

## Non-standard switch, T0, 20 A, rear mounting, 11 contact unit(s)

**Part no.**                    **T0-11-SOND\*/Z**  
**907849**

| <b>General specifications</b>                                 |  |  |
|---|--|--|
| Product name  |  | Eaton Moeller® series T0 Non-standard switch   |
| Part no.  |  | T0-11-SOND*/Z  |
| Product Length/Depth  |  | 213 millimetre   |
| Product height  |  | 48 millimetre  |
| Product width   |  | 48 millimetre  |
| Product weight  |  | 0.345 kilogram   |
| Certifications  |  | VDE 0660<br>IEC/EN 60947<br>IEC/EN 60204<br>IEC/EN 60947-3   |
| Product Tradename   |  | T0   |
| Product Type  |  | Non-standard switch  |
| Product Sub Type  |  | None   |
| Catalog Notes   |  | Customized version according to form<br>Rated Short-time Withstand Current (Icw) for a time of 1 second  |
| <b>Features &amp; Functions</b>                               |  |  |
| Number of poles   |  | 11   |
| <b>General information</b>                                    |  |  |
| Degree of protection  |  | NEMA 12  |
| Degree of protection (front side)                             |  | IP65   |
| Lifespan, mechanical  |  | 400,000 Operations   |
| Mounting method   |  | Rear mounting  |
| Mounting position   |  | As required  |
| Number of contact units                                       |  | 11   |
| Operating frequency   |  | 1200 Operations/h  |
| Overvoltage category  |  | III  |
| Pollution degree  |  | 3  |
| 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  |  | Ground mounting<br>Intermediate mounting   |
| <b>Climatic environmental conditions</b>                      |  |  |
| 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, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30   |
| <b>Terminal capacities</b>                                    |  |  |
| Terminal capacity   |  | 1 x (0.75 - 2.5) mm <sup>2</sup> , flexible with ferrules to DIN 46228<br>1 x (1 - 2.5) mm <sup>2</sup> , solid or stranded<br>2 x (1 - 2.5) mm <sup>2</sup> , solid or stranded<br>2 x (0.75 - 2.5) mm <sup>2</sup> , flexible with ferrules to DIN 46228 |
| Screw size  |  | M3.5, Terminal screw   |
| Tightening torque   |  | 1 Nm, Screw terminals  |
| <b>Electrical rating</b>                                      |  |  |
| 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 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                         |  | 1 A   |
| 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, 220/230 V           |  | 20 A  |
| Rated operational current (Ie) star-delta at AC-3, 380/400 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, 380/400 V, 50 Hz                      |  | 5.5 kW  |
| 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 operational voltage (Ue) at AC - max                             |  | 690 V   |
| Rated uninterrupted current (Iu)                                       |  | 20 A  |
| Uninterrupted current  |  | Rated uninterrupted current Iu is specified for max. cross-section.   |
| <b>Short-circuit rating</b>  |  |   |
| Rated conditional short-circuit current (Iq)                           |  | 6 kA  |
| Rated short-time withstand current (Icw)                               |  | 0.32 kA<br>320 A, Contacts, 1 second  |
| Short-circuit protection rating  |  | 20 A gG/gL, Fuse, Contacts  |
| <b>Switching capacity</b>  |  |   |
| Load rating  |  | 1.6 x I# (with intermittent operation class 12, 40 % duty factor)<br>1.3 x I# (with intermittent operation class 12, 60 % duty factor)<br>2 x I# (with intermittent operation class 12, 25 % 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   |
| Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)          |  | 130 A   |
| Voltage per contact pair in series                                     |  | 60 V  |
| <b>Contacts</b>  |  |   |

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|--|--|--|
| Control circuit reliability  |  | 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)  |
| Number of auxiliary contacts (change-over contacts)                              |  | 0  |
| Number of auxiliary contacts (normally closed contacts)                          |  | 0  |
| Number of auxiliary contacts (normally open contacts)                            |  | 0  |
| <b>Actuator</b>  |  |  |
| Actuator color   |  | Black  |
| Actuator type  |  | Short thumb-grip   |
| <b>Design verification</b>   |  |  |
| Equipment heat dissipation, current-dependent P <sub>vid</sub>                   |  | 0.6 W  |
| Heat dissipation capacity P <sub>diss</sub>                                      |  | 0 W  |
| Heat dissipation per pole, current-dependent P <sub>vid</sub>                    |  | 0.6 W  |
| Rated operational current for specified heat dissipation (I <sub>n</sub> )       |  | 20 A   |
| Static heat dissipation, non-current-dependent P <sub>vs</sub>                   |  | 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 9.0

|   |    |  |           |
|---|----|--|-----------|
| Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216)   |    |  |           |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss13-27-37-14-03 [AKF060018]) |    |  |           |
| Version as main switch  |    |  | No        |
| Version as maintenance-/service switch  |    |  | No        |
| Version as safety switch  |    |  | No        |
| Version as emergency stop installation  |    |  | No        |
| Version as reversing switch   |    |  | No        |
| Number of switches  |    |  | 1         |
| Max. rated operation voltage U <sub>e</sub> AC  | V  |  | 690       |
| Rated operating voltage   | V  |  | 690 - 690 |
| Rated permanent current I <sub>u</sub>  | A  |  | 20        |
| Rated permanent current at AC-23, 400 V   | A  |  | 13.3      |
| Rated permanent current at AC-21, 400 V   | A  |  | 20        |
| Rated operation power at AC-3, 400 V  | kW |  | 5.5       |
| Rated short-time withstand current I <sub>cw</sub>  | kA |  | 0.32      |

|   |    |  |
|---|----|--|
| Rated operation power at AC-23, 400 V                   | kW | 5.5                                      |
| Switching power at 400 V                                | kW | 5.5                                      |
| Conditioned rated short-circuit current I <sub>q</sub>  | kA | 6  |
| Number of poles   |    | 11                                       |
| Number of auxiliary contacts as normally closed contact |    | 0  |
| Number of auxiliary contacts as normally open contact   |    | 0  |
| Number of auxiliary contacts as change-over contact     |    | 0  |
| Motor drive optional                                    |    | No                                       |
| Motor drive integrated                                  |    | No                                       |
| Voltage release optional                                |    | No                                       |
| Device construction                                     |    | Built-in device fixed built-in technique |
| Suitable for floor mounting                             |    | Yes                                      |
| Suitable for front mounting 4-hole                      |    | No                                       |
| Suitable for front mounting centre                      |    | No                                       |
| Suitable for distribution board installation            |    | No                                       |
| Suitable for intermediate mounting                      |    | Yes                                      |
| Colour control element                                  |    | Black                                    |
| Type of control element                                 |    | Short thumb-grip                         |
| Interlockable   |    | No                                       |
| Type of electrical connection of main circuit           |    | Screw connection                         |
| With pre-assembled cabling                              |    | No                                       |
| Degree of protection (IP), front side                   |    | IP65                                     |
| Degree of protection (NEMA)                             |    | 12                                       |
| Width   | mm | 48                                       |
| Height  | mm | 48                                       |
| Depth   | mm | 213                                      |
| Width in number of modular spacings                     |    |  |