

On-Off switch, T0, 20 A, service distribution board mounting, 2 contact unit(s), 3 pole + N, with black thumb grip and front plate



Part no. T0-2-8900/IVS
207403
EL Number 1417172
(Norway)

General specifications		
Product name		Eaton Moeller® series T0 On-Off switch
Part no.		T0-2-8900/IVS
EAN		4015082074036
Product Length/Depth		92 millimetre
Product height		55 millimetre
Product width		54 millimetre
Product weight		0.12 kilogram
Certifications		CSA IEC/EN 60947 UL Category Control No.: NLRV IEC/EN 60204 IEC/EN 60947-3 CSA-C22.2 No. 94 UL UL File No.: E36332 CE CSA File No.: 012528 CSA Class No.: 3211-05 VDE 0660 CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1
Product Tradename		T0
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		4
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		2
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		Branch circuits, suitable as motor disconnect, (UL/CSA) Ground mounting 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

Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities		
Terminal capacity		2 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 2 x (1 - 2.5) mm ² , solid or stranded 18 - 14 AWG, solid or flexible with ferrule 1 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 1 x (1 - 2.5) mm ² , solid or stranded
Screw size		M3.5, Terminal screw
Tightening torque		1 Nm, Screw terminals 8.8 lb-in, 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 (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 (Ie) 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, 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, 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 operational voltage (Ue) at AC - max		690 V
Rated uninterrupted current (Iu)		20 A
Uninterrupted current		Rated uninterrupted current Iu is specified for max. cross-section.
Short-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)		5 kA, SCCR (UL/CSA) 50A, max. Fuse, 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	1.3 x I _# (with intermittent operation class 12, 60 % duty factor) 1.6 x I _# (with intermittent operation class 12, 40 % duty factor) 2 x I _# (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)	P300 (UL/CSA) A600 (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 auxiliary contacts (change-over contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (normally open contacts)	0
Actuator	
Actuator color	Black
Actuator function	Maintained
Actuator type	Short thumb-grip
Design verification	
Equipment heat dissipation, current-dependent P _{vid}	0.6 W
Heat dissipation capacity P _{diss}	0 W
Heat dissipation per pole, current-dependent P _{vid}	0.6 W
Rated operational current for specified heat dissipation (I _n)	20 A
Static heat dissipation, non-current-dependent P _{vs}	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	Meets the product standard's requirements.
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) / Switch disconnecter (low voltage) (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecI@ss13-27-37-14-03 [AKF060018])			
Version as main switch			No
Version as maintenance-/service switch			No
Version as safety switch			No
Version as emergency stop installation			No
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage U _e AC	V		690
Rated operating voltage	V		690 - 690
Rated permanent current I _u	A		20
Rated permanent current at AC-23, 400 V	A		13.3
Rated permanent current at AC-21, 400 V	A		20
Rated operation power at AC-3, 400 V	kW		5.5
Rated short-time withstand current I _{cw}	kA		0.32
Rated operation power at AC-23, 400 V	kW		5.5
Switching power at 400 V	kW		5.5
Conditioned rated short-circuit current I _q	kA		6
Number of poles			4
Number of auxiliary contacts as normally closed contact			0
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 4-hole			No
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		54
Height	mm		55
Depth	mm		92
Width in number of modular spacings			

