



Safety switch, P1, 25 A, 3 pole + N, STOP function, With black rotary handle and locking ring, Lockable in position 0 with cover interlock, with warning label „safety switch“

Part no. P1-25/I2-SI/N-SW
207313

General specifications		
Product name		Eaton Moeller® series P1 Safety switch
Part no.		P1-25/I2-SI/N-SW
EAN		4015082073138
Product Length/Depth		125 millimetre
Product height		180 millimetre
Product width		100 millimetre
Product weight		0.46 kilogram
Certifications		IEC/EN 60947-3 IEC/EN 60204 IEC/EN 60947 VDE 0660
Product Tradename		P1
Product Type		Safety switch
Product Sub Type		None
Catalog Notes		Rated Short-time Withstand Current (Icw) for a time of 1 second
Features & Functions		
Features		Version as safety switch
Fitted with:		Warning label “Safety switch” Black rotary handle and locking ring
Functions		Interlockable STOP function
Locking facility		Lockable in the 0 (Off) position (cover interlock)
Number of poles		Four-pole
General information		
Accessories		Auxiliary contact fitted by user.
Degree of protection		NEMA 12
Degree of protection (front side)		IP65
Lifespan, mechanical		300,000 Operations
Mounting method		Surface mounting
Mounting position		As required
Operating frequency		1200 Operations/h
Overvoltage category		III
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6000 V AC
Safe isolation		440 V AC, Between the contacts, According to EN 61140
Safety parameter (EN ISO 13849-1)		B10d values as per EN ISO 13849-1, table C.1
Shock resistance		15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
Suitable for		Ground mounting
Climatic environmental conditions		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		40 °C
Ambient operating temperature (enclosed) - min		-25 °C
Ambient operating temperature (enclosed) - max		40 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities		
Terminal capacity		1 x (1.5 - 6) mm², solid or stranded 1 x (1 - 4) mm², flexible with ferrules to DIN 46228 2 x (1.5 - 6) mm², solid or stranded

			2 x (1 - 4) mm², flexible with ferrules to DIN 46228
Screw size			M4, Terminal screw
Tightening torque			14.1 lb-in, Screw terminals 1.6 Nm, Screw terminals
Electrical rating			
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)			190 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)			150 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)			170 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)			150 A
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V			19.6 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V			15.2 A
Rated operational current (Ie) at AC-3, 500 V			12.1 A
Rated operational current (Ie) at AC-3, 660 V, 690 V			8.8 A
Rated operational current (Ie) at AC-21, 440 V			25 A
Rated operational current (Ie) at AC-23A, 230 V			25 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V			25 A
Rated operational current (Ie) at AC-23A, 500 V			17.4 A
Rated operational current (Ie) at AC-23A, 690 V			12.6 A
Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms			25 A
Rated operational current (Ie) at DC-23A, 24 V			25 A
Rated operational current (Ie) at DC-23A, 48 V			25 A
Rated operational current (Ie) at DC-23A, 60 V			25 A
Rated operational current (Ie) at DC-23A, 120 V			12 A
Rated operational power at AC-3, 380/400 V, 50 Hz			7.5 kW
Rated operational power at AC-3, 415 V, 50 Hz			7.5 kW
Rated operational power at AC-3, 500 V, 50 Hz			7.5 kW
Rated operational power at AC-3, 690 V, 50 Hz			7.5 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz			5.5 kW
Rated operational power at AC-23A, 400 V, 50 Hz			13 kW
Rated operational power at AC-23A, 500 V, 50 Hz			11 kW
Rated operational power at AC-23A, 690 V, 50 Hz			11 kW
Rated operational voltage (Ue) at AC - max			690 V
Rated uninterrupted current (Iu)			25 A
Uninterrupted current			Rated uninterrupted current Iu is specified for max. cross-section.
Short-circuit rating			
Rated conditional short-circuit current (Iq)			80 kA
Rated short-time withstand current (Icw)			640 A, Contacts, 1 second 0.64 kA
Short-circuit protection rating			25 A gG/gL, Fuse, Contacts
Switching capacity			
Load rating			1.6 x I# (with intermittent operation class 12, 40 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % duty factor) 2 x I# (with intermittent operation class 12, 25 % duty factor)
Number of contacts in series at DC-23A, 24 V			1
Number of contacts in series at DC-23A, 48 V			2
Number of contacts in series at DC-23A, 60 V			2
Number of contacts in series at DC-23A, 120 V			3
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)			240 A
Voltage per contact pair in series			60 V
Contacts			
Control circuit reliability			1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
Number of auxiliary contacts (change-over contacts)			0
Number of auxiliary contacts (normally closed contacts)			0
Number of auxiliary contacts (normally open contacts)			0
Actuator			
Actuator color			Black

Actuator type			Door coupling rotary drive
Design verification			
Equipment heat dissipation, current-dependent Pvid			1.1 W
Heat dissipation capacity Pdis			0 W
Heat dissipation per pole, current-dependent Pvid			1.1 W
Rated operational current for specified heat dissipation (In)			25 A
Static heat dissipation, non-current-dependent Pvs			0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecI@ss13-27-37-14-03 [AKF060018])			
Version as main switch			No
Version as maintenance-/service switch			No
Version as safety switch			Yes
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 Iu		A	25
Rated permanent current at AC-23, 400 V		A	25
Rated permanent current at AC-21, 400 V		A	25
Rated operation power at AC-3, 400 V		kW	7.5
Rated short-time withstand current Icw		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			4
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 floor 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			Door coupling rotary drive
Interlockable			Yes
Type of electrical connection of main circuit			Screw connection
With pre-assembled cabling			No
Degree of protection (IP), front side			IP65
Degree of protection (NEMA)			12
Width		mm	100
Height		mm	180
Depth		mm	125
Width in number of modular spacings			