

SENTRON, fuse switch disconnecter 3NP1, 3-pole, NH1, 250 A, for 60mm 8US busbar system, Rahmenklemme, cover level 32/70 mm



| Model  |                   |                             |
|--|-------------------|-----------------------------|
| product brand name   |                   | SENTRON                     |
| Busbar design  |                   | busbar thickness 5 or 10 mm |
| Design of the load switch / Strip form                         |                   | No                          |
| Type of the driving mechanism / motor drive                    |                   | No                          |
| General technical data   |                   |                             |
| Number of poles  |                   | 3                           |
| Size of disconnecting link                                     |                   | 1 and 0                     |
| Size of fuse link  |                   | NH0, NH1                    |
| Continuous current / at 35 °C / rated value                    | A                 | 250                         |
| Let-through current / with closed switch / maximum permissible | kA                | 32                          |
| cut-off value I**2t,max. / 500 V                               | A <sup>2</sup> ·s | 780 000                     |
| 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           |                   | 1 600                       |

|   |                   |             |
|---|-------------------|-------------|
| <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>  |                   |             |
| • 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        |
| <b>Dissipation</b>  |                   |             |
| <b>Power loss [W]</b>   |                   |             |
| • for rated value of the current / at AC / in hot operating state / per pole  | W                 | 7.66        |
| • maximum   | W                 | 23          |
| <b>Electricity</b>  |                   |             |
| <b>Continuous current</b>   |                   |             |
| • rated value   | A                 | 250         |
| • at 40 °C / rated value  | A                 | 245         |
| • at 45 °C / rated value  | A                 | 240         |
| • at 50 °C / rated value  | A                 | 233         |
| • at 55 °C / rated value  | A                 | 233         |
| <b>Let-through current / with high-speed activation / maximum permissible</b> | kA                | 25          |
| <b>Let-through current / I<sub>c</sub> / maximum permissible</b>              |                   |             |
| • 400 V   | A                 | 32 000      |
| • 500V  | A                 | 32 000      |
| <b>cut-off value I<sup>2</sup>t<sub>max</sub> / 400 V</b>                     | A <sup>2</sup> ·s | 780 000     |
| <b>Main circuit</b>   |                   |             |
| <b>Operating voltage</b>  |                   |             |
| • at AC / rated value / maximum   | V                 | 690         |
| • at DC / rated value   | V                 | 440         |
| • at DC / rated value / maximum   | V                 | 440         |
| <b>Operating current / with capacitive load</b>                               |                   |             |
| • at 400 V / maximum  | A                 | 72          |
| • at 500 V / maximum  | A                 | 55          |
| <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 |

### 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                            |  | No  |
| • Phase failure monitoring                  |  | No  |
| • undervoltage release                      |  | No  |
| • undervoltage release with leading contact |  | No  |
| Product feature / sealable                  |  | Yes |
| <b>Product extension</b>                    |  |     |
| • 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

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

### Short circuit

|   |    |     |
|---|----|-----|
| <b>Conditional short-circuit current (I<sub>q</sub>)</b>      |    |     |
| • rated value   | kA | 80  |
| • at AC / at 500 V / with high-speed activation / rated value | kA | 80  |
| • at AC / at 690 V / with high-speed activation / rated value | kA | 50  |
| • with closed switch / at AC / at 500 V / rated value         | kA | 120 |

- with closed switch / at AC / at 690 V / rated value

|    |     |
|----|-----|
| kA | 100 |
|----|-----|

### Connections

|  |                 |       |
|--|-----------------|-------|
| Arrangement of electrical connectors / for main current circuit                        |                 | other |
| Connectable conductor cross-section / for main contacts                                |                 |       |
| <ul style="list-style-type: none"> <li>• single or multi-stranded / minimum</li> </ul> | mm <sup>2</sup> | 70    |
| <ul style="list-style-type: none"> <li>• single or multi-stranded / maximum</li> </ul> | mm <sup>2</sup> | 185   |
| <ul style="list-style-type: none"> <li>• stranded / minimum</li> </ul>                 | mm <sup>2</sup> | 70    |
| <ul style="list-style-type: none"> <li>• stranded / maximum</li> </ul>                 | mm <sup>2</sup> | 185   |
| <b>Tightening torque / with screw-type terminals</b>                                   |                 |       |
| <ul style="list-style-type: none"> <li>• minimum</li> </ul>                            | N·m             | 10    |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                            | N·m             | 10    |

