SIEMENS

Data sheet

3VA1112-5GF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=125A OVERLOAD PROTECTION IR=87,5A ...125A SHORT CIRCUIT PROTECTION II=5...10 X IN NEUTRAL PROTECTION 100% CABLE CONNECTION

Figure similar

| 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 | TM240 | |

| 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 / on the front IP40 Protective function of the overcurrent release Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 23.2 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value Operating voltage • with AC / at 50/80 Hz / Rated value • for DC / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 65 °C / Rated value • at 70 °C | Protection class IP | | IP40 |
|--|---|---|-------------------|
| Switching capacity Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 23.2 Electricity Continuous current / Rated value / maximum • of the current-dependent overload release / A 1 Full-scale value • of the instantaneous short-circuit release / initial A 5 Value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value | Protection class IP / on the front | | IP40 |
| Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 23.2 Electricity Continuous current / Rated value / maximum • of the current-dependent overload release / A 125 Adjustable response value current • of the current-dependent overload release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of DC / Rated value • of DC / Rated value • of C / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rat | Protective function of the overcurrent release | | LI |
| Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 23.2 Electricity Continuous current / Rated value / maximum • of the current-dependent overload release / A 125 Adjustable response value current • of the current-dependent overload release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of the instantaneous short-circuit release / Initial value • of DC / Rated value • of DC / Rated value • of C / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rat | Switching capacity | | |
| Active power loss | | | M |
| Active power loss | Dissipation | | |
| Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the current-dependent overload release / initial value V 690 • for N-C / Rated value • of the instantaneous short-circuit release / initial value V 690 • of the instantaneous short-circuit release / initial value A 125 • of the instantaneous short-circuit release / initial value A 125 • of the instantaneous short-circuit release / initial value A 125 • of the instantaneous short-circuit release / initial value A 100 Adjustable response value current / of the current-dependent overload release / initial value | Active power loss | | |
| Continuous current / Rated value / maximum | • maximum | W | 23.2 |
| Continuous current / Rated value Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of r DC / Rated value V 690 Operating current of the instantaneous short-circuit release / initial value V 690 Operating voltage vith AC / at 50/60 Hz / Rated value V 690 Operating current of the instantaneous short-circuit release / initial value A 125 of the circuit Operating voltage vith AC / at 50/60 Hz / Rated value A 125 of the for DC / Rated value A 125 of the for C / Rated value A 122 of the for C / Rated value A 120 of the for C / Rated value A 117 of the for C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitability Suitabile response value current of the for N-conductor protection / Full-scale value A 10 of r N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | Electricity | | |
| Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value Main circuit Operating voltage of pro Dr / Rated value of pro Dr / Rated value of pro Dr / Rated value of at 40 °C / Rated value A 125 of 45 °C / Rated value A 125 of 45 °C / Rated value A 122 of 46 °C / Rated value A 122 of 46 °C / Rated value A 117 of 50 °C / Rated value A 117 of 60 °C / Rated value of 60 °C / Rated value A 117 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitability Suitabile parameters Adjustable response value current of I-trip / Full-scale value of ro N-conductor protection / initial value of ro N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | Continuous current / Rated value / maximum | А | 160 |
| of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of DC / Rated value very 600 Operating current out 40 °C / Rated value A 125 at 50 °C / Rated value A 125 at 60 °C / Rated value A 122 at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at 70 °C / Rated value A 117 at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | Continuous current / Rated value | Α | 125 |
| Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value A 125 • at 55 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value | Adjustable response value current | | |
| Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value | | Α | 1 |
| Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value V 600 Operating current • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | | Α | 5 |
| • with AC / at 50/60 Hz / Rated value • for DC / Rated value V 600 Operating current • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 125 • at 55 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | Main circuit | | |
| for DC / Rated value | Operating voltage | | |
| Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value | • with AC / at 50/60 Hz / Rated value | V | 690 |
| at 40 °C / Rated value at 50 °C / Rated value A 125 at 50 °C / Rated value A 122 at 60 °C / Rated value A 120 at 65 °C / Rated value A 117 at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10 for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | • for DC / Rated value | V | 600 |
| at 55 °C / Rated value at 55 °C / Rated value At 122 at 60 °C / Rated value At 120 at 65 °C / Rated value At 117 at 117 at 117 at 117 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitability or use Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Adjustable response value current / of the current-dependent overload release / initial value | Operating current | | |
| at 55 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value A 117 at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value of or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 0.7 | • at 40 °C / Rated value | Α | 125 |
| at 60 °C / Rated value at 65 °C / Rated value At 117 at 70 °C / Rated value At 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / Initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Adjustable response value current / of the current-dependent overload release / initial value A 100 Adjustable response value current / of the current-dependent overload release / initial value | • at 50 °C / Rated value | Α | 125 |
| at 65 °C / Rated value at 70 °C / Rated value Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value Adjustable response value current / of the current-dependent overload release / initial value A 100 Adjustable response value current / of the current-dependent overload release / initial value | • at 55 °C / Rated value | Α | 122 |
| at 70 °C / Rated value Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 100 Adjustable response value current / of the current-dependent overload release / initial value | • at 60 °C / Rated value | Α | 120 |
| Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value | • at 65 °C / Rated value | Α | 117 |
| Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value 0 System protection A 10 100 A 100 A 100 Adjustable response value current / of the current-dependent overload release / initial value | • at 70 °C / Rated value | Α | 114 |
| Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value 0 System protection A 10 100 A 100 A 100 Adjustable response value current / of the current-dependent overload release / initial value | Auxiliary circuit | | |
| Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 of Intrip / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value | | | 0 |
| Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 of Intrip / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value | Suitability | | |
| Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value | Suitability for use | | system protection |
| of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 10 A 100 A 0.7 | | | |
| for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 100 A 0.7 | Adjustable response value current | | |
| ● for N-conductor protection / Full-scale value Adjustable response value current / of the current- dependent overload release / initial value A 100 A 0.7 | ● of I-trip / Full-scale value | Α | 10 |
| Adjustable response value current / of the current- dependent overload release / initial value 0.7 | • for N-conductor protection / initial value | Α | 100 |
| dependent overload release / initial value | • for N-conductor protection / Full-scale value | А | 100 |
| | - | Α | 0.7 |
| Product details | Product details | | |
| Product component | | | |

| Trip indicator | | No |
|---|----|--------------------|
| · | | No |
| display Voltage trigger | | No |
| Voltage triggerundervoltage release | | No |
| • | | No |
| undervoltage release with leading contact Product property | | INO |
| Product property for neutral conductors / | | No |
| upgradeable/retrofittable / Short-circuit and | | 140 |
| overload proof | | |
| 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 | | 3VA1112-5GF46-0AA0 |
| switch | | |
| Short circuit | | |
| Operational short-circuit current breaking capacity | | |
| (lcs) | | 0.5 |
| • at 240 V / Rated value | kA | 85 |
| • at 415 V / Rated value | kA | 55 |
| at 440 V / Rated value | kA | 30 |
| • at 500 V / Rated value | kA | 15 |
| at 690 V / Rated value | kA | 5 |
| Maximum short-circuit current breaking capacity (Icu) | | |
| ● at 240 V / Rated value | kA | 85 |
| ● at 415 V / Rated value | kA | 55 |
| • at 440 V / Rated value | kA | 30 |
| ● at 500 V / Rated value | kA | 20 |
| • at 690 V / Rated value | kA | 10 |
| Short-circuit current making capacity (lcm) | | |
| • at 240 V / Rated value | kA | 187 |
| • at 415 V / Rated value | kA | 121 |
| • at 690 V / Rated value | kA | 17 |
| Connections | | |
| Arrangement of electrical connectors / for main current circuit | | Front terminal |
| Current Circuit | | |
| Type of connectable conductor cross-section | | |

| • of the round conduct | or terminal / strand | led | | | 1 x (1.5 - 70 mm²) | |
|---|--|---------------------------|----|---|--------------------|-------|
| Type of electrical connection | ectrical 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 / mi | during operation / minimum | | °C | | -25 | |
| during operation / ma | during operation / maximum | | °C | | 70 | |
| during storage / mini | during storage / minimum | | °C | | -40 | |
| during storage / max | during storage / maximum | | °C | | 80 | |
| | | | | | | |
| | Certificates | | | | | |
| Equipment marking | Equipment marking | | | | | |
| • acc. to DIN EN 61346-2 | | | Q | | | |
| ● acc. to DIN EN 81346-2 | | | | Q | | |
| General EM Product | | Declaration Conformity | • | | oping Approval | other |

Further information

Approval

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

other

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

Industry Mall (Online ordering system)
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11125GF460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11125GF460AA0/all

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

EG-Konf.

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11125GF460AA0

CAx-Online-Generator

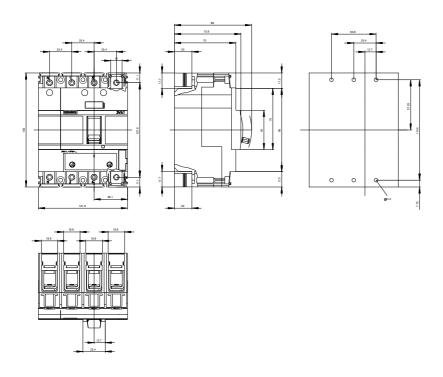
http://www.siemens.com/cax

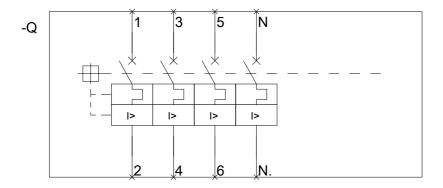
Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

other

GL





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