



circuit breaker 3VA5 UL Frame 250 breaking capacity class C 100 kA @ 480 V 4-pole, line protection TM210, FTFM,  $I_n=200$  A overload protection  $I_r=200$  A permanently set short-circuit protection  $I_i=10 \times I_n$  neutral conductor protection 100% without connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | CFAS                        |
| 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  | TM210                       |
| 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  | 1 000 V                     |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 43 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 14.17 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/retrofittable / short-circuit and overload proof                     | No                          |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 2.55 kg                     |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 200 A                       |
| • at 45 °C   | 194 A                       |
| • at 50 °C   | 189 A                       |
| • at 55 °C   | 183 A                       |
| • at 60 °C   | 178 A                       |
| • at 65 °C   | 172 A                       |
| • at 70 °C   | 167 A                       |

| Switching capacity according to IEC 60947   |  |
|---|--|
| switching capacity class of the circuit breaker   | C  |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )  |  |
| • at 240 V  | 200 kA   |
| • at 415 V  | 85 kA  |
| • at 690 V  | 10 kA  |
| operating short-circuit current breaking capacity (I <sub>cs</sub> )  |  |
| • at 240 V  | 200 kA   |
| • at 415 V  | 85 kA  |
| • at 690 V  | 10 kA  |
| short-circuit current making capacity (I <sub>cm</sub> )  |  |
| • at 240 V  | 440 kA   |
| • at 415 V  | 187 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 |
| Switching capacity according to UL 489  |  |
| current breaking capacity   |  |
| • at 240 V  | 200 kA   |
| • at 480 V  | 100 kA   |
| • at 600 V  | 35 kA  |
| Adjustable parameters   |  |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic |  |
| • minimum   | 200 A  |
| • maximum   | 200 A  |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic     |  |
| • minimum   | 1 s  |
| • maximum   | 1 s  |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                      |  |
| • minimum   | 2 000 A  |
| • maximum   | 2 000 A  |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping  |  |
| • minimum   | 2 000 A  |
| • maximum   | 2 000 A  |
| design of the N-conductor protection  | 100%   |
| product function / grounding protection   | No   |
| Mechanical Design   |  |
| product component   |  |
| • undervoltage release  | No   |
| • voltage trigger   | No   |
| • trip indicator  | No   |
| height [in]   | 7.28 in  |
| height  | 185 mm   |
| width [in]  | 5.51 in  |
| width   | 140 mm   |
| depth [in]  | 3.27 in  |
| depth   | 83 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   |  |
| • during operation / minimum  | -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



[Confirmation](#)



### General Product Approval

### EMV

### Marine / Shipping

### other

[Miscellaneous](#)



[Confirmation](#)

[Miscellaneous](#)

### other

### Environment

[Miscellaneous](#)

[Environmental Confirmations](#)

## Further information

### Information on the packaging

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

### 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=3VA5220-7GD41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5220-7GD41-0AA0>

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

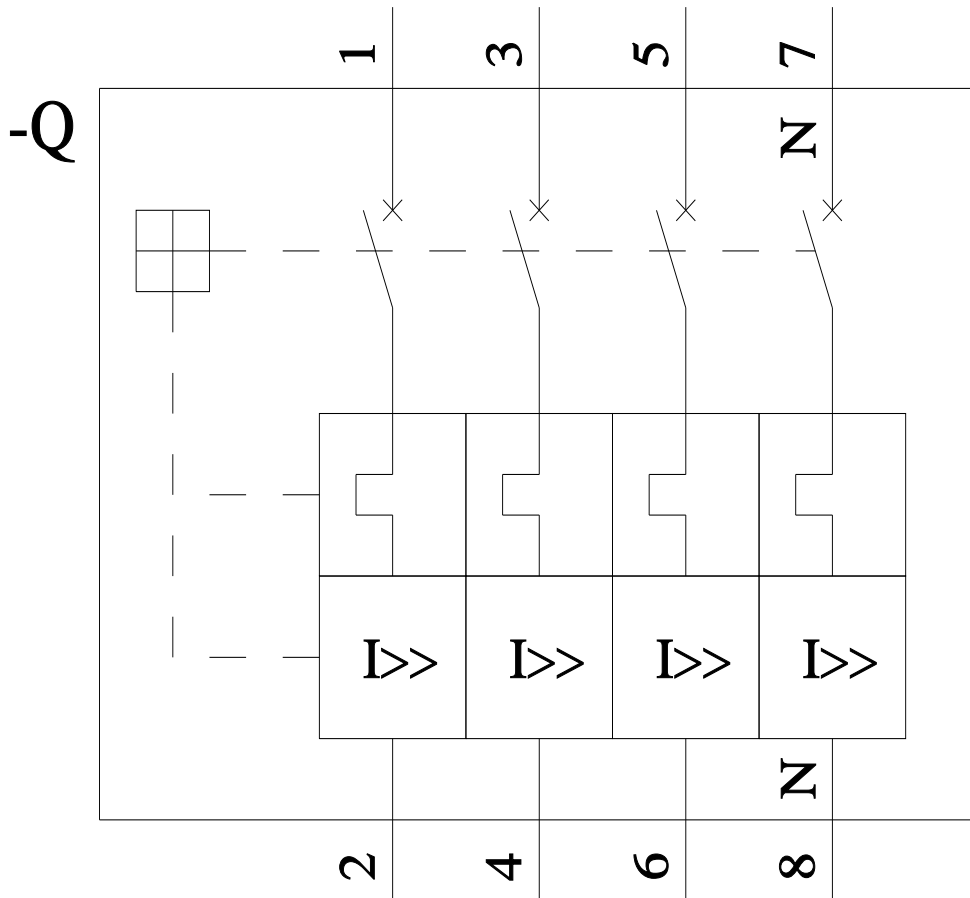
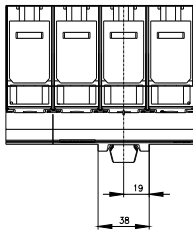
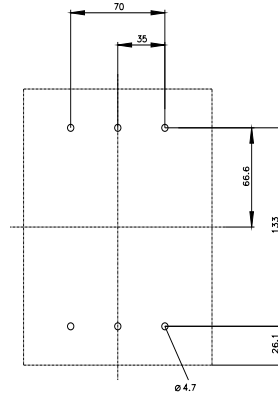
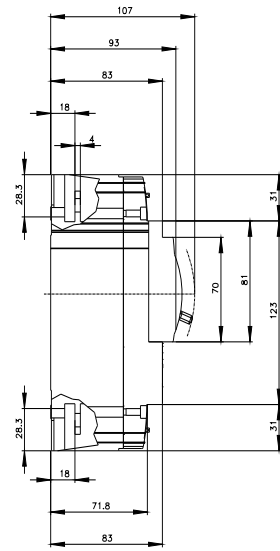
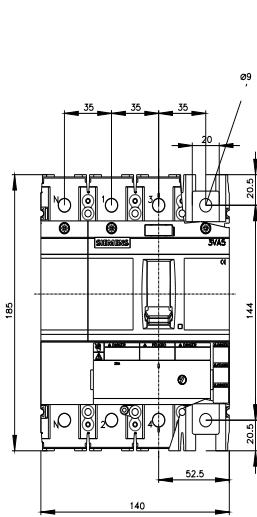
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5220-7GD41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5220-7GD41-0AA0)

### CAx-Online-Generator

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

### Tender specifications

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





last modified:

6/16/2022 

