

# Specifications



## Eaton 106807

Eaton Moeller® series LS Position switch, Rounded plunger, Basic device, expandable, 1 N/O, 1 NC, Screw terminal, Black, Insulated material, -25 - +70 °C

### General specifications

|                             |   |
|-----------------------------|---|
| <b>PRODUCT NAME</b>         | Eaton Moeller® series LS Position switch  |
| <b>CATALOG NUMBER</b>       | 106807  |
| <b>MODEL CODE</b>           | LS-S11-SW   |
| <b>EAN</b>                  | 4015081065745   |
| <b>PRODUCT LENGTH/DEPTH</b> | 33.5 mm   |
| <b>PRODUCT HEIGHT</b>       | 76.5 mm   |
| <b>PRODUCT WIDTH</b>        | 31 mm   |
| <b>PRODUCT WEIGHT</b>       | 0.052 kg  |
| <b>CERTIFICATIONS</b>       | CSA Class No.: 3211-03<br>CSA File No.: 012528<br>UL 508<br>UL File No.: E29184<br>CSA<br>IEC/EN 60947-5<br>IEC/EN 60947<br>CE<br>UL Category Control No.: NKCR<br>CSA-C22.2 No. 14<br>UL |
| <b>CATALOG NOTES</b>        | Contacts with safety function, by positive opening to IEC/EN 60947-5-1  |
| <b>GLOBAL CATALOG</b>       | 106807  |

## Product specifications

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| <b>TYPE</b>   | <ul style="list-style-type: none"> <li>Position switch</li> <li>Safety position switch</li> </ul>                                |
| <b>FEATURES</b>   | Expandable<br>Positive opening<br>Forced opening   |
| <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>                                 | Meets the product standard's requirements.   |
| <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  |

## Resources

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|----------------------------|--|
| CATALOGS                   | <a href="#">eaton-pushbuttons-signal-towers-sensors-assortment-overview-catalog-ca047003en-en-us.pdf</a><br><br><a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>   |
| CONTROL TRAVEL DIAGRAM     | <a href="#">eaton-position-switches-diagram-ls-contact-travel-diagram-011.eps</a>  |
| DECLARATIONS OF CONFORMITY | <a href="#">eaton-position-switch-declaration-of-conformity-eu250549en.pdf</a><br><br><a href="#">eaton-position-switch-declaration-of-conformity-uk251032en.pdf</a>   |
| DRAWINGS                   | <a href="#">eaton-position-switches-plunger-ls-dimensions-004.eps</a><br><br><a href="#">eaton-position-switches-plunger-ls-dimensions-002.eps</a><br><br><a href="#">eaton-operating-button-symbol-005.eps</a><br><br><a href="#">eaton-position-switches-plunger-ls-3d-drawing.eps</a> |
| ECAD MODEL                 | <a href="#">ETN.106807.edz</a>   |
| INSTALLATION INSTRUCTIONS  | <a href="#">IL053001ZU</a>   |
| MCAD MODEL                 | <a href="#">DA-CS-ls</a> <a href="#">DA-CD-ls</a>  |
| SALES NOTES                | <a href="#">eaton-safety-switches-rs-titan-flyer-fl053001en-en-us.pdf</a>  |
| WIRING DIAGRAMS            | <a href="#">eaton-position-switches-contact-ls-wiring-diagram.eps</a>  |

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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>ELECTRIC CONNECTION TYPE</b>                                 | Cable entry metrical   |
| <b>ENCLOSURE MATERIAL FINISHING</b>                             | Other  |
| <b>OPERATING FREQUENCY</b>                                      | 6000 Operations/h  |
| <b>POLLUTION DEGREE</b>   | 3  |
| <b>ACTUATOR ALIGNMENT</b>                                       | Roller cam straight  |
| <b>CLIMATIC PROOFING</b>  | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78 |
| <b>ENCLOSURE MATERIAL</b>                                       | Plastic<br>Insulated material  |
| <b>ENCLOSURE TYPE</b>   | Cuboid   |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V</b>           | 0.6 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-13, 125 V</b>           | 0.8 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-13, 220 V, 230 V</b>    | 0.3 A  |
| <b>RATED OPERATIONAL CURRENT (IE) AT DC-13, 24 V</b>            | 3 A  |

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| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b> | 6 A   |
| <b>SENSOR HEIGHT</b>   | 61 mm   |
| <b>SENSOR LENGTH</b>   | 33.5 mm   |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>            | 0 W   |
| <b>WIDTH SENSOR</b>  | 31 mm   |
| <b>PRODUCT CATEGORY</b>  | Rounded plunger                                   |
| <b>ACTION</b>  | 2020122120328-Mechanical Limit Switches.xlsm-Data |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                        | 4000 V AC   |
| <b>ENCLOSURE COLOR</b>   | Black (Cover)                                     |
| <b>ACTUATING FORCE AT BEGINNING/END OF STROKE</b>                    | 1.0 N/8.0 N                                       |
| <b>EXPLOSION SAFETY CATEGORY FOR DUST</b>                            | None  |
| <b>EXPLOSION SAFETY CATEGORY FOR GAS</b>                             | None  |
| <b>ACTUATOR TYPE</b>   | Plunger   |
| <b>ACTUATING TORQUE OF ROTARY DRIVES</b>                             | 0.2 Nm  |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                           | 70 °C   |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                           | -25 °C  |
| <b>DIAMETER SENSOR</b>   | 0 mm  |
| <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>             | 0.17 W  |
| <b>NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)</b>                     | 0   |
| <b>NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)</b>                 | 1   |
| <b>NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)</b>                   | 1   |

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| <b>NUMBER OF SAFETY<br/>AUXILIARY CONTACTS</b>                              | 1  |
| <b>RATED INSULATION<br/>VOLTAGE (UI)</b>                                    | 400 V  |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>125 V</b>               | 6 A  |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>220 V, 230 V, 240 V</b> | 6 A  |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>24 V</b>                | 6 A  |
| <b>RATED OPERATIONAL<br/>CURRENT (IE) AT AC-15,<br/>380 V, 400 V, 415 V</b> | 4 A  |
| <b>MOUNTING POSITION</b>  | As required  |
| <b>RATED CONDITIONAL<br/>SHORT-CIRCUIT CURRENT<br/>(IQ)</b>                 | 1 kA   |
| <b>OVERVOLTAGE<br/>CATEGORY</b>   | III  |
| <b>CONTROL CIRCUIT<br/>RELIABILITY</b>                                      | 1 failure per 10,000,000<br>switching operations<br>(Statistically determined,<br>at 24 V DC/5 mA)<br>1 failure per 5,000,000<br>switching operations<br>(statistically determined,<br>at 5 V DC/1 mA) |
| <b>CONNECTION TYPE</b>  | Screw terminal   |
| <b>TEMPERATURE<br/>RESISTANCE</b>   | 100 °C, Contact<br>temperature of roller head  |
| <b>DEGREE OF PROTECTION</b>   | IP66/IP67<br>NEMA Other  |
| <b>INTERFACE TYPE</b>   | None   |
| <b>SWITCH FUNCTION TYPE</b>   | Quick-break switch   |
| <b>LIFESPAN</b>   | 8,000,000 mechanical<br>Operations   |
| <b>REPETITION ACCURACY</b>  | 0.15 mm<br>(Contacts/switching<br>capacity)  |
| <b>SHOCK RESISTANCE</b>   | 25 g, Standard-action<br>contact, Mechanical, Half-<br>sinusoidal shock 20 ms  |
| <b>SUPPLY FREQUENCY</b>   | Max. 400 Hz, Contacts  |
| <b>SUITABLE FOR</b>   | Safety functions   |
| <b>OPERATING SPEED</b>  | Max. 1/0.5 m/s (with DIN<br>cam, mechanical<br>actuation)<br>For angle of actuation $\alpha$ =   |

|  |                                 |
|--|---------------------------------|
|  | 0°/30°                          |
| <b>SHORT-CIRCUIT PROTECTION RATING</b>           | Max. 6 A gG/gL, Fuse, Contacts  |
| <b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b> | 1 x (0.5 - 1.5) mm <sup>2</sup> |
| <b>TERMINAL CAPACITY (SOLID)</b>                 | 1 x (0.5 - 2.5) mm <sup>2</sup> |

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| <b>PROJECT NAME:</b>   |
| <b>PROJECT NUMBER:</b> |
| <b>PREPARED BY:</b>    |
| <b>DATE:</b>           |



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