



**Main switch, T0, 20 A, surface mounting, 2 contact unit(s), 3 pole, 1 N/0, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position**



**Part no. T0-2-15679/I1/SVB**  
**Catalog No. 207149**

**Delivery program**

|  |                |                 |   |
|--|----------------|-----------------|---|
| Product range                                      |                |                 | Main switch<br>maintenance switch<br>Repair switch                              |
| Part group reference                               |                |                 | T0  |
| Stop Function                                      |                |                 | Emergency switching off function  |
| Number of poles                                    |                |                 | With red rotary handle and yellow locking ring<br>3 pole                        |
| <b>Auxiliary contacts</b>                          |                |                 |   |
|  |                | N/O             | 1   |
|  |                | N/C             | 0   |
| Locking facility                                   |                |                 | Lockable in the 0 (Off) position  |
| Degree of Protection                               |                |                 | IP65  |
|  |                |                 | <b>totally insulated</b>  |
| Design   |                |                 | surface mounting  |
|  |                |                 |   |
| Contact sequence                                   |                |                 |   |
| Switching angle                                    |                | °               | 90  |
| Design number                                      |                |                 | 15679   |
| Function   |                |                 |   |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |                 |   |
| 400 V  | P              | kW              | 5.5   |
| Rated uninterrupted current                        | I <sub>u</sub> | A               | 20  |
| Note on rated uninterrupted current I <sub>u</sub> |                |                 | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |
| Number of contact units                            |                | contact unit(s) | 2   |

**Technical data**

|                |  |  |   |
|----------------|--|--|---|
| <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                   |           |      |  |
| 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                                     |          |           | 3 pole   |
| Auxiliary contacts                                  |          |           |  |
|   |          | N/O       | 1  |
|   |          | N/C       | 0  |
| Electrical characteristics                          |          |           |  |
| Rated operational voltage                           | $U_e$    | V AC      | 690  |
| Rated uninterrupted current                         | $I_U$    | A         | 20   |
| 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   | 20   |
| Rated short-time withstand current (1 s current)    | $I_{cw}$ | $A_{rms}$ | 320  |
| Note on rated short-time withstand current $I_{cw}$ |          |           | Current for a time of 1 second   |
| Rated conditional short-circuit current             | $I_q$    | kA        | 6  |

## Switching capacity

|  |              |          |       |
|--|--------------|----------|-------|
| cos $\varphi$ rated making capacity as per IEC 60947-3         |              | A        | 130   |
| Rated breaking capacity cos $\varphi$ to IEC 60947-3           |              | A        |       |
| 230 V  |              | A        | 100   |
| 400/415 V  |              | A        | 110   |
| 500 V  |              | A        | 80    |
| 690 V  |              | A        | 60    |
| Safe isolation to EN 61140                                     |              |          |       |
| between the contacts   |              | V AC     | 440   |
| Current heat loss per contact at $I_e$                         |              | W        | 0.6   |
| Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V) |              | CO       | 0.6   |
| Lifespan, mechanical   | Operations   | $x 10^6$ | > 0.4 |
| Maximum operating frequency                                    | Operations/h |          | 1200  |
| AC   |              |          |       |
| AC-3   |              |          |       |
| Rating, motor load switch                                      | P            | kW       |       |
| 220 V 230 V  | P            | kW       | 3     |
| 230 V Star-delta   | P            | kW       | 5.5   |
| 400 V 415 V  | P            | kW       | 5.5   |
| 400 V Star-delta   | P            | kW       | 7.5   |
| 500 V  | P            | kW       | 5.5   |
| 500 V Star-delta   | P            | kW       | 7.5   |
| 690 V  | P            | kW       | 4     |
| 690 V Star-delta   | P            | kW       | 5.5   |
| Rated operational current motor load switch                    |              |          |       |
| 230 V  | $I_e$        | A        | 11.5  |
| 230 V star-delta   | $I_e$        | A        | 20    |
| 400V 415 V   | $I_e$        | A        | 11.5  |

