



circuit breaker 3VA1 IEC frame 160 breaking capacity class H  $I_{cu}=70kA @ 415V$  3-pole, line protection TM240, ATAM,  $I_n=80A$  overload protection  $I_r=56A...80A$  short-circuit protection  $I_i=5...10 \times I_n$  clamp connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded case circuit breaker |
| Product version  | Line protection             |
| design of the overcurrent release  | TM240                       |
| protection function of the overcurrent release   | LI                          |
| number of poles  | 3                           |
| General technical data   |                             |
| rated insulation voltage $U_i$   | 800 V                       |
| Max. rated operational voltage $U_e$ with DC   | 500 V                       |
| power loss [W] / maximum   | 19.2 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 6.4 W                       |
| mechanical service life (switching cycles) / typical   | 20 000                      |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                      | 9 000                       |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz                          | 6 300                       |
| Neutral conductors / upgradeable/retrofitable  | No                          |
| ground-fault monitoring version  | Without                     |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| net weight   | 0.9 kg                      |
| Current  |                             |
| Max. rated operational current of the frame size   | 160 A                       |
| Courant permanent assigné $I_u$  | 80 A                        |
| operational current  |                             |
| • at 40 °C   | 80 A                        |
| • at 45 °C   | 80 A                        |
| • at 50 °C   | 80 A                        |
| • at 55 °C   | 78 A                        |
| • at 60 °C   | 77 A                        |
| • at 65 °C   | 75 A                        |
| • at 70 °C   | 74 A                        |
| Switching capacity according to IEC 60947  |                             |
| switching capacity class of the circuit breaker  | H                           |
| breaking capacity maximum short-circuit current ( $I_{cu}$ )                                   |                             |


|  |  |                                  |
|--|--|----------------------------------|
| <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>   | 100 kA<br>70 kA<br>55 kA<br>10 kA<br>10 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>             | 100 kA<br>70 kA<br>40 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>                         | 220 kA<br>154 kA<br>121 kA<br>17 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 |                                  |
| <b>Adjustable parameters</b>   |  |                                  |
| Adjustable response value current / li min.  | 400 A  |                                  |
| Adjustable response value current / li max.  | 800 A  |                                  |
| Ground fault protection / tripping switchable / I2t=ON/OFF   | No   |                                  |
| <b>Mechanical Design</b>   |  |                                  |
| height [in]  | 5.12 in  |                                  |
| Height   | 130 mm   |                                  |
| width [in]   | 3 in   |                                  |
| Width  | 76.2 mm  |                                  |
| depth [in]   | 2.76 in  |                                  |
| depth  | 70 mm  |                                  |
| <b>Connections</b>   |  |                                  |
| arrangement of electrical connectors / for main current circuit  | Front terminal   |                                  |
| type of electrical connection / for main current circuit   | box terminal on both sides   |                                  |
| Type of connectable conductor cross-section, round conductor terminal, stranded  | 1 x (1.5 - 70 mm <sup>2</sup> )  |                                  |
| <b>Auxiliary circuit</b>   |  |                                  |
| 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> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C   |                                  |
| <b>Certificates</b>  |  |                                  |
| reference code / acc. to IEC 81346-2   | Q  |                                  |
| <b>General Product Approval</b>  | <b>EMC</b>   | <b>Declaration of Conformity</b> |



[Miscellaneous](#)



[UK Declaration of Conformity](#)

| Declaration of Conformity   | Test Certificates   |  |   | Marine / Shipping  |  |
|---|---|--|---|--|--|
| <br>EG-Konf. | <a href="#">Special Test Certificate</a>  | <a href="#">Miscellaneous</a>                      | <a href="#">Type Test Certificates/Test Report</a>  | <br>ABS | <br>BUREAU<br>VERITAS |
| Marine / Shipping   |   |  |   | other  |  |
| <br>LRS      | <br>RMRS | <a href="#">CCS / China Classification Society</a> | <br>DNV-GL | <a href="#">Miscellaneous</a>  | <a href="#">Miscellaneous</a>  |

#### 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=3VA1180-6EF36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-6EF36-0AA0>

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

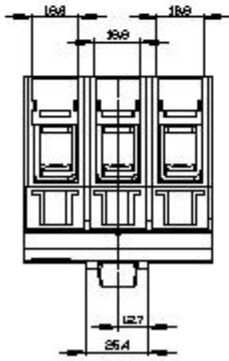
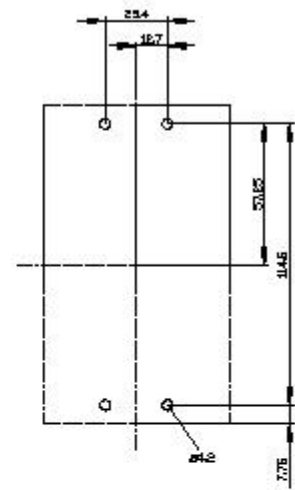
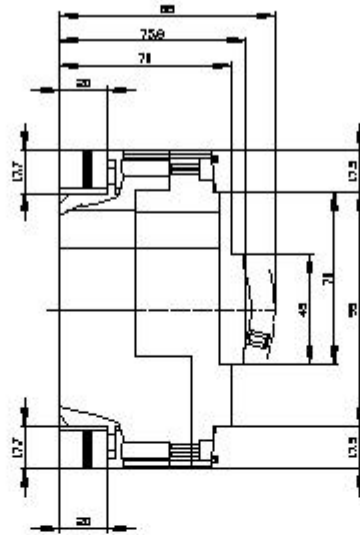
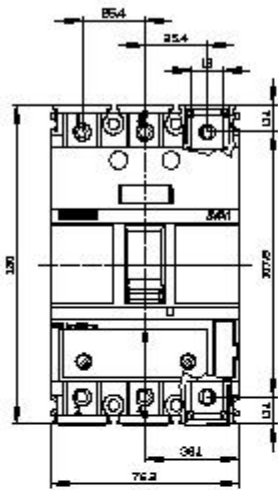
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1180-6EF36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-6EF36-0AA0)

CAX-Online-Generator

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

Tender specifications

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





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