

SENTRON, Fuse switch disconnecter 3NP1, 3-pole, NH00, 160 A, for Busbar system 8US 60 mm, Box terminal, 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                                | Without                       |
| 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                                     | 00 and 000                    |
| Size of fuse link  | NH000, NH00                   |
| Continuous current / at 35 °C / rated value                    | 160 A                         |
| Let-through current / with closed switch / maximum permissible | 23 kA                         |
| cut-off value $I^{**}2t_{max.}$ / 500 V                        | 223 000 A <sup>2</sup> ·s     |
| Power factor   |                               |

|  |             |
|--|-------------|
| • at AC-22 B   | 0.65        |
| • at AC-23 B   | 0.45        |
| • with capacitive load                               | -0.25       |
| circuit-breaker / Design                             | 3NP11       |
| Mechanical service life (switching cycles) / typical | 2 000       |
| Fuse system  | LV HRC fuse |
| Degree of pollution                                  | 3           |

## Voltage

|  |         |
|--|---------|
| Insulation voltage                         |         |
| • rated value                              | 690 V   |
| • with degree of pollution 3 / rated value | 690 V   |
| • with degree of pollution 2 / rated value | 1 000 V |
| Power factor / at AC-21 B                  | 0.95    |
| Surge voltage resistance / rated value     | 8 kV    |
| Current / at AC / rated value              | 160 A   |
| Operating voltage                          |         |
| • at AC / rated value / maximum            | 690 V   |
| • at DC / rated value                      | 440 V   |
| • at DC / rated value / maximum            | 440 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 |
| • on the front  | IP40 |
| • open  | IP20 |

## 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

|                                       |       |
|---------------------------------------|-------|
| Operating current                     |       |
| • 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 690 V / rated value                                  | 160 A                     |
| • at AC-21 B / at 500 V / rated value                                  | 160 A                     |
| • at AC-21 B / at 400 V / rated value                                  | 160 A                     |
| • at AC-21 B / at 240 V / rated value                                  | 160 A                     |
| • at DC-23 B / at 440 V / rated value / maximum                        | 63 A                      |
| • at DC-23 B / at 240 V / rated value / maximum                        | 100 A                     |
| • at DC-23 B / at 120 V / rated value / maximum                        | 100 A                     |
| • at DC-22 B / at 440 V / rated value / maximum                        | 125 A                     |
| • at DC-22 B / at 240 V / rated value / maximum                        | 160 A                     |
| • at DC-22 B / at 120 V / rated value / maximum                        | 160 A                     |
| • at DC-21 B / at 440 V / rated value / maximum                        | 160 A                     |
| • at DC-21 B / at 240 V / rated value / maximum                        | 160 A                     |
| • at DC-21 B / at 120 V / rated value / maximum                        | 160 A                     |
| Continuous current   |                           |
| • 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                     |
| Let-through current / with high-speed activation / maximum permissible | 15 kA                     |
| Let-through current / $I_c$ / maximum permissible                      |                           |
| • 400 V  | 23 000 A                  |
| • 500V   | 23 000 A                  |
| cut-off value $I^{*2t,max.}$ / 400 V                                   | 158 000 A <sup>2</sup> ·s |
| <b>Main circuit</b>  |                           |
| Operating current / with capacitive load                               |                           |
| • at 400 V / maximum   | 72 A                      |
| • at 500 V / maximum   | 55 A                      |
| <b>Auxiliary circuit</b>   |                           |
| Number of CO contacts / for auxiliary contacts                         | 0                         |
| Number of NC contacts / for auxiliary contacts                         | 0                         |
| Number of NO contacts / for auxiliary contacts                         | 0                         |
| <b>Suitability</b>   |                           |
| <b>Suitability for use</b>   |                           |
| • Main switch  | No                        |

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

### Product details

|   |     |
|---|-----|
| Product feature / interlock                 | Yes |
| Product component                           |     |
| • Trip indicator                            | No  |
| • 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 |
| — fuse monitoring                           | Yes |
| — Voltage trigger                           | No  |
| — Overvoltage protection monitoring         | Yes |

