

circuit breaker 3VA2 IEC frame 1000 breaking capacity class M  
Icu=55kA @ 415V 4-pole, line protection ETU320, LI, In=800A  
overload protection Ir=320A...800A short-circuit protection Ii=1.5...12  
x In N conductor protection adjustable (OFF, 50%, 100%) nut keeper  
kit

| Model                                          |                             |
|------------------------------------------------|-----------------------------|
| product brand name                             | SENTRON                     |
| product designation                            | Molded case circuit breaker |
| Product version                                | Line protection             |
| design of the overcurrent release              | ETU320                      |
| protection function of the overcurrent release | LI                          |
| number of poles                                | 4                           |

| General technical data                                                                         |         |
|------------------------------------------------------------------------------------------------|---------|
| Tension assignée d'isolement Ui                                                                | 800 V   |
| Max. rated operational voltage Ue with AC 50/60Hz                                              | 690 V   |
| power loss [W] / maximum                                                                       | 231 W   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 77 W    |
| mechanical service life (switching cycles) / typical                                           | 10 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                      | 4 600   |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz                          | 3 200   |
| Neutral conductors / upgradeable/retrofitable                                                  | No      |
| ground fault monitoring version                                                                | Without |
| product function                                                                               |         |
| • communication function                                                                       | No      |
| • other measurement function                                                                   | No      |

| Current                                          |         |
|--------------------------------------------------|---------|
| Max. rated operational current of the frame size | 1 000 A |
| Courant permanent assigné Iu                     | 800 A   |
| operating 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  |
| • at 690 V                                                | 25 kA  |
| operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V                                                | 85 kA  |
| • at 415 V                                                | 55 kA  |
| • at 440 V                                                | 55 kA  |
| • at 500 V                                                | 36 kA  |
| • at 690 V                                                | 19 kA  |
| short-circuit current making capacity (Icm)               |        |
| • at 240 V                                                | 187 kA |
| • at 415 V                                                | 121 kA |
| • at 440 V                                                | 121 kA |
| • at 500 V                                                | 76 kA  |
| • at 690 V                                                | 53 kA  |

### Adjustable parameters

|                                                                         |                           |
|-------------------------------------------------------------------------|---------------------------|
| Adjustable response value current / I <sub>g</sub> min.                 | 320 A                     |
| Adjustable response value current / I <sub>g</sub> min.                 | 800 A                     |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.5                       |
| Adjustable response value current / I <sub>g</sub> min.                 | 17                        |
| Adjustable response value current / I <sub>i</sub> min.                 | 1 200 A                   |
| Adjustable response value current / I <sub>i</sub> max.                 | 8 000 A                   |
| design of the N-conductor protection                                    | adjustable OFF; 50%; 100% |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No                        |

### Mechanical Design

|             |         |
|-------------|---------|
| height [in] | 12.6 in |
| Height      | 320 mm  |
| width [in]  | 11 in   |
| Width       | 280 mm  |
| depth [in]  | 4.7 in  |
| depth       | 120 mm  |

### Connections

|                                                                                         |                              |
|-----------------------------------------------------------------------------------------|------------------------------|
| 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-section, connection screw, width x thickness , min. | 20 x 4 mm                    |

#### Auxiliary circuit

|                                                |   |
|------------------------------------------------|---|
| number of CO contacts / for auxiliary contacts | 0 |
|------------------------------------------------|---|

#### Environmental conditions

|                                    |        |
|------------------------------------|--------|
| 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  |

#### Certificates

|                                         |   |
|-----------------------------------------|---|
| reference code / acc. to DIN EN 81346-2 | Q |
|-----------------------------------------|---|

| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|
|--------------------------|-----|---------------------------|



[Miscellaneous](#)



| Test Certificates | Shipping Approval | other |
|-------------------|-------------------|-------|
|-------------------|-------------------|-------|

[Miscellaneous](#)



LRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)

#### 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=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, ...)**

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

**CAX-Online-Generator**

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

**Tender specifications**

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



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