On-Off switch, T0, 20 A, service distribution board mounting, 1 contact unit(s), 2 pole, with black thumb grip and front plate



Part no. T0-1-102/IVS

015147

EL Number

1456751

(Norway

General specifications	
Product name	Eaton Moeller® series T0 On-Off switch
Part no.	T0-1-102/IVS
EAN	4015080151470
Product Length/Depth	82 millimetre
Product height	55 millimetre
Product width	54 millimetre
Product weight	0.106 kilogram
Certifications	VDE 0660 UL Category Control No.: NLRV CE IEC/EN 60947 CSA File No.: 012528 IEC/EN 60204 CSA-C22.2 No. 94 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 UL File No.: E36332 UL CSA CSA Class No.: 3211-05 IEC/EN 60947-3 CSA UL
Product Tradename	ТО
Product Type	On-Off switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions	
Fitted with:	Black thumb grip and front plate
Inscription	0-1
Number of poles	2
General information	
Degree of protection	NEMA Other
Degree of protection (front side)	IP30
Lifespan, mechanical	400,000 Operations
Mounting method	Service distribution board mounting
Mounting position	As required
Number of contact units	1
Operating frequency	1200 Operations/h
Overvoltage category	III
Pollution degree	3
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 Branch circuits, suitable as motor disconnect, (UL/CSA) Distribution board installation
Switching angle	90 °
Climatic environmental conditions	
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 Damp heat, constant, to IEC 60068-2-78
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ferminal capacities	
Terminal capacity	18 - 14 AWG, solid or flexible with ferrule 1 x (0.75 - 2.5) mm², flexible with ferrules to DIN 46228 1 x (1 - 2.5) mm², solid or stranded 2 x (0.75 - 2.5) mm², flexible with ferrules to DIN 46228 2 x (1 - 2.5) mm², solid or stranded
Screw size	M3.5, Terminal screw
Tightening torque	8.8 lb-in, Screw terminals 1 Nm, Screw terminals
Electrical 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 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 (le) at AC-3, 660 V, 690 V	4.9 A
Rated operational current (le) at AC-21, 440 V	20 A
Rated operational current (le) at AC-23A, 230 V	13.3 A
Rated operational current (le) at AC-23A, 400 V, 415 V	13.3 A
Rated operational current (le) 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 (le) at DC-13, control switches grit = 30 his	1 A
Rated operational current (le) at DC-21, 240 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	5.4
Rated operational current (le) at DC-23A, 240 V	5 A
Rated operational current (le) star-delta at AC-3, 220/230 V	20 A
Rated operational current (Ie) star-delta at AC-3, 380/400 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, 380/400 V, 50 Hz	5.5 kW
Rated operational power at AC-3, 415 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 operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	20 A
Uninterrupted current	Rated uninterrupted current lu is specified for max. cross-section.
Chort-circuit rating	
Rated conditional short-circuit current (Iq)	6 kA
Rated short-time withstand current (Icw)	320 A, Contacts, 1 second 0.32 kA
Short-circuit current rating (basic rating)	50A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)

20 A, Class J, max. Fuse, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
20 A gG/gL, Fuse, Contacts
1.6 \times l# (with intermittent operation class 12, 40 % duty factor) 1.3 \times l# (with intermittent operation class 12, 60 % duty factor) 2 \times l# (with intermittent operation class 12, 25 % duty factor)
1
1
2
3
3
5
16 A, Rated uninterrupted current max. (UL/CSA)
10A, IU, (UL/CSA)
P300 (UL/CSA) A600 (UL/CSA)
130 A
60 V
0.5 HP
1 HP
3 HP
1.5 HP
3 HP
7.5 HP
7.5 HP
1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
0
0
0
Black
Maintained
Short thumb-grip
0 W
0 W
0.6 W
20 A
0 W
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
Does not apply, since the entire switchgear needs to be evaluated.
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
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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) / Switch disconnector (low voltage) (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03

