DATASHEET - P1-32/I2



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

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

EL-Nummer (Norway)

1456114



Delivery program Product range On-Off switch Part group reference with black thumb grip and front plate Auxiliary contact or neutral conductor fitted by user. Information about equipment supplied Number of poles 3 pole **Auxiliary contacts** N/O 0 N/C 0 Degree of Protection IP65 totally insulated Design surface mounting Contact sequence 10 20 30 40 50 Front plate no. ION OFF FS 908 Motor rating AC-23A, 50 - 60 Hz kW 15 Rated uninterrupted current Α 32

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			
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		9	As required
Contacts			
Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/0	0
		N/C	0
Electrical characteristics			
Rated operational voltage	Ue	V AC	690
Rated uninterrupted current	I _u	Α	32
Note on rated uninterrupted current !u			Rated uninterrupted current $I_{\rm u}$ is specified for max. cross-section.
Load rating with intermittent operation, class 12			u
AB 25 % DF		x I _e	2
AB 40 % DF		x l _e	1.6
AB 60 % DF		x l _e	1.3
Short-circuit rating		A 0/ I	
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	Iq	kA	80
Switching capacity cos φ rated making capacity as per IEC 60947-3		Α	320
Rated breaking capacity cos ϕ to IEC 60947-3		A	320
230 V		A	260
400/415 V		A	300
400/415 V 500 V		A	290
690 V		A	250
Safe isolation to EN 61140		А	230
between the contacts		V AC	440
Current heat loss per contact at l _e		W	1.8
Lifespan, mechanical	Operations		> 0.3
		x 10 ⁶	
Maximum operating frequency	Operations/h		1200
AC			
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		Δ.	26.4
230 V	l _e	A	26.4
400V 415 V	l _e	А	26.4
500 V	l _e	Α	23.4
690 V	le	Α	14.7
AC-21A			
Rated operational current switch			
440 V	I _e	Α	32
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	Р	kW	
230 V	P	kW	7.5
400 V 415 V	P	kW	15
500 V	Р	kW	18.5
690 V	P	kW	15

Rated operational current motor load switch			
		۸	22
230 V	l _e	Α	32
400 V 415 V	I _e	Α	32
500 V	I _e	Α	30
690 V	I _e	Α	19.8
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	l _e	Α	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	6	Quantity	
48 V		Quantity	
		A	25
Rated operational current	l _e		
Contacts		Quantity	2
60 V			
Rated operational current	I _e	Α	25
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	H_{F}	< 10 ⁻⁵ , < 1 fault in 100000 operations
To control to a control	probability		
Terminal capacities Solid or stranded		2	1 x (1,5 - 6)
Solid of Strafficed		mm ²	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:			511/00 (0010 d) 1 1 0d
Notes			B10 _d values as per EN ISO 13849-1, table C1
Rating data for approved types			
Contacts		V AC	600
Rated operational voltage	U _e	V AC	000
Rated uninterrupted current max.			
Main conducting paths			
General use		Α	30
Auxiliary contacts			
General Use			
	lu	Α	10
Pilot Duty	lu	A	A 600
	lu	A	
Switching capacity	lu	A	A 600
Switching capacity Maximum motor rating	lu	A	A 600
Switching capacity Maximum motor rating Single-phase	lu		A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC	lu	НР	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC	lu	HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC	lu	НР	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase	lu	HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC	lu	HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase	lu	HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase 200 V AC	lu	HP HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC	lu	HP HP HP	A 600 P 600 1 2 3 3 7.5
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC 600 V AC	lu	HP HP HP	A 600 P 600
Switching capacity Maximum motor rating Single-phase 120 V AC 200 V AC 240 V AC Three-phase 200 V AC 240 V AC 480 V AC	lu	HP HP HP HP	A 600 P 600

High fault rating	kA	10
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

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
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 b observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must b observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 6.0

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@ss8.1-27-37-14-03 [AKF060010])

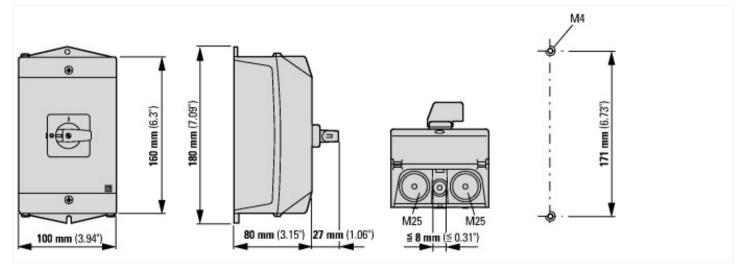
[AKFU0UUTU])		
Version as main switch		No
Version as maintenance-/service switch		No
Version as safety switch		No
Version as emergency stop installation		No
Version as reversing switch		No
Max. rated operation voltage Ue AC	V	690
Rated operating voltage	V	690 - 690

Rated permanent current lu	Α	32
Rated permanent current at AC-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 center		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

Approvals

North America Certification For UL/CSA certification order article number 255890	
--	--

Dimensions



Additional product information (links)

	1
IL03802001Z (AWA1150-1689) Switch-Disconnectors in insulated enclosures	
IL03802001Z (AWA1150-1689) Switch- Disconnectors in insulated enclosures	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03802001Z2018_04.pdf
Technical overview cam switch, switch- disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Switches for ATEX	http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html

Ordering form for SOND switches and SOND front plates(DE_EN)

Ordering form for SOND switches and SOND front plates(DE_EN)

front plates(DE_EN)

ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf

ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf