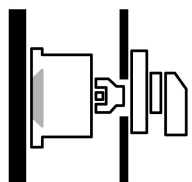




Non-standard switch, T5B, 63 A, rear mounting, 4 contact unit(s)

Part no. **T5B-4-SOND\*/Z**  
 Catalog No. **907971**

### Delivery program

|   |       |                 |  |
|---|-------|-----------------|--|
| Product range                             |       |                 | Non-standard switch  |
| Part group reference                      |       |                 | T5B  |
| <b>Notes</b>                              |       |                 | customized version according to form   |
| Degree of Protection                      |       |                 | Front IP65   |
| Design                                    |       |                 | rear mounting  |
|   |       |                 |  |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>    |       |                 |  |
| 400 V                                     | P     | kW              | 30   |
| Rated uninterrupted current               | $I_u$ | A               | 63   |
| Note on rated uninterrupted current $I_u$ |       |                 | Rated uninterrupted current $I_u$ is specified for max. cross-section.             |
| Number of contact units                   |       | contact unit(s) | 4  |

### Technical data

#### General

|                                       |           |      |   |
|---------------------------------------|-----------|------|---|
| Standards                             |           |      | IEC/EN 60947, VDE 0660, IEC/EN 60204<br>Switch-disconnector according to IEC/EN 60947-3 |
| Climatic proofing                     |           |      | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30          |
| Ambient temperature                   |           |      |   |
| Open                                  |           | °C   | -25 - +50   |
| Enclosed                              |           | °C   | -25 - +40   |
| Overvoltage category/pollution degree |           |      | III/3   |
| Rated impulse withstand voltage       | $U_{imp}$ | V AC | 6000  |
| Mechanical shock resistance           |           | g    | 15  |
| Mounting position                     |           |      | As required   |

#### Contacts

|   |          |           |  |
|---|----------|-----------|--|
| Electrical characteristics                          |          |           |  |
| Rated operational voltage                           | $U_e$    | V AC      | 690  |
| Rated uninterrupted current                         | $I_u$    | A         | 63   |
| Note on rated uninterrupted current $I_u$           |          |           | Rated uninterrupted current $I_u$ is specified for max. cross-section. |
| Load rating with intermittent operation, class 12   |          |           |  |
| AB 25 % DF  |          | x $I_e$   | 2  |
| AB 40 % DF  |          | x $I_e$   | 1.6  |
| AB 60 % DF  |          | x $I_e$   | 1.3  |
| Short-circuit rating                                |          |           |  |
| Fuse  |          | A gG/gL   | 80   |
| Rated short-time withstand current (1 s current)    | $I_{cw}$ | $A_{rms}$ | 1300   |
| Note on rated short-time withstand current $I_{cw}$ |          |           | Current for a time of 1 second   |
| Rated conditional short-circuit current             | $I_q$    | kA        | 2  |

#### Switching capacity

|   |  |   |     |
|---|--|---|-----|
| cos $\phi$ rated making capacity as per IEC 60947-3 |  | A | 800 |
| Rated breaking capacity cos $\phi$ to IEC 60947-3   |  | A |     |

