## **DATASHEET - T0-1-15511/E**

ON-OFF button, T0, 20 A, flush mounting, 1 contact unit(s), Contacts: 2, Spring-return in START position, 90 °, maintained, With 0 (Off) position, With spring-return to 1, 0-1<START, Design number 15511



| Part no.  | T0-1-15511/E |
|-----------|--------------|
|           | 019875       |
| EL Number | 1456260      |
| (Norway)  |              |

## **General specifications**

| General specifications                 |                                                                                                                                                                                                                                                           |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                           | Eaton Moeller® series T0 Accessory ON OFF button                                                                                                                                                                                                          |
| Part no.                               | T0-1-15511/E                                                                                                                                                                                                                                              |
| EAN                                    | 4015080198758                                                                                                                                                                                                                                             |
| Product Length/Depth                   | 76 millimetre                                                                                                                                                                                                                                             |
| Product height                         | 48 millimetre                                                                                                                                                                                                                                             |
| Product width                          | 48 millimetre                                                                                                                                                                                                                                             |
| Product weight                         | 0.083 kilogram                                                                                                                                                                                                                                            |
| Certifications                         | UL<br>UL File No.: E36332<br>CSA-C22.2 No. 60947-4-1-14<br>CSA<br>UL 60947-4-1<br>CSA Class No.: 3211-05<br>VDE 0660<br>CE<br>UL Category Control No.: NLRV<br>IEC/EN 60947<br>CSA File No.: 012528<br>IEC/EN 60947-3<br>IEC/EN 60204<br>CSA-C22.2 No. 94 |
| Product Tradename                      | ТО                                                                                                                                                                                                                                                        |
| Product Type                           | Accessory                                                                                                                                                                                                                                                 |
| Product Sub Type                       | ON OFF button                                                                                                                                                                                                                                             |
| Catalog Notes                          | Rated Short-time Withstand Current (Icw) for a time of 1 second                                                                                                                                                                                           |
| Features & Functions                   |                                                                                                                                                                                                                                                           |
| Fitted with:                           | 0 (off) position<br>Black thumb grip and front plate<br>Retraction in 0-position                                                                                                                                                                          |
| Inscription                            | " 0-1 <start "<="" td=""></start>                                                                                                                                                                                                                         |
| Number of poles                        | Two-pole                                                                                                                                                                                                                                                  |
| General information                    |                                                                                                                                                                                                                                                           |
| Degree of protection                   | NEMA 1<br>IP65<br>NEMA 12                                                                                                                                                                                                                                 |
| Degree of protection (front side)      | IP65<br>NEMA 12                                                                                                                                                                                                                                           |
| Lifespan, mechanical                   | 400,000 Operations                                                                                                                                                                                                                                        |
| Mounting method                        | Flush mounting                                                                                                                                                                                                                                            |
| Mounting position                      | As required                                                                                                                                                                                                                                               |
| Number of contact units                | 1                                                                                                                                                                                                                                                         |
| Operating frequency                    | 1200 Operations/h                                                                                                                                                                                                                                         |
| Overvoltage category                   | III.                                                                                                                                                                                                                                                      |
| Pollution degree                       | 3                                                                                                                                                                                                                                                         |
| Product category                       | Control switches                                                                                                                                                                                                                                          |
| 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                           | Branch circuits, suitable as motor disconnect, (UL/CSA)<br>Front mounting                                                                                                                                                                                 |
| Switching angle                        | 90 °                                                                                                                                                                                                                                                      |
| Туре                                   | ON-OFF button                                                                                                                                                                                                                                             |

