### **DATASHEET - T5B-4-8213/X**



Changeoverswitches, T5B, 63 A, rear mounting, Basic switch, 4 contact unit(s), Contacts: 8, 60 °, Design number 8213



Part no. T5B-4-8213/X Catalog No. 092110

Delivery program			
Product range			Control switches
Part group reference			T5B
Basic function			Changeoverswitches
Contacts			8
Design			rear mounting Basic switch
Contact sequence			
Switching angle		o	60
Design number			8213
Front plate no.			FS 684
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	30
Rated uninterrupted current	lu	Α	63
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Number of contact units		contact	4

unit(s)

# 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			
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			
Electrical characteristics			
Rated operational voltage	$U_{e}$	V AC	690
Rated uninterrupted current	I <sub>u</sub>	Α	63
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I <sub>e</sub>	2
AB 40 % DF		x I <sub>e</sub>	1.6
AB 60 % DF		x l <sub>e</sub>	1.3

Short-circuit rating			
Fuse		A gG/gL	80
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	1300
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	1		
$\cos\phi$ rated making capacity as per IEC 60947-3		Α	800
Rated breaking capacity $\cos\phi$ to IEC 60947-3		Α	
230 V		Α	520
400/415 V		Α	600
500 V		Α	480
690 V		Α	340
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l <sub>e</sub>		W	4.5
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)		CO	4.5
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.5
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P	kW	15
230 V Star-delta	P	kW	18.5
400 V 415 V	Р	kW	22
400 V Star-delta	Р	kW	30
500 V	Р	kW	22
500 V Star-delta	Р	kW	37
690 V	Р	kW	15
690 V Star-delta	Р	kW	22
Rated operational current motor load switch			
230 V	I <sub>e</sub>	Α	51
230 V star-delta	l <sub>e</sub>	Α	63
400V 415 V	l <sub>e</sub>	Α	41
400 V star-delta	l <sub>e</sub>	Α	63
500 V	l <sub>e</sub>	Α	33
500 V star-delta	l <sub>e</sub>	Α	57.2
690 V	l <sub>e</sub>	Α	17
690 V star-delta	I <sub>e</sub>	Α	29.4
AC-21A			
Rated operational current switch			
440 V	l <sub>e</sub>	Α	63
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	18.5
400 V 415 V	Р	kW	30
500 V	Р	kW	22
690 V	P	kW	22
Rated operational current motor load switch			
230 V	I <sub>e</sub>	Α	63
400 V 415 V	I <sub>e</sub>	Α	63
500 V	l <sub>e</sub>	Α	33
690 V	I <sub>e</sub>	Α	23.8
DC			
DC-1, Load-break switches L/R = 1 ms			

Rated operational current	I <sub>e</sub>	Α	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>	Α	50
Contacts		Quantity	1
48 V			
Rated operational current	I <sub>e</sub>	Α	50
Contacts		Quantity	2
60 V			
Rated operational current	I <sub>e</sub>	Α	50
Contacts		Quantity	3
120 V			
Rated operational current	I <sub>e</sub>	Α	25
Contacts		Quantity	3
240 V			
Rated operational current	I <sub>e</sub>	Α	20
Contacts		Quantity	6
DC-13, Control switches L/R = 50 ms			
Rated operational current	I <sub>e</sub>	Α	25
Voltage per contact pair in series		V	24
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	< 10 <sup>-5</sup> ,< 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>d</sub> values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw			M6

Design verification as per IFC/FN 61439

echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	4.5
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
C/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 7.0**

Low-voltage industrial components (EG000017) / Off-load switch (EC001105)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Changeover switch (ecl@ss10.0.1-27-37-14-05 [AKF062013])

Model		Reverser
Number of poles		4
With 0 (off) position		Yes
With retraction in 0-position		No
Rated permanent current lu	Α	63
Rated operation current le at AC-3, 400 V	А	41
Rated operation power at AC-3, 400 V	kW	22
Degree of protection (IP), front side		Other
Degree of protection (NEMA), front side		Other
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
Suitable for ground mounting		No
Suitable for front mounting 4-hole		Yes
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		No
Material housing		Plastic
Type of control element		Other
Type of electrical connection of main circuit		Screw connection

## Assets (links)

**Declaration of CE Conformity** 

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**Instruction Leaflets** 

IL03801009Z2018\_05

## **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/IL03801009Z2018_05.pdf	
Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=135	
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	