SIEMENS

## Datasheet 3NP1133-1CA20

FUSE-SWITCH-DISCONNECTOR 3-POLE, NH00, 160A MOUNTING PLATE CONSTRUCTION COVER LEVEL 45 MM BOX TERMINAL

| Model | | |
|---|---|---|
| product brand name | | SENTRON |
| Product designation | | Fuse switch disconnector |
| **Design of the product** | | 3-pole |
| **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** | | Construction and installation |
| **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 |
| **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 |

## Dissipation

| | | |
|---|---|---|
| **Active power loss** | | |
| • 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 |
| **Net weight** | kg | 0.73 |

## Main circuit

| | | |
|---|---|---|
| **Operating voltage** | | |
| • with AC / Rated value / maximum | V | 690 |
| • for DC / Rated value | V | 440 |
| • for DC / Rated value / maximum | V | 440 |
| **Operating current** | | |
| • 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 property** | |
| • sealable | Yes |
| **Product expansion** | |
| • 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 (Iq)** | | |
| • 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 | 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 |
| **Design of the electrical connection** | | |
| • for main current circuit | | box terminals |

## Mechanical Design

| | | |
|---|---|---|
| **Height** | mm | 202 |
| **Width** | mm | 105.8 |
| **Depth** | mm | 86.5 |
| **mounting position** | | horizontally or vertically |
| **Mounting type** | | floor mounting |
| **Mounting type** | | |
| • floor mounting | | Yes |
| • front mounting | | No |

| | | |
|---|---|---|
| • front mounting with 4-hole attachment | | No |
| • front mounting with central attachment | | No |
| • rail mounting | | No |

## Environmental conditions

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

## Certificates

| | | |
|---|---|---|
| **Reference code** | | |
| • acc. to DIN EN 61346-2 | | Q |
| • acc. to DIN EN 81346-2 | | Q |

### General Product Approval

CB CCC GOST UL UR EAC

| Declaration of Conformity | Test Certificates | | Shipping Approval | | |
|---|---|---|---|---|---|
| CE | Special Test Certificate | Type Test Certificates/Test Report | DNV | GL | LRS |
| EG-Konf. | | | DNV | GL | LRS |

## Further information

**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/lowvoltage/catalogs

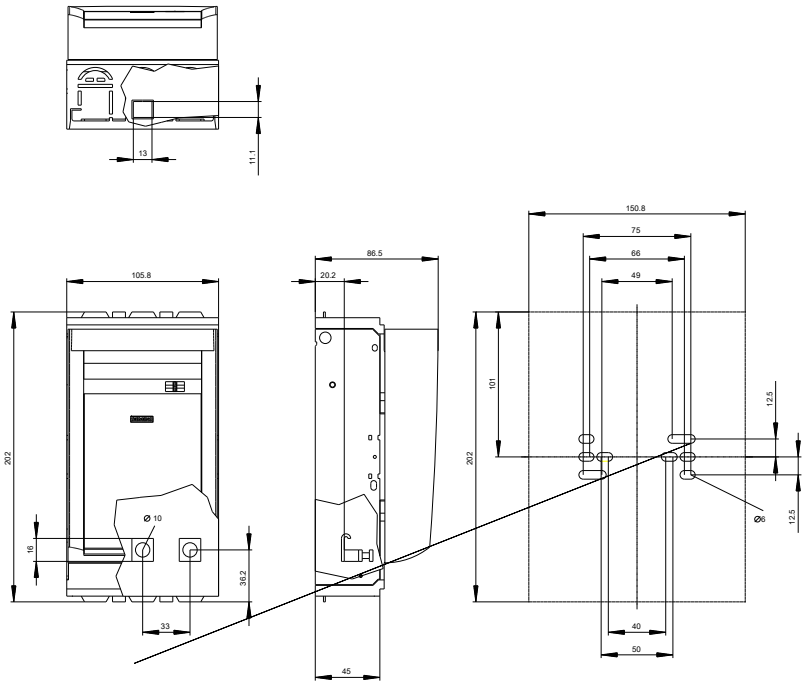
**Industry Mall (Online ordering system)**
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3NP11331CA20

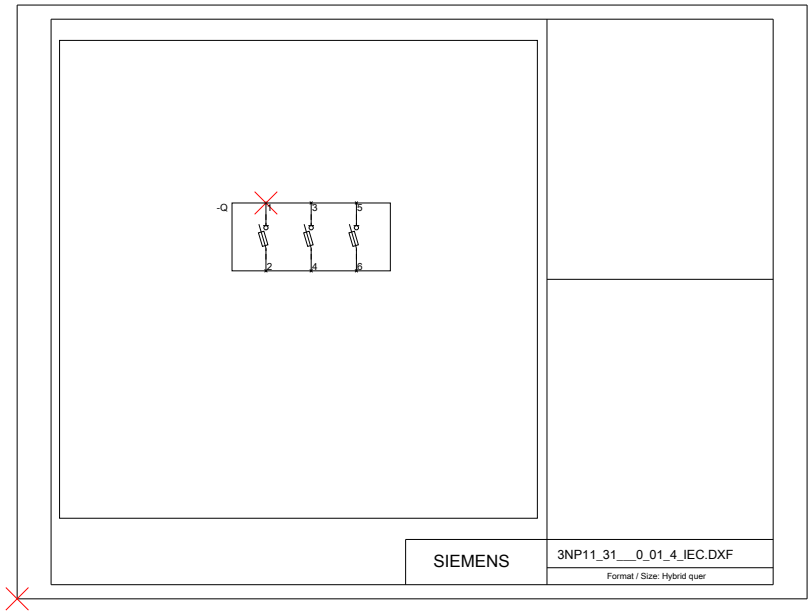
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3NP11331CA20/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11331CA20

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

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



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