

**Main switch, P1, 32 A, flush mounting, 3 pole, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position**

**Part no.** P1-32/EA/SVB-SW  
**Catalog No.** 053111

## Delivery program

|  |                |     |   |
|--|----------------|-----|---|
| Product range                                      |                |     | Main switch<br>maintenance switch   |
| Part group reference                               |                |     | P1  |
| Stop Function                                      |                |     | STOP function   |
|  |                |     | With black rotary handle and locking ring                                       |
| Information about equipment supplied               |                |     | Auxiliary contact or neutral conductor fitted by user.                          |
| Number of poles                                    |                |     | 3 pole  |
| <b>Auxiliary contacts</b>                          |                |     |   |
|  |                | N/O | 0   |
|  |                | N/C | 0   |
| Locking facility                                   |                |     | Lockable in the 0 (Off) position  |
| Degree of Protection                               |                |     | Front IP65  |
| Design   |                |     | flush mounting  |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |     |   |
| 400 V  | P              | kW  | 15  |
| Rated uninterrupted current                        | I <sub>u</sub> | A   | 32  |
| Note on rated uninterrupted current I <sub>u</sub> |                |     | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |

## Technical data

### General

|                                       |                  |      |  |
|---------------------------------------|------------------|------|--|
| 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 <sub>imp</sub> | 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 <sub>e</sub> | V AC             | 690   |
| Rated uninterrupted current                        | I <sub>u</sub> | A                | 32  |
| Note on rated uninterrupted current I <sub>u</sub> |                |                  | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |
| Load rating with intermittent operation, class 12  |                |                  |   |
| AB 25 % DF   |                | x I <sub>e</sub> | 2   |
| AB 40 % DF   |                | x I <sub>e</sub> | 1.6   |

|  |                 |                   |                                |
|--|-----------------|-------------------|--------------------------------|
| AB 60 % DF   |                 | x I <sub>e</sub>  | 1.3                            |
| Short-circuit rating                                       |                 |                   |                                |
| Fuse   |                 | A gG/gL           | 50                             |
| Rated short-time withstand current (1 s current)           | I <sub>cw</sub> | A <sub>rms</sub>  | 640                            |
| Note on rated short-time withstand current I <sub>cw</sub> |                 |                   | Current for a time of 1 second |
| Rated conditional short-circuit current                    | I <sub>q</sub>  | kA                | 80                             |
| <b>Switching capacity</b>                                  |                 |                   |                                |
| cos φ rated making capacity as per IEC 60947-3             |                 | A                 | 320                            |
| Rated breaking capacity cos φ to IEC 60947-3               |                 | A                 |                                |
| 230 V  |                 | A                 | 260                            |
| 400/415 V  |                 | A                 | 300                            |
| 500 V  |                 | A                 | 290                            |
| 690 V  |                 | A                 | 250                            |
| Safe isolation to EN 61140                                 |                 |                   |                                |
| between the contacts                                       |                 | V AC              | 440                            |
| Current heat loss per contact at I <sub>e</sub>            |                 | W                 | 1.8                            |
| Lifespan, mechanical                                       | Operations      | x 10 <sup>6</sup> | > 0.3                          |
| 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                | 7.5                            |
| 400 V 415 V  | P               | kW                | 13                             |
| 500 V  | P               | kW                | 18.5                           |
| 690 V  | P               | kW                | 15                             |
| Rated operational current motor load switch                |                 |                   |                                |
| 230 V  | I <sub>e</sub>  | A                 | 26.4                           |
| 400V 415 V   | I <sub>e</sub>  | A                 | 26.4                           |
| 500 V  | I <sub>e</sub>  | A                 | 23.4                           |
| 690 V  | I <sub>e</sub>  | A                 | 14.7                           |
| <b>AC-23A</b>  |                 |                   |                                |
| Motor rating AC-23A, 50 - 60 Hz                            | P               | kW                |                                |
| 230 V  | P               | kW                | 7.5                            |
| 400 V 415 V  | P               | kW                | 15                             |
| 500 V  | P               | kW                | 18.5                           |
| 690 V  | P               | kW                | 15                             |
| Rated operational current motor load switch                |                 |                   |                                |
| 230 V  | I <sub>e</sub>  | A                 | 32                             |
| 400 V 415 V  | I <sub>e</sub>  | A                 | 32                             |
| 500 V  | I <sub>e</sub>  | A                 | 30                             |
| 690 V  | I <sub>e</sub>  | A                 | 19.8                           |
| <b>DC</b>  |                 |                   |                                |
| <b>DC-1, Load-break switches L/R = 1 ms</b>                |                 |                   |                                |
| Rated operational current                                  | I <sub>e</sub>  | A                 | 32                             |
| Voltage per contact pair in series                         |                 | V                 | 60                             |
| <b>DC-23A, motor load switch L/R = 15 ms</b>               |                 |                   |                                |
| 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:

