

**Safety switch, P3, 100 A, 3 pole + N, STOP function, With black rotary handle and locking ring, Lockable in position 0 with cover interlock, with warning label „safety switch“**



**Part no. P3-100/I5-SI/N-SW  
207391**

| General specifications                         |  |   |
|--|--|---|
| Product name                                   |  | Eaton Moeller® series P3 Accessory Insulated enclosure  |
| Part no.                                       |  | P3-100/I5-SI/N-SW   |
| EAN  |  | 4015082073916   |
| Product Length/Depth                           |  | 169 millimetre  |
| Product height                                 |  | 280 millimetre  |
| Product width                                  |  | 200 millimetre  |
| Product weight                                 |  | 1.49 kilogram   |
| Certifications                                 |  | IEC/EN 60947<br>IEC/EN 60204<br>IEC/EN 60947-3<br>VDE 0660  |
| Product Tradename                              |  | P3  |
| Product Type                                   |  | Accessory   |
| Product Sub Type                               |  | Insulated enclosure   |
| Catalog Notes                                  |  | Rated Short-time Withstand Current (Icw) for a time of 1 second   |
| Features & Functions                           |  |   |
| Features                                       |  | Version as safety switch  |
| Fitted with:                                   |  | Warning label "Safety switch"<br>Black rotary handle and locking ring   |
| Functions                                      |  | STOP function<br>Interlockable  |
| Locking facility                               |  | Lockable in the 0 (Off) position (cover interlock)  |
| Number of poles                                |  | Four-pole   |
| General information                            |  |   |
| Accessories                                    |  | Auxiliary contact fitted by user.   |
| Degree of protection                           |  | NEMA 12   |
| Degree of protection (front side)              |  | IP65  |
| Lifespan, mechanical                           |  | 100,000 Operations  |
| Mounting method                                |  | Surface mounting  |
| Mounting position                              |  | As required   |
| Operating frequency                            |  | 1200 Operations/h   |
| Overvoltage category                           |  | III   |
| Pollution degree                               |  | 3   |
| Rated impulse withstand voltage (Uimp)         |  | 6000 V AC   |
| Safe isolation                                 |  | 440 V AC, Between the contacts, According to EN 61140   |
| Safety parameter (EN ISO 13849-1)              |  | B10d values as per EN ISO 13849-1, table C.1  |
| Shock resistance                               |  | 15 g, Mechanical, According to IEC/EN 60068-2-27, Half-sinusoidal shock 20 ms   |
| Suitable for                                   |  | Ground mounting   |
| Climatic environmental conditions              |  |   |
| Ambient operating temperature - min            |  | -25 °C  |
| Ambient operating temperature - max            |  | 40 °C   |
| Ambient operating temperature (enclosed) - min |  | -25 °C  |
| Ambient operating temperature (enclosed) - max |  | 40 °C   |
| Climatic proofing                              |  | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78  |
| Terminal capacities                            |  |   |
| Terminal capacity                              |  | 2 x (1.5 - 6) mm <sup>2</sup> , flexible with ferrules to DIN 46228<br>2 x (2.5 - 10) mm <sup>2</sup> , solid or stranded<br>1 x (1.5 - 25) mm <sup>2</sup> , flexible with ferrules to DIN 46228 |

