Main switch, P3, 100 A , flush mounting, 3 pole +N , STOP function, With black rotary handle and locking ring, Lockable in the $\mathbf{0}$ (Off) position

Part no.
P3-100/EA/SVB-SW/N 022263

| General specifications |  |
| :---: | :---: |
| Product name | Eaton Moeller ${ }^{\text {B }}$ series P3 Main switch |
| Part no. | P3-100/EA/SVB-SW/N |
| EAN | 4015080222637 |
| Product Length/Depth | 130 millimetre |
| Product height | 90 millimetre |
| Product width | 90 millimetre |
| Product weight | 0.496 kilogram |
| Certifications | CSA File No.: 012528 <br> IEC/EN 60204 <br> UL File No.: E36332 <br> IEC/EN 60947 <br> CSA <br> CSA Class No.: 3211-05 <br> CSA-C22.2 No. 60947-4-1-14 <br> IEC/EN 60947-3 <br> VDE 0660 <br> UL 60947-4-1 <br> CSA-C22.2 No. 94 <br> UL Category Control No.: NLRV CE UL |
| Product Tradename | P3 |
| 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 maintenance-/service switch Version as main switch |
| Fitted with: | Black rotary handle and locking ring |
| Functions | STOP 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 | 100,000 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 <br> Branch circuits, suitable as motor disconnect, (UL/CSA) |
| Climatic environmental conditions |  |
| Ambient operating temperature - min | $-25^{\circ} \mathrm{C}$ |
| Ambient operating temperature - max | $50^{\circ} \mathrm{C}$ |
| Ambient operating temperature (enclosed) - min | $-25^{\circ} \mathrm{C}$ |


