DATASHEET - P1-25/Z



On-Off switch, 3 pole, 25 A, rear mounting

Part no. P1-25/Z Catalog No. P57708

EL-Nummer (Norway)

0001456103



Delivery program

Part group reference Information about equipment supplied Auxiliary contacts Auxiliary contacts N/C N/C N/C Prove tiplate no. Information about equipment supplied Auxiliary contact or neutral conductor fitted by user. N/C O N/C Front IPSS rear mounting Fract plate no. ION OFF FS 908 Motor rating AC-23A, 50 - 60 Hz 480 V P KW 11 Taled uninterrupted current Ig A 25	Delivery program			
with black thumb grip and front plate information about equipment supplied Auxiliary contact or neutral conductor fitted by user. 3 pole Auxiliary contact or neutral conductor fitted by user. N/O N/C P	Product range			On-Off switch
Auxiliary contact or neutral conductor fitted by user. 3 pole Auxiliary contact or neutral conductor fitted by user. 3 pole N/O 0 N/C 0 N/C 0 Pront IP6S rear mounting Contact sequence Front IP6S rear mounting Front IP6S rear mounting Front IP6S rear mounting Front IP6S Front I	Part group reference			P1
Auxiliary contacts N/O Protection Contact sequence Contact seq				with black thumb grip and front plate
Auxiliary contacts N/O N/C N/C Pront IP65 rear mounting Contact sequence Contact sequence Front plate no. I I I I I I I I I I I I I I I I I I I	Information about equipment supplied			Auxiliary contact or neutral conductor fitted by user.
N/C 0	Number of poles			3 pole
N/C 0 Perce of Protection Design Contact sequence Contact sequence Front plate no. Motor rating AC-23A, 50 - 60 Hz 400 V P KW 11 Actacl uninterrupted current N/C Front IP95 rear mounting Front IP95 rear mounting Front IP95 rear mounting Front IP95 Fron	Auxiliary contacts			
Degree of Protection Pront IP65 rear mounting Contact sequence Contact sequence Front plate no. ToN OFF FS 908 Motor rating AC-23A, 50 - 60 Hz 400 V P NW 11 Rated uninterrupted current Pront IP65 Front IP65 rear mounting FS 908	1		N/0	0
Pesign rear mounting rear mounting	7		N/C	0
Contact sequence Front plate no. Motor rating AC-23A, 50 - 60 Hz 400 V P KW 11 Rated uninterrupted current Lu A 25	Degree of Protection			Front IP65
Front plate no. FS 908 FS	Design			rear mounting
Front plate no. FS 908 FS				
FS 908 Motor rating AC-23A, 50 - 60 Hz 400 V P kW 11 Rated uninterrupted current Iu A 25	Contact sequence			00000
400 V P kW 11 Rated uninterrupted current I _u A 25	Front plate no.			O OFF
Rated uninterrupted current I _u A 25	Motor rating AC-23A, 50 - 60 Hz			
	400 V	P	kW	11
Note on rated uninterrupted current I _u is specified for max. cross-section.	Rated uninterrupted current	I _u	Α	25
	Note on rated uninterrupted current !u			Rated uninterrupted current $I_{\rm u}$ is specified for max. cross-section.

Technical data

		IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3
		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
	°C	-25 - +50
	°C	-25 - +40
		III/3
U_{imp}	V AC	6000
	g	15
	U _{imp}	°C U _{imp} V AC

