DATASHEET - P3-63/EA/SVB-SW



Main switch, P3, 63 A, flush mounting, 3 pole, STOP function, With black rotary handle and locking ring, Lockable in the 0 (Off) position



Part no. Catalog No. P3-63/EA/SVB-SW 057857

| Delivery program | | | |
|--|----|-----|---|
| Product range | | | Main switch maintenance switch Repair switch |
| Part group reference | | | P3 |
| 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 |
| Auxiliary contacts | | | |
| с. | | N/0 | 0 |
| 7 | | N/C | 0 |
| Locking facility | | | Lockable in the 0 (Off) position |
| Degree of Protection | | | Front IP65 |
| Design | | | flush mounting |
| | | | |
| Contact sequence | | | |
| Function | | | |
| Motor rating AC-23A, 50 - 60 Hz | | | |
| 400 V | P | kW | 30 |
| Rated uninterrupted current | lu | A | 63 |
| Note on rated uninterrupted current !u | | | Rated uninterrupted current \boldsymbol{I}_{u} is specified for max. cross-section. |

Technical data

| General | | |
|---------------------|----|--|
| Standards | | IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL Switch-disconnector according to IEC/EN 60947-3 NEMA12 |
| Climatic proofing | | Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature | | |
| Open | °C | -25 - +50 |
| Enclosed | °C | -25 - +40 |

| Overvoltage category/pollution degree | | | 111/3 |
|--|------------------|-------------------|---|
| Rated impulse withstand voltage | U _{imp} | V AC | 6000 |
| Mechanical shock resistance | omp | g | 15 |
| Mounting position | | y | As required |
| Contacts | | | |
| Mechanical variables | | | |
| Number of poles | | | 3 pole |
| Auxiliary contacts | | | |
| | | N/0 | 0 |
| | | N/C | 0 |
| Electrical characteristics | | | |
| Rated operational voltage | U _e | V AC | 690 |
| Rated uninterrupted current | l _u | A | 63 |
| Note on rated uninterrupted current !u | | | Rated uninterrupted current I _u is specified for max. cross-section. |
| Load rating with intermittent operation, class 12 | | | |
| AB 25 % DF | | x l _e | 2 |
| AB 40 % DF | | x le | 1.6 |
| AB 60 % DF | | x l _e | 1.3 |
| Short-circuit rating | | e | |
| Fuse | | A gG/gL | 80 |
| Rated short-time withstand current (1 s current) | I _{cw} | A go/gc | 1260 |
| Note on rated short-time withstand current (r s current) | 'CW | ~ rms | Current for a time of 1 second |
| Rated conditional short-circuit current | 1 | kA | 4 |
| Switching capacity | lq | ка | 4 |
| cos φ rated making capacity as per IEC 60947-3 | | A | 800 |
| Rated breaking capacity cos φ to IEC 60947-3 | | A | |
| 230 V | | A | 640 |
| 400/415 V | | A | 600 |
| 500 V | | A | 590 |
| 690 V | | A | 340 |
| Safe isolation to EN 61140 | | | |
| between the contacts | | V AC | 440 |
| Current heat loss per contact at l _e | | W | 4.5 |
| Lifespan, mechanical | Operations | x 10 ⁶ | > 0.1 |
| Maximum operating frequency | Operations/h | | 1200 |
| AC | | | |
| AC-3 | | | |
| Rating, motor load switch | Р | kW | |
| 220 V 230 V | Р | kW | 15 |
| 400 V 415 V | Р | kW | 30 |
| 500 V | Р | kW | 30 |
| 690 V | Р | kW | 30 |
| Rated operational current motor load switch | | | |
| 230 V | l _e | A | 51 |
| 400V 415 V | le | A | 55 |
| 500 V | l _e | A | 44 |
| 690 V | l _e | A | 22.1 |
| AC-23A | | | |
| Motor rating AC-23A, 50 - 60 Hz | Р | kW | |
| 230 V | P | kW | 18.5 |
| 400 V 415 V | Р | kW | 30 |
| 500 V | Р | kW | 45 |
| 690 V | Р | kW | 55 |
| Rated operational current motor load switch | | | |
| | | | |

| 230 V | le | A | 63 |
|---|----------------------|-----------------|---|
| 400 V 415 V | l _e | A | 63 |
| 500 V | l _e | A | 63 |
| 690 V | | A | 63 |
| DC | l _e | ~ | |
| DC-1, Load-break switches L/R = 1 ms | | | |
| Rated operational current | 1 | A | 63 |
| | l _e | | |
| Voltage per contact pair in series DC-23A, motor load switch L/R = 15 ms | | V | 60 |
| 24 V | | | |
| Rated operational current | 1 | A | 50 |
| Contacts | l _e | | |
| 48 V | | Quantity | |
| 46 V Rated operational current | | A | 50 |
| | le | | |
| Contacts | | Quantity | 2 |
| 60 V | | ٨ | 50 |
| Rated operational current | le | A | 50 |
| Contacts | | Quantity | 2 |
| 120 V | | ٨ | 0E |
| Rated operational current | le | A | 25 |
| Contacts | Foult | Quantity | |
| 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 | | mm ² | 1 x (2,5 - 35) 2 x (2,5 - 10) |
| Flexible with ferrules to DIN 46228 | | 2 | 1 x (1.5 - 25) |
| | | mm ² | 2 x (1.5 - 6) |
| Terminal screw | | | M5 |
| Tightening torque for terminal screw | | Nm | 3 |
| Technical safety parameters: | | | |
| Notes | | | $B10_d$ values as per EN ISO 13849-1, table C1 |
| Rating data for approved types Contacts | | | |
| Rated operational voltage | U _e | V AC | 600 |
| Rated uninterrupted current max. | | | |
| Main conducting paths | | | |
| General use | | А | 60 |
| Auxiliary contacts | | | |
| General Use | IU | A | 10 |
| Pilot Duty | | | A 600 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 | | SCCR | |
| Basic Rating | | kA | 10 |
| max. Fuse | | A | 150 |
| Terminal capacity | | | |
| 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

| Design vermeation as per reo/en 01-05 | | | |
|---|-------------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I _n | Α | 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 | | | 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 disconnector (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@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 lu | А | 63 |
| Rated permanent current at AC-23, 400 V | А | 63 |

| Rated permanent current at AC-21, 400 V | А | | 63 |
|---|----|---|--|
| Rated operation power at AC-3, 400 V | kV | W | 30 |
| Rated short-time withstand current Icw | kA | A | 1.26 |
| Rated operation power at AC-23, 400 V | kV | W | 30 |
| Switching power at 400 V | kV | W | 30 |
| Conditioned rated short-circuit current Iq | kA | A | 4 |
| 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 ground 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) | | | 12 |

Approvals

| Approvais | |
|-----------------------------|---|
| 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 |
| Suitable for | Branch circuits, suitable as motor disconnect |
| Degree of Protection | IEC: IP65; UL/CSA Type 1, 12 |

Dimensions



