



Contacts: 3, 32 A, 60 °, rear mounting, Basic switch

Part no. **T3-2-92/XZ**  
Catalog No. **018571**

### Delivery program

|   |       |                 |  |
|---|-------|-----------------|--|
| Product range                             |       |                 | Control switches   |
| Part group reference                      |       |                 | T3   |
| Contacts                                  |       |                 | 3  |
| Design                                    |       |                 | rear mounting<br>Basic switch  |
| Contact sequence                          |       |                 |  |
| Switching angle                           |       | °               | 60   |
| Design number                             |       |                 | 92   |
| Front plate no.                           |       |                 | <br><b>FS 616</b>  |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>    |       |                 |  |
| 400 V                                     | P     | kW              | 15   |
| Rated uninterrupted current               | $I_u$ | A               | 32   |
| 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) | 2  |

### 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       | 32   |
| 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       | 35                             |
| Rated short-time withstand current (1 s current)               | $I_{cw}$     | $A_{rms}$     | 650                            |
| Note on rated short-time withstand current $I_{cw}$            |              |               | Current for a time of 1 second |
| Rated conditional short-circuit current                        | $I_q$        | kA            | 1                              |
| <b>Switching capacity</b>                                      |              |               |                                |
| cos $\phi$ rated making capacity as per IEC 60947-3            |              | A             | 320                            |
| Rated breaking capacity cos $\phi$ to IEC 60947-3              |              | A             |                                |
| 230 V  |              | A             | 260                            |
| 400/415 V  |              | A             | 260                            |
| 500 V  |              | A             | 240                            |
| 690 V  |              | A             | 170                            |
| Safe isolation to EN 61140                                     |              |               |                                |
| between the contacts   |              | V AC          | 440                            |
| Current heat loss per contact at $I_e$                         |              | W             | 1.1                            |
| Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V) |              | CO            | 1.1                            |
| 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            | 5.5                            |
| 230 V Star-delta   | P            | kW            | 7.5                            |
| 400 V 415 V  | P            | kW            | 11                             |
| 400 V Star-delta   | P            | kW            | 15                             |
| 500 V  | P            | kW            | 15                             |
| 500 V Star-delta   | P            | kW            | 18.5                           |
| 690 V  | P            | kW            | 11                             |
| 690 V Star-delta   | P            | kW            | 22                             |
| Rated operational current motor load switch                    |              |               |                                |
| 230 V  | $I_e$        | A             | 23.7                           |
| 230 V star-delta   | $I_e$        | A             | 32                             |
| 400V 415 V   | $I_e$        | A             | 23.7                           |
| 400 V star-delta   | $I_e$        | A             | 32                             |
| 500 V  | $I_e$        | A             | 23.7                           |
| 500 V star-delta   | $I_e$        | A             | 32                             |
| 690 V  | $I_e$        | A             | 14.7                           |
| 690 V star-delta   | $I_e$        | A             | 25.5                           |
| AC-23A   |              |               |                                |
| Motor rating AC-23A, 50 - 60 Hz                                | P            | kW            |                                |
| 230 V  | P            | kW            | 7.5                            |
| 400 V 415 V  | P            | kW            | 15                             |
| 500 V  | P            | kW            | 15                             |
| 690 V  | P            | kW            | 15                             |
| Rated operational current motor load switch                    |              |               |                                |
| 230 V  | $I_e$        | A             | 32                             |
| 400 V 415 V  | $I_e$        | A             | 32                             |
| 500 V  | $I_e$        | A             | 26.4                           |
| 690 V  | $I_e$        | A             | 17                             |
| DC   |              |               |                                |
| DC-1, Load-break switches L/R = 1 ms                           |              |               |                                |
| Rated operational current                                      | $I_e$        | A             | 25                             |
| Voltage per contact pair in series                             |              | V             | 60                             |
| DC-21A   |              |               |                                |
| Rated operational current                                      | $I_e$        | A             | 1                              |

|   |                   |          |   |
|---|-------------------|----------|---|
| Contacts                                      |                   | Quantity | 1   |
| DC-23A, motor load switch L/R = 15 ms         |                   |          |   |
| 24 V  |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 25  |
| Contacts                                      |                   | Quantity | 1   |
| 48 V  |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 25  |
| Contacts                                      |                   | Quantity | 2   |
| 60 V  |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 25  |
| Contacts                                      |                   | Quantity | 3   |
| 120 V   |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 12  |
| Contacts                                      |                   | Quantity | 3   |
| 240 V   |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 5   |
| Contacts                                      |                   | Quantity | 5   |
| DC-13, Control switches L/R = 50 ms           |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 20  |
| Voltage per contact pair in series            |                   | V        | 24  |
| 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                    |  | $\text{mm}^2$ | 1 x (1 - 6)<br>2 x (1 - 6)       |
| Flexible with ferrules to DIN 46228  |  | $\text{mm}^2$ | 1 x (0.75 - 4)<br>2 x (0.75 - 4) |
| Terminal screw                       |  |               | M4                               |
| Tightening torque for terminal screw |  | Nm            | 1.6                              |

### Technical safety parameters:

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

### Rating data for approved types

|                   |  |  |    |
|-------------------|--|--|----|
| Terminal capacity |  |  |    |
| Terminal screw    |  |  | M4 |

## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 32   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 1.1  |
| 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 6.0

|  |   |                 |
|--|---|-----------------|
| 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 (ec@ss8.1-27-37-14-14 [ACN998008]) |   |                 |
| Type of switch   |   | Level switch    |
| Number of poles  |   | 1               |
| Max. rated operation voltage U <sub>e</sub> AC   | V | 690             |
| Rated permanent current I <sub>u</sub>   | A | 32              |
| Number of switch positions   |   | 4               |
| With 0 (off) position  |   | Yes             |
| With retraction in 0-position  |   | No              |
| Device construction  |   | Built-in device |
| Width in number of modular spacings  |   | 0               |
| Suitable for ground mounting   |   | Yes             |
| Suitable for front mounting 4-hole   |   | No              |
| Suitable for distribution board installation   |   | No              |
| Suitable for intermediate mounting   |   | Yes             |
| Complete device in housing   |   | No              |
| Type of control element  |   | Other           |
| Front shield size  |   | 48x48 mm        |
| Degree of protection (IP), front side  |   | IP00            |

## Additional product information (links)

|  |   |
|--|---|
| <b>IL03801006Z (AWA1150-1686) Cam switches: service distribution board</b> |   |
| IL03801006Z (AWA1150-1686) Cam switches: service distribution board        | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801006Z2021_06.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801006Z2021_06.pdf</a>               |
| Display flip catalog page.   | <a href="http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=71">http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=71</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="https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf">https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008006ZU_Orderform_Customized_Switch.pdf</a> |
| Ordering form for SOND switches and SOND front plates(DE_EN)]              | <a href="https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf">https://es-assets.eaton.com/DOCUMENTATION/PDF/MZ008005ZU_Orderform_Customized_Switch.pdf</a> |