## SIEMENS

## Data sheet

## 3VM1196-5GE42-0AA0



circuit breaker 3VM1 IEC frame 160 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection TM220, ATFM, In=16A overload protection Ir=11A...16A short-circuit protection Ii=20 x In N conductor protection 100% 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  | TM220                       |
| protection function of the overcurrent release   | LI                          |
| number of poles  | 4                           |
| General technical data   |                             |
| insulation voltage / rated value   | 800 V                       |
| operating voltage / at AC / at 50/60 Hz / rated value  | 500 V                       |
| operating voltage / at DC / rated value  | 500 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 11 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole            | 3.53 W                      |
| mechanical service life (operating cycles) / typical   | 15 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                       | 6 000                       |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof | No                          |
| ground-fault monitoring version  | Without                     |
| product function   |                             |
| <ul> <li>communication function</li> </ul>   | No                          |
| <ul> <li>other measurement function</li> </ul>   | No                          |
| Net Weight   | 1.2 kg                      |
| 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  | Μ                           |
| 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                       |
| operating short-circuit current breaking capacity (lcs)  |                             |

| • at 240 V                                  | 63 kA   |
|---|---|
| • at 415 V                                  | 41 kA   |
| • at 440 V                                  | 27 kA   |
| • at 500 V                                  | 5 kA  |
| short-circuit current making capacity (lcm) |   |
| • at 240 V                                  | 187 kA  |
| • at 415 V                                  | 121 kA  |
| • at 440 V                                  | 76 kA   |
| • at 500 V                                  | 17 kA   |
| design of short-circuit protection          | For switching capacity values in DC power systems, see the 3VA Molded Case<br>Circuit Breaker Manual; link available under Service & Support in the last<br>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                               |                             |
| • minimum  | 11 A                        |
| • maximum  | 16 A                        |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic                                   |                             |
| • minimum  | 1 s                         |
| • maximum  | 1 s                         |
| adjustable response value setting current (li) / for I-tripping  |                             |
| • minimum  | 320 A                       |
| • maximum  | 320 A                       |
| adjustable setting current (InN) / for N-tripping  |                             |
| • minimum  | 16 A                        |
| • maximum  | 16 A                        |
| adjustable current response value current / of instantaneous short-circuit trip unit                                   |                             |
| • maximum  | 320 A                       |
| design of the N-conductor protection   | 100%                        |
| product function / grounding protection  | No                          |
| Mechanical Design  |                             |
| product component  |                             |
| <ul> <li>undervoltage release</li> </ul>   | No                          |
| voltage trigger  | No                          |
| trip indicator   | No                          |
| height [in]  | 5.12 in                     |
| height   | 130 mm                      |
| width [in]   | 4 in                        |
| width  | 101.6 mm                    |
| depth [in]   | 2.76 in                     |
| depth  | 70 mm                       |
| Connections  |                             |
| arrangement of electrical connectors / for main current circuit  | Front connection            |
| type of electrical connection / for main current circuit   | nut keeper kit on both ends |
| type of connectable conductor cross-sections / for flat-bar<br>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) $% \left( 1, 2, 2, 3, 6 \right)$ | 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                      |

| <ul> <li>during operation</li> </ul>   | / maximum            | 70 °C               | C                                |                                  |                          |
|--|----------------------|---------------------|----------------------------------|----------------------------------|--------------------------|
| <ul> <li>during storage / r</li> </ul> | minimum              | -40 °               | С                                |                                  |                          |
| during storage / r                     | maximum              | 80 °C               | 2                                |                                  |                          |
| Approvals / Certificates               | ;                    |                     |                                  |                                  |                          |
| General Product App                    | roval                |                     |                                  |                                  |                          |
|  | UK<br>CA             | CE<br>EG-Konf.      | <u>Confirmation</u>              |                                  | <u>Miscellaneous</u>     |
| General Product Approval               | Test Certificates    | Marine / Shipping   |                                  |                                  |                          |
| EHC                                    | <u>Miscellaneous</u> | ABS                 | BUREAU<br>VERITAS                |                                  | Lloyds<br>Register<br>us |
| Marine / Shipping                      | other                |                     | Environment                      |                                  |                          |
| <b>EXAMPLE</b>                         | <u>Miscellaneous</u> | <u>Confirmation</u> | Environmental Con-<br>firmations | Environmental Con-<br>firmations |                          |

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/ atalo

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1196-5GE42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1196-5GE42-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VM1196-5GE42-0AA0

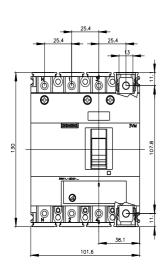
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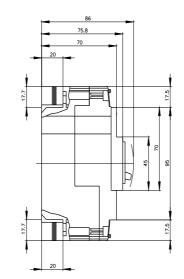
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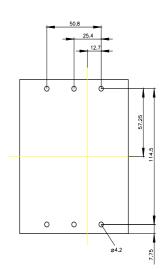
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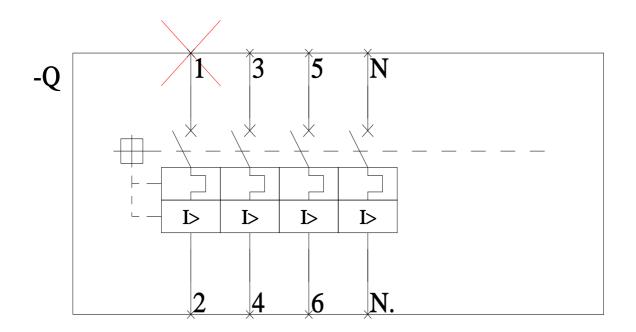
**Tender specifications** 

http://www.siemens.com/specifications









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