DATASHEET - T0-6-8481/Z



Step switches, T0, 20 A, rear mounting, 6 contact unit(s), Contacts: 12, 45 °, maintained, With 0 (Off) position, 0-3, design no. 8481



Part no. Catalog No. T0-6-8481/Z 015782

Similar to illustration

Delivery program			
Product range			Control switches
Part group reference			ТО
Basic function			Step switches
			with black thumb grip and front plate
Contacts			12
Degree of Protection			Front IP65
Design			rear mounting
Contact sequence			
Switching angle		0	45
Switching performance			maintained With 0 (Off) position
Design number			8481
Front plate no.			FS 420
front plate			0-3
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)	6
Technical data General Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3
01			

Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

-25 - +50

Climatic proofing

06/18/2021

°C

IndexPP <th></th> <th></th> <th></th> <th></th>				
AutomatorName<	Enclosed		°C	-25 - +40
MechanizationManufactor </td <td>Overvoltage category/pollution degree</td> <td></td> <td></td> <td>111/3</td>	Overvoltage category/pollution degree			111/3
Number ControlNote specified aluminou lottingNote specified aluminou lottingNot	Rated impulse withstand voltage	U _{imp}	V AC	6000
Canada serviceServic	Mechanical shock resistance		g	15
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Relationary durantsNo. <t< td=""><td></td><td></td><td></td><td></td></t<>				
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Shet-choice with and current (or FaseImage: Section of the section	AB 40 % DF		x I _e	1.6
FaceApril <b< td=""><td>AB 60 % DF</td><td></td><td>x I_e</td><td>1.3</td></b<>	AB 60 % DF		x I _e	1.3
Rate alont-inversion (1 second)ParePareParePareNote all activities (1 second)IIIRate alont (1 second)IIIStrictling capacity as per IEC 8094-3III20 VIIII20 VI <tdi< td=""><td>Short-circuit rating</td><td></td><td></td><td></td></tdi<>	Short-circuit rating			
Netwo or nated short- circuit current isonInCorrent fram of 1 secondRated conditional short- circuit currentInKaSStrict-ing capacity as per IEC 60847-3A3Rated brashing capacity as per IEC 60847-3A323VAA3400/15 VAB500 VBA500 VBA500 VBA600 Current heat loss per contact at I,CB600 Current heat loss per contact at I,CB700 Current heat loss per contact at I,FS700 Current heat loss per contact at I,FS700 Current heat loss per contact at I,FS700 Current heat loss per contact at I,FS </td <td>Fuse</td> <td></td> <td>A gG/gL</td> <td>20</td>	Fuse		A gG/gL	20
Rate conditional short-circuit current: In Second	Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	320
Automating capacity as per IEC 60947-3 A Case drawsing capacity as per IEC 60947-3 A 230 / Company as per IEC 60947-3 A 500 / Company as per IEC 60947-3 A 600 / Company as per IEC 60947-3 A 500 / Company as per IEC 60947-3 A 600 / Company as per IEC 60947-3 A 7 A A 7 A A 7 A A 8 A A 8 A A 8 A B	Note on rated short-time withstand current lcw			Current for a time of 1 second
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AC Prove AC-3 P Raing, motor load switch P 20V 230 V P 400 V 415 V P 500 V P 600 V P 600 V P 600 V P 600 V P 200 V 200 V </td <td></td> <td></td> <td>х 10^ь</td> <td></td>			х 10 ^ь	
Rating, motor load switchPW220 V230 VPKW3230 V Star-deltaPKW5400 V 415 VPKW5400 V Star-deltaPKW5500 VPKW5500 VPKW7500 V Star-deltaPKW6500 V Star-deltaPKW7690 V Star-deltaPKW5690 V Star-deltaPKW5720 VPKW5720 VPKW5720 VPKW5720 VPKW5720 VPKW5720 VPF7720 VPA15720 VPA10720 VPA20720 VPA20720 VPA15720 VPPA720 VPPP720 VP		Operations/h		1200
20 V 20 V P KW 3 230 V Star-delta P KW 5.5 400 V 415 V P KW 5.5 400 V Star-delta P KW 5.5 500 V Solor - delta P KW 5.5 500 V Solor - delta P KW 5.5 500 V Star-delta P KW 5.5 690 V Star-delta P KW 7.5 690 V Star-delta P KW 5.5 690 V Star-delta P KW 5.5 700 V Star-delta P A 1.5 700 V Star-delta P A 5.5 700 V Star-delta P A 5.5 <td>AC-3</td> <td></td> <td></td> <td></td>	AC-3			
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400 V 415 VPkW5400 V Star-deltaPkW5500 VPkW5500 V Star-deltaPkW6690 VPkW4690 V Star-deltaPkW5690 V Star-deltaPkW5700 V Star-deltaPkW5700 V Star-deltaPkW5700 V Star-deltaPKW5700 V Star-deltaPKW6700 V Star-deltaPKW15700 V Star-deltaPA15700 V Star-deltaPA9700 V Star-deltaPP9700 V Star-deltaPP9700 V Star-deltaPP9700 V Star-deltaPP9 <tr< td=""><td>220 V 230 V</td><td>Р</td><td>kW</td><td>3</td></tr<>	220 V 230 V	Р	kW	3
$\frac{1}{400 V Star-delta}$ $\frac{400 V Star-delta}{500 V Star-delta}$ $\frac{1}{500 V Star-delta}$ $\frac{1}{690 V Star-delta}$ $\frac{1}{690 V Star-delta}$ $\frac{1}{690 V Star-delta}$ $\frac{1}{690 V Star-delta}$ $\frac{1}{600 V Star-delt$	230 V Star-delta	Р	kW	5.5
500 V FM KW 5.5 500 V Star-delta P KW 7.5 690 V P KW 4 690 V P KW 5.5 690 V Star-delta P KW 5.5 690 V Star-delta P KW 5.5 7.00 V Star-delta P KW 5.5 230 V P KW 1.5 230 V star-delta P A 1.5 400 V star-delta P A 1.5 500 V P A 5.0 500 V star-delta P A 5.6 600 V star-delta P A 5.6	400 V 415 V	Р	kW	5.5
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690 V690 VPKW4690 V Star-deltaPKW5.Rated operational current motor load switch230 VIaA1.5230 V star-deltaIaA20400 V 415 VIaA1.5400 V star-deltaIaA1.5500 VIaA20500 VIaA3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5690 VIaIa3.5<	500 V	Ρ	kW	5.5
690 V Star-delta P kW 5.5 Rated operational current motor load switch	500 V Star-delta	Р	kW	7.5
Rated operational current motor load switchImage: Constraint of the system	690 V	Р	kW	4
230 VIeA1.5230 V star-deltaIeA0400 V 415 VIeA1.5400 V star-deltaIeA0500 VIeA9500 V star-deltaIeA56600 V star-deltaIeA9600 V star-deltaIeA9		Р	kW	5.5
230 V star-deltaIeA20400V 415 VIeA1.5400 V star-deltaIeA20500 V500 V star-deltaIeA50500 V star-deltaIeA50600 V star-deltaIeA50500 V star-deltaIeA50500 V star-deltaIeA50600 VIeA50600 VIeIeA600 VIeIeIe600 VIeIeIe				
400V 415 V Ie A 11.5 400 V star-delta Ie A 20 500 V Ie A 9 500 V star-delta Ie A 500 600 V star-delta Ie A 9 600 V star-delta Ie A 9	230 V	l _e	A	
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	l _e	А	9
	500 V star-delta	l _e	А	15.6
690 V star-delta Ie A 8.5	690 V	l _e	А	4.9
	690 V star-delta	le	A	8.5
AC-23A	AC-23A			
Motor rating AC-23A, 50 - 60 Hz P kW	Motor rating AC-23A, 50 - 60 Hz	Р	kW	

