DATASHEET - P1-32/E



On-Off switch, P1, 32 A, flush mounting, 3 pole, with black thumb grip and front plate

0001456110



Part no. P1-32/E Catalog No. 079065

EL-Nummer (Norway)

Similar to illustration

Delivery program

Product range Part group reference Information about equipment supplied Number of poles Auxiliary contacts		N/0	On-Off switch P1 with black thumb grip and front plate Auxiliary contact or neutral conductor fitted by user. 3 pole
nformation about equipment supplied Number of poles		N/0	with black thumb grip and front plate Auxiliary contact or neutral conductor fitted by user. 3 pole
Number of poles		N/0	Auxiliary contact or neutral conductor fitted by user. 3 pole
Number of poles		N/0	3 pole
		N/0	
Auxiliary contacts		N/0	0
		N/0	0
7		N/C	0
Degree of Protection			Front IP65
Design			flush mounting
Contact sequence			
Front plate no.			FS 908
Motor rating AC-23A, 50 - 60 Hz			
400 V P	0	kW	15
Rated uninterrupted current	u	A	32
Note on rated uninterrupted current ! _u			Rated uninterrupted current I _u is specified for max. cross-section.
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Technical data

General		
Standards		IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL 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		
Open	٥°	-25 - +50
Enclosed	°C	-25 - +40

Overvoltage category/pollution degree			111/3
Rated impulse withstand voltage	U _{imp}	V AC	6000
Mechanical shock resistance	onnp	g	15
Mounting position		y	As required
Contacts			
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/0	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	lu	А	32
Note on rated uninterrupted current $\boldsymbol{!}_{u}$			Rated uninterrupted current I _u is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I _e	2
AB 40 % DF		x l _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	l _q	kA	80
Switching capacity			
$\cos\phi$ rated making capacity as per IEC 60947-3		А	320
Rated breaking capacity $\cos \phi$ to IEC 60947-3		А	
230 V		А	260
400/415 V		А	300
500 V		А	290
690 V		А	250
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at l _e		W	1.8
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	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	A	26.4
400V 415 V	le	А	26.4
500 V	l _e	А	23.4
690 V	l _e	А	14.7
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	Р	kW	7.5
400 V 415 V	Р	kW	15
500 V	Р	kW	18.5
690 V	Р	kW	15
Rated operational current motor load switch			

230 V	l _e	A	32
400 V 415 V	l _e	A	32
500 V		A	30
	l _e		
690 V	l _e	A	19.8
DC			
DC-1, Load-break switches L/R = 1 ms			
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	I _e	A	25
Contacts		Quantity	1
48 V			
Rated operational current	Ι _e	А	25
Contacts		Quantity	2
60 V			
Rated operational current	l _e	А	25
Contacts		Quantity	2
120 V			
Rated operational current	I _e	A	12
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault	H _F	< 10 ⁻⁵ ,< 1 failure in 100,000 switching operations
	probability		
Terminal capacities		•	4 (45 0)
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:			D10
Notes Rating data for approved types			$B10_d$ values as per EN ISO 13849-1, table C1
Contacts			
Rated operational voltage	Ue	V AC	600
Rated uninterrupted current max.	- 6		
Main conducting paths			
General use		A	30
Auxiliary contacts		~	
General Use	L.	٨	10
	lu	A	
Pilot Duty			A 600 P 600
Switching capacity			
Maximum motor rating			
Single-phase			
Single-phase 120 V AC		HP	1
		HP HP	1 2
120 V AC			
120 V AC 200 V AC		HP	2
120 V AC 200 V AC 240 V AC		HP	2
120 V AC 200 V AC 240 V AC Three-phase		HP HP HP	2 3
120 V AC 200 V AC 240 V AC Three-phase 200 V AC		HP HP HP	2 3 3 3
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC		HP HP HP HP	2 3 3 7.5
120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC		HP HP HP HP HP	2 3 3 7.5 10
120 V AC 200 V AC 240 V AC 7Three-phase 200 V AC 240 V AC 480 V AC 600 V AC		HP HP HP HP HP HP	2 3 3 7.5 10
120 V AC200 V AC240 V ACThree-phase200 V AC240 V AC480 V AC600 V ACShort Circuit Current Rating		HP HP HP HP HP SCCR	2 3 3 7.5 10 15
120 V AC200 V AC240 V ACThree-phase200 V AC240 V AC480 V AC600 V ACShort Circuit Current RatingBasic Rating		HP HP HP HP HP SCCR kA	2 3 3 7.5 10 15 5

max. Fuse	А	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 verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	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	50
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])

