DATASHEET - T5-4-8903/15-SI



Safety switch, T5, 100 A, 6 pole, 2 N/O, 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. T5-4-8903/I5-SI Catalog No. 207289

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Delivery program			
Product range			safety switch
Part group reference			T5
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/0	2
7		N/C	0
Locking facility			Lockable in position 0 with cover interlock
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			
Design number			8903
Function			OFF O
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	55
Rated uninterrupted current	lu	Α	100
Note on rated uninterrupted current !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	

Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance	mp	g	15
Mounting position		9	As required
Contacts			7 to Toquillo
Mechanical variables			
Number of poles			6 pole
Auxiliary contacts			
		N/0	2
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	Iu	Α	100
Note on rated uninterrupted current !u			Rated uninterrupted current I _u is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x l _e	2
AB 40 % DF		x l _e	1.6
AB 60 % DF			1.3
		x I _e	1.0
Short-circuit rating		4 0/ 1	400
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	1700
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	2
Switching capacity cos φ rated making capacity as per IEC 60947-3		Α	950
Rated breaking capacity cos φ to IEC 60947-3			330
230 V		A	760
400/415 V		A	740
500 V		A	590
690 V		A	420
Safe isolation to EN 61140		^	720
between the contacts		V AC	440
Current heat loss per contact at I _e		W	7.5
		CO	
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)			7.5
Lifespan, mechanical	Operations	x 10 ⁶	> 0.5
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	Р	kW	22
230 V Star-delta	Р	kW	30
400 V 415 V	Р	kW	30
400 V Star-delta	Р	kW	45
500 V	Р	kW	30
500 V Star-delta	Р	kW	45
690 V	Р	kW	15
690 V Star-delta	Р	kW	22
Rated operational current motor load switch			
230 V	l _e	Α	71
230 V star-delta	I _e	Α	100
400V 415 V	le	Α	55
400 V star-delta	I _e	Α	95.3
500 V	I _e	Α	44

500 V star-delta	I _e	Α	76.2
690 V	I _e	Α	17
690 V star-delta	I _e	Α	29.4
AC-21A			
Rated operational current switch			
440 V	I _e	Α	100
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	30
400 V 415 V	P	kW	55
500 V	P	kW	37
690 V	P	kW	30
Rated operational current motor load switch			
230 V	I _e	Α	100
400 V 415 V	I _e	Α	100
500 V	I _e	Α	55
690 V	l _e	Α	32
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	Α	80
Voltage per contact pair in series		V	60
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
Rating data for approved types			
Terminal capacity			
Terminal screw			M6

Design verification as per IEC/EN 61439

Tightening torque

boolgh vormoudion do por 120, 214 or 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	100
Heat dissipation per pole, current-dependent	P _{vid}	W	7.5
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.

lb-in

35.32

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.

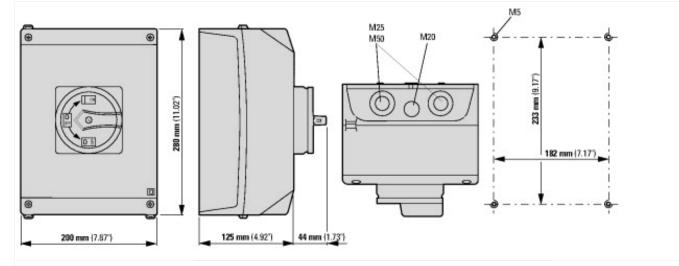
Technical data ETIM 7.0

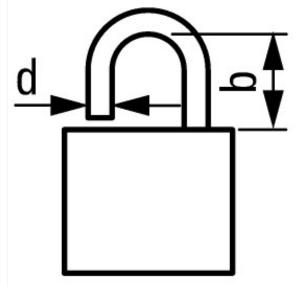
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

