DATASHEET - T0-1-15511/IVS



ON-OFF button, T0, 20 A, service distribution board mounting, 1 contact unit(s), Contacts: 2, Spring-return in START position, 90 °, maintained, 0-1<START, design no. 15511



Similar to illustration

T0-1-15511/IVS Part no. Catalog No. 026994

| Delivery program | | | |
|--|----------------|--------------------|---|
| Product range | | | Control switches |
| Part group reference | | | ТО |
| Basic function | | | ON-OFF button |
| | | | with black thumb grip and front plate |
| Contacts | | | 2 |
| Spring-return | | | Spring-return in START position |
| Degree of Protection | | | Front IP30 |
| Design | | | service distribution board mounting |
| | | | |
| Contact sequence | | | START V X X 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| Switching angle | | 0 | 90 |
| Switching performance | | | maintained With 0 (Off) position With spring-return to 1 |
| Design number | | | 15511 |
| Front plate no. | | | FS 147767 |
| front plate | | | 0-1 <start< td=""></start<> |
| Motor rating AC-23A, 50 - 60 Hz | | | |
| 400 V | P | kW | 5.5 |
| Rated uninterrupted current | I _u | Α | 20 |
| Note on rated uninterrupted current !u | | | Rated uninterrupted current I _u is specified for max. cross-section. |
| Number of contact units | | contact unit(s) | |

Technical data

| General | |
|-------------------|--|
| Standards | IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3 |
| Climatic proofing | Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30 |

| Ambient temperature | | | |
|---|------------------|-------------------|--|
| Open | | °C | -25 - +50 |
| Enclosed | | °C | -25 - +40 |
| Overvoltage category/pollution degree | | U | III/3 |
| Rated impulse withstand voltage | U _{imp} | V AC | 6000 |
| Mechanical shock resistance | ~iiiip | | 15 |
| Mounting position | | g | As required |
| Contacts | | | As required |
| Electrical characteristics | | | |
| Rated operational voltage | Ue | V AC | 690 |
| Rated uninterrupted current | Iu | Α | 20 |
| Note on rated uninterrupted current !u | | | Rated uninterrupted current I_u is specified for max. cross-section. |
| Load rating with intermittent operation, class 12 | | | |
| AB 25 % DF | | x l _e | 2 |
| AB 40 % DF | | x l _e | 1.6 |
| AB 60 % DF | | x I _e | 1.3 |
| Short-circuit rating | | | |
| Fuse | | A gG/gL | 20 |
| Rated short-time withstand current (1 s current) | I _{cw} | A _{rms} | 320 |
| Note on rated short-time withstand current lcw | | 9 | Current for a time of 1 second |
| Rated conditional short-circuit current | Iq | kA | 6 |
| Switching capacity | Ч | | |
| $\cos \phi$ rated making capacity as per IEC 60947-3 | | Α | 130 |
| Rated breaking capacity $\cos\phi$ to IEC 60947-3 | | Α | |
| 230 V | | Α | 100 |
| 400/415 V | | Α | 110 |
| 500 V | | Α | 80 |
| 690 V | | Α | 60 |
| Safe isolation to EN 61140 | | | |
| between the contacts | | V AC | 440 |
| Current heat loss per contact at I _e | | W | 0.6 |
| Current heat loss per auxiliary circuit at I _e (AC-15/230 V) | | CO | 0.6 |
| Lifespan, mechanical | Operations | x 10 ⁶ | > 0.4 |
| Maximum operating frequency | Operations/h | | 1200 |
| AC | | | |
| AC-3 | | | |
| Rating, motor load switch | P | kW | |
| 220 V 230 V | P | kW | 3 |
| 230 V Star-delta | P | kW | 5.5 |
| 400 V 415 V | P | kW | 5.5 |
| 400 V Star-delta | P | kW | 7.5 |
| 500 V | Р | kW | 5.5 |
| 500 V Star-delta | P | kW | 7.5 |
| 690 V | P | kW | 4 |
| 690 V Star-delta | P | kW | 5.5 |
| Rated operational current motor load switch | | | |
| 230 V | l _e | A | 11.5 |
| 230 V star-delta | l _e | Α | 20 |
| 400V 415 V | I _e | Α | 11.5 |
| 400 V star-delta | l _e | Α | 20 |
| 500 V | l _e | Α | 9 |
| 500 V star-delta | l _e | Α | 15.6 |
| 690 V | I _e | Α | 4.9 |
| | | | |

