

circuit breaker 3VA1 IEC frame 160 breaking capacity class M  
 $I_{cu}=55kA @ 415V$  4-pole, line protection TM240, ATAM,  $I_n=40A$   
 overload protection  $I_r=28A...40A$  short-circuit protection  $I_i=5...10 \times I_n$   
 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   | 10.8 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.6 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 <sub>u</sub>          | 40 A  |
| Operating current                                |       |
| • at 40 °C                                       | 40 A  |
| • at 45 °C                                       | 40 A  |
| • at 50 °C                                       | 40 A  |
| • at 55 °C                                       | 39 A  |
| • at 60 °C                                       | 39 A  |
| • at 65 °C                                       | 38 A  |
| • at 70 °C                                       | 37 A  |

| Switching capacity according to IEC 60947                              |  |
|--|--|
| Switching capacity class of the circuit breaker                        | M  |
| Maximum short-circuit current breaking capacity (I <sub>cu</sub> )     |  |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 kA  |
| • at 440 V   | 36 kA  |
| • at 500 V   | 10 kA  |
| • at 690 V   | 10 kA  |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |  |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 kA  |
| • at 440 V   | 36 kA  |
| • at 500 V   | 5 kA   |
| • at 690 V   | 5 kA   |
| Short-circuit current making capacity (I <sub>cm</sub> )               |  |
| • at 240 V   | 187 kA   |
| • at 415 V   | 121 kA   |
| • at 440 V   | 76 kA  |
| • at 500 V   | 17 kA  |
| • at 690 V   | 17 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 <sub>r</sub> min.                 | 28 A    |
| Adjustable response value current / I <sub>r</sub> max.                 | 40 A    |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF      | No      |
| Adjustable response value current / I <sub>i</sub> min.                 | 200 A   |
| Adjustable response value current / I <sub>i</sub> max.                 | 400 A   |
| Design of the N-conductor protection                                    | Without |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =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  |  |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | <ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul> |

| 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 |
|-------------------|-------|



LRS



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=3VA1140-5EF42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1140-5EF42-0AA0>

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

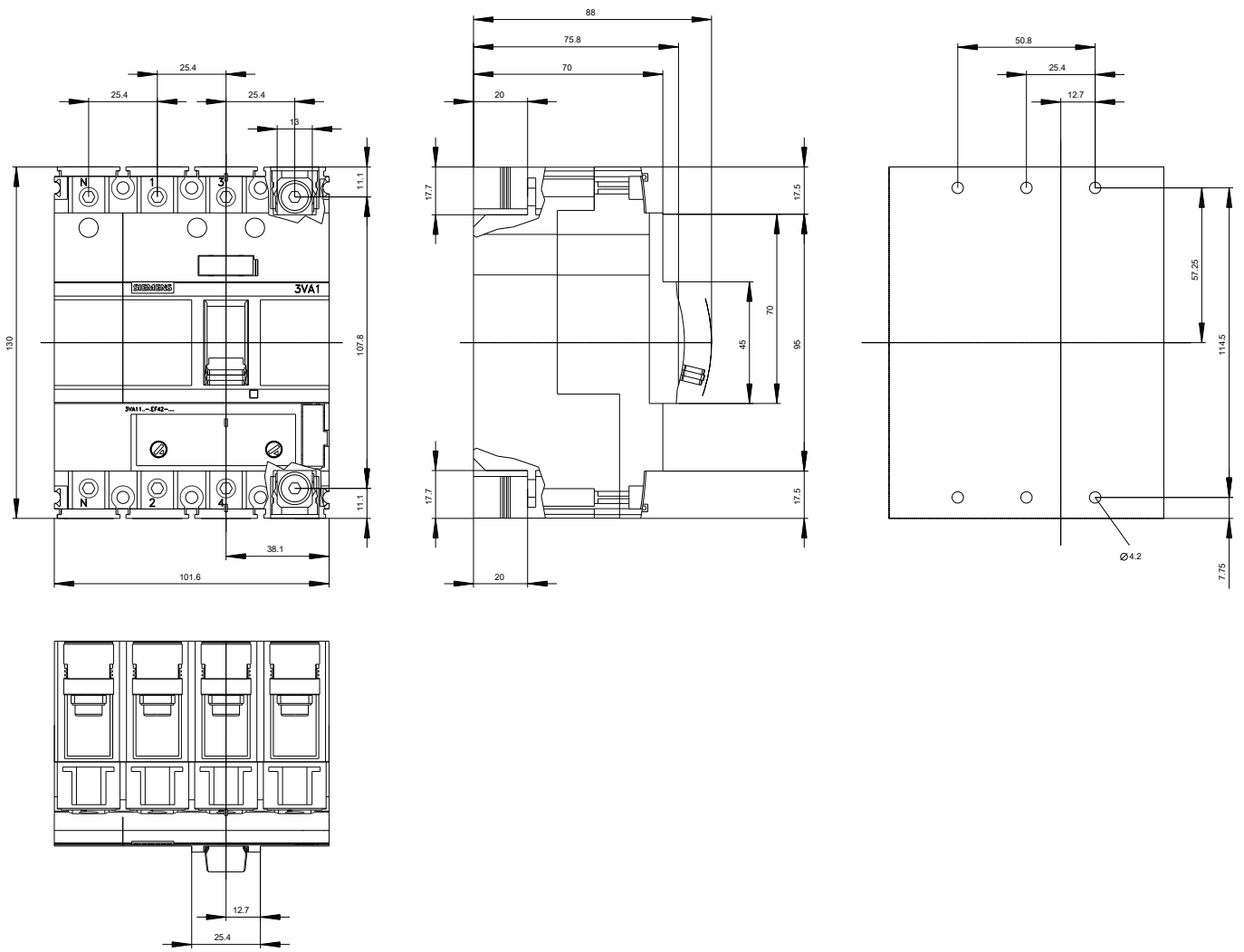
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1140-5EF42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1140-5EF42-0AA0)

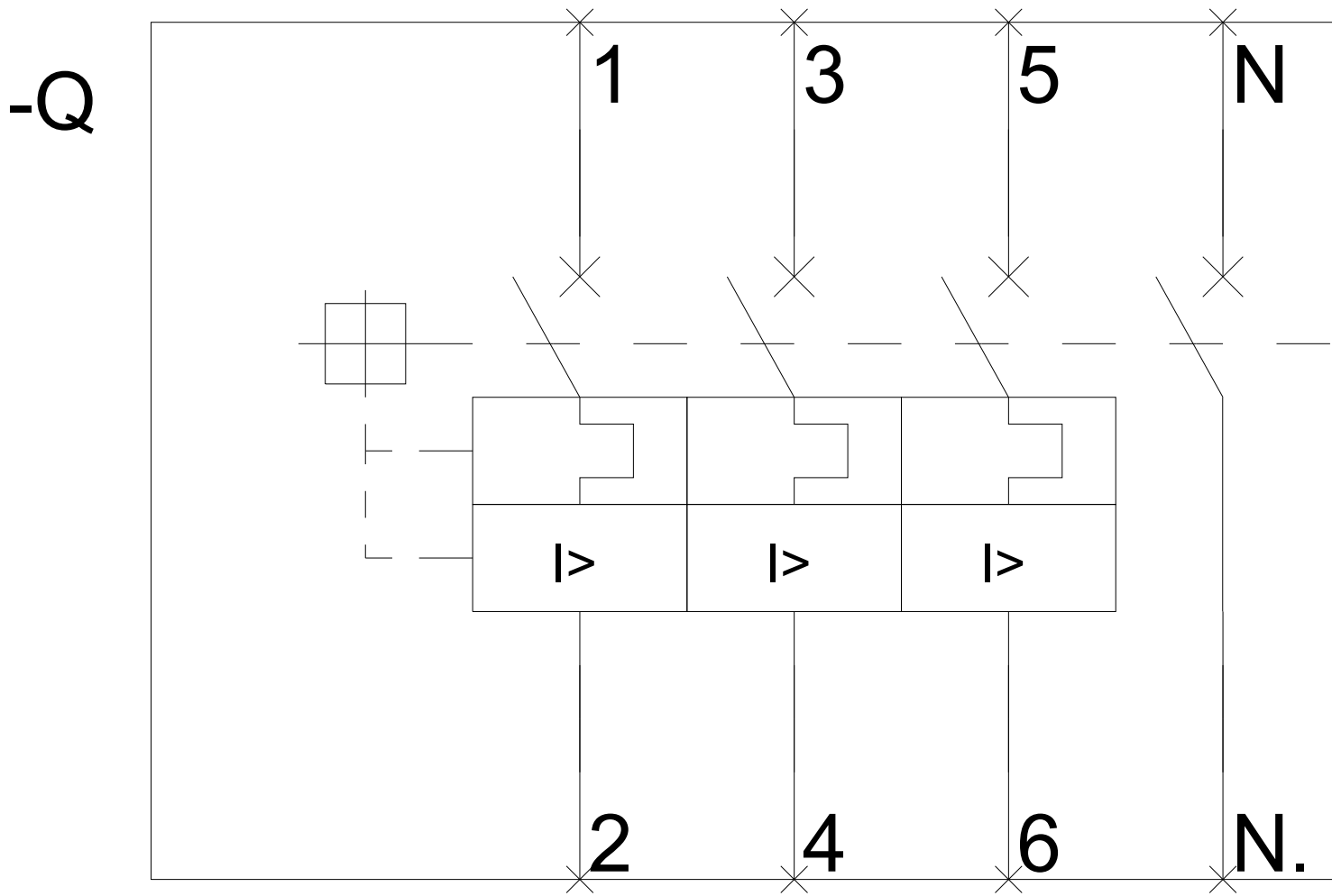
**CAX-Online-Generator**

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

**Tender specifications**

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





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