DATASHEET - P1-32/EA/SVB/HI11

Main switch, P1, 32 A, flush mounting, 3 pole, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position



Part no. P1-32/EA/SVB/HI11

Catalog No. 072567

EL-Nummer (Norway) 1417084

Delivery program

Product range			Main switch maintenance 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			
s .		N/0	1
7		N/C	1
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			Front IP65
Design			flush mounting
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	15
Rated uninterrupted current	l _u	Α	32
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.

Technical data

General Standards

			Switch-disconnector according to IEC/EN 60947-3 NEMA12
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +50
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
Auxiliary contacts			
		N/0	1
		N/C	1
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	Iu	Α	32
Note on rated uninterrupted current $\boldsymbol{!}_{\boldsymbol{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
oad rating with intermittent operation, class 12			

IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL

AB 25 % DF		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	50
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			
$\cos\phi$ rated making capacity as per IEC 60947-3		Α	320
Rated breaking capacity $\cos\phi$ 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
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
		X IU	
Maximum operating frequency	Operations/h		1200
AC			
AC-3	_		
Rating, motor load switch	P	kW	
220 V 230 V	Р	kW	7.5
400 V 415 V	Р	kW	13
500 V	Р	kW	18.5
690 V	Р	kW	15
Rated operational current motor load switch			
230 V	l _e	Α	26.4
400V 415 V	l _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	Р	kW	15
500 V	P	kW	18.5
690 V	P	kW	15
Rated operational current motor load switch			
230 V	I _e	Α	32
400 V 415 V	I _e	Α	32
500 V	l _e	A	30
690 V	l _e	A	19.8
	¹e	^	13.0
DC			
DC-1, Load-break switches L/R = 1 ms		•	99
Rated operational current	I _e	A	32
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	I _e	Α	25

