



Main switch, 3 pole, 63 A, Emergency-Stop function, 90 °, rear mounting

Part no. T5B-2-1/V/SVB
Article no. 094124

Delivery program

Product range			Main switch maintenance switch Repair switch
Part group reference			T5B
Stop Function			Emergency switching off function With red rotary handle and yellow locking ring
Number of poles			3 pole
Degree of Protection			Front IP65
Design			rear mounting
Contact sequence			
Switching angle		°	90
Function			
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	30
Rated uninterrupted current	I _u	A	63
Number of contact units		contact unit(s)	2

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL 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			
Open		°C	-25 - +50
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof

Contacts

Mechanical variables			
Number of poles			3 pole
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	$x 10^6$	> 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-21A			
Rated operational current switch			
440 V	I_e	A	63
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 fault in 100000 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
Max. tightening torque		Nm	4

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	I _U	A	63
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	3
200 V AC		HP	7.5
240 V AC		HP	10
Three-phase			
200 V AC		HP	15
240 V AC		HP	15
480 V AC		HP	40
600 V AC		HP	40
Short Circuit Current Rating			
High fault rating		kA	10

max. Fuse	A	100, Class J
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	12 - 4
Terminal screw		M6
Tightening torque	lb-in	35.4

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	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	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			
			Please enquire
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 6.0

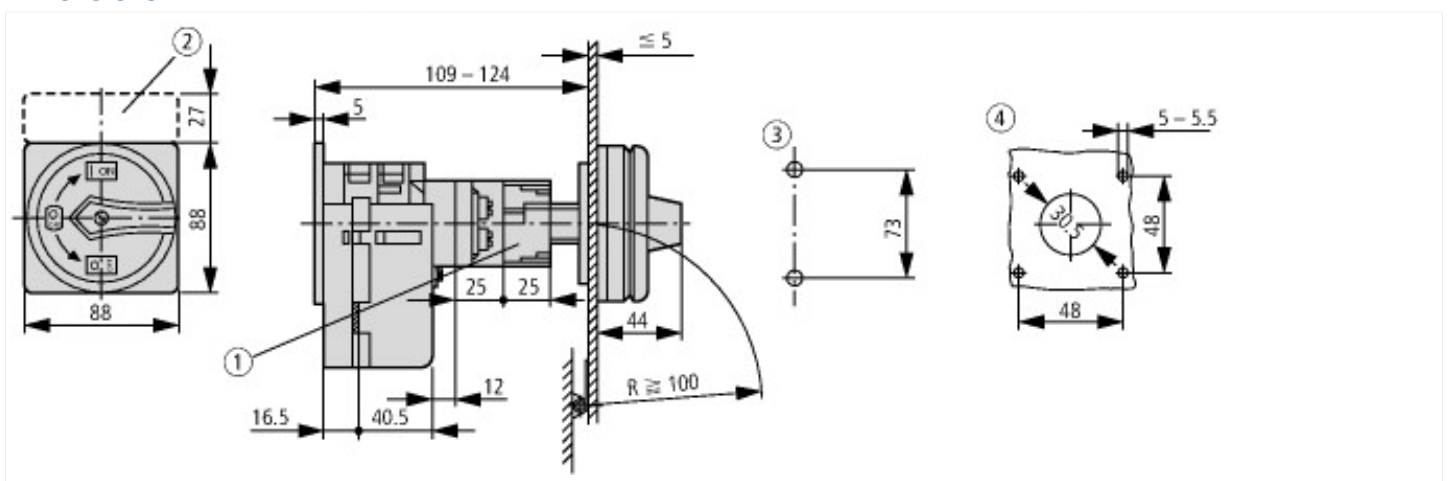
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8.1-27-37-14-03 [AKF060010])			
Version as main switch			Yes
Version as maintenance-/service switch			Yes
Version as safety switch			No
Version as emergency stop installation			Yes
Version as reversing switch			No
Max. rated operation voltage U_e AC		V	690
Rated operating voltage		V	690 - 690
Rated permanent current I_u		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 I _{cw}	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 I _q	kA	2
Number of poles		3
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Built-in device fixed built-in technique
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting center		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
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

Approvals

Product Standards		UL 508; CSA-C22.2 No. 14-05; 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
Specially designed for North America		Yes, with an alternative front plate and/or terminal markings to those of the IEC type in combination with "+NA" (105864)
Suitable for		Branch circuits, suitable as motor disconnect
Degree of Protection		IEC: IP65; UL/CSA Type 1, 12

Dimensions



- ① Shaft and interlock extension with ZAV-P3 + ZVV-P3 possible; max. 4 x 25 = 100 mm
 - ② ZFS... Label mount not included as standard
 - ③ Drilling dimensions base
 - ④ Drilling dimensions door
- Cam switches T5B and T5 have the identical design; the only difference between them is




$d = 4 - 8 \text{ mm}$

$b + d \leq 47 \text{ mm}$

$d = 0.16 - 0.31''$

$b + d \leq 1.85''$

 3 padlocks

Additional product information (links)

IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors

IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2016_07.pdf
Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=130
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