DATASHEET - P1-32/EA/SVB/HI11



Main switch, P1, 32 A, flush mounting, 3 pole, 1 N/O, 1 N/C, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

Part no. P1-32/EA/SVB/HI11

072567

EL Number 1417084

(Norway)

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General specifications	
Product name	Eaton Moeller® series P1 Main switch
Part no.	P1-32/EA/SVB/HI11
EAN	4015080725671
Product Length/Depth	120 millimetre
Product height	70 millimetre
Product width	65 millimetre
Product weight	0.232 kilogram
Certifications	VDE 0660 UL IEC/EN 60947-3 CSA File No.: 012528 UL 60947-4-1 CE CSA Class No.: 3211-05 CSA-C22.2 No. 60947-4-1-14 CSA-C22.2 No. 94 IEC/EN 60947 UL Category Control No.: NLRV UL File No.: E36332 IEC/EN 60204 CSA
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	
Features	Version as emergency stop installation Version as maintenance-/service switch Version as main switch
Fitted with:	Red rotary handle and yellow locking ring
Functions	Interlockable Emergency switching off function
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	NEMA 1
Degree of protection (front side)	IP65
Lifespan, mechanical	300,000 Operations
Mounting method	Flush 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	Front mounting 4-hole Branch circuits, suitable as motor disconnect, (UL/CSA)
Climatic environmental conditions	
Ambient operating temperature - min	-25 °C

Ambient operating temperature - max	50 °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	$2 \times (1 - 4) \text{ mm}^2$, flexible with ferrules to DIN 46228 $2 \times (1.5 - 6) \text{ mm}^2$, solid or stranded $1 \times (1.5 - 6) \text{ mm}^2$, solid or stranded $14 - 8 \text{ AWG}$, solid or flexible with ferrule $1 \times (1 - 4) \text{ mm}^2$, flexible with ferrules to DIN 46228
Screw size	M4, Terminal screw
Tightening torque	1.6 Nm, Screw terminals 14.1 lb-in, Screw terminals
Electrical rating	
Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)	260 A
Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	300 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	290 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	250 A
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	26.4 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	26.4 A
Rated operational current (Ie) at AC-3, 500 V	23.4 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	14.7 A
Rated operational current (Ie) at AC-21, 440 V	32 A
Rated operational current (Ie) at AC-23A, 230 V	32 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	32 A
Rated operational current (Ie) at AC-23A, 500 V	30 A
Rated operational current (Ie) at AC-23A, 690 V	19.8 A
Rated operational current (Ie) at DC-1, load-break switches /r = 1 ms	32 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	13 kW
Rated operational power at AC-3, 415 V, 50 Hz	13 kW
Rated operational power at AC-3, 690 V, 50 Hz	15 kW
Rated operational power at AC-23A, 220/230 V, 50 Hz	7.5 kW
Rated operational power at AC-23A, 400 V, 50 Hz	15 kW
Rated operational power at AC-23A, 500 V, 50 Hz	18.5 kW
Rated operational power at AC-23A, 690 V, 50 Hz	15 kW
Rated operational voltage (Ue) at AC - max	690 V
Rated uninterrupted current (Iu)	32 A
Uninterrupted current	Rated uninterrupted current lu 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
Short-circuit current rating (basic rating)	0.64 kA 110A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
Short-circuit current rating (high fault)	50 A, Class J, max. Fuse, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
Short-circuit protection rating	50 A gG/gL, Fuse, Contacts
Switching capacity	
Load rating	1.6 x l# (with intermittent operation class 12, 40 % duty factor) 1.3 x l# (with intermittent operation class 12, 60 % duty factor) 2 x l# (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
Switching capacity (main contacts, general use)	30 A, Rated uninterrupted current max. (UL/CSA)
Switching capacity (auxiliary contacts, general use)	10A, IU, (UL/CSA)
Switching capacity (auxiliary contacts, general disc)	P600 (UL/CSA)
Switching Capacity (auxiliary contacts, photoutry)	A600 (UL/CSA)
Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)	320 A
Voltage per contact pair in series	60 V
Motor rating	
Assigned motor power at 115/120 V, 60 Hz, 1-phase	1 HP
Assigned motor power at 200/208 V, 60 Hz, 1-phase	2 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase	3 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase	3 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase	7.5 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase	10 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase	15 HP
Contacts	
Control circuit reliability	1 failure par 100 000 exitabing aparations statistically determined at 24 V.D.C. 10.
Control Circuit Teliability	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	Red
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	1.8 W
Rated operational current for specified heat dissipation (In)	32 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 Resists 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 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 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 Yes Version as reversing switch No Number of switches ٧ Max. rated operation voltage Ue AC 690 ٧ 690 - 690 Rated operating voltage 32 Rated permanent current lu Α Rated permanent current at AC-23, 400 V Α 32 Rated permanent current at AC-21, 400 V 32 Rated operation power at AC-3, 400 V kW 13 kΑ Rated short-time withstand current lcw 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 kΑ 80 Number of poles 3 Number of auxiliary contacts as normally closed contact Number of auxiliary contacts as normally open contact 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 floor mounting No Suitable for front mounting 4-hole Yes Suitable for front mounting centre No Suitable for distribution board installation No Suitable for intermediate mounting No Colour control element Red Type of control element Door coupling rotary drive Interlockable Yes Type of electrical connection of main circuit Screw connection With pre-assembled cabling No IP65 Degree of protection (IP), front side Degree of protection (NEMA) Width 65 mm Height 70 mm

Depth

Width in number of modular spacings

120

mm