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|  |  | 1 x (2.5 - 35) mm <sup>2</sup> , solid or stranded  |
| Screw size   |  | M5, Terminal screw  |
| Tightening torque  |  | 26.5 lb-in, Screw terminals<br>3 Nm, Screw terminals  |
| <b>Electrical rating</b>   |  |   |
| Rated breaking capacity at 220/230 V (cos phi to IEC 60947-3)          |  | 760 A   |
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)          |  | 740 A   |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3)              |  | 880 A   |
| Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)          |  | 520 A   |
| Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V            |  | 71 A  |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V            |  | 71 A  |
| Rated operational current (Ie) at AC-3, 500 V                          |  | 65 A  |
| Rated operational current (Ie) at AC-3, 660 V, 690 V                   |  | 23.8 A  |
| Rated operational current (Ie) at AC-21, 440 V                         |  | 100 A   |
| Rated operational current (Ie) at AC-23A, 230 V                        |  | 100 A   |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V                 |  | 100 A   |
| Rated operational current (Ie) at AC-23A, 500 V                        |  | 96 A  |
| Rated operational current (Ie) at AC-23A, 690 V                        |  | 68 A  |
| Rated operational current (Ie) at DC-1, load-break switches I/r = 1 ms |  | 100 A   |
| Rated operational current (Ie) at DC-23A, 24 V                         |  | 50 A  |
| Rated operational current (Ie) at DC-23A, 48 V                         |  | 50 A  |
| Rated operational current (Ie) at DC-23A, 60 V                         |  | 50 A  |
| Rated operational current (Ie) at DC-23A, 120 V                        |  | 25 A  |
| Rated operational power at AC-3, 380/400 V, 50 Hz                      |  | 37 kW   |
| Rated operational power at AC-3, 415 V, 50 Hz                          |  | 37 kW   |
| Rated operational power at AC-3, 500 V, 50 Hz                          |  | 45 kW   |
| Rated operational power at AC-3, 690 V, 50 Hz                          |  | 37 kW   |
| Rated operational power at AC-23A, 220/230 V, 50 Hz                    |  | 30 kW   |
| Rated operational power at AC-23A, 400 V, 50 Hz                        |  | 55 kW   |
| Rated operational power at AC-23A, 500 V, 50 Hz                        |  | 55 kW   |
| Rated operational power at AC-23A, 690 V, 50 Hz                        |  | 55 kW   |
| Rated operational voltage (Ue) at AC - max                             |  | 690 V   |
| Rated uninterrupted current (Iu)                                       |  | 100 A   |
| Uninterrupted current  |  | Rated uninterrupted current Iu is specified for max. cross-section.   |
| <b>Short-circuit rating</b>  |  |   |
| Rated conditional short-circuit current (Iq)                           |  | 4 kA (Load side)<br>80 kA (Supply side)   |
| Rated short-time withstand current (Icw)                               |  | 2 kA  |
| Short-circuit protection rating  |  | 100 A gG/gL, Fuse, Contacts   |
| <b>Switching capacity</b>  |  |   |
| Load rating  |  | 2 x I# (with intermittent operation class 12, 25 % duty factor)<br>1.6 x I# (with intermittent operation class 12, 40 % duty factor)<br>1.3 x I# (with intermittent operation class 12, 60 % duty factor) |
| Number of contacts in series at DC-23A, 24 V                           |  | 1   |
| Number of contacts in series at DC-23A, 48 V                           |  | 2   |
| Number of contacts in series at DC-23A, 60 V                           |  | 2   |
| Number of contacts in series at DC-23A, 120 V                          |  | 3   |
| Rated making capacity up to 690 V (cos phi to IEC/EN 60947-3)          |  | 950 A   |
| Voltage per contact pair in series                                     |  | 60 V  |
| <b>Contacts</b>  |  |   |
| Control circuit reliability  |  | 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)   |
| Number of auxiliary contacts (change-over contacts)                    |  | 0   |
| Number of auxiliary contacts (normally closed contacts)                |  | 0   |
| Number of auxiliary contacts (normally open contacts)                  |  | 0   |
| <b>Actuator</b>  |  |   |
| Actuator color   |  | Black   |

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| Actuator type  |  | Door coupling rotary drive   |
| <b>Design verification</b>   |  |  |
| Equipment heat dissipation, current-dependent Pvid                               |  | 7.5 W  |
| Heat dissipation capacity Pdiss  |  | 0 W  |
| Heat dissipation per pole, current-dependent Pvid                                |  | 7.5 W  |
| Rated operational current for specified heat dissipation (In)                    |  | 100 A  |
| Static heat dissipation, non-current-dependent Pvs                               |  | 0 W  |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.   |
| 10.9.2 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

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| 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  |    | No        |
| Version as maintenance-/service switch  |    | No        |
| Version as safety switch  |    | Yes       |
| 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  | 100       |
| Rated permanent current at AC-23, 400 V   | A  | 100       |
| Rated permanent current at AC-21, 400 V   | A  | 100       |
| Rated operation power at AC-3, 400 V  | kW | 37        |
| Rated short-time withstand current Icw  | kA | 2         |
| Rated operation power at AC-23, 400 V   | kW | 55        |
| Switching power at 400 V  | kW | 55        |
| 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         |

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|---|--|----------------------------|
| 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                        |  | Black                      |
| Type of control element                       |  | Door coupling rotary drive |
| Interlockable                                 |  | No                         |
| Type of electrical connection of main circuit |  | Screw connection           |
| Degree of protection (IP), front side         |  | IP65                       |
| Degree of protection (NEMA)                   |  | 12                         |