



## Eaton 011741

Eaton Moeller® series T0 Changeover switch, 20 A, service distr. board mounting, 2 contact units, Contacts: 4, 90 °, maintained, 0 (Off) position, 1-0-2, Design no. 8219

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<b>PRODUCT NAME</b>	Eaton Moeller® series T0 Changeover switch
<b>CATALOG NUMBER</b>	011741
<b>PRODUCT LENGTH/DEPTH</b>	92 mm
<b>PRODUCT HEIGHT</b>	55 mm
<b>PRODUCT WIDTH</b>	54 mm
<b>PRODUCT WEIGHT</b>	0.12 kg
<b>CERTIFICATIONS</b>	UL File No.: E36332 CE VDE 0660 CSA-C22.2 No. 60947-4-1-14 UL CSA File No.: 012528 CSA UL Category Control No.: NLRV CSA-C22.2 No. 94 UL 60947-4-1 CSA Class No.: 3211-05 IEC/EN 60947-3 IEC/EN 60204 IEC/EN 60947
<b>CATALOG NOTES</b>	Rated Short-time Withstand Current (Icw) for a time of 1 second



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TYPE	Changeover switch
PRODUCT CATEGORY	Control switches
ACTUATOR FUNCTION	Maintained 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 standard's requirements.
10.3 DEGREE OF PROTECTION OF	Does not apply, since the entire switchgear needs to

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DECLARATIONS OF CONFORMITY	<a href="#">eaton-step-switch-declaration-of-conformity-uk251327en.pdf</a>
□□□□□	<a href="#">IL03801006Z</a>
□□□	<a href="#">eaton-rotary-switches-contact-t0-changeover-switch-wiring-diagram.eps</a>
□□	<a href="#">eaton-rotary-switches-mounting-t0-step-switch-dimensions-003.eps</a>  <a href="#">eaton-rotary-switches-front-plate-t0-changeover-switch-symbol-011.eps</a>  <a href="#">eaton-general-rotary-switch-t0-step-switch-symbol-005.eps</a>

<b>ASSEMBLIES</b>	be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>FITTED WITH:</b>	0 (off) position Black thumb grip and front plate
<b>OPERATING FREQUENCY</b>	1200 Operations/h
<b>POLLUTION DEGREE</b>	3
<b>CLIMATIC PROOFING</b>	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
<b>ENCLOSURE MATERIAL</b>	Plastic
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>ACTUATOR TYPE</b>	Short thumb-grip
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	50 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
<b>ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE</b>	0.5 HP
<b>ASSIGNED MOTOR POWER AT 200/208 V, 60</b>	1 HP

<b>HZ, 1-PHASE</b>	
<b>ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE</b>	3 HP
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE</b>	1.5 HP
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE</b>	3 HP
<b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>	7.5 HP
<b>ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE</b>	7.5 HP
<b>EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID</b>	0 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID</b>	0.6 W
<b>NUMBER OF AUXILIARY CONTACTS (CHANGE- OVER CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	0
<b>NUMBER OF CONTACT UNITS</b>	2
<b>RATED SHORT-TIME WITHSTAND CURRENT (ICW)</b>	320 A, Contacts, 1 second
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>MOUNTING POSITION</b>	As required
<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)</b>	6 kA
<b>MOUNTING METHOD</b>	Service distribution board mounting
<b>OVERVOLTAGE CATEGORY</b>	III
<b>CONTROL CIRCUIT RELIABILITY</b>	1 failure per 100,000 switching operations statistically determined, at

