

Main switch, P5, 250 A, rear mounting, 3 pole + N, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position

Part no. P5-250/V/SVB/N
280944

EL Number 1417186
(Norway)

| General specifications | | |
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| Product name | | Eaton Moeller® series P5 Main switch |
| Part no. | | P5-250/V/SVB/N |
| EAN | | 4015082809447 |
| Product Length/Depth | | 200 millimetre |
| Product height | | 150 millimetre |
| Product width | | 130 millimetre |
| Product weight | | 2.674 kilogram |
| Compliances | | CE Marked |
| Certifications | | CSA Std. C22.2 No. 14-05 EN 60947-3 IEC 60947 UL 508 VDE UL Category Control No.: NLRV, NLRV7 VDE 0660 CSA File No.: 223805 CSA Class No.: 3211-05 UL File No.: E36332 CE CSA-C22.2 No. 14-05 UL IEC/EN 60947-3 IEC/EN 60947 CSA-C22.2 No. 94 CSA IEC/EN 60204 UL CSA |
| Product Tradename | | P5 |
| 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 main switch Version as maintenance-/service switch |
| Fitted with: | | Red rotary handle and yellow locking ring |
| Functions | | Emergency switching off function Interlockable |
| Locking facility | | Lockable in the 0 (Off) position |
| Number of poles | | 4 |
| General information | | |
| Accessories | | Auxiliary contact fitted by user. |
| Degree of protection | | NEMA 12 |
| Degree of protection (front side) | | IP65 |
| Lifespan, mechanical | | 80,000 Operations |
| Mounting method | | Rear mounting |
| Mounting position | | As required |
| Operating frequency | | 50 Operations/h |
| Overvoltage category | | III |
| Pollution degree | | 3 |
| Rated impulse withstand voltage (Uimp) | | 8000 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 |

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| Suitable for | | Branch circuits, suitable as motor disconnect, (UL/CSA) Intermediate mounting |
| 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 | | 350 MCM (AWG), solid or flexible conductor with ferrule 2 x 50 mm ² , flexible with ferrules to DIN 46228 2 x 70 mm ² , solid or stranded 1 x 185 mm ² , solid or stranded 2 x 20 x 3 mm Number of segments x width x thickness, copper strip 1 x 120 mm ² , flexible with ferrules to DIN 46228 1 x 20 x 5 mm Number of segments x width x thickness, copper strip 300 MCM (AWG), flexible |
| Screw size | | 6 mm AF, Hexagon socket-head spanner, Terminal screw |
| Tightening torque | | 16 Nm, Screw terminals 140 lb-in, Screw terminals |
| Electrical rating | | |
| Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3) | | 1600 A |
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3) | | 1380 A |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3) | | 1250 A |
| Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3) | | 400 A |
| Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V | | 126 A |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V | | 105 A |
| Rated operational current (Ie) at AC-3, 500 V | | 118 A |
| Rated operational current (Ie) at AC-3, 660 V, 690 V | | 45 A |
| Rated operational current (Ie) at AC-21, 440 V | | 250 A |
| Rated operational current (Ie) at AC-23A, 230 V | | 126 A |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V | | 170 A |
| Rated operational current (Ie) at AC-23A, 500 V | | 156 A |
| Rated operational current (Ie) at AC-23A, 690 V | | 50 A |
| Rated operational current (Ie) at DC-1, load-break switches l/r = 1 ms | | 250 A |
| Rated operational current (Ie) at DC-23A, 24 V | | 250 A |
| Rated operational current (Ie) at DC-23A, 48 V | | 250 A |
| Rated operational current (Ie) at DC-23A, 60 V | | 250 A |
| Rated operational current (Ie) at DC-23A, 120 V | | 80 A |
| Rated operational power at AC-3, 380/400 V, 50 Hz | | 55 kW |
| Rated operational power at AC-3, 415 V, 50 Hz | | 55 kW |
| Rated operational power at AC-3, 500 V, 50 Hz | | 75 kW |
| Rated operational power at AC-3, 690 V, 50 Hz | | 40 kW |
| Rated operational power at AC-23A, 220/230 V, 50 Hz | | 37 kW |
| Rated operational power at AC-23A, 400 V, 50 Hz | | 90 kW |
| Rated operational power at AC-23A, 500 V, 50 Hz | | 110 kW |
| Rated operational power at AC-23A, 690 V, 50 Hz | | 45 kW |
| Rated operational voltage (Ue) at AC - max | | 690 V |
| Rated uninterrupted current (Iu) | | 250 A |
| Uninterrupted current | | Rated uninterrupted current Iu is specified for max. cross-section. |
| Short-circuit rating | | |
| Rated conditional short-circuit current (Iq) | | 30 kA |
| Rated short-time withstand current (Icw) | | 4.6 kA 4,6 kA, Contacts, 1 second |
| Short-circuit current rating (basic rating) | | 10 kA, SCCR (UL/CSA) 600A Class RK1, max. Fuse, SCCR (UL/CSA) |
| Short-circuit current rating (high fault) | | 400 A, Class J, max. Fuse, SCCR (UL/CSA) 65 kA, SCCR (UL/CSA) |
| Short-circuit protection rating | | 250 A gG/gL, Fuse, Contacts |