Version as main watch Image: Commitment of Carrolic watch Image: Carrolic watc	[AKF060018])	ii tooiiilology / c	,,, ,oud o.	, 3
Version as sanlery switch Image:	Version as main switch			No
Version as envering switch Incommend of switches Incommend or switches	Version as maintenance-/service switch			No
Verbilo na reverbing witch In the control witches In the control witc	Version as safety switch			No
Number of switches 1 1 Max. ratio operation wordage Ue AC 2 30 30 Rated operation wordage Ue AC 2 30 30 Rated operation yordage 2 4 20 Rated permanent current at AC-23,400 V 3 2 Rated operation power at AC-3,400 V 4 3 3 Rated operation power at AC-23,400 V 6 3 3 Rated operation power at AC-3,400 V 6 3 3 Switching power at 400 V 6 3 3 Conditioned rated short-directic current lq 6 10 3 3 Conditioned rated short-directic current lq 6 4 9 3 Number of auxiliary cornacts as normally closed contact 6 9 9 9 Number of auxiliary cornacts as normally closed contact 7 9 9 Motor drive apidinal contacts as commally closed contact 8 9 9 Motor drive apidinal contacts as commandered and contact 9 9 9 Value of	Version as emergency stop installation			No
Max. rated operation voltage V 80-680 Rated permanent current la A 80-680 Rated permanent current la A 2 Rated permanent current at AC-24, 400 V A 2 Rated permanent current at AC-24, 400 V A 2 Rated operation power at AC-3, 400 V K 3 Rated operation power at AC-23, 400 V K 4 Switching power at AC-23, 400 V K 5 Switching power at AC-23, 400 V K 6 Switching power at AC-23, 400 V K 6 <t< td=""><td>Version as reversing switch</td><td></td><td></td><td>No</td></t<>	Version as reversing switch			No
Rated permanent current tu C-23,400 V	Number of switches			1
Rated permanent currents IU A 2 Rated permanent current at AC23,400V A 1 Rated permanent current at AC23,400V A 2 Rated operation power at AC-3,400V A 3 Rated operation power at AC-3,400V B A 3 Rated operation power at AC-3,400V B A 3 Switching power at 400 V C A 5 Conditioned rated short-found current fag B A 6 Number of auxiliary contacts as normally closed contact B A 6 Number of auxiliary contacts as normally open contact B A 6 Number of auxiliary contacts as change-over contact B A 6 Motor drive integrated B B A 6 Motor drive integrated B	Max. rated operation voltage Ue AC		V	690
Rated permanent current at AC-23, 400 V A 2 Rated permanent current at AC-21, 400 V 4 2 Rated permanent current at AC-23, 400 V 4 3 Rated operation power at AC-3, 400 V 4 A Rated operation power at AC-23, 400 V 4 A Switching power at 400 V 5 A Conditional or at distinction current lq 4 B Number of poles 4 C Number of poles 4 C Number of auxiliary contacts as normally glosed contact 4 C Number of auxiliary contacts as normally glosed contact 4 C Number of auxiliary contacts as change-over contact 4 C Motor drive optional 4 C Motor drive optional 4 C Voltage release optional 4 C Suitable for floor mounting 4-bele 4 C Suitable for fort mounting 4-bele 4 C Suitable for fort mounting 4-bele 4 C Suitable for intermediate mounting 4	Rated operating voltage		V	690 - 690
Rated permanent current at AC-21,400 V 4 20 Rated operation power at AC-3,400 V 55 32 Rated operation power at AC-3,400 V 6 1A 32 Switching power at AC-3,400 V 6 1A 35 Switching power at AC-3,400 V 6 1A 55 Switching power at AC-3,400 V 6 5 6 Switching power at AC-3,400 V 6 5 6 Switching power at AC-3,400 V 6 6 6 6 Switching power at AC-3,400 V 6 <td>Rated permanent current lu</td> <td></td> <td>Α</td> <td>20</td>	Rated permanent current lu		Α	20
Rated operation power at AC-3, 400 V KW 55 Rated short-time withstand current low KW 32 Rated operation power at AC-23, 400 V KW 55 Switching power at 400 V KW 55 Conditioned rated short-circuit current Iq KW 6 Number of poles CW 2 2 Number of auxiliary contacts as normally losed contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Number of auxiliary contacts as normally open contact CW 0 0 Under of froit number of policia CW 0 0 Suitable for froit floor floor mounting CW 0 0 Suitable for froit mounting centre CW	Rated permanent current at AC-23, 400 V		Α	
Rated short-time withstand current low KA 0.32 Rated operation power at AC-23, 400 V WW 5.5 Switching power at 400 V WM 5.5 Conditioned rated short-circuit current lq WM 5.5 Number of poles A 6 Number of poles A 0 Number of auxiliary contacts as normally closed contact B 0 Number of auxiliary contacts as change-over contact B 0 Motor drive optional B NO Motor drive optional NO NO Motor drive integrated NO NO Voltage release optional NO NO Suitable for front mounting NO NO Suitable for front mounting 4-hole NO NO Suitable for front mounting centre NO NO Suitable for front mounting centre NO NO Suitable for front mounting entre NO NO Suitable for front mounting entre NO NO Suitable for front mounting entre NO NO	Rated permanent current at AC-21, 400 V		Α	20
