



circuit breaker 3VA1 IEC Frame 100 breaking capacity class N Icu=25 kA @ 415 V  
3-pole, line protection TM210, FTFM, In=16 A overload protection Ir=16 A  
permanently set short-circuit protection Ii=20 x In nut keeper kit

| Model   |                             |
|---|-----------------------------|
| product brand name  | SENTRON                     |
| product designation   | Molded case circuit breaker |
| design of the product   | Line protection             |
| 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   | 500 V                       |
| operating voltage / at AC / rated value   | 690 V                       |
| power loss [W] / maximum  | 10.6 W                      |
| mechanical service life (operating cycles) / typical  | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 9 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V  | 6 300                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No                          |
| ground-fault monitoring version   | Without                     |
| product function  |                             |
| • communication function  | No                          |
| • other measurement function  | No                          |
| Net Weight  | 916 g                       |
| Current   |                             |
| operational current   |                             |
| • at 40 °C  | 16 A                        |
| • at 45 °C  | 16 A                        |
| • at 50 °C  | 16 A                        |
| • at 55 °C  | 16 A                        |
| • at 60 °C  | 15 A                        |
| • at 65 °C  | 15 A                        |
| • at 70 °C  | 15 A                        |
| Switching capacity according to IEC 60947   |                             |
| switching capacity class of the circuit breaker   | N                           |
| maximum short-circuit current breaking capacity (Icu)   |                             |
| • at 240 V  | 36 kA                       |
| • at 415 V  | 25 kA                       |
| • at 440 V  | 16 kA                       |
| • at 500 V  | 5 kA                        |
| • at 690 V  | 5 kA                        |

|  |  |
|--|--|
| operating short-circuit current breaking capacity (Ics)  |  |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 36 kA<br>25 kA<br>16 kA<br>5 kA<br>5 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 75.5 kA<br>52.5 kA<br>32 kA<br>7.5 kA<br>7.5 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 |

#### Adjustable parameters

|  |                |
|--|----------------|
| product feature / for L-tripping / can be switched on/off                                | No             |
| adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic |                |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | 16 A<br>16 A   |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic     |                |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | 1 s<br>1 s     |
| adjustable response value setting current (Ii) / for I-tripping                          |                |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | 320 A<br>320 A |
| adjustable setting current (InN) / for N-tripping  |                |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | 0 A<br>0 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]   | 5.12 in        |
| height  | 130 mm         |
| width [in]  | 3 in           |
| width   | 76.2 mm        |
| depth [in]  | 2.76 in        |
| depth   | 70 mm          |

#### Connections

|   |                             |
|---|-----------------------------|
| arrangement of electrical connectors / for main current circuit                           | Front terminal              |
| type of electrical connection / for main current circuit                                  | nut keeper kit on both ends |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum | 12 x 1 mm                   |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 17 x 6,5 mm                 |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)        | Silver                      |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)     | Tin                         |

#### Auxiliary circuit

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

#### Accessories

|  |    |
|--|----|
| product extension / optional / motor drive | No |
|--|----|

#### Environmental conditions

|                                    |      |
|------------------------------------|------|
| protection class IP / on the front | IP40 |
| ambient temperature                |      |

- during operation / minimum -25 °C
- during operation / maximum 70 °C
- during storage / minimum -40 °C
- during storage / maximum 80 °C

#### Environmental footprint

|  |           |
|--|-----------|
| Environmental Product Declaration(EPD)                   | Yes       |
| global warming potential [CO2 eq] / total                | 190 kg    |
| global warming potential [CO2 eq] / during manufacturing | 4.67 kg   |
| global warming potential [CO2 eq] / during operation     | 186 kg    |
| global warming potential [CO2 eq] / after end of life    | -0.826 kg |
| reference code / according to IEC 81346-2                | Q         |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



[Confirmation](#)

##### General Product Approval

##### EMV

##### Test Certificates



[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

#### Maritime application



[CCS \(China Classification Society\)](#)

#### other

#### Environment

[Miscellaneous](#)

[Confirmation](#)



[Environmental Conformations](#)

[Environmental Conformations](#)



#### Environment



#### 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,...)

<https://www.siemens.com/lowvoltage/catalogs>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1096-3ED32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1096-3ED32-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1096-3ED32-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1096-3ED32-0AA0)

