch-symbol.eps eaton-general-rotary-switch-t0-step-switch-symbol-005.eps

	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:	Black thumb grip and front plate 0 (off) position
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 UNINTERRUPTED CURRENT (IU)	20 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
SWITCHING ANGLE	45 °
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
WIDTH IN NUMBER OF MODULAR SPACINGS	4
PRODUCT CATEGORY	Control switches
NUMBER OF POLES	Two-pole
RATED OPERATIONAL	5.5 kW

POWER AT AC-3, 500 V, 50 HZ	
DEVICE CONSTRUCTION	Built-in device
SWITCH TYPE	On/Off switch
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	320 A, Contacts, 1 second
ACTUATOR TYPE	Toggle
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 W
MOUNTING POSITION	As required
MOUNTING METHOD	Service distribution board mounting
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	6 kA
DEGREE OF PROTECTION	IP30
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 NEMA 2
NUMBER OF CONTACTS	4
SUITABLE FOR	Ground mounting Distribution board installation Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.6 W
NUMBER OF CONTACT UNITS	2
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
FRONT SHIELD SIZE	48x48 mm
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 61140
SCREW SIZE	M3.5, Terminal screw
INSCRIPTION	" START>1-0-2
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
LIFESPAN, MECHANICAL	400,000 Operations
NUMBER OF SWITCH POSITIONS	5
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) P300 (UL/CSA)
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 (COS PHI TO IEC 60947-3)	60 A
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)	130 A
RATED OPERATING VOLTAGE (UE) AT AC - MAX	690 V
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 CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-21, 240 V	1 A
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
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, 230 V	20 A
RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 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	3 kW

POWER AT AC-23A, 220/230 V, 50 HZ	
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, 415 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	4 kW
RATED OPERATIONAL POWER STAR-DELTA AT 220/230 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER STAR-DELTA AT 380/400 V, 50 HZ	7.5 kW
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
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm ² , ferrules to DIN 46228 2 x (0.75 - 2.5) mm ² , ferrules to DIN 46228
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
TERMINAL CAPACITY (SOLID/FLEXIBLE WITH FERRULE AWG)	18 - 14
TERMINAL CAPACITY (SOLID/STRANDED)	1 x (1 - 2.5) mm ² 2 x (1 - 2.5) mm ²
TIGHTENING TORQUE	1 Nm, Screw terminals 8.8 lb-in, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current I _u is specified for max. cross-section.
DESIGN	8177

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:



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