

Main switch, T0, 20 A, rear mounting, 2 contact unit(s), 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

Part no. T0-2-1/V/SVB
043619
EL Number 1417045
(Norway)

General specifications		
Product name		Eaton Moeller® series T0 Main switch
Part no.		T0-2-1/V/SVB
EAN		4015080436195
Product Length/Depth		128 millimetre
Product height		74 millimetre
Product width		65 millimetre
Product weight		0.158 kilogram
Certifications		CSA Class No.: 3211-05 CSA UL Category Control No.: NLRV UL File No.: E36332 IEC/EN 60947-3 UL CSA-C22.2 No. 94 UL 60947-4-1 IEC/EN 60204 IEC/EN 60947 CSA File No.: 012528 CSA-C22.2 No. 60947-4-1-14 VDE 0660 CE UL CSA
Product Tradename		T0
Product Type		Main switch
Product Sub Type		None
Catalog Notes		Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions		
Features		Version as emergency stop installation Version as maintenance-/service switch Version as main switch
Fitted with:		Red rotary handle and yellow locking ring
Functions		Interlockable Emergency switching off function
Locking facility		Lockable in the 0 (Off) position
Number of poles		3
General information		
Degree of protection		NEMA 12
Degree of protection (front side)		IP65
Lifespan, mechanical		400,000 Operations
Mounting method		Rear 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) Intermediate mounting Ground mounting

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		1 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 18 - 14 AWG, solid or flexible with ferrule 2 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 2 x (1 - 2.5) mm ² , solid or stranded 1 x (1 - 2.5) mm ² , 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 (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, 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 (I _q)		6 kA
Rated short-time withstand current (I _{cw})		0.32 kA 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)		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		1.6 x I _# (with intermittent operation class 12, 40 % duty factor) 1.3 x I _# (with intermittent operation class 12, 60 % 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)		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 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		Red
Actuator type		Door coupling rotary drive
Design verification		
Equipment heat dissipation, current-dependent P _{vid}		0 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		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) / Switch disconnecter (low voltage) (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss13-27-37-14-03 [AKF060018])		
Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		Yes
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	20
Rated permanent current at AC-23, 400 V	A	
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 Icw	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 Iq	kA	6
Number of poles		3
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		No
Suitable for intermediate mounting		Yes
Colour control element		Red
Type of control element		Door coupling rotary drive
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
With pre-assembled cabling		No
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		12

Width		mm	65
Height		mm	74
Depth		mm	128
Width in number of modular spacings			