

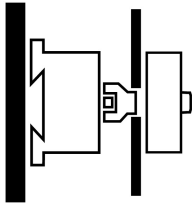


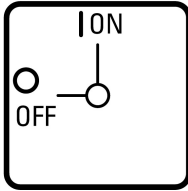
**Main switch, T5B, 63 A, rear mounting, 7 contact unit(s), 13-pole, STOP function, With black rotary handle and locking ring**



**Part no. T5B-7-8349/V/SVB-SW**  
**Catalog No. 091433**

**Delivery program**

Product range		Main switch maintenance switch Repair switch																																																																																	
Part group reference		T5B																																																																																	
Stop Function		STOP function																																																																																	
		With black rotary handle and locking ring																																																																																	
Number of poles		13-pole																																																																																	
Degree of Protection		Front IP65																																																																																	
Design		rear mounting																																																																																	
																																																																																			
Contact sequence		<table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>0</th> <th>1</th> </tr> </thead> <tbody> <tr><td>1</td><td>○</td><td>X</td></tr> <tr><td>2</td><td>○</td><td>X</td></tr> <tr><td>3</td><td>○</td><td>X</td></tr> <tr><td>4</td><td>○</td><td>X</td></tr> <tr><td>5</td><td>○</td><td>X</td></tr> <tr><td>6</td><td>○</td><td>X</td></tr> <tr><td>7</td><td>○</td><td>X</td></tr> <tr><td>8</td><td>○</td><td>X</td></tr> <tr><td>9</td><td>○</td><td>X</td></tr> <tr><td>10</td><td>○</td><td>X</td></tr> <tr><td>11</td><td>○</td><td>X</td></tr> <tr><td>12</td><td>○</td><td>X</td></tr> <tr><td>13</td><td>○</td><td>X</td></tr> <tr><td>14</td><td>○</td><td>X</td></tr> <tr><td>15</td><td>○</td><td>X</td></tr> <tr><td>16</td><td>○</td><td>X</td></tr> <tr><td>17</td><td>○</td><td>X</td></tr> <tr><td>18</td><td>○</td><td>X</td></tr> <tr><td>19</td><td>○</td><td>X</td></tr> <tr><td>20</td><td>○</td><td>X</td></tr> <tr><td>21</td><td>○</td><td>X</td></tr> <tr><td>22</td><td>○</td><td>X</td></tr> <tr><td>23</td><td>○</td><td>X</td></tr> <tr><td>24</td><td>○</td><td>X</td></tr> <tr><td>25</td><td>○</td><td>X</td></tr> <tr><td>26</td><td>○</td><td>X</td></tr> </tbody> </table>		0	1	1	○	X	2	○	X	3	○	X	4	○	X	5	○	X	6	○	X	7	○	X	8	○	X	9	○	X	10	○	X	11	○	X	12	○	X	13	○	X	14	○	X	15	○	X	16	○	X	17	○	X	18	○	X	19	○	X	20	○	X	21	○	X	22	○	X	23	○	X	24	○	X	25	○	X	26	○	X
	0	1																																																																																	
1	○	X																																																																																	
2	○	X																																																																																	
3	○	X																																																																																	
4	○	X																																																																																	
5	○	X																																																																																	
6	○	X																																																																																	
7	○	X																																																																																	
8	○	X																																																																																	
9	○	X																																																																																	
10	○	X																																																																																	
11	○	X																																																																																	
12	○	X																																																																																	
13	○	X																																																																																	
14	○	X																																																																																	
15	○	X																																																																																	
16	○	X																																																																																	
17	○	X																																																																																	
18	○	X																																																																																	
19	○	X																																																																																	
20	○	X																																																																																	
21	○	X																																																																																	
22	○	X																																																																																	
23	○	X																																																																																	
24	○	X																																																																																	
25	○	X																																																																																	
26	○	X																																																																																	
Switching angle	°	90																																																																																	
Design number		8349																																																																																	

Function				
<b>Motor rating AC-23A, 50 - 60 Hz</b>				
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)	7	

## 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

### Contacts

Mechanical variables				
Number of poles				13-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		$\times I_e$	2	
AB 40 % DF		$\times I_e$	1.6	
AB 60 % DF		$\times I_e$	1.3	
Short-circuit rating				
Fuse		A gG/gL	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 <sub>e</sub>	A	51
230 V star-delta	I <sub>e</sub>	A	63
400V 415 V	I <sub>e</sub>	A	41
400 V star-delta	I <sub>e</sub>	A	63
500 V	I <sub>e</sub>	A	33
500 V star-delta	I <sub>e</sub>	A	57.2
690 V	I <sub>e</sub>	A	17
690 V star-delta	I <sub>e</sub>	A	29.4
AC-21A			
Rated operational current switch			
440 V	I <sub>e</sub>	A	63
AC-23A			
Motor rating AC-23A, 50 - 60 Hz			
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 <sub>e</sub>	A	63
400 V 415 V	I <sub>e</sub>	A	63
500 V	I <sub>e</sub>	A	33
690 V	I <sub>e</sub>	A	23.8
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I <sub>e</sub>	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 <sub>e</sub>	A	50
Contacts		Quantity	1
48 V			
Rated operational current	I <sub>e</sub>	A	50
Contacts		Quantity	2
60 V			
Rated operational current	I <sub>e</sub>	A	50
Contacts		Quantity	3
120 V			
Rated operational current	I <sub>e</sub>	A	25
Contacts		Quantity	3
240 V			
Rated operational current	I <sub>e</sub>	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 <sup>2</sup>	1 x (2,5 - 35) 2 x (2,5 - 16)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (1 - 25) 2 x (1.5 - 10)
Terminal screw			M6
Tightening torque for terminal screw		Nm	4

