



## Eaton 199957

Eaton Moeller® series P1 Main switch, 40 A, rear mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position, with 25mm shaft and interlock extension

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| <b>PRODUCT NAME</b>         | Eaton Moeller® series P1 Main switch                                  |
| <b>CATALOG NUMBER</b>       | 199957                                                                |
| <b>PRODUCT LENGTH/DEPTH</b> | 149 mm                                                                |
| <b>PRODUCT HEIGHT</b>       | 114 mm                                                                |
| <b>PRODUCT WIDTH</b>        | 92 mm                                                                 |
| <b>PRODUCT WEIGHT</b>       | 0.267 kg                                                              |
| <b>COMPLIANCES</b>          | UKCA<br>CE                                                            |
| <b>CERTIFICATIONS</b>       | IEC/EN 60947<br>IEC/EN 60947-3<br>IEC/EN 60204                        |
| <b>CATALOG NOTES</b>        | Rated Short-time<br>Withstand Current (Icw)<br>for a time of 1 second |

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| <b>PRODUCT CATEGORY</b>                                                                 | Main switch                                                                                                                      |
| <b>FEATURES</b>                                                                         | Version as main switch<br>Version as maintenance-<br>/service switch<br>Version as emergency stop<br>installation                |
| <b>ACTUATOR COLOR</b>                                                                   | Red                                                                                                                              |
| <b>10.10 TEMPERATURE RISE</b>                                                           | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| <b>10.11 SHORT-CIRCUIT RATING</b>                                                       | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>                                              | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.13 MECHANICAL FUNCTION</b>                                                        | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                                                                                       |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | UV resistance only in connection with protective shield.                                                                         |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product                                                                                                                |

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|                                                                 | standard's requirements.                                                       |
| <b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>                  | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                   | Meets the product standard's requirements.                                     |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>   | Does not apply, since the entire switchgear needs to be evaluated.             |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>        | Is the panel builder's responsibility.                                         |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                 | Is the panel builder's responsibility.                                         |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                         | Is the panel builder's responsibility.                                         |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b> | Is the panel builder's responsibility.                                         |
| <b>FITTED WITH:</b>                                             | Red rotary handle and yellow locking ring                                      |
| <b>OPERATING FREQUENCY</b>                                      | 50 Operations/h                                                                |
| <b>POLLUTION DEGREE</b>                                         | 3                                                                              |
| <b>CLIMATIC PROOFING</b>                                        | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                   | 6000 V AC                                                                      |
| <b>RATED PERMANENT CURRENT AT AC-21, 400 V</b>                  | 40 A                                                                           |
| <b>RATED PERMANENT CURRENT AT AC-23, 400 V</b>                  | 40 A                                                                           |
| <b>RATED UNINTERRUPTED CURRENT (IU)</b>                         | 40 A                                                                           |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>       | 0 W                                                                            |
| <b>SWITCHING ANGLE</b>                                          | 90 °                                                                           |
| <b>SWITCHING POWER AT 400 V</b>                                 | 22 kW                                                                          |
| <b>DEVICE CONSTRUCTION</b>                                      | Built-in device fixed built-in technique                                       |

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| <b>RATED SHORT-TIME WITHSTAND CURRENT (ICW)</b>                | 0.64 kA<br>640 A, Contacts, 1 second                                                    |
| <b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>              | Screw connection                                                                        |
| <b>MOUNTING POSITION</b>                                       | As required                                                                             |
| <b>ACTUATOR TYPE</b>                                           | Door coupling rotary drive                                                              |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                     | 50 °C                                                                                   |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                     | -25 °C                                                                                  |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>          | 40 °C                                                                                   |
| <b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>          | -25 °C                                                                                  |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>      | 0 W                                                                                     |
| <b>HEAT DISSIPATION CAPACITY PDISS</b>                         | 0 W                                                                                     |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>       | 1.9 W                                                                                   |
| <b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>     | 0                                                                                       |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b> | 0                                                                                       |
| <b>HANDLE COLOR</b>                                            | Red/yellow                                                                              |
| <b>RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)</b>            | 80 kA                                                                                   |
| <b>OVERVOLTAGE CATEGORY</b>                                    | III                                                                                     |
| <b>CONTROL CIRCUIT RELIABILITY</b>                             | 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA) |
| <b>DEGREE OF PROTECTION (FRONT SIDE)</b>                       | IP65                                                                                    |
| <b>NUMBER OF POLES</b>                                         | Three-pole                                                                              |
| <b>MOUNTING METHOD</b>                                         | Rear mounting                                                                           |
| <b>DEGREE OF PROTECTION</b>                                    | IP65                                                                                    |
| <b>LOCKING FACILITY</b>                                        | Lockable in the 0 (Off) position                                                        |
| <b>FUNCTIONS</b>                                               | Emergency switching off function                                                        |

