

SETRON, Fuse switch disconnecter 3NP1, 3-pole, NH3, 630 A, for Busbar system 8US 60 mm, Box terminal, Fuse monitoring: electronic EFM10, Cover level 32/70 mm



| Model  |                               |
|--|-------------------------------|
| Product brand name   | SETRON                        |
| Product designation  | 3NP1 fuse switch disconnecter |
| Design of the product  | cover level 32/70 mm          |
| Busbar design  | busbar thickness 5 or 10 mm   |
| Design of the safety monitoring                                | electronic EFM 10             |
| Design of the operating mechanism                              | Cover handle                  |
| Design of the load switch / Strip form                         | No                            |
| Type of the driving mechanism / motor drive                    | No                            |
| General technical data   |                               |
| Number of poles  | 3                             |
| Type of device   | For 60 mm 8US busbar system   |
| Size of disconnecting link                                     | 3 and 2                       |
| Size of fuse link  | NH2, NH3                      |
| Continuous current / at 35 °C / rated value                    | 630 A                         |
| Let-through current / with closed switch / maximum permissible | 60 kA                         |
| cut-off value $I^2t_{max.}$ / 500 V                            | 5 400 000 A <sup>2</sup> ·s   |
| Power factor   |                               |

|  |             |
|--|-------------|
| • at AC-22 B   | 0.65        |
| • at AC-23 B   | 0.35        |
| • with capacitive load                               | -0.25       |
| circuit-breaker / Design                             | 3NP11       |
| Mechanical service life (switching cycles) / typical | 1 000       |
| Fuse system  | LV HRC fuse |

| Voltage                                |       |
|--|-------|
| Insulation voltage / rated value       | 690 V |
| Power factor / at AC-21 B              | 0.95  |
| Surge voltage resistance / rated value | 8 kV  |

| Protection class  |      |
|---|------|
| Protection class IP                                     |      |
| • with closed switch / with cover or cable lug cover    | IP40 |
| • with closed switch / without cover or cable lug cover | IP30 |
| • on the front  | IP40 |
| • open  | IP20 |

| Electricity  |                             |
|--|-----------------------------|
| Continuous current   |                             |
| • rated value  | 630 A                       |
| • at 40 °C / rated value   | 610 A                       |
| • at 45 °C / rated value   | 575 A                       |
| • at 50 °C / rated value   | 555 A                       |
| • at 55 °C / rated value   | 530 A                       |
| Let-through current / with high-speed activation / maximum permissible | 50 kA                       |
| Let-through current / I <sub>c</sub> / maximum permissible             |                             |
| • 400 V  | 60 000 A                    |
| • 500V   | 60 000 A                    |
| cut-off value I <sup>2</sup> t <sub>max</sub> / 400 V                  | 5 400 000 A <sup>2</sup> ·s |

| Main circuit                             |       |
|--|-------|
| Operating voltage                        |       |
| • at AC / rated value / minimum          | 230 V |
| • at AC / rated value / maximum          | 690 V |
| Operating current / with capacitive load |       |
| • at 400 V / maximum                     | 72 A  |
| • at 500 V / maximum                     | 55 A  |

| Auxiliary circuit                              |   |
|--|---|
| Number of CO contacts / for auxiliary contacts | 0 |
| Number of NC contacts / for auxiliary contacts | 0 |

|  |   |
|--|---|
| Number of NO contacts / for auxiliary contacts | 0 |
|--|---|

## Suitability

### Suitability for use

|                             |     |
|-----------------------------|-----|
| • Main switch               | No  |
| • switch disconnecter       | Yes |
| • EMERGENCY OFF switch      | No  |
| • safety switch             | Yes |
| • maintenance/repair switch | Yes |

