DATASHEET - T0-2-1/I1/SVA(S)

Panic switches, T0, 20 A, surface mounting, 3 pole, with black thumb grip and front plate, Cylinder lock SVA



Part no.

T0-2-1/I1/SVA(S) 207084

Mounting position Number of contact units	As required 2
-	
Mounting method	Surface mounting
Lifespan, mechanical	400,000 Operations
Degree of protection (front side)	IP65
Degree of protection	NEMA 12
Accessories	2 keys included with supplied equipment.
General information	
Number of poles	3
Locking mechanism	Cylinder lock SVA
Locking facility	Lockable in the 0 (Off) position (cover interlock)
Inscription	0-1
Functions	Interlockable
Fitted with:	Black thumb grip and front plate
	Dial shumb with and fact state
Features & Functions	
	without the key. Rated Short-time Withstand Current (Icw) for a time of 1 second
Catalog Notes	If the key is withdrawn in position 1 the switch can be switched off but not on agai
Product Sub Type	None
Product Type	Panic switch
Product Tradename	T0
Certifications	IEC/EN 60204 IEC/EN 60947 VDE 0660
Product weight	0.396 kilogram
Product width	80 millimetre
Product height	102 millimetre
Product Length/Depth	137 millimetre
EAN	4015082070847
Part no.	T0-2-1/I1/SVA(S)
Product name	Eaton Moeller® series TO Panic switch

Terminal capacities		
Terminal capacity	$2 \times (0.75 - 2.5) \text{ mm}^2$, flexible with ferrules to DIN 46228	
	2 x (1 - 2.5) mm², solid or stranded 1 x (1 - 2.5) mm², solid or stranded 1 x (0.75 - 2.5) mm², flexible with ferrules to DIN 46228	
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, 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 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	2 x I# (with intermittent operation class 12, 25 % duty factor)	
	1.6 x I# (with intermittent operation class 12, 40 % duty factor)	

	1.3 x I# (with intermittent operation class 12, 60 % 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
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	130 A
Voltage per contact pair in series	60 V
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 Pvid	0.6 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

Version as maintenance-/service switch

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 [AKF060018])		
Version as main switch	No	

