SIEMENS

## Data sheet 3VA1120-3EE46-0AA0

Figure similar

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=20A OVERLOAD PROTECTION IR=14A ...20A SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED CABLE CONNECTION

| Model | | |
|---|---|---|
| product brand name | | SENTRON |
| Product designation | | Molded case circuit breaker |
| **Design of the product** | | Line protection |
| **Product variations** | | General Applications |
| **Ground fault monitoring version** | | Without |
| **Design of the auxiliary release** | | Without auxiliary release |
| **Design of the auxiliary switch** | | Without |
| **Design of the operating mechanism** | | toggle handle |
| **Type of the driving mechanism / motor drive** | | No |
| **Design of the overcurrent release** | | TM220 |

| General technical data | | |
|---|---|---|
| **Number of poles** | | 4 |
| **Trip class / of the L-trip / with I2t characteristic / initial value** | | 1 |
| **Trip class / of the L-trip / with I2t characteristic / Full-scale value** | | 1 |
| **Electrical endurance (switching cycles)** | | |
| • at AC-1 / at 380/415 V / at 50/60 Hz | | 8 000 |
| **circuit-breaker / Design** | | 3VA |
| **Mechanical service life (switching cycles) / typical** | | 15 000 |

| Voltage | | |
|---|---|---|
| Insulation voltage / Rated value | V | 800 |

| Protection class |
|---|

| | | |
|---|---|---|
| **Protection class IP** | | IP40 |
| Protection class IP / on the front | | IP40 |
| **Protective function of the overcurrent release** | | LI |

## Switching capacity

| | | |
|---|---|---|
| **Switching capacity class of the circuit breaker** | | N |

## Dissipation

| | | |
|---|---|---|
| **Active power loss** | | |
| • maximum | W | 12 |

## Electricity

| | | |
|---|---|---|
| **Continuous current / Rated value / maximum** | A | 160 |
| Continuous current / Rated value | A | 20 |
| **Adjustable response value current** | | |
| • of the current-dependent overload release / Full-scale value | A | 1 |
| • of the instantaneous short-circuit release / initial value | A | 10 |

## Main circuit

| | | |
|---|---|---|
| **Operating voltage** | | |
| • with AC / at 50/60 Hz / Rated value | V | 690 |
| • for DC / Rated value | V | 600 |
| **Operating current** | | |
| • at 40 °C / Rated value | A | 20 |
| • at 50 °C / Rated value | A | 20 |
| • at 55 °C / Rated value | A | 20 |
| • at 60 °C / Rated value | A | 19 |
| • at 65 °C / Rated value | A | 19 |
| • at 70 °C / Rated value | A | 19 |

## Auxiliary circuit

| | | |
|---|---|---|
| Number of CO contacts / for auxiliary contacts | | 0 |

## Suitability

| | | |
|---|---|---|
| **Suitability for use** | | system protection |

## Adjustable parameters

| | | |
|---|---|---|
| **Adjustable response value current** | | |
| • of I-trip / Full-scale value | A | 10 |
| • for N-conductor protection / initial value | A | 0 |
| • for N-conductor protection / Full-scale value | A | 0 |
| **Adjustable response value current / of the current-dependent overload release / initial value** | A | 0.7 |

## Product details

| | | |
|---|---|---|
| **Product component** | | |

| | | |
|---|---|---|
| • Trip indicator | | No |
| • display | | No |
| • Voltage trigger | | No |
| • undervoltage release | | No |
| • undervoltage release with leading contact | | No |
| **Product property** | | |
| • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof | | No |
| Product expansion / optional / motor drive | | Yes |

## Product function

| | | |
|---|---|---|
| **Product function** | | |
| • Intrinsic device protection | | Yes |
| • communication function | | No |
| • Phase failure detection | | No |
| • other measurement function | | No |

## Accessories

| | | |
|---|---|---|
| **Manufacturer article number / of the supplied basic switch** | | 3VA1120-3EE46-0AA0 |

## Short circuit

| | | |
|---|---|---|
| **Operational short-circuit current breaking capacity (Ics)** | | |
| • at 240 V / Rated value | kA | 36 |
| • at 415 V / Rated value | kA | 25 |
| • at 440 V / Rated value | kA | 16 |
| • at 500 V / Rated value | kA | 8 |
| • at 690 V / Rated value | kA | 5 |
| **Maximum short-circuit current breaking capacity (Icu)** | | |
| • at 240 V / Rated value | kA | 36 |
| • at 415 V / Rated value | kA | 25 |
| • at 440 V / Rated value | kA | 16 |
| • at 500 V / Rated value | kA | 8 |
| • at 690 V / Rated value | kA | 7 |
| **Short-circuit current making capacity (Icm)** | | |
| • at 240 V / Rated value | kA | 75.6 |
| • at 415 V / Rated value | kA | 52.5 |
| • at 690 V / Rated value | kA | 7.5 |

## Connections

| | | |
|---|---|---|
| Arrangement of electrical connectors / for main current circuit | | Front terminal |
| Type of connectable conductor cross-section | | |

| | | |
|---|---|---|
| • of the round conductor terminal / stranded | | 1 x (1.5 - 70 mm²) |
| Type of electrical connection / for main current circuit | | Box terminal |

## Mechanical Design

| | | |
|---|---|---|
| **Height** | mm | 130 |
| **Width** | mm | 101.6 |
| **Depth** | mm | 70 |
| **Mounting type** | | fixed mounting |

## Environmental conditions

| | | |
|---|---|---|
| **Ambient temperature** | | |
| • during operation / minimum | °C | -25 |
| • during operation / maximum | °C | 70 |
| • during storage / minimum | °C | -40 |
| • 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 | EMC | Declaration of Conformity | Shipping Approval | | other |
|---|---|---|---|---|---|
| EAC | other | CE EG-Konf. | DNV DNV | GL GL | other |

## Further information

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

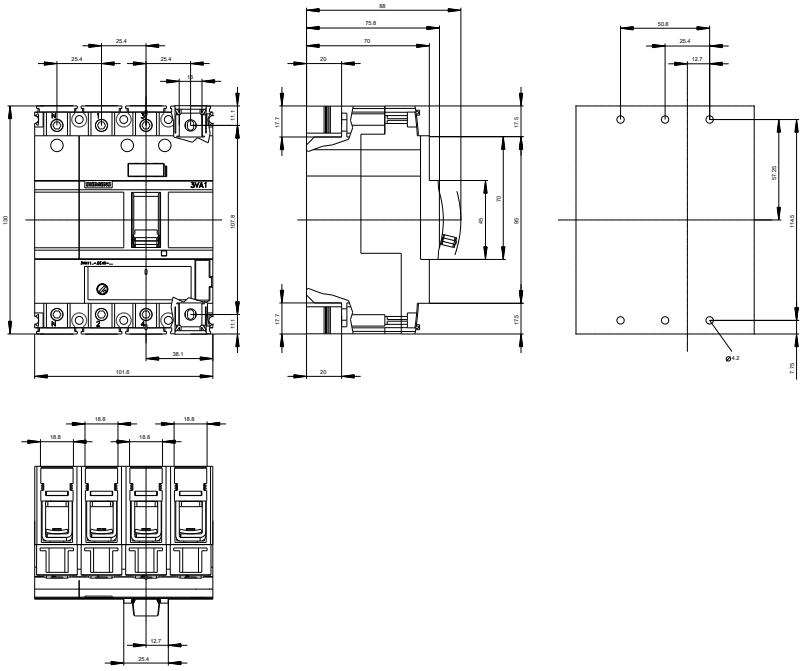
**Industry Mall (Online ordering system)**
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11203EE460AA0

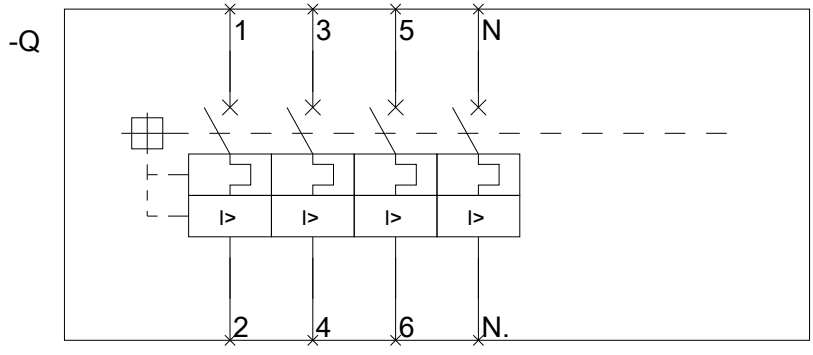
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3VA11203EE460AA0/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11203EE460AA0

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

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



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