

circuit breaker 3VA1 IEC frame 160 breaking capacity class S
 $I_{cu}=36\text{kA}$ @ 415V 3-pole, line protection TM220, ATFM, $I_n=20\text{A}$
 overload protection $I_r=14\text{A}\dots20\text{A}$ short-circuit protection $I_i=16 \times I_n$
 clamp connection



| Model | |
|--|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded case circuit breaker |
| Product version | Line protection |
| Design of the overcurrent release | TM220 |
| Protective function of the overcurrent release | LI |
| Number of poles | 3 |

| General technical data | |
|--|--------|
| Rated insulation voltage U_i | 800 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 690 V |
| Max. rated operational voltage U_e with DC | 500 V |
| Power loss [W] / maximum | 12 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 4 W |
| Latching - endurance | 20 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz | 8 000 |

| | |
|---|---------|
| Neutral conductors / upgradeable/retrofitable | No |
| Ground fault monitoring version | Without |
| Product function | |
| • communication function | No |
| • other measurement function | No |
| Net weight | 0.9 kg |

Electricity

| | |
|---|-------|
| Max. rated operational voltage of the size of the circuit-breaker | 160 A |
| Rated continuous current I _u | 20 A |
| Operating current | |
| • at 40 °C | 20 A |
| • at 45 °C | 20 A |
| • at 50 °C | 20 A |
| • at 55 °C | 20 A |
| • at 60 °C | 19 A |
| • at 65 °C | 19 A |
| • at 70 °C | 19 A |

Switching capacity according to IEC 60947

| | |
|--|---------|
| Switching capacity class of the circuit breaker | S |
| Maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 55 kA |
| • at 415 V | 36 kA |
| • at 440 V | 25 kA |
| • at 500 V | 7 kA |
| • at 690 V | 7 kA |
| Operational short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 55 kA |
| • at 415 V | 36 kA |
| • at 440 V | 25 kA |
| • at 500 V | 5 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 121 kA |
| • at 415 V | 76 kA |
| • at 440 V | 53 kA |
| • at 500 V | 11.9 kA |
| • at 690 V | 11.9 kA |

Adjustable parameters

| | |
|---|------|
| Adjustable response value current / I _r min. | 14 A |
|---|------|

| | |
|---|-------|
| Adjustable response value current / I _r max. | 20 A |
| Short-term delayed / tripping switchable / I _{2t} =ON/OFF | No |
| Adjustable response value current / I _i min. | 320 A |
| Adjustable response value current / I _i max. | 320 A |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |

Mechanical Design

| | |
|-------------|---------|
| Height [in] | 5.1 in |
| Height | 130 mm |
| Width [in] | 3 in |
| Width | 76.2 mm |
| Depth [in] | 2.8 in |
| Depth | 70 mm |

Connections

| | |
|---|---------------------------------|
| Arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of electrical connection / for main current circuit | box terminal |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (1.5 - 70 mm ²) |

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 | |
| • during operation / minimum | -25 °C |
| • during operation / maximum | 70 °C |
| • during storage / minimum | -40 °C |
| • during storage / maximum | 80 °C |

Certificates

| | |
|---|---|
| Reference code / acc. to DIN EN 81346-2 | Q |
|---|---|

| | |
|--------------------------|-----|
| General Product Approval | EMC |
|--------------------------|-----|



CCC



VDE

[Miscellaneous](#)

[KC](#)



RCM

| | | |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------|-------------------|-------------------|



EG-Konf.

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS

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



GL



LRS



RMRS

[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=3VA1120-4EE36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-4EE36-0AA0>

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

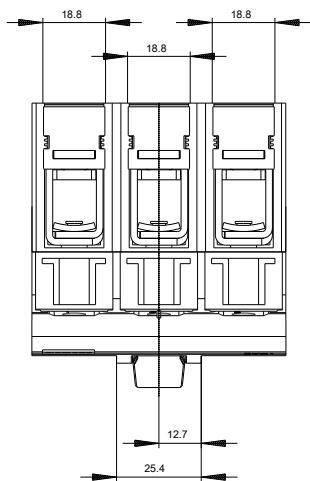
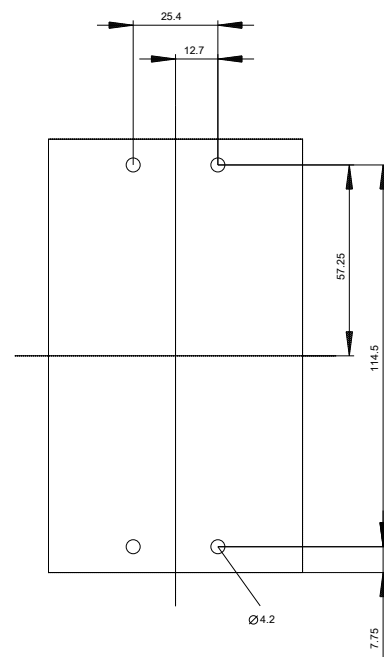
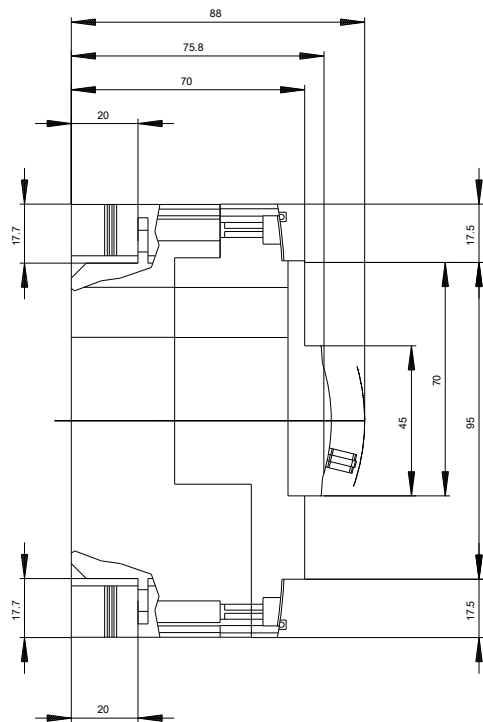
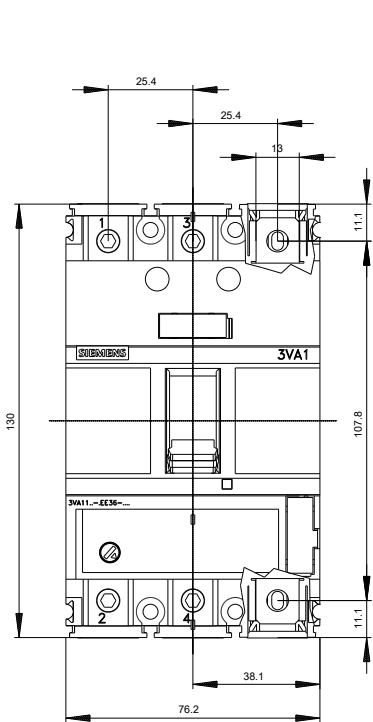
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1120-4EE36-0AA0

