DATASHEET - TM-2-8211/EZ



Changeoverswitches, Contacts: 4, 10 A, front plate: 1-0-2, 60 °, maintained, centre mounting



Part no. Catalog No. TM-2-8211/EZ 015166

0001456161

Similar to illustration

EL-Nummer (Norway)

mustration

Delivery program

Product range Part group reference Basic function Contacts Degree of Protection Design			Control switches TM Changeoverswitches with black thumb grip and front plate
Basic function Contacts Degree of Protection			Changeoverswitches
Contacts Degree of Protection			-
Degree of Protection			with black thumb grip and front plate
Degree of Protection			
			4
Design			Front IP65
Design			centre mounting
Contact sequence			
Switching angle		0	60
Switching performance			maintained With 0 (Off) position
Design number			8211
Front plate no.			F 071
front plate			1-0-2
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	3
Rated uninterrupted current	lu	A	10
Note on rated uninterrupted current !u			Rated uninterrupted current I _u is specified for max. cross-section.
Number of contact units		contact unit(s)	2

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, CSA, UL Control switch as per IEC/EN 60947-5-1 Auxiliary switch as per IEC/EN 60947-5-1
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open	٥(С	-25 - +50

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IdeauPartial	Current heat loss per contact at I _e		W	0.15
Maxmum operating frequency Operation Image: Constraint of	Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		C0	0.15
Maximum operating frequencyOperating Ac2 and the second of th	Lifespan, mechanical	Operations	x 10 ⁶	>1
AC-3A P W Ac-3A P P Acada P P </td <td>Maximum operating frequency</td> <td>Operations/h</td> <td></td> <td>1200</td>	Maximum operating frequency	Operations/h		1200
AC-23A AC-23A, 50 - 60 Hr P KV Motor rating AC-23A, 50 - 60 Hr P KV Image: Control direction of the second		, , , , , , , , , , , , , , , , , , , ,		
Motor rating AC-23A, 50 - 60 Hz P KW A00 V 415 V P KW 3 Contol circuit reliability at 24 V DC, 10 mA Fee booksility He 0 ¹ / ₂ · 1 fault in 100000 operations Terminal capacities U ¹ / ₂ · 1 fault in 100000 operations Solid or stranded I · 1.5 2:1.5 Rexible with ferrules to DIN 46228 I · 1.0 2:1.5 Terminal screw Mm 1:1.5 Terminal screw Me W2.5 Table operational voltage Me VAC Rating data for approved types Main Main conducting paths General Use VAC Solid or strained Man conducting paths VAC Solid or strained Single-phase VAC Solid or strained Main conducting paths VAC Solid or strained Single-phase VAC Solid or strained Single-phase VAC Solid or strained Table ADVAC VAC Solid or strained Single-phase VAC Solid or strained				
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Ratic data for approved types Image: second sec	Terminal screw			M2.5
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240 V AC HP Terminal capacity HP Solid or flexible conductor with ferrule AWG				
Terminal capacity AWG Solid or flexible conductor with ferrule AWG				0.75
Solid or flexible conductor with ferrule AWG 14			HP	1
Terminal screw M2.5			AWG	
	Terminal screw			M2.5
Tightening torque Ib-in 3.5	Tightening torque		lb-in	3.5

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	10

Heat dissipation per pole, current-dependent	P _{vid}	W	0.15
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) / 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])

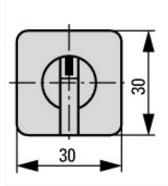
[AKI 002013])		
Model		Reverser
Number of poles		2
With 0 (off) position		Yes
With retraction in 0-position		No
Rated permanent current lu	А	10
Rated operation current le at AC-3, 400 V	А	0
Rated operation power at AC-3, 400 V	kW	2.2
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), 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

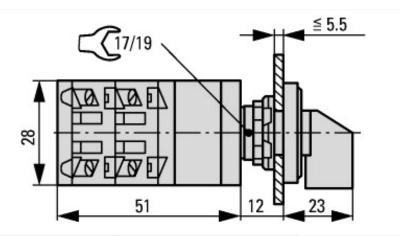
Material housing	Plastic
Type of control element	Toggle
Type of electrical connection of main circuit	Screw connection
0	
Approvais	
Approvals Product Standards	UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
	UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking E36332

CSA File No. North America Certification

Degree of Protection

Dimensions

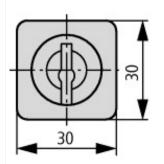




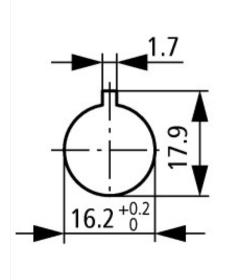
UL report applies to both US and Canada

UL listed, certified by UL for use in Canada

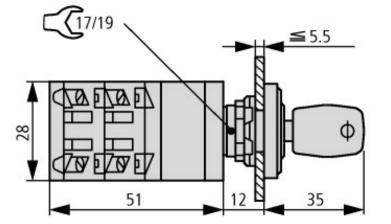
IEC: IP65; UL/CSA Type: -

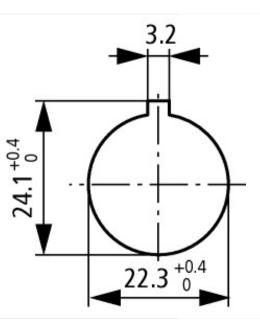


Key operation lock mechanism



Door drilling dimensions





Drilling dimensions: either 16.2 mm = without reduction \triangleq RMQ16 or 22.3 mm = with reduction \triangleq RMQ Titan

Assets (links)

Declaration of CE Conformity 00002932

Instruction Leaflets IL03801025Z2018_04