



circuit breaker 3VA5 UL frame 125 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=20A overload protection Ir=20A fixed short-circuit protection li=15 x In cable connection on both sides

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | MEAS                        |
| Product version  | System protection           |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)                      | Yes                         |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | Yes                         |
| design of the overcurrent release  | TM210                       |
| protection function of the overcurrent release   | LI                          |
| number of poles  | 3                           |
| General technical data   |                             |
| rated insulation voltage Ui  | 800 V                       |
| Max. rated operational voltage Ue with DC  | 500 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 12.2 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                             | 4.07 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  | 4 000                       |
| electrical endurance (switching cycles) / at 480 V   | 8 000                       |
| electrical endurance (switching cycles) / at 600 V   | 4 000                       |
| Neutral conductors / upgradeable/retrofitable  | No                          |
| ground-fault monitoring version  | without                     |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 1.017 kg                    |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 20 A                        |
| • at 45 °C   | 20 A                        |
| • at 50 °C   | 19 A                        |

|            |      |
|------------|------|
| • at 55 °C | 19 A |
| • at 60 °C | 19 A |
| • at 65 °C | 18 A |
| • at 70 °C | 18 A |

#### Switching capacity according to IEC 60947

|  |  |
|--|--|
| switching capacity class of the circuit breaker                      | M  |
| breaking capacity maximum short-circuit current (I <sub>cu</sub> )   |  |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 kA  |
| • at 690 V   | 7 kA   |
| breaking capacity operating short-circuit current (I <sub>cs</sub> ) |  |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 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 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 |

#### Switching capacity according to UL 489

|                           |       |
|---------------------------|-------|
| breaking capacity current |       |
| • at 240 V                | 85 kA |
| • at 480 V                | 35 kA |
| • at 600 Y/347 V          | 18 kA |

#### Adjustable parameters

|   |      |
|---|------|
| Adjustable response value current / I <sub>g</sub> min.                 | 20 A |
| Adjustable response value current / I <sub>g</sub> min.                 | 20 A |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No   |

#### Mechanical Design

|             |         |
|-------------|---------|
| height [in] | 5.51 in |
| Height      | 140 mm  |
| width [in]  | 3 in    |
| Width       | 76.2 mm |
| depth [in]  | 3.01 in |
| depth       | 76.5 mm |

#### Connections

|   |   |
|---|---|
| arrangement of electrical connectors / for main current circuit                 | Front connection                          |
| type of electrical connection / for main current circuit                        | circular conductor terminal on both sides |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (14 AWG - 8 AWG)                      |

#### Auxiliary circuit

|  |    |
|--|----|
| product component                              |    |
| • undervoltage release                         | No |
| • voltage trigger                              | No |
| • trip indicator                               | No |
| 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 / according to IEC 81346-2 | Q |
|---|---|

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

[Confirmation](#)



|                           |                   |
|---------------------------|-------------------|
| Declaration of Conformity | Marine / Shipping |
|---------------------------|-------------------|



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=3VA5120-5ED36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5120-5ED36-0AA0>

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

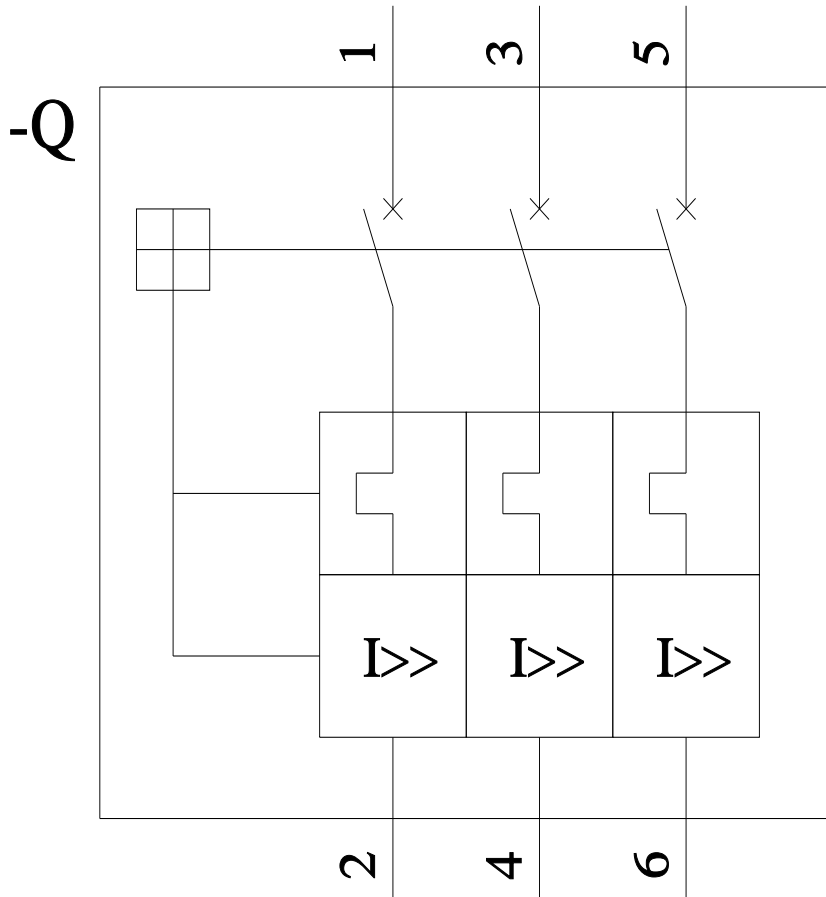
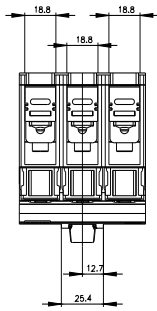
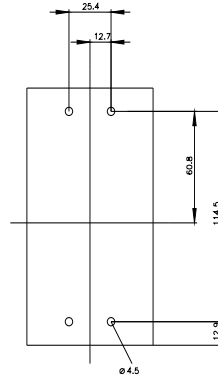
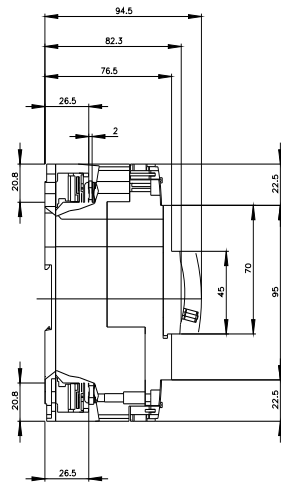
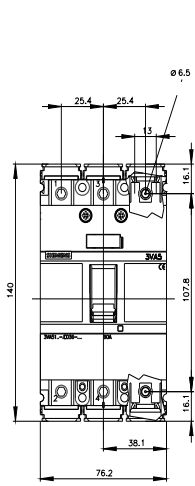
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5120-5ED36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5120-5ED36-0AA0)

CAX-Online-Generator

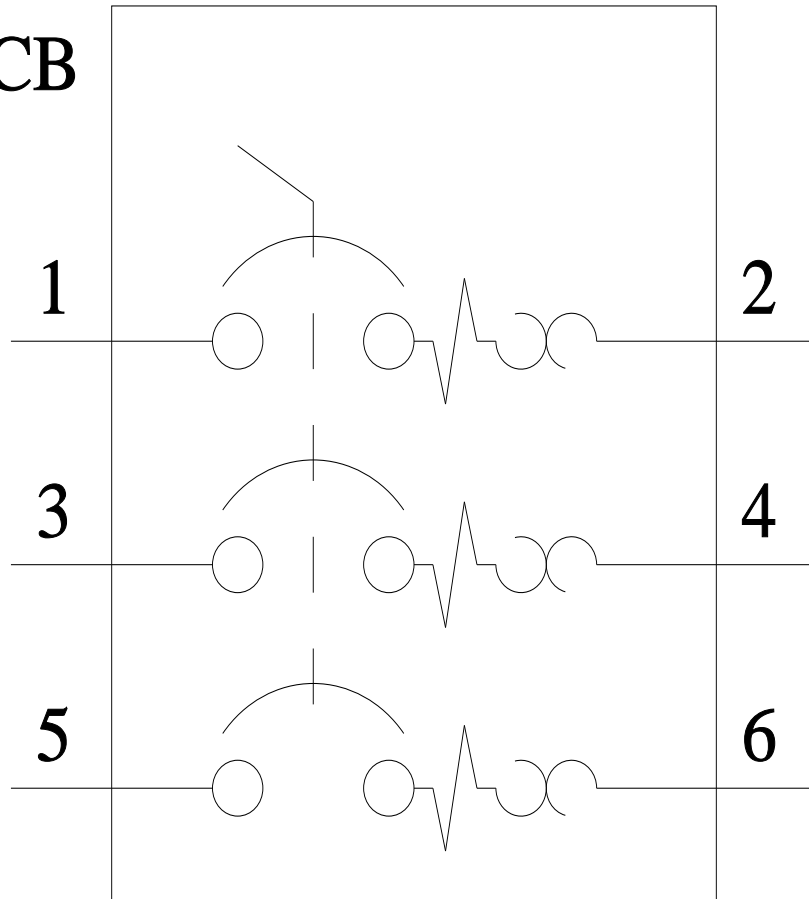
<http://www.siemens.com/cax>

Tender specifications

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



**CB**



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