|                                                                      |                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                      | Interlockable                                                                                                                                                                                                                                                                                                                                               |
| <b>NUMBER OF SWITCHES</b>                                            | 1                                                                                                                                                                                                                                                                                                                                                           |
| <b>SAFE ISOLATION</b>                                                | 440 V AC, Between the contacts, According to EN 61140                                                                                                                                                                                                                                                                                                       |
| <b>SCREW SIZE</b>                                                    | M4, Terminal screw                                                                                                                                                                                                                                                                                                                                          |
| <b>SHOCK RESISTANCE</b>                                              | 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms                                                                                                                                                                                                                                                                               |
| <b>LIFESPAN, MECHANICAL</b>                                          | 300,000 Operations                                                                                                                                                                                                                                                                                                                                          |
| <b>LOAD RATING</b>                                                   | <p>1.3 x I<sub>e</sub> (with intermittent operation class 12, 60 % duty factor)</p> <p>1.6 x I<sub>e</sub> (with intermittent operation class 12, 40 % duty factor)</p> <p>2 x I<sub>e</sub> (with intermittent operation class 12, 25 % duty factor)</p>                                                                                                   |
| <b>TERMINAL CAPACITY</b>                                             | <p>1 x (1.5 - 6) mm<sup>2</sup>, solid or stranded</p> <p>2 x (1.5 - 6) mm<sup>2</sup>, solid or stranded</p> <p>1 x (1 - 4) mm<sup>2</sup>, flexible with ferrules to DIN 46228</p> <p>2 x (1 - 4) mm<sup>2</sup>, flexible with ferrules to DIN 46228</p> <p>1 x 10 mm<sup>2</sup> with fork terminal</p> <p>2 x 10 mm<sup>2</sup> with fork terminal</p> |
| <b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>         | 0                                                                                                                                                                                                                                                                                                                                                           |
| <b>RATED BREAKING CAPACITY AT 400/415 V (COS PHI TO IEC 60947-3)</b> | 290 kA                                                                                                                                                                                                                                                                                                                                                      |
| <b>RATED BREAKING CAPACITY AT 660/690 V (COS PHI TO IEC 60947-3)</b> | 130 kA                                                                                                                                                                                                                                                                                                                                                      |
| <b>RATED OPERATING VOLTAGE (UE) - MAX</b>                            | 690 V                                                                                                                                                                                                                                                                                                                                                       |
| <b>RATED OPERATING VOLTAGE (UE) - MIN</b>                            | 690 V                                                                                                                                                                                                                                                                                                                                                       |
| <b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>                    | 690 V                                                                                                                                                                                                                                                                                                                                                       |
| <b>SHORT-CIRCUIT PROTECTION RATING</b>                               | 50 A gG/gL, Fuse, Contacts                                                                                                                                                                                                                                                                                                                                  |
| <b>RATED OPERATIONAL CURRENT (IE) AT AC-21, 440 V</b>                | 40 A                                                                                                                                                                                                                                                                                                                                                        |

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| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-21,<br/>500 V</b>                | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-21,<br/>690 V</b>                | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-22,<br/>380 V, 400 V, 415 V</b>  | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-22,<br/>500 V</b>                | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-22,<br/>690 V</b>                | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-23A,<br/>230 V</b>               | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-23A,<br/>400 V, 415 V</b>        | 40 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-23A,<br/>690 V</b>               | 20 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-3,<br/>220 V, 230 V, 240 V</b>   | 30 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-3,<br/>380 V, 400 V, 415 V</b>   | 30 A    |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-3,<br/>660 V, 690 V</b>          | 17 A    |
| <b>RATED OPERATIONAL<br/>CURRENT FOR SPECIFIED<br/>HEAT DISSIPATION (IN)</b> | 40 A    |
| <b>RATED OPERATIONAL<br/>POWER AT AC-23A,<br/>220/230 V, 50 HZ</b>           | 11 kW   |
| <b>RATED OPERATIONAL<br/>POWER AT AC-23A, 400 V,<br/>50 HZ</b>               | 22 kW   |
| <b>RATED OPERATIONAL<br/>POWER AT AC-23A, 690 V,<br/>50 HZ</b>               | 18.5 kW |
| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 380/400<br/>V, 50 HZ</b>             | 15 kW   |
| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 415 V, 50<br/>HZ</b>                 | 15 kW   |
| <b>RATED OPERATIONAL<br/>POWER AT AC-3, 690 V, 50</b>                        | 15 kW   |

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| HZ                    |                                                                     |
| TIGHTENING TORQUE     | 1.6 Nm, Screw terminals                                             |
| UNINTERRUPTED CURRENT | Rated uninterrupted current Iu is specified for max. cross-section. |

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|-----------------|
| PROJECT NAME:   |
| PROJECT NUMBER: |
| PREPARED BY:    |
|                 |



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