

circuit breaker 3VA1 IEC frame 160 breaking capacity class S  
Icu=36kA @ 240V 1-pole, line protection TM210, FTFM, In=40A  
overload protection Ir=40A fixed short-circuit protection li=10 x In nut  
keeper kit



| 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 Ui                                                                | 500 V                       |
| Max. rated operational voltage Ue with AC 50/60Hz                                              | 415 V                       |
| Max. rated operational voltage Ue with DC                                                      | 125 V                       |
| power loss [W] / maximum                                                                       | 3.6 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                                    | 0.36 kg |

#### Current

|                                                  |       |
|--------------------------------------------------|-------|
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné lu                     | 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           | S                                                                                                                                                              |
| maximum short-circuit current breaking capacity (Icu)     |                                                                                                                                                                |
| • at 240 V                                                | 36 kA                                                                                                                                                          |
| • at 415 V                                                | 6 kA                                                                                                                                                           |
| operational short-circuit current breaking capacity (Ics) |                                                                                                                                                                |
| • at 240 V                                                | 36 kA                                                                                                                                                          |
| • at 415 V                                                | 6 kA                                                                                                                                                           |
| short-circuit current making capacity (Icm)               |                                                                                                                                                                |
| • at 240 V                                                | 76 kA                                                                                                                                                          |
| • at 415 V                                                | 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 / Ig min.                | 40 A  |
| Adjustable response value current / Ig min.                | 40 A  |
| Short-term delayed / tripping switchable / I2t=ON/OFF      | No    |
| Adjustable response value current / li min.                | 400 A |
| Adjustable response value current / li max.                | 400 A |
| Ground fault protection / tripping switchable / I2t=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, 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 | No |
|--------------------------------------------|----|

#### Environmental conditions

|                                                                              |        |
|------------------------------------------------------------------------------|--------|
| protection class IP / on the front                                           | IP40   |
| ambient temperature                                                          |        |
| <ul style="list-style-type: none"> <li>during operation / minimum</li> </ul> | -25 °C |
| <ul style="list-style-type: none"> <li>during operation / maximum</li> </ul> | 70 °C  |
| <ul style="list-style-type: none"> <li>during storage / minimum</li> </ul>   | -40 °C |
| <ul style="list-style-type: none"> <li>during storage / maximum</li> </ul>   | 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=3VA1140-4ED12-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1140-4ED12-0AA0>

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

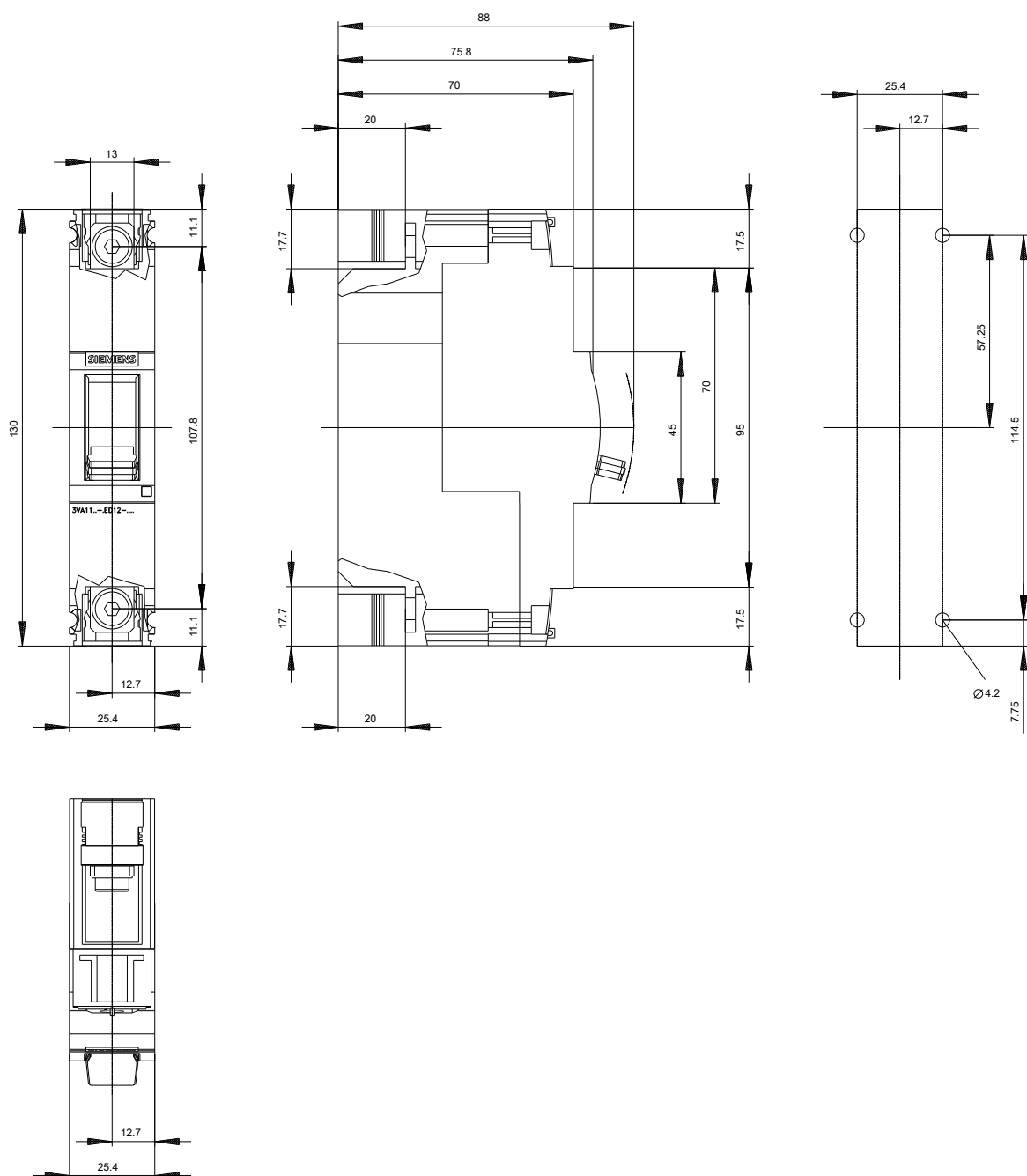
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1140-4ED12-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1140-4ED12-0AA0)

