SIEMENS

## Data sheet 3NP1133-1BC20



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

| Model | | |
|---|---|---|
| product brand name | | SENTRON |
| Product designation | | Fuse switch disconnector |
| Design of the product | | 3-pole |
| Busbar design | | busbar thickness 5 or 10 mm |
| Design of the operating mechanism | | handle unit |
| 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 | | snap on mount on busbar system Siemens 8US 60 mm |
| Size of disconnecting link | | 00 and 000 |
| Size of fuse link | | NH000, NH00 |
| Continuous current / at 35 °C / rated value | A | 160 |
| Let-through current / with closed switch / maximum permissible | kA | 23 |
| cut-off value I**2t,max. / 500 V | $A^2 \cdot s$ | 158 000 |
| I2t value / with closed switch / maximum permissible | kA2.s | 158 |


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| | | |
|---|---|---|
| **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 |

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

| 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]** | | |
| • maximum | W | 12 |

| Electricity | | |
|---|---|---|
| **Continuous current** | | |
| • rated value | A | 160 |
| • at 40 °C / rated value | A | 155 |
| • at 45 °C / rated value | A | 145 |
| • at 50 °C / rated value | A | 140 |
| • at 55 °C / rated value | A | 133 |
| **Let-through current / with high-speed activation / maximum permissible** | kA | 15 |
| **Let-through current / Ic / maximum permissible** | | |
| • 400 V | A | 23 000 |
| • 500V | A | 23 000 |
| **cut-off value I**2t,max. / 400 V** | $A^2 \cdot s$ | 158 000 |

| Main circuit | | |
|---|---|---|
| **Operating voltage** | | |
| • at AC / rated value / maximum | V | 690 |
| • at DC / rated value | V | 440 |
| • at DC / rated value / maximum | V | 440 |
| **Operating current** | | |


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| | | |
|---|---|---|
| • at AC-21 B / at 400 V / rated value | A | 160 |
| • at AC-21 B / at 500 V / rated value | A | 160 |
| • at AC-21 B / at 690 V / rated value | A | 160 |
| • at AC-22 B / at 400 V / rated value | A | 160 |
| • at AC-22 B / at 500 V / rated value | A | 160 |
| • at AC-22 B / at 690 V / rated value | A | 125 |
| • at AC-23 B / at 400 V / rated value | A | 160 |
| • at AC-23 B / at 500 V / rated value | A | 63 |
| • at AC-23 B / at 690 V / rated value | A | 35 |
| • at DC-21 B / at 240 V / Rated value / maximum | A | 160 |
| • at DC-21 B / at 440 V / Rated value / maximum | A | 160 |
| • at DC-22 B / at 240 V / Rated value / maximum | A | 160 |
| • at DC-22 B / at 440 V / Rated value / maximum | A | 125 |
| • at DC-23 B / at 240 V / Rated value / maximum | A | 100 |
| • at DC-23 B / at 440 V / Rated value / maximum | A | 63 |
| • with capacitive load / at 400 V / maximum | A | 72 |
| • with capacitive load / at 500 V / maximum | A | 55 |

## 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 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 expansion** | | |
| • Auxiliary switch | | Yes |
| • optional | | |
| — locking capability | | Yes |


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| | | |
|---|---|---|
| — 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 (Iq)** | | |
| • 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 | 80 |
| • with closed switch / at AC / at 500 V / rated value | kA | 120 |
| • with closed switch / at 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 | mm² | 6 |
| • single or multi-stranded / maximum | mm² | 70 |
| • finely stranded / with core end processing / minimum | mm² | 6 |
| • finely stranded / with core end processing / maximum | mm² | 50 |
| • stranded / minimum | mm² | 6 |
| • stranded / maximum | mm² | 70 |
| **Tightening torque / with screw-type terminals** | | |
| • 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

| | | |
|---|---|---|
| **Height** | mm | 210.4 |
| **Width** | mm | 105.8 |


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| | | |
|---|---|---|
| **Depth** | mm | 137.5 |
| **Mounting position** | | horizontally or vertically |
| **Mounting type** | | busbar mounting |
| **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** | mm | 60 |
| **Net weight** | kg | 0.98 |

