DATASHEET - T0-2-1/I1/SVB

Main switch, T0, 20 A, surface 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/I1/SVB
	207147
EL Number	1457790
(Norwav)	

General specifications

General specifications	
Product name	Eaton Moeller® series T0 Main switch
Part no.	T0-2-1/l1/SVB
EAN	4015082071479
Product Length/Depth	137 millimetre
Product height	110 millimetre
Product width	80 millimetre
Product weight	0.3 kilogram
Certifications	IEC/EN 60947-3 IEC/EN 60204 IEC/EN 60947 VDE 0660
Product Tradename	ТО
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	Surface mounting
Mounting position	As required
Number of contact units	2
Operating frequency	1200 Operations/h
Overvoltage category	
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
Switching angle	90 °
Climatic environmental conditions	
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	40 °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 (1 - 2.5) mm ² , solid or stranded 2 x (1 - 2.5) mm ² , solid or stranded 1 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228 2 x (0.75 - 2.5) mm ² , flexible with ferrules to DIN 46228
Screw size	M3.5, Terminal screw
Tightening torque	1 Nm, Screw terminals 8.8 Ib-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 (le) at DC-23A, 60 V	10 A
Rated operational current (Ie) at DC-23A, 120 V	5 A
Rated operational current (le) 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 (le) 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 uninterrupted current (lu)	20 A
Uninterrupted current	Rated uninterrupted current lu is specified for max. cross-section.
Short-circuit rating	
Rated conditional short-circuit current (Ig)	6 kA
Rated short-time withstand current (Icw)	0.32 kA
	320 A, Contacts, 1 second
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)

10.8 Connections for external conductors 10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements.
10.2.7 Inscriptions 10.3 Degree of protection of assemblies	Meets the product standard's requirements.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.4 Resistance to ultra-violet (UV) radiation	UV resistance only in connection with protective shield.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	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.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.2 Corrosion resistance	Meets the product standard's requirements.
Static heat dissipation, non-current-dependent Pvs	0W
Rated operational current for specified heat dissipation (In)	20 A
Heat dissipation per pole, current-dependent Pvid	0.6 W
Heat dissipation capacity Pdiss	0 W
Equipment heat dissipation, current-dependent Pvid	0.6 W
Design verification	
Actuator type	Door coupling rotary drive
Actuator color	Red
Actuator	
Number of auxiliary contacts (normally open contacts)	0
Number of auxiliary contacts (normally closed contacts)	0
Number of auxiliary contacts (change-over contacts)	0
,	mA)
Contacts Control circuit reliability	1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10
Voltage per contact pair in series	60 V
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	130 A
Number of contacts in series at DC-23A, 240 V	5
Number of contacts in series at DC-23A, 120 V	3
Number of contacts in series at DC-23A, 60 V	3
Number of contacts in series at DC-23A, 48 V	2
Number of contacts in series at DC-23A, 24 V	1
Number of contacts in series at DC-21A, 240 V	1

Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])		
Version as main switch	Yes	
Version as maintenance-/service switch	Yes	
Version as safety switch	No	
Version as emergency stop installation	Yes	

