



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH00,  
160A 60MM BUSBAR SYSTEM COVER LEVEL 32/70  
MM BOX TERMINAL FUSE MONITORING  
ELECTRONIC, EFM 10

| Model   |                   |  |
|---|-------------------|--|
| product brand name  |                   | SENTRON  |
| Product designation   |                   | Fuse switch disconnecter                         |
| <b>Design of the product</b>  |                   | 3-pole   |
| <b>Busbar design</b>  |                   | busbar thickness 5 or 10 mm                      |
| <b>Design of the safety monitoring</b>                                |                   | electronic EFM 10                                |
| <b>Design of the operating mechanism</b>                              |                   | handle unit                                      |
| <b>Design of the load switch / Strip form</b>                         |                   | No   |
| <b>Type of the driving mechanism / motor drive</b>                    |                   | No   |
| General technical data  |                   |  |
| <b>Number of poles</b>  |                   | 3  |
| <b>Type of device</b>   |                   | snap on mount on busbar system Siemens 8US 60 mm |
| <b>Size of disconnecting link</b>                                     |                   | 00 and 000                                       |
| <b>Size of fuse link</b>  |                   | NH000, NH00                                      |
| <b>Continuous current / at 35 °C / Rated value</b>                    | A                 | 160  |
| <b>Let-through current / with closed switch / maximum permissible</b> | kA                | 23   |
| <b>cut-off value I**2t,max. / 500 V</b>                               | A <sup>2</sup> .s | 158 000  |
| <b>I2t value / with closed switch / maximum permissible</b>           | kA2.s             | 158  |
| <b>Power factor</b>   |                   |  |
| • at AC-22 B  |                   | 0.65   |
| • at AC-23 B  |                   | 0.45   |
| • with capacitive load  |                   | -0.25  |
| <b>circuit-breaker / Design</b>                                       |                   | 3NP11  |

|   |                   |             |
|---|-------------------|-------------|
| <b>Mechanical service life (switching cycles) / typical</b>   |                   | 2 000       |
| <b>Fuse system</b>  |                   | LV HRC fuse |
| <b>Voltage</b>  |                   |             |
| Insulation voltage / Rated value  | V                 | 690         |
| <b>Power factor / at AC-21 B</b>  |                   | 0.95        |
| Surge voltage resistance / Rated value  | kV                | 8           |
| <b>Protection class</b>   |                   |             |
| <b>Protection class IP</b>  |                   |             |
| <ul style="list-style-type: none"> <li>• with closed switch / with cover or cable lug cover</li> </ul>    |                   | IP40        |
| <ul style="list-style-type: none"> <li>• with closed switch / without cover or cable lug cover</li> </ul> |                   | IP30        |
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>  |                   | IP40        |
| <ul style="list-style-type: none"> <li>• open</li> </ul>  |                   | IP20        |
| <b>Dissipation</b>  |                   |             |
| <b>Active power loss</b>  |                   |             |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>   | W                 | 12          |
| <b>Electricity</b>  |                   |             |
| <b>Continuous current</b>   |                   |             |
| <ul style="list-style-type: none"> <li>• Rated value</li> </ul>   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at 40 °C / Rated value</li> </ul>                                | A                 | 155         |
| <ul style="list-style-type: none"> <li>• at 45 °C / Rated value</li> </ul>                                | A                 | 145         |
| <ul style="list-style-type: none"> <li>• at 50 °C / Rated value</li> </ul>                                | A                 | 140         |
| <ul style="list-style-type: none"> <li>• at 55 °C / Rated value</li> </ul>                                | A                 | 133         |
| <b>Let-through current / with high-speed activation / maximum permissible</b>                             | kA                | 15          |
| <b>Let-through current / I<sub>c</sub> / maximum permissible</b>  |                   |             |
| <ul style="list-style-type: none"> <li>• 400 V</li> </ul>   | A                 | 23 000      |
| <ul style="list-style-type: none"> <li>• 500V</li> </ul>  | A                 | 23 000      |
| <b>cut-off value I<sup>2</sup>t<sub>max</sub> / 400 V</b>   | A <sup>2</sup> ·s | 158 000     |
| <b>Main circuit</b>   |                   |             |
| <b>Operating voltage</b>  |                   |             |
| <ul style="list-style-type: none"> <li>• with AC / Rated value / minimum</li> </ul>                       | V                 | 230         |
| <ul style="list-style-type: none"> <li>• with AC / Rated value / maximum</li> </ul>                       | V                 | 690         |
| <b>Operating current</b>  |                   |             |
| <ul style="list-style-type: none"> <li>• at AC-21 B / at 400 V / Rated value</li> </ul>                   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at AC-21 B / at 500 V / Rated value</li> </ul>                   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at AC-21 B / at 690 V / Rated value</li> </ul>                   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at AC-22 B / at 400 V / Rated value</li> </ul>                   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at AC-22 B / at 500 V / Rated value</li> </ul>                   | A                 | 160         |
| <ul style="list-style-type: none"> <li>• at AC-22 B / at 690 V / Rated value</li> </ul>                   | A                 | 125         |

