

## Eaton 207142

Eaton Moeller® series T0 Multi-speed switches, T0, 20 A, surface mounting, 4 contact unit(s), Contacts: 8, 60 °, maintained, With 0 (Off) position, 1-0-2, Design number 8441

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PRODUCT NAME	Eaton Moeller® series T0 Multi-speed switch
CATALOG NUMBER	207142
PRODUCT LENGTH/DEPTH	137 mm
PRODUCT HEIGHT	122 mm
PRODUCT WIDTH	80 mm
PRODUCT WEIGHT	0.36 kg
CERTIFICATIONS	IEC/EN 60947-3 IEC/EN 60947 VDE 0660 IEC/EN 60204
CATALOG NOTES	Rated Short-time Withstand Current (lcw) for a time of 1 second



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ТҮРЕ	Multi-speed switch
PRODUCT CATEGORY	Control switches
FEATURES	Complete device in housing
ACTUATOR FUNCTION	With 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	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.

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DECLARATIONS OF CONFORMITY	eaton-step-switch- declaration-of-conformity- uk251327en.pdf
00000	<u>IL03801007Z2021_06.pdf</u>
000	eaton-rotary-switches- switch-t0-main-switch- wiring-diagram-010.eps
00	eaton-rotary-switches-t0- changeover-switch- dimensions-002.eps
	eaton-rotary-switches- front-plate-t0-changeover- switch-symbol-009.eps

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	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 0 (off) position
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
ENCLOSURE MATERIAL	Plastic
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
ACTUATOR TYPE	Short thumb-grip
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	0 W

HEAT DISSIPATION CAPACITY PDISS	0 W
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)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF CONTACT UNITS	4
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	320 A, Contacts, 1 second
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
MOUNTING POSITION	As required
RATED CONDITIONAL SHORT-CIRCUIT CURRENT	6 kA
(IQ)	
MOUNTING METHOD	Surface mounting
	Surface mounting
MOUNTING METHOD  OVERVOLTAGE	
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT	III  1 failure per 100,000 switching operations statistically determined, at
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION  NUMBER OF CONTACTS	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION  NUMBER OF CONTACTS  MODEL  DEGREE OF PROTECTION	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65  8 Dahlander switch IP65
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION NUMBER OF CONTACTS  MODEL  DEGREE OF PROTECTION (FRONT SIDE)	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65 8 Dahlander switch IP65 NEMA 12
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION  NUMBER OF CONTACTS  MODEL  DEGREE OF PROTECTION (FRONT SIDE)  INSCRIPTION	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65 8 Dahlander switch IP65 NEMA 12 1-0-2 One tapped winding, 2
MOUNTING METHOD  OVERVOLTAGE CATEGORY  CONTROL CIRCUIT RELIABILITY  NUMBER OF POLES  DEGREE OF PROTECTION  NUMBER OF CONTACTS  MODEL  DEGREE OF PROTECTION (FRONT SIDE)  INSCRIPTION  SWITCH FUNCTION TYPE	III  1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  3 IP65 8 Dahlander switch IP65 NEMA 12 1-0-2 One tapped winding, 2 speeds

	delta 15.6 A at AC-3, 500 V star- delta
SCREW SIZE	M3.5, Terminal screw
SHOCK RESISTANCE	15 g, Mechanical, According to IEC/EN 60068-2-27, Half- sinusoidal shock 20 ms
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)
TIGHTENING TORQUE	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
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 (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 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
SAFETY PARAMETER (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
SHORT-CIRCUIT PROTECTION RATING	20 A gG/gL, Fuse, Contacts
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm <sup>2</sup> , ferrules to DIN 46228 2 x (0.75 - 2.5) mm <sup>2</sup> , ferrules to DIN 46228
	Terruies to Dire 40220
SUITABLE FOR	Ground mounting Front mounting
SUITABLE FOR  RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS	Ground mounting
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES	Ground mounting Front mounting
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS  RATED OPERATIONAL CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R	Ground mounting Front mounting  10 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS  RATED OPERATIONAL CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS  RATED OPERATIONAL CURRENT (IE) AT DC-21,	Ground mounting Front mounting  10 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS  RATED OPERATIONAL CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS  RATED OPERATIONAL CURRENT (IE) AT DC-21, 240 V  RATED OPERATIONAL CURRENT (IE) AT DC-23A,	Ground mounting Front mounting  10 A  10 A

240 V	
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 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	4 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
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED UNINTERRUPTED CURRENT (IU)	20 A
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	0 W

SWITCHING ANGLE	60°
VOLTAGE PER CONTACT PAIR IN SERIES	60 V
TERMINAL CAPACITY (SOLID/STRANDED)	2 x (1 - 2.5) mm <sup>2</sup> 1 x (1 - 2.5) mm <sup>2</sup>
UNINTERRUPTED CURRENT	Rated uninterrupted current lu is specified for max. cross-section.
DESIGN	8441

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
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information.





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