

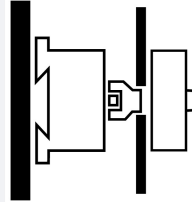
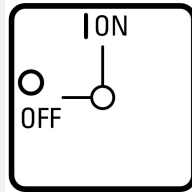




**Main switch, 3 pole + 2 N/O + 2 N/C, 63 A, Emergency-Stop function, rear mounting**

**Part no. P3-63/V/SVB/2HI11**  
**Article no. 014465**

## Delivery program

|   |       |     |  |
|---|-------|-----|--|
| Product range   |       |     | Main switch<br>maintenance switch<br>Repair switch                                   |
| Part group reference  |       |     | P3   |
| Stop Function   |       |     | Emergency switching off function<br>With red rotary handle and yellow locking ring   |
| Number of poles   |       |     | 3 pole   |
| <b>Auxiliary contacts</b>   |       |     |  |
|  |       | N/O | 2  |
|  |       | N/C | 2  |
| Degree of Protection  |       |     | Front IP65   |
| Design  |       |     | rear mounting  |
|   |       |     |   |
| Function  |       |     |  |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>  |       |     |  |
| 400 V   | P     | kW  | 30   |
| Rated uninterrupted current   | $I_u$ | A   | 63   |

## Technical data

|   |           |      |  |
|---|-----------|------|--|
| <b>General</b>  |           |      |  |
| Standards   |           |      | IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL<br>Switch-disconnector according to IEC/EN 60947-3<br>NEMA12 |
| Climatic proofing   |           |      | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30                             |
| Ambient temperature   |           |      |  |
| Open  |           | °C   | -25 - +50  |
| Enclosed  |           | °C   | -25 - +40  |
| Overvoltage category/pollution degree                                 |           |      | III/3  |
| Rated impulse withstand voltage                                       | $U_{imp}$ | V AC | 6000   |
| Mechanical shock resistance   |           | g    | 15   |
| Mounting position   |           |      | As required  |
| Protection against direct contact when actuated from front (EN 50274) |           |      | Finger and back-of-hand proof  |
| <b>Contacts</b>   |           |      |  |
| Mechanical variables  |           |      |  |
| Number of poles   |           |      | 3 pole   |
| Auxiliary contacts  |           |      |  |

|  |              |               |  |
|--|--------------|---------------|--|
|  |              | N/O           | 2  |
|  |              | N/C           | 2  |
| <b>Electrical characteristics</b>                              |              |               |  |
| 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. |
| <b>Load rating with intermittent operation, class 12</b>       |              |               |  |
| AB 25 % DF   |              | $\times I_e$  | 2  |
| AB 40 % DF   |              | $\times I_e$  | 1.6  |
| AB 60 % DF   |              | $\times I_e$  | 1.3  |
| <b>Short-circuit rating</b>                                    |              |               |  |
| Fuse   |              | A gG/gL       | 80   |
| Rated short-time withstand current (1 s current)               | $I_{cw}$     | $A_{rms}$     | 1260   |
| Note on rated short-time withstand current $I_{cw}$            |              |               | Current for a time of 1 second   |
| Rated conditional short-circuit current                        | $I_q$        | kA            | 4  |
| <b>Switching capacity</b>                                      |              |               |  |
| $\cos \varphi$ rated making capacity as per IEC 60947-3        |              | A             | 800  |
| Rated breaking capacity $\cos \varphi$ to IEC 60947-3          |              | A             |  |
| 230 V  |              | A             | 640  |
| 400/415 V  |              | A             | 600  |
| 500 V  |              | A             | 590  |
| 690 V  |              | A             | 340  |
| <b>Safe isolation to EN 61140</b>                              |              |               |  |
| 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            | 0.2  |
| Lifespan, mechanical   | Operations   | $\times 10^6$ | > 0.1  |
| Maximum operating frequency                                    | Operations/h |               | 1200   |
| <b>AC</b>  |              |               |  |
| <b>AC-3</b>  |              |               |  |
| Rating, motor load switch                                      | P            | kW            |  |
| 220 V 230 V  | P            | kW            | 15   |
| 400 V 415 V  | P            | kW            | 30   |
| 500 V  | P            | kW            | 30   |
| 690 V  | P            | kW            | 30   |
| Rated operational current motor load switch                    |              |               |  |
| 230 V  | $I_e$        | A             | 51   |
| 400V 415 V   | $I_e$        | A             | 55   |
| 500 V  | $I_e$        | A             | 44   |
| 690 V  | $I_e$        | A             | 22.1   |
| <b>AC-21A</b>  |              |               |  |
| Rated operational current switch                               |              |               |  |
| 440 V  | $I_e$        | A             | 63   |
| <b>AC-23A</b>  |              |               |  |
| Motor rating AC-23A, 50 - 60 Hz                                | P            | kW            |  |
| 230 V  | P            | kW            | 18.5   |
| 400 V 415 V  | P            | kW            | 30   |
| 500 V  | P            | kW            | 45   |
| 690 V  | P            | kW            | 55   |
| Rated operational current motor load switch                    |              |               |  |
| 230 V  | $I_e$        | A             | 63   |
| 400 V 415 V  | $I_e$        | A             | 63   |
| 500 V  | $I_e$        | A             | 63   |
| 690 V  | $I_e$        | A             | 63   |

