



circuit breaker 3VA5 UL Frame 250 breaking capacity class C 100 kA @ 480 V 3-pole, line protection TM210, FTFM,  $I_n=30$  A overload protection, 100%-rated  $I_r=30$  A permanently set short-circuit protection  $I_i=11.67 \times I_n$  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)                      | Yes                         |
| 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  | 3                           |
| General technical data   |                             |
| insulation voltage / rated value   | 800 V                       |
| operating voltage / at DC / rated value  | 750 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 18.5 W                      |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 6.2 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   | 2 100 g                     |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | Yes                         |
| operational current  |                             |
| • at 40 °C   | 30 A                        |
| • at 45 °C   | 29.4 A                      |
| • at 50 °C   | 28.8 A                      |
| • at 55 °C   | 28.2 A                      |
| • at 60 °C   | 27.6 A                      |
| • at 65 °C   | 27 A                        |
| • at 70 °C   | 26.4 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> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>   | 200 kA<br>110 kA<br>10 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> | 200 kA<br>110 kA<br>10 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>             | 440 kA<br>242 kA<br>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 <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 480 V</li><li>• at 600 V</li></ul> | 200 kA<br>100 kA<br>35 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> | 30 A<br>30 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>                                      | 400 A<br>400 A |
| 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]   | 7.28 in        |
| height  | 185 mm         |
| width [in]  | 4.13 in        |
| width   | 105 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            |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | silver             |

**Auxiliary circuit**

|  |   |
|--|---|
| number of CO contacts / for auxiliary contacts | 0 |
|--|---|

**Accessories**

|  |                                  |
|--|----------------------------------|
| product extension / optional / motor drive   | Yes                              |
| manufacturer's article number <ul style="list-style-type: none"><li>• of the supplied basic switch</li></ul> | <a href="#">3VA52307ED312AA0</a> |

**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></ul> | -25 °C<br>70 °C |

- during storage / minimum
- during storage / maximum

-40 °C

80 °C

reference code / according to IEC 81346-2

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### Approvals / Certificates

#### General Product Approval



[Confirmation](#)



[Miscellaneous](#)

General Product Approval

EMV

Marine / Shipping

other



[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)

### Environment

[Environmental Conformations](#)

### 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=3VA5230-7ED31-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5230-7ED31-2AA0>

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

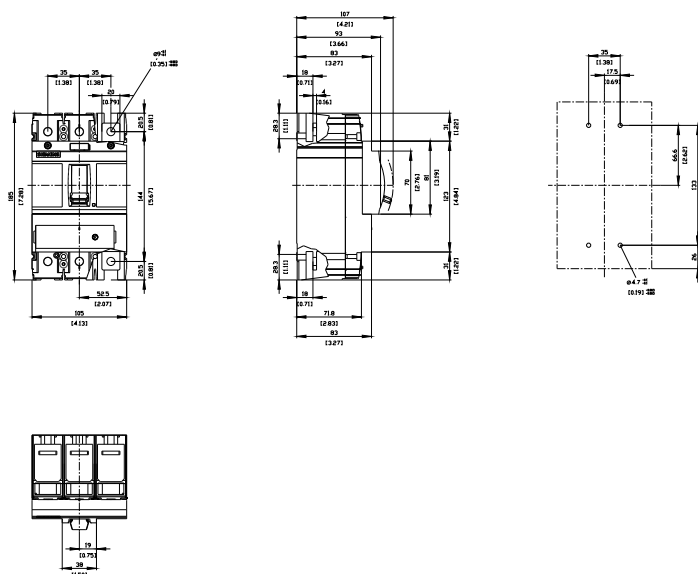
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5230-7ED31-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5230-7ED31-2AA0)

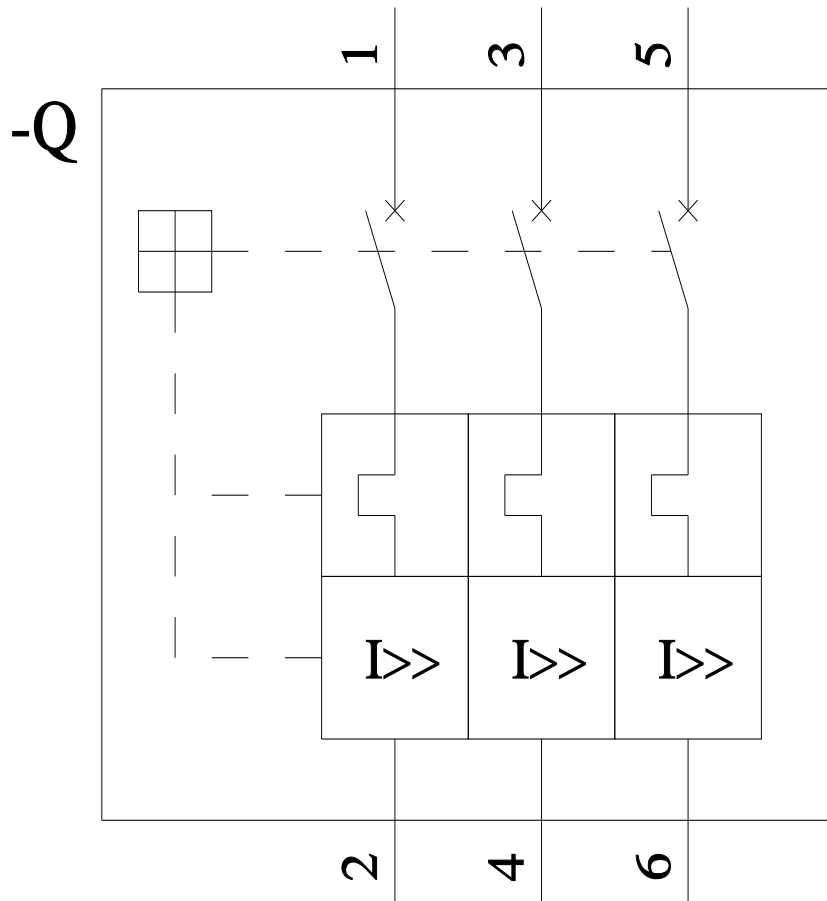
CAX-Online-Generator

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

Tender specifications

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





last modified:

1/10/2024

