DATASHEET - T0-1-102/XZ



On-Off switch, 2 pole, 20 A, 90 °, rear mounting, Basic switch

T0-1-102/XZ

0001456651

005736



EL-Nummer (Norway)

Part no. Catalog No.

Similar to illustration

Delivery program			
Product range			On-Off switch
Part group reference			то
Number of poles			2 pole
Design			rear mounting Basic switch
Contact sequence			
Switching angle		0	90
Design number			102
Front plate no.			FS 908
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	5.5
Rated uninterrupted current	lu	А	20
Note on rated uninterrupted current !u			Rated uninterrupted current $\boldsymbol{I}_{\boldsymbol{u}}$ is specified for max. cross-section.
Number of contact units		contact unit(s)	1

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			111/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Contacts			
Mechanical variables			
Number of poles			2 pole
Electrical characteristics			
Rated operational voltage	Ue	V AC	690
Rated uninterrupted current	lu	А	20

Note on midel number query does not set of midel number query does not				
AB 25 % DFXiZAB 25 % DFXi10AB 25 % DFXi10AB 25 % DFXi10AB 25 % DFXi20Stor circuit ratesXi20Taked Anotation withstand current (Is current)YiAnotaBide centional statistican withstand current (Is current)YiAnotaStatistication (Is current)YiAnotaAnotaStatistication (Is current)YiAnotaAnotaStatistication (Is current)XiAnotaAnotaStatistication (Is current)YiAnotaAnotaStatistication (Is current)YiAnotaAnotaAnotaAnota <t< td=""><td>n rated uninterrupted current !_u</td><td></td><td></td><td>Rated uninterrupted current \boldsymbol{I}_u is specified for max. cross-section.</td></t<>	n rated uninterrupted current ! _u			Rated uninterrupted current \boldsymbol{I}_u is specified for max. cross-section.
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Note on rate of short-ine with stand current lowInInInInInInRate of order diversity current lowInInInInInStating capacity as prife 0894-3In	rt-time withstand current (1 s current)	I _{cw}		
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400/415 VA10500 VAA600 VAB600 VABSafe isotion to N 6140ABbetween the contactsWBCurrent heat toss per contact at 14WBCurrent heat toss per contact at 14VBCurrent heat toss per contact at 14VBAdvamum operating fraquencyPerationsMActNBActNB220 V230 VPMAd00 V15 VPM320 V3ar-deltaPM500 V Star-deltaPM690 V Star-deltaPM690 V Star-deltaPM220 V230 VPM720 V230 VPM900 V15 V15 V	aking capacity cos φ to IEC 60947-3		A	
Sol VA8Sol VAASele solation to EN 61140AAbetween the contactsVAC40Current heat loss per contact at I, (AC-15/220 V)C0Current heat loss per contact at I, (AC-15/220 V)Derora on AAMaximum Operating frequencyDerora on AAMaximum Operating frequencyDerora on AAAC-3A30Rating, motor load switchPN5AC-3PN5Sol V Star-detaPN5Gol V Star-detaPN5 <tr< td=""><td></td><td></td><td>A</td><td>100</td></tr<>			A	100
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Selection to EN 61140Image: selection to EN 611400Image: selection to EN 611400			A	60
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Maximum operating frequency Operations // total Maximum operating frequency Maximu		Operations		
AC Image: Construction of the section of			x 10°	
AC-3 Rating, motor load switch P KW 220 V 230 V P KW 3 220 V 230 V P KW 5 230 V Star-delta P KW 5 400 V 415 V P KW 5 400 V Star-delta P KW 5 500 V P KW 5 500 V Star-delta P KW 5 690 V Star-delta P KW 6 690 V Star-delta P KW 6 690 V Star-delta P KW 6 720 V I KW 6 230 V star-delta I I 1 230 V star-delta I I 1 230 V star-delta I I 1 230 V star-delta I I I 230 V star-delta I I I 200 V I I I 400 V star-delta I I	operating frequency	Operations/h		1200
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690 V Star-delta P kW 5 Rated operational current motor load switch N N N 230 V I I I I 230 V star-delta I I I I I 400V 415 V I		-		
Rated operational current motor load switchImage: Constraint of the system				
230 V1eA1.5230 V star-deltaleA0400 V 415 VleA1.5400 V star-deltaleA0500 VleA9500 V star-deltaleA56690 VleA49		Р	kW	5.5
230 V star-delta Ie A 20 400V 415 V Ie A 1.5 400 V star-delta Ie A 20 500 V Star-delta Ie A 500 V star-delta Ie A 500 690 V Ie A 500				
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400 V star-deltaIeA20500 VIeA9500 V star-deltaIeA15.6690 VIeA4.9	230 V star-delta	l _e	A	20
500 V Ie A 9 500 V star-delta Ie A 15.6 690 V Ie A 4.9	400V 415 V	l _e	А	11.5
500 V star-delta Ie A 15.6 690 V Ie A 4.9	400 V star-delta	l _e	А	20
690 V I _e A 4.9	500 V	le	А	9
	500 V star-delta	le	А	15.6
			А	4.9
AC-21A				
Rated operational current switch				
440 V I _e A 20			А	20
AC-23A		c		
Motor rating AC-23A, 50 - 60 Hz P kW		P	k\\/	
230 V P kW 3				3
400 V 415 V P kW 5.5				
500 V P kW 7.5				
690 V P kW 5.5				
Rated operational current motor load switch		ľ	KVV	J.J
		1	٨	12.2
230 V I _e A 13.3	230 ν	'e	А	13.3

