DATASHEET - P1-40/I2H/N

On-Off switch, P1, 40 A, surface mounting, 3 pole + N, with black thumb grip and front plate, hard knockout version

Powering Business Worldwide

Part no. P1-40/I2H/N
199921

Product name	Eaton Moeller® series P1 On-Off switch
Part no.	P1-40/I2H/N
EAN	4015082952976
Product Length/Depth	107 millimetre
Product height	180 millimetre
Product width	100 millimetre
Product weight	0.564 kilogram
Compliances	UKCA CE
Certifications	IEC/EN 60204 IEC/EN 60947 IEC/EN 60947-3
Product Tradename	P1
Product Type	On-Off switch
Product Sub Type	None
Catalog Notes	Rated Short-time Withstand Current (Icw) for a time of 1 second
Enclosure material	Polycarbonate
Fitted with:	Black thumb grip and front plate Auxiliary contact
Number of poles	3+N
Accessories	Auxiliary contact 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 °
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 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

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.
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
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)
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 color	Black
Actuator type	Short thumb-grip
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 8.0

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 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			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			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			Short thumb-grip
Interlockable			No
Type of electrical connection of main circuit			Screw connection
Degree of protection (IP), front side			IP65
Degree of protection (NEMA)			

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