DATASHEET - T3-2-1/E/SVA(A)



ON-OFF switches, T3, 32 A, flush mounting, 3 pole, with black thumb grip and front plate, Cylinder lock SVA



T3-2-1/E/SVA(A) Part no. 050982 Catalog No.

l lalı	VOTV	nro	aram

Delivery program			
Product range			Switch with locking mechanism
Part group reference			T3
Basic function			ON-OFF switches
			with black thumb grip and front plate
Information about equipment supplied			with two keys
Number of poles			3 pole
locking arrangement			Cylinder lock SVA
Notes			Key can only be withdrawn in position 0 (Pos A)
Degree of Protection			Front IP65
Design			flush mounting
Contact sequence			0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Switching angle		0	90
Switching performance			maintained
Design number			1
Front plate no.			FS 908
front plate			0-1
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	15
Rated uninterrupted current	Iu	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current $I_{\rm u}$ is specified for max. cross-section.
Number of contact units		contact unit(s)	2

Technical data

General		
Standards		IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		
Open	°C	-25 - +50

Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance	- mp	g	15
Mounting position		9	As required
Contacts			. w oquilor
Mechanical variables			
Number of poles			3 pole
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	Iu	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current I_u is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I _e	2
AB 40 % DF		x I _e	1.6
AB 60 % DF			
		x I _e	1.3
Short-circuit rating			
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	650
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	1
Switching capacity		٨	220
cos φ rated making capacity as per IEC 60947-3		A	320
Rated breaking capacity cos φ to IEC 60947-3		A	000
230 V		A	260
400/415 V		A	260
500 V		A	240
690 V		Α	170
Safe isolation to EN 61140		V/ A C	440
between the contacts Current heat less per contact at I		V AC W	440
Current heat loss per contact at I _e			1.1
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	1.1
Lifespan, mechanical	Operations	x 10 ⁶	> 0.5
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P	kW	5.5
230 V Star-delta	P	kW	7.5
400 V 415 V	P	kW	11
400 V Star-delta	Р	kW	15
500 V	P	kW	15
500 V Star-delta	P	kW	18.5
690 V	P	kW	11
690 V Star-delta	P	kW	22
Rated operational current motor load switch			
230 V	l _e	Α	23.7
230 V star-delta	I _e	Α	32
400V 415 V	I _e	Α	23.7
400 V star-delta	l _e	Α	32
500 V	I _e	Α	23.7
500 V star-delta	l _e	Α	32
690 V		A	14.7
690 V star-delta	l _e		
090 A Stat-neita	l _e	А	25.5

