

Main switch, P5, 315 A, flush mounting, 3 pole, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position



Powering Business Worldwide™

**Part no. P5-315/EA/SVB-SW
280953**

| General specifications | | |
|--|--|--|
| Product name | | Eaton Moeller® series P5 Main switch |
| Part no. | | P5-315/EA/SVB-SW |
| EAN | | 4015082809539 |
| Product Length/Depth | | 150 millimetre |
| Product height | | 150 millimetre |
| Product width | | 130 millimetre |
| Product weight | | 1.938 kilogram |
| Compliances | | CE Marked |
| Certifications | | CSA Std. C22.2 No. 14-05 UL 508 EN 60947-3 IEC 60947 VDE CSA File No.: 223805 VDE 0660 CE IEC/EN 60204 UL File No.: E36332 CSA Class No.: 3211-05 IEC/EN 60947 CSA-C22.2 No. 94 CSA-C22.2 No. 14-05 IEC/EN 60947-3 UL Category Control No.: NLRV, NLRV7 UL CSA 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 main switch Version as maintenance-/service switch |
| Fitted with: | | Black rotary handle and locking ring |
| Functions | | Interlockable STOP 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 12 |
| Degree of protection (front side) | | IP65 |
| Lifespan, mechanical | | 80,000 Operations |
| Mounting method | | Flush 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 |
| Suitable for | | Branch circuits, suitable as motor disconnect, (UL/CSA) Front mounting 4-hole |

| 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, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| Terminal capacities | |
| Terminal capacity | 2 x 50 mm ² , flexible with ferrules to DIN 46228 2 x 20 x 3 mm Number of segments x width x thickness, copper strip 1 x 185 mm ² , solid or stranded 300 MCM (AWG), flexible 2 x 70 mm ² , solid or stranded 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 350 MCM (AWG), solid or flexible conductor with ferrule |
| Screw size | 6 mm AF, Hexagon socket-head spanner, Terminal screw |
| Tightening torque | 140 lb-in, Screw terminals 16 Nm, Screw terminals |
| Electrical rating | |
| Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3) | 1800 A |
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3) | 1650 A |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3) | 1550 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 | 147 A |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V | 138 A |
| Rated operational current (Ie) at AC-3, 500 V | 135 A |
| Rated operational current (Ie) at AC-3, 660 V, 690 V | 50 A |
| Rated operational current (Ie) at AC-21, 440 V | 315 A |
| Rated operational current (Ie) at AC-23A, 230 V | 182 A |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V | 205 A |
| Rated operational current (Ie) at AC-23A, 500 V | 184 A |
| Rated operational current (Ie) at AC-23A, 690 V | 50 A |
| Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms | 315 A |
| Rated operational current (Ie) at DC-23A, 24 V | 315 A |
| Rated operational current (Ie) at DC-23A, 48 V | 315 A |
| Rated operational current (Ie) at DC-23A, 60 V | 315 A |
| Rated operational current (Ie) at DC-23A, 120 V | 100 A |
| Rated operational power at AC-3, 380/400 V, 50 Hz | 75 kW |
| Rated operational power at AC-3, 415 V, 50 Hz | 75 kW |
| Rated operational power at AC-3, 500 V, 50 Hz | 90 kW |
| Rated operational power at AC-3, 690 V, 50 Hz | 45 kW |
| Rated operational power at AC-23A, 220/230 V, 50 Hz | 55 kW |
| Rated operational power at AC-23A, 400 V, 50 Hz | 110 kW |
| Rated operational power at AC-23A, 500 V, 50 Hz | 132 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) | 315 A |
| Uninterrupted current | Rated uninterrupted current Iu is specified for max. cross-section. |
| Short-circuit rating | |
| Rated conditional short-circuit current (Iq) | 15 kA |
| Rated short-time withstand current (Icw) | 5,8 kA, Contacts, 1 second 5.8 kA |
| Short-circuit current rating (basic rating) | 10 kA, SCCR (UL/CSA) 800A 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 | 315 A gG/gL, Fuse, Contacts |
| Switching capacity | |
| Load rating | 1.6 x I# (with intermittent operation class 12, 40 % duty factor) |

| | | |
|--|--|--|
| | | 2 x I# (with intermittent operation class 12, 25 % duty factor) 1.3 x I# (with intermittent operation class 12, 60 % 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) | | 300 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) | | 2050 A |
| Voltage per contact pair in series | | 42 V |
| Motor rating | | |
| Assigned motor power at 115/120 V, 60 Hz, 1-phase | | 20 HP |
| Assigned motor power at 115/120 V, 60 Hz, 3-phase | | 40 HP |
| Assigned motor power at 230/240 V, 60 Hz, 1-phase | | 35 HP |
| Assigned motor power at 230/240 V, 60 Hz, 3-phase | | 75 HP |
| Assigned motor power at 277 V, 60 Hz, 1-phase | | 35 HP |
| Assigned motor power at 460/480 V, 60 Hz, 3-phase | | 100 HP |
| Assigned motor power at 575/600 V, 60 Hz, 3-phase | | 100 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 | | Black |
| Actuator type | | Door coupling rotary drive |
| Design verification | | |
| Equipment heat dissipation, current-dependent Pvid | | 12.7 W |
| Heat dissipation capacity Pdis | | 0 W |
| Heat dissipation per pole, current-dependent Pvid | | 12.7 W |
| Rated operational current for specified heat dissipation (In) | | 315 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. |

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 | | | 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 U _e AC | V | | 690 |
| Rated operating voltage | V | | 690 - 690 |
| Rated permanent current I _u | A | | 315 |
| Rated permanent current at AC-23, 400 V | A | | 315 |
| Rated permanent current at AC-21, 400 V | A | | 315 |
| Rated operation power at AC-3, 400 V | kW | | 75 |
| Rated short-time withstand current I _{cw} | kA | | 5.8 |
| Rated operation power at AC-23, 400 V | kW | | 110 |
| Switching power at 400 V | kW | | 110 |
| Conditioned rated short-circuit current I _q | kA | | 15 |
| Number of poles | | | 3 |
| 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 | | | Yes |
| 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 | | | 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 | | 150 |
| Width in number of modular spacings | | | |