|  |              |               |       |
|--|--------------|---------------|-------|
| 230 V  |              | A             | 520   |
| 400/415 V  |              | A             | 600   |
| 500 V  |              | A             | 480   |
| 690 V  |              | A             | 340   |
| Safe isolation to EN 61140                                     |              |               |       |
| between the contacts   |              | V AC          | 440   |
| Current heat loss per contact at $I_e$                         |              | W             | 4.5   |
| Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V) |              | CO            | 4.5   |
| Lifespan, mechanical   | Operations   | $\times 10^6$ | > 0.5 |
| Maximum operating frequency                                    | Operations/h |               | 1200  |
| AC   |              |               |       |
| AC-3   |              |               |       |
| Rating, motor load switch                                      | P            | kW            |       |
| 220 V 230 V  | P            | kW            | 15    |
| 230 V Star-delta   | P            | kW            | 18.5  |
| 400 V 415 V  | P            | kW            | 22    |
| 400 V Star-delta   | P            | kW            | 30    |
| 500 V  | P            | kW            | 22    |
| 500 V Star-delta   | P            | kW            | 37    |
| 690 V  | P            | kW            | 15    |
| 690 V Star-delta   | P            | kW            | 22    |
| Rated operational current motor load switch                    |              |               |       |
| 230 V  | $I_e$        | A             | 51    |
| 230 V star-delta   | $I_e$        | A             | 63    |
| 400V 415 V   | $I_e$        | A             | 41    |
| 400 V star-delta   | $I_e$        | A             | 63    |
| 500 V  | $I_e$        | A             | 33    |
| 500 V star-delta   | $I_e$        | A             | 57.2  |
| 690 V  | $I_e$        | A             | 17    |
| 690 V star-delta   | $I_e$        | A             | 29.4  |
| AC-21A   |              |               |       |
| Rated operational current switch                               |              |               |       |
| 440 V  | $I_e$        | A             | 63    |
| AC-23A   |              |               |       |
| Motor rating AC-23A, 50 - 60 Hz                                | P            | kW            |       |
| 230 V  | P            | kW            | 18.5  |
| 400 V 415 V  | P            | kW            | 30    |
| 500 V  | P            | kW            | 22    |
| 690 V  | P            | kW            | 22    |
| Rated operational current motor load switch                    |              |               |       |
| 230 V  | $I_e$        | A             | 63    |
| 400 V 415 V  | $I_e$        | A             | 63    |
| 500 V  | $I_e$        | A             | 33    |
| 690 V  | $I_e$        | A             | 23.8  |
| DC   |              |               |       |
| DC-1, Load-break switches L/R = 1 ms                           |              |               |       |
| Rated operational current                                      | $I_e$        | A             | 63    |
| Voltage per contact pair in series                             |              | V             | 60    |
| DC-23A, motor load switch L/R = 15 ms                          |              |               |       |
| 24 V   |              |               |       |
| Rated operational current                                      | $I_e$        | A             | 50    |
| Contacts   |              | Quantity      | 1     |
| 48 V   |              |               |       |
| Rated operational current                                      | $I_e$        | A             | 50    |

|   |                   |                |  |
|---|-------------------|----------------|--|
| Contacts                                      |                   | Quantity       | 2  |
| 60 V  |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 50   |
| Contacts                                      |                   | Quantity       | 3  |
| 120 V   |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25   |
| Contacts                                      |                   | Quantity       | 3  |
| 240 V   |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 20   |
| Contacts                                      |                   | Quantity       | 6  |
| DC-13, Control switches L/R = 50 ms           |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25   |
| Voltage per contact pair in series            |                   | V              | 24   |
| Control circuit reliability at 24 V DC, 10 mA | Fault probability | H <sub>F</sub> | < 10 <sup>-5</sup> , < 1 failure in 100,000 switching operations |

### Terminal capacities

|                                      |  |                 |                                  |
|--------------------------------------|--|-----------------|----------------------------------|
| Solid or stranded                    |  | mm <sup>2</sup> | 1 x (2,5 - 35)<br>2 x (2,5 - 16) |
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> | 1 x (1 - 25)<br>2 x (1.5 - 10)   |
| Terminal screw                       |  |                 | M6                               |
| Tightening torque for terminal screw |  | Nm              | 4                                |

### Technical safety parameters:

|              |  |  |   |
|--------------|--|--|---|
| <b>Notes</b> |  |  | B10 <sub>q</sub> values as per EN ISO 13849-1, table C1 |
|--------------|--|--|---|

### Rating data for approved types

|                   |  |  |    |
|-------------------|--|--|----|
| Terminal capacity |  |  |    |
| Terminal screw    |  |  | M6 |

## Design verification as per IEC/EN 61439

|  |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | I <sub>n</sub>    | A  | 63   |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 4.5  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 0  |
| Static heat dissipation, non-current-dependent   | P <sub>vs</sub>   | W  | 0  |
| Heat dissipation capacity  | P <sub>diss</sub> | 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.                         |

