



Circuit breaker 3VA5 UL Frame 250 Breaking capacity class M 35kA @ 480 V 2-pole, line protection TM210, FTFM, In=50A Overload protection Ir=50A fixed Short-circuit protection li=10 x In Without connection

| 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 / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the overcurrent release   | TM210                       |
| protection function of the overcurrent release  | LI                          |
| number of poles   | 2                           |
| General technical data  |                             |
| Tension assignée d'isolement Ui   | 800 V                       |
| Max. rated operational voltage Ue with AC 50/60Hz   | 690 V                       |
| Max. rated operational voltage Ue with DC   | 500 V                       |
| power loss [W] / maximum  | 11.6 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 5.8 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                          |
| Current   |                             |
| marking / acc. to UL 489 / 100%-rated breaker   | No                          |
| Max. rated operational current of the frame size  | 250 A                       |
| Courant permanent assigné Iu  | 50 A                        |
| Switching capacity according to IEC 60947   |                             |
| switching capacity class of the circuit breaker   | M                           |
| breaking capacity maximum short-circuit current (Icu)   |                             |
| • at 240 V  | 85 kA                       |
| • at 415 V  | 55 kA                       |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>   | 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 |

#### Switching capacity according to UL 489

|  |                         |
|--|-------------------------|
| breaking capacity current <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 current / I <sub>g</sub> min.                 | 50 A  |
| Adjustable response value current / I <sub>g</sub> min.                 | 50 A  |
| Adjustable response value current / I <sub>i</sub> min.                 | 500 A |
| Adjustable response value current / I <sub>i</sub> max.                 | 500 A |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No    |

#### Mechanical Design

|             |        |
|-------------|--------|
| height [in] | 7.3 in |
| Height      | 185 mm |
| width [in]  | 4.1 in |
| Width       | 105 mm |
| depth [in]  | 3.3 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 <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C |

#### Certificates

|  |    |
|--|----|
| reference code / acc. to IEC 81346-2   | Q  |
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB | No |

#### General Product Approval



[Miscellaneous](#)



|     |                |                   |       |
|-----|----------------|-------------------|-------|
| EMC | Declaration of | Shipping Approval | other |
|-----|----------------|-------------------|-------|



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=3VA5250-5ED61-0AA0>

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

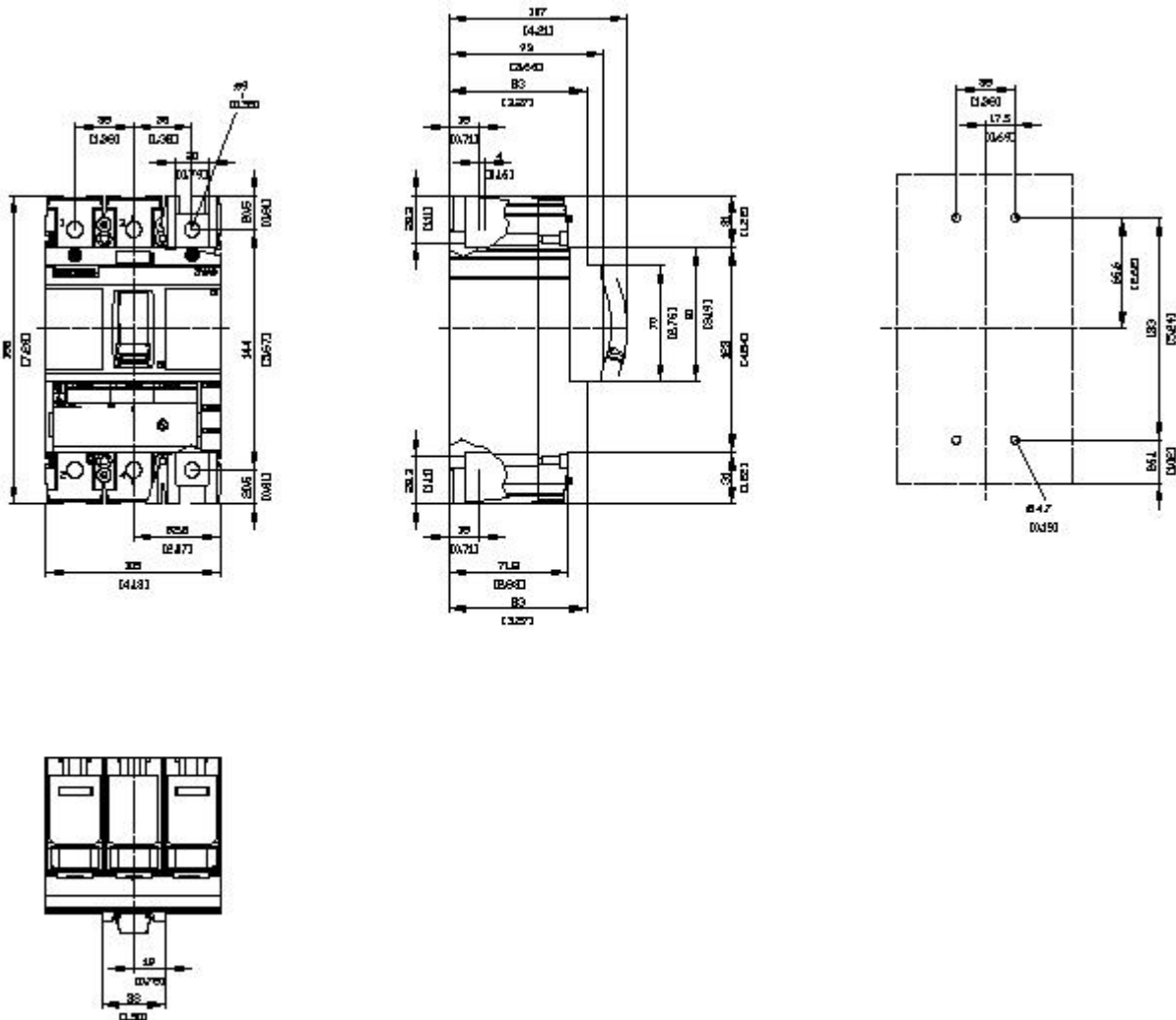
<https://support.industry.siemens.com/cs/ww/en/ps/3VA5250-5ED61-0AA0>

