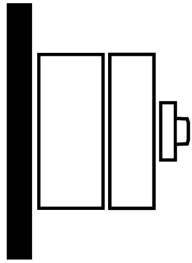
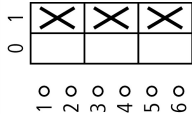
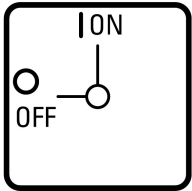




**Main switch, P1, 25 A, surface mounting, 3 pole, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position, hard knockout version**

**Part no. P1-25/I2H/SVB**  
**Catalog No. 226900**

**Delivery program**

|  |                |     |  |
|--|----------------|-----|--|
| Product range                                      |                |     | Main switch<br>maintenance switch<br>Repair switch                                   |
| Part group reference                               |                |     | P1   |
| Stop Function                                      |                |     | Emergency switching off function   |
| Information about equipment supplied               |                |     | With red rotary handle and yellow locking ring                                       |
| Notes  |                |     | Auxiliary contact or neutral conductor fitted by user.                               |
| Number of poles                                    |                |     | hard knockout version  |
|  |                |     | 3 pole   |
| <b>Auxiliary contacts</b>                          |                |     |  |
|  |                | N/O | 0  |
|  |                | N/C | 0  |
| Locking facility                                   |                |     | Lockable in the 0 (Off) position   |
| Degree of Protection                               |                |     | IP65   |
|  |                |     | <b>totally insulated</b>   |
| Design   |                |     | surface mounting   |
|  |                |     |  |
| Contact sequence                                   |                |     |  |
| Function   |                |     |  |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |     |  |
| 400 V  | P              | kW  | 11   |
| Rated uninterrupted current                        | I <sub>u</sub> | A   | 25   |
| Note on rated uninterrupted current I <sub>u</sub> |                |     | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section.      |

**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  |

|                                       |           |      |                                      |
|---------------------------------------|-----------|------|--------------------------------------|
|                                       |           |      | Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature                   |           |      |                                      |
| 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                                     |          |              | 3 pole   |
| Auxiliary contacts                                  |          |              |  |
|   |          | N/O          | 0  |
|   |          | N/C          | 0  |
| Electrical characteristics                          |          |              |  |
| Rated operational voltage                           | $U_e$    | V AC         | 690  |
| Rated uninterrupted current                         | $I_u$    | A            | 25   |
| 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      | 25   |
| Rated short-time withstand current (1 s current)    | $I_{cw}$ | $A_{rms}$    | 640  |
| Note on rated short-time withstand current $I_{cw}$ |          |              | Current for a time of 1 second   |
| Rated conditional short-circuit current             | $I_q$    | kA           | 50   |

## Switching capacity

|   |              |               |       |
|---|--------------|---------------|-------|
| $\cos \varphi$ rated making capacity as per IEC 60947-3 |              | A             | 240   |
| Rated breaking capacity $\cos \varphi$ to IEC 60947-3   |              | A             |       |
| 230 V   |              | A             | 190   |
| 400/415 V   |              | A             | 150   |
| 500 V   |              | A             | 170   |
| 690 V   |              | A             | 150   |
| Safe isolation to EN 61140                              |              |               |       |
| between the contacts                                    |              | V AC          | 440   |
| Current heat loss per contact at $I_e$                  |              | W             | 1.1   |
| Lifespan, mechanical                                    | Operations   | $\times 10^6$ | > 0.3 |
| Maximum operating frequency                             | Operations/h |               | 1200  |
| AC  |              |               |       |
| AC-3  |              |               |       |
| Rating, motor load switch                               | P            | kW            |       |
| 220 V 230 V   | P            | kW            | 5.5   |
| 400 V 415 V   | P            | kW            | 7.5   |
| 500 V   | P            | kW            | 7.5   |
| 690 V   | P            | kW            | 7.5   |
| Rated operational current motor load switch             |              |               |       |
| 230 V   | $I_e$        | A             | 19.6  |
| 400V 415 V  | $I_e$        | A             | 15.2  |
| 500 V   | $I_e$        | A             | 12.1  |
| 690 V   | $I_e$        | A             | 8.8   |
| AC-23A  |              |               |       |
| Motor rating AC-23A, 50 - 60 Hz                         | P            | kW            |       |
| 230 V   | P            | kW            | 5.5   |
| 400 V 415 V   | P            | kW            | 11    |
| 500 V   | P            | kW            | 11    |

