

circuit breaker 3VA1 IEC frame 160 breaking capacity class N
 $I_{cu}=25kA @ 240V$ 1-pole, line protection TM210, FTFM, $I_n=16A$
 overload protection $I_r=16A$ fixed short-circuit protection $I_i=20 \times I_n$
 clamp connection



| Model | |
|--|-----------------------------|
| product brand name | SENTRON |
| product designation | Molded case circuit breaker |
| Product version | Line protection |
| design of the overcurrent release | TM210 |
| protection function of the overcurrent release | LI |
| number of poles | 1 |

| General technical data | |
|--|--------|
| Tension assignée d'isolement U_i | 500 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 415 V |
| Max. rated operational voltage U_e with DC | 125 V |
| power loss [W] / maximum | 3.5 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.5 W |
| mechanical service life (switching cycles) / typical | 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 | 0.36 kg |

Current

| | |
|--|-------|
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné lu | 16 A |
| operating current | |
| • at 40 °C | 16 A |
| • at 45 °C | 16 A |
| • at 50 °C | 16 A |
| • at 55 °C | 16 A |
| • at 60 °C | 15 A |
| • at 65 °C | 15 A |
| • at 70 °C | 15 A |

Switching capacity according to IEC 60947

| | |
|---|--|
| switching capacity class of the circuit breaker | N |
| maximum short-circuit current breaking capacity (Icu) | |
| • at 240 V | 25 kA |
| • at 415 V | 5 kA |
| operational short-circuit current breaking capacity (Ics) | |
| • at 240 V | 25 kA |
| • at 415 V | 5 kA |
| short-circuit current making capacity (Icm) | |
| • at 240 V | 53 kA |
| • at 415 V | 7.5 kA |
| design of short-circuit protection | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |

Adjustable parameters

| | |
|---|-------|
| Adjustable response value current / I _g min. | 16 A |
| Adjustable response value current / I _g min. | 16 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] | 1 in |
| Width | 25.4 mm |
| depth [in] | 2.8 in |
| depth | 70 mm |

Connections

| | |
|---|---------------------------------|
| arrangement of electrical connectors / for main current circuit | Front 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 | No |
|--|----|

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

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

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



CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

| | | |
|-------------------|-------------------|-------|
| Test Certificates | Shipping Approval | other |
|-------------------|-------------------|-------|

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



LRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

| |
|-------|
| 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=3VA1196-3ED16-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1196-3ED16-0AA0>

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

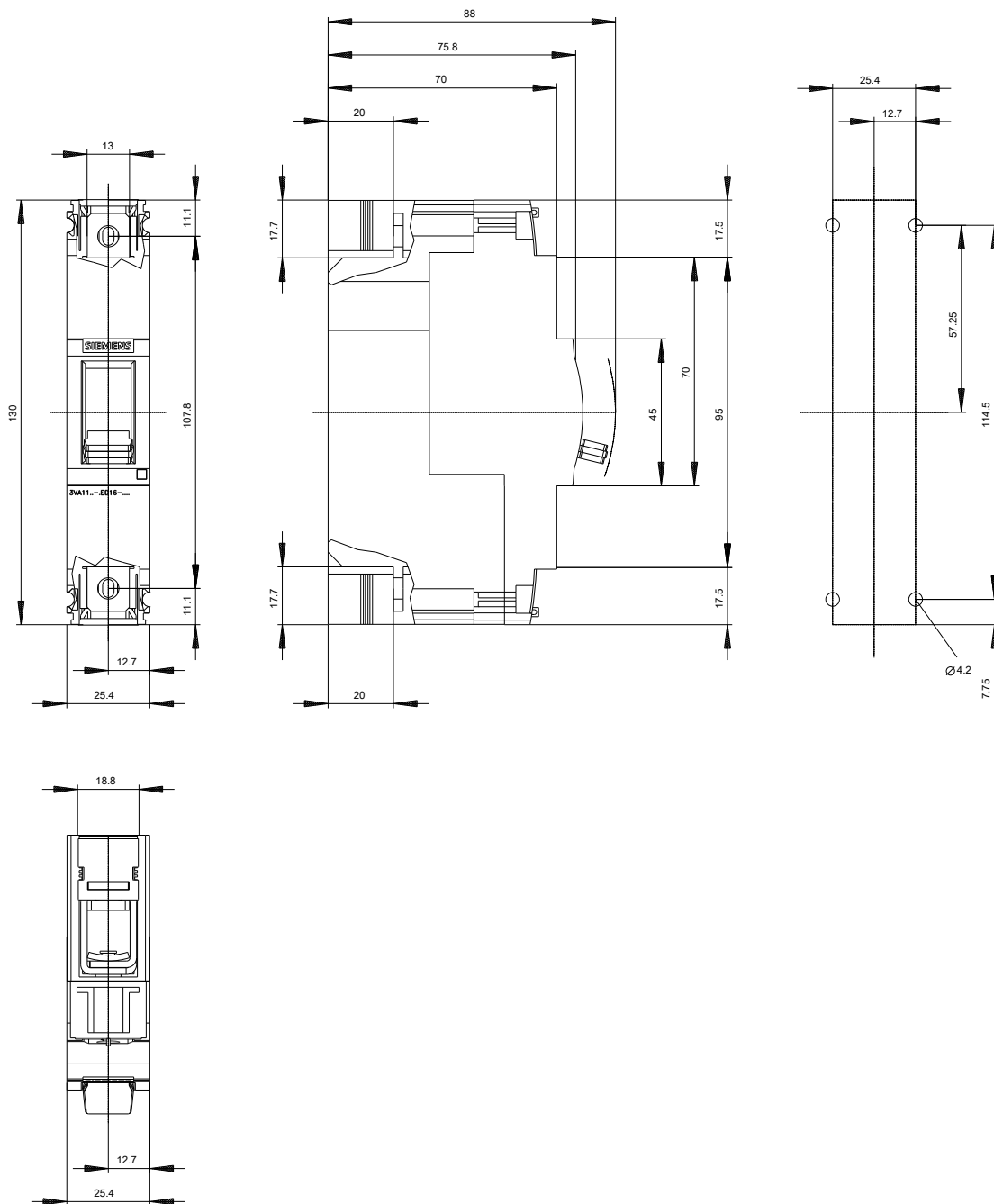
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1196-3ED16-0AA0

CAX-Online-Generator

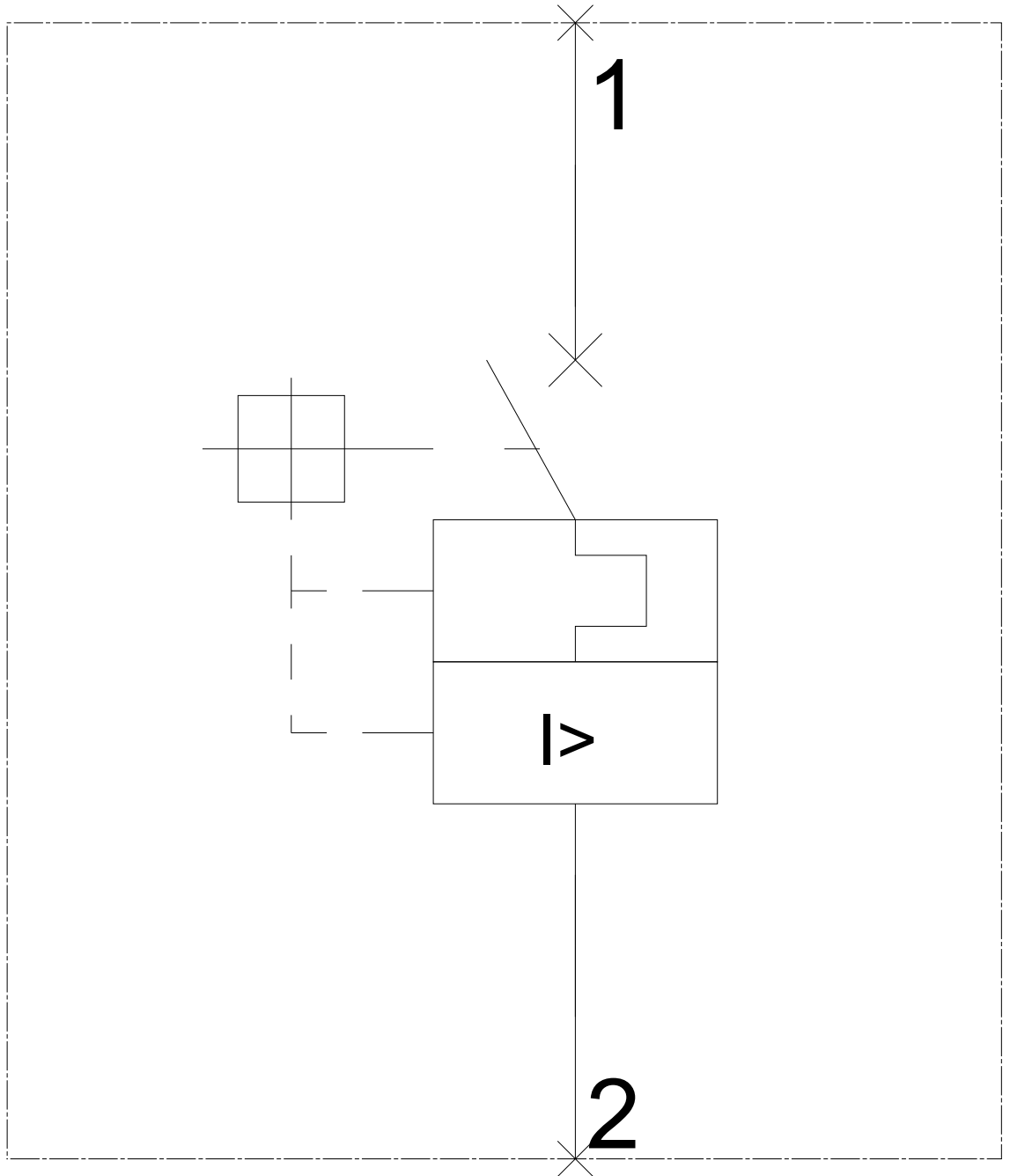
<http://www.siemens.com/cax>

Tender specifications

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



-Q



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