|   |                   |                |   |
|---|-------------------|----------------|---|
| 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       | 2   |
| 120 V   |                   |                |   |
| Rated operational current                     | I <sub>e</sub>    | A              | 25  |
| Contacts                                      |                   | Quantity       | 3   |
| 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 - 10) |
| Flexible with ferrules to DIN 46228 |  | mm <sup>2</sup> | 1 x (1,5 - 25)<br>2 x (1,5 - 6)  |
| Terminal screw                      |  |                 | M5                               |
| Max. tightening torque              |  | Nm              | 3                                |

### 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                              | I <sub>U</sub> | A     | 60             |
| Auxiliary contacts                       |                |       |                |
| General Use                              | I <sub>U</sub> | A     | 10             |
| Pilot Duty                               |                |       | A 600<br>P 600 |
| 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    | 50             |
| Short Circuit Current Rating             |                |       |                |
| Basic Rating                             |                |       |                |
|  |                | kA    | 10             |
| max. Fuse                                |                |       |                |
|  |                | A     | 150            |
| Terminal capacity                        |                |       |                |
| Solid or flexible conductor with ferrule |                |       |                |
|  |                | AWG   | 14 - 2         |
| Terminal screw                           |                |       |                |
|  |                |       | M5             |
| Tightening torque                        |                |       |                |
|  |                | lb-in | 26.5           |

## 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 | 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   |            |    |  |
|  |            |    | Please enquire   |
| 10.2.5 Lifting   |            |    |  |
|  |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.6 Mechanical impact   |            |    |  |
|  |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.7 Inscriptions  |            |    |  |
|  |            |    | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES  |            |    |  |
|  |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.4 Clearances and creepage distances   |            |    |  |
|  |            |    | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock   |            |    |  |
|  |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.6 Incorporation of switching devices and components   |            |    |  |
|  |            |    | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.7 Internal electrical circuits and connections  |            |    |  |
|  |            |    | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors   |            |    |  |
|  |            |    | Is the panel builder's responsibility.   |
| 10.9 Insulation properties   |            |    |  |
| 10.9.2 Power-frequency electric strength   |            |    |  |
|  |            |    | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage   |            |    |  |
|  |            |    | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material   |            |    |  |
|  |            |    | Is the panel builder's responsibility.   |
| 10.10 Temperature rise   |            |    |  |
|  |            |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating   |            |    |  |
|  |            |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility  |            |    |  |
|  |            |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function  |            |    |  |
|  |            |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 6.0

