

Safety switch, T5B, 63 A, 6 pole, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in position 0 with cover interlock, with warning label „safety switch”

Part no. T5B-4-15682/I4-SI
Catalog No. 207254

Delivery program

Product range			safety switch
Part group reference			T5B
Stop Function			Emergency switching off function
			With red rotary handle and yellow locking ring
Notes			with warning label „safety switch”
Number of poles			6 pole
Auxiliary contacts			
	N/O		1
	N/C		1
Locking facility			Lockable in position 0 with cover interlock
Degree of Protection			IP65
Design			surface mounting
Design number			15682
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	30
Rated uninterrupted current	I _u	A	63
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)		4

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		°C	-25 - +40
Enclosed			III/3
Overvoltage category/pollution degree			
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required

Contacts

Mechanical variables			
Number of poles			6 pole
Auxiliary contacts			
	N/O		1
	N/C		1
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	I _u	A	63
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	x I _e		2

AB 40 % DF		$x I_e$	1.6
AB 60 % DF		$x I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	80
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	1300
Note on rated short-time withstand current I_{cw}			Current for a time of 1 second
Rated conditional short-circuit current	I_q	kA	2
Switching capacity			
$\cos \varphi$ rated making capacity as per IEC 60947-3		A	800
Rated breaking capacity $\cos \varphi$ to IEC 60947-3		A	
230 V		A	520
400/415 V		A	600
500 V		A	480
690 V		A	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I_e		W	4.5
Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		CO	4.5
Lifespan, mechanical	Operations	$\times 10^6$	> 0.5
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	15
230 V Star-delta	P	kW	18.5
400 V 415 V	P	kW	22
400 V Star-delta	P	kW	30
500 V	P	kW	22
500 V Star-delta	P	kW	37
690 V	P	kW	15
690 V Star-delta	P	kW	22
Rated operational current motor load switch			
230 V	I_e	A	51
230 V star-delta	I_e	A	63
400V 415 V	I_e	A	41
400 V star-delta	I_e	A	63
500 V	I_e	A	33
500 V star-delta	I_e	A	57.2
690 V	I_e	A	17
690 V star-delta	I_e	A	29.4
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	18.5
400 V 415 V	P	kW	30
500 V	P	kW	22
690 V	P	kW	22
Rated operational current motor load switch			
230 V	I_e	A	63
400 V 415 V	I_e	A	63
500 V	I_e	A	33
690 V	I_e	A	23.8
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I_e	A	63

Voltage per contact pair in series	V	60
DC-23A, motor load switch L/R = 15 ms		
24 V		
Rated operational current	I _e	A 50
Contacts		Quantity 1
48 V		
Rated operational current	I _e	A 50
Contacts		Quantity 2
60 V		
Rated operational current	I _e	A 50
Contacts		Quantity 3
120 V		
Rated operational current	I _e	A 25
Contacts		Quantity 3
240 V		
Rated operational current	I _e	A 20
Contacts		Quantity 6
DC-13, Control switches L/R = 50 ms		
Rated operational current	I _e	A 25
Voltage per contact pair in series	V	24
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 (2,5 - 35) 2 x (2,5 - 16)
Flexible with ferrules to DIN 46228	mm ²	1 x (1 - 25) 2 x (1.5 - 10)
Terminal screw		M6
Tightening torque for terminal screw	Nm	4

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		M6
Tightening torque	lb-in	35.32

Design verification as per IEC/EN 61439

Technical data for design verification		
Rated operational current for specified heat dissipation	I _h	A 63
Heat dissipation per pole, current-dependent	P _{vid}	W 4.5
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		
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		No
Version as maintenance-/service switch		No
Version as safety switch		Yes
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	63
Rated permanent current at AC-23, 400 V	A	63
Rated permanent current at AC-21, 400 V	A	63
Rated operation power at AC-3, 400 V	kW	22
Rated short-time withstand current Icw	kA	1.3
Rated operation power at AC-23, 400 V	kW	30
Switching power at 400 V	kW	30
Conditioned rated short-circuit current Iq	kA	2
Number of poles		6
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