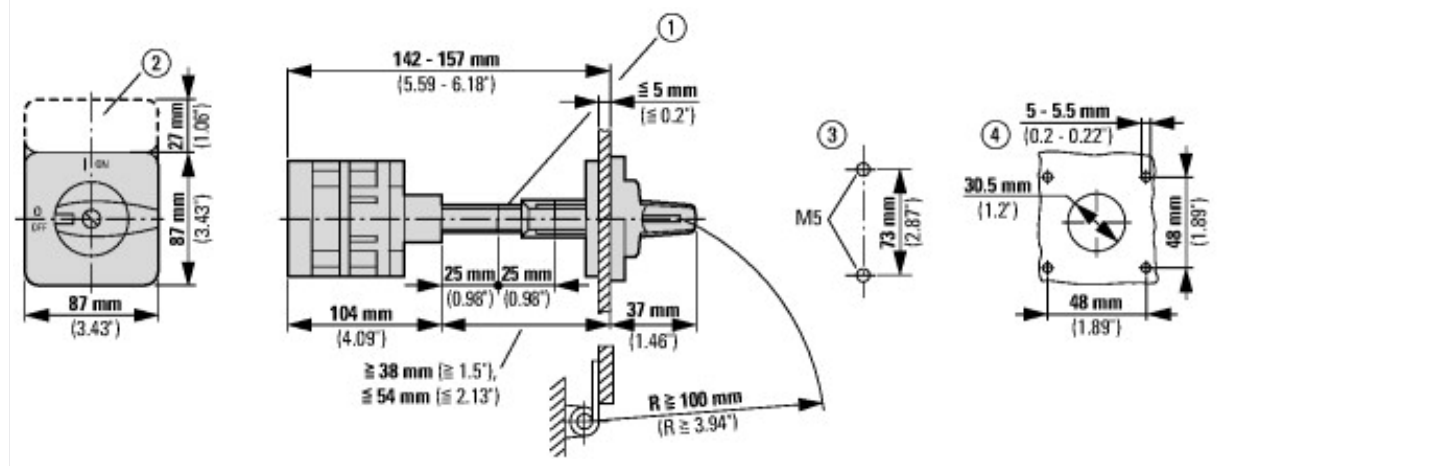
## Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec@ss10.0.1-27-37-14-03 [AKF060013])

|   |    |  |
|---|----|--|
| 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 Ue AC                      | V  | 690                                      |
| Rated operating voltage                                 | V  | 690 - 690                                |
| Rated permanent current Iu                              | A  | 63                                       |
| Rated permanent current at AC-23, 400 V                 | A  | 63                                       |
| Rated permanent current at AC-21, 400 V                 | A  | 63                                       |
| Rated operation power at AC-3, 400 V                    | kW | 22                                       |
| Rated short-time withstand current Icw                  | kA | 1.3                                      |
| Rated operation power at AC-23, 400 V                   | kW | 30                                       |
| Switching power at 400 V                                | kW | 30                                       |
| Conditioned rated short-circuit current Iq              | kA | 2  |
| Number of poles   |    | 0  |
| 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 ground 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                                 |    | Toggle                                   |
| Interlockable   |    | No                                       |
| Type of electrical connection of main circuit           |    | Screw connection                         |
| Degree of protection (IP), front side                   |    | IP65                                     |
| Degree of protection (NEMA)                             |    | Other                                    |

## Dimensions



- ① Shaft extension with ZAV-P3 possible, max. 4 x 25 = 100 mm
  - ② ZFS... Label mount not included as standard
  - ③ Drilling dimensions base
  - ④ Drilling dimensions door
- Cam switches T5B and T5 are of identical design, only their contacts are different

## Assets (links)

### Instruction Leaflets

IL03801009Z2018\_05

## Additional product information (links)

### IL03801009Z (AWA1150-1692) Cam switch: switch-disconnector

|  |   |
|--|---|
| IL03801009Z (AWA1150-1692) Cam switch: switch-disconnector   | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf</a>                           |
| Technical overview cam switch, switch-disconnector           | <a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.2</a>                                     |
| System overview cam switch T                                 | <a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.4</a>                                     |
| System overview switch-disconnector P                        | <a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.6</a>                                     |
| Key to part numbers Cam switch                               | <a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>                                     |
| Key to part numbers Switch-disconnector                      | <a href="http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8">http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&amp;startpage=4.8</a>                                     |
| Switches for ATEX  | <a href="http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html">http://www.coopercrouse-hinds.eu/en/products/25-ex-safety-and-main-current-switches.html</a> |
| Ordering form for SOND switches and SOND front plates(DE_EN) | <a href="ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf">ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf</a>             |
| Ordering form for SOND switches and SOND front plates(DE_EN) | <a href="ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf">ftp://ftp.moeller.net/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf</a>             |