Rated operation power at AC-23, 400 V KW 5.5 Switching power at 400 V WM 5.5 Conditioned rated short-circuit current [q] AP 6 Number of poles PM 2 Number of auxiliary contacts as normally closed contact PM 0 Number of auxiliary contacts as normally open contact PM 0 Number of auxiliary contacts as change-over contact PM 0 Motor drive optional PM No Motor drive integrated PM No Voltage release optional PM PM Suitable for froor mounting PM PM Suitable for froor mounting 4-hole PM No Suitable for front mounting entre PM No Suitable for intermediate mounting PM Black Type of control element PM No Interdockable PM	Rated operation power at AC-3, 400 V		kW	5.5
Switching power at 400 V kW 5.5 Conditioned rated short-circuit current Iq kM 6 Number of poles 2 2 Number of auxiliary contacts as normally closed contact 6 7 Number of auxiliary contacts as normally open contact 6 7 Number of auxiliary contacts as change-over contact 6 7 Number of auxiliary contacts as change-over contact 6 7 Motor drive optional 8 9 No Motor drive integrated 9 No No Voltage release optional 9 No No Device construction 9 9 No Suitable for floor mounting 4 9 9 No Suitable for front mounting 4-hole 9 No No Suitable for front mounting enter intermediate mounting 9 No No Suitable for intermediate mounting 9 Black Colour control element 9 No No Type of control element 9 No No	Rated short-time withstand current lcw		kA	0.32
Conditioned rated short-circuit current Iq KA 6 Number of poles 2 2 Number of auxiliary contacts as normally closed contact 6 9 Number of auxiliary contacts as normally open contact 6 9 Number of auxiliary contacts as normally open contact 6 9 Motor drive optional 8 9 9 Motor drive optional 9 No 9 Wotted prelians a optional 9 9 No Vottage release optional 9 9 No Vottage release optional 9 9 9 Suitable for floor mounting 9 9 9 Suitable for floor mounting 4-hole 9 9 9 Suitable for front mounting 4-hole 9 9 9 Suitable for front intermediate mounting 9 9 9 Suitable for intermediate mounting 9 9 10 9 Colour control element 9 9 10 9 Interdockable 9 9 10 9 Type of control element 9 <td>Rated operation power at AC-23, 400 V</td> <td></td> <td>kW</td> <td>5.5</td>	Rated operation power at AC-23, 400 V		kW	5.5
Number of poles 2 Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as change-over contact 0 Motor drive optional 0 Motor drive integrated No Voltage release optional No Device construction Built-in device fixed built-in technique Suitable for floor mounting Yes Suitable for floor mounting centre No Suitable for intermediate mounting Yes Suitable for intermediate mounting No Colour control element Yes Type of control element No Type of control element No Type of electrical connection of main circuit No With pre-assembled cabling No Degree of protection (IP), front side No Degree of protection (IP), front side Pa Degree of protection (IP), front side No Degree of protection (IP), front side<	Switching power at 400 V		kW	5.5
Number of auxiliary contacts as normally closed contact 0 Number of auxiliary contacts as normally open contact 0 Motor drive optional 6 Motor drive integrated 70 Voltage release optional 80 Device construction 8uilt-in device fixed built-in technique Suitable for floor mounting 7 Suitable for front mounting 4-hole 8uilt-in device fixed built-in technique Suitable for front mounting centre No Suitable for intermediate mounting 7 Suitable for intermediate mounting 8 Colour control element 8 Type of control element 8 Type of electrical connection of main circuit 8 With pre-assembled cabling No Degree of protection (IP), front side 1830 Degree of protection (NEMA) 1830 Width 4 Height 9 Butter 1830 Type of electrical connection of main circuit 8 No 1830 No 1830 Type of electrical connection of mai	Conditioned rated short-circuit current Iq		kA	6
Number of auxiliary contacts as normally open contact 0 Number of auxiliary contacts as change-over contact 0 Motor drive optional No Motor drive integrated No Voltage release optional No Device construction Built-in device fixed built-in technique Suitable for floor mounting Yes Suitable for front mounting centre No Suitable for distribution board installation Yes Suitable for intermediate mounting No Colour control element Black Type of control element Short thumb-grip Interlockable No Type of electrical connection of main circuit Screw connection With pre-assembled cabling No Degree of protection (IP), front side IP30 Degree of protection (NEMA) Other Width mm \$4 Height mm \$5 Depth mm \$6	Number of poles			2
