

Contacts: 6, 20 A, 45 °, rear mounting, Basic switch

Part no. Article no.

T0-3-15137/XZ 012957



Delivery program

Product range			Control switches
Part group reference			то
Contacts			6
Design			rear mounting Basic switch
Contact sequence			
Switching angle		•	45
Front plate no.			FS 404
Motor rating AC-23A, 50 - 60 Hz			
400 V	Р	kW	5.5
Rated uninterrupted current	lu	A	20
Number of contact units		contact unit(s)	3

Technical data

Climatic proofing Swith Ambient temperature Image: Climatic proof of the second secon	C/EN 60947, VDE 0660, IEC/EN 60204 witch-disconnector according to IEC/EN 60947-3 amp heat, constant, to IEC 60068-2-78 amp heat, cyclic, to IEC 60068-2-30
Ambient temperature Open °C -25	amp heat, cyclic, to IEC 60068-2-30
Open °C -25	
Enclosed °C -25	5 - +50
	5 - +40
Overvoltage category/pollution degree III/3	/3
Rated impulse withstand voltage U _{imp} V AC 6000	100
Mechanical shock resistance g 15	j
Mounting position As a	s required
	nger and back-of-hand proof
Contacts	
Electrical characteristics	
Rated operational voltage Ue VAC 690	0
Rated uninterrupted current I _u A 20	
Note on rated uninterrupted current !u Rate	ated uninterrupted current lu 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	6
AB 60 % DF x I _e 1.3	3
Short-circuit rating	
Fuse A gG/gL 20)
Rated short-time withstand current (1 s current) I cw Arms 320	20
Note on rated short-time withstand current lcw	urrent for a time of 1 second

Rated conditional short-circuit current	1.	L A	c
Switching capacity	lq	kA	6
cos φ rated making capacity as per IEC 60947-3		A	130
Rated breaking capacity cos φ to IEC 60947-3		A	
230 V		A	100
400/415 V		A	110
500 V		A	80
690 V		A	60
Safe isolation to EN 61140			-
between the contacts		V AC	440
Current heat loss per contact at I _e		W	0.6
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.6
	Operationa		>0.4
Lifespan, mechanical	Operations	x 10 ⁶	
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	۱ _e	A	11.5
230 V star-delta	۱ _e	А	20
400V 415 V	۱ _e	А	11.5
400 V star-delta	I _e	A	20
500 V	l _e	A	9
500 V star-delta	I _e	A	15.6
690 V	l _e	A	4.9
690 V star-delta	le	A	8.5
AC-21A	'e	^	
Rated operational current switch			
440 V		٨	20
	l _e	A	20
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	3
400 V 415 V	Р	kW	5.5
500 V	P	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	۱ _e	А	13.3
500 V	۱ _e	А	13.3
690 V	۱ _e	А	7.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	۱ _e	А	10
Voltage per contact pair in series		V	60
DC-21A	I _e	A	
Rated operational current	l _e	A	1
	.е		

		•	-
Contacts		Quantity	
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	l _e	А	10
Contacts		Quantity	1
48 V			
Rated operational current	I _e	А	10
Contacts		Quantity	2
60 V			
Rated operational current	I _e	А	10
Contacts		Quantity	3
120 V			
Rated operational current	le	А	5
Contacts		Quantity	3
240 V			
Rated operational current	le	А	5
Contacts		Quantity	5
DC-13, Control switches L/R = 50 ms			
Rated operational current	I _e	А	10
Voltage per contact pair in series		V	32
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 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		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Terminal screw			M3.5
Max. tightening torque		Nm	1
Technical safety parameters:			
Notes			B10 _d values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw			M3.5