- at AC-23 B / at 400 V / Rated value
- at AC-23 B / at 500 V / Rated value
- at AC-23 B / at 690 V / Rated value
- with capacitive load / at 400 V / maximum
- with capacitive load / at 500 V / maximum

|   |     |
|---|-----|
| A | 160 |
| A | 63  |
| A | 35  |
| A | 72  |
| A | 55  |

### Auxiliary circuit

|   |  |   |
|---|--|---|
| Number of CO contacts / for auxiliary contacts        |  | 0 |
| <b>Number of NC contacts / for auxiliary contacts</b> |  | 0 |
| <b>Number of NO contacts / for auxiliary contacts</b> |  | 0 |

### Suitability

|                             |  |     |
|-----------------------------|--|-----|
| <b>Suitability for use</b>  |  |     |
| • Main switch               |  | No  |
| • switch disconnecter       |  | Yes |
| • EMERGENCY OFF switch      |  | No  |
| • safety switch             |  | Yes |
| • maintenance/repair switch |  | Yes |

### Product details

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

### Product function

|                                     |  |     |
|-------------------------------------|--|-----|
| <b>Product function</b>             |  |     |
| • fuse monitoring                   |  | Yes |
| • Overvoltage protection monitoring |  | No  |

### Short circuit

|  |    |    |
|--|----|----|
| <b>Conditional short-circuit current (I<sub>q</sub>)</b> |    |    |
| • Rated value  | kA | 80 |

|   |    |     |
|---|----|-----|
| • with AC / at 500 V / with high-speed activation / Rated value | kA | 80  |
| • with AC / at 690 V / with high-speed activation / Rated value | kA | 80  |
| • with closed switch / with AC / at 500 V / Rated value         | kA | 120 |
| • with closed switch / with AC / at 690 V / Rated value         | kA | 120 |

## Connections

|   |                 |               |
|---|-----------------|---------------|
| Arrangement of electrical connectors / for main current circuit                     |                 | other         |
| Connectable conductor cross-section / for main contacts                             |                 |               |
| • single or multi-stranded / minimum  | mm <sup>2</sup> | 6             |
| • single or multi-stranded / maximum  | mm <sup>2</sup> | 70            |
| • finely stranded / with core end processing / minimum                              | mm <sup>2</sup> | 6             |
| • finely stranded / with core end processing / maximum                              | mm <sup>2</sup> | 50            |
| • stranded / minimum  | mm <sup>2</sup> | 6             |
| • stranded / maximum  | mm <sup>2</sup> | 70            |
| <b>Tightening torque / with screw-type terminals</b>                                |                 |               |
| • minimum   | N·m             | 10            |
| • maximum   | N·m             | 10            |
| Type of connectable conductor cross-section / of the laminated conductors / maximum |                 | 9 x 8 mm      |
| Type of electrical connection / for main current circuit                            |                 | box terminals |

## Mechanical Design

|  |    |                            |
|--|----|----------------------------|
| <b>Height</b>                            | mm | 210.4                      |
| <b>Width</b>                             | mm | 105.8                      |
| <b>Depth</b>                             | mm | 177.4                      |
| <b>mounting position</b>                 |    | horizontally or vertically |
| <b>Mounting type</b>                     |    | busbar mounting            |
| <b>Mounting type</b>                     |    |                            |
| • floor mounting                         |    | No                         |
| • front mounting                         |    | No                         |
| • front mounting with 4-hole attachment  |    | No                         |
| • front mounting with central attachment |    | No                         |
| • rail mounting                          |    | Yes                        |
| <b>Busbar center-to-center spacing</b>   | mm | 60                         |

