

Main switch, T0, 20 A, surface mounting, 3 contact unit(s), 3 pole + N, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position



Part no. T0-3-15680/I1/SVB
Catalog No. 207153

**EL-Nummer
(Norway)** 1417156

Delivery program

Product range		Main switch maintenance switch Repair switch
Part group reference		T0
Stop Function		Emergency switching off function
		With red rotary handle and yellow locking ring
Number of poles		3 pole + N
Auxiliary contacts		
	N/O	1
7	N/C	1
Locking facility		Lockable in the 0 (Off) position
Degree of Protection		IP65
Design		surface mounting
Switching angle	°	90
Design number		15680
Motor rating AC-23A, 50 - 60 Hz		
400 V	P	kW 5.5
Rated uninterrupted current	I _u	A 20
Note on rated uninterrupted current I _u		Rated uninterrupted current I _u is specified for max. cross-section.
Number of contact units	contact unit(s)	3

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			
Enclosed	°C		-25 - +40
Oversupply category/pollution degree			III/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			3 pole + N
Auxiliary contacts			
	N/O	1	
	N/C	1	
Electrical characteristics			
Rated operational voltage	U _e	V AC 690	
Rated uninterrupted current	I _u	A 20	
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.

Load rating with intermittent operation, class 12					
AB 25 % DF		$\times I_e$	2		
AB 40 % DF		$\times I_e$	1.6		
AB 60 % DF		$\times I_e$	1.3		
Short-circuit rating					
Fuse		A gG/gL	20		
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	320		
Note on rated short-time withstand current I_{cw}		Current for a time of 1 second			
Rated conditional short-circuit current	I_q	kA	6		
Switching capacity					
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 I_e		W	0.6		
Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		CO	0.6		
Lifespan, mechanical	Operations	$\times 10^6$	> 0.4		
Maximum operating frequency	Operations/h		1200		
AC					
AC-3					
Rating, motor load switch	P	kW			
220 V 230 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	7.5		
500 V	P	kW	5.5		
500 V Star-delta	P	kW	7.5		
690 V	P	kW	4		
690 V Star-delta	P	kW	5.5		
Rated operational current motor load switch					
230 V	I_e	A	11.5		
230 V star-delta	I_e	A	20		
400V 415 V	I_e	A	11.5		
400 V star-delta	I_e	A	20		
500 V	I_e	A	9		
500 V star-delta	I_e	A	15.6		
690 V	I_e	A	4.9		
690 V star-delta	I_e	A	8.5		
AC-23A					
Motor rating AC-23A, 50 - 60 Hz	P	kW			
230 V	P	kW	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					
230 V	I_e	A	13.3		
400 V 415 V	I_e	A	13.3		
500 V	I_e	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
Voltage per contact pair in series		V	60
DC-21A	I_e	A	
Rated operational current	I_e	A	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I_e	A	10
Contacts		Quantity	1
48 V			
Rated operational current	I_e	A	10
Contacts		Quantity	2
60 V			
Rated operational current	I_e	A	10
Contacts		Quantity	3
120 V			
Rated operational current	I_e	A	5
Contacts		Quantity	3
240 V			
Rated operational current	I_e	A	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	I_e	A	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H_F	$< 10^{-5}, < 1$ failure in 100,000 switching 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
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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	I_n	A	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	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			Meets the product standard's requirements.
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 8.0

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])

Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		Yes
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 Iu	A	20
Rated permanent current at AC-23, 400 V	A	13.3
Rated permanent current at AC-21, 400 V	A	20
Rated operation power at AC-3, 400 V	kW	5.5
Rated short-time withstand current Icw	kA	0.32
Rated operation power at AC-23, 400 V	kW	5.5
Switching power at 400 V	kW	5.5
Conditioned rated short-circuit current Iq	kA	6
Number of poles		4
Number of auxiliary contacts as normally closed contact		1
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Complete device in housing
Suitable for floor 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		No

Colour control element		Red
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)		12