



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=125A overload protection Ir=125A fixed short-circuit protection li=10 x In nut keeper kit on both sides

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | MFAS                        |
| 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)                      | 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  | 3                           |
| General technical data   |                             |
| rated insulation voltage Ui  | 800 V                       |
| Max. rated operational voltage Ue with DC  | 750 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 23 W                        |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                             | 7.53 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   | 2.192 kg                    |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 125 A                       |
| • at 45 °C   | 121 A                       |
| • at 50 °C   | 116 A                       |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 55 °C</li> <li>• at 60 °C</li> <li>• at 65 °C</li> <li>• at 70 °C</li> </ul>                                     | 112 A<br>108 A<br>103 A<br>99 A  |
| <b>Switching capacity according to IEC 60947</b>   |  |
| switching capacity class of the circuit breaker  | M  |
| breaking capacity maximum short-circuit current (Icu) <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   |
| breaking capacity operating short-circuit current (Ics) <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   |
| short-circuit current making capacity (Icm) <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 |
| <b>Switching capacity according to UL 489</b>  |  |
| breaking capacity current <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>                               | 85 kA<br>35 kA<br>18 kA  |
| <b>Adjustable parameters</b>   |  |
| Adjustable response value current / I <sub>g</sub> min.  | 125 A  |
| Adjustable response value current / I <sub>g</sub> min.  | 125 A  |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF  | No   |
| <b>Mechanical Design</b>   |  |
| height [in]  | 7.28 in  |
| Height   | 185 mm   |
| width [in]   | 4.13 in  |
| Width  | 105 mm   |
| depth [in]   | 3.27 in  |
| depth  | 83 mm  |
| <b>Connections</b>   |  |
| arrangement of electrical connectors / for main current circuit  | Front connection   |
| type of electrical connection / for main current circuit   | nut keeper kit on both ends  |
| Type of connectable conductor cross-section, connection screw, width x thickness , min.  | 13 x 1 mm  |
| Type of connectable conductor cross-section, connection screw, width x thickness , max.  | 25 x 8 mm  |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  | silver   |
| <b>Auxiliary circuit</b>   |  |
| 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   |
| number of CO contacts / for auxiliary contacts   | 0  |
| <b>Accessories</b>   |  |
| product extension / optional / motor drive   | Yes  |
| <b>Environmental conditions</b>  |  |
| 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

### Certificates

reference code / according to IEC 81346-2

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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=3VA5212-5ED32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5212-5ED32-0AA0>

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

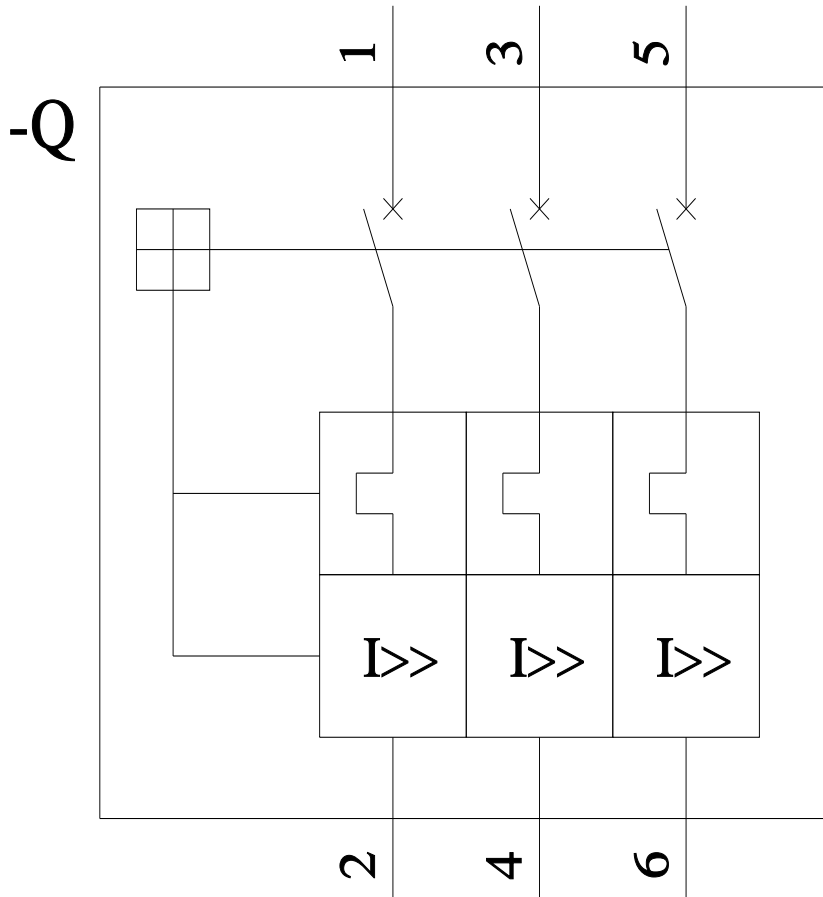
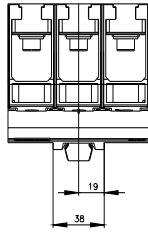
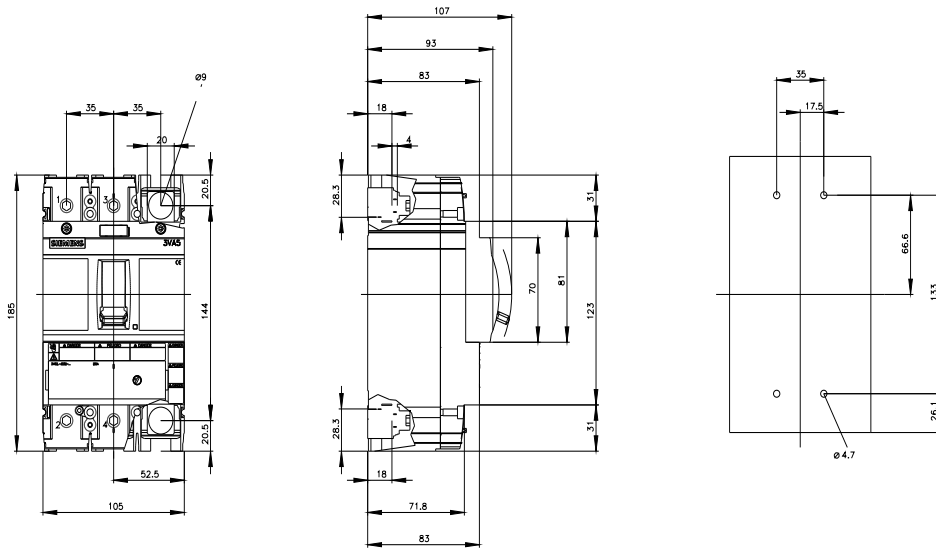
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5212-5ED32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5212-5ED32-0AA0)

CAX-Online-Generator

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

Tender specifications

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



**CB**



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