



circuit breaker 3VA2 IEC Frame 160 breaking capacity class C Icu=110 kA @ 415 V 4-pole, line protection ETU320, LI, In=40 A overload protection Ir=16 A...40 A short-circuit protection Ii=1.5...12 x In neutral conductor protection adjustable (OFF, 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   | 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  | 1.6 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 0.53 W                      |
| mechanical service life (operating cycles) / typical  | 25 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 14 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 690 V  | 9 800                       |
| 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  | 3.2 kg                      |
| Current   |                             |
| operational 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   | C                           |
| maximum short-circuit current breaking capacity (Icu)   |                             |
| • at 240 V  | 150 kA                      |
| • at 415 V  | 110 kA                      |
| • at 440 V  | 110 kA                      |
| • at 500 V  | 85 kA                       |
| • at 690 V  | 3 kA                        |
| operating short-circuit current breaking capacity (Ics)   |                             |
| • at 240 V  | 150 kA                      |
| • at 415 V  | 110 kA                      |
| • at 440 V  | 110 kA                      |
| • at 500 V  | 85 kA                       |
| • at 690 V  | 2.5 kA                      |
| short-circuit current making capacity (Icm)   |                             |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>   | 330 kA<br>242 kA<br>242 kA<br>187 kA<br>3.7 kA |
| <b>Adjustable parameters</b>   |  |
| product feature / for L-tripping / can be switched on/off  | No   |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 16 A<br>40 A                                   |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 0.5 s<br>17 s                                  |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 60 A<br>480 A                                  |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 16 A<br>40 A                                   |
| design of the N-conductor protection   | adjustable OFF; 100%                           |
| product function / grounding protection  | No   |
| <b>Mechanical Design</b>   |  |
| product component  |  |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul>  | No<br>No<br>No                                 |
| height [in]  | 7.13 in  |
| height   | 181 mm   |
| width [in]   | 5.51 in  |
| width  | 140 mm   |
| depth [in]   | 3.39 in  |
| depth  | 86 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  | 13 x 1 mm                                      |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  | 25 x 8 mm                                      |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)   | tin  |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  | tin  |
| <b>Auxiliary circuit</b>   |  |
| number of CO contacts / for auxiliary contacts   | 0  |
| <b>Accessories</b>   |  |
| product extension / optional / motor drive   | Yes  |
| <b>Environmental conditions</b>  |  |
| protection class IP / on the front   | IP40   |
| ambient temperature  |  |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C             |
| <b>Environmental footprint</b>   |  |
| global warming potential [CO <sub>2</sub> eq] / total  | 61.814 kg                                      |
| global warming potential [CO <sub>2</sub> eq] / during manufacturing   | 14.6 kg  |
| global warming potential [CO <sub>2</sub> eq] / during operation   | 48.9 kg  |

|   |                 |
|---|-----------------|
| global warming potential [CO2 eq] / after end of life | -2.2 kg         |
| Siemens Eco Profile (SEP)                             | Siemens EcoTech |
| reference code / according to IEC 81346-2             | Q               |

### Approvals / Certificates

#### General Product Approval



[Miscellaneous](#)



[Confirmation](#)

|                          |     |                   |  |  |                      |
|--------------------------|-----|-------------------|--|--|----------------------|
| General Product Approval | EMV | Test Certificates |  |  | Maritime application |
|--------------------------|-----|-------------------|--|--|----------------------|



[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                      |  |  |  |  |       |
|----------------------|--|--|--|--|-------|
| Maritime application |  |  |  |  | other |
|----------------------|--|--|--|--|-------|



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

[Miscellaneous](#)

|       |                 |  |             |  |  |
|-------|-----------------|--|-------------|--|--|
| other | Dangerous goods |  | Environment |  |  |
|-------|-----------------|--|-------------|--|--|

[Miscellaneous](#)

[Confirmation](#)



[Transport Information](#)

[Environmental Confirmations](#)

Siemens EcoTech



#### Environment

[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=3VA2140-7HL42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-7HL42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2140-7HL42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-7HL42-0AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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

##### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

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