## DATASHEET - T0-2-15907/E/SVC(C,E,G-J)



Changeoverswitches, T0, 20 A, flush mounting, 4 pole, with black thumb grip and front plate, Padlocking feature SVC



Part no. Catalog No. T0-2-15907/E/SVC(C,E,G-J) 044996

## Delivery program

Number of contact units		contact unit(s)	2
Note on rated uninterrupted current !u			Rated uninterrupted current $\mathbf{I}_{u}$ is specified for max. cross-section.
Rated uninterrupted current	lu	А	20
400 V	Р	kW	5.5
Motor rating AC-23A, 50 - 60 Hz			
front plate			AUTO-0-HAND <start< th=""></start<>
			FS 1413890
Front plate no.			
Design number			15907
Switching performance			momentary/maintained
Switching angle		0	45
Contact sequence			
Design			flush mounting
Degree of Protection			Front IP65
Locking facility			actuated without removing the lock, but not 0. Only permissible when there is a separate OFF button Lockable in the 0 (Off) position
Notes			If the locking slide is interlocked with lock in HAND position, START can also be
locking arrangement			Padlocking feature SVC
Number of poles			4 pole
			with black thumb grip and front plate
Part group reference Basic function			Changeoverswitches
Product range Part group reference			TO
Product range			Switch with locking mechanism

# Technical data

	IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
°C	-25 - +50
°C	-25 - +40
	-

Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Mechanical shock resistance		g	15
Mounting position		5	As required
Contacts			
Mechanical variables			
Number of poles			4 pole
Electrical characteristics			
Rated operational voltage	U <sub>e</sub>	V AC	690
Rated uninterrupted current	lu	A	20
Note on rated uninterrupted current !u			Rated uninterrupted current l <sub>u</sub> is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x l <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 gG/gL	20
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A go/gL	320
Note on rated short-time withstand current (rs current)	·cw	' 'rms	Current for a time of 1 second
Rated conditional short-circuit current		kA	6
Switching capacity	lq	NA	с -
cos φ rated making capacity as per IEC 60947-3		A	130
Rated breaking capacity cos φ to IEC 60947-3		A	
230 V		A	100
400/415 V		A	110
500 V		A	80
690 V		A	60
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l <sub>e</sub>		W	0.6
Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V)		CO	0.6
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.4
	Operations/h	X IU	
Maximum operating frequency AC	operations/n		1200
AC-3			
Ac-3 Rating, motor load switch	Р	1.1.1.	
220 V 230 V	P	kW kW	3
	P		
230 V Star-delta 400 V 415 V	P P	kW kW	5.5
400 V \$415 V 400 V Star-delta	P P	kW	7.5
400 V Star-deita 500 V	P P	kW	5.5
500 V Star-delta	P	kW	7.5
690 V	P P	kW	4
690 V Star-delta	r P	kW	5.5
Rated operational current motor load switch			
230 V	l <sub>e</sub>	A	11.5
230 V star-delta		A	20
	l <sub>e</sub>		
400V 415 V	l <sub>e</sub>	A	11.5
400 V star-delta	le	A	20
500 V	l <sub>e</sub>	A	9
500 V star-delta	l <sub>e</sub>	A	15.6
690 V	le	А	4.9
690 V star-delta	l <sub>e</sub>	А	8.5

Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	3
400 V 415 V	Р	kW	5.5
500 V	Р	kW	7.5
690 V	Р	kW	5.5
Rated operational current motor load switch			
230 V	le	А	13.3
400 V 415 V	l <sub>e</sub>	А	13.3
500 V	I <sub>e</sub>	A	13.3
690 V	l <sub>e</sub>	A	7.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	le	A	10
Voltage per contact pair in series		V	60
DC-21A	l <sub>e</sub>	A	
Rated operational current	l <sub>e</sub>	A	1
Contacts	U	Quantity	
DC-23A, motor load switch L/R = 15 ms		Quantity	
24 V			
Rated operational current	le	A	10
Contacts	.6	Quantity	
48 V		Quantity	
Rated operational current	le	A	10
	'e		
Contacts 60 V		Quantity	2
Rated operational current	1	A	10
	l <sub>e</sub>		
Contacts 120 V		Quantity	3
	1	A	5
Rated operational current	l <sub>e</sub>		
Contacts		Quantity	3
240 V		٨	-
Rated operational current	l <sub>e</sub>	A	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			10
Rated operational current	l <sub>e</sub>	A	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	< 10 <sup>-5</sup> ,< 1 failure in 100,000 switching operations
Terminal capacities			
Solid or stranded		mm <sup>2</sup>	1 x (1 - 2,5) 2 x (1 - 2,5)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	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 <sub>d</sub> values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw			M3.5
Tightening torque		lb-in	8.83

## 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 <sub>vid</sub>	W	0.6

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 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 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])

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Type of switch		Reverser
Number of poles		0
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		No
Suitable for front mounting 4-hole		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
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		Other