## Product details

|   |     |
|---|-----|
| Product feature / interlock                 | Yes |
| Product component                           |     |
| • Trip indicator                            | Yes |
| • Phase failure monitoring                  | No  |
| • undervoltage release                      | No  |
| • undervoltage release with leading contact | No  |
| Product feature / sealable                  | Yes |
| Product extension                           |     |
| • Auxiliary switch                          | Yes |
| • optional                                  |     |
| — locking capability                        | Yes |
| — motor drive                               | No  |
| — Phase failure monitoring                  | Yes |
| — Voltage trigger                           | No  |
| — Overvoltage protection monitoring         | Yes |

## Product function

|                                     |     |
|-------------------------------------|-----|
| Product function                    |     |
| • fuse monitoring                   | Yes |
| • Overvoltage protection monitoring | No  |

## Short circuit

|   |        |
|---|--------|
| Conditional short-circuit current (I <sub>q</sub> )           |        |
| • rated value   | 50 kA  |
| • at AC / at 500 V / with high-speed activation / rated value | 50 kA  |
| • at AC / at 690 V / with high-speed activation / rated value | 50 kA  |
| • with closed switch / at AC / at 500 V / rated value         | 100 kA |
| • with closed switch / at AC / at 690 V / rated value         | 100 kA |

## Connections

|  |                     |
|--|---------------------|
| Arrangement of electrical connectors / for main current circuit                      | other               |
| Connectable conductor cross-section / for main contacts                              |                     |
| • single or multi-stranded / minimum   | 50 mm <sup>2</sup>  |
| • single or multi-stranded / maximum   | 300 mm <sup>2</sup> |
| • stranded / minimum   | 50 mm <sup>2</sup>  |
| • stranded / maximum   | 300 mm <sup>2</sup> |
| Tightening torque / with screw-type terminals  |                     |
| • minimum  | 10 N·m              |
| • maximum  | 25 N·m              |
| Type of connectable conductor cross-sections / of the laminated conductors / maximum | 20 x 32 mm          |
| Type of electrical connection / for main current circuit                             | box terminal        |

### Mechanical Design





|  |                     |
|--|---------------------|
| Height                                   | 306 mm              |
| Width                                    | 249.4 mm            |
| Depth                                    | 195.7 mm            |
| Mounting position                        | horizontal/vertical |
| Mounting type                            | busbar              |
| Mounting type                            |                     |
| • floor mounting                         | No                  |
| • front mounting                         | No                  |
| • front mounting with 4-hole attachment  | No                  |
| • front mounting with central attachment | No                  |
| • rail mounting                          | Yes                 |
| Busbar center-to-center spacing          | 60 mm               |
| Net weight                               | 6.98 kg             |


### Environmental conditions

|                              |        |
|------------------------------|--------|
| Degree of pollution          | 2      |
| Ambient temperature          |        |
| • during operation / minimum | -25 °C |
| • during operation / maximum | 55 °C  |
| • during storage / minimum   | -50 °C |
| • during storage / maximum   | 80 °C  |

### Certificates

|                          |   |
|--------------------------|---|
| Reference code           |   |
| • acc. to DIN EN 61346-2 | Q |
| • acc. to DIN EN 81346-2 | Q |

| General Product Approval   |   |  | Declaration of Conformity   | Test Certificates                                  |
|--|---|--|---|--|
| <br>CCC | <br>UR | <br>VDE | <a href="#">Miscellaneous</a>   | <a href="#">Type Test Certificates/Test Report</a> |
|  |   |  | <br>EG-Konf. |  |

| Shipping Approval  |
|--|
| <br>LRS |

| Further information   |
|---|
| <b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="http://www.siemens.com/lowvoltage/catalogs">http://www.siemens.com/lowvoltage/catalogs</a>   |
| <b>Industry Mall (Online ordering system)</b><br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1163-1BC22">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1163-1BC22</a>  |
| <b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b><br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3NP1163-1BC22">https://support.industry.siemens.com/cs/ww/en/ps/3NP1163-1BC22</a>  |
| <b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)</b><br><a href="http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1163-1BC22">http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1163-1BC22</a> |
| <b>CAX-Online-Generator</b><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>  |
| <b>Tender specifications</b><br><a href="http://www.siemens.com/specifications">http://www.siemens.com/specifications</a>   |