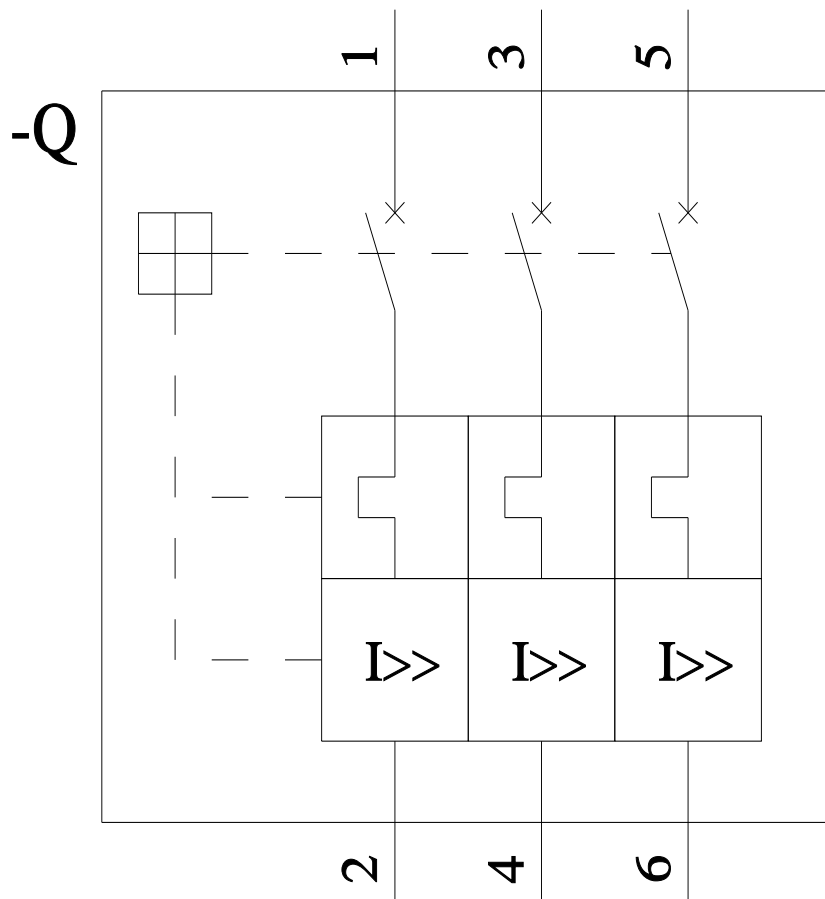
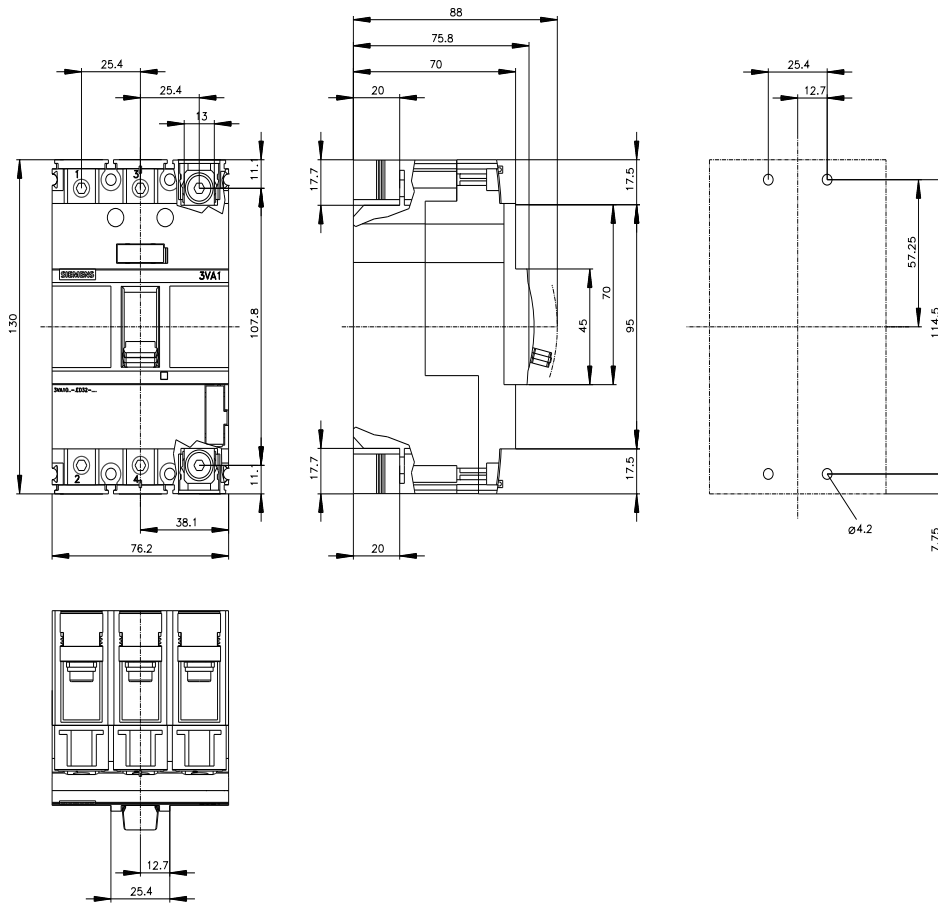
##### CAX-Online-Generator

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

Tender specifications

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

Characteristic curves



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