### **DATASHEET - P1-32/I2**



### On-Off switch, 3 pole, 32 A, surface mounting

Part no. P1-32/I2 Catalog No. 207320

EL-Nummer (Norway) 0001456114



1/6

(Notway)			
Delivery program			
Product range			On-Off switch
Part group reference			P1
			with black thumb grip and front plate
Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
Number of poles			3 pole
Auxiliary contacts			
		N/0	0
1			
<b>7</b>		N/C	0
Degree of Protection			IP65
			totally insulated
Design			surface mounting
Contact sequence			L1 L2 L3 $ \begin{array}{ccccccccccccccccccccccccccccccccccc$
Switching angle		0	90
Front plate no.			FS 908
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	15
Rated uninterrupted current	I <sub>u</sub>	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current $I_u$ is specified for max. cross-section.

# Technical data

Genera
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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
A 11: 11			Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		0.0	25 . 40
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree		V AC	III/3
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Mechanical shock resistance		g	15
Mounting position  Contacts			As required
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/O	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U <sub>e</sub>	V AC	690
Rated uninterrupted current	I <sub>u</sub>	Α	32
Note on rated uninterrupted current !u	ŭ		Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.
Load rating with intermittent operation, class 12			,
AB 25 % DF		x l <sub>e</sub>	2
AB 40 % DF		x l <sub>e</sub>	1.6
AB 60 % DF			
		x I <sub>e</sub>	1.3
Short-circuit rating		A 0/ I	
Fuse		A gG/gL	
Rated short-time withstand current (1 s current)	I <sub>cw</sub>	A <sub>rms</sub>	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 φ rated making capacity as per IEC 60947-3		Α	320
Rated breaking capacity cos $\phi$ to IEC 60947-3		A	020
230 V		A	260
400/415 V		A	300
500 V		A	290
690 V		A	250
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I <sub>e</sub>		W	1.8
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.3
Maximum operating frequency	Operations/h	X IU	1200
AC	Operations/ii		1200
AC-3			
Rating, motor load switch	P	kW	
220 V 230 V	P	kW	7.5
400 V 415 V	P	kW	13
500 V	P	kW	18.5
690 V	P	kW	15
Rated operational current motor load switch	1	N. V.	
230 V	l <sub>e</sub>	Α	26.4
400V 415 V		A	26.4
	l <sub>e</sub>		
500 V	l <sub>e</sub>	A	23.4
690 V	l <sub>e</sub>	Α	14.7
AC-21A			
Rated operational current switch			
440 V	l <sub>e</sub>	Α	32

AC-23A	_		
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	7.5
400 V 415 V	P	kW	15
500 V	P	kW	18.5
690 V	Р	kW	15
Rated operational current motor load switch 230 V		^	22
	l <sub>e</sub>	A	32
400 V 415 V	l <sub>e</sub>	A	32
500 V	I <sub>e</sub>	Α	30
690 V	l <sub>e</sub>	Α	19.8
DC			
DC-1, Load-break switches L/R = 1 ms		_	
Rated operational current	l <sub>e</sub>	Α	32
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			AF.
Rated operational current	l <sub>e</sub>	Α	25
Contacts		Quantity	1
48 V			Ar.
Rated operational current	l <sub>e</sub>	A	25
Contacts		Quantity	2
60 V			AF.
Rated operational current	l <sub>e</sub>	A	25
Contacts		Quantity	2
120 V			
Rated operational current	le	A	12
Contacts	FII	Quantity	
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	$< 10^{-5}, < 1$ fault in 100000 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 <sup>2</sup>	1 x (1 - 4)
		111111	2 x (1 - 4)
Terminal screw			M4
Tightening torque for terminal screw		Nm	1.6
Technical safety parameters:			D10 values as as EN ICO 19940 1 Apple C1
Notes Rating data for approved types			$\mathrm{B10_{d}}$ values as per EN ISO 13849-1, table C1
Contacts			
Rated operational voltage	U <sub>e</sub>	V AC	600
Rated uninterrupted current max.	-		
Main conducting paths			
General use		A	30
Auxiliary contacts			
General Use	lu	Α	10
Pilot Duty			A 600
			P 600
Switching capacity			
Maximum motor rating			
Single-phase			
120 V AC		HP	1
200 V AC		HP	2
0.01/10			
240 V AC		НР	3
240 V AC Three-phase 200 V AC		HP HP	3

240 V AC	Н	HP.	7.5
480 V AC	Н	ΗP	10
600 V AC	Н	ΗP	15
Short Circuit Current Rating	S	SCCR	
Basic Rating	k	κA	5
max. Fuse	A	4	110
High fault rating	k	κA	10
max. Fuse	A	4	50, Class J
Terminal capacity			
Solid or flexible conductor with ferrule	A	AWG	14 - 8
Terminal screw			M4
Tightening torque	Ib	b-in	14.1

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	1.8
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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 switch gear must be observed. $\label{eq:constraint}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
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])

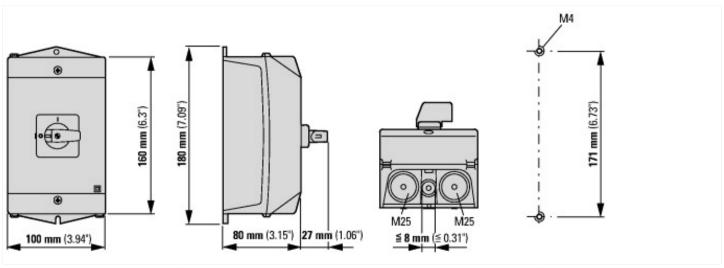
Version as main switch No

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	Α	32
Rated permanent current at AC-23, 400 V	Α	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		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		Black
Type of control element		Toggle
Interlockable		No
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 255890
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## **Dimensions**



## Assets (links)

**Declaration of CE Conformity** 

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**Instruction Leaflets** 

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