

P3 Main switch, 80 A,Rear mounting, Form M4/SVB

Part no. P3-80/M4/SVB-SW/N  
EP-400953

|                                                               |  |                                                                                |  |
|---------------------------------------------------------------|--|--------------------------------------------------------------------------------|--|
| General specifications                                        |  |                                                                                |  |
| Product name                                                  |  | Eaton Moeller® series P3 Main switch                                           |  |
| Part no.                                                      |  | P3-80/M4/SVB-SW/N                                                              |  |
| EAN                                                           |  | 4015082963088                                                                  |  |
| Product Length/Depth                                          |  | 340 millimetre                                                                 |  |
| Product height                                                |  | 88 millimetre                                                                  |  |
| Product width                                                 |  | 97 millimetre                                                                  |  |
| Product weight                                                |  | 0.58 kilogram                                                                  |  |
| Certifications                                                |  | IEC/EN 60947-3<br>UL<br>CSA<br>IEC/EN 60204<br>VDE 0660<br>IEC/EN 60947        |  |
| Product Tradename                                             |  | P3                                                                             |  |
| Product Type                                                  |  | Main switch                                                                    |  |
| Product Sub Type                                              |  | None                                                                           |  |
| Features & Functions                                          |  |                                                                                |  |
| Number of poles                                               |  | Four-pole                                                                      |  |
| General information                                           |  |                                                                                |  |
| Accessories                                                   |  | Auxiliary contact or neutral conductor fitted by user.                         |  |
| Degree of protection                                          |  | NEMA Other                                                                     |  |
| Degree of protection (front side)                             |  | IP65                                                                           |  |
| Lifespan, mechanical                                          |  | 100,000 Operations                                                             |  |
| Mounting method                                               |  | Rear 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  |  |
| Switching angle                                               |  | 90 °                                                                           |  |
| Climatic environmental conditions                             |  |                                                                                |  |
| Ambient operating temperature - min                           |  | -25 °C                                                                         |  |
| Ambient operating temperature - max                           |  | 50 °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 |  |
| Electrical rating                                             |  |                                                                                |  |
| 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                                   |  | 80 A                                                                                    |
| Rated operational current (Ie) at AC-23A, 230 V                                  |  | 80 A                                                                                    |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V                           |  | 80 A                                                                                    |
| Rated operational current (Ie) at AC-23A, 500 V                                  |  | 80 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           |  | 80 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                                |  | 30 kW                                                                                   |
| Rated operational power at AC-3, 500 V, 50 Hz                                    |  | 45 kW                                                                                   |
| Rated operational power at AC-23A, 400 V, 50 Hz                                  |  | 30 kW                                                                                   |
| Rated operational voltage (Ue) at AC - max                                       |  | 690 V                                                                                   |
| Rated uninterrupted current (Iu)                                                 |  | 80 A                                                                                    |
| Uninterrupted current                                                            |  | Rated uninterrupted current Iu is specified for max. cross-section.                     |
| Short-circuit rating                                                             |  |                                                                                         |
| Rated conditional short-circuit current (Iq)                                     |  | 80 kA (Supply side)<br>4 kA (Load side)                                                 |
| Rated short-time withstand current (Icw)                                         |  | 2 kA                                                                                    |
| Short-circuit protection rating                                                  |  | 100 A gG/gL, Fuse, Contacts                                                             |
| Switching capacity                                                               |  |                                                                                         |
| 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                                                                                    |
| Motor rating                                                                     |  |                                                                                         |
| Assigned motor power at 115/120 V, 60 Hz, 1-phase                                |  | 5 HP                                                                                    |
| Assigned motor power at 200/208 V, 60 Hz, 1-phase                                |  | 10 HP                                                                                   |
| Assigned motor power at 200/208 V, 60 Hz, 3-phase                                |  | 15 HP                                                                                   |
| Assigned motor power at 230/240 V, 60 Hz, 1-phase                                |  | 15 HP                                                                                   |
| Assigned motor power at 230/240 V, 60 Hz, 3-phase                                |  | 20 HP                                                                                   |
| Assigned motor power at 460/480 V, 60 Hz, 3-phase                                |  | 50 HP                                                                                   |
| Assigned motor power at 575/600 V, 60 Hz, 3-phase                                |  | 60 HP                                                                                   |
| Contacts                                                                         |  |                                                                                         |
| 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                                                                                       |
| Actuator                                                                         |  |                                                                                         |
| Actuator color                                                                   |  | Black                                                                                   |
| Actuator type                                                                    |  | Door coupling rotary drive                                                              |
| Design verification                                                              |  |                                                                                         |
| Equipment heat dissipation, current-dependent Pvid                               |  | 0 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)                    |  | 80 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 9.0

|                                                                                                                                                                                                           |  |    |                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------------------------------------------|
| Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216)                                                                                                               |  |    |                                          |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss13-27-37-14-03 [AKF060018]) |  |    |                                          |
| Version as main switch                                                                                                                                                                                    |  |    | No                                       |
| Version as maintenance-/service switch                                                                                                                                                                    |  |    | No                                       |
| 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  | 80                                       |
| Rated permanent current at AC-23, 400 V                                                                                                                                                                   |  | A  | 80                                       |
| Rated permanent current at AC-21, 400 V                                                                                                                                                                   |  | A  | 80                                       |
| Rated operation power at AC-3, 400 V                                                                                                                                                                      |  | kW | 30                                       |
| Rated short-time withstand current Icw                                                                                                                                                                    |  | kA | 2                                        |
| Rated operation power at AC-23, 400 V                                                                                                                                                                     |  | kW | 30                                       |
| 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                                        |
| 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                                                                                                                                                                        |  |    | 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 |
| With pre-assembled cabling                    |  |    | No               |
| Degree of protection (IP), front side         |  |    | IP65             |
| Degree of protection (NEMA)                   |  |    | Other            |
| Width                                         |  | mm | 97               |
| Height                                        |  | mm | 88               |
| Depth                                         |  | mm | 340              |
| Width in number of modular spacings           |  |    |                  |