200.1/	D	134/	
230 V	P	kW	3
400 V 415 V	Р	kW	5.5
500 V	P	kW	7.5
690 V	P	kW	5.5
Rated operational current motor load switch			
230 V	le	А	13.3
400 V 415 V	Ie	А	13.3
500 V	le	A	13.3
690 V	I _e	A	7.6
DC	-		
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	A	10
	'e		
Voltage per contact pair in series		V	60
DC-21A	le	A	
Rated operational current	le	A	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	Ie	А	10
Contacts		Quantity	1
48 V			
Rated operational current	le	A	10
Contacts	-	Quantity	2
60 V		addinity)	
Rated operational current		A	10
	l _e		
Contacts		Quantity	3
120 V			
Rated operational current	l _e	A	5
Contacts		Quantity	3
240 V			
Rated operational current	Ι _e	А	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	le	A	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	probability		
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)
		IIIIN	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			
Contacts			
Rated operational voltage	U _e	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use		A	16
Auxiliary contacts			
General Use	IU	A	10
Pilot Duty	ů do na se		A 600
, not buy			P 300

Switching capacity		
Maximum motor rating		
Single-phase		
120 V AC	HP	0.5
200 V AC	HP	1
240 V AC	HP	1.5
Three-phase		
200 V AC	HP	3
240 V AC	HP	3
480 V AC	HP	7.5
600 V AC	HP	7.5
Short Circuit Current Rating	SCCR	
Basic Rating	kA	5
max. Fuse	А	50
High fault rating	kA	10
max. Fuse	А	20, Class J
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	18 - 14
Terminal screw		M3.5
Tightening torque	lb-in	8.8

Design verification as per IEC/EN 61439

besign vermeation as per indy into the			
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.
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 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 leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Control switch (EC002611)

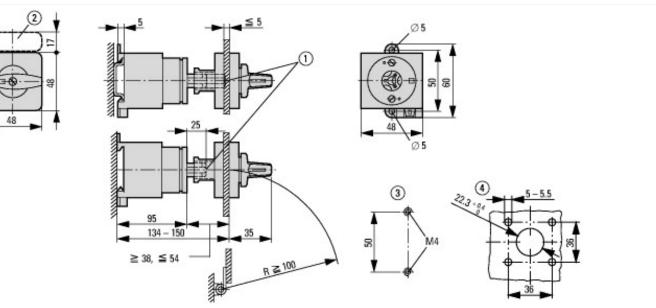
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14	
[ACN998011])	

Type of switch		Level switch
Number of poles		4
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	20
Number of switch positions		4
With 0 (off) position		Yes
With retraction in 0-position		No
Device construction		Built-in device
Width in number of modular spacings		0
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
Complete device in housing		No
Type of control element		Toggle
Front shield size		48x48 mm
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12

Approvals

Product Standards	UL 60947-4-1;CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.	E36332
UL Category Control No.	NLRV
CSA File No.	12528
CSA Class No.	3211-05
North America Certification	UL listed, CSA certified
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions



(1) Shaft extension with ZAV-T0 possible, max. 4 x 25 = 100 mm

(2) ZFS-... Label mount not included as standard
 (3) Drilling dimensions base
 (4) Drilling dimensions door