

Reversing switches, TM, 10 A, flush mounting, 3 contact unit(s), Contacts: 5, 60 °, maintained, With 0 (Off) position, 1-0-2, Design number 8401



Powering Business Worldwide™

Part no. **TM-3-8401/E**  
**015554**

| General specifications                 |  |   |
|--|--|---|
| Product name                           |  | Eaton Moeller® series TM Insulated enclosure  |
| Part no.                               |  | TM-3-8401/E   |
| EAN                                    |  | 4015080155546   |
| Product Length/Depth                   |  | 86 millimetre   |
| Product height                         |  | 30 millimetre   |
| Product width                          |  | 30 millimetre   |
| Product weight                         |  | 0.047 kilogram  |
| Certifications                         |  | CE<br>UL File No.: E36332<br>UL<br>IEC/EN 60947<br>CSA-C22.2 No. 14-05<br>UL 508<br>UL Category Control No.: NLRV<br>IEC/EN 60947-3<br>IEC/EN 60947-5-1<br>CSA<br>UL report applies to both US and Canada<br>VDE 0660<br>Certified by UL for use in Canada<br>CSA-C22.2 No. 94<br>CSA<br>UL |
| Product Tradename                      |  | TM  |
| Product Type                           |  | Insulated enclosure   |
| Product Sub Type                       |  | None  |
| Features & Functions                   |  |   |
| Enclosure material                     |  | Plastic   |
| Fitted with:                           |  | Black thumb grip and front plate<br>0 (off) position  |
| Inscription                            |  | 1-0-2   |
| Number of poles                        |  | 3   |
| General information                    |  |   |
| Degree of protection                   |  | IP65  |
| Degree of protection (front side)      |  | IP65<br>NEMA 12   |
| Lifespan, mechanical                   |  | 1,000,000 Operations  |
| Model                                  |  | Reversing switch  |
| Mounting method                        |  | Flush mounting  |
| Mounting position                      |  | As required   |
| Number of contact units                |  | 3   |
| Operating frequency                    |  | 1200 Operations/h   |
| Overvoltage category                   |  | III   |
| Pollution degree                       |  | 3   |
| Rated impulse withstand voltage (Uimp) |  | 4000 V AC   |
| Suitable for                           |  | Front mounting  |
| Switching angle                        |  | 60 °  |
| Type                                   |  | Reversing switch  |
| Climatic environmental conditions      |  |   |
| Ambient operating temperature - min    |  | -25 °C  |
| Ambient operating temperature - max    |  | 50 °C   |
| Climatic proofing                      |  | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78  |
| Terminal capacities                    |  |   |

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| Terminal capacity (flexible with ferrule)  |  | 1 x 1.0 mm <sup>2</sup> , ferrules to DIN 46228<br>2 x 1.0 mm <sup>2</sup> , ferrules to DIN 46228 |
| Terminal capacity (flexible)   |  | 2 x 1.5 mm <sup>2</sup><br>1 x 1.5 mm <sup>2</sup>   |
| Terminal capacity (solid/flexible with ferrule AWG)                              |  | 14   |
| Terminal capacity (solid/stranded)   |  | 1 x 1.5 mm <sup>2</sup><br>2 x 1,5 mm <sup>2</sup>   |
| Screw size   |  | M2.5, Terminal screw   |
| Tightening torque  |  | 0.4 Nm, Screw terminals<br>3.5 lb-in, Screw terminals  |
| <b>Electrical rating</b>   |  |  |
| Rated operational current (I <sub>e</sub> ) at AC-3, 380 V, 400 V, 415 V         |  | 0 A  |
| Rated operational power at AC-3, 380/400 V, 50 Hz                                |  | 3.3 kW   |
| Rated operational power at AC-23A, 400 V, 50 Hz                                  |  | 3 kW   |
| Rated operational voltage (U <sub>e</sub> ) at AC - max                          |  | 500 V  |
| Rated uninterrupted current (I <sub>u</sub> )                                    |  | 10 A   |
| Uninterrupted current  |  | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.                    |
| <b>Short-circuit rating</b>  |  |  |
| Short-circuit protection rating  |  | 10 A gG/gL, Fuse, Contacts   |
| <b>Switching capacity</b>  |  |  |
| Switching capacity (main contacts, general use)                                  |  | 10 A, Rated uninterrupted current max. (UL/CSA)  |
| Switching capacity (auxiliary contacts, general use)                             |  | 10A, IU, (UL/CSA)  |
| Switching capacity (auxiliary contacts, pilot duty)                              |  | A300 (UL/CSA)  |
| <b>Motor rating</b>  |  |  |
| Assigned motor power at 115/120 V, 60 Hz, 1-phase                                |  | 0.33 HP  |
| Assigned motor power at 115/120 V, 60 Hz, 3-phase                                |  | 0.75 HP  |
| Assigned motor power at 230/240 V, 60 Hz, 1-phase                                |  | 0.75 HP  |
| Assigned motor power at 230/240 V, 60 Hz, 3-phase                                |  | 1 HP   |
| Assigned motor power at 277 V, 60 Hz, 1-phase                                    |  | 0.75 HP  |
| <b>Contacts</b>  |  |  |
| 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  |
| Number of contacts   |  | 5  |
| <b>Actuator</b>  |  |  |
| Actuator function  |  | Maintained<br>With 0 (Off) position  |
| Actuator type  |  | Short thumb-grip   |
| <b>Design verification</b>   |  |  |
| Equipment heat dissipation, current-dependent P <sub>vid</sub>                   |  | 0 W  |
| Heat dissipation capacity P <sub>diss</sub>                                      |  | 0 W  |
| Heat dissipation per pole, current-dependent P <sub>vid</sub>                    |  | 0.15 W   |
| Rated operational current for specified heat dissipation (I <sub>n</sub> )       |  | 10 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.                                 |

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| 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

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|---|----|------------------|
| Low-voltage industrial components (EG000017) / Off-load switch (EC001105)   |    |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Load-break switch (ec!@ss13-27-37-14-05 [AKF062018]) |    |                  |
| Model   |    | Reversing switch |
| Number of poles   |    | 3                |
| With zero (off) position  |    | Yes              |
| With retraction in 0-position   |    | No               |
| Rated permanent current I <sub>u</sub>  | A  | 10               |
| Rated operation current I <sub>e</sub> at AC-3, 400 V   | A  | 0                |
| Rated operation power at AC-3, 400 V  | kW | 3.3              |
| Degree of protection (IP), front side   |    | IP65             |
| Degree of protection (NEMA), front side   |    | 12               |
| 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                |
| 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               |
| Housing material  |    | Plastic          |
| Type of control element   |    | Short thumb-grip |
| Type of electrical connection of main circuit   |    | Screw connection |