400 V 415 V	l _e	A	13.3
500 V	l _e	A	13.3
690 V		A	7.6
DC	l _e	~	7.0
DC-1, Load-break switches L/R = 1 ms			
Rated operational current		A	10
	le		
Voltage per contact pair in series		V	60
DC-21A	l _e	A	
Rated operational current	l _e	A	1
Contacts		Quantity	1
DC-23A, motor load switch $L/R = 15 \text{ ms}$			
24 V			
Rated operational current	le	A	10
Contacts		Quantity	1
48 V			
Rated operational current	l _e	A	10
Contacts		Quantity	2
60 V			
Rated operational current	l _e	А	10
Contacts		Quantity	3
120 V			
Rated operational current	le	А	5
Contacts		Quantity	3
240 V			
Rated operational current	le	А	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	le	А	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 $^{-5}$, < 1 fault in 100000 operations
Terminal capacities			
Solid or stranded		mm ²	1 x (1 - 2,5) 2 x (1 - 2,5)
Flexible with ferrules to DIN 46228		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Terminal screw			M3.5
Tightening torque for terminal screw		Nm	1
Technical safety parameters:			
Notes			B10 _d values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			M2 E
Terminal screw			M3.5

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	20
Heat dissipation per pole, current-dependent	P _{vid}	W	0.6
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.

Meets the product standard's requirements.
Meets the product standard's requirements.
Meets the product standard's requirements.
UV resistance only in connection with protective shield.
Does not apply, since the entire switchgear needs to be evaluated.
Does not apply, since the entire switchgear needs to be evaluated.
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
Does not apply, since the entire switchgear needs to be evaluated.
Is the panel builder's responsibility.
Is the panel builder's responsibility.
Is the panel builder's responsibility.
Is the panel builder's responsibility.
Is the panel builder's responsibility.
The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Is the panel builder's responsibility. The specifications for the switchgear must be observed.
The device meets the requirements, provided the information in the instruction

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])

[AKFU6UU13])			
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	١	/	690
Rated operating voltage	١	/	690 - 690
Rated permanent current lu	Ļ	4	20
Rated permanent current at AC-23, 400 V	A	4	13.3
Rated permanent current at AC-21, 400 V	ŀ	4	20
Rated operation power at AC-3, 400 V	k	W	5.5
Rated short-time withstand current Icw	k	κA	0.32
Rated operation power at AC-23, 400 V	k	W	5.5
Switching power at 400 V	k	W	5.5
Conditioned rated short-circuit current Iq	k	κA	6
Number of poles			2
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	Toggle
Interlockable	No
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP00
Degree of protection (NEMA)	Other

Assets (links)

Declaration of CE Conformity 00003075