

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=160A OVERLOAD PROTECTION IR=112A ...160A SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED BUSBAR CONNECTION



| Model | |
|--|-----------------------------|
| product brand name | SENTRON |
| Product designation | Molded case circuit breaker |
| Design of the product | Line protection |
| Design of the overcurrent release | TM220 |
| Protective function of the overcurrent release | LI |
| Number of poles | 4 |
| General technical data | |
| Tension assignée d'isolement U_i | 800 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 690 V |
| Max. rated operational voltage U_e with DC | 600 V |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 38 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 12.67 W |
| Mechanical service life (switching cycles) / typical | 15 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000 |
| Neutral conductors / upgradeable/retrofitable | No |

| | |
|--|---------|
| Ground fault monitoring version | Without |
| Net weight | 1.2 kg |
| Electricity | |
| Max. rated operational voltage of the size of the circuit-breaker | 160 A |
| Courant permanent assigné lu | 160 A |
| Operating current | |
| • at 40 °C | 160 A |
| • at 45 °C | 160 A |
| • at 50 °C | 160 A |
| • at 55 °C | 158 A |
| • at 60 °C | 155 A |
| • at 65 °C | 153 A |
| • at 70 °C | 150 A |
| Switching capacity | |
| Switching capacity class of the circuit breaker | N |
| Maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 36 kA |
| • at 415 V | 25 kA |
| • at 440 V | 16 kA |
| • at 500 V | 8 kA |
| • at 690 V | 7 kA |
| Operational short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 36 kA |
| • at 415 V | 25 kA |
| • at 440 V | 16 kA |
| • at 500 V | 8 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 75.6 kA |
| • at 415 V | 52.5 kA |
| • at 440 V | 32 kA |
| • at 500 V | 13.6 kA |
| • at 690 V | 7.5 kA |
| Adjustable parameters | |
| Adjustable response value current / I _g min. | 112 A |
| Adjustable response value current / I _g min. | 160 A |
| Adjustable response value current / I _g min. | 1 |
| Adjustable response value current / I _g min. | 1 |

| | |
|--|---------|
| Short-term delayed / tripping switchable / I2t=ON/OFF | No |
| Adjustable response value current / li min. | 1 600 A |
| Adjustable response value current / li max. | 1 600 A |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No |

Mechanical Design

| | |
|--------|----------|
| Height | 130 mm |
| Width | 101.6 mm |
| Depth | 70 mm |

Connections

| | |
|---|----------------|
| Arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of electrical connection / for main current circuit | lug terminal |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 12 x 0 |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5 |

Auxiliary circuit

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

Accessories




| | |
|--|-----|
| Product extension / optional / motor drive | Yes |
|--|-----|






Environmental conditions

| | |
|--|--|
| Protection class IP / on the front | IP40 |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum | <ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C |

Certificates

| | |
|--|---|
| Equipment marking / acc. to DIN EN 81346-2 | Q |
|--|---|

| | | | | |
|--|--|---|-------------------------|--|
| General Product Approval | | | EMC | Test Certificates |
|  CCC |  VDE |  | sonstig | RCM Typprüfbescheinigung/Werkszeugnis |

| | | | | | |
|-------------------------|--|---|---|--|---|
| Test Certificates | Shipping Approval | | | | |
| sonstig |  ABS |  BUREAU VERITAS |  GL |  LRS |  RMRS |

| |
|-------------------------|
| other |
| sonstig |

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/3VA1116-3EE42-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1116-3EE42-0AA0/all>

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

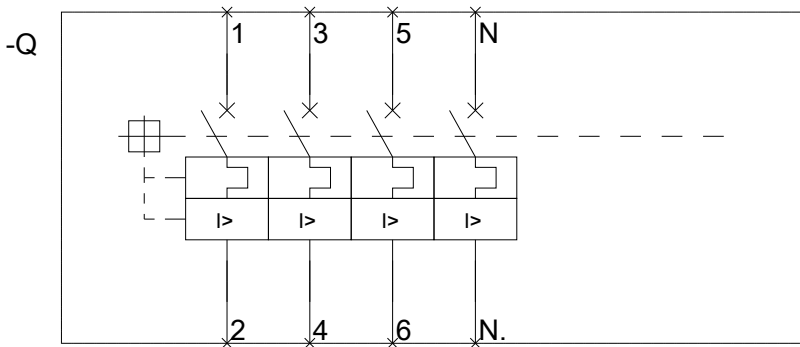
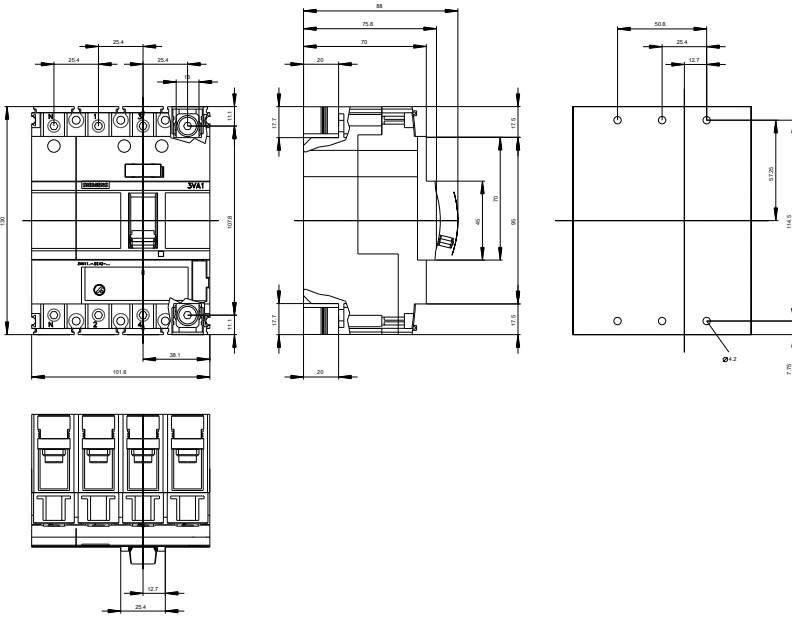
http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1116-3EE42-0AA0

CAX-Online-Generator

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

Tender specifications

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



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