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 awithed 6 6 70 </th <th>[41(100010])</th> <th></th> <th></th>	[41(100010])		
Version as safety witch Wes Version as amergency stop installation Version as a mergency st	Version as main switch		No
Version as emergency stop installation 6 19 No Version as eversing switch 6 1 1 Number of switches 9 19 1 Rax. rated operation voltage Uo AC V 80-60 60 Rated operation voltage V 80-60 60 Rated permanent current 1 AC 223, 400 V A 100 Rated permanent current at AC-21, 400 V A 30 Rated operation power at AC-34, 400 V A 10 Rated operation power at AC-34, 400 V A 10 Rated operation power at AC-34, 400 V A 10 Rated operation power at AC-34, 400 V B 5 Switching power at 400 V A 10 Conditioned rated short-circuit current lq A 10 Number of polis B 2 6 Number of auxiliary contacts as normally closed contact B 2 10 Number of auxiliary contacts as charge-over contact B No 10 Motor of rive integrated B No 10 </td <td>Version as maintenance-/service switch</td> <td></td> <td>No</td>	Version as maintenance-/service switch		No
Version as reversing switch In the control of switches In the control of switches <t< td=""><td>Version as safety switch</td><td></td><td>Yes</td></t<>	Version as safety switch		Yes
Number of switches I 1 Max. rated operation voltage Ue AC V 690 Rated operating voltage V 690 Rated operating voltage V 690 Rated permanent current at AC-23,400 V A 100 Rated permanent current at AC-21,400 V A 100 Rated permanent current at AC-23,400 V W 30 Rated short-time withstand current lew W 55 Rated operation power at AC-23,400 V W 55 Switching power at 400 V W 55 Conditioned rated short-circuit current Iq W 5 Number of polos W 6 6 Number of auxiliary contacts as normally closed contact W 2 2 Number of auxiliary contacts as change-over contact W No No Motor drive optional W No No Motor drive integrated W No No Voltage relase optional W No No Suitable for front mounting 4-hole W No<	Version as emergency stop installation		Yes
Max. rated operation voltage Ue AC V 690 Rated operating voltage V 690 690 Rated permanent current IA A 100 Rated permanent current at AC-23, 400 V A 100 Rated permanent current at AC-21, 400 V A 100 Rated operation power at AC-3, 400 V AW 30 Rated operation power at AC-23, 400 V AW 55 Rated operation power at AC-23, 400 V AW 55 Conditioned rated short-circuit current Iq AW 55 Conditioned rated short-circuit current Iq AW 2 Number of poles AW 6 Number of poles AW 0 Number of suxiliary contacts as normally closed contact AW 2 Number of suxiliary contacts as change-over contact AW 9 Motor drive optional AW No Motor drive integrated AW Complete device in housing Valtage release optional AW Po Complete device in housing Suitable for front mounting 4-hole AW P	Version as reversing switch		No
Rated operating voltage V 890 - 690 Rated permanent current lu A 100 Rated permanent current at AC-23, 400 V A 100 Rated permanent current at AC-21, 400 V A 100 Rated permanent current at AC-23, 400 V AW 30 Rated short-time withstand current lcw W 55 Switching power at AC-23, 400 V W 55 Switching power at AC-23, 400 V W 55 Switching power at AC-23, 400 V W 55 Number of poles W 5 Number of poles W 6 Number of auxiliary contacts as normally closed contact W 2 Number of auxiliary contacts as normally open contact P 0 Number of auxiliary contacts as change-over contact P No Motor drive integrated P No Voltage release optional P No Suitable for ground mounting P No Suitable for front mounting 4-hole P No Suitable for front mounting 4-hole P<	Number of switches		1
Rated permanent current tu A 10 Rated permanent current et AC-23, 400 V A 100 Rated permanent current et AC-3, 400 V A 100 Rated operation power at AC-3, 400 V AW 30 Rated operation power at AC-3, 400 V AW 1,7 Rated operation power at AC-23, 400 V AW 55 Switching power at 400 V AW 55 Conditioned rated short-circuit current Iq AW 2 Number of poles AW 6 Number of auxiliary contacts as normally closed contact AW 2 Number of auxiliary contacts as change-over contact AW 0 Motor drive optional AW No Motor drive optional AW No Motor drive optional AW No Voltage release optional AW Complete device in housing Suitable for ground mounting AW Yes Suitable for front mounting 4-hole AW No Suitable for front mounting centre AW No Suitable for intermediate mounting <td>Max. rated operation voltage Ue AC</td> <td>V</td> <td>690</td>	Max. rated operation voltage Ue AC	V	690
Rated permanent current at AC-23, 400 V A 100 Rated permanent current at AC-21, 400 V KW 30 Rated short-time withstand current lcw KA 1.7 Rated operation power at AC-23, 400 V KW 55 Switching power at 400 V KW 55 Conditioned rated short-circuit current lq KA 2 Number of bes KA 2 Number of auxiliary contacts as normally closed contact KA 2 Number of auxiliary contacts as normally open contact KA 2 Number of auxiliary contacts as change-over contact KA 0 Motor drive optional KA No Motor drive integrated No No Voltage release optional No No Device construction KA Yes Suitable for ground mounting KA Yes Suitable for front mounting 4-hole No No Suitable for front mounting 4-hole No No Suitable for intermediate mounting No No Suitable for intermediate mountin	Rated operating voltage	V	690 - 690
Rated permanent current at AC-21, 400 V A 100 Rated operation power at AC-3, 400 V kW 30 Rated short-time withstand current low kA 1,7 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 55 Conditioned rated short-circuit current lq kA 2 Number of poles kA 2 Number of auxiliary contacts as normally closed contact 2 0 Number of auxiliary contacts as change-over contact 2 No Motor drive optional No No Motor drive integrated No No Voltage release optional No Complete device in housing Suitable for ground mounting Yes No Suitable for front mounting 4-hole No No Suitable for front mounting 4-hole No No Suitable for intermediate mounting No No Suitable for intermediate mounting No No Suitable for intermediate mounting No No Suitable for in	Rated permanent current lu	Α	100
Rated operation power at AC-3, 400 V Rated short-time withstand current lcw Rated operation power at AC-23, 400 V Rated operation power at AC-23, 400 V Rothing power at 400 V Rothing power 400 V Rothing power 400 V Rothing power 400 V Rothing power 400	Rated permanent current at AC-23, 400 V	Α	100
Rated short-time withstand current lcw kA 1.7 Rated operation power at AC-23, 400 V kW 55 Switching power at 400 V kW 55 Conditioned rated short-circuit current lq kA 2 Number of poles 6 6 Number of auxiliary contacts as normally closed contact 2 0 Number of auxiliary contacts as change-over contact 2 0 Motor drive optional No No Motor drive integrated No No Voltage release optional No Complete device in housing Suitable for ground mounting Yes No Suitable for front mounting 4-hole No No Suitable for front mounting centre No No Suitable for distribution board installation No No Suitable for intermediate mounting No No Colour control element No No Type of control element Poor coupling rotary drive Interlockable Yes	Rated permanent current at AC-21, 400 V	Α	100
