

circuit breaker 3VA2 IEC frame 160 breaking capacity class M  
Icu=55kA @ 415V 4-pole, line protection ETU320, LI, In=40A  
overload protection Ir=16A...40A short-circuit protection li=1.5...12 x  
In N conductor protection adjustable (OFF, 100%) clamp connection

| 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                                                                       | 1.6 W   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 0.53 W  |
| mechanical service life (switching cycles) / typical                                           | 20 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                      | 12 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz                          | 8 000   |
| Neutral conductors / upgradeable/retrofitable                                                  | No      |
| ground fault monitoring version                                                                | Without |
| product function                                                                               |         |
| • communication function                                                                       | No      |
| • other measurement function                                                                   | No      |
| net weight                                                                                     | 3.13 kg |

| Current                                          |       |
|--------------------------------------------------|-------|
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné lu                     | 40 A  |
| operating current                                |       |
| • at 40 °C                                       | 40 A  |
| • at 45 °C                                       | 40 A  |
| • at 50 °C                                       | 40 A  |
| • at 55 °C                                       | 40 A  |
| • at 60 °C                                       | 40 A  |
| • at 65 °C                                       | 40 A  |

- at 70 °C

40 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                                                | 2.5 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                                                | 2.5 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                                                | 3.8 kA |

### Adjustable parameters

|                                                                         |                      |
|-------------------------------------------------------------------------|----------------------|
| Adjustable response value current / I <sub>g</sub> min.                 | 16 A                 |
| Adjustable response value current / I <sub>g</sub> min.                 | 40 A                 |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.5                  |
| Adjustable response value current / I <sub>g</sub> min.                 | 17                   |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF      | No                   |
| Adjustable response value current / I <sub>i</sub> min.                 | 60 A                 |
| Adjustable response value current / I <sub>i</sub> max.                 | 480 A                |
| design of the N-conductor protection                                    | adjustable OFF; 100% |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No                   |

### Mechanical Design

|             |        |
|-------------|--------|
| height [in] | 7.1 in |
| Height      | 181 mm |
| width [in]  | 5.5 in |
| Width       | 140 mm |
| depth [in]  | 3.4 in |
| depth       | 86 mm  |

| Connections                                                                     |                           |
|---------------------------------------------------------------------------------|---------------------------|
| arrangement of electrical connectors / for main current circuit                 | Front terminal            |
| type of electrical connection / for main current circuit                        | double-sided box terminal |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (6-120 mm²)           |

| 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   |
| 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                                                                                          |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------|
| <br>CCC | <br>VDE | <br>CB | <a href="#">Miscellaneous</a> | <br>EAC |
|                                                                                            |                                                                                            |                                                                                           |                               | <br>RCM |

| Declaration of Conformity                                                                       | Test Certificates                                  |                               |                                          | Shipping Approval                                                                            |                                                                                                         |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <br>EG-Konf. | <a href="#">Type Test Certificates/Test Report</a> | <a href="#">Miscellaneous</a> | <a href="#">Special Test Certificate</a> | <br>ABS | <br>BUREAU VERITAS |

| Shipping Approval                                                                          |                                                                                             | other                                              |                                          |                               |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------|-------------------------------|
| <br>LRS | <br>RMRS | <a href="#">CCS / China Classification Society</a> | <a href="#">Manufacturer Declaration</a> | <a href="#">Miscellaneous</a> |

| Further information                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information- and Downloadcenter (Catalogs, Brochures,...)<br><a href="http://www.siemens.com/lowvoltage/catalogs">http://www.siemens.com/lowvoltage/catalogs</a> |

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2140-5HL46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-5HL46-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2140-5HL46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-5HL46-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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

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