| AC-23A | | | |
|---|-------------------|-----------------|---|
| Motor rating AC-23A, 50 - 60 Hz | P | kW | |
| 230 V | P | kW | 3 |
| 400 V 415 V | P | kW | 5.5 |
| 500 V | P | kW | 7.5 |
| 690 V | P | kW | 5.5 |
| Rated operational current motor load switch | • | | |
| 230 V | I _e | Α | 13.3 |
| 400 V 415 V | I _e | Α | 13.3 |
| 500 V | I _e | A | 13.3 |
| 690 V | | A | 7.6 |
| DC | I _e | A | 1.0 |
| DC-1, Load-break switches L/R = 1 ms | | | |
| Rated operational current | | Α | 10 |
| | I _e | V | 60 |
| Voltage per contact pair in series DC-21A | | A | |
| | l _e | | |
| Rated operational current | I _e | Α | 1 |
| Contacts | | Quantity | l . |
| DC-23A, motor load switch L/R = 15 ms | | | |
| 24 V | | ۸ | 10 |
| Rated operational current | I _e | Α | 10 |
| Contacts | | Quantity | 1 |
| 48 V | | | |
| Rated operational current | I _e | Α | 10 |
| Contacts | | Quantity | 2 |
| 60 V | | | |
| Rated operational current | le | Α | 10 |
| Contacts | | Quantity | 3 |
| 120 V | | | |
| Rated operational current | I _e | Α | 5 |
| Contacts | | Quantity | 3 |
| 240 V | | | |
| Rated operational current | l _e | Α | 5 |
| Contacts | | Quantity | 5 |
| DC-13, Control switches L/R = 50 ms | | | |
| Rated operational current | l _e | Α | 10 |
| Voltage per contact pair in series | | V | 32 |
| Control circuit reliability at 24 V DC, 10 mA | Fault probability | H _F | $< 10^{-5}$, < 1 failure in 100,000 switching operations |
| Terminal capacities | , | | |
| Solid or stranded | | mm ² | 1 x (1 - 2,5) |
| Florible with formula to DIN 40000 | | | 2 x (1 - 2,5) |
| Flexible with ferrules to DIN 46228 | | mm ² | 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) |
| Terminal screw | | | M3.5 |
| Tightening torque for terminal screw | | Nm | 1 |
| Technical safety parameters: | | | |
| Notes | | | B10 _d values as per EN ISO 13849-1, table C1 |
| Rating data for approved types Contacts | | | |
| Rated operational voltage | U _e | V AC | 600 |
| Rated uninterrupted current max. | | | |
| Main conducting paths | | | |
| General use | | Α | 16 |
| Auxiliary contacts | | | |
| | I _U | Α | 10 |

| Pilot Duty | | A 600 P 300 |
|--|-------|----------------|
| Switching capacity | | |
| Maximum motor rating | | |
| Single-phase | | |
| 120 V AC | НР | 0.5 |
| 200 V AC | HP | 1 |
| 240 V AC | НР | 1.5 |
| Three-phase | | |
| 200 V AC | НР | 3 |
| 240 V AC | HP | 3 |
| 480 V AC | HP | 7.5 |
| 600 V AC | HP | 7.5 |
| Short Circuit Current Rating | SCCR | |
| Basic Rating | kA | 5 |
| max. Fuse | Α | 50 |
| High fault rating | kA | 10 |
| max. Fuse | Α | 20, Class J |
| Terminal capacity | | |
| Solid or flexible conductor with ferrule | AWG | 18 - 14 |
| Terminal screw | | M3.5 |
| Tightening torque | lb-in | 8.8 |
| | | |

