DATASHEET - P1-40/I2/SVB-SW/HI11

Main switch, P1, 40 A, surface mounting, 3 pole, 1 N/O, 1 N/C, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position

Powering Business Worldwide

Part no.	**P1-40/I2/SVB-SW/HI11**
	199913
EL Number (Norway)	**1403746**

General specifications

Product name	Eaton Moeller® series P1 Main switch
Part no.	P1-40/I2/SVB-SW/HI11
EAN	4015082953362
Product Length/Depth	115 millimetre
Product height	180 millimetre
Product width	100 millimetre
Product weight	0.596 kilogram
Compliances	CE UKCA
Certifications	IEC/EN 60947-3 IEC/EN 60947 IEC/EN 60204
Product Tradename	P1
Product Type	Main switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second

Features & Functions

Enclosure material	Polycarbonate
Features	Version as main switch Version as maintenance-/service switch
Fitted with:	Black rotary handle and locking ring
Functions	STOP function Interlockable
Locking facility	Lockable in the 0 (Off) position
Number of poles	3

General information

Accessories	Auxiliary contact or neutral conductor fitted by user.
Degree of protection	IP65
Degree of protection (front side)	IP65
Lifespan, mechanical	300,000 Operations
Mounting method	Surface mounting
Mounting position	As required
Operating frequency	50 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
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms
Switching angle	90 °

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 - 4) mm^2, flexible with ferrules to DIN 46228 2 x (1 - 4) mm^2, flexible with ferrules to DIN 46228 1 x 10 mm^2 with fork terminal 2 x 10 mm^2 with fork terminal
Screw size	M4, Terminal screw
Tightening torque	1.6 Nm, Screw terminals

Electrical rating

Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	290 kA
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	130 kA
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	30 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	30 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	17 A
Rated operational current (Ie) at AC-21, 440 V	40 A
Rated operational current (Ie) at AC-23A, 230 V	40 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	40 A
Rated operational current (Ie) at AC-23A, 690 V	20 A
Rated operational power at AC-3, 380/400 V, 50 Hz	15 kW
Rated operational power at AC-3, 415 V, 50 Hz	15 kW
Rated operational power at AC-3, 690 V, 50 Hz	15 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz	11 kW
Rated operational power at AC-23A, 400 V, 50 Hz	22 kW
Rated operational power at AC-23A, 690 V, 50 Hz	18.5 kW
Rated operational voltage (Ue) at AC - min	690 V
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	40 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)	0.64 kA 640 A, Contacts, 1 second
Short-circuit protection rating	50 A gG/gL, Fuse, Contacts

Switching capacity

Load rating	1.3 x I# (with intermittent operation class 12, 60 % duty factor) 1.6 x I# (with intermittent operation class 12, 40 % duty factor) 2 x I# (with intermittent operation class 12, 25 % duty factor)

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)	1
Number of auxiliary contacts (normally open contacts)	1

Actuator

Actuator color	Black
Actuator type	Door coupling rotary drive

Design verification

Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	3.5 W
Rated operational current for specified heat dissipation (In)	40 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 disconnector (low voltage) (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

Version as main switch		Yes
Version as maintenance-/service switch		Yes
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
Rated permanent current Iu	A	40
Rated permanent current at AC-23, 400 V	A	40
Rated permanent current at AC-21, 400 V	A	40
Rated operation power at AC-3, 400 V	kW	15
Rated short-time withstand current Icw	kA	0.64
Rated operation power at AC-23, 400 V	kW	22
Switching power at 400 V	kW	22
Conditioned rated short-circuit current Iq	kA	80
Number of poles		3
Number of auxiliary contacts as normally closed contact		1
Number of auxiliary contacts as normally open contact		1
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		No
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)			
Width		mm	100
Height		mm	180
Depth		mm	115
Width in number of modular spacings			

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