DATASHEET - P1-32/I2-SI/HI11



Safety switch, P1, 32 A, 3 pole, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in position 0 with cover interlock, with warning label "safety switch"



Part no. P1-32/I2-SI/HI11 Catalog No. 207331

Delivery program		
Product range		safety switch
Part group reference		P1
Stop Function		Emergency switching off function
		With red rotary handle and yellow locking ring
Information about equipment supplied		Auxiliary contact or neutral conductor fitted by user.
Notes		with warning label "safety switch"
Number of poles		3 pole
Auxiliary contacts		
•	N/0	1
7	N/C	1
Locking facility		Lockable in position 0 with cover interlock
Degree of Protection		IP65
		totally insulated
Design		surface mounting
Contact sequence		23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Function		O OFF

Technical data

Rated uninterrupted current

Motor rating AC-23A, 50 - 60 Hz

Note on rated uninterrupted current $!_u$

delicial	
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	

kW

Α

 $I_{\rm u}$

15

32

Rated uninterrupted current $\boldsymbol{I}_{\boldsymbol{u}}$ is specified for max. cross-section.

Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance	шр	g	15
Mounting position		9	As required
Contacts			7.6.10quillo
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/0	1
		N/C	1
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	I _u	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current I_u is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x l _e	2
AB 40 % DF		x l _e	1.6
AB 60 % DF		x I _e	1.3
Short-circuit rating		^ 'e	
		A = C/=1	50
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	640
Note on rated short-time withstand current lcw			Current for a time of 1 second
Rated conditional short-circuit current	Iq	kA	80
Switching capacity cos φ rated making capacity as per IEC 60947-3		Α	320
Rated breaking capacity cos ϕ to IEC 60947-3		A	520
230 V		A	260
400/415 V		A	300
500 V		A	290
690 V		A	250
Safe isolation to EN 61140		^	
between the contacts		V AC	440
Current heat loss per contact at I _e		W	1.8
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations		> 0.3
	Operations	x 10 ⁶	
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	7.5
400 V 415 V	P	kW	13
500 V	P	kW	18.5
690 V	Р	kW	15
Rated operational current motor load switch			00.4
230 V	l _e	Α	26.4
400V 415 V	I _e	Α	26.4
500 V	l _e	Α	23.4
690 V	I _e	Α	14.7
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	7.5
400 V 415 V	P	kW	15
500 V	P	kW	18.5

000 1/	D	LAM	15
690 V	Р	kW	15
Rated operational current motor load switch			
230 V	I _e	Α	32
400 V 415 V	I _e	Α	32
500 V	I _e	Α	30
690 V	le	Α	19.8
С			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	Α	32
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I _e	Α	25
Contacts		Quantity	1
48 V			
Rated operational current	l _e	Α	25
Contacts		Quantity	2
60 V			
Rated operational current	I _e	Α	25
Contacts		Quantity	2
120 V			
Rated operational current	I _e	Α	12
Contacts		Quantity	3
control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
erminal capacities			
olid or stranded		mm ²	1 x (1,5 - 6) 2 x (1,5 - 6)
lexible with ferrules to DIN 46228		mm ²	1 x (1 - 4) 2 x (1 - 4)
erminal screw			M4
ightening torque for terminal screw		Nm	1.6
echnical safety parameters:			
lotes			B10 _d values as per EN ISO 13849-1, table C1
ating data for approved types			
erminal capacity			
Terminal screw			M4
Tightening torque		lb-in	14.128

Design verification as per IEC/EN 61439

2001gii 1011110411011 40 poi 120, 211 01 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	P _{vid}	W	1.8
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	40
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

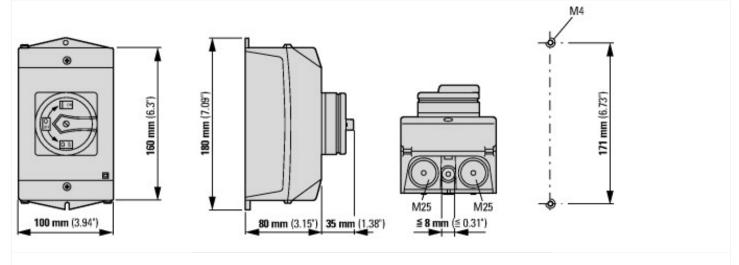
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

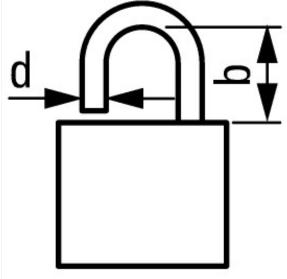
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

Version as main switch		No
Version as maintenance-/service switch		No
Version as safety switch		Yes
Version as emergency stop installation		No
Version as reversing switch		No
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	Α	32
Rated permanent current at AC-23, 400 V	Α	32
Rated permanent current at AC-21, 400 V	Α	32
Rated operation power at AC-3, 400 V	kW	13
Rated short-time withstand current lcw	kA	0.64
Rated operation power at AC-23, 400 V	kW	15
Switching power at 400 V	kW	15
Conditioned rated short-circuit current Iq	kA	80
Number of poles		3
Number of auxiliary contacts as normally closed contact		1
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Complete device in housing
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Colour control element		Red
Type of control element		Door coupling rotary drive

Interlockable	No
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP65
Degree of protection (NEMA)	Other

Dimensions





d = 4 - 8 mm $b + d \le 47 \text{ mm}$ d = 0.16 - 0.31 $b + d \le 1.85$

≦3 padlocks

Additional product information (links)

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Technical overview cam switch, switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Switches for ATEX	http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html