Design verification as per IEC/EN 61439

| - · · | | | |
|--|-------------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | In | Α | 20 |
| Heat dissipation per pole, current-dependent | P _{vid} | W | 0.6 |
| Equipment heat dissipation, current-dependent | P _{vid} | W | 0 |
| Static heat dissipation, non-current-dependent | P _{vs} | W | 0 |
| Heat dissipation capacity | P _{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 50 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) 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 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 Insulation properties | | | |
| 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 7.0

Low-voltage industrial components (EG000017) / Control switch (EC002611)

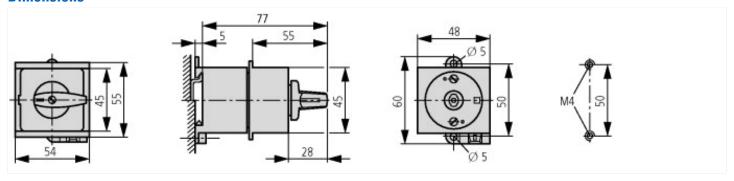
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss10.0.1-27-37-14-14 [ACN998011])

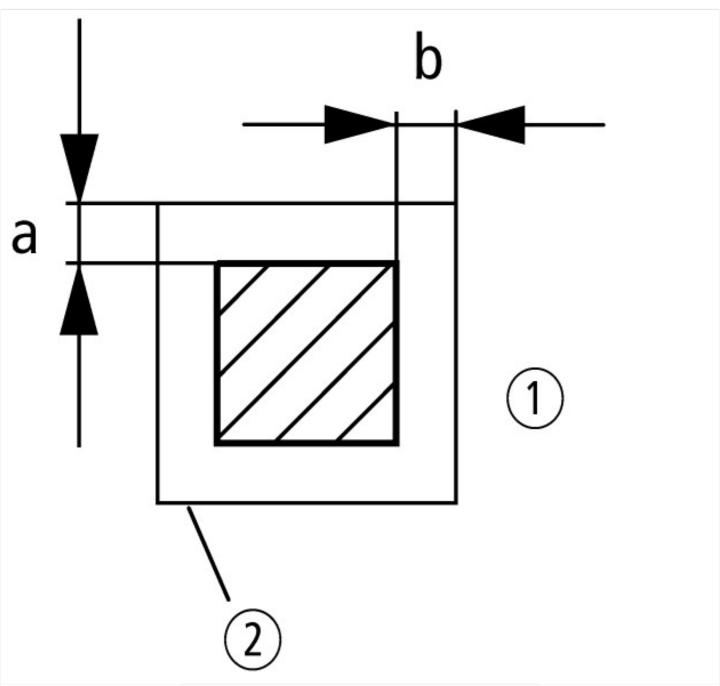
| Type of switch | | On/Off switch |
|--|---|-----------------|
| Number of poles | | 2 |
| Max. rated operation voltage Ue AC | V | 690 |
| Rated permanent current lu | Α | 20 |
| Number of switch positions | | 2 |
| With 0 (off) position | | Yes |
| With retraction in 0-position | | Yes |
| Device construction | | Built-in device |
| Width in number of modular spacings | | 4 |
| Suitable for ground mounting | | Yes |
| Suitable for front mounting 4-hole | | No |
| Suitable for distribution board installation | | Yes |
| 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 | | Other |

Approvals

| Product Standards | UL 60947-4-1;CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking |
|-----------------------------|---|
| UL File No. | E36332 |
| UL Category Control No. | NLRV |
| CSA File No. | 12528 |
| CSA Class No. | 3211-05 |
| North America Certification | UL listed, CSA certified |
| Suitable for | Branch circuits, suitable as motor disconnect |
| Degree of Protection | IEC: IP30; UL/CSA Type: – |

Dimensions





Mounting clearances a and b: 4 mm
 exposed conductive part (metal)