Version as main switch		No
Version as maintenance-/service switch		No
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 A 32 Rated permanent current at AC-23, 400 V A 32 Rated permanent current at AC-21, 400 V A 32 Rated operation power at AC-3, 400 V KM 32 Rated operation power at AC-30, 400 V KM 34 Rated operation power at AC-30, 400 V KM 36 Rated operation power at AC-30, 400 V KM 36 Switching power at 400 V KM 30 Switching power at 400 V KM 30 Number of poles KM 30 Number of auxiliary contacts as normally closed contact F 30 Number of auxiliary contacts as change-over contact F 30 Motor drive integrated F 6 6 Not contrive integrated F 6 6 Voltage release optional F 6 6 Voltage relea
Rated peration power at AC-21, 400 V A 2 Rated operation power at AC-3, 400 V KW 3 Rated operation power at AC-32, 400 V KM 0.64 Rated operation power at AC-23, 400 V KM 5 Switching power at AC-23, 400 V KM 5 Switching power at AC-23, 400 V KM 6 Switching power at AC-23, 400 V KM 5 Switching power at AC-23, 400 V KM 6 Switching power at AC-23, 400 V KM 6 Switching power at AC-23, 400 V KM 5 Switching power at AC-23, 400 V KM 6 Number of auxiliary contacts as normally closed contact KM 6 Number of auxiliary contacts as change-over contact KM 6 Not chrise optional No No Not chrise optional KM No Notact chrise optional Switchin technique Notact chrise optional Switchin technique <
Rated operation power at AC-3,400 V KW 3 Rated operation power at AC-3,400 V KA 0.64 Rated operation power at AC-23,400 V KW 15 Switching power at 400 V KM 0.64 Conditioned rated short-circuit current Iq KA 0.64 Number of poles KA 0.64 Number of auxiliary contacts as normally closed contact KA 0.64 Number of auxiliary contacts as change-over contact Fee 0 Notor drive optional MO Motor drive integrated No Notar drive optional Motor drive integrated No No Notage release optional Motor drive fixed built-in technique No Suitable for ground mounting Motor drive fixed built-in technique
Rated short-time withstand current lcw KA 64 Rated operation power at AC-23, 400 V KW 15 Switching power at 400 V KM 80 Conditioned rated short-circuit current lq KM 80 Number of poles KM 90 Number of auxiliary contacts as normally closed contact F 90 Number of auxiliary contacts as normally contact F 90 Number of auxiliary contacts as normally contact F 90 Number of auxiliary contacts as change-over contact F 90 Notor drive integrated F 90 90 Notor drive integrated F 90 90 Votage release optional F 90 90 Device construction F 90 90 Suitable for ground mounting F 90 90
Rade operation power at AC-23, 400 V KM 5 Switching power at 400 V KM 5 Conditioned rated short-circuit current Iq KM 80 Number of poles KM 3 Number of auxiliary contacts as normally closed contact M 6 Number of auxiliary contacts as normally open contact M 6 Number of auxiliary contacts as normally open contact M 6 Number of auxiliary contacts as normally open contact M 6 Number of auxiliary contacts as normally open contact M 6 Number of auxiliary contacts as change-over contact M 6 0 Notor drive optional M M No M Notar drive integrated M No No M Voltage release optional Mo No M M Device construction M M M M Suitable for ground mounting M M M M
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Number of auxiliary contacts as normally closed contactImage: Contacts as normally closed contactNumber of auxiliary contacts as normally open contactImage: Contacts as normally open contactNumber of auxiliary contacts as change-over contactImage: Contacts as change-over contactNotor drive optionalImage: Contacts as change-over contactMotor drive integratedImage: Contacts as change-over contactVoltage release optionalImage: Contacts as change-over contactDevice constructionImage: Contacts as change-over contactSuitable for ground mountingImage: Contacts as change-over contact
Number of auxiliary contacts as normally open contactONumber of auxiliary contacts as change-over contactOMotor drive optionalNoMotor drive integratedNoVoltage release optionalNoDevice constructionSuitable for ground mountingSuitable for ground mountingImage: State Sta
Number of auxiliary contacts as change-over contact O Motor drive optional No Motor drive integrated No Voltage release optional No Device construction Suitable for ground mounting
Motor drive optional No Motor drive integrated No Voltage release optional No Device construction Suitable for ground mounting
Motor drive integrated No Voltage release optional No Device construction Suitable for ground mounting
Voltage release optional No Device construction Built-in device fixed built-in technique Suitable for ground mounting No
Device construction Built-in device fixed built-in technique Suitable for ground mounting No
Suitable for ground 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 Black
Type of control element Toggle
Interlockable No
Type of electrical connection of main circuit Screw connection
Degree of protection (IP), front side
Degree of protection (NEMA) 12

Approvals

Mhhinnais	
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
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions



