DATASHEET - P1-25/I2/SVB



Main switch, P1, 25 A, surface mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position



Part no. P1-25/I2/SVB Catalog No. P1-25/3

EL-Nummer 0001457888 (Norway)

Delivery program

Delivery program			
Product range			Main switch maintenance switch Repair 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.
Number of poles			3 pole
Auxiliary contacts			
		N/0	0
7		N/C	0
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			L1 L2 L3 $ \begin{array}{ccccccccccccccccccccccccccccccccccc$
Switching angle		0	90
Function			O OFF
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	11
Rated uninterrupted current	I _u	Α	25
Note on rated uninterrupted current !u			Rated uninterrupted current I _u is specified for max. cross-section.

Technical data General

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	- mp	g	15
Mounting position		9	As required
Contacts			As required
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/O	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	I _u	A	25
Note on rated uninterrupted current !u	·u		Rated uninterrupted current I_u is specified for max. cross-section.
			natea aninterrupteu current i _{ll} is specilieu iui max. C1055-5eCtium.
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	25
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	50
Switching capacity			
cos φ rated making capacity as per IEC 60947-3		Α	240
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	190
400/415 V		Α	150
500 V		Α	170
690 V		Α	150
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I _e		W	1.1
Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	Р	kW	5.5
400 V 415 V	Р	kW	7.5
500 V	P	kW	7.5
690 V	Р	kW	7.5
Rated operational current motor load switch			
230 V	I _e	Α	19.6
400V 415 V	I _e	Α	15.2
500 V	l _e	A	12.1
690 V	l _e	A	8.8
000 ¥	-е		0.0

AC-21A			
Rated operational current switch			
440 V	l _e	Α	25
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	P	kW	5.5
400 V 415 V	P	kW	11
500 V	Р	kW	11
690 V	Р	kW	11
Rated operational current motor load switch			
230 V	I _e	Α	25
400 V 415 V	l _e	Α	25
500 V	le	Α	17.4
690 V	l _e	Α	12.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I _e	Α	25
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	l _e	Α	25
Contacts		Quantity	1
48 V			
Rated operational current	l _e	Α	25
Contacts		Quantity	2
60 V			
Rated operational current	l _e	Α	25
Contacts		Quantity	2
120 V		,	
Rated operational current	I _e	Α	12
Contacts	· ·	Quantity	
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	probability	'	< 10 ',< 1 failule iii 100,000 Switching Operations
Terminal capacities			
Solid or stranded		mm ²	1 x (1,5 - 6) 2 x (1,5 - 6)
Flexible with ferrules to DIN 46228		mm ²	1 x (1 - 4) 2 x (1 - 4)
Terminal screw			M4
Tightening torque for terminal screw		Nm	1.6
Technical safety parameters:			
Notes			$\mathrm{B10_{d}}$ values as per EN ISO 13849-1, table C1
Rating data for approved types			
Terminal capacity			
Terminal screw		0. 5	M4
Tightening 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	25
Heat dissipation per pole, current-dependent	P_{vid}	W	1.1
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])

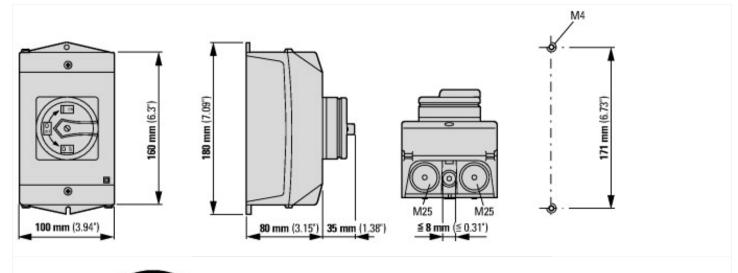
Device construction		Complete device in housing
Voltage release optional		No
Motor drive integrated		No
Motor drive optional		No
Number of auxiliary contacts as change-over contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as normally closed contact		0
Number of poles		3
Conditioned rated short-circuit current Iq	kA	80
Switching power at 400 V	kW	13
Rated operation power at AC-23, 400 V	kW	13
Rated short-time withstand current lcw	kA	0.64
Rated operation power at AC-3, 400 V	kW	7.5
Rated permanent current at AC-21, 400 V	А	25
Rated permanent current at AC-23, 400 V	А	25
Rated permanent current lu	А	25
Rated operating voltage	V	690 - 690
Max. rated operation voltage Ue AC	V	690
Number of switches		1
Version as reversing switch		No
Version as emergency stop installation		Yes
Version as safety switch		Yes
Version as maintenance-/service switch		Yes
Version as main switch		Yes

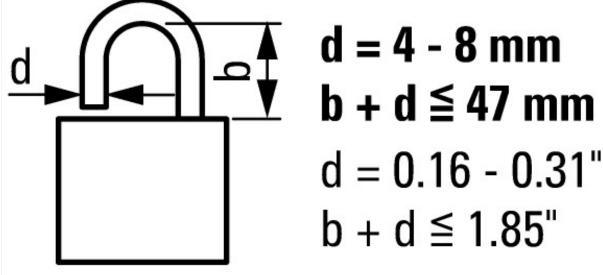
Suitable for ground mounting	Yes
Suitable for front mounting 4-hole	No
Suitable for front mounting centre	No
Suitable for distribution board installation	No
Suitable for intermediate mounting	No
Colour control element	Red
Type of control element	Door coupling rotary drive
Interlockable	Yes
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP65
Degree of protection (NEMA)	Other

Approvals

North America Certification For UL/CSA certification order article number 255886	
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Dimensions





≦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