Changeoverswitches, T0, 20 A, flush mounting, 3 contact unit(s), Contacts: 6, 90 °, maintained, Without 0 (Off) position, HAND-AUTO, Design number 15453



Part no. T0-3-15453/E

015127

EL Number 1456282

(Norway)

Product rame	(Norway)	
Pan In No. 10-3-1583[* EAV 4015000151272 Product langh/Depth 55 milimere Product rowinh 40 milimere Product vowinh 0.127 Biogram Cerifications IEEE (1987) Cerifications IEEE (1987) Cerifications IEEE (1987) Product Tailerams IEEE (1987) Product Tailerams 10 Product Tailerams 10 Product Tailerams 10 Product Sub Type 0 Catalog Notes 8 Product Sub Type 0 Catalog Notes 8 Product Sub Type 0 Catalog Notes 8 Patter Sub Type 8 Product Sub Type 8 Product Sub Type 8 Catalog Notes 8 Basecified with: 8 Basecified with: <td>General specifications</td> <td></td>	General specifications	
EM 6015081151272 Product tenjuh (Depih 98 millimetre 98 millimetre 48 millimetre 48 millimetre 48 millimetre 48 millimetre 48 millimetre 48 millimetre 69 mi	Product name	Eaton Moeller® series TO Changeover switch
Product Length/Depth Product whether Product See See See See See See See See See Se	Part no.	T0-3-15453/E
Product Neight Product width Product width Product width Product width Product width Certifications Certifications Certificat	EAN	4015080151272
Product weight Certifications Certif	Product Length/Depth	95 millimetre
Product Weight Certifications Circ (EU IU IU IN 1999)	Product height	48 millimetre
ECFIN 60817-3 C LUL ECFIN 60817-3 C SA File No. 107293 C Sa File No. 107	Product width	48 millimetre
Life Spare of protection (front side) Degree of protection (front side) Degree of protection (front side) Life span, mechanical Mounting position Mounting posit	Product weight	0.127 kilogram
Product Type Product Sub Type Product Sub Type Rated Short-time Withstand Current (Icw) for a time of 1 second Rated Short-tim	Certifications	CE UL IEC/EN 60947 CSA File No.: 012528 CSA Class No.: 3211-05 IEC/EN 60204 UL File No.: E36332 CSA-C22.2 No. 94 CSA UL 60947-4-1 VDE 0660 CSA-C22.2 No. 60947-4-1-14
Product Sub Type Catalog Notes Rated Short-time Withstand Current (lcw) for a time of 1 second Features & Functions Fitted with: Inscription Number of poles Seneral information Degree of protection (front side) Degree of protection (front side) Pegree of protection (front side)	Product Tradename	ТО
Catalog Notes Features & Functions Fitted with: Inscription Number of poles General information Degree of protection (front side) Degree of	Product Type	Changeover switch
Fitted with: Inscription Number of poles Seneral information Degree of protection (front side) Degree of protection (front side) Lifespan, mechanical Mounting method Mounting position Number of contact units Operating frequency Overvoltage category Pollution degree Product category Rated impulse withstand voltage (Uimp) Safe isolation Safe isolation Safe isolation Suitable for Suitable f	Product Sub Type	None
Black thumb grip and front plate "HAND-AUTO" Number of poles Single-pole Sin	Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Inscription Number of poles Seneral information Degree of protection Degree of protection (front side) Degree of protection (front side) Lifespan, mechanical Mounting method Mounting method Mounting position Number of contact units Operating frequency Overvoltage category Ill Pollution degree Product category Rated impulse withstand voltage (Uimp) Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle *HAND-AUTO* Single-pole Singl	Features & Functions	
Number of poles Single-pole General information NEMA 1 IPES NEMA 12 Degree of protection (front side) NEMA 12 Lifespan, mechanical 400,000 Operations Mounting method Flush mounting Mounting position As required Number of contact units 3 Operating frequency 1200 Operations/h Overvoltage category III 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) Blood values as per EN ISO 13849-1, table C.1 Shock resistance 15 g, Mechanical, According to IEC/EN 60088-2-27, Half-sinuseidal shock 20 ms Suitable for Branch circuits, suitable as motor disconnect, (IU/CSA) Front mounting Switching angle 90 °	Fitted with:	Black thumb grip and front plate
Degree of protection Degree of protection (front side) MeMA 1 PP65 NEMA 12 400,000 Operations As required As required As required 1200 Operations/h III Pollution degree 3 Product category Rated impulse withstand voltage (Uimp) Safe isolation Safe isolation 440 V AC, Between the contacts, According to EN 61140 Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle	Inscription	" HAND-AUTO "
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Degree of protection (front side) Degree of protection (front side) Lifespan, mechanical Mounting method Mounting position Mounting position Mounting position As required As required Operating frequency Overvoltage category III Pollution degree Product category Rated impulse withstand voltage (Uimp) Safe isolation Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Sovitching angle	General information	
Lifespan, mechanical 400,000 Operations Mounting method Flush mounting Mounting position As required Number of contact units 3 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 Safety parameter (EN ISO 13849-1) 515 g, Mechanical, According to EN 61140 Safety parameter (EN ISO 13849-1) 515 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Suitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle 1000 PAC Switching angle 1000 PAC Safety parameter (EN ISO 13849-1) 515 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms	Degree of protection	IP65
Mounting method Mounting position As required As required As required As required As required As required As required 1200 Operations/h Under of contact units Overvoltage category III Pollution degree 3 Product category Control switches Rated impulse withstand voltage (Uimp) Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle Flush mounting As required As requ	Degree of protection (front side)	
Mounting positionAs requiredNumber of contact units3Operating frequency1200 Operations/hOvervoltage categoryIIIPollution degree3Product categoryControl switchesRated impulse withstand voltage (Uimp)6000 V ACSafe isolation440 V AC, Between the contacts, According to EN 61140Safety parameter (EN ISO 13849-1)B10d values as per EN ISO 13849-1, table C.1Shock resistance15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 msSuitable forBranch circuits, suitable as motor disconnect, (UL/CSA) Front mountingSwitching angle90 °	Lifespan, mechanical	400,000 Operations
Number of contact units Operating frequency 1200 Operations/h Overvoltage category III Pollution degree 3 Product category Rated impulse withstand voltage (Uimp) Safe isolation Safe isolation Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle 3 Control switches 6000 V AC 440 V AC, Between the contacts, According to EN 61140 B10d values as per EN ISO 13849-1, table C.1 Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle	Mounting method	Flush mounting
Operating frequency Overvoltage category III Pollution degree 3 Product category Control switches Rated impulse withstand voltage (Uimp) 6000 V AC Safe isolation Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle 1200 Operations/h III A 100 Operations/h III Control switches 8 40 V AC, Between the contacts, According to EN 61140 440 V AC, Between the contacts, According to EN 61140 B10d values as per EN ISO 13849-1, table C.1 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Mounting position	As required
Overvoltage category Pollution degree 3 Product category Control switches Rated impulse withstand voltage (Uimp) Safe isolation Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle III Control switches Control switches 6000 V AC 440 V AC, Between the contacts, According to EN 61140 B10d values as per EN ISO 13849-1, table C.1 Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Number of contact units	3
Pollution degree 3 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 Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Operating frequency	1200 Operations/h
Product category Rated impulse withstand voltage (Uimp) Safe isolation Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle Control switches 6000 V AC 440 V AC, Between the contacts, According to EN 61140 B10d values as per EN ISO 13849-1, table C.1 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Overvoltage category	III
Rated impulse withstand voltage (Uimp) Safe isolation 440 V AC, Between the contacts, According to EN 61140 Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle 6000 V AC 440 V AC, Between the contacts, According to EN 61140 B10d values as per EN ISO 13849-1, table C.1 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Pollution degree	3
Safe isolation 440 V AC, Between the contacts, According to EN 61140 Safety parameter (EN ISO 13849-1) Shock resistance 5uitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle 90 °	Product category	Control switches
Safety parameter (EN ISO 13849-1) Shock resistance Suitable for Switching angle B10d values as per EN ISO 13849-1, table C.1 B10d values as per EN ISO 13849-1, table C.1 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 90 °	Rated impulse withstand voltage (Uimp)	6000 V AC
Shock resistance 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms Suitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle 90 °	Safe isolation	440 V AC, Between the contacts, According to EN 61140
Suitable for Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting Switching angle 90 °	Safety parameter (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
Switching angle Front mounting 90 °	Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
	Suitable for	
Type Changeover switch	Switching angle	90 °
	Туре	Changeover switch

Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	50 °C
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	
Terminal capacity (flexible with ferrule)	1 x (0.75 - 2.5) mm², ferrules to DIN 46228 2 x (0.75 - 2.5) mm², ferrules to DIN 46228
Terminal capacity (solid/flexible with ferrule AWG)	18 - 14
Terminal capacity (solid/stranded)	2 x (1 - 2.5) mm ² 1 x (1 - 2.5) mm ²
Screw size	M3.5, Terminal screw
Tightening torque	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
ectrical 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 (le) 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 (Ie) at DC-13, control switches L/R = 50 ms	10 A
Rated operational current (Ie) at DC-21, 240 V	1A
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 (Ie) star-delta at AC-3, 500 V	15.6 A
Rated operational current (Ie) 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.

Rated conditional short-circuit current (Iq)	6 kA
Rated short-time withstand current (Icw)	320 A, Contacts, 1 second
Short-circuit current rating (basic rating)	5 kA, SCCR (UL/CSA) 50A, max. Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault)	20 A, Class J, max. Fuse, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
Short-circuit protection rating	20 A gG/gL, Fuse, Contacts
Switching capacity	
Load rating	1.6 x l# (with intermittent operation class 12, 40 % duty factor) 1.3 x l# (with intermittent operation class 12, 60 % duty factor) 2 x l# (with intermittent operation class 12, 25 % 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	6
Actuator	
Actuator function	Without 0 (Off) position Maintained
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 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])

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Type of switch		Reverser
Number of poles		1
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	Α	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