# DATASHEET - P1-40/SE1/SVB-SW/N

**Main switch, P1, 40 A, surface mounting, 3 pole + N, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position, in steel enclosure**

Powering Business Worldwide™

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| **Part no.** | **P1-40/SE1/SVB-SW/N** |
| | **199951** |
| **EL Number (Norway)** | **1403780** |

## General specifications

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|---|---|
| Product name | Eaton Moeller® series P1 Main switch |
| Part no. | P1-40/SE1/SVB-SW/N |
| EAN | 4015082952884 |
| Product Length/Depth | 200 millimetre |
| Product height | 135 millimetre |
| Product width | 150 millimetre |
| Product weight | 1.725 kilogram |
| Compliances | CE<br>UKCA |
| Certifications | IEC/EN 60947-3<br>IEC/EN 60204<br>IEC/EN 60947 |
| 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

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| Enclosure material | Steel |
| Features | Version as main switch<br>Version as maintenance-/service switch |
| Fitted with: | Black rotary handle and locking ring<br>Auxiliary contact |
| Functions | STOP function<br>Interlockable |
| Locking facility | Lockable in the 0 (Off) position |
| Number of poles | 3+N |

## General information

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| 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 ° |

## Climatic environmental conditions

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| 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<br>Damp heat, cyclic, to IEC 60068-2-30 |

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| **Terminal capacities** | |
| Terminal capacity | 1 x (1 - 4) $mm^2$, flexible with ferrules to DIN 46228<br>2 x (1 - 4) $mm^2$, flexible with ferrules to DIN 46228<br>1 x 10 $mm^2$ with fork terminal<br>2 x 10 $mm^2$ with fork terminal |
| Screw size | M4, Terminal screw |
| Tightening torque | 1.6 Nm, Screw terminals |
| **Electrical rating** | |
| 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. |
| **Short-circuit rating** | |
| Rated conditional short-circuit current (Iq) | 80 kA |
| Rated short-time withstand current (Icw) | 0.64 kA<br>640 A, Contacts, 1 second |
| Short-circuit protection rating | 50 A gG/gL, Fuse, Contacts |
| **Switching capacity** | |
| Load rating | 1.3 x I# (with intermittent operation class 12, 60 % duty factor)<br>1.6 x I# (with intermittent operation class 12, 40 % duty factor)<br>2 x I# (with intermittent operation class 12, 25 % duty factor) |
| **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 | 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. |

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| 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])

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|---|---|---|---|
| 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 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 | | | 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 | | | No |
| Colour control element | | | Black |
| Type of control element | | | Door coupling rotary drive |
| Interlockable | | | Yes |
| Type of electrical connection of main circuit | | | Screw connection |

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| Degree of protection (IP), front side | | | IP65 |
| Degree of protection (NEMA) | | | |