DATASHEET - P1-25/I2H/SVB-SW/HI11



Main switch, P1, 25 A, surface mounting, 3 pole, 1 N/O, 1 N/C, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position, hard knockout version



Part no. P1-25/I2H/SVB-SW/HI11 Catalog No. 227862

Delivery program			
Product range			Main switch maintenance switch Repair switch
Part group reference			P1
Stop Function			STOP function
			With black rotary handle and locking ring
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Notes			hard knockout version
Number of poles			3 pole
Auxiliary contacts			
		N/0	1
7		N/C	1
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			2 2 4 3 2 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Function Motor rating AC-23A, 50 - 60 Hz			OFF OFF
400 V	P	kW	11
Rated uninterrupted current		A	25
	I _u	A	
Note on rated uninterrupted current ! _u			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.

Technical data General

deliefal	
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	Оппр		15
Mounting position		g	As required
Contacts			Astequiled
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	Iu	A	25
Note on rated uninterrupted current !u	·u		Rated uninterrupted current I_u is specified for max. cross-section.
			Traced difficult apreal current (i) is specified for max. cross section.
Load rating with intermittent operation, class 12 AB 25 % DF		w.l	2
		x l _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	
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
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	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	A	15.2
500 V	I _e	Α	12.1
690 V	l _e	A	8.8
AC-23A	·e		
	P	L\\\	
Motor rating AC-23A, 50 - 60 Hz		kW	=======================================
230 V	P	kW	5.5
400 V 415 V	Р	kW	11

500 V	P	kW	11
690 V	P	kW	11
Rated operational current motor load switch			
230 V	I _e	Α	25
400 V 415 V	I _e	Α	25
500 V	I _e	Α	17.4
690 V	I _e	Α	12.6
	'e	Α	12.0
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	l _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	I _e	Α	25
Contacts		Quantity	1
48 V			
Rated operational current	I _e	Α	25
Contacts	Ü	Quantity	
60 V		additity	-
		Α	25
Rated operational current	I _e		
Contacts		Quantity	2
120 V			
Rated operational current	l _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
Terminal capacities			
Solid or stranded		mm^2	1 x (1,5 - 6) 2 x (1,5 - 6)
Flexible with ferrules to DIN 46228		2	
riexible with reffules to Diff 40226		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			
Contacts			
Rated operational voltage	U _e	V AC	600
Rated uninterrupted current max.			
Main conducting paths			
General use		Α	20
Auxiliary contacts			
General Use	I _U	Α	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		НР	1
200 V AC		HP	2
240 V AC		HP	3
Three-phase		ш	
200 V AC		HP	3
240 V AC		HP	5
480 V AC		HP	10
600 V AC		HP	15
Short Circuit Current Rating		SCCR	

Basic Rating	kA	5
max. Fuse	Α	110
High fault rating	kA	10
max. Fuse	Α	50, Class J
Terminal capacity		
Solid or flexible conductor with ferrule	AWG	14 - 8
Terminal screw		M4
Tightening torque	lb-in	14.1

Design verification as per IEC/EN 61439

Design vermeation as per 120/214 01-35			
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.	0.00	°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])

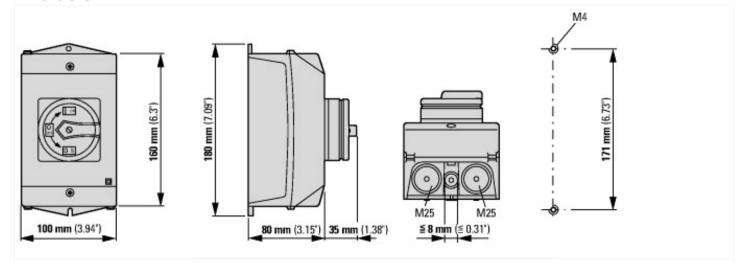
[AKFU00U13])	
Version as main switch	Yes
Version as maintenance-/service switch	Yes
Version as safety switch	No
Version as emergency stop installation	No
Version as reversing switch	No

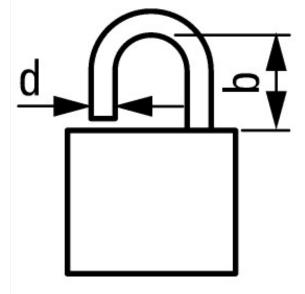
Number of switches		1
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690
Rated permanent current lu	Α	25
Rated permanent current at AC-23, 400 V	Α	25
Rated permanent current at AC-21, 400 V	Α	25
Rated operation power at AC-3, 400 V	kW	7.5
Rated short-time withstand current lcw	kA	0.64
Rated operation power at AC-23, 400 V	kW	13
Switching power at 400 V	kW	13
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		Black
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)		12

Approvals

Product Standards	UL 60947-4-1;CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.	E36332
UL Category Control No.	NLRV
CSA File No.	12528
CSA Class No.	3211-05
North America Certification	UL listed, CSA certified
Specially designed for North America	Yes, additional labeling according to UL on the enclosure in combination with "+NA- 12" (105866)
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions





d = 4 - 8 mm $b + d \le 47 \text{ mm}$ d = 0.16 - 0.31 d = 0.85

≦3 padlocks