

Siemens  
EcoTech



circuit breaker 3VA2 IEC Frame 630 breaking capacity class M Icu=55 kA @ 415 V  
4-pole, line protection ETU340, ELISA LI, In=500 A overload protection Ir=200  
A...500 A short-circuit protection Ii=14 x In neutral conductor protection adjustable  
(OFF, 50%, 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                                                                      | ETU340                      |
| protection function of the overcurrent release                                                         | ELISA 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                                                                               | 99 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole            | 33 W                        |
| mechanical service life (operating cycles) / typical                                                   | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                       | 5 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                           | 3 500                       |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof | No                          |
| ground-fault monitoring version                                                                        | Without                     |
| product function                                                                                       |                             |
| • communication function                                                                               | No                          |
| • other measurement function                                                                           | No                          |
| Net Weight                                                                                             | 6.1 kg                      |
| Current                                                                                                |                             |
| short-time withstand current (Icw) / limited to 1 s                                                    | 6 kA                        |
| operational current                                                                                    |                             |
| • at 40 °C                                                                                             | 500 A                       |
| • at 45 °C                                                                                             | 500 A                       |
| • at 50 °C                                                                                             | 500 A                       |
| • at 55 °C                                                                                             | 477 A                       |
| • at 60 °C                                                                                             | 455 A                       |
| • at 65 °C                                                                                             | 432 A                       |
| • at 70 °C                                                                                             | 410 A                       |
| Switching capacity according to IEC 60947                                                              |                             |
| switching capacity class of the circuit breaker                                                        | M                           |
| maximum short-circuit current breaking capacity (Icu)                                                  |                             |

|                                                                                                                                                                                                      |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <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>                                                         | 85 kA<br>55 kA<br>55 kA<br>36 kA<br>6 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> | 85 kA<br>55 kA<br>55 kA<br>36 kA<br>6 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>             | 187 kA<br>121 kA<br>121 kA<br>75.6 kA<br>9 kA |
| <b>Adjustable parameters</b>                                                                                                                                                                         |                                               |
| product feature / for L-tripping / can be switched on/off                                                                                                                                            | No                                            |
| adjustable current response value current / of the L-trip / with I4t characteristic                                                                                                                  | 200 ... 500 A                                 |
| adjustable response value delay time (tr) / for L-tripping / with I4t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                  | 600 s<br>600 s                                |
| adjustable response value setting current (Ii) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                       | 7 000 A<br>7 000 A                            |
| adjustable setting current (InN) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                     | 250 A<br>500 A                                |
| design of the N-conductor protection                                                                                                                                                                 | adjustable OFF; 50%; 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]                                                                                                                                                                                          | 9.76 in                                       |
| height                                                                                                                                                                                               | 248 mm                                        |
| width [in]                                                                                                                                                                                           | 7.24 in                                       |
| width                                                                                                                                                                                                | 184 mm                                        |
| depth [in]                                                                                                                                                                                           | 4.33 in                                       |
| depth                                                                                                                                                                                                | 110 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                                                                                                            | 20 x 1 mm                                     |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum                                                                                                            | 35 x 10 mm                                    |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)                                                                                                                   | silver                                        |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)                                                                                                                | silver                                        |
| <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                |        |
| • 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                | 495 kg          |
| global warming potential [CO2 eq] / during manufacturing | 28.7 kg         |
| global warming potential [CO2 eq] / during operation     | 470 kg          |
| global warming potential [CO2 eq] / after end of life    | -4.07 kg        |
| Siemens Eco Profile (SEP)                                | Siemens EcoTech |
| reference code / according to IEC 81346-2                | Q               |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



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



[Special Test Certificate](#)

[Miscellaneous](#)



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



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



[Confirmation](#)

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

[Miscellaneous](#)

[Transport Information](#)



Siemens EcoTech



[Environmental Confirmations](#)

[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=3VA2450-5HK42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2450-5HK42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2450-5HK42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-5HK42-0AA0)

CAX-Online-Generator

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

Tender specifications

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