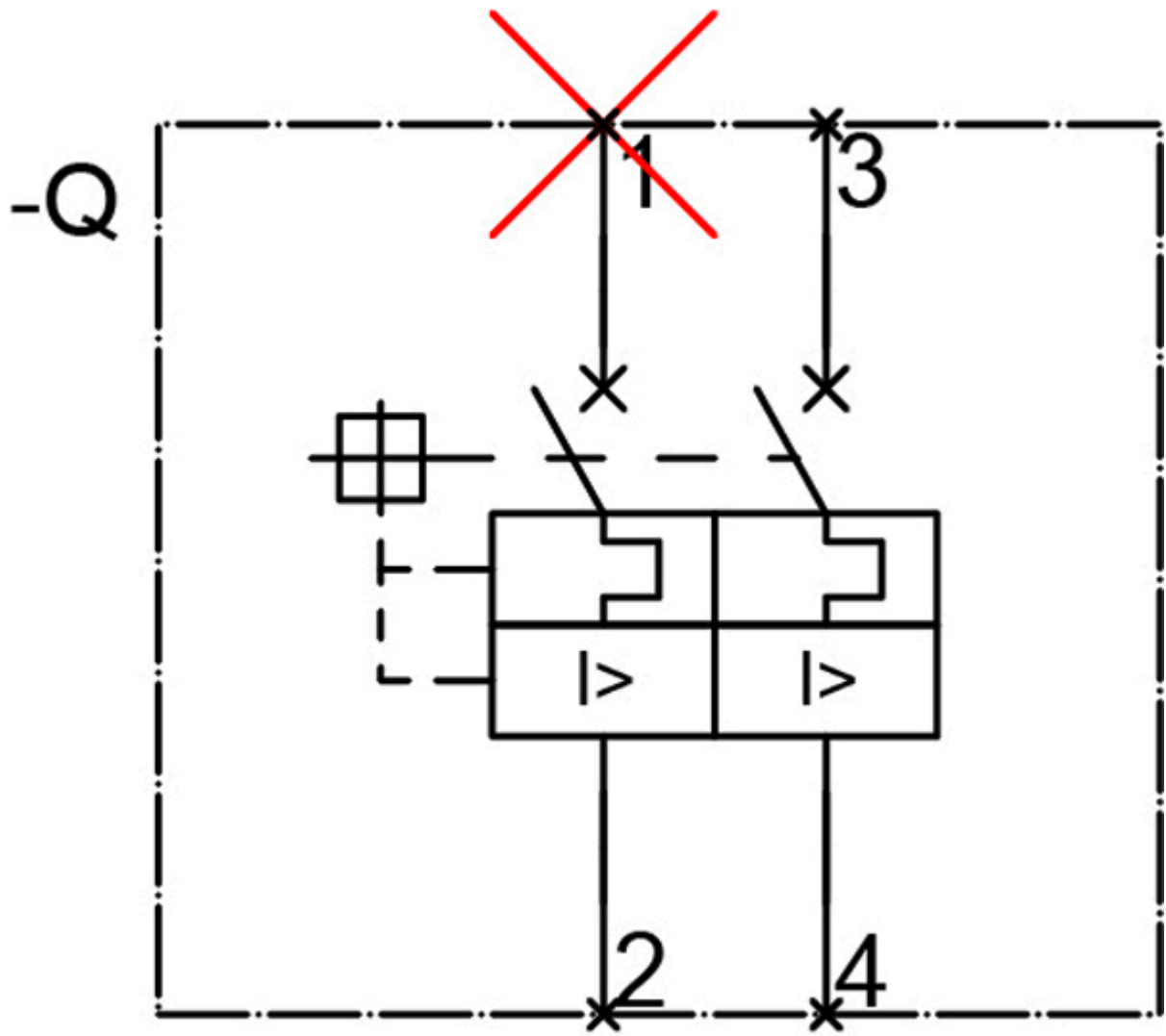
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

