DATASHEET - P1-25/I2H/SVB



Main switch, 3 pole, 25 A, Emergency-Stop function, Lockable in the 0 (Off) position, surface mounting, hard knockout version



Part no. Catalog No. P1-25/I2H/SVB 226900

Technical data

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Mechanical variables Analysis Analysis Number of poles Number of poles Number of poles Analysis	Mounting position			As required
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datating with intermittent operation, class 12ProveRefSecondA B 2% 0 FSSSA B 0% 0 FSSSA B 0% 0 FSSSFuseA 0%SSBated short-time withstand current (s current)Image: SSSNote our rated short-time withstand current (s current)Image: SSSBated short-time withstand current (s current)Image: SSSNote our rated short-time withstand current (s current)Image: SSSNote our rated short-time withstand current (s current)Image: SSSBated short-time withstand current (s current)Image: SSSSNote our rated short-time withstand current (s current)Image: SSSSBated short-time withstand current (s current)Image: SS	Rated uninterrupted current	l _u	А	25
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AB 40 % DF AB 60 % DF Ke Ke Ke AB 60 % DF A 60 % A 100 % A 100 % Short-circuit ator A 100 % A 100 % Current for a time of 1 second Fuse A 100 % A 100 % Current for a time of 1 second Note on rated short-time withstand current (1 s current) Ke A 100 % Current for a time of 1 second Note on rated short-time withstand current (1 s current) Ke A 10 % Current for a time of 1 second Note on rated short-time withstand current (1 s current) Ke A 10 % Current for a time of 1 second Status conditional short-time withstand current (1 s current) Ke A 10 % A 10 % Status conditional short-time withstand current (1 s current) Ke A 10 % A 10 % Status conditional short-time withstand current (1 s current) Ke A 10 % A 10 % Status conditional short-time withstand current (1 s current) Ke A 10 % A 10 % Status conditional short-time with short contact short sh	Load rating with intermittent operation, class 12			
AB 60 % DFAB 60 % DFAB 60 % DFAB 60 % DFAB 60 % DFA 60 % DF	AB 25 % DF		x I _e	2
Bis Image: state short-inc withstand current (1 s current) Image: state short-inc with (1	AB 40 % DF		x I _e	1.6
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Aled short-time withstand current [1 s current] Image: Participation of the stand current [1 s current] Participation [1 s current] Participatin [1 s current] Participation [1 s current]	Short-circuit rating			
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Rade conditional short-circuit current Iq Rade Solution Source-construit current Image: Solution of the state shore s	Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	640
Automatical space by as per IEC 60947-3 Automatical space by as pe	Note on rated short-time withstand current lcw			Current for a time of 1 second
cos φ rated making capacity as per IEC 60947-3 A 40 Rated breaking capacity cos φ to IEC 60947-3 A A 230 V A 90 400/415 V A 90 500 V A 10 690 V A 70 Sete isolation to EN 61140 A A between the contacts VAC 40 Curren theat loss per contact at I ₀ VAC 40 Maximum operating frequency Operations x10 ⁶ AC-3 Per tots 20 Rating, motr load switch Per tots X10 ⁶ Rating, motr load switch Per tots X10 ⁶	Rated conditional short-circuit current	Ιq	kA	50
Ated breaking capacity cos & to LEC 60947-3AA230 VAA50400/15 VA5050500 VA7070690 VA1070501 VVVV502 VVV70503 VVV70504 vVV70505 VVV10505 VVVV505 VVVV505 VVVV505 VVVV505 VVVV505 V	Switching capacity			
230 VA9400/415 VA10500 VA10690 VA10690 VA10Stafe isolation to EN 61140VAbetween the contactsV40Current heat loss per contact at I _e OperationsNAtimum operating frequencyOperationsNAC-3A10Ating, moto load switchPKWAting, moto load switchPKW	cos φ rated making capacity as per IEC 60947-3		A	240
400/415 V A 50 500 V A 70 600 V A 50 600 V A 50 600 V A 50 Safe isolation to EN 61140 V V between the contacts at I _e V V Current heat loss per contact at I _e V V Lifespan, mechanical Operations/ Y Act Dereations/ Y Act A Sol Act Act P W Rating moter load switch P W	Rated breaking capacity cos φ to IEC 60947-3		A	
50 VA70690 VA50Safe isolation to EN 61140VVbetween the contactsVACVACformer theat loss per contact at IgVACVACLifespan, mechanicalOperationsYaGActionPerations/HSoActionPerations/HPerations/HAction<	230 V		А	190
فول المعالية	400/415 V		A	
Safe isolation to EN 61140 Image: solation to EN 61140 between the contacts V AC between the contacts at le V AC Current heat loss per contact at le V AC Lifespan, mechanical Operations Act-a V AC	500 V		A	170
between the contacts at lease per contact at lease	690 V		A	150
Current heat loss per contact at le W 1.1 Lifespan, mechanical Operations ${}_{10}^{OP}$ >0.3 Maximum operating frequency Operations/h ${}_{10}^{OP}$ >0.3 AC-3 Action Action Action Action Rating, motor load switch P Action Action	Safe isolation to EN 61140			
Lifespan, mechanical Operations x 10 ⁶ > 0.3 Maximum operating frequency Operations/h 120 AC-3 I I Rating, motor load switch P KW	between the contacts			440
Maximum operating frequency Operations/h 1200 AC-3 F F Rating, motor load switch P KW	Current heat loss per contact at l _e		W	1.1
AC-3 P kW	Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
AC-3 Rating, motor load switch P kW	Maximum operating frequency	Operations/h		1200
Rating, motor load switch P kW	AC			
-	AC-3			
220 V 230 V P kW 5.5	Rating, motor load switch	Р	kW	
	220 V 230 V	Р	kW	5.5