Variant serversing switchImage implement constructionImplement constructionImplement constructionRate operation voltage UeACImplement constructionImplement construct			
Ax. rad operation voltage U & AC 9 Bated operation voltage V 80 Reted permanent current lu A 0 Reted permanent current at AC-23, 400 V A 0 Reted operation power at AC-3, 400 V K 0 Reted operation power at AC-3, 400 V K 0 Reted operation power at AC-3, 400 V K 0 Nated operation power at AC-3, 400 V K 0 Soltable operation power at AC-3, 400 V K 0 Number of power at AC-3, 400 V K 0 Number of power at AC-3, 400 V K 0 Number of subjary contacts as normally closed contact K 0 Number of subjary contacts as normally closed contact K 0 Number of subjary contacts as change-wer contact K 0 Number of subjary contacts as change-wer contact K 0 Number of subjary contacts as change-wer contact K 0 Number of subjary contacts as change-wer contact K N Number of subjary contacts as change-wer contact K N	Version as reversing switch		No
Rate operation voltage V 80-090 Rate operation voltage 0 A 0	Number of switches		1
Rete germanent current lu Image: Rete germanent current la AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Rated permanent current la AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Rated permanent current la AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Rated permanent current la AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Rated permanent current la AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete germanent current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete Germanent Current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete Germanent Current la AC-23, 400 V Soltching over at AC-23, 400 V Image: Rete Germanent Current la AC-24, 400 V Soltching over at AC-23, 400 V Image: Rete Germanent Current la AC-24, 400 V Soltching over at AC-23, 400 V Image: Rete Germanent Current la AC-24, 400 V Number of auxiliary contacts as normally open contact Image: Rete Germanent Current la AC-24, 400 V Number of auxiliary contacts as change-were contact Image: Rete Germanent Current la AC-24, 400 V Soltabe	Max. rated operation voltage Ue AC	V	690
Aug A 33 Rated parament current at AC-21, 400 V A 9 Rated operation power at AC-3, 400 V KM 5 Rated short-time withstand current low KM 5 Rated short-time withstand current low KM 5 Switching power at AC-23, 400 V KM 5 Switching power at AC-23, 400 V KM 5 Switching power at 400 V KM 5 Conditioned rated short-circuit current lq KM 6 Number of backliary contacts as normally closed contact KM 6 Number of auxiliary contacts as normally closed contact M 0 0 Number of auxiliary contacts as normally closed contact M 0 0 Number of auxiliary contacts as normally closed contact M M 0 Number of auxiliary contacts as normally closed contact M M M Number of auxiliary contacts as normally closed contact M M M Not contact M M M M Suitable for finary moting acontact M	Rated operating voltage	V	690 - 690
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Rete operation power at AC-3, 400 V KW 5 Reted short-time withstand current low 5 5 Switching power at AC-23, 400 V 6 KW 5 Switching power at AC-23, 400 V 6 6 6 Switching power at AC-23, 400 V 6 5 5 Conditioned rated short-circuit current lq 6 6 6 Number of poles 6 6 6 6 Number of auxiliary contacts as normally open contact 6 <td>Rated permanent current at AC-23, 400 V</td> <td>А</td> <td>13.3</td>	Rated permanent current at AC-23, 400 V	А	13.3
Reted short-time withstand current low Image: Solution power at AC-23, 400 V Solution power at A00 V Switching power at 400 V Solution power at A00 V Solution power at A00 V Conditioned rated short-circuit current lq KW Solution power at A00 V Number of poles Image: Solution power at A00 V Solution power at A00 V Number of auxiliary contacts as normally open contact Image: Solution power at A01 V Gold Number of auxiliary contacts as normally open contact Image: Solution power at A01 V Gold Number of auxiliary contacts as normally open contact Image: Solution power at A01 V Gold Number of auxiliary contacts as normally open contact Image: Solution power at A02 V Image: Solution power at A02 V Number of auxiliary contacts as normally open contact Image: Solution power at A02 V Image: Solution power at A02 V Number of auxiliary contacts as normally open contact Image: Solution power at A02 V Image: Solution power at A02 V Number of auxiliary contacts as normally open contact Image: Solution power at A02 V Image: Solution power at A02 V Number of auxiliary contacts as normally open contact Image: Solution power at A02 V Image: Solution power at A02 V Number of auxiliary contacts as normaly open contact Image: Solutio	Rated permanent current at AC-21, 400 V	Α	20
Retd operation power at AC-23, 400 V IM 5 Switching power at 400 V 5 Conditioned rated short-circuit current lq IM 6 Number of poles 3 3 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as normally closed contact 0 0 Number of auxiliary contacts as change-over contact IM 0 Number of auxiliary contacts as change-over contact IM 0 Number of auxiliary contacts as change-over contact IM 0 Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Number of auxiliary contacts as change-over contact IM No Suitable of normouning contact IM No No Suitable for intermediate mounting IM<	Rated operation power at AC-3, 400 V	kW	5.5
We synching power at 400 VSConditioned rated short-circuit current lqKMSNumber of polesSSNumber of auxiliary contacts as normally closed contactMMSNumber of auxiliary contacts as normally closed contactMMSNumber of auxiliary contacts as normally closed contactMMSNumber of auxiliary contacts as change-over contactMMSNumber of auxiliary contacts as change-over contactMMSNumber of auxiliary contacts as change-over contactMMNoNutch of auxiliary contacts as change-over contactMMNoNotact rive entropionalMMSSoNotact rive entropionalMMSSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoNotact rive entropionalMMSoSoSuitable for fort mounting entreMMNoSoSuitable for intermediate mountingSoSoSoSuitable for intermediate mountingMMMMSoSuitable for intermediate mountingMMMMSoSuitable for intermediate mountingMMMMSoSuitable for intermediate mountingMMMMSoSuitable for intermedia	Rated short-time withstand current Icw	kA	0.32