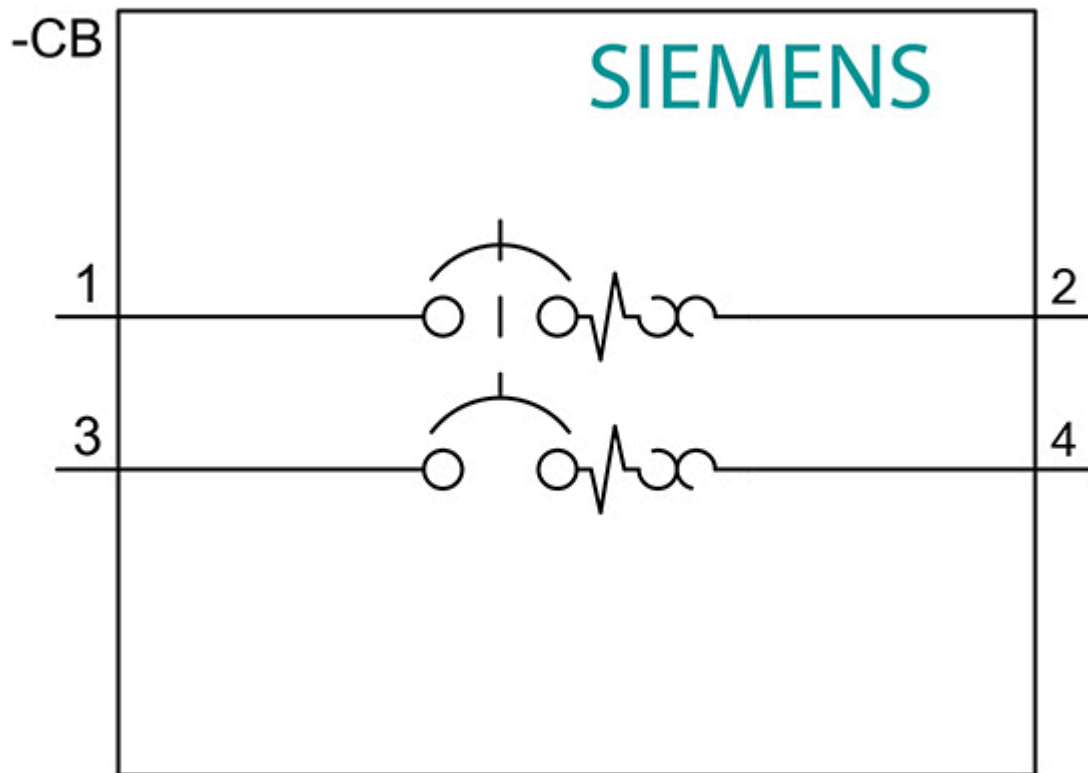
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5250-5ED61-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5250-5ED61-0AA0)

Tender specifications

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







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