| Ambient operating temperature (enclosed) - max | $40^{\circ} \mathrm{C}$ |
| :---: | :---: |
| Climatic proofing | Damp heat, cyclic, to IEC 60068-2-30 <br> Damp heat, constant, to IEC 60068-2-78 |
| Terminal capacities |  |
| Terminal capacity | $2 \times(1.5-6) \mathrm{mm}^{2}$, flexible with ferrules to DIN 46228 $1 \times(1.5-25) \mathrm{mm}^{2}$, flexible with ferrules to DIN 46228 14-2 AWG, solid or flexible with ferrule $1 \times(2.5-35) \mathrm{mm}^{2}$, solid or stranded $2 \times(2.5-10) \mathrm{mm}^{2}$, solid or stranded |
| Screw size | M5, Terminal screw |
| Tightening torque | 26.5 lb -in, Screw terminals <br> 3 Nm , Screw terminals |
| Electrical rating |  |
| Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3) | 760 A |
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3) | 740 A |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3) | 880 A |
| Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3) | 520 A |
| Rated operational current (le) at AC-3, $220 \mathrm{~V}, 230 \mathrm{~V}, 240 \mathrm{~V}$ | 71 A |
| Rated operational current (le) at AC-3, $380 \mathrm{~V}, 400 \mathrm{~V}, 415 \mathrm{~V}$ | 71 A |
| Rated operational current (le) at AC-3,500 V | 65 A |
| Rated operational current (le) at AC-3, 660 V, 690 V | 23.8 A |
| Rated operational current (le) at AC-21, 440 V | 100 A |
| Rated operational current (le) at AC-23A, 230 V | 100 A |
| Rated operational current (le) at AC-23A, $400 \mathrm{~V}, 415 \mathrm{~V}$ | 100 A |
| Rated operational current (le) at AC-23A, 500 V | 96 A |
| Rated operational current (le) at AC-23A, 690 V | 68 A |
| Rated operational current (le) at DC-1, load-break switches $1 / \mathrm{r}=1 \mathrm{~ms}$ | 100 A |
| Rated operational current (le) at DC-23A, 24 V | 50 A |
| Rated operational current (le) at DC-23A, 48 V | 50 A |
| Rated operational current (le) at DC-23A, 60 V | 50 A |
| Rated operational current (le) at DC-23A, 120 V | 25 A |
| Rated operational power at AC-3, $380 / 400 \mathrm{~V}, 50 \mathrm{~Hz}$ | 37 kW |
| Rated operational power at AC-3, $415 \mathrm{~V}, 50 \mathrm{~Hz}$ | 37 kW |
| Rated operational power at AC-3, 500 V, 50 Hz | 45 kW |
| Rated operational power at $\mathrm{AC}-3,690 \mathrm{~V}, 50 \mathrm{~Hz}$ | 37 kW |
| Rated operational power at AC-23A, 220/230 V, 50 Hz | 30 kW |
| Rated operational power at AC-23A, $400 \mathrm{~V}, 50 \mathrm{~Hz}$ | 55 kW |
| Rated operational power at AC-23A, $500 \mathrm{~V}, 50 \mathrm{~Hz}$ | 55 kW |
| Rated operational power at AC-23A, $690 \mathrm{~V}, 50 \mathrm{~Hz}$ | 55 kW |
| Rated operational voltage (Ue) at AC - max | 690 V |
| Rated uninterrupted current (lu) | 100 A |
| Uninterrupted current | Rated uninterrupted current lu is specified for max. cross-section. |
| Short-circuit rating |  |
| Rated conditional short-circuit current (lq) | 4 kA (Load side) 80 kA (Supply side) |
| Rated short-time withstand current (Icw) | 2 kA |
| Short-circuit current rating (basic rating) | 10 kA, SCCR (UL/CSA) <br> 150A, max. Fuse, SCCR (UL/CSA) |
| Short-circuit protection rating | $100 \mathrm{~A} \mathrm{gG} / \mathrm{gL}$, Fuse, Contacts |
| Switching capacity |  |
| Load rating | $1.6 \times$ I\# (with intermittent operation class $12,40 \%$ duty factor) $1.3 \times$ I\# (with intermittent operation class $12,60 \%$ duty factor) 2 x \# (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) | 90 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) <br> P600 (UL/CSA) |
| :---: | :---: |
| Rated making capacity up to 690 V (cos phito IEC/EN 60947-3) | 950 A |
| Voltage per contact pair in series | 60 V |
| Motor rating |  |
| Assigned motor power at $115 / 120 \mathrm{~V}, 60 \mathrm{~Hz}, 1$-phase | 5 HP |
| Assigned motor power at $200 / 208 \mathrm{~V}, 60 \mathrm{~Hz}, 1$-phase | 10 HP |
| Assigned motor power at $200 / 208 \mathrm{~V}, 60 \mathrm{~Hz}, 3$-phase | 20 HP |
| Assigned motor power at $230 / 240 \mathrm{~V}, 60 \mathrm{~Hz}, 1$-phase | 15 HP |
| Assigned motor power at $230 / 240 \mathrm{~V}, 60 \mathrm{~Hz}, 3$-phase | 25 HP |
| Assigned motor power at $460 / 480 \mathrm{~V}, 60 \mathrm{~Hz}, 3$-phase | 60 HP |
| Assigned motor power at $575 / 600 \mathrm{~V}, 60 \mathrm{~Hz}, 3$-phase | 75 HP |
| Contacts |  |
| Control circuit reliability | 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 $\mathrm{mA})$ |
| 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 | OW |
| Heat dissipation capacity Pdiss | OW |
| Heat dissipation per pole, current-dependent Pvid | 7.5 W |
| Rated operational current for specified heat dissipation (In) | 100 A |
| Static heat dissipation, non-current-dependent Pvs | O 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 |  | 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 | 690-690 |
| Rated permanent current lu | A | 100 |
| Rated permanent current at $\mathrm{AC}-23,400 \mathrm{~V}$ | A | 100 |
| Rated permanent current at AC-21, 400 V | A | 100 |
| Rated operation power at AC-3, 400 V | kW | 37 |
| Rated short-time withstand current Icw | kA | 2 |
| Rated operation power at AC-23, 400 V | kW | 55 |
| Switching power at 400 V | kW | 55 |
| 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 |  | 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 |  | Screw connection |
| Degree of protection (IP), front side |  | IP65 |
| Degree of protection (NEMA) |  | 12 |

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