| Switching capacity | | |
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| Load rating | | 2 x I# (with intermittent operation class 12, 25 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % duty factor) 1.6 x I# (with intermittent operation class 12, 40 % duty factor) |
| Number of contacts in series at DC-23A, 24 V | | 3 |
| Number of contacts in series at DC-23A, 48 V | | 3 |
| Number of contacts in series at DC-23A, 60 V | | 3 |
| Number of contacts in series at DC-23A, 120 V | | 3 |
| Switching capacity (main contacts, general use) | | 250 A, Rated uninterrupted current max. (UL/CSA) |
| Switching capacity (auxiliary contacts, general use) | | 10A, IU, (UL/CSA) |
| Switching capacity (auxiliary contacts, pilot duty) | | A600 (UL/CSA) |
| Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3) | | 1700 A |
| Voltage per contact pair in series | | 42 V |
| Motor rating | | |
| Assigned motor power at 115/120 V, 60 Hz, 1-phase | | 15 HP |
| Assigned motor power at 115/120 V, 60 Hz, 3-phase | | 30 HP |
| Assigned motor power at 230/240 V, 60 Hz, 1-phase | | 30 HP |
| Assigned motor power at 230/240 V, 60 Hz, 3-phase | | 60 HP |
| Assigned motor power at 277 V, 60 Hz, 1-phase | | 30 HP |
| Assigned motor power at 460/480 V, 60 Hz, 3-phase | | 75 HP |
| Assigned motor power at 575/600 V, 60 Hz, 3-phase | | 75 HP |
| 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 | | Red |
| Actuator type | | Door coupling rotary drive |
| Design verification | | |
| Equipment heat dissipation, current-dependent Pvid | | 8 W |
| Heat dissipation capacity Pdis | | 0 W |
| Heat dissipation per pole, current-dependent Pvid | | 8 W |
| Rated operational current for specified heat dissipation (In) | | 250 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. |

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| 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

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| 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 (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 | | 1 |
| Max. rated operation voltage Ue AC | V | 690 |
| Rated operating voltage | V | 690 - 690 |
| Rated permanent current Iu | A | 250 |
| Rated permanent current at AC-23, 400 V | A | 250 |
| Rated permanent current at AC-21, 400 V | A | 250 |
| Rated operation power at AC-3, 400 V | kW | 55 |
| Rated short-time withstand current Icw | kA | 4.6 |
| Rated operation power at AC-23, 400 V | kW | 90 |
| Switching power at 400 V | kW | 90 |
| Conditioned rated short-circuit current Iq | kA | 30 |
| 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 | | Built-in device fixed built-in technique |
| 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 | | Yes |
| Colour control element | | Red |
| Type of control element | | Door coupling rotary drive |
| Interlockable | | Yes |
| Type of electrical connection of main circuit | | Frame clamp |
| With pre-assembled cabling | | No |
| Degree of protection (IP), front side | | IP65 |
| Degree of protection (NEMA) | | 12 |
| Width | mm | 130 |
| Height | mm | 150 |
| Depth | mm | 200 |
| Width in number of modular spacings | | |