



circuit breaker 3VA1 IEC Frame 160 breaking capacity class M Icu=55 kA @ 415 V  
3-pole, line protection TM240, ATAM, In=125 A overload protection Ir=88 A...125 A  
short-circuit protection Ii=5...10 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   | TM240                       |
| 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  | 28.1 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  | 980 g                       |
| Current   |                             |
| operational current   |                             |
| • at 40 °C  | 125 A                       |
| • at 45 °C  | 125 A                       |
| • at 50 °C  | 125 A                       |
| • at 55 °C  | 122 A                       |
| • at 60 °C  | 120 A                       |
| • at 65 °C  | 117 A                       |
| • at 70 °C  | 114 A                       |
| Switching capacity according to IEC 60947   |                             |
| switching capacity class of the circuit breaker   | M                           |
| maximum short-circuit current breaking capacity (Icu)   |                             |
| • at 240 V  | 85 kA                       |
| • at 415 V  | 55 kA                       |
| • at 440 V  | 36 kA                       |
| • at 500 V  | 10 kA                       |
| • at 690 V  | 10 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> | <ul style="list-style-type: none"> <li>85 kA</li> <li>55 kA</li> <li>36 kA</li> <li>5 kA</li> <li>5 kA</li> </ul>  |
| 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> | <ul style="list-style-type: none"> <li>187 kA</li> <li>121 kA</li> <li>75.5 kA</li> <li>17 kA</li> <li>17 kA</li> </ul>  |
| 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>           | <ul style="list-style-type: none"> <li>87 A</li> <li>125 A</li> </ul>    |
| 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>           | <ul style="list-style-type: none"> <li>1 s</li> <li>1 s</li> </ul>       |
| adjustable response value setting current (Ii) / for I-tripping                          |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | <ul style="list-style-type: none"> <li>625 A</li> <li>1 250 A</li> </ul> |
| adjustable setting current (InN) / for N-tripping  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>           | <ul style="list-style-type: none"> <li>0 A</li> <li>0 A</li> </ul>       |
| 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> | <ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> </ul> |
| 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 | Yes |
|--|-----|

#### 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



##### General Product Approval

##### EMV

##### Test Certificates

[Confirmation](#)



EG-Konf.



RCM

[Miscellaneous](#)

[Special Test Certificate](#)

##### Test Certificates

##### Maritime application

[Type Test Certificates/Test Report](#)



ABS



BUREAU  
VERITAS



DNV



LRS



RMRS

##### Maritime application

##### other

##### Environment

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

[Miscellaneous](#)

[Confirmation](#)



[Environmental Confirmations](#)

[Environmental Confirmations](#)

##### 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=3VA1112-5EF32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1112-5EF32-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1112-5EF32-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1112-5EF32-0AA0)