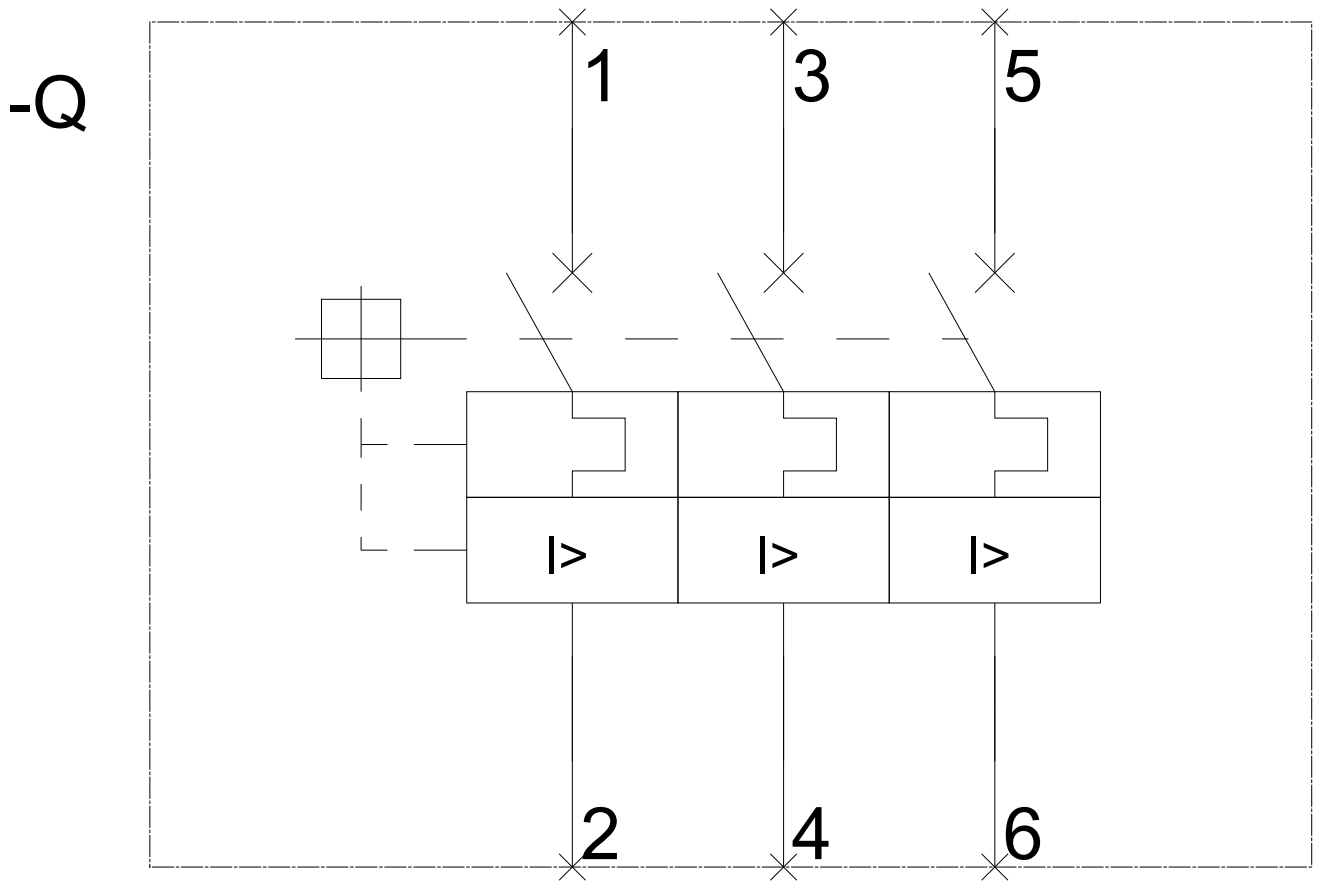
CAX-Online-Generator

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

Tender specifications

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





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