



Main switch, 1 pole, 63 A, Emergency-Stop function, 90 °, Lockable in the 0 (Off) position, surface mounting

Part no. T5B-1-8200/14/SVB  
 Catalog No. 207240

EL-Nummer (Norway) 0001417162

### Delivery program

|                                                    |                |  |                 |                                                                                 |
|----------------------------------------------------|----------------|--|-----------------|---------------------------------------------------------------------------------|
| Product range                                      |                |  |                 | Main switch<br>maintenance switch<br>Repair switch                              |
| Part group reference                               |                |  |                 | T5B                                                                             |
| Stop Function                                      |                |  |                 | Emergency switching off function                                                |
|                                                    |                |  |                 | With red rotary handle and yellow locking ring                                  |
| Number of poles                                    |                |  |                 | 1 pole                                                                          |
| Locking facility                                   |                |  |                 | Lockable in the 0 (Off) position                                                |
| Degree of Protection                               |                |  |                 | IP65                                                                            |
|                                                    |                |  |                 | <b>totally insulated</b>                                                        |
| Design                                             |                |  |                 | surface mounting                                                                |
|                                                    |                |  |                 |                                                                                 |
| Contact sequence                                   |                |  |                 |                                                                                 |
| Switching angle                                    |                |  | °               | 90                                                                              |
| Function                                           |                |  |                 |                                                                                 |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |  |                 |                                                                                 |
| 400 V                                              | P              |  | kW              | 30                                                                              |
| Rated uninterrupted current                        | I <sub>u</sub> |  | A               | 63                                                                              |
| 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

|                     |  |  |  |                                                                                                  |
|---------------------|--|--|--|--------------------------------------------------------------------------------------------------|
| Standards           |  |  |  | IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL<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 |  |  |  |                                                                                                  |

|                                       |           |      |             |
|---------------------------------------|-----------|------|-------------|
| 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

|                                                     |          |              |                                                                        |
|-----------------------------------------------------|----------|--------------|------------------------------------------------------------------------|
| Mechanical variables                                |          |              |                                                                        |
| Number of poles                                     |          |              | 1 pole                                                                 |
| 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                                          |          | $\times I_e$ | 2                                                                      |
| AB 40 % DF                                          |          | $\times I_e$ | 1.6                                                                    |
| AB 60 % DF                                          |          | $\times I_e$ | 1.3                                                                    |
| Short-circuit rating                                |          |              |                                                                        |
| Fuse                                                |          | A gG/gL      | 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 <sub>e</sub>    | A              | 63                                                  |
| AC-23A                                        |                   |                |                                                     |
| Motor rating AC-23A, 50 - 60 Hz               |                   |                |                                                     |
| 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 <sub>e</sub>    | A              | 63                                                  |
| 400 V 415 V                                   | I <sub>e</sub>    | A              | 63                                                  |
| 500 V                                         | I <sub>e</sub>    | A              | 33                                                  |
| 690 V                                         | I <sub>e</sub>    | A              | 23.8                                                |
| DC                                            |                   |                |                                                     |
| DC-1, Load-break switches L/R = 1 ms          |                   |                |                                                     |
| Rated operational current                     | I <sub>e</sub>    | 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 <sub>e</sub>    | A              | 50                                                  |
| Contacts                                      |                   | Quantity       | 1                                                   |
| 48 V                                          |                   |                |                                                     |
| Rated operational current                     | I <sub>e</sub>    | 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 fault in 100000 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    | 63  |
| Switching capacity               |                |      |     |
| Maximum motor rating             |                |      |     |

|                                          |       |              |  |
|------------------------------------------|-------|--------------|--|
| Single-phase                             |       |              |  |
| 120 V AC                                 | HP    | 3            |  |
| 200 V AC                                 | HP    | 7.5          |  |
| 240 V AC                                 | HP    | 10           |  |
| Three-phase                              |       |              |  |
| 200 V AC                                 | HP    | 15           |  |
| 240 V AC                                 | HP    | 15           |  |
| 480 V AC                                 | HP    | 40           |  |
| 600 V AC                                 | HP    | 40           |  |
| Short Circuit Current Rating             | SCCR  |              |  |
| High fault rating                        | kA    | 10           |  |
| max. Fuse                                | A     | 100, Class J |  |
| Terminal capacity                        |       |              |  |
| Solid or flexible conductor with ferrule | AWG   | 12 - 4       |  |
| Terminal screw                           |       | M6           |  |
| Tightening torque                        | lb-in | 35.4         |  |