| Climatic environmental conditions                                      |                                                                                            |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Ambient operating temperature - min                                    | -25 °C                                                                                     |
| Ambient operating temperature - max                                    | 50 °C                                                                                      |
| Ambient operating temperature (enclosed) - min                         | -25 °C                                                                                     |
| Ambient operating temperature (enclosed) - max                         | 40 °C                                                                                      |
| Climatic proofing                                                      | Damp heat, cyclic, to IEC 60068-2-30                                                       |
|                                                                        | Damp heat, constant, to IEC 60068-2-78                                                     |
| Terminal capacities                                                    |                                                                                            |
| Terminal capacity (flexible with ferrule)                              | 2 x (0.75 - 2.5) mm², ferrules to DIN 46228<br>1 x (0.75 - 2.5) mm², ferrules to DIN 46228 |
| Torminal consciet (astid/flouible with formula AM/C)                   |                                                                                            |
| Terminal capacity (solid/flexible with ferrule AWG)                    | 18 - 14<br>2 x (1 2 5) mm <sup>2</sup>                                                     |
| Terminal capacity (solid/stranded)                                     | 2 x (1 - 2.5) mm <sup>2</sup><br>1 x (1 - 2.5) mm <sup>2</sup>                             |
| Screw size                                                             | M3.5, Terminal screw                                                                       |
| Tightening torque                                                      | 1 Nm, Screw terminals<br>8.8 lb-in, Screw terminals                                        |
| Electrical rating                                                      |                                                                                            |
|                                                                        |                                                                                            |
| Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)          | 100 A                                                                                      |
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)          | 110 A                                                                                      |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3)              | 80 A                                                                                       |
| Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)          | 60 A                                                                                       |
| Rated operating voltage (Ue) at AC - max                               | 690 V                                                                                      |
| Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V            | 11.5 A                                                                                     |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V            | 11.5 A                                                                                     |
| Rated operational current (Ie) at AC-3, 500 V                          | 9 A                                                                                        |
| Rated operational current (Ie) at AC-3, 660 V, 690 V                   | 4.9 A                                                                                      |
| Rated operational current (Ie) at AC-21, 440 V                         | 20 A                                                                                       |
| Rated operational current (Ie) at AC-23A, 230 V                        | 13.3 A                                                                                     |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V                 | 13.3 A                                                                                     |
| Rated operational current (Ie) at AC-23A, 500 V                        | 13.3 A                                                                                     |
| Rated operational current (Ie) at AC-23A, 690 V                        | 7.6 A                                                                                      |
| Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms | 10 A                                                                                       |
| Rated operational current (Ie) at DC-13, control switches L/R = 50 ms  | 10 A                                                                                       |
| Rated operational current (Ie) at DC-21, 240 V                         | 1A                                                                                         |
| Rated operational current (Ie) at DC-23A, 24 V                         | 10 A                                                                                       |
| Rated operational current (Ie) at DC-23A, 48 V                         | 10 A                                                                                       |
| Rated operational current (Ie) at DC-23A, 60 V                         | 10 A                                                                                       |
| Rated operational current (Ie) at DC-23A, 120 V                        | 5 A                                                                                        |
| Rated operational current (Ie) at DC-23A, 240 V                        | 5 A                                                                                        |
| Rated operational current (Ie) star-delta at AC-3, 230 V               | 20 A                                                                                       |
| Rated operational current (Ie) star-delta at AC-3, 400 V               | 20 A                                                                                       |
| Rated operational current (Ie) star-delta at AC-3, 500 V               | 15.6 A                                                                                     |
| Rated operational current (Ie) star-delta at AC-3, 690 V               | 8.5 A                                                                                      |
| Rated operational power at AC-3, 415 V, 50 Hz                          | 5.5 kW                                                                                     |
| Rated operational power at AC-3, 500 V, 50 Hz                          | 5.5 kW                                                                                     |
| Rated operational power at AC-3, 690 V, 50 Hz                          | 4 kW                                                                                       |
| Rated operational power at AC-23A, 220/230 V, 50 Hz                    | 3 kW                                                                                       |
| Rated operational power at AC-23A, 400 V, 50 Hz                        | 5.5 kW                                                                                     |
| Rated operational power at AC-23A, 500 V, 50 Hz                        | 7.5 kW                                                                                     |
| Rated operational power at AC-23A, 690 V, 50 Hz                        | 5.5 kW                                                                                     |
| Rated operational power star-delta at 220/230 V, 50 Hz                 | 5.5 kW                                                                                     |
| Rated operational power star-delta at 380/400 V, 50 Hz                 | 7.5 kW                                                                                     |
| Rated operational power star-delta at 500 V, 50 Hz                     | 7.5 kW                                                                                     |
| Rated operational power star-delta at 690 V, 50 Hz                     | 5.5 kW                                                                                     |
| Rated uninterrupted current (lu)                                       | 20 A                                                                                       |
| Uninterrupted current                                                  | Rated uninterrupted current lu is specified for max. cross-section.                        |
|                                                                        | ומנכם מהחנכו משונים כמורפות זמ זא אפטווכם זמן ווומא. נוטאס־אפטוטוו.                        |