Contracts				
Rated operational current Part Contacts Part Contacts Part Contacts Part Contacts Part	Contacts		Quantity	2
Contracts	60 V			
120 V Rated operational current Ip A 12 Contracts Quantity 3 1 Control circuit reliability at 24 V Do, 10 mA Posity Posity 10 c/L 1 failure in 100,000 avoitching operations Terminal capacities Terminal capacities 1 x (1.5 - 1) 1 x (1.5 - 1) Flowlish with formers to DIN 46228 Immoderation of the control of	Rated operational current	l _e	Α	25
Rated operational current	Contacts		Quantity	2
Contracted Faulth (paulth) Counted (count relability at 24 V DC, 10 mA) Faulth (paulth) To "a 10 % 1 feature in 100,000 switching operations Terminal Capacities Said or stranded Fiesdola with ferrules to DIN 4023 Terminal scrow Accordance (see per la No. 10 1849-1, table C1 Terminal scrow Accordance (see per la No. 10 1849-1, table C1 Terminal scrow Maint conducting paths See per la No. 10 1849-1, tab	120 V			
Centrol circuit reliability at 24 VDC, 10 mA Faulth (Figure 1) (15 - 8) 10 5 × 1 salare in 100,000 switching operations Torminal capacities Image: Control of strained 1 x (1 - 5) 1 x (1 - 5) Flexible with ferrules to DIN 45228 Image: Control of strained screw 1 x (1 - 6) 1 x (1 - 6) Torminal screw Image: Control of terminal screw 1 x (1 - 6) 1 x (1 - 6) Torthories of terminal screw Image: Control of terminal screw 1 x (1 - 6) 1 x (1 - 6) Retain glast for approved types Image: Control of Strained Straine	Rated operational current	le	Α	12
Totalinal Capacities	Contacts		Quantity	3
Solid or stranded mm² 1x (1 - 4) Flexible with femules to DIN 46228 mm² 2x (1 - 4) Terminal screw M4 Technical screy Technical screy More 100 100 Rating data for approved types Contacts Poly white a sper EN ISO 13849-1, table C1 Read operational voltage VAC 400 Read operational voltage VAC 400 General use VAC 400 General use VAC 400 Phot Duty ABOO 400 Switching capacity VAC 400 Maximum motor rating VAC 400 Single-phase VAC 400 200 VAC 400 400 200 VAC 400 <t< td=""><td>Control circuit reliability at 24 V DC, 10 mA</td><td></td><td>H_F</td><td>< 10⁻⁵,< 1 failure in 100,000 switching operations</td></t<>	Control circuit reliability at 24 V DC, 10 mA		H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
Femolule with formules to DIN-96228 14,11 - 4,	Terminal capacities			
Terminal screw	Solid or stranded		mm ²	1 x (1,5 - 6) 2 x (1,5 - 6)
Tightening torque for terminal screw Nm 18 Technical Safety parameters: Notes 8 1814 values as par EN ISO 13849-1, table C1 Rating data for approved types Contacts 9 VAC 800 Rated operational voltage VAC 800 Rated uninterrupted current max. Amount of conducting paths Amount of conducting paths General use Amount of contacts Amount of contacts Flot Duty Amount of contacts Amount of contacts Switching capacity Propose Amount of contacts Switching capacity Propose Amount of contacts 120 V AC Propose Propose 200 V AC Propose Propose 480 V AC Propose	Flexible with ferrules to DIN 46228		mm ²	
Technical safety parameters: Nates 180 du values as per EN ISO 13849-1, table C1 Rating data for approved types VAC 500 Rated operational voltage VAC 600 Rated operational voltage VAC 600 Rated uninterrupted current max. VAC 600 Auxiliary contacts VAC A200 General Use Ju A200 Pilot Duty A200 P600 Switching capacity VAC P600 Maximum motor rating VAC HP 1 120 V AC HP 1 200 V AC HP 3 200 V AC HP 3 240 V AC HP 1.5 480 V AC HP 1.5 600 V AC HP 1.5 Basic Rating HP 1.5 HE <td>Terminal screw</td> <td></td> <td></td> <td>M4</td>	Terminal screw			M4
Notes Blog values as per RN SO 13849-1, table C1 Rating data for approved types Very National Voltage V			Nm	1.6
Rated operational voltage				P1100 1001 1 1 1 1 1 1
Contacts Vac VAC 600 Rated uninterrupted current max. VAC 600 Main conducting paths A 30 General use A 30 Auxiliary contacts B Y A 10 Switching capacity A 8000 A <t< td=""><td></td><td></td><td></td><td>B10_d values as per EN ISO 13849-1, table C1</td></t<>				B10 _d values as per EN ISO 13849-1, table C1
Rated uninterrupted current max. VAC Below Control co				
Rated uninterrupted current max. Main conducting paths A 2 Commend to the conducting path of the conducting paths A 3 Commend to the conducting path of the conduction path of the conducting			VAC	C00
Main conducting paths A A General use A 30 Auxiliary contacts B 10 General Use B 10 Pilot Dury A 10 Switching capacity B		Ue	V AC	000
Auxiliary contacts				
Auxiliary contacts General Use Pilot Duty Pilot Duty Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC 200 V AC 400 P 100 Three-phase 200 V AC 400 V				
General Use In Prior Duty A 600 p 8000 Switching capacity Feed of P8000 Maximum motor rating Feed of P8000 Single-phase Feed of P8000 120 V AC HP 1 200 V AC HP 2 400 V AC HP 3 7 Three-phase HP 3 480 V AC HP 5 480 V AC HP 5 480 V AC HP 15 600 V AC HP 5 8 sic Rating KA 5 8 sic Rating KA 10 max. Fuse A 10 High fault rating KA 10 max. Fuse A 10 High fault rating KA 10 Terminal capacity AW 14 - 8			А	30
Pilot Duty A 600 P 600 Switching capacity A 600 P 600 Maximum motor rating A 600 P 600 Single-phase Image: Phase P 1 120 V AC HP 2 240 V AC HP 3 Three-phase P 200 V AC HP 3 200 V AC HP 3 480 V AC HP 7.5 480 V AC HP 10 480 V AC HP 15 500 V AC HP 15 800 V AC HP 15 8basic Rating KA 5 Basic Rating KA 5 High fault rating KA 10 max. Fuse A 10 High fault rating KA 10 max. Fuse A 20 Ferminal capacity A 30 Solid or flexible conductor with ferrule AWG 14 - 8				
Switching capacity P 600 Maximum motor rating F 600 Single-phase F 700 120 V AC HP 1 200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 3 240 V AC HP 7.5 480 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110 High fault rating KA 10 max. Fuse A 10 High fault rating KA 5 max. Fuse A 10 Terminal capacity AWG 14 - 8		IU	А	
Maximum motor rating Feet Top Control or Control	Pilot Duty			
Single-phase HP 1 120 V AC HP 1 200 V AC HP 2 240 V AC HP 3 240 V AC HP 3 240 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 10 Terminal capacity A 50, Class J Terminal capacity AWG 14-8	Switching capacity			
120 V AC HP 1 200 V AC HP 2 240 V AC HP 3 200 V AC HP 3 240 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 10 Terminal capacity A 50, Class J Terminal capacity AW6 14 - 8	Maximum motor rating			
200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 3.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	Single-phase			
240 V AC HP 3 Three-phase HP 3 200 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	120 V AC		HP	1
Three-phase HP 3 200 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110 High fault rating KA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	200 V AC		HP	2
200 V AC HP 3 240 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110 High fault rating KA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	240 V AC		HP	3
240 V AC HP 7.5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110 High fault rating KA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	Three-phase			
480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity WG 14 - 8 Solid or flexible conductor with ferrule AWG 14 - 8	200 V AC		HP	3
600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8 Solid or flexible conductor with ferrule AWG 14 - 8	240 V AC		HP	7.5
Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8 Solid or flexible conductor with ferrule AWG 14 - 8	480 V AC		HP	10
Basic Rating kA 5 max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8	600 V AC		HP	15
max. Fuse A 110 High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity AWG 14 - 8 Solid or flexible conductor with ferrule AWG 14 - 8	Short Circuit Current Rating		SCCR	
High fault rating kA 10 max. Fuse A 50, Class J Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 8	Basic Rating		kA	5
max. Fuse A 50, Class J Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 8	max. Fuse		Α	110
Terminal capacity Solid or flexible conductor with ferrule AWG 14 - 8	High fault rating		kA	10
Solid or flexible conductor with ferrule AWG 14 - 8	max. Fuse		Α	50, Class J
	Terminal capacity			
Terminal screw M4	Solid or flexible conductor with ferrule		AWG	14 - 8
	Terminal screw			M4

Design verification as per IEC/EN 61439

Tightening torque

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

lb-in

14.1

Operating ambient temperature max.	°C	50
C/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.
10.2.3.3Verification 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 switch gear must b observed.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility. The specifications for the switch gear must b observed. $\label{eq:controller}$
10.13 Mechanical function		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 8.0

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])

[AKF060013])		
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	Α	32
Rated permanent current at AC-23, 400 V	А	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	Duilt in device fixed built in technique
Device construction	Built-in device fixed built-in technique
Suitable for floor mounting	No
Suitable for front mounting 4-hole	Yes
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)	1