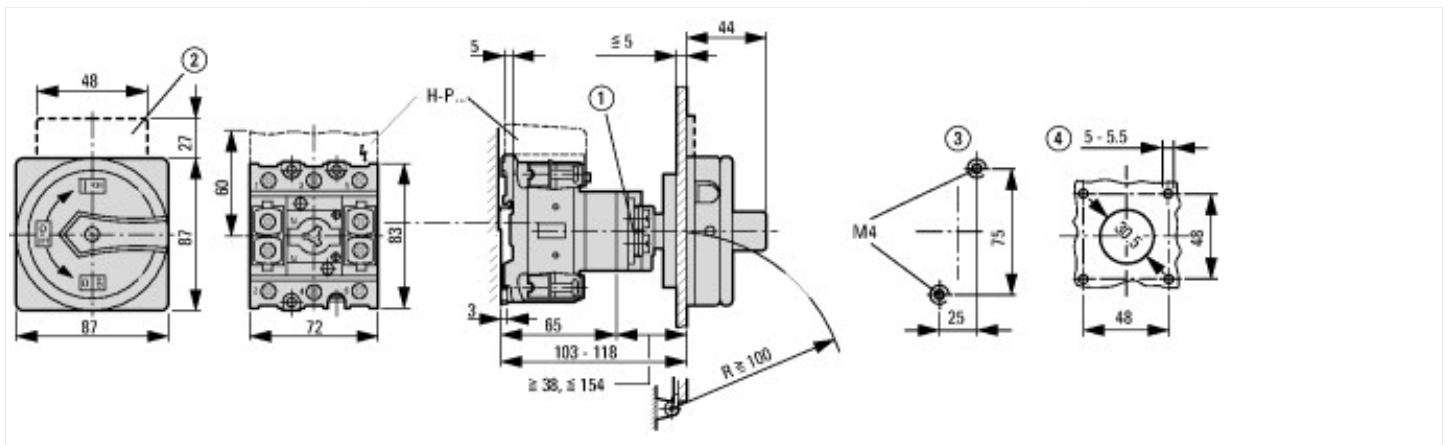
| Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)   |  |    |           |
|---|--|----|-----------|
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec@ss8.1-27-37-14-03 [AKF060010]) |  |    |           |
| 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        |
| Max. rated operation voltage $U_e$ AC   |  | V  | 690       |
| Rated operating voltage   |  | V  | 690 - 690 |
| Rated permanent current $I_u$   |  | A  | 63        |
| Rated permanent current at AC-21, 400 V   |  | A  | 63        |
| Rated operation power at AC-3, 400 V  |  | kW | 30        |
| Rated short-time withstand current $I_{cw}$   |  | kA | 1.26      |
| Rated operation power at AC-23, 400 V   |  | kW | 30        |
| Switching power at 400 V  |  | kW | 30        |
| Conditioned rated short-circuit current $I_q$   |  | kA | 4         |

|   |  |  |
|---|--|--|
| Number of poles   |  | 3  |
| Number of auxiliary contacts as normally closed contact |  | 2  |
| Number of auxiliary contacts as normally open contact   |  | 2  |
| 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 center                      |  | 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                                     |

## Approvals

|                             |  |   |
|-----------------------------|--|---|
| Product Standards           |  | UL 508; CSA-C22.2 No. 14-05; 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  |
| Suitable for                |  | Branch circuits, suitable as motor disconnect                             |
| Degree of Protection        |  | IEC: IP65; UL/CSA Type 1, 12  |

## Dimensions



- ① Shaft and interlock extension with ZAV-P3 + ZVV-P3 possible; max.  $4 \times 25 = 100$  mm
- ② ZFS... Label mount not included as standard
- ③ Drilling dimensions base
- ④ Drilling dimensions door



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

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

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

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

 3 padlocks

### Additional product information (links)

#### IL03802005Z (AWA1150-1981) Switch-disconnectors for rear mounting

|   |   |
|---|---|
| IL03802005Z (AWA1150-1981) Switch-disconnectors for rear mounting | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03802005Z2016_07.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03802005Z2016_07.pdf</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> |