

**Main switch, P1, 32 A, surface mounting, 3 pole + N, Emergency switching off function, With red rotary handle and yellow locking ring, Lockable in the 0 (Off) position**



**Part no.** P1-32/I2/SVB/N  
**Catalog No.** 207319

**EL-Nummer (Norway)** 1417166

### Delivery program

|  |                |     |  |
|--|----------------|-----|--|
| Product range                                      |                |     | Main switch<br>maintenance switch  |
| Part group reference                               |                |     | P1   |
| Stop Function                                      |                |     | Emergency switching off function<br>With red rotary handle and yellow locking ring |
| Information about equipment supplied               |                |     | auxiliary contact fitted by user.  |
| Number of poles                                    |                |     | 3 pole + N   |
| <b>Auxiliary contacts</b>                          |                |     |  |
|  |                | N/O | 0  |
|  |                | N/C | 0  |
| Locking facility                                   |                |     | Lockable in the 0 (Off) position   |
| Degree of Protection                               |                |     | IP65   |
| Design   |                |     | surface mounting   |
| Switching angle                                    |                | °   | 90   |
| <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<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 <sub>imp</sub> | V AC | 6000  |
| Mechanical shock resistance           |                  | g    | 15  |
| Mounting position                     |                  |      | As required   |

#### Contacts

|  |                |                  |   |
|--|----------------|------------------|---|
| <b>Mechanical variables</b>                              |                |                  |   |
| Number of poles  |                |                  | 3 pole + N  |
| Auxiliary contacts                                       |                |                  |   |
|  |                | N/O              | 0   |
|  |                | N/C              | 0   |
| <b>Electrical characteristics</b>                        |                |                  |   |
| 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. |
| <b>Load rating with intermittent operation, class 12</b> |                |                  |   |
| 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                             |

### Switching capacity

|   |                |                   |       |
|---|----------------|-------------------|-------|
| 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  |
| AC  |                |                   |       |
| AC-3  |                |                   |       |
| 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  |
| AC-23A  |                |                   |       |
| 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  |
| DC  |                |                   |       |
| DC-1, Load-break switches L/R = 1 ms            |                |                   |       |
| Rated operational current                       | I <sub>e</sub> | A                 | 32    |
| 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                     | $I_e$             | A        | 25  |
| Contacts                                      |                   | Quantity | 2   |
| 120 V   |                   |          |   |
| Rated operational current                     | $I_e$             | A        | 12  |
| Contacts                                      |                   | Quantity | 3   |
| Control circuit reliability at 24 V DC, 10 mA | Fault probability | $H_F$    | $< 10^{-5}$ , $< 1$ failure in 100,000 switching operations |

### Terminal capacities

|                                      |  |               |                                |
|--------------------------------------|--|---------------|--------------------------------|
| Solid or stranded                    |  | $\text{mm}^2$ | 1 x (1,5 - 6)<br>2 x (1,5 - 6) |
| Flexible with ferrules to DIN 46228  |  | $\text{mm}^2$ | 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

|                   |  |       |        |
|-------------------|--|-------|--------|
| Terminal capacity |  |       |        |
| Terminal screw    |  |       | M4     |
| Tightening torque |  | lb-in | 14.128 |

## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 32   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 1.8  |
| 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 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 (ec@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  | 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  |    | 4                          |
| 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 floor 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                         |