### Mechanical Design

|  |    |       |
|--|----|-------|
| <b>Height</b>  | mm | 306   |
| <b>Width</b>   | mm | 183.7 |
| <b>Depth</b>   | mm | 141   |
| <b>Mounting type</b>   |    |       |
| <ul style="list-style-type: none"> <li>• floor mounting</li> </ul>                         |    | No    |
| <ul style="list-style-type: none"> <li>• front mounting</li> </ul>                         |    | No    |
| <ul style="list-style-type: none"> <li>• front mounting with 4-hole attachment</li> </ul>  |    | No    |
| <ul style="list-style-type: none"> <li>• front mounting with central attachment</li> </ul> |    | No    |
| <ul style="list-style-type: none"> <li>• rail mounting</li> </ul>                          |    | Yes   |
| <b>Busbar center-to-center spacing</b>   | mm | 60    |
| <b>Net weight</b>  | kg | 2.85  |

### Environmental conditions

|  |    |     |
|--|----|-----|
| <b>Degree of pollution</b>   |    | 3   |
| <b>Ambient temperature</b>   |    |     |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> </ul> | °C | -25 |
| <ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul> | °C | 55  |
| <ul style="list-style-type: none"> <li>• during storage / minimum</li> </ul>   | °C | -50 |
| <ul style="list-style-type: none"> <li>• during storage / maximum</li> </ul>   | °C | 80  |

### Certificates

|  |  |   |
|--|--|---|
| <b>Equipment marking</b>   |  |   |
| <ul style="list-style-type: none"> <li>• acc. to DIN EN 61346-2</li> </ul> |  | Q |
| <ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul> |  | Q |

| General Product Approval | Declaration of Conformity | Test Certificates | Shipping Approval |
|--------------------------|---------------------------|-------------------|-------------------|
|--------------------------|---------------------------|-------------------|-------------------|



CCC



UL



EG-Konf.

[spezielle Prüfbescheinigung](#)  
n

[Typprüfbescheinigung/Werkzeugnis](#)



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/3NP1143-1BC20>

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

<http://support.automation.siemens.com/WW/view/en/3NP1143-1BC20/all>

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

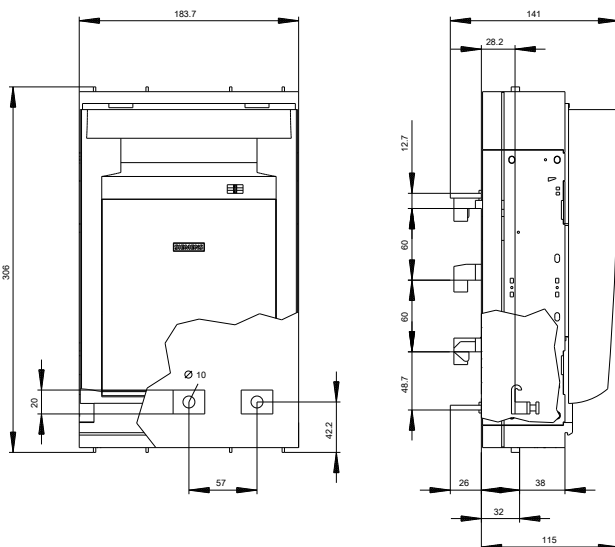
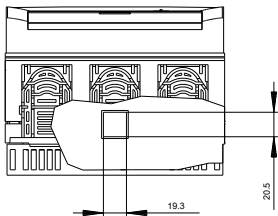
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1143-1BC20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1143-1BC20)

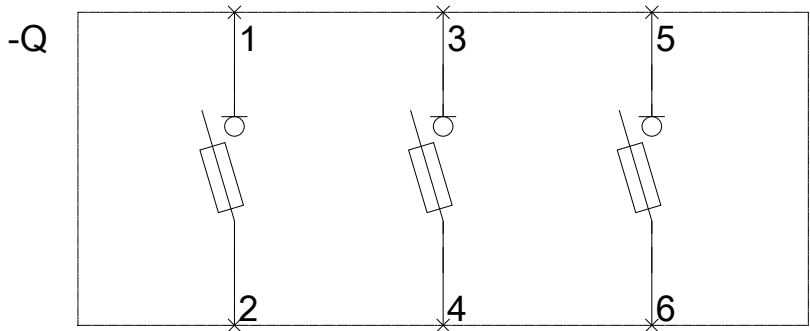
**CAX-Online-Generator**

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

**Tender specifications**

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





last modified:

09/02/2016