

Eaton 098181

Eaton Moeller® series T0 Changeoverswitches, T0, 20 A, service distribution board mounting, 2 contact unit(s), Contacts: 4, 90 °, maintained, Without 0 (Off) position, HAND-AUTO, Design number 15452

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PRODUCT NAME	Eaton Moeller® series T0 Changeover switch
CATALOG NUMBER	098181
PRODUCT LENGTH/DEPTH	92 mm
PRODUCT HEIGHT	55 mm
PRODUCT WIDTH	54 mm
PRODUCT WEIGHT	0.12 kg
CERTIFICATIONS	CSA File No.: 012528 CSA CSA Class No.: 3211-05 UL Category Control No.: NLRV UL File No.: E36332 VDE 0660 CSA-C22.2 No. 94 IEC/EN 60947-3 UL UL 60947-4-1 CE IEC/EN 60947 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60204
CATALOG NOTES	Rated Short-time Withstand Current (Icw) for a time of 1 second



ТҮРЕ	Changeover switch
ACTUATOR FUNCTION	Without 0 (Off) position 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.

DECLARATIONS OF CONFORMITY	eaton-step-switch- declaration-of-conformity- uk251327en.pdf
00000	<u>IL03801006Z</u>
000	eaton-rotary-switches- switch-t0-changeover- switch-wiring-diagram- 006.eps
	eaton-rotary-switches- mounting-t0-step-switch- dimensions-003.eps
00	eaton-rotary-switches- mounting-t0-step-switch- dimensions.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-changeover- switch-symbol-020.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	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.
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
CLIMATIC PROOFING RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	60068-2-30 Damp heat, constant, to
RATED IMPULSE WITHSTAND VOLTAGE	60068-2-30 Damp heat, constant, to IEC 60068-2-78
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED	60068-2-30 Damp heat, constant, to IEC 60068-2-78
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT PAIR IN SERIES WIDTH IN NUMBER OF	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W 90 ° 60 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT PAIR IN SERIES WIDTH IN NUMBER OF MODULAR SPACINGS	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W 90 ° 60 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT PAIR IN SERIES WIDTH IN NUMBER OF MODULAR SPACINGS PRODUCT CATEGORY	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W 90 ° 60 V 4 Control switches
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT PAIR IN SERIES WIDTH IN NUMBER OF MODULAR SPACINGS PRODUCT CATEGORY NUMBER OF POLES RATED OPERATIONAL POWER AT AC-3, 500 V, 50	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W 90 ° 60 V 4 Control switches Two-pole
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) RATED UNINTERRUPTED CURRENT (IU) STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS SWITCHING ANGLE VOLTAGE PER CONTACT PAIR IN SERIES WIDTH IN NUMBER OF MODULAR SPACINGS PRODUCT CATEGORY NUMBER OF POLES RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	60068-2-30 Damp heat, constant, to IEC 60068-2-78 6000 V AC 20 A 0 W 90 ° 60 V 4 Control switches Two-pole 5.5 kW

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 НР
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	Distribution board installation Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting 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	" HAND-AUTO "
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	2
LOAD RATING	$1.6 \times l_e$ (with intermittent operation class 12, 40 % duty factor) $2 \times l_e$ (with intermittent operation class 12, 25 % duty factor) $1.3 \times l_e$ (with intermittent operation class 12, 60 % duty factor)
SWITCHING CAPACITY (AUXILIARY CONTACTS,	10A, IU, (UL/CSA)

GENERAL USE)	
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300 (UL/CSA) A600 (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	4.9 A

CURRENT (IE) AT AC-3, 660 V, 690 V	
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 POWER AT AC-23A, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-23A, 400 V,	5.5 kW

50 HZ	
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)	50A, max. Fuse, SCCR (UL/CSA) 5 kA, 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	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
UNINTERRUPTED CURRENT	Rated uninterrupted current lu is specified for max. cross-section.
DESIGN	15452

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
ПП:	



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