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## Eaton 014185

Eaton Moeller series T0 Step switch, 20 A, Flush mounting, 5 contact unit(s), Contacts: 9, Maintained, 0-9, Design: 15224

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<b>PRODUCT NAME</b>	Eaton Moeller® series T0 Step switch
<b>CATALOG NUMBER</b>	014185
<b>PRODUCT LENGTH/DEPTH</b>	114 mm
<b>PRODUCT HEIGHT</b>	48 mm
<b>PRODUCT WIDTH</b>	48 mm
<b>PRODUCT WEIGHT</b>	0.147 kg
<b>CERTIFICATIONS</b>	IEC/EN 60947 UL Category Control No.: NLRV UL File No.: E36332 CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 3211-05 IEC/EN 60947-3 IEC/EN 60204 CSA-C22.2 No. 94 UL 60947-4-1 CSA VDE 0660 UL CE CSA File No.: 012528
<b>CATALOG NOTES</b>	Rated Short-time Withstand Current (Icw) for a time of 1 second

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TYPE	Step switch
FEATURES	Uninterruptible contact behavior
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	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.
10.3 DEGREE OF	Does not apply, since the

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DECLARATIONS OF CONFORMITY	<a href="#">eaton-step-switch-declaration-of-conformity-uk251327en.pdf</a>
□□□□□	<a href="#">IL03801020Z</a>
□□□	<a href="#">eaton-rotary-switches-t0-step-switch-wiring-diagram-139.eps</a>  <a href="#">eaton-rotary-switches-t0-step-switch-wiring-diagram-140.eps</a>
□□	<a href="#">eaton-rotary-switches-mounting-t0-step-switch-dimensions-028.eps</a>  <a href="#">eaton-rotary-switches-front-plate-t0-step-switch-symbol-005.eps</a>

<b>PROTECTION OF ASSEMBLIES</b>	entire switchgear needs to 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>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>RATED UNINTERRUPTED CURRENT (IU)</b>	20 A
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	0 W
<b>SWITCHING ANGLE</b>	30 °
<b>VOLTAGE PER CONTACT PAIR IN SERIES</b>	60 V
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	0
<b>PRODUCT CATEGORY</b>	Control switches
<b>NUMBER OF POLES</b>	Single-pole
<b>RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ</b>	5.5 kW

<b>DEVICE CONSTRUCTION</b>	Built-in device
<b>SWITCH TYPE</b>	Level switch
<b>RATED SHORT-TIME WITHSTAND CURRENT (ICW)</b>	320 A, Contacts, 1 second
<b>ACTUATOR TYPE</b>	Toggle
<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 HZ, 1-PHASE</b>	1 HP
<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>MOUNTING POSITION</b>	As required
<b>MOUNTING METHOD</b>	Flush mounting
<b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)</b>	6 kA
<b>DEGREE OF PROTECTION</b>	NEMA 1 NEMA 12 IP65
<b>OVERVOLTAGE CATEGORY</b>	III
<b>CONTROL CIRCUIT</b>	1 failure per 100,000

<b>RELIABILITY</b>	switching operations statistically determined, at 24 V DC, 10 mA)
<b>DEGREE OF PROTECTION (FRONT SIDE)</b>	IP65 NEMA 12
<b>NUMBER OF CONTACTS</b>	9
<b>SUITABLE FOR</b>	Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID</b>	0.6 W
<b>NUMBER OF CONTACT UNITS</b>	5
<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 V</b>	5
<b>FRONT SHIELD SIZE</b>	48x48 mm
<b>SAFE ISOLATION</b>	440 V AC, Between the contacts, According to EN 61140
<b>SCREW SIZE</b>	M3.5, Terminal screw
<b>INSCRIPTION</b>	0-9
<b>SHOCK RESISTANCE</b>	15 g, Mechanical, According to IEC/EN 60068-2-27, Half- sinusoidal shock 20 ms
<b>LIFESPAN, MECHANICAL</b>	400,000 Operations
<b>NUMBER OF SWITCH POSITIONS</b>	10
<b>LOAD RATING</b>	2 x I <sub>e</sub> (with intermittent operation class 12, 25 % duty factor) 1.6 x I <sub>e</sub> (with intermittent operation class 12, 40 % duty factor) 1.3 x I <sub>e</sub> (with intermittent operation class 12, 60 % duty factor)
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS,</b>	10A, IU, (UL/CSA)

<b>GENERAL USE)</b>	
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	A600 (UL/CSA) P300 (UL/CSA)
<b>NUMBER OF CONTACTS IN SERIES AT DC-23A, 48 V</b>	2
<b>NUMBER OF CONTACTS IN SERIES AT DC-23A, 60 V</b>	3
<b>RATED BREAKING CAPACITY AT 220/230 V (COS PHI TO IEC 60947-3)</b>	100 A
<b>RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)</b>	110 A
<b>RATED BREAKING CAPACITY AT 500 V (COS PHI TO IEC 60947-3)</b>	80 A
<b>RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)</b>	60 A
<b>RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947-3)</b>	130 A
<b>RATED OPERATING VOLTAGE (UE) AT AC - MAX</b>	690 V
<b>RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V</b>	20 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-23A, 230 V</b>	13.3 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-23A, 400 V, 415 V</b>	13.3 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-23A, 500 V</b>	13.3 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-23A, 690 V</b>	7.6 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V</b>	11.5 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	11.5 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V</b>	9 A
<b>RATED OPERATIONAL</b>	4.9 A

<b>CURRENT (IE) AT AC-3, 660 V, 690 V</b>	
<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>SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)</b>	16 A, Rated uninterrupted current max. (UL/CSA)
<b>SAFETY PARAMETER (EN ISO 13849-1)</b>	B10d values as per EN ISO 13849-1, table C.1
<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 (IE) STAR- DELTA AT AC-3, 230 V</b>	20 A
<b>RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 400 V</b>	20 A
<b>RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 500 V</b>	15.6 A
<b>RATED OPERATIONAL CURRENT (IE) STAR- DELTA AT AC-3, 690 V</b>	8.5 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,</b>	5.5 kW

<b>50 HZ</b>	
<b>RATED OPERATIONAL POWER AT AC-23A, 500 V, 50 HZ</b>	7.5 kW
<b>RATED OPERATIONAL POWER AT AC-23A, 690 V, 50 HZ</b>	5.5 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>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	2 x (0.75 - 2.5) mm <sup>2</sup> , ferrules to DIN 46228 1 x (0.75 - 2.5) mm <sup>2</sup> , ferrules to DIN 46228
<b>SHORT-CIRCUIT CURRENT RATING (BASIC RATING)</b>	50A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
<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 PROTECTION RATING</b>	20 A gG/gL, Fuse, Contacts
<b>TERMINAL CAPACITY (SOLID/FLEXIBLE WITH FERRULE AWG)</b>	18 - 14
<b>TERMINAL CAPACITY (SOLID/STRANDED)</b>	1 x (1 - 2.5) mm <sup>2</sup> 2 x (1 - 2.5) mm <sup>2</sup>
<b>TIGHTENING TORQUE</b>	1 Nm, Screw terminals 8.8 lb-in, Screw terminals
<b>UNINTERRUPTED CURRENT</b>	Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.
<b>DESIGN</b>	15224