### Technical safety parameters:

Notes			B10 <sub>q</sub> 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		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			
10.2.2.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.2.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.2.3 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) / Switch disconnecter (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013])

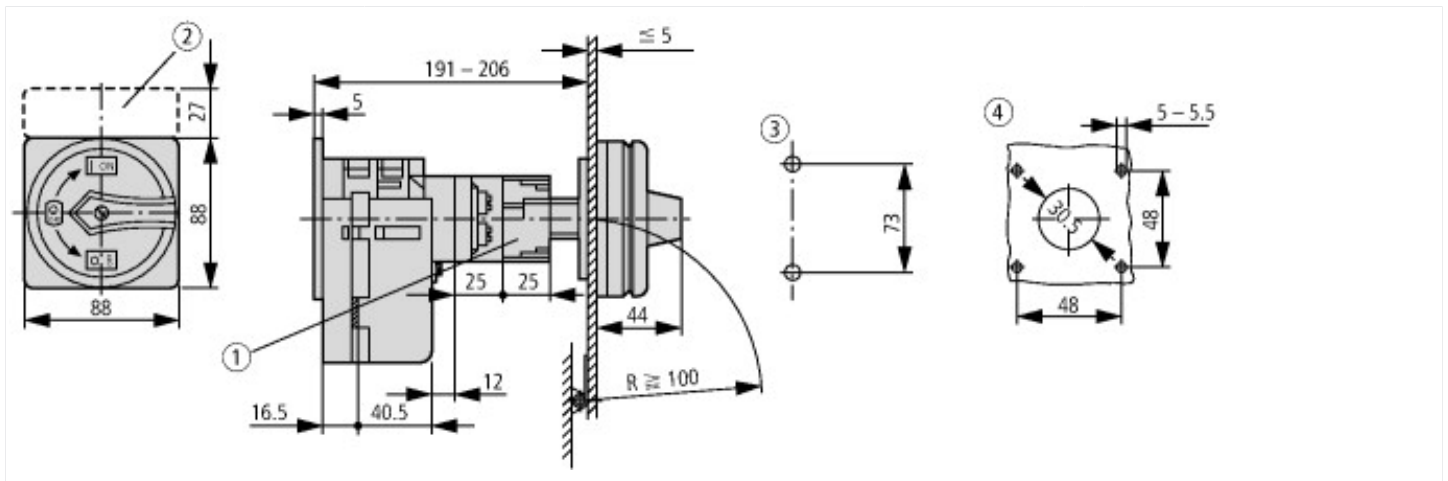
Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		No
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current Iu	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		13
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 centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
Colour control element		Black
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

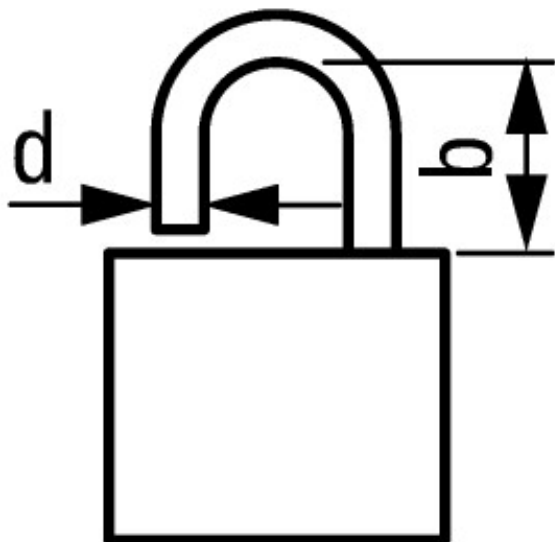
## Approvals

Product Standards	UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; 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
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

## Assets (links)

### Declaration of CE Conformity

00003073

### Instruction Leaflets

IL03801009Z2018\_05

## Additional product information (links)

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

IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf</a>
Display flip catalog page.	<a href="http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=130">http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=130</a>
Technical overview cam switch, switch-disconnector	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2</a>
System overview cam switch T	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4</a>
System overview switch-disconnector P	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6</a>
Key to part numbers Cam switch	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>
Key to part numbers Switch-disconnector	<a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>
Switches for ATEX	<a href="http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html">http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html</a>
Ordering form for SOND switches and SOND front plates(DE_EN)	<a href="ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf">ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf</a>
Ordering form for SOND switches and SOND front plates(DE_EN)	<a href="ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf">ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf</a>