Indition and short-circuit current Iq Image: A provide a status and short-circuit current Iq Im	Rated operation power at AC-23, 400 V	kW	5.5
Number of ples 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 0 Notor drive integrated 0 Votage release optional 0 Suitable for floor mounting 0 Suitable for floor mounting 4-hole 0 Suitable for first mounting centre 0 Suitable for instribution board installation 0 Suitable f	Switching power at 400 V	kW	5.5
Number of axiliary contacts as normally closed contactImage of axiliary contacts as normally open contactImage of axiliary contactImage of axil	Conditioned rated short-circuit current Iq	kA	6
Number of auxiliary contacts as normally open contactImage: Content of auxiliary contacts as change-over contactImage: Content of auxiliary contacts as change-over contactNumber of auxiliary contacts as change-over contactImage: Content of auxiliary contacts as change-over contactImage: Content of auxiliary contacts as change-over contactNumber of auxiliary contacts as change-over contactImage: Content of auxiliary contacts as change-over contactImage: Content of auxiliary contacts as change-over contactNoto drive optionalImage: Content of auxiliary contactsImage: Content of auxiliary contactsNoto drive optionalImage: Content of auxiliary contactsImage: Content of auxiliary contactsNoto drive optionalImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting optimeImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting optimeImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting optimeImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting optimeImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting optimeImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting of auxiliary contactsImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort mounting fort auxiliary contactsImage: Content of auxiliary contactsImage: Content of auxiliary contactsNotable for fort aux	Number of poles		3
Number of auxiliary contacts as change-over contactImage: Content of the content of th	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Moder drive integrated Moder drive integrated <td>Number of auxiliary contacts as normally open contact</td> <td></td> <td>0</td>	Number of auxiliary contacts as normally open contact		0
Motor drive integratedNoVoltage release optionalNoDevice constructionComplete device in housingSuitable for floor mountingYesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationYesSuitable for intermediate mountingNoColour control elementNoType of control elementSorte Coupling rotary driveType of electrical connection of main circuitYesDegree of protection (IP), front sideYesDegree of protection (IP), front sideYesSuitable for intermediate mountingYesSuitable for intermediate mountingYe	Number of auxiliary contacts as change-over contact		0
Votage release optionalNoVotage release optionalComplete device in housingDevice constructionComplete device in housingSuitable for floor mounting 4-holeYesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationMoSuitable for intermediate mountingNoColour control elementNoType of control elementSectorType of electrical connection of main circuitSectorDegree of protection (IP), front sideSectorPersed of the statement o	Motor drive optional		No
Device construction Complete device in housing Suitable for floor mounting Yes Suitable for front mounting 4-hole No Suitable for front mounting centre No Suitable for fint mounting centre No Suitable for intermediate mounting Suitable Suitable for intermediate mounting Suitable <	Motor drive integrated		No
Suitable for floor mounting Fig Fig Suitable for fnot mounting 4-hole No Suitable for front mounting centre No Suitable for distribution board installation Fig Suitable for intermediate mounting No Suitable for intermediate mounting Suitable Suitable for intermediate mounting Suitable <td>Voltage release optional</td> <td></td> <td>No</td>	Voltage release optional		No
Suitable for front mounting 4-hole No Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting Mo Colour control element No Type of control element Mo Interlockable Server connection of main circuit Type of electrical connection of main circuit Server connection Degree of protection (IP), front side Interlockable	Device construction		Complete device in housing
Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element No Type of control element No Interlockable Serve connection of main circuit Type of electrical connection of main circuit Serve connection Degree of protection (IP), front side Interlockable	Suitable for floor mounting		Yes
Suitable for distribution board installation Image: space of the space of th	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Mo Colour control element Red Type of control element Door coupling rotary drive Interlockable Yes Type of electrical connection of main circuit Set et e	Suitable for front mounting centre		No
Colour control element Red Type of control element Door coupling rotary drive Interlockable Yes Type of electrical connection of main circuit Sector Degree of protection (IP), front side Interlockable	Suitable for distribution board installation		No
Type of control element Mark Door coupling rotary drive Interlockable Yes Type of electrical connection of main circuit Steele element Degree of protection (IP), front side Steele element	Suitable for intermediate mounting		No
Interlockable Yes Type of electrical connection of main circuit Social Connection Degree of protection (IP), front side Image: Connection Connection	Colour control element		Red
Type of electrical connection of main circuit Screw connection Degree of protection (IP), front side IP65	Type of control element		Door coupling rotary drive
Degree of protection (IP), front side	Interlockable		Yes
	Type of electrical connection of main circuit		Screw connection
Degree of protection (NEMA) 12	Degree of protection (IP), front side		IP65
	Degree of protection (NEMA)		12