Number of auxiliary contacts as change-over contact 0 Motor drive optional No Motor drive integrated No Voltage release optional No Device construction Built-in device fixed built-in technique Suitable for floor mounting Yes Suitable for front mounting 4-hole No Suitable for distribution board installation Yes Suitable for intermediate mounting No Colour control element Black Type of control element Short thumb-grip Interlockable No Type of electrical connection of main circuit Screw connection With pre-assembled cabling No Degree of protection (IP), front side IP30 Degree of protection (NEMA) IP30 Width Image: Screw connection of main increase of protection (NEMA) Image: Screw connection of main increase of protection (NEMA) Width Image: Main type of control lement IP30 Image: Main type of control lement IP30 Width Image: Main type of control lement With pre-assembled cabling IP30	Number of auxiliary contacts as normally closed contact			0
Motor drive optional Motor drive integrated Voltage release optional Device construction Suitable for floor mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for first intermediate mounting Suitable for intermediate mounting Colour control element Type of control element Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Degth Mo No No No No No Screw connection No Other Mmm S4 Height Degth Mo No	Number of auxiliary contacts as normally open contact			0
Motor drive integrated Voltage release optional Device construction Suitable for floor mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for firont mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Degth Degth No No No No No Screw connection No Other Height Mm 55 Degth No No Screw connection Mo Screw connection Mo Screw connection Mo Screw connection Mm Screw connection Mn Screw	Number of auxiliary contacts as change-over contact			0
Voltage release optional No Device construction Built-in device fixed built-in technique Suitable for floor mounting Yes Suitable for front mounting entre No Suitable for fort mounting centre No Suitable for distribution board installation Yes Suitable for intermediate mounting No Colour control element Black Type of control element Short thumb-grip Interlockable No Type of electrical connection of main circuit Screw connection With pre-assembled cabling No Degree of protection (IP), front side IP30 Degree of protection (NEMA) Other Width mm 54 Height mm 55 Depth mm 55	Motor drive optional			No
Device construction Suitable for floor mounting Suitable for floor mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for firont mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Degth Mo Built-in device fixed built-in technique Yes No No No No Suitable for front mounting 4-hole No No Suitable for intermediate mounting No Other ### 54 ### 55 ### 55 ### 55 ### 55 ### 55 ### 56 ##	Motor drive integrated			No
Suitable for floor mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Short thumb-grip Interlockable No Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Midth	Voltage release optional			No
Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width mm 54 Height Depth Mo No No No Other Mo Hother Mo Mo Mo Hother Mo Mo Mo Mo Mo Mo Mo Mo Mo M	Device construction			Built-in device fixed built-in technique
Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Depth No No No No Hore Hor	Suitable for floor mounting			Yes
Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Depth Pes Yes No No Screw connection No Other Hadden Mes Hadden Hadd	Suitable for front mounting 4-hole			No
Suitable for intermediate mounting Colour control element Type of control element Interlockable Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Height Depth No No No Other Hoo No Other Mo Othe	Suitable for front mounting centre			No
Colour control element Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Midth Midt	Suitable for distribution board installation			Yes
Type of control element Interlockable Type of electrical connection of main circuit With pre-assembled cabling No Degree of protection (IP), front side Degree of protection (NEMA) Width Height Depth Short thumb-grip No Other Other Other Degree connection Min 54 Depth Depth Short thumb-grip No Other Other No Other Strew connection Other Other	Suitable for intermediate mounting			No
Interlockable Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Midth Mid	Colour control element			Black
Type of electrical connection of main circuit With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Mm 54 Height Depth Screw connection No Other Other ### 54 ### 55 #### 82	Type of control element			Short thumb-grip
With pre-assembled cabling Degree of protection (IP), front side Degree of protection (NEMA) Width Midth Midt	Interlockable			No
Degree of protection (IP), front side Degree of protection (NEMA) Degree of protection (NEMA) Width mm 54 Height Depth mm 82	Type of electrical connection of main circuit			Screw connection
Degree of protection (NEMA) Width Height Depth Other Other Mm 54 Mm 55 Depth Mm 82				
Width mm 54 Height mm 55 Depth mm 82	Degree of protection (IP), front side			IP30
Height mm 55 Depth mm 82	Degree of protection (NEMA)			Other
Depth 82	Width		mm	54
	Height		mm	55
Width in number of modular spacings	Depth		mm	82
	Width in number of modular spacings			