|   |                   |                |  |
|---|-------------------|----------------|--|
| 690 V   | P                 | kW             | 11   |
| Rated operational current motor load switch   |                   |                |  |
| 230 V   | I <sub>e</sub>    | A              | 25   |
| 400 V 415 V                                   | I <sub>e</sub>    | A              | 25   |
| 500 V   | I <sub>e</sub>    | A              | 17.4   |
| 690 V   | I <sub>e</sub>    | A              | 12.6   |
| <b>DC</b>                                     |                   |                |  |
| DC-1, Load-break switches L/R = 1 ms          |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25   |
| 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              | 25   |
| Contacts                                      |                   | Quantity       | 1  |
| 48 V  |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25   |
| Contacts                                      |                   | Quantity       | 2  |
| 60 V  |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25   |
| Contacts                                      |                   | Quantity       | 2  |
| 120 V   |                   |                |  |
| Rated operational current                     | I <sub>e</sub>    | A              | 12   |
| Contacts                                      |                   | Quantity       | 3  |
| 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 (1,5 - 6)<br>2 x (1,5 - 6) |
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> | 1 x (1 - 4)<br>2 x (1 - 4)     |
| Terminal screw                       |  |                 | M4                             |
| Tightening torque for terminal screw |  | Nm              | 1.6                            |

### Technical safety parameters:

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

### Rating data for approved types

|                                     |                |      |                |
|-------------------------------------|----------------|------|----------------|
| <b>Contacts</b>                     |                |      |                |
| Rated operational voltage           | U <sub>e</sub> | V AC | 600            |
| Rated uninterrupted current max.    |                |      |                |
| Main conducting paths               |                |      |                |
| General use                         |                | A    | 20             |
| Auxiliary contacts                  |                |      |                |
| General Use                         | I <sub>U</sub> | A    | 10             |
| Pilot Duty                          |                |      | A 600<br>P 600 |
| <b>Switching capacity</b>           |                |      |                |
| Maximum motor rating                |                |      |                |
| Single-phase                        |                |      |                |
| 120 V AC                            |                | HP   | 1              |
| 200 V AC                            |                | HP   | 2              |
| 240 V AC                            |                | HP   | 3              |
| Three-phase                         |                |      |                |
| 200 V AC                            |                | HP   | 3              |
| 240 V AC                            |                | HP   | 5              |
| 480 V AC                            |                | HP   | 10             |
| 600 V AC                            |                | HP   | 15             |
| <b>Short Circuit Current Rating</b> |                |      |                |
| Basic Rating                        |                | kA   | 5              |

|  |       |             |
|--|-------|-------------|
| max. Fuse                                | A     | 110         |
| High fault rating                        | kA    | 10          |
| max. Fuse                                | A     | 50, Class J |
| Terminal capacity                        |       |             |
| Solid or flexible conductor with ferrule | AWG   | 14 - 8      |
| Terminal screw                           |       | M4          |
| Tightening torque                        | lb-in | 14.1        |

## Design verification as per IEC/EN 61439

| Technical data for design verification   |            |    |  |
|--|------------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 25   |
| 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 | 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