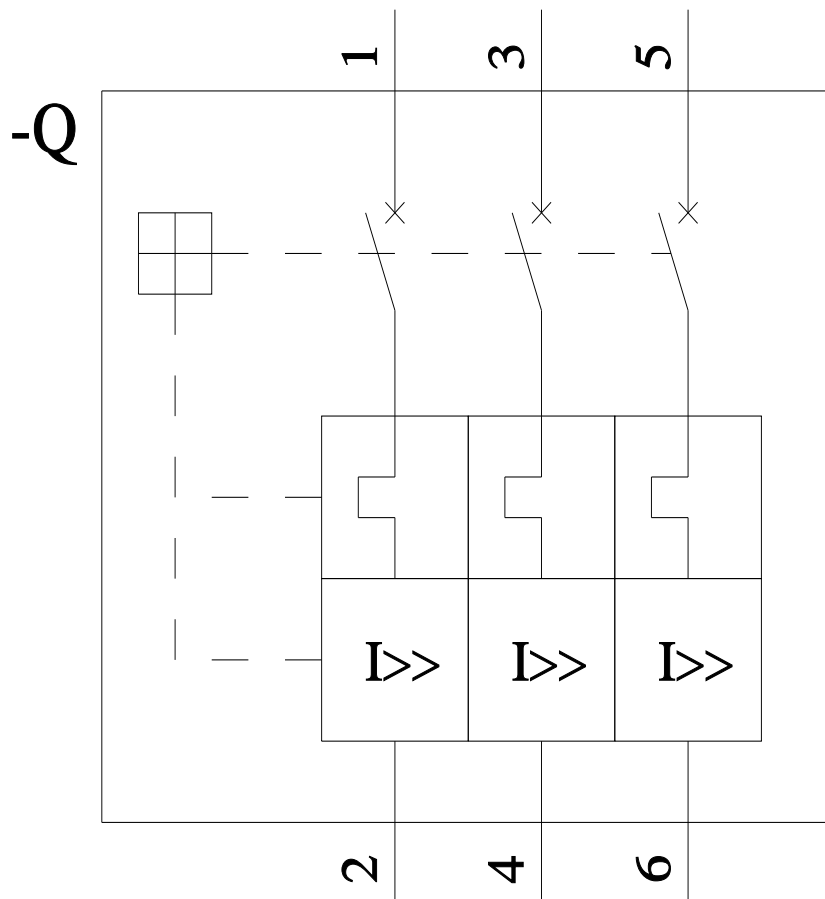
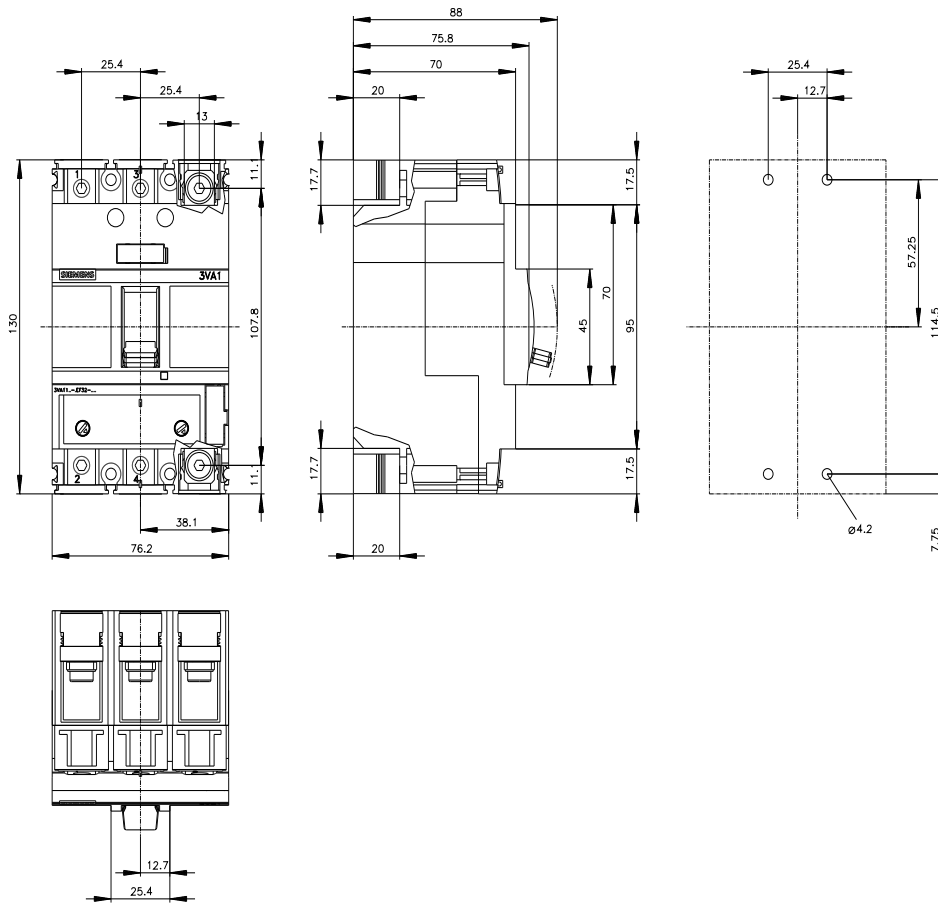
##### CAX-Online-Generator

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

Tender specifications

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

Characteristic curves



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