



circuit breaker 3VA2 IEC Frame 1000 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU320, LI, In=800 A overload protection Ir=320 A...800 A short-circuit protection Ii=1.5...10 x In neutral conductor protection adjustable (OFF, 50%, 100%) nut keeper kit

| Model                                                                                                 |                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                    | SETRON                      |
| product designation                                                                                   | Molded case circuit breaker |
| design of the product                                                                                 | Line protection             |
| design of the overcurrent release                                                                     | ETU320                      |
| protection function of the overcurrent release                                                        | LI                          |
| number of poles                                                                                       | 4                           |
| General technical data                                                                                |                             |
| insulation voltage / rated value                                                                      | 800 V                       |
| operating voltage / at AC / rated value                                                               | 690 V                       |
| power loss [W] / maximum                                                                              | 231 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 77 W                        |
| mechanical service life (operating cycles) / typical                                                  | 10 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 4 600                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                          | 3 200                       |
| 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                                                                                            | 17.65 kg                    |
| Current                                                                                               |                             |
| operational current                                                                                   |                             |
| • at 40 °C                                                                                            | 800 A                       |
| • at 45 °C                                                                                            | 800 A                       |
| • at 50 °C                                                                                            | 800 A                       |
| • at 55 °C                                                                                            | 800 A                       |
| • at 60 °C                                                                                            | 800 A                       |
| • at 65 °C                                                                                            | 767 A                       |
| • at 70 °C                                                                                            | 703 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                                                                                            | 55 kA                       |
| • at 500 V                                                                                            | 36 kA                       |

|                                                                                           |                              |
|-------------------------------------------------------------------------------------------|------------------------------|
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>                              | 25 kA                        |
| operating short-circuit current breaking capacity (Ics)                                   |                              |
| <ul style="list-style-type: none"> <li>• at 240 V</li> </ul>                              | 85 kA                        |
| <ul style="list-style-type: none"> <li>• at 415 V</li> </ul>                              | 55 kA                        |
| <ul style="list-style-type: none"> <li>• at 440 V</li> </ul>                              | 55 kA                        |
| <ul style="list-style-type: none"> <li>• at 500 V</li> </ul>                              | 36 kA                        |
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>                              | 19 kA                        |
| short-circuit current making capacity (Icm)                                               |                              |
| <ul style="list-style-type: none"> <li>• at 240 V</li> </ul>                              | 187 kA                       |
| <ul style="list-style-type: none"> <li>• at 415 V</li> </ul>                              | 121 kA                       |
| <ul style="list-style-type: none"> <li>• at 440 V</li> </ul>                              | 121 kA                       |
| <ul style="list-style-type: none"> <li>• at 500 V</li> </ul>                              | 75.6 kA                      |
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>                              | 52.5 kA                      |
| <b>Adjustable parameters</b>                                                              |                              |
| 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> </ul>                               | 320 A                        |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                               | 800 A                        |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic      |                              |
| <ul style="list-style-type: none"> <li>• minimum</li> </ul>                               | 0.5 s                        |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                               | 17 s                         |
| adjustable response value setting current (Ii) / for I-tripping                           |                              |
| <ul style="list-style-type: none"> <li>• minimum</li> </ul>                               | 1 200 A                      |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                               | 8 000 A                      |
| adjustable setting current (InN) / for N-tripping                                         |                              |
| <ul style="list-style-type: none"> <li>• minimum</li> </ul>                               | 160 A                        |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>                               | 800 A                        |
| design of the N-conductor protection                                                      | adjustable OFF; 50%; 100%    |
| product function / grounding protection                                                   | No                           |
| <b>Mechanical Design</b>                                                                  |                              |
| product component                                                                         |                              |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>                  | No                           |
| <ul style="list-style-type: none"> <li>• voltage trigger</li> </ul>                       | No                           |
| <ul style="list-style-type: none"> <li>• trip indicator</li> </ul>                        | No                           |
| height [in]                                                                               | 12.6 in                      |
| height                                                                                    | 320 mm                       |
| width [in]                                                                                | 11.02 in                     |
| width                                                                                     | 280 mm                       |
| depth [in]                                                                                | 4.72 in                      |
| depth                                                                                     | 120 mm                       |
| <b>Connections</b>                                                                        |                              |
| arrangement of electrical connectors / for main current circuit                           | Front terminal               |
| type of electrical connection / for main current circuit                                  | on both sides nut keeper kit |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum | 20 x 4 mm                    |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 50 x 28 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)     | silver                       |
| <b>Auxiliary circuit</b>                                                                  |                              |
| number of CO contacts / for auxiliary contacts                                            | 0                            |
| <b>Accessories</b>                                                                        |                              |
| product extension / optional / motor drive                                                | No                           |
| <b>Environmental conditions</b>                                                           |                              |
| 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

reference code / according to IEC 81346-2

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## Approvals / Certificates

### General Product Approval



[Miscellaneous](#)



### EMV

### Test Certificates

### Maritime application



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



### Maritime application

### other



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

[Confirmation](#)

[Miscellaneous](#)

### Dangerous goods

### Environment

[Transport Information](#)

[Environmental Confirmations](#)

[Environmental Confirmations](#)

## 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=3VA2580-5HL42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2580-5HL42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2580-5HL42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2580-5HL42-0AA0)

CAX-Online-Generator

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

Tender specifications

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