Mounting position			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	Α	25
Note on rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$			Rated uninterrupted current $\mathbf{I}_{\mathbf{u}}$ is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x I _e	2
AB 40 % DF		x I _e	1.6
AB 60 % DF		x I _e	1.3
Short-circuit rating			
Fuse		A gG/gL	25
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	50
Switching capacity	٦		
cos φ rated making capacity as per IEC 60947-3		Α	240
Rated breaking capacity cos φ to IEC 60947-3		Α	
230 V		Α	190
400/415 V		A	150
500 V		Α	170
690 V		A	150
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at I _e		W	1.1
Lifespan, mechanical	Operations	x 10 ⁶	> 0.3
Maximum operating frequency	Operations/h	X 10	1200
AC	ореганопъ/п		1200
AC-3			
Rating, motor load switch	Р	kW	
220 V 230 V	P	kW	5.5
400 V 415 V	P	kW	7.5
500 V	P	kW	7.5
690 V	P	kW	7.5
Rated operational current motor load switch		IV V	
230 V	l _o	A	19.6
	l _e		
400V 415 V	l _e	A	15.2
500 V	l _e	Α	12.1
690 V	l _e	Α	8.8
AC-21A			
Rated operational current switch			
440 V	I _e	Α	25
AC-23A			
Motor rating AC-23A, 50 - 60 Hz	P	kW	
230 V	P	kW	5.5
400 V 415 V	P	kW	11
500 V	P	kW	11
690 V	P	kW	11
Rated operational current motor load switch			

400 V 415 V 1	ena V			Ar.
1907	230 V	l _e	Α	25
1880		l _e	Α	
Doll	500 V	l _e	Α	17.4
OC. 1. Load brask sericles (Lives) 1,	690 V	l _e	Α	12.6
Read operational current Value per contact per intered Value per contact per intered Value per contact per intered Value per contact per intered per intered Value per contact per intered	DC			
Votage per contract pair in series Votage per contract pair Votage per contract pair in series Votage per contract pair Votage per contract pair in series Votage per contract pair in	DC-1, Load-break switches L/R = 1 ms			
### 1985	Rated operational current	l _e	Α	25
244 Rate dours from the control of current	Voltage per contact pair in series		V	60
Rated aperational current	DC-23A, motor load switch L/R = 15 ms			
Controles	24 V			
Martic operational current Martic operati	Rated operational current	l _e	Α	25
Rated operational current I	Contacts		Quantity	1
Contacts	48 V			
### Abd operational current	Rated operational current	l _e	Α	25
Roted operational current	Contacts		Quantity	2
Contacts Cuantity	60 V			
Martin M	Rated operational current	l _e	Α	25
Rated operational current Park	Contacts		Quantity	2
Contractics Contracticum Feability at 24 V D C, 10 mA Feab Parish	120 V			
Paul	Rated operational current	le	Α	12
	Contacts		Quantity	3
Securior	Control circuit reliability at 24 V DC, 10 mA		H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations
Solid or stranded mm² ½ 1/1.5 - 8) Flexible with ferrules to DIN 46228 mm² ½ 1/1.4 ½ Farminal screw o Nm 4 Ingitation to roque for tarminal screw o Nm 1.6 Technical screw m² Nm 1.6 Technical screw m² Nm 1.8	Terminal canacities	probability		
Flustible with ferrules to DIN 46228 Image: 1	Solid or stranded		mm ²	1 x (1,5 - 6)
Transial screw				2 x (1,5 - 6)
Tarninal screw Tightening lorque for terminal screw Totherical safety parameters: Note Not	Flexible with ferrules to DIN 46228		mm^2	1 x (1 - 4) 2 x (1 - 4)
Name	Terminal screw			
Notes			Nm	
Notes B10 _d values as per EN ISO 13849-1, table C1 Rated perational voltage U _u V AC 600 Rated operational voltage U _u V AC 600 Rated uninterrupted current max. U V AC 600 General use U A 20 Auxiliary contacts U A 10 Pilot Duty A 600 Witching capacity F F Single-phase F F 120 V AC HP 1 200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 3 480 V AC HP 10 480 V AC HP 10 6600 V AC HP 10 6600 V AC HP 10 680 V AC HP<				
Contacts Ue V AC 600 Rated operational voltage V AC 600 Rated uninterrupted current max. V AC V AC General use A 20 Auxiliary contacts Iu A 10 Pilot Duty A 600 Pilot Duty A 600 Maximum motor rating V V V V V V V V V V V V V V V V V V V	Notes			B10 _d values as per EN ISO 13849-1, table C1
Rated operational voltage U _e VAC 600 Rated uninterrupted current max. Common terrupted current max. Common terrupted current max. Common terrupted current max. General use A 20 Auxiliary contacts I 4600 peron Pilot Duty A600 peron 4600 peron Switching capacity F F Maximum motor rating F 1 Single-phase HP 1 200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 5 240 V AC HP 5 480 V AC HP 10 600 V AC HP 15 600 V AC HP 15 8 bis (Rating KA 5 Basic Rating KA 5	Rating data for approved types			
Rated uninterrupted current max. Head of the properties of the	Contacts			
Main conducting paths A 20 Auxiliary contacts U A 10 General Use IU A 10 Pilot Duty A 600 p 600 p 7000	Rated operational voltage	U _e	V AC	600
General use A 20 Auxiliary contacts Iu A 10 General Use Iu A 600 P 600 A 600 P 600 Switching capacity F 600 A 600 P 600 A 700 P 600 </td <td>Rated uninterrupted current max.</td> <td></td> <td></td> <td></td>	Rated uninterrupted current max.			
Auxiliary contacts Iu A 10 General Use Iu A 600 P 600 Pilot Duty A 600 P 7 600 Switching capacity F F Maximum motor rating F F Single-phase HP 1 120 V AC HP 2 240 V AC HP 3 200 V AC HP 3 240 V AC HP 5 480 V AC HP 10 480 V AC HP 15 600 V AC HP 15 8bot Circuit Current Rating SCCR SCCR Basic Rating KA 5 max. Fuse A 110	Main conducting paths			
Pilot Duty Pilot Duty Polot Duty Pol	General use		Α	20
Pilot Duty A 600 P600 Switching capacity Formal P600 Maximum motor rating Formal P600 Single-phase Formal P600 120 V AC HP 1 200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 5 480 V AC HP 5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR SCCR Basic Rating KA 5 max. Fuse A 110				
Switching capacity P 600 Maximum motor rating Control of the page of	General Use	lu	Α	10
Switching capacity Maximum motor rating Feature 1 Control or control	Pilot Duty			
Maximum motor rating HP 1 120 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 3 240 V AC HP 5 480 V AC HP 10 480 V AC HP 15 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110	Switching capacity			
Single-phase HP 1 120 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 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 A 110				
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 5 480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating KA 5 max. Fuse A 110	_			
200 V AC HP 2 240 V AC HP 3 Three-phase HP 3 200 V AC HP 3 480 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 A 110			НР	1
240 V AC HP 3 Three-phase HP 3 200 V AC HP 3 480 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 A 110				
Three-phase 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 A 110				
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 A 110				
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 A 110			НР	3
480 V AC HP 10 600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110				
600 V AC HP 15 Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110				
Short Circuit Current Rating SCCR Basic Rating kA 5 max. Fuse A 110				
Basic Rating kA 5 max. Fuse A 110				
max. Fuse A 110				5
	-			

