



**Main switch, T5, 100 A, rear mounting, 1 contact unit(s), 1 pole, Emergency switching off function, With red rotary handle and yellow locking ring**

**Part no. T5-1-8200/V/SVB**  
**Catalog No. 097222**

**EL-Nummer (Norway) 0001417122**

### Delivery program

|  |                |                 |   |
|--|----------------|-----------------|---|
| Product range                                      |                |                 | Main switch<br>maintenance switch<br>Repair switch                              |
| Part group reference                               |                |                 | T5  |
| Stop Function                                      |                |                 | Emergency switching off function  |
|  |                |                 | With red rotary handle and yellow locking ring                                  |
| Number of poles                                    |                |                 | 1 pole  |
| Degree of Protection                               |                |                 | Front IP65  |
| Design   |                |                 | rear mounting   |
|  |                |                 |   |
| Contact sequence                                   |                |                 |   |
| Switching angle                                    |                | °               | 90  |
| Design number                                      |                |                 | 8200  |
| Function   |                |                 |   |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |                 |   |
| 400 V  | P              | kW              | 55  |
| Rated uninterrupted current                        | I <sub>u</sub> | A               | 100   |
| 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) | 1   |

### Technical data

|                                       |  |    |   |
|---------------------------------------|--|----|---|
| <b>General</b>                        |  |    |   |
| 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   |
| Overtoltage category/pollution degree |  |    | III/3   |

|                                 |           |      |             |
|---------------------------------|-----------|------|-------------|
| Rated impulse withstand voltage | $U_{imp}$ | V AC | 6000        |
| Mechanical shock resistance     |           | g    | 15          |
| Mounting position               |           |      | As required |

## Contacts

|   |          |              |  |
|---|----------|--------------|--|
| Mechanical variables                                |          |              |  |
| Number of poles                                     |          |              | 1 pole   |
| Electrical characteristics                          |          |              |  |
| Rated operational voltage                           | $U_e$    | V AC         | 690  |
| Rated uninterrupted current                         | $I_u$    | A            | 100  |
| 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  |          | $\times I_e$ | 2  |
| AB 40 % DF  |          | $\times I_e$ | 1.6  |
| AB 60 % DF  |          | $\times I_e$ | 1.3  |
| Short-circuit rating                                |          |              |  |
| Fuse  |          | A gG/gL      | 100  |
| Rated short-time withstand current (1 s current)    | $I_{cw}$ | $A_{rms}$    | 1700   |
| 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

|  |              |               |       |
|--|--------------|---------------|-------|
| $\cos \varphi$ rated making capacity as per IEC 60947-3        |              | A             | 950   |
| Rated breaking capacity $\cos \varphi$ to IEC 60947-3          |              | A             |       |
| 230 V  |              | A             | 760   |
| 400/415 V  |              | A             | 740   |
| 500 V  |              | A             | 590   |
| 690 V  |              | A             | 420   |
| Safe isolation to EN 61140                                     |              |               |       |
| between the contacts   |              | V AC          | 440   |
| Current heat loss per contact at $I_e$                         |              | W             | 7.5   |
| Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V) |              | CO            | 7.5   |
| 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            | 22    |
| 230 V Star-delta   | P            | kW            | 30    |
| 400 V 415 V  | P            | kW            | 30    |
| 400 V Star-delta   | P            | kW            | 45    |
| 500 V  | P            | kW            | 30    |
| 500 V Star-delta   | P            | kW            | 45    |
| 690 V  | P            | kW            | 15    |
| 690 V Star-delta   | P            | kW            | 22    |
| Rated operational current motor load switch                    |              |               |       |
| 230 V  | $I_e$        | A             | 71    |
| 230 V star-delta   | $I_e$        | A             | 100   |
| 400V 415 V   | $I_e$        | A             | 55    |
| 400 V star-delta   | $I_e$        | A             | 95.3  |
| 500 V  | $I_e$        | A             | 44    |
| 500 V star-delta   | $I_e$        | A             | 76.2  |
| 690 V  | $I_e$        | A             | 17    |
| 690 V star-delta   | $I_e$        | A             | 29.4  |
| AC-21A   |              |               |       |
| Rated operational current switch                               |              |               |       |

|   |                   |                |  |
|---|-------------------|----------------|--|
| 440 V   | I <sub>e</sub>    | A              | 100  |
| AC-23A  |                   |                |  |
| Motor rating AC-23A, 50 - 60 Hz               | P                 | kW             |  |
| 230 V   | P                 | kW             | 30   |
| 400 V 415 V                                   | P                 | kW             | 55   |
| 500 V   | P                 | kW             | 37   |
| 690 V   | P                 | kW             | 30   |
| Rated operational current motor load switch   |                   |                |  |
| 230 V   | I <sub>e</sub>    | A              | 100  |
| 400 V 415 V                                   | I <sub>e</sub>    | A              | 100  |
| 500 V   | I <sub>e</sub>    | A              | 55   |
| 690 V   | I <sub>e</sub>    | A              | 32   |
| DC  |                   |                |  |
| DC-1, Load-break switches L/R = 1 ms          |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 80   |
| Voltage per contact pair in series            |                   | V              | 60   |
| 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:

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

### Rating data for approved types

|                                  |                |      |     |
|----------------------------------|----------------|------|-----|
| Contacts                         |                |      |     |
| Rated operational voltage        | U <sub>e</sub> | V AC | 600 |
| Rated uninterrupted current max. |                |      |     |
| Main conducting paths            |                |      |     |
| General use                      |                | A    | 65  |
| Terminal capacity                |                |      |     |
| Terminal screw                   |                |      | M6  |

### Design verification as per IEC/EN 61439

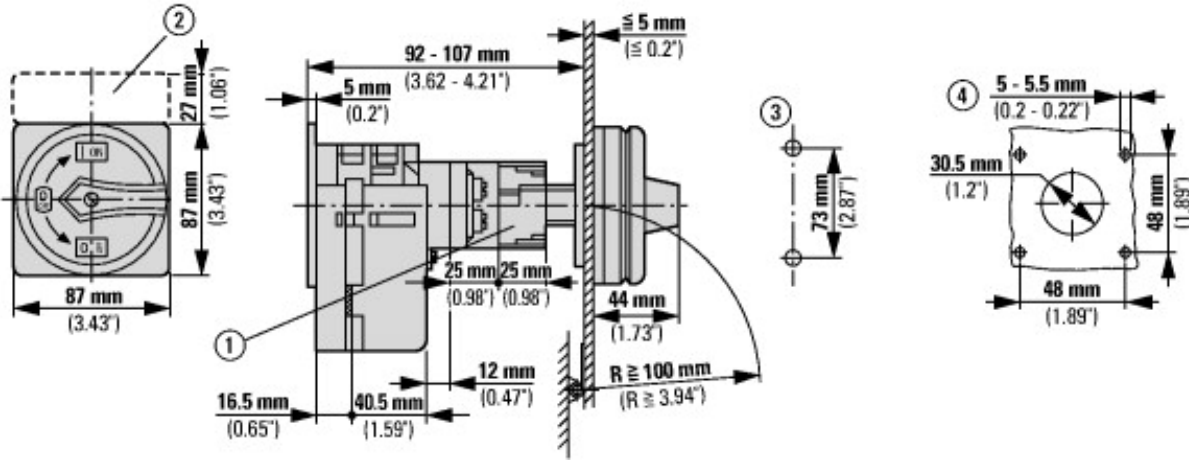
|  |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | I <sub>n</sub>    | A  | 100  |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 7.5  |
| 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.                         |

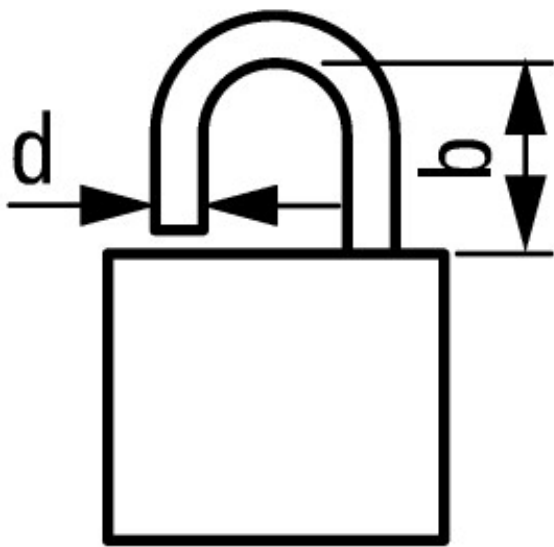
## Technical data ETIM 7.0

|   |  |    |  |
|---|--|----|--|
| 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 (ecI@ss10.0.1-27-37-14-03 [AKF060013]) |  |    |  |
| Version as main switch  |  |    | Yes                                      |
| Version as maintenance-/service switch  |  |    | Yes                                      |
| Version as safety switch  |  |    | No                                       |
| Version as emergency stop installation  |  |    | Yes                                      |
| 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  | 100                                      |
| Rated permanent current at AC-23, 400 V   |  | A  | 100                                      |
| Rated permanent current at AC-21, 400 V   |  | A  | 100                                      |
| Rated operation power at AC-3, 400 V  |  | kW | 30                                       |
| Rated short-time withstand current I <sub>cw</sub>  |  | kA | 1.7                                      |
| Rated operation power at AC-23, 400 V   |  | kW | 55                                       |
| Switching power at 400 V  |  | kW | 55                                       |
| Conditioned rated short-circuit current I <sub>q</sub>  |  | kA | 2  |
| Number of poles   |  |    | 1  |
| 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  |  |    | Red                                      |
| Type of control element   |  |    | Door coupling rotary drive               |
| Interlockable   |  |    | Yes                                      |
| Type of electrical connection of main circuit   |  |    | Screw connection                         |
| Degree of protection (IP), front side   |  |    | IP65                                     |
| Degree of protection (NEMA)   |  |    | Other                                    |

## Dimensions



- ① Shaft and interlock extension with ZAV-P3 + ZVV-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 have the identical design; the only difference between them is



$$d = 4 - 8 \text{ mm}$$

$$b + d \leq 47 \text{ mm}$$

$$d = 0.16 - 0.31''$$

$$b + d \leq 1.85''$$

≤ 3 padlocks

## Assets (links)

### Declaration of CE Conformity

00003073

### Instruction Leaflets

IL03801009Z2018\_05

## Additional product information (links)

### IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors

|   |   |
|---|---|
| IL03801009Z (AWA1150-1692) Cam switches: switch-disconnectors | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801009Z2018_05.pdf</a>                           |
| Display flip catalog page.                                    | <a href="http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=130">http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=130</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>             |