Terminal capacities Solid or stranded				
Medicar plane AC 2004	AC-21A			
More rating AC-204, 50-40 12	Rated operational current switch			
Matur rating AC-23A, 50-68 tv	440 V	l _e	Α	32
230 V	AC-23A			
	Motor rating AC-23A, 50 - 60 Hz	P	kW	
SOU	230 V	P	kW	7.5
Read operational current motor load awatch 200	400 V 415 V	P	kW	15
Rated operational current motor load winch	500 V	P	kW	15
	690 V	P	kW	15
400 V 415 V	Rated operational current motor load switch			
SOV A 26.4	230 V	I _e	Α	32
Bank Part	400 V 415 V	l _e	Α	32
Bank Part	500 V		Α	26.4
DC Load-break awitches LR = 1 ms Rated operational current Value Val				
DC-1, Losd-brank switches L/R = 1 ms		·e	, ·	
Rated operational current I				
Voltage per contact pair in series V Rated operational current V V V			٨	75
DC-21A Rated operational current Part		1e		
Rated operational current I				ou .
Contacts				
DC-234, motor load switch L/R = 15 ms		le		
Rated operational current			Quantity	1
Rated operational current				
Contacts				
Asted operational current	Rated operational current	l _e	Α	25
Rated operational current Image: Part	Contacts		Quantity	1
Contacts Part of perational current Part	48 V			
Rated operational current	Rated operational current	le	Α	25
Rated operational current	Contacts		Quantity	2
Contacts Rated operational current Contacts Rated operational current Is a contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability	60 V			
Rated operational current Ie Au 12	Rated operational current	l _e	Α	25
Rated operational current Contacts 240 V Rated operational current Rated operational current Rated operational current Rated operational current Pochaics DC-13, Control switches L/R = 50 ms Rated operational current Voltage per contact pair in series Voltage per contact pair in series Voltage per contact pair in series Fault probability Probability Terminal capacities Fieults probability Terminal capacities Fieults with ferrules to DIN 46228 Remains screw Tightening torque for terminal screw Tightening torque for terminal screw Tightening torque for terminal screw Tightening torque for terminal screw Tightening torque for terminal screw Rating data for approved types Terminal capacity Terminal capacity Rating data for approved types Terminal capacity Terminal c	Contacts		Quantity	3
Contacts Age of Contacts Rated operational current Contacts DC-13, Control switches L/R = 50 ms Rated operational current Notage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Probability Terminal capacities Solid or stranded I w	120 V			
Rated operational current Rated operational current DC-13, Control switches L/R = 50 ms Rated operational current Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Fault	Rated operational current	l _e	Α	12
Rated operational current Contacts DC-13, Control switches L/R = 50 ms Rated operational current Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Terminal capacities Solid or stranded mm² 1x (1 - 6) 2x (1 - 6)	Contacts		Quantity	3
Contacts DC-13, Control switches L/R = 50 ms Rated operational current Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Terminal capacities Solid or stranded Figult probability Figult prob	240 V			
DC-13, Control switches L/R = 50 ms Rated operational current Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Terminal capacities Solid or stranded Flexible with ferrules to DIN 46228 Flexible with ferrules to DIN 46228 Terminal screw Tightening torque for terminal screw Tightening torque for terminal screw Technical safety parameters: Notes Rating data for approved types Terminal capacity I w 20 24 24 24 20 24 24 24 21 × (10-5)-<	Rated operational current	Ie	Α	5
Rated operational current Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability Fault probab	Contacts		Quantity	5
Voltage per contact pair in series Control circuit reliability at 24 V DC, 10 mA Fault probability P	DC-13, Control switches L/R = 50 ms			
Control circuit reliability at 24 V DC, 10 mA Fault probability Terminal capacities Solid or stranded mm² 1x (1 - 6) 2x (1 - 6) 2x (1 - 6) 1x (0.75 - 4) 2x (0.75 - 4) 2x (0.75 - 4) Terminal screw Terminal screw M4 Tightening torque for terminal screw Nm 1.6 Technical safety parameters: Notes Rating data for approved types Terminal capacity	Rated operational current	l _e	Α	20
Terminal capacities Solid or stranded Solid or stranded mm² 1 x (1 - 6) 2 x (1 - 6) 2 x (1 - 6) mm² 1 x (0.75 - 4) 2 x (0.75 - 4) 2 x (0.75 - 4) Terminal screw M4 Tightening torque for terminal screw Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity	Voltage per contact pair in series		٧	24
Terminal capacities Solid or stranded Solid or stranded mm² 1 x (1 - 6) 2 x (1 - 6) 2 x (1 - 6) mm² 1 x (0.75 - 4) 2 x (0.75 - 4) 2 x (0.75 - 4) Terminal screw M4 Tightening torque for terminal screw Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity	Control circuit reliability at 24 V DC, 10 mA		H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
Solid or stranded mm² l x (1 - 6) 2 x (1 - 6) 1 x (0.75 - 4) 2 x (0.75 - 4) Terminal screw M4 Tightening torque for terminal screw Notes Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity		probability		
Flexible with ferrules to DIN 46228 mm² 1 x (0.75 - 4) 2 x (0.75 - 4) Terminal screw M4 Tightening torque for terminal screw Nm 1.6 Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity			2	1 v (1 - 6)
Terminal screw M4 Tightening torque for terminal screw Nm 1.6 Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity Isomorphisms Iso	Sona or Su arraea		mm²	2 x (1 - 6)
Tightening torque for terminal screw Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity	Flexible with ferrules to DIN 46228		mm ²	
Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity	Terminal screw			
Technical safety parameters: Notes B10 _d values as per EN ISO 13849-1, table C1 Rating data for approved types Terminal capacity	Tightening torque for terminal screw		Nm	1.6
Rating data for approved types Terminal capacity	Technical safety parameters:			
Terminal capacity	Notes			B10 _d values as per EN ISO 13849-1, table C1
	Rating data for approved types			
Terminal screw M4	Terminal capacity			
	Terminal screw			M4

Design verification as per IEC/EN 61439

Technical data for design verification

· ·			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	P _{vid}	W	1.1
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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.
$10.2.3.3\ Verification\ of\ resistance\ of\ insulating\ materials\ to\ abnormal\ heat\ and\ fire\ due\ to\ internal\ electric\ effects$			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 Insulation properties			
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 switch gear must be observed. $\label{eq:constraint}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

