



circuit breaker 3VA2 IEC Frame 160 breaking capacity class H Icu=85 kA @ 415 V  
3-pole, line protection ETU320, LI, In=160 A overload protection Ir=63 A...160 A  
short-circuit protection Ii=1.5...10 x In terminal connection

| 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                                                                                       | 3                           |
| General technical data                                                                                |                             |
| insulation voltage / rated value                                                                      | 800 V                       |
| operating voltage / at AC / rated value                                                               | 690 V                       |
| power loss [W] / maximum                                                                              | 25.5 W                      |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 8.5 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                                                                                            | 2.241 kg                    |
| Current                                                                                               |                             |
| operational current                                                                                   |                             |
| • at 40 °C                                                                                            | 160 A                       |
| • at 45 °C                                                                                            | 160 A                       |
| • at 50 °C                                                                                            | 160 A                       |
| • at 55 °C                                                                                            | 160 A                       |
| • at 60 °C                                                                                            | 160 A                       |
| • at 65 °C                                                                                            | 160 A                       |
| • at 70 °C                                                                                            | 160 A                       |
| Switching capacity according to IEC 60947                                                             |                             |
| switching capacity class of the circuit breaker                                                       | H                           |
| maximum short-circuit current breaking capacity (Icu)                                                 |                             |
| • at 240 V                                                                                            | 110 kA                      |
| • at 415 V                                                                                            | 85 kA                       |
| • at 440 V                                                                                            | 85 kA                       |
| • at 500 V                                                                                            | 55 kA                       |
| • at 690 V                                                                                            | 3 kA                        |
| operating short-circuit current breaking capacity (Ics)                                               |                             |
| • at 240 V                                                                                            | 110 kA                      |
| • at 415 V                                                                                            | 85 kA                       |
| • at 440 V                                                                                            | 85 kA                       |
| • at 500 V                                                                                            | 55 kA                       |
| • at 690 V                                                                                            | 2.5 kA                      |
| short-circuit current making capacity (Icm)                                                           |                             |
| • at 240 V                                                                                            | 242 kA                      |

|                                                                                                                                                                                              |                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                     | 187 kA<br>187 kA<br>121 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>                                                                                                               | 63 A<br>160 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>                                                                                                               | 240 A<br>1 600 A                     |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping                                                                                                                               |                                      |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                               | 0 A<br>0 A                           |
| 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]                                                                                                                                                                                   | 4.13 in                              |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                                                                                                    | 1 x (25 - 185 mm <sup>2</sup> )      |
| width                                                                                                                                                                                        | 105 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                                                                                                                                     | double-sided box terminal            |
| 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 [CO <sub>2</sub> eq] / after end of life                                                                                                                            | -2.2 kg                              |
| Siemens Eco Profile (SEP)                                                                                                                                                                    | Siemens EcoTech                      |
| reference code / according to IEC 81346-2                                                                                                                                                    | Q                                    |
| <b>Approvals / Certificates</b>                                                                                                                                                              |                                      |

General Product Approval



[Miscellaneous](#)



[Confirmation](#)

General Product Approval

EMV

Test Certificates

Maritime application



EG-Konf.



RCM

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS

Maritime application

other



DNV



LRS



RMRS

[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=3VA2116-6HL36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-6HL36-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2116-6HL36-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-6HL36-0AA0)

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

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

last modified:

4/3/2025