

circuit breaker 3VA1 IEC frame 160 breaking capacity class N
 $I_{cu}=25kA @ 415V$ 4-pole, line protection TM240, ATAM, $I_n=100A$
 overload protection $I_r=70A...100A$ short-circuit protection $I_i=5...10 \times I_n$
 In N conductor unprotected nut keeper kit



| Model | |
|--|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded case circuit breaker |
| Product version | Line protection |
| Design of the overcurrent release | TM240 |
| Protective function of the overcurrent release | LI |
| Number of poles | 4 |
| 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 | 600 V |
| Power loss [W] / maximum | 25 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 8.33 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 | 1.2 kg |

| Current | |
|--|-------|
| Max. rated operational current of the frame size | 160 A |
| Rated continuous current I _u | 100 A |
| Operating current | |
| • at 40 °C | 100 A |
| • at 45 °C | 100 A |
| • at 50 °C | 100 A |
| • at 55 °C | 98 A |
| • at 60 °C | 96 A |
| • at 65 °C | 94 A |
| • at 70 °C | 91 A |

| Switching capacity according to IEC 60947 | |
|--|--|
| 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 | 7 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 | 5 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 76 kA |
| • at 415 V | 53 kA |
| • at 440 V | 32 kA |
| • at 500 V | 11.9 kA |
| • at 690 V | 11.9 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 _r min. | 70 A |
| Adjustable response value current / I _r max. | 100 A |
| Short-term delayed / tripping switchable / I _{2t} =ON/OFF | No |
| Adjustable response value current / I _i min. | 500 A |
| Adjustable response value current / I _i max. | 1 000 A |
| Design of the N-conductor protection | Without |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |

Mechanical Design

| | |
|-------------|----------|
| Height [in] | 5.1 in |
| Height | 130 mm |
| Width [in] | 4 in |
| Width | 101.6 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, connection screw, width x thickness , min. | 12 x 0 mm |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5 mm |

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 | Declaration of Conformity |
|--------------------------|-----|---------------------------|



CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

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

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

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



RMRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[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=3VA1110-3EF42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1110-3EF42-0AA0>

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

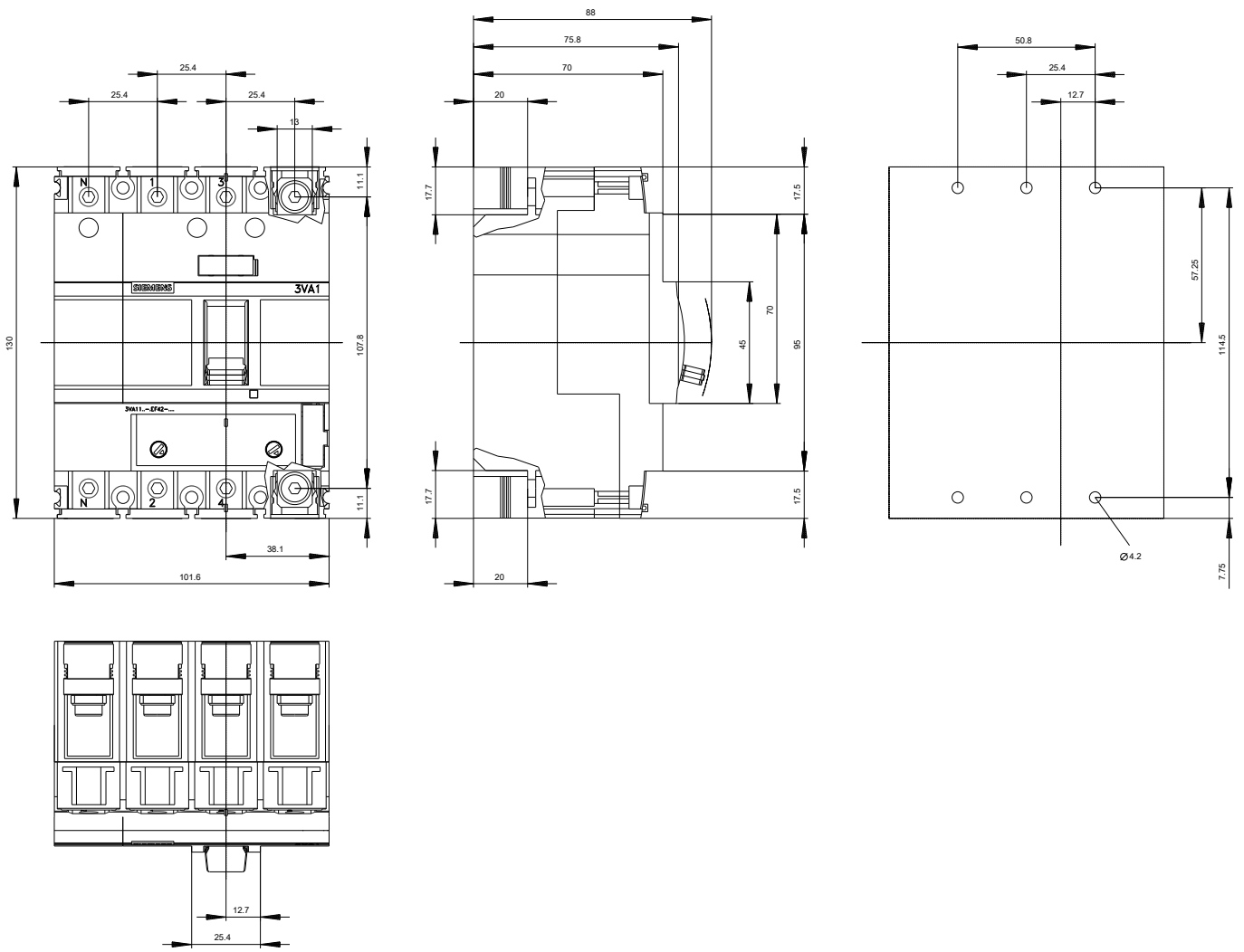
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1110-3EF42-0AA0

CAX-Online-Generator

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

Tender specifications

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





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