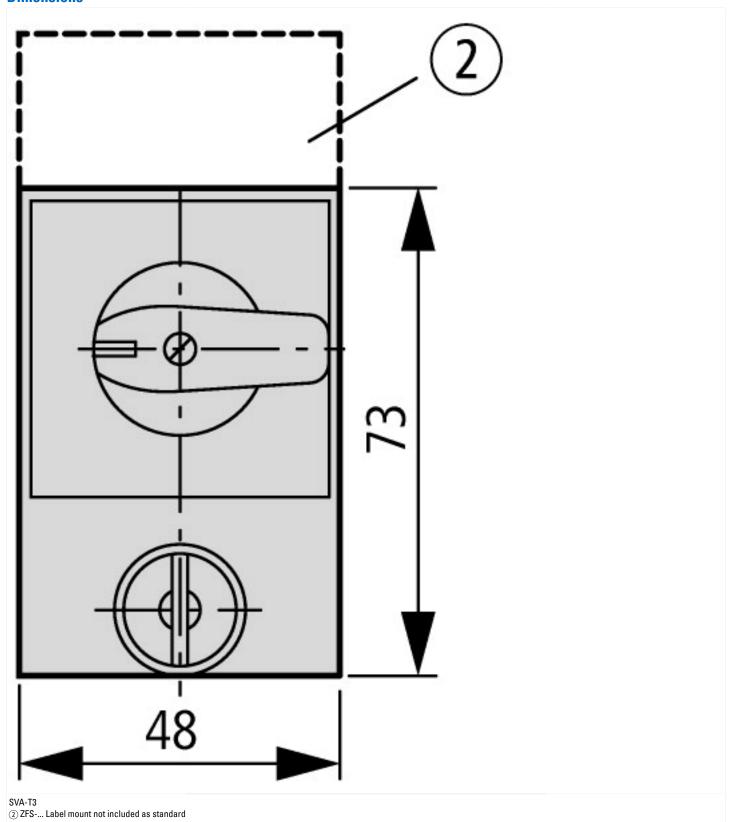
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

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])

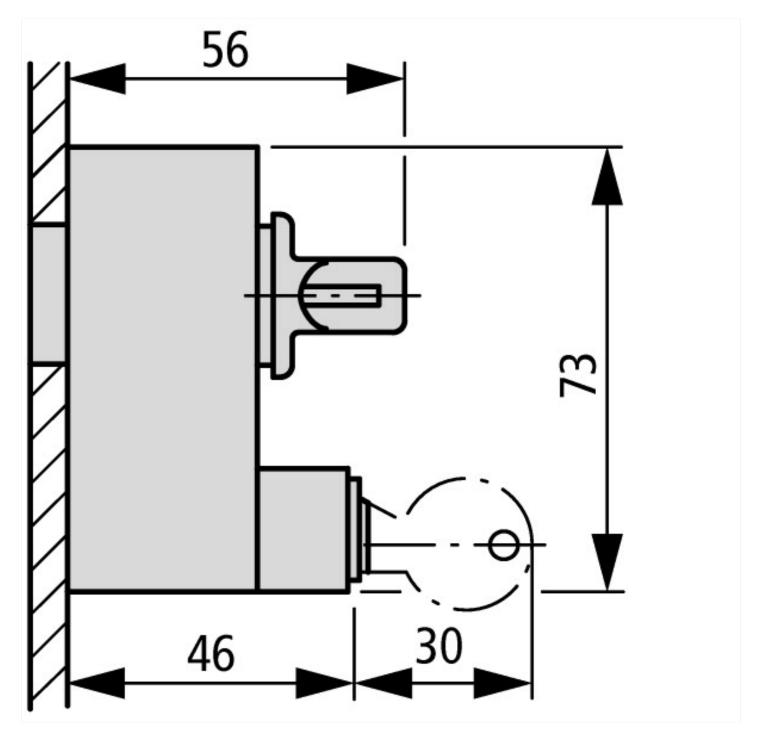
[AKI 000010])		
Version as main switch		No
Version as maintenance-/service switch		No
Version as safety switch		No
Version as emergency stop installation		No
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	А	32
Rated permanent current at AC-23, 400 V	А	32
Rated permanent current at AC-21, 400 V	А	32
Rated operation power at AC-3, 400 V	kW	V 11
Rated short-time withstand current lcw	kA	0.65
Rated operation power at AC-23, 400 V	kW	V 15

Switching power at 400 V	kW	15
Conditioned rated short-circuit current Iq	kA	1
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 ground mounting		No
Suitable for front mounting 4-hole		Yes
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Colour control element		Black
Type of control element		Toggle
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		Other

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04/15/2020



Assets (links)

Declaration of CE Conformity

00003074

Instruction Leaflets

IL03801015Z2018_05

Additional product information (links)

IL03801015Z (AWA1150-1367, AWA115-1368) Cylinder lock interlock, padlocking feature		
IL03801015Z (AWA1150-1367, AWA115-1368) Cylinder lock interlock, padlocking feature	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801015Z2018_05.pdf	
Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=40	
Technical overview cam switch, switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2	
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4	
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6	
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8	
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8	
Switches for ATEX	http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html	

Ordering form for SOND switches and SOND front plates(DE_EN) $\,$ $ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf$ Ordering form for SOND switches and SOND front plates(DE_EN) $ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf$