



circuit breaker 3VA5 UL Frame 125 breaking capacity class M 35 kA @ 480 V 4-pole, line protection TM230, FTAM,  $I_n=125$  A overload protection  $I_r=125$  A permanently set short-circuit protection  $I_i=5...10 \times I_n$  neutral conductor protection 100% without connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | MEAS                        |
| design of the product  | 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)                      | No                          |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | No                          |
| design of the overcurrent release  | TM230                       |
| protection function of the overcurrent release   | LI                          |
| number of poles  | 4                           |
| General technical data   |                             |
| insulation voltage / rated value   | 800 V                       |
| operating voltage / at DC / rated value  | 600 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 29 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 9.7 W                       |
| mechanical service life (operating cycles) / typical   | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 8 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 4 000                       |
| electrical endurance (operating cycles) / at 480 V   | 8 000                       |
| electrical endurance (operating cycles) / at 600 V   | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No                          |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 1.05 kg                     |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 125 A                       |
| • at 45 °C   | 122 A                       |
| • at 50 °C   | 119 A                       |
| • at 55 °C   | 117 A                       |
| • at 60 °C   | 114 A                       |
| • at 65 °C   | 112 A                       |
| • at 70 °C   | 109 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> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>   | 85 kA<br>55 kA<br>7 kA   |
| operating short-circuit current breaking capacity (I <sub>cs</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul> | 85 kA<br>55 kA<br>5 kA   |
| short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>             | 187 kA<br>121 kA<br>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**

|  |                         |
|--|-------------------------|
| current breaking capacity <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 480 V</li><li>• at 600 Y/347 V</li></ul> | 85 kA<br>35 kA<br>18 kA |
|--|-------------------------|

**Adjustable parameters**

|   |                  |
|---|------------------|
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul> | 125 A<br>125 A   |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>     | 1 s<br>1 s       |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>                                      | 625 A<br>1 250 A |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>  | 125 A<br>125 A   |
| design of the N-conductor protection  | 100%             |
| product function / grounding protection   | No               |

**Mechanical Design**

|   |                |
|---|----------------|
| product component <ul style="list-style-type: none"><li>• undervoltage release</li><li>• voltage trigger</li><li>• trip indicator</li></ul> | No<br>No<br>No |
| height [in]   | 5.51 in        |
| height  | 140 mm         |
| width [in]  | 4 in           |
| width   | 101.6 mm       |
| depth [in]  | 3.01 in        |
| depth   | 76.5 mm        |

**Connections**

|   |                    |
|---|--------------------|
| arrangement of electrical connectors / for main current circuit | Without connection |
| type of electrical connection / for main current circuit        | Without            |

**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></ul> | -25 °C |

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C  
-40 °C  
80 °C

reference code / according to IEC 81346-2

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### Approvals / Certificates

#### General Product Approval



#### General Product Approval

#### EMV

#### Test Certificates



[Miscellaneous](#)



[Special Test Certificate](#)

#### Test Certificates

#### Maritime application

#### other

#### Environment

[Type Test Certificates/Test Report](#)



[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

### Further information

#### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

#### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

#### 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=3VA5112-5GC41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5112-5GC41-0AA0>

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

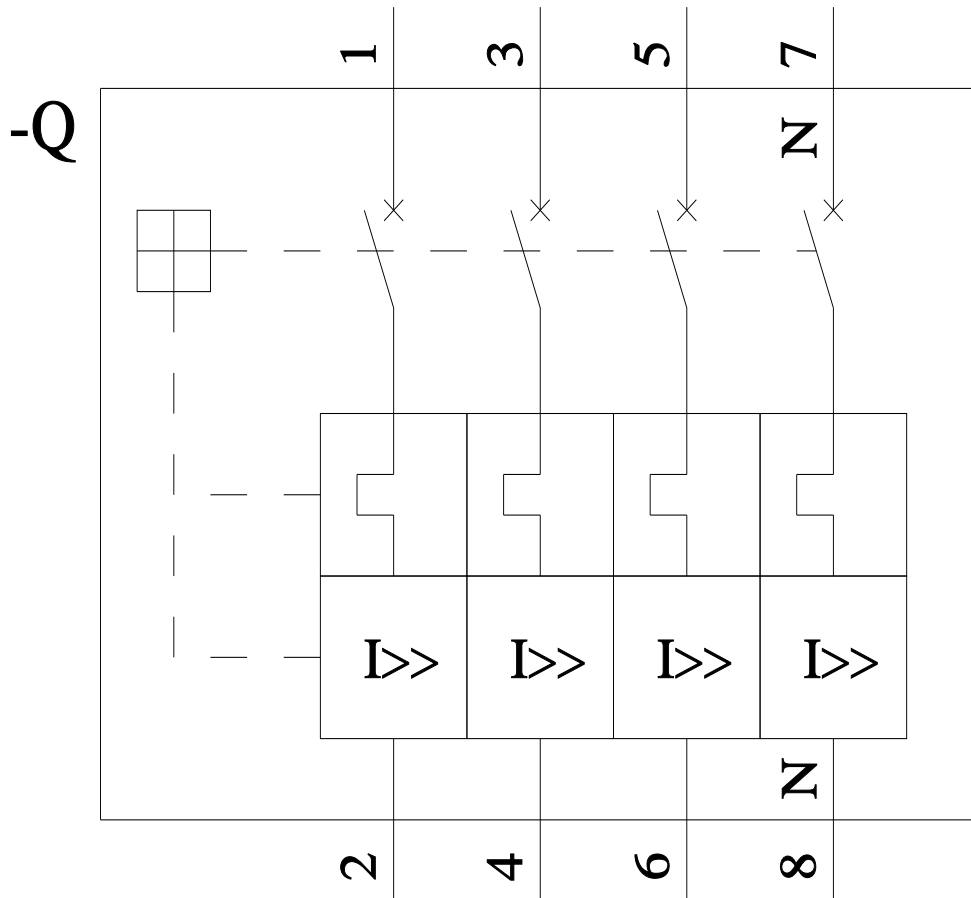
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5112-5GC41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5112-5GC41-0AA0)

#### CAX-Online-Generator

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

#### Tender specifications

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





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