

Part no.

Article no.

T3-2-1/XZ

017664



## **Delivery program**

Product range			On-Off switch
Part group reference			ТЗ
Number of poles			3 pole
Design			rear mounting Basic switch
Contact sequence			
Switching angle		0	90
Front plate no.			$\mathbf{FS 908}^{ION}$
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	15
Rated uninterrupted current	lu	A	32
Number of contact units		contact unit(s)	2
Technical data			
General Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204
Stanuarus			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			111/3
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Contacts			
Mechanical variables			
Number of poles			3 pole
Electrical characteristics			
Rated operational voltage	Ue	V AC	690
Rated uninterrupted current	l <sub>u</sub>	А	32
Note on rated uninterrupted current $!_{\rm u}$			Rated uninterrupted current lu is specified for max. cross-section.
Load rating with intermittent operation, class 12			

AB 25 % DF

AB 40 % DF

AB 60 % DF

Short-circuit rating

2

1.6

1.3

x I<sub>e</sub>

x I<sub>e</sub>

x I<sub>e</sub>

Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	650
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	lq	kA	1
Switching capacity			
$\cos \phi$ rated making capacity as per IEC 60947-3		A	320
Rated breaking capacity $\cos \phi$ to IEC 60947-3		A	
230 V		А	260
400/415 V		А	260
500 V		А	240
690 V		А	170
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l <sub>e</sub>		W	1.1
Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V)		CO	1.1
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.5
		XIU	1200
Maximum operating frequency AC	Operations/h		1200
AC-3	D	1.1.47	
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	Р	kW	11
400 V Star-delta	Р	kW	15
500 V	Р	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	l <sub>e</sub>	А	23.7
230 V star-delta	l <sub>e</sub>	А	32
400V 415 V	l <sub>e</sub>	A	23.7
400 V star-delta	l <sub>e</sub>	A	32
500 V	l <sub>e</sub>	A	23.7
500 V star-delta	le	A	32
690 V	l <sub>e</sub>	A	14.7
690 V star-delta	l <sub>e</sub>	A	25.5
AC-21A			
Rated operational current switch			
440 V	le	А	32
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Ρ	kW	
230 V	Ρ	kW	7.5
400 V 415 V	Р	kW	15
500 V	Ρ	kW	15
690 V	Р	kW	15
Rated operational current motor load switch			
230 V	I <sub>e</sub>	A	32
400 V 415 V	l <sub>e</sub>	A	32
500 V	le	A	26.4
690 V			
	l <sub>e</sub>	A	17
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	l <sub>e</sub>	A	25

Voltage per contact pair in series		V	60
DC-21A	l <sub>e</sub>	А	
Rated operational current	l <sub>e</sub>	А	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	l <sub>e</sub>	А	25
Contacts		Quantity	1
48 V			
Rated operational current	I <sub>e</sub>	А	25
Contacts		Quantity	2
60 V			
Rated operational current	le	А	25
Contacts		Quantity	3
120 V			
Rated operational current	l <sub>e</sub>	А	12
Contacts		Quantity	3
240 V			
Rated operational current	l <sub>e</sub>	A	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	I <sub>e</sub>	A	20
Voltage per contact pair in series		V	24
Control circuit reliability at 24 V DC, 10 mA	Fault	H <sub>F</sub>	< 10 <sup>-5</sup> , < 1 fault in 100000 operations
	probability		
Terminal capacities		n	1(1. 6)
Solid or stranded		mm <sup>2</sup>	1 x (1 - 6) 2 x (1 - 6)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (0.75 - 4) 2 x (0.75 - 4)
Terminal screw			M4
Max. tightening torque		Nm	1.6
Technical safety parameters:			
Notes Rating data for approved types			B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
Terminal capacity			
Terminal screw			M4
Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	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.	' aiss	°C	-25
		°C	
Operating ambient temperature max. IEC/EN 61439 design verification		U	50
-			
10.2 Strength of materials and parts 10.2.2 Corrosion resistance			Maats the product standard's requirements
10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements. Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat			
10.2.3.2 Verification of resistance of insulating materials to normal neat			Meets the product standard's requirements. Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal neat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
10.2.4 nesistance to unit a-violet (OV) radiation			ו וכמסב בוועטווש

10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2.6 Mechanical impact	Deep not apply gines the aptice quitabaser peeds to be evaluated
TO.2.0 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 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 6.0**

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

Low-voltage industrial components (E00001777 Switch disconnector (E000210)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8.1-27-37-14-03 [AKF060010])			
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	
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-21, 400 V	А	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 center		No	
Suitable for distribution board installation		No	
Suitable for intermediate mounting		Yes	
Colour control element		Black	
Type of control element		Toggle	
Interlockable		No	
Type of electrical connection of main circuit		Screw connection	
Degree of protection (IP), front side		IPoo	

## Additional product information (links)

## IL03801006Z (AWA1150-1686) Cam switches: service distribution board

Display flip catalog page. http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=40