### Product function

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

### Short circuit

|   |        |
|---|--------|
| Conditional short-circuit current (I <sub>q</sub> )           |        |
| • rated value   | 80 kA  |
| • at AC / at 240 V / with high-speed activation / rated value | 80 kA  |
| • at AC / at 500 V / with high-speed activation / rated value | 80 kA  |
| • at AC / at 690 V / with high-speed activation / rated value | 50 kA  |
| • with closed switch / at AC / at 240 V / rated value         | 120 kA |
| • with closed switch / at AC / at 500 V / rated value         | 120 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                                      | 6 ... 70 mm <sup>2</sup> |
| • finely stranded / with core end processing                    | 6 ... 50 mm <sup>2</sup> |
| • stranded  | 6 ... 70 mm <sup>2</sup> |
| Tightening torque / with screw-type terminals                   | 10 ... 10 N·m            |
| Type of connection  | Box terminal             |
| Type of electrical connection / for main current circuit        | box terminal             |

## Mechanical Design

|  |                     |
|--|---------------------|
| Height                                   | 206.2 mm            |
| Width                                    | 105.8 mm            |
| Width                                    |                     |
| • of the busbar                          | 12 ... 30 mm        |
| Depth                                    | 137.5 mm            |
| 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                 |
| Mounting position                        | horizontal/vertical |
| Busbar center-to-center spacing          | 60 mm               |
| Net weight                               | 0.98 kg             |
| • during operation                       | -25 ... +55 °C      |
| • during storage                         | -50 ... +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> | <br>EG-Konf. |
|  |   |  |                               | <a href="#">Type Test Certificates/Test Report</a>  |

| Test Certificates | Shipping Approval |
|-------------------|-------------------|
|-------------------|-------------------|

[Special Test Certificate](#)



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## 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=3NP1133-1BC20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1133-1BC20>

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

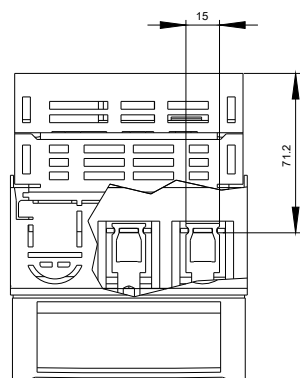
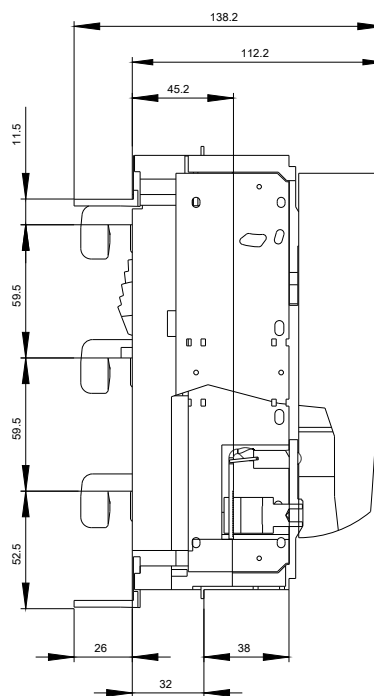
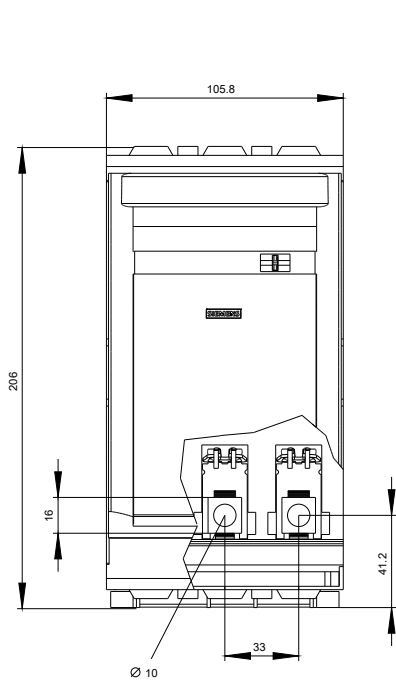
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1133-1BC20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1133-1BC20)

### CAX-Online-Generator

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

### Tender specifications

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







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