	24 V DC, 10 mA)
<b>NUMBER OF POLES</b>	2
<b>DEGREE OF PROTECTION</b>	IP30
<b>NUMBER OF CONTACTS</b>	4
<b>MODEL</b>	Reverser
<b>DEGREE OF PROTECTION (FRONT SIDE)</b>	IP30 NEMA 2
<b>INSCRIPTION</b>	1-0-2
<b>LIFESPAN, MECHANICAL</b>	400,000 Operations
<b>SAFE ISOLATION</b>	440 V AC, Between the contacts, According to EN 61140
<b>RATED OPERATIONAL CURRENT (IE)</b>	20 A at AC-3, 400 V star-delta 15.6 A at AC-3, 500 V star-delta 20 A at AC-3, 230 V star-delta 8.5 A at AC-3, 690 V star-delta
<b>SCREW SIZE</b>	M3.5, Terminal screw
<b>SHOCK RESISTANCE</b>	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
<b>LOAD RATING</b>	1.6 x I <sub>e</sub> (with intermittent operation class 12, 40 % duty factor) 2 x I <sub>e</sub> (with intermittent operation class 12, 25 % duty factor) 1.3 x I <sub>e</sub> (with intermittent operation class 12, 60 % duty factor)
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b>	10A, IU, (UL/CSA)
<b>TIGHTENING TORQUE</b>	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	P300 (UL/CSA) A600 (UL/CSA)
<b>NUMBER OF CONTACTS IN SERIES AT DC-21A, 240 V</b>	1
<b>NUMBER OF CONTACTS IN SERIES AT DC-23A, 120 V</b>	3
<b>NUMBER OF CONTACTS IN SERIES AT DC-23A, 24 V</b>	1
<b>NUMBER OF CONTACTS IN SERIES AT DC-23A, 240</b>	5

**V****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

**SWITCHING CAPACITY  
(MAIN CONTACTS,  
GENERAL USE)**16 A, Rated uninterrupted  
current max. (UL/CSA)**SAFETY PARAMETER (EN**

B10d values as per EN ISO

<b>ISO 13849-1)</b>	13849-1, table C.1
<b>SHORT-CIRCUIT PROTECTION RATING</b>	20 A gG/gL, Fuse, Contacts
<b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	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
<b>SUITABLE FOR</b>	Distribution board installation Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting Front mounting
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, LOAD-BREAK SWITCHES L/R = 1 MS</b>	10 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-13, CONTROL SWITCHES L/R = 50 MS</b>	10 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-21, 240 V</b>	1 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-23A, 120 V</b>	5 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-23A, 24 V</b>	10 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-23A, 240 V</b>	5 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-23A, 48 V</b>	10 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-23A, 60 V</b>	10 A
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	20 A
<b>RATED OPERATIONAL POWER AT AC-23A, 220/230 V, 50 HZ</b>	3 kW
<b>RATED OPERATIONAL POWER AT AC-23A, 400 V, 50 HZ</b>	5.5 kW
<b>RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ</b>	7.5 kW
<b>RATED OPERATIONAL</b>	5.5 kW

<b>POWER AT AC-23A, 690 V, 50 HZ</b>	
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	4 kW
<b>RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ</b>	5.5 kW
<b>RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ</b>	4 kW
<b>RATED OPERATIONAL POWER STAR-DELTA AT 220/230 V, 50 HZ</b>	5.5 kW
<b>RATED OPERATIONAL POWER STAR-DELTA AT 380/400 V, 50 HZ</b>	7.5 kW
<b>RATED OPERATIONAL POWER STAR-DELTA AT 500 V, 50 HZ</b>	7.5 kW
<b>RATED OPERATIONAL POWER STAR-DELTA AT 690 V, 50 HZ</b>	5.5 kW
<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>	690 V
<b>RATED UNINTERRUPTED CURRENT (IU)</b>	20 A
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	0 W
<b>SWITCHING ANGLE</b>	90 °
<b>VOLTAGE PER CONTACT PAIR IN SERIES</b>	60 V
<b>SHORT-CIRCUIT CURRENT RATING (HIGH FAULT)</b>	10 kA, SCCR (UL/CSA) 20 A, Class J, max. Fuse, SCCR (UL/CSA)
<b>SHORT-CIRCUIT CURRENT RATING (BASIC RATING)</b>	50A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
<b>TERMINAL CAPACITY (SOLID/FLEXIBLE WITH FERRULE AWG)</b>	18 - 14
<b>TERMINAL CAPACITY (SOLID/STRANDED)</b>	2 x (1 - 2.5) mm <sup>2</sup> 1 x (1 - 2.5) mm <sup>2</sup>
<b>UNINTERRUPTED CURRENT</b>	Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.
<b>DESIGN</b>	8219