| Short-circuit rating                                                             |                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated conditional short-circuit current (Iq)                                     | 6 kA                                                                                                                                                                                                      |
| Rated short-time withstand current (Icw)                                         | 320 A, Contacts, 1 second                                                                                                                                                                                 |
| Short-circuit current rating (basic rating)                                      | 50A, max. Fuse, SCCR (UL/CSA)                                                                                                                                                                             |
|                                                                                  | 5 kA, SCCR (UL/CSA)                                                                                                                                                                                       |
| Short-circuit current rating (high fault)                                        | 10 kA, SCCR (UL/CSA)<br>20 A, Class J, max. Fuse, SCCR (UL/CSA)                                                                                                                                           |
| Short-circuit protection rating                                                  | 20 A gG/gL, Fuse, Contacts                                                                                                                                                                                |
| Switching capacity                                                               |                                                                                                                                                                                                           |
| Load rating                                                                      | 2 x l# (with intermittent operation class 12, 25 % duty factor)<br>1.6 x l# (with intermittent operation class 12, 40 % duty factor)<br>1.3 x l# (with intermittent operation class 12, 60 % duty factor) |
| Number of contacts in series at DC-21A, 240 V                                    | 1                                                                                                                                                                                                         |
| 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                                     | 3                                                                                                                                                                                                         |
| Number of contacts in series at DC-23A, 120 V                                    | 3                                                                                                                                                                                                         |
| Number of contacts in series at DC-23A, 240 V                                    | 5                                                                                                                                                                                                         |
| Switching capacity (main contacts, general use)                                  | 16 A, Rated uninterrupted current max. (UL/CSA)                                                                                                                                                           |
| Switching capacity (auxiliary contacts, general use)                             | 10A, IU, (UL/CSA)                                                                                                                                                                                         |
| Switching capacity (auxiliary contacts, pilot duty)                              | P300 (UL/CSA)<br>A600 (UL/CSA)                                                                                                                                                                            |
| Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)                    | 130 A                                                                                                                                                                                                     |
| Voltage per contact pair in series                                               | 60 V                                                                                                                                                                                                      |
| Motor rating                                                                     |                                                                                                                                                                                                           |
| Assigned motor power at 115/120 V, 60 Hz, 1-phase                                | 0.5 HP                                                                                                                                                                                                    |
| Assigned motor power at 200/208 V, 60 Hz, 1-phase                                | 1 HP                                                                                                                                                                                                      |
| Assigned motor power at 200/208 V, 60 Hz, 3-phase                                | 3 HP                                                                                                                                                                                                      |
| Assigned motor power at 230/240 V, 60 Hz, 1-phase                                | 1.5 HP                                                                                                                                                                                                    |
| Assigned motor power at 230/240 V, 60 Hz, 3-phase                                | 3 HP                                                                                                                                                                                                      |
| Assigned motor power at 460/480 V, 60 Hz, 3-phase                                | 7.5 HP                                                                                                                                                                                                    |
| Assigned motor power at 575/600 V, 60 Hz, 3-phase                                | 7.5 HP                                                                                                                                                                                                    |
| Contacts                                                                         |                                                                                                                                                                                                           |
| Control circuit reliability                                                      | 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)                                                                                                                   |
| Number of contacts                                                               | 2                                                                                                                                                                                                         |
| Actuator                                                                         |                                                                                                                                                                                                           |
| Actuator function                                                                | Spring-return in START position<br>With 0 (Off) position<br>Maintained<br>Spring-return to 1                                                                                                              |
| Actuator type                                                                    | Toggle                                                                                                                                                                                                    |
| Number of switch positions                                                       | 2                                                                                                                                                                                                         |
| Design verification                                                              |                                                                                                                                                                                                           |
| Equipment heat dissipation, current-dependent Pvid                               | 0 W                                                                                                                                                                                                       |
| Heat dissipation capacity Pdiss                                                  | 0 W                                                                                                                                                                                                       |
| Heat dissipation per pole, current-dependent Pvid                                | 0.6 W                                                                                                                                                                                                     |
| Rated operational current for specified heat dissipation (In)                    | 20 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.                                                                                                                                        |
| 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) / Control switch (EC002611)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14 [ACN998011])

| Type of switch                               |   | On/Off switch   |
|----------------------------------------------|---|-----------------|
| Number of poles                              |   | 2               |
| Max. rated operation voltage Ue AC           | V | 690             |
| Rated permanent current lu                   | А | 20              |
| Number of switch positions                   |   | 2               |
| With zero (off) position                     |   | Yes             |
| With retraction in 0-position                |   | Yes             |
| Device construction                          |   | Built-in device |
| Width in number of modular spacings          |   | 0               |
| Suitable for floor mounting                  |   | No              |
| Suitable for front mounting                  |   | Yes             |
| Suitable for distribution board installation |   | No              |
| Suitable for intermediate mounting           |   | No              |
| Complete device in housing                   |   | No              |
| Type of control element                      |   | Toggle          |
| Front shield size                            |   | 48x48 mm        |
| Degree of protection (IP), front side        |   | IP65            |
| Degree of protection (NEMA), front side      |   | 12              |
|                                              |   |                 |