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

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

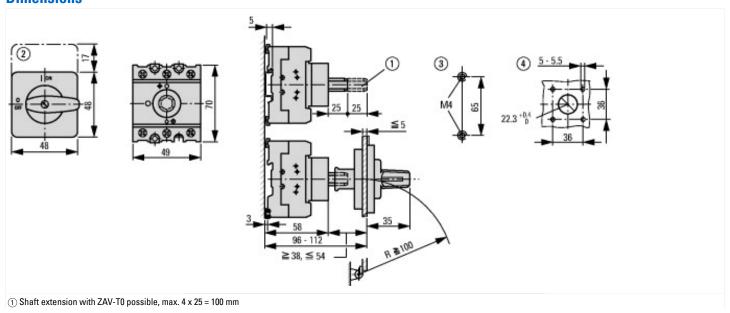
[AKF060013])			
Version as main switch			No
Version as maintenance-/service switch			No
Version as safety switch			No
Version as emergency stop installation			No
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage Ue AC	V	1	690
Rated operating voltage	V	1	690 - 690

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		Built-in device fixed built-in technique
Suitable for ground mounting		No
Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
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)		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
Suitable for	Branch circuits, suitable as motor disconnect
Degree of Protection	IEC: IP65; UL/CSA Type 1, 12

Dimensions



- ② ZFS-... Label mount not included as standard ③ Drilling dimensions base ④ Drilling dimensions door

Assets (links)

Declaration of CE Conformity 00003102

Instruction Leaflets

IL03802004Z2018_05