## Design verification as per IEC/EN 61439

|                                                                                                                        |            |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |            |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | $I_n$      | A  | 63                                                                                                                               |
| Heat dissipation per pole, current-dependent                                                                           | $P_{vid}$  | W  | 4.5                                                                                                                              |
| 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 | 40                                                                                                                               |
| 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.                         |

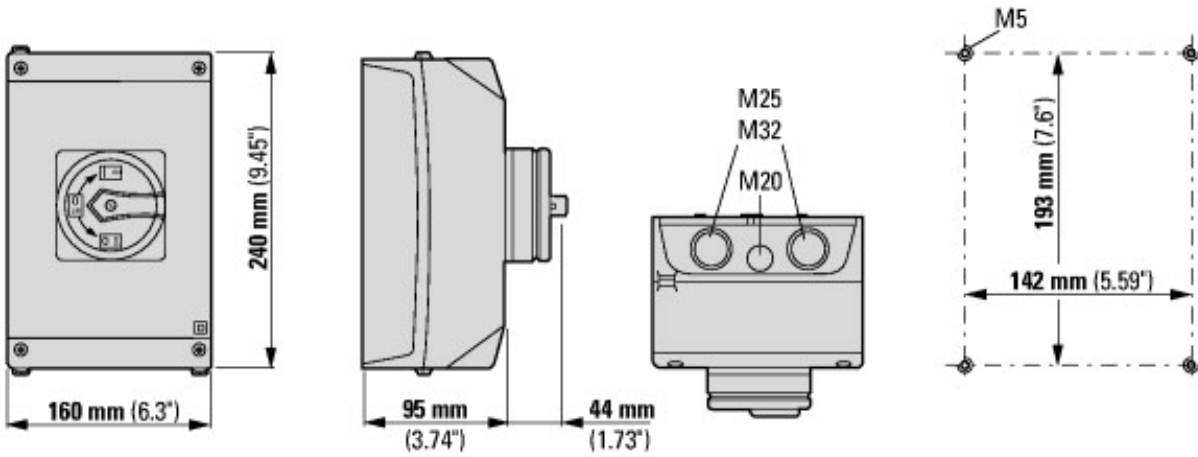
## Technical data ETIM 7.0

|                                                         |    |                            |
|---------------------------------------------------------|----|----------------------------|
| 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 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                                         |    | 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                                     |    | Complete device in housing |
| 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                      |    | No                         |
| 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)                             |    | 12                         |

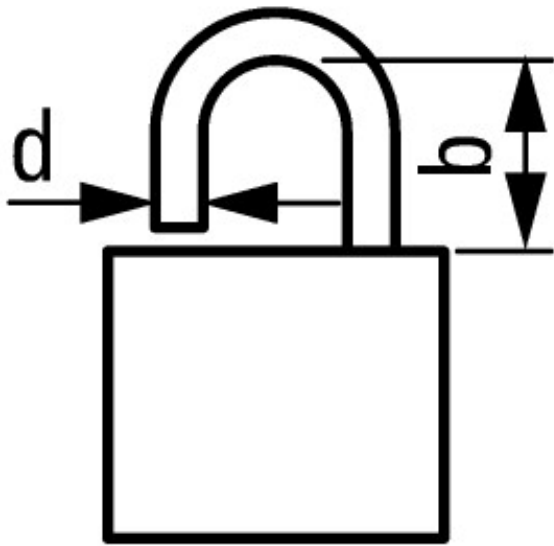
## Approvals

|                                      |  |                                                                                                                                                                                            |
|--------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Standards                    |  | UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking                                                                                                   |
| UL File No.                          |  | E36332                                                                                                                                                                                     |
| UL Category Control No.              |  | NLRV                                                                                                                                                                                       |
| CSA File No.                         |  | 12528                                                                                                                                                                                      |
| CSA Class No.                        |  | 3211-05                                                                                                                                                                                    |
| North America Certification          |  | UL listed, CSA certified                                                                                                                                                                   |
| Specially designed for North America |  | Yes, with an alternative front plate and/or terminal markings to those of the IEC type and with additional labeling according to UL on the enclosure in combination with "+NA-14" (105868) |
| Suitable for                         |  | Branch circuits, suitable as motor disconnect                                                                                                                                              |
| Degree of Protection                 |  | IEC: IP65; UL/CSA Type 1, 12                                                                                                                                                               |

## Dimensions



Cam switches T5B and T5 are of identical design, only their contacts are different



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

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

**$d = 0.16 - 0.31 \text{''}$**

**$b + d \leq 1.85 \text{''}$**

$\leq 3$  padlocks

## Assets (links)

### Declaration of CE Conformity

00003073

### 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>                           |
| 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>             |