DATASHEET - T0-2-8206/E



On switches, Contacts: 3, 20 A, front plate: 0-1, 45 $^\circ,$ momentary, flush mounting



AUS LANG- ISCHNELL SAM EL-Nummer (Norway)

Part no. Catalog No.

0001456374

T0-2-8206/E

011718

Similar to illustration

Delivery program

Product range			Control switches
Part group reference			ТО
Basic function			On switches
			with black thumb grip and front plate
Contacts			3
Degree of Protection			Front IP65
Design			flush mounting
Contact sequence			$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Switching angle		0	45
Switching performance			momentary With 0 (Off) position With spring-return to 0
Design number			8206
Front plate no.			FS 455
front plate			0-1
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	5.5
Rated uninterrupted current	lu	A	20
Note on rated uninterrupted current !u			Rated uninterrupted current I_u is specified for max. cross-section.
Number of contact units		contact unit(s)	

Technical data

General
Standards

06/25/2019

andarao

Climatic proofing

IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3

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
		°С	
Overvoltage category/pollution degree			111/3
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	lu	A	20
Note on rated uninterrupted current !u			Rated uninterrupted current ${\boldsymbol{I}}_{\boldsymbol{u}}$ 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	20
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	320
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	6
Switching capacity	1		
cos φ rated making capacity as per IEC 60947-3		А	130
Rated breaking capacity $\cos \phi$ to IEC 60947-3		A	
230 V		A	100
400/415 V		А	110
500 V		A	80
690 V		А	60
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l _e		W	0.6
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.6
Lifespan, mechanical	Operations	x 10 ⁶	> 0.4
		x 10-	
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	Р	kW	3
230 V Star-delta	Р	kW	5.5
400 V 415 V	Р	kW	5.5
400 V Star-delta	Р	kW	7.5
500 V	Р	kW	5.5
500 V Star-delta	Р	kW	7.5
690 V	Р	kW	4
690 V Star-delta	Р	kW	5.5
Rated operational current motor load switch			
230 V	l _e	А	11.5
230 V star-delta	I _e	Α	20
400V 415 V	l _e	A	11.5
400 V star-delta	l _e	A	20
500 V	l _e	A	9
500 V star-delta	l _e	A	15.6
690 V	l _e	A	4.9

690 V star-delta	Ι _e	A	8.5
AC-21A			
Rated operational current switch			
440 V	Ι _e	А	20
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	3
400 V 415 V	Р	kW	5.5
500 V	Р	kW	7.5
690 V	Р	kW	5.5
Rated operational current motor load switch			
230 V	l _e	A	13.3
400 V 415 V	l _e	A	13.3
500 V		A	13.3
	l _e		
690 V	l _e	A	7.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	Ι _e	А	10
Voltage per contact pair in series		V	60
DC-21A	le	А	
Rated operational current	Ι _e	A	1
Contacts		Quantity	1
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I _e	A	10
Contacts	-6	Quantity	
48 V		Quantity	
		٨	10
Rated operational current	l _e	A	10
Contacts		Quantity	2
60 V			
Rated operational current	Ι _e	A	10
Contacts		Quantity	3
120 V			
Rated operational current	le	А	5
Contacts		Quantity	3
240 V			
Rated operational current	Ι _e	А	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	l _e	A	10
Voltage per contact pair in series	-	v	32
Control circuit reliability at 24 V DC, 10 mA	Fault	v H _F	
	probability		< 10 ⁻⁵ , < 1 fault in 100000 operations
Terminal capacities			
Solid or stranded		mm ²	1 x (1 - 2,5) 2 x (1 - 2,5)
Flexible with ferrules to DIN 46228		2	1 x (0.75 - 2.5)
		mm ²	2 x (0.75 - 2.5)
Terminal screw			M3.5
Tightening torque for terminal screw		Nm	1
Technical safety parameters:			
Notes			B10 _d values as per EN ISO 13849-1, table C1
Rating data for approved types			
Contacts			
Rated operational voltage	Ue	V AC	600
Rated uninterrupted current max.			

Main conducting paths			
General use		А	16
Auxiliary contacts			
General Use	IU	А	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	0.5
200 V AC		HP	1
240 V AC		HP	1.5
Three-phase			
200 V AC		HP	3
240 V AC		HP	3
480 V AC		HP	7.5
600 V AC		HP	7.5
Short Circuit Current Rating		SCCR	
Basic Rating		kA	5
max. Fuse		А	50
High fault rating		kA	10
max. Fuse		А	20, Class J
Terminal capacity			
Solid or flexible conductor with ferrule		AWG	18 - 14
Terminal screw			M3.5
Tightening torque		lb-in	8.8

Design verification as per IEC/EN 61439

3			
Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	20
Heat dissipation per pole, current-dependent	P _{vid}	W	0.6
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			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

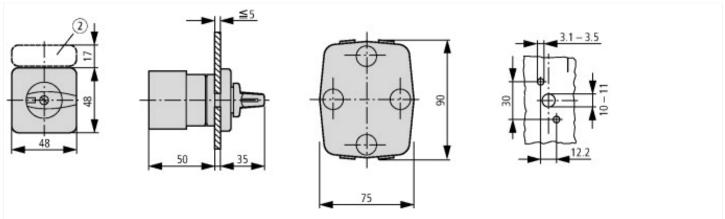
Low-voltage industrial components (EG000017) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14 [ACN998011]) Type of switch On/Off switch Number of poles 3 Max. rated operation voltage Ue AC ۷ 690 Rated permanent current lu А 20 Number of switch positions 2 With 0 (off) position Yes With retraction in 0-position Yes Device construction Built-in device Width in number of modular spacings 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 Type of control element Toggle Front shield size 48x48 mm Degree of protection (IP), front side IP65 Degree of protection (NEMA), front side 12

Approvals

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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



(2) ZFS-... Label mount not included as standard

Assets (links)

Declaration of CE Conformity 00003075 Instruction Leaflets IL03801020Z2018_05