Design verification as per IEC/EN 61439

Rated operational current for specified heat dissipationInA20Heat dissipation per pole, current-dependentPvidWa0.6Equipment heat dissipation, current-dependentPvidWa0.6Static heat dissipation, non-current-dependentPvsWa0.6Heat dissipation capacityPvsWa0.6Operating ambient temperature min.PdissWa0.6Operating ambient temperature max.MaxMax0.6	Design vernication as per 120/214 01455			
Heat dissipation per pole, current-dependent Pvid Wo 06 Equipment heat dissipation, current-dependent Pvid Wo 0 Static heat dissipation, non-current-dependent Pvid Wo 0 Itel dissipation capacity Pvid Wo 0 Operating ambient temperature min. °C -5 Operating ambient temperature max. °C -5 Itel Zebreight of materials and parts °C -5 10.2.3 Uverification Mets the product standard's requirements. Mets the product standard's requirements. 10.2.3.1 Verification of resistance of insulating materials to normal heat and free due to internal electric effects Mets the product standard's requirements. 10.2.3.2 Verification of resistance of insulating materials to abnormal heat and free due to internal electric effects Mets the product standard's requirements. 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and free due to internal electric effects Mets the product standard's requirements. 10.2.4. Resistance to ultra-violet (UV) radiation Mets the product standard's requirements. 10.2.5. Lifting Mets the product standard's requirements. 10.2.6. Mechanical impact Mets the product standard's requirements. 10.2.7. Inscri	Technical data for design verification			
Equipment heat dissipation, current-dependent Pvid We Static heat dissipation, conrent-dependent Pvs We 0 Heat dissipation capacity Pdiss We 0 Operating ambient temperature min. Pdiss C 25 Operating ambient temperature max. S S 5 ID2 Strength of materials and parts Kets the product standard's requirements. Kets the product standard's requirements. ID2.32.1 Verification of termsal stability of enclosures Mets the product standard's requirements. Kets the product standard's requirements. ID2.3.2 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects Mets the product standard's requirements. ID2.5 Lifting Des not apply, since the entire switchgear needs to be evaluated. ID2.7 Inscriptions Tots the product standard's requirements.	Rated operational current for specified heat dissipation	In	А	20
Number of the definition	Heat dissipation per pole, current-dependent	P _{vid}	W	0.6
Heat dissipation capacity Pdiss W 0 Operating ambient temperature min. -25 Operating ambient temperature max. F 60 EC/EN 61439 design verification - 50 102.5 trength of materials and parts Meets the product standard's requirements. Meets the product standard's requirements. 102.2.3 Verification of thermal stability of enclosures Meets the product standard's requirements. Meets the product standard's requirements. 102.3.3 Verification of resistance of insulating materials to normal heat and fire due to internal electric effects Meets the product standard's requirements. 102.4 Resistance to ultra-violet (UV) radiation Particle Particl	Equipment heat dissipation, current-dependent	P _{vid}	W	0
Operating ambient temperature min. ocs <	Static heat dissipation, non-current-dependent	P _{vs}	W	0
Operating ambient temperature max.CSoID2 Strength of materials and partsID2 Strength of materials and partsID2 Strength of materials and partsID2 Strength of materials and partsMeets the product standard's requirements.ID2.3.1 Verification of thermal stability of enclosuresID2.3.1 Verification of resistance of insulating materials to normal heatID2 Strength of materials and partsMeets the product standard's requirements.ID2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effectsID2 Strength of materials to abnormal heat and fire due to internal electric effectsMeets the product standard's requirements.ID2.4 Resistance to ultra-violet (UV) radiationID2 Strength of materials to be evaluated.Pease enquireID2.5 LiftingDes not apply, since the entire switchgear needs to be evaluated.Dees not apply, since the entire switchgear needs to be evaluated.ID2.7 InscriptionsID2 Strength of ASSEMBLIESID2 Strength of ASSEMBLIESID2 Strength of ASSEMBLIES	Heat dissipation capacity	P _{diss}	W	0
EEC/EN 61439 design verificationImage: Constraint of the second of the seco	Operating ambient temperature min.		°C	-25
10.2 Strength of materials and partsImage: Control of materials and parts10.2.3 Corrosion resistanceMeets the product standard's requirements.10.2.3.1 Verification of thermal stability of enclosuresMeets the product standard's requirements.10.2.3.2 Verification of resistance of insulating materials to normal heat and fire due to internal electric effectsMeets the product standard's requirements.10.2.4 Resistance to ultra-violet (UV) radiationPlease enquire10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.10.2.7 InscriptionsMeets the product standard's requirements.10.3 Degree of protection of ASSEMBLIESImage: Control of ASSEMBLIES	Operating ambient temperature max.		°C	50
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	10.2.7 Inscriptions			Meets the product standard's requirements.
10.4 Clearances and creepage distances 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 6.0

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@ss8.1-27-37-14-14 [ACN998008])

Type of switch		Level switch
Number of poles		2
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	20
Number of switch positions		3
With 0 (off) position		No
With retraction in 0-position		No
Device construction		Built-in device
Width in number of modular spacings		0
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
Complete device in housing		No
Type of control element		·
Front shield size		48x48 mm
Degree of protection (IP), front side		IP00

Additional product information (links)

Display flip catalog page.

http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=79