|       |  |  |   |
|-------|--|--|---|
| 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     | 30             |
| 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    | 1              |
| 200 V AC                                 |                | HP    | 2              |
| 240 V AC                                 |                | HP    | 3              |
| Three-phase                              |                |       |                |
| 200 V AC                                 |                | HP    | 3              |
| 240 V AC                                 |                | HP    | 7.5            |
| 480 V AC                                 |                | HP    | 10             |
| 600 V AC                                 |                | HP    | 15             |
| Short Circuit Current Rating             |                | SCCR  |                |
| 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 <sub>n</sub>    | A  | 32  |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub>  | W  | 1.8 |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub>  | W  | 0   |
| Static heat dissipation, non-current-dependent           | P <sub>vs</sub>   | W  | 0   |
| Heat dissipation capacity                                | P <sub>diss</sub> | W  | 0   |
| Operating ambient temperature min.                       |                   | °C | -25 |
| Operating ambient temperature max.                       |                   | °C | 50  |
| IEC/EN 61439 design verification                         |                   |    |     |
| 10.2 Strength of materials and parts                     |                   |    |     |

|  |  |  |
|--|--|--|
| 10.2.2 Corrosion resistance  |  | Meets the product standard's requirements.   |
| 10.2.3.1 Verification of thermal stability of enclosures   |  | Meets the product standard's requirements.   |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |  | Meets the product standard's requirements.   |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |  | Meets the product standard's requirements.   |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |  | UV resistance only in connection with protective shield.   |
| 10.2.5 Lifting   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.6 Mechanical impact   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.2.7 Inscriptions  |  | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES  |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.4 Clearances and creepage distances   |  | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.6 Incorporation of switching devices and components   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.7 Internal electrical circuits and connections  |  | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors   |  | Is the panel builder's responsibility.   |
| 10.9 Insulation properties   |  |  |
| 10.9.2 Power-frequency electric strength   |  | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage   |  | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material   |  | Is the panel builder's responsibility.   |
| 10.10 Temperature rise   |  | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating   |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility  |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function  |  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 8.0

|   |  |    |  |
|---|--|----|--|
| Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)   |  |    |  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecI@ss10.0.1-27-37-14-03 [AKF060013]) |  |    |  |
| Version as main switch  |  |    | Yes                                      |
| Version as maintenance-/service switch  |  |    | Yes                                      |
| Version as safety switch  |  |    | No                                       |
| Version as emergency stop installation  |  |    | No                                       |
| 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  | 32                                       |
| Rated permanent current at AC-23, 400 V   |  | A  | 32                                       |
| Rated permanent current at AC-21, 400 V   |  | A  | 32                                       |
| Rated operation power at AC-3, 400 V  |  | kW | 13                                       |
| Rated short-time withstand current Icw  |  | kA | 0.64                                     |
| Rated operation power at AC-23, 400 V   |  | kW | 15                                       |
| Switching power at 400 V  |  | kW | 15                                       |
| 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   |  |    | Built-in device fixed built-in technique |
| Suitable for floor mounting   |  |    | No                                       |
| Suitable for front mounting 4-hole  |  |    | Yes                                      |

|   |  |  |                            |
|---|--|--|----------------------------|
| Suitable for front mounting centre            |  |  | No                         |
| Suitable for distribution board installation  |  |  | No                         |
| Suitable for intermediate mounting            |  |  | No                         |
| Colour control element                        |  |  | Black                      |
| 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)                   |  |  | 1                          |