No

Version a serversing witchNember displicationNember			
Variation is reverting which Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strated aparation voltage Ua AG Nome of which is a strate AG<	Version as safety switch		No
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Arated operation voltage Ue AC Sel et al. Sel et al. Rated operation voltage Ue AC Sel - Sel Sel - Sel Rated permanent current I AC-21, 400 V A Bated contrains and Carl and AC-23, 400 V Sel - Sel Rated operation yoker AL-23, 400 V KA Bated contrains and Carl and AC-23, 400 V Sel Rated operation yoker AL-23, 400 V KA Bated contrains and Carl and AC-23, 400 V Sel Switching power AL-23, 400 V KA Bated contrains and Carl and Ca	Version as reversing switch		
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Rated permanent current JAC-23, 400 V IA 30 Rated permanent current ALC-23, 400 V IA 30 Rated opermanent current ALC-21, 400 V IA 30 Rated opermanent current ALC-21, 400 V IA 30 Rated opermanent current ALC-21, 400 V IA 30 Rated short-time withstand current low IA 30 Rated short-time withstand current low IA 30 Switching power at 400 V IA 30 Number of power at 400 V IA 30 Number of auxiliary contacts as normally oper contact IA 30 Number of auxiliary contacts as normally oper contact IA No Number of auxiliary contacts as normally oper contact IA No Number of auxiliary contacts as normally oper contact IA No Number of auxiliary contacts as normally oper contact IA No Number of auxiliary contacts as normally oper contact IA No Sutable for from mouning 4-bite IA No Sutable for from mouning 4-bite IA No Sutable for from mouni	Max. rated operation voltage Ue AC		
Rated permanent current at AC-23, 400 V I A I Rated permanent current at AC-21, 400 V I A I Rated permanent current at AC-21, 400 V I	Rated operating voltage	V	690 - 690
Rated permanent current at AC-21, 400 V IM Role Rated operation power at AC-3, 400 V IM S3 Rated operation power at AC-3, 400 V IM S3 Rated operation power at AC-30, 400 V IM S5 Conditioned rated short-circuit current lq IM S5 Conditioned rated short-circuit current lq IM S1 Number of poles IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Number of auxiliary contacts as normally closed contact IM S1 Subale for form mounting 4-hole IM S1 Subale for form mounting 4-hole IM S1 Subale fo	Rated permanent current lu	А	20
Anadoperation power at AC-3,400 V KM 5 Rated operation power at AC-32,400 V KM 5.3 Switching power at 400 V KM 5.3 Switching power at 400 V KM 5.3 Conditioner at data short-circuit current Iq KM 5.3 Number of builling contacts as normally closed contact KM 6.3 Number of auxiliary contacts as normally closed contact KM 6.3 Number of auxiliary contacts as normally closed contact KM 6.3 Number of auxiliary contacts as normally closed contact KM 6.3 Number of auxiliary contacts as normally closed contact KM 6.3 Number of auxiliary contacts as change-over contact KM 6.3 Number of auxiliary contacts as change-over contact KM 6.3 Number of auxiliary contacts as change-over contact KM 6.3 Status for from mounting contact KM 6.3 Status for from mounting contact KM Non-1 Status for from mounting contact KM Non-1 Status for from mounting contact KM Non-1 <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
Action of stand current lew KA Science Rated operation power at AC-23,400 V KW Science Switching power at 400 V Sci Sci Switching power at 400 V Sci Sci Switching power at 400 V Sci Sci Number of suiliary contacts as normally closed contact M G Number of suiliary contacts as change-over contact M G Number of suiliary contacts as change-over contact M G Motor drive integrated M Normality Suitable for form mounting 4-hole M M Suitable for fort mounting entre M M Suitable for distribution based installation M M Suitable for distribution based installation M M Suitable for distribution functionaritie M M Suitable for distribution functine M M	Rated permanent current at AC-21, 400 V	А	20
Rate operation power at AC-23, 40 V KM S conclusioned status and	Rated operation power at AC-3, 400 V	kW	5.5
Witching over at 400 v KM 5.4 Conditioned rated short-circuit current Iq KA 6.4 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G 0 Number of auxiliary contacts as normally closed contact G No Number of auxiliary contacts as normally closed contact G No Number of auxiliary contacts as normally closed contact G No Number of auxiliary contacts as normally closed contact F No Number of auxiliary contacts as normally closed contact F No Stable for finor mounting f-hole F No No Sutable for finor mounting f-hole F No No	Rated short-time withstand current Icw	kA	0.32
Conditioned rated short-incuit current lq Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Number of auxiliary contacts as normally closed contact Image: Part of poles Image: Part of poles Suitable for from rounting 4-hole Image: Part of poles Image: Part of poles Image: Part of poles Suitable for from rounting 4-hole Image: Part of poles Image: Part of poles Image: Part of poles Image: Part of poles Suitable for from rou	Rated operation power at AC-23, 400 V	kW	5.5
Number of poles Image: Second Se	Switching power at 400 V	kW	5.5
Number of auxiliary contacts as normally open contact Image: provide state	Conditioned rated short-circuit current Iq	kA	6
Number of auxiliary contacts as normally open contact Image: Provide auxiliary contacts as change-over contacts Image: Provide auxiliary contacts as chandifted auxiliary contacts Image: P	Number of poles		3
Number of auxiliary contacts as change-over contact Image: section over contacts as change-over contact Image: section over contacts as change-over cover cover contacts as change-over contact as change-over	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Model Model Motor drive integrated Model Model Voltage release optional Model Model Device construction Model Complete device in housing Suitable for from mounting 4-hole Model Model Suitable for intermediate mounting centre Model Model Suitable for intermediate mounting Model Model Suitable for intermediate mounting centre Model Model Suitable for intermediate mounting centre Model Model Suitable for intermediate mounting centre Model Model Suitable for intermediate mounting ce	Number of auxiliary contacts as normally open contact		0
Abord rive integrated Image: Section of the section of t	Number of auxiliary contacts as change-over contact		0