400 V 415 V	Р	kW	7.5
500 V	Р	kW	7.5
690 V	Р	kW	7.5
Rated operational current motor load switch			
230 V	۱ _e	А	19.6
400V 415 V	le	A	15.2
500 V	I _e	A	12.1
690 V	l _e	A	8.8
AC-21A	·e	~	
Rated operational current switch		٨	25
440 V	l _e	A	25
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	5.5
400 V 415 V	Р	kW	11
500 V	Р	kW	11
690 V	Р	kW	11
Rated operational current motor load switch			
230 V	۱ _e	А	25
400 V 415 V	۱ _e	А	25
500 V	Ι _e	А	17.4
690 V	l _e	А	12.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	l _e	A	25
Voltage per contact pair in series	0	V	60
DC-23A, motor load switch L/R = 15 ms		-	
24 V			
Rated operational current	I _e	A	25
Contacts	·e	Quantity	
48 V		Quantity	
Rated operational current		A	25
	l _e	Quantity	
Contacts		uuanuty	2
60 V			
Rated operational current	l _e	A	25
Contacts		Quantity	2
120 V			
Rated operational current	l _e	A	12
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations
Terminal capacities		•	4 (45 0)
Solid or stranded			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			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		А	20

Auxiliary contacts			
General Use	lu	А	10
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	1
200 V AC		HP	2
240 V AC		HP	3
Three-phase			
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		А	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

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	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])

[ARI 000010])		
Version as main switch		Yes
Version as maintenance-/service switch		Yes
Version as safety switch		No
Version as emergency stop installation		Yes
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	А	25
Rated permanent current at AC-23, 400 V	А	25
Rated permanent current at AC-21, 400 V	А	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		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		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)		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

Suitable for

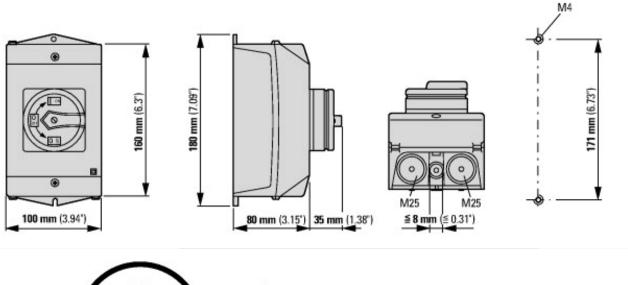
Degree of Protection

Yes, additional labeling according to UL on the enclosure in combination with "+NA-12" (105866)

Branch circuits, suitable as motor disconnect

IEC: IP65; UL/CSA Type 1, 12

Dimensions



d = 4 - 8 mm $b + d \leq 47 mm$ d = 0.16 - 0.31'' $b + d \leq 1.85''$

≦ 3 padlocks