

circuit breaker 3VA1 IEC Frame 160 breaking capacity class M Icu=55 kA @ 415 V  
4-pole, line protection TM220, ATFM, In=80 A overload protection Ir=56 A...80 A  
short-circuit protection Ii=10 x In N conductor unprotected nut keeper kit for DC  
power OEM in China

| Model                                                                                                 |                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                    | SENTRON                                                                                                                                                        |
| product designation                                                                                   | Molded case circuit breaker                                                                                                                                    |
| design of the product                                                                                 | Line protection                                                                                                                                                |
| design of the overcurrent release                                                                     | TM220                                                                                                                                                          |
| protection function of the overcurrent release                                                        | LI                                                                                                                                                             |
| number of poles                                                                                       | 4                                                                                                                                                              |
| General technical data                                                                                |                                                                                                                                                                |
| 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                                                                                            | 1.209 kg                                                                                                                                                       |
| Switching capacity according to IEC 60947                                                             |                                                                                                                                                                |
| switching capacity class of the circuit breaker                                                       | M                                                                                                                                                              |
| 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                                                                                                                                                             |
| design of the N-conductor protection                                                                  | without                                                                                                                                                        |
| product function / grounding protection                                                               | No                                                                                                                                                             |
| Mechanical Design                                                                                     |                                                                                                                                                                |
| product component                                                                                     |                                                                                                                                                                |
| • undervoltage release                                                                                | No                                                                                                                                                             |
| • voltage trigger                                                                                     | No                                                                                                                                                             |
| • trip indicator                                                                                      | No                                                                                                                                                             |
| 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                                                                                                                                                           |

| Environmental footprint                   |     |
|-------------------------------------------|-----|
| Environmental Product Declaration(EPD)    | Yes |
| reference code / according to IEC 81346-2 | Q   |

| Approvals / Certificates      |                                                                                   |                              |                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Product Approval      |                                                                                   | EMV                          | Test Certificates                                                                                                                                           |
| <a href="#">Miscellaneous</a> |  | <a href="#">Confirmation</a> | <br><a href="#">Miscellaneous</a> <a href="#">Special Test Certificate</a> |

| Maritime application                                                              |                                                                                   |                                                                                   |                                                                                   | other                                                                               |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  | <a href="#">CCS (China Classification Society)</a><br><a href="#">Miscellaneous</a> |

| other                        | Environment                                                                       |                                             |                                             |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| <a href="#">Confirmation</a> |  | <a href="#">Environmental Confirmations</a> | <a href="#">Environmental Confirmations</a> |

| Further information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Information on the packaging<br><a href="https://support.industry.siemens.com/cs/ww/en/view/109813875">https://support.industry.siemens.com/cs/ww/en/view/109813875</a><br>Information for data generation and storage<br><a href="https://support.industry.siemens.com/cs/ww/en/view/109995012">https://support.industry.siemens.com/cs/ww/en/view/109995012</a><br>Information- and Downloadcenter (Catalogs, Brochures,...)<br><a href="https://www.siemens.com/lowvoltage/catalogs">https://www.siemens.com/lowvoltage/catalogs</a><br>Industry Mall (Online ordering system)<br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1180-5EE42-0AA0-Z D00">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1180-5EE42-0AA0-Z D00</a><br>Service&Support (Manuals, Certificates, Characteristics, FAQs,...)<br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-5EE42-0AA0-Z D00">https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-5EE42-0AA0-Z D00</a><br>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)<br><a href="https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-5EE42-0AA0-Z D00">https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-5EE42-0AA0-Z D00</a><br>CAx-Online-Generator<br><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a><br>Tender specifications<br><a href="https://www.siemens.com/specifications">https://www.siemens.com/specifications</a><br>Characteristic curves<br><a href='https://curves.simaris.siemens.com/curves/&lt;mmp_prod_noCOMP="HAUPT"&gt;&lt;/mmp_prod_no&gt;'>https://curves.simaris.siemens.com/curves/&lt;mmp_prod_noCOMP="HAUPT"&gt;&lt;/mmp_prod_no&gt;</a> |

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