DATASHEET - T5B-4-8410/I4



Star-delta switches, Contacts: 8, 63 A, front plate: 0-Y-D, 60 $^{\circ}$, maintained, surface mounting



T5B-4-8410/I4 Part no. Catalog No. 207234

EL-Nummer (Norway)

0001456963



Similar to illustration

Delivery program			
Product range			Control switches
Part group reference			T5B
Basic function			Star-delta switches
			with black thumb grip and front plate
Contacts			8
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			
Switching angle		0	60
Switching performance			maintained With 0 (Off) position
Design number			8410
Front plate no.			FS 635
front plate			0-Y-D
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	30
Rated uninterrupted current	I _u	Α	63
Note on rated uninterrupted current !u			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ 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, 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			
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	Iu	Α	63
Note on rated uninterrupted current !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 _e	2
AB 40 % DF		x l _e	1.6
AB 60 % DF		x l _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 lcw	'CW	rms	Current for a time of 1 second
Note on rated snort-time withstand current lcw Rated conditional short-circuit current	1	kA	2
Switching capacity	Iq	KA	2
cos φ rated making capacity as per IEC 60947-3		Α	800
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	520
400/415 V		Α	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		> 0.5
		x 10 ⁶	
Maximum operating frequency	Operations/h		1200
AC			
AC-3	_		
Rating, motor load switch	P	kW	
220 V 230 V	Р	kW	15
230 V Star-delta	Р	kW	18.5
400 V 415 V	P	kW	22
400 V Star-delta	Р	kW	30
500 V	Р	kW	22
500 V Star-delta	P	kW	37
690 V	P	kW	15
690 V Star-delta	Р	kW	22
Rated operational current motor load switch			
230 V	l _e	Α	51
230 V star-delta	l _e	Α	63
400V 415 V	l _e	Α	41
400 V star-delta	I _e	Α	63
500 V	I _e	Α	33
500 V star-delta	I _e	Α	57.2
690 V	I _e	Α	17
690 V star-delta	I _e	A	29.4
AC-21A	·e		
AU-ZIM			

Rated operational current switch			
440 V		A	63
	l _e	Α	0.5
AC-23A	_		
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	Р	kW	18.5
400 V 415 V	Р	kW	30
500 V	P	kW	22
690 V	Р	kW	22
Rated operational current motor load switch			
230 V	I _e	Α	63
400 V 415 V	I _e	Α	63
500 V	I _e	Α	33
690 V	I _e	Α	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	-6	Quantity	
48 V		Quantity	
Rated operational current		A	50
	l _e		
Contacts		Quantity	2
60 V			ro.
Rated operational current	I _e	A	50
Contacts		Quantity	3
120 V			_
Rated operational current	I _e	Α	25
Contacts		Quantity	3
240 V			
Rated operational current	I _e	Α	20
Contacts		Quantity	6
DC-13, Control switches L/R = 50 ms			
Rated operational current	I _e	Α	25
Voltage per contact pair in series		V	24
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations
Terminal capacities	probability		
Solid or stranded		mm ²	1 x (2,5 - 35)
		IIIIII	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 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			

120 V AC	НР	3
200 V AC	НР	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	SCCR	
High fault rating	kA	10
max. Fuse	Α	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

10.2 Strength of materials and parts 10.2.2 Corrosion resistance 10.2.3.1 Verification of thermal stability of enclosures 10.2.3.2 Verification of resistance of insulating materials to normal heat 10.2.3.2 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.5 Lifting 10.2.6 Mechanical impact 10.2.7 Inscriptions 10.3 Degree of protection of ASSEMBLIES 10.4 Clearances and creepage distances 10.4 Clearances and creepage distances 10.5 Incorporation of switching devices and components 10.5 Incorporation of switching devices and components 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties 10.9.1 Power-frequency electric strength 10.9 Insulation properties 10.9.2 Power-frequency electric strength 10.9 Insulation properties 10.9.3 Impulse withstand voltage 10.11 Short-circuit rating 10.11 Short-circuit rating 10.11 Short-circuit rating 10.2 Strength of materials and parts Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. 10.9 Insulation properties 10.9.2 Power-frequency electric strength 1 Is the panel builder's responsibility. 10.9.1 Temperature rise 1 Is the panel builder's responsibility. 10.10 Temperature rise 1 Is the panel builder's responsibility. 1 Is the panel builder's responsibility. 1 Is the panel builder's responsibility. The specifications for the switchgear must be observed.	Technical data for design verification			
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10.5 Protection against electric shock 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9 Insulation properties 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder is responsibility. Is the panel builder is responsibility. The specifications for the switchgear must be observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
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10.7 Internal electrical circuits and connections 1s the panel builder's responsibility. 10.8 Connections for external conductors 1s the panel builder's responsibility. 10.9 Insulation properties 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Is the panel builder's responsibility. 1b the panel builder's responsibility. 1c the panel builder is responsibility. The specifications for the switchgear must be observed. 1c the panel builder's responsibility. The specifications for the switchgear must be observed. 1c the panel builder's responsibility. The specifications for the switchgear must be observed. 1c the panel builder's responsibility. The specifications for the switchgear must be observed. 1c the panel builder's responsibility. The specifications for the switchgear must be observed. 1c the panel builder's responsibility. The specifications for the switchgear must be observed.	10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
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observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruction	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 switch gear must be observed. $\label{eq:constraint}$
	10.13 Mechanical function			

Technical data ETIM 7.0

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

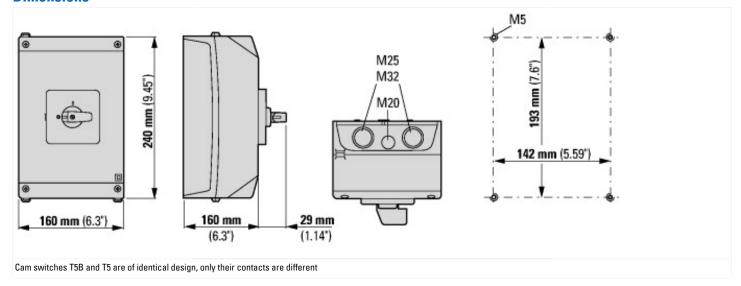
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Changeover switch (ecl@ss10.0.1-27-37-14-05 [AKF062013])

E WASSESSEM		
Model		Star-delta switch
Number of poles		3
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	Α	41
Rated operation power at AC-3, 400 V	kW	37
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12
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		Yes
Suitable for front mounting 4-hole		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Complete device in housing		Yes
Material housing		Plastic
Type of control element		Toggle
Type of electrical connection of main circuit		Screw connection

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
Specially designed for North America	Yes, with an alternative front plate and/or terminal markings to those of the IEC type and with additional labeling according to UL on the enclosure in combination with "+NA-I4" (105868)
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions



Assets (links)

Declaration of CE Conformity

00003073

Instruction Leaflets

IL03801009Z2018_05