



circuit breaker 3VA2 IEC Frame 160 breaking capacity class H Icu=85 kA @ 415 V  
 4-pole, line protection ETU550, LSI, In=40 A overload protection Ir=16 A...40 A  
 short-circuit protection Isd=0.6..10x In, li=1.5..12x In neutral conductor protection  
 adjustable (OFF, up to 160%) 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   | ETU550                      |
| protection function of the overcurrent release  | LSI                         |
| 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  | Yes                         |
| • 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   | H                           |
| maximum short-circuit current breaking capacity (Icu)   |                             |
| • at 240 V  | 110 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>                     | 85 kA<br>85 kA<br>55 kA<br>3 kA                |
| operating short-circuit current breaking capacity (Ics)  |  |
| <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> | 110 kA<br>85 kA<br>85 kA<br>55 kA<br>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> | 242 kA<br>187 kA<br>187 kA<br>121 kA<br>3.7 kA |

#### Adjustable parameters

|   |                             |
|---|-----------------------------|
| 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>25 s               |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic    |                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                    | 24 A<br>400 A               |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic    |                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                    | 24 A<br>400 A               |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic    |                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                    | 0.05 s<br>0.5 s             |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic    |                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                    | 0.05 s<br>0.5 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>64 A                |
| design of the N-conductor protection  | adjustable OFF; 40% to 160% |
| product function / grounding protection   | No                          |

#### Mechanical Design

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

| 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-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                          |

| 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  |

| Environmental footprint                                  |                 |
|--|-----------------|
| global warming potential [CO2 eq] / total                | 61.814 kg       |
| global warming potential [CO2 eq] / during manufacturing | 14.6 kg         |
| global warming potential [CO2 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 |
|--------------------------|-----|-------------------|----------------------|
|--------------------------|-----|-------------------|----------------------|



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



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



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

[Miscellaneous](#)

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

[Miscellaneous](#)



[Confirmation](#)

[Transport Information](#)

[Environmental Confirmations](#)

[Environmental Confirmations](#)

### Environment

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=3VA2140-6JP42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-6JP42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2140-6JP42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-6JP42-0AA0)

CAX-Online-Generator

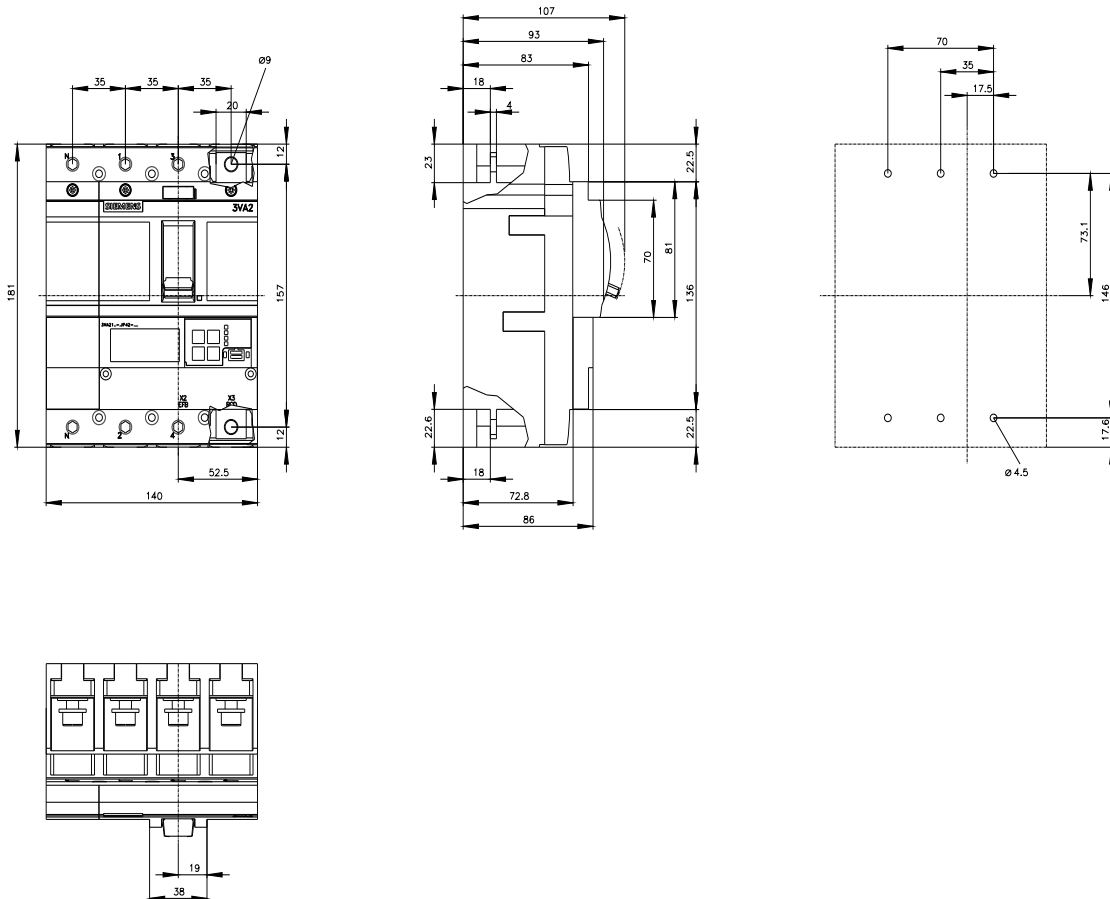
<https://www.siemens.com/cax>

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='HAUPT'></mmp_prod_no>)





last modified:

4/3/2025 

