## **DATASHEET - T3-2-1/Z/SVA(A)**



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



Part no. T3-2-1/Z/SVA(A)
Catalog No. 050984

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110	IIVerv	nronram

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Notes			Key can only be withdrawn in position 0 (Pos A)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			rear mounting
Contact sequence			0 0 0 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	Р	kW	15
Rated uninterrupted current	Iu	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current $I_u$ is specified for max. cross-section.
Number of contact units		contact unit(s)	2

# Technical data General

donora.		
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 <sub>imp</sub>	V AC	6000
	Oimp		
Mechanical shock resistance		g	15
Mounting position			As required
Contacts Mechanical variables			
Number of poles			3 pole
Electrical characteristics			
Rated operational voltage	U <sub>e</sub>	V AC	690
Rated uninterrupted current	I <sub>u</sub>	Α	32
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I <sub>e</sub>	2
AB 40 % DF		x l <sub>e</sub>	1.6
AB 60 % DF		x I <sub>e</sub>	1.3
Short-circuit rating			
Fuse		A aG/al	25
Rated short-time withstand current (1 s current)	1	A gG/gL	650
	I <sub>cw</sub>	A <sub>rms</sub>	
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		Δ	220
cos φ rated making capacity as per IEC 60947-3		A	320
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	260
400/415 V		Α	260
500 V		Α	240
690 V		Α	170
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I <sub>e</sub>		W	1.1
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)		CO	1.1
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.5
Maximum operating frequency	Operations/h		1200
AC	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
AC-3			
Rating, motor load switch	P	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	P	kW	15
500 V	P	kW	15
500 V Star-delta	Р	kW	18.5
690 V	Р	kW	11
690 V Star-delta	Р	kW	22
Rated operational current motor load switch			
230 V	I <sub>e</sub>	Α	23.7
230 V star-delta	I <sub>e</sub>	Α	32
400V 415 V	I <sub>e</sub>	Α	23.7
400 V star-delta	I <sub>e</sub>	Α	32
500 V	I <sub>e</sub>	A	23.7
500 V star-delta	I <sub>e</sub>	Α	32
690 V	le	Α	14.7
690 V star-delta	I <sub>e</sub>	Α	25.5
AC-21A			

Rated operational current switch			
440 V	I <sub>e</sub>	Α	32
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	7.5
400 V 415 V	Р	kW	15
500 V	Р	kW	15
690 V	Р	kW	15
Rated operational current motor load switch			
230 V	l <sub>e</sub>	Α	32
400 V 415 V	I <sub>e</sub>	Α	32
500 V	I <sub>e</sub>	Α	26.4
690 V	I <sub>e</sub>	Α	17
C	'e	^`	
DC-1, Load-break switches L/R = 1 ms			
Rated operational current		^	DE .
·	I <sub>e</sub>	A	25
Voltage per contact pair in series		V	60
DC-21A	I <sub>e</sub>	Α	
Rated operational current	l <sub>e</sub>	Α	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	l <sub>e</sub>	Α	25
Contacts		Quantity	1
48 V			
Rated operational current	I <sub>e</sub>	Α	25
Contacts		Quantity	2
60 V			
Rated operational current	I <sub>e</sub>	Α	25
Contacts		Quantity	3
120 V			
Rated operational current	I <sub>e</sub>	Α	12
Contacts	'e	Quantity	
240 V		Qualitity	
		^	-
Rated operational current	I <sub>e</sub>	Α	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	I <sub>e</sub>	Α	20
Voltage per contact pair in series		V	24
ontrol circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	$< 10^{-5}$ , $< 1$ failure in 100,000 switching operations
rminal capacities	probability		
olid or stranded		mm <sup>2</sup>	1 x (1 - 6)
			2 x (1 - 6)
exible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (0.75 - 4) 2 x (0.75 - 4)
erminal screw			M4
ghtening torque for terminal screw		Nm	1.6
chnical safety parameters:			
otes			B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
ating data for approved types			
erminal capacity			
Terminal screw			M4

Technical data for design verification

Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	$P_{\text{vid}}$	W	1.1
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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. $\label{eq:specifications}$
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])

[AKF060013])		
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	Α	32
Rated permanent current at AC-23, 400 V	Α	32
Rated permanent current at AC-21, 400 V	Α	32
Rated operation power at AC-3, 400 V	kW	11
Rated short-time withstand current lcw	kA	0.65
Rated operation power at AC-23, 400 V	kW	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	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	Black
Type of control element	Door coupling rotary drive
Interlockable	Yes
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP65
Degree of protection (NEMA)	Other

## Assets (links)

**Declaration of CE Conformity** 

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**Instruction Leaflets** 

IL03801015Z2018\_05

# **Additional product information (links)**

L03801015Z (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	