



circuit breaker 3VA1 IEC frame 160 breaking capacity class M  $I_{cu}=55\text{kA}$  @ 415V 3-pole, line protection TM220, ATFM,  $I_n=25\text{A}$  overload protection  $I_r=18\text{A} \dots 25\text{A}$  short-circuit protection  $I_i=12.8 \times I_n$  nut keeper kit undervoltage release (UVR) 24V DC 1 auxiliary switch HQ 1 trip alarm switch HQ

| Model                                                                                          |                                             |
|------------------------------------------------------------------------------------------------|---------------------------------------------|
| product brand name                                                                             | SETRON                                      |
| product designation                                                                            | Molded case circuit breaker                 |
| Product version                                                                                | Line protection                             |
| design of the overcurrent release                                                              | TM220                                       |
| protection function of the overcurrent release                                                 | LI                                          |
| number of poles                                                                                | 3                                           |
| Auxiliary contact version                                                                      | 1 auxiliary switch + 1 trip alarm switch HQ |
| General technical data                                                                         |                                             |
| rated insulation voltage $U_i$                                                                 | 800 V                                       |
| Max. rated operational voltage $U_e$ with DC                                                   | 500 V                                       |
| power loss [W] / maximum                                                                       | 11 W                                        |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.66 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                                                                                     | 1,067 kg                                    |
| Current                                                                                        |                                             |
| operational current                                                                            |                                             |
| • at 40 °C                                                                                     | 25 A                                        |
| • at 45 °C                                                                                     | 25 A                                        |
| • at 50 °C                                                                                     | 25 A                                        |
| • at 55 °C                                                                                     | 24 A                                        |
| • at 60 °C                                                                                     | 24 A                                        |
| • at 65 °C                                                                                     | 23 A                                        |
| • at 70 °C                                                                                     | 23 A                                        |
| Switching capacity according to IEC 60947                                                      |                                             |
| switching capacity class of the circuit breaker                                                | M                                           |
| breaking capacity maximum short-circuit current ( $I_{cu}$ )                                   |                                             |
| • at 240 V                                                                                     | 85 kA                                       |
| • at 415 V                                                                                     | 55 kA                                       |
| • at 440 V                                                                                     | 36 kA                                       |

|                                                                                                                                                                                                                                                                                       |                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                                                                                                                                                      | 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>                                                                                  | 10 kA<br>85 kA<br>55 kA<br>36 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>                                                                                              | 187 kA<br>121 kA<br>75.6 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>                                                                                                                                                                                                                                                          |                                                                                                                                                                |
| 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                                                                                                                                                                                                                              | nut keeper kit on both ends                                                                                                                                    |
| Type of connectable conductor cross-section, connection screw, width x thickness , min.                                                                                                                                                                                               | 12 x 1 mm                                                                                                                                                      |
| Type of connectable conductor cross-section, connection screw, width x thickness , max.                                                                                                                                                                                               | 17 x 6.5 mm                                                                                                                                                    |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)                                                                                                                                                                                                 | Tin                                                                                                                                                            |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                              |                                                                                                                                                                |
| product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• trip indicator</li> </ul>                                                                                  | Yes<br>No<br>No<br>Yes                                                                                                                                         |
| number of CO contacts / for auxiliary contacts                                                                                                                                                                                                                                        | 2                                                                                                                                                              |
| <b>Accessories</b>                                                                                                                                                                                                                                                                    |                                                                                                                                                                |
| product extension / optional / motor drive                                                                                                                                                                                                                                            | Yes                                                                                                                                                            |
| manufacturer's article number <ul style="list-style-type: none"> <li>• of the supplied basic switch</li> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip unit</li> </ul> | <a href="#">3VA11255EE320AA0</a><br><a href="#">3VA9988-0AA12</a><br><a href="#">3VA9988-0AB12</a><br><a href="#">3VA9608-0BB11</a>                            |
| <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>                                                                                                                                                                                                                                                       |                                                                                                                                                                |
| EMC Declaration of                                                                                                                                                                                                                                                                    |                                                                                                                                                                |

|  |  |            |
|--|--|------------|
|  |  | Conformity |
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|                   |       |
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#### 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=3VA1125-5EE32-0BF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1125-5EE32-0BF0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1125-5EE32-0BF0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1125-5EE32-0BF0)

CAX-Online-Generator

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

Tender specifications

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