## Environmental conditions

| | | |
|---|---|---|
| **Degree of pollution** | | 3 |
| **Ambient temperature** | | |
| • during operation / minimum | °C | -25 |
| • during operation / maximum | °C | 55 |
| • during storage / minimum | °C | -50 |
| • during storage / maximum | °C | 80 |

## Certificates

| | | |
|---|---|---|
| **Equipment marking** | | |
| • acc. to DIN EN 61346-2 | | Q |
| • acc. to DIN EN 81346-2 | | Q |

| General Product Approval | | | Declaration of Conformity | Test Certificates | |
|---|---|---|---|---|---|
| CCC | UL | EAC | EG-Konf. | spezielle Prüfbescheinigungen | Typprüfbescheinigung/Werkszeugnis |

### Shipping Approval

DNV 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/3NP11331BC20

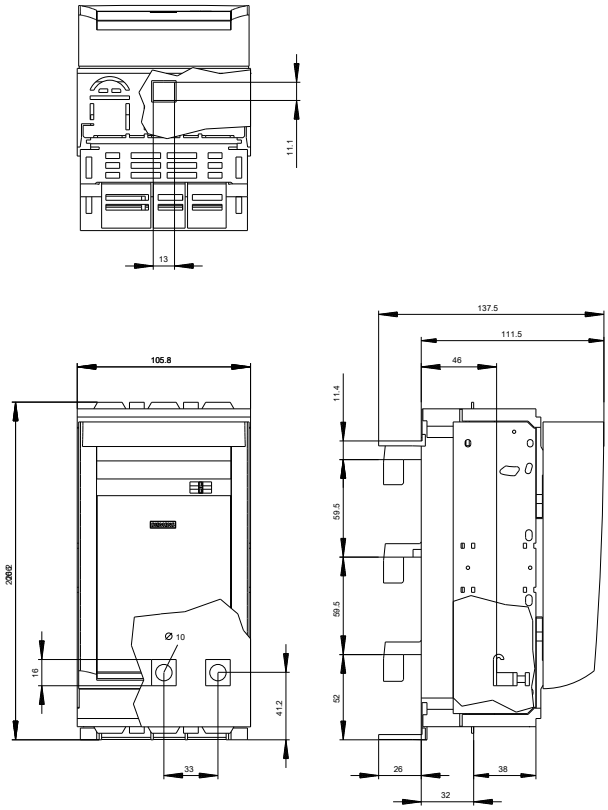
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3NP11331BC20/all

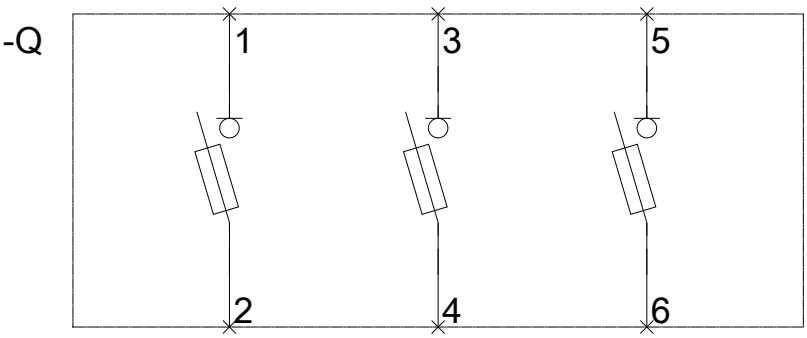

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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11331BC20

**CAx-Online-Generator**
http://www.siemens.com/cax

**Tender specifications**
http://ausschreibungstexte.siemens.com/tiplv





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