Vitage release optionalNoDevice constructionComplete device in housingSuitable for floor mounting 4-holeYesSuitable for front mounting 4-holeNoSuitable for front mounting centreNoSuitable for distribution board installationMoSuitable for intermediate mountingMoSuitable for intermediate mountingMoSuitable for intermediate mountingMoColour control elementMoType of electrical connection of main circuitMoVith pre-assembled cablingMoDegree of protection (NEMA)MoSuitable for intermediateMoWith pre-assembled cablingMoDegree of protection (NEMA)MoWith pre-assembled cablingMoDegree of protection (NEMA)MoMith pre-assembled cablingMoMith pre-assembled cablingMoDegree of protection (NEMA)MoMith pre-assembled cablingMoMith pre-assembled cablingMoMit	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 front mounting centre No Suitable for first mounting centre No Suitable for first mounting centre No Suitable for first mounting centre No Suitable for intermediate mounting Set Set Suitable for intermediate mounting Set Set Colour control element Set Set Type of control element Set Set Interlockable Set Set Type of control element (PL), front side Set Set Suitable for first mounting circuit Set Set With pre-assembled cabling Set Set Degree of protection (NEMA) Set Set With Set Set No Set Set No Set Set Degree of protection (NEMA) Set Set <td>Motor drive integrated</td> <td></td> <td>No</td>	Motor drive integrated		No
Suitable for floor mounting Image: Statub for front mounting 4-hole No Suitable for front mounting centre No No Suitable for front mounting centre No No Suitable for intermediate mounting Image: Statub for intermediate mounting No Colour control element Image: Statub for intermediate mounting No Type of control element Image: Statub for intermediate mounting Statub for intermediate mounting Interlockable Image: Statub for intermediate mounting Statub for intermediate mounting Type of electrical connection of main circuit Image: Statub for intermediate mounting Statub for intermediate mounting Degree of protection (IP), front side Image: Statub for intermediate mounting Statub for intermediate mounting Degree of protection (IPE), front side Image: Statub for intermediate mounting No Width Image: Statub for intermediate mounting Statub for intermediate mounting Width Image: Statub for intermediate mounting Statub for intermediate mounting Degree of protection (IPE), front side Image: Statub for intermediate mounting Statub for intermediate mounting Midth Image: Statub for intermediate mounting Image: Statub for intermediate mounting	Voltage release optional		No
Suitable for front mounting 4-hole Mo Suitable for front mounting centre No Suitable for front mounting centre No Suitable for intermediate mounting No Suitable for intermediate mounting Mo Colour control element Mo Type of control element Mo Type of electrical connection of main circuit Mo With pre-assembled cabling Mo Degree of protection (NEMA) Mo With Mo Height Mm Bight Mo	Device construction		Complete device in housing
Suitable for front mounting centre No Suitable for intermediate mounting No Suitable for intermediate mounting No Colour control element Sint Humb-grip Type of control element Sint thumb-grip Interlockable Sint thumb-grip Interlockable Sint thumb-grip Type of electrical connection of main circuit Sint Humb-grip Degree of protection (IP), front side Sint Humb-grip Degree of protection (NEMA) Sint Humb With full Sint Humb Height Mo Baget Min Biget Sint Humb Biget Min Biget Min Biget Min Biget Min Biget Min Biget Min Bight Min Bight Min Bight Min Bight Min Bight Min Bight Min	Suitable for floor mounting		Yes
Suitable for distribution board installation No Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element Black Type of control element Soint thumb-grip Interlockable Yes Type of electrical connection of main circuit Soint element Degree of protection (IP), front side No Degree of protection (NEMA) Imm With the set of the	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Image: Solution of the soluti	Suitable for front mounting centre		No
Colour control element Back Type of control element Short thumb-grip Interlockable Yes Type of electrical connection of main circuit Yes With pre-assembled cabling Yes Degree of protection (IP), front side Yes With Mark Yes No Yes Degree of protection (IPA, front side Yes With Mark Yes Degree of protection (NEMA) Yes With Mark Yes Height Mark Degree of protection (NEMA) Yes Mark Yes<	Suitable for distribution board installation		No
Type of control element Short thumb-grip Interlockable Yes Type of electrical connection of main circuit Sterw connection With pre-assembled cabling No Degree of protection (IP), front side Image: Sterment of the stermen	Suitable for intermediate mounting		No
Interlockable Yes Type of electrical connection of main circuit Image: Second condition With pre-assembled cabling Image: Second condition Degree of protection (IP), front side Image: Second condition Degree of protection (IPAMA) Image: Second condition With Image: Second condition Height Image: Second condition Degree of protection (NEMA) Image: Second condition Height Image: Second condition Image: Second condition Image: Second condition Image: Second con	Colour control element		Black
Type of electrical connection of main circuitPerformServe connectionWith pre-assembled cablingNoNoDegree of protection (IP), front sideIOIODegree of protection (NEMA)IOIOWithImmIOHeightImmIODegtee of protection (IP)ImmIOHeightImmIOImmIOImmImmIOImmImmIOImmImmIOImmImmIOImm <t< td=""><td>Type of control element</td><td></td><td>Short thumb-grip</td></t<>	Type of control element		Short thumb-grip
No Degree of protection (IP), front side No Degree of protection (NEMA) Mo With the protection (NEMA) Mo With the protection (NEMA) Mo Pegree of protection (NEMA) Mo <td>Interlockable</td> <td></td> <td>Yes</td>	Interlockable		Yes
Degree of protection (IP), front sideIP65Degree of protection (NEMA)12WidthmmHeightmmDepthmm12	Type of electrical connection of main circuit		Screw connection
Degree of protection (NEMA)IWidthmm80Heightmm12Depthmm13	With pre-assembled cabling		No
Widthmm80Heightmm102Depthmm137	Degree of protection (IP), front side		IP65
Heightmm102Depthmm37	Degree of protection (NEMA)		12
Depth mm 137	Width	mm	80
	Height	mm	102
Width in number of modular spacings	Depth	mm	137
	Width in number of modular spacings		