Changeoverswitches, T0, 20 A, surface mounting, 2 contact unit(s), Contacts: 4, 45  $^{\circ}$ , maintained, With 0 (Off) position, HAND-0-AUTO, Design number 15432



Part no. T0-2-15432/I1

207091

**EL Number** 1456297

(Norway)

(Norway)	
General specifications	
Product name	Eaton Moeller® series TO Changeover switch
Part no.	T0-2-15432/I1
EAN	4015082070915
Product Length/Depth	137 millimetre
Product height	102 millimetre
Product width	80 millimetre
Product weight	0.264 kilogram
Certifications	VDE 0660 IEC/EN 60204 IEC/EN 60947-3 IEC/EN 60947
Product Tradename	TO St. Company of the
Product Type	Changeover switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions	
Features	Complete device in housing
Fitted with:	Black thumb grip and front plate 0 (off) position
Inscription	" HAND-0-AUTO "
Number of poles	Two-pole
General information	
Degree of protection	IP65
Degree of protection (front side)	IP65 NEMA 12
Lifespan, mechanical	400,000 Operations
Mounting method	Surface mounting
Mounting position	As required
Number of contact units	2
Operating frequency	1200 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	Control switches
Rated impulse withstand voltage (Uimp)	6000 V AC
Safe isolation	440 V AC, Between the contacts, According to EN 61140
Safety parameter (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
Suitable for	Ground mounting
Switching angle	45 °
Type  Climatic environmental conditions	Changeover switch
Lumatic environmental conditions	
	-25 °C
Ambient operating temperature - min	
Ambient operating temperature - min  Ambient operating temperature - max	40 °C
Ambient operating temperature - min  Ambient operating temperature - max  Ambient operating temperature (enclosed) - min	40 °C -25 °C
Ambient operating temperature - min  Ambient operating temperature - max	40 °C

Terminal capacities	
Terminal capacity (flexible with ferrule)	2 x (0.75 - 2.5) mm², ferrules to DIN 46228
	1 x (0.75 - 2.5) mm², ferrules to DIN 46228
Terminal capacity (solid/stranded)	2 x (1 - 2.5) mm <sup>2</sup> 1 x (1 - 2.5) mm <sup>2</sup>
Screw size	M3.5, Terminal screw
Tightening torque	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
lectrical rating	
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 operating voltage (Ue) at AC - max	690 V
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 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 DC-1, load-break switches I/r = 1 ms	10 A
Rated operational current (le) at DC-13, control switches L/R = 50 ms	10 A
Rated operational current (Ie) at DC-21, 240 V	1 A
Rated operational current (Ie) at DC-23A, 24 V	10 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) at DC-23A, 120 V	5 A
Rated operational current (Ie) at DC-23A, 240 V	5 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 (le) star-delta at AC-3, 500 V	15.6 A
Rated operational current (le) star-delta at AC-3, 690 V	8.5 A
Rated operational power at AC-3, 415 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 500 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 690 V, 50 Hz	4 kW
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 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 uninterrupted current (Iu)	20 A
Uninterrupted current	Rated uninterrupted current lu is specified for max. cross-section.
hort-circuit rating	
Rated conditional short-circuit current (Iq)	6 kA
Rated short-time withstand current (Icw)	320 A, Contacts, 1 second
Short-circuit protection rating	20 A gG/gL, Fuse, Contacts
witching capacity	
Load rating	1.6 x I# (with intermittent operation class 12, 40 % duty factor) $2 \times I\#$ (with intermittent operation class 12, 25 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % duty factor)
Number of contacts in series at DC-21A, 240 V	1

Number of contacts in series at DC-23A, 24 V	1
Number of contacts in series at DC-23A, 48 V	2
Number of contacts in series at DC-23A, 60 V	3
Number of contacts in series at DC-23A, 120 V	3
Number of contacts in series at DC-23A, 240 V	5
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	130 A
Voltage per contact pair in series	60 V
Contacts	
Control circuit reliability	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
Number of contacts	4
Actuator	
Actuator function	With 0 (Off) position Maintained
Actuator type	Toggle
Number of switch positions	3
Design verification	
Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	0.6 W
Rated operational current for specified heat dissipation (In)	20 A
Static heat dissipation, non-current-dependent Pvs	0 W
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 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.
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.

## **Technical data ETIM 9.0**

Low-voltage industrial components (EG000017) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss13-27-37-14-14 [ACN998016])

[ACN990010])		
Type of switch		Reverser
Number of poles		2
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	20
Number of switch positions		3
With zero (off) position		Yes

With retraction in 0-position	No
Device construction	Surface mounted device
Width in number of modular spacings	0
Suitable for floor mounting	Yes
Suitable for front mounting	No
Suitable for distribution board installation	No
Suitable for intermediate mounting	No
Complete device in housing	Yes
Type of control element	Toggle
Front shield size	48x48 mm
Degree of protection (IP), front side	IP65
Degree of protection (NEMA), front side	12