

**Changeoverswitches, TM, 10 A, flush mounting, 2 contact unit(s),  
Contacts: 4, 60 °, maintained, With 0 (Off) position, HAND-0-AUTO, design  
no. 15432**



**Part no.** TM-2-15432/E  
**Catalog No.** 027418

## Delivery program

|  |   |    |    |
|--|---|----|----|
| Product range                                      | Control switches  |    |    |
| Part group reference                               | TM  |    |    |
| Basic function                                     | Changeoverswitches  |    |    |
|  | with black thumb grip and front plate   |    |    |
| Contacts   | 4   |    |    |
| Degree of Protection                               | Front IP65  |    |    |
| Design   | flush mounting  |    |    |
| Switching angle                                    | ° 60  |    |    |
| Switching performance                              | maintained<br>With 0 (Off) position   |    |    |
| Design number                                      | 15432   |    |    |
| front plate  | HAND-0-AUTO   |    |    |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |   |    |    |
| 400 V  | P   | kW | 3  |
| Rated uninterrupted current                        | I <sub>u</sub>  | A  | 10 |
| Note on rated uninterrupted current I <sub>u</sub> | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |    |    |
| Number of contact units                            | contact unit(s)   |    | 2  |

## Technical data

|                                       |   |  |  |
|---------------------------------------|---|--|--|
| Standards                             | IEC/EN 60947, VDE 0660, CSA, UL<br>Control switch as per IEC/EN 60947-5-1<br>Auxiliary switch as per IEC/EN 60947-5-1 |  |  |
| Climatic proofing                     | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30  |  |  |
| Ambient temperature                   | °C -25 - +50  |  |  |
| Open                                  | III/3   |  |  |
| Overvoltage category/pollution degree | U <sub>imp</sub> V AC 4000  |  |  |
| Rated impulse withstand voltage       | As required   |  |  |
| Mounting position                     |   |  |  |

### Contacts

|  |   |      |     |
|--|---|------|-----|
| Electrical characteristics                         |   |      |     |
| Rated operational voltage                          | U <sub>e</sub>  | V AC | 500 |
| Rated uninterrupted current                        | I <sub>u</sub>  | A    | 10  |
| Note on rated uninterrupted current I <sub>u</sub> | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |      |     |
| Short-circuit rating                               | A gG/gL 10  |      |     |
| Fuse   |   |      |     |

### Switching capacity

|   |                   |                   |      |
|---|-------------------|-------------------|------|
| Safe isolation to EN 61140  |                   |                   |      |
| Current heat loss per contact at I <sub>e</sub>                         |                   | W                 | 0.15 |
| Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V) |                   | CO                | 0.15 |
| Lifespan, mechanical  | Operations        | x 10 <sup>6</sup> | > 1  |
| Maximum operating frequency   | Operations/h 1200 |                   |      |
| AC  |                   |                   |      |
| AC-21A  |                   |                   |      |
| Rated operational current switch  |                   |                   |      |

|                                 |       |    |    |
|---------------------------------|-------|----|----|
| 400 V 415 V                     | $I_e$ | A  | 10 |
| AC-23A                          |       |    |    |
| Motor rating AC-23A, 50 - 60 Hz | P     | kW |    |
| 400 V 415 V                     | P     | kW | 3  |

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 <sup>2</sup> | 1 x 1,5<br>2 x 1,5 |
| Flexible with ferrules to DIN 46228  | mm <sup>2</sup> | 1 x 1,0<br>2 x 1,0 |
| Flexible                             | mm <sup>2</sup> | 1 x 1,5<br>2 x 1,5 |
| Terminal screw                       |                 | M2.5               |
| Tightening torque for terminal screw | Nm              | 0.4                |

### Rating data for approved types

|  |       |       |       |
|--|-------|-------|-------|
| Contacts                                 |       |       |       |
| Rated operational voltage                | $U_e$ | V AC  | 300   |
| Rated uninterrupted current max.         |       |       |       |
| Main conducting paths                    |       |       |       |
| General use                              |       | A     | 10    |
| Auxiliary contacts                       |       |       |       |
| General Use                              | $I_u$ | A     | 10    |
| Pilot Duty                               |       |       | A 300 |
| Switching capacity                       |       |       |       |
| Maximum motor rating                     |       |       |       |
| Single-phase                             |       |       |       |
| 120 V AC                                 |       | HP    | 0.33  |
| 240 V AC                                 |       | HP    | 0.75  |
| 277 V AC                                 |       | HP    | 0.75  |
| Three-phase                              |       |       |       |
| 120 V AC                                 |       | HP    | 0.75  |
| 240 V AC                                 |       | HP    | 1     |
| Terminal capacity                        |       |       |       |
| Solid or flexible conductor with ferrule |       | AWG   | 14    |
| Terminal screw                           |       |       | M2.5  |
| Tightening torque                        |       | lb-in | 3.5   |

### Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 10   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0.15   |
| 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   |            |    | 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 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 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                               | Reverser        |
| Number of poles                              | 2               |
| Max. rated operation voltage Ue AC           | V 500           |
| Rated permanent current Iu                   | A 10            |
| Number of switch positions                   | 3               |
| With zero (off) position                     | Yes             |
| With retraction in 0-position                | No              |
| 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              |