**CAX-Online-Generator**

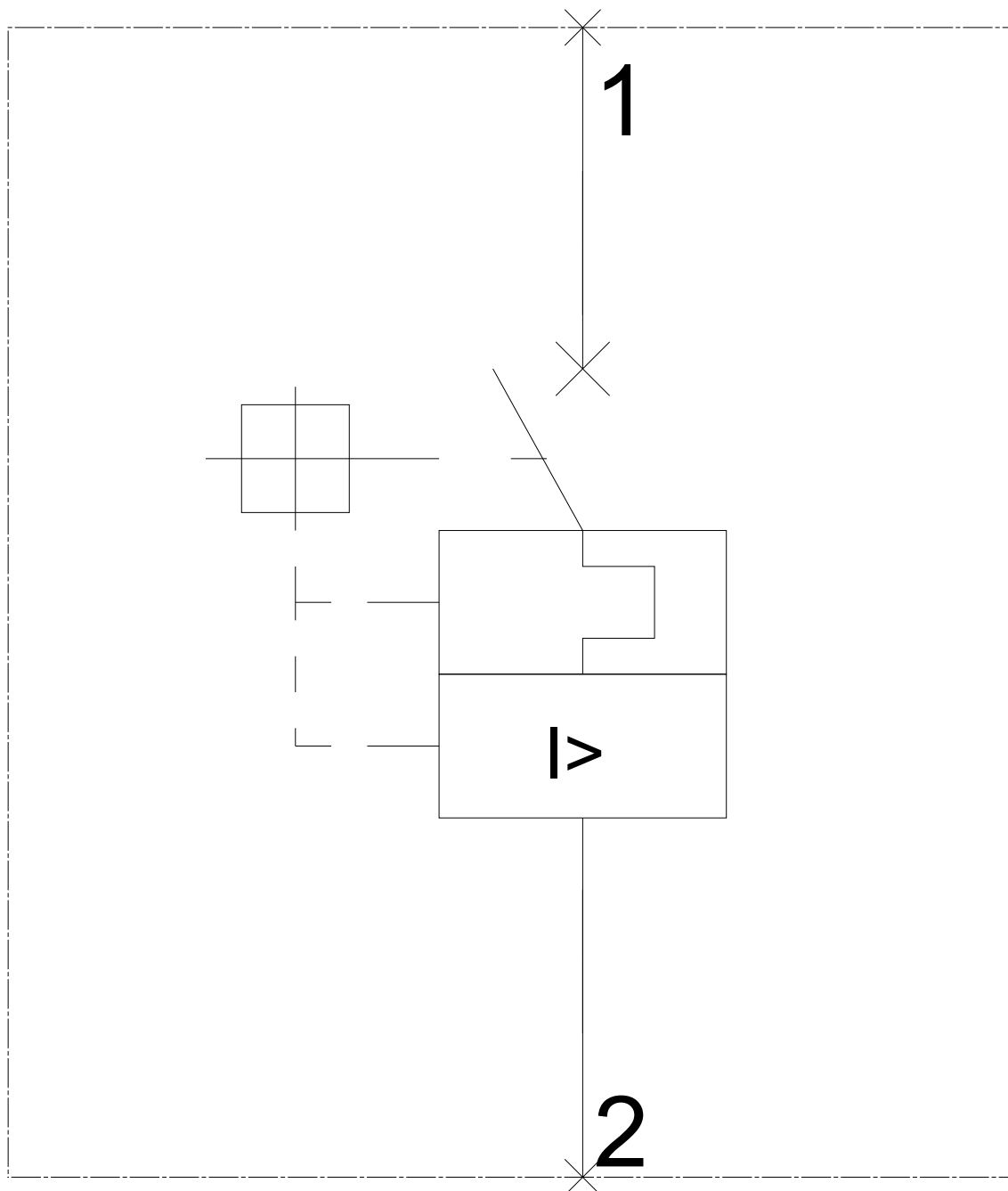
<http://www.siemens.com/cax>

**Tender specifications**

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



**-Q**



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