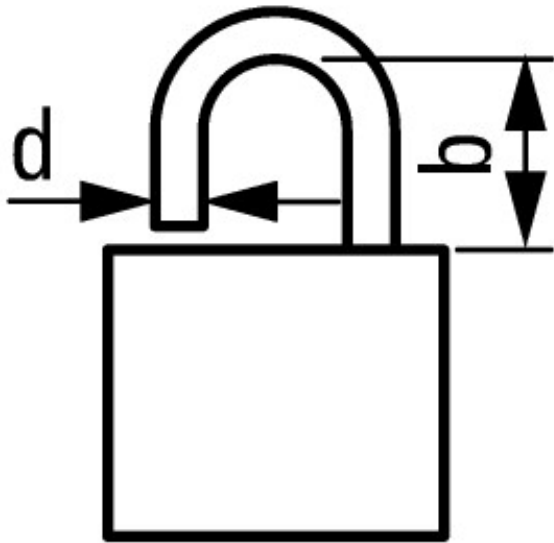
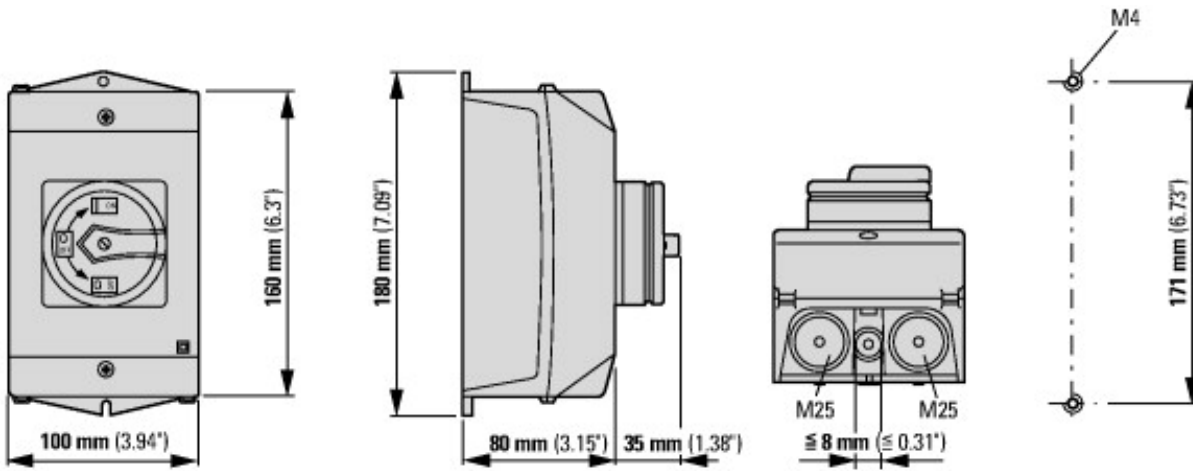
| Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)   |  |  |     |
|---|--|--|-----|
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec1@ss10.0.1-27-37-14-03 [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 Ue AC                      | V  | 690                        |
| Rated operating voltage                                 | V  | 690 - 690                  |
| Rated permanent current Iu                              | A  | 25                         |
| Rated permanent current at AC-23, 400 V                 | A  | 25                         |
| Rated permanent current at AC-21, 400 V                 | A  | 25                         |
| Rated operation power at AC-3, 400 V                    | kW | 7.5                        |
| Rated short-time withstand current Icw                  | kA | 0.64                       |
| Rated operation power at AC-23, 400 V                   | kW | 13                         |
| Switching power at 400 V                                | kW | 13                         |
| Conditioned rated short-circuit current Iq              | kA | 80                         |
| Number of poles   |    | 3                          |
| 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, additional labeling according to UL on the enclosure in combination with "+NA-I2" (105866) |
| Suitable for                         |  | Branch circuits, suitable as motor disconnect   |
| Degree of Protection                 |  | IEC: IP65; UL/CSA Type 1, 12  |

## Dimensions



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

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

$$d = 0.16 - 0.31''$$

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

$\leq 3$  padlocks

## Additional product information (links)

|  |   |
|--|---|
| 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> |