|   |                   |                |  |
|---|-------------------|----------------|--|
| 400 V star-delta                              | I <sub>e</sub>    | A              | 20   |
| 500 V   | I <sub>e</sub>    | A              | 9  |
| 500 V star-delta                              | I <sub>e</sub>    | A              | 15.6   |
| 690 V   | I <sub>e</sub>    | A              | 4.9  |
| 690 V star-delta                              | I <sub>e</sub>    | A              | 8.5  |
| <b>AC-21A</b>                                 |                   |                |  |
| Rated operational current switch              |                   |                |  |
| 440 V   | I <sub>e</sub>    | A              | 20   |
| <b>AC-23A</b>                                 |                   |                |  |
| Motor rating AC-23A, 50 - 60 Hz               |                   |                |  |
| 230 V   | P                 | kW             | 3  |
| 400 V 415 V                                   | P                 | kW             | 5.5  |
| 500 V   | P                 | kW             | 7.5  |
| 690 V   | P                 | kW             | 5.5  |
| Rated operational current motor load switch   |                   |                |  |
| 230 V   | I <sub>e</sub>    | A              | 13.3   |
| 400 V 415 V                                   | I <sub>e</sub>    | A              | 13.3   |
| 500 V   | I <sub>e</sub>    | A              | 13.3   |
| 690 V   | I <sub>e</sub>    | A              | 7.6  |
| <b>DC</b>                                     |                   |                |  |
| <b>DC-1, Load-break switches L/R = 1 ms</b>   |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 10   |
| Voltage per contact pair in series            |                   |                |  |
|   |                   | V              | 60   |
| <b>DC-21A</b>                                 |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 1  |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 1  |
| <b>DC-23A, motor load switch L/R = 15 ms</b>  |                   |                |  |
| 24 V  |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 10   |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 1  |
| 48 V  |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 10   |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 2  |
| 60 V  |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 10   |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 3  |
| 120 V   |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 5  |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 3  |
| 240 V   |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 5  |
| Contacts                                      |                   |                |  |
|   |                   | Quantity       | 5  |
| <b>DC-13, Control switches L/R = 50 ms</b>    |                   |                |  |
| Rated operational current                     |                   |                |  |
|   | I <sub>e</sub>    | A              | 10   |
| Voltage per contact pair in series            |                   |                |  |
|   |                   | V              | 32   |
| 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 (1 - 2,5)<br>2 x (1 - 2,5)       |
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> | 1 x (0.75 - 2.5)<br>2 x (0.75 - 2.5) |
| Terminal screw                       |  |                 | M3.5                                 |
| Tightening torque for terminal screw |  | Nm              | 1                                    |

## Technical safety parameters:

|                                       |  |       |   |
|---------------------------------------|--|-------|---|
| <b>Notes</b>                          |  |       | B10 <sub>q</sub> values as per EN ISO 13849-1, table C1 |
| <b>Rating data for approved types</b> |  |       |   |
| Terminal capacity                     |  |       |   |
| Terminal screw                        |  |       | M3.5  |
| Tightening torque                     |  | lb-in | 8.83  |