## Environmental conditions

|                            |  |  |
|----------------------------|--|--|
| <b>Ambient temperature</b> |  |  |
|----------------------------|--|--|

- during operation / minimum
- during operation / maximum
- during storage / minimum
- during storage / maximum

|    |     |
|----|-----|
| °C | -25 |
| °C | 55  |
| °C | -50 |
| °C | 80  |

## Certificates

### Equipment marking

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

Q  
Q

### General Product Approval



CB



CCC



GOST



UL



UR



### Declaration of Conformity



EG-Konf.

### Test Certificates

[Type Test Certificates/Test Report](#)



DNV

### Shipping Approval



GL



LRS

## Further information

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

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

### Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3NP11331BC22>

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

<http://support.automation.siemens.com/WW/view/en/3NP11331BC22/all>

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

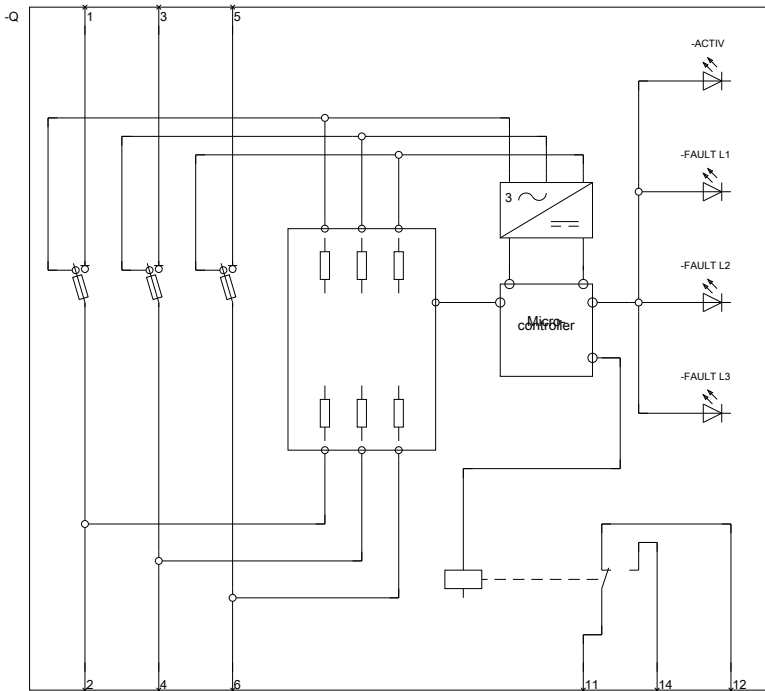
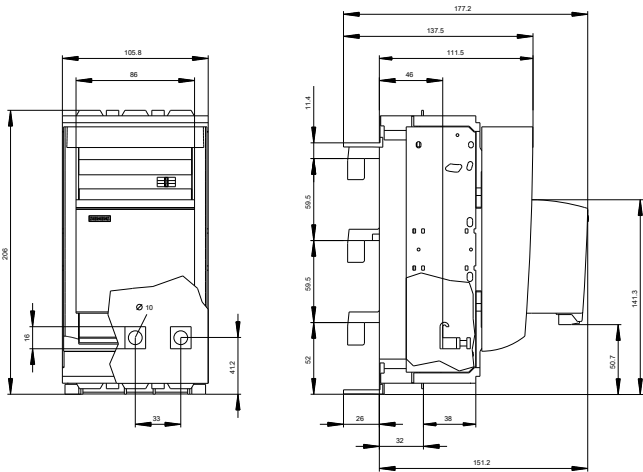
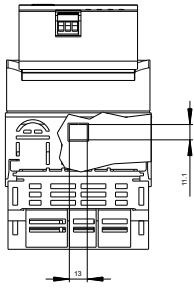
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP11331BC22](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11331BC22)

### CAX-Online-Generator

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

### Tender specifications

<http://ausschreibungstexte.siemens.com/tiplv>



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