Rated operation power at AC-23, 400 V Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Notor drive optional Motor drive integrated Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Type of control element Interlockable	Rated operation power at AC-3, 400 V	kW	30
Switching power at 400 V Conditioned rated short-circuit current Iq Number of poles Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Number of auxiliary contacts as change-over contact Notor drive optional Motor drive integrated No Voltage release optional Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for first mounting centre Suitable for first mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control el	Rated short-time withstand current lcw	kA	1.7
Conditioned rated short-circuit current Iq Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Notor drive optional Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable No Suitable (Suitable (Suitab	Rated operation power at AC-23, 400 V	kW	55
Number of poles Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No Voltage release optional No Device construction Complete device in housing Suitable for ground mounting Yes Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for intermediate mounting Suitable for intermediate mounting Colour control element Type of control element Interlockable Red Door coupling rotary drive Interlockable	Switching power at 400 V	kW	55
Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No Voltage release optional No Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for intermediate mounting Suitable for intermediate mounting Suitable for intermediate mounting Suitable for intermediate mounting No Colour control element Type of control element Interlockable Number of auxiliary contacts as normally open contact 2 No On On On On On On On On On O	Conditioned rated short-circuit current Iq	kA	2
Number of auxiliary contacts as normally open contact Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for intermediate mounting Suitable for intermediate mounting Colour control element Type of control element Interlockable Door coupling rotary drive Pology of Control element No Suitable for sound mounting rotary drive Pres Pr	Number of poles		6
Number of auxiliary contacts as change-over contact Motor drive optional Motor drive integrated No Voltage release optional Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre Suitable for front mounting centre Suitable for intermediate mounting Suitable for intermediate mounting Complete device in housing Yes No Suitable for front mounting 4-hole No Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting Colour control element Type of control element Type of control element Interlockable	Number of auxiliary contacts as normally closed contact		0
Motor drive optional Motor drive integrated No Voltage release optional Device construction Complete device in housing Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting Colour control element Type of control element Interlockable No	Number of auxiliary contacts as normally open contact		2
Motor drive integrated Voltage release optional No Complete device in housing Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting Colour control element Type of control element Interlockable No No No No Red Door coupling rotary drive Interlockable	Number of auxiliary contacts as change-over contact		0
Voltage release optional No Device construction Complete device in housing 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 No Colour control element Red Type of control element Door coupling rotary drive Interlockable Yes	Motor drive optional		No
Device construction Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Complete device in housing Yes No No No No Door coupling rotary drive Yes	Motor drive integrated		No
Suitable for ground mounting Yes Suitable for front mounting 4-hole No Suitable for front mounting centre No Suitable for distribution board installation Suitable for intermediate mounting Colour control element Type of control element Interlockable Yes	Voltage release optional		No
Suitable for front mounting 4-hole Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element Type of control element Interlockable No No Red Yes	Device construction		Complete device in housing
Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element Type of control element Interlockable No Red Door coupling rotary drive Yes	Suitable for ground mounting		Yes
Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element Type of control element Interlockable No Red Door coupling rotary drive Yes	Suitable for front mounting 4-hole		No
Suitable for intermediate mounting Colour control element Type of control element Interlockable No Red Door coupling rotary drive Yes	Suitable for front mounting centre		No
Colour control element Type of control element Interlockable Red Door coupling rotary drive Yes	Suitable for distribution board installation		No
Type of control element Door coupling rotary drive Interlockable Yes	Suitable for intermediate mounting		No
Interlockable Yes	Colour control element		Red
	Type of control element		Door coupling rotary drive
Type of electrical connection of main circuit Screw connection	Interlockable		Yes
	Type of electrical connection of main circuit		Screw connection

Dimensions





d = **4** - **8** mm **b** + **d** ≤ **47** mm d = 0.16 - 0.31" b + d ≤ 1.85"

≦3 padlocks

Assets (links)

Declaration of CE Conformity 00003073

Instruction Leaflets

IL03801009Z2018_05

Additional product information (links)

IL03801009Z (AWA1150-1692) Cam switch: switch-disconnector		
IL03801009Z (AWA1150-1692) Cam switch: switch-disconnector	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf	
Technical overview cam switch, switch- disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2	
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4	
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6	
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8	
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8	
Switches for ATEX	http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html	
Ordering form for SOND switches and SOND front plates(DE_EN)	ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf	
Ordering form for SOND switches and SOND front plates(DE_EN)	ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf	