

## Eaton 272009

Eaton Moeller® series LS Position switch, Rounded plunger, Basic device, expandable, 2 NC, Cage Clamp, Black, Insulated material, -25 - +70 °C

| 0000                    |                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRODUCT NAME            | Eaton Moeller® series LS<br>Position switch                                                                                                                 |
| CATALOG NUMBER          | 272009                                                                                                                                                      |
| PRODUCT<br>LENGTH/DEPTH | 33.5 mm                                                                                                                                                     |
| PRODUCT HEIGHT          | 76.5 mm                                                                                                                                                     |
| PRODUCT WIDTH           | 31 mm                                                                                                                                                       |
| PRODUCT WEIGHT          | 0.051 kg                                                                                                                                                    |
| CERTIFICATIONS          | UL 508 CSA File No.: 012528 UL File No.: E29184 IEC/EN 60947 CE UL CSA CSA Class No.: 3211-03 CSA-C22.2 No. 14 IEC/EN 60947-5 UL Category Control No.: NKCR |



| ТҮРЕ                                                                             | Safety position switch                                                                                                           |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| FEATURES                                                                         | Forced opening<br>Positive opening<br>Expandable                                                                                 |
| 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<br>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<br>FUNCTION                                                     | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| 10.2.2 CORROSION<br>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<br>ULTRA-VIOLET (UV)<br>RADIATION                           | Meets the product standard's requirements.                                                                                       |
| 10.2.5 LIFTING                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.6 MECHANICAL<br>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                                                     | Does not apply, since the entire switchgear needs to                                                                             |

| DECLARATIONS OF<br>CONFORMITY | eaton-position-switch-<br>declaration-of-conformity-<br>uk251032en.pdf    |
|-------------------------------|---------------------------------------------------------------------------|
| 00000                         | <u>IL053001ZU</u>                                                         |
| 000                           | eaton-position-switches-<br>contact-ls-wiring-diagram-<br>003.eps         |
| 00000                         | eaton-position-switches-<br>diagram-ls-contact-travel-<br>diagram-013.eps |
|                               | eaton-position-switches-<br>plunger-ls-dimensions-<br>004.eps             |
| 00                            | eaton-position-switches-<br>plunger-ls-dimensions-<br>002.eps             |
|                               | eaton-operating-button-<br>symbol-005.eps                                 |
|                               | eaton-position-switches-<br>plunger-ls-3d-drawing.eps                     |

| ASSEMBLIES                                                          | be evaluated.                                                                        |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 10.4 CLEARANCES AND CREEPAGE DISTANCES                              | Meets the product standard's requirements.                                           |
| 10.5 PROTECTION<br>AGAINST ELECTRIC<br>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                   | ls the panel builder's responsibility.                                               |
| 10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS                            | ls the panel builder's responsibility.                                               |
| 10.9.2 POWER-<br>FREQUENCY ELECTRIC<br>STRENGTH                     | ls the panel builder's responsibility.                                               |
| 10.9.3 IMPULSE<br>WITHSTAND VOLTAGE                                 | ls the panel builder's responsibility.                                               |
| 10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL            | ls the panel builder's responsibility.                                               |
| ELECTRIC CONNECTION TYPE                                            | Cable entry metrical                                                                 |
| ENCLOSURE MATERIAL FINISHING                                        | Other                                                                                |
| OPERATING FREQUENCY                                                 | 6000 Operations/h                                                                    |
| POLLUTION DEGREE                                                    | 3                                                                                    |
| ACTUATOR ALIGNMENT                                                  | Roller cam straight                                                                  |
| CLIMATIC PROOFING                                                   | Damp heat, cyclic, to IEC<br>60068-2-30<br>Damp heat, constant, to<br>IEC 60068-2-78 |
| ENCLOSURE MATERIAL                                                  | Plastic<br>Insulated material                                                        |
| ENCLOSURE TYPE                                                      | Cuboid                                                                               |
| RATED OPERATIONAL<br>CURRENT (IE) AT DC-13,<br>110 V                | 0.6 A                                                                                |
| RATED OPERATIONAL<br>CURRENT (IE) AT DC-13,<br>125 V                | 0.8 A                                                                                |
| RATED OPERATIONAL<br>CURRENT (IE) AT DC-13,<br>220 V, 230 V         | 0.3 A                                                                                |
| RATED OPERATIONAL<br>CURRENT (IE) AT DC-13,<br>24 V                 | 3 A                                                                                  |
| RATED OPERATIONAL<br>CURRENT FOR SPECIFIED<br>HEAT DISSIPATION (IN) | 6 A                                                                                  |

| SENSOR HEIGHT                                            | 61 mm                                                    |
|----------------------------------------------------------|----------------------------------------------------------|
| SENSOR LENGTH                                            | 33.5 mm                                                  |
| STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS      | 0 W                                                      |
| WIDTH SENSOR                                             | 31 mm                                                    |
| PRODUCT CATEGORY                                         | Rounded plunger                                          |
| ACTION                                                   | 2021118113756-<br>Mechanical Limit<br>Switches.xlsm-Data |
| RATED IMPULSE<br>WITHSTAND VOLTAGE<br>(UIMP)             | 4000 V AC                                                |
| ENCLOSURE COLOR                                          | Black (Cover)                                            |
| ACTUATING FORCE AT BEGINNING/END OF STROKE               | 1.0 N/8.0 N                                              |
| EXPLOSION SAFETY CATEGORY FOR DUST                       | None                                                     |
| EXPLOSION SAFETY CATEGORY FOR GAS                        | None                                                     |
| ACTUATOR TYPE                                            | Plunger                                                  |
| ACTUATING TORQUE OF ROTARY DRIVES                        | 0.2 Nm                                                   |
| AMBIENT OPERATING<br>TEMPERATURE - MAX                   | 70 °C                                                    |
| AMBIENT OPERATING<br>TEMPERATURE - MIN                   | -25 °C                                                   |
| DIAMETER SENSOR                                          | 0 mm                                                     |
| EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID      | 0 W                                                      |
| HEAT DISSIPATION CAPACITY PDISS                          | 0 W                                                      |
| HEAT DISSIPATION PER<br>POLE, CURRENT-<br>DEPENDENT PVID | 0.17 W                                                   |
| NUMBER OF CONTACTS<br>(CHANGE-OVER<br>CONTACTS)          | 0                                                        |
| NUMBER OF CONTACTS<br>(NORMALLY CLOSED<br>CONTACTS)      | 2                                                        |
| NUMBER OF CONTACTS<br>(NORMALLY OPEN<br>CONTACTS)        | 0                                                        |
| NUMBER OF SAFETY<br>AUXILIARY CONTACTS                   | 2                                                        |
| RATED INSULATION                                         | 400 V                                                    |

| VOLTAGE (UI)                                                       |                                                                                                                                                                                                        |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RATED OPERATIONAL<br>CURRENT (IE) AT AC-15,<br>125 V               | 6 A                                                                                                                                                                                                    |
| RATED OPERATIONAL<br>CURRENT (IE) AT AC-15,<br>220 V, 230 V, 240 V | 6 A                                                                                                                                                                                                    |
| RATED OPERATIONAL<br>CURRENT (IE) AT AC-15,<br>24 V                | 6 A                                                                                                                                                                                                    |
| RATED OPERATIONAL<br>CURRENT (IE) AT AC-15,<br>380 V, 400 V, 415 V | 4 A                                                                                                                                                                                                    |
| MOUNTING POSITION                                                  | As required                                                                                                                                                                                            |
| RATED CONDITIONAL<br>SHORT-CIRCUIT CURRENT<br>(IQ)                 | 1 kA                                                                                                                                                                                                   |
| OVERVOLTAGE<br>CATEGORY                                            | III                                                                                                                                                                                                    |
| CONTROL CIRCUIT RELIABILITY                                        | 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) |
| CONNECTION TYPE                                                    | Cage Clamp                                                                                                                                                                                             |
| TEMPERATURE<br>RESISTANCE                                          | 100 °C, Contact<br>temperature of roller head                                                                                                                                                          |
| DEGREE OF PROTECTION                                               | IP66/IP67<br>NEMA Other                                                                                                                                                                                |
| INTERFACE TYPE                                                     | None                                                                                                                                                                                                   |
| SWITCH FUNCTION TYPE                                               | Slow-action switch                                                                                                                                                                                     |
| LIFESPAN                                                           | 8,000,000 mechanical<br>Operations                                                                                                                                                                     |
|                                                                    | 0.15 mm                                                                                                                                                                                                |
| REPETITION ACCURACY                                                | (Contacts/switching capacity)                                                                                                                                                                          |
| SHOCK RESISTANCE                                                   | (Contacts/switching                                                                                                                                                                                    |
|                                                                    | (Contacts/switching capacity)  25 g, Standard-action contact, Mechanical, Half-                                                                                                                        |
| SHOCK RESISTANCE                                                   | (Contacts/switching capacity)  25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms                                                                                                  |
| SHOCK RESISTANCE SUPPLY FREQUENCY                                  | (Contacts/switching capacity)  25 g, Standard-action contact, Mechanical, Halfsinusoidal shock 20 ms  Max. 400 Hz, Contacts                                                                            |

**TERMINAL CAPACITY** (FLEXIBLE WITH **FERRULE)** 

1 x (0.5 - 1.5) mm<sup>2</sup>

**TERMINAL CAPACITY** (SOLID)

1 x (0.5 - 2.5) mm<sup>2</sup>

**PROJECT NAME:** 

**PROJECT NUMBER:** 

**PREPARED BY:** 

□□:



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