Changeover switches, T0, 20 A, flush mounting, 1 contact unit(s), Contacts: 2, 45 °, momentary, Without 0 (Off) position, With spring-return to 1, 1<2, Design number 8295



Part no. T0-1-8295/E 009734

Ambient operating temperature - min	-25 °C
Climatic environmental conditions	
Туре	Changeover switch
Switching angle	45 °
Suitable for	Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
Safety parameter (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
Safe isolation	440 V AC, Between the contacts, According to EN 61140
Rated impulse withstand voltage (Uimp)	6000 V AC
Product category	Control switches
Pollution degree	3
Overvoltage category	III
Operating frequency	1200 Operations/h
Number of contact units	1
Mounting position	As required
Mounting method	Flush mounting
Lifespan, mechanical	400,000 Operations
Degree of protection (front side)	NEMA 1  IP65 NEMA 12
Degree of protection	IP65 NEMA 12
General information	
Number of poles	Single-pole
Inscription	1<2
Fitted with:	Black thumb grip and front plate
Features & Functions	
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Product Sub Type	None
Product Type	Changeover switch
Product Tradename	ТО
	CE CSA-C22.2 No. 94 CSA IEC/EN 60204
	UL Category Control No.: NLRV IEC/EN 60947-3 IEC/EN 60947 UL File No.: E36332 UL 60947-4-1 CSA Class No.: 3211-05 UL CSA-C22.2 No. 60947-4-1-14 CSA File No.: 012528
Certifications	VDE 0660
Product weight	0.083 kilogram
Product width	48 millimetre
Product height	48 millimetre
EAN Product Length/Depth	4015080097341 76 millimetre
Part no.	T0-1-8295/E
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Product name	Eaton Moeller® series TO Changeover switch

Ambient operating temperature (enclosed) - min	-25 °C
Ambient operating temperature (enclosed) - max	40 °C
Climatic proofing	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
erminal capacities	Danip heat, constant, to IEC 00000-2-70
Terminal capacity (flexible with ferrule)	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
Terminal capacity (solid/flexible with ferrule AWG)	18 - 14
Terminal capacity (solid/stranded)	1 x (1 - 2.5) mm <sup>2</sup> 2 x (1 - 2.5) mm <sup>2</sup>
Screw size	M3.5, Terminal screw
Tightening torque	1 Nm, Screw terminals 8.8 lb-in, 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 (le) at AC-23A, 690 V	7.6 A
Rated operational current (le) 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 (le) at DC-23A, 24 V	10 A
Rated operational current (le) at DC-23A, 48 V	10 A
Rated operational current (le) at DC-23A, 60 V	10 A
Rated operational current (le) at DC-23A, 120 V	5 A
Rated operational current (Ie) at DC-23A, 240 V	5 A
Rated operational current (le) 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 500 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	Tacos attended durions to to opposited for max. 61000 docum.

Rated short-time withstand current (Icw)	320 A, Contacts, 1 second
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
Switching capacity	
Load rating	2 x l# (with intermittent operation class 12, 25 % duty factor) 1.3 x l# (with intermittent operation class 12, 60 % duty factor) 1.6 x l# (with intermittent operation class 12, 40 % 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
Switching capacity (main contacts, general use)	16 A, Rated uninterrupted current max. (UL/CSA)
Switching capacity (auxiliary contacts, general use)	10A, IU, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	A600 (UL/CSA) P300 (UL/CSA)
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	130 A
Voltage per contact pair in series	60 V
Motor rating	
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 HP
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
Contacts	
Control circuit reliability	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
Number of contacts	2
Actuator	
Actuator function	Momentary Spring-return to 1 Without 0 (Off) position
Actuator type	Toggle
Number of switch positions	2
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 8.0**

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@ss10.0.1-27-37-14-14 [ACN998011])

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Type of switch		Reverser
Number of poles		1
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	20
Number of switch positions		2
With zero (off) position		No
With retraction in 0-position		No
Device construction		Built-in device
Width in number of modular spacings		0
Suitable for floor mounting		No
Suitable for front mounting		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		No
Type of control element		Toggle
Front shield size		48x48 mm
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12