



SENTRON, Fuse switch disconnecter 3NP1, 3-pole, NH00, 160 A, for Rittal busbar system 60 mm, flat terminal, Fuse monitoring: electronic EFM10, Cover level 32/70 mm

### Model

|                                           |                               |
|-------------------------------------------|-------------------------------|
| product brand name                        | SENTRON                       |
| 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 actuating element           | 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 Rittal 60 mm busbar system |
| size of disconnecting link                                 | 00 and 000                     |
| size of fuse link                                          | NH000, NH00                    |
| let-through current with closed switch maximum permissible | 23 kA                          |
| mechanical service life (operating cycles) typical         | 2 000                          |
| power factor                                               |                                |
| • at AC-22 B                                               | 0.65                           |
| • at AC-23 B                                               | 0.45                           |
| • with capacitive load                                     | -0.25                          |
| fuse system                                                | LV HRC fuse                    |
| degree of pollution                                        | 2                              |

### Voltage

|                                                |         |
|------------------------------------------------|---------|
| insulation voltage                             |         |
| • rated value                                  | 690 V   |
| • with degree of pollution 3 at AC rated value | 690 V   |
| • with degree of pollution 2 at AC rated value | 1 000 V |
| power factor at AC-21 B                        | 0.95    |
| surge voltage resistance rated value           | 8 kV    |
| operating voltage                              |         |
| • at AC rated value minimum                    | 230 V   |
| • at AC rated value maximum                    | 690 V   |

### 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 |
| • open                                                | IP20 |
| • on the front                                        | IP40 |

### Dissipation

|                |  |
|----------------|--|
| power loss [W] |  |
|----------------|--|

|                                                                        |      |
|------------------------------------------------------------------------|------|
| • with conventional rated thermal current without fuse per pole        | 5 W  |
| • with conventional rated thermal current without fuse per device      | 15 W |
| • for rated value of the current at AC in hot operating state per pole | 17 W |
| • of the fuse per fuse maximum                                         | 12 W |

#### Current

|                                                                    |       |
|--------------------------------------------------------------------|-------|
| operational current                                                |       |
| • at 35 °C rated value                                             | 160 A |
| • at 40 °C rated value                                             | 155 A |
| • at 45 °C rated value                                             | 145 A |
| • at 50 °C rated value                                             | 140 A |
| • at 55 °C rated value                                             | 133 A |
| • at AC rated value                                                | 160 A |
| • at AC-23 B at 690 V rated value                                  | 35 A  |
| • at AC-23 B at 500 V rated value                                  | 63 A  |
| • at AC-23 B at 400 V rated value                                  | 160 A |
| • at AC-23 B at 240 V rated value                                  | 160 A |
| • at AC-22 B at 690 V rated value                                  | 125 A |
| • at AC-22 B at 500 V rated value                                  | 160 A |
| • at AC-22 B at 400 V rated value                                  | 160 A |
| • at AC-22 B at 240 V rated value                                  | 160 A |
| • at AC-21 B at 240 V rated value                                  | 160 A |
| • at AC-21 B at 400 V rated value                                  | 160 A |
| • at AC-21 B at 500 V rated value                                  | 160 A |
| • at AC-21 B at 690 V rated value                                  | 160 A |
| let-through current with high-speed activation maximum permissible | 15 kA |

#### Main circuit

|                                             |       |
|---------------------------------------------|-------|
| operational current                         |       |
| • rated value                               | 160 A |
| • with capacitive load at 400 V rated value | 72 A  |
| • with capacitive load at 500 V rated value | 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 component                           |     |
| • trip indicator                            | Yes |
| • undervoltage release                      | No  |
| • undervoltage release with leading contact | No  |
| product feature sealable                    | Yes |
| product extension auxiliary switch          | Yes |
| product extension 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  |

#### Connections

|                                                                                  |                     |
|----------------------------------------------------------------------------------|---------------------|
| arrangement of electrical connectors for main current circuit                    | other               |
| connectable conductor cross-section for main contacts                            |                     |
| • solid or stranded minimum                                                      | 2.5 mm <sup>2</sup> |
| • solid or stranded maximum                                                      | 95 mm <sup>2</sup>  |
| • stranded minimum                                                               | 2.5 mm <sup>2</sup> |
| • stranded maximum                                                               | 95 mm <sup>2</sup>  |
| tightening torque with screw-type terminals                                      |                     |
| • minimum                                                                        | 10 N·m              |
| • maximum                                                                        | 12 N·m              |
| type of connectable conductor cross-sections of the laminated conductors maximum | 24 x 12 mm          |
| type of connection technology                                                    | Flat terminal       |
| type of electrical connection for main current circuit                           | busbar connection   |

#### Mechanical Design

|                                          |                     |
|------------------------------------------|---------------------|
| height                                   | 215.1 mm            |
| width                                    | 105.8 mm            |
| depth                                    | 174.2 mm            |
| fastening method                         | busbar              |
| fastening method                         |                     |
| • floor mounting                         | No                  |
| • 4-hole front mounting                  | No                  |
| • front mounting with central attachment | No                  |
| • rail mounting                          | Yes                 |
| mounting position                        | horizontal/vertical |
| busbar center-to-center spacing          | 60 mm               |
| net weight                               | 1.12 kg             |

#### Environmental conditions

|                                      |        |
|--------------------------------------|--------|
| ambient temperature during operation |        |
| • minimum                            | -25 °C |
| • maximum                            | 55 °C  |
| ambient temperature during storage   |        |
| • minimum                            | -50 °C |
| • maximum                            | 80 °C  |

#### General Product Approval

#### Declaration of Conformity



[Confirmation](#)



[Miscellaneous](#)



#### Declaration of Conformity

#### Test Certificates

#### Marine / Shipping

#### other



[Type Test Certificates/Test Report](#)



[Environmental Conformations](#)

[Miscellaneous](#)

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1133-1JC12>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1133-1JC12>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1133-1JC12](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1133-1JC12)

CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