## Design verification as per IEC/EN 61439

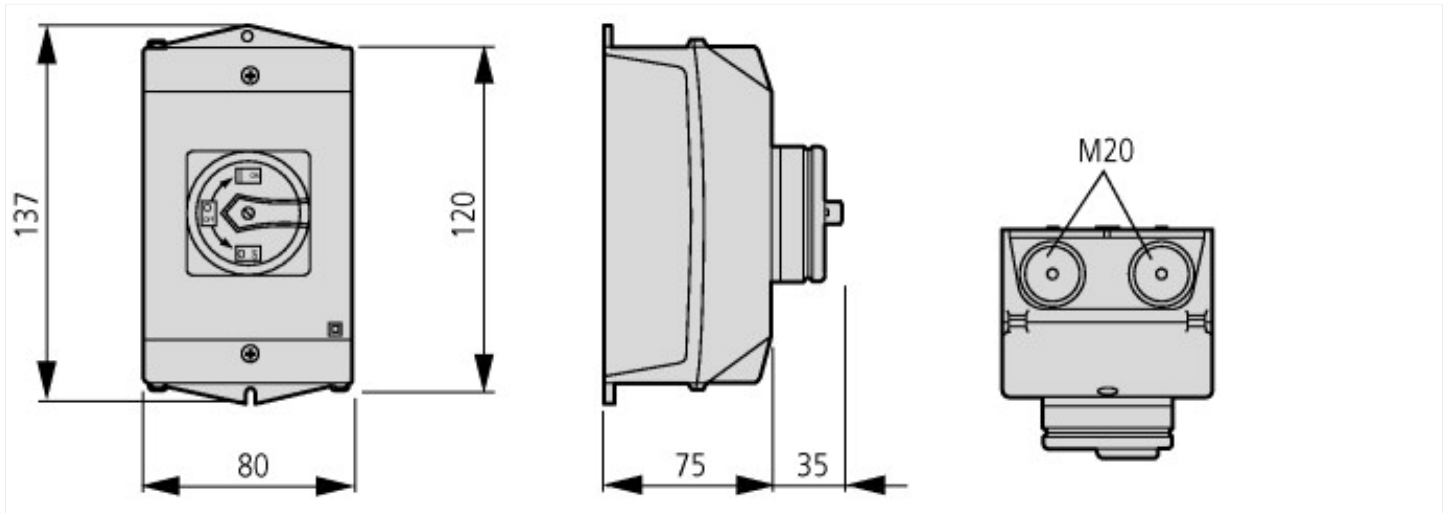
|  |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | I <sub>n</sub>    | A  | 20   |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 0.6  |
| 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 | 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

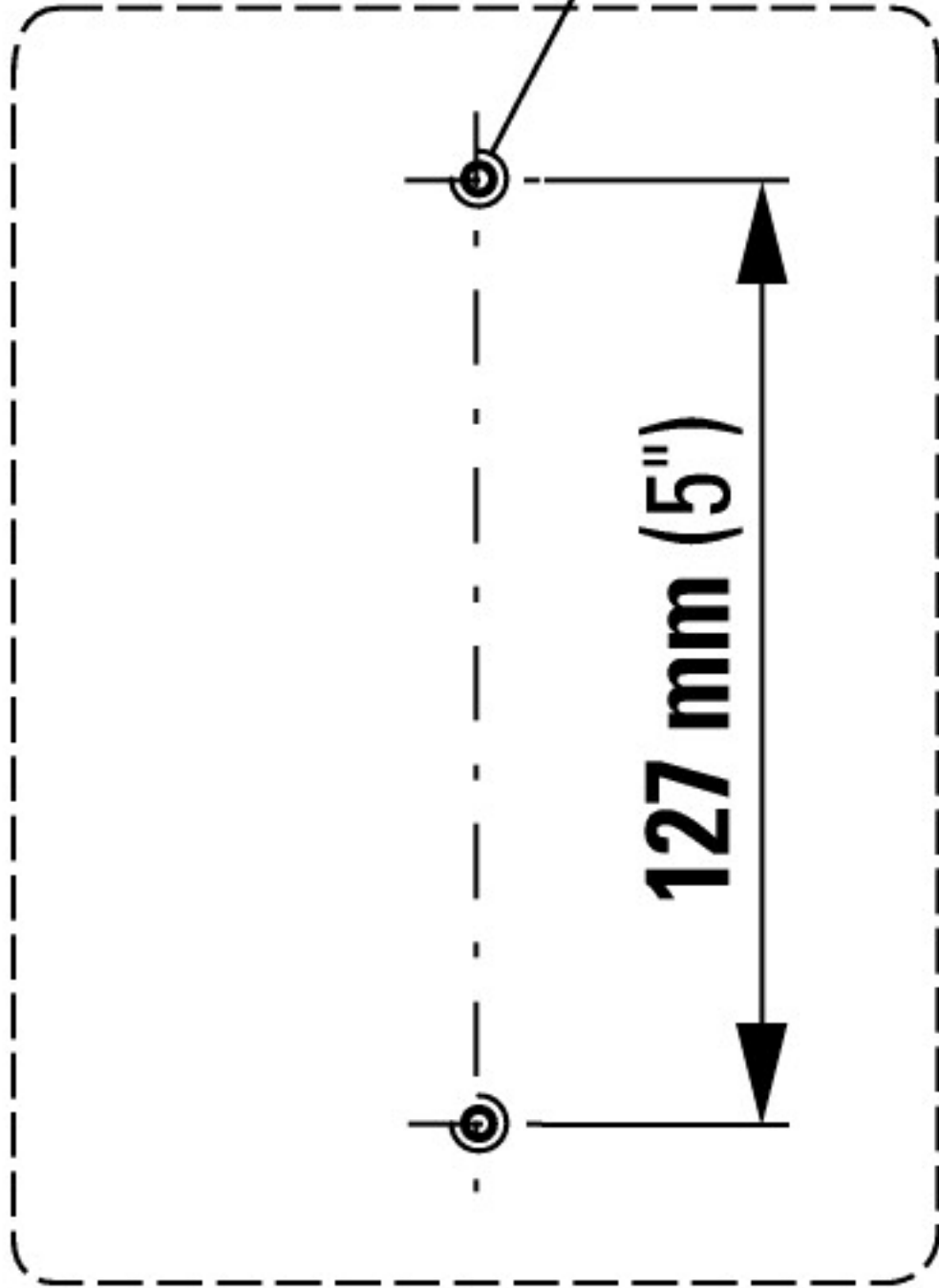
|   |  |   |           |
|---|--|---|-----------|
| Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)   |  |   |           |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013]) |  |   |           |
| Version as main switch  |  |   | Yes       |
| Version as maintenance-/service switch  |  |   | Yes       |
| Version as safety switch  |  |   | Yes       |
| 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  | 20                         |
| Rated permanent current at AC-23, 400 V                 | A  | 13.3                       |
| Rated permanent current at AC-21, 400 V                 | A  | 20                         |
| Rated operation power at AC-3, 400 V                    | kW | 5.5                        |
| Rated short-time withstand current I <sub>cw</sub>      | kA | 0.32                       |
| Rated operation power at AC-23, 400 V                   | kW | 5.5                        |
| Switching power at 400 V                                | kW | 5.5                        |
| Conditioned rated short-circuit current I <sub>q</sub>  | kA | 6                          |
| Number of poles   |    | 3                          |
| Number of auxiliary contacts as normally closed contact |    | 0                          |
| Number of auxiliary contacts as normally open contact   |    | 1                          |
| 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)                             |    | Other                      |

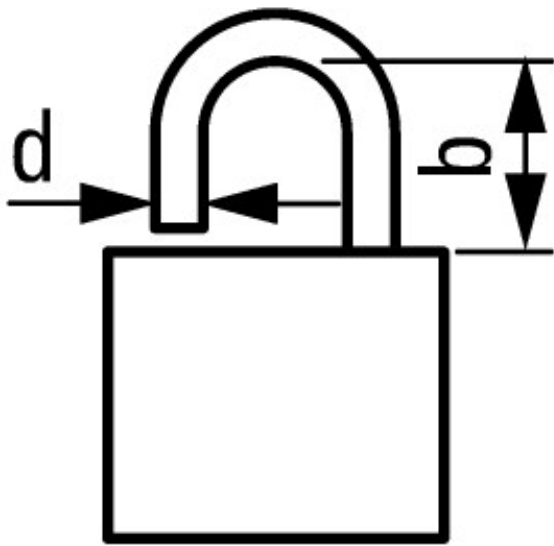
## Dimensions



M4



Drilling dimensions base



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

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

**$d = 0.16 - 0.31''$**

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

≤ 3 padlocks

### Additional product information (links)

#### IL03801007Z (AWA1150-1687) Cam switch: Surface mounting enclosure

|   |   |
|---|---|
| IL03801007Z (AWA1150-1687) Cam switch: Surface mounting enclosure | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801007Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801007Z2018_05.pdf</a>                           |
| Display flip catalog page.  | <a href="http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=40">http://ecat.moeller.net/flip-cat/?edition=K115A&amp;startpage=40</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>             |