DATASHEET - P1-32/I2-SI/N-SW



Safety switch, P1, 32 A, 3 pole + N, STOP function, With black rotary handle and locking ring, Lockable in position 0 with cover interlock, with warning label "safety switch"



Part no. P1-32/I2-SI/N-SW Catalog No. 207334

Delivery program			
roduct range			safety switch
art group reference			P1
top Function			STOP function
			With black rotary handle and locking ring
nformation about equipment supplied			auxiliary contact fitted by user.
lotes			with warning label "safety switch"
lumber of poles			3 pole + N
Auxiliary contacts			
1		N/0	0
7		N/C	0
ocking facility			Lockable in position 0 with cover interlock
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
unction			O O O O O O O O O O O O O O O O O O O
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	15
ated uninterrupted current	I _u	A	32
lote on rated uninterrupted current !u	'u	,	Rated uninterrupted current I_u is specified for max. cross-section.

Technical data

General	
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	

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			
Mechanical variables			
Number of poles			3 pole + N
Auxiliary contacts			
		N/0	0
		N/C	0
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 l _e	1.3
Short-circuit rating			
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	I_{q}	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		Α	
230 V		Α	260
400/415 V		Α	300
500 V		Α	290
690 V		Α	250
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I _e		W	1.8
Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
Maximum operating frequency	Operations/h	X 10	1200
AC	орогилополи		1200
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P		75
		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			
230 V	l _e	Α	26.4
400V 415 V	I _e	Α	26.4
500 V	I _e	Α	23.4
690 V	I _e	Α	14.7
AC-21A			
Rated operational current switch			
440 V	I _e	A	32
AC-23A	-		
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	P	kW	7.5
250 V		IV V	1.0

!	400 V 415 V	Р		
		•	kW	15
	500 V	P	kW	18.5
	690 V	P	kW	15
Rate	ed operational current motor load switch			
:	230 V	Ie	Α	32
	400 V 415 V	le	Α	32
!	500 V	I _e	Α	30
(690 V	I _e	Α	19.8
DC				
DC-1, L	pad-break switches L/R = 1 ms			
Rate	ed operational current	I _e	Α	32
Volt	age per contact pair in series		٧	60
DC-23A	, motor load switch L/R = 15 ms			
24 V				
1	Rated operational current	I _e	Α	25
	Contacts		Quantity	1
48 V				
I	Rated operational current	l _e	Α	25
(Contacts		Quantity	2
60 V				
1	Rated operational current	Ie	Α	25
(Contacts		Quantity	2
120	V			
1	Rated operational current	l _e	Α	12
(Contacts		Quantity	3
	cuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	capacities			
Solid or str			mm ²	1 x (1,5 - 6) 2 x (1,5 - 6)
Flexible wit	h ferrules to DIN 46228		mm ²	1 x (1 - 4) 2 x (1 - 4)
Terminal so	rew			M4
	torque for terminal screw		Nm	1.6
	I safety parameters:			
Notes				B10 _d values as per EN ISO 13849-1, table C1

Rating data for approved types

Term	inal capacity		
Te	erminal screw		M4
Т	ightening torque	lb-in	14.128

Design verification as per IEC/EN 61439

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 b 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

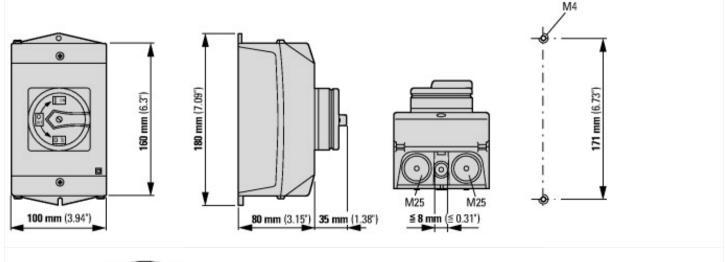
Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

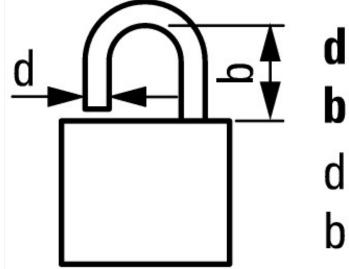
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss10.0.1-27-37-14-03 [AKF060013])

[AIX 0000 10])		
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		4
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
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	Black
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 d = 0.85

≦3 padlocks

Additional product information (links)

IL03802001Z (AWA1150-1689) Switch-Disconnectors in insulated enclosures				
IL03802001Z (AWA1150-1689) Switch- Disconnectors in insulated enclosures	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03802001Z2018_04.pdf			
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			
Ordering form for SOND switches and SOND front plates(DE_EN)	https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf			
Ordering form for SOND switches and SOND front plates(DE_EN)]	https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf			