

CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY CLASS M 35KA @ 480V 3-POLE, LINE PROTECTION TM230, FTAM, IN=20A OVERLOAD PROTECTION IR=20A FIXED SHORT CIRCUIT PROTECTION II=5...10 X IN W/O CONNECTION



| Model | |
|---|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded-case circuit breaker |
| Design of the product | System protection |
| Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes |
| Design of the overcurrent release | TM230 |
| Protective function of the overcurrent release | LI |
| Number of poles | 3 |
| General technical data | |
| Tension assignée d'isolement Ui | 800 V |
| Max. rated operational voltage Ue with AC 50/60Hz | 690 V |
| Max. rated operational voltage Ue with DC | 500 V |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 12.3 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 4.1 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 |
| Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz | 8 000 |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz | 4 000 |
| Neutral conductors / upgradeable/retrofitable | No |
| Ground fault monitoring version | Without |
| Product function | |
| • communication function | No |
| • other measurement function | No |

Electricity

| | |
|---|-------|
| Marking / acc. to UL 489 / 100%-rated breaker | No |
| Max. rated operational voltage of the size of the circuit-breaker | 125 A |
| Courant permanent assigné Iu | 20 A |
| Operating current | |
| • at 40 °C | 20 A |
| • at 45 °C | 20 A |
| • at 50 °C | 19 A |
| • at 55 °C | 19 A |
| • at 60 °C | 19 A |
| • at 65 °C | 19 A |
| • at 70 °C | 18 A |

Switching capacity according to IEC 60947

| | |
|---|---------|
| Switching capacity class of the circuit breaker | M |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at 240 V | 85 kA |
| • at 415 V | 55 kA |
| • at 690 V | 7 kA |
| Operational short-circuit current breaking capacity (Ics) | |
| • at 240 V | 110 kA |
| • at 415 V | 55 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (Icm) | |
| • at 240 V | 187 kA |
| • at 415 V | 121 kA |
| • at 690 V | 11.9 kA |

Switching capacity according to UL 489

| | |
|---------------------------|-------|
| Breaking capacity current | |
| • at 240 V | 85 kA |

- at 480 V 35 kA
- at 600 Y/347 V 18 kA

Adjustable parameters

| | |
|---|-------|
| Adjustable response value current / I _g min. | 20 A |
| Adjustable response value current / I _g min. | 20 A |
| Adjustable response value current / I _i min. | 150 A |
| Adjustable response value current / I _i max. | 300 A |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |

Mechanical Design

| | |
|-------------|---------|
| Height [in] | 5.5 in |
| Height | 140 mm |
| Width [in] | 3 in |
| Width | 76.2 mm |
| Depth [in] | 3 in |
| Depth | 76.5 mm |

Connections

| | |
|---|--------------------|
| Arrangement of electrical connectors / for main current circuit | Without connection |
| Type of electrical connection / for main current circuit | Without |

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 | -25 °C |
| <ul style="list-style-type: none"> • during operation / maximum | 70 °C |
| <ul style="list-style-type: none"> • during storage / minimum | -40 °C |
| <ul style="list-style-type: none"> • during storage / maximum | 80 °C |

Certificates

| | |
|--|----|
| Equipment marking / acc. to DIN EN 81346-2 | Q |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | No |

| | | |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Miscellaneous](#)

Further information

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5120-5EC31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5120-5EC31-0AA0>

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

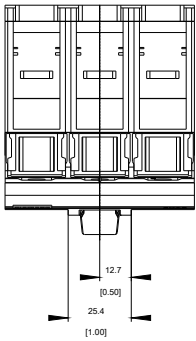
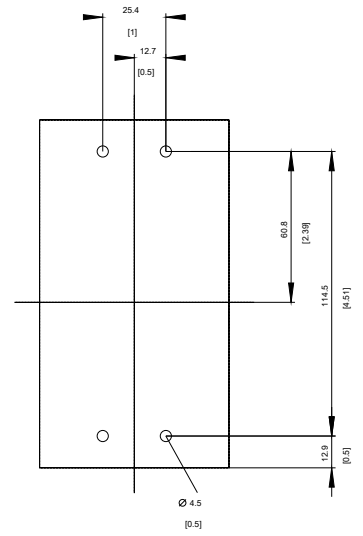
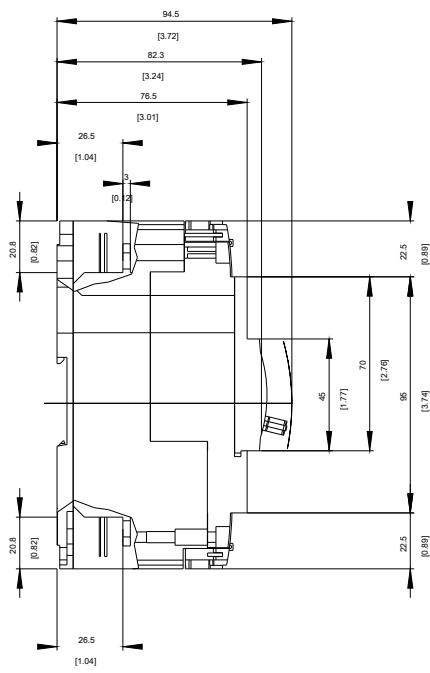
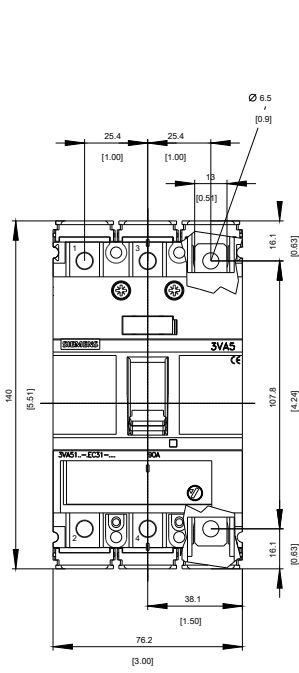
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5120-5EC31-0AA0

CAX-Online-Generator

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

Tender specifications

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



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